

New products for machining technicians

NEW M03Speed – Precision adjustment head



- ▲ Application range Ø 24.8 – 206 mm
- ▲ Unique: Automatic, dynamic balancing compensation in the slide for maximum speeds
- ▲ Extremely user-friendly: Adjustment scale: high resolution gives easy read-off

→ Page 15+16

NEW FF precision adjustment head



- ▲ Application range Ø 29.5 – 199 mm
- ▲ Precision rotary cartridge can also be implemented just as flexibly into tools developed in-house

→ Page 17+18

NEW Fine boring bar



- ▲ Application range Ø 15.9 – 26 mm
- ▲ Precision adjustment range: 0.02 mm in Ø per line
- ▲ Ideal for high speeds

→ Page 21

NEW TwinKom



- ▲ Application range Ø 24 – 215 mm
- ▲ Twin cutter with axially and radially adjustable insert holders
- ▲ Compact, very stable design

→ Page 42-44

NEW hi.flex – Digital



- ▲ hi.flex goes digital: The newly developed variant of the hi.flex precision adjustment head now supports the analogue and digital adjustment of the diameter to be machined

→ Page 11

NEW Digital stick

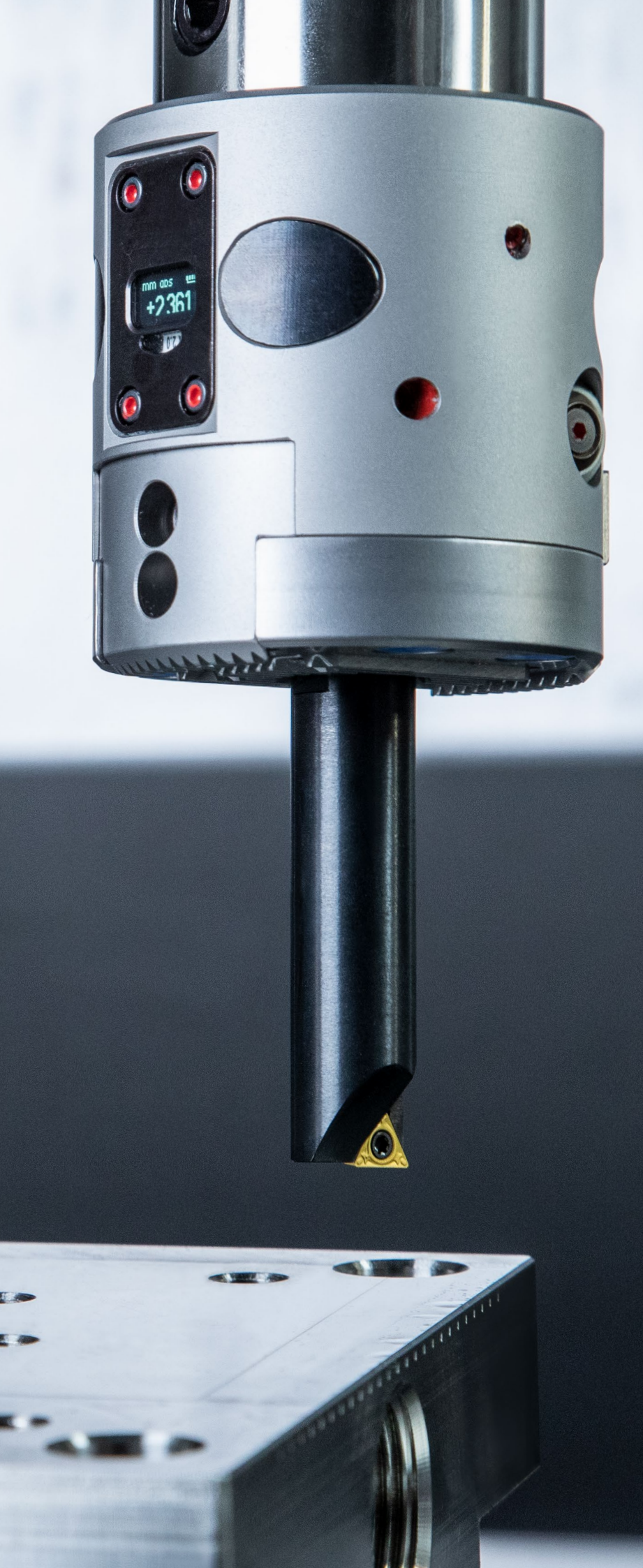


- ▲ Digital 2.0: Update of the existing digital stick from the SpinTools line for even more precise adjusting

NEW Accessories



- ▲ Expansion of the existing equipment for hi.flex and BluFlex 2 with various attachments
- ▲ Expansion of the spindle range: Ø 5.6 – 365 mm



Solid drilling and bore machining

- 1 HSS drilling
- 2 Solid carbide drilling
- 3 Indexable insert drilling
- 4 Reaming and Countersinking

5 Spindle Tooling

5

Threading

- 6 Taps and thread formers
- 7 Circular and Thread Milling
- 8 Thread turning

Turning

- 9 Turning Tools
- 10 Multifunctional Tools – EcoCut and FreeTurn
- 11 Grooving Tools
- 12 Miniature turning tools

Milling

- 13 HSS Milling Cutters
- 14 Solid Carbide milling cutters
- 15 Milling tools with indexable inserts

Catalogue – Clamping technology

- 16 Adaptors and Accessories
- 17 Workpiece clamping

- 18 Material examples and article no. Index

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Maximum speeds, scale accuracy and maximum overhang length LTA	72+73
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KOMET \ Performance

Premium quality tools for high performance.

The premium quality tools from the **KOMET Performance** product line have been designed for specific applications and are distinguished by their outstanding performance. If you make high demands on the performance of your production and want to achieve the very best results, we recommend the Premium tools in this product line.

Symbol explanation

F	Fine Machining
M	Medium Machining
R	Rough Machining

	Smooth cut
	Irregular cutting depth
	Interrupted cut



Coolant supply central
Steep taper Form AD



Coolant supply either
via the flange or centrally

ABS

KOMET ABS – modular coupling system
for rotating and stationary tools

STM

Modular SpinTools interface

ER 32

System-independent ER 32 interface

Micron-precise display resolution:
0.001 mm in diameter

Modern, high contrast OLED display
on the precision adjustment head itself



Universal ABS interface

Absolute position measuring system

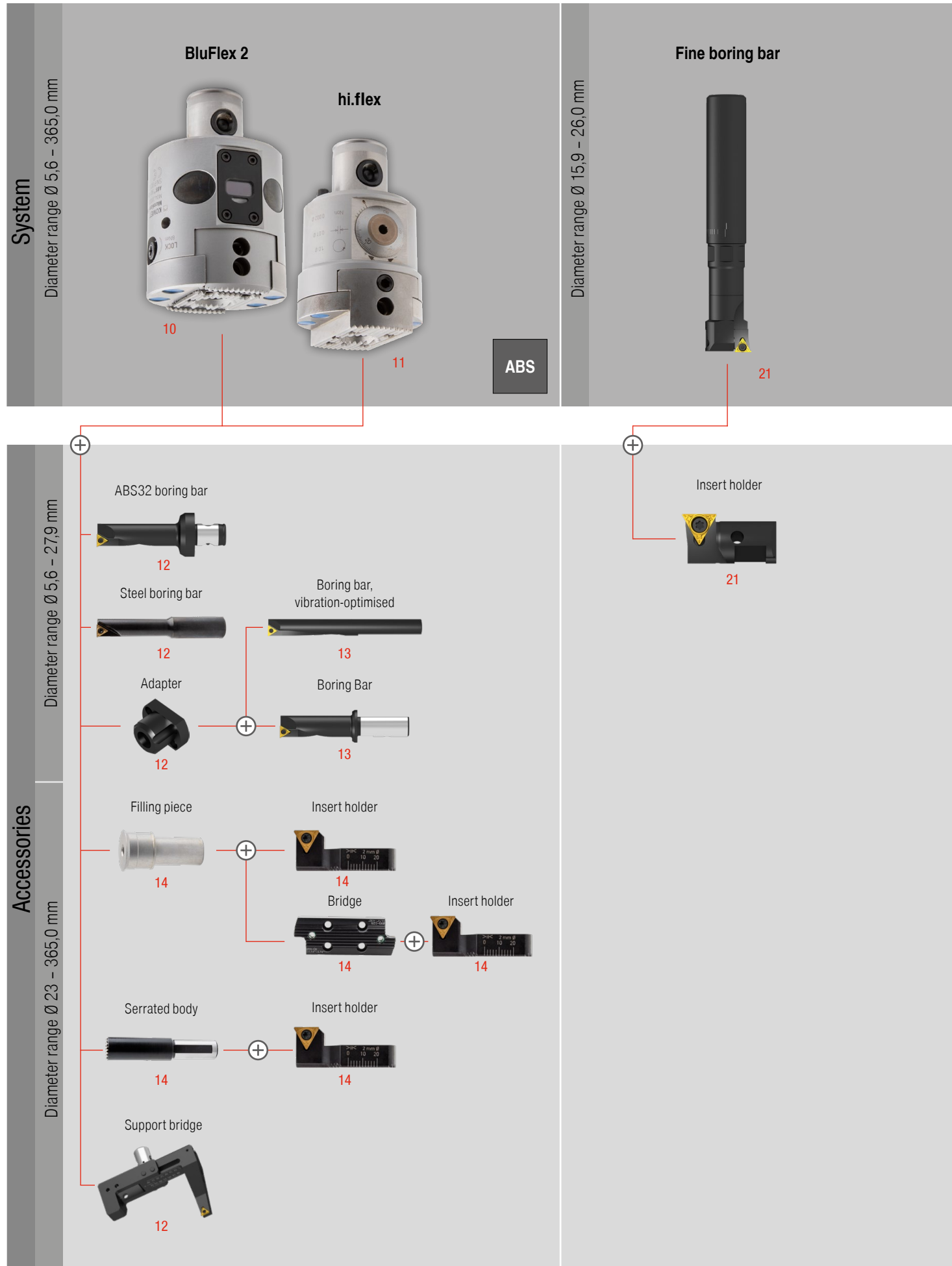
Additional Bluetooth Low Energy interface
for easy display on any conventional smartphone

Toolfinder

System		Diameter range per head in mm					Digital	Analogue	ABS Modular	STM Modular	ER 32 Modular	Monoblock	Through spindle	Comments	Page No.
Machining	Finishing	BluFlex 2 – precision adjustment head Ø 5,6–365 mm	5,6–365					✓		✓			✓	Through spindle larger head diameters	10
		hi.flex – precision adjustment head Ø 5,6–365 mm	5,6–365					✓	✓	✓			✓	Through spindle larger head diameters	11
		M03 Speed – precision adjustment head Ø 24,8–206 mm	24,8–33,0 79–103	29–39 100–206	38–50	49–63 62–80		✓	✓				✓		15
		FF precision adjustment head Ø 29,5–199 mm	29,5–36 56–66 100–121	35,5–42 58–71 120–141	39–45 70–83 138–159	44–50 79–94 158–179	47–57 93–108 178–199		✓	✓			✓		17
		Micro Boring Head Ø 0,3–19,1 mm	0,3–7,1		0,3–19,1		✓	✓							19
		Fine boring bar Ø 15,9–26 mm	15,9–20	19–23	22–26			✓					✓		21
		Fine boring head Ø 14,7–24,1 mm	14,7–17,1	16,7–20,1	19,7–24,1			✓					✓		22
		Multi-Head – Fine boring head Ø 3,0–320 mm	3,0–320						✓		✓	✓	✓	Through spindle larger head diameters	24
		Single point boring head Ø 3,0–88,1 mm	3,0–88,1					✓	✓		✓	✓	✓	Through spindle larger head diameters	26–28
		Single point finish boring heads Ø 23,9–116,1 mm	23,9–31,1 86,9–116,1	30,9–40,1	39,9–51,1	50,9–67,1 66,9–87,1		✓	✓		✓		✓		35
		Vario-Head – boring and fine boring head Ø 3,0–152 mm	3,0–152					✓		✓					38
		Single point finish boring heads Ø 86–402 mm	86–402						✓		✓		✓		40
		Console tool with baseplate Ø 150–655 mm	150–205 400–455	200–255 450–505	250–305 500–555	300–355 550–605	350–405 600–655		✓				✓	also available with roughing head	
		Console tool with slide Ø 650–2205 mm	650–1105	1100–1655	1650–2205			✓					✓	also available with roughing head	
Roughing – Finishing	TwinKom	Ø 24–215 mm	24–32 83–124	30–41 109–167	39–53 139–215	51–71 64–91		✓	✓				✓	in short and long version	42
		Twin edged rough / fine boring head Ø 29,5–115,5 mm	29,5–40,1	39,5–50,5	49,5–66,5	65,5–87,5	86,5–115,5		✓		✓		✓		45
Roughing	Twin rough boring head Ø 23,5–153,0 mm	23,5–30,5 86,5–115,5	29,5–40,1 114,5–153,0	39,5–50,5	49,5–66,5	65,5–87,5		✓		✓			✓		47

 This article can be found in our online shop at cuttingtools.ceratzit.com

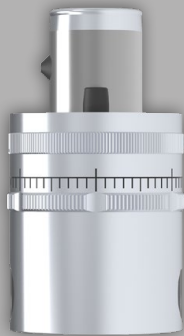
System overview – MicroKom



— = necessary
- - - = optional

Diameter range Ø 24,8 – 206,0 mm

**M03 Speed precision
adjustment head**



15

ABS

Diameter range Ø 25,9 – 199,0 mm

**FF precision
adjustment head**

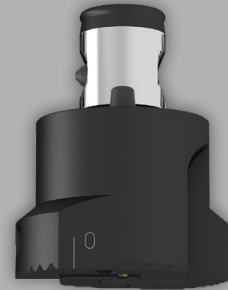


17

ABS

Diameter range Ø 24 – 215,0 mm

TwinKom



42

ABS

Diameter range Ø 24,8 – 39,0 mm

Insert holder



16

Diameter range Ø 38,0 – 103,0 mm

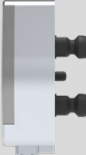
Insert holder



16

Diameter range Ø 100,0 – 206,0 mm

Interchangeable
bridge



16

Insert holder



16



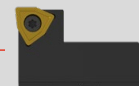
Precision turning
insert



18



Tool holder 90°
radially adjustable



43

Tool holder 80°
radially adjustable



43

Basic tool holder,
radially + axially adjustable



44

Indexable insert
90°



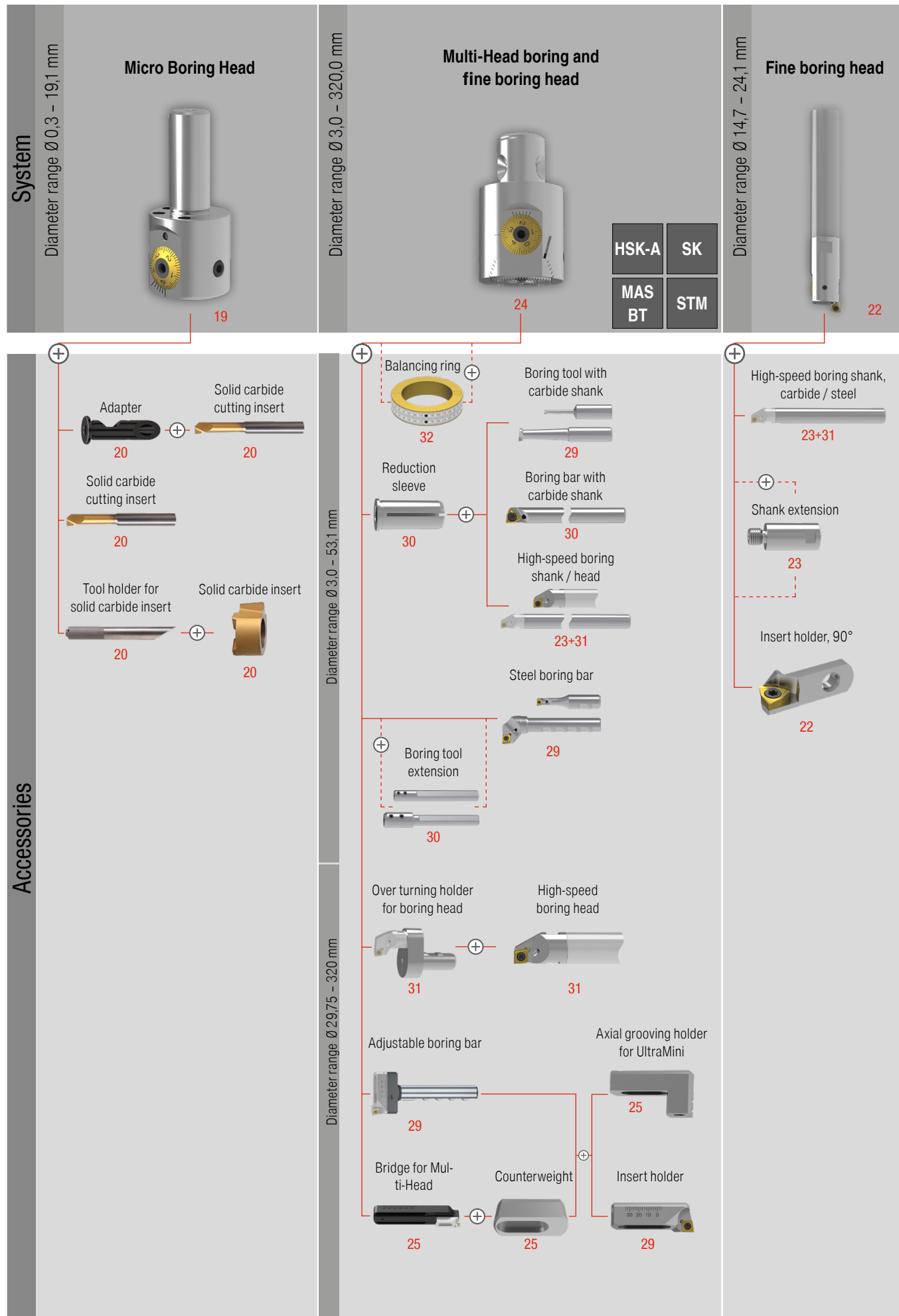
44

Indexable insert
80°



44

System overview – SpinTools



— = necessary
- - - = optional

Diameter range Ø 23,9 – 134,1 mm

Single point finish boring heads

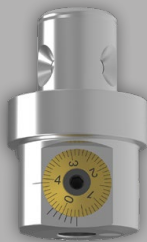


35

STM

Diameter range Ø 3,0 – 88,0 mm

Single point boring head



26-28

ER 32

HSK-A

SK

MAS
BT

STM

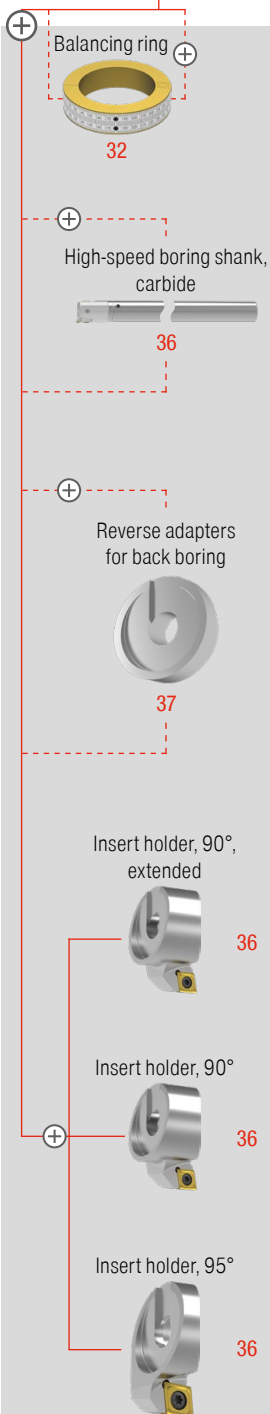
Diameter range Ø 3,0 – 152 mm

Vario-Head - boring and fine boring head

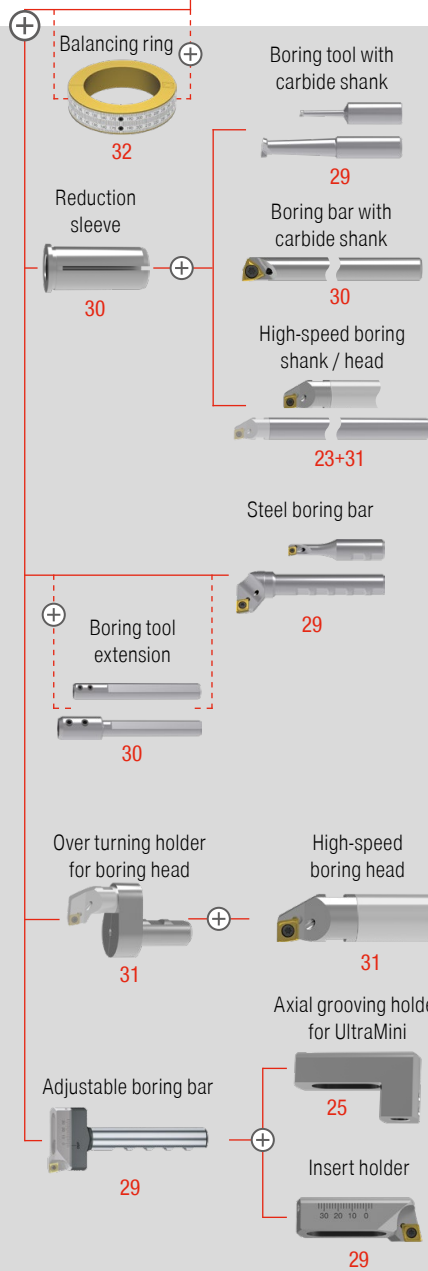


38

STM

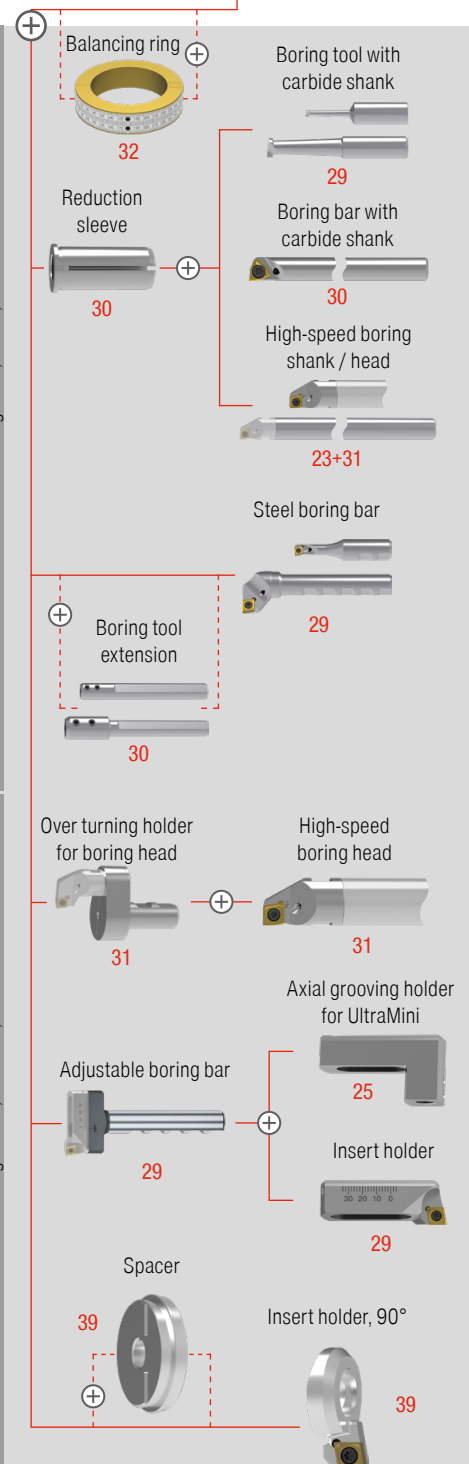


Diameter range Ø 3,0 – 53,1 mm



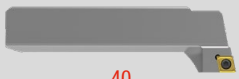
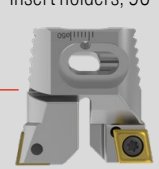
Diameter range Ø 29,75 – 88,0 mm

Diameter range Ø 3,0 – 53,1 mm



Diameter range Ø 29,75 – 152,0 mm

System overview – SpinTools

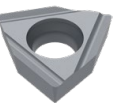
System		
Accessories		
Single point finish boring heads Diameter range Ø 86,0 – 402,0 mm  40 STM	Twin edged rough / fine boring head Diameter range Ø 29,5 – 115,5 mm  45 STM	Twin rough boring head Diameter range Ø 23,5 – 153,0 mm  47 STM
Insert holder  40	Pair of roughing/finishing insert holders, 90°  46	Pair of insert holders, Standard 90°  48 Pair of insert holders, Standard 70°  48 Pair of insert holders, Synchro 90°  49 Insert holder 90°, axial offset 0.4 mm  49

Overview of base adapters and accessories

						
System			SK	MAS-BT	HSK-A	Cylindrical shank
Base adapter		ABS	Catalogue – Clamping technology → Page:			
			41	87	146	
Base adapter		STM	51	52	53	54

Accessories

Extension		STM	57
Reduction		STM	55+56
Collet Chuck		STM	50
Shell mill adapter		STM	50

General		
Balancing rings		32
Indexable inserts MicroKom		58-61
Indexable inserts SpinTools		62+63

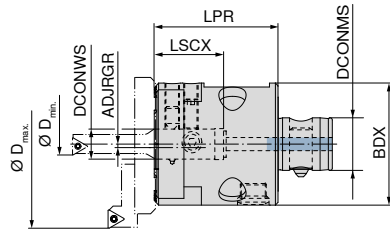
MicroKom – BluFlex 2 – precision adjustment head

- ▲ Via the free app (Android/iOS), an extended display can be transferred to a standard smartphone (62 840 16097)
- ▲ For MicroKom boring bars with Ø 16 or with ABS 32, MicroKom bridges, and serrated body
- ▲ With thro' coolant supply
- ▲ LSCX = Recess depth of boring bar

Scope of supply:

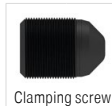
incl. Battery

ABS



without Bluetooth with Bluetooth

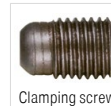
D _{min} - D _{max} mm	KOMET no.	Adapter	DCONWS mm	DCONMS mm	BDY mm	LPR mm	LSCX mm	ADJRGR mm	without Bluetooth 62 820 ... £ W4 2,187.07	with Bluetooth 62 840 ... £ W4 2,187.07
5,6 - 365	M04 30100	ABS 50	16	28	65	71	38	4.65	16097	16097
5,6 - 365	M04 30000	ABS 50	16	28	65	71	38	4.65		



Clamping screw



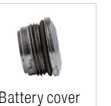
Clamping screw



Clamping screw



Clamping sleeve



Battery cover

Spare parts for Article no.

