Brütsch·Rüegger Tools

Guaranteed the right tool for every task.

Fast delivery of your tools - worldwide

MY CUSTOMER NUMBER

99 %
AVAILABILITY

24 - 48 h
DELIVERY EUROPE-WIDE

48 - 72 h
DELIVERY WORLDWIDE

FUTURO

performance and perfection

PERFORMANCE

Love at first turn: Holding a FUTURO tool in your hand gives you the good feeling of highest precision and excellent quality, which meets even the highest industrial requirements. After all, it is the result of over 20 years of tool passion and innovation.

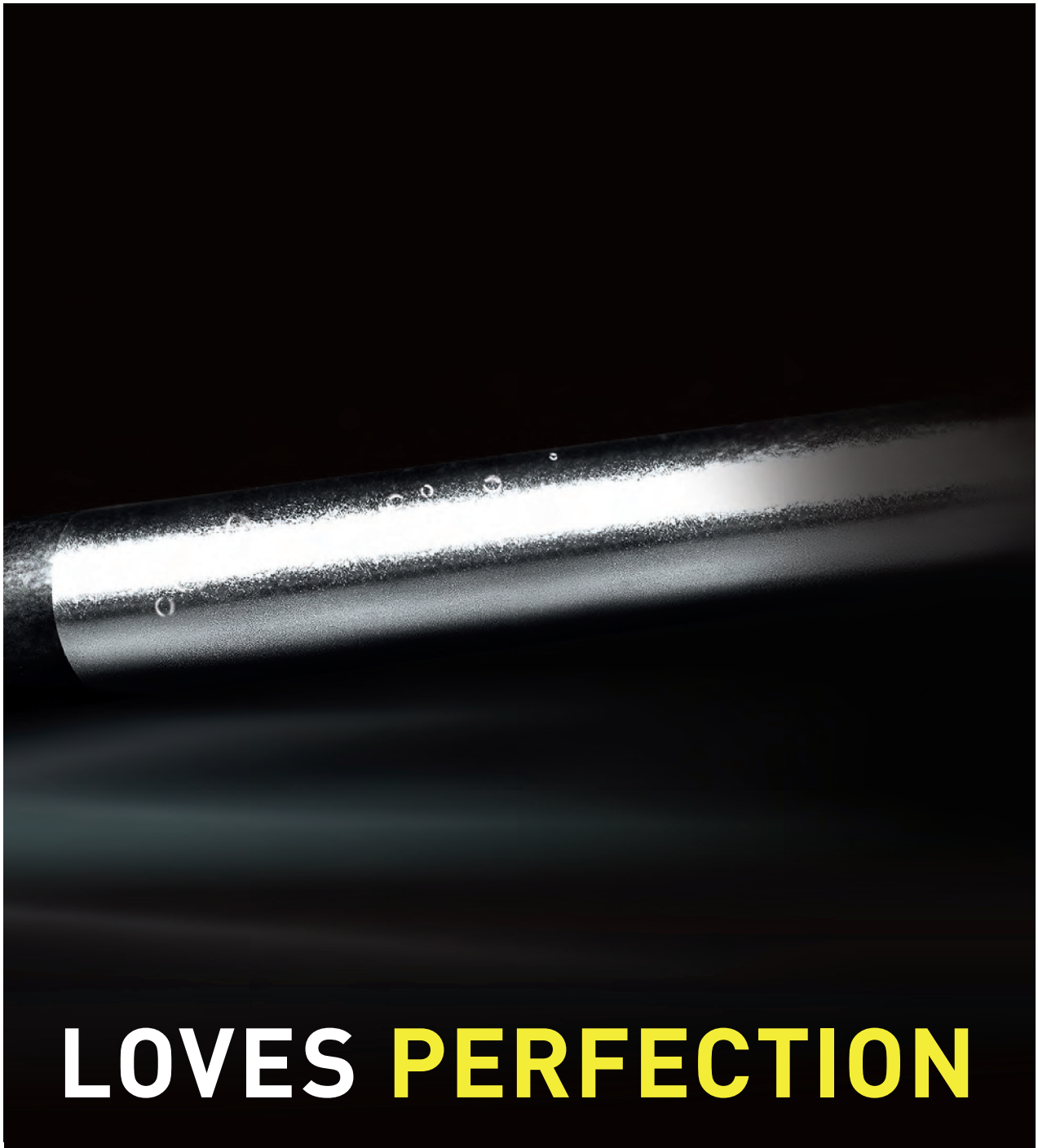
No wonder so many remain loyal to our premium brand throughout their working lives. Because performance loves perfection - whether in medical technology, the watch industry, tool and mould making, mechanical engineering or the automotive and aviation industries.

We develop our innovative premium tools in cooperation with leading manufacturers exclusively for our customers.

In this process, we follow the claim to have the best tools in the industrial sector on the market.

FUTURO stock items are available to you within 24-48 hours Europe-wide and 48-72 hours worldwide.

Brütsch/Rüegger Tools quality management ensures consistent quality.



LOVES PERFECTION

You will find the entire FUTURO range in our online shop:

- Production technology and Machining
- Measurement technology
- Assembly technology and chemical-technical products
- Personal protective equipment

www.futuro.tools

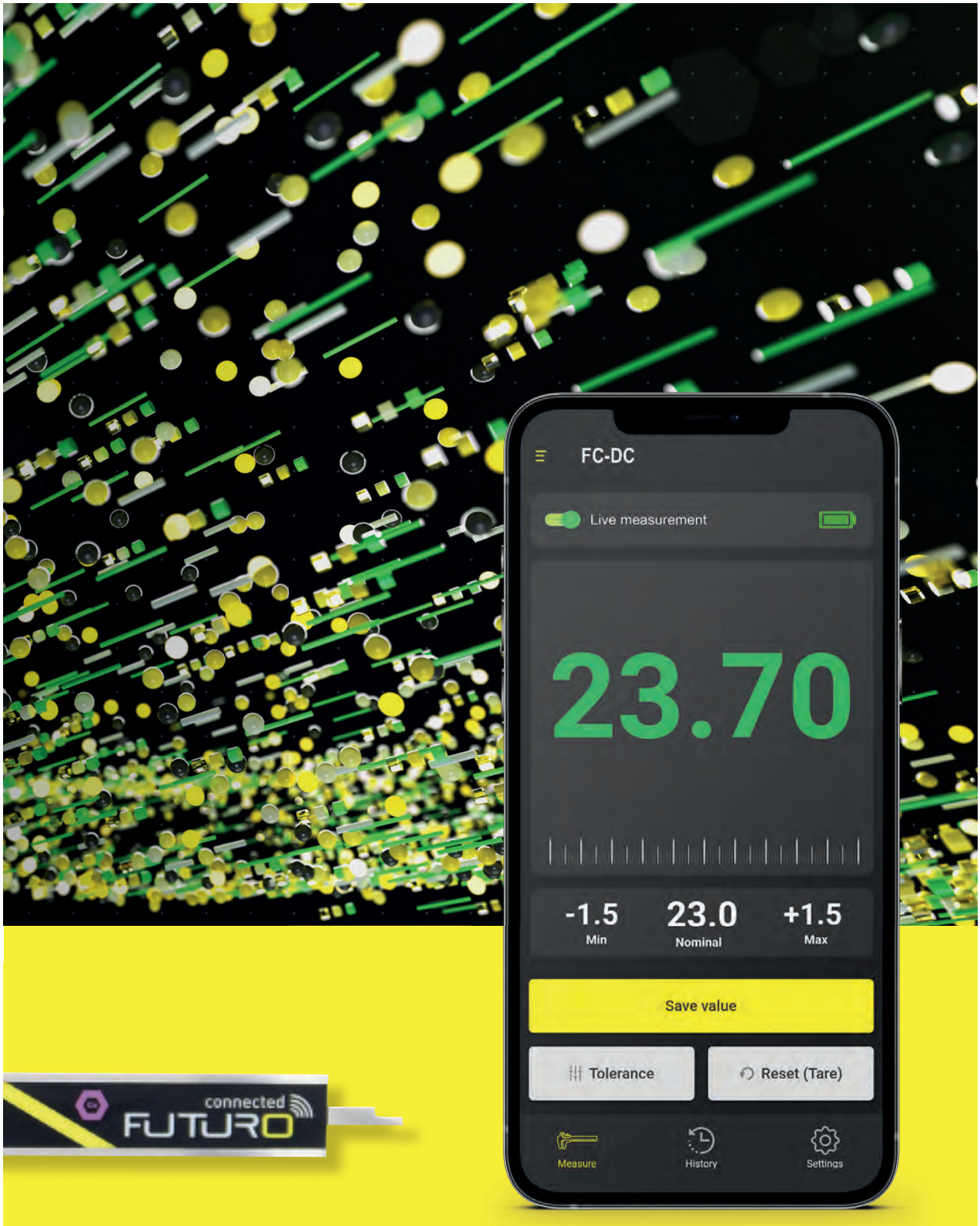
connected FUTURO

FUTURO connected

Tools that communicate

CLICK HERE...

Connect and control your tools in an intuitive way, so that you can simplify your working day.



With the FUTURO connected APP, you can configure your tools directly from your smartphone, tablet or desktop computer. Quite simply and intuitively.

With functions such as the transmission of measured values in real time and integrated data recording, you can easily design your own processes and document the results of your work securely. Data transmission is possible in both directions. For quality assurance, you have access to all measured values at any time.

Data transmission via Bluetooth® ensures stable and extremely reliable communication while ensuring compatibility with your device.

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A SMART TOOL CHANGES YOU

IT MAKES YOU MORE EFFICIENT

NERIOX is the new brand of Brütsch/Rüegger Tools. It represents functional industrial quality at attractive prices. Our professional tools are the number one choice for anyone who wants to get the best out of themselves and out of their job. In short, they are "YOUR SMARTEST CHOICE".

- **We develop NERIOX tools to meet our customers' exact needs.**
- **With a fresh design, NERIOX products are smart – and easy on your wallet, too!**
- **With Brütsch/Rüegger Tools quality management, you can be sure you will receive consistent industrial quality.**
- **We ship in-stock NERIOX products all over Europe within 24 hours.**
- **All products come complete with comprehensive tool services and assistance, too.**

NERIOX
YOUR SMARTEST CHOICE
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FUTURO

performance and perfection

NERIOX

YOUR SMARTEST CHOICE

Our full range –

GUARANTEED THE RIGHT TOOL FOR EVERY TASK

MONO MACHINING 1 – 119

MODULAR MACHINING 120 – 143

CLAMPING TECHNOLOGY 144 – 173

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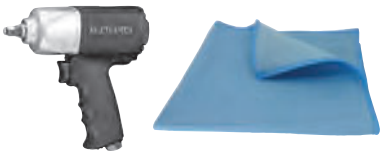
WRENCH SCREWDRIVING TOOLS 274 – 325

GRIPPING-, CUTTING- AND STRIKING TOOLS 326 – 353

HAND- AND MOUNTING TOOLS 354 – 371

WORKSHOP SUPPLIES 372 – 393



PERSONAL PROTECTIVE EQUIPMENT 394 – 421

Our full range –

GUARANTEED THE RIGHT TOOL FOR EVERY TASK

FUTURO
performance and perfection

NERIOX
YOUR SMARTEST CHOICE

MONO MACHINING 1 – 119

MODULAR MACHINING 120 – 143

CLAMPING TECHNOLOGY 144 – 173

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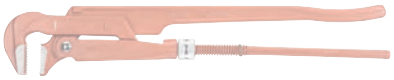
HAND- AND MOUNTING TOOLS  354 – 371

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MONO MACHINING

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Pictograms and their meaning – Drilling

Info page

Application

P ●●	P ○	P	Steel
M ●●	M ○	M	Stainless steel
K ●●	K ○	K	Cast iron
N ●●	N ○	N	Non Ferros Materials
S ●●	S ○	S	Superalloy
H ●●	H ○	H	Hardened steels
0 ●●	0 ○	0	Plastic and others

●● Main application

○ Secondary application

No recommendation

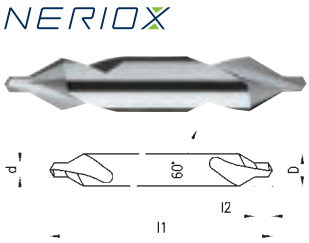
			NC spotting drill
A	B	D	Centre drill Shape
			Drilling
			Drill for pre drilling conical
			Drill for pre drilling cylinder
			Step drills

Product characteristics

HSS	VHM		Tool material
AlCrN	TiAlN	Coated	Coating
15°	30°		Helix angle
90°	135°		Point angle
118°			Countersink angle
h6	0/+0.001		Cutting tolerance
DIN 340	DIN 1869	DIN 6537	DIN
NORM			Works standard
3xD	8xD	12xD	Drilling depth

h6			Cylindrical shank (without flat, HA) / shank tolerance
h6			Weldon flat (HB) / shank tolerance
h6			Morse taper shank (MC) / shank tolerance
h5			Offset shaft / Reduced shank
h5			Weldon Whistle-Notch / shank tolerance
h5			Whistle-Notch / shank tolerance
			Internal coolant
1-3	3-8	8-10	Number of teeth

251131 Centre drill 60° NERIOX



HSS-E Co8		DIN 333

A	P	M	K	N	S	H	O
	●●	○	○	●●			

Spiral-fluted

* only one-sided

Order ID	d mm	D mm	l2 mm	l1 mm	Price €
251131.0100	**0.5***	3.15	0.8	25	**4.70**
251131.0200	**0.8***	3.15	1.1	25	**4.70**
251131.0300	**1**	3.15	1.3	31.5	**4.60**
251131.0400	**1.25**	3.15	1.6	31.5	**4.60**
251131.0500	**1.6**	4	2	35.5	**4.60**
251131.0600	**2**	5	2.5	40	**5.60**
251131.0700	**2.5**	6.3	3.1	45	**6.30**
251131.0800	**3.15**	8	3.9	50	**8.10**
251131.0900	**4**	10	5	56	**10.00**
251131.1000	**5**	12.5	6.3	63	**15.90**
251131.1100	**6.3**	16	8	71	**27.00**

251130 Centre drill 60° NERIOX

HSS		DIN 333

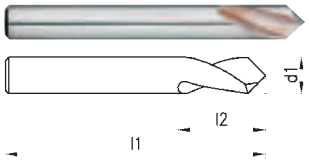
A	P	M	K	N	S	H	O
	○			●●			

Spiral-fluted

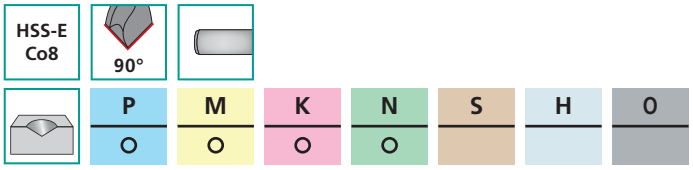
* only one-sided

Order ID	d mm	D mm	l2 mm	l1 mm	Price €
251130.0100	**0.5***	3.15	0.8	25	**3.00**
251130.0200	**0.8***	3.15	1.1	25	**3.00**
251130.0300	**1.0**	3.15	1.3	31.5	**2.90**
251130.0400	**1.25**	3.15	1.6	31.5	**2.90**
251130.0500	**1.6**	4	2	35.5	**2.90**
251130.0600	**2.0**	5	2.5	40	**3.50**
251130.0700	**2.5**	6.3	3.1	45	**4.20**
251130.0800	**3.15**	8	3.9	50	**4.90**
251130.0900	**4.0**	10	5	56	**6.20**
251130.1000	**5.0**	12.5	6.3	63	**9.70**
251130.1100	**6.3**	16	8	71	**16.60**
251130.1200	**8.0**	20	10.1	80	**29.10**
251130.1300	**10.0**	25	12.8	100	**51.30**

NERIOX



250101 NC spotting drill 90° NERIOX



Type N

Application:
For fast and accurate spot drilling with NC/CNC machines and machining centres. The version with the 90° tip angle allows both centring and pre-drilling for the next-largest diameter.

Order ID	d1 mm	l2 mm	l1 mm	Price €
250101.0100	**3**	12	46	**6.50**
250101.0200	**4**	12	55	**6.50**
250101.0300	**5**	15	60	**6.90**
250101.0400	**6**	20	66	**8.90**
250101.0500	**8**	25	79	**9.90**
250101.0600	**10**	25	88	**12.90**
250101.0700	**12**	30	102	**16.30**
250101.0800	**16**	35	115	**29.30**
250101.0900	**20**	40	131	**40.80**

250103 NC spotting drill 120° NERIOX

HSS-E Co8

120°

P	M	K	N	S	H	O
O	O	O	O			

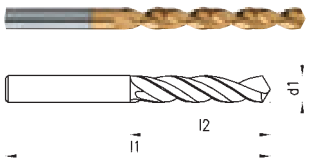
Type N

Application:

For fast and accurate spot drilling with NC/CNC machines and machining centres.

Order ID	d1 mm	l2 mm	l1 mm	Price €
250103.0100	**6**	20	66	**7.90**
250103.0200	**8**	25	79	**8.80**
250103.0300	**10**	25	89	**11.40**
250103.0400	**12**	30	102	**14.50**
250103.0500	**16**	35	115	**26.10**

FUTURO



254145 High-performance drill FUTURO

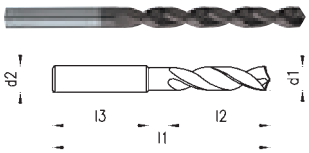
HSS-E PM	Ø 1-13	TiN	130°		DIN 338

	P	M	K	N	S	H	O
	●●	○	●●	○	○		

Application
Stable twist drill for use in steel and high-strength steel.

Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €
254145.0100	**1**	12	34	11.90	254145.3000	**3.9**	43	75	14.10	254145.5900	**6.8**	69	109	20.70
254145.0200	**1.1**	14	36	11.80	254145.3100	**4**	43	75	11.40	254145.6000	**6.9**	69	109	21.60
254145.0300	**1.2**	16	38	12.00	254145.3200	**4.1**	43	75	13.20	254145.6100	**7**	69	109	24.00
254145.0400	**1.3**	16	38	12.90	254145.3300	**4.2**	43	75	11.80	254145.6200	**7.1**	69	109	26.30
254145.0500	**1.4**	18	40	11.80	254145.3400	**4.3**	47	80	13.10	254145.6300	**7.2**	69	109	26.10
254145.0600	**1.5**	18	40	11.40	254145.3500	**4.4**	47	80	14.10	254145.6400	**7.3**	69	109	26.10
254145.0700	**1.6**	20	43	11.50	254145.3600	**4.5**	47	80	11.60	254145.6500	**7.4**	69	109	26.20
254145.0800	**1.7**	20	43	11.60	254145.3700	**4.6**	47	80	14.80	254145.6600	**7.5**	69	109	25.10
254145.0900	**1.8**	22	46	11.50	254145.3800	**4.7**	47	80	14.10	254145.6700	**7.6**	75	117	27.70
254145.1000	**1.9**	22	46	11.60	254145.3900	**4.8**	52	86	15.00	254145.6800	**7.7**	75	117	29.60
254145.1100	**2**	24	49	9.80	254145.4000	**4.9**	52	86	15.50	254145.6900	**7.8**	75	117	26.10
254145.1200	**2.1**	24	49	10.80	254145.4100	**5**	52	86	13.00	254145.7000	**7.9**	75	117	29.60
254145.1300	**2.2**	27	53	11.80	254145.4200	**5.1**	52	86	13.90	254145.7100	**8**	75	117	26.10
254145.1400	**2.3**	27	53	11.80	254145.4300	**5.2**	52	86	16.10	254145.7200	**8.5**	75	117	30.40
254145.1500	**2.4**	30	57	12.10	254145.4400	**5.3**	52	86	15.60	254145.7300	**8.8**	81	125	42.30
254145.1600	**2.5**	30	57	10.60	254145.4500	**5.4**	57	93	16.60	254145.7400	**9**	81	125	33.80
254145.1700	**2.6**	30	57	13.00	254145.4600	**5.5**	57	93	15.50	254145.7500	**9.3**	81	125	50.30
254145.1800	**2.7**	33	61	12.00	254145.4700	**5.6**	57	93	16.90	254145.7600	**9.5**	81	125	40.20
254145.1900	**2.8**	33	61	13.40	254145.4800	**5.7**	57	93	18.10	254145.7700	**9.8**	87	133	42.90
254145.2000	**2.9**	33	61	11.80	254145.4900	**5.8**	57	93	18.70	254145.7800	**10**	87	133	39.10
254145.2100	**3**	33	61	11.30	254145.5000	**5.9**	57	93	18.10	254145.7900	**10.2**	87	133	58.70
254145.2200	**3.1**	36	65	11.80	254145.5100	**6**	57	93	15.10	254145.8000	**10.5**	87	133	57.50
254145.2300	**3.2**	36	65	12.90	254145.5200	**6.1**	63	101	17.90	254145.8100	**11**	94	142	57.50
254145.2400	**3.3**	36	65	13.00	254145.5300	**6.2**	63	101	17.90	254145.8200	**11.5**	94	142	60.10
254145.2500	**3.4**	39	70	11.60	254145.5400	**6.3**	63	101	19.00	254145.8300	**12**	101	151	70.00
254145.2600	**3.5**	39	70	12.10	254145.5500	**6.4**	63	101	18.80	254145.8400	**12.5**	101	151	75.50
254145.2700	**3.6**	39	70	10.10	254145.5600	**6.5**	63	101	18.80	254145.8500	**13**	101	151	75.50
254145.2800	**3.7**	39	70	11.00	254145.5700	**6.6**	63	101	19.70					
254145.2900	**3.8**	43	75	12.10	254145.5800	**6.7**	63	101	20.30					

FUTURO



254150 High-performance drill FUTURO

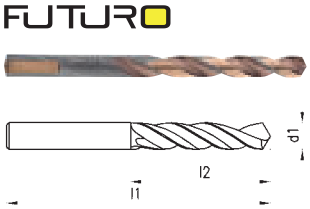
HSS-E PM	Ø 2-13	TiAlN	130°		NORM

	P	M	K	N	S	H	O
	●●	○	●●	○	○		○

Application
Especially stable drill with high wear resistance. Best for use on high-alloy steels, tempered and case-hardened steels, cast iron, brass and bronze.

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €
254150.0100	**2**	24	56	3	28	15.00	254150.1700	**7**	69	113	8	36	38.60
254150.0200	**2.5**	30	62	3	28	16.30	254150.1800	**7.5**	69	113	8	36	40.50
254150.0300	**3**	33	65	3	28	17.30	254150.1900	**7.8**	75	119	8	36	42.00
254150.0400	**3.3**	36	68	4	28	20.00	254150.2000	**8**	75	119	8	36	42.00
254150.0500	**3.5**	39	71	4	28	18.70	254150.2100	**8.5**	75	125	10	40	49.00
254150.0600	**3.8**	43	75	4	28	18.70	254150.2200	**8.8**	81	131	10	40	64.90
254150.0700	**4**	43	75	4	28	18.40	254150.2300	**9**	81	131	10	40	51.90
254150.0800	**4.2**	43	87	6	36	22.60	254150.2400	**9.5**	81	131	10	40	61.70
254150.0900	**4.5**	47	91	6	36	22.30	254150.2500	**10**	87	137	10	40	59.90
254150.1000	**4.8**	52	96	6	36	24.00	254150.2600	**10.2**	87	144	12	45	90.30
254150.1100	**5**	52	96	6	36	29.50	254150.2700	**10.5**	87	144	12	45	88.20
254150.1200	**5.5**	57	101	6	36	29.50	254150.2800	**11**	94	151	12	45	88.20
254150.1300	**5.8**	57	101	6	36	32.50	254150.2900	**11.5**	94	151	12	45	92.20
254150.1400	**6**	57	101	6	36	28.90	254150.3000	**12**	101	158	12	45	107.50
254150.1500	**6.5**	63	107	8	36	36.10	254150.3100	**12.5**	101	161	14	45	115.90
254150.1600	**6.8**	69	113	8	36	39.60	254150.3200	**13**	101	161	14	45	115.90

254181 Twist drill FUTURO



HSS-E Co5	Ø 1-13	135°	h8		≥ 4	DIN 338

P	M	K	N	S	H	O
●●	●●	○	●●	○		

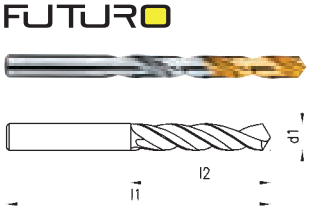
Features
Triangular shank for perfect grip in three-jaw chucks. Prevents the tool from slipping in the chuck, which protects the tool and the clamping chuck.
The special ground drill point keeps the feed force low and is also ideal for use in hand-held drills.

Designs:
1 mm...**3.5 mm**: Cylindrical (straight shank, HA)
4 mm...**13 mm**: Triangular shank

Is part of:
254491 Set of twist drills FUTURO

Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €
254181.0050	**1**	12	34	2.40	254181.0550	**4.5**	47	80	4.80	254181.1050	**8.5**	75	117	8.60
254181.0100	**1.5**	18	40	2.40	254181.0600	**5**	52	86	5.00	254181.1100	**9**	81	125	9.40
254181.0150	**2**	24	49	3.10	254181.0650	**5.2**	52	86	5.40	254181.1150	**9.5**	81	125	10.10
254181.0200	**2.5**	30	57	3.30	254181.0700	**5.5**	57	93	5.60	254181.1200	**10**	87	133	10.90
254181.0250	**3**	33	61	3.30	254181.0750	**6**	57	93	5.90	254181.1250	**10.5**	87	133	12.80
254181.0300	**3.2**	36	65	3.80	254181.0800	**6.5**	63	101	6.40	254181.1300	**11**	94	142	14.30
254181.0350	**3.3**	36	65	3.80	254181.0850	**6.8**	69	109	6.70	254181.1350	**11.5**	94	142	16.20
254181.0400	**3.5**	39	70	4.00	254181.0900	**7**	69	109	6.90	254181.1400	**12**	101	151	18.10
254181.0450	**4**	43	75	4.60	254181.0950	**7.5**	69	109	7.50	254181.1450	**12.5**	101	151	18.80
254181.0500	**4.2**	43	75	4.60	254181.1000	**8**	75	117	8.10	254181.1500	**13**	101	151	21.90

254035 Twist drill FUTURO



HSS-E	Ø 1-13	TiN	135°		DIN 338

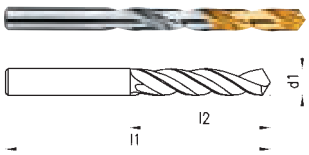
P	M	K	N	S	H	O
○	○	○	○			

Type N, **TiN-coated drill head**, grinded grooves
Application
Standard drill for drilling steel and cast steel (alloyed and unalloyed), cast iron, malleable cast iron, spheroidal graphite iron, sintered iron. Also suitable for stainless steels.

Designs:
1 mm...**8 mm**: Packaging unit [pcs] 10 pieces
8.5 mm...**13 mm**: Packaging unit [pcs] 5 pieces

Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €
254035.0100	**1**	12	34	2.10	254035.2600	**3.5**	39	70	3.20	254035.5100	**6**	57	93	5.30
254035.0200	**1.1**	14	36	2.10	254035.2700	**3.6**	39	70	3.20	254035.5200	**6.1**	63	101	6.40
254035.0300	**1.2**	16	38	2.10	254035.2800	**3.7**	39	70	3.20	254035.5300	**6.2**	63	101	6.40
254035.0400	**1.3**	16	38	2.10	254035.2900	**3.8**	43	75	3.20	254035.5400	**6.3**	63	101	6.40
254035.0500	**1.4**	18	40	2.10	254035.3000	**3.9**	43	75	3.20	254035.5500	**6.4**	63	101	6.40
254035.0600	**1.5**	18	40	2.10	254035.3100	**4**	43	75	3.20	254035.5600	**6.5**	63	101	6.40
254035.0700	**1.6**	20	43	2.10	254035.3200	**4.1**	43	75	4.20	254035.5700	**6.6**	63	101	6.40
254035.0800	**1.7**	20	43	2.10	254035.3300	**4.2**	43	75	4.20	254035.5800	**6.7**	63	101	6.40
254035.0900	**1.8**	22	46	2.10	254035.3400	**4.3**	47	80	4.20	254035.5900	**6.8**	69	109	6.40
254035.1000	**1.9**	22	46	2.10	254035.3500	**4.4**	47	80	4.20	254035.6000	**6.9**	69	109	6.40
254035.1100	**2**	24	49	2.10	254035.3600	**4.5**	47	80	4.20	254035.6100	**7**	69	109	6.40
254035.1200	**2.1**	24	49	2.10	254035.3700	**4.6**	47	80	4.20	254035.6200	**7.5**	69	109	7.50
254035.1300	**2.2**	27	53	2.10	254035.3800	**4.7**	47	80	4.20	254035.6300	**7.8**	75	117	8.50
254035.1400	**2.3**	27	53	2.10	254035.3900	**4.8**	52	86	4.20	254035.6400	**8**	75	117	8.50
254035.1500	**2.4**	30	57	2.10	254035.4000	**4.9**	52	86	4.20	254035.6500	**8.5**	75	117	9.60
254035.1600	**2.5**	30	57	2.10	254035.4100	**5**	52	86	4.20	254035.6600	**9**	81	125	10.70
254035.1700	**2.6**	30	57	2.10	254035.4200	**5.1**	52	86	5.30	254035.6700	**9.5**	81	125	13.30
254035.1800	**2.7**	33	61	2.10	254035.4300	**5.2**	52	86	5.30	254035.6800	**10**	87	133	13.30
254035.1900	**2.8**	33	61	2.10	254035.4400	**5.3**	52	86	5.30	254035.6900	**10.2**	87	133	15.30
254035.2000	**2.9**	33	61	2.10	254035.4500	**5.4**	57	93	5.30	254035.7000	**10.5**	87	133	15.30
254035.2100	**3**	33	61	2.10	254035.4600	**5.5**	57	93	5.30	254035.7100	**11**	94	142	15.80
254035.2200	**3.1**	36	65	3.20	254035.4700	**5.6**	57	93	5.30	254035.7200	**11.5**	94	142	18.90
254035.2300	**3.2**	36	65	3.20	254035.4800	**5.7**	57	93	5.30	254035.7300	**12**	101	151	18.90
254035.2400	**3.3**	36	65	3.20	254035.4900	**5.8**	57	93	5.30	254035.7400	**12.5**	101	151	21.70
254035.2500	**3.4**	39	70	3.20	254035.5000	**5.9**	57	93	5.30	254035.7500	**13**	101	151	22.30

NERIOX



254031 Twist drill NERIOX

HSS	Ø 1-13	TiN	118°		DIN 338

	P	M	K	N	S	H	O
	●●		●●	○			

Type N, **TiN-coated drill head**, grinded grooves

Application

Standard drill for drilling steel and cast steel (alloyed and unalloyed), cast iron, malleable cast iron, spheroidal graphite iron, sintered iron, etc.

Designs:

1 mm...**8 mm**: Packaging unit [pcs] 10 pieces

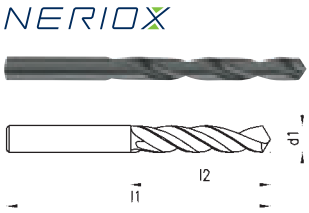
8.5 mm...**13 mm**: Packaging unit [pcs] 5 pieces

Order ID	d1 mm	l2 mm	l1 mm	Packaging unit pieces	Price €	Order ID	d1 mm	l2 mm	l1 mm	Packaging unit pieces	Price €
254031.0100	**1**	12	34	10	1.20	254031.3900	**4.8**	52	86	10	2.20
254031.0200	**1.1**	14	36	10	1.20	254031.4000	**4.9**	52	86	10	2.20
254031.0300	**1.2**	16	38	10	1.20	254031.4100	**5**	52	86	10	2.40
254031.0400	**1.3**	16	38	10	1.20	254031.4200	**5.1**	52	86	10	3.00
254031.0500	**1.4**	18	40	10	1.20	254031.4300	**5.2**	52	86	10	3.00
254031.0600	**1.5**	18	40	10	1.20	254031.4400	**5.3**	52	86	10	3.00
254031.0700	**1.6**	20	43	10	1.40	254031.4500	**5.4**	57	93	10	3.00
254031.0800	**1.7**	20	43	10	1.40	254031.4600	**5.5**	57	93	10	3.20
254031.0900	**1.8**	22	46	10	1.40	254031.4700	**5.6**	57	93	10	3.20
254031.1000	**1.9**	22	46	10	1.40	254031.4800	**5.7**	57	93	10	3.20
254031.1100	**2**	24	49	10	1.40	254031.4900	**5.8**	57	93	10	3.20
254031.1200	**2.1**	24	49	10	1.50	254031.5000	**5.9**	57	93	10	3.20
254031.1300	**2.2**	27	53	10	1.50	254031.5100	**6**	57	93	10	3.20
254031.1400	**2.3**	27	53	10	1.50	254031.5200	**6.1**	63	101	10	3.30
254031.1500	**2.4**	30	57	10	1.50	254031.5300	**6.2**	63	101	10	3.30
254031.1600	**2.5**	30	57	10	1.50	254031.5400	**6.3**	63	101	10	3.30
254031.1700	**2.6**	30	57	10	1.40	254031.5500	**6.4**	63	101	10	3.30
254031.1800	**2.7**	33	61	10	1.40	254031.5600	**6.5**	63	101	10	3.60
254031.1900	**2.8**	33	61	10	1.40	254031.5700	**6.6**	63	101	10	4.10
254031.2000	**2.9**	33	61	10	1.40	254031.5800	**6.7**	63	101	10	4.10
254031.2100	**3**	33	61	10	1.50	254031.5900	**6.8**	69	109	10	4.10
254031.2200	**3.1**	36	65	10	1.50	254031.6000	**6.9**	69	109	10	4.10
254031.2300	**3.2**	36	65	10	1.50	254031.6100	**7**	69	109	10	4.50
254031.2400	**3.3**	36	65	10	1.50	254031.6200	**7.5**	69	109	10	5.30
254031.2500	**3.4**	39	70	10	1.50	254031.6300	**7.8**	75	117	10	5.30
254031.2600	**3.5**	39	70	10	2.00	254031.6400	**8**	75	117	10	6.00
254031.2700	**3.6**	39	70	10	2.00	254031.6500	**8.5**	75	117	5	6.90
254031.2800	**3.7**	39	70	10	2.00	254031.6600	**9**	81	125	5	7.80
254031.2900	**3.8**	43	75	10	2.00	254031.6700	**9.5**	81	125	5	8.50
254031.3000	**3.9**	43	75	10	2.00	254031.6800	**10**	87	133	5	9.00
254031.3100	**4**	43	75	10	2.10	254031.6900	**10.2**	87	133	5	9.90
254031.3200	**4.1**	43	75	10	2.10	254031.7000	**10.5**	87	133	5	9.90
254031.3300	**4.2**	43	75	10	2.10	254031.7100	**11**	94	142	5	12.00
254031.3400	**4.3**	47	80	10	2.10	254031.7200	**11.5**	94	142	5	12.20
254031.3500	**4.4**	47	80	10	2.10	254031.7300	**12**	101	151	5	14.10
254031.3600	**4.5**	47	80	10	2.20	254031.7400	**12.5**	101	151	5	14.70
254031.3700	**4.6**	47	80	10	2.20	254031.7500	**13**	101	151	5	17.10
254031.3800	**4.7**	47	80	10	2.20						

254001 Twist drill NERIOX

HSS	Ø 0.2-20	118°		DIN 338

P	M	K	N	S	H	O
●●	○	●●	○	○		○

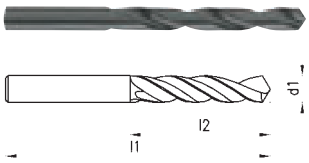


Type N, ground flutes
Application:
Standard drills for drilling steel and cast steel (alloyed and unalloyed), cast iron, malleable cast iron, ductile cast iron, sintered iron, etc.

1 pack contains: 0.2...00.95 mm: 10 pieces

Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €
254001.0010	0.2	2	19	29.40	254001.0720	3.75	39	70	1.60	254001.1430	9.5	81	125	4.70
254001.0020	0.25	3	19	29.80	254001.0730	3.8	43	75	1.30	254001.1440	9.6	87	133	5.20
254001.0030	0.3	3	19	23.50	254001.0740	3.85	43	75	1.60	254001.1450	9.7	87	133	5.20
254001.0040	0.35	4	19	23.50	254001.0750	3.9	43	75	1.30	254001.1460	9.75	87	133	6.10
254001.0050	0.4	5	20	20.20	254001.0760	3.95	43	75	1.60	254001.1470	9.8	87	133	5.60
254001.0060	0.45	5	20	20.20	254001.0770	4	43	75	1.10	254001.1480	9.9	87	133	5.60
254001.0070	0.5	6	22	22.10	254001.0780	4.1	43	75	1.40	254001.1490	10	87	133	5.20
254001.0080	0.55	7	24	18.10	254001.0790	4.2	43	75	1.00	254001.1500	10.1	87	133	6.00
254001.0090	0.6	7	24	17.60	254001.0800	4.25	43	75	1.70	254001.1510	10.2	87	133	6.40
254001.0100	0.65	8	26	22.10	254001.0810	4.3	47	80	1.30	254001.1520	10.25	87	133	7.80
254001.0110	0.7	9	28	16.40	254001.0820	4.4	47	80	1.30	254001.1530	10.3	87	133	7.80
254001.0120	0.75	9	28	16.40	254001.0830	4.5	47	80	1.20	254001.1540	10.4	87	133	7.80
254001.0130	0.8	10	30	16.00	254001.0840	4.6	47	80	1.30	254001.1550	10.5	87	133	6.70
254001.0140	0.85	10	30	16.00	254001.0850	4.7	47	80	1.40	254001.1560	10.6	87	133	8.20
254001.0150	0.9	11	32	14.70	254001.0860	4.75	47	80	1.80	254001.1570	10.7	94	142	8.70
254001.0160	0.95	11	32	14.70	254001.0870	4.8	52	86	1.30	254001.1580	10.75	94	142	10.20
254001.0170	1	12	34	1.20	254001.0880	4.9	52	86	1.40	254001.1590	10.8	94	142	8.90
254001.0180	1.05	12	34	1.20	254001.0890	5	52	86	1.20	254001.1600	10.9	94	142	8.90
254001.0190	1.1	14	36	1.20	254001.0900	5.1	52	86	1.50	254001.1610	11	94	142	7.60
254001.0200	1.15	14	36	1.20	254001.0910	5.2	52	86	1.50	254001.1620	11.1	94	142	9.20
254001.0210	1.2	16	38	1.20	254001.0920	5.25	52	86	1.90	254001.1630	11.2	94	142	9.70
254001.0220	1.25	16	38	1.20	254001.0930	5.3	52	86	1.50	254001.1640	11.25	94	142	9.50
254001.0230	1.3	16	38	1.20	254001.0940	5.4	57	93	1.70	254001.1650	11.3	94	142	8.80
254001.0240	1.35	18	40	1.20	254001.0950	5.5	57	93	1.70	254001.1660	11.4	94	142	8.60
254001.0250	1.4	18	40	1.20	254001.0960	5.6	57	93	1.70	254001.1670	11.5	94	142	8.00
254001.0260	1.45	18	40	1.20	254001.0970	5.7	57	93	1.70	254001.1680	11.6	94	142	11.10
254001.0270	1.5	18	40	1.10	254001.0980	5.75	57	93	2.40	254001.1690	11.7	94	142	11.10
254001.0280	1.55	20	43	1.10	254001.0990	5.8	57	93	1.80	254001.1700	11.75	94	142	10.20
254001.0290	1.6	20	43	0.90	254001.1000	5.9	57	93	1.80	254001.1710	11.8	94	142	10.30
254001.0300	1.65	20	43	1.30	254001.1010	6	57	93	1.70	254001.1720	11.9	101	151	11.10
254001.0310	1.7	20	43	1.30	254001.1020	6.1	63	101	2.00	254001.1730	12	101	151	8.90
254001.0320	1.75	22	46	1.30	254001.1030	6.2	63	101	2.00	254001.1740	12.1	101	151	12.40
254001.0330	1.8	22	46	1.00	254001.1040	6.25	63	101	2.60	254001.1750	12.2	101	151	12.00
254001.0340	1.85	22	46	1.30	254001.1050	6.3	63	101	2.20	254001.1760	12.25	101	151	14.20
254001.0350	1.9	22	46	0.90	254001.1060	6.4	63	101	2.30	254001.1770	12.3	101	151	12.40
254001.0360	1.95	24	49	1.20	254001.1070	6.5	63	101	2.00	254001.1780	12.4	101	151	12.40
254001.0370	2	24	49	0.80	254001.1080	6.6	63	101	2.40	254001.1790	12.5	101	151	10.10
254001.0380	2.05	24	49	1.20	254001.1090	6.7	63	101	2.40	254001.1800	12.6	101	151	12.60
254001.0390	2.1	24	49	1.00	254001.1100	6.75	69	109	3.20	254001.1810	12.7	101	151	12.60
254001.0400	2.15	27	53	1.10	254001.1110	6.8	69	109	2.80	254001.1820	12.75	101	151	12.60
254001.0410	2.2	27	53	0.90	254001.1120	6.9	69	109	2.80	254001.1830	12.8	101	151	13.00
254001.0420	2.25	27	53	1.30	254001.1130	7	69	109	2.60	254001.1840	12.9	101	151	12.60
254001.0430	2.3	27	53	0.90	254001.1140	7.1	69	109	3.00	254001.1850	13	101	151	11.10
254001.0440	2.35	27	53	1.30	254001.1150	7.2	69	109	3.00	254001.1860	13.1	101	151	14.60
254001.0450	2.4	30	57	1.00	254001.1160	7.25	69	109	3.00	254001.1870	13.2	101	151	14.40
254001.0460	2.45	30	57	1.30	254001.1170	7.3	69	109	3.10	254001.1880	13.25	108	160	14.60
254001.0470	2.5	30	57	1.00	254001.1180	7.4	69	109	3.20	254001.1890	13.3	108	160	14.60
254001.0480	2.55	30	57	1.40	254001.1190	7.5	69	109	3.20	254001.1900	13.4	108	160	14.60
254001.0490	2.6	30	57	1.00	254001.1200	7.6	75	117	3.50	254001.1910	13.5	108	160	13.00
254001.0500	2.65	30	57	1.40	254001.1210	7.7	75	117	3.50	254001.1920	13.6	108	160	14.70
254001.0510	2.7	33	61	1.00	254001.1220	7.75	75	117	3.90	254001.1930	13.7	108	160	14.70
254001.0520	2.75	33	61	1.40	254001.1230	7.8	75	117	3.30	254001.1940	13.75	108	160	14.70
254001.0530	2.8	33	61	1.00	254001.1240	7.9	75	117	3.40	254001.1950	13.8	108	160	18.10
254001.0540	2.85	33	61	1.40	254001.1250	8	75	117	3.10	254001.1960	13.9	108	160	18.40
254001.0550	2.9	33	61	1.00	254001.1260	8.1	75	117	3.40	254001.1970	14	108	160	16.20
254001.0560	2.95	33	61	1.40	254001.1270	8.2	75	117	3.40	254001.1980	14.25	114	169	18.40
254001.0570	3	33	61	0.90	254001.1280	8.25	75	117	4.60	254001.1990	14.5	114	169	16.10
254001.0580	3.05	36	65	1.40	254001.1290	8.3	75	117	3.80	254001.2000	14.75	114	169	18.90
254001.0590	3.1	36	65	1.00	254001.1300	8.4	75	117	3.80	254001.2010	15	114	169	19.60
254001.0600	3.15	36	65	1.40	254001.1310	8.5	75	117	3.70	254001.2020	15.25	120	178	20.70
254001.0610	3.2	36	65	1.00	254001.1320	8.6	81	125	3.70	254001.2030	15.5	120	178	19.70
254001.0620	3.25	36	65	1.30	254001.1330	8.7	81	125	4.30	254001.2040	15.75	120	178	27.00
254001.0630	3.3	36	65	1.10	254001.1340	8.75	81	125	4.70	254001.2050	16	120	178	21.10
254001.0640	3.35	36	65	1.60	254001.1350	8.8	81	125	4.40	254001.2060	16.5	125	184	26.30
254001.0650	3.4	39	70	1.10	254001.1360	8.9	81	125	4.70	254001.2070	17	125	184	23.70
254001.0660	3.45	39	70	1.60	254001.1370	9	81	125	4.10	254001.2080	17.5	130	191	26.40
254001.0670	3.5	39	70	1.10	254001.1380	9.1	81	125	4.50	254001.2090	18	130	191	27.20
254001.0680	3.55	39	70	1.60	254001.1390	9.2	81	125	4.50	254001.2100	18.5	135	198	30.30
254001.0690	3.6	39	70	1.20	254001.1400	9.25	81	125	5.50	254001.2110	19	135	198	33.00
254001.0700	3.65	39	70	1.60	254001.1410	9.3	81	125	4.70	254001.2120	19.5	140	205	34.90
254001.0710	3.7	39	70	1.30	254001.1420	9.4	81	125	4.70	254001.2130	20	140	205	34.70

NERIOX



254191 Twist drill NERIOX

Type N, DIN 338, roll-forged

HSS | Ø 1-13 | 118° | DIN 338

P	M	K	N	S	H	O
O			O			

steam-tempered

Application

For drilling steel and Non-ferrous metals.

Designs:

1 mm...**10 mm**: Packaging unit [pcs] 10 pieces

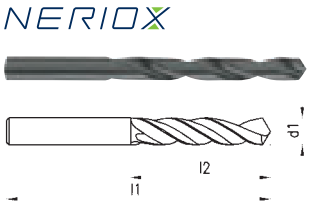
10.2 mm...**13 mm**: Packaging unit [pcs] 5 pieces

Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €
254191.0050	**1**	12	34	0.36	254191.1700	**4.3**	47	80	0.50	254191.3350	**7.6**	75	117	1.10
254191.0100	**1.1**	14	36	0.36	254191.1750	**4.4**	47	80	0.50	254191.3400	**7.7**	75	117	1.37
254191.0150	**1.2**	16	38	0.36	254191.1800	**4.5**	47	80	0.43	254191.3450	**7.8**	75	117	1.37
254191.0200	**1.3**	16	38	0.36	254191.1850	**4.6**	47	80	0.47	254191.3500	**7.9**	75	117	1.37
254191.0250	**1.4**	18	40	0.36	254191.1900	**4.7**	47	80	0.47	254191.3550	**8**	75	117	1.21
254191.0300	**1.5**	18	40	0.36	254191.1950	**4.8**	52	86	0.54	254191.3600	**8.1**	75	117	1.50
254191.0350	**1.6**	20	43	0.37	254191.2000	**4.9**	52	86	0.54	254191.3650	**8.2**	75	117	1.50
254191.0400	**1.7**	20	43	0.37	254191.2050	**5**	52	86	0.49	254191.3700	**8.3**	75	117	1.50
254191.0450	**1.8**	22	46	0.37	254191.2100	**5.1**	52	86	0.53	254191.3750	**8.4**	75	117	1.50
254191.0500	**1.9**	22	46	0.37	254191.2150	**5.2**	52	86	0.53	254191.3800	**8.5**	75	117	1.29
254191.0550	**2**	24	49	0.37	254191.2200	**5.3**	52	86	0.62	254191.3850	**8.6**	81	125	1.69
254191.0600	**2.1**	24	49	0.38	254191.2250	**5.4**	57	93	0.65	254191.3900	**8.7**	81	125	1.69
254191.0650	**2.2**	27	53	0.38	254191.2300	**5.5**	57	93	0.58	254191.3950	**8.8**	81	125	1.69
254191.0700	**2.3**	27	53	0.38	254191.2350	**5.6**	57	93	0.86	254191.4000	**8.9**	81	125	1.69
254191.0750	**2.4**	30	57	0.38	254191.2400	**5.7**	57	93	0.86	254191.4050	**9**	81	125	1.52
254191.0800	**2.5**	30	57	0.38	254191.2450	**5.8**	57	93	0.86	254191.4100	**9.1**	81	125	1.80
254191.0850	**2.6**	30	57	0.44	254191.2500	**5.9**	57	93	0.86	254191.4150	**9.2**	81	125	1.80
254191.0900	**2.7**	33	61	0.44	254191.2550	**6**	57	93	0.68	254191.4200	**9.3**	81	125	1.97
254191.0950	**2.8**	33	61	0.44	254191.2600	**6.1**	63	101	0.92	254191.4250	**9.4**	81	125	1.97
254191.1000	**2.9**	33	61	0.44	254191.2650	**6.2**	63	101	0.92	254191.4300	**9.5**	81	125	1.65
254191.1050	**3**	33	61	0.32	254191.2700	**6.3**	63	101	0.92	254191.4350	**9.6**	87	133	2.11
254191.1100	**3.1**	36	65	0.35	254191.2750	**6.4**	63	101	0.92	254191.4400	**9.7**	87	133	2.24
254191.1150	**3.2**	36	65	0.35	254191.2800	**6.5**	63	101	0.88	254191.4450	**9.8**	87	133	2.11
254191.1200	**3.3**	36	65	0.35	254191.2850	**6.6**	63	101	0.98	254191.4500	**9.9**	87	133	2.11
254191.1250	**3.4**	39	70	0.35	254191.2900	**6.7**	63	101	0.98	254191.4550	**10**	87	133	1.90
254191.1300	**3.5**	39	70	0.35	254191.2950	**6.8**	69	109	0.98	254191.4600	**10.2**	87	133	2.45
254191.1350	**3.6**	39	70	0.36	254191.3000	**6.9**	69	109	1.07	254191.4650	**10.5**	87	133	2.14
254191.1400	**3.7**	39	70	0.36	254191.3050	**7**	69	109	0.91	254191.4750	**11**	94	142	2.60
254191.1450	**3.8**	43	75	0.39	254191.3100	**7.1**	69	109	1.15	254191.4850	**11.5**	94	142	2.74
254191.1500	**3.9**	43	75	0.39	254191.3150	**7.2**	69	109	1.15	254191.4950	**12**	101	151	3.05
254191.1550	**4**	43	75	0.39	254191.3200	**7.3**	69	109	1.15	254191.5050	**12.5**	101	151	3.54
254191.1600	**4.1**	43	75	0.46	254191.3250	**7.4**	69	109	1.15	254191.5150	**13**	101	151	3.32
254191.1650	**4.2**	43	75	0.46	254191.3300	**7.5**	69	109	1.03					

254003 Twist drill NERIOX

HSS	Ø 0.5-14	118°		DIN 338

P	M	K	N	S	H	O
●●			○			



Application:
Standard drills for drilling steel.

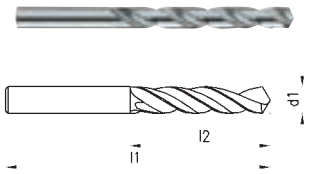
Designs:
0.5 mm...**8 mm**: Packaging unit [pcs]=10 pieces
8.1 mm...**10 mm**: Packaging unit [pcs]=5 pieces
10.1 mm...**14 mm**: Packaging unit [pcs]=1 pieces

Order ID	d1 mm	l2 mm	l1 mm	Packaging unit pieces	Price €	Order ID	d1 mm	l2 mm	l1 mm	Packaging unit pieces	Price €
254003.0010	**0.5**	6	22	10	1.75	254003.0570	**6.1**	63	101	10	2.05
254003.0020	**0.6**	7	24	10	1.75	254003.0580	**6.2**	63	101	10	2.05
254003.0030	**0.7**	9	28	10	1.65	254003.0590	**6.3**	63	101	10	2.05
254003.0040	**0.8**	10	30	10	1.55	254003.0600	**6.4**	63	101	10	2.25
254003.0050	**0.9**	11	32	10	1.45	254003.0610	**6.5**	63	101	10	2.05
254003.0060	**1**	12	34	10	1.15	254003.0620	**6.6**	63	101	10	2.35
254003.0070	**1.1**	14	36	10	1.15	254003.0630	**6.7**	63	101	10	2.35
254003.0080	**1.2**	16	38	10	1.15	254003.0640	**6.8**	69	109	10	2.75
254003.0090	**1.3**	16	38	10	1.15	254003.0650	**6.9**	69	109	10	2.75
254003.0100	**1.4**	18	40	10	1.15	254003.0660	**7**	69	109	10	2.45
254003.0110	**1.5**	18	40	10	0.95	254003.0670	**7.1**	69	109	10	2.75
254003.0120	**1.6**	20	43	10	0.95	254003.0680	**7.2**	69	109	10	2.95
254003.0130	**1.7**	20	43	10	1.15	254003.0690	**7.3**	69	109	10	2.95
254003.0140	**1.8**	22	46	10	0.85	254003.0700	**7.4**	69	109	10	3.05
254003.0150	**1.9**	22	46	10	0.85	254003.0710	**7.5**	69	109	10	2.75
254003.0160	**2**	24	49	10	0.65	254003.0720	**7.6**	75	117	10	3.25
254003.0170	**2.1**	24	49	10	0.85	254003.0730	**7.7**	75	117	10	3.25
254003.0180	**2.2**	27	53	10	0.85	254003.0740	**7.8**	75	117	10	3.25
254003.0190	**2.3**	27	53	10	0.85	254003.0750	**7.9**	75	117	10	3.35
254003.0200	**2.4**	30	57	10	0.85	254003.0760	**8**	75	117	10	2.75
254003.0210	**2.5**	30	57	10	0.85	254003.0770	**8.1**	75	117	5	3.45
254003.0220	**2.6**	30	57	10	0.95	254003.0780	**8.2**	75	117	5	3.45
254003.0230	**2.7**	33	61	10	0.95	254003.0790	**8.3**	75	117	5	3.75
254003.0240	**2.8**	33	61	10	0.95	254003.0800	**8.4**	75	117	5	3.75
254003.0250	**2.9**	33	61	10	0.95	254003.0810	**8.5**	75	117	5	3.55
254003.0260	**3**	33	61	10	0.75	254003.0820	**8.6**	81	125	5	4.15
254003.0270	**3.1**	36	65	10	0.95	254003.0830	**8.7**	81	125	5	4.15
254003.0280	**3.2**	36	65	10	0.95	254003.0840	**8.8**	81	125	5	4.35
254003.0290	**3.3**	36	65	10	0.95	254003.0850	**8.9**	81	125	5	4.55
254003.0300	**3.4**	39	70	10	0.95	254003.0860	**9**	81	125	5	3.95
254003.0310	**3.5**	39	70	10	0.95	254003.0870	**9.1**	81	125	5	4.55
254003.0320	**3.6**	39	70	10	1.05	254003.0880	**9.2**	81	125	5	4.55
254003.0330	**3.7**	39	70	10	1.15	254003.0890	**9.3**	81	125	5	4.55
254003.0340	**3.8**	43	75	10	1.15	254003.0900	**9.4**	81	125	5	4.55
254003.0350	**3.9**	43	75	10	1.15	254003.0910	**9.5**	81	125	5	4.55
254003.0360	**4**	43	75	10	0.95	254003.0920	**9.6**	87	133	5	5.05
254003.0370	**4.1**	43	75	10	1.25	254003.0930	**9.7**	87	133	5	5.05
254003.0380	**4.2**	43	75	10	1.15	254003.0940	**9.8**	87	133	5	5.75
254003.0390	**4.3**	47	80	10	1.25	254003.0950	**9.9**	87	133	5	5.75
254003.0400	**4.4**	47	80	10	1.25	254003.0960	**10**	87	133	5	4.85
254003.0410	**4.5**	47	80	10	1.15	254003.0970	**10.1**	87	133	1	6.15
254003.0420	**4.6**	47	80	10	1.25	254003.0980	**10.2**	87	133	1	6.25
254003.0430	**4.7**	47	80	10	1.25	254003.0990	**10.3**	87	133	1	7.35
254003.0440	**4.8**	52	86	10	1.25	254003.1000	**10.4**	87	133	1	7.35
254003.0450	**4.9**	52	86	10	1.45	254003.1010	**10.5**	87	133	1	6.45
254003.0460	**5**	52	86	10	1.15	254003.1020	**10.6**	87	133	1	8.25
254003.0470	**5.1**	52	86	10	1.55	254003.1030	**10.7**	94	142	1	8.85
254003.0480	**5.2**	52	86	10	1.55	254003.1040	**10.8**	94	142	1	8.95
254003.0490	**5.3**	52	86	10	1.55	254003.1050	**10.9**	94	142	1	8.85
254003.0500	**5.4**	57	93	10	1.85	254003.1060	**11**	94	142	1	7.55
254003.0510	**5.5**	57	93	10	1.65	254003.1070	**11.5**	94	142	1	8.25
254003.0520	**5.6**	57	93	10	1.85	254003.1080	**12**	101	151	1	9.15
254003.0530	**5.7**	57	93	10	1.85	254003.1090	**12.5**	101	151	1	10.45
254003.0540	**5.8**	57	93	10	1.85	254003.1100	**13**	101	151	1	11.55
254003.0550	**5.9**	57	93	10	1.95	254003.1110	**13.5**	108	160	1	13.45
254003.0560	**6**	57	93	10	1.65	254003.1120	**14**	108	160	1	16.85

FUTURO

254120 Twist drill FUTURO

T-Plus



HSS-E | Ø 0.5-10.5 | 130° | DIN 338

P | M ●● | K | N | S ●● | H | O

Ground flutes

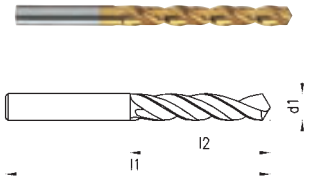
1 pack contains: 0.5...0.9 mm: 10

Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €
254120.0100	**0.5**	6	22	39.00	254120.2600	**3**	33	61	3.70	254120.5100	**5.5**	57	93	4.80
254120.0200	**0.6**	7	24	39.00	254120.2700	**3.1**	36	65	3.70	254120.5200	**5.6**	57	93	4.80
254120.0300	**0.7**	9	28	39.00	254120.2800	**3.2**	36	65	4.40	254120.5300	**5.7**	57	93	4.80
254120.0400	**0.8**	10	30	39.00	254120.2900	**3.3**	36	65	4.40	254120.5400	**5.8**	57	93	4.80
254120.0500	**0.9**	11	32	39.00	254120.3000	**3.4**	39	70	4.40	254120.5500	**5.9**	57	93	4.80
254120.0600	**1**	12	34	3.90	254120.3100	**3.5**	39	70	4.40	254120.5600	**6**	57	93	4.80
254120.0700	**1.1**	14	36	3.90	254120.3200	**3.6**	39	70	4.40	254120.5700	**6.5**	63	101	8.00
254120.0800	**1.2**	16	38	3.90	254120.3300	**3.7**	39	70	4.40	254120.5800	**6.8**	69	109	8.00
254120.0900	**1.3**	16	38	3.90	254120.3400	**3.8**	43	75	4.40	254120.5900	**7**	69	109	8.00
254120.1000	**1.4**	18	40	3.90	254120.3500	**3.9**	43	75	4.40	254120.6000	**7.5**	69	109	8.00
254120.1100	**1.5**	18	40	3.90	254120.3600	**4**	43	75	4.40	254120.6100	**7.8**	75	117	8.00
254120.1200	**1.6**	20	43	3.90	254120.3700	**4.1**	43	75	4.40	254120.6200	**8**	75	117	8.00
254120.1300	**1.7**	20	43	3.90	254120.3800	**4.2**	43	75	4.80	254120.6300	**8.5**	75	117	11.90
254120.1400	**1.8**	22	46	3.90	254120.3900	**4.3**	47	80	4.80	254120.6400	**8.8**	81	125	11.90
254120.1500	**1.9**	22	46	3.90	254120.4000	**4.4**	47	80	4.80	254120.6500	**9**	81	125	11.90
254120.1600	**2**	24	49	3.50	254120.4100	**4.5**	47	80	4.80	254120.6600	**9.5**	81	125	11.90
254120.1700	**2.1**	24	49	3.50	254120.4200	**4.6**	47	80	4.80	254120.6700	**9.8**	87	133	13.80
254120.1800	**2.2**	27	53	3.50	254120.4300	**4.7**	47	80	4.80	254120.6800	**10**	87	133	13.80
254120.1900	**2.3**	27	53	3.50	254120.4400	**4.8**	52	86	4.80	254120.6900	**10.2**	87	133	16.70
254120.2000	**2.4**	30	57	3.50	254120.4500	**4.9**	52	86	4.80	254120.7000	**10.5**	87	133	16.70
254120.2100	**2.5**	30	57	3.70	254120.4600	**5**	52	86	4.80	254120.7100	**11**	94	142	20.50
254120.2200	**2.6**	30	57	3.70	254120.4700	**5.1**	52	86	4.80	254120.7200	**11.5**	94	142	20.50
254120.2300	**2.7**	33	61	3.70	254120.4800	**5.2**	52	86	4.80	254120.7300	**12**	101	151	23.40
254120.2400	**2.8**	33	61	3.70	254120.4900	**5.3**	52	86	4.80	254120.7400	**12.5**	101	151	29.00
254120.2500	**2.9**	33	61	3.70	254120.5000	**5.4**	57	93	4.80	254120.7500	**13**	101	151	39.00

FUTURO

254140 Twist drill FUTURO

T-Plus, TiN



HSS-E | Ø 0.5-13 | TiN | 130° | DIN 338

P | M ●● | K | N | S ●● | H | O

Ground flutes

Application

Robust twist drill with high heat resistance. Best for use with titanium and titanium alloys, and rust-, acid- and heat-resistant austenitic steels.

1 pack contains: 0.5...0.9 mm: 10

Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	Price €
254140.0100	**0.5**	6	22	70.60	254140.2600	**3**	33	61	6.30	254140.5100	**5.5**	57	93	12.00
254140.0200	**0.6**	7	24	70.80	254140.2700	**3.1**	36	65	7.50	254140.5200	**5.6**	57	93	12.50
254140.0300	**0.7**	9	28	63.20	254140.2800	**3.2**	36	65	6.80	254140.5300	**5.7**	57	93	12.30
254140.0400	**0.8**	10	30	60.70	254140.2900	**3.3**	36	65	7.50	254140.5400	**5.8**	57	93	12.50
254140.0500	**0.9**	11	32	59.10	254140.3000	**3.4**	39	70	7.90	254140.5500	**5.9**	57	93	12.80
254140.0600	**1**	12	34	4.50	254140.3100	**3.5**	39	70	8.20	254140.5600	**6**	57	93	12.20
254140.0700	**1.1**	14	36	5.50	254140.3200	**3.6**	39	70	8.20	254140.5700	**6.5**	63	101	13.40
254140.0800	**1.2**	16	38	5.10	254140.3300	**3.7**	39	70	8.40	254140.5800	**6.8**	69	109	15.10
254140.0900	**1.3**	16	38	5.70	254140.3400	**3.8**	43	75	8.50	254140.5900	**7**	69	109	15.40
254140.1000	**1.4**	18	40	5.80	254140.3500	**3.9**	43	75	8.70	254140.6000	**7.5**	69	109	15.90
254140.1100	**1.5**	18	40	5.10	254140.3600	**4**	43	75	8.40	254140.6100	**7.8**	75	117	18.60
254140.1200	**1.6**	20	43	4.80	254140.3700	**4.1**	43	75	8.70	254140.6200	**8**	75	117	18.60
254140.1300	**1.7**	20	43	6.00	254140.3800	**4.2**	43	75	8.50	254140.6300	**8.5**	75	117	19.30
254140.1400	**1.8**	22	46	5.60	254140.3900	**4.3**	47	80	9.20	254140.6400	**8.8**	81	125	21.20
254140.1500	**1.9**	22	46	5.40	254140.4000	**4.4**	47	80	9.70	254140.6500	**9**	81	125	20.70
254140.1600	**2**	24	49	5.40	254140.4100	**4.5**	47	80	9.40	254140.6600	**9.5**	81	125	21.40
254140.1700	**2.1**	24	49	6.30	254140.4200	**4.6**	47	80	9.80	254140.6700	**9.8**	87	133	25.50
254140.1800	**2.2**	27	53	6.40	254140.4300	**4.7**	47	80	9.70	254140.6800	**10**	87	133	25.20
254140.1900	**2.3**	27	53	6.00	254140.4400	**4.8**	52	86	10.10	254140.6900	**10.2**	87	133	27.00
254140.2000	**2.4**	30	57	6.50	254140.4500	**4.9**	52	86	10.20	254140.7000	**10.5**	87	133	27.80
254140.2100	**2.5**	30	57	5.50	254140.4600	**5**	52	86	9.90	254140.7100	**11**	94	142	28.90
254140.2200	**2.6**	30	57	6.50	254140.4700	**5.1**	52	86	10.00	254140.7200	**11.5**	94	142	39.00
254140.2300	**2.7**	33	61	6.80	254140.4800	**5.2**	52	86	10.00	254140.7300	**12**	101	151	49.00
254140.2400	**2.8**	33	61	6.80	254140.4900	**5.3**	52	86	11.50	254140.7400	**12.5**	101	151	59.00
254140.2500	**2.9**	33	61	6.90	254140.5000	**5.4**	57	93	12.40	254140.7500	**13**	101	151	65.00

254491 Set of twist drills FUTURO

FUTURO

HSS-E Co5	135°	h8		≥ 4	DIN 338

P	M	K	N	S	H	O
●●	●●	○	●●	○		

Features
Triangular shank for perfect grip in three-jaw chucks. Prevents the tool from slipping in the chuck, which protects the tool and the clamping chuck.
The special ground drill point keeps the feed force low and is also ideal for use in hand-held drills.

Consisting of:
254181 Twist drill FUTURO

Order ID		254491.0100	254491.0200
Range	mm	1…10	1…13
Gradation	mm	0.5	0.5
Contents	pieces	19	25
Price €		**118.80**	**223.30**

254416 Set of twist drills NERIOX

NERIOX

HSS	TiN	118°		DIN 338

P	M	K	N	S	H	O
●●		●●	○			

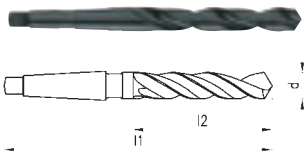
Filled up in plastic case, type N, **TiN head coating**, grooves ground

Designs:
254416.0300: **incl. tap drills:** Ø 3.3, 4.2, 6.8, 10.2 mm

Consisting of:
254031 Twist drill NERIOX

Order ID		254416.0100	254416.0200	254416.0300
Range	mm	1...10	1...13	1...10.5
Increment		0.5	0.5	0.5
Contents	pieces	19	25	24
Price €		**68.30**	**140.70**	**162.80**

NERIOX



254351 Morse taper shank drill NERIOX

HSS	Ø 13-30	118°		DIN 345

	P	M	K	N	S	H	O
	●●	○	●●	○	○		

Type N
Application
Standard drills for steel, cast iron and non ferrous materials.

Designs:
13 mm...**30 mm**: ground flutes

Order ID	d mm	l2 mm	l1 mm	MT	Price €	Order ID	d mm	l2 mm	l1 mm	MT	Price €
254351.0170	**13**	101	182	1	15.40	254351.0430	**19**	135	233	2	24.20
254351.0200	**13.5**	108	189	1	15.90	254351.0450	**19.5**	140	238	2	26.00
254351.0210	**13.75**	108	189	1	17.70	254351.0460	**19.75**	140	238	2	29.00
254351.0230	**14**	108	189	1	15.90	254351.0470	**20**	140	238	2	27.60
254351.0250	**14.5**	114	212	2	16.00	254351.0490	**20.5**	145	243	2	28.20
254351.0260	**14.75**	114	212	2	22.80	254351.0510	**21**	145	243	2	28.70
254351.0270	**15**	114	212	2	17.20	254351.0530	**21.5**	150	248	2	31.00
254351.0280	**15.25**	120	218	2	21.30	254351.0540	**21.75**	150	248	2	37.40
254351.0290	**15.5**	120	218	2	19.10	254351.0550	**22**	150	248	2	30.10
254351.0300	**15.75**	120	218	2	19.70	254351.0570	**22.5**	155	253	2	33.30
254351.0310	**16**	120	218	2	19.10	254351.0590	**23**	155	253	2	35.50
254351.0320	**16.25**	125	223	2	26.60	254351.0610	**23.5**	155	276	3	37.30
254351.0330	**16.5**	125	223	2	20.60	254351.0630	**24**	160	281	3	38.90
254351.0340	**16.75**	125	223	2	21.70	254351.0650	**24.5**	160	281	3	40.90
254351.0350	**17**	125	223	2	21.70	254351.0670	**25**	160	281	3	43.40
254351.0360	**17.25**	130	228	2	24.40	254351.0710	**26**	165	286	3	45.30
254351.0370	**17.5**	130	228	2	21.80	254351.0750	**27**	170	291	3	48.40
254351.0380	**17.75**	130	228	2	24.50	254351.0790	**28**	170	291	3	52.50
254351.0390	**18**	130	228	2	23.10	254351.0830	**29**	175	296	3	55.60
254351.0410	**18.5**	135	233	2	24.20	254351.0870	**30**	175	296	3	61.40

250130 Solid carbide NC spotting drill 90° FUTURO

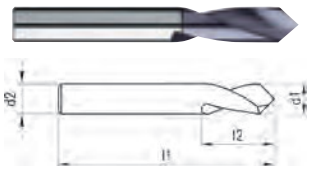
VHM	90°	h5	h5

P	M	K	N	S	H	O
○	○	○	●●	○		●●

Extra stable design.

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €
250130.0100	**3**	9	38	3	**21.10**
250130.0200	**4**	10	50	4	**22.70**
250130.0300	**6**	13	57	6	**24.50**
250130.0400	**8**	27	63	8	**34.40**
250130.0500	**10**	30	72	10	**48.80**
250130.0600	**12**	35	83	12	**63.20**

250140 Solid carbide NC spotting drill 90° FUTURO



VHM	TiAlN	90°	h5	h5

P	M	K	N	S	H	O
●●	●●	●●	●●	○		○

Extra stable design.

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €
250140.0100	**3**	9	38	3	**27.10**
250140.0200	**4**	10	50	4	**34.80**
250140.0300	**6**	13	57	6	**36.90**
250140.0400	**8**	27	63	8	**46.50**
250140.0500	**10**	30	72	10	**61.60**
250140.0600	**12**	35	83	12	**79.00**

FUTURO

255500 Solid carbide micro drill FUTURO

PRO

VHM	Ø 0.3-6	24°	118°	h5	h5	DIN 6539	3xD
	P	M	K	N	S	H	O
	○	○	○	●●	○		●●

Type N, short

1 pack contains:
0.3 mm...2.5 mm: 10 pieces
2.6 mm...6 mm: 1 piece

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €
255500.0100	**0.3**	5	30	0.3	83.10	255500.2000	**2.2**	10	40	2.2	80.30	255500.3900	**4.1**	17	55	4.1	14.30
255500.0200	**0.4**	6	30	0.4	79.30	255500.2100	**2.3**	10	40	2.3	80.30	255500.4000	**4.2**	17	55	4.2	14.40
255500.0300	**0.5**	6	30	0.5	65.60	255500.2200	**2.4**	11	43	2.4	80.30	255500.4100	**4.3**	18	58	4.3	15.20
255500.0400	**0.6**	6	30	0.6	65.60	255500.2300	**2.5**	11	43	2.5	80.30	255500.4200	**4.4**	18	58	4.4	15.20
255500.0500	**0.7**	6	30	0.7	63.20	255500.2400	**2.6**	11	43	2.6	10.30	255500.4300	**4.5**	18	58	4.5	14.40
255500.0600	**0.8**	7	30	0.8	60.80	255500.2500	**2.7**	12	46	2.7	10.30	255500.4500	**4.7**	18	58	4.7	17.30
255500.0700	**0.9**	7	30	0.9	60.80	255500.2600	**2.8**	12	46	2.8	10.30	255500.4600	**4.8**	20	62	4.8	17.70
255500.0800	**1**	7	30	1	58.40	255500.2700	**2.9**	12	46	2.9	10.60	255500.4700	**4.9**	20	62	4.9	18.10
255500.0900	**1.1**	8	30	1.1	58.40	255500.2800	**3**	12	46	3	9.30	255500.4800	**5**	20	62	5	15.50
255500.1000	**1.2**	8	30	1.2	58.40	255500.2900	**3.1**	14	49	3.1	12.40	255500.4900	**5.1**	20	62	5.1	19.00
255500.1100	**1.3**	8	30	1.3	58.40	255500.3000	**3.2**	14	49	3.2	12.40	255500.5000	**5.2**	20	62	5.2	19.00
255500.1200	**1.4**	8	30	1.4	58.40	255500.3100	**3.3**	14	49	3.3	12.40	255500.5100	**5.3**	20	62	5.3	19.60
255500.1300	**1.5**	8	30	1.5	58.40	255500.3200	**3.4**	15	52	3.4	12.90	255500.5200	**5.4**	21	66	5.4	20.50
255500.1400	**1.6**	9	38	1.6	64.10	255500.3300	**3.5**	15	52	3.5	11.30	255500.5300	**5.5**	21	66	5.5	19.60
255500.1500	**1.7**	9	38	1.7	64.10	255500.3400	**3.6**	15	52	3.6	12.90	255500.5400	**5.6**	21	66	5.6	23.00
255500.1600	**1.8**	9	38	1.8	64.10	255500.3500	**3.7**	15	52	3.7	13.10	255500.5500	**5.7**	21	66	5.7	23.00
255500.1700	**1.9**	9	38	1.9	68.90	255500.3600	**3.8**	17	55	3.8	14.40	255500.5600	**5.8**	21	66	5.8	23.00
255500.1800	**2**	9	38	2	64.10	255500.3700	**3.9**	17	55	3.9	14.40	255500.5700	**5.9**	21	66	5.9	23.00
255500.1900	**2.1**	9	38	2.1	79.30	255500.3800	**4**	17	55	4	13.30	255500.5800	**6**	21	66	6	22.60

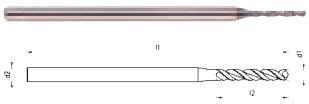
FUTURO

255505 Solid carbide micro drill FUTURO

VHM	Ø 0.2-0.5	TiAlN	24°	118°	-0.002/-0.004	h6	5-7xD
	P	M	K	N	S	H	O
	●●	○	●●	○			

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €
255505.0100	**0.20**	1.0	30	1.0	21.60	255505.0500	**0.40**	2.0	30	1.0	20.30
255505.0200	**0.25**	1.0	30	1.0	21.60	255505.0600	**0.45**	3.5	30	1.0	20.30
255505.0300	**0.30**	1.5	30	1.0	21.60	255505.0700	**0.50**	4.0	30	1.0	20.30
255505.0400	**0.35**	1.5	30	1.0	20.30						

FUTURO



255510 Solid carbide micro drill FUTURO

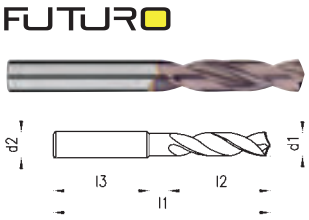
VHM	Ø 0.5-1.45	TiAlN	34°	118°	-0.002/-0.004	h6	5-7xD
	P	M	K	N	S	H	O
	○	●●		●●	○		

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €
255510.0100	**0.50**	4.0	30	1.5	24.40	255510.0800	**0.85**	6.0	30	1.5	24.40	255510.1500	**1.20**	10.0	30	1.5	24.40
255510.0200	**0.55**	4.0	30	1.5	24.40	255510.0900	**0.90**	7.0	30	1.5	24.40	255510.1600	**1.25**	10.0	30	1.5	24.40
255510.0300	**0.60**	5.0	30	1.5	24.40	255510.1000	**0.95**	7.0	30	1.5	24.40	255510.1700	**1.30**	10.0	30	1.5	24.40
255510.0400	**0.65**	5.0	30	1.5	24.40	255510.1100	**1.00**	8.0	30	1.5	24.40	255510.1800	**1.35**	11.0	30	1.5	24.40
255510.0500	**0.70**	5.0	30	1.5	24.40	255510.1200	**1.05**	8.0	30	1.5	24.40	255510.1900	**1.40**	11.0	30	1.5	24.40
255510.0600	**0.75**	5.0	30	1.5	24.40	255510.1300	**1.10**	9.0	30	1.5	24.40	255510.2000	**1.45**	11.0	30	1.5	24.40
255510.0700	**0.80**	6.0	30	1.5	24.40	255510.1400	**1.15**	9.0	30	1.5	24.40						

255520 Solid carbide twist drill FUTURO

VHM	Ø 3-16	TiAlN	140°		DIN 6537	3xD

	P	M	K	N	S	H	O
	●●	○	●●	○	○	○	



Type 300, made of solid carbide, ultra-fine carbide type K/P

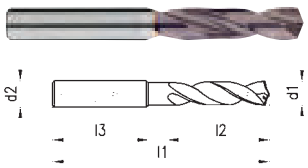
Design

Point angle 140°, strong core, very good self-centring, short chips from concave cutting geometry with special sharpening and pointing. The multilayer coating on a TiAlN-TiN bases combines the advantages of the TiN-, TiAlN and TiCN layers and thus offers unusually universal use.

For drilling depths 3 x D.

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €
255520.0100	**3**	20	62	6	36	43.10	255520.1520	**7.1**	41	79	8	36	47.20
255520.0120	**3.1**	20	62	6	36	43.10	255520.1540	**7.2**	41	79	8	36	47.20
255520.0140	**3.2**	20	62	6	36	43.10	255520.1560	**7.3**	41	79	8	36	47.20
255520.0200	**3.3**	20	62	6	36	43.10	255520.1580	**7.4**	41	79	8	36	47.20
255520.0250	**3.4**	20	62	6	36	43.10	255520.1600	**7.5**	41	79	8	36	47.20
255520.0300	**3.5**	20	62	6	36	43.10	255520.1620	**7.6**	41	79	8	36	47.20
255520.0320	**3.6**	20	62	6	36	43.10	255520.1640	**7.7**	41	79	8	36	47.20
255520.0340	**3.7**	20	62	6	36	43.10	255520.1700	**7.8**	41	79	8	36	47.20
255520.0400	**3.8**	24	66	6	36	43.10	255520.1750	**7.9**	41	79	8	36	47.20
255520.0450	**3.9**	24	66	6	36	43.10	255520.1800	**8**	41	79	8	36	47.20
255520.0500	**4**	24	66	6	36	44.90	255520.1820	**8.1**	47	89	10	40	52.60
255520.0550	**4.1**	24	66	6	36	44.90	255520.1840	**8.2**	47	89	10	40	52.60
255520.0600	**4.2**	24	66	6	36	44.90	255520.1860	**8.3**	47	89	10	40	52.60
255520.0620	**4.3**	24	66	6	36	44.90	255520.1880	**8.4**	47	89	10	40	52.60
255520.0640	**4.4**	24	66	6	36	44.90	255520.1900	**8.5**	47	89	10	40	52.60
255520.0700	**4.5**	24	66	6	36	44.90	255520.1950	**8.6**	47	89	10	40	52.60
255520.0720	**4.6**	24	66	6	36	44.90	255520.1975	**8.7**	47	89	10	40	52.60
255520.0740	**4.7**	24	66	6	36	44.90	255520.2000	**8.8**	47	89	10	40	52.60
255520.0800	**4.8**	28	66	6	36	44.90	255520.2050	**8.9**	47	89	10	40	52.60
255520.0850	**4.9**	28	66	6	36	44.90	255520.2100	**9**	47	89	10	40	52.60
255520.0900	**5**	28	66	6	36	44.90	255520.2120	**9.1**	47	89	10	40	52.60
255520.0920	**5.1**	28	66	6	36	44.90	255520.2140	**9.2**	47	89	10	40	52.60
255520.0940	**5.2**	28	66	6	36	44.90	255520.2160	**9.3**	47	89	10	40	52.60
255520.0960	**5.3**	28	66	6	36	44.90	255520.2180	**9.4**	47	89	10	40	52.60
255520.0980	**5.4**	28	66	6	36	44.90	255520.2200	**9.5**	47	89	10	40	52.60
255520.1000	**5.5**	28	66	6	36	44.90	255520.2220	**9.6**	47	89	10	40	52.60
255520.1020	**5.6**	28	66	6	36	44.90	255520.2240	**9.7**	47	89	10	40	52.60
255520.1040	**5.7**	28	66	6	36	44.90	255520.2260	**9.8**	47	89	10	40	52.60
255520.1100	**5.8**	28	66	6	36	44.90	255520.2280	**9.9**	47	89	10	40	52.60
255520.1150	**5.9**	28	66	6	36	44.90	255520.2400	**10**	47	89	10	40	52.60
255520.1200	**6**	28	66	6	36	44.90	255520.2500	**10.2**	55	102	12	45	75.10
255520.1220	**6.1**	34	79	8	36	47.20	255520.2600	**10.5**	55	102	12	45	75.10
255520.1240	**6.2**	34	79	8	36	47.20	255520.2700	**11**	55	102	12	45	75.10
255520.1260	**6.3**	34	79	8	36	47.20	255520.2800	**11.5**	55	102	12	45	75.10
255520.1280	**6.4**	34	79	8	36	47.20	255520.2900	**12**	55	102	12	45	75.10
255520.1300	**6.5**	34	79	8	36	47.20	255520.3000	**12.5**	60	107	14	45	105.50
255520.1320	**6.6**	34	79	8	36	47.20	255520.3100	**13**	60	107	14	45	105.50
255520.1340	**6.7**	34	79	8	36	47.20	255520.3200	**13.5**	60	107	14	45	105.50
255520.1400	**6.8**	34	79	8	36	47.20	255520.3300	**14**	60	107	14	45	105.50
255520.1450	**6.9**	34	79	8	36	47.20	255520.3400	**15**	65	115	16	48	128.40
255520.1500	**7**	34	79	8	36	47.20	255520.3500	**16**	65	115	16	48	128.40

FUTURO



255540 Solid carbide twist drill FUTURO

VHM	Ø 4-16	TiAlN	140°		DIN 6537	3xD	
	P	M	K	N	S	H	O
	●●	○	●●		○		

Type 300IK, made of solid carbide, ultra-fine carbide type K/P

Design

Point angle 140°, strong core, very good self-centring, short chips from concave cutting geometry with special sharpening and pointing. The multilayer coating on a TiAlN-TiN bases combines the advantages of the TiN-, TiAlN and TiCN layers and thus offers unusually universal use.

For drilling depths 3 x D, with internal cooling.

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €
255540.0100	**4**	24	66	6	36	**55.50**	255540.1700	**9**	47	89	10	40	**84.20**
255540.0200	**4.2**	24	66	6	36	**55.50**	255540.1800	**9.5**	47	89	10	40	**84.20**
255540.0300	**4.5**	24	66	6	36	**55.50**	255540.1900	**9.8**	47	89	10	40	**84.20**
255540.0400	**4.8**	28	66	6	36	**55.50**	255540.2000	**10**	47	89	10	40	**84.20**
255540.0500	**5**	28	66	6	36	**55.50**	255540.2100	**10.2**	55	102	12	45	**120.40**
255540.0600	**5.5**	28	66	6	36	**55.50**	255540.2200	**10.5**	55	102	12	45	**120.40**
255540.0700	**5.8**	28	66	6	36	**55.50**	255540.2300	**11**	55	102	12	45	**120.40**
255540.0800	**6**	28	66	6	36	**55.50**	255540.2400	**11.5**	55	102	12	45	**120.40**
255540.0900	**6.5**	34	79	8	36	**75.40**	255540.2500	**12**	55	102	12	45	**120.40**
255540.1000	**6.8**	34	79	8	36	**75.40**	255540.2600	**12.5**	60	107	14	45	**168.80**
255540.1100	**7**	34	79	8	36	**75.40**	255540.2700	**13**	60	107	14	45	**168.80**
255540.1200	**7.5**	41	79	8	36	**75.40**	255540.2800	**13.5**	60	107	14	45	**168.80**
255540.1300	**7.8**	41	79	8	36	**75.40**	255540.2900	**14**	60	107	14	45	**168.80**
255540.1400	**8**	41	79	8	36	**75.40**	255540.3000	**15**	65	115	16	48	**205.60**
255540.1500	**8.5**	47	89	10	40	**84.20**	255540.3100	**16**	65	115	16	48	**205.60**
255540.1600	**8.8**	47	89	10	40	**84.20**							

255550 Solid carbide twist drill FUTURO

VHM	Ø 3-20	TiAlN	140°		DIN 6537	3xD	
	P	M	K	N	S	H	O
	●●	○	●●		○		

Type 300IK, made of solid carbide, ultra-fine carbide type K/P

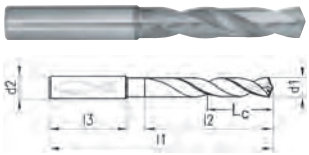
Design

Point angle 140°, strong core, very good self-centring, short chips from concave cutting geometry with special sharpening and pointing.

For drilling depths 3 x D, with internal cooling.

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €
255550.0050	**3**	20	62	6	36	50.80	255550.2600	**7.9**	41	79	8	36	75.40
255550.0100	**3.1**	20	62	6	36	50.80	255550.2650	**8**	41	79	8	36	75.40
255550.0150	**3.2**	20	62	6	36	50.80	255550.2700	**8.1**	47	89	10	40	84.20
255550.0200	**3.3**	20	62	6	36	50.80	255550.2750	**8.2**	47	89	10	40	84.20
255550.0250	**3.4**	20	62	6	36	50.80	255550.2800	**8.3**	47	89	10	40	84.20
255550.0300	**3.5**	20	62	6	36	50.80	255550.2850	**8.4**	47	89	10	40	84.20
255550.0350	**3.6**	20	62	6	36	50.80	255550.2900	**8.5**	47	89	10	40	84.20
255550.0400	**3.7**	20	62	6	36	50.80	255550.2950	**8.6**	47	89	10	40	84.20
255550.0450	**3.8**	24	66	6	36	50.80	255550.3000	**8.7**	47	89	10	40	84.20
255550.0500	**3.9**	24	66	6	36	50.80	255550.3050	**8.8**	47	89	10	40	84.20
255550.0550	**4**	24	66	6	36	55.50	255550.3100	**8.9**	47	89	10	40	84.20
255550.0600	**4.1**	24	66	6	36	55.50	255550.3150	**9**	47	89	10	40	84.20
255550.0650	**4.2**	24	66	6	36	55.50	255550.3200	**9.1**	47	89	10	40	84.20
255550.0700	**4.3**	24	66	6	36	55.50	255550.3250	**9.2**	47	89	10	40	84.20
255550.0750	**4.4**	24	66	6	36	55.50	255550.3300	**9.3**	47	89	10	40	84.20
255550.0800	**4.5**	24	66	6	36	55.50	255550.3350	**9.4**	47	89	10	40	84.20
255550.0850	**4.6**	24	66	6	36	55.50	255550.3400	**9.5**	47	89	10	40	84.20
255550.0900	**4.65**	24	66	6	36	55.50	255550.3450	**9.6**	47	89	10	40	84.20
255550.0950	**4.7**	24	66	6	36	55.50	255550.3500	**9.7**	47	89	10	40	84.20
255550.1000	**4.8**	28	66	6	36	55.50	255550.3550	**9.8**	47	89	10	40	84.20
255550.1050	**4.9**	28	66	6	36	55.50	255550.3600	**9.9**	47	89	10	40	84.20
255550.1100	**5**	28	66	6	36	55.50	255550.3650	**10**	47	89	10	40	84.20
255550.1150	**5.1**	28	66	6	36	55.50	255550.3700	**10.2**	55	102	12	45	120.40
255550.1200	**5.2**	28	66	6	36	55.50	255550.3750	**10.3**	55	102	12	45	120.40
255550.1250	**5.3**	28	66	6	36	55.50	255550.3800	**10.5**	55	102	12	45	120.40
255550.1300	**5.4**	28	66	6	36	55.50	255550.3850	**10.8**	55	102	12	45	120.40
255550.1350	**5.5**	28	66	6	36	55.50	255550.3900	**11**	55	102	12	45	120.40
255550.1400	**5.55**	28	66	6	36	55.50	255550.3950	**11.2**	55	102	12	45	120.40
255550.1450	**5.6**	28	66	6	36	55.50	255550.4000	**11.5**	55	102	12	45	120.40
255550.1500	**5.7**	28	66	6	36	55.50	255550.4050	**11.8**	55	102	12	45	120.40
255550.1550	**5.8**	28	66	6	36	55.50	255550.4100	**12**	55	102	12	45	120.40
255550.1600	**5.9**	28	66	6	36	55.50	255550.4150	**12.2**	60	107	14	45	168.80
255550.1650	**6**	28	66	6	36	55.50	255550.4200	**12.5**	60	107	14	45	168.80
255550.1700	**6.1**	34	79	8	36	75.40	255550.4250	**13**	60	107	14	45	168.80
255550.1750	**6.2**	34	79	8	36	75.40	255550.4300	**13.5**	60	107	14	45	168.80
255550.1800	**6.3**	34	79	8	36	75.40	255550.4350	**14**	60	107	14	45	168.80
255550.1850	**6.4**	34	79	8	36	75.40	255550.4400	**14.2**	65	115	16	48	205.60
255550.1900	**6.5**	34	79	8	36	75.40	255550.4450	**14.5**	65	115	16	48	205.60
255550.1950	**6.6**	34	79	8	36	75.40	255550.4500	**14.7**	65	115	16	48	205.60
255550.2000	**6.7**	34	79	8	36	75.40	255550.4550	**15**	65	115	16	48	205.60
255550.2050	**6.8**	34	79	8	36	75.40	255550.4600	**15.2**	65	115	16	48	205.60
255550.2100	**6.9**	34	79	8	36	75.40	255550.4650	**15.5**	65	115	16	48	205.60
255550.2150	**7**	34	79	8	36	75.40	255550.4700	**16**	65	115	16	48	205.60
255550.2200	**7.1**	41	79	8	36	75.40	255550.4750	**16.5**	73	123	18	48	329.60
255550.2250	**7.2**	41	79	8	36	75.40	255550.4800	**17**	73	123	18	48	329.60
255550.2300	**7.3**	41	79	8	36	75.40	255550.4850	**17.5**	73	123	18	48	329.60
255550.2350	**7.4**	41	79	8	36	75.40	255550.4900	**18**	73	123	18	48	329.60
255550.2400	**7.5**	41	79	8	36	75.40	255550.4950	**18.5**	79	131	20	50	359.50
255550.2450	**7.6**	41	79	8	36	75.40	255550.5000	**19**	79	131	20	50	359.50
255550.2500	**7.7**	41	79	8	36	75.40	255550.5050	**19.5**	79	131	20	50	359.50
255550.2550	**7.8**	41	79	8	36	75.40	255550.5100	**20**	79	131	20	50	359.50

NERIOX



256151 Solid carbide twist drill NERIOX

VHM | Ø 3-16 | TiAlN | 140° | m7 | h7 | DIN 6537 | 3xD | 2

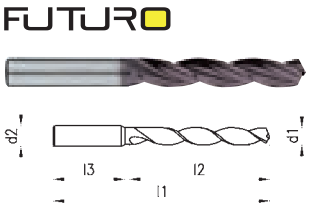
P	M	K	N	S	H	O
●●	○	●●	○			

Short

Order ID	d1 mm	Lc mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	Lc mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €
256151.0100	**3**	14	20	62	6	36	35.90	256151.4500	**7.4**	29	41	79	8	36	46.20
256151.0200	**3.1**	14	20	62	6	36	35.90	256151.4600	**7.5**	29	41	79	8	36	46.20
256151.0300	**3.2**	14	20	62	6	36	35.90	256151.4700	**7.6**	29	41	79	8	36	46.20
256151.0400	**3.3**	14	20	62	6	36	35.90	256151.4800	**7.7**	29	41	79	8	36	46.20
256151.0500	**3.4**	14	20	62	6	36	35.90	256151.4900	**7.8**	29	41	79	8	36	46.20
256151.0600	**3.5**	14	20	62	6	36	35.90	256151.5000	**7.9**	29	41	79	8	36	46.20
256151.0700	**3.6**	14	20	62	6	36	35.90	256151.5100	**8**	29	41	79	8	36	46.20
256151.0800	**3.7**	14	20	62	6	36	35.90	256151.5200	**8.1**	35	47	89	10	40	54.90
256151.0900	**3.8**	17	24	66	6	36	35.90	256151.5300	**8.2**	35	47	89	10	40	54.90
256151.1000	**3.9**	17	24	66	6	36	35.90	256151.5400	**8.3**	35	47	89	10	40	54.90
256151.1100	**4**	17	24	66	6	36	35.90	256151.5500	**8.4**	35	47	89	10	40	54.90
256151.1200	**4.1**	17	24	66	6	36	35.90	256151.5600	**8.5**	35	47	89	10	40	54.90
256151.1300	**4.2**	17	24	66	6	36	35.90	256151.5700	**8.6**	35	47	89	10	40	54.90
256151.1400	**4.3**	17	24	66	6	36	35.90	256151.5800	**8.7**	35	47	89	10	40	54.90
256151.1500	**4.4**	17	24	66	6	36	35.90	256151.5900	**8.8**	35	47	89	10	40	54.90
256151.1600	**4.5**	17	24	66	6	36	35.90	256151.6000	**8.9**	35	47	89	10	40	54.90
256151.1700	**4.6**	17	24	66	6	36	35.90	256151.6100	**9**	35	47	89	10	40	54.90
256151.1800	**4.7**	17	24	66	6	36	35.90	256151.6200	**9.1**	35	47	89	10	40	54.90
256151.1900	**4.8**	20	28	66	6	36	35.90	256151.6300	**9.2**	35	47	89	10	40	54.90
256151.2000	**4.9**	20	28	66	6	36	35.90	256151.6400	**9.3**	35	47	89	10	40	54.90
256151.2100	**5**	20	28	66	6	36	35.90	256151.6500	**9.4**	35	47	89	10	40	54.90
256151.2200	**5.1**	20	28	66	6	36	35.90	256151.6600	**9.5**	35	47	89	10	40	54.90
256151.2300	**5.2**	20	28	66	6	36	35.90	256151.6700	**9.6**	35	47	89	10	40	54.90
256151.2400	**5.3**	20	28	66	6	36	35.90	256151.6800	**9.7**	35	47	89	10	40	54.90
256151.2500	**5.4**	20	28	66	6	36	35.90	256151.6900	**9.8**	35	47	89	10	40	54.90
256151.2600	**5.5**	20	28	66	6	36	35.90	256151.7000	**9.9**	35	47	89	10	40	54.90
256151.2700	**5.6**	20	28	66	6	36	35.90	256151.7100	**10**	35	47	89	10	40	54.90
256151.2800	**5.7**	20	28	66	6	36	35.90	256151.7200	**10.2**	40	55	102	12	45	80.20
256151.2900	**5.8**	20	28	66	6	36	35.90	256151.7300	**10.5**	40	55	102	12	45	80.20
256151.3000	**5.9**	20	28	66	6	36	35.90	256151.7400	**10.8**	40	55	102	12	45	80.20
256151.3100	**6**	20	28	66	6	36	35.90	256151.7500	**11**	40	55	102	12	45	80.20
256151.3200	**6.1**	24	34	79	8	36	46.20	256151.7600	**11.2**	40	55	102	12	45	80.20
256151.3300	**6.2**	24	34	79	8	36	46.20	256151.7700	**11.5**	40	55	102	12	45	80.20
256151.3400	**6.3**	24	34	79	8	36	46.20	256151.7800	**11.8**	40	55	102	12	45	80.20
256151.3500	**6.4**	24	34	79	8	36	46.20	256151.7900	**12**	40	55	102	12	45	80.20
256151.3600	**6.5**	24	34	79	8	36	46.20	256151.8000	**12.5**	43	60	107	14	45	105.60
256151.3700	**6.6**	24	34	79	8	36	46.20	256151.8100	**13**	43	60	107	14	45	105.60
256151.3800	**6.7**	24	34	79	8	36	46.20	256151.8200	**13.5**	43	60	107	14	45	105.60
256151.3900	**6.8**	24	34	79	8	36	46.20	256151.8300	**14**	43	60	107	14	45	105.60
256151.4000	**6.9**	24	34	79	8	36	46.20	256151.8400	**14.5**	45	65	115	16	48	131.20
256151.4100	**7**	24	34	79	8	36	46.20	256151.8500	**15**	45	65	115	16	48	131.20
256151.4200	**7.1**	29	41	79	8	36	46.20	256151.8600	**15.5**	45	65	115	16	48	131.20
256151.4300	**7.2**	29	41	79	8	36	46.20	256151.8700	**16**	45	65	115	16	48	131.20
256151.4400	**7.3**	29	41	79	8	36	46.20								

255620 Solid carbide twist drill FUTURO

VHM	Ø 3-12	TiAlN	130°		DIN 6537	5xD	3
	P	M	K	N	S	H	O
			●●	○			

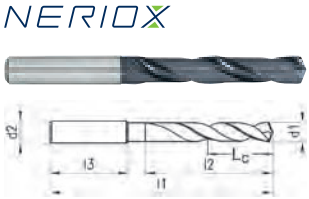


Type 200, **3-flute design**, made of ultra-fine carbide type K/P
Version
Point angle 130°, narrow core, very good self-centring.
For drilling depths 5 x D.
Application
For drilling into solid material for holes that are precisely positioned and shaped. Dimension precision and surface quality correspond to the bore quality. Suited for drilling cast iron and long-chipping Al alloys. The 3-fluted drill permits very high feed rates. The open cutting-flute profile in combination with the short, compact design offer maximum process security and allow use even under the most difficult conditions, such as tapping on slanted surfaces or reboring in an interrupted step.

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €
255620.0100	**3**	28	66	6	36	64.10	255620.1000	**7**	53	91	8	36	77.40
255620.0200	**3.3**	28	66	6	36	64.10	255620.1100	**7.8**	53	91	8	36	77.00
255620.0300	**4**	36	74	6	36	63.70	255620.1200	**8**	53	91	8	36	77.40
255620.0400	**4.5**	36	74	6	36	63.70	255620.1300	**8.5**	61	103	10	40	87.40
255620.0500	**5**	44	82	6	36	63.20	255620.1400	**9**	61	103	10	40	87.40
255620.0600	**5.5**	44	82	6	36	63.70	255620.1500	**10**	61	103	10	40	87.40
255620.0700	**6**	44	82	6	36	64.10	255620.1600	**11**	71	118	12	45	127.30
255620.0800	**6.5**	53	91	8	36	77.40	255620.1700	**11.8**	71	118	12	45	130.20
255620.0900	**6.8**	53	91	8	36	76.50	255620.1800	**12**	71	118	12	45	130.20

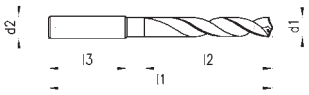
256156 Solid carbide twist drill NERIOX

VHM	Ø 3-16	TiAlN	140°	m7	h6	DIN 6537	5xD	2
	P	M	K	N	S	H	O	
	●●		●●					



Order ID	d1 mm	Lc mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	Lc mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €
256156.0100	**3**	23	28	66	6	36	32.70	256156.4500	**7.4**	43	53	91	8	36	40.60
256156.0200	**3.1**	23	28	66	6	36	32.70	256156.4600	**7.5**	43	53	91	8	36	40.60
256156.0300	**3.2**	23	28	66	6	36	32.70	256156.4700	**7.6**	43	53	91	8	36	40.60
256156.0400	**3.3**	23	28	66	6	36	32.70	256156.4800	**7.7**	43	53	91	8	36	40.60
256156.0500	**3.4**	23	28	66	6	36	32.70	256156.4900	**7.8**	43	53	91	8	36	40.60
256156.0600	**3.5**	23	28	66	6	36	32.70	256156.5000	**7.9**	43	53	91	8	36	40.60
256156.0700	**3.6**	23	28	66	6	36	32.70	256156.5100	**8**	43	53	91	8	36	40.60
256156.0800	**3.7**	23	28	66	6	36	32.70	256156.5200	**8.1**	49	61	103	10	40	45.90
256156.0900	**3.8**	29	36	74	6	36	32.70	256156.5300	**8.2**	49	61	103	10	40	45.90
256156.1000	**3.9**	29	36	74	6	36	32.70	256156.5400	**8.3**	49	61	103	10	40	45.90
256156.1100	**4**	29	36	74	6	36	32.70	256156.5500	**8.4**	49	61	103	10	40	45.90
256156.1200	**4.1**	29	36	74	6	36	32.70	256156.5600	**8.5**	49	61	103	10	40	45.90
256156.1300	**4.2**	29	36	74	6	36	32.70	256156.5700	**8.6**	49	61	103	10	40	45.90
256156.1400	**4.3**	29	36	74	6	36	32.70	256156.5800	**8.7**	49	61	103	10	40	45.90
256156.1500	**4.4**	29	36	74	6	36	32.70	256156.5900	**8.8**	49	61	103	10	40	45.90
256156.1600	**4.5**	29	36	74	6	36	32.70	256156.6000	**8.9**	49	61	103	10	40	45.90
256156.1700	**4.6**	29	36	74	6	36	32.70	256156.6100	**9**	49	61	103	10	40	45.90
256156.1800	**4.7**	29	36	74	6	36	32.70	256156.6200	**9.1**	49	61	103	10	40	45.90
256156.1900	**4.8**	35	44	82	6	36	32.70	256156.6300	**9.2**	49	61	103	10	40	45.90
256156.2000	**4.9**	35	44	82	6	36	32.70	256156.6400	**9.3**	49	61	103	10	40	45.90
256156.2100	**5**	35	44	82	6	36	32.70	256156.6500	**9.4**	49	61	103	10	40	45.90
256156.2200	**5.1**	35	44	82	6	36	32.70	256156.6600	**9.5**	49	61	103	10	40	45.90
256156.2300	**5.2**	35	44	82	6	36	32.70	256156.6700	**9.6**	49	61	103	10	40	45.90
256156.2400	**5.3**	35	44	82	6	36	32.70	256156.6800	**9.7**	49	61	103	10	40	45.90
256156.2500	**5.4**	35	44	82	6	36	32.70	256156.6900	**9.8**	49	61	103	10	40	45.90
256156.2600	**5.5**	35	44	82	6	36	32.70	256156.7000	**9.9**	49	61	103	10	40	45.90
256156.2700	**5.6**	35	44	82	6	36	32.70	256156.7100	**10**	49	61	103	10	40	45.90
256156.2800	**5.7**	35	44	82	6	36	32.70	256156.7200	**10.2**	56	71	118	12	45	64.20
256156.2900	**5.8**	35	44	82	6	36	32.70	256156.7300	**10.5**	56	71	118	12	45	64.20
256156.3000	**5.9**	35	44	82	6	36	32.70	256156.7400	**10.8**	56	71	118	12	45	64.20
256156.3100	**6**	35	44	82	6	36	32.70	256156.7500	**11**	56	71	118	12	45	64.20
256156.3200	**6.1**	43	53	91	8	36	40.60	256156.7600	**11.2**	56	71	118	12	45	64.20
256156.3300	**6.2**	43	53	91	8	36	40.60	256156.7700	**11.5**	56	71	118	12	45	64.20
256156.3400	**6.3**	43	53	91	8	36	40.60	256156.7800	**11.8**	56	71	118	12	45	64.20
256156.3500	**6.4**	43	53	91	8	36	40.60	256156.7900	**12**	56	71	118	12	45	64.20
256156.3600	**6.5**	43	53	91	8	36	40.60	256156.8000	**12.5**	60	77	124	14	45	90.30
256156.3700	**6.6**	43	53	91	8	36	40.60	256156.8100	**13**	60	77	124	14	45	90.30
256156.3800	**6.7**	43	53	91	8	36	40.60	256156.8200	**13.5**	60	77	124	14	45	90.30
256156.3900	**6.8**	43	53	91	8	36	40.60	256156.8300	**14**	60	77	124	14	45	90.30
256156.4000	**6.9**	43	53	91	8	36	40.60	256156.8400	**14.5**	63	83	133	16	48	116.60
256156.4100	**7**	43	53	91	8	36	40.60	256156.8500	**15**	63	83	133	16	48	116.60
256156.4200	**7.1**	43	53	91	8	36	40.60	256156.8600	**15.5**	63	83	133	16	48	116.60
256156.4300	**7.2**	43	53	91	8	36	40.60	256156.8700	**16**	63	83	133	16	48	116.60
256156.4400	**7.3**	43	53	91	8	36	40.60								

FUTURO



255560 Solid carbide twist drill FUTURO

VHM	Ø 4-16	TiAlN	140°		DIN 6537	5xD	
	P	M	K	N	S	H	O
	●●	○	●●		○		

Type 500IK, made of solid carbide, ultra-fine carbide type K/P

Design

Point angle 140°, strong core, very good self-centring, short chips from concave cutting geometry with special sharpening and pointing. The multilayer coating on a TiAlN-TiN bases combines the advantages of the TiN-, TiAlN and TiCN layers and thus offers unusually universal use.

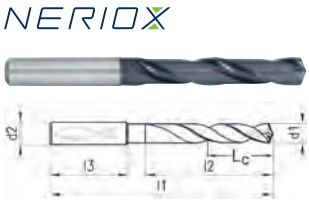
For drilling depths 5 x D, with internal cooling.

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €
255560.0100	**4**	36	74	6	36	58.80	255560.1700	**9**	61	103	10	40	96.00
255560.0200	**4.2**	36	74	6	36	58.80	255560.1800	**9.5**	61	103	10	40	96.00
255560.0300	**4.5**	36	74	6	36	58.80	255560.1900	**9.8**	61	103	10	40	96.00
255560.0400	**4.8**	44	82	6	36	58.80	255560.2000	**10**	61	103	10	40	96.00
255560.0500	**5**	44	82	6	36	58.80	255560.2100	**10.2**	71	118	12	45	139.50
255560.0600	**5.5**	44	82	6	36	58.80	255560.2200	**10.5**	71	118	12	45	139.50
255560.0700	**5.8**	44	82	6	36	58.80	255560.2300	**11**	71	118	12	45	139.50
255560.0800	**6**	44	82	6	36	58.80	255560.2400	**11.5**	71	118	12	45	139.50
255560.0900	**6.5**	53	91	8	36	78.80	255560.2500	**12**	71	118	12	45	139.50
255560.1000	**6.8**	53	91	8	36	78.80	255560.2600	**12.5**	77	124	14	45	179.50
255560.1100	**7**	53	91	8	36	78.80	255560.2700	**13**	77	124	14	45	179.50
255560.1200	**7.5**	53	91	8	36	78.80	255560.2800	**13.5**	77	124	14	45	179.50
255560.1300	**7.8**	53	91	8	36	78.80	255560.2900	**14**	77	124	14	45	179.50
255560.1400	**8**	53	91	8	36	78.80	255560.3000	**15**	83	133	16	48	214.00
255560.1500	**8.5**	61	103	10	40	96.00	255560.3100	**16**	83	133	16	48	214.00
255560.1600	**8.8**	61	103	10	40	96.00							

256161 Solid carbide twist drill NERIOX

VHM | Ø 1-16 | TiAlN | 140° | m7 | h6 | DIN 6537 | 5xD | 2

P	M	K	N	S	H	O
●●	○	●●	○			



Order ID	d1 mm	Lc mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	Lc mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €
256161.0052	**1**	7	10	55	3	42	49.20	256161.3500	**6.4**	43	53	91	8	36	51.70
256161.0054	**1.1**	10	12	55	3	38	49.20	256161.3600	**6.5**	43	53	91	8	36	51.70
256161.0056	**1.2**	10	12	55	3	38	49.20	256161.3700	**6.6**	43	53	91	8	36	51.70
256161.0058	**1.3**	10	12	55	3	38	49.20	256161.3800	**6.7**	43	53	91	8	36	51.70
256161.0060	**1.4**	10	12	55	3	38	49.20	256161.3900	**6.8**	43	53	91	8	36	51.70
256161.0062	**1.5**	10	12	55	3	38	49.20	256161.4000	**6.9**	43	53	91	8	36	51.70
256161.0064	**1.6**	13	16	55	3	36	49.20	256161.4100	**7**	43	53	91	8	36	51.70
256161.0066	**1.7**	13	16	55	3	36	49.20	256161.4200	**7.1**	43	53	91	8	36	51.70
256161.0068	**1.8**	13	16	55	3	36	49.20	256161.4300	**7.2**	43	53	91	8	36	51.70
256161.0070	**1.9**	13	16	55	3	36	49.20	256161.4400	**7.3**	43	53	91	8	36	51.70
256161.0072	**2**	16	21	57	3	32	49.20	256161.4500	**7.4**	43	53	91	8	36	51.70
256161.0074	**2.1**	16	21	57	3	32	49.20	256161.4600	**7.5**	43	53	91	8	36	51.70
256161.0076	**2.2**	16	21	57	3	32	49.20	256161.4700	**7.6**	43	53	91	8	36	51.70
256161.0078	**2.3**	16	21	57	3	32	49.20	256161.4800	**7.7**	43	53	91	8	36	51.70
256161.0080	**2.4**	16	21	57	3	32	49.20	256161.4900	**7.8**	43	53	91	8	36	51.70
256161.0082	**2.5**	16	21	57	3	32	49.20	256161.5000	**7.9**	43	53	91	8	36	51.70
256161.0084	**2.6**	19	21	57	3	32	49.20	256161.5100	**8**	43	53	91	8	36	51.70
256161.0086	**2.7**	19	21	57	3	32	49.20	256161.5200	**8.1**	49	61	103	10	40	58.40
256161.0088	**2.8**	19	21	57	3	32	49.20	256161.5300	**8.2**	49	61	103	10	40	58.40
256161.0090	**2.9**	19	21	57	3	32	49.20	256161.5400	**8.3**	49	61	103	10	40	58.40
256161.0100	**3**	23	28	66	6	36	45.00	256161.5500	**8.4**	49	61	103	10	40	58.40
256161.0200	**3.1**	23	28	66	6	36	45.00	256161.5600	**8.5**	49	61	103	10	40	58.40
256161.0300	**3.2**	23	28	66	6	36	45.00	256161.5700	**8.6**	49	61	103	10	40	58.40
256161.0400	**3.3**	23	28	66	6	36	45.00	256161.5800	**8.7**	49	61	103	10	40	58.40
256161.0500	**3.4**	23	28	66	6	36	45.00	256161.5900	**8.8**	49	61	103	10	40	58.40
256161.0600	**3.5**	23	28	66	6	36	45.00	256161.6000	**8.9**	49	61	103	10	40	58.40
256161.0700	**3.6**	23	28	66	6	36	45.00	256161.6100	**9**	49	61	103	10	40	58.40
256161.0800	**3.7**	23	28	66	6	36	45.00	256161.6200	**9.1**	49	61	103	10	40	58.40
256161.0900	**3.8**	29	36	74	6	36	45.00	256161.6300	**9.2**	49	61	103	10	40	58.40
256161.1000	**3.9**	29	36	74	6	36	45.00	256161.6400	**9.3**	49	61	103	10	40	58.40
256161.1100	**4**	29	36	74	6	36	45.00	256161.6500	**9.4**	49	61	103	10	40	58.40
256161.1200	**4.1**	29	36	74	6	36	45.00	256161.6600	**9.5**	49	61	103	10	40	58.40
256161.1300	**4.2**	29	36	74	6	36	45.00	256161.6700	**9.6**	49	61	103	10	40	58.40
256161.1400	**4.3**	29	36	74	6	36	45.00	256161.6800	**9.7**	49	61	103	10	40	58.40
256161.1500	**4.4**	29	36	74	6	36	45.00	256161.6900	**9.8**	49	61	103	10	40	58.40
256161.1600	**4.5**	29	36	74	6	36	45.00	256161.7000	**9.9**	49	61	103	10	40	58.40
256161.1700	**4.6**	29	36	74	6	36	45.00	256161.7100	**10**	49	61	103	10	40	58.40
256161.1800	**4.7**	29	36	74	6	36	45.00	256161.7200	**10.2**	56	71	118	12	45	81.90
256161.1900	**4.8**	35	44	82	6	36	45.00	256161.7300	**10.5**	56	71	118	12	45	81.90
256161.2000	**4.9**	35	44	82	6	36	45.00	256161.7400	**10.8**	56	71	118	12	45	81.90
256161.2100	**5**	35	44	82	6	36	45.00	256161.7500	**11**	56	71	118	12	45	81.90
256161.2200	**5.1**	35	44	82	6	36	45.00	256161.7600	**11.2**	56	71	118	12	45	81.90
256161.2300	**5.2**	35	44	82	6	36	45.00	256161.7700	**11.5**	56	71	118	12	45	81.90
256161.2400	**5.3**	35	44	82	6	36	45.00	256161.7800	**11.8**	56	71	118	12	45	81.90
256161.2500	**5.4**	35	44	82	6	36	45.00	256161.7900	**12**	56	71	118	12	45	81.90
256161.2600	**5.5**	35	44	82	6	36	45.00	256161.8000	**12.5**	60	77	124	14	45	111.80
256161.2700	**5.6**	35	44	82	6	36	45.00	256161.8100	**13**	60	77	124	14	45	111.80
256161.2800	**5.7**	35	44	82	6	36	45.00	256161.8200	**13.5**	60	77	124	14	45	111.80
256161.2900	**5.8**	35	44	82	6	36	45.00	256161.8300	**14**	60	77	124	14	45	111.80
256161.3000	**5.9**	35	44	82	6	36	45.00	256161.8400	**14.5**	63	83	133	16	48	144.40
256161.3100	**6**	35	44	82	6	36	45.00	256161.8500	**15**	63	83	133	16	48	144.40
256161.3200	**6.1**	43	53	91	8	36	51.70	256161.8600	**15.5**	63	83	133	16	48	144.40
256161.3300	**6.2**	43	53	91	8	36	51.70	256161.8700	**16**	63	83	133	16	48	144.40
256161.3400	**6.3**	43	53	91	8	36	51.70								

FUTURO

255571 Solid carbide twist drill FUTURO

VHM	Ø 3-20	TiAlN-TiN	140°	m7	h6	DIN 6537	5xD

P	M	K	N	S	H	O
●●	○	●●		○		

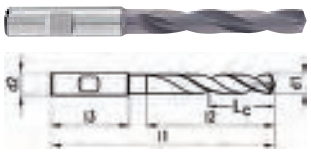
Design
Strong core, very good self-centring function, short chips due to concave cutting geometry with special grinding and point thinning
For drilling depths 5 x D, with internal cooling.

Order ID	d1 mm	l2 mm	Lc mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	l2 mm	Lc mm	l1 mm	d2 mm	l3 mm	Price €
255571.0010	**3**	28	22	66	6	36	58.80	255571.1500	**8.5**	61	46	103	10	40	96.00
255571.0020	**3.1**	28	22	66	6	36	58.80	255571.1530	**8.6**	61	46	103	10	40	96.00
255571.0030	**3.2**	28	22	66	6	36	58.80	255571.1560	**8.7**	61	46	103	10	40	96.00
255571.0040	**3.3**	28	22	66	6	36	58.80	255571.1600	**8.8**	61	46	103	10	40	96.00
255571.0050	**3.4**	28	22	66	6	36	58.80	255571.1650	**8.9**	61	46	103	10	40	96.00
255571.0060	**3.5**	28	22	66	6	36	58.80	255571.1700	**9**	61	46	103	10	40	96.00
255571.0070	**3.6**	28	22	66	6	36	58.80	255571.1720	**9.1**	61	46	103	10	40	96.00
255571.0080	**3.7**	28	22	66	6	36	58.80	255571.1740	**9.2**	61	46	103	10	40	96.00
255571.0090	**3.8**	36	28	74	6	36	58.80	255571.1760	**9.3**	61	46	103	10	40	96.00
255571.0095	**3.9**	36	28	74	6	36	58.80	255571.1780	**9.4**	61	46	103	10	40	96.00
255571.0100	**4**	36	28	74	6	36	58.80	255571.1800	**9.5**	61	46	103	10	40	96.00
255571.0150	**4.1**	36	28	74	6	36	58.80	255571.1830	**9.6**	61	46	103	10	40	96.00
255571.0200	**4.2**	36	28	74	6	36	58.80	255571.1860	**9.7**	61	46	103	10	40	96.00
255571.0230	**4.3**	36	28	74	6	36	58.80	255571.1900	**9.8**	61	46	103	10	40	96.00
255571.0260	**4.4**	36	28	74	6	36	58.80	255571.1950	**9.9**	61	46	103	10	40	96.00
255571.0300	**4.5**	36	28	74	6	36	58.80	255571.2000	**10**	61	46	103	10	40	96.00
255571.0325	**4.6**	36	28	74	6	36	58.80	255571.2100	**10.2**	71	55	118	12	45	139.50
255571.0350	**4.65**	36	28	74	6	36	58.80	255571.2200	**10.5**	71	55	118	12	45	139.50
255571.0375	**4.7**	36	28	74	6	36	58.80	255571.2230	**10.7**	71	55	118	12	45	139.50
255571.0400	**4.8**	44	35	82	6	36	58.80	255571.2250	**10.8**	71	55	118	12	45	139.50
255571.0450	**4.9**	44	35	82	6	36	58.80	255571.2300	**11**	71	55	118	12	45	139.50
255571.0500	**5**	44	35	82	6	36	58.80	255571.2350	**11.2**	71	55	118	12	45	139.50
255571.0520	**5.1**	44	35	82	6	36	58.80	255571.2400	**11.5**	71	55	118	12	45	139.50
255571.0540	**5.2**	44	35	82	6	36	58.80	255571.2450	**11.8**	71	55	118	12	45	139.50
255571.0560	**5.3**	44	35	82	6	36	58.80	255571.2500	**12**	71	55	118	12	45	139.50
255571.0580	**5.4**	44	35	82	6	36	58.80	255571.2550	**12.2**	77	58	124	14	45	179.50
255571.0600	**5.5**	44	35	82	6	36	58.80	255571.2600	**12.5**	77	58	124	14	45	179.50
255571.0625	**5.55**	44	35	82	6	36	58.80	255571.2630	**12.7**	77	58	124	14	45	179.50
255571.0650	**5.6**	44	35	82	6	36	58.80	255571.2660	**12.8**	77	58	124	14	45	179.50
255571.0675	**5.7**	44	35	82	6	36	58.80	255571.2700	**13**	77	58	124	14	45	179.50
255571.0700	**5.8**	44	35	82	6	36	58.80	255571.2750	**13.1**	77	58	124	14	45	179.50
255571.0750	**5.9**	44	35	82	6	36	58.80	255571.2800	**13.5**	77	58	124	14	45	179.50
255571.0800	**6**	44	35	82	6	36	58.80	255571.2830	**13.7**	77	58	124	14	45	179.50
255571.0820	**6.1**	53	41	91	8	36	78.80	255571.2860	**13.8**	77	58	124	14	45	179.50
255571.0840	**6.2**	53	41	91	8	36	78.80	255571.2900	**14**	77	58	124	14	45	179.50
255571.0860	**6.3**	53	41	91	8	36	78.80	255571.2930	**14.2**	83	63	133	16	48	214.00
255571.0880	**6.4**	53	41	91	8	36	78.80	255571.2960	**14.5**	83	63	133	16	48	214.00
255571.0900	**6.5**	53	41	91	8	36	78.80	255571.2970	**14.7**	83	63	133	16	48	214.00
255571.0930	**6.6**	53	41	91	8	36	78.80	255571.2980	**14.8**	83	63	133	16	48	214.00
255571.0960	**6.7**	53	41	91	8	36	78.80	255571.3000	**15**	83	63	133	16	48	214.00
255571.1000	**6.8**	53	41	91	8	36	78.80	255571.3100	**15.1**	83	63	133	16	48	214.00
255571.1050	**6.9**	53	41	91	8	36	78.80	255571.3030	**15.2**	83	63	133	16	48	214.00
255571.1100	**7**	53	41	91	8	36	78.80	255571.3060	**15.5**	83	63	133	16	48	214.00
255571.1120	**7.1**	53	41	91	8	36	78.80	255571.3070	**15.7**	83	63	133	16	48	214.00
255571.1140	**7.2**	53	41	91	8	36	78.80	255571.3080	**15.8**	83	63	133	16	48	214.00
255571.1160	**7.3**	53	41	91	8	36	78.80	255571.3101	**16**	83	63	133	16	48	214.00
255571.1180	**7.4**	53	41	91	8	36	78.80	255571.3200	**16.5**	93	71	143	18	48	375.00
255571.1200	**7.5**	53	41	91	8	36	78.80	255571.3300	**17**	93	71	143	18	48	375.00
255571.1230	**7.6**	53	41	91	8	36	78.80	255571.3400	**17.5**	93	71	143	18	48	375.00
255571.1260	**7.7**	53	41	91	8	36	78.80	255571.3450	**17.8**	93	71	143	18	48	375.00
255571.1300	**7.8**	53	41	91	8	36	78.80	255571.3500	**18**	93	71	143	18	48	375.00
255571.1350	**7.9**	53	41	91	8	36	78.80	255571.3600	**18.5**	101	77	153	20	50	375.00
255571.1400	**8**	53	41	91	8	36	78.80	255571.3650	**18.7**	101	77	153	20	50	375.00
255571.1420	**8.1**	61	46	103	10	40	96.00	255571.3700	**19**	101	77	153	20	50	375.00
255571.1440	**8.2**	61	46	103	10	40	96.00	255571.3800	**19.5**	101	77	153	20	50	375.00
255571.1460	**8.3**	61	46	103	10	40	96.00	255571.3850	**19.7**	101	77	153	20	50	375.00
255571.1480	**8.4**	61	46	103	10	40	96.00	255571.3900	**20**	101	77	153	20	50	375.00

256162 Solid carbide twist drill NERIOX

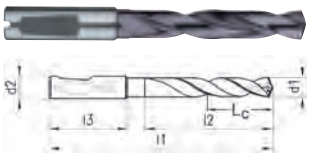
VHM | Ø 3-20 | TiAlN | 140° | m7 | h6 | DIN 6537 | 5xD | 2

P	M	K	N	S	H	O
●●	○	●●	○			



Order ID	d1 mm	Lc mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	Lc mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €
256162.0005	**3**	23	28	66	6	36	50.90	256162.0310	**8.9**	49	61	103	10	40	66.20
256162.0010	**3.1**	23	28	66	6	36	50.90	256162.0315	**9**	49	61	103	10	40	66.20
256162.0015	**3.2**	23	28	66	6	36	50.90	256162.0320	**9.1**	49	61	103	10	40	66.20
256162.0020	**3.3**	23	28	66	6	36	50.90	256162.0325	**9.2**	49	61	103	10	40	66.20
256162.0025	**3.4**	23	28	66	6	36	50.90	256162.0330	**9.3**	49	61	103	10	40	66.20
256162.0030	**3.5**	23	28	66	6	36	50.90	256162.0335	**9.4**	49	61	103	10	40	66.20
256162.0035	**3.6**	23	28	66	6	36	50.90	256162.0340	**9.5**	49	61	103	10	40	66.20
256162.0040	**3.7**	23	28	66	6	36	50.90	256162.0345	**9.6**	49	61	103	10	40	66.20
256162.0045	**3.8**	29	36	74	6	36	50.90	256162.0350	**9.7**	49	61	103	10	40	66.20
256162.0050	**3.9**	29	36	74	6	36	50.90	256162.0355	**9.8**	49	61	103	10	40	66.20
256162.0055	**4**	29	36	74	6	36	50.90	256162.0360	**9.9**	49	61	103	10	40	66.20
256162.0060	**4.1**	29	36	74	6	36	50.90	256162.0365	**10**	49	61	103	10	40	66.20
256162.0065	**4.2**	29	36	74	6	36	50.90	256162.0370	**10.1**	56	71	118	12	45	96.10
256162.0070	**4.3**	29	36	74	6	36	50.90	256162.0375	**10.2**	56	71	118	12	45	96.10
256162.0075	**4.4**	29	36	74	6	36	50.90	256162.0380	**10.3**	56	71	118	12	45	96.10
256162.0080	**4.5**	29	36	74	6	36	50.90	256162.0385	**10.4**	56	71	118	12	45	96.10
256162.0085	**4.6**	29	36	74	6	36	50.90	256162.0390	**10.5**	56	71	118	12	45	96.10
256162.0090	**4.65**	29	36	74	6	36	50.90	256162.0395	**10.6**	56	71	118	12	45	96.10
256162.0095	**4.7**	29	36	74	6	36	50.90	256162.0400	**10.7**	56	71	118	12	45	96.10
256162.0100	**4.8**	35	44	82	6	36	50.90	256162.0405	**10.8**	56	71	118	12	45	96.10
256162.0105	**4.9**	35	44	82	6	36	50.90	256162.0410	**10.9**	56	71	118	12	45	96.10
256162.0110	**5**	35	44	82	6	36	50.90	256162.0415	**11**	56	71	118	12	45	96.10
256162.0115	**5.1**	35	44	82	6	36	50.90	256162.0420	**11.1**	56	71	118	12	45	96.10
256162.0120	**5.2**	35	44	82	6	36	50.90	256162.0425	**11.2**	56	71	118	12	45	96.10
256162.0125	**5.3**	35	44	82	6	36	50.90	256162.0430	**11.3**	56	71	118	12	45	96.10
256162.0130	**5.4**	35	44	82	6	36	50.90	256162.0435	**11.4**	56	71	118	12	45	96.10
256162.0135	**5.5**	35	44	82	6	36	50.90	256162.0440	**11.5**	56	71	118	12	45	96.10
256162.0140	**5.55**	35	44	82	6	36	50.90	256162.0445	**11.6**	56	71	118	12	45	96.10
256162.0145	**5.6**	35	44	82	6	36	50.90	256162.0450	**11.7**	56	71	118	12	45	96.10
256162.0150	**5.7**	35	44	82	6	36	50.90	256162.0455	**11.8**	56	71	118	12	45	96.10
256162.0155	**5.8**	35	44	82	6	36	50.90	256162.0460	**11.9**	56	71	118	12	45	96.10
256162.0160	**5.9**	35	44	82	6	36	50.90	256162.0465	**12**	56	71	118	12	45	96.10
256162.0165	**6**	35	44	82	6	36	50.90	256162.0470	**12.2**	60	77	124	14	45	130.40
256162.0170	**6.1**	43	53	91	8	36	57.50	256162.0475	**12.3**	60	77	124	14	45	130.40
256162.0175	**6.2**	43	53	91	8	36	57.50	256162.0480	**12.5**	60	77	124	14	45	130.40
256162.0180	**6.3**	43	53	91	8	36	57.50	256162.0485	**12.8**	60	77	124	14	45	130.40
256162.0185	**6.4**	43	53	91	8	36	57.50	256162.0490	**13**	60	77	124	14	45	130.40
256162.0190	**6.5**	43	53	91	8	36	57.50	256162.0495	**13.2**	60	77	124	14	45	130.40
256162.0195	**6.6**	43	53	91	8	36	57.50	256162.0500	**13.5**	60	77	124	14	45	130.40
256162.0200	**6.7**	43	53	91	8	36	57.50	256162.0505	**13.8**	60	77	124	14	45	130.40
256162.0205	**6.8**	43	53	91	8	36	57.50	256162.0510	**14**	60	77	124	14	45	130.40
256162.0210	**6.9**	43	53	91	8	36	57.50	256162.0515	**14.2**	63	83	133	16	45	163.30
256162.0215	**7**	43	53	91	8	36	57.50	256162.0520	**14.5**	63	83	133	16	48	163.30
256162.0220	**7.1**	43	53	91	8	36	57.50	256162.0525	**14.8**	63	83	133	16	48	163.30
256162.0225	**7.2**	43	53	91	8	36	57.50	256162.0530	**15**	63	83	133	16	48	163.30
256162.0230	**7.3**	43	53	91	8	36	57.50	256162.0535	**15.1**	63	83	133	16	48	163.30
256162.0235	**7.4**	43	53	91	8	36	57.50	256162.0540	**15.2**	63	83	133	16	48	163.30
256162.0240	**7.5**	43	53	91	8	36	57.50	256162.0545	**15.5**	63	83	133	16	48	163.30
256162.0245	**7.6**	43	53	91	8	36	57.50	256162.0550	**15.8**	63	83	133	16	48	163.30
256162.0250	**7.7**	43	53	91	8	36	57.50	256162.0555	**16**	63	83	133	16	48	163.30
256162.0255	**7.8**	43	53	91	8	36	57.50	256162.0560	**16.5**	71	93	143	18	48	252.00
256162.0260	**7.9**	43	53	91	8	36	57.50	256162.0565	**16.8**	71	93	143	18	48	252.00
256162.0265	**8**	43	53	91	8	36	57.50	256162.0570	**17**	71	93	143	18	48	252.00
256162.0270	**8.1**	49	61	103	10	40	66.20	256162.0575	**17.5**	71	93	143	18	48	252.00
256162.0275	**8.2**	49	61	103	10	40	66.20	256162.0580	**17.8**	71	93	143	18	48	252.00
256162.0280	**8.3**	49	61	103	10	40	66.20	256162.0585	**18**	71	93	143	18	48	252.00
256162.0285	**8.4**	49	61	103	10	40	66.20	256162.0590	**18.5**	77	101	153	20	50	280.10
256162.0290	**8.5**	49	61	103	10	40	66.20	256162.0595	**19**	77	101	153	20	50	280.10
256162.0295	**8.6**	49	61	103	10	40	66.20	256162.0600	**19.5**	77	101	153	20	50	280.10
256162.0300	**8.7**	49	61	103	10	40	66.20	256162.0605	**20**	77	101	153	20	50	280.10
256162.0305	**8.8**	49	61	103	10	40	66.20								

FUTURO



255570 Solid carbide twist drill FUTURO

VHM	Ø 3-20	TiAlN	140°		DIN 6537	5xD	
	P	M	K	N	S	H	O
	●●	○	●●		○		

Type 500IK, made of solid carbide, ultra-fine carbide type K/P

Design

Point angle 140°, strong core, very good self-centring, short chips from concave cutting geometry with special sharpening and pointing. The multilayer coating on a TiAlN-TiN bases combines the advantages of the TiN-, TiAlN and TiCN layers and thus offers unusually universal use.

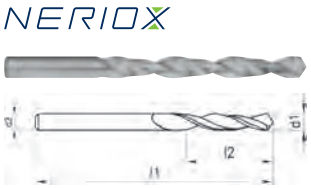
For drilling depths 5 x D, with internal cooling.

Order ID	d1 mm	l2 mm	Lc mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	l2 mm	Lc mm	l1 mm	d2 mm	l3 mm	Price €
255570.0010	**3**	28	22	66	6	36	58.80	255570.1300	**7.8**	53	41	91	8	36	78.80
255570.0020	**3.1**	28	22	66	6	36	58.80	255570.1350	**7.9**	53	41	91	8	36	78.80
255570.0030	**3.2**	28	22	66	6	36	58.80	255570.1400	**8**	53	41	91	8	36	78.80
255570.0040	**3.3**	28	22	66	6	36	58.80	255570.1420	**8.1**	61	46	103	10	40	96.00
255570.0050	**3.4**	28	22	66	6	36	58.80	255570.1440	**8.2**	61	46	103	10	40	96.00
255570.0060	**3.5**	28	22	66	6	36	58.80	255570.1460	**8.3**	61	46	103	10	40	96.00
255570.0070	**3.6**	28	22	66	6	36	58.80	255570.1480	**8.4**	61	46	103	10	40	96.00
255570.0080	**3.7**	28	22	66	6	36	58.80	255570.1500	**8.5**	61	46	103	10	40	96.00
255570.0090	**3.8**	36	28	74	6	36	58.80	255570.1530	**8.6**	61	46	103	10	40	96.00
255570.0095	**3.9**	36	28	74	6	36	58.80	255570.1560	**8.7**	61	46	103	10	40	96.00
255570.0100	**4**	36	28	74	6	36	58.80	255570.1600	**8.8**	61	46	103	10	40	96.00
255570.0150	**4.1**	36	28	74	6	36	58.80	255570.1650	**8.9**	61	46	103	10	40	96.00
255570.0200	**4.2**	36	28	74	6	36	58.80	255570.1700	**9**	61	46	103	10	40	96.00
255570.0230	**4.3**	36	28	74	6	36	58.80	255570.1720	**9.1**	61	46	103	10	40	96.00
255570.0260	**4.4**	36	28	74	6	36	58.80	255570.1740	**9.2**	61	46	103	10	40	96.00
255570.0300	**4.5**	36	28	74	6	36	58.80	255570.1760	**9.3**	61	46	103	10	40	96.00
255570.0325	**4.6**	36	28	74	6	36	58.80	255570.1780	**9.4**	61	46	103	10	40	96.00
255570.0350	**4.65**	36	28	74	6	36	58.80	255570.1800	**9.5**	61	46	103	10	40	96.00
255570.0375	**4.7**	36	28	74	6	36	58.80	255570.1830	**9.6**	61	46	103	10	40	96.00
255570.0400	**4.8**	44	35	82	6	36	58.80	255570.1860	**9.7**	61	46	103	10	40	96.00
255570.0450	**4.9**	44	35	82	6	36	58.80	255570.1900	**9.8**	61	46	103	10	40	96.00
255570.0500	**5**	44	35	82	6	36	58.80	255570.1950	**9.9**	61	46	103	10	40	96.00
255570.0520	**5.1**	44	35	82	6	36	58.80	255570.2000	**10**	61	46	103	10	40	96.00
255570.0540	**5.2**	44	35	82	6	36	58.80	255570.2100	**10.2**	71	55	118	12	45	139.50
255570.0560	**5.3**	44	35	82	6	36	58.80	255570.2200	**10.5**	71	55	118	12	45	139.50
255570.0580	**5.4**	44	35	82	6	36	58.80	255570.2250	**10.8**	71	55	118	12	45	139.50
255570.0600	**5.5**	44	35	82	6	36	58.80	255570.2300	**11**	71	55	118	12	45	139.50
255570.0625	**5.55**	44	35	82	6	36	58.80	255570.2350	**11.2**	71	55	118	12	45	139.50
255570.0650	**5.6**	44	35	82	6	36	58.80	255570.2400	**11.5**	71	55	118	12	45	139.50
255570.0675	**5.7**	44	35	82	6	36	58.80	255570.2450	**11.8**	71	55	118	12	45	139.50
255570.0700	**5.8**	44	35	82	6	36	58.80	255570.2500	**12**	71	55	118	12	45	139.50
255570.0750	**5.9**	44	35	82	6	36	58.80	255570.2550	**12.2**	77	58	124	14	45	179.50
255570.0800	**6**	44	35	82	6	36	58.80	255570.2600	**12.5**	77	58	124	14	45	179.50
255570.0820	**6.1**	53	41	91	8	36	78.80	255570.2700	**13**	77	58	124	14	45	179.50
255570.0840	**6.2**	53	41	91	8	36	78.80	255570.2800	**13.5**	77	58	124	14	45	179.50
255570.0860	**6.3**	53	41	91	8	36	78.80	255570.2900	**14**	77	58	124	14	45	179.50
255570.0880	**6.4**	53	41	91	8	36	78.80	255570.2930	**14.2**	83	63	133	16	48	214.00
255570.0900	**6.5**	53	41	91	8	36	78.80	255570.2960	**14.5**	83	63	133	16	48	214.00
255570.0930	**6.6**	53	41	91	8	36	78.80	255570.3000	**15**	83	63	133	16	48	214.00
255570.0960	**6.7**	53	41	91	8	36	78.80	255570.3030	**15.2**	83	63	133	16	48	214.00
255570.1000	**6.8**	53	41	91	8	36	78.80	255570.3060	**15.5**	83	63	133	16	48	214.00
255570.1050	**6.9**	53	41	91	8	36	78.80	255570.3100	**16**	83	63	133	16	48	214.00
255570.1100	**7**	53	41	91	8	36	78.80	255570.3200	**16.5**	93	71	143	18	48	375.00
255570.1120	**7.1**	53	41	91	8	36	78.80	255570.3300	**17**	93	71	143	18	48	375.00
255570.1140	**7.2**	53	41	91	8	36	78.80	255570.3400	**17.5**	93	71	143	18	48	375.00
255570.1160	**7.3**	53	41	91	8	36	78.80	255570.3500	**18**	93	71	143	18	48	375.00
255570.1180	**7.4**	53	41	91	8	36	78.80	255570.3600	**18.5**	101	77	153	20	50	375.00
255570.1200	**7.5**	53	41	91	8	36	78.80	255570.3700	**19**	101	77	153	20	50	375.00
255570.1230	**7.6**	53	41	91	8	36	78.80	255570.3800	**19.5**	101	77	153	20	50	375.00
255570.1260	**7.7**	53	41	91	8	36	78.80	255570.3900	**20**	101	77	153	20	50	375.00

256131 Solid carbide twist drill NERIOX DIN338

VHM	Ø 1-13	30°	118°	h7	h6	DIN 338	8xD	2

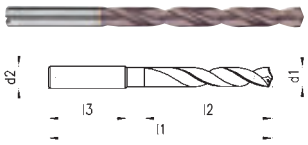
P	M	K	N	S	H	O
O		O	O			O



Type N

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €
256131.0010	**1**	12	34	1	5.80	256131.0360	**4.5**	47	80	4.5	12.20
256131.0020	**1.1**	14	36	1.1	5.80	256131.0370	**4.6**	47	80	4.6	13.90
256131.0030	**1.2**	16	38	1.2	5.80	256131.0380	**4.7**	47	80	4.7	13.90
256131.0040	**1.3**	16	38	1.3	5.60	256131.0390	**4.8**	52	86	4.8	14.30
256131.0050	**1.4**	18	40	1.4	5.60	256131.0400	**4.9**	52	86	4.9	14.30
256131.0060	**1.5**	18	40	1.5	5.40	256131.0410	**5**	52	86	5	13.30
256131.0070	**1.6**	20	43	1.6	5.40	256131.0420	**5.1**	52	86	5.1	16.20
256131.0080	**1.7**	20	43	1.7	5.40	256131.0430	**5.2**	52	86	5.2	16.20
256131.0090	**1.8**	22	46	1.8	5.40	256131.0440	**5.3**	52	86	5.3	16.20
256131.0100	**1.9**	22	46	1.9	5.40	256131.0450	**5.4**	57	93	5.4	18.30
256131.0110	**2**	24	49	2	5.20	256131.0460	**5.5**	57	93	5.5	17.70
256131.0120	**2.1**	24	49	2.1	5.70	256131.0470	**5.6**	57	93	5.6	19.30
256131.0130	**2.2**	27	53	2.2	6.40	256131.0480	**5.7**	57	93	5.7	19.30
256131.0140	**2.3**	27	53	2.3	6.40	256131.0490	**5.8**	57	93	5.8	19.30
256131.0150	**2.4**	30	57	2.4	6.40	256131.0500	**5.9**	57	93	5.9	19.30
256131.0160	**2.5**	30	57	2.5	6.20	256131.0510	**6**	57	93	6	18.70
256131.0170	**2.6**	30	57	2.6	8.10	256131.0520	**6.1**	63	101	6.1	24.00
256131.0180	**2.7**	33	61	2.7	8.10	256131.0530	**6.2**	63	101	6.2	24.00
256131.0190	**2.8**	33	61	2.8	8.10	256131.0540	**6.3**	63	101	6.3	24.00
256131.0200	**2.9**	33	61	2.9	8.10	256131.0550	**6.4**	63	101	6.4	24.00
256131.0210	**3**	33	61	3	7.90	256131.0560	**6.5**	63	101	6.5	23.10
256131.0220	**3.1**	36	65	3.1	7.90	256131.0570	**6.8**	69	109	6.8	28.10
256131.0230	**3.2**	36	65	3.2	7.90	256131.0580	**7**	69	109	7	27.70
256131.0240	**3.3**	36	65	3.3	8.00	256131.0590	**7.5**	69	109	7.5	27.60
256131.0250	**3.4**	39	70	3.4	8.90	256131.0600	**8**	75	117	8	33.00
256131.0260	**3.5**	39	70	3.5	8.60	256131.0610	**8.5**	75	117	8.5	38.40
256131.0270	**3.6**	39	70	3.6	9.10	256131.0620	**9**	81	125	9	38.90
256131.0280	**3.7**	39	70	3.7	9.10	256131.0630	**9.5**	81	125	9.5	43.20
256131.0290	**3.8**	43	75	3.8	9.70	256131.0640	**10**	87	133	10	48.50
256131.0300	**3.9**	43	75	3.9	9.80	256131.0650	**10.2**	87	133	10.2	58.60
256131.0310	**4**	43	75	4	9.90	256131.0660	**10.5**	87	133	10.5	55.70
256131.0320	**4.1**	43	75	4.1	10.10	256131.0670	**11**	94	142	11	69.00
256131.0330	**4.2**	43	75	4.2	10.10	256131.0680	**11.5**	94	142	11.5	73.60
256131.0340	**4.3**	47	80	4.3	13.30	256131.0690	**12**	101	151	12	79.80
256131.0350	**4.4**	47	80	4.4	13.30	256131.0700	**13**	101	151	13	95.60

FUTURO



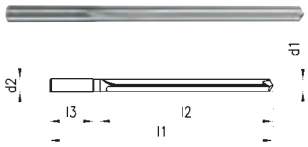
255580 Solid carbide twist drill FUTURO

VHM	Ø 3-20	TiAlN-TiN	140°	m7		DIN 6537	8xD	
	P	M	K	N	S	H	O	
	●●	○	●●	○	○	○		

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €
255580.0030	**3**	30	70	6	36	111.00	255580.1000	**8.5**	87	131	10	40	155.00
255580.0031	**3.1**	30	70	6	36	111.00	255580.1060	**8.6**	87	131	10	40	155.00
255580.0032	**3.2**	30	70	6	36	111.00	255580.1070	**8.7**	87	131	10	40	155.00
255580.0033	**3.3**	30	70	6	36	111.00	255580.1080	**8.8**	87	131	10	40	155.00
255580.0034	**3.4**	30	70	6	36	111.00	255580.1090	**8.9**	87	131	10	40	155.00
255580.0035	**3.5**	35.5	75	6	36	111.00	255580.1100	**9**	87	131	10	40	155.00
255580.0036	**3.6**	35.5	75	6	36	111.00	255580.1110	**9.1**	95	139	10	40	155.00
255580.0037	**3.7**	35.5	75	6	36	111.00	255580.1120	**9.2**	95	139	10	40	155.00
255580.0038	**3.8**	37.5	75	6	36	111.00	255580.1130	**9.3**	95	139	10	40	155.00
255580.0039	**3.9**	37.5	75	6	36	111.00	255580.1140	**9.4**	95	139	10	40	155.00
255580.0040	**4**	37.5	75	6	36	111.00	255580.1200	**9.5**	95	139	10	40	155.00
255580.0041	**4.1**	37.5	75	6	36	111.00	255580.1260	**9.6**	95	139	10	40	155.00
255580.0042	**4.2**	37.5	75	6	36	111.00	255580.1270	**9.7**	95	139	10	40	155.00
255580.0043	**4.3**	45	85	6	36	111.00	255580.1280	**9.8**	95	139	10	40	155.00
255580.0044	**4.4**	45	85	6	36	111.00	255580.1290	**9.9**	95	139	10	40	155.00
255580.0045	**4.5**	45	85	6	36	111.00	255580.1300	**10**	95	139	10	40	155.00
255580.0046	**4.6**	45	85	6	36	111.00	255580.1310	**10.1**	106	155	12	45	205.00
255580.0047	**4.7**	45	85	6	36	111.00	255580.1400	**10.2**	106	155	12	45	205.00
255580.0048	**4.8**	50	90	6	36	111.00	255580.1430	**10.3**	106	155	12	45	205.00
255580.0049	**4.9**	50	90	6	36	111.00	255580.1440	**10.4**	106	155	12	45	205.00
255580.0100	**5**	50	90	6	36	111.00	255580.1500	**10.5**	106	155	12	45	205.00
255580.0110	**5.1**	50	90	6	36	111.00	255580.1560	**10.6**	106	155	12	45	205.00
255580.0120	**5.2**	50	90	6	36	111.00	255580.1570	**10.7**	106	155	12	45	205.00
255580.0130	**5.3**	50	90	6	36	111.00	255580.1580	**10.8**	106	155	12	45	205.00
255580.0140	**5.4**	57	97	6	36	111.00	255580.1590	**10.9**	106	155	12	45	205.00
255580.0200	**5.5**	57	97	6	36	111.00	255580.1600	**11**	106	155	12	45	205.00
255580.0260	**5.6**	57	97	6	36	111.00	255580.1610	**11.1**	114	163	12	45	205.00
255580.0270	**5.7**	57	97	6	36	111.00	255580.1620	**11.2**	114	163	12	45	205.00
255580.0280	**5.8**	57	97	6	36	111.00	255580.1630	**11.3**	114	163	12	45	205.00
255580.0290	**5.9**	57	97	6	36	111.00	255580.1640	**11.4**	114	163	12	45	205.00
255580.0300	**6**	57	97	6	36	111.00	255580.1700	**11.5**	114	163	12	45	205.00
255580.0310	**6.1**	66	106	8	36	129.00	255580.1760	**11.6**	114	163	12	45	205.00
255580.0320	**6.2**	66	106	8	36	129.00	255580.1770	**11.7**	114	163	12	45	205.00
255580.0330	**6.3**	66	106	8	36	129.00	255580.1780	**11.8**	114	163	12	45	205.00
255580.0340	**6.4**	66	106	8	36	129.00	255580.1790	**11.9**	114	163	12	45	205.00
255580.0400	**6.5**	66	106	8	36	129.00	255580.1800	**12**	114	163	12	45	205.00
255580.0460	**6.6**	66	106	8	36	129.00	255580.1810	**12.2**	133	182	14	45	205.00
255580.0470	**6.7**	66	106	8	36	129.00	255580.1820	**12.5**	133	182	14	45	290.00
255580.0500	**6.8**	66	106	8	36	129.00	255580.1830	**12.7**	133	182	14	45	290.00
255580.0590	**6.9**	76	116	8	36	129.00	255580.1840	**13**	133	182	14	45	290.00
255580.0600	**7**	76	116	8	36	129.00	255580.1850	**13.5**	133	182	14	45	290.00
255580.0610	**7.1**	76	116	8	36	129.00	255580.1860	**14**	133	182	14	45	290.00
255580.0620	**7.2**	76	116	8	36	129.00	255580.1870	**14.2**	152	204	16	48	364.00
255580.0630	**7.3**	76	116	8	36	129.00	255580.1880	**14.5**	152	204	16	48	364.00
255580.0640	**7.4**	76	116	8	36	129.00	255580.1890	**15**	152	204	16	48	364.00
255580.0700	**7.5**	76	116	8	36	129.00	255580.1900	**15.5**	152	204	16	48	364.00
255580.0760	**7.6**	76	116	8	36	129.00	255580.1910	**16**	152	204	16	48	364.00
255580.0770	**7.7**	76	116	8	36	129.00	255580.1920	**16.5**	171	223	18	48	454.00
255580.0800	**7.8**	76	116	8	36	129.00	255580.1930	**17**	171	223	18	48	454.00
255580.0890	**7.9**	76	116	8	36	129.00	255580.1940	**17.5**	171	223	18	48	454.00
255580.0900	**8**	76	116	8	36	129.00	255580.1950	**18**	171	223	18	48	454.00
255580.0910	**8.1**	87	131	10	40	155.00	255580.1960	**18.5**	190	244	20	50	540.00
255580.0920	**8.2**	87	131	10	40	155.00	255580.1970	**19**	190	244	20	50	540.00
255580.0930	**8.3**	87	131	10	40	155.00	255580.1980	**19.5**	190	244	20	50	540.00
255580.0940	**8.4**	87	131	10	40	155.00	255580.1990	**20**	190	244	20	50	540.00

255650 Solid carbide deep hole drill FUTURO

VHM	Ø 4-16	120°		10xD	
	P	M	K	N	S	H	O
			●●	●●			



Type 1000IK

Design

Point angle 120°, strong core, very good self-centring, **straight fluted,** special flute shape with double bevels, special pointing.

For drilling depths 10 x D, with internal cooling.

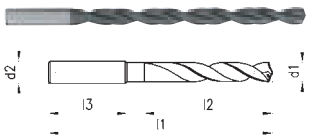
Application For working short-chipping materials, such as cast iron, grey cast iron, tempered grey cast iron, aluminium alloys with high silicon content. For making holes with extremely high alignment precision.

Requirements, remarks

Powerful machines, low-play spindles, precisely aligned tool receptacles, concentricity error of the tool when mounted in chuck max. 0.02 mm.

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €
255650.0100	**4**	77	121	6	36	**103.10**	255650.1600	**10**	130	175	10	40	**169.10**
255650.0200	**4.2**	77	121	6	36	**100.70**	255650.1700	**10.2**	159	209	12	45	**207.10**
255650.0300	**4.5**	77	121	6	36	**103.10**	255650.1800	**10.5**	159	209	12	45	**210.00**
255650.0400	**5**	82	121	6	36	**102.10**	255650.1900	**11**	159	209	12	45	**205.20**
255650.0500	**5.5**	82	121	6	36	**103.10**	255650.2000	**11.5**	159	209	12	45	**210.00**
255650.0600	**6**	82	121	6	36	**99.30**	255650.2100	**12**	159	209	12	45	**210.00**
255650.0700	**6.5**	106	146	8	36	**134.00**	255650.2200	**12.5**	183	233	14	45	**281.20**
255650.0800	**6.8**	106	146	8	36	**131.10**	255650.2300	**13**	183	233	14	45	**279.30**
255650.0900	**7**	106	146	8	36	**134.00**	255650.2400	**13.5**	183	233	14	45	**281.20**
255650.1000	**7.5**	106	146	8	36	**134.00**	255650.2500	**14**	183	233	14	45	**281.20**
255650.1100	**7.8**	106	146	8	36	**133.00**	255650.2600	**14.5**	207	260	16	48	**355.30**
255650.1200	**8**	106	146	8	36	**134.00**	255650.2700	**15**	207	260	16	48	**355.30**
255650.1300	**8.5**	130	175	10	40	**167.20**	255650.2800	**15.5**	207	260	16	48	**355.30**
255650.1400	**9**	130	175	10	40	**166.30**	255650.2900	**16**	207	260	16	48	**349.60**
255650.1500	**9.5**	130	175	10	40	**164.40**							

FUTURO



255600 Solid carbide twist drill FUTURO

VHM	Ø 3-20	TiAlN-TiN	135°	h7		DIN 6537	12xD	
	P	M	K	N	S	H	O	
	●●	○	●●	○	○			

Properties:
With **4 drill heels** for bores in true alignment.

