New products for machining technicians

NEW Precision adjustment head hi.flex micro

▲ The continuation of the hi.flex system success story: the ultimate milestone in terms of precision, flexibility and user-friendliness is now getting a well-deserved "little brother". With a boring range of Ø 0.5 mm – 60 mm, it covers a very wide range of all upcoming bore machining operations.

→ Page 21–23

NEW UltraMini/EcoCut boring bar adapter

▲ The new boring bar adapter can be used in all heads with a clamping diameter of 12 mm or 16 mm such as both sizes of the hi.flex micro precision adjustment head (and BluFlex 2). Using the UltraMini and EcoCut boring bars makes particular sense here since the adapter is also suitable for boring bars with a through coolant supply.

DCONMS 12 → Page 22
DCONMS 16 → Page 15

NEW MicroKom – Precision boring set

▲ New: the MicroKom precision adjustment heads BluFlex 2, hi.flex and hi.flex micro are also available as a set

BluFlex 2 → Page 12
hi.flex → Page 14
hi.flex micro → Page 21

NEW Interface adapter

▲ Total freedom in tool selection: thanks to the new interface adapters, ABS tools in STM base holders and STM tools in ABS base holders can be accommodated reliably and precisely.

→ Page 59

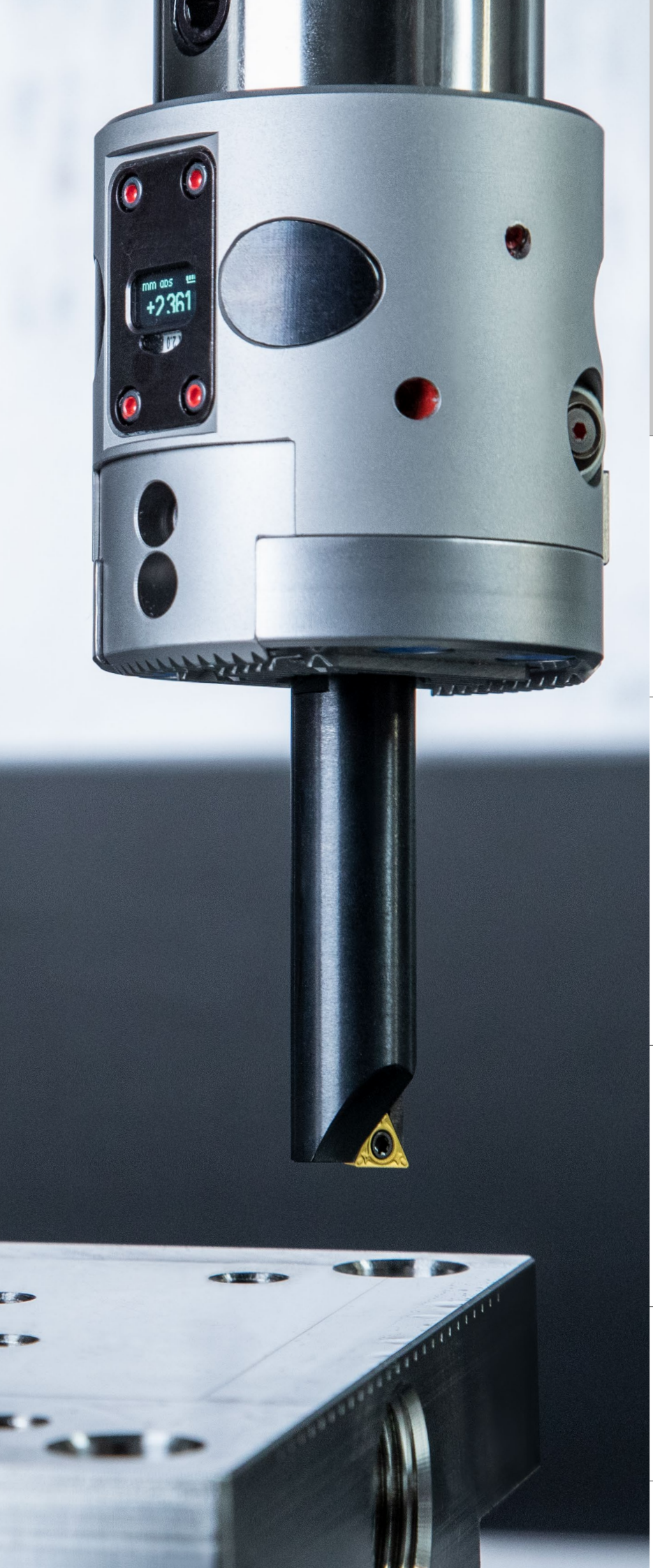


Table of contents

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.

KOMET \ Standard

Quality tools for standard applications.

The quality tools of the **KOMET Standard** product line are high quality, high performance, reliable and enjoy the highest level of trust among our customers worldwide. Tools from this product line are the first choice for many standard applications and guarantee optimal results.

Symbol explanation

F Fine Machining

M Medium Machining

R Rough Machining

Smooth cut

Irregular cutting depth

Interrupted cut

ABS **KOMET ABS** – modular coupling system for rotating and stationary tools

STM Modular SpinTools interface

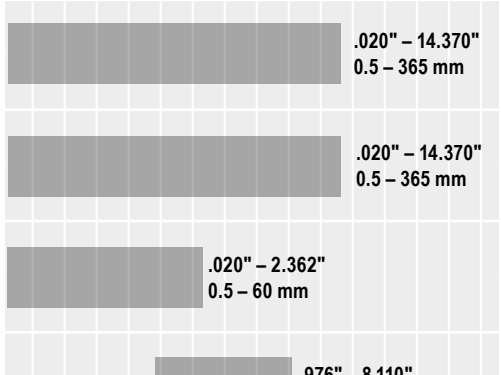
ER 32 System-independent ER 32 interface