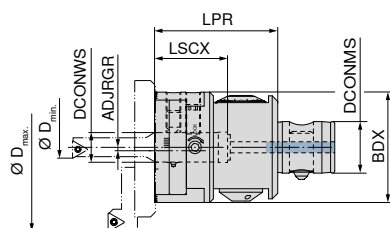
	62 950 ... £ XX	62 950 ... £ W7	62 950 ... £ W7	62 950 ... £ W7	62 950 ... £ W7
62 820 16097	M8x12/SW4 9.47 13989	M8x20/SW4 1.55 13700	M5x14/SW4 2.26 18600	M5x14/SW4 6.50 18500	M5x14/SW4 8.66 18400
62 840 16097	M8x12/SW4 9.47 13989	M8x20/SW4 1.55 13700	M5x14/SW4 2.26 18600	M5x14/SW4 6.50 18500	M5x14/SW4 8.66 18400

Suitable ABS adapters can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**

MicroKom – hi.flex – precision adjustment head

- ▲ for MicroKom boring bars with Ø 16 mm or ABS 32, MicroKom bridges, and serrated body
- ▲ with thro' coolant supply
- ▲ LSCX = Recess depth of boring bar

ABS



5

D _{min} - D _{max} mm	KOMET no.	Adapter	DCONWS mm	DCONMS mm	BDX mm	LPR mm	LSCX mm	ADJRGR mm	Analogue		NEW Digital	
									62 800 ...	£	62 800 ...	£
5,6 - 365	M05 01000	ABS 50	16	28	60	67	39.7	10.5	1,101.26	16097	1,273.37	16197
5,6 - 365	M04 10040	ABS 50	16	28	60	67	39.7	10.5				

Spare parts for Article no.

		62 950 ...	£		62 950 ...	£		62 950 ...	£	
62 800 16097	M8x8/SW4	1.55	14700	M8x1x12/SW4	9.47	13989	M8x1x20/SW4	1.55	13700	
62 800 16197	M8x8/SW4	1.55	14700	M8x1x12/SW4	9.47	13989	M8x1x20/SW4	1.55	13700	



Suitable ABS adapters can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**

SpinTools – Digital Stick

- ▲ suitable for all SpinTools digital heads as well as for hi.flex Digital
- ▲ revised software for even more precise adjustment

Scope of supply:

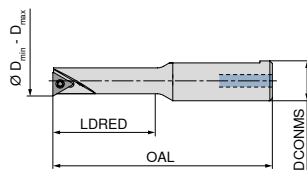
incl. AAA Battery



NEW	
62 309 ...	£
	W4
271.82	00100

MicroKom – Steel boring bar for hi.flex, BluFlex 2

▲ With internal coolant supply



62 850 ...

D _{min} - D _{max} mm	KOMET no.	OAL mm	LDRED mm	DCONMS _{h6} mm	Insert	£	
6 - 8	B05 20100	71.7	21.0	16	WO.. 02T0	118.47	00600
8 - 12	B05 20120	77.4	28.0	16	TO.. 06T1	122.39	00800
10 - 14	B05 20140	81.8	34.0	16	TO.. 0902	117.24	01000
12 - 18	B05 20160	88.2	42.0	16	TO.. 0902	127.53	01200
14 - 18	B05 20180	94.4	50.0	16	TO.. 0902	126.20	01400
18 - 25	B05 20220	100.0	60.0	16	TO.. 0902	133.93	01800
22 - 26	B05 20260	108.0	68.5	16	TO.. 1403	153.30	02200



TORX® Screws

62 950 ...

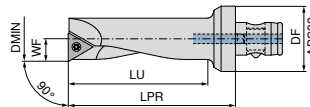
Spare parts

Insert	£	
TO.. 06T1	2.69	12800
TO.. 0902	2.34	12000
TO.. 1403	2.34	12600
WO.. 02T0	2.34	11800

MicroKom – Boring bar

▲ With internal coolant supply

ABS



NEW

62 857 ...

DMIN mm	KOMET no.	WF mm	DF mm	LU mm	LPR mm	Insert	£	
7.9	B00 25610	3.95	32	28	42	TO.X 06T1..	284.71	07989
8.9	B00 25700	4.45	32	34	48	TO.X 06T1..	287.13	21989
9.9	B00 25620	4.95	32	34	48	TO.X 06T1..	287.13	08989
10.9	B00 25710	5.45	32	43	57	TO.X 0902..	295.45	23989
11.9	B00 25630	5.95	32	43	57	TO.X 0902..	294.29	09989
13.9	B00 25640	6.95	32	50	64	TO.X 0902..	296.72	10989
15.9	B00 25650	7.95	32	58	72	TO.X 0902..	305.15	11989
17.9	B00 25661	8.95	32	59	72	TO.X 0902..	313.47	13989
19.9	B00 25671	9.90	32	70	82	TO.X 0902..	318.32	15989
21.9	B00 25681	10.90	32	70	82	TO.X 0902..	325.48	17989
23.9	B00 25691	11.90	32	70	82	TO.X 0902..	331.49	19989



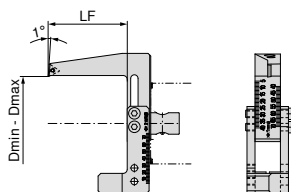
TORX® Screws

62 950 ...

Spare parts

Insert	£	
TO.X 06T1..	2.69	12800
TO.X 0902..	2.34	12000

MicroKom – Spindle tool



NEW

62 866 ...

D _{min} - D _{max} mm	KOMET no.	LF mm	Insert	£	
5 - 70	M05 90300	58	TO.X 0902..	456.46	07000



Cylindrical screw



TORX® Screws

62 950 ...

£ W7

1.01 26800

62 950 ...

£ W7

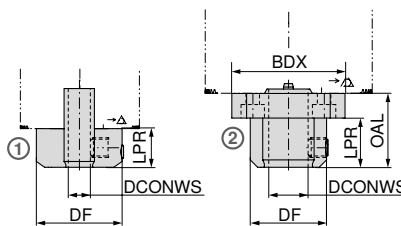
2.34 12000

Spare parts

Insert	£	
TO.X 0902..	2.34	12000

MicroKom – Adapter

▲ for 62 852 ..., 62 853 ..., 62 856 ... (essential for using the boring bar)



NEW

62 851 ...

DCONWS mm	KOMET no.	OAL mm	BDX mm	DF mm	LPR mm	Fig.	£	
6	M05 90200			31	16	1	123.70	00600
8	M05 90210			31	16	1	123.70	00800
10	M05 90220	25	46	31	15	2	155.00	01000
12	M05 90230	25	46	31	15	2	155.00	01200
16	M05 90240	30	46	31	20	2	155.00	01600



Cylindrical screw



Clamping screw

62 950 ...

£ W7

0.87 00000

62 950 ...

£ W7

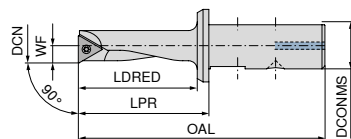
1.82 44800

Spare parts

DCONWS	£	
6 - 8	0.87	00000
10 - 12	0.87	00000
16	1.55	14700

MicroKom – Boring bar

- ▲ can only be used with adapter 62 851 ...
- ▲ with internal coolant supply



NEW

62 856 ...

DCN mm	KOMET no.	OAL mm	LPR mm	DCONMS mm	WF mm	LDRED mm	Insert	£	
5.6	B00 37010	48	26	8	2.75	22	WOHX 02T0..	174.17	05600
6.5	B00 37020	52	30	8	3.20	26	WOHX 02T0..	168.17	06500
8.0	B00 15510	57	35	8	3.95	28	TO.X 06T1..	164.59	08000
8.0	B00 15610	75	35	16	3.95	30	TO.X 06T1..	167.01	00800
10.0	B00 15620	80	40	16	4.95	35	TO.X 0902..	168.17	01000
11.0	B00 15710	85	45	16	5.45	40	TO.X 0902..	171.75	01100
12.0	B00 15530	67	45	16	5.95	38	TO.X 0902..	174.17	01200
12.0	B00 15630	85	45	16	5.95	40	TO.X 0902..	174.17	01200
14.0	B00 15640	90	50	16	6.95	45	TO.X 0902..	176.60	01400
16.0	B00 15650	95	55	16	7.95	50	TO.X 0902..	186.19	01600
18.0	B00 15661	100	60	16	8.95	55	TO.X 0902..	193.35	01800
19.0	B00 15751	105	65	16	9.45	60	TO.X 0902..	193.35	01900
20.0	B00 15671	105	65	16	9.90	60	TO.X 0902..	194.62	02000
22.0	B00 15681	105	65	16	10.90	60	TO.X 0902..	210.21	02200
24.0	B00 15691	105	65	16	11.90	60	TO.X 0902..	211.37	02400



TORX® Screws

62 950 ...

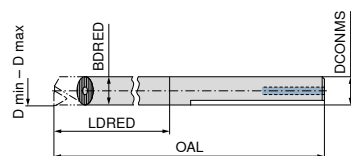
Spare parts

DCN

DCN	£	
5,6-6,5	2.34	11800
8-10	2.69	12800
11-24	2.34	12000

MicroKom – Carbide boring shank

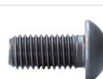
- ▲ for boring head 62 854 ...
- ▲ can only be used with adapter 62 851 ...
- ▲ with internal coolant supply



NEW

62 853 ...

D _{min} - D _{max} mm	KOMET no.	OAL mm	BDRED mm	LDRED mm	DCONMS mm	£	
13 - 17	G10 12060	120	12	75	12	367.52	01300
17 - 22	G10 12070	140	16	100	16	443.29	01700
22 - 26	G10 12080	140	16	100	16	443.29	02200



Fillister-head screw

62 950 ...

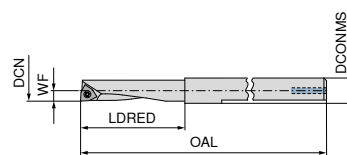
Spare parts

DCONMS

DCONMS	£	
12	5.16	19700
16	5.16	19800

MicroKom – Boring bar, vibration-optimised

- ▲ can only be used with adapter 62 851 ...
- ▲ with internal coolant supply



NEW

62 852 ...

DCN mm	KOMET no.	OAL mm	LDRED mm	DCONMS mm	Insert	£	
5.6	B00 30280	65	22	6	WOHX 02T0..	181.34	10600
6.9	B00 30290	80	36	6	WOHX 02T0..	181.34	00600 ¹⁾
9.0	B00 00680	90	24	8	TO.X 06T1..	311.16	00800 ¹⁾
11.0	B00 00690	95	50	10	TO.X 06T1..	329.18	01000 ¹⁾

1) Carbide version



TORX® Screws

62 950 ...

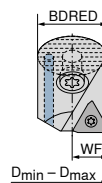
Spare parts

Insert

Insert	£	
TO.X 06T1..	2.69	09700
WOHX 02T0..	2.34	11800

MicroKom – Boring head

- ▲ for boring shank 62 853 ...



NEW

62 854 ...

D _{min} - D _{max} mm	KOMET no.	WF mm	BDRED mm	Insert	£	
13 - 15	G10 12621	6.45	12	TO.X 0902..	171.75	01300
15 - 17	G10 12841	8.45	16	TO.X 0902..	175.33	01500
17 - 19	G10 12711	8.45	12	TO.X 0902..	186.19	01700
19 - 22	G10 12861	9.45	16	TO.X 0902..	192.19	01900
22 - 26	G10 12731	10.95	16	TO.X 0902..	192.19	02200



TORX® Screws

62 950 ...

Spare parts

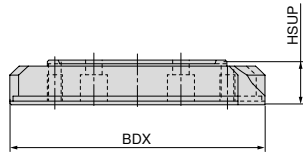
Insert

Insert	£	
TO.X 0902..	2.34	12000



Suitable inserts can be found on → Page 58–61.

MicroKom – Bridge for hi.flex, BluFlex 2



NEW

62 860 ...

D _{min} - D _{max} mm	KOMET no.	BDX mm	HSUP mm	WT kg	£ W4	
90 - 125	M05 80101	85	12.00	0.147	191.92	12500
120 - 155	M05 80200	115	18.25	0.107	269.12	15500
150 - 185	M05 80300	145	20.25	0.152	305.15	18500
180 - 215	M05 80400	175	23.25	0.229	338.76	21500
210 - 245	M05 80500	205	25.00	0.309	470.89	24500
240 - 275	M05 80510	235	25.00	0.349	510.51	27500
270 - 305	M05 80520	265	25.00	0.394	528.53	30500
300 - 335	M05 80530	295	25.00	0.435	568.14	33500
330 - 365	M05 80540	325	25.00	0.478	612.61	36500



Cylindrical screw



Disk spring

62 950 ...

£
W7
0.87 00000

62 950 ...

£
W7
1.55 19100

Spare parts

BDX

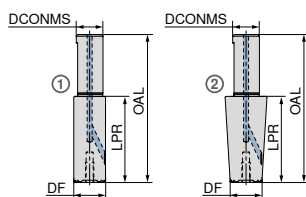
85 - 325

MicroKom – Serrated body for hi.flex, BluFlex 2

▲ With internal coolant supply

Scope of supply:

without insert holder



NEW

62 861 ...

D _{min} - D _{max} mm	KOMET no.	DCONMS mm	OAL mm	LPR mm	DF mm	Fig.	£ W4	
25 - 63	M05 90100	16	88.50	51.50	19	1	139.07	06300
25 - 63	M05 90110	16	129.12	92.12	24	2	139.07	16300



Cylindrical screw



Disk spring

62 950 ...

£
W7
0.87 00000

62 950 ...

£
W7
1.55 19100

Spare parts

DCONMS

16

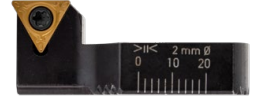
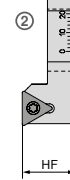
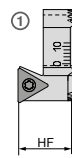
MicroKom – Insert holder for hi.flex, BluFlex 2

▲ With internal coolant supply

Scope of supply:

without inserts

incl. mounting screws



62 863 ...

DCN mm	DCX mm	KOMET no.	HF mm	Insert	Fig.	£ W4	
25	44	M05 20101	13.5	TO.. 06T1	1	136.50	04400
44	63	M05 20151	13.5	TO.. 0902	2	139.07	12500



TORX® Screws

62 950 ...

£
W7
2.69 09700
2.34 09900

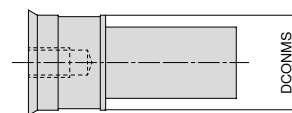
Spare parts

Insert

TO.. 06T1

TO.. 0902

MicroKom – Filling piece for hi.flex, BluFlex 2



62 862 ...

DCONMS mm	KOMET no.	£ W4	
16	M05 90501	18.54	09300



Suitable inserts can be found on → Page 58–61.

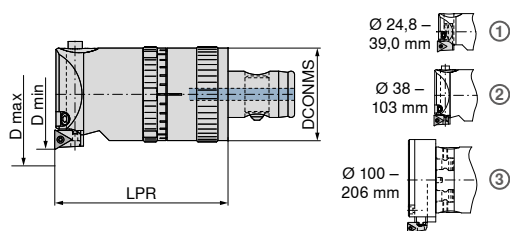
MicroKom – M03Speed – precision adjustment head

Scope of supply:

Precision adjustment head with clamping screw

Please order insert holder and indexable insert separately

ABS



NEW

62 815 ...

D _{min} - D _{max} mm	KOMET no.	Adapter	DCONMS mm	LPR mm	Fig.	£	
24,8 - 33,0	M03 00115	ABS 25	25	50	1	1,830.68	03390
29 - 39	M03 00515	ABS 25	25	50	1	1,871.10	03990
38 - 50	M03 01025	ABS 32	32	60	2	1,963.50	05089
49 - 63	M03 01535	ABS 40	40	70	2	2,211.83	06388
62 - 80	M03 02045	ABS 50	50	75	2	2,356.20	08097
79 - 103	M03 02555	ABS 63	63	80	2	2,589.51	10396
100 - 206	M03 20090	ABS 63	63	106	3	1,951.95	20696 ¹⁾

1) can only be used with interchangeable bridge (Art. No. 62 865 ...)

Spare parts for Article no.

	TORX® Screws	Clamping screw	Grub screw
62 815 03390	62 950 ...	62 950 ...	10 950 ...
62 815 03990	£ W7	£ W7	£ W7
62 815 05089	2.34 12600		1.82 15600
62 815 06388	2.34 12600		1.82 15600
62 815 08097	2.34 12600		1.82 15700
62 815 10396	2.73 45400		1.01 11300
62 815 20696	2.73 45400	6.67 37400	

The TORX® screws 62 950 12600 / 62 950 45400 are designed for mounting the insert holder on the precision adjustment head.

A detailed operating manual is available for download in the online shop next to the product.

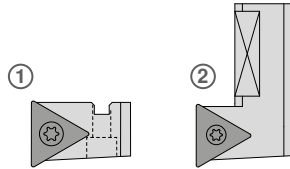
Suitable ABS adapters can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**

MicroKom – M03Speed – Insert holder

Scope of supply:

without inserts

incl. mounting screws



NEW

62 864 ...

£
W4

for	KOMET no.	Insert	Fig.	
62 815 03390	M03 10011	TO.. 06T1	2	163.32 03300
62 815 03990	M03 10021	TO.. 06T1	2	163.32 03900
62 815 05089	M03 10033	TO.. 06T1	1	134.56 05000
62 815 06388 / 62 815 08097	M03 10043	TO.. 0902	1	134.56 08000
62 815 10396	M03 10063	TO.. 0902	1	142.99 10300
62 815 20696	M03 10070	TO.. 0902	1	142.99 20600 ¹⁾

1) only for M03Speed – interchangeable bridge (62 865 ...)



TORX® Screws

62 950 ...

£
W7

Spare parts

Insert

TO.. 06T1

2.69 09700

TO.. 0902

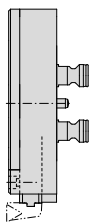
2.34 12000

MicroKom – M03Speed – Interchangeable bridge

▲ for head 62 815 20696

Scope of supply:

without insert holder



NEW

62 865 ...

£
W4

D _{min} - D _{max} mm	KOMET no.	
100 - 130	M03 20100	786.79 13000
128 - 168	M03 20110	902.06 16800
166 - 206	M03 20120	1,040.19 20600



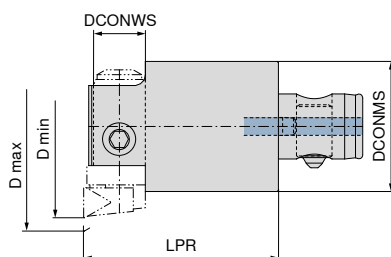
Suitable inserts can be found on → Page 58–61.

FF precision adjustment head

Scope of supply:

Head with clamping screw
without precision turning insert

ABS



NEW

62 810 ...

D _{min} - D _{max} mm	KOMET no.	Adapter	DCONWS mm	DCONMS mm	LPR mm	£ W4	
29,5 - 36	B30 11010	ABS 25	10	25	50	284.71	03690
35,5 - 42	B30 11020	ABS 25	10	25	50	284.71	04290
39 - 45	B30 12010	ABS 32	12	32	60	296.72	04589
44 - 50	B30 12020	ABS 32	12	32	60	296.72	05089
47 - 57	B30 13010	ABS 40	16	40	60	314.74	05788
56 - 66	B30 13020	ABS 40	16	40	60	314.74	06688
58 - 71	B30 14010	ABS 50	20	50	70	348.35	07197
70 - 83	B30 14020	ABS 50	20	50	70	348.35	08397
79 - 94	B30 15010	ABS 63	25	63	70	403.56	09496
93 - 108	B30 15020	ABS 63	25	63	70	403.56	10896
100 - 121	B30 16010	ABS 80	32	80	90	482.91	12192
120 - 141	B30 16020	ABS 80	32	80	90	482.91	14192
138 - 159	B30 17010	ABS 100	32	100	90	558.56	15991
158 - 179	B30 17020	ABS 100	32	100	90	558.56	17991
178 - 199	B30 17030	ABS 100	32	100	90	558.56	19991



Clamping screw

62 950 ...

Spare parts
DCONWS

	£ W7	
10	M6x6/SW3	1.01 44700
12	M8x10/SW4	1.82 44800
12	M8x8/SW4	1.55 14700
16	M10x10/SW5	1.82 44900
20	M12x12/SW6	1.01 45000
25	M16x16/SW8	1.01 45100
32	M20x20/SW10	2.03 45200
32	M20x30/SW10	2.32 45300

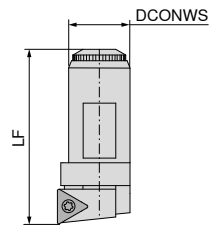


Suitable ABS adapters can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**

FF precision turning insert

Scope of supply:

Precision turning insert with insert screw
Please order insert separately



NEW

62 855 ...

for	DCONWS mm	KOMET no.	LF mm	Insert	£ W4	
62 810 0369 / 62 810 04290	10	M30 20011	28.5	TO.. 06T1	357.93	03000
62 810 04589 / 62 810 05089	12	M30 20021	37.5	TO.. 06T1	398.82	03900
62 810 05788 / 62 810 06688	16	M30 20031	45.0	TO.. 0902	437.28	04700
62 810 07197 / 62 810 08397	20	M30 20041	56.0	TO.. 0902	505.66	05800
62 810 09496 / 62 810 10896	25	M30 20051	77.5	TO.. 1403	550.13	07900
62 810 12192 / 62 810 14192	32	M30 20061	97.0	TO.. 1403	647.49	10000
62 810 15991 / 62 810 17991 / 62 810 19991	32	M30 20071	131.0	TO.. 1403	695.54	13800



TORX® Screws

62 950 ...

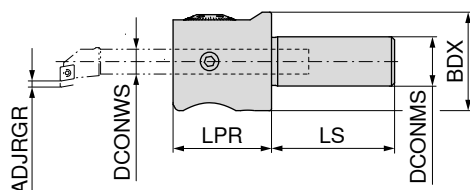
Spare parts DCONWS

	£ W7	
10	2.69	12800
12	2.69	12800
16	2.34	12000
20	2.34	09900
25	2.34	12600
32	2.34	12600



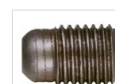
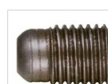
Suitable inserts can be found on → **Page 58–61.**

▲ max. speed 30,000 U/min



Digital Analogue

D _{min} - D _{max} mm	BDX mm	DCONWS mm	DCONMS mm	LPR mm	LS mm	ADJRGR mm	£ W4		£ W4	
0,3 - 7,1	25	4	10	25	25	0 - 1,7	1,057.59	025	837.30	025
0.3 - 19.1	32	7	16	32	40	0 - 2.75	1,138.01	032	867.91	032

Clamping
screw ST

Locking screw

**Spare parts
for Article no.**

62 382 025 / 62 386 025	M5x4	1.75	214	M4x8	1.76	228
62 382 032 / 62 386 032	M6x5	1.75	215	M6x10	1.76	229

- ▲ suitable for all SpinTools digital heads as well as for hi.flex Digital
- ▲ revised software for even more precise adjustment

Scope of supply:

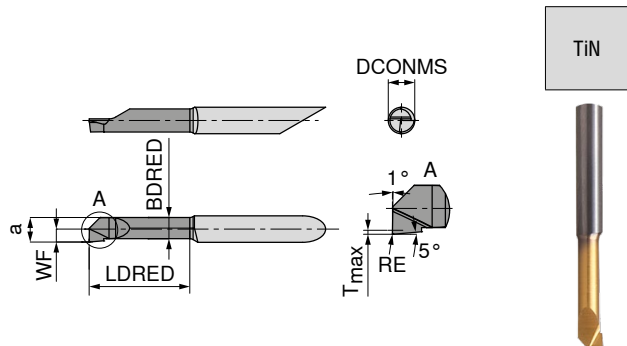
incl. AAA Battery



NEW

62 309 ...	
£	
W4	
271.82	00100

SpinTools – Solid carbide boring bar

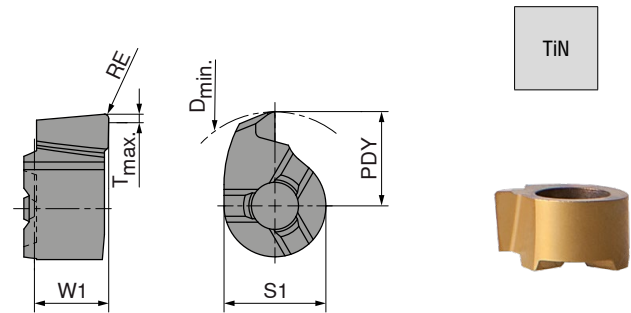


62 383 ...