Application suggestions
Making a cylindrical pilot hole with a drilling depth of at least 1 x D required.

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	l3 mm	Price €
255600.0030	**3**	50	90	6	36	157.00	255600.0900	**8**	108	146	8	36	183.00
255600.0031	**3.1**	50	90	6	36	157.00	255600.0910	**8.1**	120	162	10	40	231.00
255600.0032	**3.2**	50	90	6	36	157.00	255600.0920	**8.2**	120	162	10	40	231.00
255600.0033	**3.3**	50	90	6	36	157.00	255600.0930	**8.3**	120	162	10	40	231.00
255600.0034	**3.4**	50	90	6	36	157.00	255600.0940	**8.4**	120	162	10	40	231.00
255600.0035	**3.5**	50	90	6	36	157.00	255600.1000	**8.5**	120	162	10	40	231.00
255600.0036	**3.6**	50	90	6	36	157.00	255600.1060	**8.6**	120	162	10	40	231.00
255600.0037	**3.7**	50	90	6	36	157.00	255600.1070	**8.7**	120	162	10	40	231.00
255600.0038	**3.8**	64	102	6	36	157.00	255600.1080	**8.8**	120	162	10	40	231.00
255600.0039	**3.9**	64	102	6	36	157.00	255600.1090	**8.9**	120	162	10	40	231.00
255600.0100	**4**	64	102	6	36	157.00	255600.1100	**9**	120	162	10	40	231.00
255600.0110	**4.1**	64	102	6	36	157.00	255600.1110	**9.1**	120	162	10	40	231.00
255600.0120	**4.2**	64	102	6	36	157.00	255600.1120	**9.2**	120	162	10	40	231.00
255600.0130	**4.3**	64	102	6	36	157.00	255600.1130	**9.3**	120	162	10	40	231.00
255600.0140	**4.4**	64	102	6	36	157.00	255600.1140	**9.4**	120	162	10	40	231.00
255600.0200	**4.5**	64	102	6	36	157.00	255600.1200	**9.5**	120	162	10	40	231.00
255600.0260	**4.6**	64	102	6	36	157.00	255600.1260	**9.6**	120	162	10	40	231.00
255600.0270	**4.7**	64	102	6	36	157.00	255600.1270	**9.7**	120	162	10	40	231.00
255600.0280	**4.8**	78	116	6	36	157.00	255600.1280	**9.8**	120	162	10	40	231.00
255600.0290	**4.9**	78	116	6	36	157.00	255600.1290	**9.9**	120	162	10	40	231.00
255600.0300	**5**	78	116	6	36	157.00	255600.1300	**10**	120	162	10	40	231.00
255600.0310	**5.1**	78	116	6	36	157.00	255600.1310	**10.1**	156	204	12	45	306.00
255600.0320	**5.2**	78	116	6	36	157.00	255600.1320	**10.2**	156	204	12	45	306.00
255600.0330	**5.3**	78	116	6	36	157.00	255600.1330	**10.3**	156	204	12	45	306.00
255600.0340	**5.4**	78	116	6	36	157.00	255600.1400	**10.5**	156	204	12	45	306.00
255600.0400	**5.5**	78	116	6	36	157.00	255600.1460	**10.6**	156	204	12	45	306.00
255600.0460	**5.6**	78	116	6	36	157.00	255600.1470	**10.7**	156	204	12	45	306.00
255600.0470	**5.7**	78	116	6	36	157.00	255600.1480	**10.8**	156	204	12	45	306.00
255600.0480	**5.8**	78	116	6	36	157.00	255600.1490	**10.9**	156	204	12	45	306.00
255600.0490	**5.9**	78	116	6	36	157.00	255600.1500	**11**	156	204	12	45	306.00
255600.0500	**6**	78	116	6	36	157.00	255600.1600	**11.5**	156	204	12	45	306.00
255600.0510	**6.1**	108	146	8	36	183.00	255600.1700	**12**	156	204	12	45	306.00
255600.0520	**6.2**	108	146	8	36	183.00	255600.1710	**12.5**	182	230	14	45	380.00
255600.0530	**6.3**	108	146	8	36	183.00	255600.1720	**12.7**	182	230	14	45	380.00
255600.0540	**6.4**	108	146	8	36	183.00	255600.1730	**13**	182	230	14	45	380.00
255600.0600	**6.5**	108	146	8	36	183.00	255600.1740	**13.5**	182	230	14	45	380.00
255600.0660	**6.6**	108	146	8	36	183.00	255600.1750	**14**	182	230	14	45	380.00
255600.0670	**6.7**	108	146	8	36	183.00	255600.1760	**14.5**	208	260	16	48	538.00
255600.0680	**6.8**	108	146	8	36	183.00	255600.1770	**15**	208	260	16	48	538.00
255600.0690	**6.9**	108	146	8	36	183.00	255600.1780	**15.5**	208	260	16	48	538.00
255600.0700	**7**	108	146	8	36	183.00	255600.1790	**16**	208	260	16	48	538.00
255600.0710	**7.1**	108	146	8	36	183.00	255600.1800	**16.5**	234	285	18	48	600.00
255600.0720	**7.2**	108	146	8	36	183.00	255600.1810	**17**	234	285	18	48	600.00
255600.0730	**7.3**	108	146	8	36	183.00	255600.1820	**17.5**	234	285	18	48	600.00
255600.0740	**7.4**	108	146	8	36	183.00	255600.1830	**18**	234	285	18	48	600.00
255600.0800	**7.5**	108	146	8	36	183.00	255600.1840	**18.5**	258	310	20	50	850.00
255600.0860	**7.6**	108	146	8	36	183.00	255600.1850	**19**	258	310	20	50	850.00
255600.0870	**7.7**	108	146	8	36	183.00	255600.1860	**19.5**	258	310	20	50	850.00
255600.0880	**7.8**	108	146	8	36	183.00	255600.1870	**20**	258	310	20	50	850.00
255600.0890	**7.9**	108	146	8	36	183.00							

Pictograms and their meaning – Countersinking

Info page

Application

P ●●	P ○	P	Steel
M ●●	M ○	M	Stainless steel
K ●●	K ○	K	Cast iron
N ●●	N ○	N	Non Ferros Materials
S ●●	S ○	S	Superalloy
H ●●	H ○	H	Hardened steels
0 ●●	0 ○	0	Plastic and others

●● Main application

○ Secondary application

No recommendation

Countersinks

Counterbores

Product characteristics

HSS	VHM		Tool material
TiN	TiAlN	Coated	Coating
≠			Unequal pitch
DIN 334C	DIN 335C		DIN
60°	90°	120°	Countersink angle
1	3		Number of teeth

Cylindrical shank (without flat, HA)

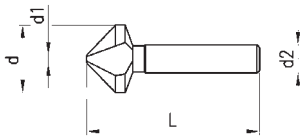
Weldon flat (HB)

Morse taper shank (MC)

Three-surface grind (≥ 4, ≥ 8)

with hexagon socket

NERIOX



276151 Countersink 90° NERIOX

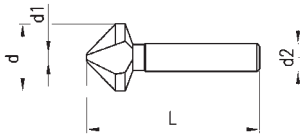
HSS | DIN 335C | 90° | 3

P	M	K	N	S	H	O
○		○	○			

Tolerance d: z9

Order ID	d mm	d1 mm	L mm	d2 mm	Price €
276151.0100	**4.3**	1.3	40	4	**6.60**
276151.0200	**5**	1.5	40	4	**6.60**
276151.0300	**6**	1.5	45	5	**6.90**
276151.0400	**6.3**	1.5	45	5	**6.90**
276151.0500	**7**	1.8	50	6	**7.20**
276151.0600	**8**	2	50	6	**7.20**
276151.0700	**8.3**	2	50	6	**7.20**
276151.0800	**10**	2.5	50	6	**8.90**
276151.0900	**10.4**	2.5	50	6	**8.90**
276151.1000	**11.5**	2.8	55	8	**9.50**
276151.1100	**12.4**	2.8	55	8	**9.50**
276151.1200	**15**	3.2	60	10	**10.90**
276151.1300	**16.5**	3.2	60	10	**10.90**
276151.1400	**19**	3.5	63	10	**16.10**
276151.1500	**20.5**	3.5	63	10	**16.10**
276151.1600	**23**	3.8	65	10	**21.40**
276151.1700	**25**	3.8	65	10	**22.40**
276151.1800	**31**	3.2	70	12	**33.20**

NERIOX



276153 Countersink 90° NERIOX

HSS | TiN | DIN 335C | 90° | 3

P	M	K	N	S	H	O
●●	○	○	○			

Tolerance d: z9

Order ID	d mm	d1 mm	L mm	d2 mm	Price €
276153.0100	**4.3**	1.3	40	4	**12.40**
276153.0200	**5**	1.5	40	4	**12.40**
276153.0300	**6**	1.5	45	5	**12.40**
276153.0400	**6.3**	1.5	45	5	**12.40**
276153.0500	**8**	2	50	6	**14.20**
276153.0600	**8.3**	2	50	6	**14.20**
276153.0700	**10**	2.5	50	6	**16.10**
276153.0800	**10.4**	2.5	50	6	**17.20**
276153.0900	**11.5**	2.8	55	8	**18.10**
276153.1000	**12.4**	2.8	55	8	**18.60**
276153.1100	**15**	3.2	60	10	**21.20**
276153.1200	**16.5**	3.2	60	10	**22.20**
276153.1300	**19**	3.5	63	10	**29.70**
276153.1400	**20.5**	3.5	63	10	**31.40**
276153.1500	**23**	3.8	65	10	**41.20**
276153.1600	**25**	3.8	65	10	**41.60**
276153.1700	**31**	3.2	70	12	**53.80**

Pictograms and their meaning – Reaming

Info page

Application

P ●●	P ○	P	Steel
M ●●	M ○	M	Stainless steel
K ●●	K ○	K	Cast iron
N ●●	N ○	N	Non Ferros Materials
S ●●	S ○	S	Superalloy
H ●●	H ○	H	Hardened steels
0 ●●	0 ○	0	Plastic and others

●● Main application

○ Secondary application

No recommendation

Blind holes

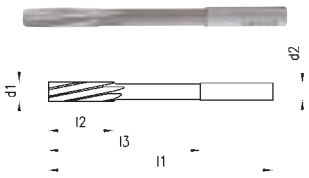
Through holes

Product characteristics

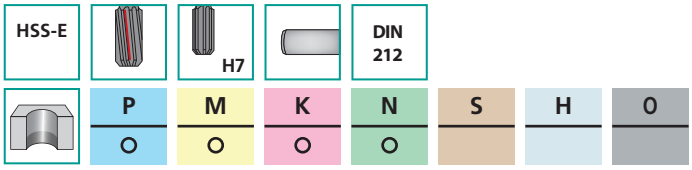
HSS	VHM		Tool material
TiN	TiAlN	Coated	Coating
			Left-twist grooved
			Straight flutes
1:10	1:16	1:50	Taper
DIN 204	DIN 212	DIN 8093	DIN
NORM			Works standard

+/- 0.003	+/- 0.005	H7	Cutting tolerance
			Cylindrical shank (without flat, HA)
			Weldon flat (HB)
			Morse taper shank (MC)
			Cylinder shank with square piece
1-3	3-8	8-10	Number of teeth
			Axial / radial coolant

NERIOX



281760 NC machine reamer NERIOX



Designs:
2 mm...**3 mm**: Lead angle [°]=15 ° / Shank tolerance: h6 / with two-sided centring point
4 mm...**20 mm**: Lead angle [°]=45 ° / Shank tolerance: h6 / without two-sided centring point

Order ID	**d1** mm	l2 mm	l1 mm	l3 mm	d2 mm	**Price €**
281760.0100	**2**	11	49	26	2	**13.30**
281760.0200	**3**	15	61	29	3	**13.30**
281760.0300	**4**	19	75	46	4	**13.30**
281760.0400	**5**	23	86	57	5	**16.60**
281760.0500	**6**	26	93	56	6	**16.60**
281760.0600	**7**	31	109	71	8	**20.60**
281760.0700	**8**	33	117	80	8	**20.60**
281760.0800	**9**	36	125	84	10	**25.00**
281760.0900	**10**	38	133	91	10	**25.00**
281760.1000	**11**	41	142	101	10	**32.90**
281760.1100	**12**	44	151	110	10	**32.90**
281760.1200	**13**	44	151	110	10	**32.90**
281760.1300	**14**	47	160	112	14	**41.30**
281760.1400	**15**	50	162	114	14	**42.50**
281760.1500	**16**	52	170	123	14	**42.50**
281760.1600	**17**	54	175	128	14	**47.50**
281760.1700	**18**	56	182	135	14	**47.50**
281760.1800	**19**	58	189	139	16	**50.00**
281760.1900	**20**	60	195	145	16	**51.30**

Pictograms and their meaning – Thread cutting

Info page

Application

P ●●	P ○	P	Steel
M ●●	M ○	M	Stainless steel
K ●●	K ○	K	Cast iron
N ●●	N ○	N	Non Ferros Materials
S ●●	S ○	S	Superalloy
H ●●	H ○	H	Hardened steels
0 ●●	0 ○	0	Plastic and others

●● Main application

○ Secondary application

No recommendation

	<2.5 x D	Blind holes
	<2.5 x D	Through holes
	<2.5 x D	Through holes and blind holes
N	Z	W	Power class

Product characteristics

HSS-Co	VHM		Tool material
VS	VAP FeO	THL	Coating
M	UNC	TR	Thread norm
RH	LH		Left hand thread Right hand thread
4HX	ISO 2 (6H)	7G	Tolerance field
B 3.5-5.5	D 3.5-5	E 1.5-2	Forme of taper lead

			Cylinder (without flat, HA)
			Weldon flat (HB)
			Morse taper shank (MC)
			Cylinder shank with square piece
			Axial / radial coolant
1-3	3-8	8-10	Number of teeth

NERIOX

264471 Hand tap set NERIOX M3 - M12

Metric ISO thread

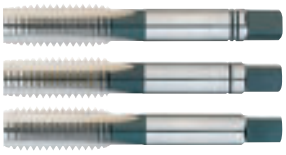
HSS	M	RH	ISO 2 (6H)					
	P	M	K	N	S	H	O
	O	O	O	O			

Content:
3-piece hand tap sets M3; M4; M5; M6; M8; M10; M12 and tapping drills size 2.5; 3.3; 4.2; 5; 6.8; 8.5; 10.2mm.
In a case.

Designs:
reinforced/falling trough shaft, DIN 371 / 376

Order ID	Size	DIN	Price €
264471.0100	**M3 - M12**	352	**135.00**

NERIOX



264381 Tap set NERIOX

Metric ISO thread

HSS	M	RH	ISO 2 (6H)					
	P	M	K	N	S	H	O
	O	O	O	O			

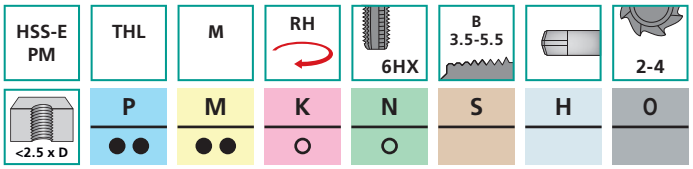
set of 3 pieces, taper, second and bottoming tap
Power class
For general low-carbon steels, free-machining steels, tempered steels, high-alloy steels, cast steel up to 900 N/mm2.
Hole Type: through holes and pocket holes.

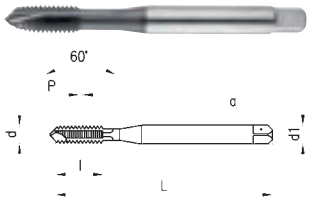
Designs:
M2...M30: falling through shaft, DIN 352

Order ID	d	P mm	L mm	l mm	d1 mm	a mm	Ø mm	Price €
264381.0100	**M2**	0.4	36	8	2.8	2.1	1.6	**13.80**
264381.0200	**M2.5**	0.45	40	9	2.8	2.1	2.05	**13.80**
264381.0300	**M3**	0.5	40	10	3.5	2.7	2.5	**13.80**
264381.0400	**M4**	0.7	45	12	4.5	3.4	3.3	**13.80**
264381.0500	**M5**	0.8	50	14	6	4.9	4.2	**14.10**
264381.0600	**M6**	1	56	16	6	4.9	5	**14.60**
264381.0700	**M8**	1.25	63	20	6	4.9	6.8	**19.10**
264381.0800	**M10**	1.5	70	22	7	5.5	8.5	**24.20**
264381.0900	**M12**	1.75	75	24	9	7	10.2	**30.90**
264381.0950	**M14**	2	80	26	11	9	12	**32.90**
264381.1000	**M16**	2	80	27	12	9	14	**51.60**
264381.1100	**M18**	2.5	95	30	14	11	15.5	**55.50**
264381.1200	**M20**	2.5	95	32	16	12	17.5	**74.80**
264381.1300	**M22**	2.5	95	32	18	14.5	19.5	**125.00**
264381.1400	**M24**	3	110	34	18	14.5	21	**149.00**
264381.1500	**M27**	3	110	36	20	16	24	**179.00**
264381.1600	**M30**	3.5	125	40	22	18	26.5	**245.00**

264100 High-performance tap FUTURO

Metric ISO thread





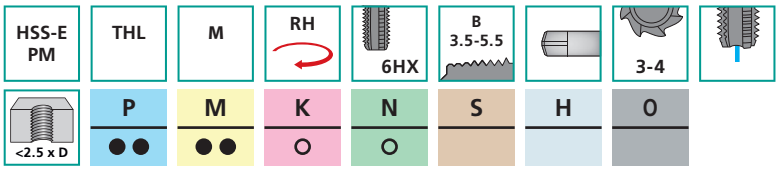
straight grooves, progressive tap
Power class
For alloyed and stainless steels, nodular cast iron, long-chipping cast aluminium and aluminium wrought alloys, and long-chipping copper and brass alloys.

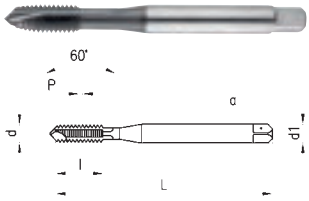
Designs:
M1...M1.4: reinforced shaft, DIN 371, tolerance field 5HX, HSSE
M1.6...M10: reinforced shaft, DIN 371,
M12...M24: falling through shaft, DIN 376,

Order ID	d	P mm	DIN	L mm	l mm	d1 mm	a mm	Ø mm	teeth	Price €
264100.0100	**M1**	0.25	371	40	5.5	2.5	2.1	0.75	2	**39.30**
264100.0200	**M1.2**	0.25	371	40	5.5	2.5	2.1	0.95	2	**39.30**
264100.0300	**M1.4**	0.3	371	40	7	2.5	2.1	1.1	2	**36.70**
264100.0400	**M1.6**	0.35	371	40	8	2.5	2.1	1.25	2	**36.70**
264100.0500	**M1.7**	0.35	371	40	8	2.5	2.1	1.35	2	**36.70**
264100.0600	**M1.8**	0.35	371	40	8	2.5	2.1	1.45	2	**36.70**
264100.0700	**M2**	0.4	371	45	7	2.8	2.1	1.6	3	**34.70**
264100.0800	**M2.5**	0.45	371	50	9	2.8	2.1	2.05	3	**32.60**
264100.0900	**M3**	0.5	371	56	10	3.5	2.7	2.5	3	**26.30**
264100.1000	**M4**	0.7	371	63	12	4.5	3.4	3.3	3	**27.30**
264100.1100	**M5**	0.8	371	70	14	6	4.9	4.2	3	**28.40**
264100.1200	**M6**	1	371	80	16	6	4.9	5	3	**32.60**
264100.1300	**M8**	1.25	371	90	18	8	6.2	6.8	3	**36.70**
264100.1400	**M10**	1.5	371	100	20	10	8	8.5	3	**48.30**
264100.1500	**M12**	1.75	376	110	24	9	7	10.2	4	**58.80**
264100.1600	**M14**	2	376	110	25	11	9	12	4	**68.30**
264100.1700	**M16**	2	376	110	28	12	9	14	4	**77.80**
264100.1800	**M18**	2.5	376	125	32	14	11	15.5	4	**98.30**
264100.1900	**M20**	2.5	376	140	32	16	12	17.5	4	**127.30**
264100.2000	**M24**	3	376	160	36	18	14.5	21	4	**184.70**

264110 High-performance tap FUTURO

Metric ISO thread



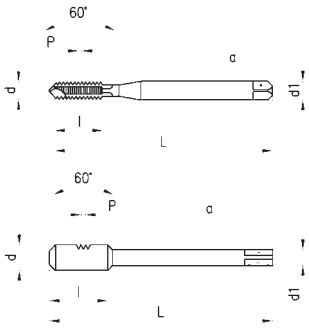


straight grooves, progressive tap
Power class
For alloyed and stainless steels, nodular cast iron, long-chipping cast aluminium and aluminium wrought alloys, and long-chipping copper and brass alloys.

Designs:
M5...M10: reinforced shaft, DIN 371
M12...M16: falling through shaft, DIN 376

Order ID	d	P mm	DIN	L mm	l mm	d1 mm	a mm	Ø mm	teeth	Price €
264110.0100	**M5**	0.8	371	70	14	6	4.9	4.2	3	**76.00**
264110.0200	**M6**	1	371	80	16	6	4.9	5	3	**76.00**
264110.0300	**M8**	1.25	371	90	18	8	6.2	6.8	3	**81.20**
264110.0400	**M10**	1.5	371	100	20	10	8	8.5	3	**86.00**
264110.0500	**M12**	1.75	376	110	24	9	7	10.2	4	**104.50**
264110.0600	**M14**	2	376	110	25	11	9	12	4	**131.10**
264110.0700	**M16**	2	376	110	28	12	9	14	4	**139.70**

NERIOX



264172 Machine tap NERIOX

HSS-E	M	RH	ISO 2 (6H)	B 3.5-5.5		3

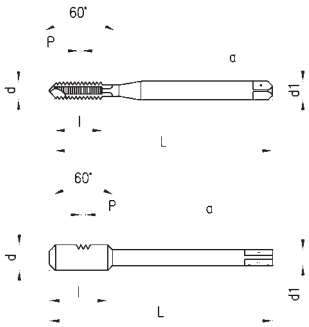
<3 x D	P	M	K	N	S	H	O
	○	○	○	○	○		

straight grooves, progressive tap
Power class
General-purpose cutter suitable for all material categories.

Designs:
M2...M10: **UNI**, reinforced shaft, DIN 371
M12...M16: **UNI**, falling through shaft, DIN 376

Order ID	d	P mm	L mm	d1 mm	l mm	a mm	Ø mm	Price €
264172.0100	**M2**	**0.4**	45	2.8	8	2.1	1.6	**14.20**
264172.0200	**M3**	**0.5**	56	3.5	11	2.7	2.5	**9.40**
264172.0300	**M4**	**0.7**	63	4.5	13	3.4	3.3	**9.40**
264172.0400	**M5**	**0.8**	70	6	15	4.9	4.2	**9.70**
264172.0500	**M6**	**1**	80	6	17	4.9	5	**9.70**
264172.0600	**M8**	**1.25**	90	8	20	6.2	6.8	**12.50**
264172.0700	**M10**	**1.5**	100	10	22	8	8.5	**15.10**
264172.0800	**M12**	**1.75**	110	9	24	7	10.2	**20.30**
264172.0900	**M16**	**2**	110	12	27	9	14	**33.70**

NERIOX



264173 Machine tap NERIOX

HSS-E	TiN	M	RH	ISO 2 (6H)	B 3.5-5.5		3

<3 x D	P	M	K	N	S	H	O
	●●	●●	●●	●●	○		

straight grooves, progressive tap
Power class
General-purpose cutter suitable for all material categories.

Designs:
M2...M10: **UNI**, reinforced shaft, DIN 371
M12...M16: **UNI**, falling through shaft, DIN 376

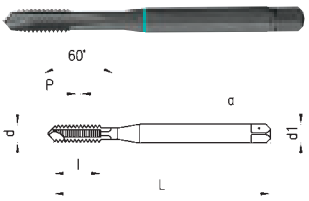
Order ID	d	P mm	L mm	d1 mm	l mm	a mm	Ø mm	Price €
264173.0100	**M2**	**0.4**	45	2.8	8	2.1	1.6	**17.60**
264173.0200	**M3**	**0.5**	56	3.5	11	2.7	2.5	**13.80**
264173.0300	**M4**	**0.7**	63	4.5	13	3.4	3.3	**13.80**
264173.0400	**M5**	**0.8**	70	6	15	4.9	4.2	**14.70**
264173.0500	**M6**	**1**	80	6	17	4.9	5	**16.60**
264173.0600	**M8**	**1.25**	90	8	20	6.2	6.8	**18.50**
264173.0700	**M10**	**1.5**	100	10	22	8	8.5	**25.20**
264173.0800	**M12**	**1.75**	110	9	24	7	10.2	**29.90**
264173.0900	**M16**	**2**	110	12	27	9	14	**43.20**

264181 Machine tap NERIOX

Metric ISO thread

HSS-E	VAP	M	RH	ISO 2 (6H)	B 3.5-5.5	

P	M	K	N	S	H	O
●●	○	○	○			



Type UNI
Power class
Universally applicable.

Designs:
M3...M10: reinforced shaft, DIN 371

Order ID	d	P mm	l mm	L mm	d1 mm	a mm	DIN	Ø mm	Price €
264181.0100	**M3**	0.5	10	56	3.5	2.7	371	2.5	9.50
264181.0200	**M4**	0.7	12	63	4.5	3.4	371	3.3	9.70
264181.0300	**M5**	0.8	14	70	6	4.9	371	4.2	9.70
264181.0400	**M6**	1	16	80	6	4.9	371	5	9.80
264181.0500	**M8**	1.25	18	90	8	6.2	371	6.8	11.30
264181.0600	**M10**	1.5	20	100	10	8	371	8.5	13.60

264186 Machine tap NERIOX

Metric ISO thread

HSS-E	VAP	M	RH	ISO 2 (6H)	B 3.5-5.5	

P	M	K	N	S	H	O
●●	○	○	○			

Type UNI
Power class
Universally applicable.

Designs:
M3...M36: falling through shaft, DIN 376

Order ID	d	P mm	l mm	L mm	d1 mm	a mm	DIN	Ø mm	Price €
264186.0100	**M3**	0.5	10	56	2.2	-	376	2.5	9.70
264186.0200	**M4**	0.7	12	63	2.8	2.1	376	3.3	9.90
264186.0300	**M5**	0.8	14	70	3.5	2.7	376	4.2	9.90
264186.0400	**M6**	1	16	80	4.5	3.4	376	5	10.00
264186.0500	**M8**	1.25	18	90	6	4.9	376	6.8	11.60
264186.0600	**M10**	1.5	20	100	7	5.5	376	8.5	13.90
264186.0700	**M12**	1.75	24	110	9	7	376	10.2	23.10
264186.0800	**M14**	2	26	110	11	9	376	12	33.30
264186.0900	**M16**	2	26	110	12	9	376	14	35.30
264186.1000	**M18**	2.5	30	125	14	11	376	15.5	51.00
264186.1100	**M20**	2.5	32	140	16	12	376	17.5	51.00
264186.1200	**M22**	2.5	32	140	18	14.5	376	19.5	81.20
264186.1300	**M24**	3	36	160	18	14.5	376	21	81.20
264186.1400	**M27**	3	36	160	20	16	376	24	107.60
264186.1500	**M30**	3.5	40	180	22	18	376	26.5	148.60
264186.1600	**M36**	4	50	200	28	22	376	32	240.90

264491 Tap set NERIOX

Metric ISO thread

HSS-E	VAP	M	RH	ISO 2 (6H)	B 3.5-5.5	

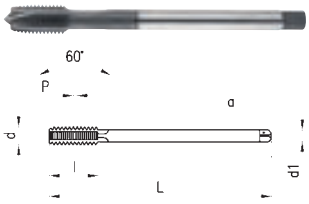
P	M	K	N	S	H	O
●●	○	○	○			

Type UNI
Power class
Universally applicable.

Designs:
reinforced/falling trough shaft, DIN 371 / 376

Order ID	Size	Price €
264491.0100	**M5...M12**	75.00

FUTURO



264390 High-performance tap FUTURO

Metric ISO fine thread

HSS-E PM	THL	MF	RH	6HX	B 3.5-5.5		3-4
<2.5 x D	P	M	K	N	S	H	O
	●●	●●	○	○			

straight grooves, progressive tap

Power class

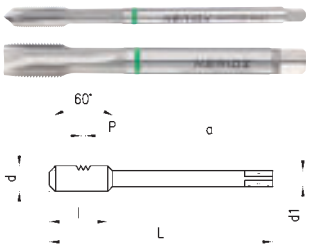
For alloyed and stainless steels, nodular cast iron, long-chipping cast aluminium and aluminium wrought alloys, and long-chipping copper and brass alloys.

Designs:

MF8...MF20: falling through shaft, DIN 374

Order ID	d	P mm	DIN	L mm	l mm	d1 mm	a mm	Ø mm	teeth	Price €
264390.0100	**MF8**	**1**	374	90	16	6	4.9	7	3	**47.50**
264390.0200	**MF10**	**1.25**	374	90	18	7	5.5	9	3	**53.70**
264390.0300	**MF10**	**1**	374	100	18	7	5.5	8.8	3	**55.10**
264390.0400	**MF12**	**1.5**	374	100	22	9	7	11	4	**65.10**
264390.0500	**MF12**	**1.25**	374	100	22	9	7	10.8	4	**65.10**
264390.0600	**MF12**	**1**	374	100	22	9	7	10.5	4	**71.30**
264390.0700	**MF14**	**1.5**	374	100	22	11	9	12.5	4	**85.50**
264390.0800	**MF16**	**1.5**	374	100	22	12	9	14.5	4	**94.10**
264390.0900	**MF18**	**1.5**	374	110	25	14	11	16.5	4	**128.30**
264390.1000	**MF20**	**1.5**	374	125	25	16	12	18.5	4	**169.10**

NERIOX



264176 Machine tap NERIOX

HSS-E	MF	RH	ISO 2 (6H)	B 3.5-5.5		3	
<3 x D	P	M	K	N	S	H	O
	○	○	○	○	○		

straight grooves, progressive tap

Power class

General-purpose cutter suitable for all material categories.

Designs:

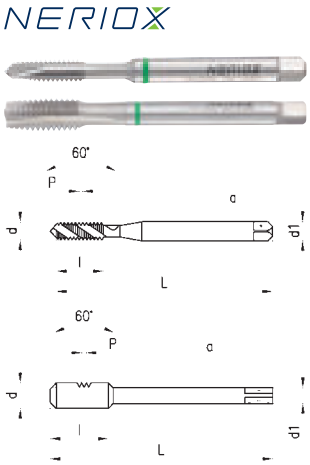
MF4...MF16: **UNI**, falling through shaft, DIN 374

Order ID	d	P mm	L mm	d1 mm	l mm	a mm	Ø mm	Price €
264176.0100	**MF4**	**0.5**	63	2.8	10	2.1	3.5	**16.60**
264176.0200	**MF5**	**0.5**	70	3.5	11	2.7	4.5	**16.60**
264176.0300	**MF6**	**0.5**	80	4.5	13	3.4	5.5	**16.60**
264176.0400	**MF6**	**0.75**	80	4.5	13	3.4	5.2	**16.60**
264176.0500	**MF8**	**1**	90	6	17	4.9	7	**18.10**
264176.0600	**MF10**	**1**	90	7	18	5.5	9	**21.40**
264176.0700	**MF10**	**1.25**	100	7	22	5.5	8.8	**21.40**
264176.0800	**MF12**	**1**	100	9	18	7	11	**24.20**
264176.0900	**MF12**	**1.25**	100	9	22	7	10.8	**25.70**
264176.1000	**MF12**	**1.5**	100	9	22	7	10.5	**23.30**
264176.1100	**MF16**	**1**	100	12	18	9	15	**37.50**
264176.1200	**MF16**	**1.5**	100	12	22	9	14.5	**36.60**

264179 Machine tap NERIOX

HSS-E	UNC	RH	2B	B 3.5-5.5		3

<3 x D	P	M	K	N	S	H	O
	O	O	O	O	O		

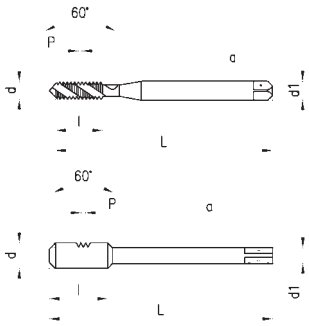


straight grooves, progressive tap
Power class
General-purpose cutter suitable for all material categories.

Designs:
UNC 4-40...UNC 3/8-16: **UNI**, reinforced shaft, DIN 371
UNC 1/2-13: **UNI**, falling through shaft, DIN 376

Order ID	d	P in	L mm	d1 mm	l mm	a mm	Ø mm	Price €
264179.0100	**UNC 4-40**	**40**	56	3.5	11	2.7	2.3	**21.40**
264179.0200	**UNC 5-40**	**40**	56	3.5	11	2.7	2.6	**21.40**
264179.0300	**UNC 6-32**	**32**	56	4	12	3	2.85	**21.40**
264179.0400	**UNC 8-32**	**32**	63	4.5	13	3.4	3.5	**20.40**
264179.0500	**UNC 10-24**	**24**	70	6	15	4.9	3.9	**22.30**
264179.0600	**UNC 1/4-20**	**20**	80	7	17	5.5	5.2	**23.30**
264179.0700	**UNC 5/16-18**	**18**	90	8	20	6.2	6.6	**27.10**
264179.0800	**UNC 3/8-16**	**16**	100	9	22	7	8	**31.80**
264179.0900	**UNC 1/2-13**	**13**	110	9	25	7	10.75	**37.50**

NERIOX



264183 Machine tap NERIOX

HSS-E	UNF	RH	2B	B 3.5-5.5		3

<3 x D	P	M	K	N	S	H	O
	O	O	O	O	O		

straight grooves, progressive tap
Power class
General-purpose cutter suitable for all material categories.

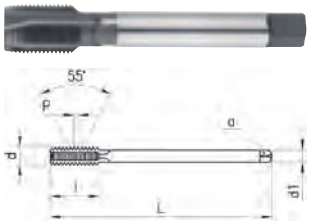
Designs:
UNF 10-32...UNF 3/8-24: **UNI**, reinforced shaft, DIN 371
UNF 7/16-20...UNF 3/4-16: **UNI**, falling through shaft, DIN 376

Order ID	d	P in	L mm	d1 mm	l mm	a mm	Ø mm	Price €
264183.0100	**UNF 10-32**	**32**	70	6	15	4.9	4.1	**26.10**
264183.0200	**UNF 12-28**	**28**	80	6	16	4.9	4.7	**30.90**
264183.0300	**UNF 1/4-28**	**28**	80	7	17	5.5	5.5	**30.90**
264183.0400	**UNF 5/16-24**	**24**	90	8	17	6.2	6.9	**31.80**
264183.0500	**UNF 3/8-24**	**24**	100	9	18	7	8.5	**33.70**
264183.0600	**UNF 7/16-20**	**20**	100	8	22	6.2	9.9	**43.20**
264183.0700	**UNF 1/2-20**	**20**	100	9	22	7	11.5	**43.20**
264183.0800	**UNF 9/16-18**	**18**	100	11	22	9	12.9	**51.80**
264183.0900	**UNF 5/8-18**	**18**	100	12	22	9	14.5	**58.40**
264183.1000	**UNF 3/4-16**	**16**	110	14	25	11	17.5	**75.50**

264460 High-performance tap FUTURO

Pipe thread

HSS-E PM	THL	G	RH	6HX	B 3.5-5.5		3-5
<2.5 x D	P	M	K	N	S	H	O
	●●	●●	○	○			



straight grooves, progressive tap

Power class

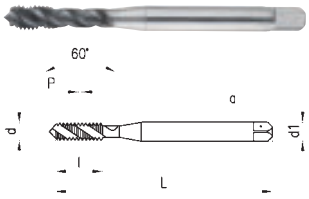
For alloyed and stainless steels, nodular cast iron, long-chipping cast aluminium and aluminium wrought alloys, and long-chipping copper and brass alloys.

Designs:

G 1/8"...G 1": falling through shaft, DIN 5156

Order ID	d	P in	DIN	L mm	l mm	d1 mm	a mm	Ø mm	teeth	Price €
264460.0100	**G 1/8"**	28	5156	90	18	7	5.5	8.8	3	**57.50**
264460.0200	**G 1/4"**	19	5156	100	22	11	9	11.8	4	**80.30**
264460.0300	**G 3/8"**	19	5156	100	22	12	9	15.25	4	**98.80**
264460.0400	**G 1/2"**	14	5156	125	25	16	12	19	4	**157.70**
264460.0500	**G 5/8"**	14	5156	125	25	18	14.5	21	4	**188.10**
264460.0600	**G 3/4"**	14	5156	140	28	20	16	24.5	5	**279.30**
264460.0700	**G 1"**	11	5156	160	30	25	20	30.75	5	**400.90**

FUTURO



264105 High-performance tap FUTURO

Metric ISO thread

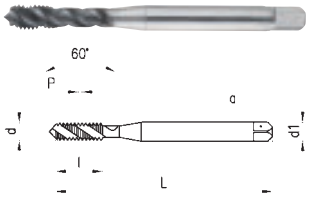
HSS-E PM	THL	M	RH	6HX	C 2-3		3-4
<2.5 x D	P	M	K	N	S	H	O
	●●	●●	○	○			

spiral grooves 45°
Power class
For alloyed and stainless steels, nodular cast iron, long-chipping cast aluminium and aluminium wrought alloys, and long-chipping copper and brass alloys.

Designs:
M2...M10: reinforced shaft, DIN 371
M12...M24: falling through shaft, DIN 376

Order ID	d	P mm	DIN	L mm	l mm	d1 mm	a mm	Ø mm	teeth	Price €
264105.0100	**M2**	0.4	371	45	6	2.8	2.1	1.6	3	**37.20**
264105.0200	**M2.5**	0.45	371	50	6.5	2.8	2.1	2.05	3	**37.20**
264105.0300	**M3**	0.5	371	56	7	3.5	2.7	2.5	3	**29.00**
264105.0400	**M4**	0.7	371	63	8.5	4.5	3.4	3.3	3	**29.00**
264105.0500	**M5**	0.8	371	70	10	6	4.9	4.2	3	**30.10**
264105.0600	**M6**	1	371	80	12	6	4.9	5	3	**35.20**
264105.0700	**M8**	1.25	371	90	14	8	6.2	6.8	3	**39.40**
264105.0800	**M10**	1.5	371	100	17	10	8	8.5	3	**46.60**
264105.0900	**M12**	1.75	376	110	18	9	7	10.2	4	**57.90**
264105.1000	**M14**	2	376	110	20.5	11	9	12	4	**80.50**
264105.1100	**M16**	2	376	110	20.5	12	9	14	4	**91.10**
264105.1200	**M18**	2.5	376	125	25.5	14	11	15.5	4	**129.00**
264105.1300	**M20**	2.5	376	140	25.5	16	12	17.5	4	**149.50**
264105.1400	**M24**	3	376	160	32	18	14.5	21	4	**201.80**

FUTURO



264115 High-performance tap FUTURO

Metric ISO thread

HSS-E PM	THL	M	RH	6HX	C 2-3		3-4	
<2.5 x D	P	M	K	N	S	H	O	
	●●	●●	○	○				

spiral grooves 45°
Power class
For alloyed and stainless steels, nodular cast iron, long-chipping cast aluminium and aluminium wrought alloys, and long-chipping copper and brass alloys.

Designs:
M5...M10: reinforced shaft, DIN 371
M12...M16: falling through shaft, DIN 376

Order ID	d	P mm	DIN	L mm	l mm	d1 mm	a mm	Ø mm	teeth	Price €
264115.0100	**M5**	0.8	371	70	10	6	4.9	4.2	3	**53.10**
264115.0200	**M6**	1	371	80	12	6	4.9	5	3	**53.10**
264115.0300	**M8**	1.25	371	90	14	8	6.2	6.8	3	**60.50**
264115.0400	**M10**	1.5	371	100	17	10	8	8.5	3	**67.70**
264115.0500	**M12**	1.75	376	110	18	9	7	10.2	4	**85.30**
264115.0600	**M14**	2	376	110	20.5	11	9	12	4	**99.00**
264115.0700	**M16**	2	376	110	20.5	12	9	14	4	**109.20**

264120 High-performance tap FUTURO

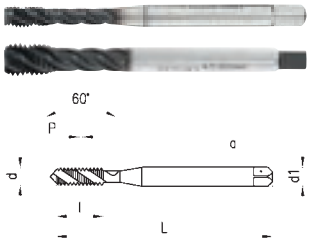
Metric ISO thread

HSS-E PM	THL	M	RH	6HX	E 1.5-2		3-5
<2.5 x D	P	M	K	N	S	H	O
	●●	●●	○	○			

spiral grooves 45°
Power class
For alloyed and stainless steels, nodular cast iron, long-chipping cast aluminium and aluminium wrought alloys, and long-chipping copper and brass alloys.

Designs:
M3...M10: reinforced shaft, DIN 371
M12...M20: falling through shaft, DIN 376

Order ID	d	P mm	DIN	L mm	l mm	d1 mm	a mm	Ø mm	teeth	Price €
264120.0100	**M3**	0.5	371	56	7	3.5	2.7	2.5	3	**33.70**
264120.0200	**M4**	0.7	371	63	8.5	4.5	3.4	3.3	3	**33.70**
264120.0300	**M5**	0.8	371	70	10	6	4.9	4.2	3	**35.80**
264120.0400	**M6**	1	371	80	12	6	4.9	5	3	**36.30**
264120.0500	**M8**	1.25	371	90	14	8	6.2	6.8	3	**46.90**
264120.0600	**M10**	1.5	371	100	17	10	8	8.5	3	**52.70**
264120.0700	**M12**	1.75	376	110	18	9	7	10.2	4	**70.40**
264120.0800	**M14**	2	376	110	20.5	11	9	12	5	**89.00**
264120.0900	**M16**	2	376	110	20.5	12	9	14	5	**104.40**
264120.1000	**M20**	2.5	376	140	25.5	16	12	17.5	5	**178.50**



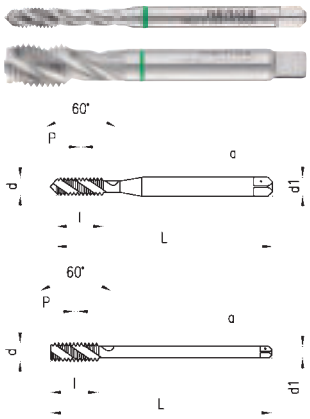
264170 Machine tap NERIOX

HSS-E	M	RH	ISO 2 (6H)	C 2-3		3	
<2.5 x D	P	M	K	N	S	H	O
	○	○	○	○	○		

spiral grooves 40°
Power class
General-purpose cutter suitable for all material categories.

Designs:
M2...M10: **UNI**, reinforced shaft, DIN 371
M12...M16: **UNI**, falling through shaft, DIN 376

Order ID	d	P mm	L mm	d1 mm	l mm	a mm	Ø mm	Price €
264170.0100	**M2**	**0.4**	45	2.8	8	2.1	1.6	**14.20**
264170.0200	**M3**	**0.5**	56	3.5	6	2.7	2.5	**9.70**
264170.0300	**M4**	**0.7**	63	4.5	7	3.4	3.3	**9.70**
264170.0400	**M5**	**0.8**	70	6	8	4.9	4.2	**9.70**
264170.0500	**M6**	**1**	80	6	10	4.9	5	**10.30**
264170.0600	**M8**	**1.25**	90	8	13	6.2	6.8	**12.60**
264170.0700	**M10**	**1.5**	100	10	15	8	8.5	**15.10**
264170.0800	**M12**	**1.75**	110	9	18	7	10.2	**18.80**
264170.0900	**M16**	**2**	110	12	20	9	14	**34.70**



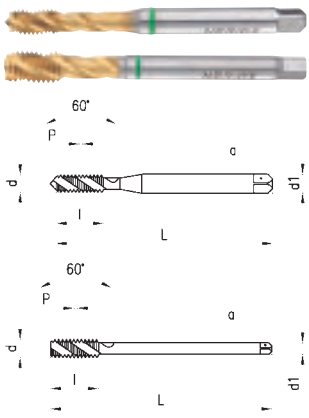
264171 Machine tap NERIOX

HSS-E	TiN	M	RH	ISO 2 (6H)	C 2-3		3	
<2.5 x D	P	M	K	N	S	H	O
	●●	●●	●●	●●	○		

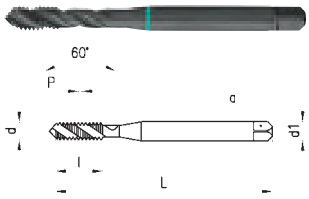
spiral grooves 40°
Power class
General-purpose cutter suitable for all material categories.

Designs:
M2...M10: **UNI**, reinforced shaft, DIN 371
M12...M16: **UNI**, falling through shaft, DIN 376

Order ID	d	P mm	L mm	d1 mm	l mm	a mm	Ø mm	Price €
264171.0100	**M2**	**0.4**	45	2.8	8	2.1	1.6	**17.50**
264171.0200	**M3**	**0.5**	56	3.5	6	2.7	2.5	**12.30**
264171.0300	**M4**	**0.7**	63	4.5	7	3.4	3.3	**12.30**
264171.0400	**M5**	**0.8**	70	6	8	4.9	4.2	**12.90**
264171.0500	**M6**	**1**	80	6	10	4.9	5	**14.80**
264171.0600	**M8**	**1.25**	90	8	13	6.2	6.8	**17.60**
264171.0700	**M10**	**1.5**	100	10	15	8	8.5	**22.30**
264171.0800	**M12**	**1.75**	110	9	18	7	10.2	**28.00**
264171.0900	**M16**	**2**	110	12	20	9	14	**42.30**



NERIOX



264191 Machine tap NERIOX

Metric ISO thread

HSS-E	VAP	M	RH	ISO 2 (6H)	C 2-3	

	P	M	K	N	S	H	O
	●●	○	○	○			

Type UNI
Power class
Universally applicable.

Designs:
M3...M10: reinforced shaft, DIN 371

Order ID	d	P mm	l mm	L mm	d1 mm	a mm	DIN	Ø mm	Price €
264191.0100	**M3**	0.5	6	56	3,5	2.7	371	2.5	10.50
264191.0200	**M4**	0.7	7.5	63	4,5	3.4	371	3.3	10.50
264191.0300	**M5**	0.8	8.5	70	6	4.9	371	4.2	11.00
264191.0400	**M6**	1	11	80	6	4.9	371	5	11.40
264191.0500	**M8**	1.25	14	90	8	6.2	371	6.8	13.30
264191.0600	**M10**	1.5	16	100	10	8	371	8.5	15.30

NERIOX

264496 Tap set NERIOX

Metric ISO thread

HSS-E	VAP	M	RH	ISO 2 (6H)	B 3.5-5.5	

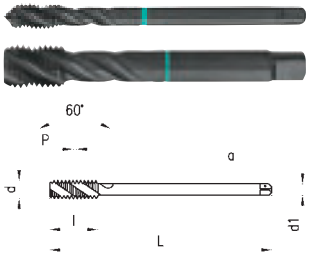
	P	M	K	N	S	H	O
	●●	○	○	○			

Type UNI
Power class
Universally applicable.

Designs:
reinforced/falling trough shaft, DIN 371 / 376

Order ID	Size	Price €
264496.0100	**M5...M12**	75.00

NERIOX



264196 Machine tap NERIOX

Metric ISO thread

HSS-E	VAP	M	RH	ISO 2 (6H)	C 2-3	

	P	M	K	N	S	H	O
	●●	○	○	○			

Type UNI
Power class
Universally applicable.

Designs:
M3...M36: falling through shaft, DIN 376

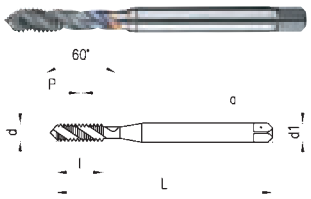
Order ID	d	P mm	l mm	L mm	d1 mm	a mm	DIN	Ø mm	Price €
264196.0100	**M3**	0.5	6	56	2.2	-	376	2.5	13.50
264196.0200	**M4**	0.7	7.5	63	2.8	2.1	376	3.3	10.50
264196.0300	**M5**	0.8	8.5	70	3.5	2.7	376	4.2	10.50
264196.0400	**M6**	1	11	80	4.5	3.4	376	5	10.90
264196.0500	**M8**	1.25	14	90	6	4.9	376	6.8	12.70
264196.0600	**M10**	1.5	16	100	7	5.5	376	8.5	14.60
264196.0700	**M12**	1.75	18.5	110	9	7	376	10.2	22.50
264196.0800	**M14**	2	20	110	11	9	376	12	32.50
264196.0900	**M16**	2	20	110	12	9	376	14	38.10
264196.1000	**M18**	2.5	25	125	14	11	376	15.5	55.00
264196.1100	**M20**	2.5	25	140	16	12	376	17.5	55.00
264196.1200	**M22**	2.5	27	140	18	14.5	376	19.5	86.80
264196.1300	**M24**	3	30	160	18	14.5	376	21	86.80
264196.1400	**M27**	3	30	160	20	16	376	24	125.00
264196.1500	**M30**	3.5	35	180	22	18	376	26.5	159.00
264196.1600	**M36**	4	40	200	28	22	376	32	245.00

264540 Tap FUTURO

Metric ISO thread

HSS-E	TiCN	M	RH	ISO 2 (6H)	C 2-3	

	P	M	K	N	S	H	O
	●●	●●	○	○	○		



spiral grooves 40°
Power class
For general purpose use. For synchronous and conventional tapping.

Designs:
M3...M10: reinforced shaft, DIN 371
M12...M24: falling through shaft, DIN 376

Order ID	d	P mm	DIN	L mm	l mm	d1 mm	a mm	Ø mm	Price €
264540.0100	**M3**	0.5	371	56	6	3.5	2.7	2.5	**30.60**
264540.0200	**M4**	0.7	371	63	7.5	4.5	3.4	3.3	**30.40**
264540.0300	**M5**	0.8	371	70	8.5	6	4.9	4.2	**32.90**
264540.0400	**M6**	1	371	80	11	6	4.9	5	**32.90**
264540.0500	**M8**	1.25	371	90	14	8	6.2	6.8	**51.30**
264540.0600	**M10**	1.5	371	100	16	10	8	8.5	**60.30**
264540.0700	**M12**	1.75	376	110	18.5	9	7	10.2	**47.30**
264540.0800	**M14**	2	376	110	20	11	9	12	**60.30**
264540.0900	**M16**	2	376	110	20	12	9	14	**65.10**
264540.1000	**M18**	2.5	376	125	25	14	11	15.5	**98.80**
264540.1100	**M20**	2.5	376	140	25	16	12	17.5	**96.40**
264540.1200	**M22**	2.5	376	140	27	18	14.5	19.5	**118.80**
264540.1300	**M24**	3	376	160	30	18	14.5	21	**119.20**

264472 Tap set NERIOX M3 - M12

Metric ISO thread

HSS	M	RH	ISO 2 (6H)	

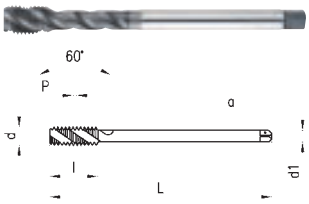
	P	M	K	N	S	H	O
	○		○				

Content:
1 tap in each size M3; M4; M5; M6; M8; M10; M12
and tapping drills size 2.5; 3.3; 4.2; 5; 6.8; 8.5; 10.2mm.
In a case.

Designs:
reinforced/falling trough shaft, DIN 371 / 376

Order ID	Size	Standard	Price €
264472.0100	**M3 - M12**	DIN 371 / DIN 376	**89.00**

FUTURO



264395 High-performance tap FUTURO

Metric ISO fine thread

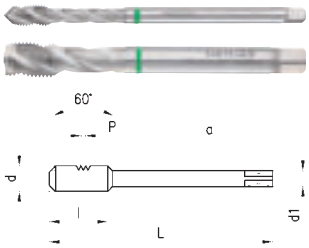
HSS-E PM	THL	MF	RH	6HX	C 2-3		3-4
<2.5 x D	P	M	K	N	S	H	O
	●●	●●	○	○			

spiral grooves 45°
Power class
For alloyed and stainless steels, nodular cast iron, long-chipping cast aluminium and aluminium wrought alloys, and long-chipping copper and brass alloys.

Designs:
MF8...MF20: falling through shaft, DIN 374

Order ID	d	P mm	DIN	L mm	l mm	d1 mm	a mm	Ø mm	teeth	Price €
264395.0100	**MF8**	**1**	374	90	12	6	4.9	7	3	**55.10**
264395.0200	**MF10**	**1.25**	374	90	12	7	5.5	9	3	**61.80**
264395.0300	**MF10**	**1**	374	90	14	7	5.5	8.8	3	**63.20**
264395.0400	**MF12**	**1.5**	374	100	14	9	7	11	4	**75.10**
264395.0500	**MF12**	**1.25**	374	100	14	9	7	10.8	4	**75.10**
264395.0600	**MF12**	**1**	374	100	1516	9	7	10.5	4	**81.20**
264395.0700	**MF14**	**1.5**	374	100	16	11	9	12.5	4	**98.80**
264395.0800	**MF16**	**1.5**	374	100	12.5	12	9	14.5	4	**109.30**
264395.0900	**MF18**	**1.5**	374	110	18	14	11	16.5	4	**139.70**
264395.1000	**MF20**	**1.5**	374	125	18	16	12	18.5	4	**181.50**

NERIOX



264174 Machine tap NERIOX

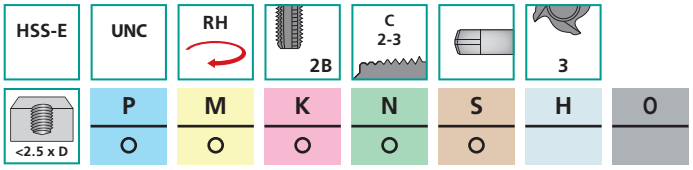
HSS-E	MF	RH	ISO 2 (6H)	C 2-3		3	
<2.5 x D	P	M	K	N	S	H	O
	○	○	○	○	○		

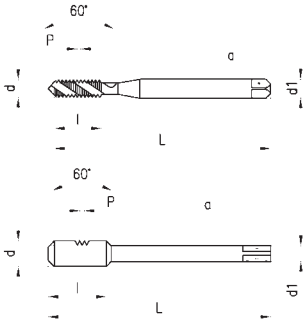
spiral grooves 40°
Power class
General-purpose cutter suitable for all material categories.

Designs:
MF4...MF16: **UNI**, falling through shaft, DIN 374

Order ID	d	P mm	L mm	d1 mm	l mm	a mm	Ø mm	Price €
264174.0100	**MF4**	**0.5**	63	2.8	5	2.1	3.5	**18.60**
264174.0200	**MF5**	**0.5**	70	3.5	5	2.7	4.5	**18.50**
264174.0300	**MF6**	**0.5**	80	4.5	8	3.4	5.5	**18.50**
264174.0400	**MF6**	**0.75**	80	4.5	8	3.4	5.2	**18.50**
264174.0500	**MF8**	**1**	90	6	10	4.9	7	**20.90**
264174.0600	**MF10**	**1**	90	7	10	5.5	9	**24.20**
264174.0700	**MF10**	**1.25**	100	7	16	5.5	8.8	**25.20**
264174.0800	**MF12**	**1**	100	9	11	7	11	**28.00**
264174.0900	**MF12**	**1.25**	100	9	15	7	10.8	**29.50**
264174.1000	**MF12**	**1.5**	100	9	15	7	10.5	**28.00**
264174.1100	**MF16**	**1**	100	12	12	9	15	**45.10**
264174.1200	**MF16**	**1.5**	100	12	15	9	14.5	**45.10**

264178 Machine tap NERIOX



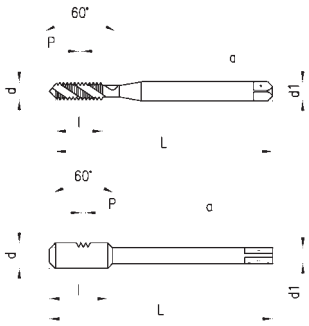


spiral grooves 40°
Power class
General-purpose cutter suitable for all material categories.

Designs:
UNC 4-40...UNC 3/8-16: **UNI**, reinforced shaft, DIN 371
UNC 1/2-13: **UNI**, falling through shaft, DIN 376

Order ID	d	P in	L mm	d1 mm	l mm	a mm	Ø mm	Price €
264178.0100	**UNC 4-40**	**40**	56	3.5	6	2.7	2.3	**17.60**
264178.0200	**UNC 5-40**	**40**	56	3.5	7	2.7	2.6	**17.60**
264178.0300	**UNC 6-32**	**32**	56	4	7	3	2.85	**17.60**
264178.0400	**UNC 8-32**	**32**	63	4.5	8	3.4	3.5	**17.60**
264178.0500	**UNC 10-24**	**24**	70	6	10	4.9	3.9	**18.50**
264178.0600	**UNC 1/4-20**	**20**	80	7	13	5.5	5.2	**17.60**
264178.0700	**UNC 5/16-18**	**18**	90	8	14	6.2	6.6	**21.40**
264178.0800	**UNC 3/8-16**	**16**	100	9	16	7	8	**26.10**
264178.0900	**UNC 1/2-13**	**13**	110	9	20	7	10.75	**33.70**

NERIOX



264182 Machine tap NERIOX

HSS-E	UNF	RH	2B	C 2-3		3

<2.5 x D	P	M	K	N	S	H	O
	O	O	O	O	O		

spiral grooves 40°
Power class
General-purpose cutter suitable for all material categories.

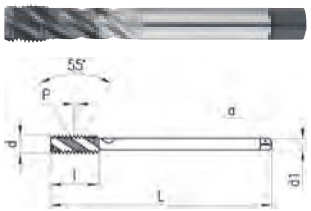
Designs:
UNF 10-32...UNF 3/8-24: **UNI**, reinforced shaft, DIN 371
UNF 7/16-20...UNF 3/4-16: **UNI**, falling through shaft, DIN 376

Order ID	d	P in	L mm	d1 mm	l mm	a mm	Ø mm	Price €
264182.0100	**UNF 10-32**	**32**	70	6	10	4.9	4.1	**23.30**
264182.0200	**UNF 12-28**	**28**	80	6	10	4.9	4.7	**25.20**
264182.0300	**UNF 1/4-28**	**28**	80	7	10	5.5	5.5	**25.20**
264182.0400	**UNF 5/16-24**	**24**	90	8	10	6.2	6.9	**27.10**
264182.0500	**UNF 3/8-24**	**24**	100	9	10	7	8.5	**29.50**
264182.0600	**UNF 7/16-20**	**20**	100	8	13	6.2	9.9	**36.60**
264182.0700	**UNF 1/2-20**	**20**	100	9	13	7	11.5	**36.60**
264182.0800	**UNF 9/16-18**	**18**	100	11	15	9	12.9	**53.70**
264182.0900	**UNF 5/8-18**	**18**	100	12	15	9	14.5	**51.30**
264182.1000	**UNF 3/4-16**	**16**	110	14	17	11	17.5	**70.30**

264465 High-performance tap FUTURO

Pipe thread

HSS-E PM	THL	G	RH	6HX	C 2-3		3-5
<2.5 x D	P	M	K	N	S	H	O
	●●	●●	○	○			



spiral grooves 45°

Power class

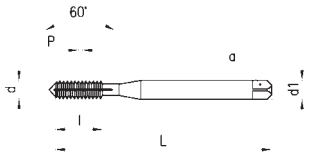
For alloyed and stainless steels, nodular cast iron, long-chipping cast aluminium and aluminium wrought alloys, and long-chipping copper and brass alloys.

Designs:

G 1/8"...G 1": falling through shaft, DIN 5156

Order ID	d	P in	DIN	L mm	l mm	d1 mm	a mm	Ø mm	teeth	Price €
264465.0100	**G 1/8"**	28	5156	90	13	7	5.5	8.8	3	**58.00**
264465.0200	**G 1/4"**	19	5156	100	16	11	9	11.8	4	**81.20**
264465.0300	**G 3/8"**	19	5156	100	16.5	12	9	15.25	4	**99.80**
264465.0400	**G 1/2"**	14	5156	125	20.5	16	12	19	4	**159.60**
264465.0500	**G 5/8"**	14	5156	125	20.5	18	14.5	21	4	**190.00**
264465.0600	**G 3/4"**	14	5156	140	21.5	20	16	24.5	5	**281.20**
264465.0700	**G 1"**	11	5156	160	25.5	25	20	30.75	5	**404.70**

FUTURO



264370 Roll form tap FUTURO

Metric ISO thread

HSS-E | TiCN | M | RH | 6HX | C 2-3

P	M	K	N	S	H	O
●●	●●		○	○		

straight grooves and lubricating groove

Designs:
M3...M10: reinforced shaft, DIN ~371
M12...M16: falling through shaft, DIN ~376

Order ID	d	P mm	DIN	L mm	l mm	d1 mm	a mm	Ø mm	Price €
264370.0100	**M3**	0.5	371	56	10	3.5	2.7	2.8	**20.30**
264370.0200	**M4**	0.7	371	63	12	4.5	3.4	3.7	**24.60**
264370.0300	**M5**	0.8	371	70	14	6	4.9	4.65	**27.40**
264370.0400	**M6**	1	371	80	16	6	4.9	5.55	**27.90**
264370.0500	**M8**	1.25	371	90	18	8	6.2	7.4	**33.50**
264370.0600	**M10**	1.5	371	100	20	10	8	9.25	**40.60**
264370.0700	**M12**	1.75	376	110	24	9	7	11.25	**57.50**
264370.0800	**M16**	2	376	110	26	12	9	15.1	**80.60**

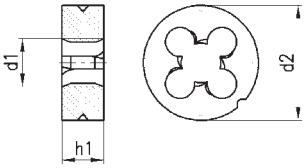
265012 Threading die NERIOX

Metric ISO thread

HSS	M	6g

P	M	K	N	S	H	O
●●			○			

two-sided start and spiral entry



Order ID	d1 mm	P mm	d2 mm	h1 mm	Price €
265012.0100	**M 3**	0.5	20	5	**11.30**
265012.0200	**M 4**	0.7	20	5	**11.30**
265012.0300	**M 5**	0.8	20	7	**11.30**
265012.0400	**M 6**	1	20	7	**11.30**
265012.0500	**M 7**	1	25	9	**13.30**
265012.0600	**M 8**	1.25	25	9	**12.30**
265012.0700	**M 9**	1.25	25	9	**16.90**
265012.0800	**M 10**	1.5	30	11	**15.90**
265012.0900	**M 12**	1.75	38	14	**19.50**
265012.1000	**M 14**	2	38	18	**19.50**
265012.1100	**M 16**	2	45	18	**26.10**
265012.1200	**M 18**	2.5	45	18	**28.20**
265012.1300	**M 20**	2.5	45	18	**31.80**
265012.1400	**M 22**	2.5	55	22	**42.00**
265012.1500	**M 24**	3	55	25	**44.60**
265012.1600	**M 27**	3	65	25	**92.30**
265012.1700	**M 30**	3.5	65	25	**96.90**

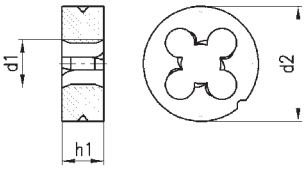
265013 Threading die NERIOX

Metric ISO thread

HSS-E	NIT	M	6g

P	M	K	N	S	H	O
	●●			○		

Type VA two-sided start and spiral entry



Order ID	d1 mm	P mm	d2 mm	h1 mm	Price €
265013.0100	**M 3**	0.5	20	5	**25.10**
265013.0200	**M 4**	0.7	20	5	**24.60**
265013.0300	**M 5**	0.8	20	7	**23.60**
265013.0400	**M 6**	1	20	7	**23.60**
265013.0500	**M 7**	1	25	9	**28.70**
265013.0600	**M 8**	1.25	25	9	**27.20**
265013.0800	**M 10**	1.5	30	11	**31.80**
265013.0900	**M 12**	1.75	38	14	**43.10**
265013.1000	**M 14**	2	38	18	**47.70**
265013.1100	**M 16**	2	45	18	**57.40**
265013.1300	**M 20**	2.5	45	18	**64.10**
265013.1500	**M 24**	3	55	25	**96.90**
265013.1600	**M 27**	3	65	25	**169.10**
265013.1700	**M 30**	3.5	65	25	**179.40**

265112 Die set NERIOX M3-M12 HSS

Metric ISO thread

HSS	M	6g

P	M	K	N	S	H	O
●●			○			

Die set HSS, 7-piece (M3–M12) in a case.

Order ID	Size	Price €
265112.0100	**M3-M12**	**105.00**

NERIOX

265113 Die set NERIOX M3-M12 HSS-E

Metric ISO thread

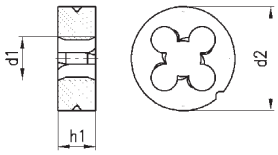
HSS-E	NIT	M	6g

P	M	K	N	S	H	O
	●●			○		

Die set HSS-E, 7-piece (M3–M12) in a case.

Order ID	Size	Price €
265113.0100	M3-M12	179.00

NERIOX



265101 Threading die NERIOX

Metric ISO fine thread

HSS	MF	6g

P	M	K	N	S	H	O
●●			○			

Order ID	d1 mm	P mm	d2 mm	h1 mm	Price €
265101.0100	MF 4	0.5	20	5	25.60
265101.0200	MF 5	0.5	20	5	25.60
265101.0300	MF 6	0.5	20	5	25.60
265101.0400	MF 6	0.75	20	7	20.50
265101.0500	MF 7	0.75	25	9	28.70
265101.0600	MF 8	0.5	25	9	34.30
265101.0700	MF 8	0.75	25	9	21.50
265101.0800	MF 8	1	25	9	22.00
265101.0900	MF 9	1	25	9	28.70
265101.1000	MF 10	0.75	30	11	35.40
265101.1100	MF 10	1	30	11	27.20
265101.1200	MF 10	1.25	30	11	27.20
265101.1300	MF 11	1	30	11	34.30
265101.1400	MF 12	1	38	10	34.30
265101.1500	MF 12	1.25	38	10	35.40
265101.1600	MF 12	1.5	38	10	32.30
265101.1700	MF 14	1	38	10	32.80
265101.1800	MF 14	1.25	38	10	32.80
265101.1900	MF 14	1.5	38	10	31.80
265101.2000	MF 15	1	38	10	45.60
265101.2100	MF 16	1	45	14	61.50
265101.2200	MF 16	1.5	45	14	44.10
265101.2300	MF 18	1	45	14	61.50
265101.2400	MF 18	1.5	45	14	44.10
265101.2500	MF 20	1	45	14	61.50
265101.2600	MF 20	1.5	45	14	44.10
265101.2700	MF 22	1	55	16	81.00
265101.2800	MF 22	1.5	55	16	61.00
265101.2900	MF 24	1	55	16	81.50
265101.3000	MF 24	1.5	55	16	61.00
265101.3100	MF 24	2	55	16	80.00
265101.3200	MF 25	1.5	55	16	86.10
265101.3300	MF 26	1.5	55	16	69.20
265101.3400	MF 27	1.5	65	18	107.60
265101.3500	MF 27	2	65	18	117.90
265101.3600	MF 28	1.5	65	18	87.10
265101.3700	MF 30	1	65	18	117.90
265101.3800	MF 30	1.5	65	18	87.10
265101.3900	MF 30	2	65	18	117.90

Pictograms and their meaning – Milling

Info page

Application

P ●●	P ○	P	Steel
M ●●	M ○	M	Stainless steel
K ●●	K ○	K	Cast iron
N ●●	N ○	N	Non Ferros Materials
S ●●	S ○	S	Superalloy
H ●●	H ○	H	Hardened steels
0 ●●	0 ○	0	Plastic and others

●● Main application

○ Secondary application

No recommendation

Shoulder Milling

Shoulder- / Slot Milling

Copy Milling

Profile Milling

Dynamic Milling

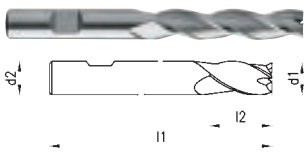
Circle Segment Milling

Product characteristics

HSS-Co	VHM		Tool material
AlTiN	CrN	TiAlN	Coating
polished			Polished flutes
45°	140°/120°		Helix Angle / Uneven Helix Angle
e8			Tolerance
			Length
			Machining direction
			240° cutting / centre cut
≠			Unequal pitch

h6			Cylindrical shank (without flat, HA) / shank tolerance
h6			Weldon flat (HB) / shank tolerance
h6			Morse taper shank (MC) / shank tolerance
			Protection chamfer / sharp cutting edge
			With corner radius
			Axial / radial coolant
1-3	3-8	8-10	Number of teeth
HSC	HPC		HSC / HPC

NERIOX



216241 HSS shoulder milling cutters NERIOX

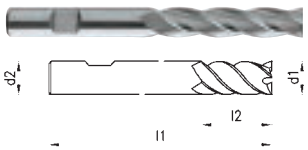
HSS-E Co8 | Ø 3-25 | 30° | e8 | h6 | DIN 844L | 3

P	M	K	N	S	H	O
○		○	○			

Type N

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
216241.0100	**3**	12	6	56	**14.00**
216241.0200	**4**	19	6	63	**14.00**
216241.0300	**5**	24	6	68	**14.00**
216241.0400	**6**	24	6	68	**14.00**
216241.0600	**8**	38	10	88	**19.20**
216241.0700	**10**	45	10	95	**19.20**
216241.0800	**12**	53	12	110	**25.40**
216241.1000	**16**	63	16	123	**35.90**
216241.1200	**20**	75	20	141	**52.50**

NERIOX



216061 HSS shoulder milling cutters NERIOX

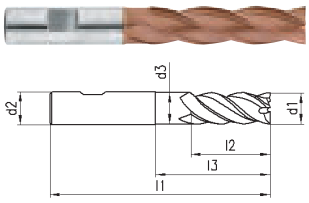
HSS-E Co8 | Ø 3-20 | 30° | 0 / +0.05 | h6 | DIN 844 | 4

P	M	K	N	S	H	O
○		○	○			

Type N, 2 teeth to the centre

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
216061.0100	**3**	12	6	56	**13.60**
216061.0200	**4**	19	6	63	**13.60**
216061.0300	**5**	24	6	68	**13.60**
216061.0400	**6**	24	6	68	**13.60**
216061.0600	**8**	38	10	88	**18.80**
216061.0700	**10**	45	10	95	**18.80**
216061.0800	**12**	53	12	110	**26.40**
216061.1000	**16**	63	16	123	**36.70**
216061.1200	**20**	75	20	141	**53.80**

FUTURO



216015 HSS shoulder milling cutters FUTURO

HSS-E PM | Ø 6-25 | TiAlCN | 30° | k10 | h6 | DIN 844 | 4-6

P	M	K	N	S	H	O
●●	●●	○		●●		

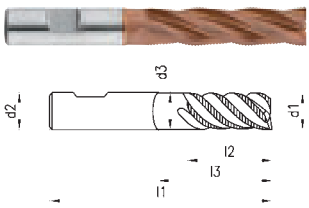
Type N

Order ID	d1 mm	l2 mm	l3 mm	d3 mm	d2 mm	l1 mm	teeth	Price €
216015.0100	**6**	24	31	5.7	6	68	4	**25.60**
216015.0200	**8**	38	-	-	10	88	4	**33.70**
216015.0300	**10**	45	54	9.7	10	95	4	**36.40**
216015.0400	**12**	53	64	11.5	12	110	4	**47.30**
216015.0500	**16**	63	74	15.5	16	123	4	**67.50**
216015.0600	**18**	63	74	15.5	16	123	4	**83.30**
216015.0700	**20**	75	90	19.5	20	141	4	**96.30**
216015.0800	**25**	90	109	24	25	166	6	**170.10**

216347 HSS shoulder milling cutters FUTURO

HSS-E PM | Ø 6-32 | TiAlCN | 30° | k12 | h6 | DIN 844 | 4-6

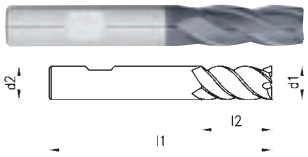
P	M	K	N	S	H	O
●●	●●	○		●●		



Type NRF

Order ID	d1 mm	l2 mm	l3 mm	d3 mm	d2 mm	l1 mm	teeth	Price €
216347.0100	**6**	24	28	5.7	6	68	4	**59.40**
216347.0200	**8**	38	-	-	10	88	4	**61.70**
216347.0300	**10**	45	54	9.7	10	95	4	**55.80**
216347.0400	**12**	53	64	11.5	12	110	4	**70.20**
216347.0500	**14**	53	-	-	12	110	4	**80.60**
216347.0600	**16**	63	74	15.5	16	123	4	**99.00**
216347.0700	**18**	63	-	-	16	123	4	**111.60**
216347.0800	**20**	75	90	19.5	20	141	4	**143.10**
216347.0900	**25**	90	109	24	25	166	5	**219.60**
216347.1000	**32**	106	125	31	32	186	6	**311.40**

FUTURO



216020 HSS shoulder milling cutters FUTURO

HSS-PM | Ø 2-25 | TiAlN | 30° | 0 / +0.03 | h6 | DIN 844 | 4 | HPC

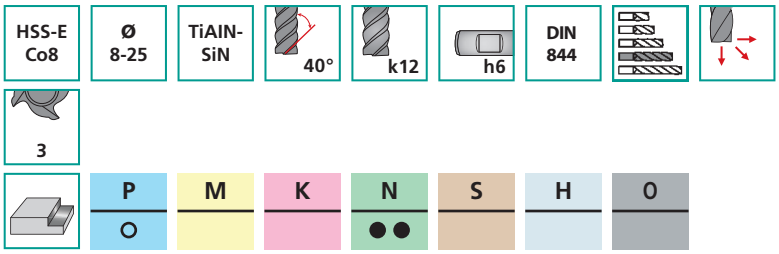
P	M	K	N	S	H	O
●●	○	○				

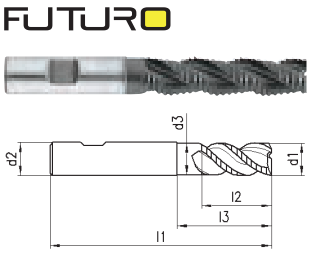
Type N-HPC, ASP 60

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
216020.0100	**2**	7	6	51	**19.30**
216020.0200	**3**	8	6	52	**19.30**
216020.0300	**4**	11	6	55	**19.30**
216020.0400	**5**	13	6	57	**19.30**
216020.0500	**6**	13	6	57	**19.30**
216020.0700	**8**	19	10	69	**27.40**
216020.1000	**12**	26	12	83	**35.20**
216020.1100	**14**	26	12	83	**52.70**
216020.1200	**16**	32	16	92	**57.30**
216020.1400	**20**	38	20	104	**73.50**
216020.1500	**22**	38	20	104	**118.70**
216020.1600	**25**	45	25	121	**126.00**

216304 HSS shoulder milling cutters FUTURO

Aluminium

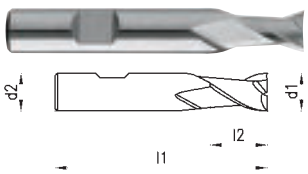




Type WR

Order ID	d1 mm	l2 mm	l3 mm	d3 mm	d2 mm	l1 mm	Price €
216304.0100	**8**	38	-	-	10	88	**53.60**
216304.0200	**10**	45	54	9.7	10	95	**57.20**
216304.0300	**12**	53	64	11.5	12	110	**63.90**
216304.0400	**14**	53	64	11.5	12	110	**69.80**
216304.0500	**16**	63	74	15.5	16	123	**84.20**
216304.0600	**18**	63	74	15.5	16	123	**94.50**
216304.0700	**20**	75	90	19.5	20	141	**105.30**
216304.0800	**25**	90	109	24	25	166	**153.90**

NERIOX



216261 HSS shoulder/ slot milling cutters NERIOX

HSS-E Co8 | Ø 1-9.5 | 30° | e8 | h6 | DIN 327

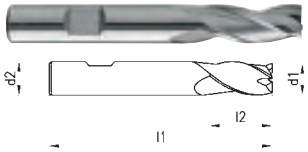
2

P	M	K	N	S	H	O
O		O	O			

Type N

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
216261.0100	1	2.5	6	47	11.80
216261.0200	1.5	3	6	47	11.50
216261.0300	2	4	6	48	8.60
216261.0400	2.5	5	6	49	8.60
216261.0500	3	5	6	49	6.70
216261.0600	3.5	6	6	50	8.60
216261.0700	4	7	6	51	6.70
216261.0800	4.5	7	6	51	8.60
216261.0900	4.8	8	6	52	8.60
216261.1000	5	8	6	52	6.90
216261.1100	5.5	8	6	52	8.60
216261.1300	6	8	6	52	6.90
216261.1400	6.5	10	10	60	10.20
216261.1500	7	10	10	60	10.20
216261.1600	7.5	10	10	60	10.20
216261.1800	8	11	10	61	9.20
216261.2000	9	11	10	61	12.40
216261.2200	10	13	10	63	10.20
216261.2300	11	13	12	70	16.50
216261.2400	12	16	12	73	14.60
216261.2500	14	16	12	73	19.50
216261.2600	15	16	12	73	23.40
216261.2700	16	19	16	79	23.60
216261.2800	18	19	16	79	28.30
216261.2900	20	22	20	88	32.70

NERIOX



216221 HSS shoulder/ slot milling cutters NERIOX

HSS-E Co8 | Ø 1.5-25 | 30° | e8 | h6 | DIN 844K

3

P	M	K	N	S	H	O
O		O	O			

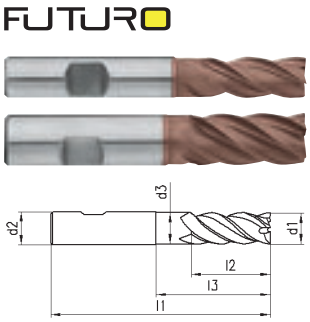
Type N

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
216221.0100	1.5	7	6	51	11.90
216221.0200	2	7	6	51	11.90
216221.0300	2.5	8	6	52	11.90
216221.0400	3	8	6	52	10.80
216221.0500	3.5	10	6	54	11.30
216221.0600	4	11	6	55	11.30
216221.0700	4.5	11	6	55	11.60
216221.0800	5	13	6	57	11.60
216221.0900	5.5	13	6	57	11.60
216221.1000	6	13	6	57	11.60
216221.1100	6.5	16	10	66	11.60
216221.1200	7	16	10	66	14.20
216221.1300	7.5	16	10	66	14.20
216221.1400	8	19	10	69	14.20
216221.1500	8.5	19	10	69	14.20
216221.1600	9	19	10	69	17.70
216221.1700	10	22	10	72	16.40
216221.1800	12	26	12	83	18.90
216221.1900	14	26	12	83	25.50
216221.2000	16	32	16	92	27.40
216221.2100	18	32	16	92	34.50
216221.2200	20	38	20	104	43.00

216010 HSS shoulder/ slot milling cutters FUTURO

HSS-E CoPM | Ø 6-25 | TiAlCN | 35°/38° | k10 | h6 | DIN 844 | 4-6 | HPC

P	M	K	N	S	H	O
●●	●●	○		●●		



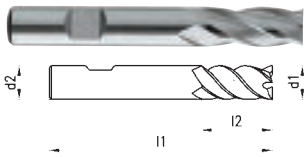
Type N-HPC

Order ID	d1 mm	l2 mm	l3 mm	d3 mm	d2 mm	l1 mm	teeth	Price €
216010.0100	**6**	13	20	5.7	6	57	4	25.40
216010.0200	**8**	19	-	-	10	69	4	32.80
216010.0300	**10**	22	31	9.7	10	72	4	35.10
216010.0400	**12**	26	37	11.5	12	83	4	44.10
216010.0500	**16**	32	43	15.5	16	92	5	66.20
216010.0600	**18**	32	43	15.5	16	92	5	79.70
216010.0700	**20**	38	53	19.5	20	104	5	92.70
216010.0800	**25**	45	64	24	25	121	6	155.00

216001 HSS shoulder/ slot milling cutters NERIOX

HSS-E Co8 | Ø 2-25 | 30° | 0 / +0.04 | h6 | DIN 844 | 4-6

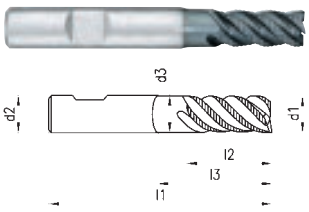
P	M	K	N	S	H	O
○		○	○			



Type N, 2 teeth to the centre

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	teeth	Price €
216001.0100	**2**	7	6	51	4	10.00
216001.0200	**3**	8	6	52	4	10.00
216001.0300	**4**	11	6	55	4	10.00
216001.0400	**5**	13	6	57	4	10.00
216001.0500	**6**	13	6	57	4	10.00
216001.0600	**7**	16	10	66	4	14.20
216001.0700	**8**	19	10	69	4	14.20
216001.0800	**9**	19	10	69	4	14.20
216001.0900	**10**	22	10	72	4	14.20
216001.1000	**11**	22	12	79	4	19.20
216001.1100	**12**	26	12	83	4	19.20
216001.1200	**14**	26	12	83	4	20.80
216001.1300	**16**	32	16	92	4	25.80
216001.1400	**18**	32	16	92	4	31.70
216001.1500	**20**	38	20	104	4	37.50
216001.1700	**25**	45	25	121	6	60.00

FUTURO



216450 HSS shoulder/ slot milling cutters FUTURO

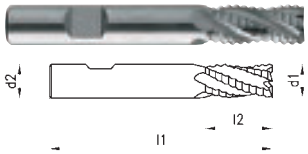
HSS-PM | Ø 4-25 | TiAlN | 45° | h6 | DIN 844 | 3-6

P	M	K	N	S	H	O
○	○	○				

Type NRF, ASP 60, with fine pitch

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	d3 mm	l3 mm	Number of teeth	Price €
216450.0100	**4**	11	6	57	-	-	3	29.30
216450.0200	**5**	13	6	57	-	-	4	29.30
216450.0300	**6**	13	6	57	-	-	4	29.30
216450.0400	**7**	16	10	66	-	-	4	39.10
216450.0500	**8**	19	10	69	-	-	4	39.10
216450.0600	**9**	19	10	69	-	-	4	40.00
216450.0700	**10**	22	10	72	9.5	31	4	40.00
216450.0800	**12**	26	12	83	11.5	37	4	48.90
216450.0900	**14**	26	12	83	-	-	5	58.50
216450.1000	**16**	32	16	92	15	44	5	67.60
216450.1100	**18**	32	16	92	-	-	6	73.30
216450.1200	**20**	38	20	104	19	54	6	93.60
216450.1300	**25**	45	25	121	24	63	6	137.70

NERIOX



216401 HSS shoulder/ slot milling cutters NERIOX

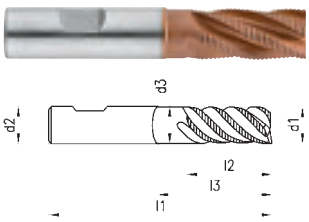
HSS-E Co8 | Ø 6-30 | 30° | js12 | h6 | DIN 844 | < Ø 20mm | > Ø 21mm | 3-6

P	M	K	N	S	H	O
○		○	○			

Type NR

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Protective chamfer mm	Number of teeth	Price €
216401.0100	**6**	13	6	57	0.25	3	22.90
216401.0300	**8**	19	10	69	0.25	3	24.80
216401.0500	**10**	22	10	72	0.35	4	25.70
216401.0600	**12**	26	12	83	0.5	4	30.60
216401.0800	**16**	32	16	92	0.6	4	38.00
216401.1000	**20**	38	20	104	0.6	4	53.40
216401.1300	**25**	45	25	121	0.6	5	78.70

FUTURO



216346 HSS shoulder/ slot milling cutters FUTURO

HSS-E PM | Ø 6-32 | TiAlCN | 30° | k12 | h6 | DIN 844 | 4-6 | HPC

P	M	K	N	S	H	O
●●	●●	○		●●		

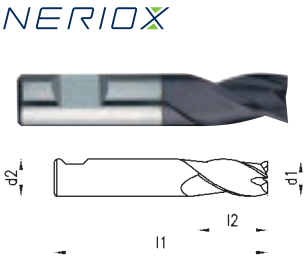
Type NRF

Order ID	d1 mm	l2 mm	l3 mm	d3 mm	d2 mm	l1 mm	Number of teeth	Price €
216346.0100	**6**	13	20	5.7	6	57	4	40.10
216346.0200	**7**	16	-	-	10	66	4	49.50
216346.0300	**8**	19	-	-	10	69	4	43.90
216346.0400	**9**	19	-	-	10	69	4	52.20
216346.0500	**10**	22	31	9.7	10	72	5	42.80
216346.0600	**12**	26	37	11.5	12	83	5	54.90
216346.0700	**14**	26	37	11.5	12	83	5	65.30
216346.0800	**16**	32	43	15.5	16	92	5	80.10
216346.0900	**18**	32	43	15.5	16	92	5	87.80
216346.1000	**20**	38	53	19.5	20	104	5	108.90
216346.1100	**22**	38	53	19.5	20	104	5	135.90
216346.1200	**25**	45	64	24	25	121	5	159.30
216346.1300	**28**	45	64	24	25	121	5	178.20
216346.1400	**30**	45	64	24	25	121	5	214.20
216346.1500	**32**	53	77	31	32	133	6	232.20

216141 HSS shoulder/ slot milling cutters NERIOX

HSS-E Co8 | Ø 1-9 | TiAlN | 30° | e8 | h6 | NORM | 3

P	M	K	N	S	H	O
●●		●●	○			



Type N

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
216141.0100	1	2	6	34	13.85
216141.0200	1.5	3	6	34	13.85
216141.0400	2	4	6	35	13.85
216141.0500	2.5	5	6	36	13.85
216141.0600	2.8	5	6	36	13.85
216141.0700	3	5	6	36	13.85
216141.0800	3.5	6	6	37	13.85
216141.0900	3.8	7	6	38	13.85
216141.1000	4	7	6	38	13.85
216141.1100	4.5	7	6	38	13.85
216141.1200	4.8	8	6	39	13.85
216141.1300	5	8	6	39	13.85
216141.1400	5.5	8	6	39	13.85
216141.1500	5.75	8	6	39	13.85
216141.1600	6	8	6	39	13.85
216141.1700	6.5	10	8	42	17.65
216141.1800	7	10	8	42	17.65
216141.1900	8	11	8	43	17.65
216141.2100	10	13	10	50	18.05

216181 HSS shoulder/ slot milling cutters NERIOX

HSS-E Co8 | Ø 2-9 | TiAlN | 30° | e8 | h6 | NORM | 3

P	M	K	N	S	H	O
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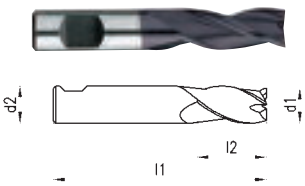


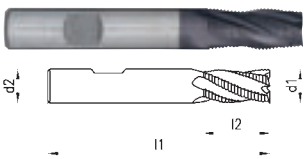
Type N

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
216181.0100	2	7	6	38	14.50
216181.0300	3	8	6	39	14.90
216181.0500	4	11	6	42	14.90
216181.0700	5	13	6	44	14.90
216181.0900	6	13	6	44	14.90
216181.1100	8	19	8	51	19.00
216181.1300	10	22	10	59	19.40

216440 HSS shoulder/ slot milling cutters FUTURO

HSS-PM | Ø 6-25 | TiAlN | 30° | js12 | h6 | DIN 844K | < Ø 20mm | > Ø 21mm | 3-5 | HSC

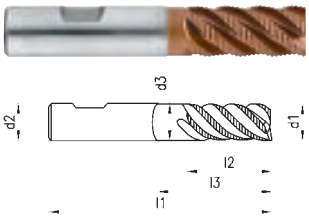
P	M	K	N	S	H	O
●●						



Type NRF, ASP 60

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	teeth	Price €
216440.0100	6	13	6	57	3	30.00
216440.0300	8	19	10	69	3	35.40
216440.0500	10	22	10	72	4	35.40
216440.0600	12	26	12	83	4	44.10
216440.0700	14	26	12	83	4	49.70
216440.0800	16	32	16	92	4	57.50
216440.0900	18	32	16	92	4	65.00
216440.1000	20	38	20	104	4	79.00

FUTURO



216351 HSS shoulder/ slot milling cutters FUTURO

HSS-E CoPM | Ø 6-25 | TiAlCN | 45° | k12 | h6 | DIN 844 | 4-5 | HPC

P	M	K	N	S	H	O
	●●			●●		

Type NRF, DIN 844

Order ID	d1 mm	l2 mm	l3 mm	d3 mm	d2 mm	l1 mm	teeth	Price €
216351.0100	**6**	13	20	5.7	6	57	4	**43.70**
216351.0200	**7**	16	-	-	10	66	4	**54.00**
216351.0300	**8**	19	-	-	10	69	4	**47.70**
216351.0400	**9**	19	-	-	10	69	4	**56.30**
216351.0500	**10**	22	31	9.7	10	72	4	**46.40**
216351.0600	**12**	26	37	11.5	12	83	4	**59.90**
216351.0700	**14**	26	37	11.5	12	83	4	**71.10**
216351.0800	**16**	32	43	15.5	16	92	5	**87.80**
216351.0900	**18**	32	43	15.5	16	92	5	**95.40**
216351.1000	**20**	38	53	19.5	20	104	5	**117.90**
216351.1100	**22**	38	53	19.5	20	104	5	**146.70**
216351.1200	**25**	45	64	24	25	121	5	**174.60**

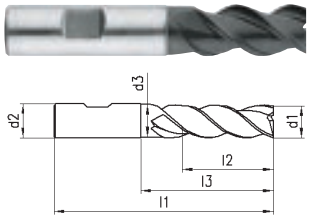
216306 HSS shoulder/ slot milling cutters FUTURO

Aluminium

HSS-E Co8 | Ø 2-25 | TiAlN-SiN | 45° | e8 | h6 | DIN 844

3

P	M	K	N	S	H	O
○			●●			



Type W

Order ID	d1 mm	l2 mm	l3 mm	d3 mm	d2 mm	l1 mm	Price €
216306.0100	**2**	7	-	-	6	51	19.30
216306.0200	**2.5**	8	-	-	6	52	19.30
216306.0300	**3**	8	-	-	6	52	18.90
216306.0400	**3.5**	11	-	-	6	55	20.20
216306.0500	**4**	11	-	-	6	55	19.60
216306.0600	**4.5**	11	-	-	6	57	21.00
216306.0700	**5**	13	-	-	6	57	19.80
216306.0800	**5.5**	13	-	-	6	57	22.90
216306.0900	**6**	13	20	5.7	6	57	20.40
216306.1000	**6.5**	16	-	-	10	66	28.40
216306.1100	**7**	16	-	-	10	66	26.50
216306.1200	**7.5**	16	-	-	10	66	28.80
216306.1300	**8**	19	-	-	10	69	24.70
216306.1400	**8.5**	19	-	-	10	69	30.70
216306.1500	**9**	19	-	-	10	69	29.50
216306.1600	**9.5**	19	-	-	10	72	32.40
216306.1700	**10**	22	31	9.7	10	72	27.00
216306.1800	**11**	22	-	-	12	79	34.90
216306.1900	**12**	26	37	11.5	12	83	30.90
216306.2000	**13**	26	37	11.5	12	83	43.30
216306.2100	**14**	26	37	11.5	12	83	42.00
216306.2200	**15**	26	37	11.5	12	83	47.00
216306.2300	**16**	32	43	15.5	16	92	46.80
216306.2400	**17**	32	43	15.5	16	92	58.00
216306.2500	**18**	32	43	15.5	16	92	57.00
216306.2600	**19**	32	43	15.5	16	92	69.00
216306.2700	**20**	38	53	19.5	20	104	64.80
216306.2800	**22**	38	53	19.5	20	104	89.30
216306.2900	**25**	45	64	24	25	121	105.00

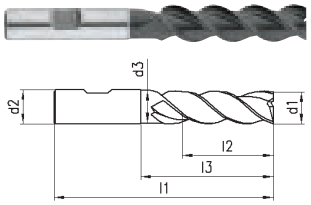
216308 HSS shoulder/ slot milling cutters FUTURO

Aluminium

HSS-E Co8 | Ø 2-25 | TiAlN-SiN | 45° | e8 | h6 | DIN 844

3

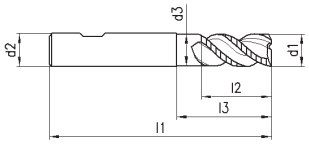
P	M	K	N	S	H	O
○			●●			



Type W

Order ID	d1 mm	l2 mm	l3 mm	d3 mm	d2 mm	l1 mm	Price €
216308.0100	**2**	10	-	-	6	54	23.20
216308.0200	**3**	12	-	-	6	56	23.20
216308.0300	**4**	19	-	-	6	63	23.20
216308.0400	**5**	24	-	-	6	68	23.20
216308.0500	**6**	24	31	5.7	6	68	24.10
216308.0600	**7**	30	-	-	10	80	32.40
216308.0700	**8**	38	-	-	10	88	29.30
216308.0800	**9**	38	-	-	10	88	34.70
216308.0900	**10**	45	54	9.7	10	95	32.00
216308.1000	**12**	53	64	11.5	12	110	39.40
216308.1100	**14**	53	64	11.5	12	110	47.70
216308.1200	**16**	63	74	15.5	16	123	58.10
216308.1300	**18**	63	74	15.5	16	123	68.90
216308.1400	**20**	75	90	19.5	20	141	78.80
216308.1500	**22**	75	90	19.5	20	141	101.70
216308.1600	**25**	90	109	24	25	166	134.10

FUTURO



216302 HSS shoulder/ slot milling cutters FUTURO

Aluminium

HSS-E Co8 | Ø 8-25 | TiAlN-SiN | 40° | k12 | h6 | DIN 844 | 3

P	M	K	N	S	H	O
○			●●			

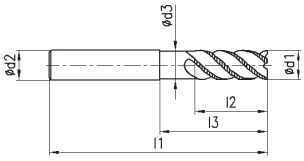
Type WR

Order ID	d1 mm	l2 mm	l3 mm	d3 mm	d2 mm	l1 mm	Price €
216302.0100	**8**	19	-	-	10	69	**34.70**
216302.0200	**9**	19	-	-	10	69	**41.90**
216302.0300	**10**	22	31	9.7	10	72	**37.10**
216302.0400	**11**	22	33	9.7	12	79	**50.40**
216302.0500	**12**	26	37	11.5	12	83	**42.70**
216302.0600	**13**	26	37	11.5	12	83	**55.40**
216302.0700	**14**	26	37	11.5	12	83	**48.60**
216302.0800	**15**	26	37	11.5	12	83	**62.60**
216302.0900	**16**	32	43	15.5	16	92	**60.30**
216302.1000	**18**	32	43	15.5	16	92	**67.10**
216302.1100	**20**	38	53	19.5	20	104	**78.30**
216302.1200	**25**	45	64	24	25	121	**115.20**

225900 SC shoulder milling cutter FUTURO

VHM | Ø 6-25 | TiAlN | 45° | h10 | h6 | DIN 6527L | 5-6 | HPC

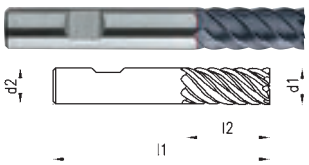
P	M	K	N	S	H	O
●●		●●				



NF, protective chamfer: 0.3-0.6 x 45°

Order ID	**d1** mm	l2 mm	**l3** mm	d2 mm	l1 mm	d3 mm	teeth	**Price €**
225900.0100	**6**	13	**21**	6	57	5.7	5	**85.10**
225900.0200	**8**	19	**27**	8	63	7.7	5	**106.10**
225900.0300	**10**	22	**32**	10	72	9.5	5	**132.80**
225900.0400	**12**	26	**38**	12	83	11.5	5	**174.30**
225900.0500	**16**	32	**44**	16	92	15.5	6	**267.80**
225900.0600	**18**	32	**44**	18	92	17.5	6	**289.00**
225900.0700	**20**	38	**54**	20	104	19.5	6	**406.40**
225900.0800	**25**	45	**65**	25	121	24	6	**459.00**

FUTURO



226020 SC shoulder milling cutter FUTURO

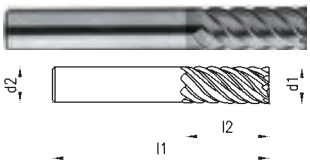
VHM	Ø 6-20	TiAlN	45°	h6	NORM		6-8

P	M	K	N	S	H	O
●●		○			○	

Type N

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	teeth	Price €
226020.0100	**6**	13	6	57	6	46.00
226020.0200	**7**	16	8	63	6	58.40
226020.0300	**8**	19	8	63	6	58.40
226020.0400	**9**	19	10	72	6	87.40
226020.0500	**10**	22	10	72	6	87.40
226020.0600	**12**	26	12	83	6	118.30
226020.0700	**14**	26	14	83	6	148.20
226020.0800	**16**	32	16	92	6	199.50
226020.0900	**18**	32	18	92	8	232.80
226020.1000	**20**	38	20	104	8	292.60

FUTURO



226040 SC shoulder milling cutter FUTURO

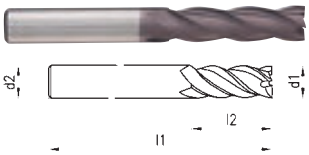
VHM	Ø 6-20	TiAlN	45°	h6	NORM		6-8

P	M	K	N	S	H	O
●●		○			○	

Type N

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	teeth	Price €
226040.0100	**6**	13	6	57	6	46.00
226040.0300	**8**	19	8	63	6	58.40
226040.0500	**10**	22	10	72	6	87.40
226040.0600	**12**	26	12	83	6	118.30
226040.0700	**14**	26	14	83	6	148.20
226040.0800	**16**	32	16	92	6	199.50
226040.1000	**20**	38	20	104	8	292.60

NERIOX



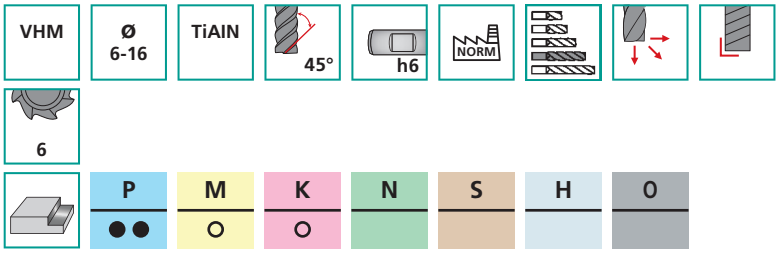
227915 SC shoulder end mill NERIOX

VHM	Ø 3-16	Coated	30°		NORM			
4								

P	M	K	N	S	H	O
●●	○	○	○			

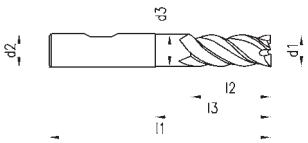
Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €
227915.0100	**3.0**	20	60	3	25.20
227915.0200	**4.0**	20	60	4	25.20
227915.0300	**5.0**	25	75	5	28.10
227915.0400	**6.0**	30	75	6	31.10
227915.0500	**8.0**	30	75	8	45.70
227915.0600	**10.0**	40	100	10	57.30
227915.0700	**12.0**	45	100	12	86.50
227915.0800	**16.0**	45	100	16	150.70

227821 SC shoulder milling cutter NERIOX



Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
227821.0100	**6**	13	6	57	**23.80**
227821.0200	**8**	19	8	63	**31.80**
227821.0300	**10**	22	10	72	**42.70**
227821.0400	**12**	26	12	83	**59.00**
227821.0500	**16**	32	16	92	**95.00**

FUTURO



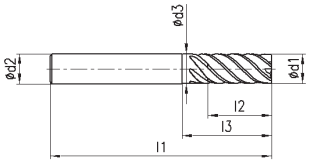
225790 SC shoulder milling cutter FUTURO

VHM | Ø 3-25 | ZrN | 35°/38° | h10 | h5 | NORM | 4 | HPC

P | M | K | N | S | H | O

Order ID	d1 mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Protective chamfer mm	Price €
225790.0100	3	11	17	6	57	2.8	0.1	56.50
225790.0200	4	12	20	6	57	3.6	0.1	56.50
225790.0300	5	15	20	6	57	4.5	0.15	52.60
225790.0400	6	15	20	6	57	5.5	0.2	59.80
225790.0500	8	21	27	8	63	7.5	0.2	69.00
225790.0600	10	22	31	10	72	9.5	0.3	117.70
225790.0700	12	28	37	12	83	11.5	0.3	168.80
225790.0800	14	30	41	14	83	13.5	0.3	179.00
225790.0900	16	35	44	16	92	15.5	0.4	311.80
225790.1000	20	41	54	20	104	19.5	0.5	445.00
225790.1100	25	51	64	25	110	24	0.5	479.00

FUTURO



225780 SC shoulder milling cutter FUTURO

VHM | Ø 6-25 | ZrN | 45° | h10 | h6 | NORM | 6 | HPC

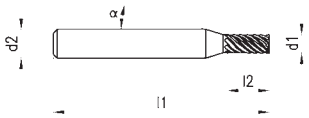
P | M | K | N | S | H | O

Order ID	d1 mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Price €
225780.0100	6	15	19	6	57	5.7	59.90
225780.0200	6	15	42	6	80	5.7	79.10
225780.0300	8	20	25	8	63	7.4	79.10
225780.0400	8	20	61	8	100	7.4	89.00
225780.0500	10	25	31	10	73	9.2	99.80
225780.0600	10	25	57	10	100	9.2	131.20
225780.0700	12	30	36	12	83	11	131.20
225780.0800	12	30	72	12	120	11	179.00
225780.0900	16	40	44	16	93	15	224.50
225780.1000	16	40	99	16	150	15	349.00
225780.1100	20	50	52	20	104	19	349.50

222404 SC shoulder milling cutter FUTURO

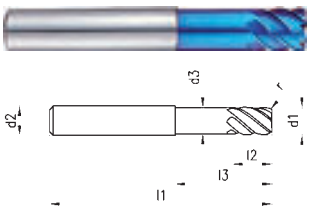
VHM	Ø 3-20	TiAlN-SiN	45°		NORM		6	HSC

	P	M	K	N	S	H	O
	○		○	●●		●●	



Order ID	d1 mm	l2 mm	l1 mm	d2 mm	alpha °	Tolerance mm	Price €
222404.0010	3	10	50	6	15	+0/-0.01	60.00
222404.0020	3	15	50	6	15	+0/-0.01	58.50
222404.0030	4	12	50	6	15	+0/-0.01	64.60
222404.0040	4	16	50	6	15	+0/-0.01	58.50
222404.0050	5	15	50	6	15	+0/-0.01	68.40
222404.0060	5	20	60	6	15	+0/-0.01	62.50
222404.0070	6	15	50	6	-	-0.01/-0.025	74.80
222404.0080	6	20	60	6	-	-0.01/-0.025	62.50
222404.0090	8	20	60	8	-	-0.01/-0.025	93.90
222404.0100	8	25	65	8	-	-0.01/-0.025	96.50
222404.0110	8	30	75	8	-	-0.01/-0.025	106.00
222404.0140	8	35	80	8	-	-0.01/-0.025	127.00
222404.0150	8	40	90	8	-	-0.01/-0.025	129.00
222404.0160	8	45	100	8	-	-0.01/-0.025	136.00
222404.0170	8	50	100	8	-	-0.01/-0.025	143.00
222404.0180	10	25	70	10	-	-0.01/-0.025	134.90
222404.0190	10	35	90	10	-	-0.01/-0.025	137.00
222404.0200	10	45	100	10	-	-0.01/-0.025	171.00
222404.0210	10	50	100	10	-	-0.01/-0.025	179.00
222404.0220	10	60	110	10	-	-0.01/-0.025	190.00
222404.0230	12	30	80	12	-	-0.01/-0.025	168.90
222404.0240	12	40	90	12	-	-0.01/-0.025	171.00
222404.0250	12	50	100	12	-	-0.01/-0.025	186.00
222404.0260	12	60	110	12	-	-0.01/-0.025	198.00
222404.0270	12	70	120	12	-	-0.01/-0.025	214.00
222404.0280	16	35	90	16	-	-0.015/-0.03	316.50
222404.0290	16	50	110	16	-	-0.015/-0.03	316.00
222404.0300	16	65	120	16	-	-0.015/-0.03	326.00
222404.0310	16	80	150	16	-	-0.015/-0.03	430.00
222404.0320	16	90	160	16	-	-0.015/-0.03	485.00
222404.0330	16	100	160	16	-	-0.015/-0.03	525.00
222404.0340	20	45	100	20	-	-0.015/-0.03	479.70
222404.0350	20	60	120	20	-	-0.015/-0.03	480.00
222404.0360	20	80	150	20	-	-0.015/-0.03	520.00
222404.0370	20	90	160	20	-	-0.015/-0.03	545.00
222404.0380	20	100	160	20	-	-0.015/-0.03	690.00
222404.0390	20	110	170	20	-	-0.015/-0.03	840.00
222404.0400	20	120	180	20	-	-0.015/-0.03	905.00

FUTURO



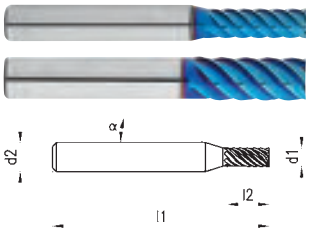
227030 SC shoulder milling cutter FUTURO

VHM	Ø 6-16	XIDUR	45°		NORM			6
	P	M	K	N	S	H	O	
	O					●●		

Type N, made of nano-micrograin carbide

Order ID	d1 mm	r mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Price €
227030.0100	6	0.5	6	14	6	50	5.85	66.00
227030.0130	6	0.5	13	-	6	70	-	75.50
227030.0160	6	0.5	26	-	6	70	-	90.70
227030.0200	8	0.5	8	24	8	60	7.7	78.90
227030.0220	8	0.5	19	-	8	90	-	94.50
227030.0300	10	1	10	30	10	70	9.7	123.50
227030.0320	10	1.0	22	-	10	100	-	142.50
227030.0340	10	1.0	46	-	10	100	-	185.30
227030.0500	12	1.0	26	-	12	110	-	194.80

FUTURO

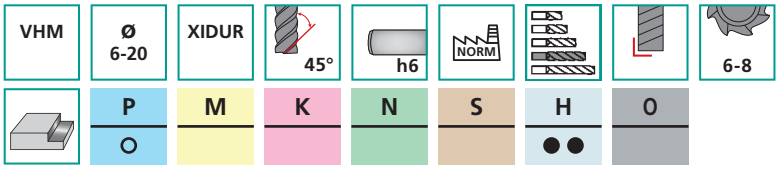


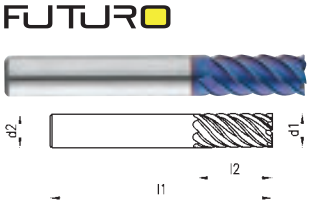
222425 SC shoulder milling cutter FUTURO

VHM	Ø 3-25	Coated	45°		NORM	6-8	HSC
	P	M	K	N	S	H	O
	O					●●	

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	teeth	alpha °	Tolerance mm	Price €
222425.0010	3	10	50	6	6	15	+0/-0.01	58.60
222425.0020	3	15	50	6	6	15	+0/-0.01	58.60
222425.0030	4	12	50	6	6	15	+0/-0.01	63.00
222425.0040	4	16	50	6	6	15	+0/-0.01	63.00
222425.0050	5	15	50	6	6	15	+0/-0.01	66.70
222425.0060	5	20	60	6	6	15	+0/-0.01	66.70
222425.0070	6	15	50	6	6	-	-0.01/-0.025	73.00
222425.0080	6	20	60	6	6	-	-0.01/-0.025	73.00
222425.0090	6	25	65	6	6	-	-0.01/-0.025	73.00
222425.0100	6	30	70	6	6	-	-0.01/-0.025	73.00
222425.0110	6	35	75	6	6	-	-0.01/-0.025	73.00
222425.0120	8	20	60	8	6	-	-0.01/-0.025	91.60
222425.0130	8	25	65	8	6	-	-0.01/-0.025	91.60
222425.0140	8	30	75	8	6	-	-0.01/-0.025	91.60
222425.0150	8	35	80	8	6	-	-0.01/-0.025	91.60
222425.0160	8	40	90	8	6	-	-0.01/-0.025	91.60
222425.0170	8	45	100	8	6	-	-0.01/-0.025	91.60
222425.0180	8	50	100	8	6	-	-0.01/-0.025	91.60
222425.0190	10	25	70	10	6	-	-0.01/-0.025	131.60
222425.0200	10	35	90	10	6	-	-0.01/-0.025	131.60
222425.0210	10	45	100	10	6	-	-0.01/-0.025	131.60
222425.0220	10	50	100	10	6	-	-0.01/-0.025	131.60
222425.0230	10	60	110	10	6	-	-0.01/-0.025	131.60
222425.0240	12	30	80	12	6	-	-0.01/-0.025	164.80
222425.0250	12	40	90	12	6	-	-0.01/-0.025	164.80
222425.0260	12	50	100	12	6	-	-0.01/-0.025	164.80
222425.0270	12	60	110	12	6	-	-0.01/-0.025	164.80
222425.0280	12	70	120	12	6	-	-0.01/-0.025	164.80
222425.0290	16	35	90	16	6	-	-0.015/-0.03	308.80
222425.0300	16	50	110	16	6	-	-0.015/-0.03	308.80
222425.0310	16	65	120	16	6	-	-0.015/-0.03	308.80
222425.0320	16	80	150	16	6	-	-0.015/-0.03	308.80
222425.0330	16	90	160	16	6	-	-0.015/-0.03	308.80
222425.0340	16	100	160	16	6	-	-0.015/-0.03	308.80
222425.0350	20	45	100	20	6	-	-0.015/-0.03	468.00
222425.0360	20	60	120	20	6	-	-0.015/-0.03	468.00
222425.0370	20	80	150	20	6	-	-0.015/-0.03	499.00
222425.0380	20	90	160	20	6	-	-0.015/-0.03	545.00
222425.0390	20	100	160	20	6	-	-0.015/-0.03	699.00
222425.0400	20	110	170	20	6	-	-0.015/-0.03	850.00
222425.0410	20	120	180	20	6	-	-0.015/-0.03	925.00
222425.0420	25	100	160	25	8	-	-0.015/-0.03	999.00
222425.0430	25	130	200	25	8	-	-0.015/-0.03	1690.00

227090 SC shoulder milling cutter FUTURO

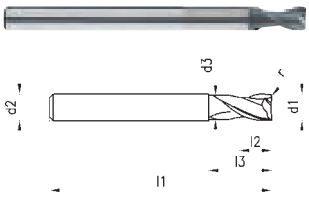




Type N, made of nano-micrograin carbide

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	teeth	Price €
227090.0100	**6**	13	6	57	6	54.60
227090.0300	**10**	22	10	72	6	103.10
227090.0400	**12**	26	12	83	6	141.60
227090.0500	**16**	32	16	92	6	239.40
227090.0600	**20**	38	20	104	8	349.60

FUTURO



227700 SC shoulder milling cutter FUTURO

VHM | Ø 0.2-12 | Diamant | 30° | h5 | NORM | 2

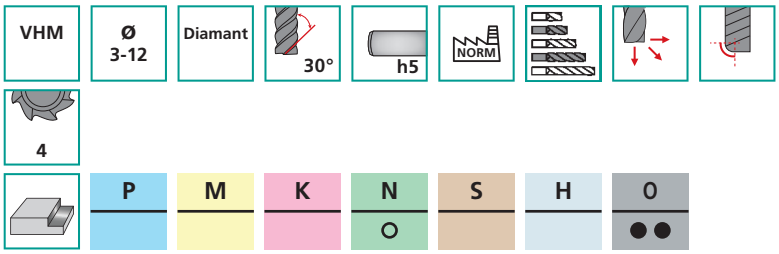
P	M	K	N	S	H	O
			○			●●

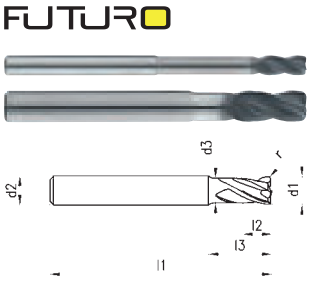
Diamond-coated end mills for machining **graphite** and other highly abrasive materials. The diamond coating ensures maximum durability and high productivity.

Order ID	d1 mm	r mm	l2 mm	l3 mm	l1 mm	d2 mm	d3 mm	Cutting tolerance on radius	Price €
227700.0100	0.2	0.05	0.2	1	55	4	0.2	0.005	109.30
227700.0200	0.3	0.05	0.3	1	55	4	0.27	0.005	102.60
227700.0300	0.3	0.05	0.3	3	55	4	0.27	0.005	102.60
227700.0400	0.4	0.05	0.4	2	55	4	0.35	0.005	109.30
227700.0500	0.4	0.05	0.4	4	55	4	0.35	0.005	92.20
227700.0600	0.4	0.05	0.4	8	55	4	0.35	0.005	92.20
227700.0700	0.5	0.05	0.5	2	55	4	0.45	0.005	75.10
227700.0800	0.5	0.05	0.5	5	55	4	0.45	0.005	75.10
227700.0900	0.5	0.05	0.5	10	55	4	0.45	0.005	75.10
227700.1000	0.6	0.06	0.8	3	55	4	0.56	0.005	80.30
227700.1100	0.6	0.06	0.8	6	55	4	0.56	0.005	80.30
227700.1200	0.6	0.06	0.8	9	55	4	0.56	0.005	80.30
227700.1300	0.6	0.06	0.8	12	55	4	0.56	0.005	80.30
227700.1400	0.8	0.08	1	4	55	4	0.75	0.005	86.90
227700.1500	0.8	0.08	1	8	55	4	0.75	0.005	86.90
227700.1600	0.8	0.08	1	12	55	4	0.75	0.005	86.90
227700.1700	0.8	0.08	1	16	55	4	0.75	0.005	86.90
227700.1800	1	0.1	1	5	55	4	0.9	0.005	73.60
227700.1900	1	0.1	1	10	55	4	0.9	0.005	73.60
227700.2000	1	0.1	1	15	55	4	0.9	0.005	73.60
227700.2100	1	0.1	1	20	55	4	0.9	0.005	73.60
227700.2200	1	0.1	1	25	55	4	0.9	0.005	73.60
227700.2300	1.2	0.12	1.5	5	55	4	1.1	0.005	73.60
227700.2400	1.2	0.12	1.5	10	55	4	1.1	0.005	73.60
227700.2500	1.2	0.12	1.5	15	55	4	1.1	0.005	73.60
227700.2600	1.5	0.15	2	5	55	4	1.4	0.005	72.70
227700.2700	1.5	0.15	2	8	55	4	1.4	0.005	72.70
227700.2800	1.5	0.15	2	10	55	4	1.4	0.005	73.60
227700.2900	1.5	0.15	2	15	55	4	1.4	0.005	73.60
227700.3000	1.5	0.15	2	20	55	4	1.4	0.005	73.60
227700.3100	1.5	0.15	2	25	55	4	1.4	0.005	73.60
227700.3200	1.8	0.18	2	10	55	4	1.7	0.005	73.60
227700.3300	1.8	0.18	2	20	55	4	1.7	0.005	73.60
227700.3400	2	0.2	2	10	65	4	1.9	0.005	73.60
227700.3500	2	0.2	2	15	65	4	1.9	0.005	73.60
227700.3600	2	0.2	2	20	65	4	1.9	0.005	73.60
227700.3700	2	0.2	2	25	65	4	1.9	0.005	73.60
227700.3800	2	0.5	2	10	65	4	1.9	0.005	73.60
227700.3900	2	0.5	2	15	65	4	1.9	0.005	73.60
227700.4000	2	0.5	2	20	65	4	1.9	0.005	73.60
227700.4100	2	0.5	2	25	65	4	1.9	0.005	73.60
227700.4200	3	0.3	3	15	65	4	2.9	0.005	90.70
227700.4300	3	0.3	3	25	75	4	2.9	0.005	90.70
227700.4400	3	0.5	3	10	65	4	2.9	0.005	90.70
227700.4500	3	0.5	3	15	65	4	2.9	0.005	90.70
227700.4600	3	0.5	3	20	65	4	2.9	0.005	90.70
227700.4700	3	0.5	3	25	75	4	2.9	0.005	90.70
227700.4800	3	0.5	3	30	75	4	2.9	0.005	90.70
227700.4900	3	0.5	3	45	90	6	2.9	0.005	118.80
227700.5000	4	0.4	4	15	65	6	3.9	0.005	118.80
227700.5100	4	0.4	4	25	75	6	3.9	0.005	118.80
227700.5200	4	0.5	4	20	65	6	3.9	0.005	109.30
227700.5300	4	0.5	4	30	75	6	3.9	0.005	109.30
227700.5400	4	0.5	4	40	90	6	3.9	0.005	113.10
227700.5500	5	0.5	5	20	75	6	4.9	0.005	129.20
227700.5600	5	0.5	5	30	75	6	4.9	0.005	129.20
227700.5700	5	0.5	5	40	90	6	4.9	0.005	129.20
227700.5800	5	0.5	5	50	90	6	4.9	0.005	129.20
227700.5900	6	0.3	6	30	75	6	5.9	0.005	129.20
227700.6000	6	0.5	6	30	75	6	5.9	0.005	129.20
227700.6100	6	0.5	6	40	90	6	5.9	0.005	136.80
227700.6200	6	0.5	6	50	90	6	5.9	0.005	136.80
227700.6300	6	0.5	6	60	100	6	5.9	0.005	136.80
227700.6400	6	1	6	30	75	6	5.9	0.005	136.80
227700.6500	6	1	6	40	90	6	5.9	0.005	136.80
227700.6600	8	0.5	8	30	80	8	7.8	0.005	189.10
227700.6700	8	0.5	8	60	100	8	7.8	0.005	189.10
227700.6800	8	1	8	30	80	8	7.8	0.005	189.10
227700.6900	8	1	8	60	100	8	7.8	0.005	189.10
227700.7000	10	0.5	10	30	80	10	9.8	0.005	230.90
227700.7100	10	0.5	10	60	100	10	9.8	0.005	230.90
227700.7200	10	1	10	30	80	10	9.8	0.005	230.90
227700.7300	10	1	10	60	100	10	9.8	0.005	230.90
227700.7400	12	0.5	12	30	80	12	11.8	0.005	285.00

Order ID	d1 mm	r mm	l2 mm	l3 mm	l1 mm	d2 mm	d3 mm	Cutting tolerance on radius	Price €
227700.7500	12	0.5	12	60	100	12	11.8	0.005	285.00
227700.7600	12	1	12	30	80	12	11.8	0.005	285.00
227700.7700	12	1	12	60	100	12	11.8	0.005	312.60

227710 SC shoulder milling cutter FUTURO

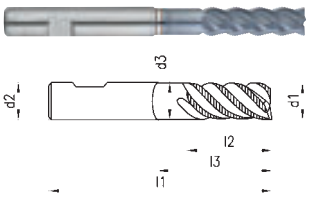




Diamond-coated end mills for machining **graphite** and other highly abrasive materials. The diamond coating ensures maximum durability and high productivity.

Order ID	d1 mm	r mm	l2 mm	l3 mm	l1 mm	d2 mm	d3 mm	Cutting tolerance on radius	Price €
227710.0100	3	0.3	6	14	50	3	2.7	0.005	68.40
227710.0200	3	0.3	6	32	80	3	2.7	0.005	77.90
227710.0300	3	0.5	6	14	50	3	2.7	0.005	68.40
227710.0400	3	0.5	6	32	80	3	2.7	0.005	77.90
227710.0500	3	1	6	14	50	3	2.7	0.005	68.40
227710.0600	3	1	6	32	80	3	2.7	0.005	77.90
227710.0700	4	0.4	8	16	50	4	3.7	0.005	73.60
227710.0900	4	0.5	8	16	50	4	3.7	0.005	73.60
227710.1000	4	0.5	8	36	80	4	3.7	0.005	87.90
227710.1100	4	1	8	16	50	4	3.7	0.005	73.60
227710.1300	5	0.5	10	18	54	5	4.6	0.005	85.00
227710.1400	5	0.5	10	40	80	5	4.6	0.005	108.30
227710.1500	5	1	10	18	54	5	4.6	0.005	89.30
227710.1600	5	1	10	40	80	5	4.6	0.005	108.30
227710.1700	6	0.5	13	21	57	6	5.5	0.005	102.60
227710.1800	6	0.5	13	44	90	6	5.5	0.005	117.80
227710.1900	6	1	13	21	57	6	5.5	0.005	102.60
227710.2000	6	1	13	44	90	6	5.5	0.005	117.80
227710.2100	6	1.5	13	21	57	6	5.5	0.005	102.60
227710.2200	6	1.5	13	44	90	6	5.5	0.005	117.80
227710.2300	8	0.5	15	27	63	8	7.4	0.005	139.70
227710.2400	8	0.5	15	54	100	8	7.4	0.005	162.50
227710.2500	8	1	15	27	63	8	7.4	0.005	139.70
227710.2900	8	2	15	27	63	8	7.4	0.005	139.70
227710.3000	8	2	15	54	100	8	7.4	0.005	162.50
227710.3100	10	0.5	18	32	72	10	9.2	0.005	177.70
227710.3200	10	0.5	18	60	100	10	9.2	0.005	208.10
227710.3300	10	1	18	32	72	10	9.2	0.005	177.70
227710.3400	10	1	18	60	100	10	9.2	0.005	208.10
227710.3500	10	1.5	18	32	72	10	9.2	0.005	177.70
227710.3600	10	1.5	18	60	100	10	9.2	0.005	208.10
227710.3700	10	2	18	32	72	10	9.2	0.005	177.70
227710.3800	10	2	18	60	100	10	9.2	0.005	208.10
227710.3900	12	0.5	26	38	83	12	11	0.005	208.10
227710.4000	12	0.5	26	75	120	12	11	0.005	252.70
227710.4100	12	1	26	38	83	12	11	0.005	208.10
227710.4200	12	1	26	75	120	12	11	0.005	252.70
227710.4300	12	1.5	26	38	83	12	11	0.005	208.10
227710.4400	12	1.5	26	75	120	12	11	0.005	252.70
227710.4500	12	2	26	38	83	12	11	0.005	208.10
227710.4600	12	2	26	75	120	12	11	0.005	252.70

FUTURO



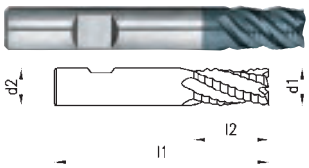
226980 SC shoulder/ slot milling cutters FUTURO

VHM	Ø 6-25	AlTiN	40°	h6	NORM			4
	P	M	K	N	S	H	O	
	O	O	O					

Type N, with fine pitch

Order ID	d1 mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Protective chamfer mm	Price €
226980.0100	**6**	20	**39**	6	80	5.7	0.4	**91.20**
226980.0200	**8**	25	**49**	8	100	7.4	0.4	**103.60**
226980.0300	**10**	30	**59**	10	100	9.2	0.4	**120.70**
226980.0400	**12**	40	**59**	12	120	11	0.4	**157.70**
226980.0500	**16**	50	**99**	16	150	15	0.4	**314.50**
226980.0600	**20**	60	**99**	20	150	19	0.4	**387.60**
226980.0700	**25**	80	**99**	25	150	24	0.5	**606.10**

FUTURO



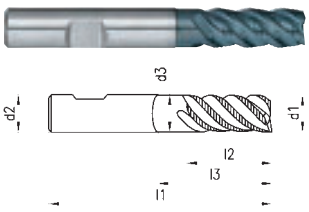
226930 SC shoulder/ slot milling cutters FUTURO

VHM	Ø 6-16	TiAlN	45°	h6	NORM		≤ Ø 12mm	4-5
	P	M	K	N	S	H	O	
	O	O			O			

Type N, with fine pitch

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	teeth	Price €
226930.0100	**6**	7	6	54	4	**51.30**
226930.0200	**8**	9	8	58	4	**59.90**
226930.0300	**10**	14	10	66	4	**89.30**
226930.0400	**12**	16	12	73	4	**115.00**
226930.0500	**16**	22	16	82	5	**187.20**

FUTURO



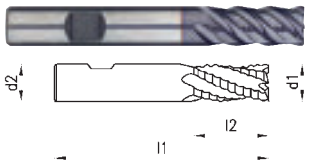
226950 SC shoulder/ slot milling cutters FUTURO

VHM	Ø 6-20	TiAlN	45°	h6	NORM		≤ Ø 12mm	4-6
	P	M	K	N	S	H	O	
	O	O			O			

Type N, with fine pitch

Order ID	d1 mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	teeth	Price €
226950.0100	**6**	16	20	6	57	5.5	4	**62.20**
226950.0200	**8**	16	26	8	63	7.5	4	**72.70**
226950.0300	**10**	22	31	10	72	9.5	4	**108.80**
226950.0400	**12**	26	37	12	83	11.5	4	**139.70**
226950.0500	**16**	32	51	16	100	15.5	5	**228.00**
226950.0600	**20**	38	59	20	110	19.2	6	**366.70**

FUTURO



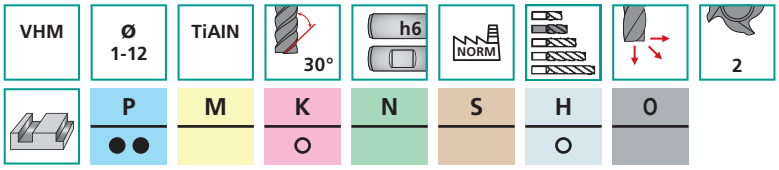
226940 SC shoulder/ slot milling cutters FUTURO

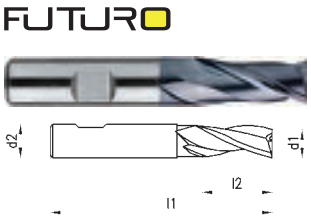
VHM	Ø 4-25	TiAlN	45°	h6	NORM		≤ Ø 12mm	3-6
	P	M	K	N	S	H	O	
	O	O			O			

Type N, with fine pitch

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	teeth	Price €
226940.0100	**4**	11	6	57	3	**51.80**
226940.0200	**5**	13	6	57	4	**51.80**
226940.0300	**6**	16	6	57	4	**51.80**
226940.0400	**7**	16	8	63	4	**60.80**
226940.0500	**8**	16	8	63	4	**60.80**
226940.0600	**9**	19	10	72	4	**90.70**
226940.0700	**10**	22	10	72	4	**90.70**
226940.0800	**12**	26	12	83	4	**116.90**
226940.0900	**14**	26	14	83	5	**141.60**
226940.1000	**16**	32	16	92	5	**189.10**
226940.1200	**20**	38	20	104	6	**305.90**

226440 SC shoulder/ slot milling cutters FUTURO

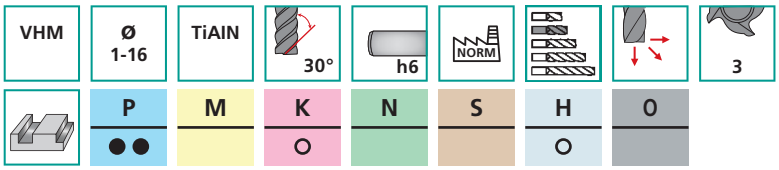


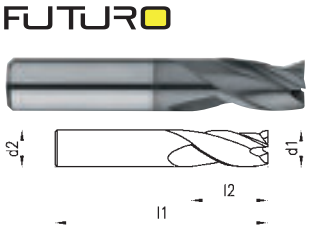


Type N

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Shank	Price €
226440.0100	**1**	2.5	4	40	HA	29.80
226440.0200	**1.5**	4	4	40	HA	29.80
226440.0300	**2**	6	4	40	HA	27.20
226440.0400	**2.5**	8	4	40	HA	27.20
226440.0500	**3**	8	6	45	HB	39.10
226440.0600	**3.5**	10	6	45	HB	39.10
226440.0700	**4**	11	6	45	HB	39.10
226440.0800	**4.5**	11	6	45	HB	39.10
226440.0900	**5**	13	6	50	HB	39.10
226440.1000	**5.5**	13	6	50	HB	39.10
226440.1100	**6**	13	6	50	HB	39.10
226440.1200	**6.5**	16	8	60	HB	50.40
226440.1300	**7**	16	8	60	HB	50.40
226440.1400	**7.5**	16	8	60	HB	50.40
226440.1500	**8**	19	8	60	HB	50.40
226440.1600	**8.5**	19	10	70	HB	74.60
226440.1800	**9.5**	19	10	70	HB	74.60
226440.1900	**10**	22	10	70	HB	74.60

226320 SC shoulder/ slot milling cutters FUTURO

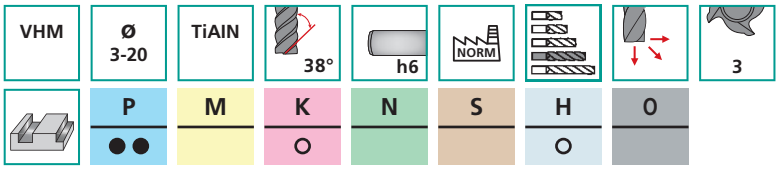


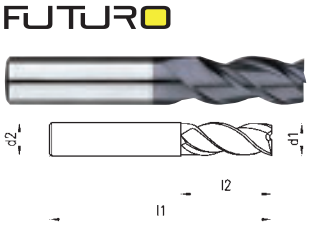


Type N

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
226320.0100	**1**	2	4	35	24.30
226320.0200	**2**	4	4	35	21.70
226320.0300	**3**	5	6	36	31.40
226320.0400	**4**	7	6	38	31.40
226320.0500	**5**	8	6	39	31.40
226320.0600	**6**	8	6	39	31.40
226320.0700	**8**	11	8	43	40.30
226320.0800	**10**	13	10	50	59.40
226320.0900	**12**	15	12	55	76.50
226320.1000	**14**	15	14	58	96.90

226420 SC shoulder/ slot milling cutters FUTURO

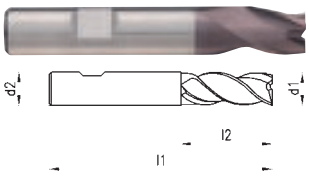




Type N, 1 tooth over centre

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
226420.0100	**3**	10	6	50	42.90
226420.0200	**4**	12	6	50	42.90
226420.0300	**5**	14	6	57	42.90
226420.0400	**6**	16	6	57	42.90
226420.0500	**8**	20	8	63	52.70
226420.0600	**10**	22	10	72	76.50
226420.0700	**12**	25	12	73	105.00
226420.0800	**16**	32	16	82	169.10
226420.0900	**20**	38	20	92	279.30

NERIOX



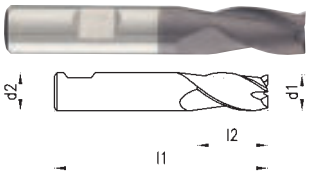
227910 SC shoulder-/ slot end mill NERIOX

VHM | Ø 2-16 | Coated | 30° | DIN 6535 | 3

P	M	K	N	S	H	O
●●	○	○	○			

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Price €
227910.0100	**2.0**	3	50	6	13.70
227910.0200	**3.0**	4	50	6	13.70
227910.0300	**4.0**	5	54	6	13.70
227910.0400	**5.0**	6	54	6	13.70
227910.0500	**6.0**	7	54	6	13.70
227910.0600	**8.0**	9	58	8	19.10
227910.0700	**10.0**	11	66	10	26.60
227910.0800	**12.0**	12	73	12	36.90
227910.0900	**16.0**	16	82	16	59.10

NERIOX



227811 SC shoulder-/ slot end mill NERIOX

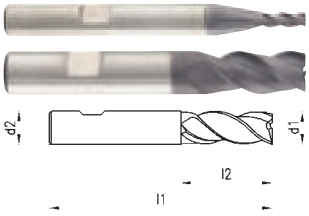
VHM | Ø 3-16 | TiAlN | 30° | h6 | NORM | 3

P	M	K	N	S	H	O
●●	○	○	○			

Type N

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
227811.0100	**3**	6	6	50	15.90
227811.0200	**4**	8	6	50	15.90
227811.0300	**5**	8	6	50	15.90
227811.0400	**6**	16	6	50	15.90
227811.0500	**8**	20	8	60	26.90
227811.0600	**10**	22	10	70	35.00
227811.0700	**12**	22	12	70	44.00
227811.0800	**16**	25	16	75	74.80

NERIOX



227861 SC shoulder/ slot milling cutters NERIOX

VHM | Ø 3-20 | TiAlN | 38°/42° | h10 | h6 | NORM | 3 | HPC

P	M	K	N	S	H	O
●●	○	●●	○			

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Protective chamfer mm	Price €
227861.0100	**3**	8	6	57	0.1	21.80
227861.0200	**4**	11	6	57	0.1	21.80
227861.0300	**5**	13	6	57	0.15	21.80
227861.0400	**6**	13	6	57	0.2	21.80
227861.0500	**8**	19	8	63	0.2	30.50
227861.0600	**10**	22	10	72	0.2	42.30
227861.0700	**12**	26	12	83	0.3	60.60
227861.0800	**16**	32	16	92	0.3	103.00
227861.0900	**20**	38	20	104	0.4	163.90

226120 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 2-25 | TiAlN | 30° | h6 | NORM | 4

P	M	K	N	S	H	O
●●		○			○	

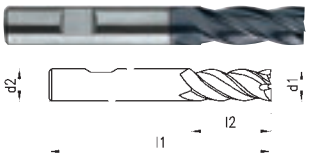
Type N

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Shank	Price €
226120.0100	**2**	6	4	40	HA	27.20
226120.0200	**2.5**	8	4	40	HA	27.20
226120.0300	**3**	8	6	45	HB	39.10
226120.0400	**3.5**	10	6	45	HB	39.10
226120.0500	**4**	11	6	45	HB	39.10
226120.0600	**4.5**	11	6	45	HB	39.10
226120.0700	**5**	13	6	50	HB	39.10
226120.0800	**5.5**	13	6	50	HB	39.10
226120.0900	**6**	13	6	50	HB	39.10
226120.1000	**6.5**	16	8	60	HB	50.40
226120.1100	**7**	16	8	60	HB	50.40
226120.1200	**7.5**	16	8	60	HB	50.40
226120.1300	**8**	19	8	60	HB	50.40
226120.1500	**9**	19	10	70	HB	74.60
226120.1700	**10**	22	10	70	HB	74.60
226120.1900	**11**	22	12	75	HB	102.10
226120.2100	**12**	26	12	75	HB	102.10
226120.2200	**14**	26	14	85	HB	129.20
226120.2300	**16**	32	16	100	HB	169.10
226120.2400	**20**	38	20	105	HB	281.20

226140 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 3-25 | TiAlN | 30° | h6 | NORM | 4

P	M	K	N	S	H	O
●●		○			○	



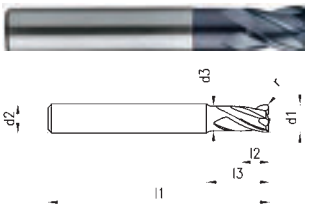
Type N

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
226140.0100	**3**	12	6	50	47.10
226140.0200	**4**	15	6	50	47.10
226140.0300	**5**	20	6	60	47.10
226140.0400	**6**	20	6	60	47.10
226140.0500	**8**	25	8	70	60.30
226140.0600	**10**	30	10	90	89.30
226140.0700	**12**	30	12	90	122.60
226140.0800	**16**	50	16	110	228.00
226140.0900	**20**	55	20	110	378.10

226160 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 2-16 | TiAlN | 30° | h6 | NORM | 4

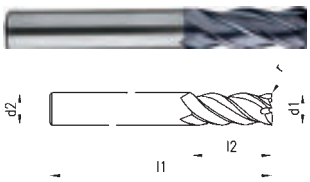
P	M	K	N	S	H	O
●●		○			○	



Type N

Order ID	d1 mm	r mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Price €
226160.0100	**2**	**0.2**	2.5	5	6	50	1.9	43.10
226160.0200	**2.5**	**0.25**	3	6	6	50	2.4	43.10
226160.0300	**3**	**0.3**	4	7	6	50	2.8	43.10
226160.0400	**3.5**	**0.35**	4.5	8	6	50	3.2	43.10
226160.0500	**4**	**0.4**	5	9	6	50	3.7	43.10
226160.0600	**5**	**0.5**	6	12	6	50	4.6	43.10
226160.0700	**6**	**0.6**	7	14	6	55	5.6	43.10
226160.0800	**8**	**0.8**	10	18	8	60	7.4	55.10
226160.0900	**10**	**1.0**	12	25	10	70	9.4	81.70
226160.1000	**12**	**1.2**	15	30	12	80	11.4	112.10
226160.1100	**16**	**1.6**	18	35	16	90	15.4	203.30

FUTURO



226220 SC shoulder/ slot milling cutters FUTURO

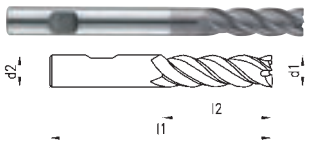
VHM | Ø 6-12 | TiAlN | 30° | h6 | NORM | 4

P	M	K	N	S	H	O
●●		○			○	

Type N

Order ID	d1 mm	r mm	l2 mm	d2 mm	l1 mm	Price €
226220.0100	6	0.5	20	6	60	57.00
226220.0200	6	1	20	6	60	57.00
226220.0300	8	0.5	25	8	70	73.20
226220.0400	8	1	25	8	70	73.20
226220.0500	8	1.5	25	8	70	79.80
226220.0600	8	2	25	8	70	79.80
226220.0700	10	0.5	30	10	90	107.80
226220.0800	10	1	30	10	90	107.80
226220.0900	10	1.5	30	10	90	117.80
226220.1000	10	2	30	10	90	117.80
226220.1100	12	0.5	30	12	90	148.20
226220.1200	12	1	30	12	90	148.20
226220.1400	12	2	30	12	90	161.50

FUTURO



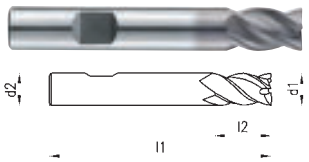
225728 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 5-20 | AlTiN | 35°/38° | h10 | h6 | NORM | 4 | HPC

P	M	K	N	S	H	O
●●	○	●●				

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Protective chamfer mm	Price €
225728.0100	5	21	6	63	0.18	48.50
225728.0200	6	22	6	63	0.2	48.50
225728.0300	8	28	8	80	0.2	60.30
225728.0400	10	33	10	100	0.3	77.40
225728.0500	12	42	12	100	0.3	100.70
225728.0600	14	48	14	100	0.3	123.50
225728.0700	16	53	16	150	0.4	183.40
225728.0800	20	68	20	150	0.5	264.10

FUTURO



225731 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 3-20 | TiAlN | 35°/38° | h10 | h6 | NORM | 4 | HPC

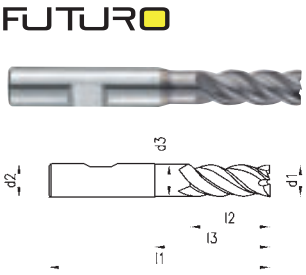
P	M	K	N	S	H	O
●●	○	●●				

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Protective chamfer mm	Price €
225731.0100	3	6	6	54	0.1	27.70
225731.0200	4	8	6	54	0.13	27.70
225731.0300	5	9	6	54	0.18	27.70
225731.0400	6	10	6	54	0.2	27.70
225731.0500	7	12	8	58	0.2	36.10
225731.0600	8	12	8	58	0.2	36.10
225731.0700	9	14	10	66	0.3	51.30
225731.0800	10	14	10	66	0.3	51.30
225731.0900	11	16	12	73	0.3	65.10
225731.1000	12	16	12	73	0.3	65.10
225731.1100	13	18	14	75	0.3	81.20
225731.1200	14	18	14	75	0.3	81.20
225731.1300	16	22	16	82	0.4	105.50
225731.1400	18	24	18	84	0.4	154.90
225731.1500	20	26	20	92	0.5	162.50

225733 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 3-25 | TiAlN | 35°/38° | h10 | h6 | NORM | 4 | HPC

P	M	K	N	S	H	O
●●	○	●●				

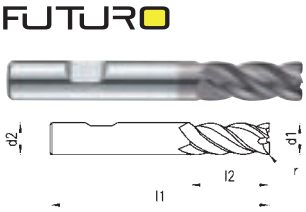


Order ID	d1 mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Protective chamfer mm	Price €
225733.0100	3	8	17	6	57	2.8	0.13	35.10
225733.0200	4	11	20	6	57	3.6	0.18	35.10
225733.0300	5	13	20	6	57	4.6	0.2	35.10
225733.0400	6	13	20	6	57	5.5	0.2	35.10
225733.0500	7	19	26	8	63	6.5	0.2	44.70
225733.0600	8	19	26	8	63	7.5	0.2	44.70
225733.0700	9	22	31	10	72	8.5	0.3	67.00
225733.0800	10	22	31	10	72	9.5	0.3	67.00
225733.0900	11	26	37	12	83	10.5	0.3	85.00
225733.1000	12	26	37	12	83	11.5	0.3	85.00
225733.1100	13	26	41	14	83	12.5	0.3	109.00
225733.1200	14	26	41	14	83	13.5	0.3	109.00
225733.1300	16	32	43	16	92	15.5	0.4	145.00
225733.1400	18	32	49	18	100	17.5	0.4	189.00
225733.1500	20	38	53	20	104	19.5	0.5	215.00
225733.1600	25	42	64	25	121	24	0.5	419.00

225734 SC shoulder/ slot milling cutters FUTURO

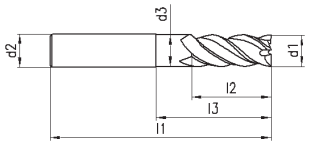
VHM | Ø 3-20 | TiAlN | 35°/38° | h10 | h6 | NORM | 4 | HPC

P	M	K	N	S	H	O
●●	○	●●				



Order ID	d1 mm	r mm	l2 mm	d2 mm	l1 mm	Price €
225734.0050	3	0.25	8	6	57	41.70
225734.0100	4	0.25	11	6	57	34.60
225734.0200	4	0.5	11	6	57	34.60
225734.0300	4	1	11	6	57	34.60
225734.0400	5	0.5	13	6	57	34.60
225734.0500	5	1	13	6	57	34.60
225734.0600	5	1.5	13	6	57	34.60
225734.0700	6	0.5	13	6	57	34.60
225734.0800	6	1	13	6	57	34.60
225734.0900	6	1.5	13	6	57	34.60
225734.2300	14	1	26	14	83	116.90
225734.1000	6	2	13	6	57	34.60
225734.1100	8	0.5	19	8	63	47.30
225734.1200	8	1	19	8	63	47.30
225734.1300	8	1.5	19	8	63	47.30
225734.1400	8	2	19	8	63	47.30
225734.1500	10	0.5	22	10	72	69.40
225734.1600	10	1	22	10	72	69.40
225734.1700	10	1.5	22	10	72	69.40
225734.1800	10	2	22	10	72	69.40
225734.1900	12	0.5	26	12	83	87.40
225734.2000	12	1	26	12	83	87.40
225734.2100	12	1.5	26	12	83	87.40
225734.2200	12	2	26	12	83	87.40
225734.2400	14	2	26	14	83	116.90
225734.2450	16	0.5	32	16	92	155.80
225734.2500	16	1	32	16	92	153.00
225734.2600	16	1.5	32	16	92	153.00
225734.2700	16	2	32	16	92	153.00
225734.2800	16	2.5	32	16	92	153.00
225734.2900	18	1.5	32	18	92	210.90
225734.3000	18	2.5	32	18	92	210.90
225734.3090	20	0.5	38	20	104	232.80
225734.3100	20	1	38	20	104	230.90
225734.3200	20	1.5	38	20	104	230.90
225734.3300	20	2	38	20	104	230.90
225734.3400	20	2.5	38	20	104	230.90
225734.3500	20	3	38	20	104	230.90
225734.3600	20	4	38	20	104	230.90
225734.3700	20	5	38	20	104	230.90

FUTURO



225100 SC shoulder/ slot milling cutters FUTURO

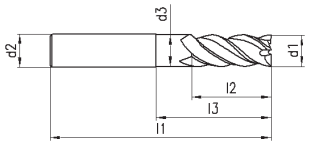
VHM | Ø 3-16 | Coated | 36°/38° | 0 / -0.03 | h6 | NORM | 4 | HPC

P	M	K	N	S	H	O
●●	○	●●				

Properties:
Special cutting geometry with **uneven pitch** and **uneven twist** for quieter running and chip evacuation. **Ultra fine grain carbide** with **improved coating** for increased resistance to heat and an extended service life.

Order ID	d1 mm	l2 mm	l3 mm	l1 mm	d2 mm	d3 mm	Protective chamfer mm	Shank	Price €
225100.0050	3.0	7	-	54	6	-	0.10	HA	32.30
225100.0100	3.0	7	12	54	6	2.7	0.10	HA	36.60
225100.0200	3.0	7	17	57	6	2.7	0.10	HA	36.60
225100.0300	3.0	8	14	57	6	2.7	0.10	HA	36.60
225100.0350	4.0	8	-	54	6	-	0.15	HA	32.30
225100.0400	4.0	8	15	57	6	3.7	0.15	HA	36.60
225100.0500	4.0	8	22	63	6	3.7	0.15	HA	36.60
225100.0600	4.0	11	16	57	6	3.7	0.15	HA	36.60
225100.0650	5.0	10	-	54	6	-	0.15	HA	32.30
225100.0700	5.0	10	17	57	6	4.7	0.15	HA	36.60
225100.0800	5.0	10	27	67	6	4.7	0.15	HA	36.60
225100.0900	5.0	13	18	57	6	4.7	0.15	HA	36.60
225100.0950	6.0	10	-	57	6	-	0.20	HA	32.30
225100.1000	6.0	10	15	57	6	5.5	0.20	HA	36.60
225100.1100	6.0	10	20	62	6	5.5	0.20	HA	36.60
225100.1200	6.0	10	32	74	6	5.5	0.20	HA	36.60
225100.1300	6.0	13	21	57	6	5.5	0.20	HA	36.60
225100.1350	8.0	12	-	58	8	-	0.20	HA	42.80
225100.1400	8.0	12	20	63	8	7.5	0.20	HA	46.10
225100.1500	8.0	12	30	73	8	7.5	0.20	HA	46.10
225100.1600	8.0	12	46	90	8	7.5	0.20	HA	46.10
225100.1700	8.0	19	27	63	8	7.5	0.20	HA	46.10
225100.1750	10.0	14	-	66	10	-	0.30	HA	61.80
225100.1800	10.0	14	25	72	10	9.2	0.30	HA	66.00
225100.1900	10.0	14	35	82	10	9.2	0.30	HA	66.00
225100.2000	10.0	14	55	102	10	9.2	0.30	HA	66.00
225100.2100	10.0	22	32	72	10	9.2	0.30	HA	66.00
225100.2150	12.0	16	-	73	12	-	0.35	HA	80.80
225100.2200	12.0	16	30	83	12	11.0	0.35	HA	85.00
225100.2300	12.0	16	40	93	12	11.0	0.35	HA	85.00
225100.2400	12.0	16	64	117	12	11.0	0.35	HA	137.80
225100.2500	12.0	26	38	83	12	11.0	0.35	HA	85.00
225100.2550	16.0	22	-	82	16	-	0.40	HA	134.90
225100.2551	16.0	22	-	82	16	-	0.40	HA	134.90
225100.2600	16.0	22	38	92	16	15.0	0.40	HA	150.10
225100.2700	16.0	22	56	109	16	15.0	0.40	HA	150.10
225100.2800	16.0	22	87	141	16	15.0	0.40	HA	160.60
225100.2900	16.0	32	44	92	16	15.0	0.40	HB	150.10

FUTURO



225330 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 6-20 | TiAlN-SiN | 45° | h10 | h5 | NORM | 4 | HPC

P	M	K	N	S	H	O
●●		○				

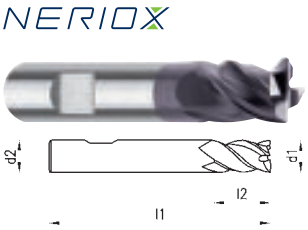
Properties
Special shank designed for shrink-fitting.