Coolant supply central
Steep taper Form AD

hi.flex / hi.flex micro

- ▲ The precision adjustment heads are characterised by their high precision, absolute reliability and enormous flexibility
- ▲ Available as analog and digital variants (hi.flex: analog + digital, hi.flex micro: analog)
- ▲ Comprehensive accessories offer maximum flexibility (hi.flex: diameter range 0.5 – 365 mm / .020" – 14.370" hi.flex micro: diameter range 0.5 – 60 mm)
- ▲ Higher RPMs can be reached thanks to the symmetrically balanced design (hi.flex: 17,500 rpm, hi.flex micro: 30,000 rpm)
- ▲ The sensitive adjustment for µ-precise width of cut
- ▲ With through coolant supply
- ▲ Universal ABS interface

Toolfinder



Machining	System + quantity of rough boring or fine boring heads to cover the diameter range	Digital	Analog	ABS Modular	STM Modular	ER 32 Modular	Monoblock	Through spindle	Tolerance zone	Case set	Page No.
Finishing	.020" – 14.370" 0.5 – 365 mm **BluFlex 2** 1 Precision adjustment heads	✓		✓				✓ > Ø 2.559" 65 mm	≥ IT 7	✓	12
	.020" – 14.370" 0.5 – 365 mm **hi.flex** 1 Precision adjustment heads	✓	✓	✓				✓ > Ø 2.362" 60 mm	≥ IT 7	✓	13+14
	.020" – 2.362" 0.5 – 60 mm **hi.flex micro** 1 Precision adjustment heads		✓	✓				✓ > Ø 1.417" 36 mm	≥ IT 7	✓	21
	.976" – 8.110" 24.8 – 206 mm **M03 Speed** 9 Precision adjustment heads		✓	✓				✓	≤ IT 7		24
	1.020" – 7.835" 29.5 – 199 mm 15 FF precision adjustment heads		✓	✓				✓	≥ IT 7		26
	.120" – .752" 0.3 – 19.1 mm 2 Micro boring heads	✓	✓						≥ IT 7		28
	.579" – .949" 14.7 – 24.1 mm 3 Fine boring heads		✓					✓	≥ IT 7		30
	.118" – 12.598" 3 – 320 mm 1 Multi-Head – Fine boring head		✓		✓		✓	✓ > Ø 2.480" 63 mm	≥ IT 7	✓	32
	.118" – 3.469" 3 – 88.1 mm 1 Single point boring head	✓	✓		✓	✓	✓	✓ > Ø 2.615" 55 mm	≥ IT 7	✓	34+35
	.941" – 6.067" 23.9 – 154.1 mm 6 Single point finish boring heads	✓	✓		✓			✓	≥ IT 7		40
	13.386" – 15.827" 86 – 402 mm 1 Single point finish boring head		✓		✓			✓	≥ IT 7	✓	44
Roughing and Finishing	5.906" – 25.787" 150 – 655 mm 1 Console tool with baseplate	✓	✓					✓			62 402 ...
	25.591" – 86.811" 650 – 2205 mm 1 Console tool with slide	✓	✓					✓			62 405 ...
Roughing	1.181" – 8.031" **TwinKom G04** 7 Twin cutters		✓	✓				✓			46
	.945" – 8.465" 24 – 215 mm **TwinKom G01** 8 Twin cutters		✓	✓				✓			48
	.925" – 3.445" 23.5 – 87.5 mm 5 Boring heads for roughing with 2 cutting edges		✓		✓			✓			51

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

Overview – Fine boring systems

MicroKom

BluFlex 2 / hi.flex

Ø 0.5 – 365 mm / .020" – 14.370"

ABS

BluFlex 2

Digital
12

hi.flex

Analog / digital
13+14

Ø 0.5 – 26 mm / .020" – 1.024"

Ø 0.5 – 8 mm .020" – .031"		UltraMini + EcoCut → Main catalog chapters 10 + 12	 Adapter 15
Ø 5.6 – 24 mm .220" – .945"		Boring Bar 19	Adapter 18 
Ø 5.6 – 11 mm .220" – .433"		Boring bar, vibration-optimized 18	
Ø 13 – 26 mm .512" – 1.024"		Boring bar 18	
Ø 6 – 22 mm * .236" – .866"		Steel boring bar 15	
Ø 7.9 – 23.9 mm .311" – .941"		ABS32 boring bar 20	

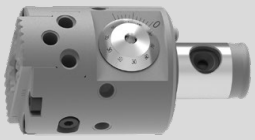
Ø 25 – 365 mm / .984" – 14.370"

Ø 25 – 44 mm .984" – 1.732"		Insert holder 16	Serrated body 16 
Ø 44 – 63 mm 1.732" – 2.480"			
Ø 63 – 93 mm 2.480" – 3.661"		Insert holder 16	Coolant diverting plug 17 
Ø 90 – 365 mm 3.543" – 14.370"		Insert holder 16	Coolant diverting plug 17 
		Bridge 17	
Ø 5 – 70 mm .197" – 2.756"		Boring tool for external machining 17	

hi.flex micro

Ø 0.5 – 60 mm

ABS



Analog
21

Ø 0.5 – 25 mm

Ø 0.5 – 8 mm	UltraMini + EcoCut → Main catalog chapters 10 + 12	 Adapter 22
Ø 8 – 13.8 mm		Boring Bar 22
Ø 13.8 – 19.8 mm		Boring Bar 22
Ø 19.8 – 25 mm		Boring Bar 22

Ø 25 – 60 mm

Ø 25 – 44.8 mm	Insert holder 23 	Serrated body 23 
Ø 44.8 – 60 mm	Insert holder 23 	Coolant diverting plug 23 