D _{min} - D _{max} mm	DCONMS mm	LDRED mm	RE mm	a mm	BDRED mm	WF mm	T _{max} mm	£ W4	
0,3 - 0,7	4	1.2		0.25	0.15	0.15	0.03	36.91	003
0,6 - 1,1	4	2.5		0.55	0.46	0.30	0.05	36.91	006
1,0 - 2,3	4	4.0	0.05	0.95	0.65	0.50	0.10	37.55	010
2,2 - 3,3	4	6.0	0.05	2.00	1.55	1.10	0.20	31.45	022
3,2 - 4,3	4	10.2	0.05	3.00	2.55	1.60	0.20	32.28	032
3,9 - 7,1	4	15.2	0.05	3.70	3.45	1.95	0.30	34.77	039
5,2 - 6,3	7	20.3	0.05	5.00	4.25	2.60	0.50	48.69	052
6,2 - 7,3	7	20.3	0.05	6.00	5.25	3.10	0.50	48.69	062
6,9 - 8,1	7	25.4	0.20	6.70	6.25	3.45	0.50	43.48	069
P									●
M									●
K									●
N									●
S									●
H									○
O									●

→ v_c Page 66

SpinTools – Carbide inserts

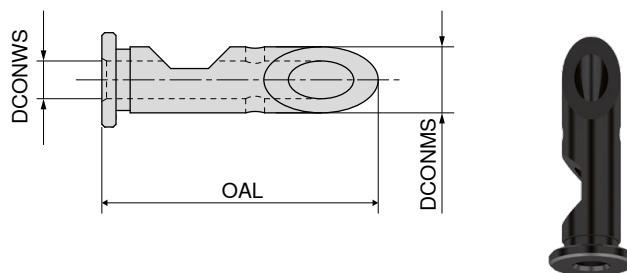


62 384 ...

D _{min} - D _{max} mm	RE mm	PDY mm	S1 mm	W1 mm	T _{max} mm	£ W4	
6,9 - 8,1	0.2	3.45	4.8	3.5	1	17.77	069
7,9 - 9,1	0.2	3.95	4.8	3.5	1	17.77	079
8,9 - 10,1	0.2	4.45	4.8	3.5	1	17.77	089
9,9 - 12,1	0.2	4.95	7.0	3.9	1	21.64	099
11,9 - 14,1	0.2	5.95	7.0	3.9	1	21.64	119
13,9 - 19,1	0.2	6.95	7.0	3.9	1	21.64	139
P							●
M							●
K							●
N							●
S							●
H							○
O							●

→ v_c Page 66

SpinTools – Adapter



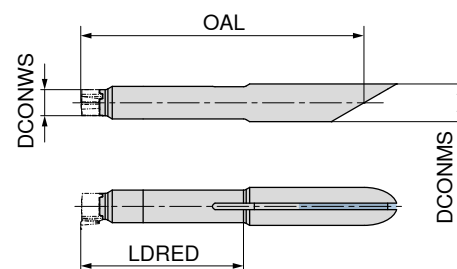
62 335 ...

DCONMS mm	DCONWS mm	OAL mm	£ W4	
7	4	30	61.72	407

SpinTools – Toolholder for carbide inserts

▲ with thro' coolant

▲ appropriate inserts for article no. 62 384 ... can be found in the table above

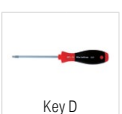


62 385 ...

DCONMS mm	LDRED mm	DCONWS mm	OAL mm	£ W4	
7	30	4.8	56	164.12	330
7	35	7.0	61	175.26	350



TORX® Screws



Key D

62 950 ...

80 950 ...

Spare parts
for Article no.

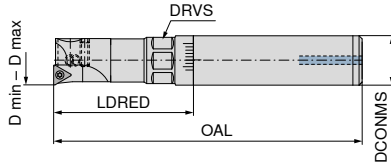
£ W7		£ Y7	
9.59	007	14.16	124
9.59	094	15.51	126

MicroKom – Fine boring bar

▲ Precision adjustment range: 0.02 mm in Ø per line

Scope of supply:

Fine boring bar incl. insert holder, insert holder screw and indexable insert screw



NEW

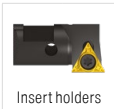
62 858 ...

D _{min} - D _{max} mm	DCONMS mm	OAL mm	DRVS mm	LDRED mm	Insert	£ W4	
15,9 - 20	16	100	14	29	TO.. 06T1	982.56	15900
19 - 23	16	105	14		TO.. 06T1	1,096.67	19000
22 - 26	16	110	18		TO.. 06T1	1,230.08	22000

Spare parts

for Article no.

62 858 15900	£ W4	168.17	15900	£ W7	0.80	37600	£ W7	2.69	12800	£ W7	2.80	37500
62 858 19000		168.17	19000		2.40	37700		2.69	12800		2.80	37500
62 858 22000		168.17	22000		2.80	37800		2.69	12800		2.80	37500



Insert holders

62 859 ...

£
W4



Adjustment screw

62 950 ...

£
W7



TORX® Screws

62 950 ...

£
W7



Clamping screw

62 950 ...

£
W7

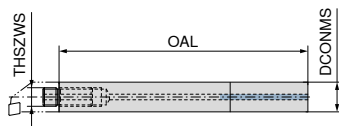
1 Suitable inserts can be found on → Page 58–61.

SpinTools – High-speed carbide boring bars

- ▲ with threaded mounting stud made of high quality steel
- ▲ with thro' coolant
- ▲ Shank clamping length 35 mm
- ▲ Boring shanks with DCONMS Ø 18 mm are for use in collet chuck or hydraulic chuck

Scope of supply:

boring shank, without boring head



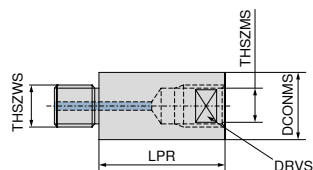
DCONMS _{h6} mm	OAL mm	THSZWS
14	110	M6
16	120	M10
18	100	M10
18	140	M10
18	180	M10

62 353 ...

£	
W4	
311.57	014
346.33	016
365.81	018
504.89	118
653.71	218

SpinTools – Shank extensions (tempered steel)

- ▲ with thro' coolant



62 349 ...

DCONMS _{h9} mm	LPR mm	THSZWS	THSZMS	DRVS mm
16	32	M10	M10	14
16	64	M10	M10	14

£	
W4	
57.52	732
65.92	764

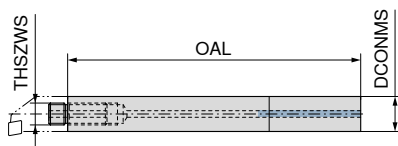
5

SpinTools – High Speed Steel Extension

- ▲ with thro' coolant
- ▲ Boring shanks with DCONMS Ø 18 mm are for use in collet chuck or hydraulic chuck

Scope of supply:

boring shank, without boring head



DCONMS _{h6} mm	OAL mm	THSZWS
14	60	M6
16	70	M10
18	80	M10

62 329 ...

£	
W4	
72.94	660
75.75	770
82.76	880



Information on the working length can be found on → **Page 73**

SpinTools – Multi-Head – boring and fine boring head

▲ For boring bars Ø 16 mm and bridges

▲ With internal coolant supply

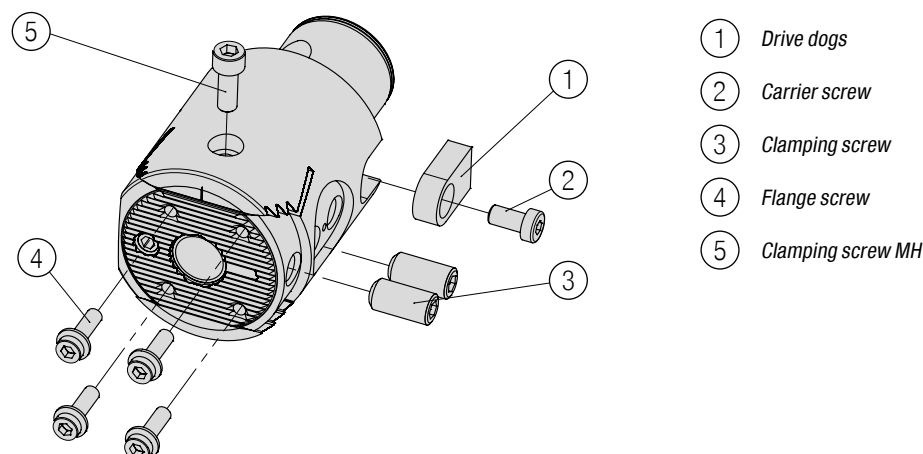
▲ LSCX = Boring depth

Scope of supply:

without boring bar, bridge and insert holder

	STM Modular	HSK-A 63	SK 40	MAS-BT 40	STM Modular	HSK-A	SK	MAS-BT
					62 372 ...	62 373 ...	62 373 ...	62 373 ...
					£ W4	£ W4	£ W4	£ W4
					1,051.50	653	1,286.57	153
								1,286.57
								453
D _{min} - D _{max} mm	Adapter	DCONMS mm	BDX mm	LPR mm	LB mm	LSCX mm	ADJRGR mm	
3 - 320	STM 36	36	63	71.6		111.6	0 - 2,7	
3 - 320	HSK-A 63		63	96.6	70.6	73.0	0 - 2,7	
3 - 320	SK 40		63	91.6	72.5	81.6	0 - 2,7	
3 - 320	BT 40		63	91.6	69.0	81.6	0 - 2,7	

Suitable base adapters can be found on → **page 51.**



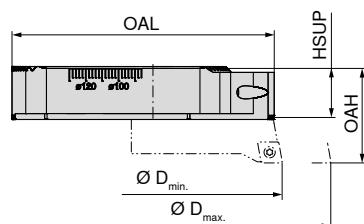
	Driver	Clamping screw MH	Flange screw
	62 950 ...	62 950 ...	62 950 ...
	£ W7	£ W7	£ W7
	54.46	2.88	4.60
	040	226	225
	16x26,5x8	M6x16	M5x16
Spare parts			
D _{min} - D _{max} mm			
3 - 320			
		62 950 ...	62 950 ...
		£ W7	£ W7
		1.62	1.75
		227	167
		M10x20	M6x12

SpinTools – Bridge for Multi-Head

- ▲ Ø adjustable
- ▲ With internal coolant supply

Scope of supply:

without tool holder
including fixation screws



62 376 ...			
D _{min} - D _{max} mm	OAL mm	HSUP mm	OAH mm
86 - 164	80	15	29
162 - 320	158	15	29

£
W4

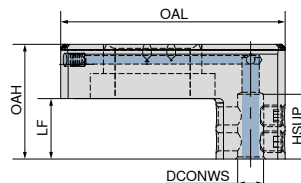
243.40

364.41

164
320

SpinTools – Axial grooving holder for UltraMini

- ▲ With internal coolant supply



DCONWS mm	OAL mm	OAH mm	HSUP mm	LF mm	WT kg
6	52	26.58	15	14	0.092
7	52	26.58	15	14	0.091
8	52	26.58	20	14	0.088

62 358 ...

£

W4

212.80

212.80

212.80

006

007

008

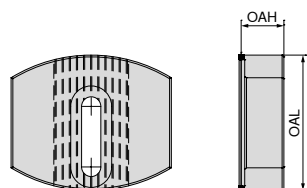
Insert holders (62 377 ...) can be found on → **Page 29.**

Suitable inserts for axial grooving can be found in
→ **Chapter 12, Miniature Turning Tools**

SpinTools – Counterweight

Scope of supply:

Including fixation screw



Spare parts DCONWS

6
7
8



Clamping screw
ST

62 950 ...

£

W7

1.75

1.75

1.75

214

214

214

62 378 ...			
for	OAL mm	OAH mm	
62 376 ...	38	12	

£

W4

69.54

320

SpinTools – Multi-Head – Boring and Fine Boring Head Set

- ▲ suitable for Ø 3 – Ø 320 mm

Scope of supply:

- ▲ 1 Tool Kit
- ▲ 1 Multi-Head-Boring- and Fine Boring Head (depending on selection)
- ▲ 4 Boring bars
 - 62 345 015 Ø 9.75 – Ø 15.1 mm
 - 62 345 020 Ø 14.75 – Ø 20.1 mm
 - 62 345 024 Ø 19.75 – Ø 25.1 mm
 - 62 345 029 Ø 24.75 – Ø 30.1 mm
- ▲ 2 Boring tools, adjustable
 - 62 375 048 Ø 29.75 – Ø 48.1 mm
 - 62 375 088 Ø 47.75 – Ø 88.1 mm
- ▲ incl. insert holder
 - 62 377 048 CC.. 0602
 - 62 377 088 CC.. 0602
- ▲ 1 Bridge
 - 62 376 164 Ø 86 – Ø 164 mm
- ▲ 1 Torx-Key – T7
- ▲ 1 6-adjustment key – SW5

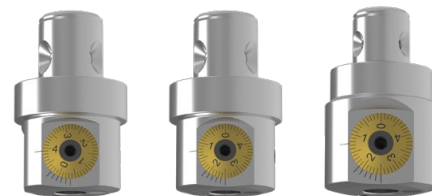
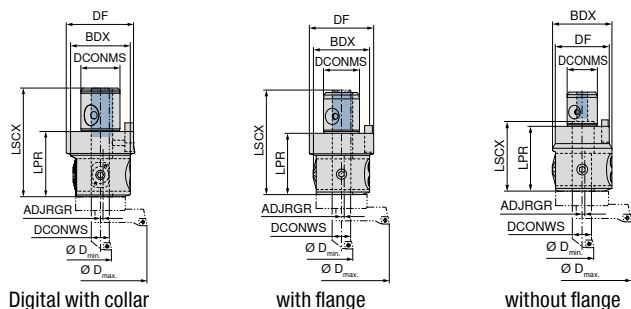


STM Modular		HSK-A		SK		MAS-BT	
62 374 ...		62 379 ...		62 379 ...		62 379 ...	
D _{min} - D _{max} mm	Adapter	£ W4		£ W4		£ W4	
9,75 - 164	STM 36	2,000.08	999				
9,75 - 164	HSK-A 63			2,226.80	996		
9,75 - 164	SK 40					2,226.80	990
9,75 - 164	BT 40						2,226.80

SpinTools – Single point boring heads – Modular system

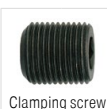
- ▲ LSCX = Boring depth
- ▲ With internal coolant supply

STM



Digital with collar STM Modular	with flange STM Modular	without flange STM Modular
62 326 ...	62 332 ...	62 332 ...
£ W4	£ W4	£ W4
1,128.94	826.23	826.23
036	653	553

D _{min} - D _{max} mm	Adapter	DCONMS mm	BDX mm	DF mm	DCONWS mm	LPR mm	LSCX mm	ADJRGR mm	WT kg
3,0 - 88,1	STM 28	28	55	50	16	60	62	0 - 2,7	0.98
3,0 - 88,1	STM 36	36	55	63	16	60	101	0 - 2,7	1.26
3,0 - 88,1	STM 36	36	55	63	16	60	106	0 - 2,7	0.43



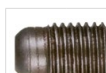
Clamping screw



Screw for drivers



Driver



Clamping screw
ST

	62 950 ...			62 950 ...			62 950 ...			62 950 ...		
Spare parts for Article no.	£ W7			£ W7			£ W7			£ W7		
62 332 553	M10x16	1.75	047	M5x10	1.75	166	12x20x6	42.88	039	M10x8	1.75	046
62 332 653	M10x16	1.75	047	M6x12	1.75	167	16x26,5x8	54.46	040	M10x8	1.75	046
62 326 036	M10x16	1.75	047	M6x12	1.75	167	16x26,5x8	54.46	040	M10x8	1.75	046

Suitable base adapters can be found on → **page 51.**

SpinTools – Digital Stick

- ▲ suitable for all SpinTools digital heads as well as for hi.flex Digital
- ▲ revised software for even more precise adjustment

Scope of supply:

incl. AAA Battery



NEW

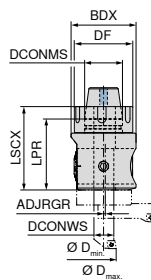
62 309 ...

£
W4
271.82 00100

SpinTools – Single point boring heads

- ▲ Interface for use on ER32 collet chucks
- ▲ LSCX = Recess depth of boring bar
- ▲ with thro' coolant supply
- ▲ Suitable for $\varnothing$ 3.0 - $\varnothing$ 88.1 mm

ER 32



ER 32

62 332 ...

£

W4

1,032.83

732

D _{min} - D _{max} mm	Adapter	DCONMS mm	BDX mm	DF mm	DCONWS mm	LPR mm	LSCX mm	ADJRGR mm
3,0 - 88,1	ER 32	32	55	49.5	16	60	86.5	0 - 2,7



Clamping screw

Clamping screw
ST

62 950 ...

£

W7

1.75

047

62 950 ...

£

W7

1.75

046

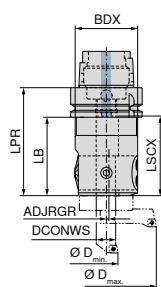
Spare parts
for Article no.
62 332 732

M10x16

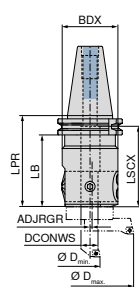
M10x8

SpinTools – Single Point Boring Head – Monoblock

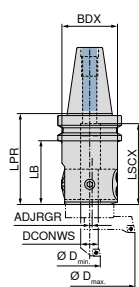
- ▲ LSCX = Boring depth
- ▲ With internal coolant supply



HSK-A 63



SK 40



MAS-BT 40



HSK-A

62 333 ...

£

W4

1,049.29

653



SK

62 333 ...

£

W4

1,049.29

153



MAS-BT

62 333 ...

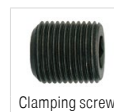
£

W4

1,049.29

453

D _{min} - D _{max} mm	Adapter	BDX mm	DCONWS mm	LPR mm	LB mm	LSCX mm	ADJRGR mm	WT kg
3,0 - 88,1	HSK-A 63	55	16	95	69	70	0 - 2,7	1.66
3,0 - 88,1	SK 40	55	16	90	70	80	0 - 2,7	1.83
3,0 - 88,1	BT 40	55	16	90	63	80	0 - 2,7	1.90



Clamping screw

Clamping screw
ST

62 950 ...

£

W7

1.75

047

62 950 ...

£

W7

1.75

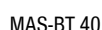
046

Spare parts
D_{min} - D_{max}
3,0 - 88,1

M10x16

M10x8

- ▲ LSCX = Boring depth
- ▲ With internal coolant supply



62 363 ...

62 363 ...

62 363 ...

£
W4

£
W4

£
W4

1,594.05	688
----------	-----

[illegible]

--	--

1,594.05	188
----------	-----



Clamping screw



Clamping screw
ST

62 950 ...

62 950 ...

£
W7

£
W7

1.75	047
------	-----

1.75	046
------	-----

- ▲ suitable for all SpinTools digital heads as well as for hi.flex Digital
- ▲ revised software for even more precise adjustment

incl. AAA Battery

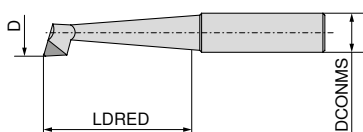


NEW

62 309 ...

£	
W4	
271.82	00100

SpinTools – Boring tools with carbide cutting edge



$D_{min} - D_{max}$ mm	LDRED mm	DCONMS _{h6} mm	£ W4	
3,0 - 8,0	20	10	108.01	008
4,0 - 9,0	23	10	108.01	009
5,0 - 10,0	25	10	108.01	010
6,0 - 11,0	25	10	108.01	011
7,0 - 12,0	31	10	108.01	012

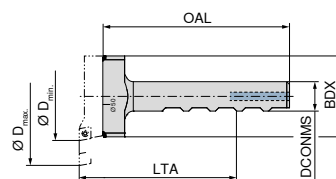
P	●
M	○
K	○
N	●
S	○
H	○
O	○

62 346 ...

→ v_c Page 66

SpinTools – Adjustable boring bar bridge

▲ With internal coolant supply

Scope of supply:
without insert holder

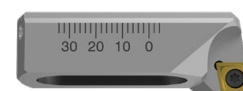
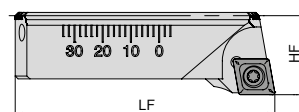
62 375 ...

$D_{min} - D_{max}$ mm	OAL mm	BDX mm	LTA mm	DCONMS mm	£ W4	
29,75 - 48,1	103	25	85	16	100.14	048
47,75 - 88,1	101	44	85	16	117.83	088

5

SpinTools – Tool holder for boring bar and bridge Multi-Head

▲ With internal coolant supply

Scope of supply:
without inserts
incl. mounting screws

62 377 ...

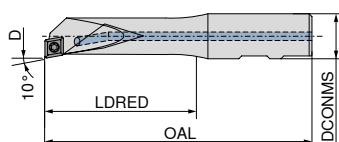
for	LF mm	HF mm	Insert	£ W4	
62 375 048	28.2	12	CC.. 0602	178.04	048
62 375 088 / 62 376 ...	46.0	14	CC.. 0602	196.11	088
62 375 088 / 62 376 ...	46.0	14	CC.. 09T3	204.46	089



Suitable inserts can be found on → Page 63.

SpinTools – Steel boring bars

▲ With internal coolant supply

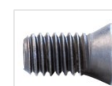


62 345 ...

$D_{min} - D_{max}$ mm	OAL mm	LDRED mm	DCONMS _{h6} mm	Insert	£ W4	
9,75 - 15,1	75	30	16	CC.. 0602	147.28	015
11,75 - 17,1	80	37	16	CC.. 0602	147.28	017
13,75 - 19,1	85	43	16	CC.. 0602	147.28	019
14,75 - 20,1	90	51	16	CC.. 0602	147.28	020
15,75 - 21,1	95	57	16	CC.. 0602	147.28	021
17,75 - 23,1	100	67	16	CC.. 0602	147.28	023
19,75 - 25,1	105	72	16	CC.. 0602	169.73	024
19,75 - 25,1	105	72	16	CC.. 09T3	169.73	025
21,75 - 27,1	110	77	16	CC.. 09T3	169.73	027
24,75 - 30,1	115	82	16	CC.. 0602	169.73	029
24,75 - 30,1	115	82	16	CC.. 09T3	169.73	030
27,75 - 33,1	115	82	16	CC.. 09T3	178.14	033
31,75 - 37,1	115	82	16	CC.. 09T3	178.14	037
34,75 - 40,1	115	82	16	CC.. 09T3	178.14	040
38,75 - 44,1	115	82	16	CC.. 09T3	189.38	044
42,75 - 48,1	115	82	16	CC.. 09T3	199.20	048
47,75 - 53,1	115	82	16	CC.. 09T3	223.05	053



Suitable inserts can be found on → Page 63.



TORX® Screws



Key D



Flange screw

62 950 ...

80 950 ...

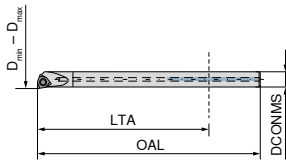
62 950 ...

Spare parts
for Article no.

	£ W7		£ Y7		£ W7	
62 377 048	4.64	022	10.82	109	4.60	225
62 377 088	4.64	022	10.82	109	4.60	225
62 377 089	5.40	023	12.87	113	4.60	225

SpinTools – Boring bars with carbide shank

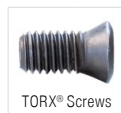
- ▲ With internal coolant supply
- ▲ LTA = max. overhang



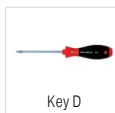
62 341 ...

D _{min} - D _{max} mm	DCONMS _{h6} mm	OAL mm	LTA mm	Insert	£	
5,8 - 11,2	5	80	45	WC.. 0201..	216.04	011
7,8 - 13,2	6	100	60	WC.. 0201..	216.04	013

Suitable inserts can be found on → **Page 62.**



TORX® Screws



Key D

62 950 ...

£	
W7	
4.64	021

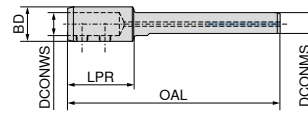
80 950 ...

£	
Y7	
11.71	108

Spare parts
Insert
WC.. 0201..

SpinTools – Boring tool extensions

- ▲ with thro' coolant



62 337 ...

DCONWS mm	DCONMS mm	BD mm	OAL mm	LPR mm	£	
10	16	16	128		W4	128
16	16	24	148	44	144.50	148
					164.12	



Clamping screw

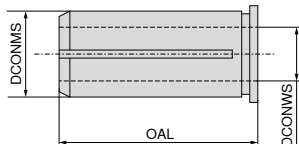
62 950 ...

Spare parts
for Article no.

£	
W7	
8.59	048
6.74	049

SpinTools – Reduction sleeves

- ▲ for boring bars and boring tools



62 335 ...

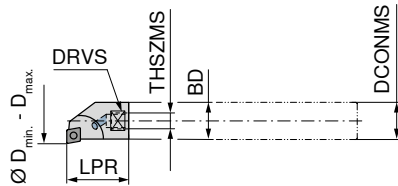
DCONMS mm	DCONWS mm	OAL mm	£	
16	4	37	W4	104
16	5	37	67.34	105
16	6	37	67.34	106
16	8	37	67.34	108
16	9	37	67.34	109
16	10	37	67.34	110
16	11	37	67.34	111
16	12	37	67.34	112
16	13	37	67.34	113
16	14	37	67.34	114

SpinTools – High-speed boring head

- ▲ for overturning holder and high speed carbide shank
- ▲ With internal coolant supply
- ▲ D_{max} = using a head with fine adjustment 0 – 2,7 mm

Scope of supply:

Boring head without boring shank, without inserts



62 361 ...

$D_{min} - D_{max}$ mm	LPR mm	THSZMS	DCONMS _{h6} mm	Insert	£ W4	
8,75 - 14,1	18	M5	8	CC.. 0602	101.54	014
9,75 - 15,1	18	M5	9	CC.. 0602	101.54	015
10,75 - 16,1	23	M6	10	CC.. 0602	101.54	016
11,75 - 17,1	23	M6	11	CC.. 0602	101.54	017
12,75 - 18,1	23	M6	12	CC.. 0602	101.54	018
13,75 - 19,1	23	M6	13	CC.. 0602	101.54	019
14,75 - 20,1	23	M6	14	CC.. 0602	101.54	020
15,75 - 21,1	23	M6	14	CC.. 0602	101.54	021
16,75 - 22,1	27	M10	16	CC.. 0602	101.54	022
17,75 - 23,1	27	M10	16	CC.. 0602	101.54	023
19,75 - 25,1	27	M10	16	CC.. 0602	101.54	025
21,75 - 27,1	27	M10	16	CC.. 0602	102.93	027
24,75 - 30,1	27	M10	16	CC.. 0602	102.93	030
27,75 - 33,1	27	M10	16	CC.. 0602	102.93	033
31,75 - 37,1	27	M10	16	CC.. 0602	111.28	037
34,75 - 40,1	27	M10	16	CC.. 0602	119.24	040



Suitable inserts can be found on → Page 63.