Order ID	d1 mm	l2 mm	l3 mm	l1 mm	d2 mm	d3 mm	Protective chamfer mm	Price €
225330.0100	6	13	20	57	6	5.5	0.2	32.00
225330.0200	8	19	26	63	8	7.5	0.2	41.90
225330.0300	10	22	31	72	10	9.5	0.3	61.30
225330.0400	12	26	37	83	12	11.5	0.3	75.50
225330.0500	16	32	43	92	16	15.5	0.4	128.30
225330.0600	20	38	53	104	20	19.5	0.5	191.00

227866 SC shoulder/ slot milling cutters NERIOX

VHM | Ø 3-20 | TiAlN | 35°/38° | h10 | h6 | NORM | 4 | HPC

P	M	K	N	S	H	O
●●	○	●●				



Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Protective chamfer mm	Price €
227866.0030	**3**	6	6	54	0.1	19.20
227866.0040	**4**	8	6	54	0.13	19.20
227866.0050	**5**	9	6	54	0.18	19.20
227866.0100	**6**	10	6	54	0.2	19.20
227866.0200	**8**	12	8	58	0.2	25.60
227866.0300	**10**	14	10	66	0.2	34.40
227866.0400	**12**	16	12	73	0.3	45.50
227866.0500	**16**	22	16	82	0.3	74.00
227866.0600	**20**	26	20	92	0.4	114.10

227871 SC shoulder/ slot milling cutters NERIOX

VHM | Ø 6-20 | TiAlN | 35°/38° | h10 | h6 | NORM | 4 | HPC

P	M	K	N	S	H	O
●●	○	●●				

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Protective chamfer mm	Price €
227871.0100	**6**	13	6	57	0.2	22.00
227871.0200	**8**	19	8	63	0.2	29.80
227871.0300	**10**	22	10	72	0.2	40.50
227871.0400	**12**	26	12	83	0.3	55.90
227871.0500	**16**	32	16	92	0.3	94.20
227871.0600	**20**	38	20	104	0.4	146.20

227876 SC shoulder/ slot milling cutters NERIOX

VHM | Ø 3-20 | TiAlN | 35°/38° | h10 | h6 | NORM | 4 | HPC

P	M	K	N	S	H	O
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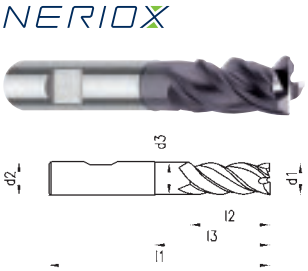
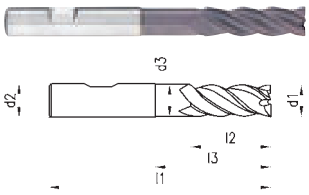


Order ID	d1 mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Protective chamfer mm	Price €
227876.0030	**3**	8	**18**	6	57	2.8	0.13	23.00
227876.0040	**4**	11	**21**	6	57	3.6	0.13	23.00
227876.0050	**5**	13	**21**	6	57	4.6	0.2	23.00
227876.0100	**6**	13	**21**	6	57	5,8	0.2	23.00
227876.0200	**8**	19	**27**	8	63	7,6	0.2	32.00
227876.0300	**10**	22	**32**	10	72	9,5	0.2	45.90
227876.0400	**12**	26	**38**	12	83	11,5	0.3	58.90
227876.0500	**16**	32	**44**	16	92	15,5	0.3	105.30
227876.0600	**20**	38	**54**	20	104	19,5	0.4	158.90

NERIOX



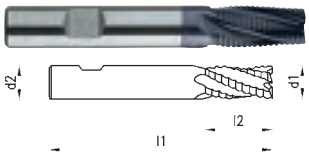
227881 SC shoulder/ slot milling cutters NERIOX

VHM | Ø 6-20 | TiAlN | 35°/38° | h10 | h6 | NORM | 4 | HPC

P	M	K	N	S	H	O
●●	○	●●				

Order ID	d1 mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Protective chamfer mm	Price €
227881.0100	**6**	22	30	6	63	5.5	0.2	36.80
227881.0200	**8**	28	36	8	80	7.5	0.2	45.70
227881.0300	**10**	33	54	10	100	9.5	0.2	58.30
227881.0400	**12**	42	54	12	100	11.5	0.3	74.40
227881.0500	**16**	53	69	16	150	15.5	0.3	136.20
227881.0600	**20**	68	84	20	150	19.5	0.4	198.00

FUTURO



226920 SC shoulder/ slot milling cutters FUTURO

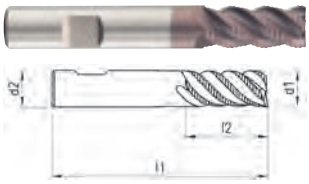
VHM | Ø 6-20 | TiAlN | 20° | h6 | NORM | 3-4

P	M	K	N	S	H	O
●●		○			○	

Type N, with fine pitch

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	teeth	Price €
226920.0100	**6**	16	6	57	3	52.30
226920.0200	**7**	16	8	63	3	61.30
226920.0300	**8**	16	8	63	3	61.30
226920.0400	**9**	19	10	72	4	91.20
226920.0500	**10**	22	10	72	4	91.20
226920.0600	**12**	26	12	83	4	117.30
226920.0700	**14**	26	14	83	4	142.50
226920.0800	**16**	32	16	92	4	191.00
226920.0900	**18**	32	18	92	4	245.10
226920.1000	**20**	38	20	104	4	307.80

NERIOX



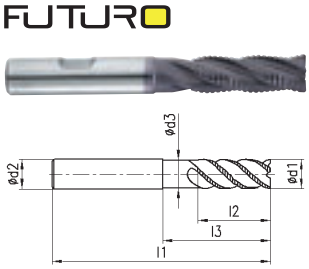
227831 SC shoulder-/ slot end mill NERIOX

VHM | Ø 4-16 | TiAlN | 45° | h6 | NORM | 3-5

P	M	K	N	S	H	O
●●	○	○	○			

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	teeth	Price €
227831.0030	**4**	11	6	57	3	26.80
227831.0060	**5**	13	6	57	4	26.80
227831.0100	**6**	16	6	57	4	26.80
227831.0200	**8**	16	8	69	4	32.10
227831.0300	**10**	22	10	72	4	50.00
227831.0400	**12**	26	12	83	4	65.00
227831.0500	**16**	32	16	92	5	115.00

225940 SC shoulder/ slot milling cutters FUTURO



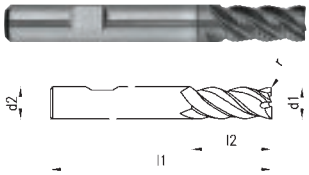
VHM | Ø 6-20 | TiAlN | 30°/32° | h10 | h6 | NORM | 4 | HPC

P	M	K	N	S	H	O
●●		●●				

NF, protective chamfer: 0.3-0.6 x 45°

Order ID	d1 mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Price €
225940.0100	6	18	29	6	65	5.5	99.30
225940.0200	8	24	39	8	75	7.5	120.70
225940.0300	10	30	40	10	80	9.2	138.70
225940.0400	12	36	48	12	93	11.2	166.30
225940.0500	16	48	60	16	108	15	264.10
225940.0600	20	60	76	20	126	19	400.90

226935 SC shoulder/ slot milling cutters FUTURO



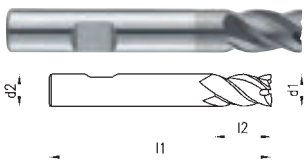
VHM | Ø 6-20 | Coated | 0 / -0.03 | h6 | NORM | 4-5 | HPC

P	M	K	N	S	H	O
●●	○	●●				

Application
Top-quality carbide, innovative roughing profile for reducing vibrations and cutting forces, especially suited for fast feed and heavy-duty machining, plunge and pocket milling

Order ID	d1 mm	r mm	l2 mm	d2 mm	l1 mm	teeth	Price €
226935.0100	6	0.5	12	6	57	4	71.30
226935.0200	8	0.5	16	8	63	4	81.20
226935.0300	10	0.5	20	10	72	4	120.70
226935.0400	12	0.5	24	12	83	4	174.80
226935.0500	16	1	32	16	92	5	247.00
226935.0600	20	1	40	20	104	5	399.00

FUTURO



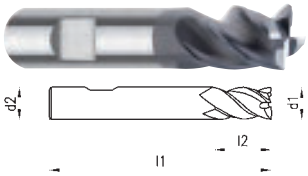
225737 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 3-20 | AlTiN | 35°/38° | h10 | h6 | DIN 6527L | 4

P	M	K	N	S	H	O
○	●●			○		

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Protective chamfer mm	Price €
225737.0100	3	6	6	54	0.1	27.70
225737.0200	4	8	6	54	0.13	27.70
225737.0300	5	9	6	54	0.18	27.70
225737.0400	6	10	6	54	0.2	27.70
225737.0500	7	12	8	58	0.2	36.10
225737.0600	8	12	8	58	0.2	36.10
225737.0700	9	14	10	66	0.3	51.30
225737.0800	10	14	10	66	0.3	51.30
225737.0900	11	16	12	73	0.3	65.10
225737.1000	12	16	12	73	0.3	65.10
225737.1100	13	18	14	75	0.3	81.20
225737.1200	14	18	14	75	0.3	81.20
225737.1300	16	22	16	82	0.4	105.50
225737.1400	18	24	18	84	0.4	154.90
225737.1500	20	26	20	92	0.5	162.50

NERIOX



227886 SC shoulder/ slot milling cutters NERIOX

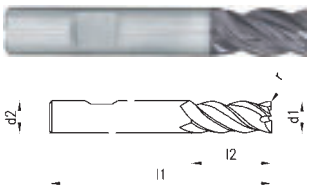
INOX

VHM | Ø 3-20 | AlTiN | 35°/38° | h10 | h6 | NORM | 4 | HPC

P	M	K	N	S	H	O
	●●			○		

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Protective chamfer mm	Price €
227886.0030	3	6	54	6	0.1	23.00
227886.0040	4	8	54	6	0.13	23.00
227886.0050	5	9	54	6	0.18	23.00
227886.0100	6	10	54	6	0.2	23.00
227886.0200	8	12	58	8	0.2	32.00
227886.0300	10	14	66	10	0.2	45.90
227886.0400	12	16	73	12	0.3	58.90
227886.0500	16	22	82	16	0.3	105.30
227886.0600	20	26	92	20	0.4	158.90

FUTURO



225020 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 3-16 | AlTiN | 37° | 0 / -0.03 | h6 | NORM | 4

P	M	K	N	S	H	O
○	●●			●●		

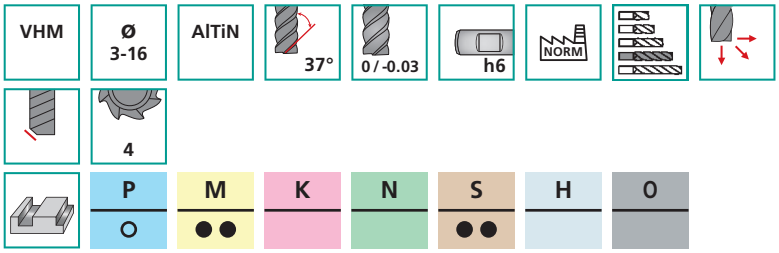
Type HPC, top-quality carbide

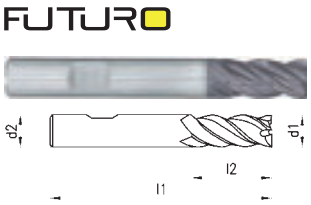
Application

High-performance milling cutter for the machining of stainless steels, tool steels, unalloyed and alloyed steels, titanium, Inconel, and pre-hardened steels **up to 42 HRC**. Extremely wear-resistant, creates top-quality surfaces and reduces vibrations to a minimum.

Order ID	d1 mm	r mm	l2 mm	d2 mm	l1 mm	Price €
225020.0100	3	0.3	7	6	54	37.50
225020.0200	4	0.3	8	6	54	37.50
225020.0300	5	0.3	10	6	54	37.50
225020.0400	6	0.45	10	6	54	37.50
225020.0500	8	0.45	12	8	58	52.80
225020.0600	10	0.45	14	10	66	73.30
225020.0700	12	0.7	16	12	73	95.80
225020.0800	16	0.95	22	16	82	153.40

225040 SC shoulder/ slot milling cutters FUTURO





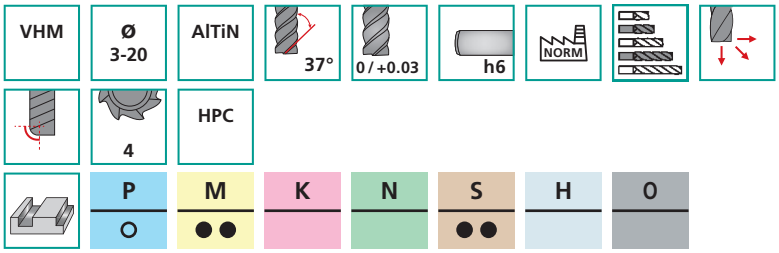
Type HPC, top-quality carbide, chamfer on face

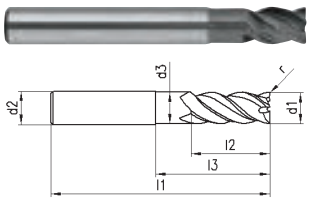
Application

High-performance milling cutter for the machining of stainless steels, tool steels, unalloyed and alloyed steels, titanium, Inconel, and pre-hardened steels **up to 42 HRC**. Extremely wear-resistant, creates outstanding surfaces and reduces vibrations to a minimum.

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
225040.0100	**3**	8	6	57	**35.40**
225040.0200	**4**	11	6	57	**35.40**
225040.0300	**5**	13	6	57	**35.40**
225040.0400	**6**	13	6	57	**35.40**
225040.0500	**8**	19	8	63	**50.30**
225040.0600	**10**	22	10	72	**74.30**
225040.0700	**12**	26	12	83	**95.20**
225040.0800	**16**	32	16	92	**166.10**

225070 SC shoulder/ slot milling cutters FUTURO





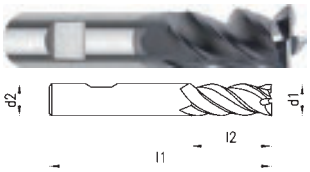
Type HPC, top-quality carbide

Application

For machining stainless steels, tool steels, alloyed and unalloyed steels, titanium, Inconel and pre-hardened steels **up to 42 HRC**. Extremely wear-resistant, creates outstanding surfaces and reduces vibrations to a minimum.

Order ID	d1 mm	r mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Price €
225070.0100	**3**	**0.3**	**7**	**12**	6	54	2.7	**43.50**
225070.0200	**3**	**0.3**	**7**	**17**	6	57	2.7	**43.50**
225070.0300	**4**	**0.3**	**8**	**15**	6	57	3.7	**43.50**
225070.0500	**5**	**0.3**	**10**	**17**	6	57	4.7	**43.50**
225070.0600	**5**	**0.3**	**10**	**27**	6	67	4.7	**43.50**
225070.0700	**6**	**0.5**	**10**	**15**	6	57	5.5	**43.50**
225070.0800	**6**	**0.5**	**10**	**20**	6	62	5.5	**43.50**
225070.0900	**6**	**0.5**	**10**	**32**	6	74	5.5	**43.50**
225070.1000	**8**	**0.5**	**12**	**20**	8	63	7.5	**60.10**
225070.1100	**8**	**0.5**	**12**	**30**	8	73	7.5	**66.40**
225070.1200	**8**	**0.5**	**12**	**46**	8	90	7.5	**71.80**
225070.1300	**10**	**0.5**	**14**	**25**	10	72	9.2	**82.60**
225070.1400	**10**	**0.5**	**14**	**35**	10	82	9.2	**93.80**
225070.1500	**10**	**0.5**	**14**	**55**	10	102	9.2	**98.70**
225070.1600	**12**	**0.7**	**16**	**30**	12	83	11	**112.90**
225070.1700	**12**	**0.7**	**16**	**40**	12	93	11	**118.30**
225070.1800	**12**	**0.7**	**16**	**64**	12	117	11	**151.50**
225070.1900	**16**	**1.0**	**22**	**38**	16	92	15	**160.30**
225070.2000	**16**	**1.0**	**22**	**55**	16	109	15	**202.30**
225070.2100	**16**	**1.0**	**22**	**87**	16	141	15	**218.90**
225070.2200	**20**	**1.0**	**26**	**50**	20	104	19	**241.30**
225070.2300	**20**	**1.0**	**26**	**70**	20	124	19	**306.90**
225070.2400	**20**	**1.0**	**26**	**110**	20	164	19	**345.90**

NERIOX



227891 SC shoulder/ slot milling cutters NERIOX

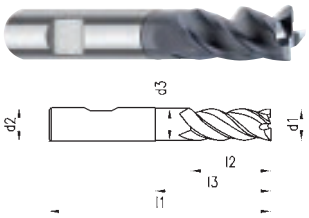
INOX

VHM | Ø 6-20 | AlTiN | 35°/38° | h10 | h6 | NORM | 4 | HPC

P	M	K	N	S	H	O
	●●			○		

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	Protective chamfer mm	Price €
227891.0100	**6**	13	57	6	0.2	25.70
227891.0200	**8**	19	63	8	0.2	35.30
227891.0300	**10**	22	72	10	0.2	49.10
227891.0400	**12**	26	83	12	0.3	71.10
227891.0500	**16**	32	92	16	0.3	116.10
227891.0600	**20**	38	104	20	0.4	175.10

NERIOX



227896 SC shoulder/ slot milling cutters NERIOX

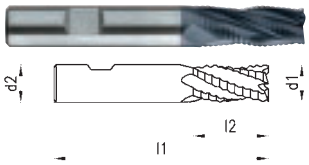
INOX

VHM | Ø 3-20 | AlTiN | 35°/38° | h10 | h6 | NORM | 4 | HPC

P	M	K	N	S	H	O
	●●			○		

Order ID	d1 mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Protective chamfer mm	Price €
227896.0030	**3**	8	**18**	6	57	2.75	0.1	27.60
227896.0040	**4**	11	**21**	6	57	3.5	0.13	27.60
227896.0050	**5**	13	**21**	6	57	4.5	0.2	27.60
227896.0100	**6**	13	**21**	6	57	5,8	0.2	27.60
227896.0200	**8**	19	**27**	8	63	7,6	0.2	38.30
227896.0300	**10**	22	**32**	10	72	9,5	0.2	54.80
227896.0400	**12**	26	**38**	12	83	11,5	0.3	70.30
227896.0500	**16**	32	**44**	16	92	15,5	0.3	125.80
227896.0600	**20**	38	**54**	20	104	19,5	0.4	189.70

FUTURO



227540 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 6-20 | TiAlN | 30° | h6 | NORM | 3-4

P	M	K	N	S	H	O
	●●			●●		

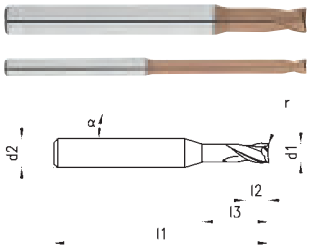
Type NRF

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	teeth	Price €
227540.0100	**6**	16	6	57	3	51.80
227540.0200	**7**	16	8	63	3	60.80
227540.0300	**8**	16	8	63	3	60.80
227540.0400	**9**	19	10	72	4	90.70
227540.0500	**10**	22	10	72	4	90.70
227540.0600	**12**	26	12	83	4	116.90
227540.0700	**14**	26	14	83	4	141.60
227540.0800	**16**	32	16	92	4	189.10

222400 SC shoulder/ slot milling cutters FUTURO

with corner radius

VHM	Ø 0.2-16	Coated	30°		NORM		2	HSC
		P	M	K	N	S	H	O
		○		○	●●		●●	



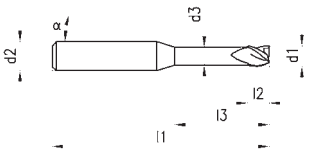
Tolerances r:
≤ 0.5 mm: +/- 0.005 mm
0.6...1.5 mm: +/- 0.010 mm
> 1.5 mm: +/- 0.015 mm

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222400.0010	0.2	0.02	1	0.2	40	4	15	66.40	222400.0750	0.8	0.05	6	0.8	45	4	15	51.10
222400.0020	0.2	0.02	1.5	0.2	40	4	15	66.40	222400.0760	0.8	0.05	8	0.8	45	4	15	51.10
222400.0030	0.2	0.05	1	0.2	40	4	15	66.40	222400.0770	0.8	0.05	10	0.8	50	4	15	51.10
222400.0040	0.2	0.05	1.5	0.2	40	4	15	66.40	222400.0780	0.8	0.1	2	0.8	45	4	15	51.10
222400.0050	0.3	0.05	1	0.3	40	4	15	66.40	222400.0790	0.8	0.1	4	0.8	45	4	15	51.10
222400.0060	0.3	0.05	2	0.3	40	4	15	66.40	222400.0800	0.8	0.1	6	0.8	45	4	15	51.10
222400.0070	0.3	0.05	3	0.3	40	4	15	66.40	222400.0810	0.8	0.1	8	0.8	45	4	15	51.10
222400.0080	0.4	0.05	1	0.4	40	4	15	60.70	222400.0820	0.8	0.1	10	0.8	45	4	15	51.10
222400.0090	0.4	0.05	2	0.4	40	4	15	60.70	222400.0830	0.8	0.2	2	0.8	45	4	15	51.10
222400.0100	0.4	0.05	3	0.4	40	4	15	60.70	222400.0840	0.8	0.2	4	0.8	45	4	15	51.10
222400.0110	0.4	0.05	4	0.4	40	4	15	60.70	222400.0850	0.8	0.2	6	0.8	45	4	15	51.10
222400.0120	0.4	0.1	1	0.4	40	4	15	60.70	222400.0860	0.8	0.2	8	0.8	45	4	15	51.10
222400.0130	0.4	0.1	1.5	0.4	40	4	15	60.70	222400.0870	0.8	0.2	10	0.8	45	4	15	51.10
222400.0140	0.4	0.1	2	0.4	40	4	15	60.70	222400.0880	1	0.05	4	1	45	4	15	48.60
222400.0150	0.4	0.1	3	0.4	40	4	15	60.70	222400.0890	1	0.05	6	1	45	4	15	48.60
222400.0160	0.4	0.1	4	0.4	40	4	15	60.70	222400.0900	1	0.05	8	1	45	4	15	48.60
222400.0170	0.5	0.02	1	0.5	45	4	15	51.10	222400.0910	1	0.05	10	1	50	4	15	48.60
222400.0180	0.5	0.02	1.5	0.5	45	4	15	51.10	222400.0920	1	0.05	12	1	50	4	15	48.60
222400.0190	0.5	0.02	2.0	0.5	45	4	15	51.10	222400.0930	1	0.05	16	1	50	4	15	48.60
222400.0200	0.5	0.02	2.5	0.5	45	4	15	51.10	222400.0940	1	0.05	20	1	50	4	15	51.10
222400.0210	0.5	0.02	3	0.5	45	4	15	51.10	222400.0950	1	0.05	22	1	60	4	15	51.10
222400.0220	0.5	0.02	4	0.5	45	4	15	51.10	222400.0960	1	0.05	25	1	60	4	15	51.10
222400.0230	0.5	0.02	5	0.5	45	4	15	51.10	222400.0970	1	0.1	4	1	45	4	15	48.60
222400.0240	0.5	0.02	6	0.5	45	4	15	51.10	222400.0980	1	0.1	6	1	45	4	15	48.60
222400.0250	0.5	0.02	8	0.5	45	4	15	51.10	222400.0990	1	0.1	8	1	45	4	15	48.60
222400.0260	0.5	0.02	10	0.5	45	4	15	51.10	222400.1000	1	0.1	10	1	50	4	15	48.60
222400.0270	0.5	0.05	1	0.5	45	4	15	51.10	222400.1010	1	0.1	12	1	50	4	15	48.60
222400.0280	0.5	0.05	1.5	0.5	45	4	15	51.10	222400.1020	1	0.1	16	1	50	4	15	48.60
222400.0290	0.5	0.05	2	0.5	45	4	15	51.10	222400.1030	1	0.1	20	1	50	4	15	51.10
222400.0300	0.5	0.05	2.5	0.5	45	4	15	51.10	222400.1040	1	0.1	22	1	60	4	15	51.10
222400.0310	0.5	0.05	3	0.5	45	4	15	51.10	222400.1050	1	0.1	25	1	60	4	15	51.10
222400.0320	0.5	0.05	4	0.5	45	4	15	51.10	222400.1060	1	0.2	4	1	45	4	15	48.60
222400.0330	0.5	0.05	5	0.5	45	4	15	51.10	222400.1070	1	0.2	6	1	45	4	15	48.60
222400.0340	0.5	0.05	6	0.5	45	4	15	51.10	222400.1080	1	0.2	8	1	45	4	15	48.60
222400.0350	0.5	0.05	8	0.5	45	4	15	51.10	222400.1090	1	0.2	10	1	50	4	15	48.60
222400.0360	0.5	0.05	10	0.5	45	4	15	51.10	222400.1100	1	0.2	12	1	50	4	15	48.60
222400.0370	0.5	0.1	1	0.5	45	4	15	51.10	222400.1110	1	0.2	16	1	50	4	15	48.60
222400.0380	0.5	0.1	1.5	0.5	45	4	15	51.10	222400.1120	1	0.2	20	1	50	4	15	51.10
222400.0390	0.5	0.1	2	0.5	45	4	15	51.10	222400.1130	1	0.2	22	1	60	4	15	51.10
222400.0400	0.5	0.1	2.5	0.5	45	4	15	51.10	222400.1140	1	0.2	25	1	60	4	15	51.10
222400.0410	0.5	0.1	3	0.5	45	4	15	51.10	222400.1150	1	0.3	4	1	45	4	15	48.60
222400.0420	0.5	0.1	4	0.5	45	4	15	51.10	222400.1160	1	0.3	6	1	45	4	15	48.60
222400.0430	0.5	0.1	5	0.5	45	4	15	51.10	222400.1170	1	0.3	8	1	45	4	15	48.60
222400.0440	0.5	0.1	6	0.5	45	4	15	51.10	222400.1180	1	0.3	10	1	50	4	15	48.60
222400.0450	0.5	0.1	8	0.5	45	4	15	51.10	222400.1190	1	0.3	12	1	50	4	15	48.60
222400.0460	0.5	0.1	10	0.5	50	4	15	51.10	222400.1200	1	0.3	16	1	50	4	15	48.60
222400.0470	0.6	0.02	2	0.6	45	4	15	51.10	222400.1210	1	0.3	20	1	50	4	15	51.10
222400.0480	0.6	0.02	3	0.6	45	4	15	51.10	222400.1220	1	0.3	22	1	60	4	15	51.10
222400.0490	0.6	0.02	4	0.6	45	4	15	51.10	222400.1230	1	0.3	25	1	60	4	15	51.10
222400.0500	0.6	0.02	6	0.6	45	4	15	51.10	222400.1240	1.2	0.1	4	1.2	45	4	15	51.10
222400.0510	0.6	0.02	8	0.6	45	4	15	51.10	222400.1250	1.2	0.1	6	1.2	45	4	15	51.10
222400.0520	0.6	0.02	10	0.6	50	4	15	51.10	222400.1260	1.2	0.1	8	1.2	45	4	15	51.10
222400.0530	0.6	0.05	2	0.6	45	4	15	51.10	222400.1270	1.2	0.1	10	1.2	50	4	15	51.10
222400.0540	0.6	0.05	3	0.6	45	4	15	51.10	222400.1280	1.2	0.1	12	1.2	50	4	15	53.90
222400.0550	0.6	0.05	4	0.6	45	4	15	51.10	222400.1290	1.2	0.1	16	1.2	50	4	15	53.90
222400.0560	0.6	0.05	6	0.6	45	4	15	51.10	222400.1300	1.2	0.1	20	1.2	50	4	15	56.30
222400.0570	0.6	0.05	8	0.6	45	4	15	51.10	222400.1310	1.2	0.2	4	1.2	45	4	15	51.10
222400.0580	0.6	0.05	10	0.6	50	4	15	51.10	222400.1320	1.2	0.2	6	1.2	45	4	15	51.10
222400.0590	0.6	0.1	2	0.6	45	4	15	51.10	222400.1330	1.2	0.2	8	1.2	45	4	15	51.10
222400.0600	0.6	0.1	3	0.6	45	4	15	51.10	222400.1340	1.2	0.2	10	1.2	50	4	15	51.10
222400.0610	0.6	0.1	4	0.6	45	4	15	51.10	222400.1350	1.2	0.2	12	1.2	50	4	15	53.90
222400.0620	0.6	0.1	6	0.6	45	4	15	51.10	222400.1360	1.2	0.2	16	1.2	50	4	15	53.90
222400.0630	0.6	0.1	8	0.6	45	4	15	51.10	222400.1370	1.2	0.2	20	1.2	50	4	15	56.30
222400.0640	0.6	0.1	10	0.6	50	4	15	51.10	222400.1380	1.2	0.3	4	1.2	45	4	15	51.10
222400.0650	0.7	0.1	2	0.7	45	4	15	51.10	222400.1390	1.2	0.3	6	1.2	45	4	15	51.10
222400.0660	0.7	0.1	4	0.7	45	4	15	51.10	222400.1400	1.2	0.3	8	1.2	45	4	15	51.10
222400.0670	0.7	0.1	6	0.7	45	4	15	51.10	222400.1410	1.2	0.3	10	1.2	50	4	15	51.10
222400.0680	0.8	0.02	2	0.8	45	4	15	51.10	222400.1420	1.2	0.3	12	1.2	50	4	15	53.90
222400.0690	0.8	0.02	4	0.8	45	4	15	51.10	222400.1430	1.2	0.3	16	1.2	50	4	15	53.90
222400.0700	0.8	0.02	6	0.8	45	4	15	51.10	222400.1440	1.2	0.3	20	1.2	50	4	15	56.30
222400.0710	0.8	0.02	8	0.8	45	4	15	51.10	222400.1450	1.5	0.1	4	1.5	45	4	15	51.10
222400.0720	0.8	0.02	10	0.8	50	4	15	51.10	222400.1460	1.5	0.1	6	1.5	45	4	15	51.10
222400.0730	0.8	0.05	2	0.8	45	4	15	51.10	222400.1470	1.5	0.1	8	1.5	45	4	15	51.10
222400.0740	0.8	0.05	4	0.8	45	4	15	51.10	222400.1480	1.5	0.1	10	1.5	50	4	15	51.10

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222400.1490	1.5	0.1	12	1.5	50	4	15	53.90	222400.2390	3	0.1	35	3	75	6	15	66.40
222400.1500	1.5	0.1	16	1.5	50	4	15	53.90	222400.2400	3	0.1	40	3	80	6	15	66.40
222400.1510	1.5	0.1	20	1.5	50	4	15	53.90	222400.2410	3	0.2	10	3	50	6	15	56.30
222400.1520	1.5	0.1	22	1.5	60	4	15	53.90	222400.2420	3	0.2	12	3	55	6	15	56.30
222400.1530	1.5	0.1	25	1.5	60	4	15	53.90	222400.2430	3	0.2	16	3	55	6	15	56.30
222400.1540	1.5	0.2	4	1.5	45	4	15	51.10	222400.2440	3	0.2	20	3	60	6	15	56.30
222400.1550	1.5	0.2	6	1.5	45	4	15	51.10	222400.2450	3	0.2	25	3	65	6	15	56.30
222400.1560	1.5	0.2	8	1.5	45	4	15	51.10	222400.2460	3	0.2	30	3	70	6	15	66.40
222400.1570	1.5	0.2	10	1.5	50	4	15	51.10	222400.2470	3	0.2	35	3	75	6	15	66.40
222400.1580	1.5	0.2	12	1.5	50	4	15	53.90	222400.2480	3	0.2	40	3	80	6	15	66.40
222400.1590	1.5	0.2	16	1.5	50	4	15	53.90	222400.2490	3	0.3	10	3	50	6	15	56.30
222400.1600	1.5	0.2	20	1.5	50	4	15	53.90	222400.2500	3	0.3	12	3	55	6	15	56.30
222400.1610	1.5	0.2	22	1.5	60	4	15	53.90	222400.2510	3	0.3	16	3	55	6	15	56.30
222400.1620	1.5	0.2	25	1.5	60	4	15	53.90	222400.2520	3	0.3	20	3	60	6	15	56.30
222400.1630	1.5	0.3	4	1.5	45	4	15	51.10	222400.2530	3	0.3	25	3	65	6	15	56.30
222400.1640	1.5	0.3	6	1.5	45	4	15	51.10	222400.2540	3	0.3	30	3	70	6	15	66.40
222400.1650	1.5	0.3	8	1.5	45	4	15	51.10	222400.2550	3	0.3	35	3	75	6	15	66.40
222400.1660	1.5	0.3	10	1.5	50	4	15	51.10	222400.2560	3	0.3	40	3	80	6	15	66.40
222400.1670	1.5	0.3	12	1.5	50	4	15	53.90	222400.2570	3	0.5	10	3	50	6	15	56.30
222400.1680	1.5	0.3	16	1.5	50	4	15	53.90	222400.2580	3	0.5	12	3	55	6	15	56.30
222400.1690	1.5	0.3	20	1.5	50	4	15	53.90	222400.2590	3	0.5	16	3	55	6	15	56.30
222400.1700	1.5	0.3	22	1.5	60	4	15	53.90	222400.2600	3	0.5	20	3	60	6	15	56.30
222400.1710	1.5	0.3	25	1.5	60	4	15	53.90	222400.2610	3	0.5	25	3	65	6	15	56.30
222400.1720	1.5	0.5	4	1.5	45	4	15	51.10	222400.2620	3	0.5	30	3	70	6	15	66.40
222400.1730	1.5	0.5	6	1.5	45	4	15	51.10	222400.2630	3	0.5	35	3	75	6	15	66.40
222400.1740	1.5	0.5	8	1.5	45	4	15	51.10	222400.2640	3	0.5	40	3	80	6	15	66.40
222400.1750	1.5	0.5	10	1.5	50	4	15	51.10	222400.2650	3	1	10	3	50	6	15	56.30
222400.1760	1.5	0.5	12	1.5	50	4	15	53.90	222400.2660	3	1	12	3	55	6	15	56.30
222400.1770	1.5	0.5	16	1.5	50	4	15	53.90	222400.2670	3	1	16	3	55	6	15	56.30
222400.1780	1.5	0.5	20	1.5	50	4	15	53.90	222400.2680	3	1	20	3	60	6	15	56.30
222400.1790	1.5	0.5	22	1.5	60	4	15	53.90	222400.2690	3	1	25	3	65	6	15	56.30
222400.1800	1.5	0.5	25	1.5	60	4	15	53.90	222400.2700	3	1	30	3	70	6	15	66.40
222400.1810	2	0.1	6	2	45	4	15	51.10	222400.2710	3	1	35	3	75	6	15	66.40
222400.1820	2	0.1	8	2	45	4	15	51.10	222400.2720	3	1	40	3	80	6	15	66.40
222400.1830	2	0.1	10	2	50	4	15	51.10	222400.2730	4	0.1	12	4	50	4	-	58.30
222400.1840	2	0.1	12	2	50	4	15	53.90	222400.2740	4	0.1	20	4	70	4	-	58.30
222400.1850	2	0.1	16	2	50	4	15	53.90	222400.2750	4	0.1	12	4	55	6	15	58.30
222400.1860	2	0.1	20	2	50	4	15	53.90	222400.2760	4	0.1	16	4	55	6	15	58.30
222400.1870	2	0.1	25	2	60	4	15	53.90	222400.2770	4	0.1	20	4	60	6	15	58.30
222400.1880	2	0.1	30	2	70	4	15	60.70	222400.2780	4	0.1	25	4	65	6	15	68.70
222400.1890	2	0.2	6	2	45	4	15	51.10	222400.2790	4	0.1	30	4	70	6	15	68.70
222400.1900	2	0.2	8	2	45	4	15	51.10	222400.2800	4	0.1	35	4	75	6	15	68.70
222400.1910	2	0.2	10	2	50	4	15	51.10	222400.2810	4	0.1	40	4	80	6	15	58.30
222400.1920	2	0.2	12	2	50	4	15	53.90	222400.2820	4	0.1	45	4	90	6	15	58.30
222400.1930	2	0.2	16	2	50	4	15	53.90	222400.2830	4	0.1	50	4	100	6	15	58.30
222400.1940	2	0.2	20	2	50	4	15	53.90	222400.2840	4	0.2	12	4	50	4	-	58.30
222400.1950	2	0.2	25	2	60	4	15	53.90	222400.2850	4	0.2	20	4	70	4	-	58.30
222400.1960	2	0.2	30	2	70	4	15	60.70	222400.2860	4	0.2	12	4	55	6	15	68.70
222400.1970	2	0.3	6	2	45	4	15	51.10	222400.2870	4	0.2	16	4	55	6	15	68.70
222400.1980	2	0.3	8	2	45	4	15	51.10	222400.2880	4	0.2	20	4	60	6	15	68.70
222400.1990	2	0.3	10	2	50	4	15	51.10	222400.2890	4	0.2	25	4	65	6	15	58.30
222400.2000	2	0.3	12	2	50	4	15	53.90	222400.2900	4	0.2	30	4	70	6	15	58.30
222400.2010	2	0.3	16	2	50	4	15	53.90	222400.2910	4	0.2	35	4	75	6	15	58.30
222400.2020	2	0.3	20	2	50	4	15	53.90	222400.2920	4	0.2	40	4	80	6	15	58.30
222400.2030	2	0.3	25	2	60	4	15	53.90	222400.2930	4	0.2	45	4	90	6	15	58.30
222400.2040	2	0.3	30	2	70	4	15	60.70	222400.2940	4	0.2	50	4	100	6	15	68.70
222400.2050	2	0.5	6	2	45	4	15	51.10	222400.2950	4	0.3	12	4	50	4	-	68.70
222400.2060	2	0.5	8	2	45	4	15	51.10	222400.2960	4	0.3	20	4	70	4	-	68.70
222400.2070	2	0.5	10	2	50	4	15	51.10	222400.2970	4	0.3	12	4	55	6	15	58.30
222400.2080	2	0.5	12	2	50	4	15	53.90	222400.2980	4	0.3	16	4	55	6	15	58.30
222400.2090	2	0.5	16	2	50	4	15	53.90	222400.2990	4	0.3	20	4	60	6	15	58.30
222400.2100	2	0.5	20	2	50	4	15	53.90	222400.3000	4	0.3	25	4	65	6	15	58.30
222400.2110	2	0.5	25	2	60	4	15	53.90	222400.3010	4	0.3	30	4	70	6	15	58.30
222400.2120	2	0.5	30	2	70	4	15	60.70	222400.3020	4	0.3	35	4	75	6	15	68.70
222400.2130	2.5	0.1	10	2.5	50	4	15	53.90	222400.3030	4	0.3	40	4	80	6	15	68.70
222400.2140	2.5	0.1	16	2.5	50	4	15	53.90	222400.3040	4	0.3	45	4	90	6	15	68.70
222400.2150	2.5	0.1	20	2.5	50	4	15	56.30	222400.3050	4	0.3	50	4	100	6	15	58.30
222400.2160	2.5	0.1	25	2.5	60	4	15	56.30	222400.3060	4	0.5	12	4	50	4	-	58.30
222400.2170	2.5	0.1	30	2.5	70	4	15	60.70	222400.3070	4	0.5	20	4	70	4	-	58.30
222400.2180	2.5	0.2	10	2.5	50	4	15	56.30	222400.3080	4	0.5	12	4	55	6	15	58.30
222400.2190	2.5	0.2	16	2.5	50	4	15	56.30	222400.3090	4	0.5	16	4	55	6	15	58.30
222400.2200	2.5	0.2	20	2.5	50	4	15	56.30	222400.3100	4	0.5	20	4	60	6	15	68.70
222400.2210	2.5	0.2	25	2.5	60	4	15	56.30	222400.3110	4	0.5	25	4	65	6	15	68.70
222400.2220	2.5	0.2	30	2.5	70	4	15	60.70	222400.3120	4	0.5	30	4	70	6	15	68.70
222400.2230	2.5	0.3	10	2.5	50	4	15	56.30	222400.3130	4	0.5	35	4	75	6	15	58.30
222400.2240	2.5	0.3	16	2.5	50	4	15	56.30	222400.3140	4	0.5	40	4	80	6	15	58.30
222400.2250	2.5	0.3	20	2.5	50	4	15	56.30	222400.3150	4	0.5	45	4	90	6	15	58.30
222400.2260	2.5	0.3	25	2.5	60	4	15	56.30	222400.3160	4	0.5	50	4	100	6	15	58.30
222400.2270	2.5	0.3	30	2.5	70	4	15	60.70	222400.3170	4	1	12	4	50	4	-	58.30
222400.2280	2.5	0.5	10	2.5	50	4	15	56.30	222400.3180	4	1	20	4	70	4	-	68.70
222400.2290	2.5	0.5	16	2.5	50	4	15	56.30	222400.3190	4	1	12	4	55	6	15	68.70
222400.2300	2.5	0.5	20	2.5	50	4	15	56.30	222400.3200	4	1	16	4	55	6	15	68.70
222400.2310	2.5	0.5	25	2.5	60	4	15	56.30	222400.3210	4	1	20	4	60	6	15	58.30
222400.2320	2.5	0.5	30	2.5	70	4	15	60.70	222400.3220	4	1	25	4	65	6	15	58.30
222400.2330	3	0.1	10	3	50	6	15	56.30	222400.3230	4	1	30	4	70	6	15	58.30
222400.2340	3	0.1	12	3	55	6	15	56.30	222400.3240	4	1	35	4	75	6	15	58.30
222400.2350	3	0.1	16	3	55	6	15	56.30	222400.3250	4	1	40	4	80	6	15	58.30
222400.2360	3	0.1	20	3	60	6	15	56.30	222400.3260	4	1	45	4	90	6	15	68.70
222400.2370	3	0.1	25	3	65	6	15	56.30	222400.3270	4	1	50	4	100	6	15	68.70
222400.2380	3	0.1	30	3	70	6	15	66.40	222400.3280	5	0.2	15	6	60	6	15	58.30

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222400.3290	5	0.2	25	6	70	6	15	58.00	222400.3620	8	1	40	9	100	8	-	88.80
222400.3300	5	0.2	30	6	70	6	15	61.10	222400.3630	8	1.5	22	9	65	8	-	65.00
222400.3310	5	0.2	40	6	80	6	15	74.60	222400.3640	8	1.5	40	9	100	8	-	88.80
222400.3320	5	0.2	50	6	100	6	15	85.60	222400.3650	10	0.2	24	11	70	10	-	93.00
222400.3330	5	0.5	15	6	60	6	15	51.20	222400.3660	10	0.2	45	11	100	10	-	125.00
222400.3340	5	0.5	25	6	70	6	15	58.00	222400.3670	10	0.3	24	11	70	10	-	93.00
222400.3350	5	0.5	30	6	70	6	15	61.10	222400.3680	10	0.3	45	11	100	10	-	125.00
222400.3360	5	0.5	40	6	80	6	15	74.60	222400.3690	10	0.5	24	11	70	10	-	93.00
222400.3370	5	0.5	50	6	100	6	15	85.60	222400.3700	10	0.5	45	11	100	10	-	125.00
222400.3380	5	1	15	6	60	6	15	51.20	222400.3710	10	1	24	11	70	10	-	93.00
222400.3390	5	1	25	6	70	6	15	58.00	222400.3720	10	1	45	11	100	10	-	125.00
222400.3400	5	1	30	6	70	6	15	61.10	222400.3730	10	1.5	24	11	70	10	-	93.00
222400.3410	5	1	40	6	80	6	15	74.60	222400.3740	10	1.5	45	11	100	10	-	125.00
222400.3420	5	1	50	6	100	6	15	85.60	222400.3750	10	2	24	11	70	10	-	93.00
222400.3430	6	0.1	20	7	60	6	-	54.00	222400.3760	10	2	45	11	100	10	-	125.00
222400.3440	6	0.1	40	7	90	6	-	70.90	222400.3770	12	0.2	26	13	80	12	-	113.00
222400.3450	6	0.2	20	7	60	6	-	54.00	222400.3780	12	0.2	50	13	110	12	-	161.00
222400.3460	6	0.2	40	7	90	6	-	70.90	222400.3790	12	0.3	26	13	80	12	-	113.00
222400.3470	6	0.3	20	7	60	6	-	54.00	222400.3800	12	0.3	50	13	110	12	-	161.00
222400.3480	6	0.3	40	7	90	6	-	70.90	222400.3810	12	0.5	26	13	80	12	-	113.00
222400.3490	6	0.5	20	7	60	6	-	54.00	222400.3820	12	0.5	50	13	110	12	-	161.00
222400.3500	6	0.5	40	7	90	6	-	70.90	222400.3830	12	1	26	13	80	12	-	113.00
222400.3510	6	1	20	7	60	6	-	54.00	222400.3840	12	1	50	13	110	12	-	161.00
222400.3520	6	1	40	7	90	6	-	70.90	222400.3850	12	1.5	26	13	80	12	-	113.00
222400.3530	6	1.5	20	7	60	6	-	54.00	222400.3860	12	1.5	50	13	110	12	-	161.00
222400.3540	6	1.5	40	7	90	6	-	70.90	222400.3870	12	2	26	13	80	12	-	113.00
222400.3550	8	0.2	22	9	65	8	-	65.00	222400.3880	12	2	50	13	110	12	-	161.00
222400.3560	8	0.2	40	9	100	8	-	88.80	222400.3890	12	3	26	13	80	12	-	113.00
222400.3570	8	0.3	22	9	65	8	-	65.00	222400.3900	12	3	50	13	110	12	-	161.00
222400.3580	8	0.3	40	9	100	8	-	88.80	222400.3910	16	0.5	35	20	110	16	-	314.00
222400.3590	8	0.5	22	9	65	8	-	65.00	222400.3920	16	0.5	35	20	160	16	-	430.00
222400.3600	8	0.5	40	9	100	8	-	88.80	222400.3930	16	1	35	20	110	16	-	314.00
222400.3610	8	1	22	9	65	8	-	65.00	222400.3940	16	1	35	20	160	16	-	430.00

FUTURO



222402 SC shoulder/ slot milling cutters FUTURO

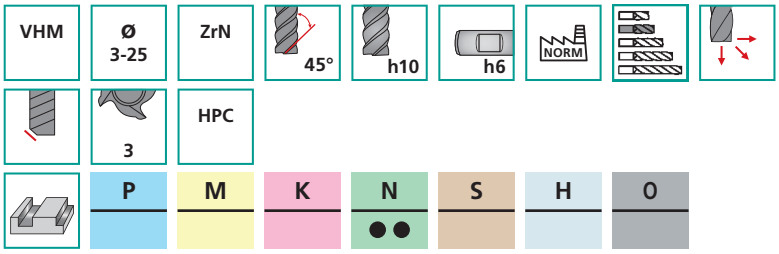
VHM	Ø 0.1-12	Coated	30°		NORM		2	HSC
		P	M	K	N	S	H	O
		○		○	●●		●●	

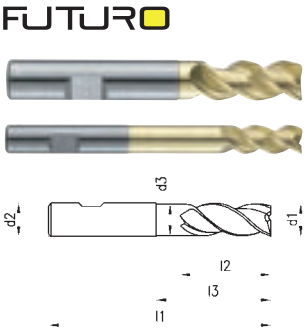
Tolerances d1:
0.1 mm...0.1 mm: + 0/- 0.005 mm
0.2 mm...5 mm: + 0/- 0.010 mm
6 mm...12 mm: -0.01/- 0.025 mm

Order ID	d1 mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222402.0010	0.1	-	0.3	40	4	15	70.90	222402.0760	1	16	1	50	4	15	54.20
222402.0020	0.1	-	0.5	40	4	15	70.90	222402.0770	1	18	1	50	4	15	54.20
222402.0030	0.2	0.5	0.2	40	4	15	58.50	222402.0780	1	20	1	50	4	15	54.20
222402.0040	0.2	1	0.2	40	4	15	58.50	222402.0790	1	25	1	60	4	15	42.00
222402.0050	0.2	1.5	0.2	40	4	15	58.50	222402.0800	1	30	1	70	4	15	59.00
222402.0060	0.2	2	0.2	40	4	15	58.50	222402.0810	1.2	4	1.2	45	4	15	49.20
222402.0070	0.2	2.5	0.2	40	4	15	58.50	222402.0820	1.2	6	1.2	45	4	15	49.20
222402.0080	0.2	3	0.2	40	4	15	58.50	222402.0830	1.2	8	1.2	45	4	15	49.20
222402.0090	0.3	1	0.3	40	4	15	58.50	222402.0840	1.2	10	1.2	45	4	15	49.20
222402.0100	0.3	1.5	0.3	40	4	15	58.50	222402.0850	1.2	12	1.2	45	4	15	51.90
222402.0110	0.3	2	0.3	40	4	15	58.50	222402.0860	1.2	16	1.2	50	4	15	58.50
222402.0120	0.3	2.5	0.3	40	4	15	58.50	222402.0870	1.2	20	1.2	50	4	15	58.50
222402.0130	0.3	3	0.3	40	4	15	58.50	222402.0880	1.2	25	1.2	60	4	15	35.00
222402.0140	0.3	3.5	0.3	40	4	15	58.50	222402.0890	1.2	30	1.2	70	4	15	59.00
222402.0150	0.3	4	0.3	40	4	15	58.50	222402.0900	1.4	6	1.4	45	4	15	49.20
222402.0160	0.3	5	0.3	40	4	15	58.50	222402.0910	1.4	8	1.4	45	4	15	49.20
222402.0170	0.4	1	0.4	40	4	15	58.50	222402.0920	1.4	10	1.4	45	4	15	49.20
222402.0180	0.4	1.5	0.4	40	4	15	58.50	222402.0930	1.4	14	1.4	45	4	15	49.20
222402.0190	0.4	2	0.4	40	4	15	58.50	222402.0940	1.4	16	1.4	50	4	15	49.20
222402.0200	0.4	2.5	0.4	40	4	15	58.50	222402.0950	1.4	20	1.4	50	4	15	49.20
222402.0210	0.4	3	0.4	40	4	15	58.50	222402.0960	1.5	4	1.5	45	4	15	49.20
222402.0220	0.4	3.5	0.4	40	4	15	58.50	222402.0970	1.5	6	1.5	45	4	15	49.20
222402.0230	0.4	4	0.4	40	4	15	58.50	222402.0980	1.5	8	1.5	45	4	15	49.20
222402.0240	0.4	5	0.4	40	4	15	58.50	222402.0990	1.5	10	1.5	45	4	15	49.20
222402.0250	0.4	6	0.4	40	4	15	58.50	222402.1000	1.5	12	1.5	45	4	15	51.90
222402.0260	0.4	8	0.4	40	4	15	58.50	222402.1010	1.5	14	1.5	50	4	15	51.90
222402.0270	0.4	10	0.4	40	4	15	59.00	222402.1020	1.5	16	1.5	50	4	15	51.90
222402.0280	0.5	1	0.5	40	4	15	49.20	222402.1030	1.5	18	1.5	50	4	15	54.20
222402.0290	0.5	2	0.5	40	4	15	49.20	222402.1040	1.5	20	1.5	50	4	15	54.20
222402.0300	0.5	3	0.5	40	4	15	49.20	222402.1050	1.5	25	1.5	60	4	15	42.00
222402.0310	0.5	4	0.5	40	4	15	49.20	222402.1060	1.5	30	1.5	70	4	15	59.00
222402.0320	0.5	5	0.5	40	4	15	49.20	222402.1070	1.6	10	1.6	45	4	15	51.90
222402.0330	0.5	6	0.5	40	4	15	49.20	222402.1080	1.6	14	1.6	45	4	15	51.90
222402.0340	0.5	8	0.5	40	4	15	49.20	222402.1090	1.6	18	1.6	60	4	15	51.90
222402.0350	0.5	10	0.5	40	4	15	49.20	222402.1100	1.8	10	1.8	45	4	15	51.90
222402.0360	0.5	12	0.5	45	4	15	62.00	222402.1110	1.8	14	1.8	45	4	15	51.90
222402.0370	0.5	14	0.5	45	4	15	62.00	222402.1120	1.8	18	1.8	50	4	15	51.90
222402.0380	0.6	1	0.6	40	4	15	49.20	222402.1130	2	4	2	45	4	15	49.20
222402.0390	0.6	2	0.6	40	4	15	49.20	222402.1140	2	6	2	45	4	15	49.20
222402.0400	0.6	3	0.6	40	4	15	49.20	222402.1150	2	8	2	45	4	15	49.20
222402.0410	0.6	4	0.6	40	4	15	49.20	222402.1160	2	10	2	45	4	15	49.20
222402.0420	0.6	5	0.6	40	4	15	49.20	222402.1170	2	12	2	45	4	15	51.90
222402.0430	0.6	6	0.6	40	4	15	49.20	222402.1180	2	14	2	45	4	15	51.90
222402.0440	0.6	8	0.6	40	4	15	49.20	222402.1190	2	16	2	50	4	15	51.90
222402.0450	0.6	10	0.6	40	4	15	49.20	222402.1200	2	18	2	50	4	15	54.20
222402.0460	0.6	12	0.6	45	4	15	49.20	222402.1210	2	20	2	50	4	15	54.20
222402.0470	0.6	14	0.6	45	4	15	62.00	222402.1220	2	22	2	60	4	15	54.20
222402.0480	0.6	16	0.6	45	4	15	62.00	222402.1230	2	25	2	60	4	15	58.50
222402.0490	0.7	2	0.7	40	4	15	54.20	222402.1240	2	30	2	60	4	15	64.00
222402.0500	0.7	4	0.7	40	4	15	54.20	222402.1250	2	35	2	70	4	15	64.00
222402.0510	0.7	6	0.7	40	4	15	54.20	222402.1260	2	40	2	80	4	15	70.90
222402.0520	0.7	8	0.7	40	4	15	54.20	222402.1270	2	45	2	80	4	15	62.00
222402.0530	0.7	10	0.7	40	4	15	54.20	222402.1280	2	50	2	90	4	15	72.00
222402.0540	0.7	12	0.7	45	4	15	52.00	222402.1290	2.5	8	2.5	45	4	15	49.20
222402.0550	0.8	2	0.8	40	4	15	54.20	222402.1300	2.5	10	2.5	45	4	15	49.20
222402.0560	0.8	3	0.8	40	4	15	54.20	222402.1310	2.5	12	2.5	45	4	15	49.20
222402.0570	0.8	4	0.8	40	4	15	54.20	222402.1320	2.5	16	2.5	50	4	15	49.20
222402.0580	0.8	5	0.8	40	4	15	54.20	222402.1330	2.5	20	2.5	50	4	15	54.20
222402.0590	0.8	6	0.8	40	4	15	54.20	222402.1340	2.5	25	2.5	60	4	15	54.20
222402.0600	0.8	8	0.8	40	4	15	54.20	222402.1350	2.5	30	2.5	70	4	15	58.50
222402.0610	0.8	10	0.8	40	4	15	58.50	222402.1360	2.5	35	2.5	70	4	15	49.00
222402.0620	0.8	12	0.8	45	4	15	54.20	222402.1370	2.5	40	2.5	80	4	15	55.00
222402.0630	0.8	14	0.8	45	4	15	55.00	222402.1380	2.5	50	2.5	90	4	15	62.00
222402.0640	0.9	6	0.8	40	4	15	54.20	222402.1390	3	6	3	45	6	15	49.20
222402.0650	0.9	8	0.9	40	4	15	54.20	222402.1400	3	8	3	45	6	15	49.20
222402.0660	0.9	10	0.9	40	4	15	54.20	222402.1410	3	10	3	45	6	15	49.20
222402.0670	1	2	1	45	4	15	46.80	222402.1420	3	12	3	50	6	15	49.20
222402.0680	1	3	1	45	4	15	46.80	222402.1430	3	16	3	55	6	15	51.90
222402.0690	1	4	1	45	4	15	46.80	222402.1440	3	20	3	60	6	15	54.20
222402.0700	1	5	1	45	4	15	46.80	222402.1450	3	25	3	65	6	15	54.20
222402.0710	1	6	1	45	4	15	46.80	222402.1460	3	30	3	70	6	15	58.50
222402.0720	1	8	1	45	4	15	46.80	222402.1470	3	35	3	75	6	15	64.00
222402.0730	1	10	1	45	4	15	46.80	222402.1480	3	40	3	80	6	15	70.90
222402.0740	1	12	1	45	4	15	46.80	222402.1490	3	45	3	90	6	15	66.80
222402.0750	1	14	1	45	4	15	46.80	222402.1500	3	50	3	100	6	15	71.30

Order ID	d1 mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222402.1510	**3**	**60**	3	100	6	15	82.10	222402.1690	**5**	**35**	6	75	6	15	62.30
222402.1520	**4**	**8**	4	50	6	15	42.20	222402.1700	**5**	**40**	6	80	6	15	64.40
222402.1530	**4**	**10**	4	50	6	15	42.20	222402.1710	**5**	**50**	6	100	6	15	71.30
222402.1540	**4**	**12**	4	50	6	15	42.20	222402.1720	**5**	**60**	6	100	6	15	82.10
222402.1550	**4**	**16**	4	55	6	15	42.20	222402.1730	**6**	**20**	10	60	6	-	46.30
222402.1560	**4**	**20**	4	60	6	15	46.30	222402.1740	**6**	**30**	10	75	6	-	54.30
222402.1570	**4**	**25**	4	65	6	15	46.30	222402.1750	**6**	**40**	10	80	6	-	64.40
222402.1580	**4**	**30**	4	70	6	15	54.30	222402.1760	**6**	**50**	10	90	6	-	67.60
222402.1590	**4**	**35**	4	75	6	15	62.30	222402.1770	**6**	**60**	10	110	6	-	76.90
222402.1600	**4**	**40**	4	80	6	15	64.40	222402.1780	**8**	**20**	12	65	8	-	67.60
222402.1610	**4**	**45**	4	90	6	15	66.80	222402.1790	**8**	**30**	12	80	8	-	76.00
222402.1620	**4**	**50**	4	100	6	15	71.30	222402.1800	**8**	**40**	12	100	8	-	86.60
222402.1630	**4**	**55**	4	100	6	15	82.10	222402.1810	**10**	**25**	15	70	10	-	100.00
222402.1640	**4**	**60**	4	100	6	15	89.90	222402.1820	**10**	**35**	15	80	10	-	111.00
222402.1650	**5**	**16**	6	55	6	15	46.30	222402.1830	**10**	**45**	15	100	10	-	125.00
222402.1660	**5**	**20**	6	60	6	15	46.30	222402.1840	**12**	**30**	18	80	12	-	116.00
222402.1670	**5**	**25**	6	65	6	15	54.30	222402.1850	**12**	**40**	18	100	12	-	133.00
222402.1680	**5**	**30**	6	70	6	15	54.30	222402.1860	**12**	**50**	18	120	12	-	152.00

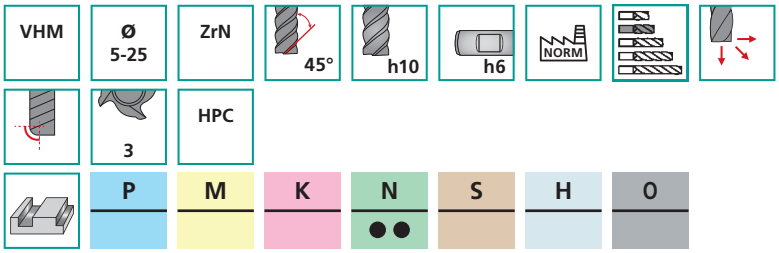
225740 SC shoulder/ slot milling cutters FUTURO

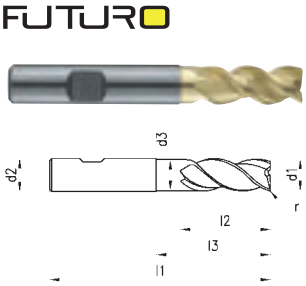




Order ID	d1 mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Protective chamfer mm	Price €
225740.0100	**3**	8	**12**	6	57	2.8	0.1	46.00
225740.0200	**4**	11	**18**	6	57	3.8	0.1	46.00
225740.0300	**5**	13	**18**	6	57	4.8	0.1	46.00
225740.0400	**6**	13	**18**	6	57	5.8	0.2	48.00
225740.0500	**6**	13	**42**	6	80	5.8	0.2	69.00
225740.0600	**8**	21	**25**	8	63	7.8	0.2	55.10
225740.0700	**8**	21	**62**	8	100	7.8	0.2	89.00
225740.0800	**10**	22	**30**	10	72	9.7	0.2	94.90
225740.0900	**10**	22	**58**	10	100	9.7	0.2	129.00
225740.1000	**12**	26	**36**	12	83	11.7	0.2	129.20
225740.1100	**12**	26	**73**	12	120	11.7	0.2	179.00
225740.1200	**16**	36	**42**	16	92	15.7	0.2	241.90
225740.1300	**16**	36	**100**	16	150	15.7	0.2	379.00
225740.1400	**18**	36	**42**	18	92	17.6	0.2	255.00
225740.1500	**18**	36	**100**	18	150	17.6	0.2	399.00
225740.1600	**20**	41	**52**	20	104	19.5	0.2	349.50
225740.1700	**20**	41	**98**	20	150	19.5	0.2	499.00
225740.1800	**25**	50	**65**	25	125	24.5	0.3	497.00

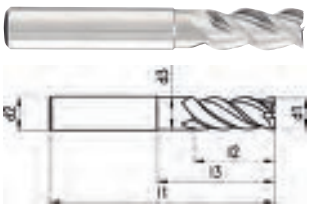
225750 SC shoulder/ slot milling cutters FUTURO





Order ID	d1 mm	r mm	l2 mm	l3 mm	d2 mm	l1 mm	Price €
225750.0100	**5**	**1**	13	**17**	6	57	47.00
225750.0200	**6**	**0.5**	13	**17**	6	57	52.70
225750.0300	**6**	**1**	13	**17**	6	57	52.70
225750.0400	**8**	**0.5**	21	**24**	8	63	58.90
225750.0500	**8**	**1**	21	**24**	8	63	58.90
225750.0600	**10**	**0.5**	22	**29**	10	72	98.80
225750.0700	**10**	**1**	22	**29**	10	72	98.80
225750.0800	**12**	**0.5**	26	**35**	12	83	134.00
225750.0900	**12**	**1**	26	**35**	12	83	134.00
225750.1000	**16**	**2**	36	**41**	16	92	248.90
225750.1100	**16**	**4**	36	**41**	16	92	248.90
225750.1200	**20**	**4**	41	**51**	20	104	349.60
225750.1300	**25**	**5**	50	**64**	25	125	441.80

FUTURO



227665 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 3-16 | polished | 45° | NORM | 3

P | M | K | N | S | H | O

Type W
Properties
Highly polished flutes for optimum chip removal.
Application
For high chip volumes and superb surfaces in aluminium and copper materials.

Order ID	d1 mm	l2 mm	l3 mm	l1 mm	d2 mm	d3 mm	Price €
227665.0100	**3.0**	8	12	57	6	2.7	**25.70**
227665.0200	**4.0**	11	18	57	6	3.7	**25.70**
227665.0300	**5.0**	13	18	57	6	4.7	**25.70**
227665.0400	**6.0**	13	18	57	6	5.7	**25.70**
227665.0500	**8.0**	21	25	63	8	7.4	**35.50**
227665.0600	**10.0**	22	30	72	10	9.2	**55.00**
227665.0700	**12.0**	26	36	83	12	11	**79.00**
227665.0800	**16.0**	36	42	92	16	15	**129.00**

FUTURO

227670 SC shoulder/ slot milling cutters FUTURO

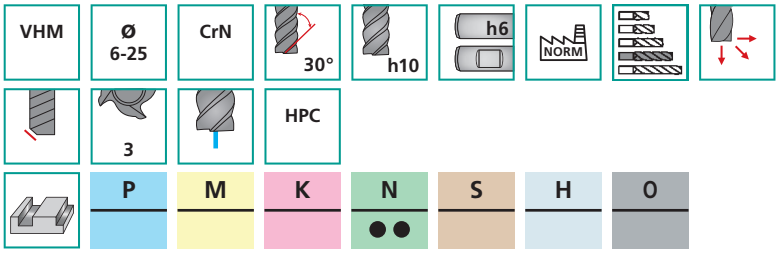
VHM | Ø 3-16 | polished | 45° | NORM | 3

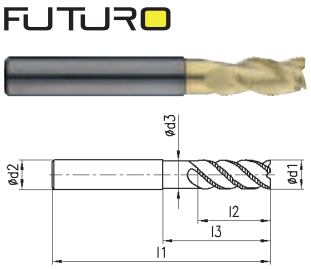
P | M | K | N | S | H | O

Type W
Properties
Highly polished flutes for optimum chip removal.
Application
For high chip volumes and superb surfaces in aluminium and copper materials.

Order ID	d1 mm	r mm	l2 mm	l1 mm	d2 mm	Price €
227670.0100	**3.0**	**0.5**	12	57	6	**26.00**
227670.0200	**3.0**	**1**	12	57	6	**26.00**
227670.0300	**4.0**	**0.5**	15	57	6	**29.00**
227670.0400	**4.0**	**1**	15	57	6	**29.00**
227670.0500	**5.0**	**0.5**	20	57	6	**29.00**
227670.0600	**5.0**	**1**	20	57	6	**29.00**
227670.0700	**6.0**	**0.5**	20	65	6	**29.50**
227670.0800	**6.0**	**1**	20	65	6	**29.50**
227670.0900	**8.0**	**0.5**	22	65	8	**41.50**
227670.1000	**8.0**	**1**	22	65	8	**41.50**
227670.1100	**10.0**	**0.5**	25	70	10	**60.50**
227670.1200	**10.0**	**1**	25	70	10	**60.50**
227670.1300	**10.0**	**2**	25	70	10	**60.50**
227670.1400	**12.0**	**0.5**	25	75	12	**87.20**
227670.1500	**12.0**	**1**	25	75	12	**87.20**
227670.1600	**12.0**	**2**	25	75	12	**87.20**
227670.1700	**16.0**	**0.5**	35	90	16	**149.00**
227670.1800	**16.0**	**1**	35	90	16	**149.00**
227670.1900	**16.0**	**2**	35	90	16	**149.00**

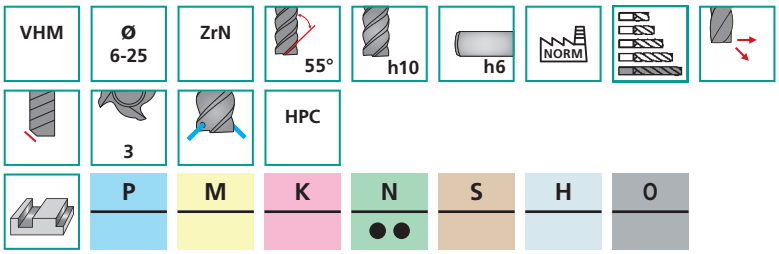
225800 SC shoulder/ slot milling cutters FUTURO

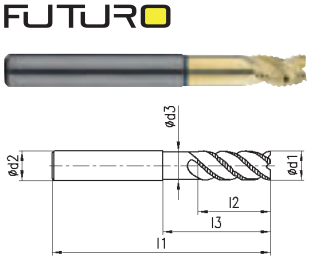




Order ID	d1 mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Protective chamfer mm	Shape	Price €
225800.0100	**6**	13	**17**	6	70	5.7	0.4	HA	**71.20**
225800.0200	**8**	21	**24**	8	80	7.4	0.4	HA	**96.70**
225800.0300	**10**	22	**29**	10	80	9.2	0.4	HA	**112.00**
225800.0400	**12**	26	**35**	12	90	11	0.4	HA	**154.00**
225800.0500	**16**	36	**41**	16	100	15	0.4	HB	**239.00**
225800.0600	**20**	41	**51**	20	120	19	0.4	HB	**403.00**

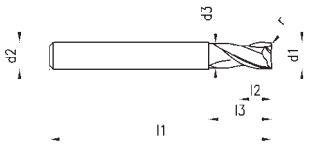
225810 SC shoulder/ slot milling cutters FUTURO





Order ID	d1 mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Protective chamfer mm	Price €
225810.0100	**6**	10	**23**	8	63	5.5	0.4	**86.90**
225810.0200	**8**	12	**28**	10	72	7.5	0.4	**110.20**
225810.0300	**10**	14	**34**	12	83	9.5	0.4	**139.70**
225810.0400	**12**	16	**49**	12	100	11.5	0.4	**179.60**
225810.0500	**16**	20	**62**	16	115	15	0.4	**266.00**
225810.0600	**20**	20	**69**	20	125	19	0.5	**364.80**

FUTURO



227070 SC shoulder/ slot milling cutters FUTURO

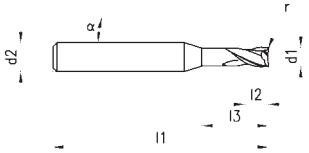
VHM | Ø 0.3-20 | XIDUR | 30° | NORM | 2

P | M | K | N | S | H | O

Type N, made of nano-micrograin carbide

Order ID	d1 mm	r mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Price €
227070.0010	0.3	-	0.45	-	3	40	-	55.60
227070.0020	0.4	-	0.6	-	3	40	-	49.40
227070.0030	0.5	0.05	0.7	-	3	40	-	42.60
227070.0040	0.5	0.05	1	-	4	40	-	48.50
227070.0050	0.6	0.05	0.9	-	3	40	-	39.90
227070.0060	0.6	0.05	1.2	-	4	40	-	45.60
227070.0080	0.8	0.05	1.2	-	3	40	-	35.90
227070.0090	0.8	0.05	1.6	-	4	40	-	39.70
227070.0095	0.9	0.05	2	-	4	40	-	39.70
227070.0100	1	0.1	1.5	-	3	40	-	34.80
227070.0130	1	0.1	1.5	-	4	40	-	38.40
227070.0160	1	0.1	1.5	-	6	40	-	50.80
227070.0200	1.5	0.1	2.2	-	3	40	-	34.80
227070.0250	1.5	0.1	2.2	-	6	40	-	50.80
227070.0300	2	0.1	3	6	3	40	1.95	31.50
227070.0360	2	0.1	3	6	6	40	1.95	46.10
227070.0500	3	0.1	4	7	6	45	2.85	46.10
227070.0700	4	0.1	5	9	6	45	3.85	46.10
227070.0900	5	0.2	6	11	6	50	4.85	46.10
227070.1000	6	0.2	7	14	6	50	5.85	46.10
227070.1200	10	0.2	12	25	10	75	9.7	87.40

FUTURO



222426 SC shoulder/ slot milling cutters FUTURO

with corner radius

VHM | Ø 0.2-16 | Coated | 30° | NORM | 2 | HSC

P | M | K | N | S | H | O

Tolerances d1:
0.2 mm...5 mm: +0/-0.01 mm
6 mm...12 mm: -0.005/-0.015 mm
16 mm...16 mm: -0.01/-0.02 mm

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222426.0010	0.2	0.02	0.5	0.2	40	4	15	76.10	222426.0350	0.5	0.05	1.5	0.5	45	4	15	58.00
222426.0020	0.2	0.02	1	0.2	40	4	15	76.10	222426.0360	0.5	0.05	2	0.5	45	4	15	58.00
222426.0030	0.2	0.02	1.5	0.2	40	4	15	76.10	222426.0370	0.5	0.05	2.5	0.5	45	4	15	58.00
222426.0040	0.2	0.05	0.5	0.2	40	4	15	76.10	222426.0380	0.5	0.05	3	0.5	45	4	15	58.00
222426.0050	0.2	0.05	1	0.2	40	4	15	76.10	222426.0390	0.5	0.05	4	0.5	45	4	15	58.00
222426.0060	0.2	0.05	1.5	0.2	40	4	15	76.10	222426.0400	0.5	0.05	5	0.5	45	4	15	58.00
222426.0070	0.3	0.02	1	0.3	40	4	15	66.50	222426.0410	0.5	0.05	6	0.5	45	4	15	58.00
222426.0080	0.3	0.02	2	0.3	40	4	15	66.50	222426.0420	0.5	0.1	1	0.5	45	4	15	58.00
222426.0090	0.3	0.02	3	0.3	40	4	15	66.50	222426.0430	0.5	0.1	1.5	0.5	45	4	15	58.00
222426.0100	0.3	0.05	1	0.3	40	4	15	66.50	222426.0440	0.5	0.1	2	0.5	45	4	15	58.00
222426.0110	0.3	0.05	2	0.3	40	4	15	66.50	222426.0450	0.5	0.1	2.5	0.5	45	4	15	58.00
222426.0120	0.3	0.05	3	0.3	40	4	15	66.50	222426.0460	0.5	0.1	3	0.5	45	4	15	58.00
222426.0130	0.4	0.02	1	0.4	40	4	15	59.00	222426.0470	0.5	0.1	4	0.5	45	4	15	58.00
222426.0140	0.4	0.02	2	0.4	40	4	15	59.00	222426.0480	0.5	0.1	5	0.5	45	4	15	58.00
222426.0150	0.4	0.02	3	0.4	40	4	15	59.00	222426.0490	0.5	0.1	6	0.5	45	4	15	58.00
222426.0160	0.4	0.02	4	0.4	40	4	15	59.00	222426.0500	0.6	0.02	2	0.6	45	4	15	55.00
222426.0170	0.4	0.05	1	0.4	40	4	15	59.00	222426.0510	0.6	0.02	3	0.6	45	4	15	55.00
222426.0180	0.4	0.05	2	0.4	40	4	15	59.00	222426.0520	0.6	0.02	4	0.6	45	4	15	55.00
222426.0190	0.4	0.05	3	0.4	40	4	15	59.00	222426.0530	0.6	0.02	6	0.6	45	4	15	55.00
222426.0200	0.4	0.05	4	0.4	40	4	15	59.00	222426.0540	0.6	0.02	8	0.6	45	4	15	55.00
222426.0210	0.4	0.1	1	0.4	40	4	15	59.00	222426.0550	0.6	0.05	2	0.6	45	4	15	55.00
222426.0220	0.4	0.1	1.5	0.4	40	4	15	59.00	222426.0560	0.6	0.05	3	0.6	45	4	15	55.00
222426.0230	0.4	0.1	2	0.4	40	4	15	59.00	222426.0570	0.6	0.05	4	0.6	45	4	15	55.00
222426.0240	0.4	0.1	3	0.4	40	4	15	59.00	222426.0580	0.6	0.05	6	0.6	45	4	15	55.00
222426.0250	0.4	0.1	4	0.4	40	4	15	59.00	222426.0590	0.6	0.05	8	0.6	45	4	15	55.00
222426.0260	0.5	0.02	1	0.5	45	4	15	58.00	222426.0600	0.6	0.1	2	0.6	45	4	15	55.00
222426.0270	0.5	0.02	1.5	0.5	45	4	15	58.00	222426.0610	0.6	0.1	3	0.6	45	4	15	55.00
222426.0280	0.5	0.02	2	0.5	45	4	15	58.00	222426.0620	0.6	0.1	4	0.6	45	4	15	55.00
222426.0290	0.5	0.02	2.5	0.5	45	4	15	58.00	222426.0630	0.6	0.1	6	0.6	45	4	15	55.00
222426.0300	0.5	0.02	3	0.5	45	4	15	58.00	222426.0640	0.6	0.1	8	0.6	45	4	15	55.00
222426.0310	0.5	0.02	4	0.5	45	4	15	58.00	222426.0650	0.7	0.1	2	0.7	45	4	15	55.00
222426.0320	0.5	0.02	5	0.5	45	4	15	58.00	222426.0660	0.7	0.1	4	0.7	45	4	15	55.00
222426.0330	0.5	0.02	6	0.5	45	4	15	58.00	222426.0670	0.7	0.1	6	0.7	45	4	15	55.00
222426.0340	0.5	0.05	1	0.5	45	4	15	58.00	222426.0680	0.8	0.02	2	0.8	45	4	15	48.00

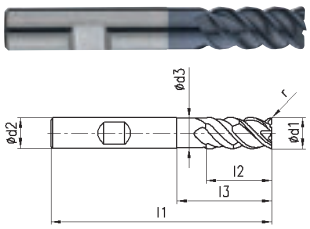
Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222426.0690	0.8	0.02	4	0.8	45	4	15	48.00	222426.1590	1.5	0.02	16	1.5	50	4	15	49.00
222426.0700	0.8	0.02	6	0.8	45	4	15	48.00	222426.1600	1.5	0.02	20	1.5	50	4	15	49.00
222426.0710	0.8	0.02	8	0.8	45	4	15	48.00	222426.1610	1.5	0.05	4	1.5	45	4	15	49.00
222426.0720	0.8	0.05	2	0.8	45	4	15	48.00	222426.1620	1.5	0.05	6	1.5	45	4	15	49.00
222426.0730	0.8	0.05	4	0.8	45	4	15	48.00	222426.1630	1.5	0.05	8	1.5	45	4	15	49.00
222426.0740	0.8	0.05	6	0.8	45	4	15	48.00	222426.1640	1.5	0.05	10	1.5	50	4	15	49.00
222426.0750	0.8	0.05	8	0.8	45	4	15	48.00	222426.1650	1.5	0.05	12	1.5	50	4	15	49.00
222426.0760	0.8	0.1	2	0.8	45	4	15	48.00	222426.1660	1.5	0.05	16	1.5	50	4	15	49.00
222426.0770	0.8	0.1	4	0.8	45	4	15	48.00	222426.1670	1.5	0.05	20	1.5	50	4	15	49.00
222426.0780	0.8	0.1	6	0.8	45	4	15	48.00	222426.1680	1.5	0.1	4	1.5	45	4	15	49.00
222426.0790	0.8	0.1	8	0.8	45	4	15	48.00	222426.1690	1.5	0.1	6	1.5	45	4	15	49.00
222426.0800	0.8	0.2	2	0.8	45	4	15	48.00	222426.1700	1.5	0.1	8	1.5	45	4	15	49.00
222426.0810	0.8	0.2	4	0.8	45	4	15	48.00	222426.1710	1.5	0.1	10	1.5	50	4	15	49.00
222426.0820	0.8	0.2	6	0.8	45	4	15	48.00	222426.1720	1.5	0.1	12	1.5	50	4	15	49.00
222426.0830	0.8	0.2	8	0.8	45	4	15	48.00	222426.1730	1.5	0.1	16	1.5	50	4	15	49.00
222426.0840	1	0.02	4	1	45	4	15	49.00	222426.1740	1.5	0.1	20	1.5	50	4	15	49.00
222426.0850	1	0.02	6	1	45	4	15	49.00	222426.1750	1.5	0.2	4	1.5	45	4	15	49.00
222426.0860	1	0.02	8	1	45	4	15	49.00	222426.1760	1.5	0.2	6	1.5	45	4	15	49.00
222426.0870	1	0.02	10	1	50	4	15	49.00	222426.1770	1.5	0.2	8	1.5	45	4	15	49.00
222426.0880	1	0.02	12	1	50	4	15	49.00	222426.1780	1.5	0.2	10	1.5	50	4	15	49.00
222426.0890	1	0.02	16	1	50	4	15	49.00	222426.1790	1.5	0.2	12	1.5	50	4	15	49.00
222426.0900	1	0.02	20	1	50	4	15	49.00	222426.1800	1.5	0.2	16	1.5	50	4	15	49.00
222426.0910	1	0.05	4	1	45	4	15	49.00	222426.1810	1.5	0.2	20	1.5	50	4	15	49.00
222426.0920	1	0.05	6	1	45	4	15	49.00	222426.1820	1.5	0.3	4	1.5	45	4	15	49.00
222426.0930	1	0.05	8	1	45	4	15	49.00	222426.1830	1.5	0.3	6	1.5	45	4	15	49.00
222426.0940	1	0.05	10	1	50	4	15	49.00	222426.1840	1.5	0.3	8	1.5	45	4	15	49.00
222426.0950	1	0.05	12	1	50	4	15	49.00	222426.1850	1.5	0.3	10	1.5	50	4	15	49.00
222426.0960	1	0.05	16	1	50	4	15	49.00	222426.1860	1.5	0.3	12	1.5	50	4	15	49.00
222426.0970	1	0.05	20	1	50	4	15	49.00	222426.1870	1.5	0.3	16	1.5	50	4	15	49.00
222426.0980	1	0.1	4	1	45	4	15	49.00	222426.1880	1.5	0.3	20	1.5	50	4	15	49.00
222426.0990	1	0.1	6	1	45	4	15	49.00	222426.1890	1.5	0.5	4	1.5	45	4	15	49.00
222426.1000	1	0.1	8	1	45	4	15	49.00	222426.1900	1.5	0.5	6	1.5	45	4	15	49.00
222426.1010	1	0.1	10	1	50	4	15	49.00	222426.1910	1.5	0.5	8	1.5	45	4	15	49.00
222426.1020	1	0.1	12	1	50	4	15	49.00	222426.1920	1.5	0.5	10	1.5	50	4	15	49.00
222426.1030	1	0.1	16	1	50	4	15	49.00	222426.1930	1.5	0.5	12	1.5	50	4	15	49.00
222426.1040	1	0.1	20	1	50	4	15	49.00	222426.1940	1.5	0.5	16	1.5	50	4	15	49.00
222426.1050	1	0.2	4	1	45	4	15	49.00	222426.1950	1.5	0.5	20	1.5	50	4	15	49.00
222426.1060	1	0.2	6	1	45	4	15	49.00	222426.1960	2	0.02	6	2	45	4	15	49.00
222426.1070	1	0.2	8	1	45	4	15	49.00	222426.1970	2	0.02	8	2	45	4	15	49.00
222426.1080	1	0.2	10	1	50	4	15	49.00	222426.1980	2	0.02	10	2	50	4	15	49.00
222426.1090	1	0.2	12	1	50	4	15	49.00	222426.1990	2	0.02	12	2	50	4	15	49.00
222426.1100	1	0.2	16	1	50	4	15	49.00	222426.2000	2	0.02	16	2	50	4	15	49.00
222426.1110	1	0.2	20	1	50	4	15	49.00	222426.2010	2	0.02	20	2	50	4	15	49.00
222426.1120	1	0.3	4	1	45	4	15	49.00	222426.2020	2	0.02	25	2	60	4	15	49.00
222426.1130	1	0.3	6	1	45	4	15	49.00	222426.2030	2	0.05	6	2	45	4	15	49.00
222426.1140	1	0.3	8	1	45	4	15	49.00	222426.2040	2	0.05	8	2	45	4	15	49.00
222426.1150	1	0.3	10	1	50	4	15	49.00	222426.2050	2	0.05	10	2	50	4	15	49.00
222426.1160	1	0.3	12	1	50	4	15	49.00	222426.2060	2	0.05	12	2	50	4	15	49.00
222426.1170	1	0.3	16	1	50	4	15	49.00	222426.2070	2	0.05	16	2	50	4	15	49.00
222426.1180	1	0.3	20	1	50	4	15	49.00	222426.2080	2	0.05	20	2	50	4	15	49.00
222426.1190	1.2	0.02	4	1.2	45	4	15	49.00	222426.2090	2	0.05	25	2	60	4	15	49.00
222426.1200	1.2	0.02	6	1.2	45	4	15	49.00	222426.2100	2	0.1	6	2	45	4	15	49.00
222426.1210	1.2	0.02	8	1.2	45	4	15	49.00	222426.2110	2	0.1	8	2	45	4	15	49.00
222426.1220	1.2	0.02	10	1.2	50	4	15	49.00	222426.2120	2	0.1	10	2	50	4	15	49.00
222426.1230	1.2	0.02	12	1.2	50	4	15	49.00	222426.2130	2	0.1	12	2	50	4	15	49.00
222426.1240	1.2	0.02	16	1.2	50	4	15	49.00	222426.2140	2	0.1	16	2	50	4	15	49.00
222426.1250	1.2	0.02	20	1.2	50	4	15	49.00	222426.2150	2	0.1	20	2	50	4	15	49.00
222426.1260	1.2	0.05	4	1.2	45	4	15	49.00	222426.2160	2	0.1	25	2	60	4	15	49.00
222426.1270	1.2	0.05	6	1.2	45	4	15	49.00	222426.2170	2	0.2	6	2	45	4	15	46.60
222426.1280	1.2	0.05	8	1.2	45	4	15	49.00	222426.2180	2	0.2	8	2	45	4	15	46.60
222426.1290	1.2	0.05	10	1.2	50	4	15	49.00	222426.2190	2	0.2	10	2	50	4	15	46.60
222426.1300	1.2	0.05	12	1.2	50	4	15	49.00	222426.2200	2	0.2	12	2	50	4	15	46.60
222426.1310	1.2	0.05	16	1.2	50	4	15	49.00	222426.2210	2	0.2	16	2	50	4	15	46.60
222426.1320	1.2	0.05	20	1.2	50	4	15	49.00	222426.2220	2	0.2	20	2	50	4	15	46.60
222426.1330	1.2	0.1	4	1.2	45	4	15	49.00	222426.2230	2	0.2	25	2	60	4	15	46.60
222426.1340	1.2	0.1	6	1.2	45	4	15	49.00	222426.2240	2	0.2	6	2	45	4	15	46.60
222426.1350	1.2	0.1	8	1.2	45	4	15	49.00	222426.2250	2	0.3	8	2	45	4	15	46.60
222426.1360	1.2	0.1	10	1.2	50	4	15	49.00	222426.2260	2	0.3	10	2	50	4	15	46.60
222426.1370	1.2	0.1	12	1.2	50	4	15	49.00	222426.2270	2	0.3	12	2	50	4	15	46.60
222426.1380	1.2	0.1	16	1.2	50	4	15	49.00	222426.2280	2	0.3	16	2	50	4	15	46.60
222426.1390	1.2	0.1	20	1.2	50	4	15	49.00	222426.2290	2	0.3	20	2	50	4	15	46.60
222426.1400	1.2	0.2	4	1.2	45	4	15	49.00	222426.2300	2	0.3	25	2	60	4	15	46.60
222426.1410	1.2	0.2	6	1.2	45	4	15	49.00	222426.2310	2	0.5	6	2	45	4	15	75.20
222426.1420	1.2	0.2	8	1.2	45	4	15	49.00	222426.2320	2	0.5	8	2	45	4	15	75.20
222426.1430	1.2	0.2	10	1.2	50	4	15	49.00	222426.2330	2	0.5	10	2	50	4	15	75.20
222426.1440	1.2	0.2	12	1.2	50	4	15	49.00	222426.2340	2	0.5	12	2	50	4	15	75.20
222426.1450	1.2	0.2	16	1.2	50	4	15	49.00	222426.2350	2	0.5	16	2	50	4	15	75.20
222426.1460	1.2	0.2	20	1.2	50	4	15	49.00	222426.2360	2	0.5	20	2	50	4	15	75.20
222426.1470	1.2	0.3	4	1.2	45	4	15	49.00	222426.2370	2	0.5	25	2	60	4	15	75.20
222426.1480	1.2	0.3	6	1.2	45	4	15	49.00	222426.2380	2.5	0.1	10	2.5	50	4	15	60.20
222426.1490	1.2	0.3	8	1.2	45	4	15	49.00	222426.2390	2.5	0.1	16	2.5	50	4	15	60.20
222426.1500	1.2	0.3	10	1.2	50	4	15	49.00	222426.2400	2.5	0.1	20	2.5	50	4	15	60.20
222426.1510	1.2	0.3	12	1.2	50	4	15	49.00	222426.2410	2.5	0.2	10	2.5	50	4	15	60.20
222426.1520	1.2	0.3	16	1.2	50	4	15	49.00	222426.2420	2.5	0.2	16	2.5	50	4	15	60.20
222426.1530	1.2	0.3	20	1.2	50	4	15	49.00	222426.2430	2.5	0.2	20	2.5	50	4	15	60.20
222426.1540	1.5	0.02	4	1.5	45	4	15	49.00	222426.2440	2.5	0.3	10	2.5	50	4	15	60.20
222426.1550	1.5	0.02	6	1.5	45	4	15	49.00	222426.2450	2.5	0.3	16	2.5	50	4	15	60.20
222426.1560	1.5	0.02	8	1.5	45	4	15	49.00	222426.2460	2.5	0.3	20	2.5	50	4	15	60.20
222426.1570	1.5	0.02	10	1.5	50	4	15	49.00	222426.2470	2.5	0.5	10	2.5	50	4	15	60.20
222426.1580	1.5	0.02	12	1.5	50	4	15	49.00	222426.2480	2.5	0.5	16	2.5	50	4	15	60.20

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222426.2490	2.5	0.5	20	2.5	50	4	15	60.20	222426.3090	4	0.3	35	4	75	6	15	75.20
222426.2500	3	0.1	10	3	50	6	15	60.20	222426.3100	4	0.3	40	4	80	6	15	75.20
222426.2510	3	0.1	12	3	50	6	15	60.20	222426.3110	4	0.5	12	4	50	6	15	75.20
222426.2520	3	0.1	16	3	55	6	15	60.20	222426.3120	4	0.5	16	4	55	6	15	75.20
222426.2530	3	0.1	20	3	60	6	15	60.20	222426.3130	4	0.5	20	4	60	6	15	75.20
222426.2540	3	0.1	25	3	65	6	15	60.20	222426.3140	4	0.5	25	4	65	6	15	75.20
222426.2550	3	0.1	30	3	70	6	15	60.20	222426.3150	4	0.5	30	4	70	6	15	75.20
222426.2560	3	0.1	35	3	75	6	15	60.20	222426.3160	4	0.5	35	4	75	6	15	75.20
222426.2570	3	0.1	40	3	80	6	15	60.20	222426.3170	4	0.5	40	4	80	6	15	75.20
222426.2580	3	0.2	10	3	50	6	15	60.20	222426.3180	4	1	12	4	50	6	15	74.60
222426.2590	3	0.2	12	3	50	6	15	60.20	222426.3190	4	1	16	4	55	6	15	74.60
222426.2600	3	0.2	16	3	55	6	15	60.20	222426.3200	4	1	20	4	60	6	15	74.60
222426.2610	3	0.2	20	3	60	6	15	60.20	222426.3210	4	1	25	4	65	6	15	74.60
222426.2620	3	0.2	25	3	65	6	15	60.20	222426.3220	4	1	30	4	70	6	15	74.60
222426.2630	3	0.2	30	3	70	6	15	60.20	222426.3230	4	1	35	4	75	6	15	74.60
222426.2640	3	0.2	35	3	75	6	15	60.20	222426.3240	4	1	40	4	80	6	15	74.60
222426.2650	3	0.2	40	3	80	6	15	60.20	222426.3250	5	0.2	15	6	60	6	15	74.60
222426.2660	3	0.3	10	3	50	6	15	49.70	222426.3260	5	0.2	25	6	70	6	15	74.60
222426.2670	3	0.3	12	3	50	6	15	49.70	222426.3270	5	0.2	30	6	70	6	15	74.60
222426.2680	3	0.3	16	3	55	6	15	49.70	222426.3280	5	0.2	40	6	80	6	15	74.60
222426.2690	3	0.3	20	3	60	6	15	49.70	222426.3290	5	0.5	15	6	60	6	15	74.60
222426.2700	3	0.3	25	3	65	6	15	49.70	222426.3300	5	0.5	25	6	70	6	15	74.60
222426.2710	3	0.3	30	3	70	6	15	49.70	222426.3310	5	0.5	30	6	70	6	15	74.60
222426.2720	3	0.3	35	3	75	6	15	49.70	222426.3320	5	0.5	40	6	80	6	15	74.60
222426.2730	3	0.3	40	3	80	6	15	49.70	222426.3330	5	1	15	6	60	6	15	74.60
222426.2740	3	0.5	10	3	50	6	15	75.20	222426.3340	5	1	25	6	70	6	15	74.60
222426.2750	3	0.5	12	3	50	6	15	75.20	222426.3350	5	1	30	6	70	6	15	74.60
222426.2760	3	0.5	16	3	55	6	15	75.20	222426.3360	5	1	40	6	80	6	15	74.60
222426.2770	3	0.5	20	3	60	6	15	75.20	222426.3370	6	0.1	20	7	60	6	-	74.60
222426.2780	3	0.5	25	3	65	6	15	75.20	222426.3380	6	0.1	40	7	80	6	-	74.60
222426.2790	3	0.5	30	3	70	6	15	75.20	222426.3390	6	0.2	20	7	60	6	-	74.60
222426.2800	3	0.5	35	3	75	6	15	75.20	222426.3400	6	0.2	40	7	80	6	-	74.60
222426.2810	3	0.5	40	3	80	6	15	75.20	222426.3410	6	0.3	20	7	60	6	-	74.60
222426.2820	3	1	10	3	50	6	15	75.20	222426.3420	6	0.3	40	7	80	6	-	74.60
222426.2830	3	1	12	3	50	6	15	75.20	222426.3430	6	0.5	20	7	60	6	-	74.60
222426.2840	3	1	16	3	55	6	15	75.20	222426.3440	6	0.5	40	7	80	6	-	74.60
222426.2850	3	1	20	3	60	6	15	75.20	222426.3450	6	1	20	7	60	6	-	101.50
222426.2860	3	1	25	3	65	6	15	75.20	222426.3460	6	1	40	7	80	6	-	101.50
222426.2870	3	1	30	3	70	6	15	75.20	222426.3470	6	1.5	20	7	60	6	-	101.50
222426.2880	3	1	35	3	75	6	15	75.20	222426.3480	6	1.5	40	7	80	6	-	101.50
222426.2890	3	1	40	3	80	6	15	75.20	222426.3490	8	0.2	22	9	65	8	-	101.50
222426.2900	4	0.1	12	4	50	6	15	75.20	222426.3500	8	0.3	22	9	65	8	-	101.50
222426.2910	4	0.1	16	4	55	6	15	75.20	222426.3510	8	0.5	22	9	65	8	-	101.50
222426.2920	4	0.1	20	4	60	6	15	75.20	222426.3520	8	1	22	9	65	8	-	140.50
222426.2930	4	0.1	25	4	65	6	15	75.20	222426.3530	8	1.5	22	9	65	8	-	140.50
222426.2940	4	0.1	30	4	70	6	15	75.20	222426.3540	10	0.2	24	11	70	10	-	140.50
222426.2950	4	0.1	35	4	75	6	15	75.20	222426.3550	10	0.3	24	11	70	10	-	140.50
222426.2960	4	0.1	40	4	80	6	15	75.20	222426.3560	10	0.5	24	11	70	10	-	140.50
222426.2970	4	0.2	12	4	50	6	15	75.20	222426.3570	10	1	24	11	70	10	-	140.50
222426.2980	4	0.2	16	4	55	6	15	75.20	222426.3580	10	1.5	24	11	70	10	-	220.00
222426.2990	4	0.2	20	4	60	6	15	75.20	222426.3590	10	2	24	11	70	10	-	220.00
222426.3000	4	0.2	25	4	65	6	15	75.20	222426.3600	12	0.2	26	13	80	12	-	220.00
222426.3010	4	0.2	30	4	70	6	15	75.20	222426.3610	12	0.3	26	13	80	12	-	220.00
222426.3020	4	0.2	35	4	75	6	15	75.20	222426.3620	12	0.5	26	13	80	12	-	220.00
222426.3030	4	0.2	40	4	80	6	15	75.20	222426.3630	12	1	26	13	80	12	-	220.00
222426.3040	4	0.3	12	4	50	6	15	75.20	222426.3640	12	1.5	26	13	80	12	-	349.00
222426.3050	4	0.3	16	4	55	6	15	75.20	222426.3650	12	2	26	13	80	12	-	349.00
222426.3060	4	0.3	20	4	60	6	15	75.20	222426.3660	12	3	26	13	80	12	-	349.00
222426.3070	4	0.3	25	4	65	6	15	75.20	222426.3670	16	0.5	26	20	110	16	-	349.00
222426.3080	4	0.3	30	4	70	6	15	75.20	222426.3680	16	1	26	20	110	16	-	349.00

225320 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 3-25 | AlTiN | 52° | h10 | h6 | NORM | 3-4 | HPC

P	M	K	N	S	H	O
○		○			●●	



Enlarged flute

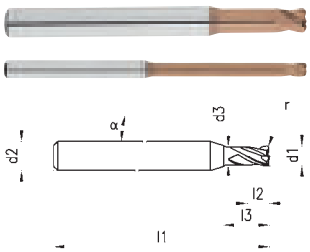
Order ID	d1 mm	r mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	teeth	Price €
225320.0100	3	0.2	8	17	6	57	2.9	3	44.70
225320.0200	3	0.5	8	17	6	57	2.9	3	44.70
225320.0300	4	0.3	11	20	6	57	3.8	4	44.70
225320.0400	4	0.5	11	20	6	57	3.8	4	44.70
225320.0500	4	1	11	20	6	57	3.8	4	44.70
225320.0600	5	0.3	13	20	6	57	4.8	4	44.70
225320.0800	5	1	13	20	6	57	4.8	4	44.70
225320.0900	6	0.3	13	20	6	57	5.8	4	47.00
225320.1000	6	0.5	13	20	6	57	5.8	4	47.00
225320.1100	6	1	13	20	6	57	5.8	4	47.00
225320.1200	6	1.5	13	20	6	57	5.8	4	47.00
225320.1300	6	2	13	20	6	57	5.8	4	47.00
225320.1400	8	0.5	19	26	8	63	7.8	4	56.10
225320.1500	8	1	19	26	8	63	7.8	4	56.10
225320.1600	8	1.5	19	26	8	63	7.8	4	56.10
225320.1700	8	2	19	26	8	63	7.8	4	56.10
225320.1800	10	0.5	22	31	10	72	9.8	4	90.30
225320.1900	10	1	22	31	10	72	9.8	4	90.30
225320.2000	10	1.5	22	31	10	72	9.8	4	90.30
225320.2100	10	2	22	31	10	72	9.8	4	90.30
225320.2200	12	0.5	26	37	12	83	11.8	4	122.60
225320.2300	12	1	26	37	12	83	11.8	4	122.60
225320.2400	12	1.5	26	37	12	83	11.8	4	122.60
225320.2500	12	2	26	37	12	83	11.8	4	122.60
225320.2600	16	0.5	32	43	16	92	15.8	4	227.10
225320.2700	16	1	32	43	16	92	15.8	4	227.10
225320.2800	16	1.5	32	43	16	92	15.8	4	227.10
225320.2900	16	2	32	43	16	92	15.8	4	227.10
225320.3000	16	1	32	43	16	150	15.8	4	264.10
225320.3100	20	0.5	38	53	20	92	19.8	4	312.60
225320.3200	20	1	38	53	20	92	19.8	4	312.60
225320.3300	20	1.5	38	53	20	92	19.8	4	312.60
225320.3400	20	2	38	53	20	92	19.8	4	312.60
225320.3500	20	1	38	53	20	150	19.8	4	376.20
225320.3600	25	2	38	53	25	160	24.8	4	495.00

222403 SC shoulder/ slot milling cutters FUTURO

with corner radius

VHM | Ø 0.8-12 | TiAlN-SiN | 30° | NORM | 4 | HSC

P	M	K	N	S	H	O
○		○	●●		●●	



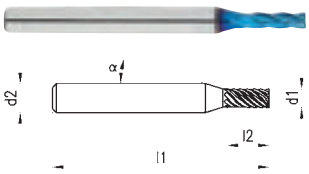
Tolerances d1:
0.8 mm...5 mm: +0/-0.010 mm
6 mm...12 mm: -0.005/-0.015 mm

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222403.0010	0.8	0.02	2	0.8	45	4	15	47.70	222403.0220	1	0.02	20	1	50	4	15	49.10
222403.0020	0.8	0.02	4	0.8	45	4	15	47.70	222403.0230	1	0.05	4	1	45	4	15	44.90
222403.0030	0.8	0.02	6	0.8	45	4	15	47.70	222403.0240	1	0.05	6	1	45	4	15	44.90
222403.0040	0.8	0.02	8	0.8	45	4	15	47.70	222403.0250	1	0.05	8	1	45	4	15	44.90
222403.0050	0.8	0.02	10	0.8	45	4	15	47.70	222403.0260	1	0.05	10	1	50	4	15	47.30
222403.0060	0.8	0.05	2	0.8	45	4	15	47.70	222403.0270	1	0.05	12	1	50	4	15	47.30
222403.0070	0.8	0.05	4	0.8	45	4	15	47.70	222403.0280	1	0.05	16	1	50	4	15	47.30
222403.0080	0.8	0.05	6	0.8	45	4	15	47.70	222403.0290	1	0.05	20	1	50	4	15	49.10
222403.0090	0.8	0.05	8	0.8	45	4	15	47.70	222403.0300	1	0.1	4	1	45	4	15	44.90
222403.0100	0.8	0.05	10	0.8	45	4	15	47.70	222403.0310	1	0.1	6	1	45	4	15	44.90
222403.0110	0.8	0.1	2	0.8	45	4	15	47.70	222403.0320	1	0.1	8	1	45	4	15	44.90
222403.0120	0.8	0.1	4	0.8	45	4	15	47.70	222403.0330	1	0.1	10	1	50	4	15	47.30
222403.0130	0.8	0.1	6	0.8	45	4	15	47.70	222403.0340	1	0.1	12	1	50	4	15	47.30
222403.0140	0.8	0.1	8	0.8	45	4	15	47.70	222403.0350	1	0.1	16	1	50	4	15	47.30
222403.0150	0.8	0.1	10	0.8	45	4	15	47.70	222403.0360	1	0.1	20	1	50	4	15	49.10
222403.0160	1	0.02	4	1	45	4	15	44.90	222403.0370	1	0.2	4	1	45	4	15	44.90
222403.0170	1	0.02	6	1	45	4	15	44.90	222403.0380	1	0.2	6	1	45	4	15	44.90
222403.0180	1	0.02	8	1	45	4	15	44.90	222403.0390	1	0.2	8	1	45	4	15	44.90
222403.0190	1	0.02	10	1	50	4	15	47.30	222403.0400	1	0.2	10	1	50	4	15	47.30
222403.0200	1	0.02	12	1	50	4	15	47.30	222403.0410	1	0.2	12	1	50	4	15	47.30
222403.0210	1	0.02	16	1	50	4	15	47.30	222403.0420	1	0.2	16	1	50	4	15	47.30

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222403.0430	1	0.2	20	1	50	4	15	49.10	222403.1330	2	0.02	6	2	45	4	15	44.90
222403.0440	1	0.3	4	1	45	4	15	44.90	222403.1340	2	0.02	8	2	45	4	15	44.90
222403.0450	1	0.3	6	1	45	4	15	44.90	222403.1350	2	0.02	10	2	45	4	15	47.30
222403.0460	1	0.3	8	1	45	4	15	44.90	222403.1360	2	0.02	12	2	50	4	15	47.30
222403.0470	1	0.3	10	1	50	4	15	47.30	222403.1370	2	0.02	14	2	50	4	15	47.30
222403.0480	1	0.3	12	1	50	4	15	47.30	222403.1380	2	0.02	16	2	50	4	15	47.30
222403.0490	1	0.3	16	1	50	4	15	47.30	222403.1390	2	0.02	18	2	50	4	15	47.30
222403.0500	1	0.3	20	1	50	4	15	49.10	222403.1400	2	0.02	20	2	50	4	15	47.30
222403.0510	1.2	0.02	4	1.2	45	4	15	44.90	222403.1410	2	0.02	22	2	60	4	15	53.60
222403.0520	1.2	0.02	6	1.2	45	4	15	44.90	222403.1420	2	0.02	25	2	60	4	15	53.60
222403.0530	1.2	0.02	8	1.2	45	4	15	44.90	222403.1430	2	0.02	30	2	70	4	15	59.00
222403.0540	1.2	0.02	10	1.2	50	4	15	47.30	222403.1440	2	0.02	35	2	70	4	15	59.00
222403.0550	1.2	0.02	12	1.2	50	4	15	47.30	222403.1450	2	0.05	6	2	45	4	15	44.90
222403.0560	1.2	0.02	16	1.2	50	4	15	47.30	222403.1460	2	0.05	8	2	45	4	15	44.90
222403.0570	1.2	0.02	20	1.2	50	4	15	49.10	222403.1470	2	0.05	10	2	50	4	15	47.30
222403.0580	1.2	0.05	4	1.2	45	4	15	44.90	222403.1480	2	0.05	12	2	50	4	15	47.30
222403.0590	1.2	0.05	6	1.2	45	4	15	44.90	222403.1490	2	0.05	14	2	50	4	15	47.30
222403.0600	1.2	0.05	8	1.2	45	4	15	44.90	222403.1500	2	0.05	16	2	50	4	15	47.30
222403.0610	1.2	0.05	10	1.2	50	4	15	47.30	222403.1510	2	0.05	18	2	50	4	15	47.30
222403.0620	1.2	0.05	12	1.2	50	4	15	47.30	222403.1520	2	0.05	20	2	50	4	15	47.30
222403.0630	1.2	0.05	16	1.2	50	4	15	47.30	222403.1530	2	0.05	22	2	60	4	15	53.60
222403.0640	1.2	0.05	20	1.2	50	4	15	49.10	222403.1540	2	0.05	25	2	60	4	15	53.60
222403.0650	1.2	0.1	4	1.2	45	4	15	44.90	222403.1550	2	0.05	30	2	70	4	15	59.00
222403.0660	1.2	0.1	6	1.2	45	4	15	44.90	222403.1560	2	0.05	35	2	70	4	15	59.00
222403.0670	1.2	0.1	8	1.2	45	4	15	44.90	222403.1570	2	0.1	6	2	45	4	15	44.90
222403.0680	1.2	0.1	10	1.2	50	4	15	47.30	222403.1580	2	0.1	8	2	45	4	15	44.90
222403.0690	1.2	0.1	12	1.2	50	4	15	47.30	222403.1590	2	0.1	10	2	50	4	15	47.30
222403.0700	1.2	0.1	16	1.2	50	4	15	47.30	222403.1600	2	0.1	12	2	50	4	15	47.30
222403.0710	1.2	0.1	20	1.2	50	4	15	49.10	222403.1610	2	0.1	14	2	50	4	15	47.30
222403.0720	1.2	0.2	4	1.2	45	4	15	44.90	222403.1620	2	0.1	16	2	50	4	15	47.30
222403.0730	1.2	0.2	6	1.2	45	4	15	44.90	222403.1630	2	0.1	18	2	50	4	15	47.30
222403.0740	1.2	0.2	8	1.2	45	4	15	44.90	222403.1640	2	0.1	20	2	50	4	15	47.30
222403.0750	1.2	0.2	10	1.2	50	4	15	47.30	222403.1650	2	0.1	22	2	60	4	15	53.60
222403.0760	1.2	0.2	12	1.2	50	4	15	47.30	222403.1660	2	0.1	25	2	60	4	15	53.60
222403.0770	1.2	0.2	16	1.2	50	4	15	47.30	222403.1670	2	0.1	30	2	70	4	15	59.00
222403.0780	1.2	0.2	20	1.2	50	4	15	49.10	222403.1680	2	0.1	35	2	70	4	15	59.00
222403.0790	1.2	0.3	4	1.2	45	4	15	44.90	222403.1690	2	0.2	6	2	45	4	15	44.90
222403.0800	1.2	0.3	6	1.2	45	4	15	44.90	222403.1700	2	0.2	8	2	45	4	15	44.90
222403.0810	1.2	0.3	8	1.2	45	4	15	44.90	222403.1710	2	0.2	10	2	50	4	15	47.30
222403.0820	1.2	0.3	10	1.2	50	4	15	47.30	222403.1720	2	0.2	12	2	50	4	15	47.30
222403.0830	1.2	0.3	12	1.2	50	4	15	47.30	222403.1730	2	0.2	14	2	50	4	15	47.30
222403.0840	1.2	0.3	20	1.2	50	4	15	49.10	222403.1740	2	0.2	16	2	50	4	15	47.30
222403.0850	1.5	0.02	6	1.5	45	4	15	44.90	222403.1750	2	0.2	18	2	50	4	15	47.30
222403.0860	1.5	0.02	8	1.5	45	4	15	44.90	222403.1760	2	0.2	20	2	50	4	15	47.30
222403.0870	1.5	0.02	10	1.5	50	4	15	47.30	222403.1770	2	0.2	22	2	60	4	15	53.60
222403.0880	1.5	0.02	12	1.5	50	4	15	47.30	222403.1780	2	0.2	25	2	60	4	15	53.60
222403.0890	1.5	0.02	16	1.5	50	4	15	47.30	222403.1790	2	0.2	30	2	70	4	15	59.00
222403.0900	1.5	0.02	20	1.5	50	4	15	49.10	222403.1800	2	0.2	35	2	70	4	15	59.00
222403.0910	1.5	0.02	22	1.5	60	4	15	53.10	222403.1810	2	0.3	6	2	45	4	15	44.90
222403.0920	1.5	0.02	25	1.5	60	4	15	53.10	222403.1820	2	0.3	8	2	45	4	15	44.90
222403.0930	1.5	0.05	6	1.5	45	4	15	44.90	222403.1830	2	0.3	10	2	50	4	15	47.30
222403.0940	1.5	0.05	8	1.5	45	4	15	44.90	222403.1840	2	0.3	12	2	50	4	15	47.30
222403.0950	1.5	0.05	10	1.5	50	4	15	47.30	222403.1850	2	0.3	14	2	50	4	15	47.30
222403.0960	1.5	0.05	12	1.5	50	4	15	47.30	222403.1860	2	0.3	16	2	50	4	15	47.30
222403.0970	1.5	0.05	16	1.5	50	4	15	47.30	222403.1870	2	0.3	18	2	50	4	15	47.30
222403.0980	1.5	0.05	20	1.5	50	4	15	49.10	222403.1880	2	0.3	20	2	50	4	15	47.30
222403.0990	1.5	0.05	22	1.5	60	4	15	53.10	222403.1890	2	0.3	22	2	60	4	15	53.60
222403.1000	1.5	0.05	25	1.5	60	4	15	53.10	222403.1900	2	0.3	25	2	60	4	15	53.60
222403.1010	1.5	0.1	6	1.5	45	4	15	44.90	222403.1910	2	0.3	30	2	70	4	15	59.00
222403.1020	1.5	0.1	8	1.5	45	4	15	44.90	222403.1920	2	0.3	35	2	70	4	15	59.00
222403.1030	1.5	0.1	10	1.5	50	4	15	47.30	222403.1930	2	0.5	6	2	45	4	15	44.90
222403.1040	1.5	0.1	12	1.5	50	4	15	47.30	222403.1940	2	0.5	8	2	45	4	15	44.90
222403.1050	1.5	0.1	16	1.5	50	4	15	47.30	222403.1950	2	0.5	10	2	50	4	15	47.30
222403.1060	1.5	0.1	20	1.5	50	4	15	49.10	222403.1960	2	0.5	12	2	50	4	15	47.30
222403.1070	1.5	0.1	22	1.5	60	4	15	53.10	222403.1970	2	0.5	14	2	50	4	15	47.30
222403.1080	1.5	0.1	25	1.5	60	4	15	53.10	222403.1980	2	0.5	16	2	50	4	15	47.30
222403.1090	1.5	0.2	6	1.5	45	4	15	44.90	222403.1990	2	0.5	18	2	50	4	15	47.30
222403.1100	1.5	0.2	8	1.5	45	4	15	44.90	222403.2000	2	0.5	20	2	50	4	15	47.30
222403.1110	1.5	0.2	10	1.5	50	4	15	47.30	222403.2010	2	0.5	22	2	60	4	15	53.60
222403.1120	1.5	0.2	12	1.5	50	4	15	47.30	222403.2020	2	0.5	25	2	60	4	15	53.60
222403.1130	1.5	0.2	16	1.5	50	4	15	47.30	222403.2030	2	0.5	30	2	70	4	15	59.00
222403.1140	1.5	0.2	20	1.5	50	4	15	49.10	222403.2040	2	0.5	35	2	70	4	15	59.00
222403.1150	1.5	0.2	22	1.5	60	4	15	53.10	222403.2050	2.5	0.1	10	2.5	50	4	15	47.30
222403.1160	1.5	0.2	25	1.5	60	4	15	53.10	222403.2060	2.5	0.1	12	2.5	50	4	15	47.30
222403.1170	1.5	0.3	6	1.5	45	4	15	44.90	222403.2070	2.5	0.1	16	2.5	50	4	15	47.30
222403.1180	1.5	0.3	8	1.5	45	4	15	44.90	222403.2080	2.5	0.1	20	2.5	50	4	15	47.30
222403.1190	1.5	0.3	10	1.5	50	4	15	47.30	222403.2090	2.5	0.1	25	2.5	60	4	15	53.60
222403.1200	1.5	0.3	12	1.5	50	4	15	47.30	222403.2100	2.5	0.1	30	2.5	70	4	15	59.00
222403.1210	1.5	0.3	16	1.5	50	4	15	47.30	222403.2110	2.5	0.2	10	2.5	50	4	15	47.30
222403.1220	1.5	0.3	20	1.5	50	4	15	49.10	222403.2120	2.5	0.2	12	2.5	50	4	15	47.30
222403.1230	1.5	0.3	22	1.5	60	4	15	53.10	222403.2130	2.5	0.2	16	2.5	50	4	15	47.30
222403.1240	1.5	0.3	25	1.5	60	4	15	53.10	222403.2140	2.5	0.2	20	2.5	50	4	15	47.30
222403.1250	1.5	0.5	6	1.5	45	4	15	44.90	222403.2150	2.5	0.2	25	2.5	60	4	15	53.60
222403.1260	1.5	0.5	8	1.5	45	4	15	44.90	222403.2160	2.5	0.2	30	2.5	70	4	15	59.00
222403.1270	1.5	0.5	10	1.5	50	4	15	47.30	222403.2170	2.5	0.3	10	2.5	50	4	15	47.30
222403.1280	1.5	0.5	12	1.5	50	4	15	47.30	222403.2180	2.5	0.3	12	2.5	50	4	15	47.30
222403.1290	1.5	0.5	16	1.5	50	4	15	47.30	222403.2190	2.5	0.3	16	2.5	50	4	15	47.30
222403.1300	1.5	0.5	20	1.5	50	4	15	49.10	222403.2200	2.5	0.3	20	2.5	50	4	15	47.30
222403.1310	1.5	0.5	22	1.5	60	4	15	53.10	222403.2210	2.5	0.3	25	2.5	60	4	15	53.60
222403.1320	1.5	0.5	25	1.5	60	4	15	53.10	222403.2220	2.5	0.3	30	2.5	70	4	15	59.00

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222403.2230	2.5	0.5	10	2.5	50	4	15	47.30
222403.2240	2.5	0.5	12	2.5	50	4	15	47.30
222403.2250	2.5	0.5	16	2.5	50	4	15	47.30
222403.2260	2.5	0.5	20	2.5	50	4	15	47.30
222403.2270	2.5	0.5	25	2.5	60	4	15	53.60
222403.2280	2.5	0.5	30	2.5	70	4	15	59.00
222403.2290	3	0.1	10	3	50	6	15	44.90
222403.2300	3	0.1	16	3	55	6	15	47.30
222403.2310	3	0.1	20	3	60	6	15	49.50
222403.2320	3	0.1	25	3	65	6	15	53.60
222403.2330	3	0.1	30	3	70	6	15	56.30
222403.2340	3	0.1	35	3	75	6	15	60.30
222403.2350	3	0.1	40	3	80	6	15	65.70
222403.2360	3	0.1	50	3	100	6	15	81.90
222403.2370	3	0.2	10	3	50	6	15	44.90
222403.2380	3	0.2	16	3	55	6	15	47.30
222403.2390	3	0.2	20	3	60	6	15	49.50
222403.2400	3	0.2	25	3	65	6	15	53.60
222403.2410	3	0.2	30	3	70	6	15	56.30
222403.2420	3	0.2	35	3	75	6	15	60.30
222403.2430	3	0.2	40	3	80	6	15	65.70
222403.2440	3	0.2	50	3	100	6	15	81.90
222403.2450	3	0.3	10	3	50	6	15	41.30
222403.2460	3	0.3	16	3	55	6	15	41.30
222403.2470	3	0.3	20	3	60	6	15	41.30
222403.2480	3	0.3	25	3	65	6	15	41.30
222403.2490	3	0.3	30	3	70	6	15	41.30
222403.2500	3	0.3	35	3	75	6	15	41.30
222403.2510	3	0.3	40	3	80	6	15	41.30
222403.2520	3	0.3	50	3	100	6	15	41.30
222403.2530	3	0.5	10	3	50	6	15	41.30
222403.2540	3	0.5	16	3	55	6	15	41.30
222403.2550	3	0.5	20	3	60	6	15	41.30
222403.2560	3	0.5	25	3	65	6	15	41.30
222403.2570	3	0.5	30	3	70	6	15	41.30
222403.2580	3	0.5	35	3	75	6	15	41.30
222403.2590	3	0.5	40	3	80	6	15	41.30
222403.2600	3	0.5	50	3	100	6	15	41.30
222403.2610	3	1	10	3	50	6	15	41.30
222403.2620	3	1	16	3	55	6	15	41.30
222403.2630	3	1	20	3	60	6	15	41.30
222403.2640	3	1	25	3	65	6	15	41.30
222403.2650	3	1	30	3	70	6	15	41.30
222403.2660	3	1	35	3	75	6	15	41.30
222403.2670	3	1	40	3	80	6	15	41.30
222403.2680	3	1	50	3	100	6	15	41.30
222403.2690	4	0.1	12	4	50	4	-	44.60
222403.2700	4	0.1	20	4	70	4	-	44.60
222403.2710	4	0.1	13	4	55	6	15	44.60
222403.2720	4	0.1	16	4	55	6	15	44.60
222403.2730	4	0.1	20	4	60	6	15	44.60
222403.2740	4	0.1	25	4	65	6	15	44.60
222403.2750	4	0.1	30	4	70	6	15	44.60
222403.2760	4	0.1	35	4	75	6	15	44.60
222403.2770	4	0.1	40	4	80	6	15	44.60
222403.2780	4	0.1	45	4	90	6	15	44.60
222403.2790	4	0.1	50	4	100	6	15	44.60
222403.2800	4	0.2	12	4	50	4	-	44.60
222403.2810	4	0.2	20	4	70	4	-	44.60
222403.2820	4	0.2	13	4	55	6	15	44.60
222403.2830	4	0.2	16	4	55	6	15	44.60
222403.2840	4	0.2	20	4	60	6	15	44.60
222403.2850	4	0.2	25	4	65	6	15	44.60
222403.2860	4	0.2	30	4	70	6	15	44.60
222403.2870	4	0.2	35	4	75	6	15	44.60
222403.2880	4	0.2	40	4	80	6	15	44.60
222403.2890	4	0.2	45	4	90	6	15	44.60
222403.2900	4	0.2	50	4	100	6	15	44.60
222403.2910	4	0.3	12	4	50	4	15	44.60
222403.2920	4	0.3	20	4	70	4	15	44.60
222403.2930	4	0.3	13	4	55	6	15	44.60
222403.2940	4	0.3	16	4	55	6	15	44.60
222403.2950	4	0.3	20	4	60	6	15	44.60
222403.2960	4	0.3	25	4	65	6	15	44.60
222403.2970	4	0.3	30	4	70	6	15	44.60
222403.2980	4	0.3	35	4	75	6	15	44.60
222403.2990	4	0.3	40	4	80	6	15	44.60
222403.3000	4	0.3	45	4	90	6	15	44.60
222403.3010	4	0.3	50	4	100	6	15	44.60
222403.3020	4	0.5	12	4	50	4	-	44.60
222403.3030	4	0.5	20	4	70	4	-	44.60
222403.3040	4	0.5	13	4	55	6	15	44.60
222403.3050	4	0.5	16	4	55	6	15	44.60
222403.3060	4	0.5	20	4	60	6	15	44.60
222403.3070	4	0.5	25	4	65	6	15	44.60
222403.3080	4	0.5	30	4	70	6	15	44.60
222403.3090	4	0.5	35	4	75	6	15	44.60
222403.3100	4	0.5	40	4	80	6	15	44.60
222403.3110	4	0.5	45	4	90	6	15	44.60
222403.3120	4	0.5	50	4	100	6	15	44.60
222403.3130	4	1	12	4	50	4	-	44.60
222403.3140	4	1	20	4	70	4	-	44.60
222403.3150	4	1	13	4	55	6	15	44.60
222403.3160	4	1	16	4	55	6	15	44.60
222403.3170	4	1	20	4	60	6	15	44.60
222403.3180	4	1	25	4	65	6	15	44.60
222403.3190	4	1	30	4	70	6	15	44.60
222403.3200	4	1	35	4	75	6	15	44.60
222403.3210	4	1	40	4	80	6	15	44.60
222403.3220	4	1	45	4	90	6	15	44.60
222403.3230	4	1	50	4	100	6	15	44.60
222403.3240	5	0.1	16	5	60	6	15	48.70
222403.3250	5	0.1	30	5	70	6	15	48.70
222403.3260	5	0.1	40	5	80	6	15	48.70
222403.3270	5	0.1	50	5	100	6	15	48.70
222403.3280	5	0.2	16	5	60	6	15	48.70
222403.3290	5	0.2	30	5	70	6	15	48.70
222403.3300	5	0.2	40	5	80	6	15	48.70
222403.3310	5	0.2	50	5	100	6	15	48.70
222403.3320	5	0.3	16	5	60	6	15	48.70
222403.3330	5	0.3	30	5	70	6	15	48.70
222403.3340	5	0.3	40	5	80	6	15	48.70
222403.3350	5	0.3	50	5	100	6	15	48.70
222403.3360	5	0.5	16	5	60	6	15	48.70
222403.3370	5	0.5	30	5	70	6	15	48.70
222403.3380	5	0.5	40	5	80	6	15	48.70
222403.3390	5	0.5	50	5	100	6	15	48.70
222403.3400	5	1	16	5	60	6	15	48.70
222403.3410	5	1	30	5	70	6	15	48.70
222403.3420	5	1	40	5	80	6	15	48.70
222403.3430	5	1	50	5	100	6	15	48.70
222403.3440	6	0.1	20	7	60	6	-	55.40
222403.3450	6	0.1	40	7	80	6	-	55.40
222403.3460	6	0.1	50	7	100	6	-	55.40
222403.3470	6	0.2	20	7	60	6	-	55.40
222403.3480	6	0.2	40	7	80	6	-	55.40
222403.3490	6	0.2	50	7	100	6	-	55.40
222403.3500	6	0.3	20	7	60	6	-	55.40
222403.3510	6	0.3	40	7	80	6	-	55.40
222403.3520	6	0.3	50	7	100	6	-	55.40
222403.3530	6	0.5	20	7	60	6	-	55.40
222403.3540	6	0.5	40	7	80	6	-	55.40
222403.3550	6	0.5	50	7	100	6	-	55.40
222403.3560	6	1	20	7	60	6	-	55.40
222403.3570	6	1	40	7	80	6	-	55.40
222403.3580	6	1	50	7	100	6	-	55.40
222403.3590	6	1.5	20	7	60	6	-	55.40
222403.3600	6	1.5	40	7	80	6	-	55.40
222403.3610	6	1.5	50	7	100	6	-	55.40
222403.3620	8	0.2	22	9	65	8	-	72.80
222403.3630	8	0.3	22	9	65	8	-	72.80
222403.3640	8	0.5	22	9	65	8	-	72.80
222403.3650	8	0.5	40	9	100	8	-	72.80
222403.3660	8	1	22	9	65	8	-	72.80
222403.3670	8	1	40	9	100	8	-	72.80
222403.3680	8	1.5	22	9	65	8	-	72.80
222403.3690	8	1.5	40	9	100	8	-	72.80
222403.3700	8	2	22	9	65	8	-	72.80
222403.3710	10	0.2	24	11	70	10	-	96.00
222403.3720	10	0.3	24	11	70	10	-	96.00
222403.3730	10	0.5	24	11	70	10	-	96.00
222403.3740	10	0.5	40	11	100	10	-	96.00
222403.3750	10	1	24	11	70	10	-	96.00
222403.3760	10	1	40	11	100	10	-	96.00
222403.3770	10	1.5	24	11	70	10	-	96.00
222403.3780	10	1.5	40	11	100	10	-	96.00
222403.3790	10	2	24	11	70	10	-	96.00
222403.3800	10	2.5	24	11	70	10	-	96.00
222403.3810	12	0.3	26	13	80	12	-	130.50
222403.3820	12	0.5	26	13	80	12	-	130.50
222403.3830	12	0.5	40	13	110	12	-	130.50
222403.3840	12	1	26	13	80	12	-	130.50
222403.3850	12	1	40	13	110	12	-	130.50
222403.3860	12	1.5	26	13	80	12	-	130.50
222403.3870	12	1.5	40	13	110	12	-	130.50
222403.3880	12	2	26	13	80	12	-	130.50
222403.3890	12	3	26	13	80	12	-	130.50

FUTURO



222423 SC shoulder/ slot milling cutters FUTURO

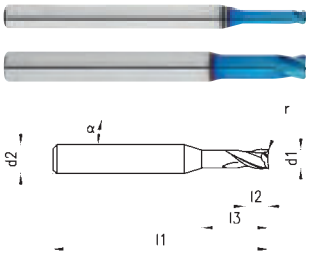
VHM | Ø 0.6-12 | Coated | 30° | NORM | 4 | HSC

P	M	K	N	S	H	O
○					●●	

Tolerances d1:
0.6 mm...5.5 mm: +0/-0.01 mm
6 mm...12 mm: -0.01/-0.025 mm

Order ID	d1 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222423.0010	**0.6**	1.2	40	4	15	42.10	222423.0130	**3**	8	45	6	15	40.90
222423.0020	**0.8**	1.6	40	4	15	39.90	222423.0140	**3.5**	10	45	6	15	47.40
222423.0030	**1**	2.5	40	4	15	36.80	222423.0150	**4**	11	45	4	15	38.70
222423.0040	**1**	2.5	40	6	15	39.30	222423.0160	**4**	11	45	6	15	40.90
222423.0050	**1.2**	3	40	4	15	36.80	222423.0170	**4.5**	11	45	6	15	47.40
222423.0060	**1.5**	4	40	4	15	36.80	222423.0180	**5**	13	50	6	15	43.80
222423.0070	**1.5**	4	40	6	15	39.30	222423.0190	**5.5**	13	50	6	15	50.40
222423.0080	**2**	6	40	4	15	36.80	222423.0200	**6**	13	50	6	-	43.80
222423.0090	**2**	6	40	6	15	39.30	222423.0210	**8**	19	60	8	-	66.00
222423.0100	**2.5**	8	45	4	15	36.80	222423.0220	**10**	22	70	10	-	89.80
222423.0110	**2.5**	8	45	6	15	39.30	222423.0230	**12**	26	75	12	-	104.50
222423.0120	**3**	8	45	4	15	38.70							

FUTURO



222427 SC shoulder/ slot milling cutters FUTURO

with corner radius

VHM | Ø 0.8-12 | Coated | 30° | NORM | 4 | HSC

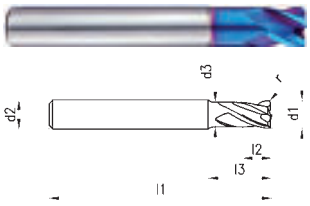
P	M	K	N	S	H	O
○					●●	

Tolerances d1:
0.8 mm...5 mm: +0/-0.01 mm
6 mm...12 mm: -0.005/-0.015 mm

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222427.0010	**0.8**	**0.02**	**2**	0.8	45	4	15	52.50	222427.0470	**1.2**	**0.05**	**6**	1.2	45	4	15	51.50
222427.0020	**0.8**	**0.02**	**4**	0.8	45	4	15	52.50	222427.0480	**1.2**	**0.05**	**8**	1.2	45	4	15	51.50
222427.0030	**0.8**	**0.02**	**6**	0.8	45	4	15	52.50	222427.0490	**1.2**	**0.05**	**10**	1.2	50	4	15	51.50
222427.0040	**0.8**	**0.02**	**8**	0.8	45	4	15	52.50	222427.0500	**1.2**	**0.05**	**12**	1.2	50	4	15	51.50
222427.0050	**0.8**	**0.02**	**10**	0.8	45	4	15	52.50	222427.0510	**1.2**	**0.1**	**4**	1.2	45	4	15	51.50
222427.0060	**0.8**	**0.05**	**2**	0.8	45	4	15	52.50	222427.0520	**1.2**	**0.1**	**6**	1.2	45	4	15	51.50
222427.0070	**0.8**	**0.05**	**4**	0.8	45	4	15	52.50	222427.0530	**1.2**	**0.1**	**8**	1.2	45	4	15	51.50
222427.0080	**0.8**	**0.05**	**6**	0.8	45	4	15	52.50	222427.0540	**1.2**	**0.1**	**10**	1.2	50	4	15	51.50
222427.0090	**0.8**	**0.05**	**8**	0.8	45	4	15	52.50	222427.0550	**1.2**	**0.1**	**12**	1.2	50	4	15	51.50
222427.0100	**0.8**	**0.05**	**10**	0.8	45	4	15	52.50	222427.0560	**1.2**	**0.2**	**4**	1.2	45	4	15	51.50
222427.0110	**0.8**	**0.1**	**2**	0.8	45	4	15	52.50	222427.0570	**1.2**	**0.2**	**6**	1.2	45	4	15	51.50
222427.0120	**0.8**	**0.1**	**4**	0.8	45	4	15	52.50	222427.0580	**1.2**	**0.2**	**8**	1.2	45	4	15	51.50
222427.0130	**0.8**	**0.1**	**6**	0.8	45	4	15	52.50	222427.0590	**1.2**	**0.2**	**10**	1.2	50	4	15	51.50
222427.0140	**0.8**	**0.1**	**8**	0.8	45	4	15	52.50	222427.0600	**1.2**	**0.2**	**12**	1.2	50	4	15	51.50
222427.0150	**0.8**	**0.1**	**10**	0.8	45	4	15	52.50	222427.0610	**1.2**	**0.3**	**4**	1.2	45	4	15	51.50
222427.0160	**1**	**0.02**	**4**	1	45	4	15	52.50	222427.0620	**1.2**	**0.3**	**6**	1.2	45	4	15	51.50
222427.0170	**1**	**0.02**	**6**	1	45	4	15	52.50	222427.0630	**1.2**	**0.3**	**8**	1.2	45	4	15	51.50
222427.0180	**1**	**0.02**	**8**	1	45	4	15	52.50	222427.0640	**1.2**	**0.3**	**10**	1.2	50	4	15	51.50
222427.0190	**1**	**0.02**	**10**	1	50	4	15	52.50	222427.0650	**1.2**	**0.3**	**12**	1.2	50	4	15	51.50
222427.0200	**1**	**0.02**	**12**	1	50	4	15	52.50	222427.0660	**1.5**	**0.02**	**6**	1.5	45	4	15	51.50
222427.0210	**1**	**0.05**	**4**	1	45	4	15	52.50	222427.0670	**1.5**	**0.02**	**8**	1.5	45	4	15	51.50
222427.0220	**1**	**0.05**	**6**	1	45	4	15	52.50	222427.0680	**1.5**	**0.02**	**10**	1.5	50	4	15	51.50
222427.0230	**1**	**0.05**	**8**	1	45	4	15	52.50	222427.0690	**1.5**	**0.02**	**12**	1.5	50	4	15	51.50
222427.0240	**1**	**0.05**	**10**	1	50	4	15	52.50	222427.0700	**1.5**	**0.02**	**16**	1.5	50	4	15	51.50
222427.0250	**1**	**0.05**	**12**	1	50	4	15	52.50	222427.0710	**1.5**	**0.05**	**6**	1.5	45	4	15	51.50
222427.0260	**1**	**0.1**	**4**	1	45	4	15	51.50	222427.0720	**1.5**	**0.05**	**8**	1.5	45	4	15	51.50
222427.0270	**1**	**0.1**	**6**	1	45	4	15	51.50	222427.0730	**1.5**	**0.05**	**10**	1.5	50	4	15	51.50
222427.0280	**1**	**0.1**	**8**	1	45	4	15	51.50	222427.0740	**1.5**	**0.05**	**12**	1.5	50	4	15	51.50
222427.0290	**1**	**0.1**	**10**	1	50	4	15	51.50	222427.0750	**1.5**	**0.05**	**16**	1.5	50	4	15	51.50
222427.0300	**1**	**0.1**	**12**	1	50	4	15	51.50	222427.0760	**1.5**	**0.1**	**6**	1.5	45	4	15	51.50
222427.0310	**1**	**0.2**	**4**	1	45	4	15	51.50	222427.0770	**1.5**	**0.1**	**8**	1.5	45	4	15	51.50
222427.0320	**1**	**0.2**	**6**	1	45	4	15	51.50	222427.0780	**1.5**	**0.1**	**10**	1.5	50	4	15	51.50
222427.0330	**1**	**0.2**	**8**	1	45	4	15	51.50	222427.0790	**1.5**	**0.1**	**12**	1.5	50	4	15	51.50
222427.0340	**1**	**0.2**	**10**	1	50	4	15	51.50	222427.0800	**1.5**	**0.1**	**16**	1.5	50	4	15	51.50
222427.0350	**1**	**0.2**	**12**	1	50	4	15	51.50	222427.0810	**1.5**	**0.2**	**6**	1.5	45	4	15	51.50
222427.0360	**1**	**0.3**	**4**	1	45	4	15	51.50	222427.0820	**1.5**	**0.2**	**8**	1.5	45	4	15	51.50
222427.0370	**1**	**0.3**	**6**	1	45	4	15	51.50	222427.0830	**1.5**	**0.2**	**10**	1.5	50	4	15	51.50
222427.0380	**1**	**0.3**	**8**	1	45	4	15	51.50	222427.0840	**1.5**	**0.2**	**12**	1.5	50	4	15	51.50
222427.0390	**1**	**0.3**	**10**	1	50	4	15	51.50	222427.0850	**1.5**	**0.2**	**16**	1.5	50	4	15	51.50
222427.0400	**1**	**0.3**	**12**	1	50	4	15	51.50	222427.0860	**1.5**	**0.3**	**6**	1.5	45	4	15	51.50
222427.0410	**1.2**	**0.02**	**4**	1.2	45	4	15	51.50	222427.0870	**1.5**	**0.3**	**8**	1.5	45	4	15	51.50
222427.0420	**1.2**	**0.02**	**6**	1.2	45	4	15	51.50	222427.0880	**1.5**	**0.3**	**10**	1.5	50	4	15	51.50
222427.0430	**1.2**	**0.02**	**8**	1.2	45	4	15	51.50	222427.0890	**1.5**	**0.3**	**12**	1.5	50	4	15	51.50
222427.0440	**1.2**	**0.02**	**10**	1.2	50	4	15	51.50	222427.0900	**1.5**	**0.3**	**16**	1.5	50	4	15	51.50
222427.0450	**1.2**	**0.02**	**12**	1.2	50	4	15	51.50	222427.0910	**1.5**	**0.5**	**6**	1.5	45	4	15	51.50
222427.0460	**1.2**	**0.05**	**4**	1.2	45	4	15	51.50	222427.0920	**1.5**	**0.5**	**8**	1.5	45	4	15	51.50

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222427.0930	1.5	0.5	10	1.5	50	4	15	51.50	222427.1810	3	0.5	35	3	75	6	15	79.00
222427.0940	1.5	0.5	12	1.5	50	4	15	51.50	222427.1820	3	1	10	3	50	6	15	55.00
222427.0950	1.5	0.5	16	1.5	50	4	15	51.50	222427.1830	3	1	12	3	50	6	15	55.00
222427.0960	2	0.02	6	2	45	4	15	48.90	222427.1840	3	1	16	3	55	6	15	55.00
222427.0970	2	0.02	8	2	45	4	15	48.90	222427.1850	3	1	20	3	60	6	15	55.00
222427.0980	2	0.02	10	2	50	4	15	48.90	222427.1860	3	1	25	3	65	6	15	55.00
222427.0990	2	0.02	12	2	50	4	15	48.90	222427.1870	3	1	30	3	70	6	15	55.00
222427.1000	2	0.02	16	2	50	4	15	48.90	222427.1880	3	1	35	3	75	6	15	55.00
222427.1010	2	0.02	20	2	50	4	15	48.90	222427.1890	4	0.1	13	4	55	6	15	59.00
222427.1020	2	0.02	25	2	60	4	15	48.90	222427.1900	4	0.1	16	4	55	6	15	59.00
222427.1030	2	0.05	6	2	45	4	15	48.90	222427.1910	4	0.1	20	4	60	6	15	59.00
222427.1040	2	0.05	8	2	45	4	15	48.90	222427.1920	4	0.1	25	4	65	6	15	59.00
222427.1050	2	0.05	10	2	50	4	15	48.90	222427.1930	4	0.1	30	4	70	6	15	59.00
222427.1060	2	0.05	12	2	50	4	15	48.90	222427.1940	4	0.1	35	4	75	6	15	59.00
222427.1070	2	0.05	16	2	50	4	15	48.90	222427.1950	4	0.1	40	4	80	6	15	59.00
222427.1080	2	0.05	20	2	50	4	15	48.90	222427.1960	4	0.2	13	4	55	6	15	59.00
222427.1090	2	0.05	25	2	60	4	15	48.90	222427.1970	4	0.2	16	4	55	6	15	59.00
222427.1100	2	0.1	6	2	45	4	15	48.90	222427.1980	4	0.2	20	4	60	6	15	59.00
222427.1110	2	0.1	8	2	45	4	15	48.90	222427.1990	4	0.2	25	4	65	6	15	59.00
222427.1120	2	0.1	10	2	50	4	15	48.90	222427.2000	4	0.2	30	4	70	6	15	59.00
222427.1130	2	0.1	12	2	50	4	15	48.90	222427.2010	4	0.2	35	4	75	6	15	59.00
222427.1140	2	0.1	16	2	50	4	15	48.90	222427.2020	4	0.2	40	4	80	6	15	59.00
222427.1150	2	0.1	20	2	50	4	15	48.90	222427.2030	4	0.3	13	4	55	6	15	59.00
222427.1160	2	0.1	25	2	60	4	15	48.90	222427.2040	4	0.3	16	4	55	6	15	59.00
222427.1170	2	0.2	6	2	45	4	15	48.90	222427.2050	4	0.3	20	4	60	6	15	59.00
222427.1180	2	0.2	8	2	45	4	15	48.90	222427.2060	4	0.3	25	4	65	6	15	59.00
222427.1190	2	0.2	10	2	50	4	15	48.90	222427.2070	4	0.3	30	4	70	6	15	59.00
222427.1200	2	0.2	12	2	50	4	15	48.90	222427.2080	4	0.3	35	4	75	6	15	59.00
222427.1210	2	0.2	16	2	50	4	15	48.90	222427.2090	4	0.3	40	4	80	6	15	59.00
222427.1220	2	0.2	20	2	50	4	15	48.90	222427.2100	4	0.5	13	4	55	6	15	59.00
222427.1230	2	0.2	25	2	60	4	15	48.90	222427.2110	4	0.5	16	4	55	6	15	59.00
222427.1240	2	0.3	6	2	45	4	15	48.90	222427.2120	4	0.5	20	4	60	6	15	59.00
222427.1250	2	0.3	8	2	45	4	15	48.90	222427.2130	4	0.5	25	4	65	6	15	59.00
222427.1260	2	0.3	10	2	50	4	15	48.90	222427.2140	4	0.5	30	4	70	6	15	59.00
222427.1270	2	0.3	12	2	50	4	15	48.90	222427.2150	4	0.5	35	4	75	6	15	59.00
222427.1280	2	0.3	16	2	50	4	15	48.90	222427.2160	4	0.5	40	4	80	6	15	59.00
222427.1290	2	0.3	20	2	50	4	15	48.90	222427.2170	4	1	13	4	55	6	15	78.30
222427.1300	2	0.3	25	2	60	4	15	48.90	222427.2180	4	1	16	4	55	6	15	78.30
222427.1310	2	0.5	6	2	45	4	15	79.00	222427.2190	4	1	20	4	60	6	15	78.30
222427.1320	2	0.5	8	2	45	4	15	79.00	222427.2200	4	1	25	4	65	6	15	78.30
222427.1330	2	0.5	10	2	50	4	15	79.00	222427.2210	4	1	30	4	70	6	15	78.30
222427.1340	2	0.5	12	2	50	4	15	79.00	222427.2220	4	1	35	4	75	6	15	78.30
222427.1350	2	0.5	16	2	50	4	15	79.00	222427.2230	4	1	40	4	80	6	15	78.30
222427.1360	2	0.5	20	2	50	4	15	79.00	222427.2240	5	0.1	16	5	60	6	15	78.30
222427.1370	2	0.5	25	2	60	4	15	79.00	222427.2250	5	0.1	30	5	70	6	15	78.30
222427.1380	2.5	0.1	10	2.5	50	4	15	55.00	222427.2260	5	0.2	16	5	60	6	15	78.30
222427.1390	2.5	0.1	16	2.5	50	4	15	55.00	222427.2270	5	0.2	30	5	70	6	15	78.30
222427.1400	2.5	0.1	20	2.5	50	4	15	55.00	222427.2280	5	0.3	16	5	60	6	15	78.30
222427.1410	2.5	0.1	25	2.5	60	4	15	55.00	222427.2290	5	0.3	30	5	70	6	15	78.30
222427.1420	2.5	0.2	10	2.5	50	4	15	55.00	222427.2300	5	0.5	16	5	60	6	15	78.30
222427.1430	2.5	0.2	16	2.5	50	4	15	55.00	222427.2310	5	0.5	30	5	70	6	15	78.30
222427.1440	2.5	0.2	20	2.5	50	4	15	55.00	222427.2320	5	1	16	5	60	6	15	78.30
222427.1450	2.5	0.2	25	2.5	60	4	15	55.00	222427.2330	5	1	30	5	70	6	15	78.30
222427.1460	2.5	0.3	10	2.5	50	4	15	55.00	222427.2340	6	0.1	20	7	60	6	-	78.30
222427.1470	2.5	0.3	16	2.5	50	4	15	55.00	222427.2350	6	0.1	40	7	80	6	-	78.30
222427.1480	2.5	0.3	20	2.5	50	4	15	55.00	222427.2360	6	0.2	20	7	60	6	-	78.30
222427.1490	2.5	0.3	25	2.5	60	4	15	55.00	222427.2370	6	0.2	40	7	80	6	-	78.30
222427.1500	2.5	0.5	10	2.5	50	4	15	55.00	222427.2380	6	0.3	20	7	60	6	-	78.30
222427.1510	2.5	0.5	16	2.5	50	4	15	55.00	222427.2390	6	0.3	40	7	80	6	-	78.30
222427.1520	2.5	0.5	20	2.5	50	4	15	55.00	222427.2400	6	0.5	20	7	60	6	-	78.30
222427.1530	2.5	0.5	25	2.5	60	4	15	55.00	222427.2410	6	0.5	40	7	80	6	-	78.30
222427.1540	3	0.1	10	3	50	6	15	55.00	222427.2420	6	1	20	7	60	6	-	106.60
222427.1550	3	0.1	12	3	50	6	15	55.00	222427.2430	6	1	40	7	80	6	-	106.60
222427.1560	3	0.1	16	3	55	6	15	55.00	222427.2440	6	1.5	20	7	60	6	-	106.60
222427.1570	3	0.1	20	3	60	6	15	55.00	222427.2450	6	1.5	40	7	80	6	-	106.60
222427.1580	3	0.1	25	3	65	6	15	55.00	222427.2460	8	0.3	22	9	65	8	-	106.60
222427.1590	3	0.1	30	3	70	6	15	55.00	222427.2470	8	0.5	22	9	65	8	-	106.60
222427.1600	3	0.1	35	3	75	6	15	55.00	222427.2480	8	0.5	40	9	100	8	-	106.60
222427.1610	3	0.2	10	3	50	6	15	55.00	222427.2490	8	1	22	9	65	8	-	147.50
222427.1620	3	0.2	12	3	50	6	15	55.00	222427.2500	8	1	40	9	100	8	-	147.50
222427.1630	3	0.2	16	3	55	6	15	55.00	222427.2510	8	1.5	22	9	65	8	-	147.50
222427.1640	3	0.2	20	3	60	6	15	55.00	222427.2520	8	2	22	9	65	8	-	147.50
222427.1650	3	0.2	25	3	65	6	15	55.00	222427.2530	10	0.3	24	11	70	10	-	147.50
222427.1660	3	0.2	30	3	70	6	15	55.00	222427.2540	10	0.5	24	11	70	10	-	147.50
222427.1670	3	0.2	35	3	75	6	15	55.00	222427.2550	10	0.5	40	11	100	10	-	147.50
222427.1680	3	0.3	10	3	50	6	15	52.20	222427.2560	10	1	24	11	70	10	-	147.50
222427.1690	3	0.3	12	3	50	6	15	52.20	222427.2570	10	1	40	11	100	10	-	147.50
222427.1700	3	0.3	16	3	55	6	15	52.20	222427.2580	10	1.5	24	11	70	10	-	231.00
222427.1710	3	0.3	20	3	60	6	15	52.20	222427.2590	10	2	24	11	70	10	-	231.00
222427.1720	3	0.3	25	3	65	6	15	52.20	222427.2600	10	2.5	24	11	70	10	-	231.00
222427.1730	3	0.3	30	3	70	6	15	52.20	222427.2610	12	0.3	26	13	80	12	-	231.00
222427.1740	3	0.3	35	3	75	6	15	52.20	222427.2620	12	0.5	26	13	80	12	-	231.00
222427.1750	3	0.5	10	3	50	6	15	79.00	222427.2630	12	0.5	40	13	110	12	-	231.00
222427.1760	3	0.5	12	3	50	6	15	79.00	222427.2640	12	1	26	13	80	12	-	231.00
222427.1770	3	0.5	16	3	55	6	15	79.00	222427.2650	12	1	40	13	110	12	-	231.00
222427.1780	3	0.5	20	3	60	6	15	79.00	222427.2660	12	1.5	26	13	80	12	-	366.50
222427.1790	3	0.5	25	3	65	6	15	79.00	222427.2670	12	2	26	13	80	12	-	366.50
222427.1800	3	0.5	30	3	70	6	15	79.00	222427.2680	12	3	26	13	80	12	-	366.50

FUTURO



227045 SC shoulder/ slot milling cutters FUTURO

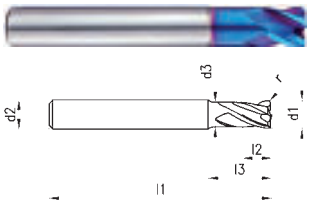
VHM | Ø 3-12 | XIDUR | 30° | h6 | NORM | 4

P	M	K	N	S	H	O
O					●●	

Made of Nano-micrograin carbide

Order ID	d1 mm	r mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Cutting tolerance on radius	Price €
227045.0100	3	0.3	4	12	6	55	2.85	±0.01	46.10
227045.0200	3	0.3	4	16	6	55	2.85	±0.01	46.10
227045.0300	3	0.3	4	20	6	55	2.85	±0.01	46.10
227045.0400	3	0.5	4	12	6	55	2.85	±0.01	46.10
227045.0500	3	0.5	4	16	6	55	2.85	±0.01	46.10
227045.0600	3	0.5	4	20	6	55	2.85	±0.01	46.10
227045.0700	4	0.3	5	12	6	55	3.85	±0.01	46.10
227045.0800	4	0.3	5	16	6	55	3.85	±0.01	46.10
227045.0900	4	0.3	5	20	6	55	3.85	±0.01	46.10
227045.1000	4	0.5	5	12	6	55	3.85	±0.01	46.10
227045.1100	4	0.5	5	16	6	55	3.85	±0.01	46.10
227045.1200	4	0.5	5	20	6	55	3.85	±0.01	46.10
227045.1300	4	1.0	5	12	6	55	3.85	±0.01	46.10
227045.1400	6	0.5	7	20	6	60	5.85	±0.01	46.10
227045.1500	6	0.5	9	20	6	90	5.85	±0.01	54.60
227045.1600	6	1.0	7	20	6	60	5.85	±0.015	46.10
227045.1700	6	1.0	9	20	6	90	5.85	±0.015	54.60
227045.1800	6	1.5	7	20	6	60	5.85	±0.015	46.10
227045.1900	8	0.5	9	25	8	60	7.7	±0.01	58.40
227045.2000	8	0.5	12	25	8	100	7.7	±0.01	70.80
227045.2100	8	1.0	9	25	8	60	7.7	±0.015	58.40
227045.2200	8	1.0	12	25	8	100	7.7	±0.015	70.80
227045.2300	8	1.5	9	25	8	60	7.7	±0.015	58.40
227045.2400	8	2.0	9	25	8	60	7.7	±0.015	58.40
227045.2500	10	0.5	11	32	10	70	9.7	±0.01	87.40
227045.2600	10	0.5	15	32	10	100	9.7	±0.01	97.90
227045.2700	10	1.0	11	32	10	70	9.7	±0.015	87.40
227045.2800	10	1.0	15	32	10	100	9.7	±0.015	97.90
227045.2900	10	1.5	11	32	10	70	9.7	±0.015	87.40
227045.3000	10	2.0	11	32	10	70	9.7	±0.015	87.40
227045.3100	10	2.0	15	32	10	100	9.7	±0.015	97.90
227045.3200	12	0.5	12	38	12	80	11.7	±0.01	120.70
227045.3300	12	0.5	18	38	12	110	11.7	±0.01	159.60
227045.3400	12	1.0	12	38	12	80	11.7	±0.015	120.70
227045.3500	12	1.0	18	38	12	110	11.7	±0.015	159.60
227045.3600	12	1.5	12	38	12	80	11.7	±0.015	120.70
227045.3700	12	2.0	12	38	12	80	11.7	±0.015	120.70
227045.3800	12	2.0	12	38	12	110	11.7	±0.015	159.60

FUTURO



227050 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 1-20 | XIDUR | 30° | NORM | 4

P	M	K	N	S	H	O
O					●●	

Type N, made of nano-micrograin carbide

Order ID	d1 mm	r mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Price €
227050.0100	1	0.1	1.5	-	3	40	-	34.80
227050.0150	1	0.1	1.5	-	6	40	-	50.80
227050.0200	1.5	0.1	2.2	-	3	40	-	34.80
227050.0250	1.5	0.1	2.2	-	6	40	-	50.80
227050.0300	2	0.1	6	3	3	40	1.95	31.50
227050.0350	2	0.1	3	6	6	40	1.95	46.10
227050.0400	2.5	0.1	4	6	3	40	2.4	31.50
227050.0450	2.5	0.1	4	6	6	40	2.4	46.10
227050.0500	3	0.1	4	7	6	45	2.85	46.10
227050.0600	3.5	0.1	5	9	6	45	3.35	46.10
227050.0700	4	0.1	5	9	6	45	3.85	46.10
227050.0900	5	0.2	6	11	6	50	4.85	46.10
227050.1000	6	0.2	7	14	6	50	5.85	46.10
227050.1100	8	0.2	9	18	8	60	7.7	58.40
227050.1200	10	0.2	12	25	10	75	9.7	87.40
227050.1300	12	0.3	15	30	12	75	11.7	120.70
227050.1400	16	0.3	18	38	16	90	15.7	201.40