TO.X
61+62

WOHX *
60

* Used for steel boring bars
Ø 6 – 8 mm (.236" – .315")

necessary
optional

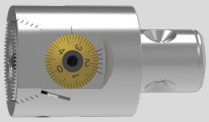
5

SpinTools

Multi-Head boring and fine boring head

Ø 3 – 320 mm

HSK-A | MAS BT | STM



Analog
32

Ø 3 – 53.1 mm

Ø 3 – 12 mm

Boring steel
37

Ø 5.8 – 13.2 mm

Boring bar
38

Reduction sleeve
38

Ø 8.75 – 40.1 mm

High-speed boring head + boring shank
39

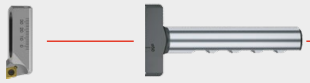
Ø 9.75 – 53.1 mm

Steel boring bar
37

Boring tool extension
38

Ø 29.75 – 320 mm

Ø 29.75 – 88.1 mm



Insert holder
37

Adjustable boring bar
37

Ø 86 – 320 mm

Counterweight
33

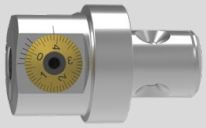
Bridge
33

Insert holder
33

Single point finish boring head

Ø 3 – 88.1 mm

HSK-A | MAS BT | STM | ER 32



Analog / digital
34+35

Ø 3 – 53.1 mm

Ø 3 – 12 mm

Boring steel
37

Ø 5.8 – 13.2 mm

Boring bar
38

Reduction sleeve
38

Ø 8.75 – 40.1 mm

High-speed boring head + boring shank
39

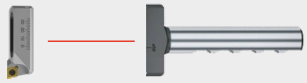
Ø 9.75 – 53.1 mm

Steel boring bar
37

Boring tool extension
38

Ø 29.75 – 88.1 mm

Ø 29.75 – 88.1 mm



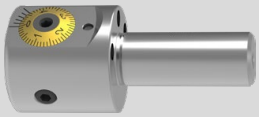
Insert holder
37

Adjustable boring bar
37

CC..
67

Micro Boring Head

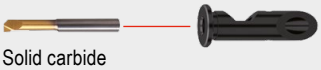
Ø 0.3 – 19.1 mm



Analog / digital
28

Ø 0.3 – 19.1 mm

Ø 0.3 – 7.1 mm



Solid carbide cutting insert
29

Adapter
29

Ø 5.2 – 8.1 mm

Solid carbide cutting insert
29

Ø 6.9 – 19.1 mm

Solid carbide insert
29

Tool holder
29

Overview – Fine boring tools

MicroKom

M03 Speed
Analog

Ø 24.8 – 206 mm

ABS

Ø 24.8 – 39 mm

Precision adjustment heads
24

Insert holder
25

Ø 38 – 103 mm

Precision adjustment heads
24

Insert holder
25

Ø 38 – 206 mm

Interchangeable bridge
25

Precision adjustment heads
24

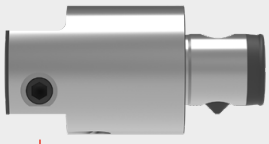
Insert holder
25

FF precision adjustment head
Analog

Ø 29.5 –199 mm

ABS

Precision adjustment heads
26



Precision turning insert
27

TO.X
61+62

necessary
optional

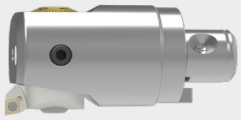
SpinTools

Single point finish boring head
Analog / digital

Ø 23.9 – 154.1 mm

STM

Single point finish boring head
Analog / digital
40



High-speed boring shank
41

Insert holder, 90°, extended
41

Insert holder, 90°
41

Insert holder, 95°
41

Reverse adapters for back boring
42

Ø 86 – 402 mm

STM

Insert holder
45

Single point finish boring head
Analog
44

Fine boring head
Analog

Ø 14.7 – 24.1 mm

Fine boring head
30

High-speed boring shank
31

Insert holder, 90°
30

Shank extension
31

CC..
67

WC..
66

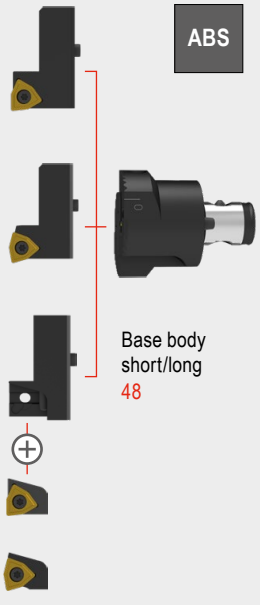
Overview – Rough boring and console tools

necessary
optional

TwinKom

G01
Analog

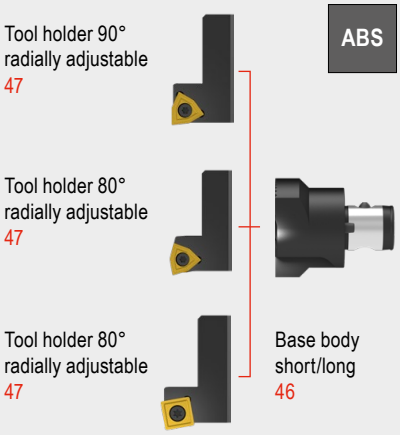
Ø 24 – 215 mm




WO..
63+64

G04
Analog

Ø 1.181" – 8.031"