TORX® Screws



Key D

62 950 ...

80 950 ...

Spare parts

Insert

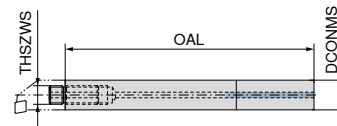
	£ W7		£ Y7	
CC.. 0602	4.64	022	10.82	109

SpinTools – High-speed carbide boring bars

- ▲ with threaded mounting stud made of high quality steel
- ▲ with thro' coolant
- ▲ Shank clamping length 35 mm
- ▲ Boring shanks with DCONMS Ø 18 mm are for use in collet chuck or hydraulic chuck

Scope of supply:

boring shank, without boring head



62 353 ...

DCONMS _{h6} mm	OAL mm	THSZWS	£ W4	
8	73	M5	204.46	008
9	80	M5	214.21	009
10	82	M6	228.11	010
11	89	M6	239.22	011
12	96	M6	251.74	012
13	103	M6	255.92	013
14	110	M6	311.57	014
16	120	M10	346.33	016



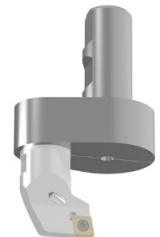
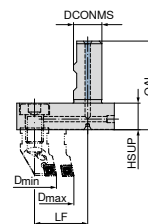
Information on the working length can be found on → Page 73.

SpinTools – Over turning holder for boring head

- ▲ With internal coolant supply

Scope of supply:

Over turning holder incl. fixing screw, but without boring head and indexable inserts

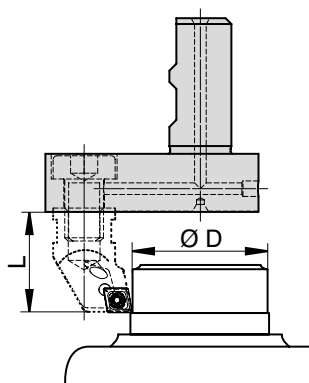


62 404 ...

$D_{min} - D_{max}$ mm	DCONMS _{h6} mm	LF mm	HSUP mm	OAL mm	£ W4	
5,3 - 28,6	16	20	15	50	251.74	028
25,3 - 48,6	16	30	15	50	294.86	048

Help me choose the correct over-turning adapter

- ▲ for the combination of overturning with high speed boring heads
- ▲ the length L can be extended with shank extensions



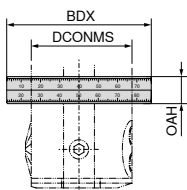
Boring range Ø D _{min.} – Ø D _{max.} mm	Tool holder 62 404 ...	L mm	Boring Head 62 361 ...	Page No.
5,3 – 10,6	028	27	040	31
8,3 – 13,6	028	27	037	
12,3 – 17,6	028	27	033	
15,3 – 20,6	028	27	030	
18,3 – 23,6	028	27	027	
20,3 – 25,6	028	27	025	
22,3 – 27,6	028	27	023	
23,3 – 28,6	028	27	022	
25,3 – 30,6	048	27	040	
28,3 – 33,6	048	27	037	
32,3 – 37,6	048	27	033	
35,3 – 40,6	048	27	030	
38,3 – 43,6	048	27	027	
40,3 – 45,6	048	27	025	
42,3 – 47,6	048	27	023	
43,3 – 48,6	048	27	022	

SpinTools – Balancing rings

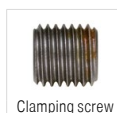
- ▲ For balancing the tools without dynamic balancing machine

Scope of supply:

CD-ROM with application data and setting values



				62 300 ...	
DCONMS	BDX	OAH	WT	£	
mm	mm	mm	kg	W4	
32	50	16	0.08	234.26	032
40	58	16	0.09	251.10	040
50	70	16	0.13	269.33	050
55	75	16	0.14	279.15	055
63	84	16	0.16	287.57	063



Spare parts
DCONMS

32-63

62 950 ...	
£	
W7	
9.16	009

SpinTools – Single point boring heads Set 1

- ▲ suitable for Ø 3 – Ø 88.1 mm
- ▲ supplied with Ø 9.75 – Ø 30.1 or Ø 9.75 – Ø 40.1 mm
- ▲ with thro' coolant

Scope of supply:

- ▲ 1 Tool Kit
- ▲ 1 single point boring head (depending on selection)
- ▲ 4 Boring bars (SK40- and MAS-BT-Set)
 - 62 345 015 Ø 9,75 – Ø 15,1 mm
 - 62 345 020 Ø 14,75 – Ø 20,1 mm
 - 62 345 024 Ø 19,75 – Ø 25,1 mm
 - 62 345 029 Ø 24,75 – Ø 30,1 mm
- ▲ 8 Boring bars (Modular-Set)
 - 62 345 015 Ø 9,75 – Ø 15,1 mm
 - 62 345 019 Ø 13,75 – Ø 19,1 mm
 - 62 345 023 Ø 17,75 – Ø 23,1 mm
 - 62 345 027 Ø 21,75 – Ø 27,1 mm
 - 62 345 030 Ø 24,75 – Ø 30,1 mm
- 62 345 033 Ø 27,75 – Ø 33,1 mm
- 62 345 037 Ø 31,75 – Ø 37,1 mm
- 62 345 040 Ø 34,75 – Ø 40,1 mm
- ▲ 1 6-adjustment key – SW5
- ▲ 1 Torx-Key – T7



D _{min} - D _{max} mm	Adapter	STM Modular		SK		MAS-BT	
		62 334 ...		62 345 ...		62 345 ...	
9,75 - 40,1	STM 36	£ W4 1,928.81	999	£ W4 1,515.00	990	£ W4 1,515.00	993
9,75 - 30,1	SK 40						
9,75 - 30,1	BT 40						

SpinTools – Single point boring heads Set 2

- ▲ suitable for Ø 3 – Ø 88.1 mm
- ▲ Supplied with Ø 9.75 – Ø 88.1 mm
- ▲ with thro' coolant

Scope of supply:

- ▲ 1 Tool Kit
- ▲ 1 Fine boring head (depending on selection)
- ▲ 4 Boring bars
 - 62 345 015 Ø 9.75 – Ø 15.1 mm
 - 62 345 020 Ø 14.75 – Ø 20.1 mm
 - 62 345 024 Ø 19.75 – Ø 25.1 mm
 - 62 345 029 Ø 24.75 – Ø 30.1 mm
- ▲ 2 Boring tools, adjustable
 - 62 375 048 Ø 29.75 – Ø 48.1 mm
 - 62 375 088 Ø 47.75 – Ø 88.1 mm
- ▲ incl. insert holder
 - 62 377 048 CC.. 0602
 - 62 377 088 CC.. 0602
- ▲ 1 Torx key – T7
- ▲ 1 6-adjustment key – SW5



D _{min} - D _{max} mm	Adapter	STM Modular		HSK-A		SK		MAS-BT	
		62 334 ...		62 345 ...		62 345 ...		62 345 ...	
9,75 - 88,1	STM 36	£ W4 1,837.63	997	£ W4 2,060.67	997	£ W4 2,060.67	998	£ W4 2,060.67	999
9,75 - 88,1	HSK-A 63								
9,75 - 88,1	SK 40								
9,75 - 88,1	BT 40								

SpinTools – Single point boring heads ER32 Set

- ▲ Suitable for Ø 3.0 – Ø 88.1 mm
- ▲ Scope of supply Ø 9.75 – Ø 30.1 mm
- ▲ with thro' coolant supply

Scope of supply:

- ▲ 1 tool kit
- ▲ 1 single point boring head (62 332 732)
- ▲ 4 boring bars
 - 62 345 015 Ø 9.75 – Ø 15.1 mm
 - 62 345 020 Ø 14.75 – Ø 20.1 mm
 - 62 345 024 Ø 19.75 – Ø 25.1 mm
 - 62 345 029 Ø 24.75 – Ø 30.1 mm
- ▲ 1 Torx Key – T7
- ▲ 1 Allen Key – SW5



D _{min} - D _{max} mm		Adapter	62 332 ...	
9,75 - 30,1		ER 32	£ W4	
			1,374.92	999

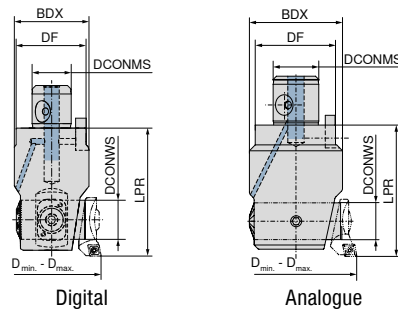
SpinTools – Single point finish boring heads

▲ With internal coolant supply

Scope of supply:

without insert holder and inserts

STM



Digital STM Modular		Analogue STM Modular	
62 308 ...		62 303 ...	
£		£	
W4		W4	
809.37	031	538.66	031
809.37	040	538.66	040
828.94	051	556.90	051
858.34	067	583.55	067
908.54	087	629.85	087
1,028.54	116	736.46	116

D _{min} - D _{max} mm	D _{min} - D _{max} extended mm	Adapter	DCONMS mm	BDX mm	DF mm	LPR mm	DCONWS mm	WT kg
23,9 - 31,1	29,9 - 37,1	STM 11	11	22.5	20	40	11	0.08
30,9 - 40,1	37,9 - 47,1	STM 14	14	29.0	25	45	13	0.15
39,9 - 51,1	47,9 - 59,1	STM 18	18	37.0	32	65	17	0.38
50,9 - 67,1	64,9 - 81,1	STM 22	22	47.0	40	72	22	0.70
66,9 - 87,1	84,9 - 105,1	STM 28	28	59.0	50	82	30	1.32
86,9 - 116,1	104,9 - 134,1 (124,9 - 154,1)	STM 36	36	72.0	63	105	30	3.15

For optimal stability when fine boring the main insert holder ranges are preferred over the extended range.

Screw for drivers				Driver				Fillister-head screw				Clamping screw ST			
62 950 ...				62 950 ...				62 950 ...				62 950 ...			
£				£				£				£			
W7				W7				W7				W7			
62 303 031 / 62 308 031	M2x2,5	1.18	162	5x8,5x3	28.28	035	M4x6	9.16	287	M4x3	1.75	213			
62 303 040 / 62 308 040	M2,5x6	1.18	163	6x10,3x4	30.22	036	M5x8	9.16	288	M5x4	1.75	214			
62 303 051 / 62 308 051	M3x8	1.45	164	8x15x5	31.73	037	M6x10	9.16	289	M6x5	1.75	215			
62 303 067 / 62 308 067	M4x10	1.45	165	10x18,1x6	35.79	038	M8x12	9.16	290	M8x6	1.75	216			
62 303 087 / 62 308 087	M5x10	1.75	166	12x20x6	42.88	039	M10x16	9.16	291	M10x10	1.75	217			
62 303 116 / 62 308 116	M6x12	1.75	167	16x26,5x8	54.46	040	M10x16	9.16	291	M10x18	1.75	218			

Suitable base adapters can be found on → **page 51.**

SpinTools – Digital Stick

▲ suitable for all SpinTools digital heads as well as for hi.flex Digital

▲ revised software for even more precise adjustment

Scope of supply:

incl. AAA Battery



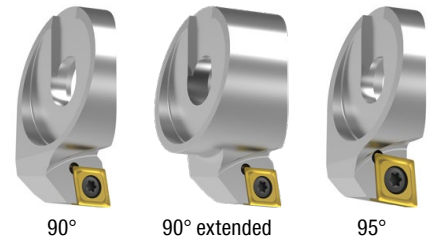
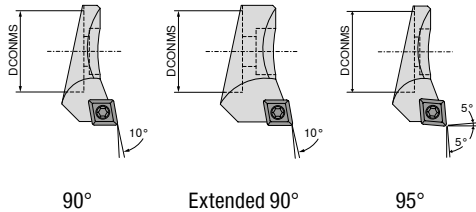
NEW	
62 309 ...	
£	
W4	
271.82	00100

SpinTools – Insert holder, 90° and 95°

▲ for single point finish boring heads Art. No. 62 303 ..., 62 308 ...

Scope of supply:

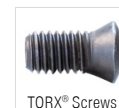
incl. Torx clamping screw for inserts, without fixing bolt for holder



DCONMS mm	Insert	£ W4		£ W4		£ W4	
11	CC.. 0602	112.22	031	133.26	037	123.45	031
13	CC.. 0602	123.45	040	147.28	047	136.07	040
17	CC.. 0602	136.07	051	161.31	059	150.09	051
22	CC.. 0602	147.28	067	175.35	081	154.30	067
30	CC.. 0602	159.92	087	189.38	105		
30	CC.. 09T3	159.92	116	189.38	134	175.35	087
30	CC.. 09T3			221.63	154		



Suitable inserts can be found on → **Page 63.**



TORX® Screws



Key D

Spare parts

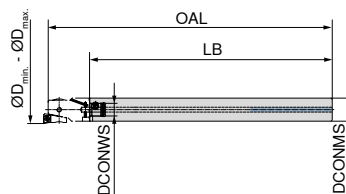
Insert

CC.. 0602	M2,5x6	4.64	022	T07	10.82	109
CC.. 09T3	M4x9	5.40	023	T15	12.87	113

SpinTools – High-speed carbide boring tools

▲ Shaft extension for single point finish boring heads Art. No. 62 303 ..., 62 308 ...

▲ with thro' coolant supply



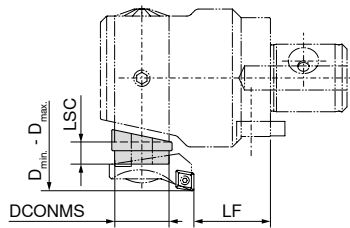
						62 354 ...
D _{min} - D _{max} mm	DCONWS mm	DCONMS _{h5} mm	OAL mm	LB mm	WT kg	£ W4
23,9 - 31,1	11	20	250	210	0.81	1,114.08
30,9 - 40,1	14	25	306	261	1.54	1,523.01
39,9 - 51,1	18	32	380	315	3.03	2,383.97

SpinTools – Reverse adapter for back boring

▲ For insert holder Art. No. 62 318 ... / 62 320 ...

Scope of supply:

Adapter including fixing bolt



62 321 ...

LSC mm	DCONMS mm	LF mm	D _{min} - D _{max} mm	£ W4	
6.5	11	13.0	37 - 44	173.94	044
8.0	11	13.0	40 - 47	173.94	051
6.5	13	12.6	44 - 53	173.94	053
10.0	13	12.6	51 - 60	173.94	060
6.5	17	31.3	53 - 64	173.94	064
10.0	17	31.3	60 - 71	173.94	071
6.5	22	31.2	68 - 80	179.56	080
12.0	22	31.2	75 - 91	179.56	091
10.0	30	29.0	87 - 107	185.15	107



Note left hand direction of spindle rotation when in use



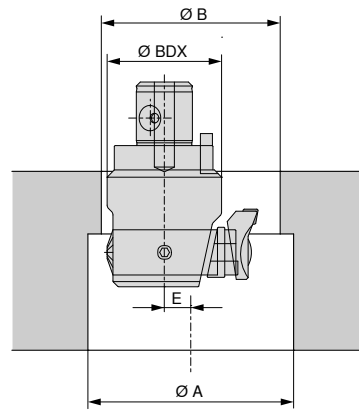
Fillister-head
screw

62 950 ...

Spare parts for Article no.

	£ W7	
62 321 044	9.11	278
62 321 051	9.43	279
62 321 053	9.11	280
62 321 060	9.43	281
62 321 064	9.11	282
62 321 071	9.43	283
62 321 080	9.11	284
62 321 091	9.43	285
62 321 107	10.79	286

Minimum diameter (Ø B) during retraction for back boring



Minimum diameter (Ø B) of the entry bore

$$\text{Ø B} = \frac{\text{Ø BDX} + \text{Ø A}}{2} + 1^*$$

Minimum offset (E) for starting

$$E = \frac{\text{Ø A} - \text{Ø B}}{2} + 0,5^*$$

*Safety margin

Example:

Boring head = 62 303 031

Insert Holder = 62 318 031

Reverse adapter = 62 321 044

Ø BDX = 20 mm

Ø A ≙ A_{min.} = 37 mm

*Safety margin = 1 mm

$$\text{Ø B} = \frac{20 + 37}{2} = 28,5 + 1 = 29,5 \text{ mm}$$

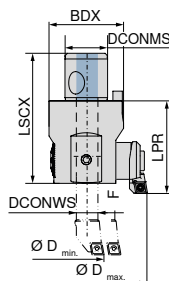
SpinTools – Vario-Head – boring and fine boring head

- ▲ For boring bars with a diameter of 16 mm and insert holders
- ▲ with thro' coolant supply
- ▲ LSCX = Recess depth of boring bar

Scope of supply:

Without boring bar and insert holder
Incl. coolant insert

STM



Digital
STM Modular
62 364 ...

D _{min} - D _{max} mm	Adapter	DCONMS mm	BDX mm	DCONWS mm	LPR mm	LSCX mm	ADJRGR mm	
3 - 152,1	STM 36	36	63	16	76.5	110	0 - 6,5	£ W4 1,251.17 101

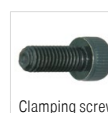
Spare parts for Article no. 62 364 101



Coolant insert

62 366 ...

£
W4
89.36 002



Clamping screw
VH

62 950 ...

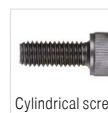
£
W7
5.68 341



Grubscrew

62 950 ...

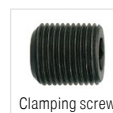
£
W7
5.68 340



Cylindrical screw

62 950 ...

£
W7
6.81 343



Clamping screw

62 950 ...

£
W7
5.68 342

Spare parts for Article no. 62 364 101

 Suitable base adapters can be found on → **page 51.**

SpinTools – Digital Stick

- ▲ suitable for all SpinTools digital heads as well as for hi.flex Digital
- ▲ revised software for even more precise adjustment

Scope of supply:

incl. AAA Battery



NEW

62 309 ...

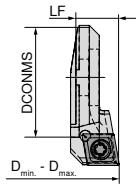
£
W4
271.82 00100

SpinTools – Insert holder, 90°

▲ for Vario-Head boring and fine boring head 62 364 101

Scope of supply:

incl. Torx clamping screw for inserts, without fixing bolt for holder



90°

62 365 ...

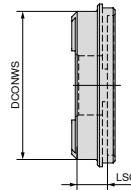
LF mm	DCONWS mm	Insert	D _{min} - D _{max} mm	D _{min} - D _{max} extended mm	£ W4	
13.05	30	CC.. 09T3	87,75 - 101,1	100,75 - 114,1	198.24	101
22.05	30	CC.. 09T3	105,75 - 119,1	118,75 - 132,1	236.73	119
32.05	30	CC.. 09T3	125,75 - 139,1	138,75 - 152,1	277.26	139



Suitable inserts can be found on → Page 63.

SpinTools – Spacer

▲ For insert holder article no. 62 365 ...



LSC mm	DCONWS mm
6.5	30

62 366 ...

£ W4	
225.94	001

5

SpinTools – Vario Digital single point boring head (set)

▲ Suitable for Ø 3 – Ø 152 mm

▲ supplied with Ø 9.75 – Ø 101.1 mm

▲ with thro' coolant supply

Scope of supply:

▲ 1 tool kit

▲ 1 single point finish boring head

– 62 364 101

▲ 2 boring bars

– 62 345 015 Ø 9.75 – Ø 20.1 mm

– 62 345 024 Ø 19.75 – Ø 30.1 mm

▲ Boring bars, adjustable

– 62 375 048 Ø 29.75 – Ø 48.1 mm

– 62 375 088 Ø 47.75 – Ø 88.1 mm

▲ 3 insert holders

– 62 377 048 Ø 29.75 – Ø 48.1 mm

– 62 377 088 Ø 47.75 – Ø 88.1 mm

– 62 365 101 Ø 87.75 – Ø 101.1 mm

▲ 1 coolant insert 62 366 002

▲ 1 digital display unit 62 309 00100

▲ 4 Allen keys – SW2.5/4/5/8

▲ 2 Torx keys – T7/15



STM Modular

62 364 ...

D _{min} - D _{max} mm	Adapter
9,75 - 101,1	STM 36

£ W4	
2,337.70	999

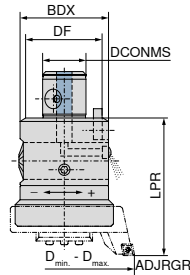
SpinTools – Single point finish boring heads

- ▲ With internal coolant supply
- ▲ extremely stable connection between insert holder and boring head

Scope of supply:

Boring head, without insert holder, pressure plate and support

STM



STM Modular
62 305 ...

D _{min} - D _{max} mm	Adapter	DCONMS mm	BDX mm	DF mm	LPR mm	ADJRGR mm	WT kg	
86 - 402	STM 36	36	72	63	120	± 1,25	2.94	
								£ W4 1,635.63 302



Cylindrical screw



Screw for drivers



Driver



Clamping screw
ST

Spare parts for Article no.

62 305 302	M8x45	£ W7 5.25	292	M6x12	£ W7 1.75	167	16x26,5x8	£ W7 54.46	040	M8x60	£ W7 9.43	011
------------	-------	-----------------	-----	-------	-----------------	-----	-----------	------------------	-----	-------	-----------------	-----

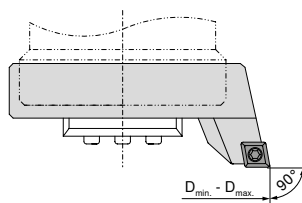
Suitable base adapters can be found on → **page 51.**

SpinTools – Tool holder

- ▲ for single point finish boring heads
- ▲ Approach angle 90°

Scope of supply:

incl. cover plate and support



62 438 ...

D _{min} - D _{max} mm	Insert	
86 - 138	CC.. 09T3	£ W4 351.91 138
86 - 138	CC.. 1204	351.91 238
136 - 220	CC.. 09T3	420.04 220
136 - 220	CC.. 1204	418.66 320
188 - 302	CC.. 09T3	524.36 302
242 - 402	CC.. 09T3	628.67 402

Suitable inserts can be found on → **Page 63.**

Spare parts – insert holder

																																			
				TORX® Screws								Key D				Pressure plate				Support															
				62 950 ...								80 950 ...								62 950 ...								62 950 ...							
				£ W7								£ Y7								£ W7								£ W7							
Spare parts for Article no.																																			
62 438 138				M4x9				5.40 023				T15				12.87 113				96.09 152				72.62 149											
62 438 238				M5x10				6.13 232				T20				13.77 114				96.09 152				72.62 149											
62 438 220				M4x9				5.40 023				T15				12.87 113				110.44 153				82.06 150											
62 438 320				M5x10				6.13 232				T20				13.77 114				110.44 153				82.06 150											
62 438 302				M4x9				5.40 023				T15				12.87 113				110.44 153				82.06 150											
62 438 402				M4x9				5.40 023				T15				12.87 113				110.44 153				82.06 150											

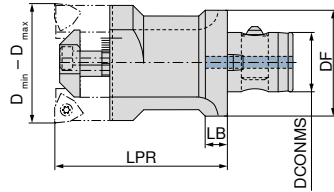
TwinKom – Base body

Scope of supply:

Clamping plate incl. adjustment and fixing screws

Order tool holder (+ indexable insert) and indexable inserts separately

ABS



D _{min} - D _{max} mm	KOMET no.	DCONMS mm	DF mm	Adapter	LPR mm	LB mm	NEW long		NEW short	
							£		£	
24 - 32	G01 70552	13	25	ABS 25	45	6.0				
24 - 32	G01 71072	16	32	ABS 32	70	7.0				
30 - 41	G01 70562	13	25	ABS 25	50		438.55	13289	423.65	03290
30 - 41	G01 71132	16	32	ABS 32	85	7.5	438.55	14189	423.65	04190
39 - 53	G01 71022	16	32	ABS 32	60				554.17	05389
39 - 53	G01 71622	20	40	ABS 40	120	8.0	566.99	15388		
51 - 71	G01 71522	20	40	ABS 40	60				566.99	07188
51 - 71	G01 72122	28	50	ABS 50	135	10.0	590.67	17197	613.31	09197
64 - 91	G01 72022	28	50	ABS 50	70				614.34	12496
64 - 91	G01 72622	34	63	ABS 63	155	13.0	681.45	19196		
83 - 124	G01 72522	34	63	ABS 63	70				614.34	12496
83 - 124	G01 73122	46	80	ABS 80	155	16.5	698.31	12592		
109 - 167	G01 73032	46	80	ABS 80	90				888.89	16792 ¹⁾
109 - 167	G01 73042	46	80	ABS 80	175		991.57	16892 ¹⁾		
139 - 215	G01 73562	56	100	ABS 100	125				772.89	21591 ¹⁾
139 - 215	G01 73572	56	100	ABS 100	240		907.67	21691 ¹⁾		

1) Diameter range can only be achieved with TwinKom basic tool holder (radially + axially adjustable) and corresponding indexable insert!

Spare parts D _{min} - D _{max}	Adjustment pin		Adjustment screw		TwinKom clamping plate		Fixing screw	
	£		£		£		£	
24 - 32	7.62	46200	0.64	16500	57.00	46900	2.93	15800
30 - 41	7.62	46300	0.64	16500	64.23	47000	2.73	15900
39 - 53	7.62	46400	1.01	11100	63.43	47100	2.73	16000
51 - 71	7.62	46500	1.01	11200	66.63	47200	2.73	16300
64 - 91	7.62	46600	1.01	16100	76.28	47300	2.73	13500
83 - 124	7.62	46700	1.01	16200	77.88	47400	1.01	11000
109 - 167	7.62	46800	1.52	16600	97.93	47500		
139 - 215	8.59	47800	2.57	17500	110.83	47700	0.80	17600

Spare parts D _{min} - D _{max}	Cylindrical screw TwinKom		Cylindrical screw	
	£		£	
24 - 32	0.60	46000		
30 - 41	1.01	45500		
39 - 53	1.01	45600		
51 - 71	1.01	45700		
64 - 91	1.01	45800		
83 - 124	1.11	45900		
109 - 167	1.52	46100	0.87	00000
139 - 215	1.52	47600		

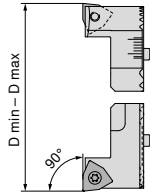
 A detailed operating manual is available for download in the online shop next to the product.