222424 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 1-10 | Coated | 45° | NORM | 4 | HSC

P	M	K	N	S	H	O
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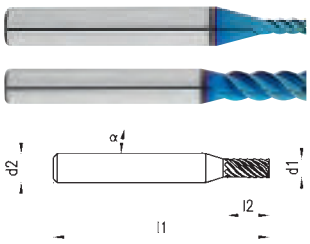


Tolerances d1:
1 mm...5 mm: +0/-0.01 mm
6 mm...12 mm: -0.01/-0.025 mm
16 mm...16 mm: -0.015/-0.03 mm

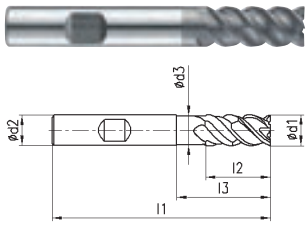
Order ID	d1 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222424.0010	1	1.5	40	6	15	45.00	222424.0150	5	10	50	6	15	42.10
222424.0020	1	2.5	40	6	15	45.00	222424.0160	5	13	50	6	15	42.10
222424.0030	1	3.5	40	6	15	45.00	222424.0170	5	20	60	6	15	42.10
222424.0040	2	3	40	6	15	35.50	222424.0180	6	13	50	6	-	47.90
222424.0050	2	5	40	6	15	35.50	222424.0190	6	15	55	6	-	47.90
222424.0060	2	8	40	6	15	35.50	222424.0200	6	20	60	6	-	47.90
222424.0070	2.5	6	45	6	15	35.50	222424.0210	8	20	60	8	-	54.60
222424.0080	2.5	8	45	6	15	35.50	222424.0220	8	25	70	8	-	54.60
222424.0090	3	6	45	6	15	35.50	222424.0230	10	22	70	10	-	94.30
222424.0100	3	8	45	6	15	35.50	222424.0240	10	30	80	10	-	94.30
222424.0110	3	12	50	6	15	35.50	222424.0250	12	26	75	12	-	128.60
222424.0120	4	8	45	6	15	41.60	222424.0260	12	35	90	12	-	128.60
222424.0130	4	11	45	6	15	41.60	222424.0270	16	35	90	16	-	228.90
222424.0140	4	15	55	6	15	41.60	222424.0280	16	50	110	16	-	228.90

225310 SC shoulder/ slot milling cutters FUTURO

VHM | Ø 4-20 | AlTiN | 52° | h10 | h6 | NORM

4 | HPC

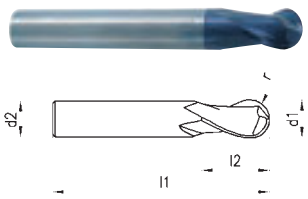
P	M	K	N	S	H	O
○		○			●●	



Enlarged flute

Order ID	d1 mm	l2 mm	l3 mm	d3 mm	d2 mm	l1 mm	Protective chamfer mm	Price €
225310.0100	4	11	20	3.8	6	57	0.1	42.70
225310.0200	5	13	20	4.8	6	57	0.1	42.70
225310.0300	6	13	20	5.8	6	57	0.1	45.20
225310.0400	8	19	26	7.8	8	63	0.15	57.00
225310.0500	10	22	31	9.8	10	72	0.15	87.90
225310.0600	12	26	37	11.8	12	83	0.2	111.20
225310.0700	14	26	41	13.8	14	83	0.2	157.70
225310.0800	16	32	43	15.8	16	92	0.2	212.80
225310.0900	18	32	43	17.8	18	92	0.3	236.60
225310.1000	20	38	53	19.8	20	104	0.3	306.90

FUTURO



226740 SC ball-nose copy milling cutters FUTURO

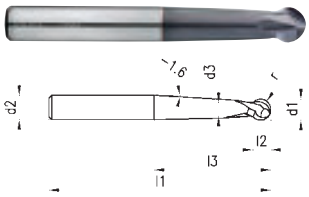
VHM | Ø 1-20 | TiAlN | 30° | NORM | 2

P	M	K	N	S	H	O
●●		○			○	

Type N

Order ID	d1 mm	r mm	l2 mm	d2 mm	l1 mm	Cutting tolerance on radius	Price €
226740.0100	1	0.5	3	3	38	+/- 0.02	36.50
226740.0200	1.2	0.6	3	3	38	+/- 0.02	36.50
226740.0300	1.5	0.75	3	3	38	+/- 0.02	36.50
226740.0400	2	1	3	6	50	+/- 0.02	36.50
226740.0500	3	1.5	4	6	50	+/- 0.02	36.50
226740.0600	4	2	5	6	54	+/- 0.02	37.60
226740.0700	5	2.5	6	6	54	+/- 0.02	37.60
226740.0800	6	3	7	6	54	+/- 0.02	37.60
226740.0900	8	4	9	8	58	+/- 0.02	60.30
226740.1000	10	5	11	10	66	+/- 0.02	94.10
226740.1100	12	6	12	12	73	+/- 0.02	118.80
226740.1200	16	8	16	16	82	+/- 0.02	187.20
226740.1300	20	10	20	20	92	+/- 0.02	267.90

FUTURO



226700 SC ball-nose copy milling cutters FUTURO

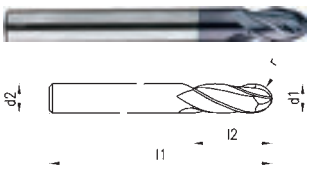
VHM | Ø 3-12 | TiAlN | 30° | NORM | 2

P	M	K	N	S	H	O
●●		○			○	

Type N

Order ID	d1 mm	r mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Cutting tolerance on radius	Price €
226700.0100	3	1.5	2.3	30	6	80	2.5	+/- 0.01	57.00
226700.0200	4	2	3.1	30	6	80	3.3	+/- 0.01	58.00
226700.0400	6	3	4.9	28	6	100	4.7	+/- 0.01	64.10
226700.0500	8	4	6.3	33	8	100	6.5	+/- 0.01	95.50
226700.0600	10	5	7.9	40	10	100	8.2	+/- 0.01	157.70
226700.0700	12	6	9.5	49	12	100	9.8	+/- 0.01	195.70

FUTURO



226620 SC ball-nose copy milling cutters FUTURO

VHM | Ø 1-16 | TiAlN | 30° | h6 | NORM | 4

P	M	K	N	S	H	O
●●		○			○	

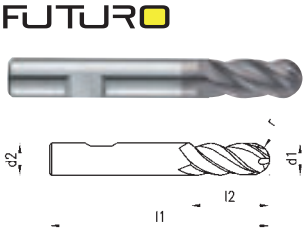
Type N

Order ID	d1 mm	r mm	l2 mm	d2 mm	l1 mm	Price €
226620.0100	1	0.5	2.5	4	50	51.80
226620.0200	1.5	0.75	4	4	50	51.80
226620.0300	2	1	5	6	50	49.40
226620.0400	3	1.5	8	6	60	49.40
226620.0500	4	2	8	6	70	50.80
226620.0700	6	3	12	6	90	55.60
226620.0800	7	3.5	14	8	90	82.20
226620.0900	8	4	14	8	100	82.20
226620.1100	10	5	18	10	100	126.40

225739 SC ball-nose copy milling cutters FUTURO

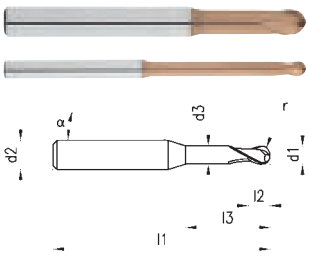
VHM | Ø 3-20 | TiAlN | 35°/38° | h10 | h6 | DIN 6527L | 4

P	M	K	N	S	H	O
●●	○	●●				



Order ID	d1 mm	r mm	l2 mm	d2 mm	l1 mm	Price €
225739.0100	**3**	**1.5**	8	6	57	**33.70**
225739.0200	**4**	**2**	10	6	57	**33.70**
225739.0300	**5**	**2.5**	13	6	57	**33.70**
225739.0400	**6**	**3**	13	6	57	**33.70**
225739.0500	**8**	**4**	16	8	63	**45.80**
225739.0600	**10**	**5**	22	10	72	**67.50**
225739.0700	**12**	**6**	26	12	83	**84.60**
225739.0800	**14**	**7**	26	14	83	**112.10**
225739.0900	**16**	**8**	32	16	92	**148.20**
225739.1000	**20**	**10**	38	20	104	**224.20**

FUTURO



222401 SC ball-nose copy milling cutters FUTURO

VHM	Ø 0.1-12	Coated	30°		NORM	2	HSC
	P	M	K	N	S	H	O
	○		○	●●		●●	

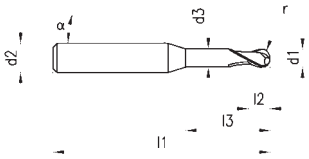
Tolerances r:
0.05 mm...2.5 mm: +/- 0.005 mm
3 mm...6 mm: +/- 0.010 mm

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222401.0010	0.1	0.05	-	0.3	40	4	15	76.00	222401.0760	1	0.5	5	1	45	4	15	49.20
222401.0020	0.1	0.05	-	0.5	40	4	15	76.00	222401.0770	1	0.5	5	1	50	6	15	49.20
222401.0030	0.2	0.1	0.5	0.2	40	4	15	64.00	222401.0780	1	0.5	6	1	45	4	15	49.20
222401.0040	0.2	0.1	1	0.2	40	4	15	64.00	222401.0790	1	0.5	6	1	50	6	15	49.20
222401.0050	0.2	0.1	1.5	0.2	40	4	15	64.00	222401.0800	1	0.5	8	1	45	4	15	49.20
222401.0060	0.2	0.1	2	0.2	40	4	15	64.00	222401.0810	1	0.5	8	1	50	6	15	49.20
222401.0070	0.2	0.1	2.5	0.2	40	4	15	64.00	222401.0820	1	0.5	10	1	50	4	15	49.20
222401.0080	0.2	0.1	3	0.2	40	4	15	64.00	222401.0830	1	0.5	10	1	50	6	15	49.20
222401.0090	0.3	0.15	1	0.3	40	4	15	64.00	222401.0840	1	0.5	12	1	50	4	15	49.20
222401.0100	0.3	0.15	1.5	0.3	40	4	15	64.00	222401.0850	1	0.5	12	1	50	6	15	49.20
222401.0110	0.3	0.15	2	0.3	40	4	15	64.00	222401.0860	1	0.5	14	1	50	4	15	54.20
222401.0120	0.3	0.15	2.5	0.3	40	4	15	64.00	222401.0870	1	0.5	14	1	50	6	15	54.20
222401.0130	0.3	0.15	3	0.3	40	4	15	64.00	222401.0880	1	0.5	16	1	50	4	15	54.20
222401.0140	0.3	0.15	3.5	0.3	40	4	15	64.00	222401.0890	1	0.5	16	1	60	6	15	54.20
222401.0150	0.3	0.15	4	0.3	40	4	15	64.00	222401.0900	1	0.5	18	1	50	4	15	54.20
222401.0160	0.3	0.15	5	0.3	40	4	15	64.00	222401.0910	1	0.5	18	1	60	6	15	54.20
222401.0170	0.4	0.2	1	0.4	40	4	15	64.00	222401.0920	1	0.5	20	1	50	4	15	64.00
222401.0180	0.4	0.2	1.5	0.4	40	4	15	64.00	222401.0930	1	0.5	20	1	60	6	15	64.00
222401.0190	0.4	0.2	2	0.4	40	4	15	64.00	222401.0940	1	0.5	22	1	60	4	15	64.00
222401.0200	0.4	0.2	2.5	0.4	40	4	15	64.00	222401.0950	1	0.5	22	1	65	6	15	64.00
222401.0210	0.4	0.2	3	0.4	40	4	15	64.00	222401.0960	1	0.5	25	1	60	4	15	70.90
222401.0220	0.4	0.2	3.5	0.4	40	4	15	64.00	222401.0970	1	0.5	30	1	70	4	15	70.90
222401.0230	0.4	0.2	4	0.4	40	4	15	64.00	222401.0980	1.2	0.6	4	1.2	45	4	15	51.90
222401.0240	0.4	0.2	5	0.4	40	4	15	64.00	222401.0990	1.2	0.6	4	1.2	50	6	15	51.90
222401.0250	0.4	0.2	6	0.4	40	4	15	64.00	222401.1000	1.2	0.6	6	1.2	45	4	15	51.90
222401.0260	0.4	0.2	8	0.4	40	4	15	64.00	222401.1010	1.2	0.6	6	1.2	50	6	15	51.90
222401.0270	0.4	0.2	10	0.4	40	4	15	72.00	222401.1020	1.2	0.6	8	1.2	45	4	15	51.90
222401.0280	0.5	0.25	1	0.5	45	4	15	51.90	222401.1030	1.2	0.6	8	1.2	50	6	15	51.90
222401.0290	0.5	0.25	1.5	0.5	45	4	15	51.90	222401.1040	1.2	0.6	10	1.2	50	4	15	54.20
222401.0300	0.5	0.25	2	0.5	45	4	15	51.90	222401.1050	1.2	0.6	10	1.2	50	6	15	54.20
222401.0310	0.5	0.25	2.5	0.5	45	4	15	51.90	222401.1060	1.2	0.6	12	1.2	50	4	15	54.20
222401.0320	0.5	0.25	3	0.5	45	4	15	51.90	222401.1070	1.2	0.6	12	1.2	50	6	15	54.20
222401.0330	0.5	0.25	3.5	0.5	45	4	15	51.90	222401.1080	1.2	0.6	16	1.2	50	4	15	54.20
222401.0340	0.5	0.25	4	0.5	45	4	15	51.90	222401.1090	1.2	0.6	16	1.2	60	6	15	54.20
222401.0350	0.5	0.25	4.5	0.5	45	4	15	51.90	222401.1100	1.2	0.6	20	1.2	50	4	15	64.00
222401.0360	0.5	0.25	5	0.5	45	4	15	51.90	222401.1110	1.2	0.6	20	1.2	60	6	15	64.00
222401.0370	0.5	0.25	6	0.5	45	4	15	51.90	222401.1120	1.2	0.6	24	1.2	60	4	15	64.00
222401.0380	0.5	0.25	8	0.5	45	4	15	51.90	222401.1130	1.2	0.6	24	1.2	65	6	15	64.00
222401.0390	0.5	0.25	10	0.5	45	4	15	51.90	222401.1140	1.4	0.7	6	1.4	45	4	15	64.00
222401.0400	0.5	0.25	12	0.5	45	4	15	51.90	222401.1150	1.4	0.7	8	1.4	45	4	15	64.00
222401.0410	0.5	0.25	14	0.5	45	4	15	51.90	222401.1160	1.4	0.7	12	1.4	50	4	15	64.00
222401.0420	0.6	0.3	1	0.6	45	4	15	51.90	222401.1170	1.4	0.7	16	1.4	50	4	15	64.00
222401.0430	0.6	0.3	2	0.6	45	4	15	51.90	222401.1180	1.5	0.75	3	1.5	45	4	15	51.90
222401.0440	0.6	0.3	3	0.6	45	4	15	51.90	222401.1190	1.5	0.75	3	1.5	50	6	15	51.90
222401.0450	0.6	0.3	4	0.6	45	4	15	51.90	222401.1200	1.5	0.75	4	1.5	45	4	15	51.90
222401.0460	0.6	0.3	5	0.6	45	4	15	51.90	222401.1210	1.5	0.75	4	1.5	50	6	15	51.90
222401.0470	0.6	0.3	6	0.6	45	4	15	51.90	222401.1220	1.5	0.75	6	1.5	45	4	15	51.90
222401.0480	0.6	0.3	8	0.6	45	4	15	51.90	222401.1230	1.5	0.75	6	1.5	50	6	15	51.90
222401.0490	0.6	0.3	10	0.6	45	4	15	51.90	222401.1240	1.5	0.75	8	1.5	45	4	15	51.90
222401.0500	0.6	0.3	12	0.6	45	4	15	51.90	222401.1250	1.5	0.75	8	1.5	50	6	15	51.90
222401.0510	0.6	0.3	14	0.6	45	4	15	54.20	222401.1260	1.5	0.75	10	1.5	50	4	15	51.90
222401.0520	0.6	0.3	16	0.6	45	4	15	54.20	222401.1270	1.5	0.75	10	1.5	50	6	15	51.90
222401.0530	0.7	0.35	2	0.7	45	4	15	54.20	222401.1280	1.5	0.75	12	1.5	50	4	15	54.20
222401.0540	0.7	0.35	4	0.7	45	4	15	54.20	222401.1290	1.5	0.75	12	1.5	50	6	15	54.20
222401.0550	0.7	0.35	6	0.7	45	4	15	54.20	222401.1300	1.5	0.75	14	1.5	50	4	15	54.20
222401.0560	0.7	0.35	8	0.7	45	4	15	54.20	222401.1310	1.5	0.75	14	1.5	50	6	15	54.20
222401.0570	0.7	0.35	10	0.7	45	4	15	54.20	222401.1320	1.5	0.75	16	1.5	50	4	15	54.20
222401.0580	0.7	0.35	12	0.7	45	4	15	54.20	222401.1330	1.5	0.75	16	1.5	60	6	15	54.20
222401.0590	0.8	0.4	2	0.8	45	4	15	54.20	222401.1340	1.5	0.75	18	1.5	50	4	15	64.00
222401.0600	0.8	0.4	3	0.8	45	4	15	54.20	222401.1350	1.5	0.75	18	1.5	60	6	15	64.00
222401.0610	0.8	0.4	4	0.8	45	4	15	54.20	222401.1360	1.5	0.75	20	1.5	50	4	15	64.00
222401.0620	0.8	0.4	5	0.8	45	4	15	54.20	222401.1370	1.5	0.75	20	1.5	60	6	15	64.00
222401.0630	0.8	0.4	6	0.8	45	4	15	54.20	222401.1380	1.5	0.75	22	1.5	60	4	15	64.00
222401.0640	0.8	0.4	8	0.8	45	4	15	54.20	222401.1390	1.5	0.75	22	1.5	65	6	15	64.00
222401.0650	0.8	0.4	10	0.8	45	4	15	54.20	222401.1400	1.5	0.75	25	1.5	60	4	15	64.00
222401.0660	0.8	0.4	12	0.8	45	4	15	54.20	222401.1410	1.5	0.75	25	1.5	65	6	15	64.00
222401.0670	0.8	0.4	14	0.8	45	4	15	54.20	222401.1420	1.5	0.75	30	1.5	70	4	15	64.00
222401.0680	0.8	0.4	16	0.8	45	4	15	54.20	222401.1430	1.5	0.75	30	1.5	70	6	15	64.00
222401.0690	0.9	0.45	4	0.9	45	4	15	54.20	222401.1440	1.5	0.75	35	1.5	70	4	15	64.00
222401.0700	1	0.5	2	1	45	4	15	49.20	222401.1450	1.5	0.75	40	1.5	80	4	15	64.00
222401.0710	1	0.5	2	1	50	6	15	49.20	222401.1460	1.6	0.8	6	1.6	45	4	15	64.00
222401.0720	1	0.5	3	1	45	4	15	49.20	222401.1470	1.6	0.8	8	1.6	45	4	15	54.20
222401.0730	1	0.5	3	1	50	6	15	49.20	222401.1480	1.6	0.8	12	1.6	50	4	15	54.20
222401.0740	1	0.5	4	1	45	4	15	49.20	222401.1490	1.6	0.8	16	1.6	50	4	15	54.20
222401.0750	1	0.5	4	1	50	6	15	49.20	222401.1500	1.6	0.8	20	1.6	50	4	15	64.00

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222401.1510	1.8	0.9	6	1.8	45	4	15	64.00
222401.1520	1.8	0.9	8	1.8	45	4	15	54.20
222401.1530	1.8	0.9	12	1.8	50	4	15	54.20
222401.1540	1.8	0.9	16	1.8	50	4	15	54.20
222401.1550	1.8	0.9	20	1.8	50	4	15	64.00
222401.1560	2	1	4	2	45	4	15	51.90
222401.1570	2	1	4	2	50	6	15	51.90
222401.1580	2	1	6	2	45	4	15	51.90
222401.1590	2	1	6	2	50	6	15	51.90
222401.1600	2	1	8	2	45	4	15	51.90
222401.1610	2	1	8	2	50	6	15	51.90
222401.1620	2	1	10	2	50	4	15	51.90
222401.1630	2	1	10	2	50	6	15	51.90
222401.1640	2	1	12	2	50	4	15	51.90
222401.1650	2	1	12	2	50	6	15	51.90
222401.1660	2	1	14	2	50	4	15	51.90
222401.1670	2	1	14	2	50	6	15	51.90
222401.1680	2	1	16	2	50	4	15	51.90
222401.1690	2	1	16	2	60	6	15	51.90
222401.1700	2	1	18	2	50	4	15	64.00
222401.1710	2	1	18	2	60	6	15	64.00
222401.1720	2	1	20	2	50	4	15	64.00
222401.1730	2	1	20	2	60	6	15	64.00
222401.1740	2	1	22	2	60	4	15	64.00
222401.1750	2	1	22	2	65	6	15	64.00
222401.1760	2	1	25	2	60	4	15	64.00
222401.1770	2	1	25	2	65	6	15	64.00
222401.1780	2	1	30	2	70	4	15	70.90
222401.1790	2	1	30	2	70	6	15	70.90
222401.1800	2	1	35	2	70	4	15	76.00
222401.1810	2	1	35	2	75	6	15	76.00
222401.1820	2	1	40	2	80	4	15	76.00
222401.1830	2	1	40	2	80	6	15	76.00
222401.1840	2	1	45	2	80	4	15	76.00
222401.1850	2	1	50	2	90	4	15	76.00
222401.1860	2.5	1.25	8	2.5	45	4	15	54.20
222401.1870	2.5	1.25	8	2.5	50	6	15	54.20
222401.1880	2.5	1.25	10	2.5	50	4	15	54.20
222401.1890	2.5	1.25	10	2.5	50	6	15	54.20
222401.1900	2.5	1.25	16	2.5	50	4	15	54.20
222401.1910	2.5	1.25	16	2.5	60	6	15	54.20
222401.1920	2.5	1.25	20	2.5	60	4	15	64.00
222401.1930	2.5	1.25	25	2.5	60	4	15	70.90
222401.1940	2.5	1.25	30	2.5	70	4	15	70.90
222401.1950	2.5	1.25	35	2.5	70	4	15	70.90
222401.1960	2.5	1.25	40	2.5	80	4	15	70.90
222401.1970	3	1.5	6	3	50	6	15	54.20

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222401.1980	3	1.5	8	3	50	6	15	54.20
222401.1990	3	1.5	10	3	50	6	15	54.20
222401.2000	3	1.5	12	3	50	6	15	54.20
222401.2010	3	1.5	16	3	60	6	15	58.50
222401.2020	3	1.5	20	3	60	6	15	64.00
222401.2030	3	1.5	25	3	65	6	15	64.00
222401.2040	3	1.5	30	3	70	6	15	70.90
222401.2050	3	1.5	35	3	75	6	15	70.90
222401.2060	3	1.5	40	3	80	6	15	70.90
222401.2070	3	1.5	45	3	90	6	15	84.90
222401.2080	3	1.5	50	3	100	6	15	91.80
222401.2090	3	1.5	60	3	100	6	15	102.10
222401.2100	3	1.5	65	3	110	6	15	110.30
222401.2110	3	1.5	70	3	110	6	15	114.00
222401.2120	4	2	8	4	50	6	15	52.70
222401.2130	4	2	10	4	50	6	15	52.70
222401.2140	4	2	12	4	50	6	15	52.70
222401.2150	4	2	16	4	60	6	15	55.50
222401.2160	4	2	20	4	60	6	15	55.50
222401.2170	4	2	25	4	65	6	15	58.70
222401.2180	4	2	30	4	70	6	15	67.20
222401.2190	4	2	35	4	75	6	15	73.90
222401.2200	4	2	40	4	80	6	15	80.50
222401.2210	4	2	45	4	90	6	15	84.90
222401.2220	4	2	50	4	100	6	15	92.00
222401.2230	4	2	55	4	100	6	15	102.00
222401.2240	4	2	60	4	100	6	15	102.00
222401.2250	4	2	65	4	110	6	15	110.00
222401.2260	4	2	70	4	110	6	15	114.00
222401.2270	5	2.5	20	6	60	6	15	59.00
222401.2280	5	2.5	25	6	70	6	15	67.00
222401.2290	5	2.5	30	6	75	6	15	74.00
222401.2300	5	2.5	40	6	80	6	15	81.00
222401.2310	5	2.5	45	6	90	6	15	85.00
222401.2320	5	2.5	50	6	100	6	15	92.00
222401.2330	5	2.5	60	6	100	6	15	102.00
222401.2340	5	2.5	65	6	110	6	15	110.00
222401.2350	5	2.5	70	6	110	6	15	114.00
222401.2360	6	3	15	10	55	6	-	51.00
222401.2370	6	3	30	10	110	6	-	81.00
222401.2380	8	4	25	12	60	8	-	69.00
222401.2390	8	4	30	12	100	8	-	93.00
222401.2400	10	5	30	16	70	10	-	90.00
222401.2410	10	5	35	16	100	10	-	123.00
222401.2420	12	6	30	18	75	12	-	117.00
222401.2430	12	6	40	18	110	12	-	163.00

FUTURO



222420 SC ball-nose copy milling cutters FUTURO

VHM | Ø 0.1-12 | Coated | 30° | NORM | 2 | HSC

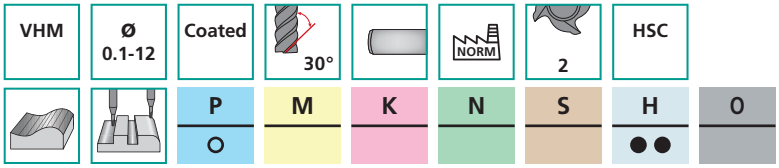
P | M | K | N | S | H | O

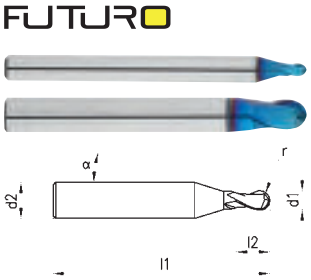
Tolerances d1:
0.1 mm...0.1 mm: +0/-0.005 mm
0.2 mm...5 mm: +0/-0.01 mm
6 mm...12 mm: -0.005/-0.015 mm

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222420.0010	0.1	0.05	-	0.3	40	4	15	94.80	222420.0750	0.8	0.4	4	0.8	50	6	15	42.30
222420.0020	0.1	0.05	-	0.5	40	4	15	94.80	222420.0760	0.8	0.4	5	0.8	45	4	15	42.30
222420.0030	0.2	0.1	0.5	0.2	40	4	15	81.40	222420.0770	0.8	0.4	5	0.8	50	6	15	42.30
222420.0040	0.2	0.1	1	0.2	40	4	15	81.40	222420.0780	0.8	0.4	6	0.8	45	4	15	42.30
222420.0050	0.2	0.1	1.5	0.2	40	4	15	81.40	222420.0790	0.8	0.4	6	0.8	50	6	15	42.30
222420.0060	0.2	0.1	2	0.2	40	4	15	81.40	222420.0800	0.8	0.4	8	0.8	45	4	15	42.30
222420.0070	0.2	0.1	2.5	0.2	40	4	15	81.40	222420.0810	0.8	0.4	8	0.8	50	6	15	42.30
222420.0080	0.2	0.1	3	0.2	40	4	15	81.40	222420.0820	0.8	0.4	10	0.8	45	4	15	42.30
222420.0090	0.3	0.15	1	0.3	40	4	15	76.50	222420.0830	0.8	0.4	12	0.8	45	4	15	42.30
222420.0100	0.3	0.15	1.5	0.3	40	4	15	76.50	222420.0840	0.9	0.45	4	0.9	45	4	15	42.30
222420.0110	0.3	0.15	2	0.3	40	4	15	76.50	222420.0850	0.9	0.45	6	0.9	45	4	15	42.30
222420.0120	0.3	0.15	2.5	0.3	40	4	15	76.50	222420.0860	0.9	0.45	8	0.9	45	4	15	42.30
222420.0130	0.3	0.15	3	0.3	40	4	15	76.50	222420.0870	0.9	0.45	10	0.9	50	4	15	42.30
222420.0140	0.3	0.15	3.5	0.3	40	4	15	76.50	222420.0880	0.9	0.45	12	0.9	50	4	15	42.30
222420.0150	0.3	0.15	4	0.3	40	4	15	76.50	222420.0890	1	0.5	2	1	45	4	15	35.90
222420.0160	0.3	0.15	5	0.3	40	4	15	76.50	222420.0900	1	0.5	2	1	50	6	15	35.90
222420.0170	0.4	0.2	1	0.4	40	4	15	50.30	222420.0910	1	0.5	3	1	45	4	15	35.90
222420.0180	0.4	0.2	1.5	0.4	40	4	15	50.30	222420.0920	1	0.5	3	1	50	6	15	35.90
222420.0190	0.4	0.2	2	0.4	40	4	15	50.30	222420.0930	1	0.5	4	1	45	4	15	35.90
222420.0200	0.4	0.2	2.5	0.4	40	4	15	50.30	222420.0940	1	0.5	4	1	50	6	15	35.90
222420.0210	0.4	0.2	3	0.4	40	4	15	50.30	222420.0950	1	0.5	5	1	45	4	15	35.90
222420.0220	0.4	0.2	3.5	0.4	40	4	15	50.30	222420.0960	1	0.5	5	1	50	6	15	35.90
222420.0230	0.4	0.2	4	0.4	40	4	15	50.30	222420.0970	1	0.5	6	1	45	4	15	35.90
222420.0240	0.4	0.2	4.5	0.4	40	4	15	50.30	222420.0980	1	0.5	6	1	50	6	15	35.90
222420.0250	0.4	0.2	5	0.4	40	4	15	50.30	222420.0990	1	0.5	8	1	45	4	15	35.90
222420.0260	0.4	0.2	6	0.4	40	4	15	50.30	222420.1000	1	0.5	8	1	50	6	15	35.90
222420.0270	0.4	0.2	8	0.4	40	4	15	50.30	222420.1010	1	0.5	10	1	50	4	15	35.90
222420.0280	0.5	0.25	1	0.5	45	4	15	42.30	222420.1020	1	0.5	10	1	50	6	15	35.90
222420.0290	0.5	0.25	1	0.5	50	6	15	42.30	222420.1030	1	0.5	12	1	50	4	15	35.90
222420.0300	0.5	0.25	1.5	0.5	45	4	15	42.30	222420.1040	1	0.5	12	1	50	6	15	35.90
222420.0310	0.5	0.25	2	0.5	45	4	15	42.30	222420.1050	1	0.5	14	1	50	4	15	35.90
222420.0320	0.5	0.25	2	0.5	50	6	15	42.30	222420.1060	1	0.5	16	1	50	4	15	35.90
222420.0330	0.5	0.25	2.5	0.5	45	4	15	42.30	222420.1070	1	0.5	18	1	50	4	15	35.90
222420.0340	0.5	0.25	3	0.5	45	4	15	42.30	222420.1080	1	0.5	20	1	50	4	15	35.90
222420.0350	0.5	0.25	3	0.5	50	6	15	42.30	222420.1090	1	0.5	22	1	60	4	15	35.90
222420.0360	0.5	0.25	3.5	0.5	45	4	15	42.30	222420.1100	1	0.5	25	1	60	4	15	35.90
222420.0370	0.5	0.25	4	0.5	45	4	15	42.30	222420.1110	1.2	0.6	4	1.2	45	4	15	42.30
222420.0380	0.5	0.25	4	0.5	50	6	15	42.30	222420.1120	1.2	0.6	4	1.2	50	6	15	42.30
222420.0390	0.5	0.25	4.5	0.5	45	4	15	42.30	222420.1130	1.2	0.6	6	1.2	45	4	15	42.30
222420.0400	0.5	0.25	5	0.5	45	4	15	42.30	222420.1140	1.2	0.6	6	1.2	50	6	15	42.30
222420.0410	0.5	0.25	5	0.5	50	6	15	42.30	222420.1150	1.2	0.6	8	1.2	45	4	15	42.30
222420.0420	0.5	0.25	6	0.5	45	4	15	42.30	222420.1160	1.2	0.6	8	1.2	50	6	15	42.30
222420.0430	0.5	0.25	6	0.5	50	6	15	42.30	222420.1170	1.2	0.6	10	1.2	50	4	15	42.30
222420.0440	0.5	0.25	8	0.5	45	4	15	42.30	222420.1180	1.2	0.6	10	1.2	50	6	15	42.30
222420.0450	0.5	0.25	10	0.5	45	4	15	42.30	222420.1190	1.2	0.6	12	1.2	50	4	15	42.30
222420.0460	0.5	0.25	12	0.5	45	4	15	42.30	222420.1200	1.2	0.6	12	1.2	50	6	15	42.30
222420.0470	0.6	0.3	1	0.6	45	4	15	44.60	222420.1210	1.2	0.6	16	1.2	50	4	15	42.30
222420.0480	0.6	0.3	1	0.6	50	6	15	44.60	222420.1220	1.2	0.6	20	1.2	50	4	15	42.30
222420.0490	0.6	0.3	2	0.6	45	4	15	44.60	222420.1230	1.2	0.6	24	1.2	60	4	15	42.30
222420.0500	0.6	0.3	2	0.6	50	6	15	44.60	222420.1240	1.4	0.7	6	1.4	45	4	15	42.30
222420.0510	0.6	0.3	3	0.6	45	4	15	44.60	222420.1250	1.4	0.7	8	1.4	45	4	15	42.30
222420.0520	0.6	0.3	3	0.6	50	6	15	44.60	222420.1260	1.4	0.7	12	1.4	50	4	15	42.30
222420.0530	0.6	0.3	4	0.6	45	4	15	44.60	222420.1270	1.4	0.7	16	1.4	50	4	15	42.30
222420.0540	0.6	0.3	4	0.6	50	6	15	44.60	222420.1280	1.5	0.75	3	1.5	45	4	15	35.90
222420.0550	0.6	0.3	5	0.6	45	4	15	44.60	222420.1290	1.5	0.75	3	1.5	50	6	15	35.90
222420.0560	0.6	0.3	5	0.6	50	6	15	44.60	222420.1300	1.5	0.75	4	1.5	45	4	15	35.90
222420.0570	0.6	0.3	6	0.6	45	4	15	44.60	222420.1310	1.5	0.75	4	1.5	50	6	15	35.90
222420.0580	0.6	0.3	6	0.6	50	6	15	44.60	222420.1320	1.5	0.75	6	1.5	45	4	15	35.90
222420.0590	0.6	0.3	8	0.6	45	4	15	44.60	222420.1330	1.5	0.75	6	1.5	50	6	15	35.90
222420.0600	0.6	0.3	8	0.6	50	6	15	44.60	222420.1340	1.5	0.75	8	1.5	45	4	15	35.90
222420.0610	0.6	0.3	10	0.6	45	4	15	44.60	222420.1350	1.5	0.75	8	1.5	50	6	15	35.90
222420.0620	0.6	0.3	12	0.6	45	4	15	44.60	222420.1360	1.5	0.75	10	1.5	50	4	15	35.90
222420.0630	0.6	0.3	14	0.6	45	4	15	44.60	222420.1370	1.5	0.75	10	1.5	50	6	15	35.90
222420.0640	0.7	0.35	2	0.7	45	4	15	42.30	222420.1380	1.5	0.75	12	1.5	50	4	15	35.90
222420.0650	0.7	0.35	4	0.7	45	4	15	42.30	222420.1390	1.5	0.75	12	1.5	50	6	15	35.90
222420.0660	0.7	0.35	6	0.7	45	4	15	42.30	222420.1400	1.5	0.75	14	1.5	50	4	15	35.90
222420.0670	0.7	0.35	8	0.7	45	4	15	42.30	222420.1410	1.5	0.75	14	1.5	50	6	15	35.90
222420.0680	0.7	0.35	10	0.7	45	4	15	42.30	222420.1420	1.5	0.75	16	1.5	50	4	15	35.90
222420.0690	0.7	0.35	12	0.7	45	4	15	42.30	222420.1430	1.5	0.75	16	1.5	60	6	15	35.90
222420.0700	0.8	0.4	2	0.8	45	4	15	42.30	222420.1440	1.5	0.75	18	1.5	50	4	15	35.90
222420.0710	0.8	0.4	2	0.8	50	6	15	42.30	222420.1450	1.5	0.75	20	1.5	50	4	15	35.90
222420.0720	0.8	0.4	3	0.8	45	4	15	42.30	222420.1460	1.5	0.75	22	1.5	60	4	15	35.90
222420.0730	0.8	0.4	3	0.8	50	6	15	42.30	222420.1470	1.5	0.75	25	1.5	60	4	15	35.90
222420.0740	0.8	0.4	4	0.8	45	4	15	42.30	222420.1480	1.5	0.75	30	1.5	70	4	15	35.90

Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l3 mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222420.1490	1.6	0.8	6	1.6	45	4	15	42.30	222420.1900	2.5	1.25	25	2.5	60	4	15	42.30
222420.1500	1.6	0.8	8	1.6	45	4	15	42.30	222420.1910	2.5	1.25	30	2.5	70	4	15	42.30
222420.1510	1.6	0.8	12	1.6	50	4	15	42.30	222420.1920	3	1.5	6	3	50	6	15	46.30
222420.1520	1.6	0.8	16	1.6	50	4	15	42.30	222420.1930	3	1.5	8	3	50	6	15	46.30
222420.1530	1.6	0.8	20	1.6	50	4	15	42.30	222420.1940	3	1.5	10	3	50	6	15	46.30
222420.1540	1.8	0.9	6	1.8	45	4	15	42.30	222420.1950	3	1.5	12	3	50	6	15	46.30
222420.1550	1.8	0.9	8	1.8	45	4	15	42.30	222420.1960	3	1.5	16	3	60	6	15	46.30
222420.1560	1.8	0.9	12	1.8	50	4	15	42.30	222420.1970	3	1.5	20	3	60	6	15	46.30
222420.1570	1.8	0.9	16	1.8	50	4	15	42.30	222420.1980	3	1.5	25	3	65	6	15	46.30
222420.1580	1.8	0.9	20	1.8	50	4	15	42.30	222420.1990	3	1.5	30	3	70	6	15	46.30
222420.1590	2	1	4	2	45	4	15	35.90	222420.2000	3	1.5	35	3	75	6	15	46.30
222420.1600	2	1	4	2	50	6	15	35.90	222420.2010	3	1.5	40	3	80	6	15	46.30
222420.1610	2	1	6	2	45	4	15	35.90	222420.2020	3	1.5	45	3	90	6	15	46.30
222420.1620	2	1	6	2	50	6	15	35.90	222420.2030	3.5	1.75	10	3.5	50	6	15	47.80
222420.1630	2	1	8	2	45	4	15	35.90	222420.2040	3.5	1.75	15	3.5	60	6	15	47.80
222420.1640	2	1	8	2	50	6	15	35.90	222420.2050	3.5	1.75	20	3.5	60	6	15	47.80
222420.1650	2	1	10	2	50	4	15	35.90	222420.2060	3.5	1.75	25	3.5	65	6	15	47.80
222420.1660	2	1	10	2	50	6	15	35.90	222420.2070	3.5	1.75	30	3.5	70	6	15	47.80
222420.1670	2	1	12	2	50	4	15	35.90	222420.2080	3.5	1.75	35	3.5	75	6	15	47.80
222420.1680	2	1	12	2	50	6	15	35.90	222420.2090	3.5	1.75	40	3.5	80	6	15	47.80
222420.1690	2	1	14	2	50	4	15	35.90	222420.2100	4	2	8	4	50	6	15	48.30
222420.1700	2	1	14	2	50	6	15	35.90	222420.2110	4	2	10	4	50	6	15	48.30
222420.1710	2	1	16	2	50	4	15	35.90	222420.2120	4	2	12	4	50	6	15	48.30
222420.1720	2	1	16	2	60	6	15	35.90	222420.2130	4	2	16	4	60	6	15	48.30
222420.1730	2	1	18	2	50	4	15	35.90	222420.2140	4	2	20	4	60	6	15	48.30
222420.1740	2	1	18	2	60	6	15	35.90	222420.2150	4	2	25	4	65	6	15	48.30
222420.1750	2	1	20	2	50	4	15	35.90	222420.2160	4	2	30	4	70	6	15	48.30
222420.1760	2	1	20	2	60	6	15	35.90	222420.2170	4	2	35	4	75	6	15	48.30
222420.1770	2	1	22	2	60	4	15	35.90	222420.2180	4	2	40	4	80	6	15	48.30
222420.1780	2	1	25	2	60	4	15	35.90	222420.2190	4	2	45	4	90	6	15	48.30
222420.1790	2	1	30	2	60	4	15	35.90	222420.2200	5	2.5	16	6	60	6	15	48.30
222420.1800	2.5	1.25	8	2.5	45	4	15	42.30	222420.2210	5	2.5	20	6	60	6	15	48.30
222420.1810	2.5	1.25	8	2.5	50	6	15	42.30	222420.2220	5	2.5	25	6	70	6	15	48.30
222420.1820	2.5	1.25	10	2.5	50	4	15	42.30	222420.2230	5	2.5	30	6	75	6	15	48.30
222420.1830	2.5	1.25	10	2.5	50	6	15	42.30	222420.2240	5	2.5	40	6	80	6	15	48.30
222420.1840	2.5	1.25	12	2.5	50	4	15	42.30	222420.2250	5	2.5	45	6	90	6	15	48.30
222420.1850	2.5	1.25	12	2.5	50	6	15	42.30	222420.2260	6	3	15	10	55	6	-	49.80
222420.1860	2.5	1.25	16	2.5	50	4	15	42.30	222420.2270	8	4	25	12	60	8	-	62.20
222420.1870	2.5	1.25	16	2.5	60	6	15	42.30	222420.2280	10	5	30	16	70	10	-	84.40
222420.1880	2.5	1.25	20	2.5	60	4	15	42.30	222420.2290	12	6	30	18	75	12	-	113.60
222420.1890	2.5	1.25	20	2.5	60	6	15	42.30									

222421 SC ball-nose copy milling cutters FUTURO

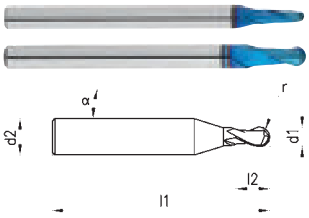




Tolerances d1:
0.1 mm...0.15 mm: +0/-0.005 mm
0.2 mm...5 mm: +0/-0.01 mm
6 mm...12 mm: -0.005/-0.015 mm

Order ID	d1 mm	r mm	l2 mm	l1 mm	d2 mm	alpha °	Price €	Order ID	d1 mm	r mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222421.0010	0.1	0.05	0.1	38	4	15	104.00	222421.0260	1.5	0.75	2.3	40	4	15	41.80
222421.0020	0.1	0.05	0.15	38	4	15	104.00	222421.0270	1.5	0.75	1.5	40	6	15	46.10
222421.0030	0.15	0.075	0.15	38	4	15	90.90	222421.0280	1.5	0.75	2.3	40	6	15	46.10
222421.0040	0.15	0.075	0.2	38	4	15	90.90	222421.0290	2	1	2	45	4	15	41.80
222421.0050	0.2	0.1	0.2	38	4	15	70.60	222421.0300	2	1	3	45	4	15	41.80
222421.0060	0.2	0.1	0.3	38	4	15	70.60	222421.0310	2	1	2	45	6	15	46.10
222421.0070	0.3	0.15	0.3	38	4	15	63.30	222421.0320	2	1	3	45	6	15	46.10
222421.0080	0.3	0.15	0.45	38	4	15	63.30	222421.0330	3	1.5	3	45	4	15	43.90
222421.0090	0.4	0.2	0.4	38	4	15	60.70	222421.0340	3	1.5	4.5	45	4	15	43.90
222421.0100	0.4	0.2	0.6	38	4	15	60.70	222421.0350	3	1.5	3	45	6	15	48.70
222421.0110	0.5	0.25	0.5	38	4	15	55.60	222421.0360	3	1.5	4.5	45	6	15	48.70
222421.0120	0.5	0.25	0.75	38	4	15	55.60	222421.0370	4	2	4	45	4	-	43.90
222421.0130	0.6	0.3	0.6	38	4	15	50.20	222421.0380	4	2	6	45	4	-	43.90
222421.0140	0.6	0.3	0.9	38	4	15	50.20	222421.0390	4	2	4	45	6	15	48.70
222421.0150	0.7	0.35	0.7	38	4	15	50.20	222421.0400	4	2	6	45	6	15	48.70
222421.0160	0.7	0.35	1	38	4	15	50.20	222421.0410	5	2.5	5	50	6	15	51.10
222421.0170	0.8	0.4	0.8	38	4	15	45.70	222421.0420	5	2.5	7.5	50	6	15	51.10
222421.0180	0.8	0.4	1.2	38	4	15	45.70	222421.0430	6	3	6	50	6	-	48.70
222421.0190	0.9	0.45	0.9	38	4	15	45.70	222421.0440	6	3	8	55	6	-	49.80
222421.0200	0.9	0.45	1.3	38	4	15	45.70	222421.0450	8	4	8	50	8	-	70.30
222421.0210	1	0.5	1	40	4	15	41.80	222421.0460	8	4	11	60	8	-	73.60
222421.0220	1	0.5	1.5	40	4	15	41.80	222421.0470	10	5	10	60	10	-	90.70
222421.0230	1	0.5	1	40	6	15	46.10	222421.0480	10	5	13	60	10	-	93.10
222421.0240	1	0.5	1.5	40	6	15	46.10	222421.0490	12	6	12	60	12	-	117.80
222421.0250	1.5	0.75	1.5	40	4	15	41.80	222421.0500	12	6	15	60	12	-	123.30

FUTURO



222422 SC ball-nose copy milling cutters FUTURO

VHM | Ø 0.1-12 | Coated | 30° | NORM | 2 | HSC

P | M | K | N | S | H | O

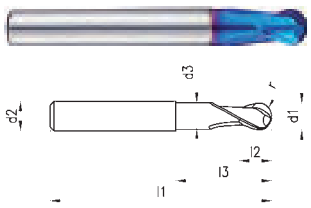
Tolerances d1:
0.1 mm...0.15 mm: +0/-0.005 mm
0.2 mm...5 mm: +0/-0.01 mm
6 mm...12 mm: -0.005/-0.015 mm

Order ID	d1 mm	r mm	l2 mm	l1 mm	d2 mm	alpha °	Price €
222422.0010	**0.1**	**0.05**	0.2	40	4	15	**109.00**
222422.0020	**0.15**	**0.075**	0.3	40	4	15	**105.00**
222422.0030	**0.2**	**0.1**	0.4	40	4	15	**69.00**
222422.0040	**0.3**	**0.15**	0.6	40	4	15	**66.10**
222422.0050	**0.4**	**0.2**	0.8	40	4	15	**66.10**
222422.0060	**0.5**	**0.25**	1	45	4	15	**58.80**
222422.0070	**0.6**	**0.3**	1.2	45	4	15	**58.80**
222422.0080	**0.7**	**0.35**	1.5	45	4	15	**58.80**
222422.0090	**0.8**	**0.4**	2	45	4	15	**56.60**
222422.0100	**0.9**	**0.45**	2	45	4	15	**56.60**
222422.0110	**1**	**0.5**	2.5	50	4	15	**55.30**
222422.0120	**1**	**0.5**	2.5	50	6	15	**52.80**
222422.0130	**1**	**0.5**	2.5	70	6	15	**52.80**
222422.0140	**1.2**	**0.6**	3	50	4	15	**55.30**
222422.0150	**1.5**	**0.75**	4	50	4	15	**52.80**
222422.0160	**1.5**	**0.75**	4	50	6	15	**52.80**
222422.0170	**1.5**	**0.75**	4	70	6	15	**52.80**
222422.0180	**2**	**1**	5	50	4	15	**53.70**
222422.0190	**2**	**1**	5	50	6	15	**51.20**
222422.0200	**2**	**1**	5	75	6	15	**51.20**
222422.0210	**2.5**	**1.25**	6	50	4	15	**51.20**
222422.0220	**2.5**	**1.25**	6	75	6	15	**51.20**
222422.0230	**3**	**1.5**	8	50	4	15	**83.20**
222422.0240	**3**	**1.5**	8	60	6	15	**79.50**
222422.0250	**3**	**1.5**	8	80	6	15	**79.50**
222422.0260	**3.5**	**1.75**	8	60	6	15	**79.50**
222422.0270	**4**	**2**	8	60	4	-	**84.00**
222422.0280	**4**	**2**	8	80	4	-	**80.30**
222422.0290	**4**	**2**	8	70	6	15	**80.30**
222422.0300	**4**	**2**	8	90	6	15	**80.30**
222422.0310	**5**	**2.5**	10	75	6	15	**86.50**
222422.0320	**6**	**3**	10	60	6	-	**116.70**
222422.0330	**6**	**3**	12	90	6	-	**111.00**
222422.0340	**8**	**4**	12	60	8	-	**156.50**
222422.0350	**8**	**4**	14	100	8	-	**149.50**
222422.0360	**10**	**5**	15	70	10	-	**236.00**
222422.0370	**10**	**5**	18	100	10	-	**236.00**
222422.0380	**12**	**6**	18	75	12	-	**401.60**
222422.0390	**12**	**6**	22	110	12	-	**401.60**

227000 SC ball-nose copy milling cutters FUTURO

VHM | Ø 0.1-12 | XIDUR | 30° | NORM | 2 | HSC

P	M	K	N	S	H	O
○					●●	



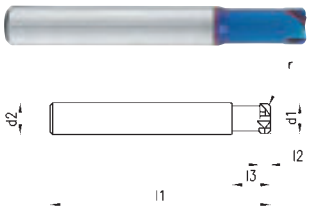
Made of Nano-micrograin carbide

Order ID	d1 mm	r mm	l2 mm	l3 mm	d2 mm	l1 mm	d3 mm	Cutting tolerance on radius	Price €
227000.0100	**0.1**	**0.05**	0.2	-	4	40	-	+/- 0.005	114.00
227000.0200	**0.2**	**0.1**	0.3	-	4	40	-	+/- 0.005	88.80
227000.0250	**0.3**	**0.15**	0.5	-	4	40	-	+/- 0.005	74.60
227000.0300	**0.4**	**0.2**	0.6	-	4	40	-	+/- 0.005	62.70
227000.0400	**0.6**	**0.3**	0.9	-	4	40	-	+/- 0.005	58.40
227000.0450	**0.7**	**0.35**	1.1	-	4	40	-	+/- 0.005	55.60
227000.0500	**0.8**	**0.4**	1.2	-	4	40	-	+/- 0.005	51.80
227000.0550	**0.9**	**0.45**	1.4	-	4	40	-	+/- 0.005	51.80
227000.0600	**1**	**0.5**	1.5	3	6	50	0.95	+/- 0.005	59.40
227000.0700	**1.5**	**0.75**	2	4	6	50	1.45	+/- 0.005	54.60
227000.0800	**2**	**1**	2.5	5	6	50	1.95	+/- 0.005	54.60
227000.0900	**2.5**	**1.25**	3	7	6	50	2.4	+/- 0.005	54.60
227000.1000	**3**	**1.5**	4	10	6	60	2.85	+/- 0.005	54.60
227000.1050	**3.5**	**1.75**	4.5	10	6	60	3.35	+/- 0.005	54.60
227000.1100	**4**	**2**	5	10	6	60	3.85	+/- 0.005	54.60
227000.1150	**4.5**	**2.25**	5.5	10	6	60	4.35	+/- 0.005	58.90
227000.1200	**5**	**2.5**	6	12	6	60	4.85	+/- 0.005	58.90
227000.1300	**6**	**3**	7	15	6	60	5.85	+/- 0.005	58.90
227000.1400	**6**	**3**	9	30	6	90	5.85	+/- 0.005	94.50
227000.1500	**8**	**4**	9	15	8	80	7.7	+/- 0.005	98.80
227000.1600	**8**	**4.0**	12	30	8	100	7.7	+/- 0.005	114.00
227000.1800	**10**	**5.0**	11	25	10	80	9.7	+/- 0.005	162.50
227000.1900	**10**	**5.0**	15	30	10	100	9.7	+/- 0.005	185.30
227000.2000	**12**	**6.0**	14	25	12	80	11.4	+/- 0.005	199.50

227060 SC ball-nose copy milling cutters FUTURO

VHM | Ø 2-12 | XIDUR | 0° | NORM | 4

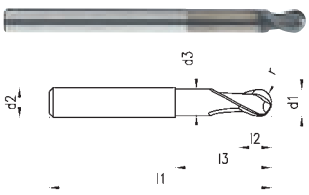
P	M	K	N	S	H	O
○					●●	



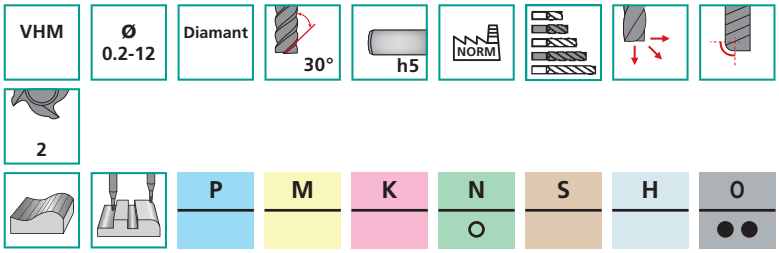
Type N, made of nano-micrograin carbide

Order ID	d1 mm	r mm	l2 mm	l3 mm	d2 mm	l1 mm	Price €
227060.0100	**2**	**0.5**	1	6	6	50	50.40
227060.0200	**3**	**0.5**	1.2	8	6	50	50.40
227060.0300	**4**	**0.5**	1.5	10	6	50	50.40
227060.0400	**6**	**0.5**	2.5	12	6	60	50.40
227060.0500	**6**	**1**	2.5	12	6	60	50.40
227060.0600	**8**	**1**	3.5	16	8	60	64.10
227060.0700	**8**	**2**	3.5	16	8	60	64.10
227060.0800	**10**	**1**	4	20	10	70	95.50
227060.0900	**10**	**2**	4	20	10	70	95.50
227060.1000	**12**	**2**	5	25	12	80	132.10

FUTURO



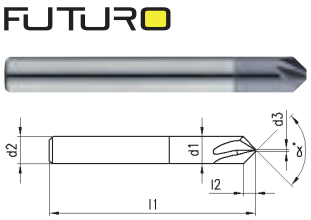
227720 SC ball-nose copy milling cutters FUTURO



Diamond-coated end mills for machining **graphite** and other highly abrasive materials. The diamond coating ensures maximum durability and high productivity.

Order ID	d1 mm	r mm	l2 mm	l3 mm	l1 mm	d2 mm	d3 mm	Cutting tolerance on radius	Price €
227720.0100	0.2	0.1	0.2	1	55	4	0.18	0.003	109.30
227720.0200	0.3	0.15	0.3	1	55	4	0.27	0.003	102.60
227720.0300	0.3	0.15	0.3	3	55	4	0.27	0.003	102.60
227720.0400	0.3	0.15	0.3	5	55	4	0.27	0.003	102.60
227720.0500	0.3	0.15	0.3	8	55	4	0.27	0.003	102.60
227720.0600	0.4	0.2	0.4	4	55	4	0.35	0.003	92.20
227720.0700	0.4	0.2	0.4	6	55	4	0.35	0.003	92.20
227720.0800	0.4	0.2	0.4	8	55	4	0.35	0.003	92.20
227720.0900	0.5	0.25	0.5	5	55	4	0.45	0.003	78.90
227720.1000	0.5	0.25	0.5	10	55	4	0.45	0.003	78.90
227720.1100	0.6	0.3	0.8	6	55	4	0.56	0.003	78.90
227720.1200	0.6	0.3	0.8	9	55	4	0.56	0.003	78.90
227720.1300	0.6	0.3	0.8	12	55	4	0.56	0.003	78.90
227720.1400	0.7	0.35	0.9	7	55	4	0.65	0.003	78.90
227720.1500	0.7	0.35	0.9	14	55	4	0.65	0.003	78.90
227720.1600	0.8	0.4	1	8	55	4	0.75	0.003	78.90
227720.1700	0.8	0.4	1	12	55	4	0.75	0.003	78.90
227720.1800	0.8	0.4	1	16	55	4	0.75	0.003	78.90
227720.1900	1	0.5	1	5	55	4	0.9	0.003	78.90
227720.2000	1	0.5	1	10	55	4	0.9	0.003	78.90
227720.2100	1	0.5	1	15	55	4	0.9	0.003	78.90
227720.2200	1	0.5	1	20	55	4	0.9	0.003	78.90
227720.2300	1	0.5	1	25	55	4	0.9	0.003	78.90
227720.2400	1	0.5	1	30	55	4	0.9	0.003	78.90
227720.2500	1.2	0.6	1.5	5	55	4	1.1	0.003	78.90
227720.2600	1.2	0.6	1.5	10	55	4	1.1	0.003	78.90
227720.2700	1.2	0.6	1.5	15	55	4	1.1	0.003	78.90
227720.2800	1.5	0.75	2	5	55	4	1.4	0.003	78.90
227720.2900	1.5	0.75	2	10	55	4	1.4	0.003	78.90
227720.3000	1.5	0.75	2	15	55	4	1.4	0.003	78.90
227720.3100	1.5	0.75	2	20	55	4	1.4	0.003	78.90
227720.3200	1.5	0.75	2	25	55	4	1.4	0.003	78.90
227720.3300	1.8	0.9	2	10	55	4	1.7	0.003	78.90
227720.3400	1.8	0.9	2	20	55	4	1.7	0.003	78.90
227720.3500	2	1	2	10	55	4	1.9	0.003	78.90
227720.3600	2	1	2	15	55	4	1.9	0.003	78.90
227720.3700	2	1	2	20	55	4	1.9	0.003	78.90
227720.3800	2	1	2	25	65	4	1.9	0.003	78.90
227720.3900	2	1	2	30	65	4	1.9	0.003	78.90
227720.4000	3	1.5	3	10	65	4	2.9	0.003	89.30
227720.4100	3	1.5	3	15	65	4	2.9	0.003	89.30
227720.4200	3	1.5	3	20	65	4	2.9	0.003	89.30
227720.4300	3	1.5	3	25	75	4	2.9	0.003	89.30
227720.4400	3	1.5	3	30	75	4	2.9	0.003	89.30
227720.4500	4	2	4	20	65	6	3.9	0.003	129.20
227720.4600	4	2	4	30	75	6	3.9	0.003	130.20
227720.4700	4	2	4	40	90	6	3.9	0.003	134.00
227720.4800	5	2.5	5	20	65	6	4.9	0.003	130.20
227720.4900	5	2.5	5	30	75	6	4.9	0.003	134.00
227720.5000	5	2.5	5	40	90	6	4.9	0.003	134.00
227720.5100	5	2.5	5	50	90	6	4.9	0.003	134.00
227720.5200	6	3	6	30	75	6	5.9	0.003	135.90
227720.5300	6	3	6	40	90	6	5.9	0.003	142.50
227720.5400	6	3	6	50	90	6	5.9	0.003	142.50
227720.5500	6	3	6	60	100	6	5.9	0.003	142.50
227720.5600	8	4	8	30	80	8	7.8	0.003	191.90
227720.5700	8	4	8	60	100	8	7.8	0.003	196.70
227720.5800	10	5	10	30	80	10	9.8	0.003	230.90
227720.5900	10	5	10	60	100	10	9.8	0.003	230.90
227720.6000	12	6	12	30	83	12	11.8	0.003	285.00
227720.6100	12	6	12	60	100	12	11.8	0.003	312.60

224112 Solid carbide deburrer 90° FUTURO

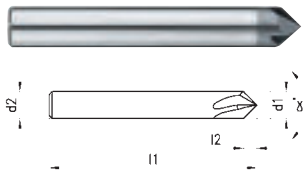


VHM	Ø 1-6	TiAlN		NORM		4-6
P	M	K	N	S	H	O
●●		○				

Type N, **without tip**
Application
For deburring and chamfering workpiece edges, also for contour work.

Order ID	d1 mm	l2 mm	d2 mm	d3 mm	l1 mm	Angle	teeth	Price €
224112.0300	**3**	1	3	1	50	90°	5	27.00
224112.0400	**4**	1.25	4	1.5	50	90°	6	27.00
224112.0500	**6**	2	6	2	50	90°	6	34.20

224109 Solid carbide deburrer 90° FUTURO

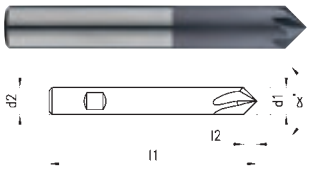


VHM	Ø 3-12	TiAlN		NORM	4
P	M	K	N	S	H	O
	●●		○	○		

Application
For deburring and chamfering workpiece edges.

Order ID	d2 mm	l2 mm	d1 mm	l1 mm	Angle	Price €
224109.0100	**3**	1.4	3	38	90°	31.50
224109.0200	**4**	1.9	4	45	90°	34.50
224109.0300	**6**	2.9	6	55	90°	38.30
224109.0400	**8**	3.9	8	60	90°	46.40
224109.0500	**10**	4.9	10	70	90°	59.70
224109.0600	**12**	5.9	12	75	90°	97.10

224111 Solid carbide deburrer 90° FUTURO

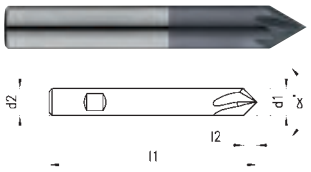


VHM	Ø 1-20	TiAlN		DIN 6527L		2-6
P	M	K	N	S	H	O
○		○			●●	

Type N
Application
For deburring and chamfering workpiece edges, also for contour work.

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Angle	teeth	Shank	Price €
224111.0100	**1**	0.5	3	38	90°	3	HA	26.20
224111.0200	**2**	1	3	38	90°	3	HA	26.20
224111.0300	**3**	1.5	3	38	90°	4	HA	26.20
224111.0400	**4**	2	4	54	90°	4	HA	26.20
224111.0500	**6**	3	6	57	90°	4	HB	34.20
224111.0600	**8**	4	8	63	90°	5	HB	42.70
224111.0700	**10**	5	10	72	90°	6	HB	50.50
224111.0800	**12**	6	12	83	90°	6	HB	74.70
224111.0900	**16**	8	16	92	90°	6	HB	131.60
224111.1000	**20**	10	20	104	90°	6	HB	155.00

224113 Solid carbide deburrer 60° FUTURO

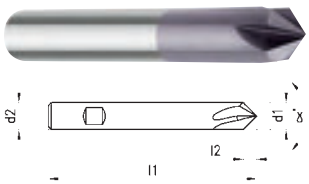


VHM	Ø 0.4-20	TiAlN		DIN 6527L		4-6
P	M	K	N	S	H	O
●●		○				

Type N
Application
For deburring and chamfering workpiece edges, also for contour work.

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Angle	teeth	Shank	Price €
224113.0100	**4**	3.5	4	54	60°	4	HA	24.00
224113.0200	**6**	5	6	57	60°	4	HB	34.20
224113.0300	**8**	7	8	63	60°	5	HB	42.70
224113.0400	**10**	8.5	10	72	60°	6	HB	50.50
224113.0500	**12**	10	12	83	60°	6	HB	74.70
224113.0600	**16**	14	16	92	60°	6	HB	131.60
224113.0700	**20**	17	20	104	60°	6	HB	155.00

NERIOX



224191 Solid carbide deburrer 90° NERIOX

VHM	Ø 4-12	TiAlN	0°		NORM			4

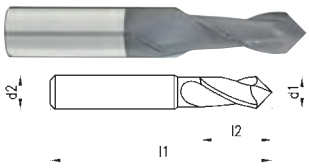
	P	M	K	N	S	H	O
	●●	○	○	○			

Application
For deburring and chamfering workpiece edges, also for contour work.

Order ID	**d1 mm**	l2 mm	d2 mm	l1 mm	Angle	Shank	**Price €**
224191.0100	**4**	2	4	54	90 °	HA	**15.50**
224191.0200	**6**	3	6	57	90 °	HB	**18.70**
224191.0300	**8**	4	8	63	90 °	HB	**23.30**
224191.0400	**10**	5	10	72	90 °	HB	**31.70**
224191.0500	**12**	6	12	83	90 °	HB	**47.00**

224290 Solid carbide milling drill bit 90° FUTURO

VHM	Ø 3-16	Coated	30°	h9/d9	h6	DIN 6535	2
	P	M	K	N	S	H	O
	●●	●●	○	○	○		



Right-cutting, lateral tooth thickness: 0.1 x d1

Application

For V-groove cutting, engraving, chamfering, boring, countersinking and drilling.

Designs:

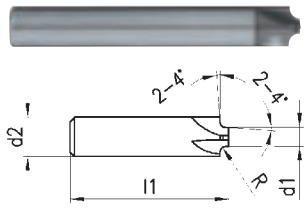
3.0 mm...**10.0 mm**: Cutting tolerance on diameter:h9

12.0 mm...**16.0 mm**: Cutting tolerance on diameter:d9

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
224290.0100	**3.0**	6	4	50	**29.00**
224290.0200	**4.0**	8	5	50	**30.00**
224290.0300	**5.0**	10	6	50	**32.00**
224290.0400	**6.0**	12	8	60	**35.00**
224290.0500	**8.0**	16	10	70	**55.00**
224290.0600	**10.0**	18	12	70	**77.00**
224290.0700	**12.0**	20	12	70	**89.00**
224290.0800	**16.0**	26	16	80	**135.00**

224127 Solid carbide rounding end mill FUTURO

VHM	Ø 0.2-10	TiAlN		NORM		4
P	M	K	N	S	H	O
○	○	○	○	○		

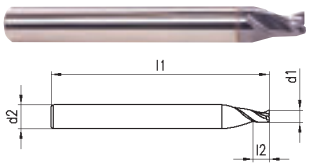


Type N

Order ID	r mm	d1 mm	l1 mm	d2 mm	Price €
224127.0100	**0.2**	5.6	58	6	**81.90**
224127.0200	**0.3**	5.4	58	6	**81.90**
224127.0400	**0.5**	7	70	8	**89.00**
224127.0500	**1**	6	70	8	**89.00**
224127.0600	**1.5**	7	75	10	**94.70**
224127.0700	**2**	6	75	10	**94.70**
224127.0800	**2.5**	7	75	12	**102.90**
224127.0900	**3**	6	75	12	**102.90**
224127.1000	**3.5**	9	80	16	**130.70**
224127.1100	**4**	8	80	16	**130.70**
224127.1200	**4.5**	7	80	16	**130.70**
224127.1300	**5**	10	80	20	**190.00**
224127.1400	**6**	8	80	20	**190.00**
224127.1500	**8**	9	100	25	**299.00**
224127.1600	**10**	5	100	25	**299.00**

FUTURO

226605 SC shoulder/ slot milling cutters FUTURO



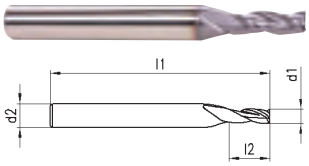
VHM | Ø 0.3-3 | TiAlN | 30° | ± 0.01 | h6 | NORM | 3

P	M	K	N	S	H	O
○	●●		○	●●		

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
226605.0100	**0.30**	0.30	3	38	44.30	226605.2900	**1.70**	1.70	3	38	40.20
226605.0200	**0.35**	0.35	3	38	44.30	226605.3000	**1.75**	1.75	3	38	44.30
226605.0300	**0.40**	0.40	3	38	44.30	226605.3100	**1.80**	1.80	3	38	40.20
226605.0400	**0.45**	0.45	3	38	44.30	226605.3200	**1.85**	1.85	3	38	44.30
226605.0500	**0.50**	0.50	3	38	39.00	226605.3300	**1.90**	1.90	3	38	40.20
226605.0600	**0.55**	0.55	3	38	44.30	226605.3400	**1.95**	1.95	3	38	44.30
226605.0700	**0.60**	0.60	3	38	41.60	226605.3500	**2.00**	2.00	3	38	39.00
226605.0800	**0.65**	0.65	3	38	44.30	226605.3600	**2.05**	2.05	3	38	44.30
226605.0900	**0.70**	0.70	3	38	41.60	226605.3700	**2.10**	2.10	3	38	41.60
226605.1000	**0.75**	0.75	3	38	44.30	226605.3800	**2.15**	2.15	3	38	44.30
226605.1100	**0.80**	0.80	3	38	41.60	226605.3900	**2.20**	2.20	3	38	41.60
226605.1200	**0.85**	0.85	3	38	44.30	226605.4000	**2.25**	2.25	3	38	44.30
226605.1300	**0.90**	0.90	3	38	41.60	226605.4100	**2.30**	2.30	3	38	41.60
226605.1400	**0.95**	0.95	3	38	44.30	226605.4200	**2.35**	2.35	3	38	44.30
226605.1500	**1.00**	1.00	3	38	39.00	226605.4300	**2.40**	2.40	3	38	41.60
226605.1600	**1.05**	1.05	3	38	44.30	226605.4400	**2.45**	2.45	3	38	44.30
226605.1700	**1.10**	1.10	3	38	41.60	226605.4500	**2.50**	2.50	3	38	39.00
226605.1800	**1.15**	1.15	3	38	44.30	226605.4600	**2.55**	2.55	3	38	44.30
226605.1900	**1.20**	1.20	3	38	40.20	226605.4700	**2.60**	2.60	3	38	41.60
226605.2000	**1.25**	1.25	3	38	44.30	226605.4800	**2.65**	2.65	3	38	44.30
226605.2100	**1.30**	1.30	3	38	40.20	226605.4900	**2.70**	2.70	3	38	41.60
226605.2200	**1.35**	1.35	3	38	44.30	226605.5000	**2.75**	2.75	3	38	44.30
226605.2300	**1.40**	1.40	3	38	40.20	226605.5100	**2.80**	2.80	3	38	41.60
226605.2400	**1.45**	1.45	3	38	44.30	226605.5200	**2.85**	2.85	3	38	44.30
226605.2500	**1.50**	1.50	3	38	39.00	226605.5300	**2.90**	2.90	3	38	41.60
226605.2600	**1.55**	1.55	3	38	44.30	226605.5400	**2.95**	2.95	3	38	44.30
226605.2700	**1.60**	1.60	3	38	40.20	226605.5500	**3.00**	3.00	3	38	44.30
226605.2800	**1.65**	1.65	3	38	44.30						

FUTURO

226610 SC shoulder/ slot milling cutters FUTURO



VHM | Ø 0.5-3 | TiAlN | 30° | ± 0.01 | h6 | NORM | 3

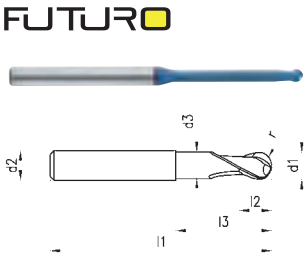
P	M	K	N	S	H	O
○	●●		○	●●		

Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €	Order ID	d1 mm	l2 mm	d2 mm	l1 mm	Price €
226610.0100	**0.50**	1.5	3	38	29.50	226610.2700	**1.80**	5.4	3	38	31.40
226610.0200	**0.55**	1.65	3	38	35.20	226610.2800	**1.85**	5.55	3	38	38.00
226610.0300	**0.60**	1.8	3	38	31.40	226610.2900	**1.90**	5.7	3	38	31.40
226610.0400	**0.65**	1.95	3	38	38.00	226610.3000	**1.95**	5.85	3	38	38.00
226610.0500	**0.70**	2.1	3	38	31.40	226610.3100	**2.00**	6	3	38	24.70
226610.0600	**0.75**	2.25	3	38	32.30	226610.3200	**2.05**	6.15	3	38	38.00
226610.0700	**0.80**	2.4	3	38	31.40	226610.3300	**2.10**	6.3	3	38	27.60
226610.0800	**0.85**	2.55	3	38	38.00	226610.3400	**2.15**	6.45	3	38	38.00
226610.0900	**0.90**	2.7	3	38	31.40	226610.3500	**2.20**	6.6	3	38	27.60
226610.1000	**0.95**	2.85	3	38	37.10	226610.3600	**2.25**	6.75	3	38	38.00
226610.1100	**1.00**	3	3	38	25.70	226610.3700	**2.30**	6.9	3	38	27.60
226610.1200	**1.05**	3.15	3	38	38.00	226610.3800	**2.35**	7.05	3	38	38.00
226610.1300	**1.10**	3.3	3	38	31.40	226610.3900	**2.40**	7.2	3	38	27.60
226610.1400	**1.15**	3.45	3	38	38.00	226610.4000	**2.45**	7.35	3	38	38.00
226610.1500	**1.20**	3.6	3	38	31.40	226610.4100	**2.50**	7.5	3	38	25.70
226610.1600	**1.25**	3.75	3	38	32.30	226610.4200	**2.55**	7.65	3	38	38.00
226610.1700	**1.30**	3.9	3	38	31.40	226610.4300	**2.60**	7.8	3	38	38.00
226610.1800	**1.35**	4.05	3	38	38.00	226610.4400	**2.65**	7.95	3	38	38.00
226610.1900	**1.40**	4.2	3	38	32.30	226610.4500	**2.70**	8.1	3	38	38.00
226610.2000	**1.45**	4.35	3	38	38.00	226610.4600	**2.75**	8.25	3	38	38.00
226610.2100	**1.50**	4.5	3	38	25.70	226610.4700	**2.80**	8.4	3	38	38.00
226610.2200	**1.55**	4.65	3	38	38.00	226610.4800	**2.85**	8.55	3	38	38.00
226610.2300	**1.60**	4.8	3	38	31.40	226610.4900	**2.90**	8.7	3	38	38.00
226610.2400	**1.65**	4.95	3	38	38.00	226610.5000	**2.95**	8.85	3	38	38.00
226610.2500	**1.70**	5.1	3	38	31.40	226610.5100	**3.00**	9	6	51	35.20
226610.2600	**1.75**	5.25	3	38	33.30						

227080 SC ball-nose copy milling cutters FUTURO

VHM	Ø 0.2-4	XIDUR	30°		NORM			2
		P	M	K	N	S	H	O
		○					●●	

Made of Nano-micrograin carbide



Order ID	d1 mm	r mm	l2 mm	l3 mm	d2 mm	d3 mm	l1 mm	Cutting tolerance on radius	Price €
227080.0010	**0.2**	**0.1**	0.2	1	4	0.18	45	+/- 0.005	99.30
227080.0020	**0.3**	**0.15**	0.3	2	4	0.27	45	+/- 0.005	84.10
227080.0040	**0.4**	**0.2**	0.4	4	4	0.37	45	+/- 0.005	76.50
227080.0050	**0.5**	**0.25**	0.4	2	4	0.45	45	+/- 0.005	62.70
227080.0060	**0.5**	**0.25**	0.4	4	4	0.45	45	+/- 0.005	62.70
227080.0070	**0.5**	**0.25**	0.4	6	4	0.45	45	+/- 0.005	76.50
227080.0080	**0.6**	**0.3**	0.5	2	4	0.55	45	+/- 0.005	62.70
227080.0090	**0.6**	**0.3**	0.5	4	4	0.55	45	+/- 0.005	62.70
227080.0110	**0.6**	**0.3**	0.5	6	4	0.55	45	+/- 0.005	62.70
227080.0120	**0.8**	**0.4**	0.6	2	4	0.75	45	+/- 0.005	57.50
227080.0130	**0.8**	**0.4**	0.6	4	4	0.75	45	+/- 0.005	57.50
227080.0140	**0.8**	**0.4**	0.6	8	4	0.75	45	+/- 0.005	57.50
227080.0150	**1**	**0.5**	0.8	3	4	0.95	45	+/- 0.005	52.70
227080.0155	**1**	**0.5**	0.8	4	4	0.95	45	+/- 0.005	52.70
227080.0160	**1**	**0.5**	0.8	5	4	0.95	45	+/- 0.005	52.70
227080.0170	**1**	**0.5**	0.8	8	4	0.95	45	+/- 0.005	52.70
227080.0180	**1**	**0.5**	0.8	10	4	0.95	45	+/- 0.005	52.70
227080.0190	**1.2**	**0.6**	1	6	4	1.15	45	+/- 0.005	52.70
227080.0200	**1.2**	**0.6**	1	10	4	1.15	45	+/- 0.005	52.70
227080.0210	**1.5**	**0.75**	1.2	6	4	1.45	45	+/- 0.005	52.70
227080.0220	**1.5**	**0.75**	1.2	10	4	1.45	45	+/- 0.005	52.70
227080.0230	**1.5**	**0.75**	1.2	16	4	1.45	45	+/- 0.005	60.30
227080.0240	**2**	**1**	1.6	4	4	1.95	45	+/- 0.005	49.40
227080.0250	**2**	**1**	1.6	8	4	1.95	45	+/- 0.005	49.40
227080.0260	**2**	**1**	1.6	12	4	1.95	50	+/- 0.005	49.40
227080.0270	**2**	**1**	1.6	16	4	1.95	50	+/- 0.005	52.70
227080.0280	**2**	**1**	1.6	20	4	1.95	55	+/- 0.005	56.50
227080.0290	**3**	**1.5**	2.4	12	6	2.85	50	+/- 0.005	61.30
227080.0300	**3**	**1.5**	2.4	16	6	2.85	55	+/- 0.005	74.10
227080.0310	**3**	**1.5**	2.4	20	6	2.85	60	+/- 0.005	79.80
227080.0320	**3**	**1.5**	2.4	30	6	2.85	70	+/- 0.005	86.00
227080.0330	**4**	**2**	3.2	12	6	3.85	60	+/- 0.005	61.30
227080.0340	**4**	**2**	3.2	16	6	3.85	60	+/- 0.005	74.10
227080.0350	**4**	**2**	3.2	20	6	3.85	65	+/- 0.005	79.80
227080.0360	**4**	**2**	3.2	30	6	3.85	70	+/- 0.005	86.00
227080.0370	**4**	**2**	3.2	40	6	3.85	90	+/- 0.005	94.50

Our full range –

GUARANTEED THE RIGHT TOOL FOR EVERY TASK

FUTURO
performance and perfection

NERIOX
YOUR SMARTEST CHOICE

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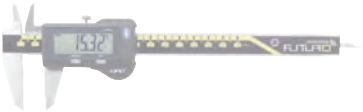
MEASUREMENT TECHNOLOGY  174 – 245

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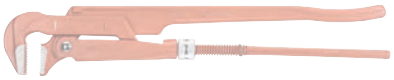
HAND- AND MOUNTING TOOLS  354 – 371

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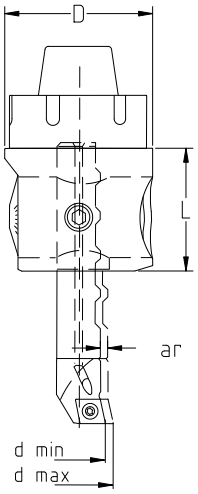
FUTURO



335400 Fine milling set FUTURO

dia. 9.75–30.1

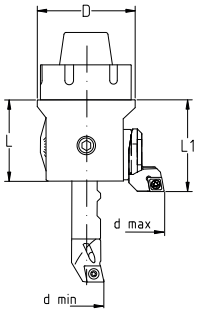
For easy milling of precision holes. Compatible with all standard ER32 tool holders.
Expandable to dia. 88.
Milling depth at dia. 9.75–30 mm, at dia. 30–82 mm

Consisting of:
335411.0010 Boring bar FUTURO with internal cooling T1 / Ø 9.75 - 15.1
335411.0012 Boring bar FUTURO with internal cooling T1 / Ø 14.75 - 20.1
335411.0014 Boring bar FUTURO with internal cooling T1 / Ø 19.75 - 25.1
335411.0016 Boring bar FUTURO with internal cooling T1 / Ø 24.75 - 30.1
335412.0016 Milling head FUTURO ER32

Ctting inserts must be ordered separately.

Order ID	d min. mm	d max. mm	Type	D mm	L mm	ar mm	Price €
335400.0100	9.75	30.1	ER 32	55	60	2.7	1350.00

FUTURO



335405 Fine milling set FUTURO

dia. 9.75–101.1

For easy milling of precision holes. Compatible with all standard ER40 tool holders.
Expandable to dia. 152.
Milling depth at dia. 9.75–30 mm, at dia. 30–82 mm

Consisting of:
335411.0010 Boring bar FUTURO with internal cooling T1 / Ø 9.75 - 15.1
335411.0014 Boring bar FUTURO with internal cooling T1 / Ø 19.75 - 25.1
335411.0018 Shank for insert holder FUTURO with internal cooling T2 / Ø 29.75 - 48.1
335411.0020 Shank for insert holder FUTURO with internal cooling T3 / Ø 47.75 - 88.1
335411.0022 Insert holder FUTURO with int. cooling, adjustable T2 / Ø 29.75 - 48.1
335411.0024 Insert holder FUTURO with int. cooling, adjustable T3 / Ø 47.75 - 88.1
335411.0026 Insert holder FUTURO with int. cooling, adjustable T4 / Ø 87.75 - 101.1
335412.0012 Coolant insert FUTURO for ER40
335412.0014 Milling head FUTURO ER40

Appropriate accessories:
335411.0012 Boring bar FUTURO with internal cooling T1 / Ø 14.75 - 20.1
335411.0016 Boring bar FUTURO with internal cooling T1 / Ø 24.75 - 30.1
335411.0028 Insert holder FUTURO T4 / Ø105.75 - 119
335411.0030 Insert holder FUTURO T4 / Ø125.75 - 139
335412.0010 Spacer FUTURO 6.5 (dia. +13)

Order ID	d min. mm	d max. mm	Type	D mm	L mm	L1 mm	Price €
335405.0100	9.75	101.1	ER 40	63	50.5	57	1850.00

335412 Accessories FUTURO

for fine milling sets

Order ID	Designation	Price €
335412.0010	Spacer	216.00
335412.0012	Coolant insert	89.00
335412.0014	Milling head ER40	950.00
335412.0016	Milling head ER32	950.00

335415 Micro milling head FUTURO

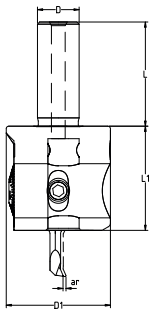
dia. 0.3–19.1 digital

For the perfect milling of even the smallest holes and holes that require extreme precision.

- Adjustment accuracy 0.001 mm
- No backlash
- No sensitive electronics in the head
- Simple to use
- Digital and analogue use

Included in delivery: Digital display unit not included.
Cutting inserts not included.

Appropriate accessories:
335420 Cutting inserts FUTURO for micro milling head, 335421 Cutting plates FUTURO for micro milling head, 335422 Accessories FUTURO for micro milling head



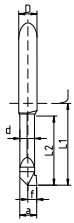
Digital display unit and cutting inserts must be ordered separately.

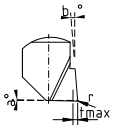
Order ID	d min. mm	d max. mm	D mm	D1 mm	L mm	L1 mm	ar mm	Price €
335415.0100	0.3	19.1	16	32	40	32	2.5	1240.00

335420 Cutting inserts FUTURO

for micro milling head

Order ID	d min. mm	d max. mm	d mm	L1 mm	L2 mm	t max. mm	r mm	f mm	a mm	b °	D mm	a °	Price €
335420.0010	0.3	0.7	0.15	11	1.2	0.03	-	0.15	0.25	5	4	1	45.00
335420.0012	0.6	1.1	0.46	11	2.5	0.05	-	0.30	0.55	5	4	1	45.00
335420.0014	1.0	2.3	0.65	11	4.0	0.1	0.05	0.50	0.95	5	4	1	45.00
335420.0016	2.2	3.3	1.55	11	6.0	0.2	0.05	1.10	2.00	5	4	1	39.00
335420.0018	3.2	4.3	2.55	11	10.2	0.2	0.05	1.60	3.00	5	4	1	39.00
335420.0020	3.9	7.1	3.45	16	15.2	0.3	0.05	1.95	3.70	5	4	1	41.00
335420.0022	5.2	6.3	4.25	21	20.3	0.5	0.05	2.60	5.00	5	7	1	58.00
335420.0024	6.2	7.3	5.25	21	20.3	0.5	0.05	3.10	6.00	5	7	1	58.00
335420.0026	6.9	12.1	6.25	26	25.4	0.5	0.20	3.45	6.70	5	7	1	52.00





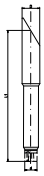
FUTURO

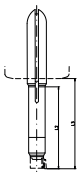
335421 Cutting plates FUTURO

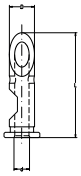
for micro milling head

Order ID	d min. mm	d max. mm	d mm	t max. mm	R mm	f mm	Type	Price €
335421.0010	6.9	8.1	4.8	1.0	0.2	3.45	D07	21.00
335421.0012	7.9	9.1	4.8	1.0	0.2	3.95	D07	21.00
335421.0014	8.9	10.1	4.8	1.0	0.2	4.45	D07	21.00
335421.0016	9.9	12.1	7.0	1.0	0.2	4.95	D10	22.00
335421.0018	11.9	14.1	7.0	1.0	0.2	5.95	D10	22.00
335421.0020	3.9	19.1	7.0	1.0	0.2	6.95	D10	22.00

FUTURO







335422 Accessories FUTURO

for micro milling head

Order ID	d mm	D mm	L mm	L1 mm	L2 mm	L3 mm	Type	Price €
335422.0010	4.8	7	-	56	30	31	Shank	188.00
335422.0012	7	7	-	61	35	36	Shank	198.00
335422.0014	4	7	30	-	-	-	Sleeve	72.00
335422.0016	-	-	-	-	-	-	Display unit	258.00

FUTURO

335425 Spare part FUTURO

for fine boring head

Order ID	Type	Dimension	Price €
335425.0010	Socket set screw	M5 x 16	1.80
335425.0012	Socket set screw	M10 x 8	1.80
335425.0014	Socket set screw	M10 x 12	1.80
335425.0016	Socket set screw	M10 x 16	1.80
335425.0018	Socket set screw	M10 x 18	1.80
335425.0020	Screw	M5 x 16	4.70
335425.0022	Screw	M10 x 25	4.70
335425.0024	Screw for insert	M2.5 x 6 (T7)	4.90
335425.0026	Screw for insert	M4 x 9 (T15)	5.60
335425.0028	Socket set screw	M6 X 5	1.80
335425.0030	Socket set screw	M6 X 10	1.80

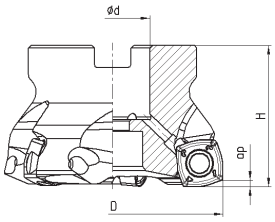
239000 High-feed end mill FUTURO

High-feed end mill, nickel-plated **with internal cooling** for maximum stock removal rates Designed for high stability, therefore reduced vibration, minimum power consumption and soft cutting.

Corresponding inserts:
239010 Indexable insert FUTURO XOLT

Package content: Screwdriver not included.

Order ID	D mm	H mm	d mm	teeth	ap mm	Turning plate	Price €
239000.0100	**50**	40	22	4	2	XOLT	252.00
239000.0150	**52**	40	22	5	2	XOLT	259.00
239000.0200	**63**	40	22	5	2	XOLT	289.00
239000.0300	**80**	50	27	7	2	XOLT	379.00



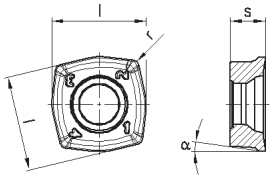
239010 Indexable insert FUTURO XOLT

P	M	K	N	S	H	O
●●	●●			●●		

Types:
MS35C: for stainless steel and superalloys.
PK35P: for steel.

Appropriate tool holders:
239000 High-feed end mill FUTURO

Order ID	Code	Type	l mm	r mm	s mm	Alpha	ap mm	Price €
239010.0100	**XOLT 130410 MR**	**PK35P**	13	1	4.76	9 °	2	10.50
239010.0200	**XOLT 130410 MR**	**MS35C**	13	1	4.76	9 °	2	10.50



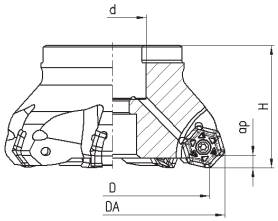
239200 Face milling cutter 45° FUTURO

Unequally divided face milling cutter 45° nickel-plated **with internal cooling**, 6 effective cutting edges and positive indexable inserts. Suitable for cutting depths up to 4.5 mm.

Corresponding inserts:
239210 Indexable insert FUTURO HPKT

Package content: Screwdriver not included.

Order ID	D mm	Da mm	H mm	d mm	teeth	ap mm	Turning plate	Price €
239200.0100	**40**	52.2	40	16	4	4.5	HPKT06..	270.80
239200.0200	**50**	62.2	40	22	5	4.5	HPKT06..	304.00
239200.0300	**63**	75.2	40	22	6	4.5	HPKT06..	356.30
239200.0400	**80**	92.2	50	27	7	4.5	HPKT06..	427.50
239200.0500	**100**	112.2	50	32	9	4.5	HPKT06..	565.30



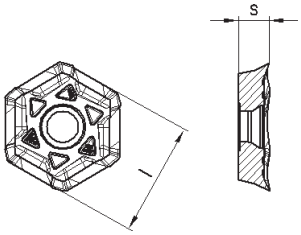
239210 Indexable insert FUTURO HPKT

P	M	K	N	S	H	O
●●	●●	●●	●●	●●		

Types:
K15C: for cast iron.
M35P: for stainless steel.
MS35C: for stainless steel and superalloys.
N15: for non-ferrous materials.
P35P: for steel.
PK25C: for steel and cast iron.
PK35P: for steel.

Appropriate tool holders:
239200 Face milling cutter 45° FUTURO

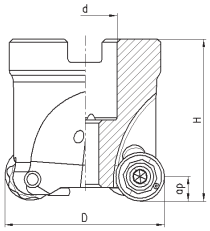
Order ID	Code	Type	l mm	s mm	ap mm	Price €
239210.0100	**HPKT 0604 MM**	**MS35C**	16.2	4.5	4.5	13.30
239210.0200	**HPKT 0604 MM**	**PK25C**	16.2	4.5	4.5	12.00
239210.0300	**HPKT 0604 MM**	**P35P**	16.2	4.5	4.5	12.00
239210.0400	**HPKT 0604 MM**	**K15C**	16.2	4.5	4.5	12.00
239210.0500	**HPKT 0604 MM**	**PK35P**	16.2	4.5	4.5	12.00
239210.0600	**HPKT 0604 MM**	**M35P**	16.2	4.5	4.5	12.00
239210.0700	**HPCT 0604 MM**	**N15**	16.2	4.5	4.5	11.80



FUTURO

239250 Round insert cutter FUTURO

Round insert cutter nickel plated **with internal cooling** for multi-purpose machining.



Corresponding inserts:
239260 Indexable insert FUTURO RPMX / RPHX

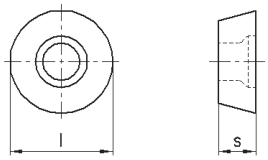
Package content: Screwdriver not included.

Order ID	D mm	H mm	d mm	teeth	ap mm	Turning plate	Price €
239250.0100	**40**	40	16	4	6	RPMX/RPHX12..	275.00
239250.0200	**50**	40	22	5	6	RPMX/RPHX12..	330.00
239250.0300	**63**	40	22	6	6	RPMX/RPHX12..	395.00
239250.0400	**80**	50	27	8	6	RPMX/RPHX12..	495.00
239250.0500	**100**	50	32	10	6	RPMX/RPHX12..	595.00

FUTURO

239260 Indexable insert FUTURO RPMX / RPHX

P	M	K	N	S	H	O
●●	●●	●●	●●	●●		



Types:
K15C: for cast iron.
M35P: for stainless steel.
MS35C: for stainless steel and superalloys.
N35: Uncoated, for non-ferrous materials.
P35P: for steel.
S40C: for superalloys.

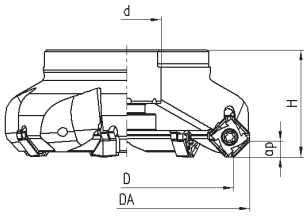
Appropriate tool holders:
239250 Round insert cutter FUTURO

Order ID	Code	Type	l mm	s mm	ap mm	Price €
239260.0100	**RPMX 1204 MM**	**M35P**	12	4	6	10.50
239260.0200	**RPMX 1204 MM**	**P35P**	12	4	6	10.50
239260.0300	**RPMX 1204 MM**	**K15C**	12	4	6	10.50
239260.0400	**RPHX 1204 MM**	**N35**	12	4	6	10.50
239260.0500	**RPHX 1204 MM**	**MS35C**	12	4	6	16.00
239260.0600	**RPHX 1204 MM**	**S40C**	12	4	6	16.00

FUTURO

239100 Face milling cutter 45° FUTURO

Face mill 45° nickel-plated **with internal cooling** and 8 effective cutting edges and rectangular, double-sided, positive indexable inserts.
Application
Face milling and roughing



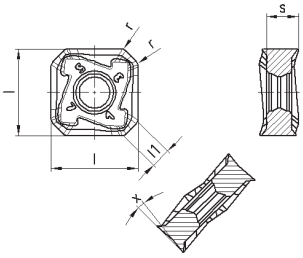
Corresponding inserts:
239110 Indexable insert FUTURO SOKU

Package content: Screwdriver not included.

Order ID	D mm	Da mm	H mm	d mm	teeth	ap mm	Turning plate	Price €
239100.0100	**40**	55	45	16	4	6.5	SOKU15...	295.00
239100.0200	**50**	65	45	22	4	6.5	SOKU15...	315.00
239100.0300	**63**	78	45	22	5	6.5	SOKU15...	355.00
239100.0400	**80**	95	50	27	6	6.5	SOKU15...	455.00
239100.0500	**100**	115	50	32	7	6.5	SOKU15...	540.00
239100.0600	**125**	140	63	40	8	6.5	SOKU15...	665.00

239110 Indexable insert FUTURO SOKU

P	M	K	N	S	H	O
●●	●●	●●		●●		



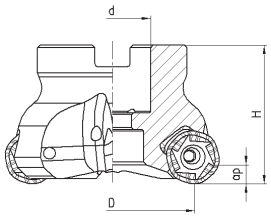
Types:
K15C: for cast iron.
M35P: for stainless steel.
MS35C: for stainless steel and superalloys.
P35P: for steel.
PK25C: for steel and cast iron.

Appropriate tool holders:
239100 Face milling cutter 45° FUTURO

Order ID	Code	Type	l mm	l1 mm	r mm	s mm	ap mm	Price €
239110.0100	**SOKU 1505 MM**	**K15C**	15.875	3.65	1	6.03	6.5	**19.00**
239110.0200	**SOKU 1505 MM**	**PK25C**	15.875	3.65	1	6.03	6.5	**19.00**
239110.0300	**SOKU 1505 MM**	**MS35C**	15.875	3.65	1	6.03	6.5	**21.90**
239110.0400	**SOKU 1505 MM**	**P35P**	15.875	3.65	1	6.03	6.5	**19.00**
239110.0500	**SOKU 1505 MM**	**M35P**	15.875	3.65	1	6.03	6.5	**19.00**

239150 Face milling cutter 45° FUTURO Hexagon

Face milling cutter 45° hexagon, nickel-plated **with internal cooling**, 12 effective cutting edges with double-sided and postive indexable inserts. Suitable for cutting depths up to 4.5 mm.



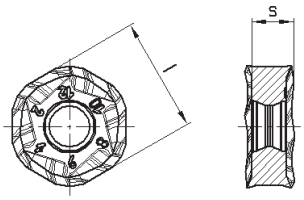
Corresponding inserts:
239160 Indexable insert FUTURO HOKU

Package content: Screwdriver not included.

Order ID	D mm	H mm	d mm	teeth	ap mm	Turning plate	Price €
239150.0100	**40**	40	16	4	4.5	HOKU08...	**318.30**
239150.0200	**50**	40	22	4	4.5	HOKU08...	**337.30**
239150.0300	**63**	40	22	5	4.5	HOKU08...	**399.00**
239150.0400	**80**	50	27	6	4.5	HOKU08...	**470.30**

239160 Indexable insert FUTURO HOKU

P	M	K	N	S	H	O
●●	●●	●●		●●		



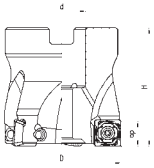
Types:
K15C: for cast iron.
M35P: for stainless steel.
MS35C: for stainless steel and superalloys.
P35P: for steel.
PK25C: for steel and cast iron.

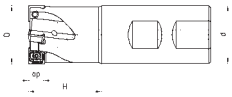
Appropriate tool holders:
239150 Face milling cutter 45° FUTURO Hexagon

Order ID	Code	Type	l mm	s mm	ap mm	Price €
239160.0100	**HOKU 0806 MM**	**K15C**	14.7	5.3	4.5	**21.30**
239160.0200	**HOKU 0806 MM**	**PK25C**	14.7	5.3	4.5	**21.30**
239160.0300	**HOKU 0806 MM**	**MS35C**	14.7	5.3	4.5	**21.30**
239160.0400	**HOKU 0806 MM**	**P35P**	14.7	5.3	4.5	**21.30**
239160.0500	**HOKU 0806 MM**	**K15C**	14.7	5.3	4.5	**25.80**
239160.0600	**HOKU 0806 MM**	**M35P**	14.7	5.3	4.5	**21.30**

FUTURO

Ø25..32





239050 Corner cutter 90° FUTURO

High-precision corner cutter 90° nickel-plated **with internal cooling** and high stock removal rates even in less powerful machining centres.

Corresponding inserts:
239060 Indexable insert FUTURO SD..

Package content: Screwdriver not included.

Order ID	D mm	H mm	d mm	teeth	ap mm	Turning plate	Price €
239050.0100	**25**	32	25	3	8	SD..	152.00
239050.0200	**32**	40	32	4	8	SD..	185.30
239050.0300	**40**	40	16	5	8	SD..	237.50
239050.0400	**50**	40	22	6	8	SD..	256.50
239050.0500	**63**	40	22	7	8	SD..	294.50
239050.0600	**80**	50	27	9	8	SD..	375.30
239050.0700	**100**	50	32	10	8	SD..	484.50

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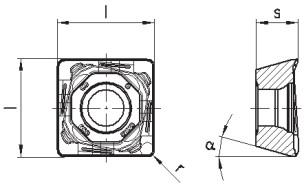

239060 Indexable insert FUTURO SD..

P	M	K	N	S	H	O
●●	●●	●●	●●	●●		

Types:
K15C: for cast iron.
M35P: for stainless steel.
MS35C: for stainless steel and superalloys.
N15: for non-ferrous materials.
PK35P: for steel.

Appropriate tool holders:
239050 Corner cutter 90° FUTURO

Order ID	Code	Type	l mm	r mm	s mm	Alpha	ap mm	Price €
239060.0100	**SDKT 09T308 MM**	**MS35C**	9	0.8	3.97	15 °	8	8.60
239060.0200	**SDKT 09T308 MM**	**M35P**	9	0.8	3.97	15 °	8	7.20
239060.0300	**SDKT 09T308 MM**	**PK35P**	9	0.8	3.97	15 °	8	7.20
239060.0400	**SDKT 09T308 MM**	**K15C**	9	0.8	3.97	15 °	8	7.20
239060.0500	**SDHT 09T308 MM**	**N15**	9	0.8	3.97	20°	8	9.50

316000 Indexable insert FUTURO Type CN.

FUTURO

0° negative

P	M	K	N	S	H	O
●●	●●	●●		●●		

Geometries:
TK-M: TK cast / **M** moderate machining
TK-R: TK cast / **R** roughing
TM-F: TM Inox / **F** fine machining
TM-M: TM Inox / **M** moderate machining
TM-R: TM Inox / **R** roughing
TP-F: TP steel / **F** fine machining
TP-F C10: TP steel / **F** fine machining / **C10** Cermet
TP-M: TP steel / **M** moderate machining
TP-R: TP steel / **R** roughing
TS-M: TS superalloys / **M** moderate machining

Hardness - toughness: 10 = hard....40 = tough

Order ID	Type	Ins.	Radius mm	Type	Code	P	M	K	S	R	M	F	Price €
316000.0200	**CNMG**	**09**	**0.4**	**TM-M 25**	CNMG 090304 TM-M 25						●		7.20
316000.0400	**CNMG**	**09**	**0.8**	**TM-M 25**	CNMG 090308 TM-M 25						●		7.20
316000.0600	**CNGP**	**12**	**0.2**	**TM-F 25**	CNGP 120402 TM-F 25							●	11.20
316000.0800	**CNGP**	**12**	**0.4**	**TM-F 25**	CNGP 120404 TM-F 25							●	11.20
316000.1000	**CNMG**	**12**	**0.4**	**TM-M 25**	CNMG 120404 TM-M 25						●		7.90
316000.1200	**CNMG**	**12**	**0.4**	**TP-F C10**	CNMG 120404 TP-F C10							●	7.90
316000.1400	**CNMG**	**12**	**0.4**	**TP-F 15**	CNMG 120404 TP-F 15							●	7.90
316000.1600	**CNMG**	**12**	**0.4**	**TP-M 25**	CNMG 120404 TP-M 25						●		7.90
316000.1800	**CNMG**	**12**	**0.4**	**TS-M 10**	CNMG 120404 TS-M 10						●		9.70
316000.2000	**CNMG**	**12**	**0.4**	**TS-M 15**	CNMG 120404 TS-M 15						●		9.70
316000.2200	**CNMG**	**12**	**0.8**	**TK-M 20**	CNMG 120408 TK-M 20						●		7.90
316000.2400	**CNMG**	**12**	**0.8**	**TK-R 20**	CNMG 120408 TK-R 20					●			7.90
316000.2600	**CNGP**	**12**	**0.8**	**TM-F 25**	CNGP 120408 TM-F 25							●	11.20
316000.2800	**CNMG**	**12**	**0.8**	**TM-M 25**	CNMG 120408 TM-M 25						●		7.90
316000.3000	**CNMG**	**12**	**0.8**	**TM-R 25**	CNMG 120408 TM-R 25					●			7.90
316000.3200	**CNMG**	**12**	**0.8**	**TP-F C10**	CNMG 120408 TP-F C10							●	7.90
316000.3400	**CNMG**	**12**	**0.8**	**TP-F 15**	CNMG 120408 TP-F 15							●	7.90
316000.3600	**CNMG**	**12**	**0.8**	**TP-M 25**	CNMG 120408 TP-M 25						●		7.90
316000.3800	**CNMG**	**12**	**0.8**	**TP-R 25**	CNMG 120408 TP-R 25					●			7.90
316000.4000	**CNMG**	**12**	**0.8**	**TP-R 35**	CNMG 120408 TP-R 35					●			7.90
316000.4200	**CNMG**	**12**	**0.8**	**TS-M 15**	CNMG 120408 TS-M 15						●		9.70
316000.4400	**CNMG**	**12**	**0.8**	**TS-M 10**	CNMG 120408 TS-M 10						●		9.70
316000.4600	**CNMG**	**12**	**1.2**	**TK-M 20**	CNMG 120412 TK-M 20						●		7.90
316000.4800	**CNMG**	**12**	**1.2**	**TM-R 25**	CNMG 120412 TM-R 25					●			7.90
316000.5000	**CNMG**	**12**	**1.2**	**TP-F 15**	CNMG 120412 TP-F 15							●	7.90
316000.5200	**CNMG**	**12**	**1.2**	**TP-M 25**	CNMG 120412 TP-M 25						●		7.90
316000.5400	**CNMG**	**12**	**1.2**	**TP-R 25**	CNMG 120412 TP-R 25					●			7.90
316000.5600	**CNMG**	**12**	**1.2**	**TP-R 35**	CNMG 120412 TP-R 35					●			7.90
316000.5800	**CNMG**	**16**	**0.8**	**TP-R 35**	CNMG 160608 TP-R 35					●			15.40
316000.6000	**CNMG**	**16**	**1.2**	**TP-R 35**	CNMG 160612 TP-R 35					●			15.40
316000.6200	**CNMG**	**19**	**1.2**	**TP-R 35**	CNMG 190612 TP-R 35					●			18.40

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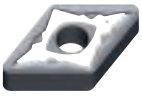


316050 Indexable insert FUTURO Type DN.

0° negative

P	M	K	N	S	H	O
●●	●●	●●		●●		

Geometries:
TK-M: TK cast / **M** moderate machining
TM-F: TM Inox / **F** fine machining
TM-M: TM Inox / **M** moderate machining
TM-R: TM Inox / **R** roughing
TP-F: TP steel / **F** fine machining
TP-F C10: TP steel / **F** fine machining / **C10** Cermet
TP-M: TP steel / **M** moderate machining
TP-R: TP steel / **R** roughing
TS-M: TS superalloys / **M** moderate machining

Hardness - toughness: 10 = hard....40 = tough

Order ID	Type	Ins.	Radius mm	Type	Code	P	M	K	S	R	M	F	Price €
316050.0200	**DNMG**	**11**	**0.4**	TM-M 25	DNMG 110404 TM-M 25						●		8.60
316050.0400	**DNMG**	**11**	**0.4**	TP-F C10	DNMG 110404 TP-F C10							●	8.60
316050.0600	**DNMG**	**11**	**0.4**	TP-M 25	DNMG 110404 TP-M 25						●		8.60
316050.0800	**DNMG**	**11**	**0.8**	TM-M 25	DNMG 110408 TM-M 25						●		8.60
316050.1000	**DNMG**	**11**	**0.8**	TP-M 25	DNMG 110408 TP-M 25						●		8.60
316050.1200	**DNGP**	**15**	**0.2**	TM-F 25	DNGP 150602 TM-F 25							●	15.20
316050.1400	**DNGP**	**15**	**0.4**	TM-F 25	DNGP 150604 TM-F 25							●	15.20
316050.1600	**DNMG**	**15**	**0.4**	TM-M 25	DNMG 150604 TM-M 25						●		11.00
316050.1800	**DNMG**	**15**	**0.4**	TP-F C10	DNMG 150604 TP-F C10							●	11.00
316050.2000	**DNMG**	**15**	**0.4**	TP-F 15	DNMG 150604 TP-F 15							●	11.00
316050.2200	**DNMG**	**15**	**0.4**	TP-M 25	DNMG 150604 TP-M 25						●		11.00
316050.2400	**DNMG**	**15**	**0.8**	TK-M 20	DNMG 150608 TK-M 20						●		11.00
316050.2600	**DNGP**	**15**	**0.8**	TM-F 25	DNGP 150608 TM-F 25							●	15.20
316050.2800	**DNMG**	**15**	**0.8**	TM-M 25	DNMG 150608 TM-M 25						●		11.00
316050.3000	**DNMG**	**15**	**0.8**	TM-R 25	DNMG 150608 TM-R 25					●			11.00
316050.3200	**DNMG**	**15**	**0.8**	TP-F 15	DNMG 150608 TP-F 15							●	11.00
316050.3400	**DNMG**	**15**	**0.8**	TP-M 25	DNMG 150608 TP-M 25						●		11.00
316050.3600	**DNMG**	**15**	**0.8**	TP-R 35	DNMG 150608 TP-R 35					●			11.00
316050.3800	**DNMG**	**15**	**0.8**	TS-M 10	DNMG 150608 TS-M 10						●		11.00
316050.4000	**DNMG**	**15**	**0.8**	TS-M 15	DNMG 150608 TS-M 15						●		11.00
316050.4200	**DNMG**	**15**	**1.2**	TP-M 25	DNMG 150612 TP-M 25						●		11.00
316050.4400	**DNMG**	**15**	**1.2**	TP-R 35	DNMG 150612 TP-R 35					●			11.00

FUTURO

316100 Indexable insert FUTURO Type SN.

0° negative

P	M	K	N	S	H	O
●●	●●	●●		●●		

Geometries:
TK-M: TK cast / **M** moderate machining
TM-M: TM Inox / **M** moderate machining
TP-F: TP steel / **F** fine machining
TP-M: TP steel / **M** moderate machining
TP-R: TP steel / **R** roughing
TS-M: TS superalloys / **M** moderate machining

Hardness - toughness: 10 = hard....40 = tough

Order ID	Type	Ins.	Radius mm	Type	Code	P	M	K	S	R	M	F	Price €
316100.0200	**SNMG**	**12**	**0.8**	TK-M 20	SNMG 120408 TK-M 20						●		8.60
316100.0400	**SNMG**	**12**	**0.8**	TM-M 25	SNMG 120408 TM-M 25						●		8.60
316100.0600	**SNMG**	**12**	**0.8**	TP-F 15	SNMG 120408 TP-F 15							●	8.60
316100.0800	**SNMG**	**12**	**0.8**	TP-M 25	SNMG 120408 TP-M 25						●		8.60
316100.1000	**SNMG**	**12**	**0.8**	TP-R 25	SNMG 120408 TP-R 25					●			8.60
316100.1200	**SNMG**	**12**	**0.8**	TS-M 10	SNMG 120408 TS-M 10						●		8.60
316100.1400	**SNMG**	**12**	**1.2**	TP-F 15	SNMG 120412 TP-F 15							●	8.60
316100.1600	**SNMG**	**12**	**1.2**	TP-M 25	SNMG 120412 TP-M 25						●		8.60

316150 Indexable insert FUTURO Type TN.

FUTURO

0° negative

P	M	K	N	S	H	O
●●	●●	●●		●●		

Geometries:
TK-M: TK cast / **M** moderate machining
TM-M: TM Inox / **M** moderate machining
TM-R: TM Inox / **R** roughing
TP-F: TP steel / **F** fine machining
TP-M: TP steel / **M** moderate machining
TP-R: TP steel / **R** roughing
TS-M: TS superalloys / **M** moderate machining

Hardness - toughness: 10 = hard....40 = tough

Order ID	Type	Ins.	Radius mm	Type	Code	P	M	K	S	R	M	F	Price €
316150.0200	**TNMG**	**16**	**0.4**	TM-M 25	TNMG 160404 TM-M 25						●		7.90
316150.0400	**TNMG**	**16**	**0.4**	TP-F 15	TNMG 160404 TP-F 15							●	7.90
316150.0600	**TNMG**	**16**	**0.4**	TP-M 25	TNMG 160404 TP-M 25						●		7.90
316150.0800	**TNMG**	**16**	**0.8**	TK-M 20	TNMG 160408 TK-M 20						●		7.90
316150.1000	**TNMG**	**16**	**0.8**	TM-M 25	TNMG 160408 TM-M 25						●		7.90
316150.1200	**TNMG**	**16**	**0.8**	TM-R 25	TNMG 160408 TM-R 25					●			7.90
316150.1400	**TNMG**	**16**	**0.8**	TP-F 15	TNMG 160408 TP-F 15							●	7.90
316150.1600	**TNMG**	**16**	**0.8**	TP-M 25	TNMG 160408 TP-M 25						●		7.90
316150.1800	**TNMG**	**16**	**0.8**	TP-R 25	TNMG 160408 TP-R 25					●			7.90
316150.2000	**TNMG**	**16**	**0.8**	TP-R 35	TNMG 160408 TP-R 35					●			7.90
316150.2200	**TNMG**	**16**	**0.8**	TS-M 10	TNMG 160408 TS-M 10						●		7.90
316150.2400	**TNMG**	**16**	**1.2**	TK-M 20	TNMG 160412 TK-M 20						●		7.90
316150.2600	**TNMG**	**16**	**1.2**	TP-M 25	TNMG 160412 TP-M 25						●		7.90
316150.2800	**TNMG**	**22**	**0.8**	TP-M 25	TNMG 220408 TP-M 25						●		10.50

316200 Indexable insert FUTURO Type VN.

FUTURO

0° negative

P	M	K	N	S	H	O
●●	●●			●●		

Geometries:
TM-F: TM Inox / **F** fine machining
TM-M: TM Inox / **M** moderate machining
TP-F: TP steel / **F** fine machining
TP-M: TP steel / **M** moderate machining
TS-M: TS superalloys / **M** moderate machining

Hardness - toughness: 10 = hard....40 = tough

Order ID	Type	Ins.	Radius mm	Type	Code	P	M	S	M	F	Price €
316200.0200	**VNGP**	**16**	**0.2**	TM-F 25	VNGP 160402 TM-F 25					●	17.10
316200.0400	**VNGP**	**16**	**0.4**	TM-F 25	VNGP 160404 TM-F 25					●	17.10
316200.0600	**VNMG**	**16**	**0.4**	TP-F 15	VNMG 160404 TP-F 15					●	9.50
316200.0800	**VNMG**	**16**	**0.4**	TP-M 25	VNMG 160404 TP-M 25				●		9.50
316200.1000	**VNMG**	**16**	**0.8**	TM-M 25	VNMG 160408 TM-M 25				●		9.50
316200.1200	**VNMG**	**16**	**0.8**	TP-F 15	VNMG 160408 TP-F 15					●	9.50
316200.1400	**VNMG**	**16**	**0.8**	TP-M 25	VNMG 160408 TP-M 25				●		9.50
316200.1600	**VNMG**	**16**	**0.8**	TS-M 10	VNMG 160408 TS-M 10				●		9.90

FUTURO

316250 Indexable insert FUTURO Type WN.

0° negative

P	M	K	N	S	H	O
●●	●●	●●		●●		

Geometries:
TK-M: TK cast / **M** moderate machining
TK-R: TK cast / **R** roughing
TM-F: TM Inox / **F** fine machining
TM-M: TM Inox / **M** moderate machining
TM-R: TM Inox / **R** roughing
TP-F: TP steel / **F** fine machining
TP-M: TP steel / **M** moderate machining
TP-R: TP steel / **R** roughing
TS-M: TS superalloys / **M** moderate machining

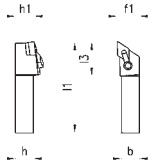
Hardness - toughness: 10 = hard....40 = tough

Order ID	Type	Ins.	Radius mm	Type	Code	P	M	K	S	R	M	F	Price €
316250.0200	**WNMG**	**06**	**0.4**	TM-M 25	WNMG 060404 TM-M 25						●		7.90
316250.0400	**WNMG**	**06**	**0.4**	TP-F 15	WNMG 060404 TP-F 15							●	7.90
316250.0600	**WNMG**	**06**	**0.4**	TP-M 25	WNMG 060404 TP-M 25						●		7.90
316250.0800	**WNMG**	**06**	**0.8**	TM-M 25	WNMG 060408 TM-M 25						●		7.90
316250.1000	**WNMG**	**06**	**0.8**	TP-F 15	WNMG 060408 TP-F 15							●	7.90
316250.1200	**WNMG**	**06**	**0.8**	TP-M 25	WNMG 060408 TP-M 25						●		7.90
316250.1400	**WNGP**	**08**	**0.4**	TM-F 25	WNGP 080404 TM-F 25							●	12.20
316250.1600	**WNMG**	**08**	**0.4**	TM-M 25	WNMG 080404 TM-M 25						●		8.80
316250.1800	**WNMG**	**08**	**0.4**	TP-F 15	WNMG 080404 TP-F 15							●	8.80
316250.2000	**WNMG**	**08**	**0.4**	TP-M 25	WNMG 080404 TP-M 25						●		8.80
316250.2400	**WNMG**	**08**	**0.8**	TK-M 20	WNMG 080408 TK-M 20						●		8.80
316250.2600	**WNMG**	**08**	**0.8**	TK-R 20	WNMG 080408 TK-R 20					●			8.80
316250.2800	**WNGP**	**08**	**0.8**	TM-F 25	WNGP 080408 TM-F 25							●	12.20
316250.3000	**WNMG**	**08**	**0.8**	TM-M 25	WNMG 080408 TM-M 25						●		8.80
316250.3200	**WNMG**	**08**	**0.8**	TM-R 25	WNMG 080408 TM-R 25					●			8.80
316250.3400	**WNMG**	**08**	**0.8**	TP-F 15	WNMG 080408 TP-F 15							●	8.80
316250.3600	**WNMG**	**08**	**0.8**	TP-M 25	WNMG 080408 TP-M 25						●		8.80
316250.3800	**WNMG**	**08**	**0.8**	TP-R 25	WNMG 080408 TP-R 25					●			8.80
316250.4000	**WNMG**	**08**	**0.8**	TP-R 35	WNMG 080408 TP-R 35					●			8.80
316250.4200	**WNMG**	**08**	**0.8**	TS-M 10	WNMG 080408 TS-M 10						●		8.80
316250.4400	**WNMG**	**08**	**1.2**	TK-M 20	WNMG 080412 TK-M 20						●		8.80
316250.4600	**WNMG**	**08**	**1.2**	TM-M 25	WNMG 080412 TM-M 25						●		8.80
316250.4800	**WNMG**	**08**	**1.2**	TP-M 25	WNMG 080412 TP-M 25						●		8.80
316250.5000	**WNMG**	**08**	**1.2**	TP-R 25	WNMG 080412 TP-R 25					●			8.80

310070 Tool holder MDJNR FUTURO

Angle of entry 93°, wedge claw clamping system, angle of cut -6°, angle of inclination -7°

Corresponding inserts:
310920 Indexable insert CBN FUTURO CBN, disposable insert
316050 Indexable insert FUTURO Type DN. 0° negative

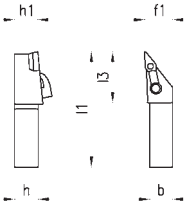


Order ID	Turning plate	Code	b mm	f1 mm	h mm	h1 mm	l1 mm	l3 mm	Price €
310070.0100	**15**	**MDJNR 2020K 15-K**	20	25	20	20	125	34	**105.50**
310070.0200	**15**	**MDJNR 2525M 15-K**	25	32	25	25	150	34	**110.70**
310070.0300	**15**	**MDJNR 3225P 15-K**	25	32	32	32	170	34	**122.10**

310170 Tool holder MVJNR FUTURO

Angle of entry 93°, wedge claw clamping system, angle of cut -6°, inclination angle -6°

Corresponding inserts:
316200 Indexable insert FUTURO Type VN. 0° negative

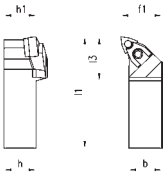


Order ID	Turning plate	Code	b mm	f1 mm	h mm	h1 mm	l1 mm	l3 mm	Price €
310170.0100	**16**	**MVJNR 2020K 16-K**	20	25	20	20	125	43	**119.70**
310170.0200	**16**	**MVJNR 2525M 16-K**	25	32	25	25	150	43	**129.20**
310170.0300	**16**	**MVJNR 3225P 16-K**	25	32	32	32	170	43	**138.70**

310150 Tool holder MWLNR FUTURO

Angle of entry 95°, wedge clock clamping system, angle of cut -6.5°, angle of inclination -6.5°

Corresponding inserts:
316250 Indexable insert FUTURO Type WN. 0° negative

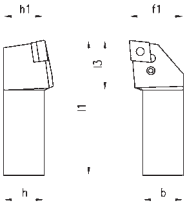


Order ID	Turning plate	Code	b mm	f1 mm	h mm	h1 mm	l1 mm	l3 mm	Price €
310150.0100	**06**	**MWLNR 2020K06**	20	25	20	20	125	25	**86.90**
310150.0200	**06**	**MWLNR 2525M06**	25	32	25	25	150	25	**90.70**
310150.0300	**08**	**MWLNR 2020K08-K**	20	25	20	20	125	34	**105.50**
310150.0400	**08**	**MWLNR 2525M08-K**	25	32	25	25	150	34	**110.70**
310150.0500	**08**	**MWLNR 3232P08-K**	32	40	32	32	170	34	**144.40**

310000 Tool holder PCLNR FUTURO

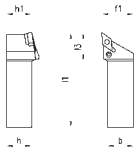
Angle of entry 95°, lever clamping system, angle of cut -6,5°, inclination angle -6.5°

Corresponding inserts:
310915 Indexable insert CBN FUTURO CBN, disposable insert
316000 Indexable insert FUTURO Type CN. 0° negative



Order ID	Turning plate	Code	b mm	f1 mm	h mm	h1 mm	l1 mm	l3 mm	Price €
310000.0100	**12**	**PCLNR 1616H12**	16	20	16	16	100	26	**76.50**
310000.0200	**12**	**PCLNR 2020K12**	20	25	20	20	125	28	**76.50**
310000.0300	**12**	**PCLNR 2525M12**	25	32	25	25	150	28	**79.80**
310000.0400	**16**	**PCLNR 3232P16**	32	40	32	32	170	34	**105.00**
310000.0500	**19**	**PCLNR 3232P19**	32	40	32	32	170	42	**105.00**

FUTURO



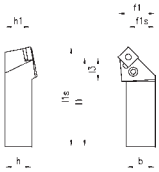
310050 Tool holder PDJNR FUTURO

Angle of entry 93°, lever clamping system, angle of cut -6.25°, angle of inclination -6.75°

Corresponding inserts:
316050 Indexable insert FUTURO Type DN. 0° negative

Order ID	Turning plate	Code	b mm	f1 mm	h mm	h1 mm	l1 mm	l3 mm	Price €
310050.0100	**11**	**PDJNR 1616H11**	16	20	16	16	100	28	**79.30**
310050.0200	**11**	**PDJNR 2020K11**	20	25	20	20	125	28	**83.10**
310050.0300	**11**	**PDJNR 2525M11**	25	32	25	25	150	28	**85.00**
310050.0400	**11**	**PDJNR 3225P11**	25	32	32	32	170	28	**122.10**

FUTURO



310100 Tool holder PSSNR FUTURO

Angle of entry 45°, lever clamping system, angle of cut -5.75°, angle of inclination -5.75°

Corresponding inserts:
316100 Indexable insert FUTURO Type SN. 0° negative

Order ID	Turning plate	Code	b mm	f1 mm	h mm	h1 mm	l1 mm	l3 mm	Price €
310100.0100	**12**	**PSSNR 2020K12**	20	25	20	20	125	28	**79.80**
310100.0200	**12**	**PSSNR 2525M12**	25	32	25	25	150	28	**82.20**
310100.0300	**12**	**PSSNR 3225P12**	25	32	32	32	170	28	**117.30**

316500 Indexable insert FUTURO Type CC..

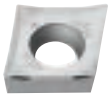
FUTURO

7° positive, Single-sided

P	M	K	N	S	H	O
●●	●●	●●	●●			

TK

TM


TN

TP

Geometries:
TK-M: TK cast / **M** moderate machining
TM-F: TM Inox / **F** fine machining
TM-M: TM Inox / **M** moderate machining
TM-XF: TM Inox / **XF** extra-fine machining
TN-F: TN non-ferrous materials / **F** fine machining
TN-F 15C: TN non-ferrous materials / **F** fine machining / **15C** coated types for non-ferrous materials and INOX
TN-M: TN non-ferrous materials / **M** moderate machining
TN-M 15C: TN non-ferrous materials / **M** moderate machining / **15C** coated types for non-ferrous materials and INOX
TP-F: TP steel / **F** fine machining
TP-F C10: TP steel / **F** fine machining / **C10** Cermet
TP-M: TP steel / **M** moderate machining

Hardness - toughness: 10 = hard....40 = tough

Order ID	Type	Ins.	Radius mm	Type	Code	P	M	K	N	M	F	XF	Price €
316500.0200	**CCGT**	**06**	**0**	TM-XF 10	CCGT 060200 TM-XF 10							●	10.60
316500.0350	**CCGT**	**06**	**0.1**	TM-XF 10	CCGT 060201 TM-XF 10							●	10.60
316500.0500	**CCGT**	**06**	**0.1**	TN-F 15	CCGT 060201 TN-F 15						●		8.30
316500.0650	**CCGT**	**06**	**0.1**	TN-F 15C	CCGT 060201 TN-F 15C						●		10.10
316500.0800	**CCMT**	**06**	**0.2**	TM-F 25	CCMT 060202 TM-F 25						●		6.60
316500.0950	**CCGT**	**06**	**0.2**	TN-F 15	CCGT 060202 TN-F 15						●		8.30
316500.1100	**CCGT**	**06**	**0.2**	TN-F 15C	CCGT 060202 TN-F 15C						●		10.10
316500.1250	**CCMT**	**06**	**0.2**	TP-F 25	CCMT 060202 TP-F 25						●		6.60
316500.1400	**CCMT**	**06**	**0.4**	TM-F 25	CCMT 060204 TM-F 25						●		6.60
316500.1550	**CCMT**	**06**	**0.4**	TM-M 25	CCMT 060204 TM-M 25					●			6.60
316500.1700	**CCGT**	**06**	**0.4**	TN-M 15	CCGT 060204 TN-M 15					●	●		8.30
316500.1850	**CCGT**	**06**	**0.4**	TN-M 15C	CCGT 060204 TN-M 15C					●	●		10.10
316500.2000	**CCMT**	**06**	**0.4**	TP-F C10	CCMT 060204 TP-F C10						●		6.60
316500.2150	**CCMT**	**06**	**0.4**	TP-F 15	CCMT 060204 TP-F 15						●		6.60
316500.2300	**CCMT**	**06**	**0.4**	TP-F 25	CCMT 060204 TP-F 25						●		6.60
316500.2450	**CCMT**	**06**	**0.4**	TP-M 25	CCMT 060204 TP-M 25					●			6.60
316500.2600	**CCMT**	**06**	**0.4**	TP-M 35	CCMT 060204 TP-M 35					●			6.60
316500.2750	**CCGT**	**09**	**0**	TM-XF 10	CCGT 09T300 TM-XF 10							●	11.60
316500.2900	**CCGT**	**09**	**0.1**	TM-XF 10	CCGT 09T301 TM-XF 10							●	11.60
316500.3050	**CCMT**	**09**	**0.2**	TM-F 25	CCMT 09T302 TM-F 25						●		7.40
316500.3200	**CCGT**	**09**	**0.2**	TN-F 15	CCGT 09T302 TN-F 15						●		8.60
316500.3350	**CCGT**	**09**	**0.2**	TN-F 15C	CCGT 09T302 TN-F 15C						●		10.60
316500.3500	**CCMT**	**09**	**0.2**	TP-F 25	CCMT 09T302 TP-F 25						●		7.40
316500.3650	**CCMT**	**09**	**0.4**	TK-M 20	CCMT 09T304 TK-M 20					●			7.40
316500.3800	**CCMT**	**09**	**0.4**	TM-F 25	CCMT 09T304 TM-F 25						●		7.40
316500.3950	**CCMT**	**09**	**0.4**	TM-M 25	CCMT 09T304 TM-M 25					●			7.40
316500.4100	**CCMT**	**09**	**0.4**	TM-M 35	CCMT 09T304 TM-M 35					●			7.40
316500.4250	**CCGT**	**09**	**0.4**	TN-M 15	CCGT 09T304 TN-M 15					●	●		8.60
316500.4400	**CCGT**	**09**	**0.4**	TN-M 15C	CCGT 09T304 TN-M 15C					●	●		10.60
316500.4550	**CCMT**	**09**	**0.4**	TP-F C10	CCMT 09T304 TP-F C10						●		7.40
316500.4700	**CCMT**	**09**	**0.4**	TP-F 15	CCMT 09T304 TP-F 15						●		7.40
316500.4850	**CCMT**	**09**	**0.4**	TP-F 25	CCMT 09T304 TP-F 25						●		7.40
316500.5000	**CCMT**	**09**	**0.4**	TP-M 25	CCMT 09T304 TP-M 25					●			7.40
316500.5150	**CCMT**	**09**	**0.4**	TP-M 35	CCMT 09T304 TP-M 35					●			7.40
316500.5300	**CCMT**	**09**	**0.8**	TK-M 20	CCMT 09T308 TK-M 20					●			7.40
316500.5450	**CCMT**	**09**	**0.8**	TM-M 25	CCMT 09T308 TM-M 25					●			7.40
316500.5600	**CCMT**	**09**	**0.8**	TM-M 35	CCMT 09T308 TM-M 35					●			7.40
316500.5750	**CCGT**	**09**	**0.8**	TN-M 15	CCGT 09T308 TN-M 15					●			8.60
316500.5900	**CCGT**	**09**	**0.8**	TN-M 15C	CCGT 09T308 TN-M 15C					●			10.60
316500.6050	**CCMT**	**09**	**0.8**	TP-F 15	CCMT 09T308 TP-F 15						●		7.40
316500.6200	**CCMT**	**09**	**0.8**	TP-F 25	CCMT 09T308 TP-F 25						●		7.40

Order ID	Type	Ins.	Radius mm	Type	Code	P	M	K	N	M	F	XF	Price €
316500.6350	**CCMT**	**09**	**0.8**	TP-M 25	CCMT 09T308 TP-M 25					●			7.40
316500.6500	**CCMT**	**09**	**0.8**	TP-M 35	CCMT 09T308 TP-M 35					●			7.40
316500.6650	**CCMT**	**12**	**0.4**	TM-M 25	CCMT 120404 TM-M 25					●			9.30
316500.6800	**CCGT**	**12**	**0.4**	TN-M 15	CCGT 120404 TN-M 15					●	●		10.30
316500.6950	**CCGT**	**12**	**0.4**	TN-M 15C	CCGT 120404 TN-M 15C					●	●		12.20
316500.7100	**CCMT**	**12**	**0.4**	TP-M 25	CCMT 120404 TP-M 25					●			9.30
316500.7250	**CCMT**	**12**	**0.8**	TK-M 20	CCMT 120408 TK-M 20					●			9.30
316500.7400	**CCMT**	**12**	**0.8**	TM-M 25	CCMT 120408 TM-M 25					●			9.30
316500.7550	**CCGT**	**12**	**0.8**	TN-M 15	CCGT 120408 TN-M 15					●			10.30
316500.7700	**CCGT**	**12**	**0.8**	TN-M 15C	CCGT 120408 TN-M 15C					●			12.20
316500.7850	**CCMT**	**12**	**0.8**	TP-M 25	CCMT 120408 TP-M 25					●			9.30

316550 Indexable insert FUTURO Type DC..

FUTURO

7° positive, single-sided

P	M	K	N	S	H	O
●●	●●	●●	●●			

Geometries:
TK-M: TK cast / **M** moderate machining
TM-F: TM Inox / **F** fine machining
TM-M: TM Inox / **M** moderate machining
TM-XF: TM Inox / **XF** extra-fine machining
TN-F: TN non-ferrous materials / **F** fine machining
TN-F 15C: TN non-ferrous materials / **F** fine machining / **15C** coated types for non-ferrous materials and INOX
TN-M: TN non-ferrous materials / **M** moderate machining
TN-M 15C: TN non-ferrous materials / **M** moderate machining / **15C** coated types for non-ferrous materials and INOX
TP-F: TP steel / **F** fine machining
TP-F C10: TP steel / **F** fine machining / **C10** Cermet
TP-M: TP steel / **M** moderate machining

Hardness - toughness: 10 = hard....40 = tough

Order ID	Type	Ins.	Radius mm	Type	Code	P	M	K	N	M	F	XF	Price €
316550.0200	**DCGT**	**07**	**0**	TM-XF 10	DCGT 070200 TM-XF 10							●	11.60
316550.0350	**DCGT**	**07**	**0.1**	TM-XF 10	DCGT 070201 TM-XF 10							●	11.60
316550.0500	**DCGT**	**07**	**0.1**	TN-F 15	DCGT 070201 TN-F 15						●		8.60
316550.0650	**DCGT**	**07**	**0.1**	TN-F 15C	DCGT 070201 TN-F 15C						●		10.60
316550.0800	**DCMT**	**07**	**0.2**	TM-F 25	DCMT 070202 TM-F 25						●		6.70
316550.0950	**DCGT**	**07**	**0.2**	TN-F 15	DCGT 070202 TN-F 15						●		8.60
316550.1100	**DCGT**	**07**	**0.2**	TN-F 15C	DCGT 070202 TN-F 15C						●		10.60
316550.1250	**DCMT**	**07**	**0.2**	TP-F 25	DCMT 070202 TP-F 25						●		6.70
316550.1400	**DCMT**	**07**	**0.4**	TM-F 25	DCMT 070204 TM-F 25						●		6.70
316550.1550	**DCMT**	**07**	**0.4**	TM-M 25	DCMT 070204 TM-M 25					●			6.70
316550.1700	**DCGT**	**07**	**0.4**	TN-M 15	DCGT 070204 TN-M 15					●	●		8.60
316550.1850	**DCGT**	**07**	**0.4**	TN-M 15C	DCGT 070204 TN-M 15C					●	●		10.60
316550.2000	**DCMT**	**07**	**0.4**	TP-F C10	DCMT 070204 TP-F C10						●		6.70
316550.2150	**DCMT**	**07**	**0.4**	TP-F 25	DCMT 070204 TP-F 25						●		6.70
316550.2300	**DCMT**	**07**	**0.4**	TP-M 25	DCMT 070204 TP-M 25					●			6.70
316550.2450	**DCMT**	**07**	**0.4**	TP-M 35	DCMT 070204 TP-M 35					●			6.70
316550.2600	**DCMT**	**07**	**0.8**	TM-M 25	DCMT 070208 TM-M 25					●			6.70
316550.2750	**DCGT**	**11**	**0**	TM-XF 10	DCGT 11T300 TM-XF 10							●	12.50
316550.2900	**DCGT**	**11**	**0.1**	TM-XF 10	DCGT 11T301 TM-XF 10							●	12.50
316550.3050	**DCMT**	**11**	**0.2**	TM-F 25	DCMT 11T302 TM-F 25						●		8.00
316550.3200	**DCGT**	**11**	**0.2**	TN-F 15	DCGT 11T302 TN-F 15						●		10.60
316550.3350	**DCGT**	**11**	**0.2**	TN-F 15C	DCGT 11T302 TN-F 15C						●		12.50
316550.3500	**DCMT**	**11**	**0.2**	TP-F 25	DCMT 11T302 TP-F 25						●		8.00
316550.3650	**DCMT**	**11**	**0.4**	TK-M 20	DCMT 11T304 TK-M 20					●			8.00
316550.3800	**DCMT**	**11**	**0.4**	TM-F 25	DCMT 11T304 TM-F 25						●		8.00
316550.3950	**DCMT**	**11**	**0.4**	TM-M 25	DCMT 11T304 TM-M 25					●			8.00
316550.4100	**DCMT**	**11**	**0.4**	TM-M 35	DCMT 11T304 TM-M 35					●			8.00
316550.4250	**DCGT**	**11**	**0.4**	TN-M 15	DCGT 11T304 TN-M 15					●	●		10.60
316550.4400	**DCGT**	**11**	**0.4**	TN-M 15C	DCGT 11T304 TN-M 15C					●	●		12.50
316550.4550	**DCMT**	**11**	**0.4**	TP-F C10	DCMT 11T304 TP-F C10						●		8.00
316550.4700	**DCMT**	**11**	**0.4**	TP-F 15	DCMT 11T304 TP-F 15						●		8.00
316550.4850	**DCMT**	**11**	**0.4**	TP-F 25	DCMT 11T304 TP-F 25						●		8.00
316550.5000	**DCMT**	**11**	**0.4**	TP-M 25	DCMT 11T304 TP-M 25					●			8.00
316550.5150	**DCMT**	**11**	**0.4**	TP-M 35	DCMT 11T304 TP-M 35					●			8.00
316550.5300	**DCMT**	**11**	**0.8**	TK-M 20	DCMT 11T308 TK-M 20					●			8.00
316550.5450	**DCMT**	**11**	**0.8**	TM-F 25	DCMT 11T308 TM-F 25						●		8.00
316550.5600	**DCMT**	**11**	**0.8**	TM-M 25	DCMT 11T308 TM-M 25					●			8.00
316550.5750	**DCMT**	**11**	**0.8**	TM-M 35	DCMT 11T308 TM-M 35					●			8.00
316550.5900	**DCGT**	**11**	**0.8**	TN-M 15	DCGT 11T308 TN-M 15					●			10.60
316550.6050	**DCGT**	**11**	**0.8**	TN-M 15C	DCGT 11T308 TN-M 15C					●			12.50
316550.6200	**DCMT**	**11**	**0.8**	TP-F 15	DCMT 11T308 TP-F 15						●		8.00
316550.6350	**DCMT**	**11**	**0.8**	TP-F 25	DCMT 11T308 TP-F 25						●		8.00
316550.6500	**DCMT**	**11**	**0.8**	TP-M 25	DCMT 11T308 TP-M 25					●			8.00
316550.6650	**DCMT**	**11**	**0.8**	TP-M 35	DCMT 11T308 TP-M 35					●			8.00

FUTURO

316700 Indexable insert FUTURO Type TC..

7° positive, single-sided, triangular, 60°

P	M	K	N	S	H	O
●●	●●	●●				

Geometries:
TK-M: TK cast / **M** moderate machining
TM-F: TM Inox / **F** fine machining
TM-M: TM Inox / **M** moderate machining
TP-F C10: TP steel / **F** fine machining / **C10** Cermet
TP-M: TP steel / **M** moderate machining

Hardness - toughness: 10 = hard....40 = tough

Order ID	Type	Ins.	Radius mm	Type	Code	P	M	K	M	F	Price €
316700.0350	**TCMT**	**09**	**0.4**	TM-M 25	TCMT 090204 TM-M 25				●		6.40
316700.0500	**TCMT**	**09**	**0.4**	TP-M 25	TCMT 090204 TP-M 25				●		6.40
316700.0650	**TCMT**	**11**	**0.2**	TM-F 25	TCMT 110202 TM-F 25					●	7.20
316700.0800	**TCGT**	**11**	**0.2**	TP-F C10	TCGT 110202 TP-F C10					●	11.60
316700.0950	**TCMT**	**11**	**0.4**	TK-M 20	TCMT 110204 TK-M 20				●		7.20
316700.1100	**TCMT**	**11**	**0.4**	TM-M 25	TCMT 110204 TM-M 25				●		7.20
316700.1250	**TCMT**	**11**	**0.4**	TM-M 35	TCMT 110204 TM-M 35				●		7.20
316700.1400	**TCMT**	**11**	**0.4**	TP-F C10	TCMT 110204 TP-F C10					●	5.80
316700.1550	**TCMT**	**11**	**0.4**	TP-M 25	TCMT 110204 TP-M 25				●		7.20
316700.1700	**TCMT**	**11**	**0.4**	TP-M 35	TCMT 110204 TP-M 35				●		7.20
316700.1850	**TCMT**	**16**	**0.4**	TK-M 20	TCMT 16T304 TK-M 20				●		8.20
316700.2000	**TCMT**	**16**	**0.4**	TM-M 25	TCMT 16T304 TM-M 25				●		8.20
316700.2150	**TCMT**	**16**	**0.4**	TP-M 25	TCMT 16T304 TP-M 25				●		8.20
316700.2300	**TCMT**	**16**	**0.4**	TP-M 35	TCMT 16T304 TP-M 35				●		8.20
316700.2450	**TCMT**	**16**	**0.8**	TM-M 25	TCMT 16T308 TM-M 25				●		8.20
316700.2600	**TCMT**	**16**	**0.8**	TP-M 25	TCMT 16T308 TP-M 25				●		8.20
316700.2750	**TCMT**	**16**	**0.8**	TP-M 35	TCMT 16T308 TP-M 35				●		8.20

FUTURO

316600 Indexable insert FUTURO Type RC..

7° positive

P	M	K	N	S	H	O
●●						

Geometries:
TP-M: TP steel / **M** moderate machining

Hardness - toughness: 10 = hard....40 = tough

Order ID	Type	Ins.	Radius mm	Type	Code	P	M	Price €
316600.0200	**RCMT**	**08**	**4**	TP-M 35	RCMT 0803MO TP-M 35		●	6.30
316600.0350	**RCMT**	**10**	**5**	TP-M 35	RCMT 1003MO TP-M 35		●	6.70
316600.0500	**RCMT**	**12**	**6**	TP-M 35	RCMT 1204MO TP-M 35		●	7.10

316650 Indexable insert FUTURO Type SC..

FUTURO

7° positive, single-sided 90°

P	M	K	N	S	H	O
●●	●●	●●	●●			

TM

Geometries:
TK-M: TK cast / **M** moderate machining
TM-M: TM Inox / **M** moderate machining
TN-M: TN non-ferrous materials / **M** moderate machining
TN-M 15C: TN non-ferrous materials / **M** moderate machining / **15C** coated types for non-ferrous materials and INOX
TP-F: TP steel / **F** fine machining
TP-M: TP steel / **M** moderate machining

Hardness - toughness: 10 = hard....40 = tough

Order ID	Type	Ins.	Radius mm	Type	Code	P	M	K	N	M	F	Price €
316650.0200	**SCMT**	**09**	**0.4**	TM-M 25	SCMT 09T304 TM-M 25					●		**7.30**
316650.0350	**SCGT**	**09**	**0.4**	TN-M 15	SCGT 09T304 TN-M 15					●	●	**9.40**
316650.0500	**SCGT**	**09**	**0.4**	TN-M 15C	SCGT 09T304 TN-M 15C					●	●	**11.40**
316650.0650	**SCMT**	**09**	**0.4**	TP-M 25	SCMT 09T304 TP-M 25					●		**7.30**
316650.0800	**SCMT**	**09**	**0.8**	TK-M 20	SCMT 09T308 TK-M 20					●		**7.30**
316650.0950	**SCMT**	**09**	**0.8**	TM-M 25	SCMT 09T308 TM-M 25					●		**7.30**
316650.1100	**SCMT**	**09**	**0.8**	TP-M 25	SCMT 09T308 TP-M 25					●		**7.30**
316650.1250	**SCMT**	**09**	**0.8**	TP-M 35	SCMT 09T308 TP-M 35					●		**7.80**
316650.1400	**SCMT**	**12**	**0.4**	TM-M 25	SCMT 120404 TM-M 25					●		**9.50**
316650.1550	**SCMT**	**12**	**0.4**	TP-F 15	SCMT 120404 TP-F 15						●	**9.50**
316650.1700	**SCMT**	**12**	**0.4**	TP-M 25	SCMT 120404 TP-M 25					●		**9.50**
316650.1850	**SCMT**	**12**	**0.8**	TK-M 20	SCMT 120408 TK-M 20					●		**9.50**
316650.2000	**SCMT**	**12**	**0.8**	TM-M 25	SCMT 120408 TM-M 25					●		**9.50**
316650.2150	**SCMT**	**12**	**0.8**	TP-M 25	SCMT 120408 TP-M 25					●		**9.50**
316650.2300	**SCMT**	**12**	**0.8**	TP-M 35	SCMT 120408 TP-M 35					●		**9.50**

FUTURO

316750 Indexable insert FUTURO Type VC..

7° positive, single-sided, rhombic, 35°

P	M	K	N	S	H	O
●●	●●		●●			

Geometries:
TM-F: TM Inox / **F** fine machining
TM-M: TM Inox / **M** moderate machining
TM-XF: TM Inox / **XF** extra-fine machining
TN-F: TN non-ferrous materials / **F** fine machining
TN-F 15C: TN non-ferrous materials / **F** fine machining / **15C** coated types for non-ferrous materials and INOX
TN-M: TN non-ferrous materials / **M** moderate machining
TN-M 15C: TN non-ferrous materials / **M** moderate machining / **15C** coated types for non-ferrous materials and INOX
TP-F: TP steel / **F** fine machining
TP-M: TP steel / **M** moderate machining

Hardness - toughness: 10 = hard....40 = tough

Order ID	Type	Ins.	Radius mm	Type	Code	P	M	N	M	F	XF	Price €
316750.0200	**VCGT**	**11**	**0.0**	TM-XF 10	VCGT 110300 TM-XF 10						●	13.50
316750.0350	**VCGT**	**11**	**0.1**	TM-XF 10	VCGT 110301 TM-XF 10						●	13.50
316750.0500	**VCMT**	**11**	**0.2**	TM-F 25	VCMT 110302 TM-F 25					●		10.30
316750.0650	**VCGT**	**11**	**0.2**	TN-F 15	VCGT 110302 TN-F 15					●		11.00
316750.0800	**VCGT**	**11**	**0.2**	TN-F 15C	VCGT 110302 TN-F 15C					●		12.90
316750.0950	**VCMT**	**11**	**0.2**	TP-F 25	VCMT 110302 TP-F 25					●		10.30
316750.1100	**VCMT**	**11**	**0.4**	TM-F 25	VCMT 110304 TM-F 25					●		10.30
316750.1250	**VCMT**	**11**	**0.4**	TM-M 25	VCMT 110304 TM-M 25				●			10.30
316750.1400	**VCMT**	**11**	**0.4**	TM-M 35	VCMT 110304 TM-M 35				●			10.30
316750.1550	**VCGT**	**11**	**0.4**	TN-M 15	VCGT 110304 TN-M 15				●	●		11.00
316750.1700	**VCGT**	**11**	**0.4**	TN-M 15C	VCGT 110304 TN-M 15C				●	●		12.90
316750.1850	**VCMT**	**11**	**0.4**	TP-F 25	VCMT 110304 TP-F 25					●		10.30
316750.2000	**VCMT**	**11**	**0.4**	TP-M 25	VCMT 110304 TP-M 25				●			10.30
316750.2150	**VCMT**	**11**	**0.4**	TP-M 35	VCMT 110304 TP-M 35				●			10.30
316750.2300	**VCMT**	**11**	**0.8**	TM-M 25	VCMT 110308 TM-M 25				●			10.30
316750.2450	**VCMT**	**11**	**0.8**	TM-M 35	VCMT 110308 TM-M 35				●			10.30
316750.2600	**VCMT**	**11**	**0.8**	TP-M 25	VCMT 110308 TP-M 25				●			10.30
316750.2750	**VCMT**	**11**	**0.8**	TP-M 35	VCMT 110308 TP-M 35				●			10.30
316750.2900	**VCGT**	**13**	**0.2**	TN-F 15	VCGT 130302 TN-F 15					●		11.60
316750.3050	**VCGT**	**13**	**0.2**	TN-F 15C	VCGT 130302 TN-F 15C					●		13.50
316750.3200	**VCGT**	**13**	**0.4**	TN-M 15	VCGT 130304 TN-M 15				●	●		11.60
316750.3350	**VCGT**	**13**	**0.4**	TN-M 15C	VCGT 130304 TN-M 15C				●	●		13.50
316750.3500	**VCGT**	**16**	**0.0**	TM-XF 10	VCGT 160400 TM-XF 10						●	14.40
316750.3650	**VCGT**	**16**	**0.1**	TM-XF 10	VCGT 160401 TM-XF 10						●	14.40
316750.3800	**VCMT**	**16**	**0.4**	TM-F 25	VCMT 160404 TM-F 25					●		12.20
316750.3950	**VCMT**	**16**	**0.4**	TM-M 25	VCMT 160404 TM-M 25				●			12.20
316750.4100	**VCGT**	**16**	**0.4**	TN-M 15	VCGT 160404 TN-M 15				●	●		12.40
316750.4250	**VCGT**	**16**	**0.4**	TN-M 15C	VCGT 160404 TN-M 15C				●	●		13.90
316750.4400	**VCMT**	**16**	**0.4**	TP-F 25	VCMT 160404 TP-F 25					●		12.20
316750.4550	**VCMT**	**16**	**0.4**	TP-M 25	VCMT 160404 TP-M 25				●			12.20
316750.4700	**VCMT**	**16**	**0.4**	TP-M 35	VCMT 160404 TP-M 35				●			12.20
316750.4850	**VCMT**	**16**	**0.8**	TM-M 25	VCMT 160408 TM-M 25				●			12.20
316750.5000	**VCGT**	**16**	**0.8**	TN-M 15	VCGT 160408 TN-M 15				●			12.40
316750.5150	**VCGT**	**16**	**0.8**	TN-M 15C	VCGT 160408 TN-M 15C				●			13.90
316750.5300	**VCMT**	**16**	**0.8**	TP-M 25	VCMT 160408 TP-M 25				●			12.20
316750.5450	**VCMT**	**16**	**0.8**	TP-M 35	VCMT 160408 TP-M 35				●			12.20
316750.5600	**VCGT**	**16**	**1.2**	TN-M 15	VCGT 160412 TN-M 15				●			12.40
316750.5750	**VCGT**	**16**	**1.2**	TN-M 15C	VCGT 160412 TN-M 15C				●			13.90

310915 Indexable insert CBN FUTURO

FUTURO

CBN, disposable insert

P	M	K	N	S	H	O
					●●	

Types:
M: Moderately hard, for finish machining of hard materials up **to 65 HRC**

Order ID	Code	Type	l mm	s mm	r mm	H	M	F	Price €
310915.0100	**CNMA 120402**	**M**	12.9	4.76	0.2			●	36.70
310915.0200	**CNMA 120404**	**M**	12.9	4.76	0.4			●	36.70
310915.0300	**CNMA 120408**	**M**	12.9	4.76	0.8		●		36.70

310900 Indexable insert CBN FUTURO

FUTURO

CBN, disposable insert

P	M	K	N	S	H	O
					●●	

Types:
M: Moderately hard, for finish machining of hard materials up **to 65 HRC**

Order ID	Code	Type	l mm	s mm	r mm	H	M	F	Price €
310900.0100	**DCMW 070202**	**M**	7.75	2.38	0.2			●	36.70
310900.0200	**DCMW 070204**	**M**	7.75	2.38	0.4			●	36.70
310900.0300	**DCMW 11T302**	**M**	11.6	3.97	0.2			●	36.70
310900.0400	**DCMW 11T304**	**M**	11.6	3.97	0.4			●	36.70

310905 Indexable insert CBN FUTURO

FUTURO

CBN, disposable insert

P	M	K	N	S	H	O
					●●	

Types:
M: Moderately hard, for finish machining of hard materials up **to 65 HRC**

Order ID	Code	Type	l mm	s mm	r mm	H	M	F	Price €
310905.0100	**CCMW 060202**	**M**	6.4	2.38	0.2			●	36.70
310905.0200	**CCMW 060204**	**M**	6.4	2.38	0.4			●	36.70
310905.0300	**CCMW 09T304**	**M**	9.7	3.97	0.4			●	36.70
310905.0400	**CCMW 09T308**	**M**	9.7	3.97	0.8		●		36.70

310920 Indexable insert CBN FUTURO

FUTURO

CBN, disposable insert

P	M	K	N	S	H	O
					●●	

Types:
M: Moderately hard, for finish machining of hard materials up **to 65 HRC**

Order ID	Code	Type	l mm	s mm	r mm	H	M	F	Price €
310920.0100	**DNMA 150604**	**M**	15.5	6.35	0.4			●	36.70
310920.0200	**DNMA 150608**	**M**	15.5	6.35	0.8		●		36.70

310910 Indexable insert CBN FUTURO

FUTURO

CBN, disposable insert

P	M	K	N	S	H	O
					●●	

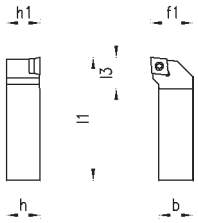
Types:
M: Moderately hard, for finish machining of hard materials up **to 65 HRC**

Order ID	Code	Type	l mm	s mm	r mm	H	M	F	Price €
310910.0100	**VBMW 160402**	**M**	16.6	4.76	0.2			●	37.80
310910.0200	**VBMW 160404**	**M**	16.6	4.76	0.4			●	37.80
310910.0300	**VBMW 160408**	**M**	16.6	4.76	0.8		●		37.80

FUTURO

310200 Tool holder SCLCR FUTURO

Angle of entry 95°, screw clamping, angle of cut 0°, angle of inclination 0°



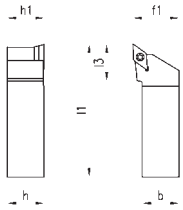
Corresponding inserts:
310905 Indexable insert CBN FUTURO CBN, disposable insert
316500 Indexable insert FUTURO Type CC.. 7° positive, Single-sided

Order ID	Turning plate	Code	b mm	f1 mm	h mm	h1 mm	l1 mm	l3 mm	Price €
310200.0100	**06**	**SCLCR 1010E06**	10	12	10	10	70	10	**70.30**
310200.0200	**09**	**SCLCR 1212F09**	12	16	12	12	80	16	**75.50**
310200.0300	**09**	**SCLCR 1616H09**	16	20	16	16	100	16	**77.40**
310200.0400	**09**	**SCLCR 2020K09**	20	25	20	20	125	16	**83.10**
310200.0500	**12**	**SCLCR 2020K12**	20	25	20	20	125	25	**83.10**
310200.0600	**12**	**SCLCR 2525M12**	25	32	25	25	150	25	**90.70**

FUTURO

310250 Tool holder SDJCR FUTURO

Adjustment angle 93°, screw clamping, angle of cut 0°, angle of inclination 0°



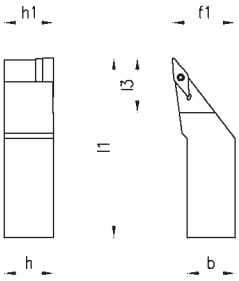
Corresponding inserts:
310900 Indexable insert CBN FUTURO CBN, disposable insert
316550 Indexable insert FUTURO Type DC.. 7° positive, single-sided

Order ID	Turning plate	Code	b mm	f1 mm	h mm	h1 mm	l1 mm	l3 mm	Price €
310250.0100	**07**	**SDJCR 1010E07**	10	12	10	10	70	16	**70.30**
310250.0200	**07**	**SDJCR 1212F07**	12	16	12	12	80	18	**75.50**
310250.0300	**07**	**SDJCR 1616H07**	16	20	16	16	100	22	**77.40**
310250.0400	**07**	**SDJCR 2020K07**	20	25	20	20	125	18	**83.10**
310250.0500	**11**	**SDJCR 1616H11**	16	20	16	16	100	22	**77.40**
310250.0600	**11**	**SDJCR 2020K11**	20	25	20	20	125	22	**83.10**
310250.0700	**11**	**SDJCR 2525M11**	25	32	25	25	150	22	**90.70**

FUTURO

310320 Tool holder SVJCR FUTURO

Angle of entry 93°, screw clamping, angle of cut 0°, angle of inclination 0°



Corresponding inserts:
316750 Indexable insert FUTURO Type VC.. 7° positive, single-sided, rhombic, 35°

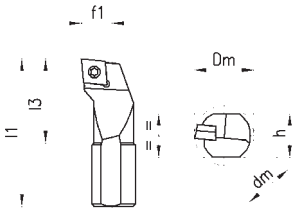
Notes: SVJCR...11: for insert thickness 3 mm.