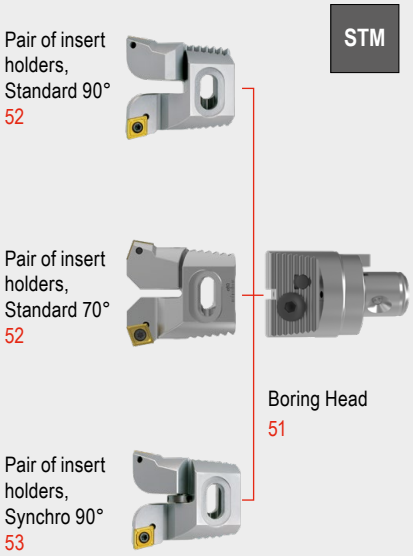

WO..
63+64


SOEX
65

SpinTools

Twin rough boring head
Analog

Ø 23.5 – 87.5 mm

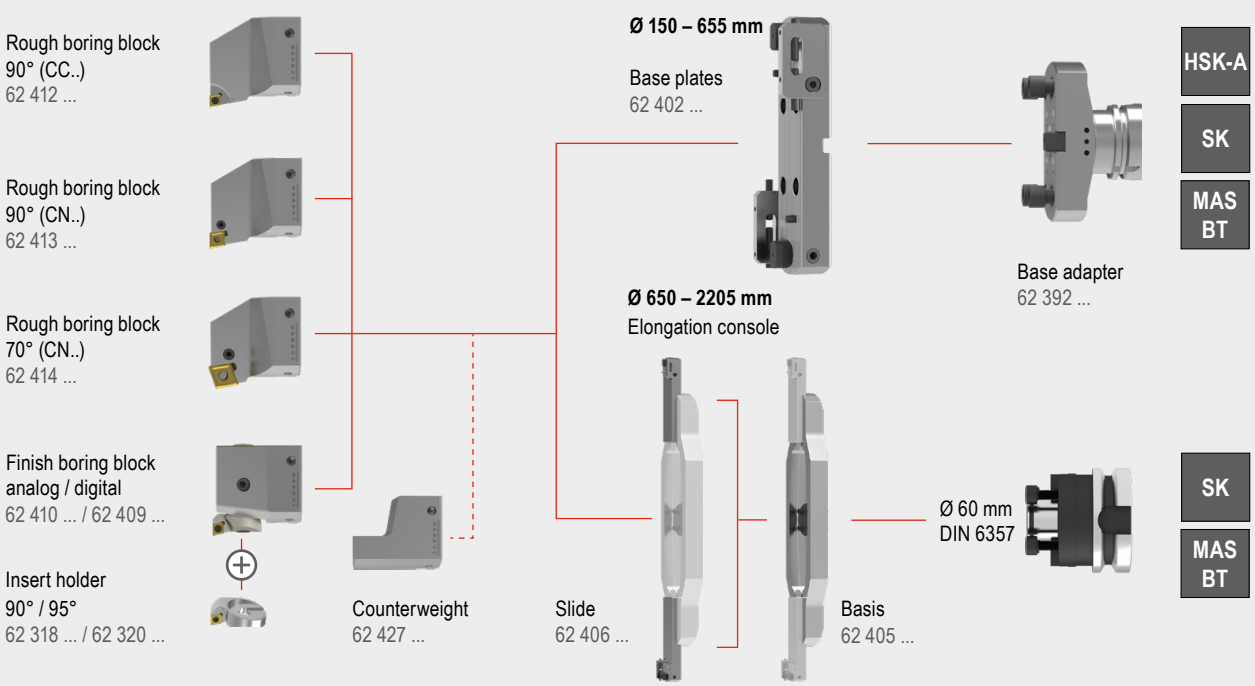



CC.. / CN..
67

SpinTools

Console tool
Analog / digital

Ø 150 – 2205 mm

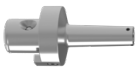


Overview of base adapters and accessories

System			CAT		ISO 7388-2		ISO 12164	ISO 26623-1
			CV	CV-FC	MAS-BT	MAS-BT-FC	HSK-A	PSC
Base adapter		ABS	→ Chapter 16, Adapters and accessories 16|15–19	16|20	16|52–54	16|72	16|105+106	16|134+135
		STM			54		55	

5

Accessories

Extension		ABS	→ Chapter 16, Adapters and accessories 16|152
		STM	58
Reduction		ABS	→ Chapter 16, Adapters and accessories 16|156
		STM	56
Interface adapter ABS → STM		ABS	59
Interface adapter STM → ABS		STM	59

Additional accessories available on request, such as balancing rings, axial grooving holders (UltraMini) and rough boring insert holders (0.4 mm offset) for SpinTools systems.

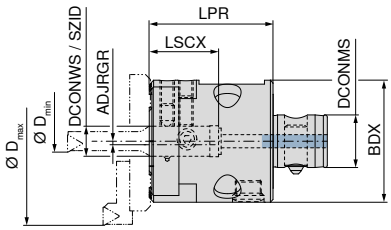
MicroKom – BluFlex 2 – precision adjustment head

- ▲ 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 mm or with ABS 32, MicroKom bridges, and serrated body
- ▲ With through coolant supply
- ▲ LSCX = Recess depth of boring bar
- ▲ Inch and Metric Display

Scope of supply:

incl. Battery

ABS



												without Bluetooth	with Bluetooth
												62 820 ...	62 840 ...
D_{min} - D_{max} mm	D_{min} - D_{max} inch	KOMET no.	Adapter	DCONWS mm	SZID	DCONMS mm	BDX mm	LPR mm	LSCX mm	ADJRGR mm	WT kg		
0.5 - 365	0.019 -14.370	M04 30100	ABS 50	16	ABS 32	28	65	71	38	-0.2 - 2,3	1.45	**16097**	
0.5 - 365	0.019 -14.370	M04 30000	ABS 50	16	ABS 32	28	65	71	38	-0.2 - 2,3	1.45		**16097**


Clamping screw


Clamping screw


Clamping screw


Clamping sleeve


Battery cover

		62 950 ...		62 950 ...		62 950 ...		62 950 ...	62 950 ...
Spare parts for Article no.									
62 820 16097	M8x1x12/SW4	**13989**	M8x1x20/SW4	**13700**	M5x14/SW4	**18600**		**18500**	**18400**
62 840 16097	M8x1x12/SW4	**13989**	M8x1x20/SW4	**13700**	M5x14/SW4	**18600**		**18500**	**18400**

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

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

→ **Page 6**
Here you will find a detailed system overview.

MicroKom – Precision boring set BluFlex 2

NEW

Scope of supply:

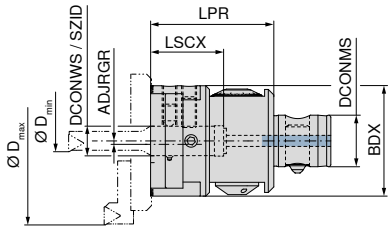
- ▲ **1 plastic case**
- ▲ **1 precision adjustment head**
- ▲ **5 boring bars**
  - – 62 850 00600 Ø 6 mm
  - – 62 850 01000 Ø 10 mm
  - – 62 850 01400 Ø 14 mm
  - – 62 850 01800 Ø 18 mm
  - – 62 850 02200 Ø 22 mm
- ▲ **2 insert holders**
  - – 62 863 04400 Ø 25 – Ø 44 mm
  - – 62 863 12500 Ø 44 – Ø 63 mm (– Ø 125 mm)
- ▲ **1 bridge**
  - – 62 860 12500 Ø 90 – Ø 125 mm
- ▲ **1 serrated body**
  - – 62 861 06300 Ø 25 – Ø 63 mm
- ▲ **1 filling piece**
  - – 62 862 09300 Ø 16x35 mm
- ▲ **10 indexable inserts**
  - – 2 pieces 62 600 00102 – WOHX02T001EL-G12 BK8440
  - – 4 pieces 62 601 90206 – TOGX06T102EN-14 BK60
  - – 4 pieces 62 601 70409 – TOGX090204EN-14 BK60
- ▲ **5 cylindrical screws**
  - – 62 950 00000 M5x16 mm
- ▲ **5 screwdrivers**
  - – 5IP, 6IP, 8IP, SW3, SW4

	without Bluetooth	with Bluetooth
	62 820 ...	62 840 ...
D_{min} - D_{max} mm		
6 - 125	**99997**	**99997**