TwinKom – Tool holder 90°

- ▲ radially adjustable
- ▲ Price per piece

Scope of supply:

including clamping screw
Order indexable inserts separately



NEW

62 871 ...

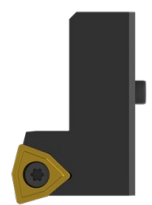
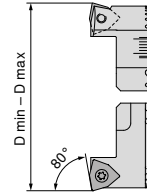
D _{min} - D _{max} mm	KOMET no.	Insert	£ W4	
24 - 32	G03 70330	WO.X 0403	171.75	03200
30 - 41	G03 70141	WO.X 05T3	171.75	04100
39 - 53	G03 70230	WO.X 05T3	167.01	05300
51 - 71	G03 70240	WO.X 06T3	175.33	07100
64 - 91	G03 70250	WO.X 0804	186.19	09100
83 - 124	G03 70260	WO.X 1005	201.78	12400

TwinKom – Tool holder 80°

- ▲ radially adjustable
- ▲ Price per piece

Scope of supply:

including clamping screw
Order indexable inserts separately



NEW

62 875 ...

D _{min} - D _{max} mm	KOMET no.	Insert	£ W4	
24 - 32	G03 80310	WO.X 0403	171.75	03200
30 - 41	G03 80021	WO.X 05T3	171.75	04100
39 - 53	G03 80090	WO.X 05T3	167.01	05300
51 - 71	G03 80100	WO.X 06T3	175.33	07100
64 - 91	G03 80110	WO.X 0804	186.19	09100
83 - 124	G03 80120	WO.X 1005	201.78	12400



Clamping screw

10 950 ...

D _{min} - D _{max}	£ W7	
24 - 32	2.26	10700
30 - 41	2.26	10500
39 - 53	2.26	10500
51 - 71	2.26	10600
64 - 91	2.43	12700
83 - 124	2.43	12700



Suitable inserts can be found on → **Page 59.**

TwinKom – depths of cut

a _{pmax}	P	M	K	N	S
WO.X 0302	1,5	1,0	1,5	2,0	1,0
WO.X 0403	2,5	1,5	3,0	3,0	1,5
WO.X 05T3	4,5	3,5	5,0	5,0	3,5
WO.X 05T6	6,0	4,0	6,0	6,0	4,0
WO.X 0804	7,5	6,0	7,5	7,5	6,0
WO.X 1005	9,0	9,0	9,0	9,0	9,0



Further cutting data can be found on → **Page 65.**



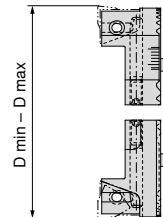
Suitable ABS adapters can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**

TwinKom – Basic tool holder, radially and axially adjustable

▲ Price per piece

Scope of supply:

Order indexable insert seats and indexable inserts separately



NEW

62 872 ...

D _{min} - D _{max} mm	KOMET no.	£	
24 - 32	G03 70011	186.19	03200
30 - 41	G03 70021	186.19	04100
39 - 53	G03 70031	197.04	05300
51 - 71	G03 70041	203.05	07100
64 - 91	G03 70061	242.67	09100
83 - 124	G03 70071	297.87	12400
109 - 167	G03 70081	314.74	16700
139 - 215	G03 70091	367.31	21500

TwinKom – Indexable insert, 90°

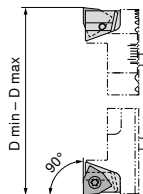
▲ axially adjustable

▲ Price per piece

Scope of supply:

including clamping screw

Order indexable inserts separately



NEW

62 873 ...

D _{min} - D _{max} mm	KOMET no.	Insert	£	
24 - 32	D54 60510	WO.X 0302	2B/6#	
30 - 41	D54 60520	WO.X 0403	97.84	03200
39 - 53	D54 60030	WO.X 05T3	111.21	04100
51 - 71	D54 60040	WO.X 06T3	119.12	05300
64 - 91	D54 60050	WO.X 0804	129.06	07100
83 - 167	D54 60060	WO.X 1005	133.07	09100
139 - 215	D54 60070	WO.X 1206	146.91	12400
			165.81	21500

TwinKom – Indexable insert, 80°

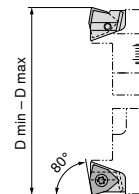
▲ axially adjustable

▲ Price per piece

Scope of supply:

including clamping screw

Order indexable inserts separately



NEW

62 874 ...

D _{min} - D _{max} mm	KOMET no.	Insert	£	
24 - 32	D54 60610	WO.X 0302	2B/6#	
30 - 41	D54 60620	WO.X 0403	97.84	03200
39 - 53	D54 60130	WO.X 05T3	111.21	04100
51 - 71	D54 60140	WO.X 06T3	119.12	05300
64 - 91	D54 60150	WO.X 0804	129.06	07100
83 - 167	D54 60160	WO.X 1005	133.07	09100
139 - 215	D54 60170	WO.X 1206	146.91	16700
			165.81	21500



Clamping screw

10 950 ...

Spare parts

D _{min} - D _{max}	£	
24 - 32	W7	2.26 10000
30 - 41		2.26 10700
39 - 53		2.26 10800
51 - 71		2.73 16400
64 - 91		2.43 12700
83 - 167		2.43 12700
139 - 215		2.43 17400

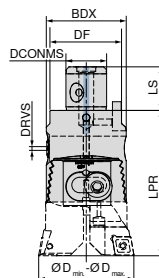
SpinTools – Twin edged Rough / Finish Boring Head

- ▲ Adjustable tools with through coolant
- ▲ each line on the adjustment scale equivalent to 0.01 mm on diameter

Scope of supply:

Boring head with spindle adjustment, carrier, stop pin, 2 screws, 2 lock washers

STM



5

STM Modular

62 380 ...

D _{min} - D _{max} mm	Adapter	DCONMS mm	BDX mm	DF mm	LPR mm	LS mm	DRVS mm	WT kg	£ W4	
29,5 - 40,1	STM 14	14	25	25	55	16	2.5	0.12	418.66	040
39,5 - 50,5	STM 18	18	32	32	65	20	2.5	0.24	436.74	050
49,5 - 66,5	STM 22	22	42	40	82	24	3.0	0.48	472.91	066
65,5 - 87,5	STM 28	28	55	50	100	30	3.0	0.94	525.76	087
86,5 - 115,5	STM 36	36	72	63	125	40	3.0	1.89	631.47	115

Spare parts for Article no.

		£ W7			£ W7			£ W7	
62 380 040	M5x12	3.45	293	Ø 5,3/9,3	1.18	312	9.11	231	
62 380 050	M6x16	3.45	294	Ø 6.4/10,2	1.18	313	9.11	231	
62 380 066	M8x20	3.45	295	Ø 8,4/14,0	1.18	314	10.23	234	
62 380 087	M10x25	3.58	296	Ø 10,5/17,0	1.18	315	10.23	234	
62 380 115	M12x25	3.90	297	Ø 13,0/21,0	1.18	316	10.23	234	

Spare parts for Article no.

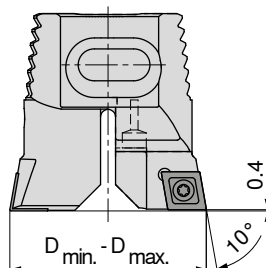
		£ W7			£ W7		
62 380 040	M2,5x6	1.18	163	6x10,3x4	30.22	036	
62 380 050	M3x8	1.45	164	8x15x5	31.73	037	
62 380 066	M4x10	1.45	165	10x18,1x6	35.79	038	
62 380 087	M5x10	1.75	166	12x20x6	42.88	039	
62 380 115	M6x12	1.75	167	16x26,5x8	54.46	040	



Suitable base adapters can be found on → **Page 51.**

- ▲ the insert holder for the finishing process is set back axially by 0.4 mm
- ▲ the insert holder for the finishing process is moved by the adjustable spindle
- ▲ the finishing insert must be mounted in the holder without radial adjustment screw
- ▲ machining allowance for the finishing insert holder approximately 0.3 mm in diameter

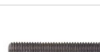
pair of insert holders, 1 adjusting screw, 2 insert clamping screws, 1 Grub screw



		62 381 ...
D _{min} - D _{max} mm	Insert	£ W4
29,5 - 40,1	CC.. 0602	321.29 040
39,5 - 50,5	CC.. 09T3	342.15 050
49,5 - 66,5	CC.. 09T3	390.84 066
65,5 - 87,5	CC.. 1204	509.06 087
86,5 - 115,5	CC.. 1204	792.80 115



Suitable inserts can be found on → **Page 63.**

		TORX® Screws			Key D			Adjustment screw			Backstop screws	
	62 950 ...			80 950 ...			62 950 ...			62 950 ...		
Spare parts for Article no.	£			£			£			£		
	W7			Y7			W7			W7		
	62 381 040	M2,5x6	4.64 022	T07	10.82 109	M4x0,5x9,5	7.33 239	M3x8 - SW1,5	5.61 015			
	62 381 050	M4x9	5.40 023	T15	12.87 113	M4x0,5x13	7.62 240	M3x8 - SW1,5	5.61 015			
	62 381 066	M4x9	5.40 023	T15	12.87 113	M6x14	1.75 241	M3x8 - SW1,5	5.61 015			
	62 381 087	M5x10	6.13 232	T20	13.77 114	M6x20	1.75 242	M3x8 - SW1,5	5.61 015			
62 381 115	M5x10	6.13 232	T20	13.77 114	M6x30	2.09 333	M3x8 - SW1,5	5.61 015				

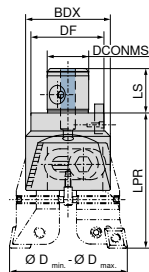
SpinTools – Boring heads for roughing with 2 cutting edges

▲ With internal coolant supply

Scope of supply:

Boring head incl. drive dog, fixing screws, spring rings, drive dog screw and stop pin

STM



STM Modular

62 295 ...

D _{min} - D _{max} mm	Adapter	DCONMS mm	BDX mm	DF mm	LPR mm	LS mm	WT kg
23,5 - 30,5	STM 11	11	20	20	40	13	0.05
29,5 - 40,1	STM 14	14	25	25	45	16	0.09
39,5 - 50,5	STM 18	18	32	32	65	20	0.25
49,5 - 66,5	STM 22	22	42	40	72	24	0.38
65,5 - 87,5	STM 28	28	55	50	82	30	0.59
86,5 - 115,5	STM 36	36	72	63	105	40	1.23
114,5 - 153,0	STM 36	36	94	94	140	40	2.80

£

W4

234.26	030
251.10	040
269.33	050
305.81	066
359.11	087
467.11	115
809.39	153

Fillister-head
screw

Spring ring



Location Pin

62 950 ...

£
W7

62 950 ...

£
W7

62 950 ...

£
W7

Spare parts for Article no.

62 295 030	M4x8	3.45	298	Ø 4,3/7,3	1.18	311	9.11	231
62 295 040	M5x12	3.45	293	Ø 5,3/9,3	1.18	312	9.11	231
62 295 050	M6x16	3.45	294	Ø 6,4/10,2	1.18	313	9.11	231
62 295 066	M8x20	3.45	295	Ø 8,4/14,0	1.18	314	10.23	234
62 295 087	M10x25	3.58	296	Ø 10,5/17,0	1.18	315	10.23	234
62 295 115	M12x25	3.90	297	Ø 13,0/21,0	1.18	316	10.23	234
62 295 153	M16x35	10.69	299	Ø 17,0/34,0	1.80	317	10.23	234



Screw for drivers



Driver

62 950 ...

£
W7

62 950 ...

£
W7

Spare parts for Article no.

62 295 030	M2x2,5	1.18	162	5x8,5x3	28.28	035
62 295 040	M2,5x6	1.18	163	6x10,3x4	30.22	036
62 295 050	M3x8	1.45	164	8x15x5	31.73	037
62 295 066	M4x10	1.45	165	10x18,1x6	35.79	038
62 295 087	M5x10	1.75	166	12x20x6	42.88	039
62 295 115	M6x12	1.75	167	16x26,5x8	54.46	040
62 295 153	M6x12	1.75	167	16x26,5x8	54.46	040

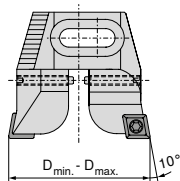


Suitable base adapters can be found on → page 51.

SpinTools – Pair of tool holders, standard, 90°

Scope of supply:

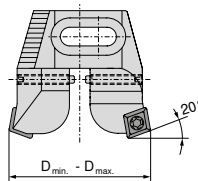
Adjustment screws, positioning pin, insert clamping screws



SpinTools – Pair of tool holders, standard, 70°

Scope of supply:

Adjustment screws, positioning pin, insert clamping screws



		62 296 ...	
D _{min} - D _{max} mm	Insert	£ W4	
23,5 - 30,5	CC.. 0602	269.33	030
29,5 - 40,1	CC.. 0602	281.96	040
39,5 - 50,5	CC.. 09T3	301.60	050
49,5 - 66,5	CC.. 09T3	343.69	066
65,5 - 87,5	CC.. 1204	429.24	087
65,5 - 87,5	CN.. 1204	447.49	088
86,5 - 115,5	CC.. 1204	678.94	115
86,5 - 115,5	CN.. 1606	698.58	116
114,5 - 153	CN.. 1606	889.36	154
114,5 - 153	CC.. 1204	819.22	153

		62 299 ...	
D _{min} - D _{max} mm	Insert	£ W4	
23,5 - 30,5	CC.. 0602	269.33	030
29,5 - 40,1	CC.. 0602	281.96	040
39,5 - 50,5	CC.. 09T3	301.60	050
49,5 - 66,5	CC.. 09T3	343.69	066
65,5 - 87,5	CC.. 1204	429.24	087
65,5 - 87,5	CN.. 1204	447.49	088
86,5 - 115,5	CC.. 1204	678.94	115
86,5 - 115,5	CN.. 1606	698.58	116
114,5 - 153	CN.. 1606	889.36	154



Suitable indexable inserts can be found in this chapter on → **page 63**.
Other indexable inserts can be found in Chapter 9 Indexable insert tools.

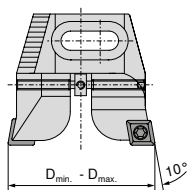
		62 950 ...		80 950 ...		62 950 ...	
D _{min} - D _{max}	Insert	£ W7		£ Y7		£ W7	
114,5 - 153	CC.. 1204	M5x10 6.13	232	T20 13.77	114	M6x40 3.49	335
23,5 - 30,5	CC.. 0602	M2,5x6 4.64	022	T07 10.82	109	M4x0,5x7 7.18	238
29,5 - 40,1	CC.. 0602	M2,5x6 4.64	022	T07 10.82	109	M4x0,5x9,5 7.33	239
39,5 - 50,5	CC.. 09T3	M4x9 5.40	023	T15 12.87	113	M4x0,5x13 7.62	240
49,5 - 66,5	CC.. 09T3	M4x9 5.40	023	T15 12.87	113	M6x14 1.75	241
65,5 - 87,5	CC.. 1204	M5x10 6.13	232	T20 13.77	114	M6x20 1.75	242
86,5 - 115,5	CC.. 1204	M5x10 6.13	232	T20 13.77	114	M6x30 2.09	333

		62 950 ...		62 950 ...		62 950 ...		62 950 ...		62 950 ...	
D _{min} - D _{max}	Insert	£ W7		£ W7		£ W7		£ W7		£ W7	
114,5 - 153	CN.. 1606	2.40	177	7.94	180	24.84	179	26.20	178	M8x40	2.40 334
65,5 - 87,5	CN.. 1204	2.40	096	7.94	136	22.43	125	19.16	117	M6x20	1.75 242
86,5 - 115,5	CN.. 1606	2.40	177	7.94	180	24.84	179	26.20	178	M6x30	2.09 333

SpinTools – Pair of tool holders, 'Synchro', 90°

Scope of supply:

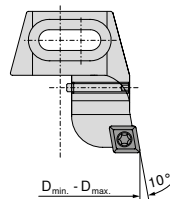
Insert clamping screws, synchronization screw



SpinTools – Tool holder 90°, axial offset 0.4 mm

Scope of supply:

2 adjustment screws, 1 positioning pin, insert clamping screw



62 297 ...			
D _{min} - D _{max} mm	Insert	£ W4	
23,5 - 30,5	CC.. 0602	310.01	030
29,5 - 40,1	CC.. 0602	324.03	040
39,5 - 50,5	CC.. 09T3	345.07	050
49,5 - 66,5	CC.. 09T3	394.18	066
65,5 - 87,5	CC.. 1204	513.42	087
86,5 - 115,5	CC.. 1204	799.58	115
114,5 - 153	CC.. 1204	956.68	153

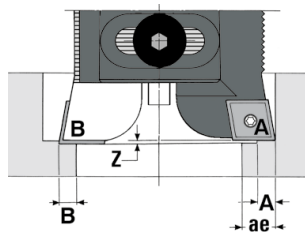
62 298 ...			
D _{min} - D _{max} mm	Insert	£ W4	
23,5 - 30,5	CC.. 0602	179.56	030
29,5 - 40,1	CC.. 0602	187.97	040
39,5 - 50,5	CC.. 09T3	202.00	050
49,5 - 66,5	CC.. 09T3	230.06	066
65,5 - 87,5	CC.. 1204	300.18	087
86,5 - 115,5	CC.. 1204	465.72	115
114,5 - 153	CC.. 1204	559.71	153

1 Suitable indexable inserts can be found in this chapter on → **page 63**.
Other indexable inserts can be found in Chapter 9 Indexable insert tools.

															
TORX® Screws				Synchronization screw				Key D				Adjustment screw			
62 950 ...				62 950 ...				80 950 ...				62 950 ...			
Spare parts for Article no.		£ W7		£ W7			£ Y7			£ W7					
62 297 030	M2,5x6	4.64	022	M4x0,5x18	53.54	207	T07	10.82	109	M4x0,5x7	7.18	238			
62 297 040	M2,5x6	4.64	022	M4x0,5x23	53.73	208	T07	10.82	109	M4x0,5x9,5	7.33	239			
62 297 050	M4x9	5.40	023	M4x0,5x30	55.51	209	T15	12.87	113	M4x0,5x13	7.62	240			
62 297 066	M4x9	5.40	023	M6x40	56.89	210	T15	12.87	113	M6x14	1.75	241			
62 297 087	M5x10	6.13	232	M6x52	58.42	211	T20	13.77	114	M6x20	1.75	242			
62 297 115	M5x10	6.13	232	M6x68	60.11	212	T20	13.77	114	M6x30	2.09	333			
62 297 153	M5x10	6.13	232	M6x90	92.98	220	T20	13.77	114	M6x40	3.49	335			

Spare parts for Article no.			£ W7		£ Y7		£ W7		
62 298 030	M2,5x6	4.64	022	T07	10.82	109	M4x0,5x7	7.18	238
62 298 040	M2,5x6	4.64	022	T07	10.82	109	M4x0,5x9,5	7.33	239
62 298 050	M4x9	5.40	023	T15	12.87	113	M4x0,5x13	7.62	240
62 298 066	M4x9	5.40	023	T15	12.87	113	M6x14	1.75	241
62 298 087	M5x10	6.13	232	T20	13.77	114	M6x20	1.75	242
62 298 115	M5x10	6.13	232	T20	13.77	114	M6x30	2.09	333
62 298 153	M5x10	6.13	232	T20	13.77	114	M6x40	3.49	335

Asynchronous machining (divided cut)



Asynchronous boring is possible using a tool holder (A) with offset 0.4mm. This tool holder is black finished and characterized by 3 dots, and must be in the outer position (with regard to the 2 tool holders)

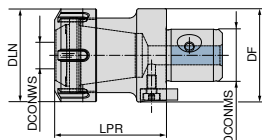
SpinTools – ER collet chuck

- ▲ for ER clamping to DIN 6499
- ▲ With internal coolant supply

Scope of supply:

axial tool length adjustment and lock nut

STM



STM Modular

62 306 ...

DCONWS mm	SZID	DCONMS mm	DF mm	DLN mm	LPR mm	for collet	WT kg
1 - 20	STM 28	28	50	50	60	470E (ER32)	0.644

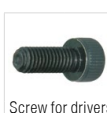
£
W4
287.57 032



Y clamping key

83 357 ...

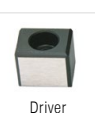
£
Y8
33.95 132



Screw for drivers

62 950 ...

£
W7
1.75 166



Driver

62 950 ...

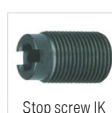
£
W7
42.88 039



Driver

83 950 ...

£
Y8
14.81 121



Stop screw IK

62 950 ...

£
W7
11.64 406

Spare parts
for Article no.
62 306 032

Suitable collets can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**

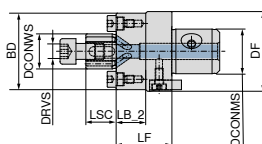
SpinTools – Shell mill adapter

- ▲ for use on mills with parallel or transverse slot to ISO 3937
- ▲ With internal coolant supply

Scope of supply:

drive dogs, drive key and clamping bolt

STM



STM Modular

62 307 ...

DCONWS mm	SZID	DCONMS mm	BD mm	DF mm	LSC mm	LB_2 mm	LF mm	DRVS mm	WT kg
16	STM 22	22	38	40	17	17.1	30	6	0.363
22	STM 28	28	48	50	19	19.1	35	8	0.685

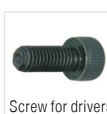
£
W4
225.83 016
231.46 022



Parallel key

83 950 ...

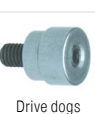
£
Y8
3.45 284
3.45 285



Screw for drivers

62 950 ...

£
W7
1.45 165
1.75 166



Drive dogs

62 950 ...

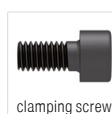
£
W7
23.40 442
23.40 443



Driver

62 950 ...

£
W7
35.79 038
42.88 039



clamping screw

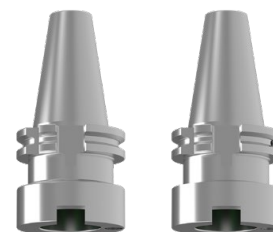
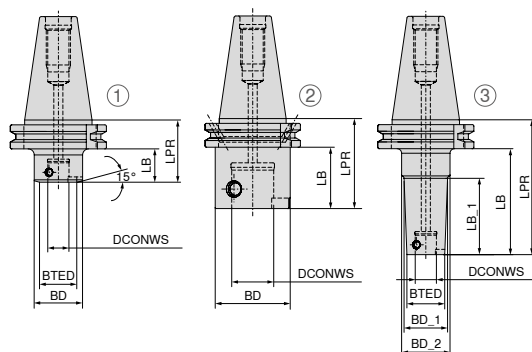
83 950 ...

£
Y8
5.93 113
6.70 124

Spare parts
for Article no.
62 307 016
62 307 022

SpinTools – Base adapters ISO 7388-1 (DIN 69871)

STM

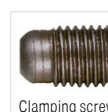
AD
SKAD/B
SK

	Adapter	Fig.	SZID	DCONWS	BTED	BD	BD_1	BD_2	LPR	LB	LB_1	WT	62 107 ...		62 108 ...	
				mm	mm	mm	mm	mm	mm	mm	mm	kg	£ W4		£ W4	
short	SK 30	2	STM 28	28		50			55	35.9		0.62	242.68	328		
	SK 40	1	STM 11	11	20	32			40	20.9		0.91	242.68	111 ¹⁾		
	SK 40	1	STM 14	14	25	32			40	20.9		0.93	242.68	114 ¹⁾		
	SK 40	2	STM 18	18		32			40	20.9		0.89	242.68	118		
	SK 40	2	STM 22	22		40			50	30.9		1.02	242.68	122		
	SK 40	2	STM 28	28		50			50	30.9		1.11	242.68	128	251.10	128
	SK 40	2	STM 36	36		63			60	40.9		1.27	224.45	136	251.10	136
	SK 50	2	STM 28	28		50			50	30.9		2.92	287.57	428	314.22	428
long	SK 50	2	STM 36	36		63			63	43.9		3.27	287.57	436	314.22	436
	SK 40	3	STM 11	11	20		23	32	80	60.9	40.9	1.04	269.33	211 ¹⁾		
	SK 40	3	STM 14	14	25		28	32	80	60.9	40.9	1.07	269.33	214 ¹⁾		
	SK 40	2	STM 18	18		32			80	60.9		1.13	269.33	218		
	SK 40	2	STM 22	22		40			100	80.9		1.47	269.33	222		
	SK 40	2	STM 28	28		50			100	80.9		1.84	269.33	228		
	SK 40	2	STM 36	36		63			120	100.9		2.68	269.33	236	295.98	236
	SK 50	2	STM 36	36		63			120	100.9		4.60	324.03	536	350.69	536

1) Note! BD/BD_1 is larger than BTED, which may lead to a limited bore depth!



O-Ring

Clamping screw
STSpare parts
DCONWS

		£ W7		£ W7	
11	9x1,5	2.40	254	M4x0,5x6	10.16 026
14	12x1,5	2.40	255	M5x0,5x7,5	10.69 027
18	16x1,5	2.40	256	M6x0,75x9,5	10.94 028
22	19x2	2.40	257	M8x0,75x12	12.13 029
28	25x2	2.40	258	M10x1x14,2	14.23 030
36	33x2	2.40	259	M12x1x18	18.25 031

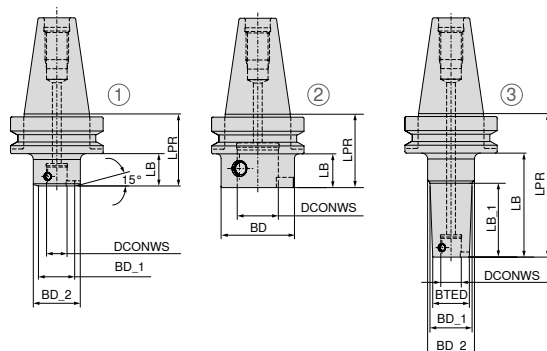


Suitable pull studs can be found in → Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.