Order ID	Turning plate	Code	b mm	f1 mm	h mm	h1 mm	l1 mm	l3 mm	Price €
310320.0100	**11**	**SVJCR 1212F11**	12	16	12	12	80	25	**83.10**
310320.0200	**11**	**SVJCR 1616H11**	16	20	16	16	100	25	**86.90**
310320.0300	**11**	**SVJCR 2020K11**	20	25	20	20	125	25	**97.40**
310320.0400	**16**	**SVJCR 2525M16**	25	32	25	25	150	37	**103.60**
310320.0500	**16**	**SVJCR 3225P16**	25	32	32	32	170	37	**124.00**

FUTURO

310350 Boring bar SCLCR FUTURO

Angle of entry 95°, screw clamping, steel boring bar, angle of cut 0°, angle of inclination -6° to -15°



Corresponding inserts:
310905 Indexable insert CBN FUTURO CBN, disposable insert
316500 Indexable insert FUTURO Type CC.. 7° positive, Single-sided

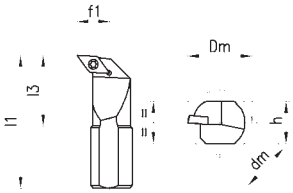
Order ID	Turning plate	Code	dm mm	Dm min. mm	f1 mm	h mm	l1 mm	l3 mm	Price €
310350.0100	**06**	**S08K SCLCR06**	8	11	5	7	125	16	**73.60**
310350.0200	**06**	**S10M SCLCR06**	10	13	7	9	150	25	**73.60**
310350.0300	**06**	**A12K SCLCR06**	12	16	9	11	125	25	**100.70**
310350.0400	**09**	**S16R SCLCR09**	16	20	11	15	200	30	**77.40**
310350.0500	**09**	**A20Q SCLCR09**	20	24	13	18	180	35	**117.30**
310350.0600	**09**	**A25R SCLCR09**	25	31	17	23	200	40	**127.30**

310400 Boring bar SDUCR FUTURO

Angle of entry 93°, screw clamping, steel boring bar, angle of cut 0°, angle of inclination -6° to -15°

Corresponding inserts:
310900 Indexable insert CBN FUTURO CBN, disposable insert
316550 Indexable insert FUTURO Type DC.. 7° positive, single-sided

Order ID	Turning plate	Code	dm mm	Dm min. mm	f1 mm	h mm	l1 mm	l3 mm	Price €
310400.0100	**07**	**S10M SDUCR07**	10	13	7	9	150	25	**73.60**
310400.0200	**07**	**A12K SDUCR07**	12	16	9	11	125	25	**100.70**
310400.0300	**07**	**A16M SDUCR07**	16	20	11	15	150	30	**106.90**
310400.0400	**11**	**A20Q SDUCR11**	20	24	13	18	180	35	**117.30**
310400.0500	**11**	**A25R SDUCR11**	25	31	17	23	200	40	**127.30**

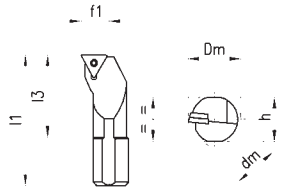


310450 Boring bar STFCR FUTURO

Angle of entry 90°, screw clamping, steel boring bar, angle of cut 0°, angle of inclination -6° to -15°

Corresponding inserts:
316700 Indexable insert FUTURO Type TC.. 7° positive, single-sided, triangular, 60°

Order ID	Turning plate	Code	dm mm	Dm min. mm	f1 mm	h mm	l1 mm	l3 mm	Price €
310450.0100	**11**	**A16M STFCR11**	16	20	11	15	150	30	**124.50**
310450.0200	**11**	**A20Q STFCR11**	20	24	13	18	180	35	**157.70**
310450.0300	**16**	**S25T STFCR16**	25	31	17	23	300	40	**120.70**



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MONO MACHINING 1 – 119

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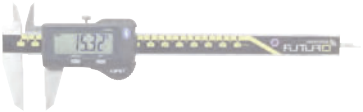
MEASUREMENT TECHNOLOGY  174 – 245

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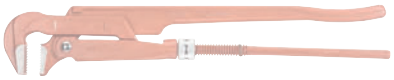
HAND- AND MOUNTING TOOLS  354 – 371

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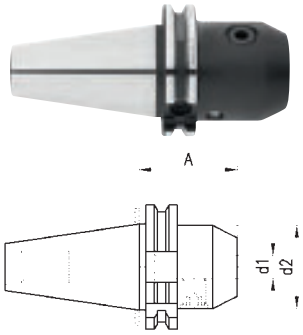
NERIOX



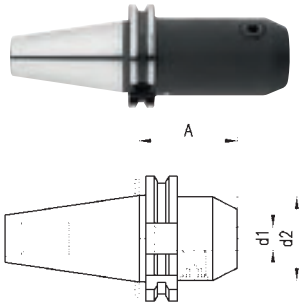
330601 End mill chuck NERIOX SK40

DIN 6359, DIN 69871, Form AD/B, balance quality G2.5/18'000 min^{-1}, short version.

Application: Holding tools with cylindrical shank and Weldon flat according to DIN 1835B.

Order ID	Cone	d1 mm	A mm	d2 mm	Price €
330601.0100	SK 40	6	50	25	39.80
330601.0200	SK 40	8	50	28	39.80
330601.0300	SK 40	10	50	35	37.20
330601.0400	SK 40	12	50	42	37.20
330601.0500	SK 40	14	50	44	37.20
330601.0600	SK 40	16	63	48	37.20
330601.0700	SK 40	18	63	50	37.20
330601.0800	SK 40	20	63	50	37.20
330601.0900	SK 40	25	100	62.5	43.60
330601.1000	SK 40	32	100	72	43.60

NERIOX



long design

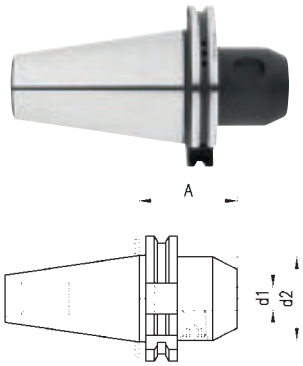
330611 End mill chuck NERIOX SK40, A=100

DIN 6359, DIN 69871, Form AD/B, balance quality G2.5/18'000 min^{-1}.

Application: Holding tools with cylindrical shank and Weldon flat according to DIN 1835B.

Order ID	Cone	d1 mm	A mm	d2 mm	Price €
330611.0100	SK 40	6	100	25	46.50
330611.0200	SK 40	8	100	28	46.50
330611.0300	SK 40	10	100	35	42.60
330611.0400	SK 40	12	100	42	42.60
330611.0500	SK 40	14	100	44	42.60
330611.0600	SK 40	16	100	48	42.60
330611.0700	SK 40	18	100	50	42.60
330611.0800	SK 40	20	100	52	42.60

NERIOX



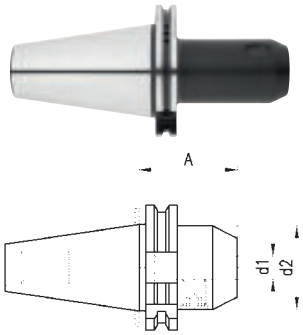
330631 End mill chuck NERIOX SK50

DIN 6359, DIN 69871, Form AD/B, balance quality G2.5/18'000 min^{-1}, short version.

Application: Holding tools with cylindrical shank and Weldon flat according to DIN 1835B.

Order ID	Cone	d1 mm	A mm	d2 mm	Price €
330631.0100	SK 50	6	63	25	57.30
330631.0200	SK 50	8	63	28	57.30
330631.0300	SK 50	10	63	35	54.80
330631.0400	SK 50	12	63	42	54.80
330631.0500	SK 50	14	63	44	54.80
330631.0600	SK 50	16	63	48	54.80
330631.0700	SK 50	18	63	50	54.80
330631.0800	SK 50	20	63	52	54.80
330631.0900	SK 50	25	80	65	61.30
330631.1000	SK 50	32	100	72	61.30

NERIOX



long design

330641 End mill chuck NERIOX SK50, A=100

DIN 6359, DIN 69871, Form AD/B, balance quality G2.5/18'000 min^{-1}.

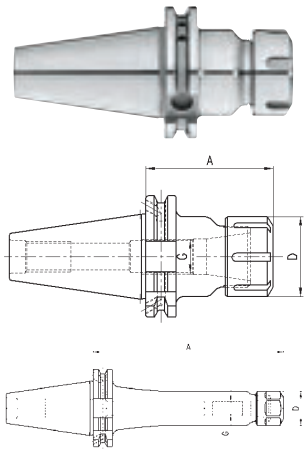
Application: Holding tools with cylindrical shank and Weldon flat according to DIN 1835B.

Order ID	Cone	d1 mm	A mm	d2 mm	Price €
330641.0100	SK 50	6	100	25	66.80
330641.0200	SK 50	8	100	28	66.80
330641.0300	SK 50	10	100	35	65.70
330641.0400	SK 50	12	100	42	65.70
330641.0500	SK 50	14	100	44	65.70
330641.0600	SK 50	16	100	48	65.70
330641.0700	SK 50	18	100	50	65.70
330641.0800	SK 50	20	100	52	65.70

331034 Draw-in collet chuck FUTURO

DIN 69871, Type AD/B, precision-balanced G2.5/ 25'000 min^{-1}.

Application: Clamping of tools with cylindrical shank in collet chuck type ER / ESX.
Version: With Balluff chip hole.



Package contents: With clamping nut, without key.

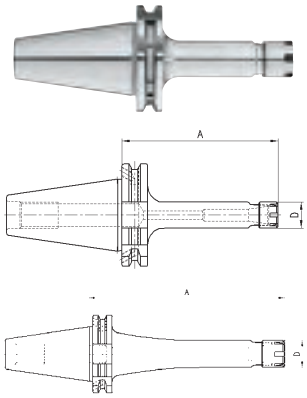
Order ID	Cone	Collet chucks	A mm	D mm	Clamping capacity mm	G	Price €
331034.0100	SK 40	ER16	70	28	0.5...10	M11x1	82.70
331034.0200	SK 40	ER16	100	28	0.5...10	M11x1	90.30
331034.0300	SK 40	ER16	160	28	0.5...10	M11x1	119.70
331034.0400	SK 40	ER16	200	28	0.5...10	M11x1	186.20
331034.0500	SK 40	ER20	70	34	0.5...13	M14x1	82.70
331034.0600	SK 40	ER20	100	34	0.5...13	M14x1	90.30
331034.0700	SK 40	ER25	70	42	0.5...16	M18x1.5	85.50
331034.0800	SK 40	ER25	100	42	0.5...16	M18x1.5	101.70
331034.0900	SK 40	ER25	160	42	0.5...16	M18x1.5	139.70
331034.1000	SK 40	ER25	200	42	0.5...16	M18x1.5	186.20
331034.1100	SK 40	ER32	70	50	1...20	M24x1.5	87.40
331034.1200	SK 40	ER32	100	50	1...20	M24x1.5	103.60
331034.1300	SK 40	ER32	160	50	1...20	M24x1.5	153.00
331034.1400	SK 40	ER32	200	50	1...20	M24x1.5	201.40
331034.1500	SK 40	ER40	70	63	2...30	M28x1.5	96.00
331034.1600	SK 40	ER40	100	63	2...30	M28x1.5	114.00
331034.1700	SK 40	ER40	160	63	2...30	M28x1.5	159.60

Note: ER16/ER20 with hexagon clamping nut

331036 Mini - Draw-in collet chuck FUTURO

DIN 69871, Type AD/B, precision-balanced G2.5/ 25'000 min^{-1}.

Application: Clamping of tools with cylindrical shank in collet chuck type ER / ESX.
Version: With Balluff chip hole.



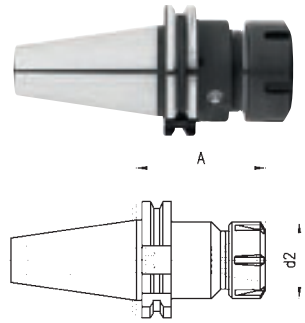
Package contents: With clamping nut, without key.

Order ID	Cone	Collet chucks	A mm	D mm	Clamping capacity mm	Price €
331036.0100	SK 40	ER11	100	16	0.5...7	159.60
331036.0200	SK 40	ER11	160	16	0.5...7	190.00
331036.0300	SK 40	ER16	100	22	0.5...10	159.60
331036.0400	SK 40	ER16	160	22	0.5...10	190.00
331036.0500	SK 40	ER25	100	35	0.5...16	159.60
331036.0600	SK 40	ER25	160	35	0.5...16	190.00

330701 ER collet chuck NERIOX SK40

DIN 69871, Form AD/B, balance quality G2.5/25'000 min^{-1}, short version

Application: clamping tools with cylindrical shank in the collet according to DIN 6499

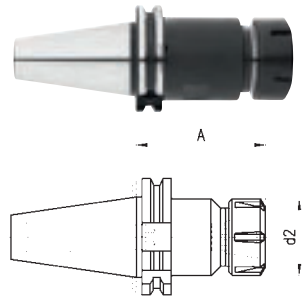


Order ID	Cone	Collet chucks	A mm	d2 mm	Clamping capacity mm	Price €
330701.0100	SK 40	ER 16	70	28	1-10	47.00
330701.0200	SK 40	ER 25	70	42	2-16	47.00
330701.0300	SK 40	ER 32	70	50	2-20	49.40
330701.0400	SK 40	ER 40	80	63	3-26	51.90

330711 ER collet chuck NERIOX SK40, A=100

DIN 69871, Form AD/B, balance quality G2.5/25'000 min^{-1}.

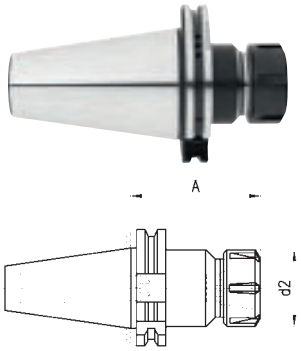
Application: clamping tools with cylindrical shank in the collet according to DIN 6499



Long version

Order ID	Cone	Collet chucks	A mm	d2 mm	Clamping capacity mm	Price €
330711.0100	SK 40	ER 16	100	28	1-10	52.90
330711.0200	SK 40	ER 25	100	42	2-16	59.20
330711.0300	SK 40	ER 32	100	50	2-20	59.20
330711.0400	SK 40	ER 40	100	63	3-36	65.60

NERIOX



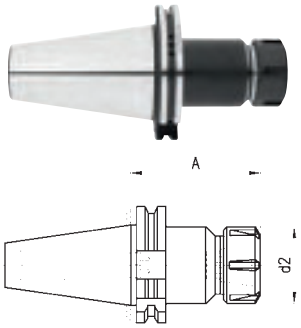
330731 ER collet chuck NERIOX SK50, A=70

DIN 69871, Form AD/B, balance quality G2.5/18'000 min^{-1}.

Application: clamping tools with cylindrical shank in the collet according to DIN 6499

Order ID	Cone	Collet chucks	A mm	d2 mm	Clamping capacity mm	Price €
330731.0100	**SK 50**	**ER 16**	63	28	1-10	**74.40**
330731.0200	**SK 50**	**ER 25**	70	42	2-16	**73.40**
330731.0300	**SK 50**	**ER 32**	70	50	2-20	**75.40**
330731.0400	**SK 50**	**ER 40**	80	63	3-26	**75.40**

NERIOX



Long version

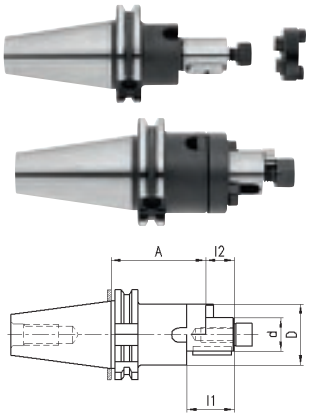
330741 ER collet chuck NERIOX SK50, A=100

DIN 69871, Form AD/B, balance quality G2.5/18'000 min^{-1}.

Application: clamping tools with cylindrical shank in the collet according to DIN 6499

Order ID	Cone	Collet chucks	A mm	d2 mm	Clamping capacity mm	Price €
330741.0100	**SK 50**	**ER 16**	100	28	1-10	**86.60**
330741.0200	**SK 50**	**ER 25**	100	42	2-16	**86.60**
330741.0300	**SK 50**	**ER 32**	100	50	2-20	**102.50**
330741.0400	**SK 50**	**ER 40**	100	63	3-26	**104.50**

NERIOX



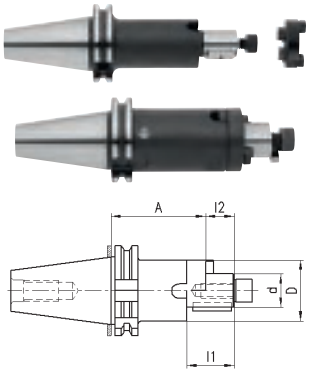
330801 Comb. shell mill arbour NERIOX SK40

DIN 6358, DIN 69871, Form A, balance quality G2.5/18'000 min^{-1}, short version.

Application: For shell end mills and cutters with indexable inserts.

Order ID	Cone	d mm	A mm	l1 mm	l2 mm	D mm	Price €
330801.0100	**SK 40**	**16**	55	27	17	32	**49.20**
330801.0200	**SK 40**	**22**	55	31	19	40	**50.40**
330801.0300	**SK 40**	**27**	55	33	21	48	**50.40**
330801.0400	**SK 40**	**32**	60	38	24	58	**55.80**
330801.0500	**SK 40**	**40**	60	41	27	70	**63.10**

NERIOX



330811 Comb. shell mill arbour NERIOX SK40

DIN 6358, DIN 69871, Form A, balance quality G2.5/18'000 min^{-1}.

Application: For shell end mills and cutters with indexable inserts.

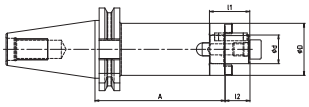
Order ID	Cone	d mm	A mm	l1 mm	l2 mm	D mm	Price €
330811.0100	**SK 40**	**16**	100	27	17	32	**61.70**
330811.0200	**SK 40**	**22**	100	31	19	40	**63.10**
330811.0300	**SK 40**	**27**	100	33	21	48	**64.40**
330811.0400	**SK 40**	**32**	100	38	24	58	**66.60**
330811.0500	**SK 40**	**40**	100	41	27	70	**75.20**

330821 Comb. shell mill arbour NERIOX SK50

DIN 6358, DIN 69871, Form A, balance quality G2.5/18'000 min^{-1}, short version.

Application: For shell end mills and cutters with indexable inserts.

Order ID	Cone	d mm	A mm	l1 mm	l2 mm	D mm	Price €
330821.0100	SK 50	16	55	27	17	32	74.90
330821.0200	SK 50	22	55	31	19	40	74.90
330821.0300	SK 50	27	55	33	21	48	76.00
330821.0400	SK 50	32	55	38	24	58	79.10
330821.0500	SK 50	40	55	41	27	70	87.20

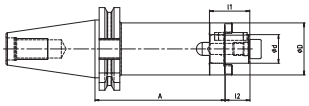


330831 Comb. shell mill arbour NERIOX SK50

DIN 6358, DIN 69871, Form A, balance quality G2.5/18'000 min^{-1}.

Application: For shell end mills and cutters with indexable inserts.

Order ID	Cone	d mm	A mm	l1 mm	l2 mm	D mm	Price €
330831.0100	SK 50	16	100	27	17	32	80.30
330831.0200	SK 50	22	100	31	19	40	80.30
330831.0300	SK 50	27	100	33	21	48	81.90
330831.0400	SK 50	32	100	38	24	58	82.90
330831.0500	SK 50	40	100	41	27	70	90.40

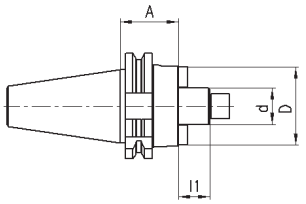


330841 Face mill holder NERIOX SK40

DIN6357, DIN 69871, Form AD/B, balance quality G2.5/18'000 min^{-1}.

Application: For shell end mills and cutters with indexable inserts.

Order ID	Cone	d mm	A mm	l1 mm	D mm	Price €
330841.0100	SK 40	16	35	17	38	49.00
330841.0200	SK 40	22	35	19	48	49.00
330841.0300	SK 40	27	40	21	58	50.00
330841.0400	SK 40	32	50	24	78	53.10
330841.0500	SK 40	40	50	27	88	64.40

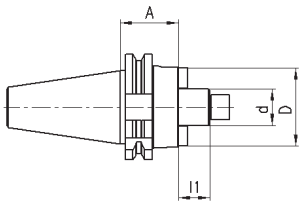


330851 Face mill holder NERIOX KKB SK40

DIN6357, DIN 69871, Form AD/B, balance quality G2.5/18'000 min^{-1}.

Application: For shell end mills and cutters with indexable inserts.

Order ID	Cone	d mm	A mm	l1 mm	D mm	Price €
330851.0100	SK 40	16	100	17	38	67.10
330851.0200	SK 40	22	100	19	48	67.10
330851.0300	SK 40	27	100	21	58	67.70
330851.0400	SK 40	32	100	24	78	73.40
330851.0500	SK 40	40	100	27	88	75.60

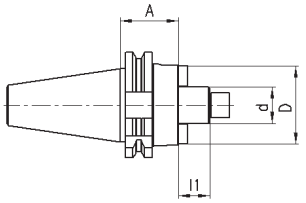


330871 Face mill holder NERIOX KKB SK50

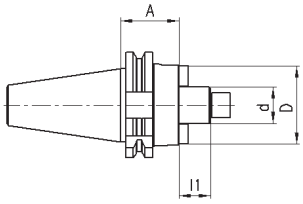
DIN6357, DIN 69871, Form AD/B, balance quality G2.5/18'000 min^{-1}.

Application: For shell end mills and cutters with indexable inserts.

Order ID	Cone	d mm	A mm	l1 mm	D mm	Price €
330871.0100	SK 50	22	44	19	48	64.40
330871.0200	SK 50	27	44	21	58	64.40
330871.0300	SK 50	32	40	24	78	68.50
330871.0400	SK 50	40	50	27	88	78.70



NERIOX



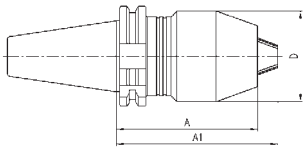
330881 Face mill holder NERIOX KKB SK50

DIN6357, DIN 69871, Form AD/B, balance quality G2.5/18'000 min^{-1}.

Application: For shell end mills and cutters with indexable inserts.

Order ID	Cone	d mm	A mm	l1 mm	D mm	Price €
330881.0100	**SK 50**	**22**	100	19	48	**95.60**
330881.0200	**SK 50**	**27**	100	21	58	**97.70**
330881.0300	**SK 50**	**32**	100	24	78	**99.80**
330881.0400	**SK 50**	**40**	100	27	88	**104.00**

FUTURO



331110 NC precision drill chucks FUTURO

DIN 69871, Type AD/B, precision-balanced G2.5/ 25'000 min^{-1}.

Concentricity ≤ 0.02 mm

Usage: tightening drilling tools with parallel shank.

Execution: Clamping security independent of rotational direction with high clamping force due to worm gear. Suitable for internal coolant passage.

Appropriate accessories:
424820 Hex bit screwdriver PB Swiss Tools

Package contents: without chuck key.

Order ID	Cone	Clamping capacity mm	A mm	A1 mm	D mm	g mm	Price €
331110.0100	**SK 40**	**0.5...16**	90	103	57	M16	**259.00**

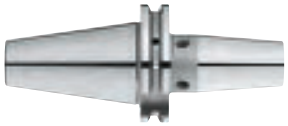
331061 Shrink chuck 4.5° FUTURO

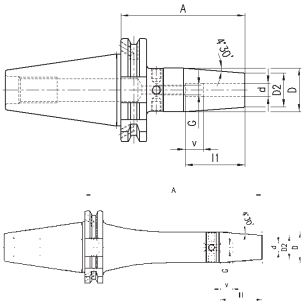
FUTURO

DIN 69871, Type AD/B, precision-balanced G2.5/ 25'000 min^{-1}.

Application: For clamping of tools with cylindrical shank made of carbide (or HSS starting from 6mm) with shank tolerance min. h6. Suitable for induction shrink-fit devices.

Version: Made of high-temperature tool steel, with Balluff chip hole.





Package contents: Starting from Ø 6mm with length adjusting screw installed.

Order ID	Cone	d mm	A mm	D mm	D2 mm	l1 mm	V mm	G	Price €
331061.0100	SK 40	3	80	17	12	-	-	-	139.00
331061.0200	SK 40	4	80	17	12	-	-	-	139.00
331061.0300	SK 40	5	80	17	12	-	-	-	139.00
331061.0400	SK 40	6	80	27	21	37	10	M5	107.50
331061.0500	SK 40	6	120	27	21	37	10	M5	142.00
331061.0600	SK 40	6	130	27	21	37	10	M5	142.00
331061.0700	SK 40	6	160	27	21	37	10	M5	156.00
331061.0800	SK 40	6	200	27	21	37	10	M5	177.00
331061.0900	SK 40	8	80	27	21	37	10	M6	107.50
331061.1000	SK 40	8	120	27	21	37	10	M6	142.00
331061.1100	SK 40	8	130	27	21	37	10	M6	142.00
331061.1200	SK 40	8	160	27	21	37	10	M6	156.00
331061.1300	SK 40	8	200	27	21	37	10	M6	177.00
331061.1400	SK 40	10	80	32	24	42	10	M8x1	107.50
331061.1500	SK 40	10	120	32	24	42	10	M8x1	142.00
331061.1600	SK 40	10	130	32	24	42	10	M8x1	142.00
331061.1700	SK 40	10	160	32	24	42	10	M8x1	156.00
331061.1800	SK 40	10	200	32	24	42	10	M8x1	177.00
331061.1900	SK 40	12	80	32	24	48	10	M10x1	107.50
331061.2000	SK 40	12	120	32	24	48	10	M10x1	142.00
331061.2100	SK 40	12	130	32	24	48	10	M10x1	142.00
331061.2200	SK 40	12	160	32	24	48	10	M10x1	156.00
331061.2300	SK 40	12	200	32	24	48	10	M10x1	177.00
331061.2400	SK 40	14	80	34	27	48	10	M10x1	107.50
331061.2500	SK 40	14	120	34	27	48	10	M10x1	142.00
331061.2600	SK 40	14	130	34	27	48	10	M10x1	142.00
331061.2700	SK 40	14	160	34	27	48	10	M10x1	156.00
331061.2800	SK 40	14	200	34	27	48	10	M10x1	177.00
331061.2900	SK 40	16	80	34	27	51	10	M12x1	107.50
331061.3000	SK 40	16	120	34	27	51	10	M12x1	142.00
331061.3100	SK 40	16	130	34	27	51	10	M12x1	142.00
331061.3200	SK 40	16	160	34	27	51	10	M12x1	156.00
331061.3300	SK 40	16	200	34	27	51	10	M12x1	177.00
331061.3400	SK 40	18	80	42	33	51	10	M12x1	107.50
331061.3500	SK 40	18	120	42	33	51	10	M12x1	142.00
331061.3600	SK 40	18	130	42	33	51	10	M12x1	142.00
331061.3700	SK 40	18	160	42	33	51	10	M12x1	156.00
331061.3800	SK 40	18	200	42	33	51	10	M12x1	177.00
331061.3900	SK 40	20	80	42	33	53	10	M16x1	107.50
331061.4000	SK 40	20	120	42	33	53	10	M16x1	142.00
331061.4100	SK 40	20	130	42	33	53	10	M16x1	142.00
331061.4200	SK 40	20	160	42	33	53	10	M16x1	156.00
331061.4300	SK 40	20	200	42	33	53	10	M16x1	177.00
331061.4400	SK 40	25	100	53	44	59	10	M16x1	107.50
331061.4500	SK 40	25	120	53	44	59	10	M16x1	142.00
331061.4600	SK 40	25	130	53	44	59	10	M16x1	142.00
331061.4700	SK 40	25	160	53	44	59	10	M16x1	156.00
331061.4800	SK 40	25	200	53	44	59	10	M16x1	177.00
331061.4900	SK 40	32	100	53	44	63	10	M16x1	107.50

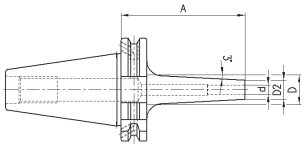
331063 Shrink chuck 3° „SLIM" FUTURO

FUTURO

DIN 69871, Type AD/B, precision-balanced G2.5/ 25'000 min^{-1}.

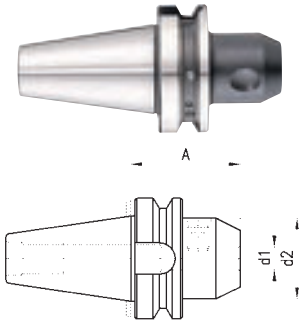
Application: For clamping of tools with cylindrical shank made of carbide (or HSS starting from 6mm) with shank tolerance min. h6. Suitable for induction shrink-fit devices.
For reduced obstacle contours especially in toolmaking.

Version: Made of high-temperature tool steel, with Balluff chip hole.
Extra slim version.



Order ID	Cone	d mm	A mm	D mm	D2 mm	l1 mm	Price €
331063.0100	SK 40	6	80	19	12	37	151.10
331063.0200	SK 40	6	120	23	12	37	185.30
331063.0300	SK 40	8	80	21	14	37	151.10
331063.0400	SK 40	8	120	25	14	37	185.30
331063.0500	SK 40	10	80	23	16	42	151.10
331063.0600	SK 40	10	120	27	16	42	185.30
331063.0700	SK 40	12	80	25	18	48	151.10
331063.0800	SK 40	12	120	29	18	48	185.30

NERIOX



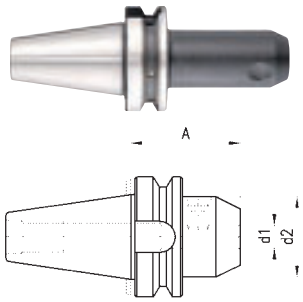
331343 End mill chuck NERIOX BT40

MAS-BT (JIS-B 6339), Form AD/B, balance quality G2.5/18'000 min^{-1}.

Application: Holding tools with cylindrical shank and Weldon flat according to DIN 1835B.

Order ID	Cone	d1 mm	A mm	d2 mm	Price €
331343.0100	BT 40	6	50	25	42.20
331343.0200	BT 40	8	50	28	42.20
331343.0300	BT 40	10	63	35	39.50
331343.0400	BT 40	12	63	42	39.50
331343.0500	BT 40	14	63	44	39.50
331343.0600	BT 40	16	63	48	39.50
331343.0700	BT 40	18	63	50	39.50
331343.0800	BT 40	20	63	52	39.50
331343.0900	BT 40	25	90	62.5	46.30
331343.1000	BT 40	32	100	72	46.30

NERIOX



long design

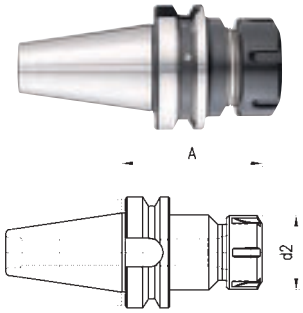
331345 End mill chuck NERIOX BT40, A=100

MAS-BT (JIS-B 6339), Form AD/B, balance quality G2.5/18'000 min^{-1}.

Application: Holding tools with cylindrical shank and Weldon flat according to DIN 1835B.

Order ID	Cone	d1 mm	A mm	d2 mm	Price €
331345.0100	BT 40	6	100	25	50.40
331345.0200	BT 40	8	100	28	50.40
331345.0300	BT 40	10	100	35	46.30
331345.0400	BT 40	12	100	42	46.30
331345.0500	BT 40	14	100	44	46.30
331345.0600	BT 40	16	100	48	46.30
331345.0700	BT 40	18	100	50	46.30
331345.0800	BT 40	20	100	52	55.30

NERIOX



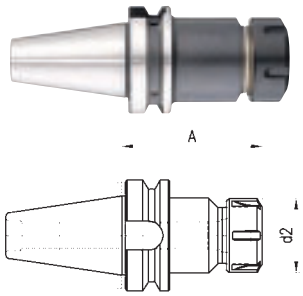
331347 ER collet chuck NERIOX BT40

MAS-BT (JIS-B 6339), Form AD/B, balance quality G2.5/25'000 min^{-1}.

Application: clamping tools with cylindrical shank in the collet according to DIN 6499

Order ID	Cone	Collet chucks	A mm	d2 mm	Clamping capacity mm	Price €
331347.0100	BT 40	ER 16	70	28	1...10	49.50
331347.0200	BT 40	ER 25	70	42	2...16	49.50
331347.0300	BT 40	ER 32	70	50	2...20	51.50
331347.0400	BT 40	ER 40	80	63	3...26	55.00

NERIOX



Long version

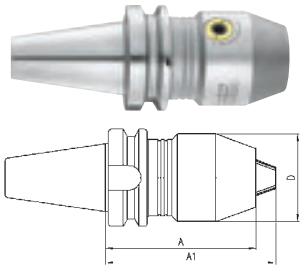
331349 ER collet chuck NERIOX BT40, A=100

MAS-BT (JIS-B 6339), Form AD/B, balance quality G2.5/25'000 min^{-1}.

Application: clamping tools with cylindrical shank in the collet according to DIN 6499

Order ID	Cone	Collet chucks	A mm	d2 mm	Clamping capacity mm	Price €
331349.0100	BT 40	ER 16	100	28	1...10	58.50
331349.0200	BT 40	ER 25	100	42	2...16	58.50
331349.0300	BT 40	ER 32	100	50	2...20	61.50
331349.0400	BT 40	ER 40	100	63	3...36	70.50

FUTURO



331355 NC precision drill chucks FUTURO

MAS-BT, form AD, balanced G2.5/ 25'000 min^{-1}.

Concentricity ≤ 0.02 mm

Usage: tightening drilling tools with parallel shank.
Execution: Clamping security independent of rotational direction with high clamping force due to worm gear. Suitable for internal coolant passage.

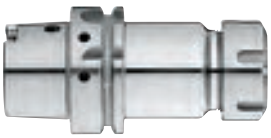
Package contents: without chuck key.

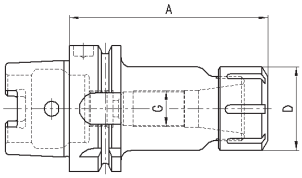
Order ID	Cone	Clamping capacity mm	A mm	A1 mm	D mm	g mm	Price €
331355.0100	BT 40	0.5...16	98	111	57	M16	298.30

331512 Collet chuck FUTURO

DIN 69893, Type A, precision-balanced G2.5/ 25'000 min^{-1}.

Application: Clamping of tools with cylindrical shank in collet chuck type ER / ESX.
Version: With Balluff chip hole.





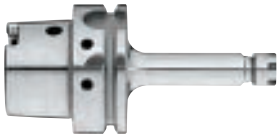
Package contents: With clamping nut, without key.

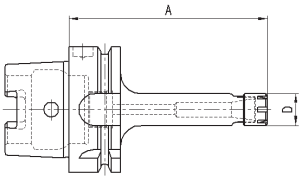
Order ID	Cone	Collet chucks	A mm	D mm	Clamping capacity mm	G	Price €
331512.0100	**HSK-A 63**	**ER11**	**75**	20	0.5...7	M8x1	**131.00**
331512.0200	**HSK-A 63**	**ER16**	**75**	28	0.5...10	M11x1	**111.00**
331512.0300	**HSK-A 63**	**ER16**	**100**	28	0.5...10	M11x1	**118.00**
331512.0350	**HSK-A 63**	**ER16**	**130**	28	0.5...10	M11x1	**135.00**
331512.0400	**HSK-A 63**	**ER16**	**160**	28	0.5...10	M11x1	**131.00**
331512.0450	**HSK-A 63**	**ER16**	**200**	28	0.5...10	M11x1	**155.00**
331512.0500	**HSK-A 63**	**ER25**	**75**	42	0.5...16	M18x1.5	**111.00**
331512.0600	**HSK-A 63**	**ER25**	**100**	42	0.5...16	M18x1.5	**126.00**
331512.0650	**HSK-A 63**	**ER25**	**130**	42	0.5...16	M18x1.5	**133.00**
331512.0700	**HSK-A 63**	**ER25**	**160**	42	0.5...16	M18x1.5	**139.00**
331512.0750	**HSK-A 63**	**ER25**	**200**	42	0.5...16	M18x1.5	**155.00**
331512.0800	**HSK-A 63**	**ER32**	**75**	50	1...20	M24x1.5	**114.00**
331512.0900	**HSK-A 63**	**ER32**	**100**	50	1...20	M24x1.5	**131.00**
331512.0950	**HSK-A 63**	**ER32**	**130**	50	1...20	M24x1.5	**135.00**
331512.1000	**HSK-A 63**	**ER32**	**160**	50	1...20	M24x1.5	**155.00**
331512.1050	**HSK-A 63**	**ER32**	**200**	50	1...20	M24x1.5	**155.00**
331512.1100	**HSK-A 63**	**ER40**	**85**	63	2...30	M28x1.5	**135.00**
331512.1200	**HSK-A 63**	**ER40**	**120**	63	2...30	M28x1.5	**139.00**
331512.1250	**HSK-A 63**	**ER40**	**130**	63	2...30	M28x1.5	**139.00**
331512.1300	**HSK-A 63**	**ER40**	**160**	63	2...30	M28x1.5	**179.00**

331513 Mini - collet chuck FUTURO

DIN 69893, Type A, precision-balanced G2.5/ 25'000 min^{-1}.

Application: Clamping of tools with cylindrical shank in collet chuck type ER / ESX.
Version: With Balluff chip hole.





Package contents: With clamping nut, without key.

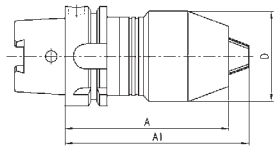
Order ID	Cone	Collet chucks	A mm	D mm	Clamping capacity mm	Price €
331513.0050	**HSK-A 63**	**ER11**	**70**	16	0.5...7	**173.85**
331513.0100	**HSK-A 63**	**ER11**	**100**	16	0.5...7	**219.50**
331513.0150	**HSK-A 63**	**ER11**	**130**	16	0.5...7	**190.95**
331513.0200	**HSK-A 63**	**ER11**	**160**	16	0.5...7	**248.90**
331513.0250	**HSK-A 63**	**ER16**	**70**	22	0.5...10	**173.85**
331513.0300	**HSK-A 63**	**ER16**	**100**	22	0.5...10	**219.50**
331513.0350	**HSK-A 63**	**ER16**	**130**	22	0.5...10	**190.95**
331513.0400	**HSK-A 63**	**ER16**	**160**	22	0.5...10	**248.90**
331513.0420	**HSK-A 63**	**ER20**	**100**	28	0.5...13	**219.50**
331513.0425	**HSK-A 63**	**ER20**	**130**	28	0.5...13	**190.95**
331513.0430	**HSK-A 63**	**ER20**	**160**	28	0.5...13	**248.90**
331513.0500	**HSK-A 63**	**ER25**	**100**	35	0.5...16	**219.50**
331513.0550	**HSK-A 63**	**ER25**	**130**	35	0.5...16	**190.95**
331513.0600	**HSK-A 63**	**ER25**	**160**	35	0.5...16	**248.90**

331545 NC precision drill chucks FUTURO

DIN 69893, Type A, precision-balanced G2.5/ 25'000 min^{-1}.

Concentricity ≤ 0.02 mm

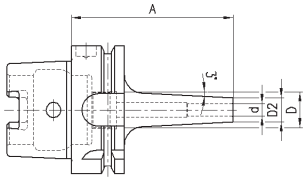
Usage: tightening drilling tools with parallel shank.
Execution: Clamping security independent of rotational direction with high clamping force due to worm gear. Suitable for internal coolant passage.



Package contents: without chuck key.

Order ID	Cone	Clamping capacity mm	A mm	A1 mm	D mm	Price €
331545.0100	**HSK-A 63**	**0.5...16**	104	117	57	**383.80**

FUTURO



331523 Shrink chuck 3° „SLIM“ FUTURO

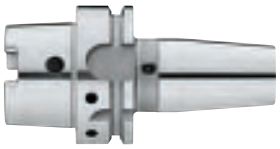
DIN 69893, Type A, precision-balanced G2.5/ 25'000 min-1.

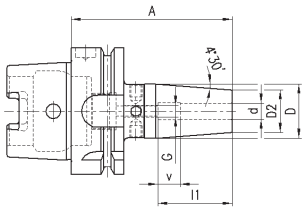
Application: For clamping of tools with cylindrical shank made of carbide (or HSS starting from 6mm) with shank tolerance min. h6. Suitable for induction shrink-fit devices.
For reduced obstacle contours especially in toolmaking.

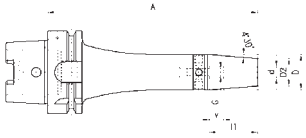
Version: Made of high-temperature tool steel, with Balluff chip hole.
Extra slim version.

Order ID	Cone	d mm	A mm	D mm	D2 mm	l1 mm	Price €
331523.0010	HSK-A 63	3	80	14	9	-	165.00
331523.0020	HSK-A 63	3	120	18	9	-	188.00
331523.0030	HSK-A 63	4	80	15	10	-	165.00
331523.0040	HSK-A 63	4	120	19	10	-	188.00
331523.0050	HSK-A 63	5	80	16	11	-	165.00
331523.0060	HSK-A 63	5	120	20	11	-	188.00
331523.0100	HSK-A 63	6	80	18	12	37	165.00
331523.0200	HSK-A 63	6	120	22	12	37	188.00
331523.0300	HSK-A 63	8	80	20	14	37	165.00
331523.0400	HSK-A 63	8	120	24	14	37	188.00
331523.0500	HSK-A 63	10	80	22	16	42	165.00
331523.0600	HSK-A 63	10	120	26	16	42	188.00
331523.0700	HSK-A 63	12	80	24	18	48	165.00
331523.0800	HSK-A 63	12	120	28	18	48	188.00

FUTURO







331521 Shrink chuck 4.5° FUTURO

DIN 69893, Type A, precision-balanced G2.5/ 25'000 min-1.

Application: For clamping of tools with cylindrical shank made of carbide (or HSS starting from 6mm) with shank tolerance min. h6. Suitable for induction shrink-fit devices.

Version: Made of high-temperature tool steel, with Balluff chip hole.

Package contents: Starting from Ø 6mm with length adjusting screw installed.

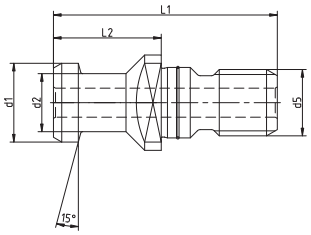
Order ID	Cone	d mm	A mm	D mm	D2 mm	l1 mm	V mm	G	Price €
331521.0100	HSK-A 63	3	80	17	12	-	-	-	165.00
331521.0200	HSK-A 63	3	120	17	12	-	-	-	234.00
331521.0300	HSK-A 63	3	160	17	12	-	-	-	248.00
331521.0400	HSK-A 63	4	80	17	12	-	-	-	165.00
331521.0500	HSK-A 63	4	120	17	12	-	-	-	234.00
331521.0600	HSK-A 63	4	160	17	12	-	-	-	248.00
331521.0700	HSK-A 63	5	80	17	12	-	-	-	165.00
331521.0800	HSK-A 63	5	120	17	12	-	-	-	234.00
331521.0900	HSK-A 63	5	160	17	12	-	-	-	248.00
331521.1000	HSK-A 63	6	80	27	21	37	10	M5	135.00
331521.1100	HSK-A 63	6	120	27	21	37	10	M5	181.00
331521.1200	HSK-A 63	6	130	27	21	37	10	M5	181.00
331521.1300	HSK-A 63	6	160	27	21	37	10	M5	197.00
331521.1400	HSK-A 63	6	200	27	21	37	10	M5	233.00
331521.1500	HSK-A 63	8	80	27	21	37	10	M6	135.00
331521.1600	HSK-A 63	8	120	27	21	37	10	M6	181.00
331521.1700	HSK-A 63	8	130	27	21	37	10	M6	181.00
331521.1800	HSK-A 63	8	160	27	21	37	10	M6	197.00
331521.1900	HSK-A 63	8	200	27	21	37	10	M6	233.00
331521.2000	HSK-A 63	10	85	32	24	42	10	M8x1	135.00
331521.2100	HSK-A 63	10	120	32	24	42	10	M8x1	181.00
331521.2200	HSK-A 63	10	130	32	24	42	10	M8x1	181.00
331521.2300	HSK-A 63	10	160	32	24	42	10	M8x1	197.00
331521.2400	HSK-A 63	10	200	32	24	42	10	M8x1	233.00
331521.2500	HSK-A 63	12	90	32	24	48	10	M10x1	135.00
331521.2600	HSK-A 63	12	120	32	24	48	10	M10x1	181.00
331521.2700	HSK-A 63	12	130	32	24	48	10	M10x1	181.00
331521.2800	HSK-A 63	12	160	32	24	48	10	M10x1	197.00
331521.2900	HSK-A 63	12	200	32	24	48	10	M10x1	233.00
331521.3000	HSK-A 63	14	90	34	27	48	10	M10x1	135.00
331521.3100	HSK-A 63	14	120	34	27	48	10	M10x1	181.00
331521.3200	HSK-A 63	14	130	34	27	48	10	M10x1	181.00
331521.3300	HSK-A 63	14	160	34	27	48	10	M10x1	197.00
331521.3400	HSK-A 63	14	200	34	27	48	10	M10x1	233.00
331521.3500	HSK-A 63	16	95	34	27	51	10	M12x1	135.00
331521.3600	HSK-A 63	16	120	34	27	51	10	M12x1	181.00
331521.3700	HSK-A 63	16	130	34	27	51	10	M12x1	181.00
331521.3800	HSK-A 63	16	160	34	27	51	10	M12x1	197.00
331521.3900	HSK-A 63	16	200	34	27	51	10	M12x1	233.00
331521.4000	HSK-A 63	18	95	42	33	51	10	M12x1	135.00
331521.4100	HSK-A 63	18	120	42	33	51	10	M12x1	181.00
331521.4200	HSK-A 63	18	130	42	33	51	10	M12x1	181.00
331521.4300	HSK-A 63	18	160	42	33	51	10	M12x1	197.00
331521.4400	HSK-A 63	18	200	42	33	51	10	M12x1	233.00
331521.4500	HSK-A 63	20	100	42	33	53	10	M16x1	135.00
331521.4600	HSK-A 63	20	120	42	33	53	10	M16x1	181.00
331521.4700	HSK-A 63	20	130	42	33	53	10	M16x1	181.00
331521.4800	HSK-A 63	20	160	42	33	53	10	M16x1	197.00
331521.4900	HSK-A 63	20	200	42	33	53	10	M16x1	233.00
331521.5000	HSK-A 63	25	115	53	44	59	10	M16x1	135.00
331521.5100	HSK-A 63	25	160	53	44	59	10	M16x1	197.00
331521.5200	HSK-A 63	25	200	53	44	59	10	M16x1	233.00
331521.5300	HSK-A 63	32	120	53	44	63	10	M16x1	145.00

333111 Pull stud NERIOX DIN 69872 form A

DIN69872A

With bore, sealed.

Order ID	for cone	d1 mm	d2 mm	Alpha	L1 mm	L2 mm	d5 mm	Price €
333111.0100	**SK 40**	19	14	15°	54	26	M16	8.50
333111.0200	**SK 50**	28	21	15°	74	34	M24	11.90

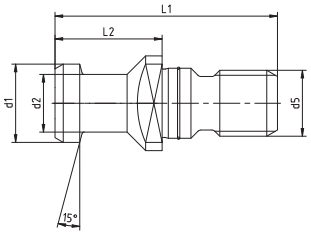


333121 Pull stud NERIOX DIN 69872 form B

DIN69872B

Without hole, sealed.

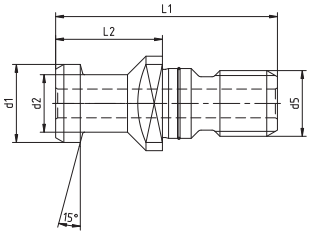
Order ID	for cone	d1 mm	d2 mm	Alpha	L1 mm	L2 mm	d5 mm	Price €
333121.0100	**SK 40**	19	14	15°	26	26	M16	10.50
333121.0200	**SK 50**	28	21	15°	34	34	M24	12.90



333126 Pull stud NERIOX Mori-Seiki L2=26

With hole Ø 7 mm, sealed.

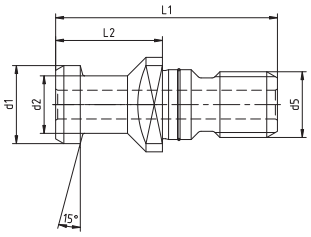
Order ID	for cone	d1 mm	d2 mm	Alpha	L1 mm	L2 mm	d5 mm	Price €
333126.0100	**SK 40**	19	14	15°	54	26	M16	10.10



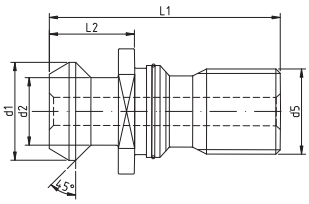
333131 Pull stud NERIOX Mori-Seiki L2=29

With hole Ø 7 mm, sealed.

Order ID	for cone	d1 mm	d2 mm	Alpha	L1 mm	L2 mm	d5 mm	Price €
333131.0100	**SK 40**	19	14	15°	54	29	M16	10.60



NERIOX



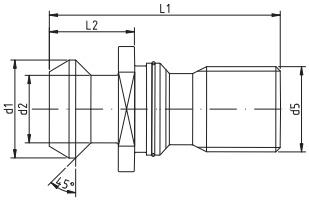
333141 Pull stud NERIOX ISO 7388/ II Type B

ISO 7388 B

With bore, sealed.

Order ID	for cone	d1 mm	d2 mm	Alpha	L1 mm	L2 mm	d5 mm	Price €
333141.0100	**SK 40**	18.95	12.95	45°	44.5	16.4	M16	8.60
333141.0200	**SK 50**	29.1	19.6	45°	65.5	25.5	M24	8.60

NERIOX



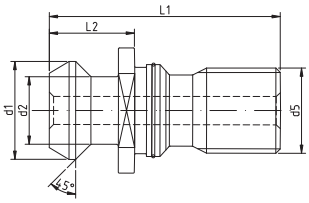
333146 Pull stud NERIOX ISO 7388/ II form B

ISO 7388 B

Without hole, sealed.

Order ID	for cone	d1 mm	d2 mm	Alpha	L1 mm	L2 mm	d5 mm	Price €
333146.0100	**SK 40**	18.95	12.95	45°	44.5	16.4	M16	10.50
333146.0200	**SK 50**	29.1	19.6	45°	65.5	25.5	M24	12.90

NERIOX



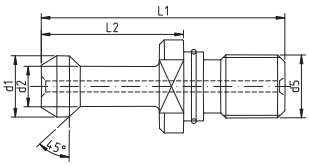
333151 Pull stud NERIOX for Mazak

CAT

With hole Ø 6 mm, sealed.

Order ID	for cone	d1 mm	d2 mm	Alpha	L1 mm	L2 mm	d5 mm	Price €
333151.0100	**SK 40**	18.8	12.95	45°	41.25	16.4	M16	9.80

NERIOX



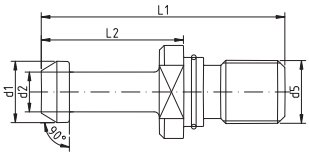
333176 Pull stud 45° NERIOX for JIS B 6339

MAS BT I

With hole, sealed.

Order ID	for cone	d1 mm	d2 mm	Alpha	L1 mm	L2 mm	d5 mm	Price €
333176.0100	**BT 40**	15	10	45°	60	35	M16	11.10
333176.0200	**BT 50**	23	17	45°	85	45	M24	11.10

NERIOX



333191 Pull stud 90° NERIOX for JIS B 6339

MAS BT

Without hole, sealed.

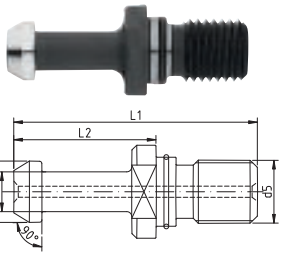
Order ID	for cone	d1 mm	d2 mm	Alpha	L1 mm	L2 mm	d5 mm	Price €
333191.0100	**BT 40**	15	10	90°	60	35	M16	11.10
333191.0200	**BT 50**	23	17	90°	85	45	M24	11.10

333196 Pull stud 90° NERIOX for JIS B 6339

MAS BT

With hole, sealed.

Order ID	for cone	d1 mm	d2 mm	Alpha	L1 mm	L2 mm	d5 mm	Price €
333196.0100	**BT 40**	15	10	90°	60	35	M16	11.10
333196.0200	**BT 50**	23	17	90°	85	45	M24	16.00

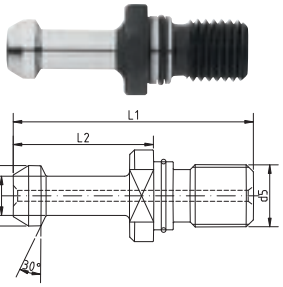


333186 Pull stud 30° NERIOX JIS-B 6339

MAS BT II

With hole, sealed.

Order ID	for cone	d1 mm	d2 mm	Alpha	L1 mm	L2 mm	d5 mm	Price €
333186.0100	**BT 40**	15	10	30°	60	35	M16	11.10
333186.0200	**BT 50**	23	17	30°	85	45	M24	16.00

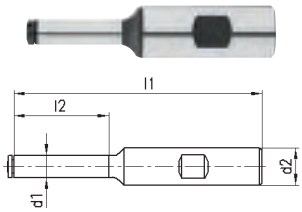


218701 Saw blade holder NERIOX

Is part of:
218706 Saw blade holders set NERIOX

Appropriate spare parts:
218711 Replacement washer NERIOX
218716 Replacement screw NERIOX

Order ID	for mm	for saw blade Ø mm	Clamping Ø mm	d2 mm	d1 mm	d3 mm	d4 mm	l1 mm	l2 mm	Price €
218701.0100	**20**	**20**	5	20	10			90	32	76.40
218701.0200	**25**	**25**	8	20	13			100	42	76.40
218701.0300	**32**	**32**	8	20	16			105	53	76.40
218701.0400	**40**	**40**	10	20	19.5			110	59	76.40
218701.0500	**50**	**50**	13	25	24.5			136	77	76.40
218701.0600	**63**	**63**	16	25	24.5			136	77	76.40
218701.0700	**80**	**80**	22	25	34			150	92	132.80
218701.0800	**100**	**100**	22	25	39.5			150	92	132.80



218706 Saw blade holders set NERIOX

Set consisting of saw blade holders diameters 20 - 63 incl. wooden case.

Consisting of:
218701.0100: 1 pieces Saw blade holder NERIOX 20
218701.0200: 1 pieces Saw blade holder NERIOX 25
218701.0300: 1 pieces Saw blade holder NERIOX 32
218701.0400: 1 pieces Saw blade holder NERIOX 40
218701.0500: 1 pieces Saw blade holder NERIOX 50
218701.0600: 1 pieces Saw blade holder NERIOX 63

Appropriate spare parts:
218711 Replacement washer NERIOX
218716 Replacement screw NERIOX

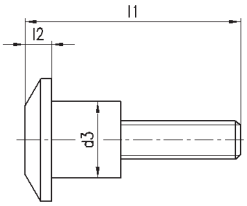
Order ID	for mm	for saw blade Ø mm	Price €
218706.0100		**20 - 63**	525.00

218711 Replacement washer NERIOX

Suitable for:
218701 Saw blade holder NERIOX
218706 Saw blade holders set NERIOX

Order ID	for mm	Price €
218711.0100	**20**	12.95
218711.0200	**25**	12.95
218711.0300	**32**	12.95
218711.0400	**40**	12.95
218711.0500	**50**	12.95
218711.0600	**63**	12.95
218711.0700	**80**	27.40
218711.0800	**100**	27.40

NERIOX

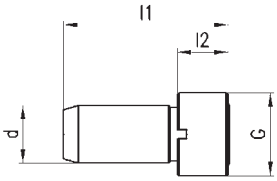


218716 Replacement screw NERIOX

Suitable for:
218701 Saw blade holder NERIOX
218706 Saw blade holders set NERIOX

Order ID	for mm	d3 mm	l1 mm	l2 mm	Price €
218716.0100	**20**	5	31	3	**24.10**
218716.0200	**25**	8	35	3	**24.10**
218716.0300	**32**	8	35	3	**24.10**
218716.0400	**40**	10	46	3	**24.10**
218716.0500	**50**	10	46	4	**24.10**
218716.0600	**63**	13	50	4	**24.10**
218716.0700	**80**	16	52	4	**34.80**
218716.0800	**100**	16	52	4	**34.80**

NERIOX



333201 Coolant transfer tube NERIOX

DIN 69893, Form A+E

for tool holders DIN 69893

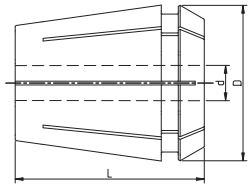
Order ID	Type	G	d mm	l2 mm	l1 mm	Price €
333201.0100	**HSK-25**	M 8x1	5	4.5	17	**12.10**
333201.0200	**HSK-32**	M 10x1	6	5.5	26	**10.80**
333201.0300	**HSK-40**	M 12x1	8	7.5	29.5	**10.80**
333201.0400	**HSK-50**	M 16x1	10	9.5	33	**10.80**
333201.0500	**HSK-63**	M 18x1	12	11.5	36.5	**10.80**
333201.0600	**HSK-80**	M 20x1.5	14	13.5	40	**12.10**
333201.0700	**HSK-100**	M 24x1.5	16	15.5	44	**12.10**

339201 Collet chuck NERIOX ER

DIN 6499

Type ER Standard

Application: For drilling, milling, reaming and thread cutting, as well as grinding.
Concentricity precision: ≤ 10 µm over the entire clamping range.



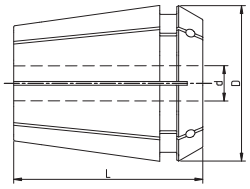
Order ID	Type	d mm	Range mm	L mm	D mm	Price €
339201.0010	ER 11	1	1…0.5	18	11.5	17.20
339201.0020	ER 11	2	1…1.5	18	11.5	17.20
339201.0030	ER 11	3	3…2.5	18	11.5	17.20
339201.0040	ER 11	4	4…3.5	18	11.5	17.20
339201.0050	ER 11	5	5…4.5	18	11.5	17.20
339201.0060	ER 11	6	6…5.5	18	11.5	17.20
339201.0070	ER 11	7	7…6.5	18	11.5	17.20
339201.0080	ER 16	1	1…0.5	27.5	17	20.20
339201.0090	ER 16	2	2…1.5	27.5	17	20.20
339201.0100	ER 16	3	3…2	27.5	17	16.50
339201.0110	ER 16	4	4…3	27.5	17	16.50
339201.0120	ER 16	5	5…4	27.5	17	16.50
339201.0130	ER 16	6	6…5	27.5	17	16.50
339201.0140	ER 16	7	7…6	27.5	17	16.50
339201.0150	ER 16	8	8…7	27.5	17	16.50
339201.0160	ER 16	9	9…8	27.5	17	16.50
339201.0170	ER 16	10	10…9	27.5	17	16.50
339201.0175	ER 20	1	1…0.5	31.5	21	21.10
339201.0180	ER 20	2	2…1.5	31.5	21	21.10
339201.0190	ER 20	3	3…2	31.5	21	17.20
339201.0200	ER 20	4	4…3	31.5	21	17.20
339201.0210	ER 20	5	5…4	31.5	21	17.20
339201.0220	ER 20	6	6…5	31.5	21	17.20
339201.0230	ER 20	7	7…6	31.5	21	17.20
339201.0240	ER 20	8	8…7	31.5	21	17.20
339201.0250	ER 20	9	9…8	31.5	21	17.20
339201.0260	ER 20	10	10…9	31.5	21	17.20
339201.0270	ER 20	11	11…10	31.5	21	17.20
339201.0280	ER 20	12	12…11	31.5	21	17.20
339201.0290	ER 20	13	13…12	31.5	21	17.20
339201.0295	ER 25	1	1…0.5	34	26	17.20
339201.0300	ER 25	2	2…1.5	34	26	21.80
339201.0310	ER 25	3	3…2	34	26	17.40
339201.0320	ER 25	4	4…3	34	26	17.40
339201.0330	ER 25	5	5…4	34	26	17.40
339201.0340	ER 25	6	6…5	34	26	17.40
339201.0350	ER 25	7	7…6	34	26	17.40
339201.0360	ER 25	8	8…7	34	26	17.40
339201.0370	ER 25	9	9…8	34	26	17.40
339201.0380	ER 25	10	10…9	34	26	17.40
339201.0390	ER 25	11	11…10	34	26	17.40
339201.0400	ER 25	12	12…11	34	26	17.40
339201.0410	ER 25	13	13…12	34	26	17.40
339201.0420	ER 25	14	14…13	34	26	17.40
339201.0430	ER 25	15	15…14	34	26	17.40
339201.0440	ER 25	16	16…15	34	26	17.40
339201.0445	ER 32	2	2…1.5	40	33	17.40
339201.0450	ER 32	3	3…2	40	33	18.60
339201.0460	ER 32	4	4…3	40	33	18.60
339201.0470	ER 32	5	5…4	40	33	18.60
339201.0480	ER 32	6	6…5	40	33	18.60
339201.0490	ER 32	7	7…6	40	33	18.60
339201.0500	ER 32	8	8…7	40	33	18.60
339201.0510	ER 32	9	9…8	40	33	18.60
339201.0520	ER 32	10	10…9	40	33	18.60
339201.0530	ER 32	11	11…10	40	33	18.60
339201.0540	ER 32	12	12…11	40	33	18.60
339201.0550	ER 32	13	13…12	40	33	18.60
339201.0560	ER 32	14	14…13	40	33	18.60
339201.0570	ER 32	15	15…14	40	33	18.60
339201.0580	ER 32	16	16…15	40	33	18.60
339201.0590	ER 32	17	17…16	40	33	18.60
339201.0600	ER 32	18	18…17	40	33	18.60
339201.0610	ER 32	19	19…18	40	33	18.60
339201.0620	ER 32	20	20…19	40	33	18.60
339201.0625	ER 40	3	3…2.5	46	41	18.60
339201.0630	ER 40	4	4…3	46	41	22.60
339201.0640	ER 40	5	5…4	46	41	22.60
339201.0650	ER 40	6	6…5	46	41	22.60
339201.0660	ER 40	7	7…6	46	41	22.60
339201.0670	ER 40	8	8…7	46	41	22.60
339201.0680	ER 40	9	9…8	46	41	22.60
339201.0690	ER 40	10	10…9	46	41	22.60
339201.0700	ER 40	11	11…10	46	41	22.60
339201.0710	ER 40	12	12…11	46	41	22.60
339201.0720	ER 40	13	13…12	46	41	22.60
339201.0730	ER 40	14	14…13	46	41	22.60
339201.0740	ER 40	15	15…14	46	41	22.60
339201.0750	ER 40	16	16…15	46	41	22.60
339201.0760	ER 40	17	17…16	46	41	22.60
339201.0770	ER 40	18	18…17	46	41	22.60
339201.0780	ER 40	19	19…18	46	41	22.60
339201.0790	ER 40	20	20…19	46	41	22.60
339201.0800	ER 40	21	21…20	46	41	22.60
339201.0810	ER 40	22	22…21	46	41	22.60
339201.0820	ER 40	23	23…22	46	41	22.60
339201.0830	ER 40	24	24…23	46	41	22.60
339201.0840	ER 40	25	25…24	46	41	22.60
339201.0850	ER 40	26	26…25	46	41	22.60

NERIOX

339203 Collet chuck NERIOX ER sealed

DIN 6499

Type ER Standard



Application: For drilling, milling, reaming and thread cutting, as well as grinding.
Concentricity precision: ≤ 10 µm over the entire clamping range.

Order ID	Type	d mm	Range mm	D mm	L mm	Price €	Order ID	Type	d mm	Range mm	D mm	L mm	Price €
339203.0005	**ER 16**	**2**	**2**	17	27.5	**21.60**	339203.0210	**ER 25**	**15**	**15**	26	34	**23.10**
339203.0010	**ER 16**	**3**	**3**	17	27.5	**21.60**	339203.0220	**ER 25**	**16**	**16**	26	34	**23.10**
339203.0020	**ER 16**	**4**	**4**	17	27.5	**21.60**	339203.0225	**ER 32**	**2**	**2**	33	40	**24.50**
339203.0030	**ER 16**	**5**	**5**	17	27.5	**21.60**	339203.0230	**ER 32**	**3**	**3**	33	40	**24.50**
339203.0040	**ER 16**	**6**	**6**	17	27.5	**21.60**	339203.0240	**ER 32**	**4**	**4**	33	40	**24.50**
339203.0050	**ER 16**	**7**	**7**	17	27.5	**21.60**	339203.0250	**ER 32**	**5**	**5**	33	40	**24.50**
339203.0060	**ER 16**	**8**	**8**	17	27.5	**21.60**	339203.0260	**ER 32**	**6**	**6**	33	40	**24.50**
339203.0070	**ER 16**	**9**	**9**	17	27.5	**21.60**	339203.0270	**ER 32**	**7**	**7**	33	40	**24.50**
339203.0080	**ER 16**	**10**	**10**	17	27.5	**21.60**	339203.0280	**ER 32**	**8**	**8**	33	40	**24.50**
339203.0085	**ER 25**	**2**	**2**	26	34	**23.10**	339203.0290	**ER 32**	**9**	**9**	33	40	**24.50**
339203.0090	**ER 25**	**3**	**3**	26	34	**23.10**	339203.0300	**ER 32**	**10**	**10**	33	40	**24.50**
339203.0100	**ER 25**	**4**	**4**	26	34	**23.10**	339203.0310	**ER 32**	**11**	**11**	33	40	**24.50**
339203.0110	**ER 25**	**5**	**5**	26	34	**23.10**	339203.0320	**ER 32**	**12**	**12**	33	40	**24.50**
339203.0120	**ER 25**	**6**	**6**	26	34	**23.10**	339203.0330	**ER 32**	**13**	**13**	33	40	**24.50**
339203.0130	**ER 25**	**7**	**7**	26	34	**23.10**	339203.0340	**ER 32**	**14**	**14**	33	40	**24.50**
339203.0140	**ER 25**	**8**	**8**	26	34	**23.10**	339203.0350	**ER 32**	**15**	**15**	33	40	**24.50**
339203.0150	**ER 25**	**9**	**9**	26	34	**23.10**	339203.0360	**ER 32**	**16**	**16**	33	40	**24.50**
339203.0160	**ER 25**	**10**	**10**	26	34	**23.10**	339203.0370	**ER 32**	**17**	**17**	33	40	**24.50**
339203.0170	**ER 25**	**11**	**11**	26	34	**23.10**	339203.0380	**ER 32**	**18**	**18**	33	40	**24.50**
339203.0180	**ER 25**	**12**	**12**	26	34	**23.10**	339203.0390	**ER 32**	**19**	**19**	33	40	**24.50**
339203.0190	**ER 25**	**13**	**13**	26	34	**23.10**	339203.0400	**ER 32**	**20**	**20**	33	40	**24.50**
339203.0200	**ER 25**	**14**	**14**	26	34	**23.10**							

NERIOX

339211 Assortment of collet chucks NERIOX ER

DIN 6499

ER Standard

Assorted on plastic plug board.

ER25

Order ID	Type	Range mm	Each	d mm	Price €
339211.0100	**ER 11**	**0.5…7**	7	1…7	**103.00**
339211.0200	**ER 16**	**0.5…10**	10	1…10	**136.00**
339211.0300	**ER 20**	**1.5…13**	12	2…13	**165.00**
339211.0400	**ER 25**	**1.5…16**	15	2…16	**210.00**
339211.0500	**ER 32**	**2.5…20**	18	3…20	**260.00**
339211.0600	**ER 40**	**3…26**	23	4…26	**401.00**

314950 Reducing adapter NERIOX

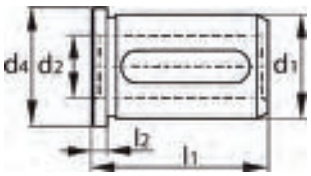
Version:
Suitable for VDI arbors form E2.
Suitable for internal cooling, not slotted. Tool is fixed and clamped with 2 clamping screws.

Application:
For Ø-reduction for tools with plain shanks.

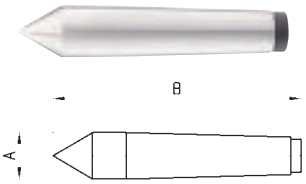
Order ID	d1 mm	d2 mm	d4 mm	l1 mm	l2 mm	Type	Price €
314950.0100	**25**	**4**	29	50	4	A	**57.30**
314950.0200	**25**	**5**	29	50	4	A	**57.30**
314950.0300	**25**	**6**	29	50	4	A	**57.30**
314950.0400	**25**	**8**	29	50	4	A	**57.30**
314950.0500	**25**	**10**	29	50	4	A	**57.30**
314950.0600	**25**	**12**	29	50	4	A	**57.30**
314950.0650	**25**	**14**	29	50	4	B	**57.30**
314950.0700	**25**	**16**	29	50	4	B	**57.30**
314950.0800	**25**	**20**	29	50	4	B	**57.30**
314950.0900	**32**	**5**	40	58	5	A	**57.30**
314950.1000	**32**	**6**	40	58	5	A	**57.30**
314950.1100	**32**	**8**	40	58	5	A	**57.30**
314950.1200	**32**	**10**	40	58	5	A	**57.30**
314950.1300	**32**	**12**	40	58	5	A	**57.30**
314950.1350	**32**	**14**	40	58	5	B	**57.30**
314950.1400	**32**	**16**	40	58	5	B	**57.30**
314950.1500	**32**	**20**	40	58	5	B	**57.30**
314950.1600	**32**	**25**	40	58	5	B	**57.30**
314950.1700	**40**	**6**	44	58	5	A	**57.30**
314950.1800	**40**	**8**	44	58	5	A	**57.30**
314950.1900	**40**	**10**	44	58	5	A	**57.30**
314950.2000	**40**	**12**	44	58	5	A	**57.30**
314950.2050	**40**	**14**	44	58	5	B	**57.30**
314950.2100	**40**	**16**	44	58	5	B	**57.30**
314950.2200	**40**	**20**	44	58	5	B	**57.30**
314950.2300	**40**	**25**	44	58	5	B	**57.30**
314950.2400	**40**	**32**	44	58	5	B	**57.30**
314950.2500	**50**	**12**	54	75	5	A	**57.30**
314950.2550	**50**	**14**	54	75	5	B	**57.30**
314950.2600	**50**	**16**	54	75	5	B	**57.30**
314950.2700	**50**	**20**	54	75	5	B	**57.30**
314950.2800	**50**	**25**	54	75	5	B	**57.30**
314950.2900	**50**	**32**	54	75	5	B	**57.30**
314950.3000	**50**	**40**	54	75	5	B	**57.30**

A

B



NERIOX

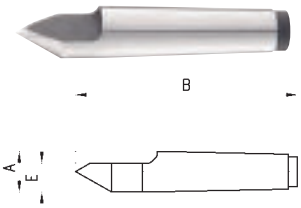


343001 Fixed centring tips NERIOX

DIN 806
60° with complete tip.
Made of tool steel, hardened, ground.

Order ID	MT	A mm	B mm	Weight kg	Price €
343001.0100	**MK1**	12.2	80	0.057	12.70
343001.0200	**MK2**	18	100	0.15	12.70
343001.0300	**MK3**	24.1	125	0.334	15.90
343001.0400	**MK4**	31.6	160	0.746	26.90
343001.0500	**MK5**	44.7	200	1.862	58.60

NERIOX

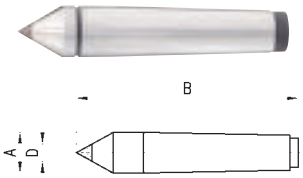


343021 Fixed centring tips NERIOX

DIN 806
60° with half tip.
Made of tool steel, hardened, ground.

Order ID	MT	E mm	A mm	B mm	Weight kg	Price €
343021.0100	**MK1**	7.6	12.065	80	0.057	14.30
343021.0200	**MK2**	11	17.78	100	0.15	17.30
343021.0300	**MK3**	15	23.825	125	0.334	23.80
343021.0400	**MK4**	21	31.267	160	0.746	31.70
343021.0500	**MK5**	29.4	44.399	200	1.862	64.90

NERIOX



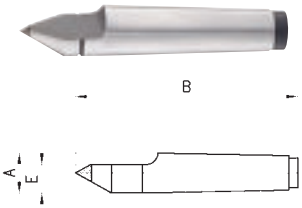
343041 Fixed centring tips NERIOX

With carbide insert

DIN 806
60° with complete tip.

Order ID	MT	D mm	A mm	B mm	Weight kg	Price €
343041.0100	**MK1**	8	12.2	80	0.057	34.90
343041.0200	**MK2**	8	18	100	0.151	38.00
343041.0300	**MK3**	12	24.1	125	0.335	50.60
343041.0400	**MK4**	15	31.6	160	0.746	75.90
343041.0500	**MK5**	18	44.7	200	1.826	134.40

NERIOX



343061 Fixed centring tips NERIOX

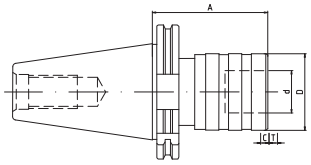
With carbide insert

DIN 806
60° with complete tip.

Order ID	MT	E mm	A mm	B mm	Weight kg	Price €
343061.0100	**MK1**	7.6	12.2	80	0.06	52.20
343061.0200	**MK2**	11	18	100	0.15	53.80
343061.0300	**MK3**	15	24.1	125	0.34	79.10
343061.0400	**MK4**	21	31.6	160	0.71	112.40
343061.0500	**MK5**	29.4	44.7	200	1.78	186.40

273301 Quick change tapping chuck NERIOX SK

DIN 69871A



Compact design, with flexible length adjustment by compression and tension.
Adjustable lead-in pressures for different material an taps.

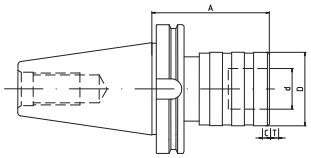
- For cutting threads exactly true gauge.
- For cutting right- and left-hand threads.
- For NC machines and CHC machining centres.

Appropriate accessories:
330901 Quick-change insert NERIOX without coupling (M3-M14)
330911 Quick-change insert NERIOX without coupling (M6-M20)
330921 Quick-change insert NERIOX with coupling M3-M14
330931 Quick-change insert NERIOX with coupling (M6-M20)

Order ID		273301.0100	273301.0200	273301.0300	273301.0400
Cone		**SK 40**	**SK 50**	**SK 40**	**SK 50**
Tap drill		**M3-M14**	**M3-M14**	**M6-M20**	**M6-M20**
Length compensation tension	mm	7.5	7.5	12.5	12.5
Length compensation pressure	mm	7.5	7.5	12.5	12.5
Inserts		T1	T1	T2	T2
Thread		M16	M24	M16	M24
A	mm	60	63	100	75
D	mm	38.5	38.5	55.2	55.2
T	mm	7.5	7.5	12.5	12.5
C	mm	7.5	7.5	12.5	12.5
d	mm	19	19	31	31
Price €		**142.60**	**220.50**	**189.00**	**227.50**

273306 Quick change tapping chuck NERIOX BT

JIS-B 6339, Form A



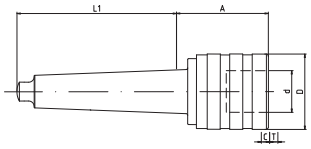
Compact design, with flexible length adjustment by compression and tension.
Adjustable lead-in pressures for different material an taps.

- For cutting threads exactly true gauge.
- For cutting right- and left-hand threads.
- For NC machines and CHC machining centres.

Appropriate accessories:
330901 Quick-change insert NERIOX without coupling (M3-M14)
330911 Quick-change insert NERIOX without coupling (M6-M20)
330921 Quick-change insert NERIOX with coupling M3-M14
330931 Quick-change insert NERIOX with coupling (M6-M20)

Order ID		273306.0100	273306.0200	273306.0300	273306.0400
Cone		**BT 40**	**BT 50**	**BT 40**	**BT 50**
Tap drill		**M3-M14**	**M3-M14**	**M6-M20**	**M6-M20**
Length compensation tension	mm	7.5	7.5	12.5	12.5
Length compensation pressure	mm	7.5	7.5	12.5	12.5
Inserts		T1	T1	T2	T2
Thread		M16	M24	M16	M24
A	mm	66	78	91	101
D	mm	38.2	38.2	55.2	55.2
T	mm	7.5	7.5	12.5	12.5
C	mm	7.5	7.5	12.5	12.5
d	mm	19	19	31	31
Price €		**146.20**	**229.20**	**190.80**	**239.70**

273311 Quick change tapping chuck NERIOX MT



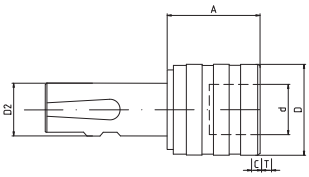
Compact design, with flexible length adjustment by compression and tension.
Adjustable lead-in pressures for different material an taps.

- For cutting threads exactly true gauge.
- For cutting right- and left-hand threads.
- For NC machines and CHC machining centres.

Appropriate accessories:
330901 Quick-change insert NERIOX without coupling (M3-M14)
330911 Quick-change insert NERIOX without coupling (M6-M20)
330921 Quick-change insert NERIOX with coupling M3-M14
330931 Quick-change insert NERIOX with coupling (M6-M20)

Order ID		273311.0100	273311.0200	273311.0300	273311.0400
Cone		**MK 2**	**MK 3**	**MK 3**	**MK 4**
Tap drill		**M3-M12**	**M3-M12**	**M6-M20**	**M6-M20**
Length compensation tension	mm	7.5	7.5	12.5	12.5
Length compensation pressure	mm	7.5	7.5	12.5	12.5
Inserts		T1	T1	T2	T2
A	mm	40	40	64	64
L1	mm	75	94	94	117.5
D	mm	38.2	38.2	55.2	55.2
T	mm	7.5	7.5	12.5	12.5
C	mm	7.5	7.5	12.5	12.5
d	mm	19	19	31	31
Price €		**121.60**	**124.20**	**152.30**	**154.00**

NERIOX



273316 Quick change tapping chuck NERIOX

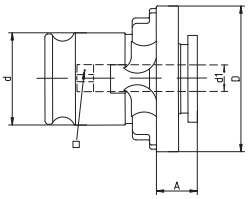
Compact design, with flexible length adjustment by compression and tension.
Adjustable lead-in pressures for different material an taps.

- For cutting threads exactly true gauge.
- For cutting right- and left-hand threads.
- For NC machines and CHC machining centres.

Appropriate accessories:
330901 Quick-change insert NERIOX without coupling (M3-M14)
330911 Quick-change insert NERIOX without coupling (M6-M20)
330921 Quick-change insert NERIOX with coupling M3-M14
330931 Quick-change insert NERIOX with coupling (M6-M20)

Order ID		273316.0100	273316.0200	273316.0300
Shaft	**mm**	**20**	**25**	**25**
Tap drill		**M3-M12**	**M3-M12**	**M6-M20**
Length compensation tension	mm	7.5	7.5	12.5
D2	mm	20	25	25
Length compensation pressure	mm	7.5	7.5	12.5
Inserts		T1	T1	T2
A	mm	42	42	64
D	mm	38.2	38.2	55.2
T	mm	7.5	7.5	12.5
C	mm	7.5	7.5	12.5
d	mm	19	19	31
Price €		**121.60**	**121.60**	**152.30**

NERIOX



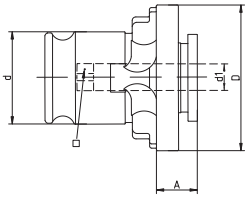
330901 Quick-change insert NERIOX without coupling (M3-M14)

For thread tapping chuck size 1
For holding taps and thread formers
Also suitable for central coolant feed (IKP) through the tap shank

Usable with:
273301 Quick change tapping chuck NERIOX SK DIN 69871A
273306 Quick change tapping chuck NERIOX BT JIS-B 6339, Form A
273311 Quick change tapping chuck NERIOX MT
273316 Quick change tapping chuck NERIOX

Order ID	D mm	d1 mm	Square piece mm	Type	d mm	A mm	Price €
330901.0100	**30**	**3.5**	**2.7**	**T1**	19	7	**12.10**
330901.0200	**30**	**4.5**	**3.4**	**T1**	19	7	**12.10**
330901.0300	**30**	**6**	**4.9**	**T1**	19	7	**12.10**
330901.0400	**30**	**7**	**5.5**	**T1**	19	7	**12.10**
330901.0500	**30**	**8**	**6.2**	**T1**	19	7	**12.10**
330901.0600	**30**	**9**	**7**	**T1**	19	7	**12.10**
330901.0700	**30**	**10**	**8**	**T1**	19	7	**12.10**
330901.0800	**30**	**11**	**9**	**T1**	19	7	**12.10**

NERIOX



330911 Quick-change insert NERIOX without coupling (M6-M20)

- For holding taps and thread formers
- Also suitable for central coolant feed (IKP) through the tap shank

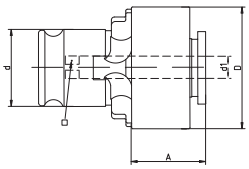
Usable with:
273301 Quick change tapping chuck NERIOX SK DIN 69871A
273306 Quick change tapping chuck NERIOX BT JIS-B 6339, Form A
273311 Quick change tapping chuck NERIOX MT
273316 Quick change tapping chuck NERIOX

Order ID	D mm	d1 mm	Square piece mm	Type	d mm	A mm	Price €
330911.0100	**48**	**6**	**4.9**	**T2**	31	11	**16.10**
330911.0200	**48**	**7**	**5.5**	**T2**	31	11	**16.10**
330911.0300	**48**	**8**	**6.2**	**T2**	31	11	**16.10**
330911.0400	**48**	**9**	**7**	**T2**	31	11	**16.10**
330911.0500	**48**	**10**	**8**	**T2**	31	11	**16.10**
330911.0600	**48**	**11**	**9**	**T2**	31	11	**16.10**
330911.0700	**48**	**12**	**9**	**T2**	31	11	**16.10**
330911.0800	**48**	**14**	**11**	**T2**	31	11	**16.10**
330911.0900	**48**	**16**	**12**	**T2**	31	11	**16.10**

330921 Quick-change insert NERIOX with coupling M3-M14

NERIOX

- For holding taps and thread formers
- With adjustable safety coupling to prevent the tap from breaking
- Also suitable for central coolant feed (IKP) through the tap shank



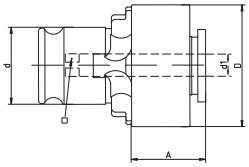
Usable with:
273301 Quick change tapping chuck NERIOX SK DIN 69871A
273306 Quick change tapping chuck NERIOX BT JIS-B 6339, Form A
273311 Quick change tapping chuck NERIOX MT
273316 Quick change tapping chuck NERIOX

Order ID	D mm	d1 mm	Square piece mm	Type	d mm	A mm	Price €
330921.0100	32	3.5	2.7	T1	19	25	32.30
330921.0200	32	4.5	3.4	T1	19	25	32.30
330921.0300	32	6	4.9	T1	19	25	32.30
330921.0400	32	7	5.5	T1	19	25	32.30
330921.0500	32	8	6.2	T1	19	25	32.30
330921.0600	32	9	7	T1	19	25	32.30
330921.0700	32	10	8	T1	19	25	32.30
330921.0800	32	11	9	T1	19	25	32.30

330931 Quick-change insert NERIOX with coupling (M6-M20)

NERIOX

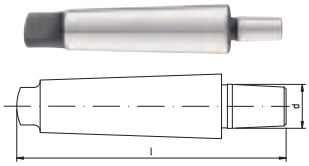
- For holding taps and thread formers
- With adjustable safety coupling to prevent the tap from breaking
- Also suitable for central coolant feed (IKP) through the tap shank



Usable with:
273301 Quick change tapping chuck NERIOX SK DIN 69871A
273306 Quick change tapping chuck NERIOX BT JIS-B 6339, Form A
273311 Quick change tapping chuck NERIOX MT
273316 Quick change tapping chuck NERIOX

Order ID	D mm	d1 mm	Square piece mm	Type	d mm	A mm	Price €
330931.0100	50	6	4.9	T2	31	34	43.40
330931.0200	50	7	5.5	T2	31	34	43.40
330931.0300	50	8	6.2	T2	31	34	43.40
330931.0400	50	9	7	T2	31	34	43.40
330931.0500	50	10	8	T2	31	34	43.40
330931.0600	50	11	9	T2	31	34	43.40
330931.0700	50	12	9	T2	31	34	43.40
330931.0800	50	14	11	T2	31	34	43.40
330931.0900	50	16	12	T2	31	34	43.40

NERIOX



342501 Insert cone NERIOX

Taper shank shaft
Taper drill chuck DIN 238.

Order ID	Morse taper	Taper drill chuck	d mm	l mm	Price €
342501.0100	**MK0**	**B10**	10.09	80	**6.70**
342501.0200	**MK0**	**B12**	12.06	84	**6.70**
342501.0300	**MK1**	**B10**	10.09	86	**6.70**
342501.0400	**MK1**	**B12**	12.06	90	**6.70**
342501.0500	**MK1**	**B16**	15.73	97	**6.70**
342501.0600	**MK1**	**B18**	17.78	105	**6.70**
342501.0700	**MK2**	**B10**	10.09	101	**7.60**
342501.0800	**MK2**	**B12**	12.06	105	**7.60**
342501.0900	**MK2**	**B16**	15.73	112	**7.60**
342501.1000	**MK2**	**B18**	17.78	120	**7.60**
342501.1100	**MK2**	**B22**	21.79	128	**7.60**
342501.1200	**MK3**	**B12**	12.06	124	**9.50**
342501.1300	**MK3**	**B16**	15.73	131	**9.50**
342501.1400	**MK3**	**B18**	17.78	139	**9.50**
342501.1500	**MK3**	**B22**	21.79	147	**9.50**
342501.1600	**MK3**	**B24**	23.82	157	**9.50**
342501.1700	**MK4**	**B12**	12.06	149	**12.60**
342501.1800	**MK4**	**B16**	15.73	156	**12.60**
342501.1900	**MK4**	**B18**	17.78	164	**12.60**
342501.2000	**MK4**	**B22**	21.79	172	**12.60**
342501.2100	**MK4**	**B24**	23.82	182	**12.60**
342501.2200	**MK5**	**B16**	15.73	188	**25.60**
342501.2300	**MK5**	**B18**	17.78	196	**25.60**
342501.2400	**MK5**	**B22**	21.79	204	**25.60**
342501.2500	**MK5**	**B24**	23.82	214	**25.60**

NERIOX

342562 Conical clamping sleeve for taps NERIOX

DIN 6328
Version: Completely hardened, bore and male taper ground.
Usage data: For holding in adjustable adapters, floating tool holders, quick-change inserts and multi-spindle units with closely spaced spindles.
Application: For holding of cylindrical taps and reamers with internal square

Unsuitable for milling work.

Order ID	Morse taper	Ø mm	Square piece mm	Price €
342562.0100	**MK1**	**4**	3.2	**19.00**
342562.0200	**MK1**	**4.5**	3.4	**19.00**
342562.0300	**MK1**	**5**	4.2	**19.00**
342562.0400	**MK1**	**6**	5.4	**19.00**
342562.0500	**MK2**	**6.3**	5.5	**25.20**
342562.0600	**MK2**	**8**	6.2	**25.20**
342562.0700	**MK2**	**9**	7.3	**25.20**
342562.0800	**MK2**	**10**	8.2	**25.20**
342562.0900	**MK2**	**11**	9.2	**25.20**
342562.1000	**MK2**	**12**	9.2	**25.20**
342562.1100	**MK2**	**12.5**	10.5	**25.20**
342562.1200	**MK3**	**12.5**	10.5	**36.40**
342562.1300	**MK3**	**14**	11.2	**36.40**
342562.1400	**MK3**	**16**	12.1	**36.40**
342562.1500	**MK4**	**18**	15.2	**36.40**
342562.1600	**MK4**	**20**	16.4	**36.40**
342562.1700	**MK4**	**22**	18.2	**36.40**

178121 Centre finder NERIOX

With non-rotating dial for determining the centres of bores and shafts. Sturdy metal casing suitable for workshop use. Holding rod can be fitted on the left or right. Centre finder can be used vertically and horizontally.

Features:
Clamping shank Ø 10mm
Dial Ø 42 mm
Dial indicator-measuring range 3mm, scale graduation 0.01 mm
Overall height without contact point 140 mm.
Length without shank and probe 118mm

Package contents:
Delivered in own case with centre finder, holding rod, 7 inserts and declaration of conformity.
3 pcs. internal contact point
1 pc. 50 mm (Ø 3.5...Ø 100 mm)
1 pc. 100 mm (Ø 50...Ø 200 mm)
1 pc. 150 mm (Ø 50...Ø 300 mm)
3 pcs. external contact point, curved
1 pc. 50 mm (Ø 0...Ø 100 mm)
1 pc. 100 mm (Ø 0...Ø 200 mm)
1 pc. 150 mm (Ø 0...Ø 300 mm)
1 pc. spring centre punch (centre contact point)

Order ID	for outside Ø mm	for inside Ø mm	Accuracy mm	Price €
178121.0100	0...300	3.5...300	0.02	325.00

337220 2-D edge finder FUTURO

For precise alignment of reference surfaces or edges, to determine bore midpoints centered on the work spindle, alignment precision 0.01 mm, with light.

Procedure
When the probe ball comes into contact with the workpiece, the batteries (in the shaft) light the lamp when workpiece, workpiece mount and tool mount are in electrical contact with each other.
Design: Functional parts hardened and ground.

Appropriate spare parts:
155050.0720 Batterie alkaline ENERGIZER LRV08 (A23) / 12 V

Order ID	**Shaft Ø mm**	Probe heads Ø mm	Length mm	Price €
337220.0100	**16**	10	94	125.00
337220.0200	**20**	10	94	125.00

F337220.0100 F337220.0200

337230 3-D edge finder FUTURO

For precise alignment of reference surfaces or edges, to determine bore midpoints centered on the work spindle, alignment precision 0.01 mm, with light.

Procedure
When the probe ball comes into contact with the workpiece, the batteries (in the shaft) light the lamp when workpiece, workpiece mount and tool mount are in electrical contact with each other.
Design: Functional parts hardened and ground.

Appropriate spare parts:
155050.0720 Batterie alkaline ENERGIZER LRV08 (A23) / 12 V

Order ID	**Shaft Ø mm**	Probe heads Ø mm	Length mm	Price €
337230.0100	**16**	10	106	155.00
337230.0200	**20**	10	106	155.00

F337230.0100 F337230.0200

410670 NC high pressure vice FUTURO

Compact NC high pressure vice, ground on one side, with power intensifier, mechanical/mechanical manually operated.

- Basic side clamping
- Long cast iron body (GGG) with chip grooves
- Drive spindle with default clamping force
- Stable chip protection against ingress of chips

Scope of delivery: With stepped jaws and crank handle.

Order ID		410670.0100	410670.0200
Jaw width	**mm**	**125**	**160**
Clamping width	**mm**	**0...312**	**0...451**
Clamping force	kN	40	60
Jaw height	mm	40	50
Length	mm	463	618
Width	mm	126	162
Height	mm	140	165
Weight	kg	41	79
Price €		**2232.50**	**3562.50**

143810 Precision vice FUTURO

Perfect for use on microscopes, profile projectors, optical measuring instruments or with roughness testers.
Available as separate item or as part of a set.

Version:
143810.0500...143810.0700 ELOX, single vice made of aluminium, colourless anodized.

Features:
Gripping jaws stainless steel, hardened and interchangeable
Fixing slots on longitudinal side
Angular accuracy 0.01 mm
Parallelism 0.01 mm
Vee on stationary gripping jaw (15 / 25 / 35)
Vee on movable gripping jaw (25 / 35)

Package contents:
Separate item and set each Delivered in plastic box.

Appropriate accessories:
143812 Accessories FUTURO

143810.9100

143810.9900

143810.9100 consisting of:
143810.0500: 1 pieces Mini-vice FUTURO ELOX 15 x 15 x 50 mm
143812.0100: 1 pieces Set of clamping jaws FUTURO 15 mm on metal+plastic
143812.8030: 1 pieces Plastic case FUTURO for mini-vices 15
425100.0300: 1 pieces Angled key TORX® PB 410 T 6

143810.9200 consisting of:
143810.0600: 1 pieces Mini-vice FUTURO ELOX 25 x 25 x 75 mm
143812.0200: 1 pieces Set of clamping jaws FUTURO 25 mm on metal+plastic
143812.8035: 1 pieces Plastic case FUTURO for mini-vices 25
425100.0900: 1 pieces Angled key TORX® PB 410 T20

143810.9300 consisting of:
143810.0700: 1 pieces Mini-vice FUTURO ELOX 35 x 35 x 100 mm
143812.0250: 1 pieces Clamping jaws set FUTURO 35 mm on metal+plastic
143812.8040: 1 pieces Plastic case FUTURO for mini-vices 35
425100.1000: 1 pieces Angled key TORX® PB 410 T25

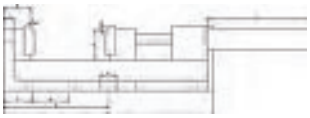
143810.9900 consisting of:
143810.0500: 1 pieces Mini-vice FUTURO ELOX 15 x 15 x 50 mm
143810.0600: 1 pieces Mini-vice FUTURO ELOX 25 x 25 x 75 mm
143810.0700: 1 pieces Mini-vice FUTURO ELOX 35 x 35 x 100 mm
143812.0100: 1 pieces Set of clamping jaws FUTURO 15 mm on metal+plastic
143812.0200: 1 pieces Set of clamping jaws FUTURO 25 mm on metal+plastic
143812.0250: 1 pieces Set of clamping jaws FUTURO 35 mm on metal+plastic
143812.8060: 1 pieces Plastic case FUTURO for mini-vices 15 / 25 / 35
425100.0300: 1 pieces Angled key TORX® PB 410 T 6
425100.0900: 1 pieces Angled key TORX® PB 410 T20
425100.1000: 1 pieces Angled key TORX® PB 410 T25

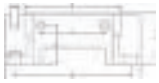
Order ID	Model	Version	L x W x H mm	Clamping width mm	Clamping depth mm	Price €
143810.0500	Single piece	ELOX	50 x 15 x 15	14.5	8	135.00
143810.0600	Single piece	ELOX	75 x 25 x 25	23.5	15	175.00
143810.0700	Single piece	ELOX	100 x 35 x 35	31.5	21	199.00
143810.9100	Set	ELOX	50 x 15 x 15	14.5	8	160.00
143810.9200	Set	ELOX	75 x 25 x 25	23.5	15	200.00
143810.9300	Set	ELOX	100 x 35 x 35	31.5	21	250.00
143810.9900	Set	ELOX	50 x 15 x 15 75 x 25 x 25 100 x 35 x 35	14.5 23.5 31.5	8 15 21	679.00

143812 Accessories FUTURO

Order ID	Designation	Price €
143812.0100		27.70
143812.0200		36.30
143812.0250		61.20
143812.8060	**Plastic case FUTURO 15 / 25 / 35** for mini-vices: 15 / 93 x 60 25 / 113 x 90 35 / 168 x 113	44.40

410081 V-block drilling machine vice NERIOX

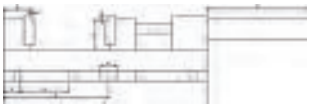


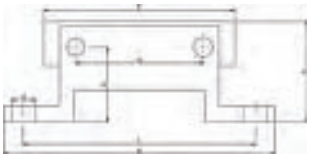


With three face-milled contact surfaces: Normal position, right and front side. Machine different sides without the need for re-clamping. Simple design, cast body, with universal mounting fixture, movable jaw guided laterally, fixed jaw with V-blocks, both clamping jaws with offset.

Order ID		410081.0100
Jaw width	**mm**	**100**
Jaw height	**mm**	**30**
Clamping width	**mm**	**105**
A	mm	35
B	mm	158
C	mm	125
D	mm	14
E	mm	100
F	mm	30
G	mm	92
H	mm	62
I	mm	3.5
J	mm	8
K	mm	22
L	mm	182
M	mm	45
N	mm	50
P	mm	14
Q	mm	33
S	mm	100
T	mm	14
U	mm	12
Weight	kg	5.1
Price €		**125.00**

410101 V-block drilling machine vice NERIOX





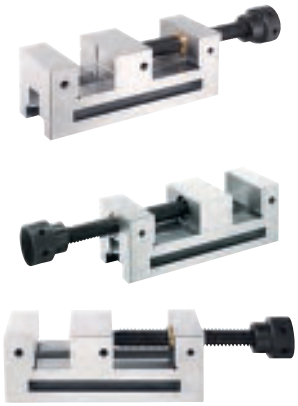
Simple design, cast base body, with universal mounting fixture, movable jaw guided laterally, fixed jaw with V-blocks, both clamping jaws with offset.

Order ID		410101.0100	410101.0200	410101.0300
Jaw width	**mm**	**80**	**100**	**120**
Jaw height	**mm**	**30**	**30**	**30**
Clamping width	**mm**	**65**	**87**	**112**
A	mm	30	36	48
B	mm	142	154	175
C	mm	110	122	145
D	mm	15	15	15
E	mm	80	100	120
F	mm	21	21	16
G	mm	74.5	88	107
H	mm	58	62	65
I	mm	3.5	3.5	3.5
J	mm	8	8	8
K	mm	22	22	28
L	mm	149	174	215
M	mm	40	44	46
N	mm	40	50	80
P	mm	15	15	15
Q	mm	33	28	30
S	mm	82	10	120
Weight	kg	3.6	4.3	6.3
Price €		**78.00**	**112.00**	**138.00**

410121 Vice NERIOX

Made from tool steel, hardened and ground on all sides, parallelism and squareness 0.005 mm/100 mm, useable on 4 seats. Horizontal and vertical V-block in the movable jaw.

Order ID		410121.0100	410121.0200	410121.0300	410121.0400
Jaw width	**mm**	**50**	**63**	**73**	**100**
Clamping width	mm	65	85	100	125
Jaw height	mm	25	32	35	45
Length	mm	155	190	210	260
Height	mm	50	65	74	95
Weight	kg	3	3.8	5	13
Price €		**166.70**	**209.60**	**259.00**	**477.80**

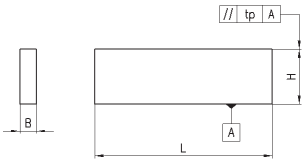


410601 Machine vice NERIOX

Mechanical clamping system, steel body with hardened and ground guides, low construction, clamping repeatability 0.02 mm, **with hold-down jaws.**
Slot for T-nut: 20mm

Order ID		410601.0100	410601.0200	410601.0300	410601.0400
Jaw width	**mm**	**100**	**125**	**150**	**150**
Clamping width	mm	100	150	200	300
Jaw height	mm	30	40	50	50
Length	mm	270	345	420	520
Height	mm	65	80	100	100
Weight	kg	7	12.7	25.6	29.5
Price €		**112.90**	**459.40**	**612.50**	**682.50**

FUTURO



143212 Pair of parallels FUTURO

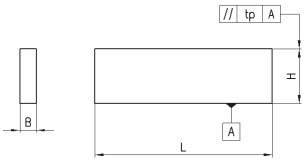
(Milling blocks) - Made of hardened steel, for use as a base for work pieces in a wide variety of machining processes. The **high precision** of the parallel bases guarantees parallel clamping of the work piece.

Features:
Nominal dimension information on the front face of the product
Nominal dimension tolerance in height + width ±0.01 mm
hardened approx. 60 HRC
fine ground plane-parallel in pairs
Pair tolerance (tp) in height IT5
Remaining measurements in accordance with DIN ISO 2768 medium

Package contents:
Delivered in transport packaging

Order ID	L mm	B mm	H mm	Price €	Order ID	L mm	B mm	H mm	Price €
143212.0210	100	2	5	46.80	143212.0430	125	8	21	52.10
143212.0220	100	2	10	46.80	143212.0440	125	8	26	54.00
143212.0230	100	2	15	46.80	143212.0450	125	8	31	54.00
143212.0240	100	2	20	46.80	143212.0460	125	8	36	54.00
143212.0250	100	3	6	48.00	143212.0470	125	10	13	54.00
143212.0260	100	3	11	48.00	143212.0480	125	10	18	54.00
143212.0270	100	3	16	48.00	143212.0490	125	10	23	54.00
143212.0280	100	3	21	48.00	143212.0500	125	10	28	55.90
143212.0290	100	4	7	50.20	143212.0510	125	10	33	55.90
143212.0300	100	4	12	50.20	143212.0520	125	10	38	55.90
143212.0310	100	4	17	50.20	143212.0530	125	12	15	55.90
143212.0320	100	4	22	50.20	143212.0540	125	12	20	55.90
143212.0330	100	5	8	51.10	143212.0550	125	12	25	55.90
143212.0340	100	5	13	51.10	143212.0560	125	12	30	58.40
143212.0350	100	5	18	51.10	143212.0570	125	12	35	58.40
143212.0360	100	5	23	51.10	143212.0580	125	12	40	58.40
143212.0370	100	6	9	52.10	143212.0590	125	14	17	58.40
143212.0380	100	6	14	52.10	143212.0600	125	14	22	58.40
143212.0390	100	6	19	52.10	143212.0610	125	14	27	58.40
143212.0400	100	6	24	52.10	143212.0620	125	14	32	59.80
143212.0410	125	8	11	52.10	143212.0630	125	14	37	59.80
143212.0420	125	8	16	52.10	143212.0640	125	14	42	59.80

FUTURO



143210 Parallel base set FUTURO

(Milling blocks) - Made of hardened steel, for use as a base for work pieces in a wide variety of machining processes. The **high precision** of the parallel bases guarantees parallel clamping of the work piece.

Features:
Nominal dimension information on the front face of the product
Nominal dimension tolerance in height + width ±0.01 mm
hardened approx. 60 HRC
fine ground plane-parallel in pairs
Pair tolerance (tp) in height IT5
Remaining measurements in accordance with DIN ISO 2768 medium

Package contents:
Delivered in transport packaging included wooden box.

Appropriate spare parts:
143212 Pair of parallels FUTURO
143240 Wooden base FUTURO

Order ID	L mm	Pairs	Weight kg	Profile mm	Price €
143210.0100	100	20	2.180	**2 x** 5 / 10 / 15 / 20 **3 x** 6 / 11 / 16 / 21 **4 x** 7 / 12 / 17 / 22 **5 x** 8 / 13 / 18 / 23 **6 x** 9 / 14 / 19 / 24	799.00
143210.0200	125	24	14	**8 x** 11 / 16 / 21 / 26 / 31 / 36 **10 x** 13 / 18 / 23 / 28 / 33 / 38 **12 x** 15 / 20 / 25 / 30 / 35 / 40 **14 x** 17 / 22 / 27 / 32 / 37 / 42	899.00
143210.0300	150	24	17	**8 x** 11 / 16 / 21 / 26 / 31 / 36 **10 x** 13 / 18 / 23 / 28 / 33 / 38 **12 x** 15 / 20 / 25 / 30 / 35 / 40 **14 x** 17 / 22 / 27 / 32 / 37 / 42	939.00

143221 Parallel base set NERIOX

(Milling blocks) – Hardened steel, for use as supports for workpieces during a wide range of machining processes. The height tolerance of the parallel pair allows parallel clamping of the workpiece.

Features:
Hardened approx. 58-60HRC
Ground plane-parallel in pairs
Pair height tolerance 0.01 mm
Nominal dimensions to DIN ISO 2768-1 medium
Nominal dimension printed on product face

Package contents:
Delivered in transport packaging including wooden base.

Appropriate spare parts:
143223 Parallel base pair NERIOX
143240 Wooden base FUTURO

Order ID	Length mm	Pairs	Profile mm	Price €
143221.0100	80	20	**2 x** 5 / 10 / 15 / 20 **3 x** 6 / 11 / 16 / 21 **4 x** 7 / 12 / 17 / 22 **5 x** 8 / 13 / 18 / 23 **6 x** 9 / 14 / 19 / 24	399.00
143221.0200	100	20	**2 x** 5 / 10 / 15 / 20 **3 x** 6 / 11 / 16 / 21 **4 x** 7 / 12 / 17 / 22 **5 x** 8 / 13 / 18 / 23 **6 x** 9 / 14 / 19 / 24	420.00
143221.0300	125	24	**8 x** 11 / 16 / 21 / 26 / 31 / 36 **10 x** 13 / 18 / 23 / 28 / 33 / 38 **12 x** 15 / 20 / 25 / 30 / 35 / 40 **14 x** 17 / 22 / 27 / 32 / 37 / 42	530.00
143221.0400	150	24	**8 x** 11 / 16 / 21 / 26 / 31 / 36 **10 x** 13 / 18 / 23 / 28 / 33 / 38 **12 x** 15 / 20 / 25 / 30 / 35 / 40 **14 x** 17 / 22 / 27 / 32 / 37 / 42	550.00
143221.0500	200	24	**8 x** 11 / 16 / 21 / 26 / 31 / 36 **10 x** 13 / 18 / 23 / 28 / 33 / 38 **12 x** 15 / 20 / 25 / 30 / 35 / 40 **14 x** 17 / 22 / 27 / 32 / 37 / 42	590.00

143240 Wooden base FUTURO

Suitable for the sets of standard parallels and individual pairs.

Order ID	Pairs	Profile mm	Price €
143240.1000	20	**2 x** 5 / 10 / 15 / 20 **3 x** 6 / 11 / 16 / 21 **4 x** 7 / 12 / 17 / 22 **5 x** 8 / 13 / 18 / 23 **6 x** 9 / 14 / 19 / 24	25.00
143240.1100	24	**8 x** 11 / 16 / 21 / 26 / 31 / 36 **10 x** 13 / 18 / 23 / 28 / 33 / 38 **12 x** 15 / 20 / 25 / 30 / 35 / 40 **14 x** 17 / 22 / 27 / 32 / 37 / 42	32.00

Our full range –

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performance and perfection

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YOUR SMARTEST CHOICE

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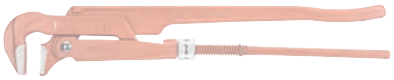
HAND- AND MOUNTING TOOLS  354 – 371

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NERIOX

110856 Caliper gauge NERIOX

Fixing screw on top

DIN 862
Stainless steel
Vernier and scale satin chrome-plated, with

Designs:
Fixing screw on top

Features:
Vernier mm/inch
Thread table on rear side

Package contents:
Delivered in case incl. declaration of conformity.

Appropriate accessories:
111811 Measuring bridge NERIOX for calipers

Order ID		110856.0100	110856.0200
Range	mm	150	200
Range	in	6	8
Vernier bottom	mm	0.05	0.05
Vernier top		1/128″	1/128″
Measuring jaw length	mm	40	50
Depth gauge		rectangular	rectangular
Drive wheel		—	—
Price €		**23.50**	**50.40**

NERIOX

110861 Caliper gauge NERIOX

Thumb locking

DIN 862
Stainless steel
Vernier and scale satin chrome-plated.

Designs:
Thumb locking

Features:
Vernier mm/inch
Thread table on rear side

Package contents:
Delivered in case incl. declaration of conformity.

Appropriate accessories:
111811 Measuring bridge NERIOX for calipers

Order ID		110861.0100
Range	mm	150
Range	in	6
Vernier bottom	mm	0.05
Vernier top		1/128″
Measuring jaw length	mm	40
Depth gauge		rectangular
Drive wheel		—
Price €		**27.80**

NERIOX

110851 Caliper gauge NERIOX

Double-V guide

Stainless steel
Hardened and ground, measuring surfaces precision-lapped. Scale graduations and vernier are on the same plane, making **reading parallax-free**. Fixed scale and vernier are satin chrome plated.

Designs:
Fixing screw underneath

Features:
Parallax-free
Vernier mm/inch
Thread table on rear side

Package contents:
Delivered in case incl. declaration of conformity.

Appropriate accessories:
111811 Measuring bridge NERIOX for calipers

Order ID		110851.0100
Range	mm	150
Range	in	6
Vernier bottom	mm	0.05
Vernier top		1/128″
Measuring jaw length	mm	40
Depth gauge		rectangular
Drive wheel		—
Price €		**65.00**

110511 Caliper gauge with round dial NERIOX

Resolution 0.01 mm

Stainless, hardened version with impact resistance.

Designs:
110511.0100: depth gauge rectangular wide, protected rack

Features:
1 indicator revolution = 1 mm
Rotating dial Ø 36 mm
Scale matt chrome-plated (rail)

Package contents:
Delivered in case incl. declaration of conformity.

Appropriate accessories:
111811 Measuring bridge NERIOX for calipers

Order ID		110511.0100
Range	mm	150
Resolution	mm	0.01
Measuring jaw length	mm	40
1 revolution	mm	1
Depth gauge		rectangular
Drive wheel		—
Price €		**68.00**

942000 Digital caliper gauge FUTURO connected with Bluetooth®

Digital caliper gauge with Bluetooth interface. Extra-large LCD and customisable button with selectable functions. Resistant to water, dust and oil with protection class IP67. Automatic wake-up when the caliper gauge is moved, sleep mode after 20 minutes, last position saved in sleep mode. Precision-lapped measuring surfaces.

FUTURO connected
Bluetooth data transmission for all needs:

• Data transfer at the touch of a button: measurement results are transferred to the active field on computer, regardless of whether it is in an Excel file, Word file or other software. The value is entered in the active field as if entered from the keyboard.

• Significant time savings: Automatic transmission of the measured value eliminates the need for manual input and eliminates errors.

• Flexible handling: Bluetooth wireless communication means that no cables hinder your movements.

• Easy connection: no software required for connection. A device with a Bluetooth connection is all you need.

• Mobile app for iOS and Android available from Apple App Store and Google Play Store

Appropriate batteries:
1 pieces 155050.1400 - CR2032 / 3.0 V (included in scope of delivery).

Order ID		942000.0100	942000.0105	942000.0110
Range	mm	150	200	300
Resolution	mm	0.01	0.01	0.01
Reading		Switch between mm/inch	Switch between mm/inch	Switch between mm/inch
Accuracy	µm	30	30	30
Measuring jaw length	mm	40	50	65
Depth gauge		Rectangular 4 x 1.4 mm	Rectangular 4 x 1.4 mm	Rectangular 4 x 1.4 mm
Digit height	mm	11.5	11.5	11.5
Data output		Bluetooth®	Bluetooth®	Bluetooth®
Protection class		IP 67	IP 67	IP 67
Material		Stainless steel, INOX	Stainless steel, INOX	Stainless steel, INOX
Package		Plastic case	Plastic case	Plastic case
Price €		**224.00**	**279.00**	**324.00**

FUTURO connected
Bluetooth data transmission for all needs:

• Data transfer at the touch of a button: the measurement result is transferred to the active field on the computer, regardless of whether it is an Excel, Word file or other software. The value is entered into the active field as if it were a keyboard entry.

• Significant time saving: The automatic transmission of the measured value eliminates the need for manual input and eliminates the possibility of errors.

• Flexible handling: Thanks to wireless Bluetooth communication, no cables interfere with your movements.

• Easy connection: no software required for connection, just a device with a Bluetooth connection.

• Mobile App for IOS and Android available on Apple App Store and Google Play Store

942010 Digital caliper gauge FUTURO connected with Bluetooth®

Digital caliper gauge with Bluetooth interface. Extra-large LCD and customisable button with selectable functions. Resistant to water, dust and oil with protection class IP67. Automatic wake-up when the caliper gauge is moved, sleep mode after 20 minutes, last position saved in sleep mode. Precision-lapped measuring surfaces.

FUTURO connected
Bluetooth data transmission for all needs:

• Data transfer at the touch of a button: measurement results are transferred to the active field on computer, regardless of whether it is in an Excel file, Word file or other software. The value is entered in the active field as if entered from the keyboard.

• Significant time savings: Automatic transmission of the measured value eliminates the need for manual input and eliminates errors.

• Flexible handling: Bluetooth wireless communication means that no cables hinder your movements.

• Easy connection: no software required. A device with a Bluetooth connection is all you need.

• Mobile app for iOS and Android available from Apple App Store and Google Play Store

Appropriate batteries:
942010.0100: 155050.1400 - CR2032 / 3.0 V ().

Order ID		942010.0100
Range	mm	150
Resolution	mm	0.01
Reading		Switch between mm/inch
Accuracy	µm	30
Measuring jaw length	mm	40
Depth gauge		Round, diameter 1.5 mm
Digit height	mm	11.5
Data output		Bluetooth®
Protection class		IP 67
Material		Stainless steel, INOX
Package		Plastic case
Price €		**224.00**

109054.0101

109054 Caliper gauge digital FUTURO

3-year guarantee

Designs:
Type A: depth gauge rectangular 4 x 1.4 mm
Type B: depth gauge round Ø 1.5 mm
Type C: depth gauge rectangular 4 x 1.4 mm, data output Proximity
Type D: depth gauge round Ø 1.5 mm, data output Proximity
Type L: data output Proximity
Type W: without (depth gauge, drive wheel, data output)

Features:
LCD display
Economy mode
Memorized Position
Stand-by function
Auto-ON function on movement
Conversion mm/inch
Data output (depending on type)

Package contents:
Delivered in case incl. operating instructions and ISO certificate.

Appropriate accessories:
109145 Accessories SYLVAC
124008 Measuring inserts M2.5 FUTURO

Appropriate batteries:
1 pieces 155051.0545 - CR2032 / 3.0 V (included in scope of delivery).

Order ID		109054.0040	109054.0050	109054.0060	109054.0070	109054.0101	109054.0151	109054.0201	109054.0301
Type		A	B	A	W	C	D	C	L
Range	mm	150	150	200	300	150	150	200	300
Resolution	mm	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Measuring jaw length	mm	40	40	50	64	40	40	50	64
Protection class		IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67
Digit height	mm	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
Depth gauge		rectangular	round	rectangular		rectangular	round	rectangular	—
Drive wheel		—	—	—	—	—	—	—	—
Data output		—	—	—	—	•	•	•	•
Price €		**115.00**	**115.00**	**175.00**	**235.00**	**129.00**	**129.00**	**195.00**	**245.00**

109321 Caliper gauge digital NERIOX

109321.0100

Designs:
Type A: depth gauge rectangular
Type B: depth gauge round Ø 1.8 mm

Features:
LCD display
ON/OFF function
Conversion mm/inch
Zero setting in any position

Package contents:
Delivered in case incl. declaration of conformity.

Appropriate batteries:
1 pieces 155051.0365 - SR44 (357) / 1.55 V (included in scope of delivery).

Order ID		109321.0100	109321.0200	109321.0300
Type		A	A	B
Range	mm	100	150	150
Resolution	mm	0.01	0.01	0.01
Measuring jaw length	mm	30	40	40
Digit height	mm	10	10	10
Depth gauge		rectangular	rectangular	round
Drive wheel		—	—	—
Data output		—	—	—
Price €		**41.00**	**48.00**	**48.00**

111456 Carbon fibre composite digital caliper gauge NERIOX

Digital caliper gauge for internal and external measurements.

Designs:
Type A: depth gauge rectangular

Features:
LCD display
Conversion mm/inch
zero setting in any position
Automatic shutdown

Package contents:
Delivered in case incl. declaration of conformity.

Appropriate batteries:
1 pieces 155051.0545 - CR2032 / 3.0 V (included in scope of delivery).

Order ID		111456.0100
Type		A
Range	mm	150
Resolution	mm	0.1
Measuring jaw length	mm	40
Digit height	mm	15
Weight	g	60
Drive wheel		—
Data output		—
Price €		**59.00**

111241 Shop caliper gauge NERIOX

Fine adjustment

Stainless
Blade tips, vernier and scale satin chrome-plated.

Features:
Fine adjustment

Package contents:
Delivered in case incl. declaration of conformity.

Order ID	Range mm	Vernier bottom mm	Vernier top	Range inside from mm	Measuring jaw length mm	**Price €**
111241.0100	300	0.05	1/128″	10	90	**170.00**
111241.0200	500	0.05	1/128″	20	150	**460.00**
111241.0300	800	0.05	1/128″	20	150	**590.00**
111241.0400	1000	0.05	1/128″	20	150	**695.00**

NERIOX

109398 Workshop caliper digital NERIOX

For large measuring ranges. With rounded measuring faces for internal dimensions and knife-edge jaws for external
dimensions.

Features:
LCD display
ON/OFF function
Conversion mm/inch
Zero setting in any position

Package contents:
Delivered in case incl. declaration of conformity.

Appropriate batteries:
1 pieces 155051.0365 - SR44 (357) / 1.55 V (included in scope of delivery).

Order ID	Range mm	Resolution mm	Range inside from mm	Measuring jaw length mm	Digit height mm	Data output	Price €
109398.0100	300	0.01	10	60	7	—	169.00

NERIOX

Measuring surface 75 x 6 mm

111811 Measuring bridge NERIOX for calipers

Hardened stainless steel
Measuring bridge for analog and digital calipers. To enlarg the contact surface for depth measurements.

Features:
Fixing screw
For calipers with width 16 mm

Order ID	Measuring surface mm	Price €
111811.0100	75 x 6	30.50

NERIOX

111821 Measuring probe set NERIOX for calipers

5 pairs - Special probe made of steel, fits all caliper engages with a job thickness of **max. 3.5 mm.**

Features:
Inside and outside diameter measurements
Hard chrome-plated, for maximum wear resistance

Package contents:
Delivered in case, incl. hex key.

Order ID	111821.0100
Price €	483.00

112891 Depth gauge NERIOX

Stainless version - Rail and vernier satin chrome-plated.

112891.0100

Designs:
Type TA: straight measuring rod
Type TD: hook measuring rod
Type TE: double-hook measuring rod

Package contents:
Delivered in case incl. declaration of conformity.

Order ID	Type	Range mm	Vernier bottom mm	Length of base mm	Rail cross section mm	Price €
112891.0100	TA	200	0.05	100	10 x 4	59.00
112891.0200	TA	300	0.05	150	12 x 4	99.00
112891.0300	TE	200	0.05	100	10 x 4	125.00
112891.0400	TE	300	0.05	100	12 x 4	155.00
112891.0500	TD	200	0.05	100	10 x 4	105.00
112891.0600	TD	300	0.05	150	12 x 4	129.00

TA

TE

TD

942100 Digital depth gauge FUTURO connected Bluetooth®

Digital depth gauge with Bluetooth interface. Extra-large LCD and customisable button with selectable functions. Resistant to water, dust and oil with protection class IP67. Automatic wake-up when the caliper gauge is moved, sleep mode after 20 minutes, last position saved in sleep mode. Precision-lapped measuring surfaces.

FUTURO connected
Bluetooth data transmission for all needs:

• Data transfer at the touch of a button: measurement results are transferred to the active field on computer, regardless of whether it is in an Excel file, Word file or other software. The value is entered in the active field as if entered from the keyboard.

• Significant time savings: Automatic transmission of the measured value eliminates the need for manual input and eliminates errors.

• Flexible handling: Bluetooth wireless communication means that no cables hinder your movements.

• Easy connection: no software required. A device with a Bluetooth connection is all you need.

• Mobile app for iOS and Android available from Apple App Store and Google Play Store

Appropriate batteries:
1 pieces 155050.1400 - CR2032 / 3.0 V (included in scope of delivery).

Order ID		942100.0100	942100.0105	942100.0110
Range	mm	150	200	300
Resolution	mm	0.01	0.01	0.01
Reading		Switch between mm/inch	Switch between mm/inch	Switch between mm/inch
Accuracy	µm	30	30	30
Depth gauge		Rectangular	Rectangular	Rectangular
Length of base	mm	100	100	100
Rail cross section	mm	16 x 4	14 x 6	14 x 6
Digit height	mm	11.5	11.5	11.5
Data output		Bluetooth®	Bluetooth®	Bluetooth®
Protection class		IP 67	IP 67	IP 67
Material		Stainless steel/inox	Stainless steel/inox	Stainless steel/inox
Package		Plastic case	Plastic case	Plastic case
Price €		**235.00**	**289.00**	**335.00**

112405.0100

112405 Depth gauge digital FUTURO

3-year guarantee

Designs:
Type TB: Gauge rail with measuring tip Ø 1.5 x 5 mm

Features:
LCD display
Economy mode
Auto-ON function on movement
Position memorized (Absolute System S.I.S)
Programmable button
Stainless steel, hardened and ground
Depth gauge hardened
Data output Proximity

Package contents:
Delivered in case incl. operating instructions and ISO certificate.

Appropriate accessories:
109145 Accessories SYLVAC
112435 Accessories SYLVAC

Appropriate batteries:
1 pieces 155051.0545 - CR2032 / 3.0 V (included in scope of delivery).

Order ID		112405.0100	112405.0200
Type		TB	TB
Range	mm	150	300
Resolution	mm	0.01	0.01
Length of base	mm	100	100
Rail cross section	mm	16 x 3.5	16 x 3.5
Protection class		IP67	IP67
Digit height	mm	11.5	11.5
Data output		•	•
Price €		**338.00**	**437.00**

112576 Depth gauge digital NERIOX

Designs:
Type TA: Straight gauge rail

Features:
LCD display
ON/OFF function
Conversion mm/inch
Zero setting in any position

Package contents:
Delivered in case incl. declaration of conformity.

Appropriate batteries:
1 pieces 155051.0365 - SR44 (357) / 1.55 V (included in scope of delivery).

Order ID		112576.0100	112576.0200	112576.0300
Type		TA	TA	TA
Range	mm	200	300	500
Resolution	mm	0.01	0.01	0.01
Length of base	mm	100	100	100
Digit height	mm	7	7	7
Data output		—	—	—
Price €		**159.00**	**205.00**	**289.00**

115710 External micrometer FUTURO

115710.0101

3-year guarantee
Version with **integrated feeler ratchet** in the scale barrel and clamping mechanism. Measuring spindle with ground thread, carbide-coated measurement surfaces, ground and precision-lapped. Scale barrel and sleeve brushed chrome plated.

Package contents:
Delivered in case incl. adjusting wrench, adjustment gauge (from 25 mm) and ISO-certificate.

Appropriate accessories:
116136 Device holder NERIOX
163307 Parallel gauge block set FUTURO ceramic Tolerance class 0

Order ID	Range mm	Resolution mm	Accuracy µm	Measuring spindle Ø mm	Spindle pitch mm	Price €
115710.0101	0...25	0.01	4	6.5	0.5	42.60
115710.0201	25...50	0.01	4	6.5	0.5	64.40
115710.0301	50...75	0.01	5	6.5	0.5	76.00
115710.0401	75...100	0.01	5	6.5	0.5	88.00

115715 Set of external micrometers FUTURO

3-year guarantee
Version **with integrated feeler ratchet** in the scale barrel and clamping mechanism. Measuring spindle with ground thread, carbide-coated measurement surfaces, ground and precision-lapped. Scale barrel and sleeve brushed chrome plated.

Designs:
115715.0101: Set of 4 external micrometers
0...25 / 25...50 / 50...75 / 75...100 mm incl. adjusting gauges 25 / 50 / 75 mm

Package contents:
Delivered in case incl. adjusting wrench and ISO-certificate.

Appropriate accessories:
116136 Device holder NERIOX
163309 Parallel gauge block set FUTURO carbide Tolerance class 0

Order ID		115715.0101
Range	mm	0...100
Resolution	mm	0.01
Accuracy	µm	4...5
Measuring spindle Ø	mm	6.5
Spindle pitch	mm	0.5
Instruments		4
Price €		**260.00**

115705 External micrometer NERIOX

Solid construction with ratchet thimble and clamping mechanism. Scale barrel and sleeve matt chrome-plated. Measurement surfaces, ground and precision-lapped.

Package contents:
Delivered in plastic case (from 150 mm in transport packaging made of wood) incl. adjusting wrench, adjustment gauge (from 25 mm) and declaration of conformity.

Appropriate accessories:
116136 Device holder NERIOX
163313 Parallel gauge block set NERIOX steel Tolerance class 1
163315 Parallel gauge block set NERIOX ceramic Tolerance class 1

Order ID	Range mm	Resolution mm	Accuracy µm	Measuring spindle Ø mm	Spindle pitch mm	Price €
115705.0100	0...25	0.01	4	6.5	0.5	23.00
115705.0200	25...50	0.01	4	6.5	0.5	28.00
115705.0300	50...75	0.01	5	6.5	0.5	36.50
115705.0400	75...100	0.01	5	6.5	0.5	50.30
115705.0500	100...125	0.01	6	6.5	0.5	61.30
115705.0600	125...150	0.01	6	6.5	0.5	70.50
115705.0700	150...175	0.01	7	6.5	0.5	101.00
115705.0800	175...200	0.01	7	6.5	0.5	120.00

NERIOX

115707 Outside micrometer set NERIOX

With feeler ratchet, protective insulation and clamping mechanism. Scale barrel and sleeve matt chrome plated, C-frame gray lacquered. Carbide-coated measurement surfaces, ground and precision-lapped.

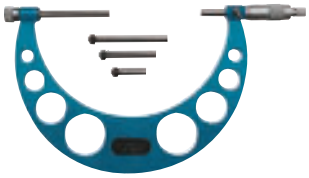
Designs:
Set of 4 external micrometers
0...25 / 25...50 / 50...75 / 75...100 mm incl. adjusting gauges 25 / 50 / 75 mm

Package contents:
Delivered in wooden case incl. adjusting wrench, adjusting gauges and declaration of conformity.

Appropriate accessories:
116136 Device holder NERIOX
163309 Parallel gauge block set FUTURO carbide Tolerance class 0

Order ID		115707.0100
Range	mm	0...100
Resolution	mm	0.01
Accuracy	µm	4 / 5
Measuring spindle Ø	mm	6.5
Spindle pitch	mm	0.5
Instruments		4
Price €		**129.00**

NERIOX



up to 300 mm

115746 External micrometer NERIOX

With interchangeable measuring anvil for a variable measuring range. Lightweight micrometer construction (from 300 mm), blue painted with feeler ratchet and clamping mechanism. Scale barrel and sleeve satin chrome-plated. Carbide-coated measurement surfaces, ground and precision-lapped.

Package contents:
Delivered in case incl. adjusting wrench, adjustment gauges, measuring inserts and declaration of conformity.

Order ID	Range mm	Resolution mm	Accuracy µm	Measuring spindle Ø mm	Spindle pitch mm	Price €
115746.0100	100...200	0.01	7	6.5	0.5	**367.00**
115746.0200	200...300	0.01	9	6.5	0.5	**397.00**
115746.0300	300...400	0.01	11	8.0	0.5	**445.00**
115746.0400	400...500	0.01	13	8.0	0.5	**505.00**

NERIOX

115159 External micrometer digital NERIOX

Scale barrel and sleeve satin chrome plated. Carbide-coated measurement surfaces, ground and precision-lapped.

Features:
LCD display
ZERO (sets display to zero)
ABS (switch between relative/absolute mode)
Conversion mm/inch
Auto-Power OFF

Package contents:
Delivered in case incl. adjusting wrench adjustment gauge (from 25 mm) and declaration of conformity.

Appropriate accessories:
116136 Device holder NERIOX
163313 Parallel gauge block set NERIOX steel Tolerance class 1
163315 Parallel gauge block set NERIOX ceramic Tolerance class 1

Appropriate batteries:
1 pieces 155051.0545 - CR2032 / 3.0 V (included in scope of delivery).

Order ID	Range mm	Resolution mm	Accuracy µm	Measuring spindle Ø mm	Spindle pitch mm	Protection class	Digit height mm	Price €
115159.0100	0...25	0.001	4	6.5	0.5	IP65	8.5	**119.00**
115159.0200	25...50	0.001	4	6.5	0.5	IP65	8.5	**139.00**
115159.0300	50...75	0.001	5	6.5	0.5	IP65	8.5	**169.00**
115159.0400	75...100	0.001	5	6.5	0.5	IP65	8.5	**189.00**

115153 External micrometer digital NERIOX KST

115153.0100

External micrometer with plastic ratchet thimble, scale barrel and sleeve satin chrome plated. Carbide-coated measuring surfaces, ground and precision-lapped.

Features:
LCD display
SET (sets display to zero)
UNIT (conversion mm/inch)
ABS/INC function
Auto-Power OFF

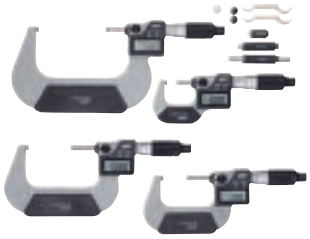
Package contents:
Delivered in case incl. adjusting wrench adjustment gauge (≥ 25 mm) and declaration of conformity.

Appropriate accessories:
116136 Device holder NERIOX
163313 Parallel gauge block set NERIOX steel Tolerance class 1
163315 Parallel gauge block set NERIOX ceramic Tolerance class 1

Appropriate batteries:
1 pieces 155051.0365 - SR44 (357) / 1.55 V (included in scope of delivery).

Order ID	Range mm	Resolution mm	Accuracy µm	Measuring spindle Ø mm	Spindle pitch mm	Protection class	Digit height mm	Price €
115153.0100	0...25	0.001	2	6.5	0.5	IP65	7	129.00
115153.0200	25...50	0.001	2	6.5	0.5	IP65	7	149.00
115153.0300	50...75	0.001	3	6.5	0.5	IP65	7	179.00
115153.0400	75...100	0.001	3	6.5	0.5	IP65	7	209.00

115154 External micrometer set digital NERIOX KST



External micrometers with plastic ratchet thimble, scale barrel and sleeve satin chrome plated. Carbide-coated measuring surfaces, ground and precision-lapped.

Designs:
Set with 4 outside micrometers
0...25 / 25...50 / 50...75 / 75...100 mm incl. setting gauges 25 / 50 / 75 mm

Features:
LCD display
SET (sets display to zero)
UNIT (conversion mm/inch)
ABS/INC function
Auto-Power OFF

Package contents:
Delivered in case incl. adjusting wrench, adjusting gauges and declaration of conformity.

Appropriate accessories:
116136 Device holder NERIOX
163309 Parallel gauge block set FUTURO carbide Tolerance class 0

Appropriate batteries:
1 pieces 155051.0365 - SR44 (357) / 1.55 V (included in scope of delivery).

Order ID	Range mm	Resolution mm	Accuracy µm	Measuring spindle Ø mm	Spindle pitch mm	Protection class	Digit height mm	Price €
115154.0100	0...100	0.001	2 / 2 / 3 / 3	6.5	0.5	IP65	7	589.00

115155 External micrometer digital NERIOX QUICK

External micrometer with plastic ratchet thimble and **quick spindle setting**. Sscale barrel and sleeve satin chrome plated. Carbide-coated measuring surfaces, ground and precision-lapped.

Features:
LCD display
SET (sets display to zero)
UNIT (conversion mm/inch)
ABS/INC function
Auto-Power OFF
Spindle pitch 2 mm (4 x faster spindle setting)

Package contents:
Delivered in case incl. adjusting wrench and declaration of conformity.

Appropriate accessories:
116136 Device holder NERIOX
163313 Parallel gauge block set NERIOX steel Tolerance class 1
163315 Parallel gauge block set NERIOX ceramic Tolerance class 1

Appropriate batteries:
1 pieces 155051.0365 - SR44 (357) / 1.55 V (included in scope of delivery).

Order ID	Range mm	Resolution mm	Accuracy µm	Measuring spindle Ø mm	Spindle pitch mm	Protection class	Digit height mm	Price €
115155.0100	0...25	0.001	2	6.5	2	IP65	7	249.00

NERIOX

115149.0100

115149 External micrometer digital NERIOX ST

External micrometer with plastic ratchet thimble, scale barrel and sleeve satin chrome plated. Carbide-coated measuring surfaces, ground and precision-lapped.

Features:
LCD display
SET (sets display to zero)
Auto-Power OFF

Package contents:
Delivered in case incl. adjusting wrench adjustment gauge (from 25 mm) and declaration of conformity.

Appropriate accessories:
116136 Device holder NERIOX
163313 Parallel gauge block set NERIOX steel Tolerance class 1
163315 Parallel gauge block set NERIOX ceramic Tolerance class 1

Appropriate batteries:
1 pieces 155051.0365 - SR44 (357) / 1.55 V (included in scope of delivery).

Order ID	Range mm	Resolution mm	Accuracy µm	Measuring spindle Ø mm	Spindle pitch mm	Protection class	Digit height mm	Price €
115149.0100	0...25	0.001	2	6.5	0.5	IP65	7	99.00
115149.0200	25...50	0.001	2	6.5	0.5	IP65	7	119.00
115149.0300	50...75	0.001	2	6.5	0.5	IP65	7	139.00
115149.0400	75...100	0.001	2	6.5	0.5	IP65	7	159.00

NERIOX

116136.0100

116136.0200

116136 Device holder NERIOX

Can be used for external micrometers and other equipment.
For series measurementsuse in production and inspection. Inclinable fine adjustment mechanism.

Order ID	Opening mm	Price €
116136.0100	0...22	41.00
116136.0200	7...15	41.00

NERIOX

116086 Measuring force tester NERIOX

Suitable for external micrometers with a measuring spindle from Ø 6.35...8.0 mm.

Order ID	Range N	Length mm	Spindle Ø mm	Weight kg	Price €
116086.0100	5...12	25	6.35 / 6.5 / 8.0	0.120	18.50

117020 Depth micrometer FUTURO

FUTURO

3-year guarantee
Version **with integrated feeler ratchet** in the scale barrel. Measuring spindle with ground thread, carbide-coated measurement surface, ground and precision-lapped. Scale barrel and sleeve brushed chrome plated.

Package contents:
Delivered in case incl. adjusting wrench and ISO-certificate.

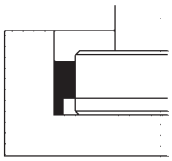
Order ID		117020.0100
Range	mm	0...25
Resolution	mm	0.01
Accuracy	µm	10
Measuring spindle Ø	mm	6.5
Spindle pitch	mm	0.5
Support base	mm	80 x 16
Price €		**145.00**

120265 Internal micrometer NERIOX

NERIOX

Internal micrometers for measuring through holes and blind holes.

Features:
Carbide-coated measuring surfaces
Satin chrome-plated vernier



Ø 50 mm
for blind holes

Note:
The accuracy specifications assume that the measuring surfaces are in contact with the test object along their whole length

Package contents:
Delivered in case incl. declaration of conformity and ring gauge (120265.0500 **without** ring gauge).

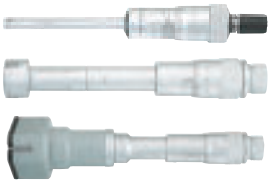
Appropriate accessories:
164970 Ring gauges Ø 1...Ø 300 mm
165030 Adjustable ring gauges FUTURO Ø 3...Ø 200 mm

Order ID	Range mm	Resolution mm	Accuracy µm	Measuring depth mm	Adjusting ring Ø mm	Price €
120265.0100	50...70	0.001	4	152	50	**490.00**
120265.0200	70...100	0.001	4	152	70	**560.00**
120265.0300	100...150	0.001	5	152	100	**1260.00**
120265.0400	150...250	0.001	7	152	150	**1780.00**
120265.0500	200...300	0.001	7	152	-	**3000.00**

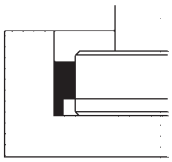
120263 Internal micrometer NERIOX

NERIOX

Internal micrometers for measuring through holes and blind holes (< Ø 12 to 1.5 mm from bottom).



Features:
Carbide-coated measuring surfaces
Satin chrome-plated vernier



Ø 12 mm
for blind holes

Note:
The accuracy specifications assume that the measuring surfaces are in contact with the test object along their whole length

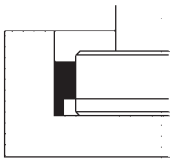
Package contents:
Delivered in case incl. ring gauge and declaration of conformity.

Appropriate accessories:
165030 Adjustable ring gauges FUTURO Ø 3...Ø 200 mm
199230 Wooden cases for measuring tools

Order ID	Range mm	Resolution mm	Accuracy µm	Adjusting ring Ø mm	Measuring depth mm	Price €
120263.0100	6...8	0.001	4	6	55	**272.00**
120263.0200	8...10	0.001	4	8	55	**272.00**
120263.0300	10...12	0.001	4	10	55	**272.00**
120263.0400	12...16	0.005	5	16	80	**248.00**
120263.0500	16...20	0.005	5	16	80	**248.00**
120263.0600	20...25	0.005	5	25	90	**275.00**
120263.0700	25...30	0.005	5	25	90	**275.00**
120263.0800	30...40	0.005	5	40	97	**306.00**
120263.0900	40...50	0.005	5	40	97	**333.00**
120263.1000	50...63	0.005	5	62	115	**368.00**
120263.1100	62...75	0.005	5	62	115	**380.00**
120263.1200	75...88	0.005	5	87	115	**391.00**
120263.1300	87...100	0.005	5	87	115	**427.00**

NERIOX

120253.0200



> Ø 12 mm
for blind holes

120253 Set of internal micrometers NERIOX

Internal micrometers for measuring through holes and blind holes (< Ø 12 to 1.5 mm from bottom).

Features:
Carbide-coated measuring surfaces
Satin chrome-plated vernier

Note:
The accuracy specifications assume that the measuring surfaces are in contact with the test object along their whole length

Package contents:
Delivered in case incl. extension, ring gauges and declaration of conformity.

Appropriate accessories:
165030 Adjustable ring gauges FUTURO Ø 3...Ø 200 mm
199230 Wooden cases for measuring tools

Order ID		120253.0100	120253.0200	120253.0300	120253.0400
Range	mm	6...12	12...20	20...50	50...100
Resolution	mm	0.001	0.005	0.005	0.005
Accuracy	µm	4	5	5	5
Instruments		3	2	4	4
Range 1	mm	6...8	12...16	20...25	50...63
Range 2	mm	8...10	16...20	25...30	62...75
Range 3	mm	10...12	—	30...40	75...88
Range 4	mm	—	—	40...50	87...100
Adjusting ring Ø	mm	6 / 8 / 10	16	25 / 40	62 / 87
Measuring depth	mm	55	80	90 / 97	115
Extensions	pieces	1	1	1	1
Price €		**850.70**	**589.40**	**1203.00**	**1513.20**

123410 Dial gauge FUTURO

3-year guarantee
Standard version.

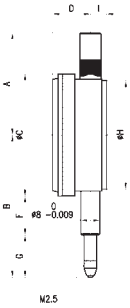
Features:
Rotating dial with blocking
Adjustable tolerance marks
Clamping shaft Ø 8 mm
Exchangeable measuring insert M2.5
Impact-resistant (depending on the model)

Package contents:
Delivered in transport packaging incl. ISO certificate.

Appropriate Measuring Inserts:
124008 Measuring inserts M2.5 FUTURO
124010 Measuring inserts M2.5
710140 Measuring insert for comparator M 2.5 VOH
735820 Polymer dial gauge feeler TECHNIWATCH

123410.3200

123410.0030



Order ID		123410.0030	123410.0040	123410.0095	123410.0100	123410.0200
Travel	mm	5	5	10	10	25
Resolution	mm	0.01	0.01	0.01	0.01	0.01
Bezel Ø	mm	40	40	58	58	58
Accuracy		DIN 878	DIN 878	DIN 878	DIN 878	25 µm
Lettering		0...50...0	0...100	0...50...0	0...100	0...100
1 revolution	mm	1	1	1	1	1
Protection antichoc		–	–	•	•	–
A	mm	27	27	48.0	48.5	61
B	mm	45	47	68.5	70.0	81
C	mm	Ø 40	Ø 40	Ø 56.4	Ø 57	Ø 57
D	mm	20	20	16.1	15	16.0
F	mm	15	14	22.2	20.5	20.5
G	mm	12	13	20.3	20	32.5
H	mm	Ø 36	Ø 36	Ø 52.0	Ø 51	Ø 52
I	mm	Ø 7	Ø 7	Ø 8.5	Ø 8.5	Ø 9.5
Price €		**52.90**	**53.50**	**43.90**	**43.90**	**74.50**

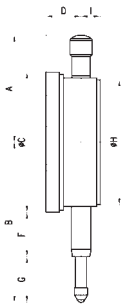
Order ID		123410.0300	123410.3100	123410.3200	123410.3300
Travel	mm	50	5	10	30
Resolution	mm	0.01	0.01	0.01	0.01
Bezel Ø	mm	78	40	58	58
Accuracy		40 µm	DIN 878	DIN 878	-
Lettering		0...100	0...100	0...100	0...100
1 revolution	mm	1	1	1	1
Protection antichoc		–	–	•	•
A	mm	62	31	39	59
B	mm	132	48	69	89
C	mm	Ø 88	40	58	58
D	mm	16.5	13.8	15.5	15.5
F	mm	27	14	19	19
G	mm	60	14	21	41
H	mm	Ø 85	37	52	52
I	mm	Ø 10	6.8	7.5	7.5
Price €		**177.60**	**40.90**	**36.70**	**78.60**

122591 Dial gauge NERIOX CENTI

DIN 878
Standard version with metall housing.

Features:
Rotating dial
Adjustable tolerance marks
Clamping shaft Ø 8 mm
Exchangeable measuring insert M2.5
Impact-resistant (depending on the model)

Package contents:
Delivered in transport packaging incl. declaration of conformity.

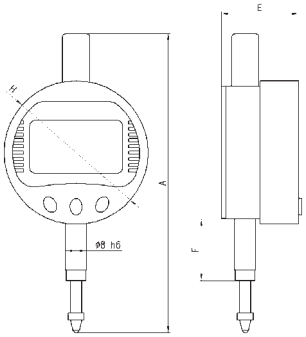


122591.0200

Order ID		122591.0100	122591.0200
Travel	mm	10	10
Resolution	mm	0.01	0.01
Bezel Ø	mm	58	58
Measuring pressure	N	0.4...1.4	0.7...1.5
Accuracy		DIN 878	DIN 878
Lettering		0...100	0...100
Protection antichoc		–	•
1 revolution	mm	1	1
A	mm	47.7	47.7
B	mm	68.5	68.5
C	mm	Ø 58	Ø 58
D	mm	16.3	16.3
F	mm	18.3	18.3
G	mm	21	21
H	mm	Ø 53.5	Ø 53.5
I	mm	8.1	8.1
Price €		**22.40**	**32.50**

NERIOX

121851.0100



121851.0100/ .1100

121851 Dial gauge digital NERIOX

CENTI / MILLI

Features:
LCD display
Zero-setting
Measuring mode REL / ABS
PRESET (preset value input)
Conversion mm / inch

Package contents:
Delivered in case incl. declaration of conformity.

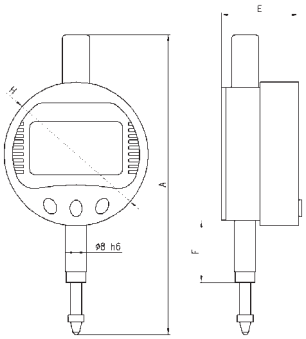
Appropriate Measuring Inserts:
124008 Measuring inserts M2.5 FUTURO
124010 Measuring inserts M2.5
710140 Measuring insert for comparator M 2.5 VOH
735820 Polymer dial gauge feeler TECHNIWATCH

Appropriate batteries:
1 pieces 155050.1400 - CR2032 / 3.0 V (included in scope of delivery).

Order ID		121851.0100	121851.0200	121851.0300	121851.1100	121851.1200	121851.1300
Type		CENTI	CENTI	CENTI	MILLI	MILLI	MILLI
Travel	mm	12.7	30	50	12.7	30	50
Resolution	mm	0.01	0.01	0.01	0.001	0.001	0.001
Accuracy	µm	20	20	20	5	5	6
Measuring pressure	N	0.7	1.4	2.2	0.7	1.4	2.2
Digit height	mm	10	10	10	10	10	10
A	mm	120	180	246	120	180	246
E	mm	30.3	34.6	34.6	30.3	34.6	34.6
F	mm	25.4	21	22	25.4	21	22
H	mm	56.5	56.5	56.5	56.5	56.5	56.5
Price €		**79.00**	**99.00**	**159.00**	**140.00**	**180.00**	**290.00**

NERIOX

121856.0100



121856 Dial gauge digital NERIOX IP65

CENTI / MILLI

Features:
LCD display
Zero setting
Measuring direction ±
Measuring mode INC / ABS
CAL (preset value input)
TOL (tolerance input)
Conversion mm / inch

Package contents:
Delivered in case incl. declaration of conformity.

Appropriate Measuring Inserts:
124008 Measuring inserts M2.5 FUTURO
124010 Measuring inserts M2.5
710140 Measuring insert for comparator M 2.5 VOH
735820 Polymer dial gauge feeler TECHNIWATCH

Appropriate batteries:
1 pieces 155050.1400 - CR2032 / 3.0 V (included in scope of delivery).