MicroKom – hi.flex – precision adjustment head with inch adjustment markings

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

ABS



Analog
67 800 ...

D_{min} - D_{max} inch	KOMET no.	Adapter	DCONWS inch	DCONWS mm	SZID	DCONMS inch	BDX inch	LPR inch	LSCX inch	
0.221 - 14.370	M05 01600	ABS 50	0.630	16	ABS 32	1.102	2.362	2.638	1.563	**12597**


Clamping screw
62 950 ...


Clamping screw
62 950 ...


Clamping screw
62 950 ...

Spare parts for Article no.					
67 800 12597	M8x8 - SW4	**14700**	M8x1x12/SW4	**13989**	M8x1x20/SW4	**13700**

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

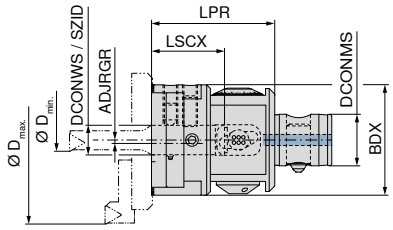
→ **Page 6**
Here you will find a detailed system overview.

5

MicroKom – hi.flex – precision adjustment head

▲ For MicroKom boring bars with Ø 16 mm or ABS 32, MicroKom bridges and serrated bodies
▲ With through coolant supply
▲ LSCX = Recess depth of boring bar
▲ Digital variant: please order the digital stick separately

ABS



												Analog	Digital
												62 800 ...	62 800 ...
D_{min} - D_{max} mm	D_{min} - D_{max} inch	KOMET no.	Adapter	DCONWS mm	SZID	DCONMS mm	BDX mm	LPR mm	LSCX mm	ADJRGR mm	WT kg		
0.5 - 365	0.019 -14.370	M05 01000	ABS 50	16	ABS 32	28	60	67	39.7	-0.25 - 5	1.23	**16097**	
0.5 - 365	0.019 -14.370	M04 10040	ABS 50	16	ABS 32	28	60	67	39.7	-0.25 - 5	1.23		**16197**


Clamping screw


Clamping screw


Clamping screw

Spare parts for Article no.		62 950 ...		62 950 ...		62 950 ...
62 800 16097	M8x8 - SW4	**14700**	M8x1x12/SW4	**13989**	M8x1x20/SW4	**13700**
62 800 16197	M8x8 - SW4	**14700**	M8x1x12/SW4	**13989**	M8x1x20/SW4	**13700**

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

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

→ **Page 6**
Here you will find a detailed system overview.

→ **Page 28**
Here you will find the SpinTools – Digital Stick.

MicroKom – Precision boring set hi.flex

Scope of supply:

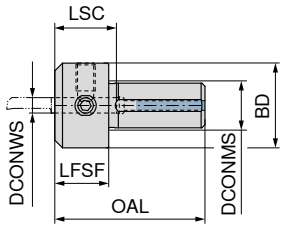
NEW

▲ **1 plastic case**
▲ **1 precision adjustment head**
▲ **5 boring bars**
– 62 850 00600 Ø 6 mm
– 62 850 01000 Ø 10 mm
– 62 850 01400 Ø 14 mm
– 62 850 01800 Ø 18 mm
– 62 850 02200 Ø 22 mm
▲ **2 insert holders**
– 62 863 04400 Ø 25 – Ø 44 mm
– 62 863 12500 Ø 44 – Ø 63 mm (– Ø 125 mm)
▲ **1 bridge**
– 62 860 12500 Ø 90 – Ø 125 mm
▲ **1 serrated body**
– 62 861 06300 Ø 25 – Ø 63 mm
▲ **1 filling piece**
– 62 862 09300 Ø 16x35 mm
▲ **10 indexable inserts**
– 2 pieces 62 600 00102 – WOHX02T001EL-G12 BK8440
– 4 pieces 62 601 90206 – TOGX06T102EN-14 BK60
– 4 pieces 62 601 70409 – TOGX090204EN-14 BK60
▲ **5 cylindrical screws**
– 62 950 00000 M5x16 mm
▲ **5 screwdrivers**
– 5IP, 6IP, 8IP, SW3, SW4

	Analog	Digital
	62 800 ...	62 800 ...
D_{min} - D_{max} mm		
6 - 125	**99997**	**99897**

MicroKom – UltraMini / EcoCut boring bar adapter

▲ for **hi.flex** and **BluFlex 2**
▲ 4 clamping flats (offset by 90°) on Ø DCONMS
▲ with through coolant supply



NEW

62 851 ...

DCONWS mm	KOMET no.	OAL mm	BD mm	LFSF mm	LSC mm	DCONMS mm	
4	M05 90950	39	22	14	18	16	16499
5	M05 90960	39	22	14	18	16	16599
6	M05 90970	39	22	14	18	16	16699
7	M05 90980	39	25	14	18	16	16799
8	M05 90990	39	25	14	18	16	16899

Clamping screw

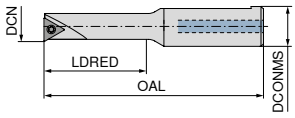
70 950 ...

Spare parts DCONWS	
0.157 - 0.197	867
0.236 - 0.315	123

Suitable UltraMini / EcoCut tools can be found in
→ **Main catalog, Chapters 10 and 12.**

MicroKom – Steel boring bar for hi.flex

▲ with through coolant



62 850 ...