SpinTools – Base adapters ISO 7388-2 (JIS B 6339 / MAS-BT)

▲ form B available upon request

STM



MAS-BT

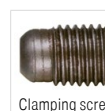
62 112 ...

	Adapter	Fig.	SZID	DCONWS mm	BTED mm	BD mm	BD_1 mm	BD_2 mm	LPR mm	LB mm	LB_1 mm	WT kg	£ W4	
short	BT 30	2	STM 28	28		50			55			0.64	242.68	328
	BT 40	1	STM 11	11	20	32			50	23		1.09	242.68	111 ¹⁾
	BT 40	1	STM 14	14	25	32			50	23		1.08	242.68	114 ¹⁾
	BT 40	2	STM 18	18		32			50	23		1.06	242.68	118
	BT 40	2	STM 22	22		40			50	23		1.10	242.68	122
	BT 40	2	STM 28	28		50			50	23		1.14	242.68	128
	BT 40	2	STM 36	36		63			60	33		1.38	224.45	136
long	BT 50	2	STM 28	28		50			63	25		3.75	287.57	428
	BT 50	2	STM 36	36		63			63	25		3.78	287.57	436
	BT 40	3	STM 11	11	20		23	32	90	63	43	1.20	269.33	211 ¹⁾
	BT 40	3	STM 14	14	25		28	32	90	63	43	1.24	269.33	214 ¹⁾
	BT 40	2	STM 18	18		32			90	63		1.30	269.33	218
	BT 40	2	STM 22	22		40			100	73		1.57	269.33	222
	BT 40	2	STM 28	28		50			100	73		1.87	269.33	228
	BT 40	2	STM 36	36		63			120	93		2.78	269.33	236
	BT 50	2	STM 36	36		63			120	82		5.18	324.03	536

1) Note! BD/BD_1 is larger than BTED, which may lead to a limited bore depth!



O-Ring

Clamping screw
STSpare parts
DCONWS

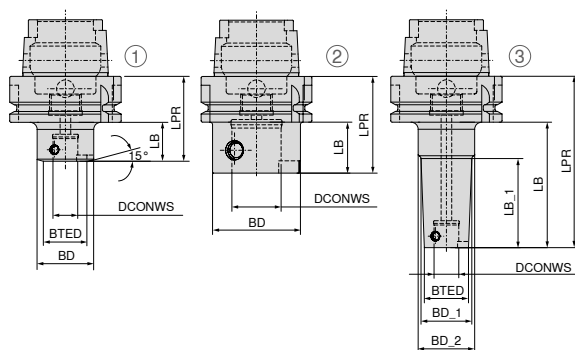
		£ W7			£ W7	
11	9x1,5	2.40	254	M4x0,5x6	10.16	026
14	12x1,5	2.40	255	M5x0,5x7,5	10.69	027
18	16x1,5	2.40	256	M6x0,75x9,5	10.94	028
22	19x2	2.40	257	M8x0,75x12	12.13	029
28	25x2	2.40	258	M10x1x14,2	14.23	030
36	33x2	2.40	259	M12x1x18	18.25	031



Suitable pull studs can be found in → Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.

SpinTools – Base adapters HSK-A ISO 12164-1 (DIN 69893-1)

STM

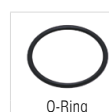


HSK-A

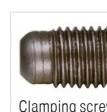
62 122 ...

	Adapter	Fig.	SZID	DCONWS mm	BTED mm	BD mm	BD_1 mm	BD_2 mm	LPR mm	LB mm	LB_1 mm	WT kg	£ W4	
short	HSK-A 63	1	STM 11	11	20	32			50	24		0.77	287.57	111 ¹⁾
	HSK-A 63	1	STM 14	14	25	32			50	24		0.76	287.57	114 ¹⁾
	HSK-A 63	2	STM 18	18		32			50	24		0.74	287.57	118
	HSK-A 63	2	STM 22	22		40			50	24		0.79	287.57	122
	HSK-A 63	2	STM 28	28		50			55	24		0.91	287.57	128
	HSK-A 63	2	STM 36	36		63			65	34		1.10	260.91	136
long	HSK-A 100	2	STM 28	28		50			63	34		2.32	332.45	428
	HSK-A 100	2	STM 36	36		63			70	34		2.61	332.45	436
	HSK-A 63	3	STM 11	11	20		23	32	90	64	44	0.87	314.22	211 ¹⁾
	HSK-A 63	3	STM 14	14	25		28	32	90	64	44	0.93	314.22	214 ¹⁾
	HSK-A 63	2	STM 18	18		32			90	64		0.98	314.22	218
	HSK-A 63	2	STM 22	22		40			100	74		1.26	314.22	222
	HSK-A 63	2	STM 28	28		50			100	74		1.58	314.22	228
	HSK-A 63	2	STM 36	36		63			120	94		2.41	332.45	236
	HSK-A 100	2	STM 36	36		63			120	91		3.77	359.11	536

1) Note! BD/BD_1 is larger than BTED, which may lead to a limited bore depth!



O-Ring

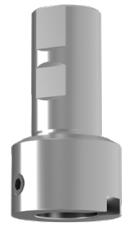
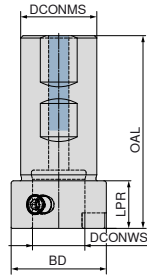
Clamping screw
STSpare parts
DCONWS

		£ W7			£ W7	
11	9x1,5	2.40	254	M4x0,5x6	10.16	026
14	12x1,5	2.40	255	M5x0,5x7,5	10.69	027
18	16x1,5	2.40	256	M6x0,75x9,5	10.94	028
22	19x2	2.40	257	M8x0,75x12	12.13	029
28	25x2	2.40	258	M10x1x14,2	14.23	030
36	33x2	2.40	259	M12x1x18	18.25	031

SpinTools – Adapters to DIN 1835-B

▲ with thro' coolant

STM



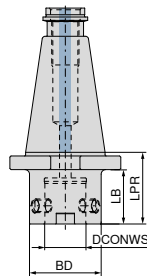
DIN 1835-B

62 104 ...

DCONMS mm	BD mm	SZID	DCONWS mm	LPR mm	OAL mm	WT kg	£ W4	
25	25	STM 14	14	15	72	0.24	178.14	014
32	32	STM 18	18	15	76	0.42	183.76	018
32	50	STM 28	28	35	96	0.72	223.05	028
32	63	STM 36	36	45	106	1.05	245.48	036

SpinTools – Base adapter DIN 2080

STM

short
SK

62 109 ...

Adapter	SZID	DCONWS mm	BD mm	LPR mm	LB mm	WT kg	£ W4	
SK 40	STM 36	36	63	60	48.4	1.52	288.97	136
SK 50	STM 36	36	63	63	47.8	3.33	331.05	436



O-Ring

Clamping screw
ST

62 950 ...

62 950 ...

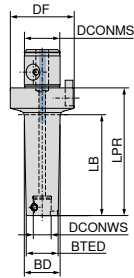
Spare parts

DCONWS		£ W7			£ W7	
14	12x1,5	2.40	255	M5x0,5x7,5	10.69	027
18	16x1,5	2.40	256	M6x0,75x9,5	10.94	028
28	25x2	2.40	258	M10x1x14,2	14.23	030
36	33x2	2.40	259	M12x1x18	18.25	031

SpinTools – Reductions

▲ With internal coolant supply

STM



STM Modular

62 357 ...

Adapter	LPR mm	SZID	DCONMS mm	DCONWS mm	DF mm	BTED mm	BD mm	LB mm	WT kg	£ W4	
STM 11	30	STM 14	14	11	25	20	23	15	0.04	132.13	111
STM 11	30	STM 18	18	11	32	20	23	17	0.14	132.13	211
STM 14	30	STM 18	18	14	32	25	28	17	0.16	132.13	214
STM 11	30	STM 22	22	11	40	20	23	15	0.21	137.70	311
STM 14	30	STM 22	22	14	40	25	28	15	0.22	137.70	314
STM 18	30	STM 22	22	18	40	32	37	15	0.25	137.70	318
STM 11	40	STM 28	28	11	50	20	23	20	0.44	143.27	411
STM 14	40	STM 28	28	14	50	25	28	20	0.49	143.27	414
STM 18	40	STM 28	28	18	50	32	37	20	0.45	143.27	418
STM 22	40	STM 28	28	22	50	40	46	20	0.55	143.27	422
STM 11	40	STM 36	36	11	63	20	22	16	0.82	151.62	511
STM 11	70	STM 36	36	11	63	20	23	42	0.90	164.12	811
STM 11	95	STM 36	36	11	63	20	23	71	0.98	178.04	611
STM 11	115	STM 36	36	11	63	20	23	87	1.02	196.11	911
STM 11	135	STM 36	36	11	63	20	23	111	1.08	214.21	711
STM 14	40	STM 36	36	14	63	25	27	16	0.84	151.62	514
STM 14	80	STM 36	36	14	63	25	28	52	1.00	173.86	814
STM 14	120	STM 36	36	14	63	25	28	96	1.16	196.11	614
STM 14	145	STM 36	36	14	63	25	28	117	1.27	214.21	914
STM 14	170	STM 36	36	14	63	25	28	146	1.38	232.27	714
STM 18	40	STM 36	36	18	63	32	37	16	0.85	151.62	518
STM 18	100	STM 36	36	18	63	32	38	74	1.24	184.99	818
STM 18	150	STM 36	36	18	63	32	38	126	1.66	216.97	918
STM 18	207	STM 36	36	18	63	32	38	183	2.07	267.04	618
STM 22	40	STM 36	36	22	63	40	46	16	0.89	151.62	522
STM 22	120	STM 36	36	22	63	40	48	95	1.76	200.29	822
STM 22	183	STM 36	36	22	63	40	48	159	2.52	248.98	622
STM 22	263	STM 36	36	22	63	40	48	239	3.44	356.08	722
STM 28	40	STM 36	36	28	63	50	58	21	1.03	151.62	528
STM 28	140	STM 36	36	28	63	50	60	117	2.70	210.02	828
STM 28	233	STM 36	36	28	63	50	60	209	4.41	337.98	628
STM 28	333	STM 36	36	28	63	50	60	309	6.25	463.16	728

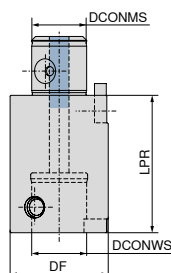
Reductions – Spare Parts

 O-Ring				 Screw for drivers				 Driver				 Clamping screw ST			
62 950 ...				62 950 ...				62 950 ...				62 950 ...			
Spare parts for Article no.		£ W7		£ W7				£ W7				£ W7			
62 357 111	9x1,5	2.40	254	M2,5x6	1.18	163		6x10,3x4	30.22	036		M4x0,5x6	10.16	026	
62 357 211	9x1,5	2.40	254	M3x8	1.45	164		8x15x5	31.73	037		M4x0,5x6	10.16	026	
62 357 214	12x1,5	2.40	255	M3x8	1.45	164		8x15x5	31.73	037		M5x0,5x7,5	10.69	027	
62 357 311	9x1,5	2.40	254	M4x10	1.45	165		10x18,1x6	35.79	038		M4x0,5x6	10.16	026	
62 357 314	12x1,5	2.40	255	M4x10	1.45	165		10x18,1x6	35.79	038		M5x0,5x7,5	10.69	027	
62 357 318	16x1,5	2.40	256	M4x10	1.45	165		10x18,1x6	35.79	038		M6x0,75x9,5	10.94	028	
62 357 411	9x1,5	2.40	254	M5x10	1.75	166		12x20x6	42.88	039		M4x0,5x6	10.16	026	
62 357 414	12x1,5	2.40	255	M5x10	1.75	166		12x20x6	42.88	039		M5x0,5x7,5	10.69	027	
62 357 418	16x1,5	2.40	256	M5x10	1.75	166		12x20x6	42.88	039		M6x0,75x9,5	10.94	028	
62 357 422	19x2	2.40	257	M5x10	1.75	166		12x20x6	42.88	039		M8x0,75x12	12.13	029	
62 357 511	9x1,5	2.40	254	M6x12	1.75	167		16x26,5x8	54.46	040		M4x0,5x6	10.16	026	
62 357 811	9x1,5	2.40	254	M6x12	1.75	167		16x26,5x8	54.46	040		M4x0,5x6	10.16	026	
62 357 611	9x1,5	2.40	254	M6x12	1.75	167		16x26,5x8	54.46	040		M4x0,5x6	10.16	026	
62 357 911	9x1,5	2.40	254	M6x12	1.75	167		16x26,5x8	54.46	040		M4x0,5x6	10.16	026	
62 357 711	9x1,5	2.40	254	M6x12	1.75	167		16x26,5x8	54.46	040		M4x0,5x6	10.16	026	
62 357 514	12x1,5	2.40	255	M6x12	1.75	167		16x26,5x8	54.46	040		M5x0,5x7,5	10.69	027	
62 357 814	12x1,5	2.40	255	M6x12	1.75	167		16x26,5x8	54.46	040		M5x0,5x7,5	10.69	027	
62 357 614	12x1,5	2.40	255	M6x12	1.75	167		16x26,5x8	54.46	040		M5x0,5x7,5	10.69	027	
62 357 914	12x1,5	2.40	255	M6x12	1.75	167		16x26,5x8	54.46	040		M5x0,5x7,5	10.69	027	
62 357 714	12x1,5	2.40	255	M6x12	1.75	167		16x26,5x8	54.46	040		M5x0,5x7,5	10.69	027	
62 357 518	16x1,5	2.40	256	M6x12	1.75	167		16x26,5x8	54.46	040		M6x0,75x9,5	10.94	028	
62 357 818	16x1,5	2.40	256	M6x12	1.75	167		16x26,5x8	54.46	040		M6x0,75x9,5	10.94	028	
62 357 918	16x1,5	2.40	256	M6x12	1.75	167		16x26,5x8	54.46	040		M6x0,75x9,5	10.94	028	
62 357 618	16x1,5	2.40	256	M6x12	1.75	167		16x26,5x8	54.46	040		M6x0,75x9,5	10.94	028	
62 357 522	19x2	2.40	257	M6x12	1.75	167		16x26,5x8	54.46	040		M8x0,75x12	12.13	029	
62 357 822	19x2	2.40	257	M6x12	1.75	167		16x26,5x8	54.46	040		M8x0,75x12	12.13	029	
62 357 622	19x2	2.40	257	M6x12	1.75	167		16x26,5x8	54.46	040		M8x0,75x12	12.13	029	
62 357 722	19x2	2.40	257	M6x12	1.75	167		16x26,5x8	54.46	040		M8x0,75x12	12.13	029	
62 357 528	25x2	2.40	258	M6x12	1.75	167		16x26,5x8	54.46	040		M10x1x14,2	14.23	030	
62 357 828	25x2	2.40	258	M6x12	1.75	167		16x26,5x8	54.46	040		M10x1x14,2	14.23	030	
62 357 628	25x2	2.40	258	M6x12	1.75	167		16x26,5x8	54.46	040		M10x1x14,2	14.23	030	
62 357 728	25x2	2.40	258	M6x12	1.75	167		16x26,5x8	54.46	040		M10x1x14,2	14.23	030	

SpinTools – Extensions

▲ With internal coolant supply

STM



STM Modular

62 351 ...

Adapter	LPR mm	SZID	DCONWS mm	DF mm	DCONMS mm	WT kg		£ W4	
STM 11	25	STM 11	11	20	11	0.06		126.24	111
STM 11	35	STM 11	11	20	11	0.09		126.24	211
STM 14	30	STM 14	14	25	14	0.11		126.24	114
STM 14	45	STM 14	14	25	14	0.17		126.24	214
STM 18	40	STM 18	18	32	18	0.23		134.66	118
STM 18	60	STM 18	18	32	18	0.35		133.52	218
STM 22	50	STM 22	22	40	22	0.45		144.50	122
STM 22	80	STM 22	22	40	22	0.73		143.27	222
STM 28	50	STM 28	28	50	28	0.71		144.50	128
STM 28	75	STM 28	28	50	28	1.07		151.62	228
STM 28	100	STM 28	28	50	28	1.44		159.95	328
STM 36	60	STM 36	36	63	36	1.33		152.91	136
STM 36	90	STM 36	36	63	36	2.02		169.69	236
STM 36	120	STM 36	36	63	36	2.72		187.76	336



O-Ring



Screw for drivers



Driver

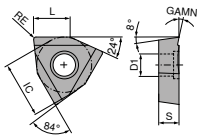


Clamping screw
ST

		62 950 ...		62 950 ...		62 950 ...		62 950 ...				
Spare parts		£		£		£		£				
DCONWS		W7		W7		W7		W7				
11	9x1,5	2.40	254	M2x2,5	1.18	162	5x8,5x3	28.28	035	M4x0,5x6	10.16	026
14	12x1,5	2.40	255	M2,5x6	1.18	163	6x10,3x4	30.22	036	M5x0,5x7,5	10.69	027
18	16x1,5	2.40	256	M3x8	1.45	164	8x15x5	31.73	037	M6x0,75x9,5	10.94	028
22	19x2	2.40	257	M4x10	1.45	165	10x18,1x6	35.79	038	M8x0,75x12	12.13	029
28	25x2	2.40	258	M5x10	1.75	166	12x20x6	42.88	039	M10x1x14,2	14.23	030
36	33x2	2.40	259	M6x12	1.75	167	16x26,5x8	54.46	040	M12x1x18	18.25	031

WOHX

Designation	L mm	S mm	D1 mm	IC mm
WOHX 02T0..	2.6	1.20	2	4



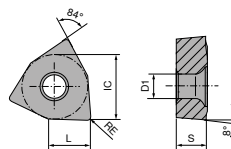
WOHX

			-G12 BK2710		-G12 BK8440		-G12 K10	
			F WOHX		F WOHX		F WOHX	
			62 600 ...		62 600 ...		62 600 ...	
ISO	KOMET no.	RE mm	£ 3#		£ 3#		£ 3#	
02T001EL	W00 04120.018440	0.1			17.92	00102		
02T001EL	W00 04120.012710	0.1	17.92	10102				
02T001FL	W00 04120.0121	0.1					14.73	20102
P				•		•		
M				•		•		
K				•		•		
N								•
S								•
H						•		
O								•

→ v_c Page 65

WOEX / WOGX

Designation	L mm	S mm	D1 mm	IC mm
WOGX 0302..	3.2	2.30	2.30	5.00
WOGX 0403..	4.1	3.18	2.55	6.35
WO.X 05T3..	5.3	3.80	2.85	8.00
WO.X 06T3..	6.6	3.80	4.05	10.00
WO.X 0804..	7.9	4.80	4.90	12.00
WOEX 1005..	9.9	5.30	4.90	15.00



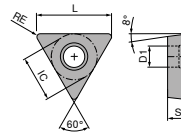
WOGX / WOEX

			NEW		NEW			
			-15 BK8430	-02 BK6440	-01 BK8425	-01 BK6115		
								
			WOGX	WOEX	WOEX	WOEX		
			10 821 ...	10 821 ...	10 821 ...	10 821 ...		
			£ 1A/3#	£ 1A/3#	£ 1A/3#	£ 1A/3#		
ISO	KOMET no.	RE mm						
030204	W29 10010.048425	0.4						
030204	W29 10150.048430	0.4	19.66		10.83	30301		
030204	W29 10010.046115	0.4					15.69	40301
040304	W29 18010.048425	0.4			11.51	30401		
040304	W29 18150.048430	0.4	20.44				15.79	40401
040304	W29 18010.046115	0.4			11.81	30501		
05T304	W29 24010.048425	0.4						
05T304	W29 24020.046440	0.4		15.79	25502			
05T304	W29 24150.048430	0.4	20.75				17.07	40501
05T304	W29 24010.046115	0.4			13.20	30601		
06T304	W29 34010.048425	0.4						
06T304	W29 34020.046440	0.4		17.47	25602			
06T304	W29 34150.048430	0.4	23.73				16.87	40601
06T304	W29 34010.046115	0.4			16.67	30801		
080404	W29 42010.048425	0.4						
080404	W29 42020.046440	0.4		21.75	25802			
080404	W29 42150.048430	0.4	26.90				20.84	40801
080404	W29 42010.046115	0.4			22.73	31001		
100504	W29 50010.048425	0.4						
100504	W29 50020.046440	0.4		24.52	26002		24.62	41001
100504	W29 50010.046115	0.4			26.41	31201		
120608	W29 58010.088425	0.8						
120608	W29 58020.086440	0.8		30.19	21202		30.87	41201
120608	W29 58010.086115	0.8						
P			○	●	●	●		
M			○	●	●	●		
K			○		●	●		
N						○		
S			●					
H			●			○	○	
O								

→ v_c Page 65

TOGX

Designation	L mm	S mm	D1 mm	IC mm
TOGX 06T1..	6.64	1.80	2.2	4.0
TOGX 0902..	9.12	2.50	2.8	5.6
TOGX 1403..	13.62	3.00	3.8	8.2



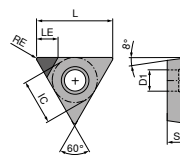
TOGX

			NEW	NEW			NEW
			-18 CK32	-14 CK3230	-14 BK60	-12 K10	CBN40
			F TOGX	F TOGX	F TOGX	F TOGX	F TOGX
			62 607 ...	62 606 ...	62 601 ...	62 601 ...	62 601 ...
ISO	KOMET no.	RE mm	£ 1A/3#	£ 1A/3#	£ 3#	£ 3#	£ Y0
06T102EN	W57 04140.0260	0.2			13.91 90206		
06T102EN	W57 04140.023230	0.2		18.36 10201			
06T102EN	W57 04180.0432	0.4	18.36 20401				
06T102FN	W57 04120.0223	0.2				13.91 50206	
06T102TN	W30 04990.0240	0.2					59.89 60206
090204EN	W57 14140.0460	0.4			15.25 70409		
090204EN	W57 14140.043230	0.4		20.15 11401			
090204EN	W57 14180.0432	0.4	20.15 21401				
090204FN	W57 14120.0423	0.4				15.25 50409	
090204TN	W30 14990.0440	0.4					66.44 60409
140304EN	W57 26140.0460	0.4			21.53 70414		
140304EN	W57 26140.043230	0.4		28.50 12601			
140304EN	W57 26180.0432	0.4	28.50 22601				
140304FN	W57 26120.0423	0.4				24.62 50414	
140304TN	W30 26990.0440	0.4					125.76 62600
P			•	•	•		
M			•	•	•		
K					•		
N						•	
S						•	
H							•
Q						•	

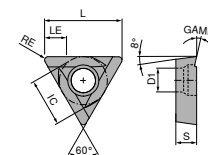
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TOEX / TOHX

Designation	L mm	S mm	D1 mm	IC mm	LE mm
TOEX 06T1..	6.64	1.80	2.2	4.0	1.8
TOEX 0902..	9.12	2.50	2.8	5.6	2.7
TOEX 1403..	13.62	3.00	3.8	8.2	2.7
TOHX 06T1..	6.50	1.80	2.2	4.0	-
TOHX 0902..	9.12	2.50	2.8	5.6	-
TOHX 1403..	13.62	3.00	3.8	8.2	-



TOEX



TOHX

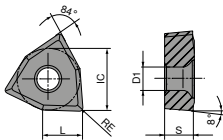
TOEX / TOHX

			NEW	NEW	NEW	NEW
			PKD5510 CTDPU20	-G12 BK8425	-G06 BK2710	-G06 BK6110
			F	F	F	F
			DIAMOND TOEX	TOHX	TOHX	TOHX
			62 605 ...	62 603 ...	62 602 ...	62 602 ...
ISO	KOMET no.	RE mm	£ Y0	£ 1A/3#	£ 3#	£ 3#
06T102FN	W30 04990.025510	0.2	58.55			
06T103EL	W30 04060.032710	0.3			14.32	
06T103EL	W30 04060.036110	0.3				15.25
06T103EL	W30 04120.038425	0.3		18.07		
06T103EL	W30 04060.037615	0.3				16.89
090204EL	W30 14060.042710	0.4			16.29	
090204EL	W30 14120.048425	0.4		20.44		
090204EL	W30 14060.046110	0.4				16.89
090204EL	W30 14060.047615	0.4				18.44
090204FN	W30 14990.045510	0.4	118.19			
140304EL	W30 26060.042710	0.4			24.22	
140304EL	W30 26120.048425	0.4		23.04		
140304EL	W30 26060.046110	0.4				18.85
140304EL	W30 26060.047615	0.4				27.30
140304FN	W30 26990.045510	0.4	125.76			
P						
M						
K						
N						
S						
H						
O						

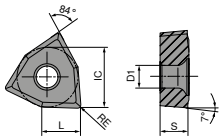
→ v_c Page 65

WCMT / WCGT

Designation	L mm	S mm	D1 mm	IC mm
WCGT 0201..	2.71	1.59	2.1	3.97
WCMT 0201..	4.34	1.59	2.1	3.97



WCMT



WCGT

WCMT / WCGT

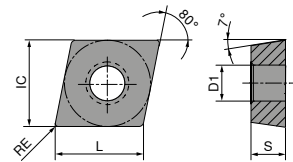
		-SF30 CWC06		-SF20 CWN10		-SF16 CWP25	
		F		F		F	
		CERMET WCMT		WCGT		WCGT	
		70 294 ...		70 295 ...		70 295 ...	
ISO	RE mm	£		£		£	
		X2		X2		X2	
		14.86		94.13		42.49	
020102	0.2	850		850		500	
020104	0.4			852			
P		●		●		●	
M		○		●		●	
K		●		●		○	
N		●		●		●	
S				●			
H				●			
O							