Order ID		121856.0100	121856.1100
Type		CENTI IP65	MILLI IP65
Travel	mm	12.7	12.7
Resolution	mm	0.01	0.001
Accuracy	µm	20	4
Measuring pressure	N	0.7	0.7
Digit height	mm	10	10
Protection class		IP65	IP65
A	mm	147	147
E	mm	33	33
F	mm	23	23
H	mm	58.5	58.5
Price €		**91.00**	**161.00**

121853 Dial gauge digital NERIOX

MILLI TOL / ANALOG

121853.0100 121853.1100

Features:
LCD display
Zero setting
Measuring mode REL / ABS
PRESET (preset value input)
TOL (tolerance input)
MAX / MIN function
Conversion mm / inch
Display digital / analog (depending on the type)

Package contents:
Delivered in case incl. declaration of conformity.

Appropriate Measuring Inserts:
124008 Measuring inserts M2.5 FUTURO
124010 Measuring inserts M2.5
710140 Measuring insert for comparator M 2.5 VOH
735820 Polymer dial gauge feeler TECHNIWATCH

Appropriate batteries:
1 pieces 155050.1400 - CR2032 / 3.0 V (included in scope of delivery).

Order ID		121853.0100	121853.0200	121853.0300	121853.1100	121853.1200	121853.1300
Type		MILLI TOL	MILLI TOL	MILLI TOL	MILLI TOL/ANALOG	MILLI TOL/ANALOG	MILLI TOL/ANALOG
Travel	mm	12.7	30	50	12.7	30	50
Resolution	mm	0.001	0.001	0.001	0.001	0.001	0.001
Accuracy	µm	4	5	6	4	5	6
Measuring pressure	N	0.7	1.4	2.0	0.7	1.4	2.0
Digit height	mm	10	10	10	10	10	10
A	mm	120	181	246	120	181	246
E	mm	30.3	34.6	34.6	30.3	34.6	34.6
F	mm	25.4	21	21	25.4	21	21
H	mm	56.5	56.5	56.5	56.5	56.5	56.5
Price €		**190.00**	**240.00**	**390.00**	**210.00**	**260.00**	**430.00**

FUTURO

124008 Measuring inserts M2.5 FUTURO

SwissMade

Order ID	Designation	Price €
124008.0020	Carbide pin	45.40
124008.0030	Carbide pin	36.90
124008.0045	Carbide pin	36.90
124008.0046	Carbide pin	36.90
124008.0048	Carbide pin	32.90
124008.0050	Carbide pin	36.90
124008.0060	Carbide pin	39.00
124008.0130	Carbide pin	22.60
124008.0140	Carbide pin	29.80
124008.0200	Carbide pin	36.90
124008.0300	4 carbide pin, replaceable	30.80
124008.0310	Carbide pin, replaceable	18.50
124008.0320	Carbide pin, replaceable	18.50
124008.0330	Carbide pin, replaceable	19.50
124008.0405	Carbide pin, replaceable	20.70
124008.0410	Carbide pin, replaceable	20.70
124008.0415	Carbide pin, replaceable	20.70
124008.0420	Carbide pin, replaceable	20.70
124008.0430	Carbide pin, replaceable	21.50
124008.1500	Carbide pin	39.00
124008.1520	Carbide pin Groove width from 0.8 mm Groove depth max. 1.4 mm	41.10
124008.1640	Plastic ball	28.70
124008.1650	Steel ball	28.70
124008.1700	with replaceable POM measuring insert	26.80
124008.1705	with replaceable POM measuring insert	26.80
124008.1720	with replacement POM measuring insert / cone	26.80
124008.1750	POM measuring insert / cone	28.70
124008.1800	POM measuring insert / pin Ø 1 x 10	29.80
124008.1805	POM measuring insert / pin Ø 1.5 x 13	29.80
124008.2030	INOX insert-body FUTURO M2.5, with receptacle bore hole, Ø1.5H6	15.20
124008.2040	INOX insert-body FUTURO M2.5, with receptacle bore hole, Ø2.0H6	15.20
124008.2050	INOX insert-body FUTURO M2.5, with receptacle bore hole, Ø2.5H6	15.20
124008.3000	Caliper support FUTURO Aluminium, black anodised M2.5	27.30
124008.9000	Base on acrylic glass for inserts M2.5 transparent with place for 23 pieces	49.40

124401 Dial test indicator NERIOX

standard

Standard version for heavy-duty workshop use, suitable for difference measurements, measurements of shape, position and place deviations as well as radial and axial runout.

Features:
Measures in 2 directions
Measuring stylus M2 with carbide ball Ø 2 mm

Package contents:
1 lever test indicator, complete
1 clamping shaft Ø 4 mm
1 clamping shaft Ø 8 mm
1 plastic holster
1 declaration of conformity

124400.0100

Order ID		124401.0100	124401.0200
Travel	mm	0.8	0.8
Resolution	mm	0.01	0.01
Bezel Ø	mm	32	40
Lettering		0...40...0	0...40...0
Ball Ø	mm	2	2
Probe	mm	12.4	12.4
Repeatability	µm	3	3
Price €		**62.00**	**68.30**

NERIOX

129603.0200

129603 Thickness gauge digital NERIOX

For measurement on soft materials like foils, felt, rubber, paper and carton.

Package contents:
Delivered in transport packaging incl. declaration of conformity.

Appropriate batteries:
1 pieces 155050.1400 - CR2032 / 3.0 V (included in scope of delivery).

Order ID		129603.0100	129603.0200	129603.0300
Range	mm	0...10	0...10	0...10
Capacity	mm	30	30	120
Resolution	mm	0.01	0.001	0.01
Accuracy	mm	0.02	0.01	0.02
Version		Ceramic probe Ø 10 mm	Ceramic probe Ø 10 mm	Ceramic probe Ø 10 mm
Price €		**97.40**	**204.80**	**141.80**

178145 Articulated stands for centring NERIOX

Infinitely adjustable mechanical central clamping, holder with clamping shaft Ø8 mm or dovetail.

Package contents:
Delivered in transport packaging, **dial gauge not included**.

Order ID	Shaft Ø mm	Shank length mm	Radius of action mm	Price €
178145.0100	8	40	150	36.10
178145.0200	8	40	280	46.50

178145.0100 178145.0200

NERIOX

129911.0100

126911.0200

126911 Magnetic measuring stand NERIOX

Small measuring stand with permanent magnet. Horizontal arm with fine adjustment, clamping piece with dovetail and Ø 8 mm dial gauge Holder.

Package contents:
Delivered in transport packaging, **without dial gauge.**

Appropriate accessories:
from 121450 Dial gauges
from 124210 Dial test indicators

Order ID		126911.0100
Height	mm	170
Vertical arm	mm	Ø 10
Horizontal arm	mm	Ø 8 x 130
Base	mm	Ø 35 x 30
Adhesive strength	N	250
Dial gauge holder	mm	Ø 8
Weight	kg	0.6
Price €		**92.00**

NERIOX

Example of application

126851 Magnetic measuring stand NERIOX

For control measurements with dial gauges and fine probes. Precision stand, solid construction, on/off prismatic magnet foot.

Package contents:
Delivered in transport packaging, **without dial gauge**.

Appropriate accessories:
from 121450 Dial gauges
from 124210 Dial test indicators

Order ID		126851.0100	126851.0200
Height	mm	285	500
Vertical arm	mm	Ø 16 x 220	Ø 20 x 420
Horizontal arm	mm	Ø 16 x 180	Ø 16 x 180
Base	mm	70 x 46 x 65	75 x 60 x 80
Adhesive strength	N	600	800
Dial gauge holder	mm	Ø 8	Ø 8
Price €		**75.00**	**98.70**

NERIOX

126871 Magnetic measuring stand NERIOX

QUICK-CHECK

Magnet can be switched on and off, gooseneck-like, lockable articulated arm bends and rotates, also for hard-to-access locations.

Package contents:
Delivered in transport packaging, **without dial gauge**.

Appropriate accessories:
from 121450 Dial gauges
from 124210 Dial test indicators

Order ID		126871.0100
Length of the arm	mm	285
Base	mm	70 x 46 x 65
Adhesive strength	N	600
Dial gauge holder	mm	Ø 8
Price €		**118.20**

126876 Accessories NERIOX

NERIOX

QUICK-CHECK

Order ID	Designation	Price €
126876.0100	Swan neck NERIOX complete, length 285 mm, receptacle M10	69.40
126876.0200	Magnetic base NERIOX 70 x 46 x 65 / M10 / 600 N	61.70

126876.0100

126876.0200

127101 Measuring stand NERIOX

NERIOX

Model with fine adjustment and V-block on the underside. Seat and bearing surfaces ground. Holder for Ø 8 mm or for dovetail.

Package contents:
Delivered in transport packaging, **without dial gauge**.

Appropriate accessories:
from 121450 Dial gauges
from 124210 Dial test indicators

Order ID		127101.0100
Height	mm	300
Vertical arm	mm	Ø 16
Horizontal arm	mm	Ø 16 x 180
Base	mm	250 x 60 x 35
Dial gauge holder	mm	Ø 8
Weight	kg	3.8
Price €		**288.10**

Example of application

127151 Accessories NERIOX for stands

NERIOX

Further accessories on request

Order ID	Designation	Price €
127151.0100	Universal joint NERIOX Ø 8 / Ø 8	37.70

126861 Magnetic measuring stand NERIOX

NERIOX

Stable and versatile measuring stand with fine adjustment and on/off magnetic foot.

Package contents:
Delivered in transport packaging, **without dial gauge.**

Appropriate accessories:
from 121450 Dial gauges
from 124210 Dial test indicators

Order ID		126861.0100
Height	mm	275
Vertical arm	mm	Ø 16
Horizontal arm	mm	Ø 12 x 200
Base	mm	60 x 50 x 55
Adhesive strength	N	580
Dial gauge holder	mm	Ø 8
Price €		**31.50**

127500 Hard-stone measuring table FUTURO

Made of black granite - Evenness in accordance with DIN 876/00, chrome steel column with thread for height adjustment.

Designs:
127500.1000 fixed horizontal arm
127500.1100 fixed horizontal arm with fine adjusting
127500.1200 adjustable horizontal arm
127500.1300 adjustable horizontal arm

Package contents:
Delivered in transport packaging.

Appropriate accessories:
Dial gauges starting from 121450

Order ID		127500.1000	127500.1100	127500.1200	127500.1300
Measuring height	mm	210	210	210	210
Capacity	mm	115	130	200	200
Table size	mm	250 x 200 x 50	250 x 200 x 50	250 x 200 x 50	400 x 250 x 50
Evenness	µm	3	3	3	3
Vertical arm	mm	Ø 35	Ø 35	Ø 35	Ø 35
Height	mm	320	320	320	320
Dial gauge holder	mm	Ø 8	Ø 8	Ø 8	Ø 8
Weight	kg	10.5	10.6	11.0	17.5
Price €		**565.00**	**625.00**	**625.00**	**655.00**

127501.0100

127501 Hard-stone measuring table NERIOX

Made of black granite - Evenness in accordance with DIN 876/00, steel pillar.

Designs:
127501.0100...**127501.1000**: Fixed horizontal arm
127501.1100: Horizontal arm adjustable

Package contents:
Delivered in transport packaging.

Appropriate accessories:
starting from 121450 Dial gauges

Order ID		127501.0100	127501.1000	127501.1100
Measuring height	mm	150	210	230
Capacity	mm	60	115	200
Table size	mm	200 x 100 x 50	250 x 200 x 50	250 x 200 x 50
Evenness	µm	3	3	3
Vertical arm	mm	Ø 22	35	Ø 35
Height	mm	260	265	265
Dial gauge holder	mm	Ø 8	Ø 8	Ø 8
Weight	kg	4	10.5	11
Price €		**250.00**	**398.00**	**419.00**

137851 Height measuring / scribing instrument NERIOX HA

Analogue height gauge and scribing instrument with fine adjustment. Sturdy cast foot with ground base surface.

Features:
Brushed-chrome plated measuring rod and vernier
Measuring rod hardened and ground
Scribing blade offset and carbide-tipped

Package contents:
Delivered in transport packaging incl. declaration of conformity.

Appropriate spare parts:
137857 Accessories NERIOX

Order ID		137851.0010	137851.0020
Range	mm	300	600
Vernier	mm	0.02	0.02
Accuracy	µm	40	70
Weight	kg	3.2	7.2
Price €		**162.80**	**231.00**

137881 Height measuring /scribing instrument NERIOX FDZ

Dual meter and dial gauge - for rapid and reliable reading. Height adjustment with hand wheel, scribing needle carbide-coated, round dial with 0.01 mm graduation. Two mechanical digital displays with counters running in opposite directions for whole millimetres. Both counters can be independently set to zero as required.

Package contents:
Delivered in transport packaging incl. declaration of conformity.

Order ID		137881.0100
Range	mm	300
Resolution	mm	0.01
Accuracy	µm	40
Weight	kg	4.3
Price €		**335.00**

137781 Height measuring /scribing instrument NERIOX HD

Digital height gauge and scribing instrument with fine adjustment. Sturdy foot with ground base surface. Large, easy-to-read LCD display; carbide-tipped scriber.

Features:
ON/OFF function
Zero setting in any position
mm/inch conversion

Package contents:
Delivered in transport packaging incl. declaration of conformity.

Appropriate spare parts:
137787 Accessories NERIOX

Appropriate batteries:
1 pieces 155051.0365 - SR44 (357) / 1.55 V (included in scope of delivery).

Order ID		137781.0010	137781.0020
Range	mm	300	600
Resolution	mm	0.01	0.01
Accuracy	µm	40	50
Weight	kg	4.6	6.4
Price €		**383.30**	**582.80**

FUTURO

with ISO certificate

136750 Height measuring instrument FUTURO

1D measuring mode

SwissMade - 3-year guarantee
Shop-suitable measuring instrument with large and very readable LCD display with 2 rows presentation. Ideal for simple and reliable measurement of heights, depths and distances as well as inside and outside diameters.

Designs:
Model F4 manual, with air cushion

Features:
mm / inch conversion
Min/max/delta function
Measurement with 2 reference points
PRESET function
Saving of probe constant
Adjustable measuring pressure
Data output RS-232 and USB
Appropriate for probes up to 400 mm

Note:
We provide you with optional installation, activation, training, calibration and servicing on site for this measuring instrument.

Package contents:
Delivered in transport packaging incl.:
Probe with ruby ball Ø 4 mm
Setting gauge
Charger
Protection cover
Manual short / Manual
ISO certificate

Appropriate accessories:
136600 Accessories SYLVAC / TRIMOS
137308 Practice piece 1D/2D
144190 ALUFIX Starter Kit H for Heigth gauges

Order ID		136750.0100
Model		F4
Range	mm	711
Area of application	mm	1023
Resolution	mm	0.001
Accuracy	µm	7
Repeatability	µm	2 (Ø:4)
Squareness	µm	15
Measuring pressure	N	0.75...1.5
Weight	kg	24
Price €		**4990.00**

NERIOX

139571 Stainless scribe gauge NERIOX

With stop roller. **Highly suited for scribing parallels**. Stainless, brushed chrome plated model. Calibration and vernier mm/inch Stop roller with Ø 8 mm, Scribing needle Ø 2 mm hardened and replaceable.

Package contents:
Delivered in holster,including 1 replacement scriber needle.

Order ID	Range mm	Vernier mm	Price €
139571.0100	200	0.1	**35.00**

NERIOX

139606 Metalworker's scribe gauge NERIOX

Steel
Chrome-plated version, hardened. Stroke measure with flat slider.

Package contents:
Delivered in transport packaging.

Order ID	Range mm	Resolution mm	Price €
139606.0100	200	1	**29.70**
139606.0200	250	1	**34.00**
139606.0300	300	1	**37.60**

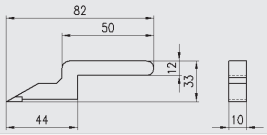
137891 Accessories NERIOX

NERIOX

Order ID	Designation	Price €
137891.0100	Scribing blade to Height gauge NERIOX HDZ	**26.30**

137787 Accessories NERIOX

Order ID	Designation	Price €
137787.0010	Scribing cutter with carbide tip for NERIOX HD 300 mm / 600 mm, 12 x 10 x 82 mm	31.00



137857 Accessories NERIOX

Order ID	Designation	Price €
137857.0010	Scribing cutter with carbide tip for NERIOX HA 300 mm, 6 x 8 x 76	21.00
137857.0020	Scribing cutter with carbide tip to NERIOX HA 600, 10 x 12 x 103	31.50

139576 Replacement scriber NERIOX

to scribe gauge

Ø 2 mm, made of steel, hardened.

Order ID	139576.0100
Price €	4.40

152804.5000

152804 Base with granite tabletop FUTURO

For use with optical comparators, co-ordinate measuring devices etc. The anti-vibration adjustable feet with levelling screws can be used to adapt the working height.

Features:
Working height approx. 750 mm
Robust steel tube construction
Painted with RAL 7035

Surface plate:
Dark hard stone with dense structure
Flatness to DIN 876/2
Dimension 820 x 580 x 50 mm

Drawers:
Drawers heights 50 / 100 / 150mm
Lockable, load capacity 100 kg

Package contents:
Base frame including 3-point support kit, 2 anti-tilt devices and 4 levelling feets.

Order ID	Version	Price €
152804.3200	without granite tabletop	1032.00
152804.5000	with granite tabletop	895.00

142590 Measuring/testing plates FUTURO DIN 876/00

Made from hard dark stone with dense structure and even colouring. The top is machined in accordance with DIN 876/00, the outer sides are finely machined and the underside is machined clean.

Features:
Precision processed surface
Homogeneous stone structure
Thick plate cross-section
Unstressed and deflection-resistant
Low thermal conductivity

Package contents:
Delivered in transport packaging incl. ISO certificate.

Appropriate accessories:
142602 Cleaning/care material FUTURO for granite products
142661 Base frames FUTURO for hard stone plates

Order ID	Length mm	Width mm	Thickness mm	Evenness µm	Weight kg	Price €
142590.5330	800	500	130	3.6	156	555.00
142590.5440	1000	630	150	4.0	285	855.00
142590.5550	1200	800	160	4.4	465	1500.00

142661 Base frames FUTURO

for hard stone plates

Robust steel tube construction with Bessel 3-point support and tip safety (bearing fitting). Bearing fitting is high adjustable and is used for aligning the plates (3-point support and 2 screws provided for tip safety). The working height can be adjusted using the anti-vibration adjustable feet with levelling screw. The working height (approx. 1000 mm) varies according to the thickness of the hard-stone plate. Paint RAL 7035.

Designs:
Model SU Safety base
Corners protected with safety edges
with base plate and adjustable tray
Load carrying capacity 100kg

Model SUS Safety base with drawer unit
Corners protected with safety edges
Drawer cabinet in solid steel sheet construction
Drawers 50 / 100 / 150 mm, lockable
Load carrying capacity 100 kg

Model SSU Safety cabinet base
Corners protected with safety edges
Cabinet with double doors (2x) in solid steel sheet construction
Drawer cabinet in solid steel sheet construction
Drawers 50 / 100 / 150 / 150 mm, lockable
Load carrying capacity 100 kg

Package contents:
Delivered in transport packaging incl. 3-point support kit, 2 anti-tilt devices, 4 adjusting feets, **without granit plate**.

Usable with:
142560 Measuring/testing plate made of hard natural stone DIN 876/I
142580 Measuring/testing plate made of hard natural stone DIN 876/00
142590 Measuring/testing plates FUTURO DIN 876/00

Note:
*Dimensions relative to the plate size (L x B).

Order ID	Model	Size * mm	Weight kg	Price €
142661.2320	SU	800 x 500	53	488.00
142661.2430	SU	1000 x 630	68	536.00
142661.2540	SU	1200 x 800	84	593.00
142661.4530	SUS	800 x 500	80	856.00
142661.4640	SUS	1000 x 630	88	886.00
142661.4750	SUS	1200 x 800	101	969.00
142661.6340	SSU	1000 x 630	161	1338.00
142661.6450	SSU	1200 x 800	191	1550.00

142661.2320

142661.4640

142661.6340

NERIOX

143521 Pair of double V-blocks NERIOX with v-grooves

Steel hardened
Finely ground in pairs with 1 incision 90°.

Features:
Parallelism and angularity tolerance **0.004 mm**
Prism, flat sides and prism to flat sides **0.01 mm**

Package contents:
Delivered in transport packaging.

Order ID	Length mm	Width mm	Height mm	Incision	for shafts Ø mm	Weight per unit kg	Price €
143521.0100	75	35	30	90°	5...40	0.48	153.50
143521.0200	100	47	40	90°	5...55	1.10	195.50

NERIOX

143575 Pair of triple V-blocks NERIOX

Stainless steel
Execution 3 different 90° groove sizes, ground V-supports and base.

Features:
Parallel tolerance 0.04 mm

Package contents:
Delivered in transport packaging.

Order ID	Length mm	Width mm	Height mm	Price €
143575.0100	50	19	24	99.00
143575.0200	100	33	52	125.00
143575.0300	150	50	80	195.00

NERIOX

143451 V-Block pairs double prisms NERIOX with V-support

Steel hardened
Finely ground in pairs with 2 incisions 90° of different sizes.

Features:
Parallelism and angularity tolerance **0.004 mm**
Prism, flat sides and prism to flat sides **0.01** mm

Package contents:
Delivered in woden case including clamping yokes.

Appropriate spare parts:
143430 Clamping yokes for V-type supports

Order ID	Length mm	Width mm	Height mm	Incision	for shafts Ø mm	Price €
143451.0100	50	40	40	90°	5...30	135.00
143451.0200	75	55	55	90°	5...50	199.00
143451.0300	100	75	75	90°	7...70	302.00

FUTURO

418630 Magnetic V-block FUTURO

Very good magnetic properties.

Order ID		418630.0100	418630.0200
Type		**100**	**200**
Length	mm	80	115
Width	mm	56	75
Height	mm	72	100
Adhesive strength	N	550...700	850...1000
Parallelism	µm	50 / 100	50 / 100
V-blocks		1 x 90°	2 x 90°
Angularity	µm	70 / 100	70 / 100
Price €		269.00	355.00

143601 Vee NERIOX with V support

NERIOX

Magnetic

Single vee made of steel, magnet with On/Off control, for measuring, scribing and machining workpieces on machine tools. Vee with all sides parallel and fine-ground corners.

Designs:
143601.0100...**143601.0200**: Standard version
143601.0300...**143601.0400**: Hardened version

Features:
Parallelism and angularity tolerance **0.004 mm**
Prism, flat sides and prism to flat sides **0.01 mm**

Package contents:
Delivered in woden case.

143601.0100/.0200

143601.0300/.0400

Order ID		143601.0100	143601.0200	143601.0300	143601.0400
Length	mm	80	100	80	100
Width	mm	67	70	67	70
Height	mm	96	96	96	96
Accuracy	mm	0.004	0.004	0.004	0.004
for shafts Ø	mm	6...66	6...70	6...66	6...70
Adhesive force surface	N	900	1200	900	1200
Adhesive force in V-block	N	400	400	400	400
Weight	kg	2.85	3.80	2.85	3.80
Price €		**399.00**	**515.00**	**450.00**	**550.00**

NERIOX

140701 Bevelled precision square NERIOX

DIN 875/00

Made of hardened steel, burnished with 2 wedge-shaped knife edges. Uprights and flat sides ground.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Profile mm	Price €
140701.0100	50 x 40	14 x 4.5	28.10
140701.0200	75 x 50	16 x 4	30.60
140701.0300	100 x 75	20 x 5	40.80
140701.0400	150 x 100	28 x 6	50.20
140701.0500	200 x 130	30 x 7	69.70

FUTURO

with ISO certificate

140730 Bevelled stainless precision square FUTURO, INOX

DIN 875/00
Made of hardened stainless steel, with 2 wedge-shaped knife edges. Uprights and flat sides ground.

Package contents:
Delivered in transport packaging incl. ISO certificate.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Price €
140730.0100	100 x 70	44.40

NERIOX

140711 Bevelled stainless precision square NERIOX

DIN 875/00

Made of hardened stainless steel, with 2 wedge-shaped knife edges. Uprights and flat sides ground.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Profile mm	Price €
140711.0100	50 x 40	14 x 4.5	33.00
140711.0200	75 x 50	16 x 4	36.00
140711.0300	100 x 75	20 x 5	48.00
140711.0400	150 x 100	28 x 6	59.00
140711.0500	200 x 130	30 x 7	82.00

NERIOX

140601 Flat square NERIOX

DIN 875/0

Made of steel, uprights and flat sides ground, inspection faces precision-ground. For use in checking and precise work.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Profile mm	Price €
140601.0100	75 x 50	15 x 5	17.60
140601.0200	100 x 70	20 x 5	21.10
140601.0300	150 x 100	25 x	27.80
140601.0400	200 x 130	30 x 6	32.10
140601.0500	250 x 160	35 x 7	57.90
140601.0600	300 x 200	40 x 8	87.80
140601.0700	400 x 265	45 x 10	162.50
140601.0800	500 x 330	50 x 10	204.80

140571 Flat square NERIOX

DIN 875/I

Made of steel, uprights and flat sides ground, inspection faces precision-ground. For use in checking and precise work.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Profile mm	Price €
140571.0100	75 x 50	15 x 5	8.90
140571.0200	100 x 70	20 x 5	10.60
140571.0300	150 x 100	25 x 6	13.80
140571.0400	200 x 130	30 x 6	21.70
140571.0500	250 x 165	35 x 7	28.40
140571.0600	300 x 200	40 x 8	35.80
140571.0700	400 x 265	45 x 10	121.00
140571.0800	500 x 330	50 x 10	152.70
140571.0900	600 x 400	50 x 10	199.00
140571.1000	750 x 500	60 x 12	349.00
140571.1100	1000 x 660	70 x 15	525.00

140611 Stainless flat square NERIOX

DIN 875/0

Made of stainless steel, with uprights and flat sides ground, inspection faces precision-ground. Suitable for inspection purposes and precise work.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Profile mm	Price €
140611.0050	50 x 40	12 x 5	28.10
140611.0100	75 x 50	15 x 5	32.10
140611.0200	100 x 70	20 x 5	38.60
140611.0300	150 x 100	25 x 5	51.00
140611.0400	200 x 130	30 x 6	58.80
140611.0500	250 x 160	35 x 7	89.00
140611.0600	300 x 200	40 x 8	135.00
140611.0700	400 x 265	45 x 10	250.00
140611.0800	500 x 330	50 x 10	315.00

140581 Stainless flat square NERIOX

DIN 875/I

Made of stainless steel, uprights and flat sides ground, inspection faces precision-ground. For use in checking and precise work.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Profile mm	Price €
140581.0100	75 x 50	15 x 5	13.00
140581.0200	100 x 70	20 x 5	15.40
140581.0300	150 x 100	25 x 5	19.90
140581.0400	200 x 130	30 x 6	31.50
140581.0500	250 x 165	35 x 7	39.20
140581.0600	300 x 200	40 x 8	49.40
140581.0700	400 x 265	45 x 10	175.50
140581.0800	500 x 330	50 x 10	221.40

140606 Try square NERIOX

DIN 875/0

Made of steel, uprights and flat sides ground, inspection faces precision-ground. For use in checking and precise work.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Profile mm	Price €
140606.0100	75 x 50	15 x 5	30.00
140606.0200	100 x 70	20 x 5	37.20
140606.0300	150 x 100	25 x 5	51.70
140606.0400	200 x 130	30 x 6	64.70
140606.0500	250 x 160	35 x 7	106.30
140606.0600	300 x 200	40 x 8	123.30
140606.0700	400 x 265	45 x 10	228.70
140606.0800	500 x 330	50 x 10	288.20

NERIOX

140576 Try square NERIOX

DIN 875/I

Made of steel, uprights and flat sides ground, inspection faces precision-ground. For use in checking and precise work.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Profile mm	Price €
140576.0100	75 x 50	15 x 5	12.50
140576.0200	100 x 70	20 x 5	14.70
140576.0300	150 x 100	25 x 5	22.40
140576.0400	200 x 130	30 x 6	28.60
140576.0500	250 x 165	35 x 7	37.60
140576.0600	300 x 200	40 x 8	53.70
140576.0700	400 x 265	45 x 10	137.70
140576.0800	500 x 330	50 x 10	193.80
140576.0900	600 x 400	50 x 10	295.00
140576.1000	750 x 500	60 x 12	475.00
140576.1100	1000 x 660	70 x 15	695.00

NERIOX

140561 Try square NERIOX

DIN 875/II

Steel
Uprights and flat sides ground, inspection faces precision-ground. For use in general shop applications.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Profile mm	Price €
140561.0100	75 x 50	15 x 5	10.70
140561.0200	100 x 70	20 x 5	12.90
140561.0300	150 x 100	25 x 5	17.15
140561.0400	200 x 130	30 x 6	21.20
140561.0500	250 x 165	35 x 7	28.20
140561.0600	300 x 175	35 x 7	36.10
140561.0700	400 x 200	35 x 7	52.60
140561.0800	500 x 250	40 x 8	68.60
140561.0900	600 x 300	40 x 8	92.20
140561.1000	750 x 375	45 x 10	115.00
140561.1100	1000 x 500	50 x 10	165.00

NERIOX

140616 Stainless try square NERIOX

DIN 875/0

Made of stainless steel, uprights and flat sides ground, inspection faces precision-ground. Suitable for inspection purposes and precise work.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Profile mm	Price €
140616.0050	50 x 40	12 x 5	41.30
140616.0100	75 x 50	15 x 5	45.60
140616.0200	100 x 70	20 x 5	56.50
140616.0300	150 x 100	25 x 5	66.60
140616.0400	200 x 130	30 x 6	98.20
140616.0500	250 x 160	35 x 7	165.00
140616.0600	300 x 200	40 x 8	195.00
140616.0700	400 x 265	45 x 10	279.00
140616.0800	500 x 330	50 x 10	349.00

NERIOX

140586 Stainless try square NERIOX

DIN 875/I

Made of stainless steel, uprights and flat sides ground, inspection faces precision-ground. For use in checking and precise work.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Profile mm	Side lengths mm	Price €
140586.0100	15 x 5	75 x 50	16.70
140586.0200	20 x 5	100 x 70	19.80
140586.0300	25 x 5	150 x 100	30.10
140586.0400	30 x 6	200 x 130	38.40
140586.0500	35 x 7	250 x 165	50.30
140586.0600	40 x 8	300 x 200	72.00
140586.0700	45 x 10	400 x 265	184.40

140556 Flat square NERIOX

DIN 875/II

Steel
Uprights and flat sides ground, inspection faces precision-ground. For use in general shop applications.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Profile mm	Price €
140556.0100	75 x 50	15 x 5	8.20
140556.0200	100 x 70	20 x 5	9.30
140556.0300	150 x 100	25 x 5	11.90
140556.0400	200 x 130	30 x 6	15.30
140556.0500	250 x 160	35 x 7	20.90
140556.0600	300 x 175	35 x 7	26.30
140556.0700	400 x 200	35 x 7	39.50
140556.0800	500 x 250	40 x 8	53.20
140556.0900	600 x 300	40 x 8	70.00
140556.1000	750 x 375	45 x 10	92.50
140556.1100	1000 x 500	50 x 10	135.00

140461 Metalworker's flat square NERIOX

Made of steel, cleanly processed. Surface galvanised, flat sides finished, high edges finely lasered.

Note:
Metalworker's squares are not standardised according to DIN. They should therefore only be used for very simple tasks.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Profile mm	Price €
140461.0100	100 x 70	5 x 20	6.80
140461.0200	150 x 100	5 x 20	6.90
140461.0300	200 x 130	5 x 20	7.90
140461.0400	250 x 160	5 x 25	8.80
140461.0500	300 x 180	5 x 25	10.90
140461.0600	400 x 230	5 x 30	13.20
140461.0700	500 x 280	5 x 30	15.50
140461.0800	600 x 330	5 x 30	21.50
140461.0900	750 x 375	5 x 30	22.70
140461.1000	1000 x 500	5 x 30	30.30

140471 Metalworker's try square NERIOX

Made of steel, cleanly processed. Surface galvanised, flat sides finished, high edges finely lasered.

Note:
Metalworker's squares are not standardised according to DIN. They should therefore only be used for very simple tasks.

Appropriate accessories:
140646 Wooden case NERIOX

Order ID	Side lengths mm	Profile mm	Price €
140471.0100	100 x 70	5 x 20	10.10
140471.0200	150 x 100	5 x 20	10.30
140471.0300	200 x 130	5 x 20	13.10
140471.0400	250 x 160	5 x 25	15.40
140471.0500	300 x 180	5 x 25	19.50
140471.0600	400 x 230	5 x 30	23.20
140471.0700	500 x 280	5 x 30	31.70
140471.0800	600 x 330	5 x 30	49.00
140471.0900	750 x 375	5 x 30	50.40
140471.1000	1000 x 500	5 x 30	76.00

140761 Stainless toolmaker square NERIOX

DIN 875/00

Made of stainless hardened steel, with a bevelled edge at the inside. Uprights ground and flat sides accurately precision ground. Inspection faces lapped. Suitable for fixture and tool construction.

Order ID	Side lengths mm	Profile mm	Price €
140761.0100	25 x 20	5.0 x 3.5	23.70
140761.0200	40 x 28	5.5 x 3.5	24.90

NERIOX

140781 Toolmaker square NERIOX

DIN 875/0

Precision version with movable knife-edge straightedge. All measurement surfaces finely ground. Suitable for checking work via the air-gap method.

Package contents:
Delivered in case.

Order ID	Straight edge length mm	Price €
140781.0100	60 x 4 x 4	99.00

NERIOX

140791 Toolmaker square NERIOX

adjustable

Angle can be set - Angle adjustment by micrometer screw. Made of steel, with chrome-plated read section. Suitable for measurement and checking work in tool and mould construction.

Features:
Adjustment uo to 5°
Division 5'
Accuracy 3'
Straightedge parallelism 0.001 mm

Package contents:
Delivered in case.

Appropriate accessories:
140796 Bevelled straight edge NERIOX

Order ID	Straight edge length mm	Adjustability	Division	Handle length mm	Price €
140791.0100	100	5°	5'	60	209.00

NERIOX

140796 Bevelled straight edge NERIOX

For toolmaker square with 5° setting option.

140796.0100

140796.0200

Designs:
140796.0100: Bevelled straight edge standard
140796.0200: Bevelled straight edge with tapered end

Order ID	140796.0100	140796.0200
Price €	44.60	51.80

NERIOX

140821 Control tool set NERIOX

CLASSIC 5-piece set consisting of:
Knife-edge straightedge, 100 mm, DIN 874/00
Knife-edge straightedge, stainless 75 x 50 mm, DIN 875/00
Tool-and-die-maker bevelled square, stainless 40 x 28 mm
Tool-and-die-maker bevelled square, stainless 25 x 20 mm
Gauge block scribing tip 60 x 8 x 8 mm

Package contents:
Delivered in case.

Order ID	Type	Price €
140821.0100	CLASSIC	132.00

NERIOX

140646 Wooden case NERIOX

For flat, try and precision squares.

Designs:
140646.0200: For squares with and without stop
140646.0300...**140646.0400**: For squares without stop

Order ID	Overal size mm	Internal size mm	for sizes mm	Price €
140646.0200	126 x 91 x 29	110 x 75	100 x 70	9.80
140646.0300	176 x 123 x 29	160 x 105	150 x 100	11.90
140646.0400	227 x 152 x 29	210 x 135	200 x 130	14.00

NERIOX

140496 Mitre try square 135° NERIOX

DIN 875/II

Made of steel, uprights precision-ground, flat sides processed.

Order ID	Side lengths mm	Profile mm	Price €
140496.0100	120 x 80	20 x 5	23.70
140496.0200	150 x 100	25 x 5	27.00
140496.0300	200 x 130	25 x 5	36.20

140506 Acute angle 45° NERIOX

DIN 875/II

Made of steel, uprights precision-ground, flat sides processed.

Order ID	Side lengths mm	Profile mm	Price €
140506.0100	120 x 80	20 x 5	24.20
140506.0200	150 x 100	20 x 5	28.10
140506.0300	200 x 130	25 x 5	35.00

140511 Acute angle try square 45° NERIOX

DIN 875/II

Made of steel, uprights precision-ground, flat sides processed.

Order ID	Side lengths mm	Profile mm	Price €
140511.0100	120 x 80	20 x 5	38.00
140511.0200	150 x 100	20 x 5	41.10
140511.0300	200 x 130	25 x 5	55.00

140521 Flange square NERIOX

Made of steel, zinc-plated. Uprights and flat sides processed.

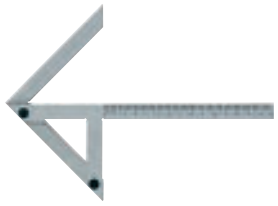
Order ID	Side lengths mm	Flange width mm	Profile mm	Price €
140521.0100	300 x 300	110 x 50	30 x 5	25.00
140521.0200	400 x 400	120 x 60	30 x 5	28.00
140521.0300	500 x 500	130 x 75	30 x 5	35.00

140535 NERIOX centring angle

DIN 875/I

Made of steel, precision version with mm graduation on the scale. Ground functional sides ground, machined flat sides.

Order ID	Side lengths mm	for shafts Ø mm	Price €
140535.0100	100 x 70	90	42.50
140535.0200	150 x 130	190	51.20
140535.0300	200 x 150	220	84.20



140961 Bevel square NERIOX

Made of galvanised steel, not divided into degrees.

Order ID	Side length mm	Price €
140961.0100	200	14.10
140961.0300	300	19.25
140961.0400	400	26.00
140961.0500	500	31.20

140981 Protractor NERIOX

Made of steel, matt chrome platted with adjustable bar and locking screw. For measuring angles of 10°...170°.

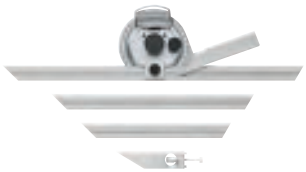
Order ID	Partial arc Ø mm	Side length mm	Price €
140981.0100	100	150	44.60
140981.0200	150	300	53.70
140981.0300	200	400	64.40
140981.0400	250	500	75.00
140981.0500	300	600	110.70

140970 Bevel square with protractor NERIOX

Made of steel, matt chrome platted with locking screw. For measuring angles of 0...180°.

Order ID	Partial arc Ø mm	Side length mm	Price €
140970.0100	80	120	26.50
140970.0200	120	150	30.10
140970.0300	150	200	36.40
140970.0400	200	300	41.00
140970.0500	300	600	75.00

NERIOX



141051 Protractor with fine adjustment NERIOX

Made of stainless steel, with sliding and interchangeable measuring bar.

Features:
Panoramic magnifier
Sliding straightedge
Non-glare reading
Parallax-free vernier reading

Package contents:
Delivered in a case with 3 rulers 150 mm, 200 mm and 300 mm incl. declaration of conformity.

Order ID	Straight edge length mm	Scaling	Resolution	Price €
141051.0100	150 / 200 / 300	4 x 90°	5' (1/12°)	155.00

NERIOX

140977 Protractor digital NERIOX

Degree scale and measuring pointer made of stainless steel. All measuring edges finely ground. The movable measuring pointer can be fixed in place using a knurled nut.

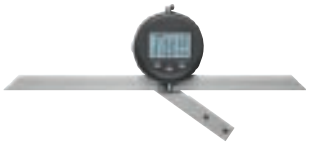
Features:
Reading 0.05°
Measurement range 180°

Package contents:
Delivered in own case.

Appropriate batteries:
1 pieces 155051.0545 - CR2032 / 3.0 V (included in scope of delivery).

Order ID	Partial arc Ø mm	Side length mm	Accuracy	Price €
140977.0100	120	150	0.3°	114.00
140977.0200	150	200	0.3°	156.00
140977.0300	200	300	0.3°	194.00

NERIOX



Package content

141060 Protractor digital NERIOX

Base body and measuring arm made of stainless steel. All measuring edges are finely ground. The movable ruler is fixed by a clamping lever. The angle can be adjusted by a fine tuning wheel and fixed with a clamp.

Features:
LCD display
Measurement range 360° (divisible)

Package content:
Supplied in case incl. declaration of conformity.

Appropriate batteries:
1 pieces 155050.1400 - CR2032 / 3.0 V (included in scope of delivery).

Order ID	Straight edge length mm	Resolution	Accuracy	Digit height mm	Price €
141060.0100	150 / 200 / 300	0.005°	0.3°	7	445.00

NERIOX

140990 Combination square set NERIOX

With angle measurer and centring square - For use as a protractor, straightedge, rule, depth gauge, stop square, centring square and mitre square, and as a spirit level with bubble tube.
Fixed scale 300 mm of hardened stainless steel. Angle part, angle measurer and centring square are made of light metal alloy.

Package contents:
Delivered in case.

Order ID	140990.1000
Price €	85.00

139796 Compass NERIOX

Steel
Ground and polished with hardened and ground measurement surfaces.

Order ID	Length mm	Price €
139796.0100	150	8.10
139796.0200	200	9.70
139796.0300	250	12.50
139796.0400	300	16.10

139801 Compass NERIOX with adjusting bow

Steel
Ground and polished with hardened and ground measuring surfaces.

Order ID	Length mm	Price €
139801.0100	150	11.00
139801.0200	200	13.30
139801.0300	250	16.60
139801.0400	300	22.00
139801.0500	400	42.70
139801.0600	500	55.00

139811 Inside compass NERIOX

Bright steel punched
Ground and polished version.

Order ID	Length mm	Price €
139811.0100	150	5.90
139811.0200	200	7.40
139811.0300	250	9.50
139811.0400	300	11.30

139831 Caliper compass NERIOX

Bright steel punched
Ground and polished version.

Order ID	Length mm	Price €
139831.0100	150	10.50
139831.0200	200	12.50
139831.0300	300	14.50

NERIOX

139265 Engineers Scriber NERIOX

Straight and curved tips made of steel. Red plastic handle, length 70 mm.

Order ID	Length mm	Price €
139265.0100	220	2.75

NERIOX

139271 Engineers Scriber NERIOX

With hardened steel tips, handle made of galvanised steel.

Order ID	Length mm	Price €
139271.0100	180	4.90

NERIOX

139231 Engineer's scriber NERIOX

Steel burnished
Hardened version with knurled metal handle.

Order ID	Length mm	Price €
139231.0100	180	1.80

NERIOX

139202 Scriber with chuck NERIOX

Hollow steel shaft (5 mm) sheathed in plastic, with clamping chuck. Tips hardened and replaceable.

Package contents:
Delivered with 12 replacement tips, which are stored in the shaft.

Order ID	Length mm	Price €
139202.0100	150	6.80

NERIOX

139204 Replacement tips NERIOX

Replacement scriber needles, in set of 12.

Order ID	139204.0100
Price €	2.60

NERIOX

139401 Hard metal scriber NERIOX with clip

Scriber with carbide tip and chrome-plated hex steel handle. Version with clip.

Order ID	Length mm	Price €
139401.0100	150	3.70

140281 Bevelled precision straight edge NERIOX

DIN 874/00

Control tool in a highly precise version, made of hardened steel, non-glare black-oxide finish, precisely ground and lapped with insulated handle.

Package contents:
Delivered in leatherette case.

Appropriate accessories:
140296 Wooden case NERIOX

Order ID	Length mm	Price €
140281.0100	50	15.00
140281.0200	75	12.40
140281.0300	100	13.85
140281.0400	125	15.65
140281.0500	150	18.45
140281.0600	200	23.00
140281.0700	300	43.00
140281.0800	400	69.00
140281.0900	500	109.00

140296 Wooden case NERIOX

For precision knife-edge straight-edge.

Order ID	for length mm	Price €
140296.0100	100	11.40
140296.0200	150	14.50
140296.0400	300	21.10

158721 Bevelled aluminium NERIOX straightedge

With non-slip rubber. Anodised aluminium alloy design, bevelled, with **mm-graduation.** Handy, light and corrosion-resistant. Non-glare surface with black, high-contrast scale.

Order ID	Length mm	Profile mm	Price €
158721.0100	300	35 x 3.5	5.40
158721.0200	600	35 x 3.5	10.50
158721.0300	1000	35 x 3.5	16.80

FUTURO

159450.0100

159450 Tape rule FUTURO

mm / mm

TRI-MATIC- EC accuracy class I - Precision version with belt clip, continuous **mm graduation**, steel tape painted yellow, anti-reflective coating, automatic tape retraction, backstop, and chrome-plated plastic housing.

Order ID	Length m	Tape width mm	EC Class	Price €
159450.0100	3	13	I	13.20
159450.0200	5	19	I	23.60

FUTURO

159620 Steel tape measure FUTURO GRIP

Steel tape yellow painted, nylon-coated (assure abrasion resistance, to avoid corrosion, for longer expected useful live), scale with mm graduation. Tape start with metal hook, impact and shock resistant plastic casing partially rubber coated, tape locking device, belt clip, EC accuracy class II.

Order ID	Length m	Tape width mm	EC Class	Price €
159620.0100	3	16	II	3.70
159620.0200	5	19	II	5.50
159620.0300	8	25	II	9.90

NERIOX

159421 Circumference measuring tape NERIOX

Hardened spring steel with etched scale
for measuring diameters and circumferences.

Features:
Graduation mm
Vernier scale 0.1 mm
EC accuracy class II

Order ID	Circumference mm	Range Ø mm	Tape width mm	EC Class	Price €
159421.0100	60...950	20...300	16	II	45.50
159421.0200	940...2200	300...700	16	II	65.00
159421.0300	2190...3460	700...1100	16	II	74.20
159421.0400	3450...4720	1100...1500	16	II	99.00
159421.0500	4710...5980	1500...1900	16	II	125.00
159421.0600	5960...7230	1900...2300	16	II	135.00

158901 Wooden folding rule NERIOX

Rugged quality, stable with maximum flexibility.

Features:
10 segments
mm graduation top/bottom
EC accuracy class III
Steel joints
Concealed rivets

Order ID	Length m	Width mm	EC Class	Colour	Price €
158901.0100	2	17	III	white/yellow	5.50
158901.0200	2	17	III	nature	5.50
158901.0300	2	17	III	yellow	5.50
158901.0400	2	17	III	white	5.50

158901.0100

158901.0200

158901.0300

158901.0400

159860 Steel tape measure FUTURO GRIP

Steel tape yellow painted, width 13 mm, nylon-coated (assure abrasion resistance, to avoid corrosion, for longer expected useful live), scale division in mm. Tape start with metal fitting, pull ring made on plastic. limpact and shock resistant plastic casing with partial rubber coating protection, flat crank handle with high speed tape retraction, EC accuracy class II.

Order ID	Length m	Tape width mm	EC Class	Price €
159860.0100	10	13	II	12.20
159860.0200	20	13	II	16.90
159860.0300	30	13	II	21.20

174555 Spirit level NERIOX

In light metal alloy with unbreakable horizontal and vertical level tubes.

Designs:
174555.0100...**174555.0900**: gray lacquered
174555.1500...**174555.2100**: with holding magnets, anodised silver

Features:
Accuracy 1 mm/m

174555.0100...174555.0900

174555.1500...174555.2100

Order ID	Length mm	Price €	Order ID	Length mm	Price €
174555.0100	300	11.10	174555.0900	2000	39.50
174555.0200	400	12.30	174555.1500	300	26.80
174555.0300	600	14.70	174555.1600	400	27.90
174555.0400	800	17.10	174555.1700	600	32.10
174555.0500	1000	19.60	174555.1800	800	35.10
174555.0600	1200	24.30	174555.1900	1000	38.00
174555.0700	1500	29.10	174555.2000	1200	47.20
174555.0800	1800	34.60	174555.2100	2000	74.60

175141 Box level NERIOX

Sensitivity 30'

Can be mounted on machines and apparatus as an alignment aid.

Designs:
175141.0100...**175141.0600**: suitable for gluing on
175141.1100...**175141.1600**: with flange to screw on

175141.0100...175141.0600

175141.1100...175141.1600

Order ID	Type	Ø mm	Level Ø mm	Height mm	Sensitivity arcmin	Price €
175141.0100	28	—	13	9	30	17.30
175141.0200	28	—	16	10	30	17.30
175141.0300	28	—	18	11	30	17.30
175141.0400	28	—	20	12	30	19.40
175141.0500	28	—	25	14	30	32.40
175141.0600	28	—	30	15	30	40.00
175141.1100	18	20	14	10	30	20.50
175141.1200	18	25	17	10	30	23.80
175141.1300	18	30	20	11	30	28.10
175141.1400	18	35	23	13	30	44.30
175141.1500	18	40	28	14	30	51.80
175141.1600	18	50	34	15	30	61.60

175156 Bubble level NERIOX

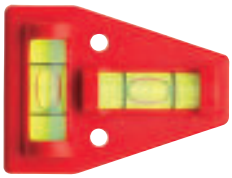
Acrylic glass circular level for assembling or sticking on machines, etc.

Order ID	Ø mm	Height mm	Price €
175156.0100	12	7	5.30
175156.0200	14	8	5.30
175156.0300	15	8	5.30
175156.0400	18	9	5.30
175156.0500	20	9	5.30

174526 T-form spirit level NERIOX

T-form spirit level made of red plastic. Ultra-handy pocket size.

Features:
2 unbreakable acrylic spirit levels
Hole spacing 25 mm / Ø 4.2 mm
Accuracy 1.0 mm/m



Order ID	Dimensions mm	Price €
174526.0100	60 x 45 x 13.4	4.50

174506 Plexiglass spirit level NERIOX

Small, unbreakable acrylic level, cut from a crystal-clear block. Precise, CNC-milled horizontal and vertical spirit levels.

Features:
Accuracy 1.0 mm/m

Order ID	Dimensions mm	Price €
174506.0100	95 x 49 x 15	25.00

FUTURO

with ISO certificate

175441 Precision level FUTURO

avec protection contre les chocs.

DIN877 / DIN2276/1
3-year guarantee
Precision spirit level for levelling surfaces, shafts, machines etc.

Designs:
Type P: Prismatic base

Features:
Housing made of high-quality special cast iron
Width of housing 40 mm
V-notch base with stop faces ground in the recess
All measuring surfaces parallel to the level axis
A longitudinal level and a transverse level both made of acrylic glass
With insulated grips on the housing
Protective glass over the levels

Note:
The longitudinal level can be effortlessly readjusted in the 0 position without dismantling and free of play, by means of an adjusting screw.

Package contents:
Delivered in case incl. ISO certificate.

Order ID	Type	Length mm	Sensitivity mm/m	Price €
175441.0200	P	150	0.02	269.00
175441.0210	P	200	0.02	319.00
175441.0220	P	300	0.02	373.00
175441.0500	P	150	0.05	290.00
175441.0510	P	200	0.05	341.00
175441.0520	P	300	0.05	422.00
175441.1000	P	150	0.10	219.00
175441.1010	P	200	0.10	270.00
175441.1020	P	300	0.10	311.00
175441.1500	P	150	0.50	209.00
175441.1510	P	200	0.50	240.00
175441.1520	P	300	0.50	280.00

FUTURO

with ISO certificate

175541 Precision frame level FUTURO

Sensitivity 0.02 - 0.10 mm/m

DIN 877 / DIN 2276/1
3-year guarantee
Precision frame level for levelling horizontal and vertical surfaces, shafts, etc., and for exact alignment of 90° angles.

Designs:
Type F: with 4 flat bases
Type P: 3 prismatic bases

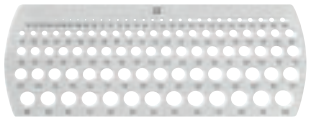
Features:
Frames made of high-quality special cast-iron
Frame width 40 mm
One longitudinal and transverse level each made of acrylic glass
Insulated handles on the housing
Glass guard over the levels

Note:
Using an adjusting screw, the longitudinal level can be readjusted to the 0 position without disassembly hassle- and backlash-free.

Package contents:
Delivered in case incl. ISO certificate.

Order ID	Type	Length mm	Sensitivity mm/m	Price €
175541.0200	P	150	0.02	449.00
175541.0210	P	200	0.02	585.00
175541.1000	P	150	0.10	365.00
175541.1010	P	200	0.10	435.00
175541.3200	F	150	0.02	490.00
175541.3210	F	200	0.02	555.00
175541.3220	F	250	0.02	635.00
175541.3500	F	150	0.05	445.00
175541.3510	F	200	0.05	495.00
175541.3520	F	250	0.05	579.00

162680 Drill hole gauge FUTURO



SwissMade
Drill hole gauge with 100 holes, graduation 0.1 mm.

Features:
Stainless steel 1.4301
Thickness 1.5 mm

Order ID	Measuring ranges Ø mm	Number of holes	Accuracy mm	Price €
162680.0100	0.1...10	100	0 /+0.03	105.00

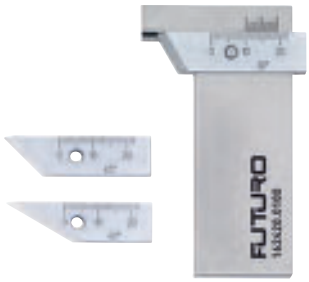
162501 Thread pitch gauge NERIOX

For testing the pitch of internal and external threads using the light-gap method.

Note:
The exact thread measurements can be obtained in FILETOR, 179910.

Order ID	Pitches mm	Threads / inch	Version	Price €
162501.0100	0.25...6	-	**For metric ISO basic profiles**, with 24 blades.	4.70
162501.0200	0.25...6	4...62	**For metric ISO basic profiles, and Whitworth threads,** with 52 blades.	7.10
162501.0300	-	4...62	**For Whitworth threads,** with 28 blades.	4.80
162501.0400	-	8...28	**For pipe threads Withworth,** with 6 blades.	4.50
162501.0500	-	4...42	**For 60° U.S. threads** (UNC, UNF, etc.), with 30 blades.	6.20

162420 Chamfer measuring device FUTURO



SwissMade
For quick and exact checks of bevel angles. Exchangeable straightedges for 30°, 45° and 60° bevels.

Package contents:
Delivered in plastic box **including 30°, 45° and 60° straightedges.**

Order ID	Range mm	Vernier mm	Price €
162420.0100	0...10	0.1	205.00

162422 Accessories FUTURO

30°, 45°, 60°

Order ID	Designation	Price €
162422.0100	Straightedge FUTURO 30° / 0.1 mm	17.50
162422.0200	Straightedge FUTURO 45° / 0.1 mm	17.50
162422.0300	Straightedge FUTURO 60° / 0.1 mm	17.50
162422.0400	Locking screw	9.60

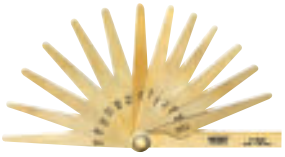
NERIOX

162111 Feeler gauge NERIOX

13 blades - length 100 mm, tapered, in nickel-plated sheath.

Order ID	Range mm	Range in	Thickness mm	Price €
162111.0100	0.05...1.00	0.002...0.040	0.05 / 0.1 / 0.15 / 0.2 / 0.25 / 0.3 / 0.4 0.5 / 0.6 / 0.7 / 0.8 / 0.9 / 1.0	3.20

NERIOX



162121 Feeler gauge NERIOX

brass

13 blades - length 100 mm, brass (antimagnetic), tapered, in brass sheath.

Order ID	Range mm	Thickness mm	Price €
162121.0100	0.05...1.00	0.05 / 0.1 / 0.15 / 0.2 / 0.25 / 0.3 / 0.4 0.5 / 0.6 / 0.7 / 0.8 / 0.9 / 1.0	15.00

NERIOX

162141 Feeler gauge NERIOX

14 blades - length 100 mm, tapered, in nickel-plated sheath.

Order ID	Range mm	Thickness mm	Price €
162141.0100	0.03...1.00	0.03 / 0.05 / 0.1 / 0.15 / 0.2 / 0.25 / 0.3 0.4 / 0.5 / 0.6 / 0.7 / 0.8 / 0.9 / 1.0	3.50

NERIOX

162151 Feeler gauge NERIOX

20 blades - length 100 mm, tapered, in nickel-plated sheath.

Order ID	Range mm	Range in	Thickness mm	Price €
162151.0100	0.05...1.00	0.002...0.040	0.05 / 0.1 / 0.15 / 0.2 / 0.25 / 0.3 / 0.35 0.4 / 0.45 / 0.5 / 0.55 / 0.6 / 0.65 / 0.7 0.75 / 0.8 / 0.85 / 0.9 / 0.95 / 1.0	5.00

NERIOX

162171 Feeler gauge NERIOX

21 blades - length 100 mm, tapered, in nickel-plated sheath.

Order ID	Range mm	Thickness mm	Price €
162171.0100	0.05...2.00	0.05 / 0.1 / 0.2. / 0.3 / 0.4 / 0.5 / 0.6 0.7 / 0.8 / 0.9 / 1.0 / 1.1 / 1.2 / 1.3 1.4 / 1.5 / 1.6 / 1.7 / 1.8 /1.9 / 2.0	12.50

NERIOX

162161 Feeler gauge NERIOX

Inox

20 blades - length 100 mm, stainless steel, tapered, in nickel-plated sheath.

Order ID	Range mm	Range in	Thickness mm	Price €
162161.0100	0.05...1.00	0.002...0.040	0.05 / 0.1 / 0.15 / 0.2 / 0.25 / 0.3 / 0.35 0.4 / 0.45 / 0.5 / 0.55 / 0.6 / 0.65 / 0.7 0.75 / 0.8 / 0.85 / 0.9 / 0.95 / 1.0	15.00

162191 Feeler gauge set NERIOX

20 blades - width 12.7 mm, on ring.

Order ID	Length mm	Range mm	Thickness mm	Range in	Price €
162191.0100	200	0.05...1.0	0.05 / 0.1 / 0.15 / 0.2 / 0.25 / 0.3 / 0.35 0.4 / 0.45 / 0.5 / 0.55 / 0.6 / 0.65 / 0.7 0.75 / 0.8 / 0.85 / 0.9 / 0.95 / 1.0	0.002...0.040	14.00
162191.0200	300	0.05...1.0	0.05 / 0.1 / 0.15 / 0.2 / 0.25 / 0.3 / 0.35 0.4 / 0.45 / 0.5 / 0.55 / 0.6 / 0.65 / 0.7 0.75 / 0.8 / 0.85 / 0.9 / 0.95 / 1.0	0.002...0.040	22.50

162201 Feeler gauge set NERIOX

20 blades - width 12.7 mm, on ring.

Order ID	Length mm	Range mm	Thickness mm	Range in	Price €
162201.0100	200	0.1...2.0	0.1 / 0.2 / 0.3 / 0.4 / 0.5 / 0.6 0.7 / 0.8 / 0.9 / 1.0 / 1.1 / 1.2 / 1.3 1.4 / 1.5 / 1.6 / 1.7 / 1.8 / 1.9 / 2.0	0.040...0.080	27.00
162201.0200	300	0.1...2.0	0.1 / 0.2 / 0.3 / 0.4 / 0.5 / 0.6 0.7 / 0.8 / 0.9 / 1.0 / 1.1 / 1.2 / 1.3 1.4 / 1.5 / 1.6 / 1.7 / 1.8 / 1.9 / 2.0	0.040...0.080	55.80

162181 Feeler strips NERIOX

Single piece - Length 200 mm

Appropriate accessories:
162186 Holder NERIOX for feeler strips

Order ID	Thickness mm	Width mm	Tolerance mm	Price €
162181.0100	0.03	12.7	0.004	1.70
162181.0200	0.04	12.7	0.004	1.85
162181.0300	0.05	12.7	0.004	1.85
162181.0400	0.06	12.7	0.004	1.85
162181.0500	0.07	12.7	0.005	1.85
162181.0600	0.08	12.7	0.005	1.85
162181.0700	0.09	12.7	0.005	1.85
162181.0800	0.10	12.7	0.005	1.85
162181.0900	0.15	12.7	0.006	1.85
162181.1000	0.20	12.7	0.008	1.85
162181.1100	0.25	12.7	0.009	1.85
162181.1200	0.30	12.7	0.009	1.85
162181.1300	0.35	12.7	0.011	1.85
162181.1400	0.40	12.7	0.012	1.85
162181.1500	0.45	12.7	0.012	1.85
162181.1600	0.50	12.7	0.014	1.85
162181.1700	0.60	12.7	0.014	1.85
162181.1800	0.70	12.7	0.017	1.85
162181.1900	0.80	12.7	0.019	1.85
162181.2000	0.90	12.7	0.022	1.85
162181.2100	1.00	12.7	0.024	1.85

NERIOX

Set with 5 pieces

162061 Feeler gauges NERIOX

Single piece - Length 100 mm, conical, in plastic bags of 5 (individual strips not supplied).

Order ID	Thickness mm	Length mm	Tolerance mm	Price €
162061.0100	0.02	100	0.004	6.90
162061.0200	0.03	100	0.004	6.90
162061.0300	0.04	100	0.004	6.90
162061.0400	0.05	100	0.004	6.90
162061.0500	0.06	100	0.004	6.90
162061.0600	0.07	100	0.005	6.90
162061.0700	0.08	100	0.005	6.90
162061.0800	0.09	100	0.005	6.90
162061.0900	0.10	100	0.005	6.90
162061.1000	0.11	100	0.005	6.90
162061.1100	0.12	100	0.005	6.90
162061.1200	0.13	100	0.005	6.90
162061.1300	0.14	100	0.006	6.90
162061.1400	0.15	100	0.006	6.90
162061.1500	0.16	100	0.007	6.90
162061.1700	0.18	100	0.007	6.90
162061.1800	0.20	100	0.008	6.90
162061.1900	0.22	100	0.008	6.90
162061.2000	0.24	100	0.008	6.90
162061.2100	0.25	100	0.009	6.90
162061.2200	0.28	100	0.009	6.90
162061.2300	0.30	100	0.009	6.90
162061.2400	0.32	100	0.011	6.90
162061.2500	0.34	100	0.011	6.90
162061.2600	0.35	100	0.011	6.90
162061.2700	0.36	100	0.012	6.90
162061.2800	0.38	100	0.012	6.90
162061.2900	0.40	100	0.012	6.90
162061.3000	0.42	100	0.012	6.90
162061.3100	0.44	100	0.012	6.90
162061.3200	0.45	100	0.012	6.90
162061.3300	0.46	100	0.014	6.90
162061.3400	0.48	100	0.014	6.90
162061.3500	0.50	100	0.014	6.90
162061.3600	0.55	100	0.014	6.90
162061.3700	0.60	100	0.014	6.90
162061.3800	0.65	100	0.014	6.90
162061.3900	0.70	100	0.017	6.90
162061.4000	0.75	100	0.017	6.90
162061.4100	0.80	100	0.019	6.90
162061.4200	0.85	100	0.019	6.90
162061.4300	0.90	100	0.022	6.90
162061.4400	0.95	100	0.022	6.90
162061.4500	1.00	100	0.024	6.90
162061.4600	1.10	100	0.024	7.70
162061.4700	1.20	100	0.024	7.70
162061.4800	1.30	100	0.028	7.70
162061.4900	1.40	100	0.028	7.70
162061.5000	1.50	100	0.028	7.70
162061.5100	1.60	100	0.033	7.70
162061.5200	1.70	100	0.033	7.70
162061.5300	1.80	100	0.033	7.70
162061.5400	1.90	100	0.035	7.70
162061.5500	2.00	100	0.035	7.70

NERIOX

162186 Holder NERIOX for feeler strips

Order ID	162186.0100
Price €	4.30

163421 Parallel gauge block set NERIOX steel

Tolerance class 0

DIN EN ISO 3650
These gauge blocks are used as **factory or working standards** in calibration labs and climate-controlled testing rooms for setting and calibrating gauges and measuring devices.

Package contents:
Delivered in case including calibration certificate.

Note:
Ceramic gauge blocks available up on request.

With calibration certificate

Order ID	Number	Price €
163421.0100	32	427.00
163421.0200	47	612.00
163421.0300	87	956.00
163421.0400	103	1154.00

Type of parallel gauge block			32	47	87	103
Nominal size	**Grading**	**Number**				
1.005		1	**			
1.01...1.09	0.01	9	**			
1.10...1.90	0.1	9	**			
1...9	1	9	**			
10...30	10	3	**			
50		1	**			
1.005		1		**		
1.01...1.20	0.01	20		**		
1.30...1.90	0.1	7		**		
1...9	1	9		**		
10...100	10	10		**		
1.001...1.009	0.001	9			**	
1.01...1.49	0.01	49			**	
0.5...9.50	0.5	19			**	
10...100	10	10			**	
1.005		1				**
1.01...1.49	0.1	49				**
0.5...24.5	0.5	49				**
25...100	25	4				**

Set composition

NERIOX

With calibration certificate

163411 Parallel gauge block set NERIOX steel

Tolerance class 1

DIN EN ISO 3650

The gauge blocks most often used as **working standards for setting and calibrating** gauges and measuring devices, and in testing rooms and production inspection areas.

Package contents:
Delivered in own case incl. calibration certificate.

Order ID	Number	Price €
163411.0100	32	305.00
163411.0200	47	437.00
163411.0300	87	683.00
163411.0400	103	824.00

Type of parallel gauge block			32	47	87	103
Nominal size	**Grading**	**Number**				
1.005		1	**			
1.01...1.09	0.01	9	**			
1.10...1.90	0.1	9	**			
1...9	1	9	**			
10...30	10	3	**			
50		1	**			
1.005		1		**		
1.01...1.20	0.01	20		**		
1.30...1.90	0.1	7		**		
1...9	1	9		**		
10...100	10	10		**		
1.001...1.009	0.001	9			**	
1.01...1.49	0.01	49			**	
0.5...9.50	0.5	19			**	
10...100	10	10			**	
1.005		1				**
1.01...1.49	0.1	49				**
0.5...24.5	0.5	49				**
25...100	25	4				**

Set composition

163401 Parallel gauge block set NERIOX steel

NERIOX

Tolerance class 2

DIN EN ISO 3650

These gauge blocks are mainly used as **working measurement standards for setting and testing** tools, fixtures and machines, and for inspections in production.

Package contents:
Delivered in own case incl. calibration certificate.

Order ID	Number	Price €
163401.0100	32	191.00
163401.0200	47	271.00
163401.0300	87	410.00
163401.0400	103	482.00

With calibration certificate

Type of parallel gauge block			32	47	87	103
Nominal size	**Grading**	**Number**				
1.005		1	**			
1.01...1.09	0.01	9	**			
1.10...1.90	0.1	9	**			
1...9	1	9	**			
10...30	10	3	**			
50		1	**			
1.005		1		**		
1.01...1.20	0.01	20		**		
1.30...1.90	0.1	7		**		
1...9	1	9		**		
10...100	10	10		**		
1.001...1.009	0.001	9			**	
1.01...1.49	0.01	49			**	
0.5...9.50	0.5	19			**	
10...100	10	10			**	
1.005		1				**
1.01...1.49	0.1	49				**
0.5...24.5	0.5	49				**
25...100	25	4				**

Set composition

163581 Parallel gauge block set FUTURO carbide

Tolerance class 1

For inspections during production.

Note:
Anti-magnetic, very resistant against oxydation and 10 times as much resistant as steel gauges. Even in heavy-duty applications with tough working conditions (for ex. in the presence of grinding swarf) the high surface hardness of around 1400 HV ensures that tungsten carbide gauge blocks continue to have a very long service life.

Package contents:
Delivered in own case incl. ISO calibration.

Order ID	Number	Price €
163581.1100	32	2100.00
163581.1200	47	3832.50

163541 Parallel gauge block set FUTURO ceramic

Tolerance class 1

DIN EN ISO 3650
The gauge blocks most often used, as **working standards** for setting and calibrating gauges and measuring devices, and in measuring labs and production inspection areas.

Note:
Ceramic is anti-magnetic, has low thermal conductivity and high wear resistance compared to steel.

Package contents:
Delivered in own case, with ISO certificate.

with ISO certificate

Order ID	Number	Price €
163541.0200	47	4750.00
163541.0300	87	5650.00

FUTURO

with ISO certificate

163428 Parallel gauge block FUTURO steel

Tolerance class 0

DIN EN ISO 3650
These gauge blocks are used as factory or working standards in **calibration labs and climate-controlled testing rooms for setting and calibrating** gauges and measuring devices.

Package contents:
Delivered incl. ISO certificate.

Order ID	Length mm	Price €	Order ID	Length mm	Price €	Order ID	Length mm	Price €
163428.0410	0.50	59.00	163428.1400	1.30	46.60	163428.1830	10.00	50.60
163428.1000	1.00	46.60	163428.1410	1.31	46.60	163428.1850	10.50	58.60
163428.1010	1.0005	65.00	163428.1420	1.32	46.60	163428.1860	11.00	58.60
163428.1020	1.001	46.60	163428.1430	1.33	46.60	163428.1870	11.50	58.60
163428.1030	1.002	46.60	163428.1440	1.34	46.60	163428.1880	12.00	58.60
163428.1040	1.003	46.60	163428.1450	1.35	46.60	163428.1890	12.50	58.60
163428.1050	1.004	46.60	163428.1460	1.36	46.60	163428.1910	13.00	58.60
163428.1060	1.005	46.60	163428.1470	1.37	46.60	163428.1920	13.50	58.60
163428.1070	1.006	46.60	163428.1480	1.38	46.60	163428.1930	14.00	58.60
163428.1080	1.007	46.60	163428.1490	1.39	46.60	163428.1940	14.50	58.60
163428.1090	1.008	46.60	163428.1500	1.40	46.60	163428.1950	15.00	60.10
163428.1100	1.009	46.60	163428.1510	1.41	46.60	163428.1960	15.50	60.10
163428.1110	1.01	46.60	163428.1520	1.42	46.60	163428.1970	16.00	60.10
163428.1120	1.02	46.60	163428.1530	1.43	46.60	163428.1980	16.50	60.10
163428.1130	1.03	46.60	163428.1540	1.44	46.60	163428.1990	17.00	60.10
163428.1140	1.04	46.60	163428.1550	1.45	46.60	163428.2000	17.50	60.10
163428.1150	1.05	46.60	163428.1560	1.46	46.60	163428.2020	18.00	60.10
163428.1160	1.06	46.60	163428.1570	1.47	46.60	163428.2030	18.50	60.10
163428.1170	1.07	46.60	163428.1580	1.48	46.60	163428.2040	19.00	60.10
163428.1180	1.08	46.60	163428.1590	1.49	46.60	163428.2050	19.50	60.10
163428.1190	1.09	46.60	163428.1600	1.50	46.60	163428.2060	20.00	60.10
163428.1200	1.10	46.60	163428.1610	1.60	46.60	163428.2080	20.50	60.10
163428.1210	1.11	46.60	163428.1620	1.70	46.60	163428.2090	21.00	55.00
163428.1220	1.12	46.60	163428.1630	1.80	46.60	163428.2100	21.50	55.00
163428.1230	1.13	46.60	163428.1640	1.90	46.60	163428.2110	22.00	55.00
163428.1240	1.14	46.60	163428.1650	2.00	47.60	163428.2120	22.50	55.00
163428.1250	1.15	46.60	163428.1660	2.50	47.60	163428.2140	23.00	55.00
163428.1260	1.16	46.60	163428.1670	3.00	47.60	163428.2150	23.50	55.00
163428.1270	1.17	46.60	163428.1680	3.50	47.60	163428.2160	24.00	55.00
163428.1280	1.18	46.60	163428.1690	4.00	47.60	163428.2170	24.50	55.00
163428.1290	1.19	46.60	163428.1700	4.50	47.60	163428.2180	25.00	55.00
163428.1300	1.20	46.60	163428.1710	5.00	47.60	163428.2190	30.00	59.00
163428.1310	1.21	46.60	163428.1730	5.50	48.80	163428.2200	40.00	59.00
163428.1320	1.22	46.60	163428.1740	6.00	48.80	163428.2210	50.00	59.00
163428.1330	1.23	46.60	163428.1750	6.50	48.80	163428.2220	60.00	65.30
163428.1340	1.24	46.60	163428.1760	7.00	48.80	163428.2230	70.00	72.50
163428.1350	1.25	46.60	163428.1770	7.50	48.80	163428.2240	75.00	84.00
163428.1360	1.26	46.60	163428.1790	8.00	48.80	163428.2250	80.00	85.90
163428.1370	1.27	46.60	163428.1800	8.50	50.60	163428.2260	90.00	88.00
163428.1380	1.28	46.60	163428.1810	9.00	50.60	163428.2270	100.00	91.60
163428.1390	1.29	46.60	163428.1820	9.50	50.60			

NERIOX

with ISO certificate

163427 Parallel gauge block NERIOX steel

Tolerance class 1

DIN EN ISO 3650
The gauge blocks most often used as **working standards for setting and calibrating** gauges and measuring devices, and in testing rooms and production inspection areas.

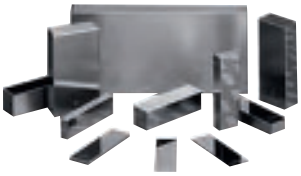
Package contents:
Delivered incl. ISO certificate.

Order ID	Length mm	Price €	Order ID	Length mm	Price €	Order ID	Length mm	Price €
163427.0010	0.50	38.10	163427.0640	1.70	31.50	163427.0970	17.00	39.30
163427.0020	1.00	26.40	163427.0650	1.80	31.50	163427.0990	18.00	39.30
163427.0080	1.005	31.50	163427.0660	1.90	31.50	163427.1010	19.00	39.30
163427.0130	1.01	31.50	163427.0670	2.00	31.50	163427.1030	20.00	39.30
163427.0140	1.02	31.50	163427.0690	3.00	31.50	163427.1050	21.00	39.30
163427.0150	1.03	31.50	163427.0710	4.00	31.50	163427.1070	22.00	39.30
163427.0160	1.04	31.50	163427.0730	5.00	31.50	163427.1090	23.00	39.30
163427.0170	1.05	31.50	163427.0750	6.00	31.50	163427.1110	24.00	39.30
163427.0180	1.06	31.50	163427.0770	7.00	31.50	163427.1130	25.00	39.30
163427.0190	1.07	31.50	163427.0790	8.00	31.50	163427.1140	30.00	39.30
163427.0200	1.08	31.50	163427.0810	9.00	31.50	163427.1150	40.00	39.30
163427.0210	1.09	31.50	163427.0830	10.00	31.50	163427.1160	50.00	39.30
163427.0220	1.10	31.50	163427.0850	11.00	39.30	163427.1170	60.00	51.90
163427.0320	1.20	31.50	163427.0870	12.00	39.30	163427.1180	70.00	51.90
163427.0420	1.30	31.50	163427.0890	13.00	39.30	163427.1200	80.00	51.90
163427.0520	1.40	31.50	163427.0910	14.00	39.30	163427.1210	90.00	51.90
163427.0620	1.50	31.50	163427.0930	15.00	39.30	163427.1220	100.00	55.10
163427.0630	1.60	31.50	163427.0950	16.00	39.30			

163585 Parallel gauge block FUTURO carbide

Tolerance class 1

For inspections during production.



with ISO certificate

Note:
Anti-magnetic, very resistant against oxydation and 10 times as much resistant as steel gauges.

Package contents:
Delivered incl. UKAS certificate.

Order ID	Length mm	Price €	Order ID	Length mm	Price €
163585.0020	1.0	30.50	163585.0665	2.0	59.00
163585.0660	2.0	30.50	163585.0685	3.0	59.00
163585.0015	0.5	63.10	163585.0705	4.0	59.00
163585.0025	1.0	59.00	163585.0725	5.0	59.00
163585.0075	1.005	59.00	163585.0745	6.0	69.60
163585.0125	1.01	59.00	163585.0765	7.0	69.60
163585.0135	1.02	59.00	163585.0785	8.0	69.60
163585.0145	1.03	59.00	163585.0805	9.0	69.60
163585.0155	1.04	59.00	163585.0825	10.0	69.60
163585.0165	1.05	59.00	163585.0925	15.0	86.80
163585.0175	1.06	59.00	163585.1025	20.0	99.00
163585.0185	1.07	59.00	163585.1045	21.0	119.00
163585.0195	1.08	59.00	163585.1065	22.0	119.00
163585.0205	1.09	59.00	163585.1085	23.0	119.00
163585.0215	1.10	59.00	163585.1105	24.0	119.00
163585.0265	1.15	59.00	163585.1125	25.0	119.00
163585.0315	1.20	59.00	163585.1135	30.0	139.00
163585.0415	1.30	59.00	163585.1145	40.0	176.00
163585.0515	1.40	59.00	163585.1155	50.0	190.00
163585.0615	1.50	59.00	163585.1165	60.0	209.00
163585.0625	1.60	59.00	163585.1175	70.0	229.00
163585.0635	1.70	59.00	163585.1195	80.0	244.00
163585.0645	1.80	59.00	163585.1205	90.0	253.00
163585.0655	1.90	59.00	163585.1215	100.0	265.00

with ISO certificate

163545 Parallel gauge block FUTURO ceramic

Tolerance class 1

DIN EN ISO 3650

The gauge blocks most often used as **working standards** for setting and calibrating gauges and measuring devices, and in testing rooms and production inspection areas.

Note:

Ceramic is anti-magnetic, has low thermal conductivity and high wear resistance compared to steel.

Package contents:

Delivered incl. ISO certificate.

Order ID	Length mm	Price €	Order ID	Length mm	Price €
163545.0410	0.50	48.10	163545.1880	12.00	54.50
163545.1000	1.00	41.30	163545.1910	13.00	54.50
163545.1060	1.005	41.30	163545.1930	14.00	54.50
163545.1200	1.10	41.30	163545.1950	15.00	61.30
163545.1300	1.20	41.30	163545.1970	16.00	61.30
163545.1400	1.30	41.30	163545.1990	17.00	61.30
163545.1500	1.40	41.30	163545.2020	18.00	61.30
163545.1600	1.50	42.60	163545.2040	19.00	61.30
163545.1610	1.60	42.60	163545.2060	20.00	66.30
163545.1620	1.70	42.60	163545.2090	21.00	66.30
163545.1630	1.80	42.60	163545.2110	22.00	66.30
163545.1640	1.90	42.60	163545.2140	23.00	76.30
163545.1650	2.00	42.60	163545.2160	24.00	76.30
163545.1670	3.00	42.60	163545.2180	25.00	76.30
163545.1690	4.00	42.60	163545.2190	30.00	85.00
163545.1710	5.00	42.60	163545.2200	40.00	109.30
163545.1740	6.00	54.50	163545.2210	50.00	129.60
163545.1760	7.00	54.50	163545.2220	60.00	143.60
163545.1790	8.00	54.50	163545.2230	70.00	158.80
163545.1810	9.00	54.50	163545.2250	80.00	194.30
163545.1830	10.00	54.50	163545.2260	90.00	207.40
163545.1860	11.00	54.50	163545.2270	100.00	216.80

111891 Reference set NERIOX for caliper gauge

NERIOX

For checking the accuracy of calipers to DIN 862. Consisting of 3 parallel gauge blocks, accuracy classe 1 and 2 steel adjusting rings gauges.

Set consisting of:
3 Parallel gauge blocks 30.0 / 41.3 / 131.4 mm
2 Ring gauges Ø 4 / Ø 25 mm

Package contents:
Delivered in own case incl. ISO certificate.

Order ID	Set composition	Price €
111891.0100	30.0 / 41.3 / 131.4 / Ø 4 / Ø 25	299.00

163313 Parallel gauge block set NERIOX steel

NERIOX

Tolerance class 1

For testing outside micrometers to DIN 863 Part 1.

Set consisting of:
5 parallel gauge blocks 5.1 / 10.3 / 15.0 / 20.2 / 25.0 mm.

Package contents:
Delivered in own case incl. calibration certificate.

Order ID	Class of accuracy	Set composition	Price €
163313.0100	1	5.1 / 10.3 / 15.0 / 20.2 / 25.0 mm	350.00

163309 Parallel gauge block set FUTURO carbide

FUTURO

with ISO certificate

Tolerance class 0

DIN EN ISO 3650
For testing external micrometers.

Set consists of:
8 parallel gauge blocks 5.1/10.3/15.0/20.2/25/50/75/100 mm

Note:
Other tolerance classes on request.

Package contents:
Delivered in own case, includes ISO certificate.

Order ID	Class of accuracy	Set composition	Price €
163309.0100	0	5.1 / 10.3 / 15.0 / 20.2 / 25 / 50 / 75 / 100 mm	1040.00

163307 Parallel gauge block set FUTURO ceramic

FUTURO

with ISO certificate

Tolerance class 0

DIN EN ISO 3650
For testing external micrometers.

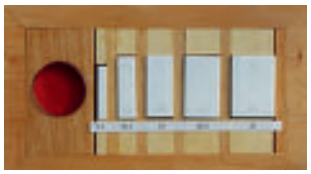
Set consists of:
5 parallel gauge blocks 5.1/10.3/15.0/20.2/25.0 mm.

Package contents:
Delivered in own case, includes cotton gloves and ISO certificate.

Order ID	Class of accuracy	Set composition	Price €
163307.0100	0	5.1 / 10.3 / 15.0 / 20.2 / 25.0 mm	725.00

163315 Parallel gauge block set NERIOX ceramic

NERIOX



Tolerance class 1

For testing outside micrometers to DIN 863 Part 1.

Set consisting of:
5 parallel gauge blocks 5.1 / 10.3 / 15.0 / 20.2 / 25.0 mm
1 planar glass Ø 32 x 12mm

Package contents:
Delivered in own case incl. calibration certificate.

Order ID	Class of accuracy	Set composition	Price €
163315.0100	1	5.1 / 10.3 / 15.0 / 20.2 / 25.0 mm	550.00

with ISO certificate

165030 Adjustable ring gauges FUTURO

Ø 3...Ø 200 mm

DIN 2250-1 C
Gauge steel
Made from first-class quality gauge steel, for setting and checking measuring devices.

Features:
Class of accuracy JS4

Package contents:
Delivered in transport packaging incl. factory certificate.

Appropriate accessories:
558240 Protection and packaging box UniBox

Order ID	Nominal Ø mm	Price €	Order ID	Nominal Ø mm	Price €
165030.0050	3	72.30	165030.1400	35	60.80
165030.0060	4	65.00	165030.1500	40	66.40
165030.0070	5	65.00	165030.1600	45	76.40
165030.0080	6	43.30	165030.1700	50	84.20
165030.0090	8	43.30	165030.1800	55	94.60
165030.0100	10	43.30	165030.1900	60	102.20
165030.0200	11	43.80	165030.2000	65	115.60
165030.0300	12	44.50	165030.2100	70	121.50
165030.0400	13	45.60	165030.2200	75	137.30
165030.0500	14	45.60	165030.2300	80	147.00
165030.0600	15	47.30	165030.2400	85	172.00
165030.0700	16	48.30	165030.2500	90	179.60
165030.0800	17	48.90	165030.2600	95	196.90
165030.0900	18	48.90	165030.2700	100	215.90
165030.1000	19	49.70	165030.2800	125	266.90
165030.1100	20	50.70	165030.2900	150	310.30
165030.1200	25	54.50	165030.3000	175	465.50
165030.1300	30	58.40	165030.3100	200	591.30

166074 Thread limit plug gauge FUTURO NIHS

Go/NoGo - HSS - 4.5 mm

SwissMade
HSS to NIHS standard tolerance with black-anodised **Ø 4.5 mm aluminium handle.**

Note:
NIHS tolerance NT/RT and DIN tolerances available upon request

Order ID	Thread	Pitch mm	Price €
166074.0050	S0.50	0.125	125.40
166074.0060	S0.60	0.150	125.40
166074.0070	S0.70	0.175	125.40
166074.0080	S0.80	0.200	125.40
166074.0090	S0.90	0.225	125.40
166074.0100	S1.00	0.250	125.40
166074.0120	S1.20	0.250	125.40

166060 Go thread plug gauge FUTURO NIHS

Go - HSS - 2 mm

SwissMade
HSS to NIHS standard tolerance with green-anodised **Ø 2 mm aluminium handle.**

Note:
NIHS tolerance NT/RT and DIN tolerances available upon request

Order ID	Thread	Pitch mm	Price €
166060.0050	S0.50	0.125	67.90
166060.0060	S0.60	0.150	67.90
166060.0070	S0.70	0.175	67.90
166060.0080	S0.80	0.200	67.90
166060.0090	S0.90	0.225	67.90
166060.0100	S1.00	0.250	67.90
166060.0120	S1.20	0.250	67.90

166070 Go thread plug gauge FUTURO NIHS

Go - HSS - 4.5 mm

SwissMade
HSS to NIHS standard tolerance with green-anodised **Ø 4.5 mm aluminium handle.**

Note:
NIHS tolerance NT/RT and DIN tolerances available upon request

Order ID	Thread	Pitch mm	Price €
166070.0040	S0.40	0.100	67.90
166070.0050	S0.50	0.125	67.90
166070.0060	S0.60	0.150	67.90
166070.0070	S0.70	0.175	67.90
166070.0080	S0.80	0.200	67.90
166070.0090	S0.90	0.225	67.90
166070.0100	S1.00	0.250	67.90
166070.0120	S1.20	0.250	67.90

166090 Go thread plug gauge FUTURO NIHS NT

Go - Carbide - 3 mm

SwissMade
Carbide to NIHS NT standard tolerance, with green-anodised **Ø 3 mm aluminium handle.**

Order ID	Thread	Pitch mm	L1 mm	Price €
166090.0040	S0.40	0.100	2.0	73.20
166090.0050	S0.50	0.125	2.5	73.60
166090.0060	S0.60	0.150	3.0	73.60
166090.0070	S0.70	0.175	3.0	73.60
166090.0080	S0.80	0.200	3.5	73.60
166090.0090	S0.90	0.225	4.0	73.60
166090.0100	S1.00	0.250	4.0	73.60
166090.0120	S1.20	0.250	5.0	73.60
166090.0140	S1.40	0.300	5.0	73.60

166062 NoGo thread plug gauge FUTURO NIHS

NoGo - HSS - 2 mm

SwissMade
HSS to NIHS standard tolerance with red-anodised **Ø 2 mm aluminium handle.**

Note:
NIHS tolerance NT/RT and DIN tolerances available upon request

Order ID	Thread	Pitch mm	Price €
166062.0050	S0.50	0.125	67.90
166062.0060	S0.60	0.150	67.90
166062.0070	S0.70	0.175	67.90
166062.0080	S0.80	0.200	67.90
166062.0090	S0.90	0.225	67.90
166062.0100	S1.00	0.250	67.90
166062.0120	S1.20	0.250	67.90

166072 NoGo thread plug gauge FUTURO NIHS

NoGo - HSS - 4.5 mm

SwissMade
HSS to tolérance standard NIHS avec **manche en aluminium** anodisée rouge **Ø 4.5 mm.**

Note:
NIHS tolerance NT/RT and DIN tolerances available upon request

Order ID	Thread	Pitch mm	Price €
166072.0035	S0.35	0.090	67.90
166072.0040	S0.40	0.100	67.90
166072.0050	S0.50	0.125	67.90
166072.0060	S0.60	0.150	67.90
166072.0070	S0.70	0.175	67.90
166072.0080	S0.80	0.200	67.90
166072.0090	S0.90	0.225	67.90
166072.0100	S1.00	0.250	67.90
166072.0120	S1.20	0.250	67.90

166092 NoGo thread plug gauge FUTURO NIHS NT/RT

NoGo - Carbide - 3 mm

SwissMade
Carbide to NIHS NT/RT tolerance, with red-anodised **Ø 3 mm aluminium handle.**

Order ID	Thread	Pitch mm	L1 mm	Price €
166092.0040	S0.40	0.100	2.0	73.20
166092.0050	S0.50	0.125	2.5	73.60
166092.0060	S0.60	0.150	3.0	73.60
166092.0070	S0.70	0.175	3.0	73.60
166092.0080	S0.80	0.200	3.5	73.60
166092.0090	S0.90	0.225	4.0	73.60
166092.0100	S1.00	0.250	4.0	73.60
166092.0120	S1.20	0.250	5.0	73.60
166092.0140	S1.40	0.300	5.0	73.60

165261 Thread limit plug gauge set NERIOX - 6H

Metric
Metric ISO thread DIN 13
Gauge dimensions according to DIN ISO 1502

made of gauge steel, hardened, stress-relieved and extremely fine-machined.

Appropriate spare parts:
165251 Thread limit plug gauge NERIOX - 6H

Order ID	Set composition	Price €
165261.0100	M3 / M4 / M5 / M6 / M8 / M10 / M12	284.00

165351 Thread limit plug gauge NERIOX - 6H

Metric fine
Metric ISO fine thread DIN 13
Gauge dimensions according to DIN ISO 1502

made of gauge steel, hardened and stress-relieved.

Appropriate accessories:
558220 Protection and packaging tube QuadroPack QuadroPack
558230 Protection and packaging tube TwistPack

Order ID	Thread	Pitch mm	Price €	Order ID	Thread	Pitch mm	Price €
165351.0100	M12	1.5	57.70	165351.1000	M27	1.5	86.30
165351.0200	M14	1.5	60.60	165351.1100	M28	1.5	88.30
165351.0300	M16	1.5	60.60	165351.1200	M30	1.5	94.20
165351.0400	M18	1.5	66.30	165351.1300	M32	1.5	97.00
165351.0500	M20	1.5	68.30	165351.1400	M36	1.5	104.90
165351.0600	M22	1.5	73.10	165351.1500	M40	1.5	139.10
165351.0700	M24	1.5	78.90	165351.1600	M42	1.5	184.00
165351.0800	M25	1.5	81.70	165351.1700	M45	1.5	195.80
165351.0900	M26	1.5	84.60				

165251 Thread limit plug gauge NERIOX - 6H

Metric
Metric ISO thread DIN 13
Gauge dimensions according to DIN ISO 1502

made of gauge steel, hardened, stress-relieved and extremely fine-machined.

Appropriate accessories:
558220 Protection and packaging tube QuadroPack QuadroPack
558230 Protection and packaging tube TwistPack

Order ID	Thread	Pitch mm	Price €	Order ID	Thread	Pitch mm	Price €
165251.0100	M2	0.4	61.40	165251.1200	M14	2	52.20
165251.0200	M2.5	0.45	56.20	165251.1300	M16	2	53.20
165251.0300	M3	0.5	52.20	165251.1400	M18	2.5	60.50
165251.0400	M3.5	0.6	47.00	165251.1500	M20	2.5	60.00
165251.0500	M4	0.7	44.50	165251.1600	M22	2.5	66.80
165251.0600	M5	0.8	44.50	165251.1700	M24	3	72.50
165251.0700	M6	1	44.50	165251.1800	M27	3	83.20
165251.0800	M7	1	44.50	165251.1900	M30	3.5	92.90
165251.0900	M8	1.25	44.50	165251.2000	M33	3.5	101.70
165251.1000	M10	1.5	47.40	165251.2100	M36	4	115.10
165251.1100	M12	1.75	47.40	165251.2200	M42	4.5	122.90

FUTURO

166124 Go/NoGo thread ring gauge FUTURO NIHS

Go/NoGo - HSS-PM - 6 mm

SwissMade
HSS to NIHS standard tolerance with black-anodised **Ø 6 mm aluminium handle.**

Note:
NIHS tolerance NT/RT and DIN tolerances available upon request

Order ID	Thread	Pitch mm	Price €
166124.0035	S0.35	0.090	232.00
166124.0040	S0.40	0.100	232.00
166124.0050	S0.50	0.125	232.00
166124.0060	S0.60	0.150	232.00
166124.0070	S0.70	0.175	232.00
166124.0080	S0.80	0.200	232.00
166124.0090	S0.90	0.225	232.00
166124.0100	S1.00	0.250	232.00
166124.0120	S1.20	0.250	232.00
166124.0140	S1.40	0.300	232.00

FUTURO

166120 Go thread ring gauge FUTURO NIHS NT

Go - HSS-PM - 6 mm

SwissMade
HSS to NIHS standard tolerance with green-anodised **Ø 6 mm aluminium handle.**

Note:
NIHS tolerance NT/RT and DIN tolerances available upon request

Order ID	Thread	Pitch mm	Price €
166120.0050	S0.50	0.125	125.00
166120.0060	S0.60	0.150	125.00
166120.0070	S0.70	0.175	125.00
166120.0080	S0.80	0.200	125.00
166120.0090	S0.90	0.225	125.00
166120.0100	S1.00	0.250	125.00

FUTURO

166132 Go thread ring gauge FUTURO NIHS

Go - HSS-PM - 20 mm

SwissMade
HSS to NIHS standard tolerance, with green-anodised **Ø 20 mm aluminium handle.**

Note:
NIHS tolerance NT/RT and DIN tolerances available upon request

Order ID	Thread	Pitch mm	Price €
166132.0050	S0.50	0.125	125.00
166132.0060	S0.60	0.150	125.00
166132.0070	S0.70	0.175	125.00
166132.0080	S0.80	0.200	125.00
166132.0090	S0.90	0.225	125.00
166132.0100	S1.00	0.250	125.00
166132.0120	S1.20	0.250	125.00
166132.0140	S1.40	0.300	125.00

FUTURO

166134 NoGo thread ring gauge FUTURO NIHS

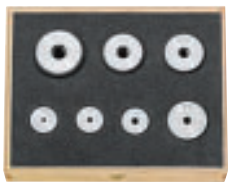
NoGo - HSS-PM - 20 mm

SwissMade
HSS to NIHS standard tolerance with red-anodised **Ø 20 mm aluminium handle.**

Note:
NIHS tolerance NT/RT and DIN tolerances available upon request

Order ID	Thread	Pitch mm	Price €
166134.0050	S0.50	0.125	125.40
166134.0060	S0.60	0.150	125.40
166134.0070	S0.70	0.175	125.40
166134.0080	S0.80	0.200	125.40
166134.0090	S0.90	0.225	125.40
166134.0100	S1.00	0.250	125.40

NERIOX



165746 Go thread ring gauge set NERIOX - 6g

Metric
Metric ISO thread DIN 13
Gauge dimensions according to DIN ISO 1502

made of gauge steel, hardened and stress-relieved.

Appropriate spare parts:
165726 Go thread ring gauge NERIOX - 6g

Order ID	Set composition	Price €
165746.0100	M3 / M4 / M5 / M6 / M8 / M10 / M12	279.00

165826 Go thread ring gauge NERIOX - 6g

NERIOX

Metric fine
Metric ISO fine thread DIN 13
Gauge dimensions according to DIN ISO 1502

made of gauge steel, hardened and stress-relieved.

Appropriate accessories:
558240 Protection and packaging box UniBox

Order ID	Thread	Pitch mm	Price €
165826.0100	M12	1.5	58.90
165826.0200	M14	1.5	58.90
165826.0300	M16	1.5	61.50
165826.0400	M18	1.5	66.00
165826.0500	M20	1.5	66.00
165826.0600	M22	1.5	76.70
165826.0700	M24	1.5	82.90
165826.0800	M25	1.5	86.50
165826.0900	M27	1.5	86.50
165826.1000	M28	1.5	83.80
165826.1100	M30	1.5	99.00
165826.1200	M32	1.5	107.00
165826.1300	M35	1.5	122.20
165826.1400	M36	1.5	109.70
165826.1500	M40	1.5	141.80
165826.1600	M42	1.5	165.00
165826.1700	M45	1.5	165.00
165826.1800	M48	1.5	165.00
165826.1900	M50	1.5	181.00

165828 NoGo thread ring gauge NERIOX - 6g

NERIOX

Metric fine
Metric ISO fine thread DIN 13
Gauge dimensions according to DIN ISO 1502

made of gauge steel, hardened and stress-relieved.

Appropriate accessories:
558240 Protection and packaging box UniBox

Order ID	Thread	Pitch mm	Price €
165828.0100	M12	1.5	58.90
165828.0200	M14	1.5	58.90
165828.0300	M16	1.5	61.50
165828.0400	M18	1.5	66.00
165828.0500	M20	1.5	66.00
165828.0600	M22	1.5	76.70
165828.0700	M24	1.5	82.90
165828.0800	M25	1.5	86.50
165828.0900	M27	1.5	86.50
165828.1000	M28	1.5	83.80
165828.1100	M30	1.5	99.00
165828.1200	M32	1.5	107.00
165828.1300	M35	1.5	122.20
165828.1400	M36	1.5	109.70
165828.1500	M40	1.5	141.80

NERIOX

165726 Go thread ring gauge NERIOX - 6g

Metric
Metric ISO thread DIN 13
Gauge dimensions according to DIN ISO 1502

made of gauge steel, hardened and stress-relieved.

Appropriate accessories:
558240 Protection and packaging box UniBox

Order ID	Thread	Pitch mm	Price €
165726.0100	M2	0.4	65.60
165726.0200	M2.5	0.45	63.70
165726.0300	M3	0.5	50.10
165726.0400	M3.5	0.6	50.10
165726.0500	M4	0.7	50.10
165726.0600	M5	0.8	50.10
165726.0700	M6	1	50.10
165726.0800	M7	1	50.10
165726.0900	M8	1.25	50.10
165726.1000	M10	1.5	54.70
165726.1100	M12	1.75	59.10
165726.1200	M14	2	67.30
165726.1300	M16	2	67.30
165726.1400	M18	2.5	72.80
165726.1500	M20	2.5	75.70
165726.1600	M22	2.5	79.60
165726.1700	M24	3	99.30
165726.1800	M27	3	99.00
165726.1900	M30	3.5	113.00
165726.2000	M36	4	127.00
165726.2100	M42	4.5	174.00
165726.2200	M45	4.5	174.00

NERIOX

165728 NoGo thread ring gauge NERIOX - 6g

Metric
Metric ISO thread DIN 13
Gauge dimensions according to DIN ISO 1502

made of gauge steel, hardened and stress-relieved.

Appropriate accessories:
558240 Protection and packaging box UniBox

Order ID	Thread	Pitch mm	Price €
165728.0100	M2	0.4	65.60
165728.0200	M2.5	0.45	63.70
165728.0300	M3	0.5	50.10
165728.0400	M3.5	0.6	50.10
165728.0500	M4	0.7	50.10
165728.0600	M5	0.8	50.10
165728.0700	M6	1	50.10
165728.0800	M7	1	50.10
165728.0900	M8	1.25	50.10
165728.1000	M10	1.5	54.70
165728.1100	M12	1.75	59.10
165728.1200	M14	2	67.30
165728.1300	M16	2	67.30
165728.1400	M18	2.5	72.80
165728.1500	M20	2.5	75.70
165728.1600	M22	2.5	79.60
165728.1700	M24	3	99.30

150981 LED Stand magnifying glass NERIOX

NERIOX

Stand magnifying glass with LED lighting. Ideally suited for delicate work in the workshop and modeling.

Features:
Lighting ring with 24 SMD LED (white) 4.5W
LED life time 50’000 h
Glass lens, 3 diopters
Protecting cover for glass lens
Flexible swan neck
Stable lamp stand Ø 160 mm
Master switch on lamp stand

Note:
The stand magnifying glass has an integrated LED unit. This LED unit can not be replaced.

Package contents:
Supplied complete with cable and power supply

Order ID		150981.0100
Type		NERIOX LED
Magnification		1.75 x
Lens size	mm	Ø 85
Reflector size	mm	Ø 135
Luminous flux	lm	270
Light temperature	K	4500...5000
Arm length	mm	290
Colour		Black
Weight	kg	1.05
Price €		**52.50**

152378 Videomicroscope FUTURO INSPECT

The video microscope is equipped with a scanning zoom, a stable tripod and a separately height-adjustable positioning table. The fine adjustment of the height is carried out via the unit of the cross table. For simple, fast positioning of small parts this is a ideal solution. The HDMI camera **with automatic focusing** is operated via the integrated software and can be connected to a monitor directly at the HDMI port.

Features:
Raster zoom with 6 steps
LED ring light dimmable - with segment circuit and power supply unit
Diffuser to LED ringlight
Pre-lens 0.5x
Base plate 420 x 250 mm
Cross table adjustability 70 x 50 mm, height adjustable
Glass plate Ø 95 mm
2 zoom ranges - 12 zoom levels
HDMI autofocus camera 2 megapixel

Note:
We recommend monitors with 4K resolution so that the entire unscaled image can be displayed.

Package contents:
Delivered in transport packaging **without monitor**.

Appropriate accessories:
152400 Accessories FUTURO video microscope

Order ID		152378.0060
Magnification		15x...105x
Field of vision	mm	27...4
Adjustability	mm	70 x 50
Table size	mm	217(180) x 155
Working distance	mm	170
Weight	kg	13.5
Price €		**5250.00**

152380 Microscope camera FUTURO Cam

CMOS – Microscope camera with built-in XCamView software (video and image processing application software) multilingual and mouse-controlled, including professional image processing functions such as 2D measurement, HDR, image stitching, EDF (extended depth of focus), image segmentation, image counter, image stacking, colour composite and noise reduction (USB).
The camera can be used as a Wi-Fi camera if a USB Wi-Fi adapter is used

Features:
Resolution: 1920 x 1080 px
Interface: 1x USB; 1x HDMI, 1x SD card
Camera sensor: CMOS (Sony)
Pixel size: 3.75 x 3.75 µm
Length: 81 mm
Width: 65 mm
Height: 78 mm
Power supply: DC 12-V/1-A adapter

Included in delivery:
CMOS camera, mains adapter, HDMI cable, USB mouse, wireless network adapter with USB interface, CD with driver and utility software, Wi-Fi adapter

Order ID		152380.0100
Resolution		1920 x 1080 px
Pixel size	µm	3.75 x 3.75
Interface		USB / HDMI / SD
Dimensions WxDxH	mm	65 x 81 x 78
Price €		**1019.00**

152400 Accessories FUTURO video microscope

Usable with:
152377 Videomicroscope FUTURO MEASURE
152378 Videomicroscope FUTURO INSPECT

Order ID	Designation		Price €
152400.1100	Prelens for FUTURO Video Microscope 0.25x / 56…8 / 356 / 8x…54x		137.00
152400.1110	Prelens for FUTURO Video Microscope 0.5x / 27…4 / 175 / 15x…105x		137.00
152400.1120	Prelens for FUTURO Video Microscope 0.75x / 18…2 / 113 / 25x…160x		137.00
152400.1130	Prelens for FUTURO Video Microscope 1.5x / 9…1.54 / 51 / 50x…330x		137.00
152400.1140	Prelens for FUTURO Video Microscope 2.0x / 5…1 / 36 / 80x…450x		137.00
152400.1200	Calibration scale without certificate 30 / 0.1		21.00
152400.1250	Interface for measurement data transfer FUTURO Geometrics MT		395.00
152400.2100	Microfibre tissue for cleaning glasses, optics, displays, scanners, etc. Individually packed in celophane packaging.		1.95

152361 Zoom stereo microscope NERIOX HSZ

Robust zoom stereo microscope **with flex arm stand** and zoom lens for inspection jobs during production, continuously adjustable from 7x... 45x.

Designs:
152361.0100: with swivel arm stand
152361.0200: with swivel arm stand and trinocular tube

Features:
Prism head 45° can be rotated by 360 °
Diopter compensation
10x eyepieces
Adjustable interpupillary distance
Tripod with quick and fine adjustment
Large swivel range
Stable base plate

Package content:
Stand with base plate and prism head with eye cups.

Order ID		152361.0100	152361.0200
Type		HSZB	HSZT
Magnification		7x...45x	7x...45x
Zoom		0.7...4.5	0.7...4.5
Field of vision Ø	mm	30...4	30...4
Working distance	mm	105	105
Work piece height max.	mm	210	210
Base plate	mm	250 x 250	250 x 250
Working radius	mm	450	450
Total height	mm	425	425
Price €		**839.00**	**902.00**

NERIOX

152351 Zoom stereo microscope NERIOX SVZ

Robust zoom stereo microscope with zoom lens for inspection jobs during production, continuously adjustable from 7x...45x.

Designs:
152351.0100: Standard
152351.0200: with trinocular tube

Features:
Prism head 45° can be rotated by 360 °
Diopter compensation
10x eyepieces
Adjustable interpupillary distance
Tripod with quick and fine adjustment
Incident light and transmitted light (LED) adjustable

Package content:
Stand and prism head, eye guards, dust cover, power supply.

Appropriate accessories:
152371 Accessories NERIOX microscopes

Order ID		152351.0100	152351.0200
Type		SVZB	SVZT
Magnification		7x...45x	7x...45x
Zoom		0.7...4.5	0.7...4.5
Field of vision Ø	mm	30...4	30...4
Object disk Ø	mm	82	82
Working distance	mm	105	105
Work piece height max.	mm	80	80
Price €		**577.50**	**682.50**

NERIOX

152321 Stereomicroscope NERIOX BV

152321.0100

Simple stereo microscope with 2-lens revolver and large-field eyepieces.

Designs:
152321.0100: stand with quick displacement
152321.0200: stand fix with fine adjustement

Features:
Prism head 45° can be rotated by 360 °
Diopter compensation
10x eyepieces
Adjustable interpupillary distance
Nosepiece with objectives 2x / 4x
Incident light and transmitted light (LED) adjustable

Package content:
Stand and prism head, eye guards, dust cover, power supply.

Order ID		152321.0100	152321.0200
Type		BVS	BVF
Magnification		20x / 40x	20x / 40x
Field of vision Ø	mm	10 / 5	10 / 5
Object disk Ø	mm	95	60
Working distance	mm	62	114
Work piece height max.	mm	25	30
Price €		**351.80**	**351.80**

152371 Accessories NERIOX microscopes

NERIOX

Order ID	Designation	Price €
152371.0005	Microfibre tissue for cleaning glasses, optics, displays, scanners, etc. Individually packed in celophane packaging.	2.50
152371.0010	Eyepiece (pair) WF15x/15	140.70
152371.0020	Eyepiece (pair) WF20x/10	160.70
152371.0030	Eyepiece (pair) with reticle WF10x	122.90
152371.0040	Front lens long column only 0.5x	140.70
152371.0050	Front lens 2.0x	140.70

148205 Roughness tester FUTURO SURFACE

SwissMade
Portable roughness measuring instrument suitable for **tracer with skid and skidless tracer** (VHF) for universal use in the workshop or measuring lab. Option to retrofit using a retrofit set **in order to visually measure roughness**.

Designs:
148205.0100: Drive unit VH for tracer with skid incl. standard tracer SH
148205.0300: Drive unit VHF for tracer with skid + skidless tracer incl. standard tracer SH

Features:
Menu navigation, multilingual
5 probe sections, all adjustable 0.5 to 15 mm
Measuring speed adjustable
Automatic calibration
Calibration of up to 8 sensors
8 measurement programmes
Memory for 50 measurement profiles
Tolerance display for exceeded measurement values
Able to select key block
USB interface (option: Bluetooth®)

Parameters:
ISO/DIN: Ra, Rz(DIN), Rmax, R3z, Rt, Rq (RMS), Rk, Rp, Rv, Rpk, Rvk, MR1, MR2, Rpc, C1, C2, carrier Rmr, C0, Cz
JIS: Ra (JIS), Rz (JIS)
ISO 12085: R, AR, Rx

Note:
We recommend training for this product!
For further technical information, please request a special brochure or consultation.

Package contents:
Delivered in case, includes
Calibration standard R_a 3 µm
Adapter with connection cable
USB connection cable, power supply
Operating manual, test certificate
Software DIASOFT BASIC
Basic programme with Ra, Rq, Rv, Rp, Rt, Sm, Rsk, Rku, Rz, RTp, RHTp, RDq, RPc, Roughness curve, Abbott curve

148205.0100/148205.0300 (additionally):
Standard probe SH – 5 µm/90°

Matching accessories:
148120 Roughness standard FUTURO
148230 Software DIASOFT
148235 Accessories for roughness testers FUTURO

Order ID		148205.0100	148205.0300
Range	µm	350	350
Resolution	µm	0.001	0.001
Feeder length	mm	15	15
Probe sections	mm	0.5...15	0.5...15
Measuring force	mN	0.5	0.5
Weight	kg	2.6	2.6
Price €		**4100.00**	**4690.00**

Our full range –

GUARANTEED THE RIGHT TOOL FOR EVERY TASK

FUTURO
performance and perfection

NERIOX
YOUR SMARTEST CHOICE

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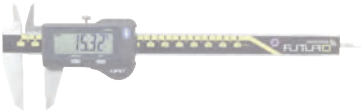
MEASUREMENT TECHNOLOGY  174 – 245

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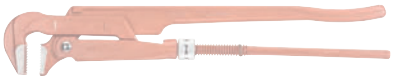
HAND- AND MOUNTING TOOLS  354 – 371

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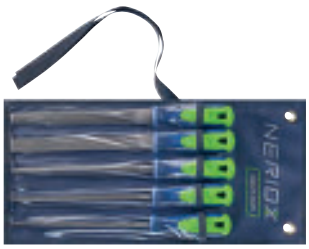
NERIOX



318675 Set of engineer's files NERIOX

5-piece, in case. Engineer's files **with plastic handle**, in high-quality steel, with double cut, for work on ferrous and non-ferrous metals.

Order ID	**Length in**	Cut	Length mm	Shape	**Price €**
318675.0100	**8**	2 second cut	200	Flat hand Half-round Three-square Square Round	**29.70**
318675.0200	**10**	2 second cut	250	Flat hand Half-round Three-square Square Round	**38.40**

FUTURO

318400 Flat hand file FUTURO

Engineer's file in high-quality steel, with double cut, for work on ferrous and non-ferrous metals.

Order ID	**Length in**	**Cut**	Length mm	Profile mm	**Price €**
318400.0140	**6"**	**2 second cut**	150	16 x 3.5	**4.50**
318400.0410	**12"**	**1 bastard**	300	30 x 8	**9.00**
318400.0470	**12"**	**3 smooth**	300	30 x 8	**9.80**

NERIOX

318680 Flat hand file NERIOX

Engineer's files made of high-quality steel, with double-cut, for working ferrous and non-ferrous materials.

Order ID	**Length in**	Cut	Length mm	Profile mm	**Price €**
318680.0100	**8**	2 second cut	200	19.2 x 4.3	**3.05**
318680.0200	**10**	2 second cut	250	23.2 x 5	**4.10**

NERIOX

318650 Flat hand file NERIOX

Engineer's file **with plastic handle**, in high-quality steel, with double cut, for work on ferrous and non-ferrous metals.

Order ID	**Length in**	Cut	Length mm	Profile mm	**Price €**
318650.0100	**8**	2 second cut	200	19.2 x 4.3	**5.60**
318650.0200	**10**	2 second cut	250	23.2 x 5	**6.60**

FUTURO

318480 Three square file FUTURO

Engineer's file in high-quality steel, with double cut, for work on ferrous and non-ferrous metals.

Order ID	**Length in**	**Cut**	Length mm	Profile mm	**Price €**
318480.0140	**6"**	**2 second cut**	150	10	**5.80**
318480.0410	**12"**	**1 bastard**	300	20	**12.90**

NERIOX

318690 Triangular file NERIOX

Engineer's files made of high-quality steel, with double-cut, for working ferrous and non-ferrous materials.

Order ID	**Length in**	Cut	Length mm	Profile mm	**Price €**
318690.0100	**8**	2 second cut	200	12.5	**3.95**
318690.0200	**10**	2 second cut	250	15.5	**5.80**

318660 Three square file NERIOX

Engineer's file **with plastic handle**, in high-quality steel, with double cut, for work on ferrous and non-ferrous metals.

Order ID	Length in	Cut	Length mm	Profile mm	Price €
318660.0100	**8**	2 second cut	200	12.5	6.60
318660.0200	**10**	2 second cut	250	15.5	8.60

318520 Square file FUTURO

Engineer's file in high-quality steel, with double cut, for work on ferrous and non-ferrous metals.

Order ID	Length in	Cut	Length mm	Profile mm	Price €
318520.0140	**6"**	**2 second cut**	150	6	5.00
318520.0410	**12"**	**1 bastard**	300	12	12.40

318695 Square file NERIOX

Engineer's files made of high-quality steel, with double-cut, for working ferrous and non-ferrous materials.

Order ID	Length in	Cut	Length mm	Profile mm	Price €
318695.0100	**8**	2 second cut	200	6.6	3.35
318695.0200	**10**	2 second cut	250	8.6	4.50

318665 Square file NERIOX

Engineer's file **with plastic handle**, in high-quality steel, with double cut, for work on ferrous and non-ferrous metals.

Order ID	Length in	Cut	Length mm	Profile mm	Price €
318665.0100	**8**	2 second cut	200	6.6	5.80
318665.0200	**10**	2 second cut	250	8.6	6.90

318440 Half-round file FUTURO

Engineer's file in high-quality steel, with double cut, for work on ferrous and non-ferrous metals.

Order ID	Length in	Cut	Length mm	Profile mm	Price €
318440.0140	**6"**	**2 second cut**	150	15 x 4.5	7.30
318440.0410	**12"**	**1 bastard**	300	27 x 8.5	18.70
318440.0470	**12"**	**3 smooth**	300	27 x 8.5	19.70

318685 Half-round files NERIOX

Engineer's files made of high-quality steel, with double-cut, for working ferrous and non-ferrous materials.

Order ID	Length in	Cut	Length mm	Profile mm	Price €
318685.0100	**8**	2 second cut	200	20.2 x 5.6	5.10
318685.0200	**10**	2 second cut	250	23.2 x 6.5	6.75

NERIOX

318655 Half-round file NERIOX

Engineer's file **with plastic handle**, in high-quality steel, with double cut, for work on ferrous and non-ferrous metals.

Order ID	**Length in**	Cut	Length mm	Profile mm	**Price €**
318655.0100	**8**	2 second cut	200	20.2 x 5.6	**7.60**
318655.0200	**10**	2 second cut	250	23.2 x 6.5	**9.60**

FUTURO

318560 Round file FUTURO

Engineer's file in high-quality steel, with double cut, for work on ferrous and non-ferrous metals.

Order ID	**Length in**	**Cut**	Length mm	Ø mm	**Price €**
318560.0140	**6"**	**2 second cut**	150	6	**4.90**
318560.0410	**12"**	**1 bastard**	300	12	**8.30**
318560.0470	**12"**	**3 smooth**	300	12	**9.30**

NERIOX

318715 Round file NERIOX

Engineer's files made of high-quality steel, with double-cut, for working ferrous and non-ferrous materials.

Order ID	**Length in**	Cut	Length mm	Profile mm	**Price €**
318715.0100	**8**	2 second cut	200	6.8	**2.95**
318715.0200	**10**	2 second cut	250	8.9	**3.95**

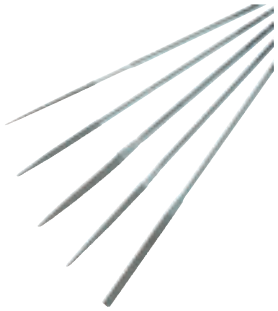
NERIOX

318670 Round file NERIOX

Engineer's file **with plastic handle**, in high-quality steel, with double cut, for work on ferrous and non-ferrous metals.

Order ID	**Length in**	Cut	Length mm	Profile mm	**Price €**
318670.0100	**8**	2 second cut	200	6.8	**5.40**
318670.0200	**10**	2 second cut	250	8.9	**6.60**

320260 Set of diamond files FUTURO



5-piece, in plastic case. Diamond precision files with strong square tang. **File handle not required.** For work on hardened steels, carbide, glass, ceramics, fibreglass, graphite and epoxy materials.
Consisting of:
320250 Diamond flat hand file FUTURO
320252 Diamond half-round file FUTURO
320254 Diamond three square file FUTURO
320256 Diamond square file FUTURO
320258 Diamond round file FUTURO

Order ID	Grain size	Length mm	Cut length mm	Application	Price €
320260.0100	**D126**	220	110	General-purpose	231.60
320260.0200	**D181**	220	110	Rough filing	231.60

320250 Diamond flat hand file FUTURO

Diamond precision file with strong square tang. **File handle not required.**For work on hardened steels, carbide, glass, ceramics, fibreglass, graphite and epoxy materials.

Is part of:
320260 Set of diamond files FUTURO

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320250.0100	**D126**	220	110	10.4 x 2.8	57.10
320250.0200	**D181**	220	110	10.4 x 2.8	57.10

320254 Diamond three square file FUTURO

Diamond precision file with strong square tang. **File handle not required.**For work on hardened steels, carbide, glass, ceramics, fibreglass, graphite and epoxy materials.

Is part of:
320260 Set of diamond files FUTURO

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320254.0100	**D126**	220	110	9.7	63.30
320254.0200	**D181**	220	110	9.7	63.30

320256 Diamond square file FUTURO

Diamond precision file with strong square tang. **File handle not required.**For work on hardened steels, carbide, glass, ceramics, fibreglass, graphite and epoxy materials.

Is part of:
320260 Set of diamond files FUTURO

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320256.0100	**D126**	220	110	6.1	44.70
320256.0200	**D181**	220	110	6.1	44.70

320252 Diamond half-round file FUTURO

Diamond precision file with strong square tang. **File handle not required.**For work on hardened steels, carbide, glass, ceramics, fibreglass, graphite and epoxy materials.

Is part of:
320260 Set of diamond files FUTURO

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320252.0100	**D126**	220	110	12.6 x 3.9	55.20
320252.0200	**D181**	220	110	12.6 x 3.9	55.20

320258 Diamond round file FUTURO

Diamond precision file with strong square tang. **File handle not required.**For work on hardened steels, carbide, glass, ceramics, fibreglass, graphite and epoxy materials.

Is part of:
320260 Set of diamond files FUTURO

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320258.0100	**D126**	220	110	6.8	36.40
320258.0200	**D181**	220	110	6.8	36.40

320480 Set of diamond needle files FUTURO

5-piece, in plastic bag.
Contents: 1 diamond needle file of each of the following shapes: flat hand, half-round, triangular, square, round.

Order ID	Grain size	Length mm	Cut length mm	Application	Price €
320480.0100	**D 91**	140	70	Fine filing	78.70
320480.0200	**D 126**	140	70	Universal	78.70

320420 Diamond needle file FUTURO

Flat hand, with round steel shank.

Appropriate accessories:
320800 Tool handle

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320420.0050	**D91**	140	70	5.1 x 1.4	17.40
320420.0100	**D126**	140	70	5.1 x 1.4	16.30

320440 Diamond needle file FUTURO

Triangular, with round steel shank.

Appropriate accessories:
320800 Tool handle

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320440.0050	**D91**	140	70	3.9	17.40
320440.0100	**D126**	140	70	3.9	16.30

320460 Diamond needle file FUTURO

Square, with round steel shank.

Appropriate accessories:
320800 Tool handle

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320460.0050	**D91**	140	70	2.5	17.40
320460.0100	**D126**	140	70	2.5	16.30

320430 Diamond needle file FUTURO

Halfround, with round steel shank.

Appropriate accessories:
320800 Tool handle

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320430.0050	**D91**	140	70	5.4 x 1.9	17.40
320430.0100	**D126**	140	70	5.4 x 1.9	16.30

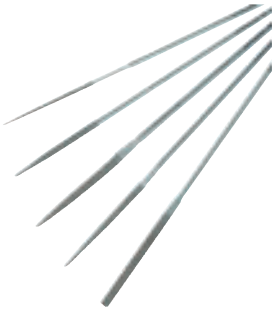
320450 Diamond needle file FUTURO

Round, with round steel shank.

Appropriate accessories:
320800 Tool handle

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320450.0050	**D91**	140	70	3	17.40
320450.0100	**D126**	140	70	3	16.30

320498 Set of diamond escapement files FUTURO



5-piece, in plastic case. Mini precision files for tool, die and instrument making, for work on very small profiles. With round steel handle; can be used without handle.

Consisting of:
320490 Diamond escapement file FUTURO
320491 Diamond escapement file FUTURO
320492 Diamond escapement file FUTURO
320493 Diamond escapement file FUTURO
320494 Diamond escapement file FUTURO

Appropriate accessories:
320800 Tool handle

Order ID	Grain size	Length mm	Cut length mm	Application	Price €
320498.0100	**D30**	140	40	Fine finishing	74.00
320498.0200	**D54**	140	40	Finishing	75.50
320498.0300	**D91**	140	40	Pre-sanding	75.50

320490 Diamond escapement file FUTURO

Flat hand, mini precision file for tool, die and instrument making, for work on very small profiles. With round steel handle; can be used without handle.

Is part of:
320498 Set of diamond escapement files FUTURO

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320490.0100	**D30**	140	40	3.9 x 1.1	15.60
320490.0200	**D54**	140	40	3.9 x 1.1	16.00
320490.0300	**D91**	140	40	3.9 x 1.1	16.00

320492 Diamond escapement file FUTURO

Three-square, mini precision file for tool, die and instrument making, for work on very small profiles. With round steel handle; can be used without handle.

Is part of:
320498 Set of diamond escapement files FUTURO

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320492.0100	**D30**	140	40	3.1	15.60
320492.0200	**D54**	140	40	3.1	16.00
320492.0300	**D91**	140	40	3.1	16.00

FUTURO

320493 Diamond escapement file FUTURO

Square, mini precision file for tool, die and instrument making, for work on very small profiles. With round steel handle; can be used without handle.

Is part of:
320498 Set of diamond escapement files FUTURO

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320493.0100	**D30**	140	40	2.0	15.60
320493.0200	**D54**	140	40	2.0	16.00
320493.0300	**D91**	140	40	2.0	16.00

FUTURO

320491 Diamond escapement file FUTURO

Half-round, mini precision file for tool, die and instrument making, for work on very small profiles. With round steel handle; can be used without handle.

Is part of:
320498 Set of diamond escapement files FUTURO

Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320491.0100	**D30**	140	40	4.3 x 1.8	15.60
320491.0200	**D54**	140	40	4.3 x 1.8	16.00
320491.0300	**D91**	140	40	4.3 x 1.8	16.00

FUTURO

320494 Diamond escapement file FUTURO

Round, mini precision file for tool, die and instrument making, for work on very small profiles. With round steel handle; can be used without handle.

Is part of:
320498 Set of diamond escapement files FUTURO

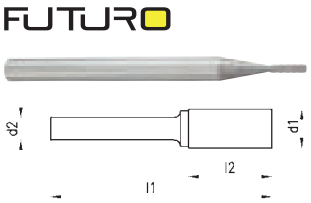
Order ID	Grain size	Length mm	Cut length mm	Profile mm	Price €
320494.0100	**D30**	140	40	1.7	15.60
320494.0200	**D54**	140	40	1.7	16.00
320494.0300	**D91**	140	40	1.7	16.00

230005 Carbidei burr Micro FUTURO

ZYA

P	M	K	N	S	H	0
O	O	O	O	O	O	

Cylindrical shape without end cut
Cut 2 MICRO



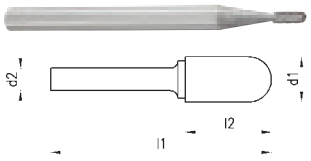
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230005.0100	ZYA	1	4	3	38	14.40
230005.0200	ZYA	1.5	4	3	38	14.10
230005.0300	ZYA	2	4	3	38	13.70

230025 Carbidei burr Micro FUTURO

WRC

P	M	K	N	S	H	0
O	O	O	O	O	O	

Sphero-cylinder shape
Cut 2 MICRO



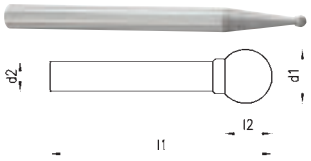
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230025.0100	WRC	1	4	3	38	14.40
230025.0200	WRC	1.5	4	3	38	14.10
230025.0300	WRC	2	4	3	38	13.70

230035 Carbidei burr Micro FUTURO

KUD

P	M	K	N	S	H	0
O	O	O	O	O	O	

Ball shape
Cut 2 MICRO



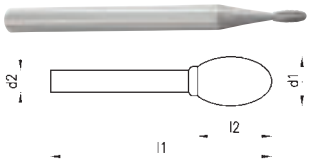
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230035.0100	KUD	1	0.9	3	38	14.40
230035.0200	KUD	1.5	1.35	3	38	14.10
230035.0300	KUD	2	1.8	3	38	13.70

230045 Carbidei burr Micro FUTURO

TRE

P	M	K	N	S	H	0
O	O	O	O	O	O	

Oval shape
Cut 2 MICRO



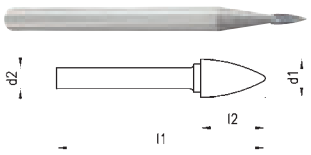
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230045.0100	TRE	1.5	4	3	38	14.10

230065 Carbidei burr Micro FUTURO

SPG

P	M	K	N	S	H	0
O	O	O	O	O	O	

Pointed-arch shape
Cut 2 MICRO



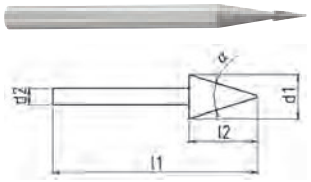
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230065.0100	SPG	1.5	4	3	38	14.10

230115 Carbidei burr Micro FUTURO

SKM

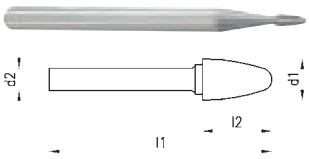
P	M	K	N	S	H	0
O	O	O	O	O	O	

Conical pointed shape.
Cut 2 MICRO



Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Angle	Price €
230115.0100	SKM	1.5	4	3	38	15	14.10

FUTURO



230055 Carbidei burr Micro FUTURO

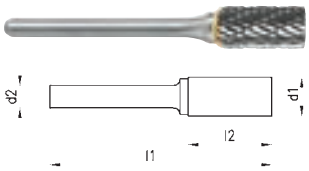
RBF

P	M	K	N	S	H	O
O	O	O	O	O	O	

Round-arch shape
Cut 2 MICRO

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230055.0100	RBF	1.5	4	3	38	14.10

NERIOX



230201 Carbide mini burr NERIOX

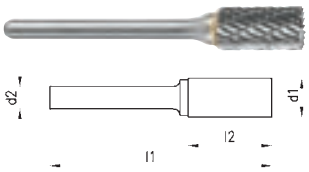
ZYA

P	M	K	N	S	H	O
O	O	O	O	O	O	

Cylindrical shape without end cut
Crosscut

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230201.0100	ZYA	1.5	6	3	38	7.70
230201.0150	ZYA	2	11	3	38	7.70
230201.0200	ZYA	2.5	11	3	38	7.50
230201.0300	ZYA	3	14	3	38	7.50
230201.0400	ZYA	4	12.7	3	38	15.90
230201.0500	ZYA	6.3	12.7	3	45	9.60

NERIOX



230211 Carbide mini burr NERIOX

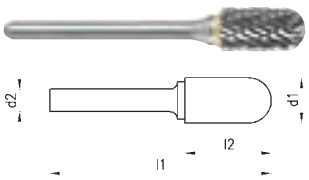
ZYAS

P	M	K	N	S	H	O
O	O	O	O	O	O	

Cylindrical shape with end cut.
Crosscut.

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230211.0100	ZYAS	1.5	6	3	38	8.50
230211.0150	ZYAS	2	11	3	38	8.40
230211.0200	ZYAS	2.5	11	3	38	8.30
230211.0300	ZYAS	3	14	3	38	8.10
230211.0400	ZYAS	6.3	12.7	3	45	9.50

NERIOX



230221 Carbide mini burr NERIOX

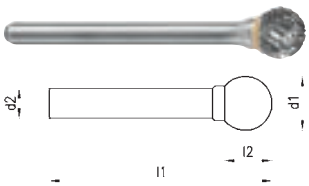
WRC

P	M	K	N	S	H	O
O	O	O	O	O	O	

Sphero-cylinder shape.
Crosscut.

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230221.0050	WRC	2	11	3	38	8.40
230221.0100	WRC	2.5	11	3	38	8.20
230221.0200	WRC	3	14	3	38	8.10
230221.0300	WRC	4	12.5	3	38	15.90
230221.0400	WRC	5	12.7	3	38	16.20
230221.0500	WRC	6.3	12.7	3	45	10.20

NERIOX



230231 Carbide mini burr NERIOX

KUD

P	M	K	N	S	H	O
O	O	O	O	O	O	

Ball shape.
Crosscut.

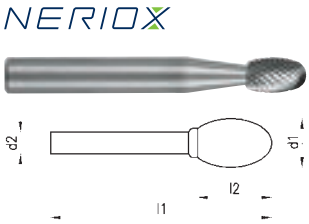
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230231.0050	KUD	2	1.75	3	38	7.50
230231.0100	KUD	2.5	2.3	3	38	7.70
230231.0200	KUD	3	2.5	3	38	8.40
230231.0300	KUD	4	3.4	3	38	11.40
230231.0400	KUD	5	4.7	3	38	15.90
230231.0500	KUD	6.3	5	3	45	10.80

230241 Carbide mini burr NERIOX

TRE

P	M	K	N	S	H	O
O	O	O	O	O	O	

Oval shape.
Crosscut.



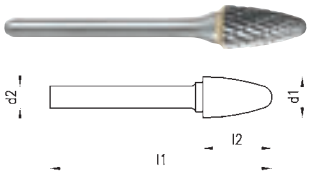
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230241.0100	TRE	3	6	3	38	8.60
230241.0200	TRE	5	7.1	3	38	16.20
230241.0300	TRE	6.3	9.5	3	42	12.30

230251 Carbide mini burr NERIOX

RBF

P	M	K	N	S	H	O
O	O	O	O	O	O	

Round-arch shape.
Crosscut.



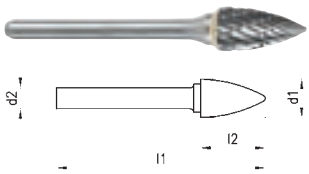
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230251.0100	RBF	3	14	3	38	8.90
230251.0200	RBF	5	12.7	3	38	15.90
230251.0300	RBF	6.3	12.7	3	45	9.50

230261 Carbide mini burr NERIOX

SPG

P	M	K	N	S	H	O
O	O	O	O	O	O	

Pointed-arch shape.
Crosscut.



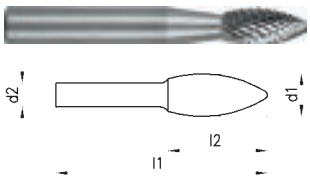
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230261.0100	SPG	3	14	3	38	8.10
230261.0200	SPG	5	12.7	3	45	15.50
230261.0300	SPG	6.3	12.7	3	45	9.50

230271 Carbide mini burr NERIOX

H

P	M	K	N	S	H	O
O	O	O	O	O	O	

Flame shape.
Crosscut.



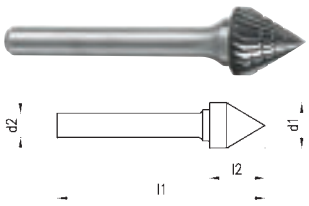
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230271.0100	H	3	6	3	38	8.50
230271.0200	H	5	9.5	3	38	15.90

230281 Carbide mini burr NERIOX

KSJ

P	M	K	N	S	H	O
O	O	O	O	O	O	

Conical counterbore shape 60°.
Crosscut.



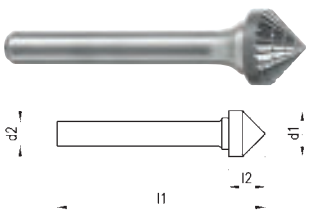
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230281.0100	KSJ	3	2.5	3	38	8.60

230291 Carbide mini burr NERIOX

KSK

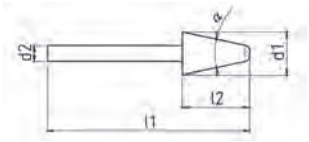
P	M	K	N	S	H	O
O	O	O	O	O	O	

Conical counterbore shape 90°.
Crosscut.



Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230291.0100	KSK	3	1.5	3	38	8.60

NERIOX



230301 Carbide mini burr NERIOX

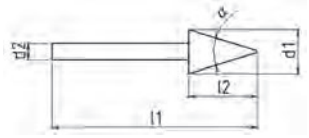
KEL

P	M	K	N	S	H	O
O	O	O	O	O	O	

Conical shape with radius end.
Crosscut.

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Angle	Price €
230301.0100	KEL	3	10	3	38	10°	7.70
230301.0150	KEL	3	14	3	38	8°	8.00
230301.0200	KEL	5	12.7	3	38	14°	15.60

NERIOX



230311 Carbide mini burr NERIOX

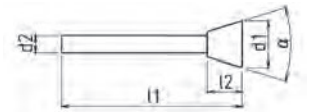
SKM

P	M	K	N	S	H	O
O	O	O	O	O	O	

Conical pointed shape.
Crosscut.

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Angle	Price €
230311.0100	SKM	3	8	3	38	18°	8.40
230311.0200	SKM	3	11	3	38	14°	8.10
230311.0300	SKM	3	15	3	38	10°	8.60
230311.0400	SKM	5	14.5	3	38	16°	15.90
230311.0500	SKM	6.3	12.7	3	49	22°	9.50

NERIOX



230321 Carbide mini burr NERIOX

WKN

P	M	K	N	S	H	O
O	O	O	O	O	O	

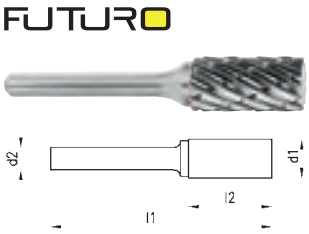
Angular shape.
Crosscut.

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Angle	Price €
230321.0100	WKN	3	4	3	38	10°	8.00
230321.0200	WKN	6.3	6.4	3	39	12°	12.50

230002 Carbide burr FUTURO

ZYA

P	M	K	N	S	H	O
●●		○				



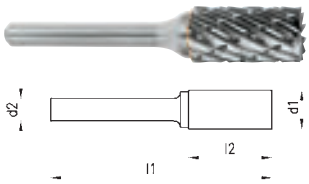
Cylindrical shape without end cut
Cut 5 STEEL

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230002.0100	ZYA	6	18	6	50	26.80
230002.0200	ZYA	8	19	6	64	30.30
230002.0300	ZYA	9.6	19	6	64	34.40
230002.0400	ZYA	12.7	25	6	70	44.20

230012 Carbide burr FUTURO

ZYAS

P	M	K	N	S	H	O
●●		○				



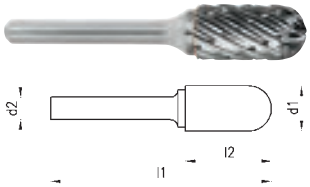
Cylindrical shape with end cut
Cut 5 STEEL

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230012.0100	ZYAS	6	18	6	50	20.30
230012.0200	ZYAS	8	19	6	64	27.70
230012.0300	ZYAS	9.6	19	6	64	30.80
230012.0400	ZYAS	12.7	25	6	70	39.50

230022 Carbide burr FUTURO

WRC

P	M	K	N	S	H	O
●●		○				



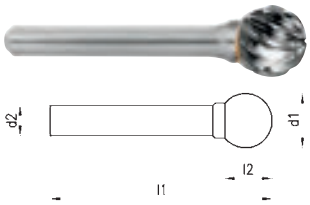
Sphero-cylinder shape
Cut 5 STEEL

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230022.0100	WRC	6	18	6	50	25.00
230022.0200	WRC	8	19	6	63	35.30
230022.0300	WRC	9.6	19	6	63	35.90
230022.0400	WRC	12.7	25	6	70	52.70

230032 Carbide burr FUTURO

KUD

P	M	K	N	S	H	O
●●		○				



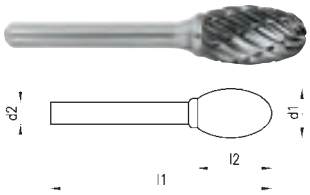
Ball shape
Cut 5 STEEL

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230032.0100	KUD	6	4.7	6	50	21.30
230032.0200	KUD	8	6	6	52	24.10
230032.0300	KUD	9.6	8	6	54	25.20
230032.0400	KUD	12.7	11	6	56	34.40

230042 Carbide burr FUTURO

TRE

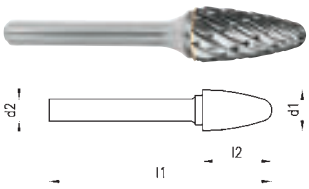
P	M	K	N	S	H	O
●●		○				



Oval shape
Cut 5 STEEL

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230042.0100	TRE	12.7	22	6	67	38.20

FUTURO



230052 Carbide burr FUTURO

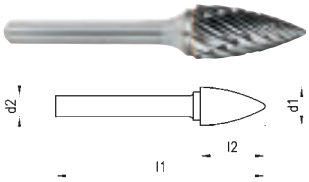
RBF

P	M	K	N	S	H	O
●●		○				

Round-arch shape
Cut 5 STEEL

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230052.0100	RBF	6	18	6	50	24.50
230052.0200	RBF	8	20	6	65	34.50
230052.0300	RBF	9.6	19	6	64	38.20
230052.0400	RBF	12.7	25	6	70	45.30

FUTURO



230062 Carbide burr FUTURO

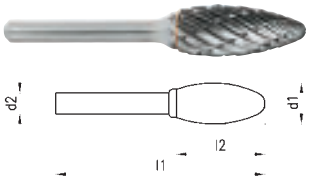
SPG

P	M	K	N	S	H	O
●●		○				

Pointed-arch shape
Cut 5 STEEL

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230062.0100	SPG	6	18	6	50	23.20
230062.0200	SPG	8	19	6	64	32.00
230062.0300	SPG	9.6	19	6	64	36.80
230062.0400	SPG	12.7	25	6	70	43.60

FUTURO



230072 Carbide burr FUTURO

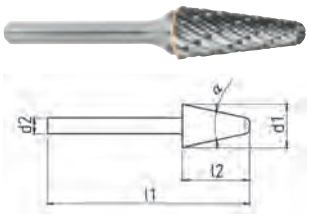
H

P	M	K	N	S	H	O
●●		○				

Flame shape
Cut 5 STEEL

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230072.0100	H	8	19	6	64	34.50
230072.0200	H	12.7	32	6	77	50.50

FUTURO



230102 Carbide burr FUTURO

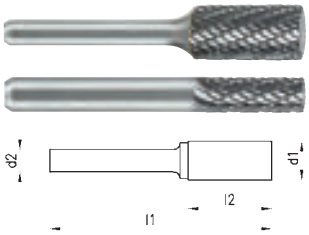
KEL

P	M	K	N	S	H	O
●●		○				

Conical shape with radius end
Cut 5 STEEL

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Angle	Price €
230102.0100	KEL	10	20	6	65	14	37.70
230102.0200	KEL	12.7	32	6	77	14	50.90

NERIOX



230001 Carbide burr NERIOX

ZYA

P	M	K	N	S	H	O
○	○	○	○	○	○	

Cylindrical shape without end cut
Crosscut

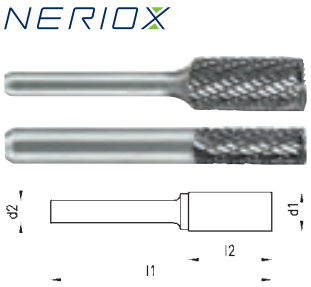
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230001.0100	ZYA	4	13	6	50	12.90
230001.0200	ZYA	6	18	6	50	12.90
230001.0300	ZYA	8	19	6	64	17.40
230001.0400	ZYA	10	20	6	65	20.20
230001.0500	ZYA	12	25	6	70	26.10
230001.0600	ZYA	16	25	6	70	32.80

230011 Carbide burr NERIOX

ZYAS

P	M	K	N	S	H	0
O	O	O	O	O	O	

Cylindrical shape with end cut.
Crosscut.



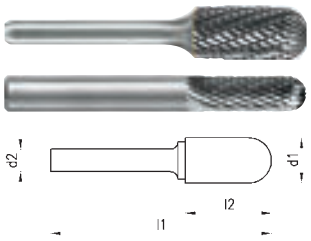
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230011.0100	ZYAS	4	13	6	50	14.10
230011.0200	ZYAS	6	18	6	50	14.40
230011.0300	ZYAS	8	19	6	64	19.30
230011.0400	ZYAS	10	20	6	65	22.50
230011.0500	ZYAS	12	25	6	70	28.60
230011.0600	ZYAS	16	25	6	70	35.90

230021 Carbide burr NERIOX

WRC

P	M	K	N	S	H	0
O	O	O	O	O	O	

Sphero-cylinder shape.
Crosscut.



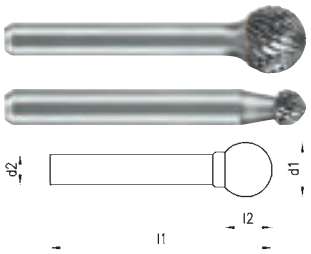
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230021.0100	WRC	4	13	6	50	14.10
230021.0200	WRC	6	18	6	50	15.40
230021.0300	WRC	8	19	6	64	20.70
230021.0400	WRC	10	20	6	65	24.30
230021.0500	WRC	12	25	6	70	30.70
230021.0600	WRC	16	25	6	70	38.60

230031 Carbide burr NERIOX

KUD

P	M	K	N	S	H	0
O	O	O	O	O	O	

Ball shape.
Crosscut.



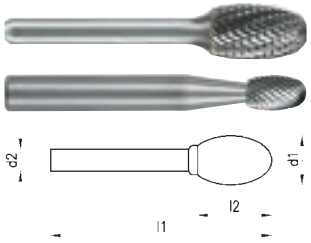
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230031.0100	KUD	5	4	6	50	13.40
230031.0200	KUD	6	4.7	6	50	13.50
230031.0300	KUD	8	6	6	52	14.40
230031.0400	KUD	10	9	6	54	15.40
230031.0500	KUD	12	11	6	56	18.90
230031.0600	KUD	16	14	6	59	24.40

230041 Carbide burr NERIOX

TRE

P	M	K	N	S	H	0
O	O	O	O	O	O	

Oval shape.
Crosscut.



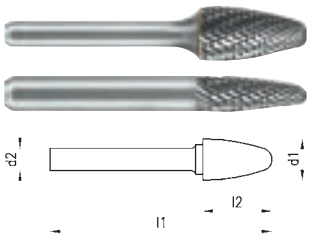
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230041.0100	TRE	6	10	6	50	13.00
230041.0150	TRE	8	15	6	60	14.50
230041.0200	TRE	9.6	16	6	60	18.60
230041.0300	TRE	12	20	6	65	26.40
230041.0400	TRE	16	25	6	70	35.90

230051 Carbide burr NERIOX

RBF

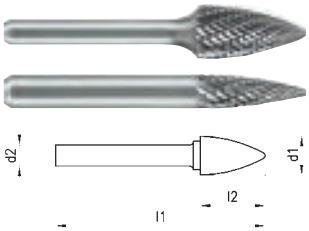
P	M	K	N	S	H	0
O	O	O	O	O	O	

Round-arch shape.
Crosscut.



Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230051.0100	RBF	6	18	6	50	14.40
230051.0150	RBF	8	20	6	65	19.50
230051.0200	RBF	10	20	6	65	23.00
230051.0300	RBF	12	25	6	70	29.30
230051.0400	RBF	16	25	6	70	37.20

NERIOX



230061 Carbide burr NERIOX

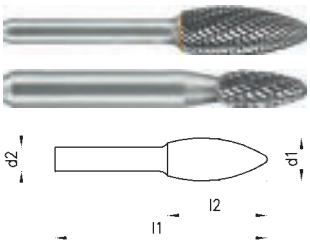
SPG

P	M	K	N	S	H	O
O	O	O	O	O	O	

Pointed-arch shape.
Crosscut.

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230061.0100	SPG	6	18	6	50	14.50
230061.0200	SPG	8	19	6	64	19.30
230061.0300	SPG	10	20	6	65	23.20
230061.0400	SPG	12	25	6	70	28.90
230061.0500	SPG	16	25	6	70	36.80

NERIOX



230071 Carbide burr NERIOX

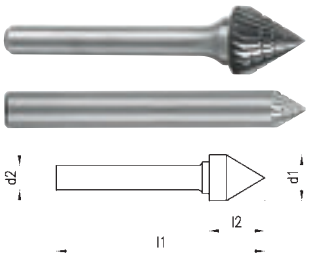
H

P	M	K	N	S	H	O
O	O	O	O	O	O	

Flame shape.
Crosscut.

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230071.0050	H	6	14	6	50	17.70
230071.0100	H	8	19	6	64	25.30
230071.0150	H	9.6	19	6	64	30.20
230071.0200	H	12	30	6	75	31.40
230071.0300	H	16	36	6	81	45.00

NERIOX



230081 Carbide burr NERIOX

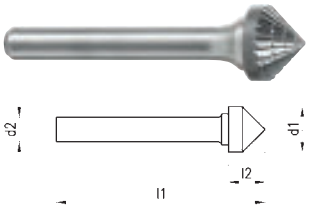
KSJ

P	M	K	N	S	H	O
O	O	O	O	O	O	

Conical counterbore shape 60°.
Crosscut.

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230081.0100	KSJ	6	4	6	50	15.60
230081.0200	KSJ	9.6	8	6	56	20.90
230081.0300	KSJ	12.7	11	6	59	25.90
230081.0400	KSJ	16	14.5	6	63	33.20

NERIOX



230091 Carbide burr NERIOX

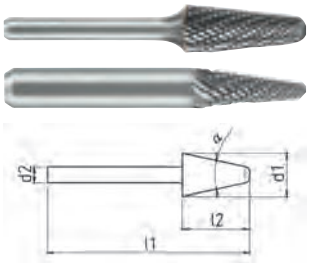
KSK

P	M	K	N	S	H	O
O	O	O	O	O	O	

Conical counterbore shape 90°.
Crosscut.

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230091.0100	KSK	6	3	6	50	15.60
230091.0200	KSK	9.6	4.7	6	53	20.90
230091.0300	KSK	12.7	6.3	6	55	24.10
230091.0400	KSK	16	8	6	57	34.40

NERIOX



230101 Carbide burr NERIOX

KEL

P	M	K	N	S	H	O
O	O	O	O	O	O	

Conical shape with radius end.
Crosscut.

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Angle	Price €
230101.0100	KEL	6	18	6	50	14°	15.00
230101.0200	KEL	8	25.4	6	70	14°	19.50
230101.0300	KEL	9.6	30	6	76	14°	24.40
230101.0350	KEL	10	20	6	65	14°	24.10
230101.0400	KEL	12	30	6	77	14°	30.80
230101.0500	KEL	16	33	6	78	14°	39.50

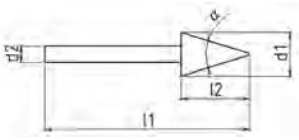
230111 Carbide burr NERIOX

NERIOX

SKM

P	M	K	N	S	H	O
O	O	O	O	O	O	

Conical pointed shape.
Crosscut.



Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Angle	Price €
230111.0100	**SKM**	6	12.7	6	50	20°	**13.50**
230111.0200	**SKM**	6	20	6	50	14°	**13.10**
230111.0300	**SKM**	6	25	6	50	10°	**13.60**
230111.0400	**SKM**	10	20	6	65	28°	**20.70**
230111.0500	**SKM**	12	26	6	71	28°	**26.30**
230111.0600	**SKM**	16	25	6	71	31°	**35.90**

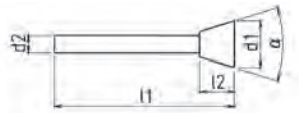
230121 Carbide burr NERIOX

NERIOX

WKN

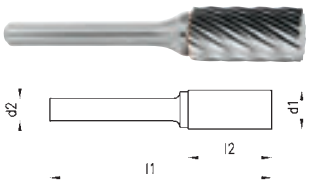
P	M	K	N	S	H	O
O	O	O	O	O	O	

Angular shape.
Crosscut.



Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Angle	Price €
230121.0100	**WKN**	6	8	6	50	10°	**15.30**
230121.0200	**WKN**	9.6	9.5	6	55	16°	**22.10**
230121.0300	**WKN**	12.7	12.7	6	58	28°	**28.90**
230121.0400	**WKN**	16	19	6	64	18°	**35.00**

FUTURO



230203 Carbide mini burr FUTURO

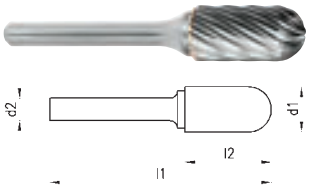
ZYA

P	M	K	N	S	H	O
	●●			○		

Cylindrical shape without end cut
Cut 4 INOX

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230203.0100	ZYA	3	14	3	38	12.50
230203.0200	ZYA	6.3	12.7	3	45	15.30

FUTURO



230223 Carbide mini burr FUTURO

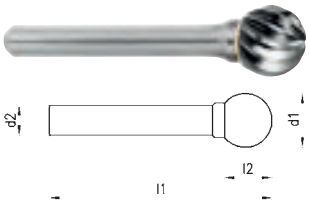
WRC

P	M	K	N	S	H	O
	●●			○		

Sphero-cylinder shape
Cut 4 INOX

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230223.0100	WRC	3	14	3	38	12.50
230223.0200	WRC	6.3	12.7	3	44	15.30

FUTURO



230233 Carbide mini burr FUTURO

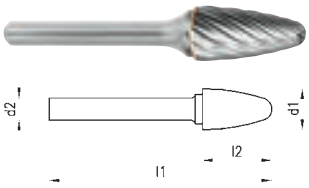
KUD

P	M	K	N	S	H	O
	●●			○		

Ball shape
Cut 4 INOX

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230233.0100	KUD	3	2.5	3	38	12.50
230233.0200	KUD	6.3	5	3	38	15.30

FUTURO



230253 Carbide mini burr FUTURO

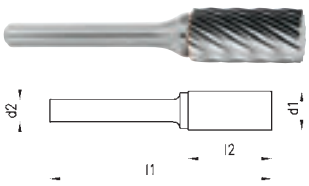
RBF

P	M	K	N	S	H	O
	●●			○		

Round-arch shape
Cut 4 INOX

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230253.0100	RBF	3	14	3	38	12.50
230253.0200	RBF	6.3	12.7	3	45	15.30

FUTURO



230003 Carbide burr FUTURO

ZYA

P	M	K	N	S	H	O
	●●			○		

Cylindrical shape without end cut
Cut 4 INOX

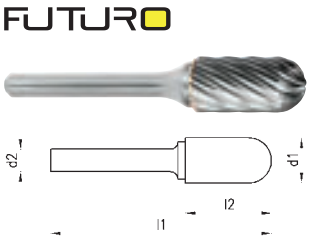
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230003.0100	ZYA	6	18	6	50	24.50
230003.0200	ZYA	8	19	6	64	32.90
230003.0300	ZYA	9.6	19	6	64	36.80
230003.0400	ZYA	12.7	25	6	70	47.70

230023 Carbide burr FUTURO

WRC

P	M	K	N	S	H	O
	●●			○		

Sphero-cylinder shape
Cut 4 INOX



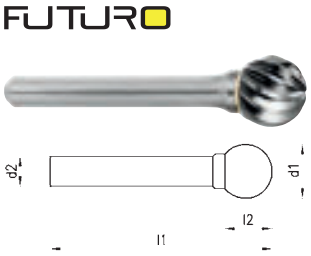
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230023.0100	WRC	6	18	6	50	27.10
230023.0200	WRC	8	19	6	63	38.00
230023.0300	WRC	9.6	19	6	63	40.20
230023.0400	WRC	12.7	25	6	70	54.10

230033 Carbide burr FUTURO

KUD

P	M	K	N	S	H	O
	●●			○		

Ball shape
Cut 4 INOX



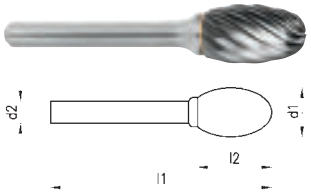
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230033.0100	KUD	6	4.7	6	50	21.80
230033.0200	KUD	8	6	6	52	24.10
230033.0300	KUD	9.6	8	6	54	25.50
230033.0400	KUD	12.7	11	6	56	35.00

230043 Carbide burr FUTURO

TRE

P	M	K	N	S	H	O
	●●			○		

Oval shape
Cut 4 INOX



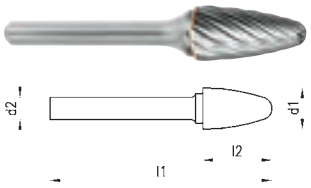
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230043.0100	TRE	8	15	6	60	23.60
230043.0200	TRE	9.6	16	6	60	26.40
230043.0300	TRE	12.7	22	6	67	39.10

230053 Carbide burr FUTURO

RBF

P	M	K	N	S	H	O
	●●			○		

Round-arch shape
Cut 4 INOX



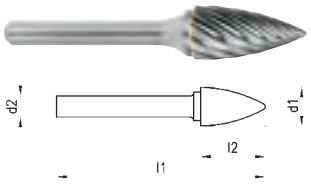
Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230053.0100	RBF	6	18	6	50	25.90
230053.0200	RBF	8	20	6	65	38.60
230053.0300	RBF	9.6	19	6	64	41.10
230053.0400	RBF	12.7	25	6	70	47.30

230063 Carbide burr FUTURO

SPG

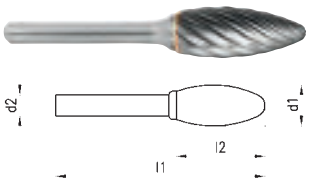
P	M	K	N	S	H	O
	●●			○		

Pointed-arch shape
Cut 4 INOX



Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230063.0100	SPG	6	18	6	50	24.50
230063.0200	SPG	8	19	6	64	31.80
230063.0300	SPG	9.6	19	6	64	35.90
230063.0400	SPG	12.7	25	6	70	45.00

FUTURO



230073 Carbide burr FUTURO

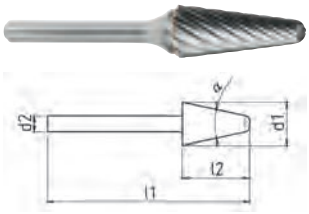
H

P	M	K	N	S	H	O
	●●			○		

Flame shape
Cut 4 INOX

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230073.0100	H	8	19	6	64	35.90
230073.0200	H	9.6	19	6	65	45.30
230073.0300	H	12.7	32	6	77	50.00

FUTURO



230103 Carbide burr FUTURO

KEL

P	M	K	N	S	H	O
	●●			○		

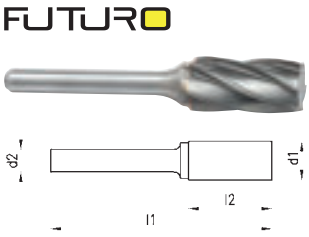
Conical shape with radius end
Cut 4 INOX

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Angle	Price €
230103.0100	KEL	8	25.4	6	70	14	35.00
230103.0200	KEL	10	20	6	65	14	40.90
230103.0300	KEL	12.7	32	6	77	14	53.20

230004 Carbide burr FUTURO

ZYA

P	M	K	N	S	H	O
			●●			○



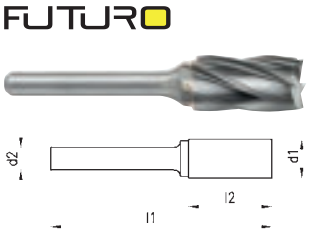
Cylindrical shape without end cut
Cut 3 ALU

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230004.0100	ZYA	6	18	6	50	24.50
230004.0200	ZYA	8	19	6	64	30.50
230004.0300	ZYA	9.6	19	6	64	38.60
230004.0400	ZYA	12.7	25	6	70	41.10

230014 Carbide burr FUTURO

ZYAS

P	M	K	N	S	H	O
			●●			○



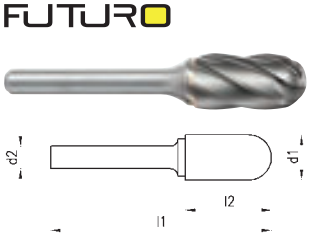
Cylindrical shape with end cut
Cut 3 ALU

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230014.0100	ZYAS	6	18	6	50	22.60
230014.0200	ZYAS	8	19	6	64	29.30
230014.0300	ZYAS	9.6	19	6	64	34.10
230014.0400	ZYAS	12.7	25	6	70	43.20

230024 Carbide burr FUTURO

WRC

P	M	K	N	S	H	O
			●●			○



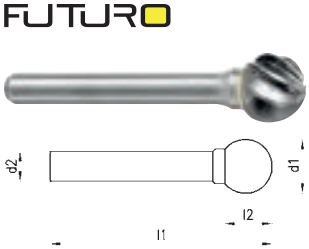
Sphero-cylinder shape
Cut 3 ALU

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230024.0100	WRC	6	18	6	50	23.50
230024.0200	WRC	8	19	6	63	31.70
230024.0300	WRC	9.6	19	6	64	35.90
230024.0400	WRC	12.7	25	6	70	43.20

230034 Carbide burr FUTURO

KUD

P	M	K	N	S	H	O
			●●			○



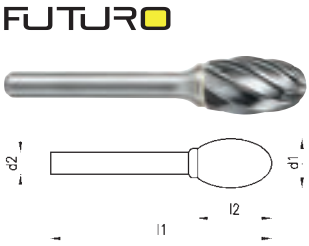
Ball shape
Cut 3 ALU

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230034.0100	KUD	6	4.7	6	50	21.40
230034.0200	KUD	8	6	6	52	22.50
230034.0300	KUD	9.6	8	6	54	23.00
230034.0400	KUD	12.7	11	6	56	27.20

230044 Carbide burr FUTURO

TRE

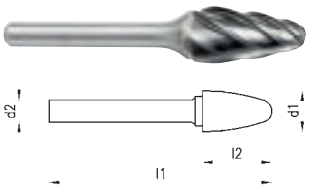
P	M	K	N	S	H	O
			●●			○



Oval shape
Cut 3 ALU

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230044.0100	TRE	8	15	6	60	31.60
230044.0200	TRE	9.6	16	6	60	35.90
230044.0300	TRE	12.7	22	6	67	41.10

FUTURO



230054 Carbide burr FUTURO

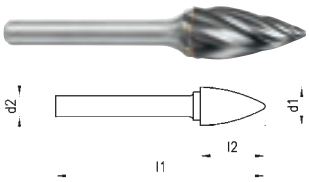
RBF

P	M	K	N	S	H	O
			●●			○

Round-arch shape
Cut 3 ALU

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230054.0100	RBF	6	18	6	50	23.50
230054.0200	RBF	8	20	6	65	34.10
230054.0300	RBF	9.6	19	6	64	36.20
230054.0400	RBF	12.7	25	6	70	45.00

FUTURO



230064 Carbide burr FUTURO

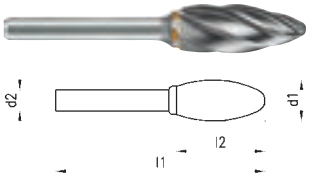
SPG

P	M	K	N	S	H	O
			●●			○

Pointed-arch shape
Cut 3 ALU

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230064.0100	SPG	6	18	6	50	25.50
230064.0200	SPG	8	19	6	64	32.90
230064.0300	SPG	9.6	19	6	64	36.40
230064.0400	SPG	12.7	25	6	70	47.30

FUTURO



230074 Carbide burr FUTURO

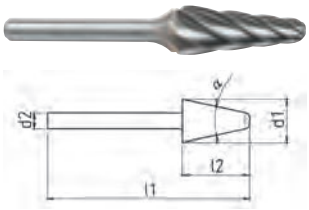
H

P	M	K	N	S	H	O
			●●			○

Flame shape
Cut 3 ALU

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Price €
230074.0100	H	8	19	6	64	36.40
230074.0200	H	9.6	19	6	65	45.90
230074.0300	H	12.7	32	6	77	50.90

FUTURO



230104 Carbide burr FUTURO

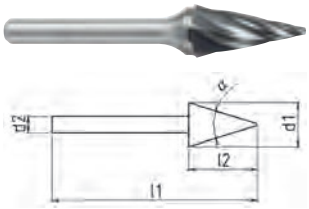
KEL

P	M	K	N	S	H	O
			●●			○

Conical shape with radius end
Cut 3 ALU

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Angle	Price €
230104.0100	KEL	8	25.4	6	70	14	28.90
230104.0200	KEL	10	20	6	65	14	36.20
230104.0300	KEL	12.7	32	6	77	14	45.30

FUTURO



230114 Carbide burr FUTURO

SKM

P	M	K	N	S	H	O
			●●			○

Conical pointed shape.
Cut 3 ALU

Order ID	Type	d1 mm	l2 mm	d2 mm	l1 mm	Angle	Price €
230114.0100	SKM	6	20	6	50	14	25.90
230114.0200	SKM	9.6	16	6	64	28	40.20
230114.0300	SKM	12.7	22	6	71	28	49.50

483285 CBN ball mounted point FUTURO

Electroplated abrasive, for grinding hard-to-cut, long-chipping materials, hardened steel, tool steel, die steel, superalloys, chrome-nickel steel from 58 to 65 HRC; cutting speed 10-35 m/s.

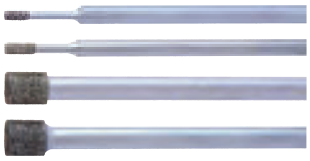
Order ID	Ø mm	Grain	Length mm	Shaft Ø mm	Price €
483285.0100	**1**	B126	45	3	**9.90**
483285.0200	**2**	B126	45	3	**9.90**
483285.0300	**3**	B126	45	3	**9.90**
483285.0400	**4**	B126	45	3	**16.70**
483285.0500	**5**	B126	45	3	**17.50**
483285.0600	**6**	B126	45	3	**21.00**

483470 Diamond ball mounted point FUTURO

Electroplated abrasive, for grinding hardened and non-hardened steel, carbide, glass, carbon, plastic, and brittle, hard and short-chipping materials; cutting speed 12-20 m/s.

Order ID	Ø mm	Grain	Length mm	Shaft Ø mm	Price €
483470.0100	**1**	D126	45	3	**9.90**
483470.0200	**2**	D126	45	3	**9.90**
483470.0300	**3**	D126	45	3	**9.90**
483470.0400	**4**	D126	45	3	**14.50**
483470.0500	**5**	D126	45	3	**15.20**
483470.0600	**6**	D126	45	3	**18.30**

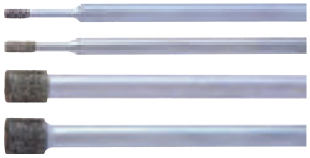
483282 CBN cylindrical mounted point FUTURO



Electroplated abrasive, for grinding hard-to-cut, long-chipping materials, hardened steel, tool steel, die steel, superalloys, chrome-nickel steel from 58 to 65 HRC; cutting speed 10-35 m/s.

Order ID	Ø mm	Head length mm	Grain	Length mm	Shaft Ø mm	Price €
483282.0100	**1**	5	B126	55	3	**10.70**
483282.0200	**1.5**	5	B126	55	3	**10.70**
483282.0300	**2**	5	B126	55	3	**10.70**
483282.0400	**2.5**	5	B126	55	3	**10.70**
483282.0500	**3**	5	B126	55	3	**10.70**
483282.0600	**4**	5	B126	55	3	**12.30**
483282.0700	**6**	8	B126	60	6	**17.50**
483282.0800	**8**	10	B126	60	6	**21.00**
483282.0900	**10**	10	B126	60	6	**24.70**
483282.1000	**12**	10	B126	60	6	**31.60**
483282.1100	**15**	10	B126	60	6	**35.10**

483465 Diamond cylindrical mounted point FUTURO



Electroplated abrasive, for grinding hardened and non-hardened steel, carbide, glass, carbon, plastic, and brittle, hard and short-chipping materials; cutting speed 12-20 m/s.

Order ID	Ø mm	Head length mm	Grain	Length mm	Shaft Ø mm	Price €
483465.0100	**1**	5	D126	55	3	**10.70**
483465.0200	**1.5**	5	D126	55	3	**10.70**
483465.0300	**2**	5	D126	55	3	**10.70**
483465.0400	**2.5**	5	D126	55	3	**10.70**
483465.0500	**3**	5	D126	55	3	**10.70**
483465.0600	**4**	5	D126	55	3	**12.30**
483465.0700	**6**	8	D126	60	6	**15.70**
483465.0800	**8**	10	D126	60	6	**18.30**
483465.0900	**10**	10	D126	60	6	**21.40**
483465.1000	**12**	10	D126	60	6	**27.60**
483465.1100	**15**	10	D126	60	6	**30.50**

FUTURO

482531 Non-woven abrasive FUTURO

Outstanding cleaning action, for use by hand, with orbital sander or power drill (with clamping chuck), wet or dry. Sheet can be cut to size.

Designs:
482531.0100 Medium S very durable; for finish effect, for coarse cleaning and heavy rust removal, cleaning of welds
482531.0200 Very Fine A for general cleaning work. The non-woven most commonly used; for rust removal, cleaning before welding, removal of wood fibres before priming
482531.0300 Ultra Fine S for base conditioning before painting, for matting paints and varnishes, and to create a special finish on aluminium

Pack of 10 pieces

Order ID	Type	Grain size	Length x Width mm	Colour	Price €
482531.0100	**Medium S**	110	152 x 229	anthracite	14.70
482531.0200	**Very Fine A**	320	152 x 229	red	14.70
482531.0300	**Ultra Fine S**	600	152 x 229	grey	14.70

FUTURO

482710 Non-woven abrasive roll FUTURO

Universal abrasive, can be used wet and dry on both sides, very flexible around contours, protects materials. Use by hand, with orbital sander or with power drill (with clamping chuck).

Designs:
482710.0050 Medium S very aggressive; for finishing, coarse cleaning and heavy-duty rust removal, cleaning of welds
482710.0100 Medium A for light deburring, for removal of rust and corrosion, oxidation and discoloration
482710.0200 Fine A
482710.0300 Very Fine A for general cleaning work; the non-woven most commonly used; for rust removal, cleaning before welding, removal of wood fibres before priming
482710.0600 Ultra Fine S for base conditioning before painting, for matting paints and varnishes, and to create a special finish on aluminium

Order ID	Type	Grain size	Colour	Roller width mm	Tape length m	Price €
482710.0050	**Medium S**	110	anthracite	100	10	38.40
482710.0100	**Medium A**	120	red	100	10	38.40
482710.0200	**Fine A**	180	red	100	10	38.40
482710.0300	**Very Fine A**	320	red	100	10	38.40
482710.0600	**Ultra Fine S**	600	grey	100	10	38.40

482136 Diamond hand lap set FUTURO

Complete set with 8 diamond hand laps, resin-bonded, **in aluminium bench rack,** black-anodized, for work on carbides, HSS, PCD, PCBN, ceramics and for lapping tool blades.

Appropriate spare parts:
482135 Diamond hand lap FUTURO

Order ID	Grain size	Coating mm	Length mm	Price €
482136.0100	**D7, D15, D20, D30, D54, D76, D107, D126**	30 x 10 x 2	150	**825.00**

482135 Diamond hand lap FUTURO

Diamond hand file, resin-bonded, for work on carbides, HSS, PCD, PCBN, ceramics and for lapping tool blades.

Suitable for:
482136 Diamond hand lap set FUTURO

Order ID	Grain size	Length mm	Coating mm	Colour	Price €
482135.0100	**D7**	150	30 x 10 x 2	grey	**88.00**
482135.0200	**D15**	150	30 x 10 x 2	blue	**88.00**
482135.0300	**D20**	150	30 x 10 x 2	green	**88.00**
482135.0400	**D30**	150	30 x 10 x 2	yellow	**88.00**
482135.0500	**D54**	150	30 x 10 x 2	red	**88.00**
482135.0600	**D76**	150	30 x 10 x 2	light brown	**88.00**
482135.0700	**D107**	150	30 x 10 x 2	dark brown	**88.00**
482135.0800	**D126**	150	30 x 10 x 2	purple	**88.00**

D7

D15

D20

D30

D54

D76

D107

D126

480156 Diamond lapping compound set FUTURO

Complete set with 8 diamond grinding compounds 0...45 µm, for economical polishing, lapping and fine grinding of steel, tungsten carbide, boron carbide, chrome plating, Stellites, sapphire, ruby, quartz, ceramics, plastics, etc.; oil- and water-soluble, ready to use, **in syringes of 5 g, concentration 50.**

Order ID	Diamond grain µm	Type	Price €
480156.0100	**0...1, 0...2, 2...6, 4...8, 6...12, 15...30, 20...40, 35...45**	G01 - G40	**420.00**

480155 Diamond lapping compound FUTURO

Syringes of 5 g, concentration 50. For economical polishing, lapping and fine grinding of steel, tungsten carbide, boron carbide, chrome plating, Stellites, sapphire, ruby, quartz, ceramics, plastics, etc.; oil- and water-soluble, ready to use.

Suitable for:
480156 Diamond lapping compound set FUTURO

Order ID	Diamond grain µm	Colour	Type	Price €
480155.0100	**0...1**	**grey**	G01	**59.50**
480155.0200	**0...2**	**blue**	G02	**59.50**
480155.0300	**2...6**	**green**	G04	**59.50**
480155.0400	**4...8**	**yellow**	G06	**59.50**
480155.0500	**6...12**	**red**	G10	**59.50**
480155.0600	**15...30**	**light brown**	G20	**59.50**
480155.0700	**20...40**	**dark brown**	G30	**59.50**
480155.0800	**35...45**	**purple**	G40	**59.50**

G01

G02

G04

FUTURO

488080 Cut-off wheel high performance FUTURO

Straight version (form 41), abrasive corundum A, **very well suited for structural steel, hardened, high-alloy and high-tensile steel and stainless steel**. For cutting sheet metal, profiles and solid material. Powerful cut-off wheel with a extremely long service life and high cutting performance with free-hand angle grinders of all power classes. Less burr formation and fewer flying sparks. Iron and sulphur-free, specially protected against moisture-related ageing processes.

Sales unit = **pack of 25**

Order ID	**Ø x width mm**	Hole mm	**Price €**
488080.0100	**115 x 1.0**	22.23	**1.50**
488080.0200	**125 x 1.0**	22.23	**1.60**
488080.0300	**230 x 1.9**	22.23	**2.95**

FUTURO

488085 High-perfection FUTURO cut-off wheel

Offset design (form 42), abrasive corundum A, **exceptionally thin cut-off wheel as a problem solver for highly precise and burr-free cuts with the lowest thermal load** (no blue colouration). Barely any need for post-processing and very little contact pressure required due to clean, very narrow cut. Excellent for steel and stainless steel plates, even extremely hard materials such as spring steels etc. are easily separated. Iron and sulphur-free, specially protected against moisture-related ageing processes.

Sales unit = **pack of 25**

Order ID	**Ø x width mm**	Hole mm	**Price €**
488085.0100	**125 x 0.6**	22.23	**2.15**

NERIOX

488095 Cut-off wheel NERIOX

Straight version (form 41), abrasive corundum A, **well suited for structural steel, hardened, high-alloy and high-tensile steel and stainless steel.** For cutting sheet metal, profiles and solid material. Efficient cut-off wheel with a good service life and cutting performance. **Ideal for low-drive free-hand angle grinders**. Less burr formation and fewer flying sparks. Iron and sulphur-free.

Sales unit = **pack of 25**

Order ID	**Ø x width mm**	Hole mm	**Price €**
488095.0100	**125 x 1.0**	22.23	**0.95**

489100 Abrasive flap wheel high performance Z FUTURO

FUTURO

PFF

Flat design, abrasives made of sharp-edged, self-sharpening zircon corundum, **very well suited for steel, suitable for stainless steel**. Tool for universal grinding tasks such as surface grinding and welding seam processing with a very high service life and a maximum amount of stock removal. Iron and sulphur-free.

Sales unit = **pack of 10**

Order ID	Ø mm	Grain	Hole mm	Price €
489100.0100	**115**	40	22.23	2.40
489100.0200	**115**	60	22.23	2.40
489100.0300	**115**	80	22.23	2.40
489100.0400	**125**	40	22.23	2.50
489100.0500	**125**	60	22.23	2.50
489100.0600	**125**	80	22.23	2.50

489110 Abrasive flap wheel high performance C FUTURO

FUTURO

PFC

Conical design, abrasives made of **microcrystalline, sharp-edged ceramic grain**. Fast and aggressive grinding with very high cutting performance and also a greater contact surface due to extra long slats. **Very well suited for tempered steels, pawl surfaces and titanium**, especially good for edge grinding. Iron and sulphur-free.

Sales unit = **pack of 10**

Order ID	Ø mm	Grain	Hole mm	Price €
489110.0100	**125**	40	22.23	3.90
489110.0200	**125**	60	22.23	3.90
489110.0300	**125**	80	22.23	3.90

489120 Abrasive flap wheel High Perfection Z FUTURO

FUTURO

PFC

Conical design, simple grinding **with full visibility**. Thanks to the three recesses, the abrasive flap wheel becomes transparent when turning. This enables **permanent control of the material removal** and therefore a perfect result. Abrasives made of sharp-edged, self-sharpening zircon corundum, **very well suited for steel, suitable for stainless steel**. Tool for universal grinding tasks such as surface grinding and welding seam processing with a very high service life and a maximum amount of stock removal. Iron and sulphur-free.

Sales unit = **pack of 10**

Order ID	Ø mm	Grain	Hole mm	Price €
489120.0100	**125**	40	22.23	3.90
489120.0200	**125**	60	22.23	3.90
489120.0300	**125**	80	22.23	3.90

489130 Abrasive flap wheel NERIOX

NERIOX

PFC

Conical design, abrasives made of sharp-edged, self-sharpening zircon corundum, **well suited for steel and stainless steel**. Proven tool for universal grinding tasks such as surface grinding and welding seam processing with a high service life and good cutting performance. Iron and sulphur-free.

Sales unit = **pack of 10**

Order ID	Ø mm	Grain	Hole mm	Price €
489130.0100	**125**	40	22.23	1.90
489130.0200	**125**	60	22.23	1.90
489130.0300	**125**	80	22.23	1.90

Our full range –

GUARANTEED THE RIGHT TOOL FOR EVERY TASK

FUTURO
performance and perfection

NERIOX
YOUR SMARTEST CHOICE

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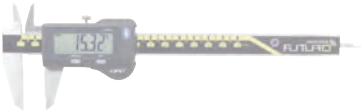
MEASUREMENT TECHNOLOGY  174 – 245

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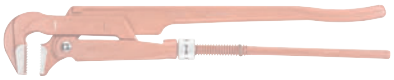
HAND- AND MOUNTING TOOLS  354 – 371

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FUTURO

421070 Double open-end wrench FUTURO

In accordance with DIN 3110/ISO 10102, chrome-vanadium steel, chrome-plated, satin finish.

Order ID	Wrench size mm	Length mm	Price €
421070.0100	**5.5 x 7**	123	3.80
421070.0200	**6 x 7**	123	3.17
421070.0300	**8 x 9**	140	3.39
421070.0400	**8 x 10**	140	3.88
421070.0500	**10 x 11**	156	3.55
421070.0600	**10 x 13**	172	4.74
421070.0700	**12 x 13**	172	4.22
421070.0800	**12 x 14**	180	5.04
421070.0900	**13 x 14**	180	5.13
421070.1000	**14 x 15**	190	4.60
421070.1100	**14 x 17**	195	5.73
421070.1200	**16 x 17**	204	4.90
421070.1300	**16 x 18**	221	6.26
421070.1400	**17 x 19**	221	6.05
421070.1500	**18 x 19**	221	5.89
421070.1600	**20 x 22**	237	6.90
421070.1700	**21 x 23**	247	7.59
421070.1900	**22 x 24**	247	8.06
421070.2000	**24 x 26**	263	9.60
421070.2100	**24 x 27**	263	9.18
421070.2300	**27 x 30**	286	13.42
421070.2400	**30 x 32**	298	12.57
421070.2500	**32 x 36**	350	22.28
421070.2600	**36 x 41**	380	28.86

NERIOX

421195 Double open-end wrench NERIOX

Sized to DIN 895/ISO 3318, forged from special steel, tempered, **phosphated**. Tensile strength 140–170 kg/mm2.

Order ID	Wrench size mm	Head mm	Length mm	Price €	Order ID	Wrench size mm	Head mm	Length mm	Price €
421195.0100	**6 x 7**	3.5	95	0.95	421195.1400	**20 x 22**	8.5	195	2.50
421195.0200	**7 x 8**	4	110	0.95	421195.1500	**22 x 24**	9.5	220	3.70
421195.0300	**8 x 9**	4	110	0.95	421195.1600	**22 x 27**	10.5	235	3.70
421195.0400	**8 x 10**	4.5	115	0.95	421195.1700	**24 x 27**	10.5	245	3.70
421195.0500	**10 x 11**	5.5	125	1.10	421195.1800	**30 x 32**	12.5	275	4.90
421195.0600	**10 x 13**	5.5	130	1.10	421195.1900	**30 x 36**	13.5	305	6.35
421195.0700	**12 x 13**	6	140	1.10	421195.2000	**32 x 36**	13.5	305	6.60
421195.0800	**13 x 17**	7	155	1.20	421195.2100	**36 x 41**	15	345	10.70
421195.0900	**14 x 17**	7	160	1.20	421195.2200	**41 x 46**	16	390	11.75
421195.1000	**17 x 19**	7.5	170	1.55	421195.2300	**46 x 50**	17	420	15.20
421195.1100	**17 x 22**	8.5	190	1.80	421195.2400	**50 x 55**	18	440	20.30
421195.1200	**19 x 22**	8.5	195	1.90	421195.2500	**55 x 60**	19	480	29.30
421195.1300	**19 x 24**	9.5	215	2.75					

NERIOX

421165 Double open-end wrench NERIOX

Sized to DIN 3110/ISO 10102, in chrome-vanadium steel, chrome-plated.

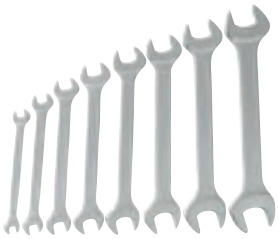
Is part of:
421175 Double open-end wrench set NERIOX
598563 Articles spécifiques pour clients

Order ID	Wrench size mm	Head mm	Length mm	Price €	Order ID	Wrench size mm	Head mm	Length mm	Price €
421165.0100	**5.5 x 7**	3.7	125	2.10	421165.2100	**17 x 22**	8	222	6.70
421165.0200	**6 x 7**	3.7	125	1.50	421165.2200	**18 x 19**	7.5	222	4.20
421165.0300	**7 x 8**	4	142	2.00	421165.2300	**19 x 22**	8	233	4.90
421165.0400	**7 x 9**	4	142	2.00	421165.2400	**19 x 24**	9	249	6.10
421165.0500	**8 x 9**	4	142	2.00	421165.2500	**20 x 22**	8	233	4.95
421165.0600	**8 x 10**	4.5	142	2.10	421165.2600	**21 x 23**	8	249	5.70
421165.0700	**10 x 11**	5	157	2.30	421165.2700	**22 x 24**	9	249	6.00
421165.0800	**10 x 13**	5.5	170	2.60	421165.2800	**22 x 27**	9	266	9.00
421165.0900	**11 x 13**	5.5	175	2.60	421165.2900	**24 x 26**	9	266	7.20
421165.1000	**11 x 14**	5.5	175	3.50	421165.3000	**24 x 27**	9	266	6.70
421165.1100	**12 x 13**	5.5	175	2.50	421165.3100	**24 x 30**	10	282	9.40
421165.1200	**12 x 14**	5.5	175	2.60	421165.3200	**25 x 28**	9	282	8.40
421165.1300	**13 x 14**	6	188	3.10	421165.3300	**27 x 30**	10	282	9.50
421165.1400	**13 x 15**	6	188	3.10	421165.3400	**27 x 32**	10	305	10.50
421165.1500	**13 x 17**	6.5	205	3.40	421165.3500	**30 x 32**	10	305	9.50
421165.1600	**14 x 15**	6	188	3.05	421165.3600	**32 x 36**	10	330	15.00
421165.1700	**14 x 17**	6.5	205	3.50	421165.3700	**36 x 41**	11	360	18.90
421165.1800	**16 x 17**	6.5	205	3.65	421165.3800	**41 x 46**	11	405	31.00
421165.1900	**16 x 18**	6.5	205	3.85	421165.3900	**46 x 50**	11	455	44.60
421165.2000	**17 x 19**	7	222	4.35					

421145 Double open-end wrench set FUTURO

In accordance with DIN 3110/ISO 10102, chrome-vanadium steel, chrome-plated, satin finish.

Order ID	Number of wrenches	Size mm	containing mm	Price €
421145.0100	**8**	6 x 7...20 x 22	6 x 7 8 x 9 10 x 11 12 x 13 14 x 15 16 x 17 18 x 19 20 x 22	34.00
421145.0200	**10**	6 x 7...30 x 32	6 x 7 8 x 9 10 x 11 12 x 13 14 x 15 16 x 17 18 x 19 20 x 22 24 x 27 30 x 32	55.90

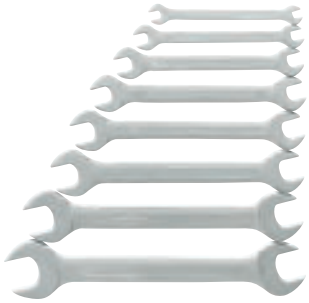


421175 Double open-end wrench set NERIOX

Sized to DIN 3110/ISO 10102, in chrome-vanadium steel, chrome-plated.

Consisting of:
421165 Double open-end wrench NERIOX

Order ID	Number of wrenches	Size mm	containing mm	Price €
421175.0100	**8**	6...22	6 x 7 8 x 9 10 x 11 12 x 13 14 x 15 16 x 17 18 x 19 20 x 22	25.20
421175.0200	**10**	6...32	6 x 7 8 x 9 10 x 11 12 x 13 14 x 15 16 x 17 18 x 19 20 x 22 24 x 27 30 x 32	44.00
421175.0300	**12**	6...32	6 x 7 8 x 9 10 x 11 12 x 13 14 x 15 16 x 17 18 x 19 20 x 22 21 x 23 24 x 27 25 x 28 30 x 32	47.70



421021 Single open-end wrench NERIOX

Sized to DIN 894/ISO 3318, forged from special steel, tempered, **phosphated**. Tensile strength 140–170 kg/mm².

Order ID	Wrench size mm	Head mm	Length mm	Price €	Order ID	Wrench size mm	Head mm	Length mm	Price €
421021.0100	**6**	3.5	73	0.70	421021.2100	**34**	11.5	295	6.85
421021.0200	**7**	3.5	77	0.70	421021.2200	**36**	12.8	299	6.85
421021.0300	**8**	3.8	95	0.70	421021.2300	**38**	13.2	324	8.15
421021.0400	**9**	4	100	0.70	421021.2400	**41**	15	339	8.75
421021.0500	**10**	4.5	105	0.70	421021.2500	**46**	15.5	380	11.30
421021.0600	**11**	5	110	0.70	421021.2600	**50**	16.5	401	11.75
421021.0700	**12**	5.5	125	0.95	421021.2700	**55**	17	442	15.25
421021.0800	**13**	5.8	130	0.95	421021.2800	**60**	17.5	473	19.55
421021.0900	**14**	6	140	0.95	421021.2900	**65**	18	522	24.35
421021.1000	**15**	6	150	1.20	421021.3000	**70**	19.5	570	36.25
421021.1100	**16**	6.2	155	1.20	421021.3100	**75**	20.5	608	51.50
421021.1200	**17**	6.4	155	1.20	421021.3200	**80**	21.5	644	78.95
421021.1300	**18**	6.8	161	1.45	421021.3300	**85**	22.5	686	86.05
421021.1400	**19**	7	170	1.45	421021.3400	**90**	24.5	738	116.05
421021.1500	**21**	8	181	1.90	421021.3500	**95**	24.5	738	144.95
421021.1600	**22**	8.2	193	1.90	421021.3600	**100**	28	855	164.05
421021.1700	**24**	8.6	216	2.30	421021.3700	**105**	28	855	204.00
421021.1800	**27**	9.5	240	2.65	421021.3800	**110**	30	1100	225.95
421021.1900	**30**	10.5	260	3.95	421021.3900	**115**	30	1100	252.00
421021.2000	**32**	11	274	4.10	421021.4000	**120**	30	1100	275.00

421016 Single open-end wrench NERIOX

Sized to DIN 894/ISO 3318, forged from special steel, tempered, **galvanised**. Tensile strength 140–170 kg/mm².

Order ID	Wrench size mm	Head mm	Length mm	Price €	Order ID	Wrench size mm	Head mm	Length mm	Price €
421016.0100	**6**	3.5	73	0.90	421016.1500	**21**	8	181	2.00
421016.0200	**7**	3.5	77	0.90	421016.1600	**22**	8.2	193	2.10
421016.0300	**8**	3.8	95	0.90	421016.1700	**24**	8.6	216	2.60
421016.0400	**9**	4	100	0.90	421016.1800	**27**	9.5	240	3.10
421016.0500	**10**	4.5	105	0.90	421016.1900	**30**	10.5	260	4.50
421016.0600	**11**	5	110	0.90	421016.2000	**32**	11	274	4.80
421016.0700	**12**	5.5	125	1.00	421016.2100	**34**	11.5	295	7.00
421016.0800	**13**	5.8	130	1.00	421016.2200	**36**	12.8	299	7.10
421016.0900	**14**	6	140	1.30	421016.2300	**38**	13.2	324	8.40
421016.1000	**15**	6	150	1.30	421016.2400	**41**	15	339	10.00
421016.1100	**16**	6.2	155	1.30	421016.2500	**46**	15.5	380	12.60
421016.1200	**17**	6.4	155	1.50	421016.2600	**50**	16.5	401	15.10
421016.1300	**18**	6.8	161	1.50	421016.2700	**55**	17	442	19.90
421016.1400	**19**	7	170	1.50	421016.2800	**60**	17.5	473	27.80

FUTURO

421310 Combination wrench FUTURO

In accordance with DIN 3113A/ISO 3318, chrome-vanadium steel, chrome-plated, satin finish, ring wrench offset by 15°.

Order ID	Wrench size mm	Length mm	Price €	Order ID	Wrench size mm	Length mm	Price €
421310.0100	**5.5**	105	5.27	421310.1400	**18**	225	9.97
421310.0200	**6**	105	4.95	421310.1500	**19**	235	10.45
421310.0300	**7**	115	4.87	421310.1600	**20**	245	12.31
421310.0400	**8**	125	4.82	421310.1700	**21**	255	12.84
421310.0500	**9**	135	5.52	421310.1800	**22**	265	12.84
421310.0600	**10**	145	5.46	421310.1900	**23**	275	13.90
421310.0700	**11**	155	5.94	421310.2000	**24**	285	14.32
421310.0800	**12**	165	6.21	421310.2100	**25**	295	16.50
421310.0900	**13**	175	6.79	421310.2200	**27**	315	17.88
421310.1000	**14**	185	6.84	421310.2300	**30**	345	21.32
421310.1100	**15**	195	8.01	421310.2400	**32**	365	23.55
421310.1200	**16**	205	8.75	421310.2500	**36**	405	39.25
421310.1300	**17**	215	8.91				

FUTURO

421315 Combination wrench FUTURO

In accordance with DIN 3113A/ISO 3318, **inch dimensions**, chrome-vanadium steel, chrome-plated, satin finish, ring wrench offset by 15°.

Order ID	Wrench size in	Length mm	Price €	Order ID	Wrench size in	Length mm	Price €
421315.0100	**1/4“**	105	5.20	421315.0800	**11/16**	225	11.10
421315.0200	**5/16**	125	5.30	421315.0900	**3/4**	235	11.10
421315.0300	**3/8**	145	6.30	421315.1000	**13/16**	255	13.30
421315.0400	**7/16**	155	6.60	421315.1100	**7/8**	265	14.20
421315.0500	**1/2**	175	6.80	421315.1200	**15/16**	285	16.20
421315.0600	**9/16**	185	7.70	421315.1300	**1**	295	16.80
421315.0700	**5/8**	205	8.70				

NERIOX

421435 Combination wrench NERIOX

Sized to DIN 3113 B/ISO 3318, **long version,** in chrome-vanadium steel, chrome-plated, ring end offset by 15°.

Is part of:
421445 Combination wrench set NERIOX
540345 Combination wrench set module NERIOX

Order ID	Wrench size mm	Head mm	Ring height mm	Length mm	Price €	Order ID	Wrench size mm	Head mm	Ring height mm	Length mm	Price €
421435.0100	**6**	3.5	6	110	2.55	421435.1500	**20**	7	12.5	275	7.30
421435.0200	**7**	3.5	6.5	120	2.75	421435.1600	**21**	7	13	285	8.20
421435.0300	**8**	4	7	135	3.05	421435.1700	**22**	7	13.5	295	8.75
421435.0400	**9**	4	7	140	3.40	421435.1800	**23**	7	13.5	295	10.40
421435.0500	**10**	4.5	8	150	3.10	421435.1900	**24**	9.5	15.5	330	10.60
421435.0600	**11**	4.5	8	160	3.40	421435.2000	**25**	10	16	360	11.10
421435.0700	**12**	5	9	170	3.60	421435.2100	**26**	10	16	360	11.50
421435.0800	**13**	5	10	175	3.95	421435.2200	**27**	10	16.5	360	12.05
421435.0900	**14**	5	10	185	4.20	421435.2300	**28**	10	16.5	360	14.40
421435.1000	**15**	5.5	10.5	195	4.55	421435.2400	**30**	11.5	16.5	395	15.55
421435.1100	**16**	5.5	11	215	4.80	421435.2500	**32**	12	19.5	435	16.90
421435.1200	**17**	6	11.5	225	4.95	421435.2600	**36**	13.5	22.5	453	40.60
421435.1300	**18**	6	11.5	240	5.55	421435.2700	**41**	14.8	22.5	521	51.30
421435.1400	**19**	6.5	12	250	6.60						

NERIOX

421355 Combination wrench NERIOX

Sized to DIN 3113A/ISO 3318, chrome-plated, ring wrench offset by 15°.

Is part of:
421365 Combination wrench set NERIOX

Order ID	Wrench size mm	Head mm	Ring height mm	Length mm	Price €	Order ID	Wrench size mm	Head mm	Ring height mm	Length mm	Price €
421355.0100	**6**	3.5	5.4	100	2.20	421355.1400	**19**	7.2	11.9	230	5.05
421355.0200	**7**	3.5	5.4	110	2.30	421355.1500	**20**	7.7	12.4	240	6.05
421355.0300	**8**	4	6.0	120	2.50	421355.1600	**21**	8.2	12.9	250	6.60
421355.0400	**9**	4	6.4	130	2.80	421355.1700	**22**	8.7	12.9	260	7.30
421355.0500	**10**	4.5	7.9	140	2.65	421355.1800	**24**	8.9	13.9	280	9.00
421355.0600	**11**	5	8.4	150	2.95	421355.1900	**27**	9.7	15.4	310	10.20
421355.0700	**12**	5	8.4	160	3.25	421355.2000	**30**	10.2	16.4	340	12.30
421355.0800	**13**	5.9	9.4	170	3.35	421355.2100	**32**	10.2	16.9	360	13.60
421355.0900	**14**	5.9	9.9	180	3.85	421355.2200	**36**	14	21.8	400	23.00
421355.1000	**15**	5.9	9.9	190	4.05	421355.2300	**41**	15	22.8	442	31.20
421355.1100	**16**	6.3	10.9	200	4.55	421355.2400	**46**	16	25.8	492	37.90
421355.1200	**17**	6.5	10.9	210	4.65	421355.2500	**50**	17	26.8	531	54.60
421355.1300	**18**	6.7	11.9	220	4.90						

421375 Combination wrench set FUTURO

In accordance with DIN 3113A/ISO 3318, chrome-vanadium steel, chrome-plated, satin finish, ring wrench offset by 15°.

Order ID	Number of wrenches	Size mm	containing mm	Price €
421375.0100	**10**	5.5...19	5.5 6 7 8 10 13 16 17 18 19	63.50
421375.0200	**14**	5.5...27	5.5 6 7 8 10 13 16 17 18 19 21 22 24 27	116.60

421385 Combination wrench set FUTURO

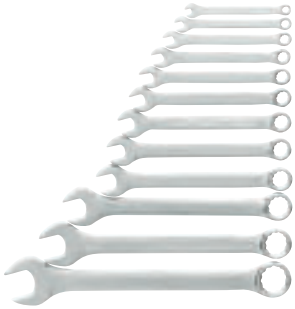
In accordance with DIN 3113A/ISO 3318, **inch dimensions**, chrome-vanadium steel, chrome-plated, satin finish, ring wrench offset by 15°.

Order ID	Number of wrenches	Size	containing in	Price €
421385.0100	**13**	1/4"...1"	1/4 5/16 3/8 7/16 1/2 9/16 5/8 11/16 3/4 13/16 7/8 15/16 1	116.00

421365 Combination wrench set NERIOX

Sized to DIN 3113A/ISO 3318, chrome-plated, ring wrench offset by 15°.

Consisting of:
421355 Combination wrench NERIOX

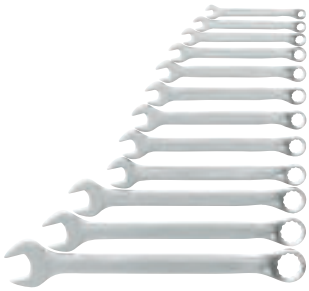


Order ID	Number of wrenches	Size mm	containing mm	Price €
421365.0100	**8**	8...19	8 9 10 11 13 14 17 19	29.80
421365.0200	**12**	6...22	6 7 8 9 10 11 12 13 14 17 19 22	45.00

421445 Combination wrench set NERIOX

Sized to DIN 3113 B/ISO 3318, **long version,** in chrome-vanadium steel, chrome-plated, ring end offset by 15°.

Consisting of:
421435 Combination wrench NERIOX



Order ID	Number of wrenches	Size mm	containing mm	Price €
421445.0100	**12**	6...22	6 7 8 9 10 11 12 13 14 17 19 22	51.70
421445.0200	**17**	6...22	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	81.70
421445.0300	**25**	6...32	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 30 32	196.10

421865 Double-end ring wrench NERIOX

Sized to DIN 838/ISO 3318, in chrome-vanadium steel, chrome-plated, with oval shaft, deep offset.

Is part of:
421885 Double-end ring wrench set NERIOX

Order ID	Wrench size mm	Ring height mm	Length mm	Price €	Order ID	Wrench size mm	Ring height mm	Length mm	Price €
421865.0100	**6 x 7**	6	168	3.30	421865.1400	**20 x 22**	12.4	318	8.10
421865.0200	**8 x 9**	7	183	3.70	421865.1500	**21 x 23**	13	325	8.10
421865.0300	**10 x 11**	8	197	4.10	421865.1600	**22 x 24**	13	325	8.50
421865.0400	**10 x 13**	9.1	216	4.70	421865.1700	**24 x 26**	14	337	10.00
421865.0500	**12 x 13**	9.1	216	4.35	421865.1800	**24 x 27**	14	337	10.00
421865.0600	**13 x 14**	9.1	216	5.10	421865.1900	**24 x 30**	15.2	346	11.40
421865.0700	**13 x 17**	10.7	263	5.60	421865.2000	**25 x 28**	14.5	346	12.50
421865.0800	**14 x 15**	10.7	239	4.80	421865.2100	**27 x 30**	15.5	346	13.80
421865.0900	**16 x 17**	10.7	263	5.60	421865.2200	**30 x 32**	16.5	360	13.80
421865.1000	**17 x 19**	11.3	290	6.90	421865.2300	**32 x 36**	17.5	410	16.40
421865.1100	**18 x 19**	11.3	290	6.90	421865.2400	**36 x 41**	19	440	20.20
421865.1200	**19 x 22**	12.4	318	8.10	421865.2500	**41 x 46**	21	475	54.40
421865.1300	**19 x 24**	13	325	8.10					

NERIOX

421885 Double-end ring wrench set NERIOX

Sized to DIN 838/ISO 3318, in chrome-vanadium steel, chrome-plated, with oval shaft, deep offset.

Consisting of:
421865 Double-end ring wrench NERIOX

Order ID	Number of wrenches	Size mm	containing mm	Price €
421885.0100	**12**	6...32	6 x 7 8 x 9 10 x 11 12 x 13 14 x 15 16 x 17 18 x 19 20 x 22 21 x 23 24 x 27 25 x 28 30 x 32	**71.20**

421505 Combination ratchet wrench FUTURO

Chrome-vanadium steel, matt chrome-plated, heavy-duty industrial quality, **flat form, without reversing lever**, thus also suitable for cramped and narrow spaces. Right/left reversing by turning the wrench over., return angle only 5°

Order ID	Wrench size mm	Head mm	Ring height mm	Ring Ø mm	Length mm	Price €
421505.0100	**5.5**	4.1	6.4	14	127	11.25
421505.0200	**6**	4.1	6.4	14	128	11.25
421505.0300	**7**	4.2	6.6	16.6	140	11.25
421505.0400	**8**	4.3	6.6	16.6	140	11.25
421505.0500	**9**	4.7	7.0	18.4	149	11.40
421505.0600	**10**	5.0	7.4	20	158	11.85
421505.0700	**11**	5.3	7.8	21.8	165	12.05
421505.0800	**12**	5.5	8.3	22.7	171	12.55
421505.0900	**13**	6.0	8.8	24.7	178	13.05
421505.1000	**14**	6.5	9.1	27	190	13.70
421505.1100	**15**	6.7	9.5	28.3	199	14.30
421505.1200	**16**	7.0	10.0	30	208	15.10
421505.1300	**17**	7.0	10.3	31.8	225	16.00
421505.1400	**18**	8.0	10.8	32.6	236	16.85
421505.1500	**19**	8.5	11.4	33.8	247	17.50
421505.1700	**22**	9.0	13.1	40	289	23.55
421505.1800	**24**	9.6	14.6	46	322	29.00
421505.1900	**27**	10.5	15.6	52.5	358	36.00
421505.2000	**30**	11.3	17.2	58.5	401	43.50

421557 Combination ratchet wrench FUTURO

In chrome-vanadium steel, drop-forged, chrome-plated. Ring end offset 15°, **reversible,** return angle just 5°, **with special profile** for metric hex, metric double hex, inch hex, metric square, external TORX® screws. Slim form, thus also ideal for cramped and narrow spaces.

Order ID	Wrench size mm	Ring size mm	Ring size in	Ring size for TORX® screws	Square piece, ring size mm	Price €
421557.0100	**8**	8	5/16″	E10	7	13.95
421557.0200	**9**	9	11/32″	E11	7	13.95
421557.0300	**10**	10	3/8″	E12	8	15.95
421557.0400	**11**	11	7/16″	E14	9	16.95
421557.0500	**12**	12	15/32″	-	10	16.95
421557.0600	**13**	13	1/2″	E16	11	17.95
421557.0700	**14**	14	9/16″	E18	11	17.95
421557.0800	**15**	15	19/32″	-	12	18.95
421557.0900	**16**	16	5/8″	E20	13	19.95
421557.1000	**17**	17	21/32″	-	14	20.95
421557.1100	**18**	18	11/16″	E22	15	21.95
421557.1200	**19**	19	3/4″	E24	16	22.95

421558 Combination ratchet wrench set FUTURO

In chrome-vanadium steel, drop-forged, chrome-plated. Ring end offset 15°, **reversible,** return angle just 5°, **with special profile** for metric hex, metric double hex, inch hex, metric square, external TORX® screws. Slim form, thus also ideal for cramped and narrow spaces.

Designs:
421558.0200 Delivered in plastic case with metal clasps and foam insert in the carbon look with marking of the dimensions

Order ID	Number of wrenches	Wrench size mm	Price €
421558.0200	**12**	8 9 10 11 12 13 14 15 16 17 18 19	210.00

421525 Combination ratchet wrench NERIOX

Chrome-vanadium steel, matt chrome-plated, polished head, **straight shape, no switching lever** for ease of use in narrow and confined spaces.

Order ID	Wrench size mm	Head mm	Ring height mm	Ring Ø mm	Length mm	Price €
421525.0100	**7**	5.2	7	17	135	9.20
421525.0200	**8**	5.2	7	17.7	135	9.20
421525.0300	**10**	5.7	7.7	20.7	160	9.80
421525.0400	**13**	7	9.3	26	180	10.70
421525.0500	**17**	8.5	11	33.3	230	13.00
421525.0600	**19**	9	11.5	35	250	14.50
421525.0700	**24**	11	14.5	47.3	325	23.90

NERIOX

421595 Combination ratchet wrench NERIOX

Chrome-vanadium steel, matt chrome-plated, polished head, **offset shape, with switchover lever**.

Order ID	**Wrench size mm**	Head mm	Ring height mm	Ring Ø mm	Length mm	**Price €**
421595.0100	**7**	5.6	7.7	18	125	**9.50**
421595.0200	**8**	5.8	7.7	18	135	**9.50**
421595.0300	**10**	6.5	8.4	21.5	157	**10.00**
421595.0400	**13**	7.5	9	27	180	**10.40**
421595.0500	**17**	8.1	11	34	230	**13.40**
421595.0600	**19**	9.2	11.2	35	245	**14.80**
421595.0700	**24**	11.2	14.5	47.5	325	**26.40**

423105 Tommy bar FUTURO

DIN 900, cylindrical, heat-treated steel, hardened, galvanized.

Order ID	Ø x length mm	Price €
423105.0100	**5 x 125**	0.75
423105.0200	**6 x 160**	2.05
423105.0300	**8 x 180**	2.55
423105.0400	**10 x 200**	3.05
423105.0500	**12 x 250**	3.55
423105.0600	**14 x 320**	5.35
423105.0700	**16 x 400**	9.35

423106 Stepped tommy bar FUTURO

Like DIN 900 C, stepped, heat-treated steel, hardened, galvanized.

Order ID	Length mm	Ø mm	Price €
423106.0100	**180**	5 - 6 - 8 - 10 - 12	7.45
423106.0200	**320**	12 - 14 - 16	13.45

423230 Hexagon socket driver FUTURO

8...13 mm

Chrome-vanadium steel, chrome-plated, with ergonomic **2-component power handle** with non-slip elastomer surface for good grip.

From wrench size 8 mm with hex base section!

Order ID	Wrench size mm	Blade length mm	Length mm	Price €
423230.0100	**4**	70	150	7.50
423230.0200	**4.5**	80	170	7.70
423230.0300	**5**	85	180	7.90
423230.0400	**5.5**	90	190	8.30
423230.0500	**6**	90	195	8.40
423230.0600	**7**	100	205	8.50
423230.0700	**8**	120	230	11.40
423230.0800	**9**	140	250	12.50
423230.0900	**10**	160	270	14.60
423230.1000	**11**	180	300	16.40
423230.1100	**12**	190	310	19.80
423230.1200	**13**	200	320	22.20

FUTURO

425122 TORX® hex key L-wrench FUTURO

Chrome-vanadium steel, chrome-plated satin, **for TORX®** screws.

Order ID	Size	Side length mm	Price €
425122.0100	**T 6**	42 x 16	2.30
425122.0200	**T 7**	48 x 16	2.30
425122.0300	**T 8**	48 x 16	2.30
425122.0400	**T 9**	48 x 16	2.30
425122.0500	**T 10**	51 x 17	2.30
425122.0600	**T 15**	54 x 18	2.40
425122.0700	**T 20**	57 x 19	2.40
425122.0800	**T 25**	60 x 20	2.40
425122.0900	**T 27**	64 x 21	2.40
425122.1000	**T 30**	70 x 24	2.55
425122.1100	**T 40**	76 x 26	2.95
425122.1200	**T 45**	82 x 28	3.15
425122.1300	**T 50**	95 x 32	3.60

FUTURO

425176 Angled hex key set for TORX® screws FUTURO

Chrome-vanadium steel, chrome-plated satin, **long version,** in plastic holder.

Order ID	Size	Number of wrenches	with spanners	Price €
425176.0150	**T9...T45**	9	T9 T10 T15 T20 T25 T27 T30 T40 T45	21.00

FUTURO

425146 TORX® ball point hex key L-wrench FUTURO

Chrome-vanadium steel, chrome-plated satin, Torx® on the short end, Torx® ball point on the long end.

Order ID	Size	Side length mm	Price €
425146.0100	**T 10**	86 x 17	3.10
425146.0200	**T 15**	90 x 18	3.25
425146.0300	**T 20**	95 x 19	3.30
425146.0400	**T 25**	100 x 20	3.75
425146.0500	**T 27**	105 x 21	4.00
425146.0600	**T 30**	114 x 24	4.00
425146.0700	**T 40**	124 x 26	4.40
425146.0800	**T 45**	133 x 29	4.85
425146.0900	**T 50**	152 x 32	5.45

FUTURO

425196 Angled hex key set with ball head for TORX® screws FUTURO

Chrome-vanadium steel, satin chrome-plated, profile for TORX® screws on short arm, ball head profile for TORX® screws on long arm. In a practical plastic holder.

Order ID	Size	Number of wrenches	with spanners	Price €
425196.0100	**T10...T50**	9	T10 T15 T20 T25 T27 T30 T40 T45 T50	35.10

425365 Screwdriver for TORX® screws NERIOX

Chrome-molybdenum-vanadium steel, manganese phosphated, for TORX® screws, with an ergonomic 2-component cross handle and suspension hole.

Order ID	Size	Blade length mm	Price €	Order ID	Size	Blade length mm	Price €
425365.0100	**T 10**	100	4.65	425365.0500	**T 27**	100	5.10
425365.0200	**T 15**	100	4.95	425365.0600	**T 30**	100	5.20
425365.0300	**T 20**	100	4.95	425365.0700	**T 40**	100	5.75
425365.0400	**T 25**	100	5.10	425365.0800	**T 45**	150	7.10

425385 Screwdriver set for TORX® screws NERIOX

Chrome-molybdenum-vanadium steel, manganese phosphated, for TORX® screws, with an ergonomic 2-component cross handle, suspension hole and practical metal workshop stand, also suitable for wall mounting.

Order ID	Number of wrenches	Size	Price €
425385.0100	**8**	T 10 T 15 T 20 T 25 T 27 T 30 T 40 T 45	50.90

425375 Screwdriver for TORX® screws NERIOX

Chrome-molybdenum-vanadium steel, manganese phosphated, for TORX® screws, **can be used on both sides**, ergonomic 2-component cross handle and suspension hole.

Order ID	Size	Blade length mm	Price €	Order ID	Size	Blade length mm	Price €
425375.0100	**T 10**	100	5.05	425375.0500	**T 27**	150	6.00
425375.0200	**T 15**	100	5.20	425375.0600	**T 30**	150	6.80
425375.0300	**T 20**	100	5.45	425375.0700	**T 40**	200	7.85
425375.0400	**T 25**	150	6.00	425375.0800	**T 45**	200	8.55

425377 Screwdriver set for TORX® screws NERIOX

Chrome-molybdenum-vanadium steel, manganese phosphated, for TORX® screws**, can be used on both sides**, ergonomic 2-component cross handle, suspension hole and practical metal workshop stand, also suitable for wall mounting.

Order ID	Number of wrenches	Size	Price €
425377.0100	**8**	T 10 T 15 T 20 T 25 T 27 T 30 T 40 T 45	58.90

425270 TORX® screwdriver FUTURO

Chrome-vanadium steel, chrome-plated, black-oxide finish on tip, for TORX® screws, with ergonomic **2-component power handle** with non-slip Santoprene® surface for good grip; **sizes up to T27 with hex neck.**

Order ID	Size	Blade length mm	Length mm	Price €
425270.0100	**T 6**	50	110	4.20
425270.0200	**T 7**	50	110	4.40
425270.0300	**T 8**	60	140	4.70
425270.0400	**T 9**	60	140	4.90
425270.0500	**T 10**	70	160	5.00
425270.0600	**T 15**	80	175	5.50
425270.0700	**T 20**	100	200	6.00
425270.0800	**T 25**	120	225	6.60
425270.1000	**T 30**	130	240	10.80

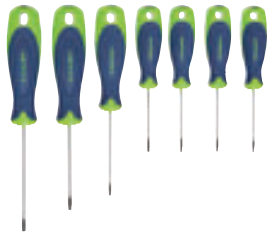
NERIOX

425276 Screwdriver for TORX® screws NERIOX

For Torx® screws, chromium-molybdenum-vanadium steel, chrome-plated satin, with ergonomic 2-component power handle.

Order ID	Size	Blade length mm	Length mm	Price €	Order ID	Size	Blade length mm	Length mm	Price €
425276.0100	**T 5**	60	140	3.35	425276.0700	**T 15**	80	180	4.15
425276.0200	**T 6**	60	140	3.35	425276.0800	**T 20**	100	215	4.25
425276.0300	**T 7**	60	140	3.35	425276.0900	**T 25**	100	215	4.55
425276.0400	**T 8**	60	140	3.35	425276.1000	**T 27**	115	230	4.55
425276.0500	**T 9**	60	140	3.60	425276.1100	**T 30**	115	235	5.10
425276.0600	**T 10**	80	160	4.15	425276.1200	**T 40**	130	250	5.60

NERIOX



425431 Screwdriver set for TORX® screws NERIOX

For Torx® screws, chromium-molybdenum-vanadium steel, chrome-plated satin, with ergonomic 2-component power handle.

Appropriate spare parts:
425276 Screwdriver for TORX® screws NERIOX

Order ID	Parts	Size	Price €
425431.0100	**7**	T6 T7 T8 T9 T10 T15 T20	23.90
425431.0200	**10**	T6 T7 T8 T9 T10 T15 T20 T25 T27 T30	37.85

424021 Hex L-wrench key FUTURO

ISO 2936, chrome-vanadium steel, chrome-plated satin, deburred ends, for hex socket cap screws.

Order ID	Wrench size mm	Side length mm	Price €	Order ID	Wrench size mm	Side length mm	Price €
424021.0100	**1.5**	45 x 14	0.25	424021.1200	**8.0**	100 x 36	1.30
424021.0200	**2.0**	50 x 16	0.25	424021.1400	**10.0**	112 x 40	1.85
424021.0300	**2.5**	56 x 18	0.25	424021.1500	**11.0**	118 x 42	2.40
424021.0400	**3.0**	63 x 20	0.35	424021.1600	**12.0**	125 x 45	2.55
424021.0500	**3.5**	66 x 22	0.40	424021.1700	**14.0**	140 x 56	4.30
424021.0600	**4.0**	70 x 25	0.45	424021.1800	**17.0**	160 x 63	7.20
424021.0700	**4.5**	75 x 26	0.55	424021.1900	**19.0**	180 x 70	9.95
424021.0800	**5.0**	80 x 28	0.65	424021.2000	**22.0**	200 x 80	13.60
424021.1000	**6.0**	90 x 32	0.75	424021.2100	**24**	224 x 90	20.00
424021.1100	**7.0**	95 x 34	1.00	424021.2200	**27.0**	250 x 100	30.10

424025 Angled hex key NERIOX

Short version, ISO 2936, chromium-molybdenum-vanadium steel, manganese phosphated, deburred ends, for hexagon socket screws.

Order ID	Wrench size mm	Side length mm	Price €	Order ID	Wrench size mm	Side length mm	Price €
424025.0020	**0.7**	?		424025.0400	**3**	63 x 20	0.30
424025.0040	**0.9**	?		424025.0500	**4**	70 x 25	0.35
424025.0060	**1.3**	?		424025.0550	**5**	80 x 28	0.50
424025.0100	**1.5**	45 x 14	0.22	424025.0600	**6**	90 x 32	0.60
424025.0200	**2**	50 x 16	0.25	424025.0700	**8**	100 x 36	1.10
424025.0300	**2.5**	56 x 18	0.25	424025.0800	**10**	112 x 40	1.50

424395 Angled hex key set NERIOX

ISO 2936, chromium-molybdenum-vanadium steel, manganese phosphated, ends deburred, for hexagon socket screws, in plastic holder.

Order ID	Size	Version	Number of wrenches	with wrenches mm	Price €
424395.0150	**1.5…10**	Short	9	1.5 2 2.5 3 4 5 6 8 10	6.30
424395.0250	**1.5…10**	Long	9	1.5 2 2.5 3 4 5 6 8 10	10.90

424130 Hex L-wrench key FUTURO

Short version, ISO 2936 L, chrome-vanadium steel, chrome-plated satin, with **hex ball point** on the long end, for hex socket cap screws.

Order ID	Wrench size mm	Side length mm	Price €	Order ID	Wrench size mm	Side length mm	Price €
424130.0100	**1.5**	45 x 14	1.10	424130.0600	**5.0**	80 x 28	1.65
424130.0200	**2.0**	50 x 16	1.10	424130.0700	**6.0**	90 x 32	1.90
424130.0300	**2.5**	56 x 18	1.10	424130.0800	**8.0**	100 x 36	2.95
424130.0400	**3.0**	63 x 20	1.20	424130.0900	**10.0**	112 x 40	4.00
424130.0500	**4.0**	70 x 25	1.35				

NERIOX

424135 Angled hex key NERIOX

Short version, ISO 2936, chromium-molybdenum-vanadium steel, manganese phosphated, with **hex-ball point** at long end, ends deburred, for hexagon socket screws.

Order ID	Wrench size mm	Side length mm	Price €	Order ID	Wrench size mm	Side length mm	Price €
424135.0100	**1.5**	45 x 14	0.80	424135.0600	**5**	80 x 28	1.25
424135.0200	**2**	50 x 16	0.80	424135.0700	**6**	90 x 32	1.40
424135.0300	**2.5**	56 x 18	0.80	424135.0800	**8**	100 x 36	2.20
424135.0400	**3**	63 x 20	0.90	424135.0900	**10**	112 x 40	3.10
424135.0500	**4**	70 x 25	1.00				

FUTURO

424041 Hex L-wrench key with bore FUTURO

Chrome-vanadium steel, chrome-plated satin, with bore on both ends, for hex socket cap screws with tamper-resistant pin.

Order ID	Wrench size mm	Side length mm	Price €
424041.0100	**2.5**	56 x 18	1.20
424041.0200	**3.0**	63 x 20	1.30
424041.0300	**4.0**	70 x 25	1.55
424041.0400	**5.0**	80 x 28	2.10
424041.0500	**6.0**	90 x 32	2.45
424041.0600	**8.0**	100 x 36	3.65

FUTURO

424043 Hex L-wrench key set with bore FUTURO

Chrome-vanadium steel, chrome-plated satin, with bore on both ends, **for hex socket cap screws**, with tamper-resistant pin

Order ID	Size mm	with wrenches mm	Price €
424043.0100	**2.5...8**	2.5 3 4 5 6 8	12.25

FUTURO

424121 Hex L-wrench key FUTURO

Long version, ISO 2936 L, chrome-vanadium steel, chrome-plated satin, for hex socket cap screws.

Order ID	Wrench size mm	Side length mm	Price €
424121.0100	**1.5**	90 x 14	0.50
424121.0200	**2.0**	100 x 16	0.55
424121.0300	**2.5**	112 x 18	0.65
424121.0400	**3.0**	126 x 20	0.75
424121.0500	**4.0**	140 x 25	0.90
424121.0600	**5.0**	160 x 28	1.10
424121.0700	**6.0**	180 x 32	1.40
424121.0800	**7.0**	190 x 34	1.75
424121.0900	**8.0**	200 x 36	2.00
424121.1000	**10.0**	224 x 40	3.20
424121.1100	**12.0**	250 x 45	4.50
424121.1200	**14.0**	280 x 56	6.30
424121.1300	**17.0**	320 x 63	11.80
424121.1400	**19.0**	360 x 70	16.35

424125 Angled hex key NERIOX

Long version, ISO 2936 L, chromium-molybdenum-vanadium steel, manganese phosphated, deburred ends, for hexagon socket screws.

Order ID	Wrench size mm	Side length mm	Price €	Order ID	Wrench size mm	Side length mm	Price €
424125.0100	**1.5**	90 x 14	0.45	424125.0600	**5**	160 x 28	0.90
424125.0200	**2**	100 x 16	0.50	424125.0700	**6**	180 x 32	1.15
424125.0300	**2.5**	112 x 18	0.50	424125.0800	**8**	200 x 36	1.70
424125.0400	**3**	126 x 20	0.55	424125.0900	**10**	224 x 40	2.70
424125.0500	**4**	140 x 25	0.70				

424035 Hex L key FUTURO SmartHEX

Chrome-molybdenum vanadium steel, chrome-plated, ends deburred, **long design with hexagon ball head and magnet on the long end**. For socket head screws. This nifty L key is a problem-solver for all kinds of applications; the special SmartHEX hexagon profile protects socket head screws from being rounded out and **holding the key at an angle loosens stripped and rusted hexagon screws** effortlessly without having to compromise on tightening torque.

Order ID	Wrench size mm	Side length mm	Price €
424035.0100	**1.5**	62 x 14	1.60
424035.0200	**2**	75 x 16	1.69
424035.0300	**2.5**	85 x 18	1.78
424035.0400	**3**	90 x 20	2.93
424035.0500	**4**	100 x 25	3.02
424035.0600	**5**	115 x 28	3.93
424035.0700	**6**	135 x 32	4.94
424035.0800	**8**	150 x 36	5.94
424035.0900	**10**	170 x 40	7.95

424045 Hex L key set FUTURO SmartHEX

9 pieces, chrome-molybdenum vanadium steel, chrome-plated, ends deburred, **long design with hexagon ball head and magnet on the long end**. For socket head screws. This nifty L key is a problem-solver for all kinds of applications; the special SmartHEX hexagon profile protects socket head screws from being rounded out and **holding the key at an angle loosens stripped and rusted hexagon screws** effortlessly without having to compromise on tightening torque. In plastic holder.

Order ID	Number of wrenches	with wrenches mm	Price €
424045.0100	**9**	1.5 2 2.5 3 4 5 6 8 10	36.48

424171 Hex L-wrench key FUTURO

Long version, ISO 2936 L, chrome-vanadium steel, chrome-plated satin, with **hex ball point** on the long end, for hex socket cap screws.

Order ID	Wrench size mm	Side length mm	Price €
424171.0100	**1.5**	90 x 14	1.20
424171.0200	**2.0**	100 x 16	1.20
424171.0300	**2.5**	112 x 18	1.30
424171.0400	**3.0**	126 x 20	1.35
424171.0500	**4.0**	140 x 25	1.55
424171.0600	**5.0**	160 x 28	1.90
424171.0700	**6.0**	180 x 32	2.40
424171.0800	**8.0**	200 x 36	3.40
424171.0900	**10.0**	224 x 40	4.55

FUTURO

424419.0250

424419 Hex L-wrench set FUTURO

ISO 2936 L, chrome-vanadium steel, chrome-plated satin, with **hex ball point** on the long end, for hex socket cap screws, in plastic holder.

Order ID	**Number of wrenches**	Version	with wrenches mm	Price €
424419.0250	**9**	Long	1.5 2 2.5 3 4 5 6 8 10	20.65

NERIOX

424185 Angled hex key NERIOX

Long version, ISO 2936 L, chromium-molybdenum-vanadium steel, manganese phosphated, with **hex-ball point** at long end, ends deburred, for hexagon socket screws.

Order ID	**Wrench size mm**	Side length mm	Price €
424185.0100	**1.5**	90 x 14	1.05
424185.0200	**2**	100 x 16	1.05
424185.0300	**2.5**	112 x 18	1.10
424185.0400	**3**	126 x 20	1.20
424185.0500	**4**	140 x 25	1.30
424185.0600	**5**	160 x 28	1.55
424185.0700	**6**	180 x 32	1.90
424185.0800	**8**	200 x 36	2.85
424185.0900	**10**	224 x 40	3.70

NERIOX

424405 Angled hex key set NERIOX

ISO 2936, chromium-molybdenum-vanadium steel, manganese phosphated, with **hex-ball point** at long end, ends deburred, for hexagon socket screws, in plastic holder.

Order ID	**Size**	Version	Number of wrenches	with wrenches mm	Price €
424405.0250	**1.5...10**	Long	9	1.5 2 2.5 3 4 5 6 8 10	17.30

FUTURO

424805 Hex bit screwdriver FUTURO

Chrome-vanadium steel, chrome-plated, for hex socket cap screws, with ergonomic **2-component power handle** with non-slip elastomer surface for good grip.

Order ID	**Wrench size mm**	Blade length mm	Length mm	Price €
424805.0100	**1.5**	70	153	3.20
424805.0200	**2**	80	163	3.25
424805.0300	**2.5**	90	173	3.35
424805.0400	**3**	100	190	3.90
424805.0500	**4**	120	220	4.50
424805.0600	**5**	140	245	5.10
424805.0700	**6**	160	270	6.80
424805.0800	**8**	180	300	9.10

425065 Hex bit screwdriver with ball point FUTURO

Chrome-vanadium steel, chrome-plated, for hex socket cap screws, with ergonomic **2-component power handle** with non-slip elastomer surface for good grip.

Order ID	Wrench size mm	Blade length mm	Length mm	Price €
425065.0200	**1.5**	70	153	5.25
425065.0400	**2.5**	90	173	5.10
425065.0500	**3**	100	183	5.15
425065.0600	**4**	120	210	5.90
425065.0700	**5**	140	235	6.70
425065.0800	**6**	160	270	7.70
425065.0900	**8**	180	290	10.20

425075 Hex screwdriver NERIOX

Chrome-molybdenum-vanadium steel, manganese phosphated, for hex socket screws, with an ergonomic 2-component cross handle and suspension hole.

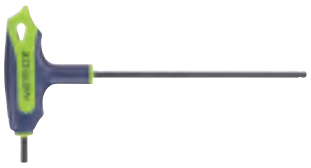
Order ID	Wrench size mm	Blade length mm	Price €
425075.0100	**2**	100	2.40
425075.0200	**2.5**	100	2.50
425075.0300	**3**	100	2.50
425075.0400	**3**	150	2.65
425075.0500	**4**	150	2.65
425075.0600	**4**	200	2.80
425075.0700	**5**	150	2.80
425075.0800	**5**	200	3.10
425075.0900	**6**	150	3.05
425075.1000	**6**	200	3.45
425075.1100	**8**	200	4.10
425075.1200	**10**	200	7.30

425090 Hex screwdriver set NERIOX

Chrome-molybdenum-vanadium steel, manganese phosphated, for hex socket screws, with an ergonomic 2-component cross handle, suspension hole and practical metal workshop stand, also suitable for wall mounting.

Order ID	Number of wrenches	Wrench size mm	Price €
425090.0100	**8**	2 x 100 2.5 x 100 3 x 100 4 x 150 5 x 150 6 x 150 8 x 200 10 x 200	34.60

425085 Hex screwdriver NERIOX



Chrome-molybdenum-vanadium steel, with ball head at long end, manganese phosphated, for hex socket screws**, can be used on both sides**, ergonomic 2-component cross handle and suspension hole.

Order ID	Wrench size mm	Blade length mm	Price €
425085.0100	**2**	100	3.10
425085.0200	**2.5**	100	3.20
425085.0300	**3**	100	3.30
425085.0400	**4**	150	3.45
425085.0500	**5**	150	3.70
425085.0600	**6**	150	3.90
425085.0700	**8**	200	5.50
425085.0800	**10**	200	7.90

NERIOX

425095 Hex screwdriver set NERIOX

Chrome-molybdenum-vanadium steel, manganese phosphated, for hex socket screws, **can be used on both sides**, ergonomic 2-component cross handle, suspension hole and practical metal workshop stand, also suitable for wall mounting.

Order ID	Number of wrenches	Wrench size mm	Price €
425095.0100	**8**	2 x 100 2.5 x 100 3 x 100 4 x 150 5 x 150 6 x 150 8 x 200 10 x 200	**31.90**

434350 Screwdriver FUTURO

Chrome-vanadium steel, chrome-plated, for slotted screws, with ergonomic **2-component power handle** with non-slip Santoprene® surface for good grip, parallel tip.

Order ID	Size	Tip width mm	Tip thickness mm	Blade length mm	Length mm	Price €
434350.0100	**0-70**	2.5	0.4	70	140	**3.30**
434350.0200	**1-90**	3.5	0.5	90	180	**3.80**
434350.0300	**2-100**	4	0.6	100	195	**4.20**
434350.0400	**3-120**	5.5	0.8	120	220	**4.90**
434350.0500	**4-140**	6.5	1	140	245	**5.70**
434350.0600	**5-160**	8	1.2	160	270	**7.00**
434350.0700	**6-180**	10	1.6	180	300	**8.70**

434365 Screwdriver set FUTURO

Chrome-vanadium steel, chrome-plated, for slotted screws, with ergonomic **2-component power handle** with non-slip Santoprene® surface for good grip, parallel tip, contains 1 screwdriver of each size 1-6.

Order ID	434365.0100
Slot blade screwdriver	1 2 3 4 5 6
Price €	**32.50**

434380 Screwdriver set FUTURO

Chrome-vanadium steel, chrome-plated, with ergonomic **2-component power handle** with non-slip Santoprene® surface for good grip, parallel tip, contains 1 screwdriver of each size 1-4 and Phillips sizes 1+2.

Order ID	434380.0100
Slot blade screwdriver	1 2 3 4
Phillips blades No.	1 2
Price €	**30.80**

434385 Screwdriver set FUTURO

Chrome-vanadium steel, chrome-plated, with ergonomic **2-component power handle** with non-slip Santoprene® surface for good grip, parallel tip, contains 1 screwdriver of each size 1-6 and Phillips sizes 1, 2 + 3.

Order ID	434385.0100
Slot blade screwdriver	1 / 2 / 3 / 4 / 5 / 6
Phillips blades No.	1 / 2 / 3
Price €	**52.50**

NERIOX

434363 Screwdriver slot-head NERIOX

Chromium-molybdenum-vanadium steel, chrome-plated satin, for slotted screws, with ergonomic 2-component power handle.

Order ID	Size	Tip width mm	Tip thickness mm	Blade length mm	Length mm	Price €
434363.0100	0-75	2.5	0.4	75	155	2.25
434363.0200	-	3	0.5	80	160	2.30
434363.0300	1-100	3.5	0.6	100	200	2.50
434363.0400	2-100	4	0.8	100	200	2.65
434363.0500	3-100	5.5	1.0	100	215	3.75
434363.0600	4-125	6.5	1.2	125	240	4.40
434363.0700	5-150	8.0	1.2	150	270	5.50
434363.0800	6-175	10.0	1.6	175	295	6.90

NERIOX

434401 Screwdriver set slot-head NERIOX

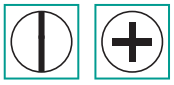
Chromium-molybdenum-vanadium steel, chrome-plated satin, for slotted screws, with ergonomic 2-component power handle.

Appropriate spare parts:
434363 Screwdriver slot-head NERIOX

Order ID	Parts	Size	Price €
434401.0100	**5**	3.5 4.0 5.5 6.5 8.0	18.65
434401.0200	**8**	2.5 3.0 3.5 4.0 5.5 6.5 8.0 10.0	29.90

NERIOX

435413 Screwdriver set NERIOX



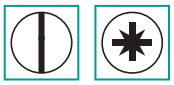
For Phillips- and slot-head screws, chromium-molybdenum-vanadium steel, chrome-plated satin, with ergonomic 2-component power handle.

Appropriate spare parts:
434363 Screwdriver slot-head NERIOX
435078 Cross-head screwdriver NERIOX

Order ID	Parts	Slot	Phillips	Price €
435413.0100	**6**	3.5 5.5 6.5 8	PH1 PH2	22.80

NERIOX

435414 Screwdriver set NERIOX



For Pozidriv- and slot-head screws, chromium-molybdenum-vanadium steel, chrome-plated satin, with ergonomic 2-component power handle.

Appropriate spare parts:
434363 Screwdriver slot-head NERIOX
435349 Cross-head screwdriver NERIOX

Order ID	Parts	Slot	Pozidriv	Price €
435414.0100	**6**	3.5 5.5 6.5 8	PZ1 PZ2	23.70

NERIOX

435418 Screwdriver sets NERIOX

For Phillips-, Pozidriv- and slot-head screws, chromium-molybdenum-vanadium steel, chrome-plated satin, with ergonomic 2-component power handle.

Appropriate spare parts:
434363 Screwdriver slot-head NERIOX
435078 Cross-head screwdriver NERIOX
435349 Cross-head screwdriver NERIOX

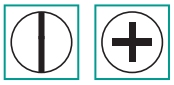
Order ID	Parts	Slot	Phillips	Pozidriv	Price €
435418.0100	**8**	3.5 5.5 6.5 8	PH1 PH2	PZ1 PZ2	29.60

434362 Screwdriver slot-head Knirps NERIOX

Chromium-molybdenum-vanadium steel, **short blade with short handle,** chrome-plated satin, for slot-head screws, with 2-component handle.

Order ID	Size	Tip width mm	Tip thickness mm	Blade length mm	Length mm	Price €
434362.0100	2-30	4.0	0.8	30	88	3.60
434362.0200	3-30	5.5	1.0	30	88	3.60
434362.0300	4-30	6.5	1.2	30	88	3.75

435419 Screwdriver set Knirps NERIOX

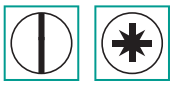


For slot-head and Philips screws, chromium-molybdenum-vanadium steel, **short blade with short handle,** chrome-plated satin, with 2-component handle.

Appropriate spare parts:
434362 Screwdriver slot-head Knirps NERIOX
435077 Cross-head screwdriver Knirps NERIOX

Order ID	Parts	Slot	Phillips	Price €
435419.0100	5	4 5.5 6.5	PH1 PH2	17.50

435420 Screwdriver set Knirps NERIOX



For slot-head and Pozidriv screws, chromium-molybdenum-vanadium steel, **short blade with short handle,** chrome-plated satin, with 2-component handle.

Appropriate spare parts:
434362 Screwdriver slot-head Knirps NERIOX
435347 Short cross-head screwdriver NERIOX

Order ID	Parts	Slot	Pozidriv	Price €
435420.0100	5	4 5.5 6.5	PZ1 PZ2	17.50

FUTURO

435070 Phillips screwdriver FUTURO

Für **Phillips** Schrauben, Chrom-Vanadium-Stahl, verchromt, mit ergonomischem **2-Komponenten-Kraftgriff** mit rutschfester, griffiger Santoprene®-Oberfläche.

Order ID	Size	Blade length mm	Blade Ø mm	Length mm	Price €
435070.0100	**0-60**	60	4	140	4.20
435070.0200	**1-80**	80	5	175	4.90
435070.0300	**2-100**	100	6	205	6.10
435070.0400	**3-150**	150	8	270	8.50

NERIOX

435078 Cross-head screwdriver NERIOX

Für Phillips-Schrauben, Chrom-Molybdän-Vanadium-Stahl, verchromt satiniert, mit ergonomischem 2-Komponenten-Kraftgriff.

Order ID	Size	Blade length mm	Length mm	Price €
435078.0100	**PH 0**	60	140	2.75
435078.0200	**PH 1**	80	180	3.15
435078.0300	**PH 2**	100	215	3.85
435078.0400	**PH 3**	150	270	6.00
435078.0500	**PH 4**	200	320	7.45

NERIOX

434407 Cross-head screwdriver set NERIOX

Für Phillips-Schrauben, Chrom-Molybdän-Vanadium-Stahl, verchromt satiniert, mit ergonomischem 2-Komponenten-Kraftgriff.

Passende Ersatzteile:
435078 Kreuzschraubendreher NERIOX

Order ID	Parts	Size	Price €
434407.0100	**3**	PH1 PH2 PH3	12.65
434407.0200	**5**	PH0 PH1 PH2 PH3 PH4	22.35

NERIOX

435077 Cross-head screwdriver Knirps NERIOX

Für Phillips-Schrauben, Chrom-Molybdän-Vanadium-Stahl, **kurze Klinge mit kurzem Griff,** verchromt satiniert, mit 2-Komponenten-Griff.

Order ID	Size	Blade length mm	Length mm	Price €
435077.0100	**PH 1**	30	88	3.85
435077.0200	**PH 2**	30	88	4.15

435340 Pozidriv screwdriver FUTURO

For **Pozidriv and Supadriv** screws, chrome-vanadium steel, chrome-plated, with ergonomic **2-component power handle** with non-slip Santoprene® surface for good grip.

Order ID	Size	Blade length mm	Blade Ø mm	Length mm	Price €
435340.0100	**0-60**	60	4	140	**4.50**
435340.0200	**1-80**	80	5	175	**5.10**
435340.0300	**2-100**	100	6	205	**6.60**
435340.0400	**3-150**	150	8	270	**9.00**

435349 Cross-head screwdriver NERIOX

For Pozidriv screws, chromium-molybdenum-vanadium steel, chromium-plated satin finish, with ergonomic two-part power handle.

Order ID	Size	Blade length mm	Length mm	Price €
435349.0100	**PZ 0**	60	140	**2.75**
435349.0200	**PZ 1**	80	180	**3.40**
435349.0300	**PZ 2**	100	215	**3.85**
435349.0400	**PZ 3**	150	270	**6.00**

434416 Cross-head screwdriver set NERIOX

For Pozidriv screws, chromium-molybdenum-vanadium steel, chrome-plated satin, with ergonomic 2-component power handle.

Appropriate spare parts:
435349 Cross-head screwdriver NERIOX

Order ID	Parts	Size	Price €
434416.0100	**3**	PZ1 PZ2 PZ3	**13.80**

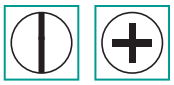
435347 Short cross-head screwdriver NERIOX

For Pozidriv screws, chromium-molybdenum-vanadium steel, **short blade with short handle,** chromium-plated satin finish, with two-part handle.

Order ID	Size	Blade length mm	Length mm	Price €
435347.0100	**PZ 1**	30	88	**3.90**
435347.0200	**PZ 2**	30	88	**4.70**

FUTURO

436095 Screwdriver set FUTURO

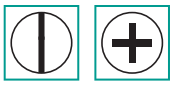


With interchangeable blades of extra-chrome-vanadium steel, chrome-plated, 2-component handle; for fitters, etc., in compact roll-up pocket.

Consisting of:
434350.0100 Screwdriver FUTURO 0-70
436100.0100 Screwdriver blade PB 215 C 2
436100.0200 Screwdriver blade PB 215 C 3
436100.0300 Screwdriver blade PB 215 C 4
436100.0400 Screwdriver blade PB 215 C 5
436110.0100 Phillips blade PB 215 PH 1
436110.0200 Phillips blade PB 215 PH 2
436160.0100 Reamer blade PB 215 E 170
436175.0100 Handle for exchangeable blades FUTURO 10

Order ID	436095.0100
Price €	**44.50**

434525 Watchmaker's screwdriver set NERIOX

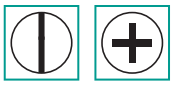


6 pieces, for **Phillips and slotted machine screws**, blade black tool steel, handles nickel-plated, in plastic case.

Order ID	Parts	Slot width mm	Phillips	Price €
434525.0100	6	1.4 2.0 2.4 3.0	PH0 PH1	8.10

NERIOX

437055 Electronics screwdriver set NERIOX



For slotted and Phillips screws, with two-component precision tightening handle and rotating centring head; with 4 slotted screwdrivers of sizes 1.6 - 3.0 mm and 3 Phillips screwdrivers sizes 00 - 1; in plastic box.

Order ID	Parts	for slots	for Phillips	Price €
437055.0100	7	1.6 2.0 2.4 3.0	00 0 1	12.50

NERIOX

437060 Electronics screwdriver set NERIOX

For TORX® screws, with two-component precision tightening handle and rotating centring head; in plastic box.

Order ID	Parts	for TORX® screws	Price €
437060.0100	7	T5 T6 T7 T8 T9 T10 T15	12.80

436175 Handle for interchangeable blades FUTURO

Ergonomic **2-component reinforced handle** with slip-proof, easy-to-hold Santoprene® surface, for interchangeable blades type PB 215.

Order ID	Length mm	Ø mm	Price €
436175.0100	**105**	30	**3.60**

For interchangeable blades, please visit the Tool Shop at www.brw.ch

215A

NERIOX

437355 Quick change holder NERIOX

1/4" E 6.3 | 1/4" C 6.3

Magnetic, with hexagon coupler 1/4" E 6.3, for holding bits 1/4" C 6.3.

Order ID	Length mm	for bits	Price €
437355.0100	**60**	1/4" C 6.3	6.20

NERIOX

438005 Holder for socket inserts NERIOX

1/4" C 6.3 | 1/4"

With hexagon coupler 1/4" C 6.3, with square drive 1/4" for socket inserts, chrome-plated.

Order ID	Length mm	Square drive	Outside hexagon mm	Price €
438005.0100	**25**	1/4"	C 6.3 / 1/4"	1.80

NERIOX

437625 Bit and socket wrench set NERIOX

1/4" C 6.3 | 1/4"

24-piece, in a practical plastic box, with 15 bits 1/4" C 6.3, 1 holder for socket inserts 1/4" C 6.3, 1 quick change bit holder 1/4" E 6.3 and 1 mini bit ratchet 1/4", 52 teeth with switch lever.

Order ID		437625.0100
Parts		**24**
Adapter with square		1/4"
Holder		1/4" x 60 mm
for Slotted screws	mm	4.5 5.5
Phillips blades No.		1 2
Pozidriv blades No.		1 2
Hexagon socket bits	mm	3 4 5 6
Outside hexagon	mm	6 7 8 10 11 13
Bits for TORX® screws		T10 T15 T20 T25 T30
Price €		25.00

NERIOX

437645 Bit set NERIOX

1/4" C 6.3

32-piece, in a practical plastic box, with 30 bits 1/4" C 6.3, 1 holder for socket wrench inserts 1/4" C 6.3 and 1 quick change bit holder 1/4" E 6.3.

Order ID		437645.0100
Parts		**32**
Adapter with square		1/4"
Holder with magnet		1/4" x 60 mm
for Slotted screws	mm	4 4.5 5.5 2 x 6.5
Phillips blades No.		1 2 3
Pozidriv blades No.		2 x 1 2 x 2 2 x 3
Hexagon socket bits	mm	3 4 5 6
Bits for TORX® screws		2 x T10 2 x T15 2 x T20 2 x T25 2 x T27 2 x T30
Price €		18.65

NERIOX

437650 Bit set NERIOX

1/4" C 6.3

62-piece, in a practical plastic box, with 60 bits 1/4" C 6.3, 1 bit holder 1/4" E 6.3 and 1 quick change bit holder 1/4" E 6.3.

Order ID		437650.0100
Parts		**62**
Holder		1/4" x 60 mm
Holder with magnet		1/4" x 60 mm
for Slotted screws	mm	4 4.5 5.5 2 x 6.5 8
Phillips blades No.		1 2 x 2 2 x 3 4
Pozidriv blades No.		1 2 x 2 2 x 3 4
Hexagon socket bits	mm	2 x 3 4 5 2 x 6
Bits for TORX® screws		3 x T10 3 x T15 6 x T20 6 x T25 6 x T30 6 x T40
Blades with hole for TORX® screws		T10 T15 T20 T25 T27 T30
Price €		29.90

437655 Bit set NERIOX

113-piece, in a practical plastic box, with 98 bits 1/4" C 6.3, 13 long bits 1/4" E 6.3, 1 bit holder 1/4" E 6.3 and 1 quick change bit holder 1/4" E 6.3.

Order ID		437655.0100
Parts		**113**
Holder		1/4" x 60 mm
Holder with magnet		1/4" x 60 mm
for Slotted screws	mm	7 x 4 7 x 6
Phillips blades No.		7 x 1 7 x 2 7 x 3
Phillips bits long		3 x 2
Pozidriv blades No.		7 x 1 7 x 2 7 x 3
Pozidriv bits long		3 x 2
Hexagon socket bits	mm	7 x 4 7 x 5 7 x 6
Bits for TORX® screws		2 x T10 2 x T15 2 x T20 2 x T25 2 x T27 2 x T30 2 x T40
Long bits for TORX® screws		1 x T10 1 x T15 3 x T20 1 x T25 1 x T30
Blades with hole for TORX® screws		T10 T15 T20 T25 T27 T30 T40
Price €		**56.20**

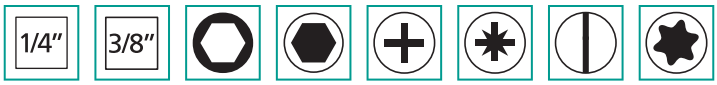
438195 Mini bit ratchet NERIOX

Switchable, 52 teeth, **hexagon socket for blades 1/4" C 6.3**, chrome-plated.

Order ID	**Length mm**	for bits	**Price €**
438195.0100	**93**	1/4" C 6.3	**15.50**

NERIOX

427435 Hexagon socket wrench set NERIOX



54-piece, chrome vanadium steel, chrome-plated, foam insert in the carbon look with marking of the dimensions, **in plastic case with metal clasps**.

Order ID		427435.0100
Reversible ratchet	in	3/8
Spin type speeder	in	1/4
Sliding tee bar	mm	165
Universal joint	in	3/8
Bit holder with retaining spring		1/4
Hex 3/8“		6 7 8 9 10 11 12 13 14 17 19 21 22
Hex 1/4“		4 4.5 5 5.5 6 7 8 9 10 11 12 13
Spark plug wrench 3/8“	mm	16 / 21
Allen-Bit	mm	4 5 6 8
Phillips-Bit		1 2 3
Pozidriv-Bit		1 2 3
Slotted bit		4 5.5 6.5
Bit for Torx® screws		10 15 20 25 27 30 40
Dimensions WxDxH	mm	360 x 260 x 75
Price €		**94.20**

NERIOX

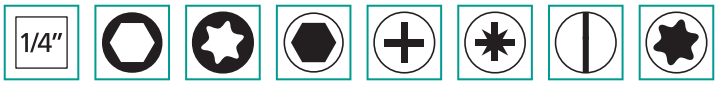
426305 Hexagon socket wrench set NERIOX

41-piece, chrome vanadium steel, chrome-plated, foam insert in the carbon look with marking of the dimensions, **in plastic case with metal clasps**.

Order ID		426305.0100
Reversible ratchet	in	1/4
Spin type speeder	in	1/4
Sliding tee/adapter		3/8 - 1/4
Extensions	mm	50 100
Universal joint	in	1/4
Universal holder with magnet		1/4 E6.3 - 1/4 C6.3
Bit holder with retaining spring		1/4 C6.3
Coupler		6kt - 4kt C6.3 - 1/4
Hex 1/4“		4 4.5 5 5.5 6 7 8 9 10 11 12 13
Allen-Bit	mm	4 5 6 8
Phillips-Bit		1 2 3
Pozidriv-Bit		1 2 3
Slotted bit		4 5.5 6.5
Dimensions WxDxH	mm	260 x 160 x 60
Bit for Torx® screws		10 15 20 25 27 30 40
Price €		**79.00**

NERIOX

426310 Hexagon socket wrench set NERIOX



52-piece, chrome vanadium steel, chrome-plated, foam insert in the carbon look with marking of the dimensions, **in plastic case with metal clasps**.

Order ID		426310.0100
Reversible ratchet	in	1/4
Spin type speeder	in	1/4
Sliding tee bar	mm	115
Extensions	mm	50 / 150
Universal joint	in	1/4
Hex 1/4“		3.2 4 4.5 5 5.5 6 7 8 9 10 11 12 13 14
Hex long 1/4“		8 10 11 13
For outside TORX® 1/4“		4 5 6 7 8 10 11
Allen 1/4“	mm	3 4 5 6 7 8
Phillips 1/4“		1 2 3
Pozidriv 1/4“		1 2 3
Slot 1/4“		4 5.5 6.5
Bit for Torx® screws		10 15 20 25 30 40
Dimensions WxDxH	mm	300 x 190 x 60
Price €		**99.00**

426350 Hex socket NERIOX

DIN 3124/ISO 2725-1, chrome-vanadium steel, chrome-plated, knurled, length 25 mm.

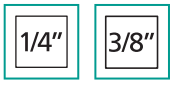
Order ID	Wrench size mm	Price €	Order ID	Wrench size mm	Price €
426350.0100	3.2	2.10	426350.0800	8	1.90
426350.0200	4	2.00	426350.0900	9	2.00
426350.0300	4.5	1.85	426350.1000	10	1.95
426350.0400	5	1.85	426350.1100	11	2.15
426350.0500	5.5	1.85	426350.1200	12	2.20
426350.0600	6	1.85	426350.1300	13	2.45
426350.0700	7	1.85	426350.1400	14	2.50

426355 Hex socket NERIOX

DIN 3124/ISO 2725-1, chrome-vanadium steel, chrome-plated, knurled, **long version,** length 50 mm.

Order ID	Wrench size mm	Price €	Order ID	Wrench size mm	Price €
426355.0100	8	6.60	426355.0300	11	7.05
426355.0200	10	6.70	426355.0400	13	7.05

429215 Universal driver socket NERIOX



Housing made from alloy steel; with hardened steel pins. Replaces a large range of nuts, regardless of whether they are in metric or imperial dimensions. The steel pins adapt to any nut or bolt with an external profile. Also fits unusual fasteners such as clip and eyelet bolts.

Order ID	Wrench size mm	Length mm	for screw length up to mm	Square drive in	Price €
429215.0100	6...12	53	9	1/4	10.10
429215.0200	9...21	65	9	3/8	14.20

426475 Socket wrench bit for TORX® screws NERIOX

For external Torx® screws, chrome-vanadium steel, chrome-plated, knurled, length 25 mm.

Order ID	For outside Torx®	Price €	Order ID	For outside Torx®	Price €
426475.0100	E4	2.95	426475.0500	E8	2.95
426475.0200	E5	2.95	426475.0600	E10	3.15
426475.0300	E6	2.95	426475.0700	E11	3.15
426475.0400	E7	2.95			

426505 Bit for TORX® screws NERIOX

chrome-vanadium steel, chrome-plated, for internal Torx® screws, length 32 mm.

Order ID	for TORX® screws	Price €	Order ID	for TORX® screws	Price €
426505.0100	T8	5.30	426505.0600	T25	5.30
426505.0200	T9	5.30	426505.0700	T27	5.30
426505.0300	T10	5.30	426505.0800	T30	5.30
426505.0400	T15	5.30	426505.0900	T40	5.30
426505.0500	T20	5.30	426505.1000	T45	5.80

NERIOX

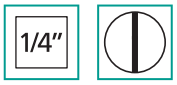
426485 Hexagon insert bit NERIOX

for hexagon socket screws, chrome-vanadium steel, chrome-plated.

Order ID	Wrench size mm	Overall length mm	Price €	Order ID	Wrench size mm	Overall length mm	Price €
426485.0100	3	32	3.25	426485.0600	5	55	3.25
426485.0200	3	55	3.25	426485.0700	6	32	3.25
426485.0300	4	32	3.25	426485.0800	6	55	3.25
426485.0400	4	55	3.25	426485.0900	7	32	3.25
426485.0500	5	32	3.25	426485.1000	8	32	3.25

NERIOX

426540 Slotted bit NERIOX

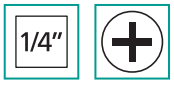


chrome-vanadium steel, chrome-plated, for slotted screws, length 32 mm.

Order ID	Width x thickness mm	Price €
426540.0100	4 x 0.8	4.35
426540.0200	5.5 x 1	4.35
426540.0300	6.5 x 1.2	4.35

NERIOX

426545 Phillips bit NERIOX

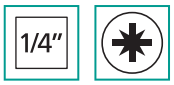


chrome-vanadium steel, chrome-plated, for Phillips Recess® screws, length 32 mm.

Order ID	Phillips	Price €
426545.0100	PH1	4.35
426545.0200	PH2	4.35
426545.0300	PH3	4.35

NERIOX

426550 Pozidriv bit NERIOX



chrome-vanadium steel, chrome-plated, for Pozidriv/Supadriv® screws, length 32 mm.

Order ID	Pozidriv No.	Price €
426550.0100	PZ1	4.35
426550.0200	PZ2	4.35
426550.0300	PZ3	4.35

426685 Reversible ratchet NERIOX

1/4”

Chrome-vanadium steel, chrome-plated, 60 teeth, with ergonomic 2-comp. handle

Order ID	Length mm	Price €
426685.0100	137	23.10

NERIOX

426825 Extension NERIOX

1/4“

chrome-vanadium steel, chrome-plated, knurled.

Order ID	Length mm	Price €
426825.0100	50	2.95
426825.0200	100	3.10
426825.0300	150	3.25

NERIOX

426735 Spin type speeder NERIOX

1/4“

chrome-plated, with 2-comp. handle

Order ID	Shank length mm	Length mm	Price €
426735.0100	60	145	5.90

NERIOX

426705 Sliding T-handle NERIOX

1/4“

Chrome-vanadium steel, chrome-plated

Order ID	Length mm	Price €
426705.0100	115	3.95

427415 Hexagon socket wrench set NERIOX

15-piece, chrome vanadium steel, chrome-plated, foam insert in the carbon look with marking of the dimensions, **in plastic case with metal clasps**.

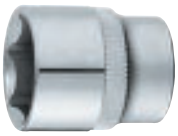
Order ID		427415.0100
Reversible ratchet	in	3/8
Extensions	mm	75 / 250
Universal joint	in	3/8
Hex 3/8“		8 10 11 12 13 14 15 16 17 18 19
Dimensions WxDxH	mm	300 x 190 x 60
Price €		**54.60**

427425 Hexagon socket wrench set NERIOX

25-piece, chrome vanadium steel, chrome-plated, foam insert in the carbon look with marking of the dimensions, **in plastic case with metal clasps**.

Order ID		427425.0100
Reversible ratchet	in	3/8
Sliding tee bar	mm	165
Extensions	mm	75 / 250
Universal joint	in	3/8
Hex 3/8“		8 10 11 12 13 14 15 16 17 18 19
Allen 3/8“	mm	3 4 5 6 7 8 10
Spark plug wrench 3/8“	mm	16 / 21
Dimensions WxDxH	mm	360 x 260 x 75
Price €		**81.40**

NERIOX



427525 Hex socket NERIOX

3/8”

chrome-vanadium steel, chrome-plated, knurled.

Order ID	Wrench size mm	Length mm	Price €	Order ID	Wrench size mm	Length mm	Price €
427525.0100	**6**	28	2.75	427525.1000	**15**	28	3.30
427525.0200	**7**	28	2.75	427525.1100	**16**	28	3.50
427525.0300	**8**	28	2.70	427525.1200	**17**	28	3.75
427525.0400	**9**	28	2.70	427525.1300	**18**	30	4.00
427525.0500	**10**	28	2.70	427525.1400	**19**	30	4.50
427525.0600	**11**	28	2.70	427525.1500	**20**	30	4.90
427525.0700	**12**	28	2.70	427525.1600	**21**	30	5.35
427525.0800	**13**	28	2.75	427525.1700	**22**	30	6.00
427525.0900	**14**	28	3.20				

NERIOX

427565 Spark plug socket NERIOX

3/8”

chrome-vanadium steel, chrome-plated, knurled, with rubber insert and hex head.

Order ID	Wrench size mm	Length mm	Price €	Order ID	Wrench size mm	Length mm	Price €
427565.0100	**16**	65	5.60	427565.0200	**21**	67	7.60

NERIOX

427675 Hex bit insert NERIOX

3/8”

Chrome-vanadium steel, chrome-plated

Order ID	Wrench size mm	Length mm	Price €	Order ID	Wrench size mm	Length mm	Price €
427675.0100	**3**	48	4.10	427675.0500	**7**	48	4.10
427675.0200	**4**	48	4.10	427675.0600	**8**	48	4.80
427675.0300	**5**	48	4.10	427675.0700	**10**	48	5.10
427675.0400	**6**	48	4.10				

427895 Reversible ratchet NERIOX

3/8”

Chrome-vanadium steel, chrome-plated, 60 teeth, with ergonomic 2-comp. handle

Order ID	Length mm	Price €
427895.0100	197	27.30

NERIOX

428020 Extension NERIOX

3/8”

chrome-vanadium steel, chrome-plated, knurled.

Order ID	Length mm	Price €
428020.0100	**75**	**3.35**
428020.0200	**150**	**4.35**
428020.0300	**250**	**7.90**

NERIOX

428025 Socket adapter NERIOX

3/8”

Chrome-vanadium steel, chrome-plated, square socket and bit to DIN 3120.

Designs:
428025.0100 **1/4“** max. load capacity 62 Nm
428025.0200 -

Order ID	External square (male)	Internal square (female)	Price €
428025.0100	**1/4“**	3/8“	**3.35**
428025.0200	**1/2“**	3/8“	**6.45**

NERIOX

428030 Adapter and sliding tee NERIOX

3/8”

Chrome-vanadium steel, chrome-plated, square socket and bit to DIN 3120. With hole for use as T-handle sliding tee, to fit extensions NERIOX 1/4” resp. 1/2”.

Designs:
428030.0100 **1/4“** max. load capacity 62 Nm
428030.0200 -

Order ID	External square (male)	Internal square (female)	Hole Ø mm	Price €
428030.0100	**1/4“**	**3/8“**	8.7	**3.55**
428030.0200	**1/2“**	**3/8“**	16.8	**6.65**

NERIOX

428035 Universal joint NERIOX

3/8”

DIN 3123/ISO 3316, chrome-vanadium steel, chrome-plated, spring-stiffened joint.

Order ID	Length mm	Price €
428035.0100	**55**	**10.50**

428575 Hexagon socket wrench set NERIOX

25-piece, chrome vanadium steel, chrome-plated, foam insert in the carbon look with marking of the dimensions, **in plastic case with metal clasps**.

Order ID		428575.0100
Reversible ratchet	in	1/2
Sliding tee bar	mm	300
Extensions	mm	75 / 125 / 250
Universal joint	in	1/2
Hex 1/2"		8 9 10 11 12 13 14 15 16 17 18 19 21 22 24 27 30 32 34
Dimensions WxDxH	mm	400 x 290 x 80
Price €		**108.30**

428580 Hexagon socket wrench set NERIOX

40-piece, chrome vanadium steel, chrome-plated, foam insert in the carbon look with marking of the dimensions, **in plastic case with metal clasps**.

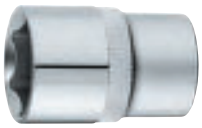
Order ID		428580.0100
Reversible ratchet	in	1/2
Sliding tee bar	mm	300
Extensions	mm	75 / 125 / 250
Universal joint	in	1/2
Hex 1/2"		8 10 11 12 13 14 15 16 17 18 19 21 22 24 27 30 32 34
Allen 1/2"	mm	4 5 6 7 8 10 12 14
For Torx® 1/2"		T25 T27 T30 T40 T45 T50 T55 T60
Dimensions WxDxH	mm	460 x 350 x 90
Price €		**152.00**

428585 Hexagon socket wrench set NERIOX

65-piece, chrome vanadium steel, chrome-plated, foam insert in the carbon look with marking of the dimensions, **in plastic case with metal clasps**.

Order ID		428585.0100
Reversible ratchet	in	1/4 + 1/2
Spin type speeder	in	1/4
Sliding tee/adapter		3/8" - 1/4" / 3/8" - 1/2"
Extensions	mm	50 / 125 / 150 / 250
Universal joint	in	1/4 / 1/2
Universal holder with magnet		1/4" - 1/4"
Bit holder with retaining spring		1/4"
Coupler		6kt - 4kt C6.3-1/4"
Hex 1/2"		10 11 12 13 14 15 16 17 18 19 20 21 22 24 27 30 32
Hex 1/4"		4 4,5 5 5,5 6 7 8 9 10 11 12 13
Spark plug wrench 1/2"	mm	16 / 21
Phillips-Bit		1 2 3
Pozidriv-Bit		1 2 3
Slotted bit		4 5.5 6.5
Bit for Torx® screws		10 15 20 25 27 30 40
Dimensions WxDxH	mm	400 x 290 x 80
Price €		**144.70**

NERIOX



429015 Hex socket NERIOX

1/2"

DIN 3124/ISO 2725-1, chrome-vanadium steel, chrome-plated, knurled.

Order ID	Wrench size mm	Length mm	Price €	Order ID	Wrench size mm	Length mm	Price €
429015.0100	**8**	38	2.75	429015.1300	**20**	38	3.45
429015.0200	**9**	38	2.75	429015.1400	**21**	38	3.55
429015.0300	**10**	38	2.75	429015.1500	**22**	38	3.60
429015.0400	**11**	38	2.85	429015.1600	**23**	38	3.65
429015.0500	**12**	38	2.85	429015.1700	**24**	40	3.65
429015.0600	**13**	38	2.85	429015.1800	**26**	42	5.30
429015.0700	**14**	38	2.85	429015.1900	**27**	42	5.50
429015.0800	**15**	38	2.85	429015.2000	**28**	44	6.50
429015.0900	**16**	38	2.75	429015.2100	**30**	45	5.75
429015.1000	**17**	38	2.85	429015.2200	**32**	45	5.95
429015.1100	**18**	38	3.15	429015.2300	**34**	45	8.00
429015.1200	**19**	38	3.15				

NERIOX

429035 Spark plug socket NERIOX

1/2"

chrome-vanadium steel, chrome-plated, knurled, with rubber insert and hex head.

Order ID	Wrench size mm	Length mm	Price €	Order ID	Wrench size mm	Length mm	Price €
429035.0100	**16**	65	6.60	429035.0200	**21**	67	8.60

429070 Spark plug socket KOKEN

1/2"

Koken 4300C, chrome-vanadium steel, chrome-plated, with retaining spring and hex head.

Order ID	Wrench size mm	Length mm	Price €	Order ID	Wrench size mm	Length mm	Price €
429070.0100	**16**	70	15.70	429070.0200	**20.8**	70	18.60

NERIOX

428595 Set of bits for TORX® screws NERIOX

1/2"

10-piece, chrome vanadium steel, chrome-plated, foam insert in the carbon look with marking of the dimensions, **in plastic case with metal clasps**.

Order ID		428595.0100
For Torx® 1/2"		20 25 27 30 40 45 50 55 60
Dimensions WxDxH	mm	260 x 160 x 60
Price €		73.25

NERIOX

429065 Bit insert for TORX® screws NERIOX

1/2"

Chrome-vanadium steel, chrome-plated

Order ID	Size	Length mm	Price €	Order ID	Size	Length mm	Price €
429065.0100	**T20**	55	4.95	429065.0600	**T45**	55	4.95
429065.0200	**T25**	55	4.95	429065.0700	**T50**	55	4.95
429065.0300	**T27**	55	4.95	429065.0800	**T55**	55	4.95
429065.0400	**T30**	55	4.95	429065.0900	**T60**	55	5.15
429065.0500	**T40**	55	4.95				

428590 Set of hex bits NERIOX

10-piece, chrome vanadium steel, chrome-plated, foam insert in the carbon look with marking of the dimensions, **in plastic case with metal clasps**.

Order ID		428590.0100
Allen 1/2"	mm	4 5 6 7 8 10 12 14 17 19
Dimensions WxDxH	mm	260 x 160 x 60
Price €		**66.30**

429055 Hex bit insert NERIOX

Chrome-vanadium steel, chrome-plated

Order ID	Wrench size mm	Length mm	Price €	Order ID	Wrench size mm	Length mm	Price €
429055.0100	**4**	55	4.40	429055.0600	**10**	55	4.40
429055.0200	**5**	55	4.40	429055.0700	**12**	55	4.50
429055.0300	**6**	55	4.40	429055.0800	**14**	55	5.15
429055.0400	**7**	55	4.40	429055.0900	**17**	55	6.40
429055.0500	**8**	55	4.40	429055.1000	**19**	55	7.05

NERIOX

429465 Reversible ratchet NERIOX

1/2”

Chrome-vanadium steel, chrome-plated, 60 teeth, with ergonomic 2-comp. handle

Order ID	Length mm	Price €
429465.0100	250	33.40

429580 Extension NERIOX

1/2“

chrome-vanadium steel, chrome-plated, knurled.

Order ID	Length mm	Price €
429580.0100	75	4.20
429580.0200	125	5.25
429580.0300	250	7.70

429615 Adapter NERIOX

1/2“

Chrome-vanadium steel, chrome-plated, male and female square according to DIN 3120

Order ID	External square (male)	Internal square (female)	Price €
429615.0100	3/8“	1/2“	5.25
429615.0200	3/4“	1/2“	7.50

429670 Universal joint NERIOX

1/2“

chrome-vanadium steel, chrome-plated, spring-stiffened joint.

Order ID	Length mm	Price €
429670.0100	75	10.95

429475 Sliding T-handle NERIOX

1/2“

chrome-vanadium steel, chrome-plated.

Order ID	Length mm	Price €
429475.0100	300	9.50

NERIOX

429925 Hexagon socket NERIOX

3/4”

DIN 3124/ISO 2725-1, chrome-vanadium steel, chrome-plated, straight knurled.

Order ID	Wrench size mm	Length mm	Price €	Order ID	Wrench size mm	Length mm	Price €
429925.0100	**22**	50	5.70	429925.0600	**34**	56	9.15
429925.0200	**24**	51	6.10	429925.0700	**36**	58	9.05
429925.0300	**27**	52	6.80	429925.0800	**41**	64	13.10
429925.0400	**30**	54	8.15	429925.0900	**46**	68	14.55
429925.0500	**32**	56	8.70	429925.1000	**50**	72	17.40

430125 Reversible ratchet NERIOX

Chrome-vanadium steel, chrome-plated, 48 teeth, with lock pin, insert knurled handle.

Order ID	Length mm	Price €
430125.0100	495	87.50

NERIOX

430195 Extension NERIOX

3/4“

Chrome-vanadium steel, chrome-plated, with lock pin.

Order ID	Length mm	Price €
430195.0100	200	28.00
430195.0200	400	39.65

NERIOX

430245 Adapter NERIOX

3/4“

Chrome-vanadium steel, chrome-plated.

Order ID	External square (male)	Internal square (female)	Price €
430245.0100	1/2“	3/4“	17.00

NERIOX

430165 Sliding T-handle NERIOX

3/4“

Chrome-vanadium steel, chrome-plated, with lock pin.

Order ID	Length mm	Price €
430165.0100	460	23.80

431205 Torque wrench FUTURO

FUTURO

432055 Torque screwdriver FUTURO

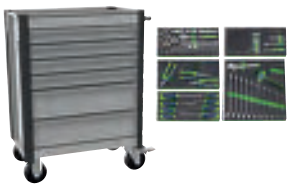
1/4" C 6.3

With scale, easy to set the required torque value using adjustment wheel at the end of the handle, ergonomic two-component grip, slip clutch, triggers at the exact moment it reaches the set torque, over-tightening impossible. Supplied with interchangeable bit holder for 1/4" bits C 6.3, with declaration of conformity according to DIN EN ISO 6789-1:2017.

Order ID	**Range Nm**	Division Nm	Hexagon socket	Length mm	**Price €**
432055.0100	**0.3...1.5**	0.1	1/4"	155	**139.90**
432055.0200	**0.6...3.0**	0.5	1/4"	155	**139.90**
432055.0300	**1.2...6.0**	0.5	1/4"	155	**139.90**

540475 Workshop trolley NERIOX

RAL 7035



Fully equipped with tools in foam inserts, workshop trolley with a sturdy steel construction and 6 drawers, full extension with ball-bearing guide rails, load capacity per drawer 20 kg, lockable via central locking, each drawer has its own lock to prevent accidental opening, both end faces with square holes, with round push handle, working platform with ribbed rubber mat, vertical continuous plastic edge protection on all 4 corners, 2 fixed castors and 2 swivel castors with locking brakes.

Order ID		540475.0050	540475.0100	540475.0075
Dimensions WxDxH	mm	678 x 459 x 935	678 x 459 x 935	678 x 459 x 935
Drawers usable area	mm	568 x 398	568 x 398	568 x 398
Drawers carrying capacity	kg	20	20	20
Colour		Light grey, RAL 7035	Light grey, RAL 7035	
Price €		**749.00**	**XXXX.XX**	**XXXX.XX**

FUTURO

550305 Tool case FUTURO

Very rugged, hard shell tool case, made from scratch-, impact- and break-resistant polypropylene, solid aluminium frame, with 2 metal locks; 1 tool pallet with FLEXIPOUCHES tool holders on both sides, 1 base compartment with **FLEXI POUCHES** tool holders on both sides, metal frame for maximum stability, ergonomic rubber coated handle, document wallet, base compartment with adjustable dividers, address frame **(tools not included)**.
FLEXI POUCHES: an extremely elastic band for improved hold on the tools, suitable for broadest possible range of sizes. The tools are always in the right position, even if you turn the case over.

Order ID	**Type**	Dimensions in	Dimensions mm	Support capacity kg	Weight kg	**Price €**
550305.0100	**215PTS**		465 x 352 x 215	25	5.2	**169.40**

FUTURO

550448 Wheeled tool case FUTURO

Very rugged, hard-shell tool case, made from polypropylene resistant to scratching, impact and breakage, solid aluminium frame, with 2 metal locks; 1 main board with **FLEXI POUCHES** tool holders on both sides, 1 bottom tray with **FLEXI POUCHES** tool holders on one side, ergonomic rubber coated handle, document wallet, base compartment with adjustable dividers, address frame, wheels with ball bearings, telescopic handle, **tools not included**.
FLEXI POUCHES: An extremely elastic band for improved hold on the tools, suitable for broadest possible range of sizes. The tools are always in the right position, even if you turn the case over.

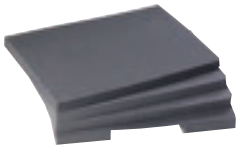
Order ID	**Internal size mm**	Support capacity kg	Weight kg	**Price €**
550448.0100	**465 x 352 x 255**	25	6.3	**262.10**

FUTURO

550497 Accessories FUTURO

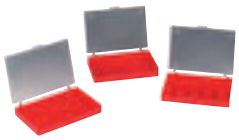
PSS system: Professional Storage System; rubber rails keep the tool in place; light, resistant and elastic.

Order ID	Designation	**Price €**
550497.0100	**Foam** 3 inserts 465 x 352 x 30 mm, entire surface prepunched with 15 x 15 mm raster 1 insert 465 x 352 x 10 mm, not prepunched 2 inserts 140 x 352 x 30 mm for filling the base compartment in case	**28.80**
550497.0200	**Tool board** with 12 tool holders and 2 PSS systems on the front, rubber band for 18 tools at the rear, size: 465 x 352 x 215 mm	**46.90**
550497.0300	**Small parts box** made of Polypropylene, impact-resistant, with 6 compartments, size 163 x 120 x 30 mm	**3.60**
550497.0400	**Small parts box** made of Polypropylene, impact-resistant, with 13 compartments, size 163 x 120 x 30 mm	**3.60**
550497.0500	**Small parts box** made of Polypropylene, impact-resistant, without partitions, size 163 x 120 x 30 mm	**3.60**



550497.0100

550497.0200
Front with PSS-holder



550497.0300/0400/0500

550497.0200
Front with PSS-holder

550190 Materials bag FUTURO

In nylon material, black, small inside and outside bag, suitable for example as a bag for **tools included with products** or as a **materials bag** in general.

Order ID	Dimensions mm	Price €
550190.0100	**500 x 150 x 150**	**7.60**

Our full range –

GUARANTEED THE RIGHT TOOL FOR EVERY TASK

FUTURO
performance and perfection

NERIOX
YOUR SMARTEST CHOICE

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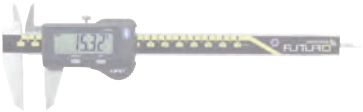
MEASUREMENT TECHNOLOGY  174 – 245

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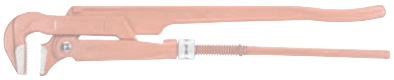
HAND- AND MOUNTING TOOLS  354 – 371

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FUTURO

440185 Pliers set FUTURO

4-piece, made of high-quality tempered tool steel, chrome-plated, in box.

Consisting of:
440057.0200: 1 pieces Combination pliers FUTURO 180 mm
440237.0200: 1 pieces Telephone pliers FUTURO 200 mm
441719.0100: 1 pieces Diagonal cutters FUTURO 140 mm
443056.0100: 1 pieces Multigrip pliers FUTURO 250 mm

Order ID	Parts	Price €
440185.0100	4	67.40

FUTURO

440190 Pliers set VDE FUTURO

1000 V

3-piece, made of high-quality tempered tool steel, chrome-plated, **1000-volt insulation**, **VDE-tested**, corresponds to standard DIN EN 60900, in box.

Consisting of:
440132.0200: 1 pieces Combination pliers VDE FUTURO 180 mm
440282.0200: 1 pieces Telephone pliers VDE FUTURO 200 mm
441773.0200: 1 pieces Diagonal cutters VDE FUTURO 160 mm

Order ID	Parts	Price €
440190.0100	3	58.65

FUTURO

445180.0100

445180 Circlip pliers set FUTURO

4-piece, made of high-quality tempered tool steel, chrome-plated, in roll-up case.

445180.0100 consisting of:
445047.0300: 1 pieces Circlip pliers FUTURO for internal rings J2, 19–60 mm
445067.0300: 1 pieces Circlip pliers FUTURO for internal rings J21, 19–60 mm
445127.0300: 1 pieces Circlip pliers FUTURO For external rings A2, 19...60 mm
445145.0300: 1 pieces Circlip pliers FUTURO For external rings A21, 19–60 mm
445180.0200 consisting of:
445047.0200: 1 pieces Circlip pliers FUTURO for internal rings J1, 12–25 mm
445047.0300: 1 pieces Circlip pliers FUTURO for internal rings J2, 19–60 mm
445127.0200: 1 pieces Circlip pliers FUTURO For external rings A1, 10...25 mm
445127.0300: 1 pieces Circlip pliers FUTURO For external rings A2, 19...60 mm

Order ID	Parts	Price €
445180.0100	4	67.25
445180.0200	4	65.30

NERIOX

440085 Pliers set NERIOX

4-piece, made of tool steel, polished heads, in box.

Consisting of:
440063.0200: 1 pieces Combination pliers NERIOX 180 mm
440243.0200: 1 pieces Telephone pliers NERIOX 200 mm
441723.0200: 1 pieces Diagonal cutters NERIOX 160 mm
443173.0100: 1 pieces Multigrip pliers NERIOX 250 mm

Order ID	Parts	Price €
440085.0100	4	55.50

NERIOX

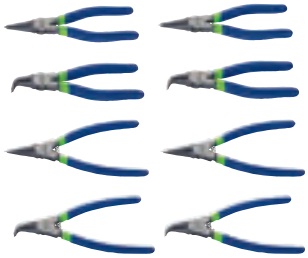
440090 Pliers set NERIOX

4-piece, made of tool steel, polished heads, in box.

Consisting of:
440064.0200: 1 pieces Combination pliers NERIOX 180 mm
440244.0200: 1 pieces Telephone pliers NERIOX 200 mm
441727.0100: 1 pieces Diagonal cutters NERIOX 160 mm
443173.0100: 1 pieces Multigrip pliers NERIOX 250 mm

Order ID	Parts	Price €
440090.0100	4	40.00

NERIOX



445175 Circlip pliers set NERIOX

8-piece, made of tool steel, polished heads, in roll-up case.

Consisting of:
445046.0200: 1 pieces Circlip pliers NERIOX for internal rings J1, 12–25 mm
445046.0300: 1 pieces Circlip pliers NERIOX for internal rings J2, 19–60 mm
445066.0200: 1 pieces Circlip pliers NERIOX for internal rings J11, 12–25 mm
445066.0300: 1 pieces Circlip pliers NERIOX for internal rings J21, 19–60 mm
445124.0200: 1 pieces Circlip pliers NERIOX For external rings A1, 10–25 mm
445124.0300: 1 pieces Circlip pliers NERIOX For external rings A2, 19–60 mm
445144.0200: 1 pieces Circlip pliers NERIOX For external rings A11, 10–25 mm
445144.0300: 1 pieces Circlip pliers NERIOX For external rings A21, 19–60 mm

Order ID	Parts	Price €
445175.0100	8	99.00

440057 Combination pliers FUTURO

Made of high-quality tempered tool steel, chrome-plated, extra-long cutting edge for flat and round cables, with ergonomic two-component grip sleeves.

Order ID		440057.0100	440057.0200	440057.0300
Length	mm	160	180	200
Jaw length	mm	35	37	41
for medium-hard wire	mm	3.1	3.4	3.8
for hard wire	mm	2.0	2.2	2.5
for piano wire	mm	1.6	1.8	2.0
Price €		**13.60**	**15.35**	**17.05**

440063 Combination pliers NERIOX

Tool steel, polished head, extra-long cutting edge for flat and round cables, with ergonomic two-component grip sleeves.

Order ID		440063.0100	440063.0200	440063.0300
Length	mm	160	180	200
Jaw length	mm	35	37	41
for medium-hard wire	mm	2.5	2.8	3.1
for hard wire	mm	1.8	2.0	2.2
for piano wire	mm	1.4	1.6	1.8
Price €		**11.00**	**12.00**	**12.50**

440064 Combination pliers NERIOX

Tool steel, polished head, extra-long cutting edge for flat and round cables, plastic-coated handles.

Order ID		440064.0100	440064.0200
Length	mm	160	180
Jaw length	mm	35	37
for medium-hard wire	mm	2.5	2.8
for hard wire	mm	1.8	2.0
for piano wire	mm	1.4	1.6
Price €		**9.50**	**10.00**

440053 Heavy-duty combination pliers FUTURO

Made of high-quality tempered tool steel, chrome-plated, extra-long cutting edge for flat and round cables, with ergonomic two-component grip sleeves.

Order ID		440053.0100	440053.0200
Length	mm	180	200
Jaw length	mm	37	38
for medium-hard wire	mm	3.4	3.8
for hard wire	mm	2.5	2.8
for piano wire	mm	2.0	2.3
Price €		**19.35**	**21.00**

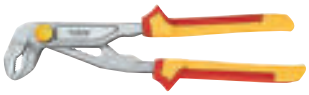
FUTURO

443056 Multigrip pliers FUTURO

Made of high-quality tempered tool steel, chrome-plated, box type, precision adjustment joint, providing optimum adaptation to the gripped object, plastic-coated handles.

Order ID	Length mm	for tubes Ø mm	Hexagonal mm	Price €
443056.0100	**250**	50.8	50	22.25
443056.0200	**300**	63.5	63	27.95

FUTURO



441407 Multigrip pliers VDE FUTURO

1000 V

Made of high-quality tempered tool steel, chrome-plated, box type, precision adjustment joint, providing optimal adaptation to the gripped object, **1000-volt insulation**, **VDE-tested**, corresponds to standard DIN EN 60900, with ergonomic two-component grip sleeves.

Order ID	Length mm	for tubes Ø mm	Hexagonal mm	Price €
441407.0100	**250**	50.8	50	30.00

NERIOX

443173 Multigrip pliers NERIOX

Tool steel, polished head, box-type, precision adjustment joint, providing optimal adaptation to the gripped object, plastic-coated handles.

Order ID	Length mm	for tubes Ø mm	Hexagonal mm	Price €
443173.0100	**250**	50.8	50	12.50
443173.0200	**300**	63.5	63	17.00

NERIOX

443185 Multigrip pliers NERIOX

DIN ISO 8976, chrome-vanadium steel, forged, hardened, powder-coated, with **box joint,** self locking on pipes and nuts, clamp protection prevents crushing injuries.

Order ID	Length mm	for tubes Ø mm	Hexagonal mm	Price €
443185.0100	**240**	36	32	9.00

NERIOX

441406 Multigrip pliers VDE NERIOX

1000 V

Tool steel, **1000-volt insulation**, **VDE-tested**, corresponds to standard DIN EN 60900, with ergonomic two-component grip sleeves.

Order ID	Length mm	for tubes Ø mm	Hexagonal mm	Price €
441406.0100	**250**	50.8	50	19.50

444030 Automatic locking pliers FUTURO

Practical **one-handed operation — pliers adjust automatically to the required clamping width on the workpiece**. Consistent clamping pressure over the entire span range, **curved jaws** made of chromium vanadium steel with serrated and hardened gripping surfaces, for fast and efficient clamping of profiled and flat materials. Nickel plated.

Order ID	Length mm	Clamping width mm	Price €
444030.0100	**150**	28	32.90
444030.0200	**250**	48	40.90

444035 Automatic locking pliers FUTURO

Practical **one-handed operation — pliers adjust automatically to the required clamping width on the workpiece**. Consistent clamping pressure over the entire span range, **long, flat jaws** made of chromium vanadium steel with serrated and hardened gripping surfaces, for fast and efficient clamping of profiled and flat materials. Nickel plated.

Order ID	Length mm	Clamping width mm	Price €
444035.0100	**175**	55	36.50

444026 Universal gripping pliers NERIOX

Chrome molybdenum steel, **nickel-plated**, can be used as pipe wrenches and gripping pliers, adjustable and lockable, with release trigger, with two **straight jaws**.

Order ID	Length mm	Clamping width mm	Price €
444026.0100	**187**	35	13.95
444026.0200	**229**	40	15.20

444280 Universal gripping pliers NERIOX

Chrome-molybdenum steel, **nickel-plated**, can be used as pipe wrenches and gripping pliers, adjustable and lockable, with release trigger, with **double V-shaped jaws**.

Order ID	Length mm	Jaw length mm	Clamping width mm	Price €
444280.0100	**240**	50	40	12.80

444106 Universal gripping pliers NERIOX

Chrome molybdenum steel, **nickel-plated**, can be used as pipe wrenches and gripping pliers, adjustable and lockable, with release trigger, with two **bent jaws and wire cutter**.

Order ID	Length mm	Clamping width mm	Price €
444106.0100	**189**	38	11.25
444106.0200	**228**	48	12.15

444316 Gripping pliers NERIOX

Chrome molybdenum steel, **nickel-plated**, C-shape, with **hinged jaws**, for **parallel clamping**, designed as a clamp for angle sections and T sections, adjustable and lockable, with release lever, large clamping width, can also be used instead of sliding clamps.

Order ID	Length mm	Clamping width mm	Clamping depth mm	Price €
444316.0100	**178**	37	37	20.50
444316.0200	**288**	80	70	26.30

444317 Gripping pliers NERIOX

Chrome molybdenum steel, **nickel-plated**, C-shape, for **parallel clamping**, designed as a clamp for angle sections and T sections, adjustable and lockable, with release lever, large clamping width, can also be used instead of sliding clamps.

Order ID	Length mm	Clamping width mm	Clamping depth mm	Price €
444317.0100	**171**	37	40	16.45
444317.0200	**278**	80	80	20.65

NERIOX

444156 Long nose gripping pliers NERIOX

Chrome molybdenum steel, **nickel-plated**, can be used as pipe wrenches and gripping pliers, adjustable and lockable, with release trigger, with **long, flat, narrow jaws and wire cutter**.

Order ID	**Length mm**	Jaw length mm	Clamping width mm	**Price €**
444156.0100	**171**	45	42	**13.40**

NERIOX

444285 Universal gripping pliers NERIOX

Chrome-molybdenum steel, **nickel-plated**, can be used as pipe wrenches and gripping pliers, adjustable and lockable, with release trigger, with **V-shaped jaws**.

Order ID	**Length mm**	Jaw length mm	Clamping width mm	**Price €**
444285.0100	**185**	30	30	**13.20**
444285.0200	**230**	35	40	**14.20**

NERIOX

444371 Welder's gripping pliers NERIOX

Chrome molybdenum steel, **nickel-plated**; **for profile and flat material**, leaves both hands free for working, the welding point is easily visible, adjustable and lockable, with release trigger.

Order ID	**Length mm**	Clamping width mm	Jaw depth mm	**Price €**
444371.0100	**265**	54	40	**20.60**

NERIOX

444372 Welder's gripping pliers NERIOX

Chrome molybdenum steel, **nickel-plated**; **for round material**, leaves both hands free for working, the welding point is easily visible, adjustable and lockable, with release trigger.

Order ID	**Length mm**	Clamping width mm	Jaw depth mm	**Price €**
444372.0100	**275**	72	45	**20.60**

440658 Long flat-nose pliers FUTURO

FUTURO

Made of high-quality tempered tool steel, extra-long head, chrome-plated, serrated gripping surfaces, with ergonomic two-component grip sleeves.

Order ID	Length mm	Jaw length mm	Price €
440658.0100	**160**	56	19.75

440657 Long flat-nose pliers NERIOX

NERIOX

Tool steel, extra-long, polished head, serrated gripping surfaces, with ergonomic two-component handle covers.

Order ID	Length mm	Jaw length mm	Price €
440657.0100	**160**	50	14.00

440335 Long flat-nose pliers NERIOX

NERIOX

Tool steel, extra-long, polished head, serrated gripping surfaces, plastic-coated handles.

Order ID	Length mm	Jaw length mm	Price €
440335.0100	**160**	50	12.00

440317 Radio pliers FUTURO

FUTURO

Made of high-quality tempered tool steel, chrome-plated, tip curved approx. 40°, extra-long cutting edge for flat and round cables, gripping surface partially serrated, with ergonomic two-component grip sleeves.

Order ID		440317.0100	440317.0200
Length	**mm**	**160**	**200**
Jaw length	mm	79	50
for medium-hard wire	mm	2.5	3.2
for hard wire	mm	1.8	2.2
for piano wire	mm	1.2	1.6
Price €		18.25	21.15

440362 Radio pliers VDE FUTURO

FUTURO

1000 V

Made of high-quality tempered tool steel, chrome-plated, tip curved at approx. 40°, extra-long cutting edge for flat and round cables, partially serrated gripping surface, **1000-volt insulation**, **VDE-tested**, corresponds to standard DIN EN 60900, with ergonomic two-component grip sleeves.

Order ID		440362.0100	440362.0200
Length	**mm**	**160**	**200**
Jaw length	mm	79	50
for medium-hard wire	mm	2.5	3.2
for hard wire	mm	1.8	2.2
for piano wire	mm	1.2	1.6
Price €		19.85	24.30

440331 Radio pliers NERIOX

NERIOX

Tool steel, polished head, tip curved approx. 40°, extra-long cutting edge for flat and round cables, gripping surface partially serrated, with ergonomic two-component grip sleeves.

Order ID		440331.0100	440331.0200
Length	**mm**	**160**	**200**
Jaw length	mm	56	79
for medium-hard wire	mm	2.2	2.5
for hard wire	mm	1.6	1.8
for piano wire	mm	1.2	1.4
Price €		16.00	17.50

440332 Radio pliers NERIOX

NERIOX

Tool steel, polished head, tip curved at approx. 40°, extra-long cutting edge for flat and round cables, partially serrated gripping surfaces, plastic-coated handles.

Order ID		440332.0100
Length	**mm**	**160**
Jaw length	mm	56
for medium-hard wire	mm	2.2
for hard wire	mm	1.6
for piano wire	mm	1.2
Price €		13.50

NERIOX

440361 Radio pliers VDE NERIOX

1000 V

Tool steel, polished head, tip curved approx. 40°, extra-long cutting edge for flat and round cables, partially serrated gripping surfaces, **1000-volt insulation**, **VDE-tested**, corresponds to standard DIN EN 60900, with ergonomic two-component grip sleeves.

Order ID		440361.0100	440361.0200
Length	**mm**	**160**	**200**
Jaw length	mm	56	79
for medium-hard wire	mm	2.2	2.5
for hard wire	mm	1.6	1.8
for piano wire	mm	1.2	1.4
Price €		**17.00**	**19.00**

FUTURO

440237 Telephone pliers FUTURO

Made of high-quality tempered tool steel, chrome-plated, extra-long cutting edge for flat and round cables, gripping surface partially serrated, with ergonomic two-component grip sleeves.

Order ID		440237.0100	440237.0200
Length	**mm**	**160**	**200**
Jaw length	mm	59	84
for medium-hard wire	mm	2.5	3.2
for hard wire	mm	1.8	2.2
for piano wire	mm	1.2	1.6
Price €		**15.75**	**19.35**

FUTURO

440282 Telephone pliers VDE FUTURO

1000 V

Made of high-quality tempered tool steel, chrome-plated, extra-long cutting edge for flat and round cables, partially serrated gripping surface, **1000-volt insulation**, **VDE-tested**, corresponds to standard DIN EN 60900, with ergonomic two-component grip sleeves.

Order ID		440282.0100	440282.0200
Length	**mm**	**160**	**200**
Jaw length	mm	59	84
for medium-hard wire	mm	2.5	3.2
for hard wire	mm	1.8	2.2
for piano wire	mm	1.2	1.6
Price €		**18.05**	**21.50**

NERIOX

440243 Telephone pliers NERIOX

Tool steel, polished head, extra-long cutting edge for flat and round cables, gripping surface partially serrated, with ergonomic two-component grip sleeves.

Order ID		440243.0100	440243.0200
Length	**mm**	**160**	**200**
Jaw length	mm	59	84
for medium-hard wire	mm	2.2	2.5
for hard wire	mm	1.6	1.8
for piano wire	mm	1.2	1.4
Price €		**12.00**	**14.00**

NERIOX

440244 Telephone pliers NERIOX

Tool steel, polished head, extra-long cutting edge for flat and round cables, partially serrated gripping surface, plastic-coated handles.

Order ID		440244.0100	440244.0200
Length	**mm**	**160**	**200**
Jaw length	mm	59	84
for medium-hard wire	mm	2.2	2.5
for hard wire	mm	1.6	1.8
for piano wire	mm	1.2	1.4
Price €		**10.50**	**12.50**

440281 Telephone pliers VDE NERIOX

NERIOX

1000 V

Tool steel, polished head, extra-long cutting edge for flat and round cables, partially serrated gripping surfaces, **1000-volt insulation**, **VDE-tested**, corresponds to standard DIN EN 60900, with ergonomic two-component grip sleeves.

Order ID		440281.0100	440281.0200
Length	**mm**	**160**	**200**
Jaw length	mm	59	84
for medium-hard wire	mm	2.2	2.5
for hard wire	mm	1.6	1.8
for piano wire	mm	1.2	1.4
Price €		**15.50**	**17.00**

445047 Circlip pliers for internal rings FUTURO

FUTURO

Made of high-quality tempered tool steel, chrome-plated, **straight shape**, drop-forged with cylindrical precision tips for applying/removing circlips on the inside of bore holes, plastic-coated handles.

Order ID	Type	for circlips mm	Length mm	Price €
445047.0100	**J0**	8...13	140	**13.85**
445047.0200	**J1**	12...25	140	**13.85**
445047.0300	**J2**	19...60	180	**14.25**
445047.0400	**J3**	40...100	240	**16.10**
445047.0500	**J4**	85...140	310	**18.25**

445067 Circlip pliers for internal rings FUTURO

FUTURO

Made of high-quality tempered tool steel, chrome-plated, **angled shape**, drop-forged with cylindrical precision tips for applying/removing circlips on the inside of bore holes, plastic-coated handles.

Order ID	Type	for circlips mm	Length mm	Price €
445067.0100	**J01**	8...13	140	**15.10**
445067.0200	**J11**	12...25	140	**15.10**
445067.0300	**J21**	19...60	180	**15.60**
445067.0400	**J31**	40...100	240	**17.60**
445067.0500	**J41**	85...140	310	**19.95**

445046 Circlip pliers for internal rings NERIOX

NERIOX

Tool steel, polished head, **straight shape**, drop-forged with cylindrical precision tips for applying/removing circlips on the inside of bore holes, plastic-coated handles.

Order ID	Type	for circlips mm	Length mm	Price €
445046.0100	**J0**	8...13	140	**10.50**
445046.0200	**J1**	12...25	140	**10.50**
445046.0300	**J2**	19...60	180	**11.00**
445046.0400	**J3**	40...100	240	**12.50**
445046.0500	**J4**	85...140	310	**14.00**

445066 Circlip pliers for internal rings NERIOX

NERIOX

Tool steel, polished head, **angled shape**, drop-forged with cylindrical precision tips for applying/removing circlips on the inside of bore holes, plastic-coated handles.

Order ID	Type	for circlips mm	Length mm	Price €
445066.0100	**J01**	8...13	140	**11.50**
445066.0200	**J11**	12...25	140	**11.50**
445066.0300	**J21**	19...60	180	**12.00**
445066.0400	**J31**	40...100	240	**13.50**
445066.0500	**J41**	85...140	310	**15.50**

445127 Circlip pliers for external rings FUTURO

FUTURO

Made of high-quality tempered tool steel, chrome-plated, **straight shape**, drop-forged with cylindrical precision tips for applying/removing circlips on the outside of shafts or axles, plastic-coated handles.

Order ID	Type	for circlips mm	Length mm	Price €
445127.0100	**A0**	3...10	140	**14.85**
445127.0200	**A1**	10…25	140	**14.85**
445127.0300	**A2**	19…60	180	**15.30**
445127.0400	**A3**	40…100	240	**17.40**
445127.0500	**A4**	85…140	310	**19.65**

FUTURO

445145 Circlip pliers for external rings FUTURO

Made of high-quality tempered tool steel, chrome-plated, **angled shape**, drop-forged with cylindrical precision tips for applying/removing circlips on the outside of shafts or axles, plastic-coated handles.

Order ID	Type	for circlips mm	Length mm	Price €
445145.0100	**A01**	3...10	140	16.30
445145.0200	**A11**	10…25	140	16.30
445145.0300	**A21**	19…60	180	16.80
445145.0400	**A31**	40…100	240	18.95
445145.0500	**A41**	85…140	310	21.30

NERIOX

445124 Circlip pliers for external rings NERIOX

Tool steel, polished head, **straight shape**, drop-forged with cylindrical precision tips for applying/removing circlips on the outside of shafts or axles, plastic-coated handles.

Order ID	Type	for circlips mm	Length mm	Price €
445124.0100	**A0**	3...10	140	11.50
445124.0200	**A1**	10…25	140	11.50
445124.0300	**A2**	19…60	180	12.00
445124.0400	**A3**	40…100	240	13.50
445124.0500	**A4**	85…140	310	15.00

NERIOX

445144 Circlip pliers for external rings NERIOX

Tool steel, polished head, **angled shape**, drop-forged with cylindrical precision tips for applying/removing circlips on the outside of shafts or axles, plastic-coated handles.

Order ID	Type	for circlips mm	Length mm	Price €
445144.0100	**A01**	3...10	140	12.50
445144.0200	**A11**	10…25	140	12.50
445144.0300	**A21**	19…60	180	13.00
445144.0400	**A31**	40…100	240	15.00
445144.0500	**A41**	85…140	310	16.50

FUTURO

445380.0100

445380.0200

445385 Hook tool FUTURO

Hook tool FUTURO, made of stainless steel, for removing, aligning, fitting springs, circlips, O-rings, small parts etc.

Order ID	Total length mm	Ø mm	Package	Price €
445385.0100	**173**	1.6	in practical case	3.20
445385.0200	**163**	1.6	in practical case	3.20

FUTURO

445380 Hook tool set FUTURO

Hook tool set FUTURO, 2 piece, made of stainless steel, for removing, aligning, fitting springs, circlips, O-rings, small parts etc.

Order ID	Parts	Package	Price €
445380.0100	**2**	in practical case	7.00

441719 Diagonal cutters FUTURO

FUTURO

Made of high-quality tempered tool steel, chrome-plated, low wear lap joint, riveted and able to withstand high loads. Precision cutting edge with face ground cutting surface and cutting edge without chamfer, with opening spring and ergonomic two-component grip sleeves.

Order ID		441719.0100	441719.0200
Length	**mm**	**140**	**160**
Jaw length	mm	19	21
for medium-hard wire	mm	2.5	2.8
for hard wire	mm	1.8	2.0
for piano wire	mm	1.4	1.6
Price €		**16.95**	**17.30**

441773 Diagonal cutters VDE FUTURO

FUTURO

1000 V

Made of high-quality tempered tool steel, chrome-plated, low wear lap joint, riveted and able to withstand high loads. Precision cutting edge with face ground cutting surface and cutting edge without chamfer, **1000-volt insulation**, **VDE-tested**, corresponds to standard DIN EN 60900, with opening spring and ergonomic two-component grip sleeves.

Order ID		441773.0100	441773.0200
Length	**mm**	**140**	**160**
Jaw length	mm	19	21
for medium-hard wire	mm	2.5	2.8
for hard wire	mm	1.8	2.0
for piano wire	mm	1.4	1.6
Price €		**18.70**	**20.10**

441723 Diagonal cutters NERIOX

NERIOX

Tool steel, polished head, low-wear lap joint, riveted and able to withstand high loads, with ergonomic two-component grip sleeves.

Order ID		441723.0100	441723.0200
Length	**mm**	**140**	**160**
Jaw length	mm	19	21
for medium-hard wire	mm	2.2	2.5
for hard wire	mm	1.6	1.8
for piano wire	mm	1.2	1.4
Price €		**12.50**	**13.50**

441727 Diagonal cutters NERIOX

NERIOX

Tool steel, polished head, low-wear lap joint, riveted and able to withstand high loads, with plastic-coated handle.

Order ID		441727.0100
Length	**mm**	**160**
Jaw length	mm	21
for medium-hard wire	mm	2.5
for hard wire	mm	1.8
for piano wire	mm	1.4
Price €		**10.50**

441771 Diagonal cutters VDE NERIOX

NERIOX

1000 V

Tool steel, polished head, low-wear lap joint, riveted and able to withstand high loads. **1000-volt insulation**, **VDE-tested**, corresponds to standard DIN EN 60900, with ergonomic two-component grip sleeves.

Order ID		441771.0100	441771.0200
Length	**mm**	**140**	**160**
Jaw length	mm	19	21
for medium-hard wire	mm	2.2	2.5
for hard wire	mm	1.6	1.8
for piano wire	mm	1.2	1.4
Price €		**16.00**	**17.00**

441647 Heavy-duty diagonal cutters FUTURO

FUTURO

Made of high-quality tempered tool steel, chrome-plated, low wear lap joint, riveted and able to withstand high loads. Precision cutting edge with face ground cutting surface and cutting edge without chamfer, with opening spring and ergonomic two-component grip sleeves.

Order ID		441647.0100	441647.0200	441647.0300
Length	**mm**	**160**	**180**	**200**
Jaw length	mm	21	23	25
for medium-hard wire	mm	3.5	3.8	4.2
for hard wire	mm	2.5	2.7	3.0
for piano wire	mm	2.0	2.3	2.5
Price €		**24.15**	**26.15**	**27.30**

FUTURO

441774 Heavy-duty diagonal cutters VDE FUTURO

1000 V

Made of high-quality tempered tool steel, chrome-plated, low wear lap joint, riveted and able to withstand high loads. Precision cutting edge with face ground cutting surface and cutting edge without chamfer, **1000-volt insulation**, **VDE-tested**, corresponds to standard DIN EN 60900, with opening spring and ergonomic two-component grip sleeves.

Order ID		441774.0100	441774.0200	441774.0300
Length	**mm**	**160**	**180**	**200**
Jaw length	mm	21	23	25
for medium-hard wire	mm	3.5	3.8	4.2
for hard wire	mm	2.5	2.7	3.0
for piano wire	mm	2.0	2.3	2.5
Price €		**23.85**	**26.25**	**28.85**

NERIOX

441724 Heavy-duty diagonal cutters NERIOX

Tool steel, polished head, low-wear lap joint, riveted and able to withstand high loads, with ergonomic two-component grip sleeves.

Order ID		441724.0100	441724.0200	441724.0300
Length	**mm**	**160**	**180**	**200**
Jaw length	mm	21	23	25
for medium-hard wire	mm	3.0	3.5	3.8
for hard wire	mm	2.2	2.5	2.7
for piano wire	mm	1.8	2.0	2.3
Price €		**16.50**	**18.00**	**19.50**

NERIOX

441726 Heavy-duty diagonal cutters NERIOX

Tool steel, polished head, low-wear lap joint, riveted and able to withstand high loads, with plastic-coated handle.

Order ID		441726.0100
Length	**mm**	**160**
Jaw length	mm	21
for medium-hard wire	mm	3.0
for hard wire	mm	2.2
for piano wire	mm	1.8
Price €		**14.00**

NERIOX

441772 Heavy-duty diagonal cutters VDE NERIOX

1000 V

Tool steel, polished head, low-wear lap joint, riveted and able to withstand high loads. **1000-volt insulation**, **VDE-tested**, corresponds to standard DIN EN 60900, with ergonomic two-component grip sleeves.

Order ID		441772.0100	441772.0200
Length	**mm**	**160**	**200**
Jaw length	mm	21	25
for medium-hard wire	mm	3.0	3.8
for hard wire	mm	2.2	2.7
for piano wire	mm	1.8	2.3
Price €		**21.00**	**22.50**

446170 Flat-nose electronics pliers FUTURO

Short, smooth jaws with fine tips and inside edges, high-quality ball bearing steel, induction-hardened gripping jaws 45 HRC, anti-glare, scratch-free satin finish, ergonomic multi-component grip coverings with soft, comfortable grip surface, electrically conductive, dissipative. Double leaf springs made of stainless steel, high precision and strength thanks to an overlap joint with screw. Nuts made from hardened alloyed steel. Made in Switzerland.

Order ID	Length mm	Price €
446170.0100	130	33.40

446175 Flat-nose electronics pliers FUTURO

Special tool steel, drop-forged, hardened and tempered, finely polished, black-oxide finish, handles PVC-dipped, **long, smooth jaws.**

Order ID	Length mm	Jaw width mm	Jaw length mm	Price €
446175.0100	130	6.5	33.5	22.50

446185 Flat-nose electronics pliers FUTURO

Long jaws with fine tips and inside edges, high-quality ball bearing steel, induction-hardened gripping jaws 45 HRC, anti-glare, scratch-free satin finish, ergonomic multi-component grip coverings with soft, comfortable grip surface, electrically conductive, dissipative. Double leaf springs made of stainless steel, high precision and strength thanks to an overlap joint with screw. Nuts made from hardened alloyed steel. Made in Switzerland.

Designs:
446185.0100 With smooth jaws
446185.0200 With furrowed jaws

Order ID	Length mm	Price €
446185.0100	140	37.00
446185.0200	140	38.50

446294 Snipe-nose electronics pliers FUTURO

Short, smooth jaws, high-quality ball bearing steel, induction-hardened gripping jaws 45 HRC, anti-glare, scratch-free satin finish, ergonomic multi-component grip coverings with soft, comfortable grip surface, electrically conductive, dissipative. Double leaf springs made of stainless steel, high precision and strength thanks to an overlap joint with screw. Nuts made from hardened alloyed steel. Made in Switzerland.

Order ID	Length mm	Price €
446294.0100	130	36.50

446296 Snipe-nose electronics pliers FUTURO

Long, reinforced jaws, high-quality ball bearing steel, induction-hardened gripping jaws 45 HRC, anti-glare, scratch-free satin finish, ergonomic multi-component grip coverings with soft, comfortable grip surface, electrically conductive, dissipative. Double leaf springs made of stainless steel, high precision and strength thanks to an overlap joint with screw. Nuts made from hardened alloyed steel. Made in Switzerland.

Designs:
446296.0100 With smooth jaws
446296.0200 With furrowed jaws

Order ID	Length mm	Price €
446296.0100	135	37.00
446296.0200	135	39.10

446312 Needle-nose electronics pliers FUTURO

Special tool steel, drop-forged, hardened and tempered, polished, black-oxide finish, handles PVC-dipped, opening spring, **long, smooth jaws.**

Order ID	Length mm	Jaw length mm	Price €
446312.0100	**130**	33	**22.50**

446555 Round-nose electronics pliers FUTURO

Round jaws, suitable both for terminals and for forming loops with cables or wire, high-quality ball bearing steel, induction-hardened gripping jaws 45 HRC, anti-glare, scratch-free satin finish, ergonomic multi-component grip coverings with soft, comfortable grip surface, electrically conductive, dissipative. Double leaf springs made of stainless steel, high precision and strength thanks to an overlap joint with screw. Nuts made from hardened alloyed steel. Made in Switzerland.

Order ID	Length mm	Price €
446555.0100	**135**	**39.50**

446749 Electronics diagonal cutters FUTURO

Oval mini cutting head, high-quality ball bearing steel, induction-hardened cutting edges 63 HRC, anti-glare, scratch-free satin finish, ergonomic multi-component grip coverings with soft, comfortable grip surface, electrically conductive, dissipative. Double leaf springs made of stainless steel, high precision and strength thanks to an overlap joint with screw. Nuts made from hardened alloyed steel. Made in Switzerland.