DCN mm	KOMET no.	OAL mm	LDRED mm	DCONMS mm	Insert	
6	B05 20100	71.7	21.0	16	WO.. 02T0	00600
8	B05 20120	77.4	28.0	16	TO.. 06T1	00800
10	B05 20140	81.8	34.0	16	TO.. 0902	01000
12	B05 20160	88.2	42.0	16	TO.. 0902	01200
14	B05 20180	94.4	50.0	16	TO.. 0902	01400
18	B05 20220	100.0	60.0	16	TO.. 0902	01800
22	B05 20260	108.0	68.5	16	TO.. 1403	02200

TORX® Screws

62 950 ...

Spare parts Insert	
WO.. 02T0	11800
TO.. 06T1	12800
TO.. 0902	12000
TO.. 1403	12600

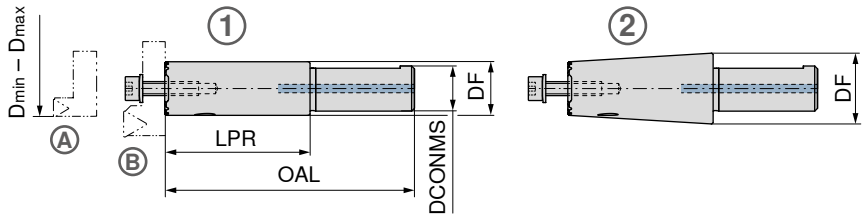
→ **Page 60–62**
Find suitable indexable inserts here.

5

MicroKom – Serrated body for hi.flex

▲ with through coolant

Scope of supply:
without insert holder



62 861 ...

D_{min} - D_{max} mm	KOMET no.	DCONMS mm	OAL mm	LPR mm	DF mm	Fig.	
25 - 63	M05 90100	16	89.12	52.12	19	1	**06300**
25 - 63	M05 90110	16	128.39	91.93	24	2	**16300**

Cylindrical screw

62 950 ...

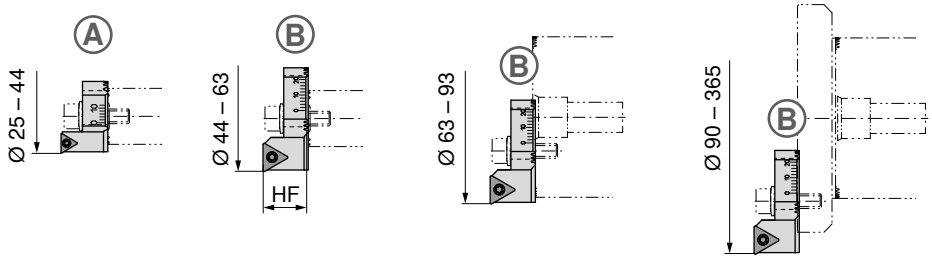
Disk spring

62 950 ...

Spare parts

DCONMS				
16	M5x16	**00000**	10x5.2x0.3	**19100**

MicroKom – Insert holder for hi.flex



62 863 ...

DCN mm	DCX mm	KOMET no.	HF mm	Insert	Fig.	
25	44	M05 20101	13.5	TO.. 06T1	A	**04400**
44	365	M05 20151	13.5	TO.. 0902	B	**12500**

TORX® Screws

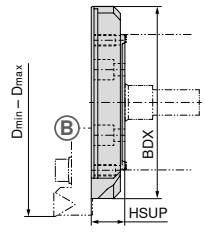
62 950 ...

Spare parts

Insert		
TO.. 06T1	M2x4.9/IP6	**09700**
TO.. 0902	M2.6x6.2 - 08IP	**09900**

→ **Page 61+62**
Find suitable indexable inserts here.

MicroKom –
Bridge for hi.flex



62 860 ...

D_{min} - D_{max} mm	KOMET no.	BDX mm	HSUP mm	WT kg	
90 - 125	M05 80101	85	14.89	0.147	12500
120 - 155	M05 80200	115	16.89	0.107	15500
150 - 185	M05 80300	145	18.89	0.152	18500
180 - 215	M05 80400	175	21.89	0.229	21500
210 - 245	M05 80500	205	25.00	0.309	24500
240 - 275	M05 80510	235	25.00	0.349	27500
270 - 305	M05 80520	265	25.00	0.394	30500
300 - 335	M05 80530	295	25.00	0.435	33500
330 - 365	M05 80540	325	25.00	0.478	36500


Cylindrical screw

62 950 ...


Disk spring

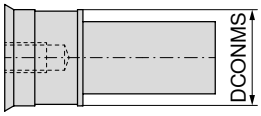
62 950 ...

Spare parts

BDX		
85 - 325	00000	19100

MicroKom –
Coolant diverting plug for hi.flex

▲ For targeted redirecting of the through coolant to the cutting edge when using bridges or insert holders with diameters from 63 mm

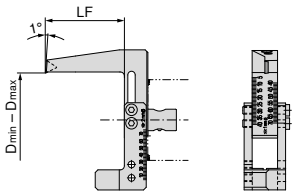


62 862 ...

DCONMS mm	KOMET no.	
16	M05 90501	09300

MicroKom –
Boring tool for external machining

▲ for **hi.flex** and **BluFlex 2**



62 866 ...

D_{min} - D_{max} mm	KOMET no.	LF mm	Adapter	WT kg	Insert	
5 - 70	M05 90300	58	ABS 32	0.377	TO.X 0902..	07000


Cylindrical screw

62 950 ...


TORX® Screws

62 950 ...

Spare parts

Insert		
TO.X 0902..	26800	12000

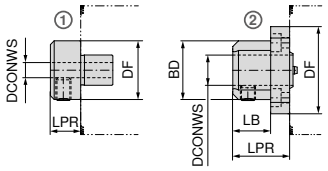
→ **Page 61+62**
Find suitable indexable inserts here.