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Additional inserts can be found in → **Chapter 9, Turning Tools**

CCGT

Designation	L mm	S mm	D1 mm	IC mm
CCGT 06..	6.4	2.38	2.8	6.35
CCGT 09..	9.7	3.97	4.4	9.52



CCGT

		-SF20 CWN10		-SF15 CWC06		-SF14 CWC10	
		F		F		F	
		CCGT		CERMET CCGT		CERMET CCGT	
		70 296 ...		70 296 ...		70 300 ...	
ISO	RE mm	£ X2		£ X2		£ X2	
060202L	0.2	66.50	300	42.92	850	15.84	903
060204L	0.4	66.50	302	42.92	852	15.84	905
09T302L	0.2	71.79	304	46.42	854	19.75	911
09T304L	0.4	71.79	306	46.42	856	19.75	913
P			●		●		●
M			●		○		●
K			●		●		●
N			●		●		
S			●				
H			●				
O							

→ v_c Page 66

Additional inserts can be found in → Chapter 9, Turning Tools

Material examples for cutting data tables

	Material sub-group	Index	Composition / Structure / Heat treatment		Tensile strength N/mm ² / HB / HRC	Material number	Material designation	Material number	Material designation
P	Unalloyed steel	P.1.1	< 0,15 % C	Annealed	420 N/mm ² / 125 HB	1.0401	C15	1.1141	Ck15
		P.1.2	< 0,45 % C	Annealed	640 N/mm ² / 190 HB	1.1191	C45E	1.0718	9SMnPb28
		P.1.3		Tempered	840 N/mm ² / 250 HB	1.1191	C45E	1.0535	C55
		P.1.4	< 0,75 % C	Annealed	910 N/mm ² / 270 HB	1.1223	C60R	1.0535	C55
		P.1.5		Tempered	1010 N/mm ² / 300 HB	1.1223	C60R	1.0727	45S20
	Low-alloy steel	P.2.1		Annealed	610 N/mm ² / 180 HB	1.7131	16MnCr5	1.6587	17CrNiMo6
		P.2.2		Tempered	930 N/mm ² / 275 HB	1.7131	16MnCr5	1.6587	17CrNiMo6
		P.2.3		Tempered	1010 N/mm ² / 300 HB	1.7225	42CrMo4	1.3505	100Cr6
		P.2.4		Tempered	1200 N/mm ² / 375 HB	1.7225	42CrMo4	1.3505	100Cr6
	High-alloy steel and high-alloy tool steel	P.3.1		Annealed	680 N/mm ² / 200 HB	1.4021	X20Cr13	1.4034	X46Cr13
		P.3.2		Hardened and tempered	1100 N/mm ² / 300 HB	1.2343	X38CrMoV5-1	1.4034	X46Cr13
		P.3.3		Hardened and tempered	1300 N/mm ² / 400 HB	1.2343	X38CrMoV5-1	1.4034	X46Cr13
	Stainless steel	P.4.1	Ferritic / martensitic	Annealed	680 N/mm ² / 200 HB	1.4016	X6Cr17	1.2316	X36CrMo16
		P.4.2	Martensitic	Tempered	1010 N/mm ² / 300 HB	1.4112	X90CrMoV18	1.2316	X36CrMo16
M	Stainless steel	M.1.1	Austenitic / austenitic-ferritic	Quenched	610 N/mm ² / 180 HB	1.4301	X5CrNi18-10	1.4571	X6CrNiMoTi17-12-2
		M.2.1	Austenitic	Tempered	300 HB	1.4841	X15CrNiSi25-21	1.4539	X1NiCrMoCu25-20-5
		M.3.1	Austenitic / ferritic (Duplex)		780 N/mm ² / 230 HB	1.4462	X2CrNiMoN22-5-3	1.4501	X2CrNiMoCuWN25-7-4
K	Grey cast iron	K.1.1	Pearlitic / ferritic		350 N/mm ² / 180 HB	0.6010	GG-10	0.6025	GG-25
		K.1.2	Pearlitic (martensitic)		500 N/mm ² / 260 HB	0.6030	GG-30	0.6045	GG-45
	Spherulitic graphite cast iron	K.2.1	Ferritic		540 N/mm ² / 160 HB	0.7040	GGG-40	0.7060	GGG-60
		K.2.2	Pearlitic		845 N/mm ² / 250 HB	0.7070	GGG-70	0.7080	GGG-80
	Malleable iron	K.3.1	Ferritic		440 N/mm ² / 130 HB	0.8035	GTW-35-04	0.8045	GTW-45
		K.3.2	Pearlitic		780 N/mm ² / 230 HB	0.8165	GTS-65-02	0.8170	GTS-70-02
N	Aluminium wrought alloy	N.1.1	Non-hardenable		60 HB	3.0255	Al99,5	3.3315	AlMg1
		N.1.2	Hardenable	Age-hardened	340 N/mm ² / 100 HB	3.1355	AlCuMg2	3.2315	AlMgSi1
	Cast aluminium alloy	N.2.1	≤ 12 % Si, non-hardenable		250 N/mm ² / 75 HB	3.2581	G-AlSi12	3.2163	G-AlSi9Cu3
		N.2.2	≤ 12 % Si, hardenable	Age-hardened	300 N/mm ² / 90 HB	3.2134	G-AlSi5Cu1Mg	3.2373	G-AlSi9Mg
		N.2.3	> 12 % Si, non-hardenable		440 N/mm ² / 130 HB		G-AlSi17Cu4Mg		G-AlSi18CuNiMg
	Copper and copper alloys (bronze/brass)	N.3.1	Free-machining alloys, PB > 1 %		375 N/mm ² / 110 HB	2.0380	CuZn39Pb2 (Ms58)	2.0410	CuZn44Pb2
		N.3.2	CuZn, CuSnZn		300 N/mm ² / 90 HB	2.0331	CuZn15	2.4070	CuZn28Sn1As
		N.3.3	CuSn, lead-free copper and electrolytic copper		340 N/mm ² / 100 HB	2.0060	E-Cu57	2.0590	CuZn40Fe
	Magnesium alloys	N.4.1	Magnesium and magnesium alloys		70 HB	3.5612	MgAl6Zn	3.5312	MgAl3Zn
S	Heat-resistant alloys	S.1.1	Fe - basis	Annealed	680 N/mm ² / 200 HB	1.4864	X12NiCrSi 36-16	1.4865	G-X40NiCrSi38-18
		S.1.2		Age-hardened	950 N/mm ² / 280 HB	1.4980	X6NiCrTiMoVB25-15-2	1.4876	X10NiCrAlTi32-20
		S.2.1	Ni or Co basis	Annealed	840 N/mm ² / 250 HB	2.4631	NiCr20TiAl (Nimonic80A)	3.4856	NiCr22Mo9Nb
		S.2.2		Age-hardened	1180 N/mm ² / 350 HB	2.4668	NiCr19Nb5Mo3 (Inconel 718)	2.4955	NiFe25Cr20NbTi
		S.2.3		Cast	1080 N/mm ² / 320 HB	2.4765	CoCr20W15Ni	1.3401	G-X120Mn12
	Titanium alloys	S.3.1	Pure titanium		400 N/mm ²	3.7025	Ti99,8	3.7034	Ti99,7
		S.3.2	Alpha + beta alloys	Age-hardened	1050 N/mm ² / 320 HB	3.7165	TiAl6V4	Ti-6246	Ti-6Al-2Sn-4Zr-6Mo
		S.3.3	Beta alloys		1400 N/mm ² / 410 HB	Ti555.3	Ti-5Al-5V-5Mo-3Cr	R56410	Ti-10V-2Fe-3Al
H	Hardened steel	H.1.1		Hardened and tempered	46-55 HRC				
		H.1.2		Hardened and tempered	56-60 HRC				
		H.1.3		Hardened and tempered	61-65 HRC				
		H.1.4		Hardened and tempered	66-70 HRC				
	Chilled iron	H.2.1		Cast	400 HB				
	Hardened cast iron	H.3.1		Hardened and tempered	55 HRC				
O	Non-metal materials	O.1.1	Plastics, duroplastic		≤ 150 N/mm ²				
		O.1.2	Plastics, thermoplastic		≤ 100 N/mm ²				
		O.2.1	Aramid fibre-reinforced		≤ 1000 N/mm ²				
		O.2.2	Glass/carbon-fibre reinforced		≤ 1000 N/mm ²				
		O.3.1	Graphite						

* Tensile strength

Cutting data standard values for indexable inserts – MicroKom tools

Index	Indexable inserts for ...													
	62 820 ... / 62 840 ... / 62 800 ... / 62 815 ... / 62 810 ... / 62 858 ...											62 870 ...		
	BK8440	BK8425	BK2710	K10	BK60	BK6110	BK7615	CBN40	PKD5510 CTDPU20	CK3230	CK32	BK6440	BK6115	BK8430
	v_c m/min													
P.1.1	170	200	230		270	300				350	350	240	300	200
P.1.2	170	200	230		270	300				350	350	240	300	200
P.1.3	170	200	230		270	300				350	350	220	270	200
P.1.4	150	180	210		250	300				320	320	220	250	180
P.1.5	150	180	210		250	300				320	320	220	270	180
P.2.1	140	160	180		210	270				280	280	200	270	160
P.2.2	140	160	180		210	270				280	280	200	260	160
P.2.3	140	160	180		210	270				280	280	200	240	160
P.2.4	140	160	180		210	270				280	280	200	190	160
P.3.1	120	140	160		190	250				250	250	180	200	140
P.3.2	120	140	160		190	250				250	250	160	160	140
P.3.3	120	140	160		190	250				250	250	160	140	140
P.4.1	100	120	140		160	220				210	210	140	220	120
P.4.2	100	120	140		160	220				210	210	140	160	120
M.1.1	140	160	180		280	220				280	280	200	220	160
M.2.1	120	140	160		250	220				250	250	180	220	140
M.3.1	90	100	120		180	200				180	180	160	200	100
K.1.1	150	180	210		210	290	290						240	180
K.1.2	140	160	180		180	290	290						140	160
K.2.1	120	140	160		160	270	270						160	140
K.2.2	120	140	160		160	250	250						100	140
K.3.1	100	120	140		140	220	220						120	120
K.3.2	100	120	140		140	220	220						100	120
N.1.1				250					500					
N.1.2				250					500					
N.2.1				250					500					
N.2.2				250					500					
N.2.3				250					500					
N.3.1				230					450					
N.3.2				230					450					
N.3.3				230					450					
N.4.1				230					450					
S.1.1		60		20										60
S.1.2		50		20										50
S.2.1		60		20										60
S.2.2		50		20										50
S.2.3		30		20										30
S.3.1		100		60										100
S.3.2		80		30										80
S.3.3		50		30										50
H.1.1	90	100				100		160					100	100
H.1.2	70	80				80		185					80	80
H.1.3	40	50				50		215					50	50
H.1.4								240						
H.2.1	90	100				100							100	100
H.3.1	70	80				80							80	80
O.1.1				100					500					
O.1.2				100					500					
O.2.1									500					
O.2.2				100					300					
O.3.1				100					300					



The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx. $\pm 20\%$ according to the usage conditions. It is essential to observe the v_c values of the type used (page 65 + 66), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages 72 + 73.

Cutting data standard values for indexable inserts – SpinTools

Index	Indexable inserts for ...										Cutting insert / carbide boring bar
	62 295 ...					62 304 ... / 62 372 ... / 62 373 ... / 62 326 ... / 62 332 ... / 62 333 ... / 62 363 ... / 62 308 ... / 62 303 ... / 62 346 ... / 62 380 ...					62 386 ... / 62 382 ...
	CTCP125 (HCX1125)	CTCP115 (HCX1115)	CTCP135 (HCR1135)	CTC2135 (CWN2135)	H10T (CWK15)	CWN10	CWP25	CWC06	CWC10	K10 uncoated	TiN
	v_c m/min										
P.1.1	295	370	210	360		185	185	250	175	175	190
P.1.2	250	315	175	360		185	185	250	140	175	200
P.1.3	210	270	145	360		185	185	250	140	175	170
P.1.4	200	250	135	375		185	185	250	140	175	170
P.1.5	180	230	120	375		185	185	250	140	175	160
P.2.1	260	325	180	385		185	185	250	140	175	180
P.2.2	195	250	130	385		185	185	250	175	175	150
P.2.3	180	230	120	385		185	185	250	140	175	160
P.2.4	130	170	85	385		185	185	250	140	175	160
P.3.1	170	200	150	310		185	185	250	175	175	120
P.3.2	105	140	95	310		135	135	165	140	65	100
P.3.3	40	85	35	310		135	135	165	140	65	100
P.4.1	170	200	155	320		125	125	120	120	100	80
P.4.2	135	170	125	320		125	125	120	120	100	80
M.1.1			155	300		120	120	120	120	100	80
M.2.1			95	310		100	100	100	110	70	80
M.3.1			135	325		120	120	120	120	100	80
K.1.1	170	255			140	160	160	160	225	135	200
K.1.2	160	235			115	160	160	160	225	135	150
K.2.1	180	270			150	160	160	160	125	135	120
K.2.2	160	205			110	140	140	140	125	115	110
K.3.1	200	250			170	140	140	140	125	115	180
K.3.2	160	210			140	140	140	140	125	115	150
N.1.1					1400	400	400	400		250	300
N.1.2					1100	400	400	400		250	240
N.2.1					950	400	400	400		250	240
N.2.2					950	400	400	400		250	240
N.2.3					500	400	400	400		250	240
N.3.1					425	400	400	400		250	290
N.3.2					400	400	400	400		250	290
N.3.3					275	400	400	400		250	290
N.4.1					225						220
S.1.1				30		55					60
S.1.2				25		55					40
S.2.1				15		55					30
S.2.2				10		55					30
S.2.3				10		55					30
S.3.1				105		55					30
S.3.2				25		55					25
S.3.3						55					25
H.1.1						125					110
H.1.2						100					80
H.1.3						80					70
H.1.4											
H.2.1						170					70
H.3.1						125					70
O.1.1					130						240
O.1.2											240
O.2.1					105						180
O.2.2											180
O.3.1											180



The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx. $\pm 20\%$ according to the usage conditions. It is essential to observe the v_c values of the type used (page 65 + 66), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages 72 + 73.

Cutting data standard values for precision adjustment heads

Fine machining with depth of cut $a_p = 0.1 - 0.2 \text{ mm}$

	BlueFlex 2, hi.flex					● 1st choice ○ suitable			M03 Speed		FF			● 1st choice ○ suitable		
Index	62 820 ... / 62 840 ... / 62 800 ...					Emulsion	Compressed air	MMS	62 815 ...		62 810 ...			Emulsion	Compressed air	MMS
	Ø 6-7,9	Ø 8-11,9	Ø 12-25	Ø 25-44	Ø 44-365				Ø 24,8-63	Ø 63-206	Ø 29,5-50	Ø 47-83	Ø 79-199			
	f in mm/rev.								f in mm/rev.		f in mm/rev.					
P.1.1	0,04	0,07	0,10	0,08	0,10	●	○		0,08	0,10	0,08	0,10	0,15	●	○	○
P.1.2	0,04	0,07	0,12	0,10	0,15	●	○		0,10	0,15	0,10	0,15	0,20	●	○	○
P.1.3	0,04	0,06	0,12	0,08	0,12	●	○		0,08	0,12	0,08	0,12	0,20	●	○	○
P.1.4	0,04	0,06	0,10	0,08	0,10	●	○		0,07	0,10	0,08	0,12	0,18	●	○	○
P.1.5	0,04	0,07	0,12	0,10	0,15	●	○		0,09	0,13	0,09	0,13	0,18	●	○	○
P.2.1	0,04	0,06	0,12	0,08	0,12	●	○		0,08	0,12	0,08	0,12	0,20	●	○	○
P.2.2	0,04	0,06	0,10	0,08	0,10	●	○		0,07	0,10	0,08	0,12	0,18	●	○	○
P.2.3	0,03	0,06	0,10	0,08	0,10	●	○		0,08	0,10	0,08	0,10	0,20	●	○	○
P.2.4	0,03	0,04	0,06	0,06	0,06	●	○		0,06	0,08	0,06	0,08	0,10	●	○	○
P.3.1	0,03	0,05	0,10	0,06	0,10	●	○		0,06	0,10	0,06	0,10	0,15	●	○	○
P.3.2	0,03	0,04	0,07	0,04	0,07	●	○		0,04	0,08	0,04	0,08	0,12	●	○	○
P.3.3	0,03	0,04	0,07	0,04	0,07	●	○		0,04	0,07	0,04	0,08	0,10	●	○	○
P.4.1	0,03	0,05	0,10	0,06	0,10	●	○		0,06	0,10	0,06	0,10	0,15	●	○	○
P.4.2	0,03	0,04	0,07	0,04	0,07	●	○		0,04	0,08	0,04	0,08	0,12	●	○	○
M.1.1	0,01	0,05	0,10	0,06	0,10	●	○		0,06	0,10	0,06	0,10	0,15	●	○	○
M.2.1	0,01	0,04	0,08	0,06	0,10	●	○		0,06	0,10	0,06	0,10	0,15	●	○	○
M.3.1	0,01	0,04	0,07	0,05	0,08	●	○		0,05	0,09	0,05	0,08	0,12	●	○	○
K.1.1	0,05	0,10	0,15	0,15	0,20	○	●		0,15	0,20	0,15	0,20	0,30	○	●	○
K.1.2	0,05	0,10	0,15	0,15	0,20	○	●		0,15	0,20	0,15	0,20	0,30	○	●	○
K.2.1	0,04	0,08	0,15	0,10	0,15	○	●		0,10	0,15	0,10	0,15	0,25	○	●	○
K.2.2	0,03	0,07	0,12	0,08	0,12	○	●		0,08	0,12	0,08	0,12	0,20	○	●	○
K.3.1	0,04	0,08	0,15	0,10	0,15	○	●		0,10	0,15	0,10	0,15	0,25	○	●	○
K.3.2	0,03	0,07	0,12	0,08	0,12	○	●		0,08	0,12	0,08	0,12	0,20	○	●	○
N.1.1	0,02	0,06	0,10	0,08	0,12	●	○		0,08	0,12	0,08	0,12	0,15	●	○	○
N.1.2	0,02	0,06	0,10	0,08	0,12	●	○		0,08	0,12	0,08	0,12	0,15	●	○	○
N.2.1	0,05	0,08	0,12	0,10	0,15	●	○		0,10	0,15	0,10	0,15	0,20	●	○	○
N.2.2	0,05	0,08	0,12	0,10	0,15	●	○		0,10	0,15	0,10	0,15	0,20	●	○	○
N.2.3	0,05	0,08	0,12	0,10	0,15	●	○		0,09	0,12	0,09	0,12	0,18	●	○	○
N.3.1	0,02	0,04	0,08	0,10	0,15	●	○		0,10	0,15	0,10	0,15	0,20	●	○	○
N.3.2	0,02	0,04	0,08	0,10	0,15	●	○		0,10	0,15	0,11	0,16	0,22	●	○	○
N.3.3	0,05	0,08	0,15	0,10	0,15	●	○		0,10	0,15	0,10	0,15	0,20	●	○	○
N.4.1	0,02	0,04	0,08	0,10	0,15	●	○		0,10	0,15	0,10	0,15	0,20	●	○	○
S.1.1	0,01	0,04	0,08	0,06	0,08	●	○		0,06	0,08	0,06	0,08	0,10	●	○	○
S.1.2	0,01	0,03	0,06	0,04	0,06	●	○		0,04	0,06	0,04	0,06	0,08	●	○	○
S.2.1	0,01	0,04	0,08	0,06	0,08	●	○		0,06	0,08	0,06	0,08	0,10	●	○	○
S.2.2	0,01	0,03	0,06	0,04	0,06	●	○		0,04	0,06	0,04	0,06	0,08	●	○	○
S.2.3	0,05	0,08	0,06	0,08	0,08	●	○		0,04	0,06	0,04	0,06	0,06	●	○	○
S.3.1	0,01	0,04	0,08	0,06	0,08	●	○		0,06	0,08	0,07	0,09	0,11	●	○	○
S.3.2	0,01	0,04	0,08	0,06	0,08	●	○		0,06	0,08	0,06	0,08	0,10	●	○	○
S.3.3	0,01	0,02	0,04	0,03	0,04	●	○		0,04	0,06	0,06	0,08	0,10	●	○	○
H.1.1		0,05	0,08	0,08	0,08		●		0,08	0,08	0,08	0,08	0,10		●	○
H.1.2		0,05	0,08	0,06	0,08		●		0,06	0,06	0,06	0,06	0,08		●	○
H.1.3		0,02	0,04	0,03	0,04		●		0,04	0,04	0,03	0,04	0,04		●	○
H.1.4																
H.2.1		0,05	0,08	0,08	0,08		●		0,05	0,06	0,08	0,08	0,10		●	○
H.3.1		0,05	0,08	0,06	0,08		●		0,05	0,06	0,06	0,06	0,08		●	○
O.1.1		0,04	0,04	0,06	0,06	○	●		0,08	0,08	0,08	0,08	0,08	○	●	○
O.1.2		0,04	0,04	0,06	0,06	○	●		0,08	0,08	0,08	0,08	0,08	○	●	○
O.2.1																
O.2.2		0,03	0,03	0,04	0,04		●		0,04	0,05	0,04	0,04	0,04		●	
O.3.1		0,03	0,03	0,04	0,04		●		0,04	0,05	0,04	0,04	0,04		●	



The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx. $\pm 20\%$ according to the usage conditions. It is essential to observe the v_c values of the type used (page 65 + 66), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages 72 + 73.

Cutting data values for fine and rough boring heads

Fine machining with depth of cut $a_n = 0.1 - 0.4$ mm

		M10 boring bar			● 1st choice ○ suitable							
		62 858 ...										
Index	Ø 15,9–26	Emulsion	Compressed air	MMS	Single point finish boring heads		Twin edged rough / fine boring head		Single point finish boring heads		● 1st choice ○ suitable	
	f in mm/rev.				62 305 ...	62 380 ...	62 303 ...	Emulsion	Compressed air	MMS		
					Ø 86–402	Ø 29,5–115,5	Ø 23,9–116,1					
					f in mm/rev.							
P.1.1	0,07	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
P.1.2	0,07	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
P.1.3	0,06	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
P.1.4	0,05	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
P.1.5	0,06	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
P.2.1	0,06	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
P.2.2	0,05	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
P.2.3	0,06	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
P.2.4	0,05	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
P.3.1	0,05	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
P.3.2	0,04	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
P.3.3	0,04	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
P.4.1	0,06	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
P.4.2	0,04	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
M.1.1	0,05	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
M.2.1	0,04	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
M.3.1	0,05	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
K.1.1	0,10	○	●	○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
K.1.2	0,10	○	●	○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
K.2.1	0,08	○	●	○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
K.2.2	0,07	○	●	○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
K.3.1	0,08	○	●	○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
K.3.2	0,07	○	●	○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
N.1.1	0,06	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
N.1.2	0,06	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
N.2.1	0,08	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
N.2.2	0,08	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
N.2.3	0,07	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
N.3.1	0,04	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
N.3.2	0,04	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
N.3.3	0,10	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
N.4.1	0,04	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
S.1.1	0,04	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
S.1.2	0,03	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
S.2.1	0,04	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
S.2.2	0,03	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
S.2.3	0,03	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
S.3.1	0,05	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
S.3.2	0,04	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
S.3.3	0,02	●	○	○	0,03–0,12	0,08–0,20	0,03–0,12	●	○			
H.1.1	0,05		●	○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
H.1.2	0,04		●	○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
H.1.3	0,02		●	○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
H.1.4				○								
H.2.1	0,05		●	○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
H.3.1	0,03		●	○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
O.1.1	0,08	○	●	○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
O.1.2	0,08	○	●	○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
O.2.1				○	0,03–0,12	0,08–0,20	0,03–0,12	○	●			
O.2.2	0,04		●	○	0,03–0,12	0,08–0,20	0,03–0,12		●			
O.3.1	0,04		●	○	0,03–0,12	0,08–0,20	0,03–0,12		●			



The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx. **± 20 %** according to the usage conditions. It is essential to observe the v_c values of the type used (**page 65 + 66**), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages **72 + 73**.

Cutting data values for fine and rough boring heads

Single point finish boring heads: Fine machining with depth of cut $a_p = 0,1 - 0,4 \text{ mm}$ | Micro-Boring Head: Fine machining with depth of cut $a_p = 0,1 - 0,2 \text{ mm}$

Index	Fine boring head	Multi-Head boring and fine boring head	Single point boring head	Vario-Head - boring and fine boring head	Micro Boring Head	● 1st choice ○ suitable		
	62 304 ...	62 372 ... / 62 373 ...	62 326 ... / 62 332 ... / 62 333 ... / 62 363 ...	62 364 ...	62 386 ... / 62 382 ...	Emulsion	Compressed air	MMS
	Ø 14,7-24,1	Ø 2-320	Ø 3-88	Ø 3-152,1	Ø 0,3-19,1			
	f in mm/rev.							
P.1.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
P.1.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
P.1.3	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
P.1.4	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
P.1.5	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
P.2.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
P.2.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
P.2.3	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
P.2.4	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
P.3.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
P.3.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
P.3.3	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
P.4.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
P.4.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
M.1.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
M.2.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
M.3.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
K.1.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	○
K.1.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	○
K.2.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	○
K.2.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	○
K.3.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	○
K.3.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	○
N.1.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
N.1.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
N.2.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
N.2.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
N.2.3	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
N.3.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
N.3.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
N.3.3	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
N.4.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
S.1.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
S.1.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
S.2.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
S.2.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
S.2.3	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
S.3.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
S.3.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
S.3.3	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	●	○	○
H.1.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	○
H.1.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	○
H.1.3	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	○
H.1.4								
H.2.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	○
H.3.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	○
O.1.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	○
O.1.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	○
O.2.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02	○	●	
O.2.2	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02		●	
O.3.1	0,03-0,10	0,03-0,12	0,03-0,12	0,03-0,12	0,02		●	



The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx. $\pm 20 \%$ according to the usage conditions. It is essential to observe the v_c values of the type used (page 65 + 66), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages 72 + 73.