Designs:
446749.0100 Cutting edges with chamfers (semi-flush)
446749.0200 Cutting edges with small chamfers (flush)
446749.0300 Cutting edges without chamfers (full-flush)

Order ID	Length mm	for soft wire mm	for medium-hard wire mm	for hard wire mm	Price €
446749.0100	**120**	0.2...1.2	0.1...1.0	0.03...0.6	**41.00**
446749.0200	**120**	0.1...1.2	0.1...1.0	-	**42.00**
446749.0300	**120**	0.1...1.0	0.1...0.8	-	**43.00**

446751 Electronics diagonal cutters FUTURO

Oval cutting head, high-quality ball bearing steel, induction-hardened cutting edges 63 HRC, anti-glare, scratch-free satin finish, ergonomic multi-component grip coverings with soft, comfortable grip surface, electrically conductive, dissipative. Double leaf springs made of stainless steel, high precision and strength thanks to an overlap joint with screw. Nuts made from hardened alloyed steel. Made in Switzerland.

Designs:
446751.0100 Cutting edges with chamfers (semi-flush)
446751.0200 Cutting edges with small chamfers (flush)
446751.0300 Cutting edges without chamfers (full-flush)

Order ID	Length mm	for soft wire mm	for medium-hard wire mm	for hard wire mm	Price €
446751.0100	**120**	0.3...1.6	0.1...1.3	0.03...0.7	**43.00**
446751.0200	**120**	0.2...1.6	0.1...1.2	-	**43.50**
446751.0300	**120**	0.2...1.2	0.1...1.0	-	**44.60**

447572 Electronics diagonal cutters FUTURO

Pointed mini cutting head, high-quality ball bearing steel, induction-hardened cutting edges 63 HRC, anti-glare, scratch-free satin finish, ergonomic multi-component grip coverings with soft, comfortable grip surface, electrically conductive, dissipative. Double leaf springs made of stainless steel, high precision and strength thanks to an overlap joint with screw. Nuts made from hardened alloyed steel. Made in Switzerland.

Designs:
447572.0100 Cutting edges with chamfers (semi-flush)
447572.0200 Cutting edges with small chamfers (flush)
447572.0300 Cutting edges without chamfers (full-flush)

Order ID	**Length mm**	for soft wire mm	for medium-hard wire mm	for hard wire mm	**Price €**
447572.0100	**120**	0.2...1.2	0.1...1.0	0.03...0.6	**41.00**
447572.0200	**120**	0.1...1.2	0.1...1.0	-	**42.00**
447572.0300	**120**	0.1...1.0	0.1...0.8	-	**43.00**

447574 Electronics diagonal cutters FUTURO

Pointed cutting head, high-quality ball bearing steel, induction-hardened cutting edges 63 HRC, anti-glare, scratch-free satin finish, ergonomic multi-component grip coverings with soft, comfortable grip surface, electrically conductive, dissipative. Double leaf springs made of stainless steel, high precision and strength thanks to an overlap joint with screw. Nuts made from hardened alloyed steel. Made in Switzerland.

Designs:
447574.0100 Cutting edges with chamfers (semi-flush)
447574.0200 Cutting edges without chamfers (full-flush)

Order ID	**Length mm**	for soft wire mm	for medium-hard wire mm	for hard wire mm	**Price €**
447574.0100	**120**	0.3...1.6	0.1...1.2	0.03...0.7	**43.00**
447574.0200	**120**	0.2...1.2	0.1...1.0	-	**44.60**

447576 Electronics diagonal cutters FUTURO

Flat, pointed mini cutting head without cutting chamfers for increased accessibility in confined spaces, high-quality ball bearing steel, induction-hardened cutting edges 63 HRC, anti-glare, scratch-free satin finish, ergonomic multi-component grip coverings with soft, comfortable grip surface, electrically conductive, dissipative. Double leaf springs made of stainless steel, high precision and strength thanks to an overlap joint with screw. Nuts made from hardened alloyed steel. Made in Switzerland.

Order ID	**Length mm**	for soft wire mm	for medium-hard wire mm	**Price €**
447576.0100	**120**	0.1...0.8	0.1...0.4	**46.50**

446765 Electronics diagonal cutters FUTURO

Special tool steel, drop-forged, hardened and tempered, polished, black-oxide finish, handles PVC-dipped, opening spring, round head, **cutting edges with bevels.**

Order ID	**Length mm**	for soft wire mm	for hard wire mm	**Price €**
446765.0100	**110**	0.2...1.5	0.6	**22.50**

446767 Electronics diagonal cutters FUTURO

Special tool steel, drop-forged, hardened and tempered, polished, black-oxide finish, handles PVC-dipped, opening spring, **cutting edges without bevels,** for flush cutting.

Order ID	**Length mm**	for soft wire mm	**Price €**
446767.0100	**110**	0.2...1.5	**23.00**

FUTURO

448320 Micro-hook set FUTURO

5-pieces, for positioning, adjusting, separation of chips, small parts, etc; hexagonal aluminium handles, hook in high-quality stainless steel, in plastic pocket.

Order ID	Parts	Length mm	Price €
448320.0100	**5**	141	26.80

FUTURO

449521 Insulation strippers FUTURO

For thin-wire and solid conductors with PVC insulation, doubly insulated cable in two work steps without special adjustment. No damage to the conductors thanks to special self-adjusting stripping blade; stripping length up to 20 mm; option for partial insulation stripping; automatic ejection of removed insulation; self-opening clamping jaws; integrated cable cutter; fold-out cutting guard; easy blade replacement.

Order ID	for AWG	for strands and conductors mm²	Cutting capacity mm²	Length mm	Price €
449521.0100	28...10	0.08...6	6	190	63.65

FUTURO

449333 Wire strippers VDE FUTURO

1000 V

Made of high-quality tempered tool steel, chrome-plated, precision cutting prism for even cutting of the cable insulation. An easy to use adjusting screw allows the stripping diameter to be set. Opening spring for effortless and sensitive handling of the pliers. **1000-volt insulation**, **VDE-tested**, corresponds to standard DIN EN 60900, with ergonomic two-component grip sleeves.

Order ID		449333.0100
Length	mm	160
for cable Ø	mm	5
for strands and conductors	mm²	10
Price €		20.20

NERIOX

449332 Wire strippers VDE NERIOX

1000 V

Tool steel, polished head, precision cutting prism for even cutting of the cable insulation. An easy to use adjusting screw allows the stripping diameter to be set. Opening spring for effortless and sensitive handling of the pliers. **1000-volt insulation**, **VDE-tested**, corresponds to standard DIN EN 60900, with ergonomic two-component grip sleeves.

Order ID	**Length mm**	for cable Ø mm	for strands and conductors mm²	Price €
449332.0100	**160**	5	10	17.50

448748 Precision tweezer set FUTURO

5-piece, low-carbon austenitic steel, anti-magnetic, good corrosion resistance to most chemicals, salts and acids, supplied in a case with foam insert, Made in Switzerland.

Contents:
448748.0100
1 Precision tweezers 00.SA, 120 mm, straight, strong, flat tips, smooth gripping surface
1 Precision tweezers 2A.SA, 120 mm, straight, rounded tips, smooth gripping surface
1 Precision tweezers 3C.SA, 110 mm, straight, fine tips, smooth gripping surface
1 Precision tweezers 5.SA, 110 mm, straight, extra fine tips, smooth gripping surface
1 Precision tweezers 7.SA, 120 mm, angled, fine tips, smooth gripping surface

Appropriate spare parts:
448732 Precision tweezers FUTURO

Order ID	Parts	Price €
448748.0100	5	111.70

448946 SMD tweezer set FUTURO

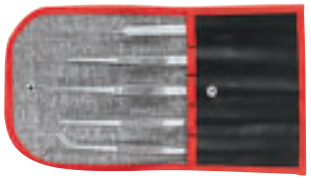
5-piece, low-carbon austenitic steel, anti-magnetic, good corrosion resistance to most chemicals, salts and acids, supplied in a case with foam insert, Made in Switzerland.

Contents:
448946.0100
1 SMD tweezers SM103.SA, 115 mm, for placing components, tips angled at 45°
1 SMD tweezers SM107.SA, 120 mm, for positioning all flat components, tips angled at 60°
1 SMD tweezers SM108.SA, 120 mm, for positioning and soldering 1 mm wide components
1 SMD tweezers SM111.SA, 120 mm, for positioning 5 mm monolithic chip capacitors, flat grooved tips (2 mm long)
1 SMD tweezers SM115.SA, 120 mm, for holding and positioning cylindrical components (up to 0.5 mm in diameter), grooved tips angled at 30°

Appropriate spare parts:
448936 SMD tweezers FUTURO

Order ID	Parts	Price €
448946.0100	5	98.30

448725 Tweezer set NERIOX



5-piece, special stainless steel, inexpensive workshop design, in plastic pocket.

Contents:
448725.0100
1 general-purpose tweezers 150 mm, straight, half-round tips, coarse corrugation on gripping faces
1 general-purpose tweezers 145 mm, straight, half-round tips, fine corrugation on gripping faces
1 general-purpose tweezers 155 mm, with centring pin, straight, fine tips, fine corrugation on gripping faces
1 general-purpose tweezers 155 mm, angled, fine tips, fine corrugation on gripping faces
1 precision tweezers 115 mm, straight, needle tips, smooth gripping faces

Order ID	Tweezers	Price €
448725.0100	5	42.30

448936 SMD tweezers FUTURO

Type SM.SA, easy handling of the smallest SMD components, low-carbon austenitic steel, anti-magnetic, good corrosion resistance to most chemicals, salts and acids, Made in Switzerland.

Designs:
448936.0100 SM103.SA For gripping and positioning small 2- and 3-channel transistor casings, **tips angled at 45°**
448936.0200 SM107.SA For positioning all flat components, **tips angled at 60°**
448936.0300 SM108.SA For positioning and soldering 1 mm wide components
448936.0400 SM111.SA For positioning 5 mm monolithic chip capacitors, **flat grooved tips (2 mm long)**
448936.0500 SM115.SA For holding and positioning cylindrical components (up to 0.5 mm in diameter), **grooved tips angled at 30°**

Suitable for:
448946 SMD tweezer set FUTURO

Order ID	Type	Length mm	Price €
448936.0100	SM103.SA	115	17.00
448936.0200	SM107.SA	120	17.00
448936.0300	SM108.SA	120	17.00
448936.0400	SM111.SA	115	17.00
448936.0500	SM115.SA	115	17.00

NERIOX

448747.0100

448747.0200

448747.0300

448747 Precision tweezers NERIOX ESD

Special stainless steel, antimagnetic, with **ESD coating,** dissipative, smooth gripping faces.

Designs:
448747.0100 00-SA Fine tips, for very fine assembly work
448747.0200 AA-SA Strong tips, for general assembly work
448747.0300 RR-SA Very strong tips, for demanding work

Order ID	Type	Length mm	Price €
448747.0100	**00-SA**	120	11.80
448747.0200	**AA-SA**	127	11.80
448747.0300	**RR-SA**	140	12.40

NERIOX

448767.0100

448767.0200

448767 Precision tweezers NERIOX ESD

Special stainless steel, antimagnetic, **with ESD coating,** dissipative.

Designs:
448767.0100 5-SA Straight, very fine tips
448767.0200 7-SA Curved, very fine tips

Order ID	Type	Length mm	Price €
448767.0100	**5-SA**	115	11.80
448767.0200	**7-SA**	120	12.40

NERIOX

448625 Tweezers NERIOX

Special stainless steel, **fine tips with corrugated gripping faces,** inexpensive workshop design.

Order ID	Length mm	Price €
448625.0100	**115**	6.20

NERIOX

448655 Tweezers NERIOX

Special stainless steel, **half-round, corrugated tips**, inexpensive workshop design.

Order ID	Length mm	Price €
448655.0100	**130**	5.10
448655.0200	**155**	6.50
448655.0300	**200**	10.40

NERIOX

448665 Tweezers NERIOX

Special stainless steel, **half-round, corrugated tips, PVC-coated** up to the tip, inexpensive workshop design.

Order ID	Length mm	Price €
448665.0100	**145**	11.80

NERIOX

448695 Tweezers NERIOX

Special stainless steel, with centring pin, angled tips, corrugated gripping faces, inexpensive workshop design.

Order ID	Length mm	Price €
448695.0100	**115**	6.20
448695.0200	**150**	7.30

NERIOX

448715 Tweezers NERIOX

Special stainless steel, bent tips, PVC-coated up to the tip, inexpensive workshop design.

Order ID	Length mm	Price €
448715.0100	**150**	13.30

NERIOX

446465 Fitting pliers NERIOX

Special stainless steel, polished, clamping scissors for all-purpose use, for gripping all kinds of small parts firmly, with locking catch, fine teeth on inside surfaces.

Order ID	Length mm	Jaw length mm	Price €
446465.0100	**160**	75	13.10

448732 Precision tweezers FUTURO

448732.0100
448732.0200
448732.0300
448732.0400
448732.0500
448732.0600
448732.0700

Type SA, low-carbon austenitic steel, anti-magnetic, good corrosion resistance to most chemicals, salts and acids, Made in Switzerland.

Designs:
448732.0100 00.SA Straight, strong, flat tips, smooth gripping surface
448732.0200 2A.SA Straight, rounded tips, smooth gripping surface
448732.0300 3C.SA Straight, fine tips, smooth gripping surface
448732.0400 5.SA Straight, extra fine tips, smooth gripping surface
448732.0500 7.SA Angled, fine tips, smooth gripping surface
448732.0600 AA.SA Straight, fine tips, smooth gripping surface, conical jaws with bevelled edges
448732.0700 SS.SA Straight, extra fine tips, smooth gripping surface

Suitable for:
448748 Precision tweezer set FUTURO

Order ID	Type	Length mm	Price €
448732.0100	**00.SA**	120	**17.20**
448732.0200	**2A.SA**	120	**17.20**
448732.0300	**3C.SA**	110	**17.30**
448732.0400	**5.SA**	110	**20.50**
448732.0500	**7.SA**	120	**21.90**
448732.0600	**AA.SA**	130	**10.00**
448732.0700	**SS.SA**	140	**17.30**

448772 Precision tweezers FUTURO

448772.0100
448772.0200
448772.0300
448772.0400
448772.0500

Type CFR.SA, tweezers developed specifically for the electronics industry, significant cost savings with **interchangeable, durable and self-aligning replacement tips** made of polyamide, reinforced with carbon fibre, anti-magnetic stainless steel handles, ideally suited to handling sensitive electronic components, as well as ceramic and glass parts where non-metallic scratching is not critical, Made in Switzerland.

Designs:
448772.0100 249CFR.SA straight, strong, wide tips
448772.0200 259CFR.SA Straight, strong, fine tips
448772.0300 2ACFR.SA Straight, half-round tips
448772.0400 5CFR.SA Straight, very fine tips
448772.0500 7CFR.SA Angled, very fine tips
448772.0600 00CFR.SA Straight, thick, square tips
448772.0700 3CFR.SA Straight, pointed, fine tips
448772.0800 246CFR.SA thin, 45° angled head

Appropriate accessories:
448784 Set of replacement tips FUTURO

Appropriate spare parts:
448784 Set of replacement tips FUTURO

Order ID	Type	Length mm	Price €
448772.0100	**249CFR.SA**	130	**20.70**
448772.0200	**259CFR.SA**	130	**20.70**
448772.0300	**2ACFR.SA**	130	**20.70**
448772.0400	**5CFR.SA**	130	**20.70**
448772.0500	**7CFR.SA**	130	**20.70**
448772.0600	**00CFR.SA**	130	**19.70**
448772.0700	**3CFR.SA**	130	**19.70**
448772.0800	**246CFR.SA**	125	**19.30**

448735 Precision tweezers NERIOX

448735.0200
448735.0300
448735.0400

Special stainless steel, smooth gripping faces.

Designs:
448735.0200 3-SS Fine tips, for very fine assembly work
448735.0300 AA-SS Strong tips, for general assembly work
448735.0400 RR-SS Very strong tips, for demanding work

Order ID	Type	Length mm	Price €
448735.0200	**3-SS**	115	**9.00**
448735.0300	**AA-SS**	125	**8.10**
448735.0400	**RR-SS**	140	**10.50**

NERIOX

448742 Precision tweezers NERIOX

Special stainless steel, antimagnetic, smooth gripping faces.

Designs:
448742.0100 00-SA Fine tips, for very fine assembly work

Order ID	Type	Length mm	Price €
448742.0100	**00-SA**	120	9.00

NERIOX

448775 Cross jaw tweezers NERIOX

Special stainless steel, flat, trapezoidal tip, corrugated gripping faces.

Order ID	Length mm	Price €
448775.0100	**160**	18.00

FUTURO

448784.0100 448784.0200

448784.0300 448784.0400

448784.0500

448784 Set of replacement tips FUTURO

Type CF, polyamide replacement tips reinforced with carbon fibre material, heat-stabilised, very high tensile and bending strength, low friction, self-lubricating properties, good chemical resistance to oils, greases, fuels and non-polar solvents, not resistant to strong acids, alkalis and heat. **Includes three mounting screws per pair.**

Designs:
448784.0100 A249CF straight, strong, wide tips
448784.0200 A259CF Straight, strong, fine tips
448784.0300 A2ACF Straight, half-round tips
448784.0400 A5CF Straight, very fine tips
448784.0500 A7CF Angled, very fine tips
448784.0600 A00CF Straight, thick, square tips
448784.0700 A3CF Straight, pointed, fine tips
448784.0800 A246CF thin, 45° angled head

Usable with:
448772 Precision tweezers FUTURO

Suitable for:
448772 Precision tweezers FUTURO

Order ID	Type	Length mm	Price €
448784.0100	**A249CF**	40	6.30
448784.0200	**A259CF**	40	6.30
448784.0300	**A2ACF**	40	6.30
448784.0400	**A5CF**	40	6.30
448784.0500	**A7CF**	40	6.30
448784.0600	**A00CF**	40	6.20
448784.0700	**A3CF**	40	6.20
448784.0800	**A246CF**	36	5.90

452030 Cross pein hammer FUTURO

DIN 1041, GS tested, painted head, face and pein fine-ground, with steel handle protection sleeve and double-cambered hickory handle, FSC-certified.

Appropriate spare parts:
452805 Hickory handle

Order ID	Weight g	Price €	Order ID	Weight g	Price €
452030.0100	200	7.25	452030.0500	800	13.67
452030.0200	300	8.17	452030.0600	1000	14.92
452030.0300	400	9.00	452030.0700	1500	18.08
452030.0400	500	10.17	452030.0800	2000	20.00

452071 Cross pein hammer FUTURO

DIN 1041, GS tested, painted head, face and pein fine-ground, with unbreakable fibreglass handle.

500

Order ID	Weight g	Price €	Order ID	Weight g	Price €
452071.0100	300	8.08	452071.0200	500	9.25

452021 Cross pein hammer NERIOX

DIN 1041, GS-tested, painted head, face and pein fine-ground, with cambered hickory handle, FSC-certified.

Order ID	Weight g	Price €	Order ID	Weight g	Price €
452021.0100	100	3.83	452021.0500	500	5.33
452021.0200	200	4.25	452021.0600	600	6.25
452021.0300	300	4.83	452021.0700	800	7.08
452021.0400	400	5.08	452021.0800	1000	7.75

452118 Club hammer FUTURO

DIN 6475, GS-tested, with steel handle protection sleeve and cambered hickory handle, FSC-certified.

Appropriate spare parts:
452820 Handles for club hammers

Order ID	Weight g	Price €	Order ID	Weight g	Price €
452118.0100	1000	11.17	452118.0200	1500	14.25

452125 Club hammer FUTURO with fibreglass handle

DIN 6475, GS tested with unbreakable fibreglass handle.

452125.0100

Order ID	Weight g	Price €	Order ID	Weight g	Price €
452125.0100	1000	10.42	452125.0200	1500	12.83

452121 Club hammer NERIOX

DIN 6475, with cambered handle.

Order ID	Weight g	Price €	Order ID	Weight g	Price €
452121.0100	1000	8.25	452121.0300	2000	11.08
452121.0200	1500	9.83			

452661 Copper hammer FUTURO

Ground on all sides, with hickory handle.

Order ID	Weight g	Price €	Order ID	Weight g	Price €
452661.0100	250	13.70	452661.0500	1500	55.10
452661.0200	500	20.95	452661.0600	2000	75.25
452661.0300	750	28.25	452661.0700	2500	99.00
452661.0400	1000	38.25			

623069 Steel roofing hammer FUTURO

Polished hammer head with ribbed handle, nail puller and nail plug. One-piece forged shaft with two-component plastic handle.

Order ID	Headweight g	Weight	Length mm	Version	Price €
623069.0100	600	Gesamt ca. 1.1 kg	335	with magnet	23.80

623021 Roofing hammer with magnet FUTURO

With chrome-plated steel handle and rubber grip

Order ID	Headweight g	Length mm	Price €
623021.0100	600	320	7.60

623067 Roofing hammer with fibreglass handle FUTURO

Roofing hammer with magnet, black-coated hammer head, ribbed handle, fibreglass handle with two-component plastic grip.

Order ID	Headweight g	Weight	Length mm	Version	Price €
623067.0100	600	Gesamt 900 g	335	with magnet	12.00

623068 Plasterer's hatchet with steel shaft FUTURO

With tubular steel shaft and plastic coating, nail puller and nail plug.

Order ID	Weight g	Weight	Length mm	Price €
623068.0100	600	Gesamt ca. 780 gr	320	9.60

454305 Flat chisel FUTURO

DIN 6453, in chrome-vanadium air-hardening steel, flat oval, fully tempered, polished chisel tip. Impact head tempering to DIN standard largely eliminates chipping and bulge formation.

Order ID	**Edge width mm**	Length mm	Shaft thickness mm	Price €
454305.0100	**15**	125	17x11	2.90
454305.0200	**18**	150	17x11	3.20
454305.0300	**21**	175	20x12	3.85
454305.0400	**24**	200	23x13	4.35
454305.0500	**27**	350	23x13	7.55
454305.0600	**30**	500	26x13	10.05

454325 Cross-cut chisel FUTURO

DIN 6451, in chrome-vanadium air-hardening steel, flat oval, fully tempered, polished chisel tip. Impact head tempering to DIN standard largely eliminates chipping and bulge formation.

Order ID	**Edge width mm**	Length mm	Shaft thickness mm	Price €
454325.0100	**4**	100	14x9	3.10
454325.0200	**5**	125	17x11	3.40
454325.0300	**6**	150	17x11	3.85
454325.0400	**7**	175	17x11	4.45
454325.0500	**8**	200	20x12	4.75
454325.0600	**9**	250	23x13	6.00

454395 Electrician's chisel FUTURO

In chrome-vanadium air-hardening steel, octagonal shank, fully tempered, polished chisel tip. Impact head tempering to DIN standard largely eliminates chipping and bulge formation.

Order ID	**Edge width mm**	Length mm	Shaft thickness mm	Price €
454395.0100	**10**	250	8	2.55
454395.0200	**12**	250	10	2.85
454395.0300	**14**	250	12	3.10

454571 Grooving chisel FUTURO

Like **DIN 6455,** in chrome-vanadium air-hardening steel, octagonal shank, fully tempered, polished chisel tip. Impact head tempering to DIN standard largely eliminates chipping and bulge formation.

Order ID	**Edge width mm**	Length mm	Shaft thickness mm	Price €
454571.0100	**2**	150	10	5.20
454571.0200	**3**	150	10	5.20
454571.0300	**4**	150	10	5.20
454571.0400	**5**	150	12	5.20
454571.0500	**6**	150	12	5.20

454581 Brick chisel FUTURO

DIN 7254 B, in chrome-vanadium air-hardening steel, octagonal shank, fully tempered, polished chisel tip. Impact head tempering to DIN standard largely eliminates chipping and bulge formation.

Order ID	**Edge width mm**	Length mm	Shaft thickness mm	Price €
454581.0100	**26**	300	18	5.70
454581.0200	**30**	400	20	7.65

454591 Point chisel FUTURO

DIN 7256 B, in chrome-vanadium air-hardening steel, octagonal shank, fully tempered, polished chisel tip. Impact head tempering to DIN standard largely eliminates chipping and bulge formation.

Order ID	**Length mm**	Shaft thickness mm	Price €
454591.0100	**300**	18	5.35

453050 Taper punch set FUTURO

Set of 5 taper punches Ø 1...5 mm and 1 centre punch size 4, in plastic holder. In chrome-vanadium air-hardening steel, octagonal shank, fully tempered, ground and polished, rounded edges. Impact head tempering to DIN standard largely eliminates chipping and bulge formation.

Order ID	Size	Price €
453050.0100	**1, 2, 3, 4, 5**	**8.45**

453045 Taper punch FUTURO

DIN 6458 B, in chrome-vanadium air-hardening steel, octagonal shank, fully tempered, ground and polished, rounded edges. Impact head tempering to DIN standard largely eliminates chipping and bulge formation.

Order ID	Ø mm	Length mm	Shaft thickness mm	Price €
453045.0100	**1**	120	10	**1.30**
453045.0200	**2**	120	10	**1.30**
453045.0300	**3**	120	10	**1.30**
453045.0400	**4**	120	10	**1.30**
453045.0500	**5**	120	10	**1.30**
453045.0600	**6**	120	10	**1.30**
453045.0700	**8**	120	10	**1.30**

453480 Parallel pin punch set FUTURO

Set of 6 parallel pin punches in plastic holder. **DIN 6450,** in chrome-vanadium air-hardening steel, octagonal shank, fully tempered, ground and polished, rounded edges. Impact head tempering to DIN standard largely eliminates chipping and bulge formation.

Order ID	Size mm	Price €
453480.0100	3 4 5 6 8 10	13.50

453475 Parallel pin punch FUTURO

DIN 6450, in chrome-vanadium air-hardening steel, octagonal shank, fully tempered, ground and polished, rounded edges. Impact head tempering to DIN standard largely eliminates chipping and bulge formation.

Order ID	Ø mm	Mandrel length mm	Length mm	Shaft thickness mm	Price €	Order ID	Ø mm	Mandrel length mm	Length mm	Shaft thickness mm	Price €
453475.0100	2	30	150	10	2.00	453475.0700	7	50	150	10	2.30
453475.0200	2.5	30	150	10	2.00	453475.0800	8	50	150	10	2.30
453475.0300	3	40	150	10	2.00	453475.0900	9	50	150	12	2.30
453475.0400	4	50	150	10	2.00	453475.1000	10	50	150	14	2.95
453475.0500	5	50	150	10	2.00	453475.1100	12	50	150	14	2.95
453475.0600	6	50	150	10	2.00	453475.1200	14	50	150	16	3.55

453521 Set of parallel pin punches with guide sleeve FUTURO

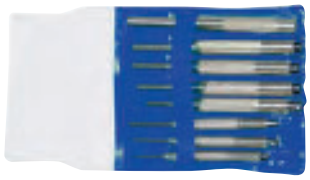
in plastic holder, made of chrome-vanadium steel, zinc chromated, guide sleeve knurled, punch pin hardened. Ø 0.9 to 3.9 mm with loose guide sleeve, Ø 5.9 mm with fixed sleeve.

Order ID	Ø mm	Price €
453521.0100	0.9 1.4 1.8 2.4 2.8 3.4 3.9 5.9	18.50

453541 Set of parallel pin punches with guide sleeve FUTURO

in plastic pocket. Chrome-vanadium steel, zinc chromated, guide sleeve knurled, punch pin hardened. Ø 0.9 to 4.9 mm with loose guide sleeve, Ø 5.9 mm with fixed sleeve.

Order ID	Ø mm	Price €
453541.0100	0.9 1.4 1.8 2.4 2.8 3.4 3.9 5.9	19.20



453491 Parallel pin punch with guide sleeve FUTURO

Chrome-vanadium steel, zinc chromated, guide sleeve knurled, punch pin hardened. Ø 0.9 to 4.9 mm with loose guide sleeve, Ø 5.9 mm with fixed sleeve.

Order ID	Ø mm	Price €	Order ID	Ø mm	Price €
453491.0100	0.9	1.95	453491.0500	2.8	2.35
453491.0200	1.4	1.95	453491.0600	3.4	2.35
453491.0300	1.8	2.10	453491.0700	3.9	2.35
453491.0400	2.4	2.10	453491.0900	5.9	2.35

453631 Rivet die FUTURO

DIN 6435, in chrome-vanadium air-hardening steel, for rivets to DIN 660. Octagonal shank, fully tempered, ground and polished. Impact head tempering to DIN standard largely eliminates chipping and bulge formation.

Order ID	for Ø	Price €	Order ID	for Ø	Price €
453631.0100	2	2.35	453631.0400	5	3.75
453631.0200	3	2.35	453631.0500	6	4.20
453631.0300	4	2.70			

453641 Rivet setter FUTURO

DIN 6434, in chrome-vanadium air-hardening steel, suitable for rivets to DIN 660, 661, 662 and 674. Octagonal shank, fully tempered, ground and polished. Impact head tempering to DIN standard largely eliminates chipping and bulge formation.

Order ID	for Ø	Ø Hole mm	Price €	Order ID	for Ø	Ø Hole mm	Price €
453641.0100	2	2.5	2.20	453641.0400	5	6	3.40
453641.0200	3	3.5	2.20	453641.0500	6	7	3.65
453641.0300	4	4.5	2.35				

454025 Centre punch FUTURO

DIN 7250, in chrome-vanadium air-hardening steel, octagonal shank, fully tempered, ground and polished. Impact head tempering to DIN standard largely eliminates chipping and bulge formation.

Order ID	Ø mm	Length mm	Shaft thickness mm	Price €
454025.0100	3	100	8	1.15
454025.0200	4	120	10	1.25
454025.0300	5	120	10	1.25

454182 Replacement centre punch tip FUTURO

Order ID	for Ø mm	Price €
454182.0100	6...8	3.85
454182.0200	8...11	3.85
454182.0300	11...16	3.85

454110 Automatic centre punch FUTURO

In free-machining steel, nickel-plated, self-impacting, precision model, with interchangeable hardened tip, adjustable impact force.

Order ID	Length mm	Impact strength kg	Price €
454110.0150	125	6...13	15.90
454110.0200	130	18...25	17.20

454115 Replacement centre punch tips FUTURO

Suitable for:
454110 Automatic centre punch FUTURO

Order ID	Ø mm	Price €
454115.0150	4	3.30
454115.0200	6	4.00

454030 Centre punch with carbide tip FUTURO

in chrome-vanadium steel.

Order ID	Size	Length mm	Shaft thickness mm	Price €
454030.0100	3	120	10	6.75

456061 Crown scissors FUTURO

Nickel-plated, **straight** blades.

Order ID	Length mm	Price €
456061.0100	**115**	**8.10**

456101 Jeweller's scissors FUTURO

With straight blades, in special steel, drop forged, hardened, blades polished, handles painted. For cutting thin sheet metal.

Order ID	Length mm	Price €
456101.0100	**175**	**20.20**

455962 Paper scissors NERIOX

Stainless steel, polished.

Order ID	Length mm	Price €
455962.0100	**125**	**3.50**
455962.0200	**150**	**4.50**
455962.0300	**175**	**5.80**

125

150 + 175

455910 Universal cutters NERIOX

Stainless steel blades with fine serration and additional cutter for electric cables with a diameter of up to 2.5 mm, variable opening width for small and large hands, spring and safety lock, ergonomic 2-component handle. Effortlessly cuts paper, cardboard, fabric, sheet metal, plastic, leather etc.

Order ID	Overall length mm	Blade length mm	Price €
455910.0100	**180**	40	**8.30**

Our full range –

GUARANTEED THE RIGHT TOOL FOR EVERY TASK

FUTURO
performance and perfection

NERIOX
YOUR SMARTEST CHOICE

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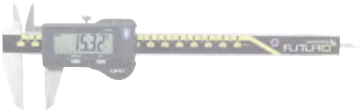
MEASUREMENT TECHNOLOGY  174 – 245

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NERIOX

443260 Water pump pliers NERIOX

Chrome-vanadium steel, Swedish design, **90° angled mouth**, red powder-coated, chrome-plated adjusting nut, polished mouth, additional induction-hardened teeth.

Order ID	Length mm	for tubes up to Ø in	Clamping width mm	Price €
443260.0100	**320**	1	44	**20.60**
443260.0200	**430**	1 1/2	62	**30.30**
443260.0300	**580**	2	76	**49.30**

NERIOX

443265 Water pump pliers NERIOX

Chrome-vanadium steel, Swedish design, **45° angled mouth**, red powder-coated, chrome-plated adjusting nut, polished mouth, additional induction-hardened teeth.

Order ID	Length mm	for tubes up to Ø in	Clamping width mm	Price €
443265.0100	**310**	1	42	**21.00**
443265.0200	**410**	1 1/2	60	**30.30**
443265.0300	**570**	2	70	**50.60**

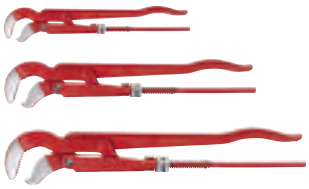
NERIOX

443270 Water pump pliers NERIOX

Chrome-vanadium steel, Swedish design, **S-shape**, red powder-coated, chrome-plated adjusting nut, polished mouth, additional induction-hardened teeth.

Order ID	Length mm	for tubes up to Ø in	Clamping width mm	Price €
443270.0100	**320**	1	42	**23.20**
443270.0200	**430**	1 1/2	60	**33.60**
443270.0300	**570**	2	70	**54.50**
443270.0400	**650**	3	100	**90.10**

NERIOX



443295 Pipe wrench set NERIOX

Set of three wrenches, chrome-vanadium steel, Swedish pattern, **S shape**, red powder-coated, chrome-plated adjusting nut, polished mouth, teeth additionally induction hardened.

Order ID	Parts	Consisting of	Price €
443295.0100	**3**	1 pipe wrench NERIOX, 1" (320 mm), clamping width 42 mm 1 pipe wrench NERIOX, 1 1/2" (430 mm), clamping width 60 mm 1 pipe wrench NERIOX, 2" (570 mm), clamping width 70 mm	**94.00**

460730 Round hole punch NERIOX

Hole punch for steel materials, suitable for manual and hydraulic operation, while a special cutting geometry reduces effort. The division of the waste piece prevents it getting stuck on the tension screw and die. Tension screw not included in the scope of delivery.

Appropriate accessories:
460790 Tension screws NERIOX

Order ID	Ø mm	Size	For steel sheet thickness mm	Thread	Price €
460730.0800	**15.2**	PG9	2	9.5 mm	**33.50**
460730.0100	**16.2**	M16	2	9.5 mm	**33.30**
460730.0900	**18.6**	PG11	2	9.5 mm	**34.20**
460730.0200	**20.4**	M20	2	9.5 mm	**33.30**
460730.1100	**22.5**	PG16	2	9.5 mm	**35.10**
460730.0300	**25.4**	M25	2	9.5 mm	**40.10**
460730.1200	**28.3**	PG21	2	9.5 mm	**40.10**
460730.1700	**30.5**	-	2	9.5 mm	**42.80**
460730.0400	**32.5**	M32	3	19 mm	**49.00**
460730.1300	**37.0**	PG29	3	19 mm	**54.40**
460730.0500	**40.5**	M40	3	19 mm	**55.80**
460730.1800	**43.2**	-	3	19 mm	**70.60**
460730.1400	**47.0**	PG36	3	19 mm	**77.90**
460730.0600	**50.5**	M50	3	19 mm	**96.30**
460730.1500	**54.0**	PG42	3	19 mm	**97.20**
460730.1600	**60.0**	PG48	3	19 mm	**102.60**
460730.1900	**61.5**	-	3	19 mm	**102.60**
460730.0700	**63.5**	M63	3	19 mm	**115.20**

460740 Round hole punch NERIOX

Hole punch for stainless steel material. Suitable for manual and hydraulic operation, high durability, division of waste piece prevents it from getting stuck on the tension screw and in the die. Tension screw not included in the scope of delivery.

Appropriate accessories:
460790 Tension screws NERIOX

Order ID	Ø mm	Size	For VA sheet thickness mm	Thread	Price €
460740.0800	**15.2**	PG9	2	11.1 mm	**84.60**
460740.0100	**16.2**	M16	2	11.1 mm	**87.80**
460740.0900	**18.6**	PG11	2	11.1 mm	**87.30**
460740.0200	**20.4**	M20	2	11.1 mm	**89.50**
460740.1100	**22.5**	PG16	2	11.1 mm	**90.90**
460740.0300	**25.5**	M25	2	11.1 mm	**94.90**
460740.1200	**28.3**	PG21	3	19 mm	**96.30**
460740.1700	**30.5**	-	2	11.1 mm	**95.90**
460740.0400	**32.5**	M32	3	19 mm	**102.60**
460740.1300	**37.0**	PG29	3	19 mm	**108.00**
460740.0500	**40.5**	M40	3	19 mm	**117.90**
460740.1800	**43.2**	-	3	19 mm	**140.40**
460740.1400	**47.0**	PG36	3	19 mm	**139.50**
460740.0600	**50.5**	M50	3	19 mm	**151.20**
460740.1500	**54.0**	PG54	3	19 mm	**162.00**
460740.1600	**60.0**	PG48	3	19 mm	**181.80**
460740.1900	**61.5**	-	3	19 mm	**181.80**
460740.0700	**63.5**	M63	3	19 mm	**178.20**

460750 Square and rectangular hole punch NERIOX

Square hole punch for steel materials. Long service life due to inert gas hardening, CAD-optimized cutting geometry reduces the cutting pressure required. Manual hydraulic device relieves pressure on the seals. **Complete in sturdy plastic case.**

Order ID	Size mm	For steel sheet thickness mm	Application	Price €
460750.0100	**24 x 24**	2.0	Manual and automatic operation	**210.60**
460750.0200	**25.4 x 25.4**	2.0	Manual and automatic operation	**207.00**
460750.0300	**45 x 45**	3.0	Automatic operation	**522.00**
460750.0400	**46 x 46**	3.0	Automatic operation	**522.00**
460750.0500	**68 x 68**	3.0	Automatic operation	**720.00**
460750.0600	**92 x 92**	3.0	Automatic operation	**814.50**
460750.0700	**29 x 71**	2.0	Automatic operation	**607.50**

460760 Rectangular hole punch for heavy duty plug connectors NERIOX

Rectangular holes with **marking heads integrated** into the **die**, to mark the mounting holes. Only for hydraulic operation.

Order ID	Size mm	For steel sheet thickness mm	Application	Price €
460760.0100	**36 x 52**	3.0	Automatic operation	**616.50**
460760.0200	**36 x 65**	3.0	Automatic operation	**679.50**
460760.0300	**36 x 86**	3.0	Automatic operation	**765.00**
460760.0400	**36 x 112**	3.0	Automatic operation	**918.00**

NERIOX

460770 Hole punch set NERIOX

Triple splitter hole punch for **steel material**. Supplied in a plastic box

Order ID	Parts	Scope of delivery	Price €
460770.0100	16	1 hole punch each of PG9/PG11/PG13/PG16/PG21/PG29/PG36/PG42/ PG48/30.5mm, 2 ball bearing screws 9.5 x 50.0 mm, 1 ball bearing screw 19.0 x 55 mm,1 ball bearing screw 19.0 x 75 mm, 1 tube of anti-wear paste, 1 HSS-Co screw starter (multistep drill)	715.50
460770.0200	14	1 hole punch each of M16/M20/M25/M32/M40/M50/M63/PG16, 2 ball bearing screws 9.5 x 50.0 mm, 1 ball bearing screw 19.0 x 55 mm,1 ball bearing screw 19.0 x 75 mm, 1 tube of anti-wear paste, 1 HSS-Co screw starter (multistep drill)	612.00
460770.0300	12	1 hole punch each of M16/M20/M25/M32/M40/PG16, 2 ball bearing screws 9.5 x 50.0 mm, 1 ball bearing screw 19.0 x 55 mm,1 ball bearing screw 19.0 x 75 mm, 1 tube of anti-wear paste, 1 HSS-Co screw starter (multistep drill)	360.00

NERIOX

460780 Hole punch set NERIOX

Double splitter hole punch for **stainless steel material**. Supplied in a plastic box.

Order ID	Parts	Scope of delivery	Price €
460780.0100	14	1 hole punch each of M16/M20/M25/M32/M40/PG16, 1 HSS-Co special drill M12, 1 tube of anti-wear paste, 1 HSS-Co screw starter (multistep drill)	743.60

NERIOX

460790 Tension screws NERIOX

For manually operating the NERIOX hole punches. The ball bearing screw reduces the effort considerably.

Usable with:
460730 Round hole punch NERIOX
460740 Round hole punch NERIOX

Order ID	Size mm	for mm	Application	Price €
460790.0100	**9,5 x 50.0**	12.7 - 31.7	Round punch	12.30
460790.0200	**11.1 x 50.0**		Round punch	27.45
460790.0300	**19.0 x 55.0**	28.3 - 44.0	Round punch	30.35
460790.0400	**19.0 x 75**	47.0 - 82.0	Round punch	40.90

NERIOX

460795 Manual hydraulic unit NERIOX

Small manual punch without hose. With 360° rotating and pivoting cylinder. Suitable for round hole punches up to 82 mm (3 mm steel material/2 mm stainless steel material), square hole punches up to 68 x 68 mm (3 mm steel material/2 mm stainless steel material), rectangular hole punches up to 36 x 112 mm (3 mm steel material/2 mm stainless steel material).

Order ID	Parts	Scope of delivery	Price €
460795.0100	6	1 WAB POWER PUNCH Manual hydraulic unit, 1 hydraulic screw 9.5 x 19.0 mm UNF, 1 hydraulic screw 19.0 x 130.0 mm UNF, 1 spacer bushing, 1 tube of anti-wear paste, 1 HSS-Co screw starter (multistep drill), 1 plastic box	702.00

NERIOX

460800 Cordless hydraulic punch NERIOX

Cordless hydraulic punch with rotating hydraulic cylinder and lithium-ion battery. The work process is monitored electronically and when completed, the cordless hydraulic punch is switched off automatically. Punching capacity (max. plate thickness): diameters up to 63.5 mm (3 mm steel material/2.5 mm stainless steel material), up to 68 x 68 mm (3 mm steel material/1.5 mm stainless steel material), up to 92 x 92 mm (2.5 mm steel material/1.5 mm stainless steel material) greater than 92 x 92 mm up to 138 x 138 mm (2 mm steel material)

Order ID		460800.0100	460800.0200
Hydraulic force	kN	60	60
Battery voltage	V	18	18
Battery capacity	Ah	3	3
Charge Time	min	22	22
Weight	kg	2	2
Scope of delivery		1 hole punch M16 / M20 / M25 / M32 / PG16, 1 plastic case	1 plastic case, **without hole punch**
Price €		2090.90	1890.90

320635 Flat scraper FUTURO

In alloyed tool steel, working faces ground, coated shank, with wooden handle, beaded retaining collar.

Order ID	**Blade length mm**	Blade width mm	Thickness mm	Overall length mm	**Price €**
320635.0100	**150**	20	5	250	**5.20**
320635.0200	**200**	20	5	300	**6.10**
320635.0300	**250**	25	6	350	**6.80**

320602 Three-square incurved scraper FUTURO

DIN 8350 form C, in alloyed tool steel, working faces ground, coated shank, with wooden handle, beaded retaining collar.

Order ID	**Blade length mm**	Blade width mm	Overall length mm	**Price €**
320602.0100	**100**	14	200	**4.75**
320602.0200	**150**	14	250	**5.10**
320602.0300	**200**	16	300	**5.45**

320606 Three-square bearing scraper FUTURO

In alloyed tool steel, working faces ground, coated shank, with wooden handle, beaded retaining collar.

Order ID	**Blade length mm**	Scraper length mm	Blade width mm	Overall length mm	**Price €**
320606.0100	**150**	75	8	250	**5.50**
320606.0200	**200**	95	10	300	**6.20**

320625 Scraper for precision mechanics FUTURO

Three-lipped incurved scraper blade, black plastic handle and plastic protective cap.

Order ID	**Blade length mm**	Overall length mm	Blade width mm	**Price €**
320625.0100	**25**	150	8	**8.50**

457250 Universal scraper NERIOX

Plastic housing and ergonomic two-component handle, supplied with 1 blade.

Appropriate spare parts:
457367 Replacement blades STANLEY

Order ID	**Length mm**	Blade width mm	**Price €**
457250.0100	**100**	38	**2.40**

FUTURO

461700 Universal deburrer FUTURO

Rotating blades P Ø 2.6 mm, for internal and external deburring of metals and plastics.

Appropriate accessories:
461360 Replacement blade FUTURO

Order ID	Designation	Price €
461700.0100	Multi-component handle and replaceable blades, steel holder up to 100 mm extendable for hard-to-reach places; with 1 HSS blade each of P-1, P-2, P-3	19.80

FUTURO

461705 Universal deburrer FUTURO

Rotating blades C Ø 3.2 mm, for internal and external deburring of metals and plastics.

Appropriate accessories:
461380 Replacement blade FUTURO

Order ID	Designation	Price €
461705.0100	Multi-component handle and replaceable blades, steel holder up to 100 mm extendable for hard-to-reach places; with 1 HSS blade each of C-10, C-20, C-30, C-15, C-35	23.90

FUTURO

461710 Universal deburrer FUTURO

Rotating blades C Ø 3.2 mm, for internal and external deburring of metals and plastics.

Appropriate accessories:
461380 Replacement blade FUTURO

Order ID	Designation	Price €
461710.0100	Multi-component handle and replaceable blades that can be stored in the handle, metal blade holder, not extendable; with 1 HSS blade each of C-10, C-20, C-30	16.20

FUTURO

461715 Universal deburrer FUTURO

Rotating blades C Ø 3.2 mm, for internal and external deburring of metals and plastics.

Appropriate accessories:
461380 Replacement blade FUTURO

Order ID	Designation	Price €
461715.0100	Comfort handle with soft sleeve and ergonomic hand rest with ball head, replaceable blades, metal blade holder, with permanently mounted HSS blade C-10	9.50

FUTURO

461720 Universal deburrer FUTURO

Rotating blades R Ø 6 mm, for internal and external deburring of metals and plastics.

Appropriate accessories:
461740 Replacement blade FUTURO

Order ID	Designation	Price €
461720.0100	Multi-component handle and replaceable blades that can be stored in the handle, metal blade holder, not extendable; with 1 HSS blade each of R-10(S) and R-15(S)	21.90

FUTURO

461765 Universal deburrer FUTURO

Rotating blades P Ø 2.6 mm, for internal and external deburring of metals and plastics.

Appropriate accessories:
461360 Replacement blade FUTURO

Order ID	Designation	Price €
461765.0100	Economical deburrer, 12 mm hexagonal handle with steel blade holder, replaceable blades, with 1 HSS blade P-1	7.30

FUTURO

461770 Universal deburrer FUTURO

Rotating blades C Ø 3.2 mm, for internal and external deburring of metals and plastics.

Appropriate accessories:
461380 Replacement blade FUTURO

Order ID	Designation	Price €
461770.0100	Economical deburrer, 12 mm hexagonal handle with steel blade holder, replaceable blades, with 1 HSS blade C-10	9.70

461900 Universal deburrer NERIOX

Rotating blades C Ø 3.2 mm, for internal and external deburring of metals and plastics.

Order ID	Designation	Price €
461900.0100	Hexagonal handle and permanently mounted blade, economical deburrer with powder-coated handle and practical protective cap which not only protects the blade but also serves as an ergonomic handle; **with permanently mounted HSS blade C-10**	4.60
461900.0200	Hexagonal handle and permanently mounted blade, economical deburrer with powder-coated handle and practical protective cap which not only protects the blade but also serves as an ergonomic handle; **with permanently mounted HSS blade C-101**	5.30

461900.0100

461900.0200

461915 Universal deburrer NERIOX

Rotating blades C Ø 3.2 mm, for internal and external deburring of metals and plastics.

Order ID	Designation	Price €
461915.0100	Economical deburrer with comfortable soft grip, permanently mounted blade, with C-101 blade for very fine deburring tasks	4.80

461360 Replacement blade FUTURO

Rotating blades P Ø 2.6 mm, in HSS, for external, internal and key slot deburring.

Usable with:
461010 Universal deburring tool NOGA
461700 Universal deburrer FUTURO
461765 Universal deburrer FUTURO

Order ID	Type	Designation	Price €
461360.0100	**P-1 HSS**	Universal blade for steel, aluminium, copper, plastic, etc. Clockwise rotation	1.40
461360.0200	**P-2 HSS**	For cast iron and brass, works in both directions of rotation	1.40
461360.0300	**P-3 HSS**	Deburrs thin-walled material on the inside and outside in a single operation up to 6 mm material thickness, clockwise rotation	1.70
461360.0500	**P-6 HSS**	for reverse deburring and for hard-to-reach places, direction of rotation right	4.40

P-1 HSS

P-2 HSS

P-3 HSS

P-6 HSS

FUTURO

C-10 HSS

C-15 INOX

C-20 HSS

C-30 HSS

C-30 HSS (L+R)

C-35 HSS

C-60 HSS

C-101 HSS

C-102 STAR

461380 Replacement blade FUTURO

Rotating blades C Ø 3.2 mm, in HSS, for steel and aluminium, for external, internal and keyway deburring.

Usable with:
461025 Universal deburring tool NOGA
461040 Universal deburring tool FUTURO
461705 Universal deburrer FUTURO
461710 Universal deburrer FUTURO
461715 Universal deburrer FUTURO
461735 Hand deburrer set FUTURO
461770 Universal deburrer FUTURO

Order ID	Type	Designation	Price €
461380.0100	**C-10 HSS**	For metals and plastics, for internal and external deburring, clockwise rotation	1.30
461380.0110	**C-10 TIN**	with TiN coating, for hard, tough metals and plastics, for internal and external deburring, direction of rotation right	2.80
461380.0120	**C-10 STAR**	with TiAlN coating for the toughest applications and longest service life when machining metals and plastics, for internal and external deburring, direction of rotation right	4.10
461380.0150	**C-15 INOX**	for INOX and hard plastics, direction of rotation left and right	1.80
461380.0170	**C-15 INOX STAR**	with TiAlN coating for the toughest applications and longest service life when machining stainless steel and hard plastics, for internal and external deburring, direction of rotation left and right	4.50
461380.0200	**C-20 HSS**	for cast iron and brass, works in both directions of rotation	1.30
461380.0220	**C-20 TIN**	with TiN coating, for hard, tough cast iron and brass, works in both directions of rotation	2.70
461380.0250	**C-20 STAR**	with TiAlN coating for the toughest applications and longest service life when machining cast iron and brass, works in both directions of rotation	4.10
461380.0300	**C-30 HSS**	Deburrs thin-walled material on the inside and outside in a single operation, clockwise rotation	1.30
461380.0350	**C-30 HSS (L+R)**	Deburs thin-walled material internally and externally in one step, direction of rotation left and right	2.30
461380.0370	**C-35 HSS**	deburs straight external edges on most materials, direction of rotation left and right	1.80
461380.0380	**C-60 HSS**	for reverse deburring up to a thickness of 20 mm and in hard-to-reach places, direction of rotation right	4.30
461380.0390	**C-101 HSS**	for deburring small holes from 1.5 mm in steel and aluminium	2.10
461380.0400	**C-101 STAR**	for deburring small holes from 1.5 mm in steel and aluminium, long service life with TiAlN coating	4.40
461380.0500	**C-102 STAR**	for deburring small holes from 3 mm in steel and aluminium, long service life with TiAlN coating	4.50

FUTURO

R-10S

R-15S INOX

461740 Replacement blade FUTURO

Rotating blades R Ø 6 mm, made from HSS (M2).

Usable with:
461720 Universal deburrer FUTURO

Order ID	Type	Designation	Price €
461740.0100	**R-10S**	Universal blade extra strong, for particularly tough internal and external deburring applications involving steel, aluminium, copper, zinc etc., direction of rotation right	5.70
461740.0200	**R-15S INOX**	Universal blade extra strong, for particularly tough internal and external deburring applications involving stainless steel, cast iron, brass etc., direction of rotation left and right	6.40

FUTURO

461775 Triangular scraper FUTURO

For metals and plastics.

Appropriate accessories:
461745 Replacement scraper blade FUTURO

Order ID	Designation	Price €
461775.0100	Long-lasting triangular scraper with ergonomic acetal body handle and ball knob, replaceable blades, blade extendable, with 1 triangular scraper Ø 3 x 75 mm	17.20

461905 Triangular scraper NERIOX

For metals and plastics.

Order ID	Designation	Price €
461905.0100	Hexagon handle (9.5 mm) and permanently mounted blade, economical deburrer with powder-coated handle and practical protective cap which not only protects the blade but also serves as an ergonomic handle; with permanently mounted triangular scraper blade 6 mm	13.00

461910 Triangular scraper NERIOX

For metals and plastics.

Order ID	Designation	Price €
461910.0100	Hexagon handle (8 mm) and permanently mounted blade, economical deburrer with powder-coated handle and practical protective cap which not only protects the blade but also serves as an ergonomic handle; with permanently mounted triangular scraper blade 3 mm	9.90

461920 Triangular scraper NERIOX

For metals and plastics.

Order ID	Designation	Price €
461920.0100	Economical triangular scraper with comfortable soft grip, permanently mounted blade, with SCR-3 (50 mm) blade for very fine work	7.90

461745 Replacement scraper blade FUTURO

For triangular scraper, made from HSS.

Usable with:
461775 Triangular scraper FUTURO

Order ID	Type	Designation	Price €
461745.0100	**SCR-3 HSS**	Triangular scraper Ø 3.2 x 75 mm	8.60
461745.0200	**SCR-3 HSS**	Triangular scraper Ø 3.2 x 50 mm	7.90
461745.0300	**SCR-345**	Internal scraper, 45° angled Ø 3.2 x 73 mm	8.20

SCR-3 HSS (75 mm)

SCR-3 HSS (50 mm)

SCR-345

461735 Hand deburrer set FUTURO

Promotional set with rotating blades C Ø 3.2 mm, for internal and external deburring of metals and plastics.

Appropriate accessories:
461380 Replacement blade FUTURO

Order ID	Designation	Price €
461735.0100	Multi-component handle and interchangeable blades, with 2 HSS blades each of C-10, C-20, C-101 and 1 blade each of C-30, C-15, C-35 and C-10(C)	27.50

FUTURO

457170.0100

457170.0200

457170 Universal knife FUTURO

Robust, hardened die-cast zinc housing with ribbed, ergonomic soft-touch handle for safe working, metal blade guide with sliding mechanism, supplied with 1 blade made of high-quality SK2 steel.

Appropriate accessories:
457190 Replacement blades FUTURO

Order ID	**Blade width mm**	Length mm	**Price €**
457170.0100	**9**	133	**3.50**
457170.0200	**18**	155	**5.90**

FUTURO

457180 Universal knife FUTURO

Practical, robust universal knife with manganese steel housing and clip. The multifunction tip can be used e.g. as a staple remover. With blade guide with sliding mechanism, supplied with 1 blade made of high-quality SK2 steel.

Appropriate accessories:
457190 Replacement blades FUTURO

Order ID	**Blade width mm**	Length mm	**Price €**
457180.0100	**9**	140	**2.50**

FUTURO

457185 Universal knife FUTURO

Practical, robust universal knife with hardened die-cast zinc housing and clip. Metal blade guide with sliding mechanism, supplied with 1 blade made of high-quality SK2 steel.

Appropriate accessories:
457190 Replacement blades FUTURO

Order ID	**Blade width mm**	Length mm	**Price €**
457185.0100	**9**	133	**3.30**

NERIOX

457210 Universal knife NERIOX

Plastic housing with ribbed, ergonomic soft-touch handle for safe working, metal blade guide **with blade locking screw**, supplied with 1 blade.

Appropriate accessories:
457195 Replacement blades NERIOX

Order ID	**Blade width mm**	Length mm	**Price €**
457210.0100	**18**	155	**3.20**

NERIOX

457225.0100

457225.0200

457225 Universal knife NERIOX

Plastic housing with ribbed, ergonomic soft-touch handle for safe working, metal blade guide with sliding mechanism, **automatic blade change using integrated cartridge**; up to 3 blades can be stored in the handle, supplied with 3 spare blades.

Appropriate accessories:
457195 Replacement blades NERIOX

Order ID	**Blade width mm**	Length mm	**Price €**
457225.0100	**9**	140	**2.60**
457225.0200	**18**	165	**4.10**

NERIOX

457240.0100

457240.0200

457240 Universal knife NERIOX

Plastic housing with ergonomic soft-touch handle for safe working, metal blade guide with sliding mechanism.

Appropriate accessories:
457195 Replacement blades NERIOX

Order ID	**Blade width mm**	Length mm	**Price €**
457240.0100	**9**	145	**1.90**
457240.0200	**18**	175	**3.00**

FUTURO

457160.0100

457160.0200

457160 Universal safety knife FUTURO

Robust, hardened die-cast zinc housing with ergonomic soft-touch handle for safe working, metal blade guide. **Two-part push-button mechanism**; automatic locking of the blade in the selected position, front button for blade extension without locking, with automatic blade retraction; supplied with 1 blade made of high-quality SK2 steel.

Appropriate accessories:
457190 Replacement blades FUTURO

Order ID	**Blade width mm**	Length mm	**Price €**
457160.0100	**9**	165	**6.20**
457160.0200	**18**	195	**9.90**

457150 Safety knife FUTURO

Robust, hardened die-cast zinc housing with ergonomic soft-touch handle for safe working. **Automatic blade retraction** after each cutting process for maximum safety; faster, tool-less blade changes, supplied with 1 blade made of high-quality SK2 steel.

Appropriate accessories:
457190 Replacement blades FUTURO

Order ID	Length mm	Price €
457150.0100	162	10.70

457245 Safety knife NERIOX

Plastic housing with sliding mechanism, **automatic blade retraction** after releasing slider for maximum work safety, supplied with 1 blade.

Appropriate accessories:
457195 Replacement blades NERIOX

Order ID	Length mm	Price €
457245.0100	145	3.90

457190 Replacement blades FUTURO

Blades made of high-quality SK2 steel with impressive sharpness yet highly robust and flexible. **Pack of 10 blades.**

Usable with:
457150 Safety knife FUTURO
457160 Universal safety knife FUTURO
457170 Universal knife FUTURO
457180 Universal knife FUTURO
457185 Universal knife FUTURO
457260 Universal knife TAJIMA

9 mm

18 mm

19 mm

Order ID	Blade width mm	Price €
457190.0100	9	2.30
457190.0200	18	3.70
457190.0300	19	3.40

457195 Replacement blades NERIOX

Blades made of SK5 steel, **pack of 10 blades.**

Usable with:
457210 Universal knife NERIOX
457225 Universal knife NERIOX
457240 Universal knife NERIOX
457245 Safety knife NERIOX
457260 Universal knife TAJIMA

9 mm

18 mm

19 mm

Order ID	Blade width mm	Price €
457195.0100	9	1.90
457195.0200	18	2.60
457195.0300	19	2.30

NERIOX

457495 Scalpel NERIOX

Scoring and cutting knife, for fine work, stainless, with 1 blade type 10.

Appropriate accessories:
457505 Scalpel blades NERIOX
457510 Scalpel blade MARTOR

Order ID	Length mm	Price €
457495.0100	125	5.40

NERIOX

457505.0100

457505.0200

457505.0300

457505.0400

457505 Scalpel blades NERIOX

Packs of 10 blades.

Usable with:
457495 Scalpel NERIOX

Order ID	Type	Price €
457505.0100	10	7.30
457505.0200	11	7.30
457505.0300	12	7.30
457505.0400	15	7.30

419620 Screw clamp FUTURO

FUTURO

Robust malleable cast iron screw clamp with a clamping force of up to 5500 N, stable hollow profile rail with fluting, high-quality and ergonomic two-component handle for high force transmission, protective caps on the clamping surfaces.

Order ID	**Clamping width mm**	**Capacity mm**	Rail mm	**Price €**
419620.0100	**120**	**60**	20 x 5	**11.10**
419620.0200	**160**	**80**	25 x 6	**13.70**
419620.0300	**200**	**100**	27 x 7	**18.00**
419620.0400	**250**	**120**	29 x 9	**22.20**
419620.0500	**300**	**120**	29 x 9	**26.60**
419620.0600	**400**	**120**	29 x 9	**30.80**

419524 Bar clamp NERIOX

NERIOX

According to DIN 5117, made of malleable cast iron, **hollow profile rail ribbed on one side,** zinc-plated, spindle black finished, with beechwood handle and plastic protective caps.

Order ID	**Clamping width mm**	Capacity mm	Rail mm	Weight kg	**Price €**
419524.0100	**120**	50	15 x 5	0.56	**6.00**
419524.0200	**160**	80	25 x 6	0.76	**12.30**
419524.0300	**200**	100	27 x 7	1.38	**17.30**
419524.0400	**250**	120	30 x 8	1.62	**20.90**
419524.0500	**300**	100	27 x 7	1.36	**18.30**
419524.0600	**300**	140	32 x 10	2.3	**25.80**
419524.0700	**400**	120	30 x 8	2.85	**24.90**
419524.0800	**400**	175	32 x 10	2.87	**31.40**
419524.0900	**500**	120	35 x 11	3	**31.50**
419524.1000	**500**	175	32 x 10	3	**31.90**
419524.1100	**600**	120	35 x 11	3.28	**33.40**

419625 All-steel screw clamp FUTURO

FUTURO

Robust all-steel screw clamp with a clamping force of up to 5000 N, tempered sliding and fixed clamp for spring and elastic clamping, high-quality and ergonomic two-component handle for high force transmission.

Order ID	**Clamping width mm**	**Capacity mm**	Rail mm	**Price €**
419625.0100	**120**	**60**	13.5 x 6.5	**14.50**
419625.0200	**160**	**80**	16 x 7.5	**17.10**
419625.0300	**200**	**100**	19.5 x 9.5	**23.20**
419625.0400	**250**	**120**	22 x 10.5	**28.30**
419625.0500	**300**	**120**	25 x 12	**34.30**
419625.0600	**400**	**120**	25 x 12	**40.30**

419538 All-steel bar clamp NERIOX

NERIOX

Made of steel, hardened and tempered, sliding clamp die-forged, bright zinc-plated, spindle with black finished.

Order ID	**Clamping width mm**	Capacity mm	Rail mm	Weight kg	**Price €**
419538.0100	**120**	60	13.5 x 6.5	0.3	**11.90**
419538.0200	**160**	80	16 x 7.5	0.5	**13.60**
419538.0300	**200**	100	19.5 x 9.5	0.9	**17.70**
419538.0400	**250**	120	19.5 x 9.5	1.3	**24.00**
419538.0500	**300**	140	25 x 12	1.8	**26.20**
419538.0600	**400**	120	25 x 12	1.9	**28.50**

FUTURO

413970 Workbench vice FUTURO

Parallel vice, opens to the rear, made using the special casting process. Ideal as a standard workbench vice with a high level of clamping accuracy. Interchangeable serrated jaws with a hardened surface. Long prismatic precision guide. Stable, concealed spindle bearing protects against dirt. Smooth-running spindle with trapezoidal thread ensures the jaws open extra rapidly. Machined anvil surface.

Appropriate accessories:
413882 Vice jaws
413975 Swivel plate FUTURO
413980 Vice lift FUTURO
413985 Replacement jaws FUTURO

Order ID	Jaw width mm	Clamping width mm	Weight kg	Price €
413970.0100	**80**	110	6	**152.30**
413970.0200	**100**	140	11	**209.00**
413970.0300	**120**	185	18	**257.30**
413970.0400	**150**	220	25	**314.00**

FUTURO

413980 Vice lift FUTURO

Suitable for workbench vice FUTURO.

Usable with:
413970 Workbench vice FUTURO

Order ID	for type	Price €
413980.0100	**80 mm**	**251.00**
413980.0200	**100 mm**	**251.00**
413980.0300	**120 mm**	**251.00**
413980.0400	**150 mm**	**251.00**

FUTURO

413985 Replacement jaws FUTURO

In pairs, suitable for workbench vices FUTURO.

Designs:
413985.0100...**413985.0400**: smooth
413985.0500...**413985.0800**: serrated

Usable with:
413970 Workbench vice FUTURO

Order ID	Jaw width mm	Price €
413985.0100	**80**	**35.20**
413985.0200	**100**	**41.60**
413985.0300	**120**	**51.70**
413985.0400	**150**	**60.50**
413985.0500	**80**	**35.20**
413985.0600	**100**	**41.60**
413985.0700	**120**	**51.70**
413985.0800	**150**	**60.50**

FUTURO

413975 Swivel plate FUTURO

Suitable for workbench vice FUTURO.

Usable with:
413970 Workbench vice FUTURO

Order ID	for type	Weight kg	Price €
413975.0100	**80 mm**	2.5	**68.30**
413975.0200	**100 mm**	4.0	**131.30**
413975.0300	**120 mm**	5.5	**155.40**
413975.0400	**150 mm**	8.0	**199.50**

NERIOX

413640 Workbench vice NERIOX

Parallel vice that opens forwards, made from unbreakable forged steel. Serrated jaws with a hardened surface (cannot be interchanged). Heavy-duty guide spindle with trapezoidal thread. The guide spindle and guides are protected from dirt. With adjusting screws and broad, induction-hardened anvil.

Appropriate accessories:
413645 Swivel plate NERIOX
413650 Pipe clamping jaws NERIOX
413655 Vice lift NERIOX
413882 Vice jaws

Order ID	Jaw width mm	Clamping width mm	Weight kg	Price €
413640.0100	**100**	125	7	**103.00**
413640.0200	**125**	150	11	**123.80**
413640.0300	**150**	200	17	**186.20**
413640.0400	**175**	220	26	**254.80**

413645 Swivel plate NERIOX

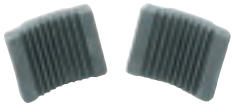
Suitable for workbench vice NERIOX.

Usable with:
413640 Workbench vice NERIOX

Order ID	for type	Weight kg	Price €
413645.0100	**100 mm**	1.4	**33.30**
413645.0200	**125 mm**	2.0	**40.60**
413645.0300	**150 mm**	2.8	**51.00**
413645.0400	**175 mm**	4.0	**61.40**

413650 Pipe clamping jaws NERIOX

In pairs, suitable for workbench vice NERIOX.



Usable with:
413640 Workbench vice NERIOX

Order ID	for type	Price €
413650.0100	**100 mm**	**17.70**
413650.0200	**125 mm**	**17.70**
413650.0300	**150 mm**	**20.70**
413650.0400	**175 mm**	**20.70**

413655 Vice lift NERIOX

Suitable for workbench vice NERIOX.

Usable with:
413640 Workbench vice NERIOX

Order ID	for type	Price €
413655.0100	**100 mm**	**244.40**
413655.0200	**125 mm**	**244.40**
413655.0300	**150 mm**	**254.80**
413655.0400	**175 mm**	**254.80**

NERIOX

413850 Workbench vice NERIOX

Parallel vice that opens forwards, made from unbreakable forged steel. Serrated jaws with a hardened surface, plus **fixed pipe clamping jaws** below the normal jaws. Heavy-duty guide spindle with trapezoidal thread. Adjustable double V-shaped guide. The guide spindle and guides are protected from dirt. With adjusting screws and broad, induction-hardened anvil.

Designs:
413850.0100: With **fixed** clamping jaws
413850.0200...**413850.0400**: With **interchangeable** clamping jaws

Appropriate accessories:
413855 Swivel plate NERIOX
413860 Vice lift NERIOX
413882 Vice jaws

Order ID	**Jaw width mm**	Clamping width mm	Weight kg	**Price €**
413850.0100	**100**	100	6	**113.40**
413850.0200	**120**	120	11	**182.00**
413850.0300	**140**	180	19	**248.60**
413850.0400	**160**	210	27	**348.40**

NERIOX

413855 Swivel plate NERIOX

Suitable for workbench vice NERIOX.

Usable with:
413850 Workbench vice NERIOX

Order ID	**for type**	Weight kg	**Price €**
413855.0100	**100 mm**	1.5	**36.40**
413855.0200	**120 mm**	2.0	**43.30**
413855.0300	**140 mm**	3.0	**58.10**
413855.0400	**160 mm**	4.0	**67.00**

NERIOX

413860 Vice lift NERIOX

Suitable for workbench vice NERIOX.

Usable with:
413850 Workbench vice NERIOX

Order ID	**for type**	**Price €**
413860.0100	**100 mm**	**234.00**
413860.0200	**120 mm**	**234.00**
413860.0300	**140 mm**	**234.00**
413860.0400	**160 mm**	**244.40**

NERIOX

413865 Replacement jaws NERIOX

In pairs, suitable for workbench vices NERIOX.

Designs:
413865.0100...**413865.0300**: serrated

Suitable for:
413850 Workbench vice NERIOX

Order ID	**Jaw width mm**	**Price €**
413865.0100	**120**	**41.60**
413865.0200	**140**	**46.80**
413865.0300	**160**	**51.00**

557135 Wrecking bar FUTURO

Hexagon, special tool steel, forged, hardened, red powder coated.

Order ID	Length mm	Hexagonal mm	Price €
557135.0100	**800**	18	**8.55**

Our full range –

GUARANTEED THE RIGHT TOOL FOR EVERY TASK

FUTURO
performance and perfection

NERIOX
YOUR SMARTEST CHOICE

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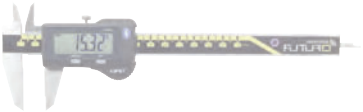
MEASUREMENT TECHNOLOGY  174 – 245

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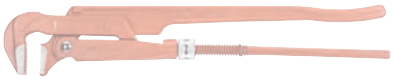
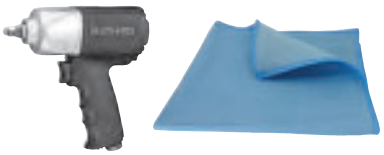
HAND- AND MOUNTING TOOLS  354 – 371

WORKSHOP SUPPLIES  372 – 393

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FUTURO

2100

2101

2102

577250 Air ratchet wrench FUTURO

Universal tool for efficient screw assembly, also for work in hard-to-reach areas; adjustable for clockwise/anticlockwise operation. Cold-insulated soft handle, air exhaust and air supply connection can be rotated 360°. Must be operated with oiled air.

Designs:
2100: **with speed control**

Appropriate accessories:
870000 Service unit CEJN, 870005 Service unit CEJN

Order ID		577250.0100	577250.0200	577250.0300
Type		**2100**	**2101**	**2102**
Square drive		1/4"	3/8"	1/2"
Screw size		M8	M10	M10
Working range	Nm	3...25	5...70	5...70
Total length	mm	200	270	270
Idle speed	min^{-1}	220	180	180
Sound pressure level	dB(A)	82	84	84
Air consumption	l/min	490	490	490
Hose width	mm	8	10	10
Threaded connection		1/4" BSP	1/4" BSP	1/4" BSP
Weight	kg	0.6	1.3	1.3
Price €		**276.90**	**325.90**	**349.50**

FUTURO

1111

577400 Air impact wrench FUTURO

Optimal impact mechanism (twin clutch) for maximum reliability and added power with low weight; adjustable torque; reversible clockwise/anticlockwise; with comfort handle, reduces vibrations and insulates against cold. 4-step impact strength control.

Order ID		577400.0450	577400.0550
Type		**1203**	**1205**
Screw size		M16	M24
Torque max.	Nm	815	1625
Opt. working range	Nm	50...500	270...900
Square drive		1/2"	3/4"
Idle speed	min^{-1}	7000	6000
Air consumption	l/min	492	546
Sound pressure level	dB(A)	83	90
Threaded connection		G 1/4"	3/8"
Hose width	mm	10	13
Length	mm	185	210
Weight	kg	2.5	3.6
Price €		**288.70**	**643.10**

FUTURO

G 852 D

575125 Air die grinder FUTURO

with rotary valve for longer work phases, **tool-and-die-maker version,** for fine machining, for finishing, deburring, etc. High-revs, light, handy, silent and cold-insulated. High concentric accuracy, air exits to the rear with integrated noise damping. Must be operated with oiled air. Supplied with hose unit and plug-in nipple to European standard (Cejn 320).

Appropriate accessories:
870000 Service unit CEJN
870005 Service unit CEJN

Order ID		575125.0120	575125.0200
Type		**G 813 D**	**G551 D**
Idle speed	min^{-1}	80 000	55 000
Ø x length	mm	18 x 120	15 x 123
Power	W	100	100
HM rotary cutter Ø	mm	4	6
Mounted points Ø	mm	6	8
Collet chuck type / Ø	mm	ZG 5 / 3	ZG 5 / 3
Sound pressure level	dB(A)	76	73
Air consumption	l/min	120	120
Weight	kg	0.2	0.45
Price €		**652.90**	**598.90**

575045 Oil-free air turbine grinder FUTURO

with rotary valve, oil-free. Elastic spindle bearing, without wearing parts in the drive. For **fine machining**, for finishing, deburring, etc.; high-revs, light, quiet, ergonomic housing shape, high concentric accuracy, exhaust free of oil mist, maintenance-friendly (no blade replacement)**.** Supplied together with hose unit and plug-in nipple to European standard (Cejn 320).

Designs:
575045.0100 GTV 1000: Exhaust to the front
575045.0200 GTK 1000...**575045.0400 GTK 652 D**: Exhaust to the rear, with governor and fast-stop brake

Appropriate accessories:
870005 Service unit CEJN, 870010 Service unit CEJN

Order ID		575045.0100	575045.0200	575045.0300	575045.0400
Type		**GTV 1000**	**GTK 1000**	**GT 652 D**	**GTK 652 D**
Idle speed	min^{-1}	100 000	80 000	65 000	65 000
Power	W	100	100	70	70
HM rotary cutter Ø	mm	3	3	4	4
Ø x length	mm	30 x 120	22 x 131	17 x 173	22 x 135
Mounted points Ø	mm	5	5	6	6
Collet chuck type / Ø	mm	ZG 5 / 3	ZG 5 / 3	ZG 5 / 3	ZG 5 / 3
Sound pressure level	dB(A)	70	65	65...67	65...67
Air consumption	l/min	318	270	210	210
Weight	kg	0.21	0.19	0.27	0.27
Price €		**726.50**	**741.30**	**741.30**	**741.30**

GTV 1000

GTK 1000 / GTK 652 D

GT 652 D

575325 Air angle grinder FUTURO

Light and handy, long service life, compact size for work in tight spaces. Built-in speed control, exhaust towards rear, safety lever valve. Must be operated with oiled air.

Appropriate accessories:
870000 Service unit CEJN, 870005 Service unit CEJN

Order ID		575325.0100
Type		**4100**
Idle speed	min^{-1}	20 000
Power	W	200
Collet chuck type / Ø	mm	6
for discs up to Ø	mm	75
Mounted points Ø	mm	24
HM rotary cutter Ø	mm	12
Air consumption	l/min	510
Sound pressure level	dB(A)	82
Threaded connection		G 1/4"
Hose width	mm	8
Weight	kg	0.55
Price €		**314.20**

575502 Collet chuck FUTURO

Suitable for:
575325 Air angle grinder FUTURO

Order ID	Ø mm	Price €
575502.0100	**6**	**54.00**

FUTURO

561172 LED torch FUTURO

High light output with SAMSUNG LED chip, 2 light modes (Low Power/High Power). **Angled lamp head, clip and a strong magnetic base for versatile use as torch and work light**. Splash proof, extremely robust aluminium housing, can withstand falls from up to 1 meter in height. The rubberised application on the handle, the on/off switch and the magnetic base reduce the risk of scratching delicate surfaces and ensure optimal grip even with wet or oily hands.

Appropriate batteries:
2 pieces 155050.0400 - LR03 / 1.5 V (AAA) (included in scope of delivery).

Order ID		561172.0100
Length	**mm**	**152**
Ø	mm	17.5
Luminous flux	lm	150 / 60
Light output	cd	650
Beam approx.	m	51
Luminous period	h	2.5 / 8
Protection class		IPX4
Weight	g	51
Price €		**28.30**

NERIOX

561180.0100

561180.0200

561180.0300

561180 LED Torch NERIOX

IP 54

CREE LED, robust aluminium housing, non-slip surface, IP54 rating (protection against dust and spray). Supplied with wrist strap, belt pouch and batteries.

Designs:
561180.0200: With clip and focus function
561180.0300: Focus function and 5 light modes: 100% at 100 lm / 50% at 70 lm / 25% at 35 lm / flash function / SOS

Order ID		561180.0200	561180.0300
Light output	**lm**	**130**	**100**
Beam approx.	m	80	80
Luminous period	h	7	1.5 / 3.5 / 7.5
Length	mm	148	117
Weight	g	37	61
Price €		**20.20**	**22.00**

FUTURO

561155 Cordless LED torch and inspection lamp FUTURO

IP 54

Perfect LED lamp for every tool box. The **Interchangeable lamp head with a quick-change system** means it can be used as a normal torch with a beam range of 150 m or as an inspection light at 24 m.

Scope of delivery:
561155.0100 Torch with interchangeable head and magnetic base, interchangeable torch head, USB charging cable, mains adapter/USB, rechargeable Li-Ion 3.7 V battery

Appropriate accessories:
561157 Accessories for cordless LED torch and inspection lamp FUTURO

Order ID		561155.0100
Light output	**lm**	**350**
Beam approx.	m	150
Luminous period	h	1.5...5.5
Length	mm	353
Protection class		IP54
Weight	g	200
Batteries		1 x 18650 3.7 V Li-Ion
Price €		**51.30**

561157 Accessories for cordless LED torch and inspection lamp FUTURO

Designs:
561157.0100 Flexible attachment, which makes it possible to illuminate hard-to-reach places or holes thanks to its very narrow lamp head (Ø 5.5 mm)
561157.0200 Flexible attachment, with focus function for a focussed beam

Usable with:
561155 Cordless LED torch and inspection lamp FUTURO

Order ID	**Light output lm**	Length mm	**Price €**
561157.0100	**3**	420	**9.50**
561157.0200	**200**	400	**11.00**

561157.0100

561157.0200

561173 Rechargeable LED torch FUTURO

with additional UV light

Universal rechargeable LED torch with CREE LED and additional **UV light chip (395 nm)**. 3 light modes (Low Power/Mid Power/High Power). **Angled lamp head, clip and a strong magnetic base for versatile use as torch and work light**. Splash proof, extremely robust aluminium housing, can withstand falls from up to 1 meter in height. The rubberised application on the handle, the on/off switch and the magnetic base reduce the risk of scratching delicate surfaces and ensure optimal grip even with wet or oily hands. On/Off switch with integrated battery indicator, the battery is replaceable and is easily charged via the supplied USB cable.

Scope of delivery:
561173.0100 Belt pouch and USB-cable

Order ID		561173.0100
Length	**mm**	**160**
Ø	mm	29
Battery		1 x Typ 18650 Li-Ion
Battery voltage	V	3.6
Battery capacity	Ah	2.6
Luminous flux	lm	300 / 100 / 30
Light output	cd	1100
Beam approx.	m	66
Luminous period	h	3 / 6 / 12
Protection class		IP54
Weight	g	155
Price €		**48.90**

561578 Battery-powered LED hand lamp, NERIOX

IP 65

LED work light and torch in one, torch head can be swivelled up to 180°, ergonomic, 1 magnet at the base and 2 magnets at the rear, work light LEDs (300 lm / 700 lm) for 2 or 3.5 hours of light, spotlight with LED (150 lm) for 7 hours of continuous use, with rechargeable lithium-ion battery, 230 V mains adapter and USB cable. IP 65.

Order ID		561578.0200
Battery voltage	V	3.7
Battery capacity	Ah	2.6
Light output	**lm**	**700**
Combustion duration	h	2.5...7
Charging time	h	4
Protection class		IP65
Length	mm	230
Weight	kg	0.30
Price €		**32.00**

561626 Replacement battery FUTURO

Li-ion replacement battery for FUTURO battery-powered LED spotlights.

Order ID	**Battery capacity Ah**	Battery voltage V	**Price €**
561626.0100	**4.4**	7.4	**41.00**
561626.0200	**8.8**	7.4	**62.50**

NERIOX

155055 Batteries NERIOX alkaline

Primary batteries, non-rechargeable.

Features:
Flexible use
High performance capacity with long service life
Good storability
Low self-discharge with a shelf life of 5 years
Especially recommended for devices with high power consumption

Package contents:
Delivered in transport packaging.

Remarque:
According to the Battery Act (BattG), batteries and accumulators must not be disposed of with household waste, but only at the designated collection points.

Order ID		155055.0304	155055.0340	155055.0404	155055.0440
IEC code		LR03	LR03	LR6	LR6
Size		AAA Micro	AAA Micro	AA Mignon	AA Mignon
Type		LR03	LR03	LR6	LR6
Voltage	V	1.5 V	1.5 V	1.5 V	1.5
Dimensions	mm	Ø 10.4 X 44.4	Ø 10.4 X 44.4	Ø 14.4 x 50.4	Ø 14.4 x 50.4
Material		Zn/KOH-H_2O/MnO_2	Zn/KOH-H_2O/MnO_2	Zn/KOH-H_2O/MnO_2	Zn/KOH-H_2O/MnO_2
Packaging unit		Pack of 4	Pack of 40	Pack of 4	Pack of 40
Price €		**2.60**	**16.40**	**2.60**	**16.40**

150632 Telescope mirror and magnetic pick-up tool NERIOX

non-magnifying

Mirror and magnetic lifter with sturdy, telescoping metal shank and clip. Mirror and magnetic lifter can be adjusted polydirectionally.

150632.0100

Designs:
150632.0100: round mirror, metal handle, telescopic up to 440 mm
150632.0200: round mirror, plastic handle, telescopic up to 440 mm

Package contents:
Telescope mirror and telescopic magnetic pick-up tool.

Order ID		150632.0100	150632.0200
Mirror size	mm	Ø 30	Ø 50
Length	mm	120...440	240...440
Adhesive strength	N	5	5
Price €		**34.30**	**46.80**

FUTURO

466740 Screw extractor FUTURO

For broken-off screws and pins, in vanadium steel, black-oxide finish.

Order ID	Size	for Screws	Length mm	Ø max. mm	Ø min. mm	Twist drill mm	Price €
466740.0100	**1**	**M3...M6**	50	3.6	1.75	2.5	**1.05**
466740.0200	**2**	**M6...M8**	57	5	2.2	3	**1.05**
466740.0300	**3**	**M8...M11**	64	6.5	3.3	4.5	**1.20**
466740.0400	**4**	**M11...M14**	71	8.8	4.75	6	**1.40**
466740.0500	**5**	**M14...M18**	78	11	5.36	8	**1.75**
466740.0600	**6**	**M18...M24**	85	15	9.50	11	**2.40**
466740.0700	**7**	**M24...M33**	92	19	12.70	13.5	**4.20**
466740.0800	**8**	**M33...M45**	100	24.0	17.50	18.5	**6.90**

FUTURO

466745 Screw extractor set FUTURO

For broken-off screws and pins, in vanadium steel, black-oxide finish, in plastic case.

466745.0300

Appropriate spare parts:
466740 Screw extractor FUTURO

Order ID	Size	for Screws mm	Price €
466745.0100	**1...5**	M3...M11	**7.20**
466745.0200	**1...6**	M3...M24	**9.80**
466745.0300	**1...8**	M3...M45	**23.60**

418795 Flexible magnetic pick-up tool FUTURO

Flexible shaft, chrome-plated, with powerful neodymium magnet and black PP hex handle. **Ideal for retrieving heavy metallic parts from small or hard to access spaces**.

Order ID	**Magnet Ø mm**	Length mm	Adhesive strength kg	**Price €**
418795.0100	**8**	460	0.5	**11.60**
418795.0200	**12**	460	1.0	**14.30**
418795.0300	**15**	520	1.8	**18.10**
418795.0400	**19**	520	3.0	**23.50**

418805 Telescopic magnetic pick-up tool FUTURO

Extendible telescopic handle, powerful neodymium magnet, galvanised, with clip, scriber under protective cap.

Order ID	**Magnet Ø mm**	Length mm	Adhesive strength kg	**Price €**
418805.0100	**8**	150...660	0.5	**10.10**

FUTURO

524100 Fast-acting degreaser high performance FUTURO

Ideally suited for effective cleaning in the workshop, it dissolves even the most stubborn residues with great pressure and an impressive cleaning power. Removes oil, grease, tar, adhesive residue, brake fluid, dirt etc. from tools, machines, equipment, metal parts, brakes etc. Cleans spark plugs, battery terminals, electrical connections and contacts. Use only on cold surfaces. Does not attack rubber, plastic and paint, dielectric.

Order ID	Contents	Packs	Price €
524100.0100	**500 ml**	Spray can	9.90
524100.0200	**5 l**	Canister	XXXX.XX
524100.0300	**20 l**	Canister	XXXX.XX

Symbols of danger	GHS2, GHS7, GHS9
H phrases	H222, H223, H224, H225, H226, H227, H228, H229, H319, H336, H411
P phrases	P101, P102, P103, P210, P211, P251, P261, P280, P304+P340, P305+P351+P338, P405, P410+P412, P501

FUTURO

524105 Multi-use foam cleaner high performance FUTURO

The white active foam effectively cleans all smooth surfaces, discs and mirrors in industry,in the home and the office. The special formulation effortlessly removes all kinds of dirt and leaves a pleasant citrus aroma. Thanks to a stable active foam, there is no unwanted drain off on vertical surfaces. Providing long-term protection for longer lasting cleanliness. Also sprays overhead for targeted and easy use even in inaccessible areas. Neutral with regard to rubber, paints and plastics, biodegradable.

Order ID	Contents ml	Packs	Price €
524105.0100	**500**	Spray can	10.50

Symbols of danger	GHS2
H phrases	H222, H223, H224, H225, H226, H227, H228, H229
P phrases	P101, P102, P103, P210, P211, P251, P410+P412

NERIOX

524205 Foam cleaner NERIOX

Highly effective foam cleaner that can be used to remove stains and impurities from almost all surfaces without any problems and without residue. Strong solvent, **easily removes dust, dirt, grease, nicotine and insects**, quick drying, pleasant smell.

Instructions for use: Shake the can well before use. If using on upholstery and carpets, check for colour fastness in an inconspicuous area before cleaning. Apply the foam with a brush or sponge, let it work in, and then vacuum it after drying or wipe it off with a dry cloth. If using on paint, spray on the foam and leave to work for a brief period of time. Wipe with a dry cloth and polish off.

Order ID	Contents ml	Packs	Price €
524205.0100	**400**	Spray	6.90

Symbols of danger	GHS2
H phrases	H222, H229
P phrases	P101, P102, P210, P211, P251, P260, P410+P412, P501

FUTURO

524115 Workshop and Factory Cleaner High Performance FUTURO

Aqueous multi-function professional cleaner (concentrate), can be used in all areas where heavy fouling occurs, e.g. machine tools, machining shops, floor coverings, etc. Reliably loosens oil, grease, wax and similar fouling. **Can be diluted up to 1 : 30. Minimum dilution 1 : 5.**

Order ID	Contents ml	Price €
524115.0100	**1000**	17.30

Symbols of danger	GHS5
H phrases	H314
P phrases	P102, P101, P260, P280, P301+P330+P331, P310, P303+P361+P353, P332+P313, P305+P351+P338, P310, P501

NERIOX

524200 Brake cleaner NERIOX

Brake cleaner that uses very high pressure for an effective cleaning action. **Removes oil, grease, dirt and brake fluid from brake drums, brake discs, brake blocks, brake lines, brake cylinders and coupling parts**. It prevents brake squeaking and cleans motors, machines and other parts thoroughly without leaving any residue. No acetone or aromatics, free from chlorinated hydrocarbons; does not affect O-rings and brake hoses. Non-corrosive, non-conductive. Dries very quickly and also removes acids. Can be sprayed from any angle due to a special **360° valve**.

Instructions for use: Shake the can well before use. Spray the surfaces to be treated evenly until the contamination has disappeared. Use a paint brush or broom to remove any stubborn dirt. Switch off live parts and electrical equipment before use. Switch this equipment back on again approx. 15 minutes after treatment (the brake cleaner contains flammable solvents).

Order ID	Contents	Packs	Price €
524200.0100	**500 ml**	Spray	2.90
524200.0200	**5 l**	Canister	16.90
524200.0300	**25 l**	Canister	74.90

Symbols of danger	GHS2, GHS7, GHS9
H phrases	H222, H229, H315, H336
P phrases	P101, P102, P210, P211, P251, P260, P410+P412, P501

523255 Rust remover high performance FUTURO

FUTURO

Rust dissolver and screw releaser with excellent creep effect. Quickly dissolves rusted metal parts, protects against corrosion and displaces moisture. Briefly spray the surface from a distance of around 5–10 cm and leave to take effect. Repeat if necessary.

Order ID	Contents ml	Packs	Price €
523255.0100	500	Spray can	8.90

Symbols of danger	GHS2, GHS7, GHS8
H phrases	H222, H223, H224, H225, H226, H227, H228, H229, H319, H373, H412
P phrases	P101, P102, P103, P210, P211, P251, P260, P273, P280, P305+P351+P338, P337+P313, P410+P412, P501

523360 Silicone spray NERIOX

NERIOX

High-quality lubricant **for lubricating and protecting synthetic materials**. Ensures that plastic surfaces remain free of stains. Particularly suitable for insulation where a flexible protective film is required. **Prevents rubber parts from freezing and drying and plastic parts from squeaking**. Impregnating, anti-static and anti-corrosion effects. Excellent adhesion and mechanical and thermal stability. Resistant against water, weathering, weak acids and bases. No resins or coking coal, non-toxic.

Instructions for use: Ensure that the surface is clean, dry and free from grease. Cover coated or plastic parts, shake the can well before use. Do not apply to the dashboard, tyre treads, steering wheel or pedals.

Order ID	Contents ml	Packs	Price €
523360.0100	400	Spray	7.20

Symbols of danger	GHS2, GHS7, GHS9
H phrases	H222, H229, H315, H336, H411
P phrases	P101, P102, P210, P211, P251, P260, P410+P412, P501

526745 Zinc spray NERIOX

NERIOX

Cold galvanised against corrosion. **Excellent corrosion protection for all ferrous metals such as car bodies, exhaust systems, gates, machines, metal housings, fittings, fences, etc.** Particularly suitable for protecting welding seams and for metals that are particularly susceptible to corrosion. More than 90% zinc dust content in the dry film; ideal for all metals that are particularly susceptible to corrosion outdoors. Resistant to high temperatures.

Instructions for use: Shake the can well before use. Ensure that the metal base is clean and free from grease. Test the spray in an inconspicuous area, then spray all over several times. After drying (approx. 24 hours), apply primer and topcoat. If the object is subject to thermal loads, apply only thin layers and, if necessary, coat them with temperature-resistant paints (sample coating).

Order ID	Contents ml	Packs	Price €
526745.0100	400	Spray	8.20

Symbols of danger	GHS2, GHS7, GHS9
H phrases	H222, H229, H319, H336, H410
P phrases	P101, P102, P210, P211, P251, P260, P410+P412, P501

526755 Zinc-aluminium spray NERIOX

NERIOX

Zinc-aluminium primer **for galvanised parts and surfaces that have been damaged by welding, grinding, drilling, transport etc. and require repairing or repainting.** Also suitable as excellent corrosion protection for metal surfaces and bare iron metals. Can also be used for aluminium in some cases. Can be painted over with air-drying acrylic, NC and synthetic resin paints, resistant to temperature changes, heat resistant up to 300°C.

Instructions for use: Shake the can well before use. Ensure that the surface is clean, dry and free from grease and rust. Test the spray in an inconspicuous area, then spray all over several times. Can be painted over with each other as a primer or topcoat.

Order ID	Contents ml	Packs	Price €
526755.0100	400	Spray	9.00

Symbols of danger	GHS2, GHS7, GHS9
H phrases	H222, H229, H319, H336, H411
P phrases	P101, P102, P210, P211, P251, P260, P410+P412, P501

NERIOX

526765 Paint spray NERIOX

Suitable for **painting and repairing interior or exterior objects** for adding contrasts or painting parts on vehicles and for many other purposes. Can also be used for the wheels and body. High-quality nitro-combi quality with very good coverage and excellent adhesion. Good running properties, smooth, can be polished, dirt-resistant surface, quick drying. Weather-resistant, light-resistant, UV-resistant; scratch-, shock- and impact-resistant.

Instructions for use: Shake the can well before use. Ensure that the surface is free from dirt and grease, then remove any rust. Smooth uneven surfaces (filling, grinding). Spray the topcoat in several thin layers at a time interval of three to five minutes. Do not spray on surfaces that have been painted with synthetic resin!

Order ID	RAL	Colour hue	Gloss level	Contents ml	Price €
526765.0100	**9005**	Jet black	matt, <20 GE	500	**8.10**

Symbols of danger	GHS2, GHS7
H phrases	EUH066, EUH211, H222, H229, H319, H336
P phrases	P101, P102, P210, P211, P251, P260, P410+P412, P501

NERIOX

526740 Marking spray NERIOX

Fluorescent colours for **marking surfaces of all kinds** such as tarmac, soil, trees, lawns, sand, snow, concrete, mineral surfaces etc. Durable colour, weather-resistant, adheres well to damp surfaces. The **special spray head (can be used 360°)** is built into the ergonomic protective cap. Excellent luminosity and coverage, minimal mist, quick drying. Cold-resistant up to -20°C.

Order ID	Colour	Contents ml	Price €
526740.0100	**neon red**	500	**6.45**
526740.0200	**neon blue**	500	**6.45**
526740.0300	**neon yellow**	500	**6.45**

Symbols of danger	GHS2, GHS7
H phrases	H222, H223, H224, H225, H226, H227, H228, H229, H336, H412
P phrases	P101, P102, P210, P211, P251, P405, P410+P412, P501

523295 Drilling and cutting oil foam, high-performance FUTURO

Sulphur-free, mineral oil-free, low consumption, high performance, can be washed away using water. This cutting oil foam is ideal for: Thread cutting, tapping, centring, broaching and clearing by reaming, drilling and milling. The cutting oil foam is suitable for targeted application at the processing location. The areas of application include **all ferrous and non-ferrous metals, e.g. non-alloyed or alloyed steel. Also suitable for all types of cast iron such as cast steel, malleable cast iron, die-cast iron, copper and its alloys e.g. brass cast iron and red cast iron, and all chromium-nickel alloys**. Good compatibility; can be used as a performance enhancer for all water-miscible cooling lubricants.

Order ID	Contents ml	Packs	Price €
523295.0100	**400**	Spray can	**12.70**

Symbols of danger	GHS2, GHS7
H phrases	H222, H229, H319
P phrases	P102, P210, P211, P251, P271, P280, P305+P351+P338, P410, P412, P501

170621 Hand refractometer NERIOX

For quick determination and monitoring of concentration in water-soluble coolants and other industrial fluids.

170621.0100

Designs:
170621.0100...**170621.0200**: without temperature compensation
170621.1100...**170621.1200**: with automatic temperature compensation +10°C...+30°C

Features:
Clean measuring process without Separating chemicals
Simple handling

Note:
Do not use for corrosive fluids which might attack the prism or light incidence plate.

Package content:
Delivered in plastic case with calibration screwdriver, distilled water sample vials, pipette and cleaning cloth.

Appropriate spare parts:
170631.0100 Light incidence plate with ring NERIOX for types N10 and N32 2

Note:
For a refractometer for battery acid and cooling water, see 564650.

Order ID	Type	Range	Price €
170621.0100	N10	0...10%	**90.40**
170621.0200	N32	0...32%	**90.40**
170621.1100	N10 / +10°...+30°	0...10%	**94.50**
170621.1200	N32 / +10°...+30°	0...32%	**94.50**

NERIOX

518091 Caulking gun NERIOX

With movable cartridge guide, housing made from glass-fibre-reinforced nylon, suitable for all 310-ml Euro cartridges.

Order ID	Dimensions mm	Weight g	Price €
518091.0100	320 x 195	620	20.40

NERIOX

518103 Caulking gun NERIOX

With rack, lightweight design, for all 310 ml Euro cartridges.

Order ID	Dimensions mm	Weight g	Price €
518103.0100	310 x 160	580	11.80

NERIOX

518102 Caulking gun NERIOX

Skeleton type with hex rod, sturdy construction, for all 310 ml Euro cartridges.

Order ID	Dimensions mm	Weight g	Price €
518102.0100	370 x 180	500	11.80

501030 Hand push gun FUTURO

For grease and viscous oils, with combination nozzle (concave and pointed nozzle), pressure 60...80 bar, for lubricant nipples D, H and K.

Order ID	Contents ml	Pressure bar	Price €
501030.0100	**80**	60...80	13.90
501030.0200	**150**	60...80	16.10
501030.0300	**300**	60...80	18.70

NERIOX

529561 Chip hook NERIOX

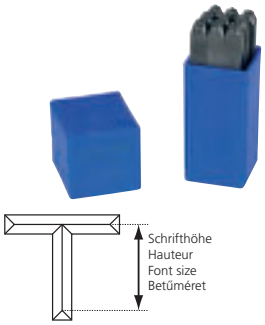
With simple hand protection shield, chrome-vanadium steel, galvanised, with ergonomic two-component handle, conical hook section, chips loosen better, reduces the risk of accidents during turning work.

Order ID	Length (without handle) mm	Price €
529561.0300	420	16.00

495045 Number punch set FUTURO

in 9-part sets 0-8, in high-quality special tool steel, hardened, calibrated, impact head inductively hardened (58-60 HRc), for punching into materials up to 120 kp/mm² strength, sharply engraved. Font according to DIN 1451.

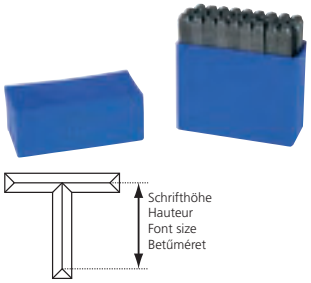
Order ID	Font size mm	Shaft square mm	Length mm	Price €
495045.0100	**1.5**	6	65	**26.00**
495045.0200	**2**	6	65	**26.00**
495045.0300	**2.5**	6	65	**26.50**
495045.0400	**3**	6	65	**26.70**
495045.0500	**4**	7	65	**26.90**
495045.0600	**5**	8	65	**27.50**
495045.0700	**6**	9	70	**30.90**
495045.0800	**8**	11	75	**33.00**
495045.0900	**10**	12	80	**44.50**



495115 Letter punch set FUTURO

in sets A-Z and &, in high-quality special tool steel, hardened, calibrated, impact head inductively hardened (58-60 HRc), for punching into materials at 120 kp/mm² strength, sharply engraved. Font according to DIN 1451.

Order ID	Font size mm	Shaft square mm	Length mm	Price €
495115.0100	**1.5**	6	65	**56.00**
495115.0200	**2**	6	65	**56.00**
495115.0300	**2.5**	6	65	**57.00**
495115.0400	**3**	6	65	**57.00**
495115.0500	**4**	7	65	**58.50**
495115.0600	**5**	8	65	**66.50**
495115.0700	**6**	9	70	**72.50**
495115.0800	**8**	11	75	**101.00**
495115.0900	**10**	12	80	**127.30**



496435 Air engraving pen FUTURO

For marking metals, glass, plastics, ceramic, stone, etc. Powerful marking even on hardened tool steel by means of tungsten carbide stylus. Extremely low vibration level, simple stylus exchange. Supplied including engraving stylus and air supply hose 2.5 m.

Appropriate accessories:
496440 Engraving stylus

Order ID		496435.0100
Type		**6100**
Frequency	Hz	540
Ø x length	mm	17 x 160
Sound pressure level	dB(A)	65
Air consumption	l/min	54
Threaded connection		R 1/4" a
Weight	g	150
Price €		**212.10**

550760 Padlock FUTURO

Heavy, solid brass lock **keyed differently,** with genuine pin cylinder, lock body in a single block, steel hasp nickel-plated and hardened, automatic engagement, each lock with 2 nickel-plated brass keys.

Order ID	**Crate width mm**	Clamp Ø mm	Inside clamp height mm	Inside clamp length mm	**Price €**
550760.0100	**25**	4.0	14	13	**6.50**
550760.0200	**30**	4.5	18	16	**7.10**
550760.0300	**40**	6.5	23	22	**8.00**
550760.0400	**50**	8	29	28	**12.30**

FUTURO

493421 Finishing spatula set FUTURO

Japan-finishing spatula, steel, flexible, blade thickness 0.31 mm, hardness, plastic backbone, hardness II, plastic backbone acid-resistant.

Order ID	Width mm	Price €
493421.0100	50, 80, 100 + 120	4.20

FUTURO

493423 Finishing spatula set FUTURO

Japan-finishing spatula, **stainless steel**, flexible, blade thickness 0.31 mm, hardness II, plastic backbone acid-resistant.

Order ID	Width mm	Price €
493423.0100	50, 80, 100 + 120	6.90

FUTURO

493401 Painter's spatula FUTURO

Forged, with handle of rosewood and brass-plated ferrule.

Order ID	Width mm	Price €
493401.0100	20	11.90
493401.0200	30	13.00
493401.0300	40	13.50
493401.0400	50	14.60
493401.0500	60	15.40

FUTURO

493415 Painter's spatula FUTURO

EDELSTAHL Rost frei INOX STAINLESS STEEL

Stainless steel, fine-polished, semi flexible-ground, with plastic handle, **for the food and beverage industry** tested according to EU regulations, each blade labelled with glass-and-fork symbol.

Order ID	Width mm	Price €
493415.0100	40	7.00
493415.0200	60	8.10
493415.0300	80	16.60
493415.0400	100	16.60
493415.0500	120	16.60

FUTURO

Brass

493410 Painter's spatula FUTURO

Blade and ferrule **in brass,** blade permanently hammered in, fine-ground, **non-sparking,** large waxed natural beech wood handle.

Order ID	Width mm	Price €
493410.0100	40	19.20
493410.0200	60	21.00

FUTURO

493403 Painter's spatula FUTURO

Hardened steel, semi flexible ground blade, permanently hammered in, brass-plated ferrule, large waxed natural beech wood handle.

Order ID	Width mm	Price €
493403.0100	30	3.10
493403.0200	40	3.20
493403.0300	50	3.50
493403.0400	60	3.60
493403.0500	80	3.80
493403.0600	100	4.30

FUTURO

493417 Bump trowel FUTURO

Hardened steel, **rigid blade**, **blade thickness 1.4mm**, ground, highly polished, hand-friendly lacquered wooden handle.

Order ID	Width mm	Price €
493417.0100	50	4.50
493417.0200	60	4.90
493417.0300	70	4.90

FUTURO

493420 Finishing spatula FUTURO

Japan-finishing spatula, steel, flexible, blade thickness 0.31 mm, hardness, plastic backbone, hardness II, plastic backbone acid-resistant.

Order ID	Width mm	Price €
493420.0100	50	1.40
493420.0200	80	1.90
493420.0300	100	2.30
493420.0400	120	2.50

551235 Hand cleaning wipe FUTURO

FUTURO Clever Clean, the unique hand and parts cleaning system for even the most demanding applications. By combining an effective liquid formula and a durable, roughened cloth surface, the system achieves optimum cleaning performance. **It removes grease, tar, oil, copper paste, brake and coal dust, paints and varnishes, ink, grass stains and many other stains without leaving any residue and does not damage skin or scratch surfaces.** The smooth side of the cloth can be used to clean hands carefully and thoroughly. The individual cloths have a pleasant orange scent and are microperforated to ensure that substances can be removed easily. The cleaning cloths can be used for completely thorough yet gentle cleaning in any application at any workplace, without leaving any residue.

Order ID	**Contents pieces**	Sheet length mm	Sheet width mm	**Price €**
551235.0100	**72**	260	300	**20.40**

H phrases	EUH210

551210 Microfibre cloth for glass cleaning FUTURO

Super-fine high-tech microfibre cloth with very high dirt absorption capacity, **specifically designed to clean glass surfaces.** per piece.

Order ID	Length mm	Width mm	Colour	**Price €**
551210.0100	400	400	blue	**3.90**

Our full range –

GUARANTEED THE RIGHT TOOL FOR EVERY TASK

FUTURO
performance and perfection

NERIOX
YOUR SMARTEST CHOICE

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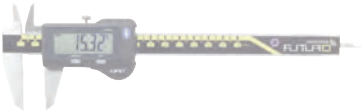
MEASUREMENT TECHNOLOGY  174 – 245

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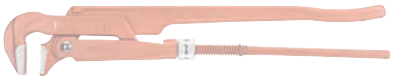
HAND- AND MOUNTING TOOLS  354 – 371

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NERIOX

533532 Bump cap NERIOX

Air

CE EN 812
Flexible bump cap with generously meshed **ventilation openings**. **Very high wearing comfort** thanks to flexible and adaptable hard shell adapted to the head shape. **Size can be adjusted from 52 to 65 cm.**

Brim: 7 cm

Order ID	Colour	Price €
533532.0100	Black	17.50
533532.0200	Blue	17.50

NERIOX

533533 Bump cap NERIOX

Sport Air

CE EN 812
Flexible bump cap with generously meshed **ventilation openings**. **Very high wearing comfort** thanks to flexible and adaptable hard shell adapted to the head shape. **Size can be adjusted from 52 to 65 cm.**

Brim: 3 cm

Order ID	Colour	Price €
533533.0100	Black	17.50
533533.0200	Blue	17.50

531717 Face shield FUTURO

Hinged, can be adjusted to the size of the head using a knob, clear **polycarbonate shield 203 x 393 mm**, anti fog,quick and easy to replace using quick-release clips.

Appropriate accessories:
531718 Replacement face shield FUTURO

BRW 1 3 B CE
BRW CE EN 166 3 B

Order ID	Safety screen mm	Price €
531717.0100	**203 x 393**	**15.00**

531718 Replacement face shield FUTURO

Polycarbonate shield, 203 x 393 mm, anti fog, quick and easy to replace using quick-release clips.

Usable with:
531717 Face shield FUTURO

BRW 1 3 B CE

Order ID	Safety screen mm	Price €
531718.0100	**203 x 393**	**5.00**

FUTURO

531331 Safety glasses FUTURO

These safety glasses can be used in many areas, e.g. chemical laboratories, for woodworking, or when welding. The lenses are made from **polycarbonate** and provide **UV protection**. The safety glasses can be worn in two versions, either **with headband or earpieces**. On the inside of the lenses, there is a **removable soft frame (for optimum sealing of the lenses)**. All the possibilities of these versatile glasses can be seen in the photos.

Appropriate accessories:
531512 Glasses cord FUTURO
531545 Glasses case FUTURO

BRW 1 F CE
BRW CE EN 166 F

Order ID	Type	Colour	Price €
531331.0100	**10**	colourless	13.50

FUTURO

10

20

30

531145 Safety glasses FUTURO

In modern design, **non-fogging** polycarbonate lenses. Optical grade (1).

Appropriate accessories:
531512 Glasses cord FUTURO
531513 Glasses case
531545 Glasses case FUTURO

BRW 1 F CE (2C-1.2)
BRW CE EN 166 F, BRW CE EN 170

Order ID	Type	Colour	Price €
531145.0100	**10**	colourless	7.90
531145.0200	**20**	grey	7.90
531145.0300	**30**	yellow	7.90

FUTURO

531117.0100

531117.0200

531117.0300

531117 Safety glasses FUTURO

In modern design with comfortable, flexible earpieces. **Earpiece ends with soft casing.** Colourless non-fogging polycarbonate lens.

Appropriate accessories:
531512 Glasses cord FUTURO
531513 Glasses case
531545 Glasses case FUTURO

BRW 1 F CE (2C-1.2)
BRW CE EN 166 F, BRW CE EN 170

Order ID	Color frame	Color lenses	Coating	Price €
531117.0100	**Clear/blue**	Clear	beschlagfrei	5.90
531117.0200	**Clear/red**	Clear	beschlagfrei	5.90
531117.0300	**Clear/orange**	Clear	beschlagfrei	5.90

531270 Visitor glasses FUTURO

FUTURO

Light; colourless in DIN P plastic, can also be used **over normal spectacles**, sized to fit over regular corrective eyeglasses, for comprehensive protection.

Appropriate accessories:
531512 Glasses cord FUTURO
531513 Glasses case

BRW 1 F CE
BRW CE EN 166 F

Order ID	Type	Price €
531270.0100	10	4.20

531003 Safety glasses NERIOX

NERIOX

Spider

Multi-function safety glasses **can be used as simple protective glasses or as safety goggles**, the glasses adapt perfectly to the application, the expanded foam inserts provide a good seal and the removable elastic strap ensures a snug fit against the head, **mist-free polycarbonate lenses**, nose bridge and 2-component glasses frame made of soft TPE (thermoplastic elastomer) guarantee optimum comfort.

Appropriate accessories:
531544 Glasses case NERIOX Protect

The glasses are supplied complete with strap and padding.
CE 2C-1.2 BRW 1 FT
CE BRW EN 166 FT

Order ID	Color frame	Color lenses	Coating	Price €
531003.0100	black/green	Transparent	fog free	12.10

531002 Safety glasses NERIOX

NERIOX

Crystal

Extremely **lightweight model** which seals tightly over the eyes and in the cheek area, thus ensuring **optimum protection around the eyes**, the generous mist-free polycarbonate lenses provide good all-round vision, **arm ends with soft inserts and the soft nose bridge** made of PVC (polyvinyl chloride) provide even more comfort to the wearer.

Appropriate accessories:
531544 Glasses case NERIOX Protect

CE 2C-1.2 BRW 1 F
CE BRW EN 166 F

Order ID	Color frame	Color lenses	Coating	Price €
531002.0100	Transparent/green	Transparent	Anti-fog	5.70

531004 Safety glasses NERIOX

NERIOX

Sporty

transparent

Lightweight model with **lens that extends far back** and is made of mist-free polycarbonate, so that the eyes are protected all-round while maintaining **optimum vision**, **arm ends with soft inserts** made from PVC (polyvinyl chloride) provide a high level of comfort.

Designs:
531004.0100: Transparent lenses
531004.0200: Tinted lenses

tinted

Appropriate accessories:
531544 Glasses case NERIOX Protect

CE 2C-1.2 BRW 1 F
CE BRW EN 166 F

Order ID	Color frame	Color lenses	Coating	Price €
531004.0100	Transparent/green	Transparent	fog free	5.10
531004.0200	black/green	tinted	fog free	5.60

531005 Safety glasses NERIOX

NERIOX

Vogue

The mist-free polycarbonate lens **extends far back** to protect the entire field of view, while the coloured/transparent polycarbonate frame adds a fashionable touch.

Appropriate accessories:
531544 Glasses case NERIOX Protect

CE 2C-1.2 BRW 1 FT
CE BRW EN 166 FT

Order ID	Color frame	Color lenses	Coating	Price €
531005.0100	Transparent/green	Transparent	fog free	5.70

NERIOX

531007 Safety glasses NERIOX

Flexible

Safety glasses with **large all-round coverage** as well as a frame with **adjustable length and inclination**, mist-free polycarbonate lenses, nylon **padded nose bridge** to prevent pressure points over extended periods of wear.

Appropriate accessories:
531544 Glasses case NERIOX Protect

Adjustable frame length and inclination.
CE BRW 1 F
CE BRW EN 166 F

Order ID	Color frame	Color lenses	Coating	Price €
531007.0100	**black**	Transparent	fog free	4.70

NERIOX

531008 Visitor safety glasses NERIOX

Visitor

Metal-free visitor safety glasses; suitable for **visitors or for wearing over corrective glasses**, the large mist-free polycarbonate field of view and wide frame provide optimum all-round protection, increased comfort with **side vents.**

CE 2C-1.2 BRW 1 F
CE BRW EN 166 F

Order ID	Color frame	Color lenses	Coating	Price €
531008.0100	**Transparent**	Transparent	fog free	2.70

NERIOX

531009 Visitor safety glasses NERIOX

Surface

Suitable for **visitors or for wearing over corrective glasses**, generous mist-free polycarbonate lens, **adjustable frame length and inclination** so that the glasses fit better to the wearer's head, increasing comfort.

Adjustable frame length and inclination.
CE 2C-1.2 BRW 1 F
CE BRW EN 166 F

Order ID	Color frame	Color lenses	Coating	Price €
531009.0100	**transparent/black**	transparent	fog free	4.50

531380 Full-vision safety goggles FUTURO

Panorama safety goggles **with wide field of vision,** indirect ventilation, adjustable elastic band, soft PVC frame, UV400, **anti-fog and shock-resistant**.

BRW 1 B CE (2C-1.2)
BRW CE EN 166 B, BRW CE EN 170

Order ID	Color frame	Color lenses	Price €
531380.0100	**blue**	clear	18.60

531390 Full vision safety goggles FUTURO

Full vision safety goggles made from clear PVC, rubber strap, UV400, **anti fog and shock resistant**.

BRW 1 F CE (2C-1.2)
BRW CE EN 166 F, BRW CE EN 170

Order ID	Color frame	Color lenses	Price €
531390.0100	**Clear**	Clear	5.30

531302 Safety goggles NERIOX

Diver

Panoramic, mist-free polycarbonate safety goggles with **very good all-round visibility**, the soft PVC (polyvinyl chloride) material fits well to the head and **is comfortable to wear** even for long periods, elastic strap for the perfect hold.

CE 2C-1.2 BRW 1 B
CE BRW EN 166 B

Order ID	Color frame	Color lenses	Price €
531302.0100	**Transparent**	Transparent	8.60

531303 Safety goggles NERIOX

Dusky

Sporty safety goggles with large, polycarbonate field of view, **four vents for good air circulation, while still protecting against dust and liquids**, the soft PVC (polyvinyl chloride) material fits well to the head and the elastic strap keeps the goggles snug to the head.

CE 2C-1.2 BRW 1 BT
CE BRW EN 166 3 4 BT

Order ID	Color frame	Color lenses	Price €
531303.0100	**tinted**	tinted	9.60

531304 Safety goggles NERIOX

Ace

The safety goggles are **excellently suited for wearing with a hard hat and/or respiratory protection mask**, the large, polycarbonate lenses offer perfect vision, the **soft, injection moulded sealing lip provides a high level of comfort**, the wide elastic strap provides the perfect hold.

CE 2C-1.2 BRW 1 B
CE BRW EN 166 3 4 B

Order ID	Color frame	Color lenses	Price €
531304.0100	**grey**	Transparent	10.90

531545 Glasses case FUTURO

Fabric belt carrying case with zip. Ideal for glasses with very curved frames. Also has room for spare lenses. Case with two straps and Velcro-type fastener.

Usable with:
531117 Safety glasses FUTURO
531119 Safety glasses FUTURO
531145 Saftey glasses FUTURO
531331 Safety glasses FUTURO

Order ID	Type	Price €
531545.0100	10	5.50

531515 Glasses case FUTURO

For safe storage of glasses with earpieces.

Order ID	Type	Price €
531515.0100	10	2.60

531544 Glasses case NERIOX

Protect

Textile belt pocket with **zip** and fixed, closed **belt loop**. Ideal for glasses with extremely curved frames, also provides space for replacement lenses.

Usable with:
531002 Safety glasses NERIOX
531003 Safety glasses NERIOX
531004 Safety glasses NERIOX
531005 Safety glasses NERIOX
531007 Safety glasses NERIOX

Order ID	Dimensions mm	Price €
531544.0100	180 x 110	5.10

531512 Glasses cord FUTURO

For securing glasses in place; pull the strap over the eyepieces and adjust the length of the cord with the slide.

Usable with:
531117 Safety glasses FUTURO
531119 Safety glasses FUTURO
531145 Saftey glasses FUTURO
531270 Visitor glasses
531331 Safety glasses FUTURO

Order ID	Type	Price €
531512.0100	10	3.90

NERIOX

532056 Ear defenders NERIOX

Basico, 24 dB

Adjustable plastic ear defenders for almost all applications.

This entry-level product is suitable for DIY enthusiasts and craftsmen who mow lawns, grind or work on a busy road.
Application: Continuous noise exposure of 85 to 109 dB
CE EN 352-1:2002
CE Category II

Order ID	Type	SNR value dB(A)	Weight g	Price €
532056.0100	**Basico**	24	165	7.20

NERIOX

532057 Ear defenders NERIOX

Estandar, 28 dB

Easy-to-adjust ear defenders for a **snug fit to ensure optimal hearing protection**. The padded headband and soft ear cushions enhance comfort, **even when using for extended periods**.

These ear defenders are suitable for many areas of application, e.g. in civil engineering and road construction or when working with a pneumatic hammer.
Application: Continuous noise exposure of 85 to 115 dB
CE EN 352-1:2002
CE category II

Order ID	Type	SNR value dB(A)	Weight g	Price €
532057.0100	**Estandar**	28	205	13.00

NERIOX

532058 Ear defenders NERIOX

Medio, 30 dB

Easy-to-adjust ear defenders for a **snug fit to ensure optimal hearing protection**. The padded headband and soft ear cushions enhance comfort, **even when using for extended periods**.

These ear defenders are suitable for many applications, e.g. for working on the circular saw or with a hammer drill.
Application: Continuous noise exposure of 85 to 121 dB
CE EN 352-1:2002
CE category II

Order ID	Type	SNR value dB(A)	Weight g	Price €
532058.0100	**Medio**	30	245	16.00

NERIOX

532059 Ear defenders NERIOX

Alto, 36 dB

Easy-to-adjust ear defenders for a **snug fit to ensure optimal hearing protection**. The padded headband and soft ear cushions enhance comfort, **even when using for extended periods**.

These ear defenders are suitable for use in areas with high noise exposure, e.g. on railways or at the airport.
Application: Continuous noise exposure of 85 to 121 dB
CE EN 352-1:2002
CE Category II

Order ID	Type	SNR value dB(A)	Weight g	Price €
532059.0100	**Alto**	36	315	18.10

530007 Leather gloves NERIOX

Driver

Made of **natural white cowhide leather**, wing thumb, blue ribbon band at the hem, elastic drawstring on the back, good comfort, length approx. 26 cm in size 10.

CE Category II
EN 388:2016 2122X
Pack of 10 pairs
Price per pair

Order ID	Size	Price €
530007.0100	7	5.00
530007.0200	8	5.00
530007.0300	9	5.00
530007.0400	10	5.00
530007.0500	11	5.00

530008 Leather gloves NERIOX

Dermis

In pairs, **natural grey split leather**, fingertips with split leather reinforcement, wing thumb, highly elastic band with hook and loop fastening for optimum grip, length approx. 26 cm in size 10.

CE Category II
EN 388:2016 4133X
Pack of 5 pairs
Price per pair

Order ID	Size	Price €
530008.0100	7	11.00
530008.0200	8	11.00
530008.0300	9	11.00
530008.0400	10	11.00
530008.0500	11	11.00

530009 Leather gloves NERIOX

Expert

In pairs, made of **natural grey split cowhide leather**, cuff made of natural white cotton fabric with wrist protection made of split leather, green ribbon band at the hem, **length approx. 26 cm** in size 10.

CE Category II
EN 388:2016 4144X
Pack of 10 pairs
Price per pair

Order ID	Size	Price €
530009.0100	9	3.20
530009.0200	10	3.20
530009.0300	11	3.20

NERIOX

530010 Leather gloves NERIOX

Strong

In pairs, made of **natural grey split leather**, lining made of fluffy polyester, cuffs made of raw white cotton fabric with wrist protection made of split leather, blue ribbon band at the hem, **length approx. 29 cm in** size 10.

CE Category II
EN 388:2016 4234X
Pack of 10 pairs
Price per pair

Order ID	Size	Price €
530010.0100	8	4.10
530010.0200	9	4.10
530010.0300	10	4.10
530010.0400	11	4.10
530010.0500	12	4.10

NERIOX

530011 Leather gloves NERIOX

Fighter

In pairs, made of **natural white textured cowhide leather**, cuff made of raw white cotton fabric with wrist protection made of textured buffalo leather, green ribbon band at the hem, **length approx. 26 cm** in size 10.

CE Category II
EN 388:2016 3143X
Pack of 10 pairs
Price per pair

Order ID	Size	Price €
530011.0100	9	4.90
530011.0200	10	4.90
530011.0300	11	4.90

NERIOX

530012 Leather gloves NERIOX

Stone

Sold by pair, made of **soft natural white cowhide leather**, back of the hand and cuff made of high-quality, natural cotton, **knuckle and wrist protection,** blue ribbon band at the hem, **length approx. 29 cm** in size 10.

CE Category II
EN 388:2016 3144X
Pack of 10 pairs
Price per pair

Order ID	Size	Price €
530012.0100	8	5.90
530012.0200	9	5.90
530012.0300	10	5.90
530012.0400	11	5.90

NERIOX

530014 Winter leather gloves NERIOX

Winter Cold

In pairs, made of **natural white cotton fabric**, inner glove made from napped cotton lining, **inner glove made entirely from warm, synthetic lining,** cuff made of raw white cotton fabric, wrist protection made of textured cowhide leather, length approx. 27 cm in size 10.

CE Category II
EN 388:2016 3243X
Pack of 10 pairs
Price per pair

Order ID	Size	Price €
530014.0100	9	6.50
530014.0200	10	6.50
530014.0300	11	6.50

530163 Cotton gloves FUTURO

As pair, **100% fine-knit cotton, micro nubs on the palm surface, wear-resistant,** suitable for working with slippery objects, secure grip and breathable.

CE Category I
Pack of 12 pairs
Price per pair

Order ID	Size	Price €
530163.0100	7	2.10
530163.0200	8	2.10
530163.0300	9	2.10
530163.0400	10	2.10

530180 Cotton gloves FUTURO

per pair, **of fine cotton tricot, for fine work,** e.g. in precision mechanics, décolletage, apparatus construction; also for protection against fingerprints.

CE Category I

Order ID	Size	Price €
530180.0060	6	1.70
530180.0080	7	1.70
530180.0090	8	1.70
530180.0100	9	1.70
530180.0200	10	1.70
530180.0300	11	1.70

530185 Cotton gloves

Premium

per pair, **of fine cotton tricot 180 g/m2, for fine work,** e.g. in precision mechanics, décolletage, apparatus construction; also for protection against fingerprints.

CE Category I

Order ID	Size	Price €
530185.0060	6	2.20
530185.0080	7	2.20
530185.0090	8	2.20
530185.0100	9	2.20
530185.0200	10	2.20
530185.0300	11	2.20
530185.0400	12	2.20
530185.0500	13	2.20

530190 Cotton gloves FUTURO

As pair, **in fine cotton tricot 220g/m2, for fine work,** e.g. precision mechanics, appliance construction; also to prevent fingerprints.

CE Category I

Order ID	Size	Price €
530190.0100	S	2.50
530190.0200	M	2.50
530190.0300	L	2.50
530190.0400	XL	2.50

530016 Cotton gloves NERIOX

Cord

As pair, **in cotton tricot, for delicate jobs** e.g. precision engineering, gusset/décolletage machining, apparatus construction; also to prevent fingerprints, pack of 12 pairs.

CE Category I
Pack of 12 pairs
Price per pair

Order ID	Size	Price €
530016.0100	6	0.80
530016.0200	7	0.80
530016.0300	8	0.80
530016.0400	9	0.80
530016.0500	10	0.80
530016.0600	11	0.80

NERIOX

530015 Cotton gloves NERIOX

Sensation

As pair, **100% cotton (heavy duty quality)**, with knitted cuff; all-purpose gloves for light, general work; thin sheet metal and other metalwork, work with heavy fouling and to protect materials from fingerprints.

CE Category I
Pack of 12 pairs
Price per pair

Order ID	Size	Price €
530015.0100	10	0.90

NERIOX

530017 Cotton gloves NERIOX

Tender

As pair, **100% cotton jersey**; all-purpose gloves for light, general work; thin sheet metal and other metalwork, work with heavy fouling and to protect materials from fingerprints, pack of 12 pairs.

CE Category I
Pack of 12 pairs
Price per pair

Order ID	Size	Price €
530017.0100	8	1.10
530017.0200	10	1.10

530266 Nylon knitted gloves FUTURO

Touch screen, white

sold by the pair, palm and fingertips reinforced with thin white PU coating, elasticated cuff, **touch screen compatible, for work requiring high abrasion resistance and extremely sensitive touch**; suitable for precision work.

CE Category II
EN 388:4131X
Pack of 1 pair
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530266.0100	6	3.40	530266.0400	9	3.40
530266.0200	7	3.40	530266.0500	10	3.40
530266.0300	8	3.40	530266.0600	11	3.40

530267 Nylon knitted gloves FUTURO

Touch screen, grey

sold by the pair, palm and fingertips reinforced with thin, grey PU coating, elasticated cuff, **touch screen compatible, for work requiring high abrasion resistance and extremely sensitive touch**; suitable for precision work.

CE Category II
EN 388:4131X
Pack of 1 pair
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530267.0100	6	3.40	530267.0400	9	3.40
530267.0200	7	3.40	530267.0500	10	3.40
530267.0300	8	3.40	530267.0600	11	3.40

530268 Nylon knitted gloves FUTURO

Touch screen, black

sold by the pair, palm and fingertips reinforced with thin, black PU coating, elasticated cuff, **touch screen compatible, for work requiring high abrasion resistance and extremely sensitive touch**, suitable for precision work.

CE Category II
EN 388:4131X
Pack of 1 pair
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530268.0100	6	3.40	530268.0400	9	3.40
530268.0200	7	3.40	530268.0500	10	3.40
530268.0300	8	3.40	530268.0600	11	3.40

530269 Nylon knitted gloves FUTURO

Touch screen, white

sold by the pair, seamless white nylon knit fabric, **touch screen compatible, palm reinforced with thin, grey nitrile coating,** elasticated cuff.

CE Category II
EN 388:4121X
Pack of 1 pair
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530269.0300	8	3.10	530269.0500	10	3.10
530269.0400	9	3.10			

FUTURO

530265 Nylon knitted gloves FUTURO

Touch screen, grey

Fine-knit fabric (gauge 15) with elastane, palm and fingertips feature black nitrile microfoam coating, particularly breathable, **particularly good sense of touch, touch screen compatible**, **high abrasion resistance,** very good fit and reliable grip and comfortable to wear.

CE Category II
EN 388:4131X
Pack of 1 pair
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530265.0100	7	5.10	530265.0400	10	5.10
530265.0200	8	5.10	530265.0500	11	5.10
530265.0300	9	5.10			

FUTURO

530225 Knitted nylon gloves FUTURO

White

Sold by pair, palm and fingertips reinforced with thin white PU coating, elastic cuff; **for work requiring high abrasion resistance and extremely sensitive touch**; suitable for precision work, in pack of 12.

CE Category II
EN 388:4131X
Pack of 12 pairs
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530225.0100	6	3.30	530225.0400	9	3.30
530225.0200	7	3.30	530225.0500	10	3.30
530225.0300	8	3.30	530225.0600	11	3.30

FUTURO

530226 Knitted nylon gloves FUTURO

grey

per pair, palm and fingertips reinforced with thin grey PU coating, elastic cuff; **for work requiring high abrasion resistance and extremely sensitive touch**; suitable for precision work.

CE Category II
EN 388:4131X
Pack of 12 pairs
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530226.0100	6	3.30	530226.0400	9	3.30
530226.0200	7	3.30	530226.0500	10	3.30
530226.0300	8	3.30	530226.0600	11	3.30

FUTURO

530227 Knitted nylon gloves FUTURO

black

per pair, palm and fingertips reinforced with thin black PU coating, elastic cuff; **for work requiring high abrasion resistance and extremely sensitive touch**; suitable for precision work.

CE Category II
EN 388:4131X
Pack of 12 pairs
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530227.0100	6	3.30	530227.0400	9	3.30
530227.0200	7	3.30	530227.0500	10	3.30
530227.0300	8	3.30	530227.0600	11	3.30

530252 Knitted nylon gloves with nubs, FUTURO

As pair, palm and fingertips with black fine-knit **nitrile microfoam coating. Nubbed grip print on palm**. For work that requires high abrasion resistance and good sense of touch.

CE Category II
EN 388:4141
Pack of 12 pairs
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530252.0100	8	6.60	530252.0300	10	6.60
530252.0200	9	6.60	530252.0400	11	6.60

530259 Nylon knitted gloves FUTURO

per pair, seamless white nylon knit fabric, **palm reinforced with thin grey nitrile coating,** elasticated cuff.

CE Category II
EN 388:4121X

Order ID	Size	Price €	Order ID	Size	Price €
530259.0100	M / 8	3.10	530259.0300	XL / 10	3.10
530259.0200	L / 9	3.10			

530194 Knitted nylon gloves FUTURO

gray

per pair, fine-knit weave (gauge 15) with Spandex, palm and fingertips are coated with black nitrile micro-foam coating, exceptionally breathable, **very good tactile feel, high abrasion resistance, very good fit and grip** with a pleasant wearing comfort.

CE Category II
EN 388:4131X
Pack of 12 pairs
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530194.0050	7	4.70	530194.0300	10	4.70
530194.0100	8	4.70	530194.0400	11	4.70
530194.0200	9	4.70			

530002 Polyester knitted gloves NERIOX

Worker, white

In pairs, palm and fingertips reinforced with thin white **PU coating**, elastic cuff, **for work requiring high abrasion resistance and extremely sensitive touch**, suitable for precision work, in pack of 12 pairs.

CE Category II
EN 388:2016 4131X
Pack of 12 pairs
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530002.0100	6	1.50	530002.0400	9	1.50
530002.0200	7	1.50	530002.0500	10	1.50
530002.0300	8	1.50	530002.0600	11	1.50

NERIOX

530003 Polyester knitted gloves NERIOX

Worker, grey

In pairs, palm and fingertips reinforced with thin, grey **PU coating**, elastic cuff, **for work requiring high abrasion resistance and extremely sensitive touch**, suitable for precision work, in pack of 12 pairs.

CE Category II
EN 388:2016 3131X
Pack of 12 pairs
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530003.0100	6	1.50	530003.0400	9	1.50
530003.0200	7	1.50	530003.0500	10	1.50
530003.0300	8	1.50	530003.0600	11	1.50

NERIOX

530004 Polyester knitted gloves NERIOX

Worker, black

In pairs, palm and fingertips reinforced with thin, black **PU coating**, elastic cuff, **for work requiring high abrasion resistance and extremely sensitive touch**, suitable for precision work, in pack of 12 pairs.

CE Category II
EN 388:2016 3121X
Pack of 12 pairs
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530004.0100	6	1.50	530004.0400	9	1.50
530004.0200	7	1.50	530004.0500	10	1.50
530004.0300	8	1.50	530004.0600	11	1.50

NERIOX

530005 Polyester knitted gloves NERIOX

Grip

In pairs, palm and fingertips with black **nitrile micro-foam coating**, especially breathable, **very good tactile sensitivity, high abrasion resistance, very good fit and secure grip** pack of 12 pairs.

CE Category II
EN 388:4131X
Pack of 12 pairs
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530005.0100	6	2.50	530005.0400	9	2.50
530005.0200	7	2.50	530005.0500	10	2.50
530005.0300	8	2.50	530005.0600	11	2.50

NERIOX

530006 Polyester knitted gloves NERIOX

Lamina

In pairs, seamless white polyester knit fabric, **palm reinforced with thin grey nitrile coating,** elasticated cuff.

CE Category II
EN 388:4131X
Pack of 12 pairs
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530006.0100	6	1.80	530006.0400	9	1.80
530006.0200	7	1.80	530006.0500	10	1.80
530006.0300	8	1.80	530006.0600	11	1.80

530228 Knitted nylon gloves FUTURO

grey

per pair, palm and fingertips reinforced with thin grey PU coating, elastic cuff, high abrasion resistance **with good cut protection**, mechanical resilience, good tactile touch and grip with optimal protection against sharp-edged parts.

CE Category II
EN 388:4243B
Pack of 12 pairs
Price per pair

Order ID	Size	Price €	Order ID	Size	Price €
530228.0050	7	8.30	530228.0300	10	8.30
530228.0100	8	8.30	530228.0400	11	8.30
530228.0200	9	8.30	530228.0500	12	8.30

530013 Welding gloves NERIOX

Blaze

In pairs, made of **natural white sheepskin leather** with layered cut and thumb inserts, cuffs made of split leather, **very soft and comfortable to wear**, length approx. 36 cm in size 10.

CE Category II
EN 388:2016 2122X
EN 407:2004 412X4X
Pack of 5 pairs
Price per pair

Order ID	Size	Price €
530013.0100	9	5.80
530013.0200	10	5.80
530013.0300	11	5.80

530022 Winter glove NERIOX

Snowflake

Polyester gloves, black with acrylic fleece interior, black **nitrile coating**, partial coating on palm and fingertips, knitted cuff. **Optimum protection from the cold**, superb **comfort** and **outstanding dexterity** are the defining features of this glove.

CE Category II
EN 388: 4242X; EN 511: X2X
Pack of 12 pairs
Price per pair

Order ID	Size	Price €
530022.0100	7 / S	3.95
530022.0200	8 / M	3.95
530022.0300	9 / L	3.95
530022.0400	10 / XL	3.95
530022.0500	11 / XXL	3.95

530023 Winter glove NERIOX

Snowflake Plus

Polyester gloves, black with acrylic fleece interior, black **nitrile coating**, full coating on the back of the hand, knitted cuff. **Optimum protection from the cold**, superb **comfort** and **outstanding dexterity** are the defining features of this glove.

CE Category II
EN 388: 4242X; EN 511: X2X
Price per pair

Order ID	Size	Price €
530023.0100	7 / S	4.50
530023.0200	8 / M	4.50
530023.0300	9 / L	4.50
530023.0400	10 / XL	4.50
530023.0500	11 / XXL	4.50

NERIOX

536371 Softshell jacket NERIOX

Lenny, black

95% polyester, 5% elastane, inner: Warm micro-polar polyester, 300 g/m².
Full-length zip and chin guard, outer breast pocket with zip, metal eyelet for mobile phone cable, outer side pockets with zips, cuffs with adjustable hook and loop closure, elastic drawstring with stopper in hem, **waterproof and windproof** with hook and loop closure at cuffs.

Alternatively also available:
536372 Softshell jacket NERIOX Lenny, navy blue

Order ID	Size	Price €
536371.0100	S	35.00
536371.0200	M	35.00
536371.0300	L	35.00
536371.0400	XL	35.00
536371.0500	XXL	35.00
536371.0600	XXXL	35.00

NERIOX

536372 Softshell jacket NERIOX

Lenny, navy blue

95% polyester, 5% elastane, inner: Extra warm micro-polar polyester, 300 g/m².
Full-length zip and chin guard, outer breast pocket with zip, metal eyelet for mobile phone cable, outer side pockets with zips, cuffs with adjustable hook and loop closure, elastic drawstring with stopper in hem, **waterproof and windproof** with hook and loop closure at cuffs.

Alternatively also available:
536371 Softshell jacket NERIOX Lenny, black

Order ID	Size	Price €
536372.0100	S	35.00
536372.0200	M	35.00
536372.0300	L	35.00
536372.0400	XL	35.00
536372.0500	XXL	35.00
536372.0600	XXXL	35.00

NERIOX

536373 Softshell sleeveless jacket NERIOX

Adam black

95% polyester, 5% elastane, inner: Warm micro-polar polyester, 300 g/m².
Continuous, concealed zip with chin guard, colour co-ordinated, **warm micro-fleece lining**, right breast pocket with zip, two zipped side pockets and elastic drawstring with stopper in hem.

Alternatively also available:
536374 Softshell sleeveless jacket NERIOX Adam, navy blue

Order ID	Size	Price €
536373.0100	S	32.00
536373.0200	M	32.00
536373.0300	L	32.00
536373.0400	XL	32.00
536373.0500	XXL	32.00
536373.0600	XXXL	32.00

NERIOX

536374 Softshell sleeveless jacket NERIOX

Adam, navy blue

Outer: 92% polyester, 8% elastane, inner: 100% polyester, 300 g/m².
Continuous, concealed zip with chin guard, colour co-ordinated, **warm micro-fleece lining**, right breast pocket with zip, two zipped side pockets and elastic drawstring with stopper in hem.

Alternatively also available:
536373 Softshell sleeveless jacket NERIOX Adam black

Order ID	Size	Price €
536374.0100	S	32.00
536374.0200	M	32.00
536374.0300	L	32.00
536374.0400	XL	32.00
536374.0500	XXL	32.00

534033 Safety sandals S1P NERIOX

Prato 1

Quality shoes according to EN ISO 20345:2011 S1P, upper made of suede and Cordura, abrasion-resistant and breathable lining, **steel toecap, puncture-resistant steel midsole,** non-slip and oil-resistant PU/PU outsole**.**

Alternatively also available:
534034 Safety lace-up shoes S1P NERIOX Prato 2

Order ID	Size	Price €
534033.0100	39	39.00
534033.0200	40	39.00
534033.0300	41	39.00
534033.0400	42	39.00
534033.0500	43	39.00
534033.0600	44	39.00
534033.0700	45	39.00
534033.0800	46	39.00
534033.0900	47	39.00

534866 Safety low shoes S1P FUTURO

Light 1 SRC

Quality shoes according to EN ISO 20345:2011 S1P SRC made of suede and textile, lining made of On-Steam fabric, 100% metal-free, **protective cap made of plastic and midsole made of Kevlar**, removable and anti-static inner sole and double thickened SRC PU sole incl. shoe laces in white and red.

Order ID	Size	Price €
534866.0100	37	79.00
534866.0200	38	79.00
534866.0300	39	79.00
534866.0400	40	79.00
534866.0500	41	79.00
534866.0600	42	79.00
534866.0700	43	79.00
534866.0800	44	79.00
534866.0900	45	79.00
534866.1000	46	79.00
534866.1100	47	79.00

534873 Safety low shoes S1P

FT 01, blue

Quality shoes according to EN :2011 S1P SRC, upper made of breathable textile material, breathable and abrasion-proof lining, **polycarbonate plastic protective cap**, flexible perforation protection, replaceable, anatomical and anti-static inlay sole and anti-slip SRC sole.

Order ID	Size	Price €
534873.0100	39	69.00
534873.0200	40	69.00
534873.0300	41	69.00
534873.0400	42	69.00
534873.0500	43	69.00
534873.0600	44	69.00
534873.0700	45	69.00
534873.0800	46	69.00
534873.0900	47	69.00

NERIOX

534262 Mid-height safety shoes S1P NERIOX

Track low

Plastic toe cap

Quality shoes in accordance with EN ISO 20345:2011 S1P, upper made from water-repellent suede, abrasion-resistant and breathable lining, **plastic protective toecap**, puncture-resistant fabric midsole, high-density PU foam insole for optimal cushioning, PU/PU outer sole.

CE Category II
EN ISO 20345:2011

Order ID	Size	Price €
534262.0100	39	69.00
534262.0200	40	69.00
534262.0300	41	69.00
534262.0400	42	69.00
534262.0500	43	69.00
534262.0600	44	69.00
534262.0700	45	69.00
534262.0800	46	69.00
534262.0900	47	69.00

FUTURO

534863 Safety low shoes S3 FUTURO

Classic Low

Safety shoes according to EN ISO 20345:2011 S3 SRC, shank made of water-repellent full-grain leather, breathable and abrasion-proof lining, **protective cap made of composite**, puncture-resistant fabric midsole, replaceable and anatomical cushion, SRC outer sole made of non-slip polyurethane

Order ID	Size	Price €
534863.0100	39	59.00
534863.0200	40	59.00
534863.0300	41	59.00
534863.0400	42	59.00
534863.0500	43	59.00
534863.0600	44	59.00
534863.0700	45	59.00
534863.0800	46	59.00
534863.0900	47	59.00

FUTURO

534312 Safety shoes S3 FUTURO

TREK

Quality shoes according to DIN EN ISO 20345-1:2012 S3, high, **waterproof** safety shoes, black 2.4 mm thick leather, **lining made of soft cowhide leather**, scruff cap, **steel toe cap** and midsole made of Kevlar. Vibram sole heat-resistant up to 250°C.

Order ID	Size	Price €
534312.0100	38	109.00
534312.0200	39	109.00
534312.0300	40	109.00
534312.0400	41	109.00
534312.0500	42	109.00
534312.0600	43	109.00
534312.0700	44	109.00
534312.0800	45	109.00
534312.0900	46	109.00
534312.1000	47	109.00
534312.1100	48	129.00

534233 Safety lace-up shoes S3 NERIOX

NERIOX

Lucca 1

Quality shoes according to EN ISO 20345:2011 S3, upper made of water-repellent leather, abrasion-resistant and breathable lining, **steel toecap, puncture-resistant steel midsole,** non-slip and oil-resistant PU/PU outsole**.**

Alternatively also available:
534234 Safety shoes S3 NERIOX Lucca 2

Order ID	Size	Price €
534233.0100	39	29.00
534233.0200	40	29.00
534233.0300	41	29.00
534233.0400	42	29.00
534233.0500	43	29.00
534233.0600	44	29.00
534233.0700	45	29.00
534233.0800	46	29.00
534233.0900	47	29.00

534234 Safety shoes S3 NERIOX

NERIOX

Lucca 2

Quality shoes according to EN ISO 20345:2011 S3, upper made of water-repellent leather, abrasion-resistant and breathable lining, **steel toecap, puncture-resistant steel midsole,** non-slip and oil-resistant PU/PU outsole**.**

Alternatively also available:
534233 Safety lace-up shoes S3 NERIOX Lucca 1

Order ID	Size	Price €
534234.0100	39	39.00
534234.0200	40	39.00
534234.0300	41	39.00
534234.0400	42	39.00
534234.0500	43	39.00
534234.0600	44	39.00
534234.0700	45	39.00
534234.0800	46	39.00
534234.0900	47	39.00

534257 Mid-height safety shoes S3 NERIOX

NERIOX

Strong low

Plastic toe cap
Quality shoes in accordance with EN ISO 20345:2011 S3, upper made from water-repellent full-grain leather, abrasion-resistant and breathable lining, **protective plastic toecap**, puncture-resistant fabric midsole, high-density PU foam insole for optimal cushioning, PU/PU outer sole**.**

CE Category II
EN ISO 20345:2011

Order ID	Size	Price €
534257.0100	39	69.00
534257.0200	40	69.00
534257.0300	41	69.00
534257.0400	42	69.00
534257.0500	43	69.00
534257.0600	44	69.00
534257.0700	45	69.00
534257.0800	46	69.00
534257.0900	47	69.00

NERIOX

534258 Safety shoes S3 NERIOX

Strong high

Plastic toe cap

Quality shoes in accordance with EN ISO 20345:2011 S3, upper made from water-repellent full-grain leather, abrasion-resistant and breathable lining, **protective plastic toecap**, puncture-resistant fabric mid-sole, high-density PU foam insole for optimal cushioning, PU/PU outer sole**.**

CE Category II
EN ISO 20345:2011

Order ID	Size	Price €
534258.0100	39	69.00
534258.0200	40	69.00
534258.0300	41	69.00
534258.0400	42	69.00
534258.0500	43	69.00
534258.0600	44	69.00
534258.0700	45	69.00
534258.0800	46	69.00
534258.0900	47	69.00

537001 Skin protection NERIOX

Daily

Easy-to-apply, **fast-absorbing oil-in-water (O/W) skin protection emulsion**, with innovative film-forming system that protects against **water-soluble and water-insoluble agents**, non-greasy for a particularly good grip after application, leaves no marks, free from silicone, can be used under gloves, only a small amount is required, compatible with hand sanitiser.

Allows the user to work with multiple materials without leaving any marks, even if the user wears gloves for some tasks. **Recommended as protection against many infections.**

Order ID	Contents ml	Packs	Price €
537001.0100	**100**	Tube	**7.90**

537361 Skincare NERIOX

Pellis

Protects and cares for hands and face. High-quality vegetable oils and lipids, such as almond oil, avocado oil and cocoa butter keep the skin smooth and supple without leaving a „greasy" feeling. The 3B skincare complex consisting of betaine, bisabolol and beeswax provides excellent caring properties. Regular use keeps the skin healthy and strengthens its defences.

Application:
After work and during breaks, apply to clean, dry skin and rub in. Make sure that the cream is applied carefully between the fingers and on the nails.

Order ID	Contents ml	Packs	Price €
537361.0100	**100**	Tube	**5.50**

NERIOX

537164 Hand cleanser NERIOX

Ruka

Mild, creamy hand cleansing lotion. The addition of skin-friendly surfactants results in a fine and creamy foam with good cleansing properties. Contains moisturising and nourishing ingredients that keep skin soft and supple, lightly perfumed.

Hand cleanser NERIOX Ruka meets all the requirements expected of a modern skin cleanser. The optimised system is made from selected surfactants, ensuring **very good cleaning power while remaining suitable for most skin types**. For effectively removing oils, lubricants and fats, graphite, soot, dust, paints and printing inks from skin.

Application:
Apply one or two pumps to lightly moistened hands, then rub in evenly over the entire surface of the hands. Once the contamination has loosened, rinse well with water until there is no more foam on the hands.

Order ID	Contents ml	Packs	Price €
537164.0100	250	Bottle	4.50
537164.0200	10000	Canister	75.00

NERIOX

537163 Hand cleanser NERIOX

Lima

Mild, creamy hand cleansing lotion. The addition of skin-friendly surfactants results in a fine and creamy foam with good cleansing properties. Contains moisturising and nourishing ingredients that keep skin soft and supple, lightly perfumed.

Application:
Apply to skin with a little water and lather well, ensuring that the soap is spread evenly over the hands. Rinse off the fine, creamy foam with water.

Order ID	Contents ml	Packs	Price €
537163.0100	250	Bottle	4.50
537163.0200	10000	Canister	59.00

537289 Disinfectant dispenser NERIOX

Doador

Stable column with solid, round base plate, **base plate diameter approx. 390 mm, column approx. 1190 mm in height**, total weight 15 kg, consists of three individual parts including plastic direct dispenser with integrated drip tray, **capacity 1000 ml**, can be operated using the elbow.

Supplied with empty bottle without content

Order ID	Filling capacity ml	Version	Price €
537289.0200	**1000**	Incl. assembly tool	**272.00**

You can find all dimensions, sizes and versions in the ToolShop at www.brw.ch

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16.000 m²
WAREHOUSE SPACE

100.000 m³
BUILDING VOLUME

99 %
READY FOR DELIVERY
ON STOCK ITEMS

OPTIMAL
PROCESSES

FASTEST
DELIVERY

Brütsch/Rüegger Tools Ltd.
P.O. Box
CH-8902 Urdorf
Switzerland

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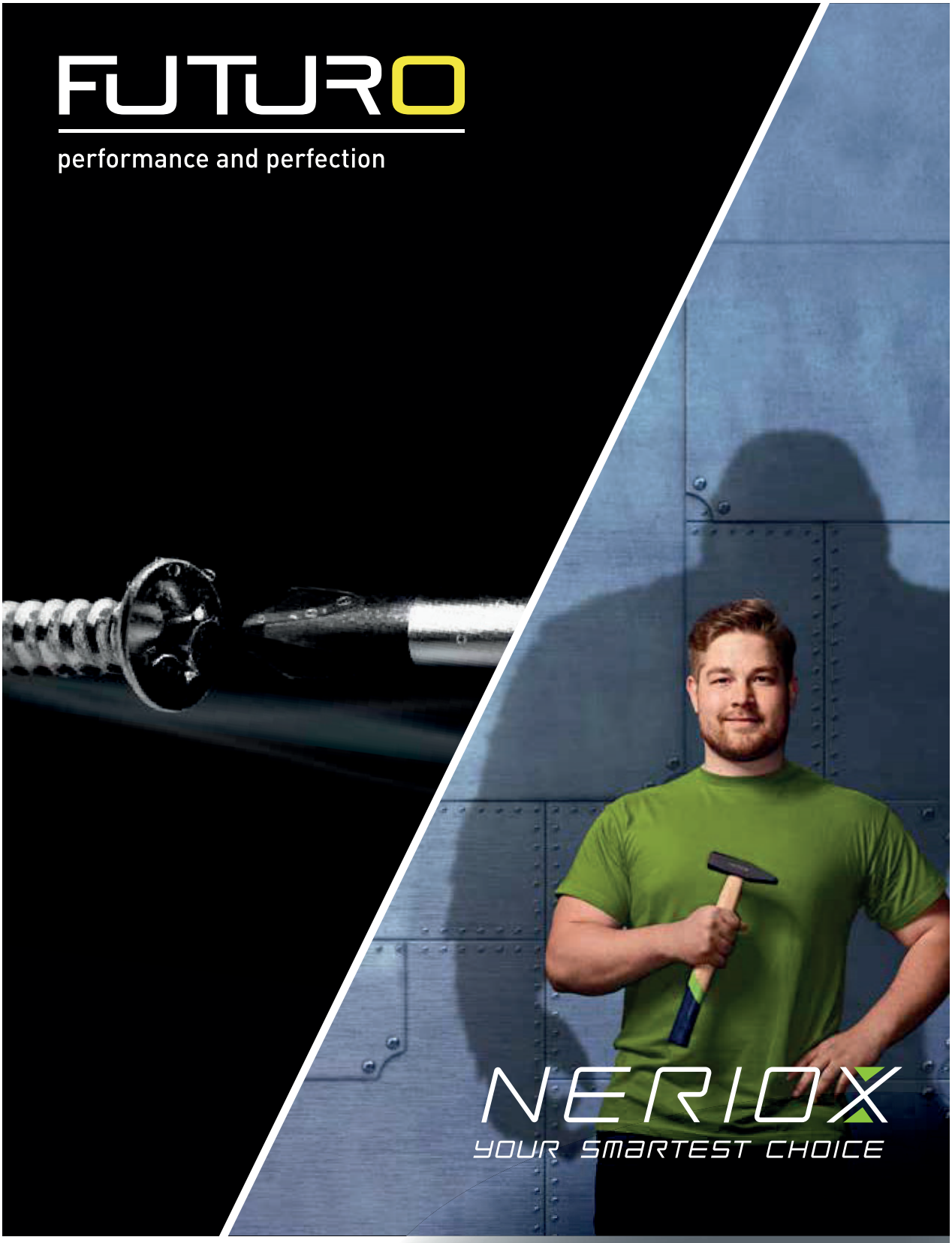
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