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

5

MicroKom – Adapter

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



DCONWS mm	KOMET no.	DF mm	BD mm	LPR mm	LB mm	Fig.	62 851 ...
6	M05 90200	31		16		1	00600
8	M05 90210	31		16		1	00800
10	M05 90220	46	31	25	15	2	01000
12	M05 90230	46	31	25	15	2	01200
16	M05 90240	46	31	30	20	2	01600


Cylindrical screw

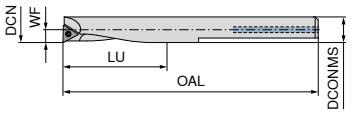

Clamping screw

Spare parts DCONWS	62 950 ...	62 950 ...
6 - 8		44800
10 - 12	00000	44800
16	00000	14700

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

MicroKom – Boring bar, vibration-optimized

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



DCN mm	KOMET no.	WF mm	LU mm	OAL mm	DCONMS mm	Insert	62 852 ...
5.6	B00 30280	2.80	22	65	6	WOHX 02T0..	10600
6.9	B00 30290	3.45	36	80	6	WOHX 02T0..	00600[1]
9.0	B00 00680	4.45	48	90	8	TO.X 06T1..	00800[1]
11.0	B00 00690	5.45	60	95	10	TO.X 06T1..	01000[1]

1) Carbide version

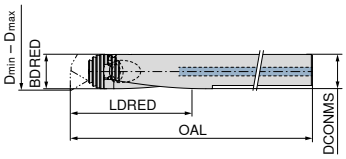

TORX® Screws

Spare parts Insert	62 950 ...
WOHX 02T0..	11800
TO.X 06T1..	09700

→ **Page 60–62**
Find suitable indexable inserts here.

MicroKom – Carbide boring shank

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



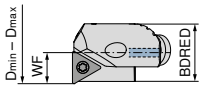
Dmin - Dmax mm	KOMET no.	OAL mm	BDRED mm	LDRED mm	DCONMS mm	62 853 ...
13 - 17	G10 12060	120	12	75	12	01300
17 - 22	G10 12070	140	16	100	16	01700
22 - 26	G10 12080	140	16	100	16	02200


Fixing screw

Spare parts DCONMS	62 950 ...
12	19700
16	19800

MicroKom – Boring head

▲ for boring shank 62 853 ...



Dmin - Dmax mm	KOMET no.	WF mm	BDRED mm	Insert	62 854 ...
13 - 15	G10 12621	6.45	12	TO.X 0902..	01300
15 - 17	G10 12841	7.45	12	TO.X 0902..	01500
17 - 19	G10 12711	8.45	16	TO.X 0902..	01700
19 - 22	G10 12861	9.45	16	TO.X 0902..	01900
22 - 26	G10 12731	10.95	16	TO.X 0902..	02200

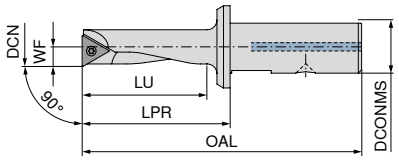

TORX® Screws

Spare parts Insert	62 950 ...
TO.X 0902..	12000

→ **Page 61+62**
Find suitable indexable inserts here.

MicroKom – Boring bar

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



62 856 ...

DCN mm	KOMET no.	OAL mm	LPR mm	LU mm	DCONMS mm	WF mm	Insert	
5.6	B00 37010	48	26	20	8	2.75	WOHX 02T0..	**05600**
6.5	B00 37020	52	30	24	8	3.20	WOHX 02T0..	**06500**
8.0	B00 15510	57	35	28	8	3.95	TO.X 06T1..	**08000**
8.0	B00 15610	75	35	28	16	3.95	TO.X 06T1..	**00800**
10.0	B00 15620	80	40	33	16	4.95	TO.X 06T1..	**01000**
11.0	B00 15710	85	45	38	16	5.45	TO.X 0902..	**01100**
12.0	B00 15530	67	45	39	8	5.95	TO.X 0902..	**11200**
12.0	B00 15630	85	45	38	16	5.95	TO.X 0902..	**01200**
14.0	B00 15640	90	50	43	16	6.95	TO.X 0902..	**01400**
16.0	B00 15650	95	55	49	16	7.95	TO.X 0902..	**01600**
18.0	B00 15661	100	60	54	16	8.95	TO.X 0902..	**01800**
19.0	B00 15751	105	65	59	16	9.45	TO.X 0902..	**01900**
20.0	B00 15671	105	65	59	16	9.95	TO.X 0902..	**02000**
22.0	B00 15681	105	65	59	16	10.95	TO.X 0902..	**02200**
24.0	B00 15691	105	65	60	16	11.95	TO.X 0902..	**02400**

TORX® Screws

62 950 ...

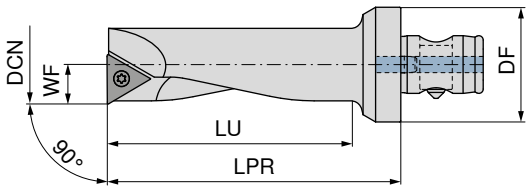
Spare parts	
Insert	
TO.X 06T1..	**12800**
TO.X 0902..	**12000**
WOHX 02T0..	**11800**

→ **Page 60–62**
Find suitable indexable inserts here.

MicroKom – Boring bar

▲ with through coolant

ABS



62 857 ...

DCN mm	KOMET no.	WF mm	DF mm	LU mm	LPR mm	Insert	
8	B00 25610	3.95	32	26	42	TO.X 06T1..	**07989**
9	B00 25700	4.45	32	32	48	TO.X 06T1..	**21989**
10	B00 25620	4.95	32	32	48	TO.X 06T1..	**08989**
11	B00 25710	5.45	32	41	57	TO.X 0902..	**23989**
12	B00 25630	5.95	32	41	57	TO.X 0902..	**09989**
14	B00 25640	6.95	32	49	64	TO.X 0902..	**10989**
16	B00 25650	7.95	32	57	72	TO.X 0902..	**11989**
18	B00 25661	8.95	32	57	72	TO.X 0902..	**13989**
20	B00 25671	9.95	32	67	82	TO.X 0902..	**15989**
22	B00 25681	10.95	32	68	82	TO.X 0902..	**17989**
24	B00 25691	11.95	32	68	82	TO.X 0902..	**19989**

TORX® Screws

62 950 ...