Cutting data values for rough boring heads

Cutting depth $a_p = 1,0 - 9,0 \text{ mm}$

	TwinKom							● 1st choice ○ suitable		
	62 870 ...									
Index	Ø 24-32	Ø 30-41	Ø 39-53	Ø 51-71	Ø 64-91	Ø 83-124	Ø 109-167	Emulsion	Compressed air	MMS
	f in mm/rev.									
P.1.1	0,15	0,16	0,18	0,20	0,22	0,25	0,28	●	○	○
P.1.2	0,15	0,16	0,18	0,20	0,21	0,24	0,27	●	○	○
P.1.3	0,15	0,16	0,18	0,20	0,21	0,24	0,27	●	○	○
P.1.4	0,15	0,16	0,18	0,20	0,21	0,24	0,27	●	○	○
P.1.5	0,15	0,16	0,18	0,20	0,21	0,24	0,27	●	○	○
P.2.1	0,14	0,16	0,17	0,18	0,20	0,23	0,26	●	○	○
P.2.2	0,14	0,16	0,17	0,18	0,20	0,23	0,26	●	○	○
P.2.3	0,14	0,16	0,17	0,18	0,20	0,23	0,26	●	○	○
P.2.4	0,14	0,16	0,17	0,18	0,20	0,23	0,26	●	○	○
P.3.1	0,13	0,15	0,16	0,17	0,19	0,22	0,25	●	○	○
P.3.2	0,13	0,15	0,16	0,17	0,19	0,22	0,25	●	○	○
P.3.3	0,13	0,15	0,16	0,17	0,19	0,22	0,25	●	○	○
P.4.1	0,12	0,13	0,14	0,15	0,16	0,18	0,20	●	○	○
P.4.2	0,12	0,13	0,14	0,15	0,16	0,18	0,20	●	○	○
M.1.1	0,14	0,15	0,16	0,17	0,18	0,2	0,24	●	○	○
M.2.1	0,12	0,13	0,14	0,15	0,16	0,18	0,20	●	○	○
M.3.1	0,12	0,13	0,14	0,15	0,16	0,18	0,20	●	○	○
K.1.1	0,22	0,23	0,24	0,25	0,26	0,30	0,30	○	●	○
K.1.2	0,22	0,23	0,24	0,25	0,26	0,30	0,30	○	●	○
K.2.1	0,22	0,23	0,24	0,25	0,26	0,30	0,30	○	●	○
K.2.2	0,22	0,23	0,24	0,25	0,26	0,30	0,30	○	●	○
K.3.1	0,20	0,20	0,22	0,23	0,24	0,26	0,26	○	●	○
K.3.2	0,20	0,20	0,22	0,23	0,24	0,26	0,26	○	●	○
N.1.1	0,12	0,15	0,25	0,25	0,30	0,35	0,35	●	○	○
N.1.2	0,12	0,15	0,25	0,25	0,30	0,35	0,35	●	○	○
N.2.1	0,12	0,15	0,25	0,25	0,30	0,35	0,35	●	○	○
N.2.2	0,12	0,15	0,25	0,25	0,30	0,35	0,35	●	○	○
N.2.3	0,11	0,14	0,23	0,23	0,27	0,32	0,32	●	○	○
N.3.1	0,12	0,15	0,25	0,25	0,30	0,35	0,35	●	○	○
N.3.2	0,13	0,16	0,27	0,27	0,32	0,35	0,35	●	○	○
N.3.3	0,12	0,15	0,25	0,25	0,30	0,35	0,35	●	○	○
N.4.1	0,12	0,15	0,25	0,25	0,30	0,35	0,35	●	○	○
S.1.1	0,06	0,06	0,07	0,08	0,08	0,10	0,10	●	○	○
S.1.2	0,04	0,04	0,05	0,06	0,06	0,08	0,08	●	○	○
S.2.1	0,06	0,06	0,07	0,08	0,08	0,10	0,10	●	○	○
S.2.2	0,04	0,04	0,05	0,06	0,06	0,08	0,08	●	○	○
S.2.3	0,04	0,04	0,05	0,06	0,06	0,08	0,08	●	○	○
S.3.1	0,06	0,06	0,07	0,08	0,08	0,10	0,10	●	○	○
S.3.2	0,06	0,06	0,07	0,08	0,08	0,10	0,10	●	○	○
S.3.3	0,04	0,04	0,05	0,06	0,06	0,08	0,08	●	○	○
H.1.1	0,08	0,08	0,08	0,08	0,08	0,08	0,08		●	○
H.1.2	0,06	0,06	0,06	0,06	0,06	0,06	0,06		●	○
H.1.3	0,04	0,04	0,04	0,04	0,04	0,04	0,04		●	○
H.1.4										○
H.2.1	0,05	0,05	0,06	0,06	0,06	0,06	0,06		●	○
H.3.1	0,05	0,05	0,06	0,06	0,06	0,06	0,06		●	○
O.1.1	0,08	0,08	0,08	0,10	0,10	0,10	0,10	○	●	○
O.1.2	0,08	0,08	0,08	0,10	0,10	0,10	0,10	○	●	○
O.2.1										
O.2.2	0,04	0,04	0,05	0,05	0,06	0,06	0,07		●	
O.3.1	0,04	0,04	0,05	0,05	0,06	0,06	0,07		●	



The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx. $\pm 20 \%$ according to the usage conditions. It is essential to observe the v_c values of the type used (page 65 + 66), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages 72 + 73.

Cutting data values for rough boring heads

Cutting depth $a_p \approx 2.5 - 7 \text{ mm}$

Index	Twin rough boring head				● 1st choice ○ suitable		
	62 295 ...				Emulsion	Compressed air	MMS
	Ø 23,5-40,5	Ø 40,5-66,5	Ø 66,5-87,5	Ø 87,5-153			
	f in mm/rev.						
P.1.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
P.1.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
P.1.3	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
P.1.4	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
P.1.5	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
P.2.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
P.2.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
P.2.3	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
P.2.4	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
P.3.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
P.3.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
P.3.3	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
P.4.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
P.4.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
M.1.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
M.2.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
M.3.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
K.1.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○	●	
K.1.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○	●	
K.2.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○	●	
K.2.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○	●	
K.3.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○	●	
K.3.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○	●	
N.1.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
N.1.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
N.2.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
N.2.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
N.2.3	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
N.3.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
N.3.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
N.3.3	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
N.4.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
S.1.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
S.1.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
S.2.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
S.2.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
S.2.3	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
S.3.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
S.3.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
S.3.3	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	●	○	
H.1.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○	●	
H.1.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○	●	
H.1.3	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○	●	
H.1.4							
H.2.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○	●	
H.3.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○	●	
O.1.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○	●	
O.1.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○	●	
O.2.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8	○		
O.2.2	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8		●	
O.3.1	0,3-0,4	0,4-0,5	0,5-0,7	0,5-0,8		●	



The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx. $\pm 20 \%$ according to the usage conditions. It is essential to observe the v_c values of the type used (page 65 + 66), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages 72 + 73.

Maximum Speeds and Scale Accuracy

Maximum speeds for precision adjustment heads and Micro-Boring Heads

System	Boring range	Maximum speed $n_{\max}$ in 1/min
BlueFlex 2 (62 820 ... / 62 840 ...)	Ø 5,6–365 mm	20.000
hi.flex (62 800 ...)	Ø 5,6–365 mm	17.500
M10 boring bar (62 858 ...)	Ø 15,9–26 mm	18.000
Micro Boring Head (62 386 ... / 62 382 ...)	Ø 0,3–19,1 mm	30.000
M03 Speed (62 815 ...)	Ø 24–39 mm	40.000
	Ø 38–50 mm	31.000
	Ø 49–63 mm	24.000
	Ø 62–80 mm	18.500
	Ø 79–103 mm	15.000
	Ø 100–130 mm	11.500
	Ø 128–168 mm	10.000
	Ø 166–206 mm	8.000
FF (62 810 ...)	Ø 29,5–42 mm	25.000
	Ø 39–50 mm	18.000
	Ø 47–66 mm	12.000
	Ø 58–83 mm	9.000
	Ø 79–108 mm	6.000
	Ø 100–141 mm	4.000
	Ø 138–179 mm	3.500
	Ø 178–199 mm	3.000



Maximum speeds for finish boring heads

Article no.	Boring range	Offset $X = \leq 0,5$ mm $n_{\max}$ in 1/min	Offset $X = > 0,5$ mm $n_{\max}$ in 1/min
62 372 ... / 62 373 ... / 62 326 ... / 62 332 ... / 62 333 ... / 62 363 ... / 62 364 ... with boring bars	Ø 3–20 mm	16.000	6.000
	Ø 20–48 mm	12.000	4.000
	Ø 48–88 mm	8.000	2.000



Article no.	Boring range	Maximum speed with unbalanced system $n_{\max}$ in 1/min	Maximum speed with balanced System $n_{\max}$ in 1/min
62 308 ... / 62 303 ... / 62 364 ... with insert holders	Ø 24–31 mm	9.000	12.000
	Ø 31–40 mm	7.500	10.000
	Ø 40–51 mm	5.250	8.000
	Ø 51–67 mm	4.000	6.500
	Ø 67–87 mm	3.000	5.000
	Ø 87–116 mm	2.500	4.000
	Ø 116–153 mm	1.750	3.000



Article no.	Boring range	Maximum speed $n_{\max}$ in 1/min
62 372 ... / 62 373 ... with bridges	Ø 88–164 mm	900
	Ø 164–320 mm	250
62 305 ... with insert holders	Ø 86–138 mm	1.150
	Ø 136–220 mm	720
	Ø 188–302 mm	520
	Ø 242–402 mm	400



Maximum speeds for two-edged systems

System	Boring range	Maximum speed $n_{\max}$ in 1/min
TwinKom (62 380 ...)	Ø 24–31 mm	12.000
	Ø 31–40 mm	10.000
	Ø 40–51 mm	8.000
Twin edged rough / fine boring head (62 295 ...)	Ø 51–68 mm	6.500
	Ø 67–87 mm	5.000
	Ø 87–116 mm	4.000
Twin rough boring head (62 870 ...)	Ø 116–153 mm	3.000
	Ø 153–215 mm	2.200



The specified maximum speeds refer to an overhang length of up to 4xD.

For longer overhangs the maximum speeds should be reduced as follows:

5xD = 80 % $n_{\max}$

6xD = 60 % $n_{\max}$

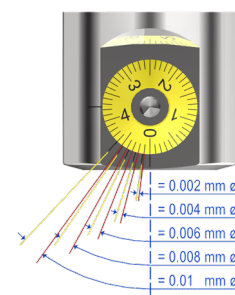
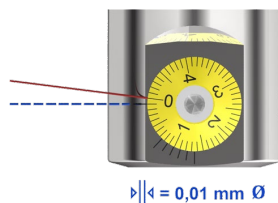
> 6xD $n_{\max}$ identify with caution

5

Scale accuracy

Large scale with 0.002 mm adjustment

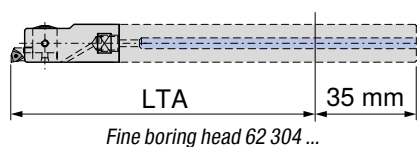
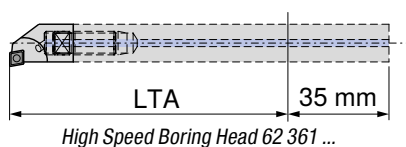
How it works:



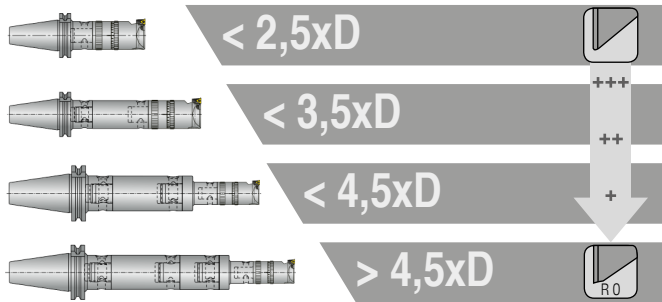
Maximum overhang length LTA

for 35 mm shank clamping depth

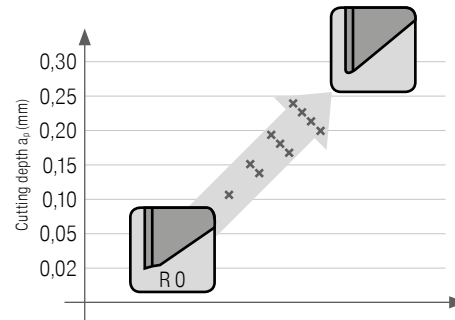
Boring bar	High Speed Boring Head 62 361 ...																Fine boring head 62 304 ...		
62 353 ...	014	015	016	017	018	019	020	021	022	023	025	027	030	033	037	040	017	020	024
008	56																		
009	63																		
010	70																		
011	77																		
012	84																		
013	91																		
014	98 98																115		
016	112 112 112 112 112 112 112 112																125		
018																	105		
118																	145		
218																	185		



Selection of the cutting radius depending on the overhang length



Selection of the cutting edge radius in dependency of the cutting depth a_p



Influence of the cutting forces of the cutting edge radius on internal machining

Resulting force

$$F_{res} = \sqrt{F_a^2 + F_p^2} = \sqrt{F_c^2 + F_f^2 + F_p^2}$$

Tangential cutting force (F_c)

- ▲ pushes the tool down from the vertical central axis
- ▲ is influenced by the cutting depth and the chip thickness
- ▲ reduces the clearance angle

Passive cutting force (F_p)

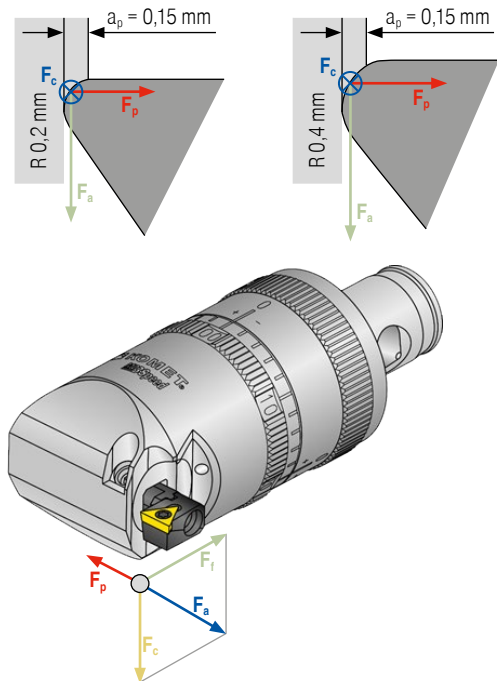
- ▲ pushes the tool away from the horizontal central axis
- ▲ increases the risk of vibrations and causes dimensional inaccuracies

Feed force (F_f)

- ▲ acts in the machining direction of the tool

Active cutting force (F_a)

- ▲ determined by F_c and F_f



Selection of the rake angle

Recommendations for the use of inserts with ground Chip breakers

	rounded E	Sharp F	chamfered T
0°	P M K N S H	P M K N S H	P M K N S H
$\leq 6^\circ$	P M K N S H	P M K N S H	P M K N S H
$\leq 12^\circ$	P M K N S H	P M K N S H	P M K N S H
$\leq 20^\circ$	P M K N S H	P M K N S H	P M K N S H



Chip groove description → page 77

Types of wear

Wear on clearance face



Abrasion on the flank: normal wear after a certain period of operation

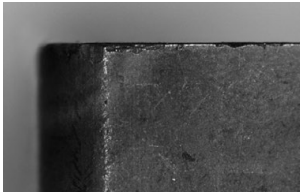
Cause

- ▲ Cutting speed too high
- ▲ Carbide grade does not have enough wear resistance
- ▲ Feed not adapted to application

Remedy

- ▲ Reduce cutting speed
- ▲ Select a carbide grade with high wear resistance
- ▲ Bring feed into the right relationship with cutting speed and cutting depth

Edge chipping



Increased mechanical stress on the cutting edge may result in carbide particles breaking off.

Cause

- ▲ Grade with too high a wear resistance
- ▲ Vibrations on tool or workpiece
- ▲ Feed rate or cutting depth is too high
- ▲ Built-up edge
- ▲ Interrupted cut
- ▲ Chip stroke

Remedy

- ▲ Use tougher grade
- ▲ Improve stability (tool, workpiece)
- ▲ Avoid built-up edges

Cratering



The outgoing hot chip is causing cratering of the cutting insert on the clamping surface.

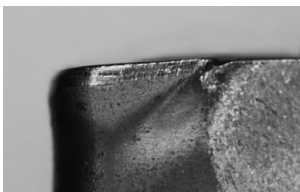
Cause

- ▲ Cutting speed, feed rate or both are too high
- ▲ Rake angle too small
- ▲ Grade does not have enough wear resistance
- ▲ Incorrectly supplied coolant

Remedy

- ▲ Reduce cutting speed and/or feed rate
- ▲ Choose carbide grades with greater wear-resistance
- ▲ Increase quantity and/or pressure of coolant, check supply
- ▲ Use a more crater-resistant grade

Plastic deformation



High machining temperature with simultaneous mechanical stress can lead to plastic deformation.

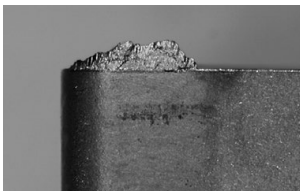
Cause

- ▲ Working temperature too high, softening of the base material
- ▲ Damage to the coating
- ▲ Grade does not have enough wear resistance
- ▲ Incorrectly supplied coolant

Remedy

- ▲ Reduce cutting speed
- ▲ Choose carbide grades with greater wear-resistance and thermal stability
- ▲ Make provisions for cooling

Built-up edge



Material builds up on the cutting edge if the chip does not flow correctly due to the cutting temperature being too low.

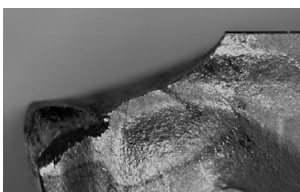
Cause

- ▲ Cutting speed too low
- ▲ Rake angle too small
- ▲ Incorrect cutting material
- ▲ Missing coolant/lubrication

Remedy

- ▲ Increase cutting speed
- ▲ Increase rake angle
- ▲ Use coating
- ▲ Increase oil content of emulsion

Insert breakage



If a cutting insert is overloaded, insert breakage may occur.

Cause

- ▲ Cutting material overloaded (extreme values)
- ▲ Lack of stability
- ▲ Wedge angle too small
- ▲ Interference contours were not taken into account
- ▲ Interrupted cut

Remedy

- ▲ Use a tougher cutting material
- ▲ Use chamfer for edge protection
- ▲ Increase rounding of cutting edge
- ▲ Use more stable geometry
- ▲ Check cutting data
- ▲ Check interference contours

Type

K10

- ▲ Carbide, uncoated
- ▲ ISO | **K10**
- ▲ Uncoated carbide grade for machining grey cast iron or non-ferrous metals, depending on the cutting edge geometry

BK2710

- ▲ Carbide, TiAlN-coated
- ▲ ISO | P10 | M10 | **K10**
- ▲ Extremely wear-resistant carbide grade for machining stainless steels, structural steels and tool steels as well as cast iron materials

BK8440

- ▲ Carbide, TiCN-TiN-coated
- ▲ ISO | **P35** | M10
- ▲ Very tough carbide grade for medium cutting speeds and interrupted cut

BK7615

- ▲ Carbide, TiCN-Al₂O₃-coated
- ▲ ISO | **K15**
- ▲ Highly productive grade with extreme edge stability for wet and dry machining of all cast iron materials

CWN10

- ▲ Carbide, TiN-coated
- ▲ ISO | **K10**
- ▲ The carbide grade for machining steels, stainless steels and non-ferrous metals

CWC10

- ▲ Cermet, uncoated
- ▲ ISO | **P15** | **M10** | K10
- ▲ The uncoated cermet grade for finish machining stainless and hardened steel
- ▲ Particularly wear resistant thanks to high heat resistance

BK6440

- ▲ Carbide, CVD-TiCN-Al₂O₃-TiN coated
- ▲ ISO | **M25** | **K35**
- ▲ Extremely tough standard grain grade; good wear resistance in steel and stainless steel materials, even in unfavourable cutting conditions / interrupted cut

BK6115

- ▲ Carbide, TiCN-TiN-Al₂O₃-coated
- ▲ ISO | **P20** | **K20** | H20
- ▲ High-quality, surface-treated coating for machining cast iron materials in normal to stable conditions and at high cutting speeds

BK8430

- ▲ Carbide, TiAlN/TiN-coated
- ▲ ISO | **P25** | **M25**
- ▲ Fine-grain grade with high wear resistance
- ▲ Extreme edge stability and maximum wear resistance in the middle and top speed range

BK60

- ▲ Carbide, TiC-TiCN-TiN-coated
- ▲ ISO | P25 | **M10**
- ▲ Multi-layer coating for long service life even in the upper cutting speed range

CBN40

- ▲ Cubic boron nitride, uncoated
- ▲ ISO | **H05**
- ▲ Uncoated cutting material made of cubic boron nitride for machining hardened steels over 45 HRC, heat-resistant nickel-based or cobalt-based alloys

BK8425

- ▲ Carbide, TiAlN/TiN-coated
- ▲ ISO | **P25** | **M25** | **K25**
- ▲ Universal grade with greater wear resistance thanks to innovative PVD multi-layer coating

BK6110

- ▲ Carbide, TiCN-TiN-Al₂O₃-coated
- ▲ ISO | P10 | **K10**
- ▲ Wear-resistant carbide for machining cast iron and steel materials

CWC06

- ▲ Cermet, TiC/TiN-coated
- ▲ ISO | **P10** | M10 | **K10** | N10
- ▲ Coated cermet grade for fine boring at high cutting speed and with a uniform cut

CWP25

- ▲ Carbide, uncoated
- ▲ ISO | **P25** | **M25** | K25 | **N25** | S25
- ▲ Uncoated carbide grade for fine boring with large hole depths and small machining allowances

CK32

- ▲ Cermet, uncoated
- ▲ ISO | **P10** | **M15** | K05 | N15
- ▲ For fine and finish turning
- ▲ Less wear and greater cutting speed result in longer tool life and high surface quality
- ▲ Cutting material for high productivity in the top cutting speed range

CK3230

- ▲ Cermet, uncoated
- ▲ ISO | **P20** | **M20** | K10 | N20
- ▲ Extremely tough behaviour with good wear resistance suitable for use also in interrupted cut

PKD5510
CTDPU20

- ▲ Polycrystalline diamond cutting material with mixed grain, uncoated
- ▲ ISO | **N15**
- ▲ Outstanding wear resistance, even where Si content > 12% and high proportion of abrasive reinforcements
- ▲ Used in plastics and fibre composites (GFK, CFK)

Coatings

TiN

- ▲ TiN coating
- ▲ Maximum application temperature: 450 °C

Chip breakers

-SF14

- ▲ Rake angle 14°
- ▲ Specially developed chip breakers with remarkable chip control for a range of applications, from fine finishing to medium machining

-SF15

- ▲ Rake angle 15°
- ▲ Balanced geometry: High stability for high cutting edge sharpness
- ▲ Very good chip control with very little built-up edge formation
- ▲ Extremely good chip breakage for small and medium feeds
- ▲ Initial recommendation for machining C-steel, alloyed and stainless steels

-SF16

- ▲ Rake angle 15°
- ▲ Balanced geometry: High stability for high cutting edge sharpness
- ▲ Large chip chamber, therefore good chip control at low feeds
- ▲ Initial recommendation for machining C-steel, alloyed and stainless steels

-SF20

- ▲ Rake angle 20°
- ▲ Extremely smooth-cutting thanks to the very positive rake angle
- ▲ Very good chip control and very little built-up edge formation
- ▲ Perfect cutting performance, due to the very positive rake angle, especially for low clamping depths and feeds
- ▲ Initial recommendation for machining stainless steel, alloy steels, carbon steel and non-ferrous metals

-SF30

- ▲ Rake angle 15°
- ▲ Balanced geometry: High stability for high cutting edge sharpness
- ▲ Chip breaker geometry: Very good chip breakage for small and medium feeds
- ▲ Initial recommendation for machining C-steel, alloyed and stainless steels

-01

- ▲ Rake angle 12°
- ▲ All-round topography chamfered, rounded
- ▲ Very smooth-cutting thanks to positive cutting edge geometry
- ▲ Also suitable for less-powerful machines and unstable workpieces
- ▲ Easily controllable chip formation also in less solid materials

-02

- ▲ Rake angle 0°
- ▲ Roughing topography, extremely stable (significant wedge angle)
- ▲ Excellent chip formation for chips that are difficult to control
- ▲ For small cutting depths < 1.5 mm only suitable under certain circumstances

-12

- ▲ Rake angle 30°
- ▲ Peripheral ground indexable insert with pressed chip breaker
- ▲ Highly positive, sharp and all-round cutting edge, therefore extremely smooth-cutting
- ▲ Peripheral ground flanks guarantee controlled chip formation and best surface quality at low cutting forces

-14

- ▲ Rake angle 14°
- ▲ Peripheral ground, sintered topography
- ▲ Controlled chip formation in fine and extremely fine machining

-15

- ▲ Rake angle 15°
- ▲ Semi-finishing chip breaker; peripheral ground, sintered
- ▲ Controlled chip formation in fine and extremely fine machining

-18

- ▲ Rake angle 14°
- ▲ Peripheral ground and sintered topography
- ▲ Controlled chip formation in fine and extremely fine machining
- ▲ Positive wiper geometry for maximum demands on surface quality

-G06

- ▲ Rake angle 6°
- ▲ For P / M / K materials
- ▲ High stability due to significant wedge angle

-G12

- ▲ Rake angle 12°
- ▲ For P / N / S materials
- ▲ Extremely smooth-cutting thanks to positive cutting edge geometry
- ▲ Extremely suitable for less-powerful machines and unstable workpieces
- ▲ Easily controllable chip formation also in less solid materials