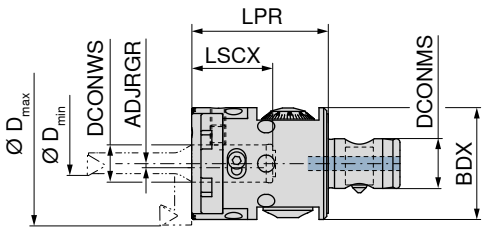
Spare parts	
Insert	
TO.X 06T1..	**12800**
TO.X 0902..	**12000**

→ **Page 61+62**
Find suitable indexable inserts here.

MicroKom – hi.flex micro – precision adjustment head

- ▲ for MicroKom boring bars and serrated bodies with DCONMS = 12 mm
- ▲ with through coolant supply
- ▲ LSCX = Recess depth of boring bar
- ▲ max. speed 30,000 rpm with slide in center position
- ▲ UltraMini / EcoCut boring bar adapter for diameters from 0.5 mm

ABS



NEW

Analog

62 800 ...

D_{min} - D_{max} mm	KOMET no.	Adapter	DCONWS mm	DCONMS mm	BDX mm	LPR mm	LSCX mm	ADJRGR mm	WT kg	
0.5 - 60	M05 03000	ABS 32	12	16	36	44	26	-0.25 - 2.5	0.3	**06089**

Disk spring

62 950 ...

Grubscrew

62 950 ...

Spare parts for Article no.				
62 800 06089	Ø5.5x1.0	**53700**	M5x8 DIN913	**53500**

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

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

→ **Page 6**
Here you will find a detailed system overview.

MicroKom – Precision boring set hi.flex micro

NEW

Scope of supply:

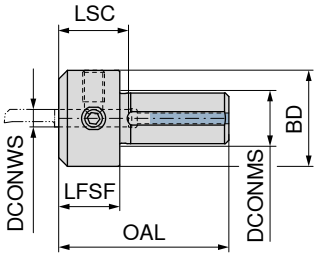
- ▲ **1 plastic case**
- ▲ **1 precision adjustment head**
- ▲ **1 insert holder**
  - – 62 863 14400 Ø 25 – Ø 44 mm
- ▲ **3 boring bars**
  - – 62 845 00800 Ø 8 mm
  - – 62 845 01400 Ø 14 mm
  - – 62 845 02000 Ø 20 mm
- ▲ **2 adapters**
  - – 62 851 12499 Ø 4 mm
  - – 62 851 12699 Ø 6 mm
- ▲ **1 serrated body**
  - – 62 861 04400 Ø 25 – Ø 44 mm
- ▲ **1 filling piece**
  - – 62 862 01200 Ø 12x24 mm
- ▲ **10 indexable inserts**
  - – 5 pieces 62 601 90206 – TOGX06T102EN-14 BK60
  - – 5 pieces 62 601 70409 – TOGX090204EN-14 BK60
- ▲ **1 cylindrical screw**
  - – 62 950 53600 M5x16 mm
- ▲ **1 screwdriver**
  - – SW2.5

62 800 ...

D_{min} - D_{max} mm	
8 - 60	**99989**

MicroKom – UltraMini / EcoCut boring bar adapter

▲ for **hi.flex micro**
▲ 4 clamping flats (offset by 90°) on Ø DCONMS
▲ with through coolant supply



NEW

62 851 ...

DCONWS mm	KOMET no.	OAL mm	BD mm	LFSF mm	LSC mm	DCONMS mm	
4	M05 90900	39	22	14	18	12	**12499**
5	M05 90910	39	22	14	18	12	**12599**
6	M05 90920	39	22	14	18	12	**12699**
7	M05 90930	39	25	14	18	12	**12799**
8	M05 90940	39	25	14	18	12	**12899**

Clamping screw

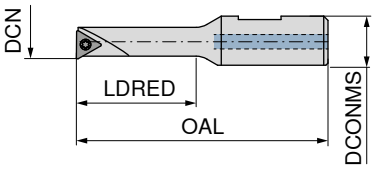
70 950 ...

Spare parts DCONWS		
4 - 5	M5x10 ISO 4026	**867**
6 - 8	M8x1x8 - SW4	**123**

Suitable UltraMini / EcoCut tools can be found in → **Main catalog, chapters 10 and 12.**

MicroKom – Boring bar for hi.flex micro

▲ with through coolant



NEW

62 845 ...

DCN mm	KOMET no.	OAL mm	LDRED mm	DCONMS mm	Insert	
8	B05 80080	58.88	28.0	12	TO.X 06T1..	**00800**
14	B05 80140	70.00	39.5	12	TO.X 0902..	**01400**
20	B05 80200	85.00	54.4	12	TO.X 0902..	**02000**

TORX® Screws

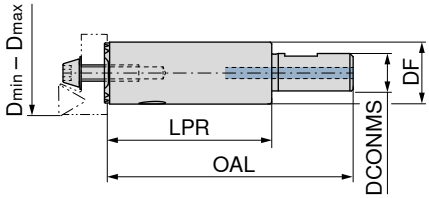
62 950 ...

Spare parts Insert		
TO.X 06T1..	M2x3.8/IP6	**12800**
TO.X 0902..	M2.6x5.2 - 08IP	**12000**

MicroKom – Serrated body for hi.flex micro

▲ with through coolant

Scope of supply:
without insert holder



NEW

62 861 ...

D_{min} - D_{max} mm	KOMET no.	DCONMS mm	OAL mm	LPR mm	DF mm	
25 - 44	M05 90120	12	76.39	51.39	19	**04400**

Spare parts

Cylindrical screw

62 950 ...

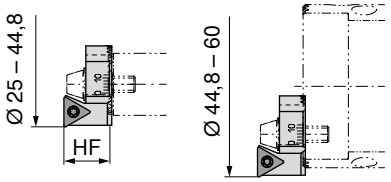
DCONMS		
12	M5x16	**53600**

Disk spring

62 950 ...

10x5.2x0.3	**19100**

MicroKom – Insert holder for hi.flex micro



NEW

62 863 ...

DCN mm	DCX mm	KOMET no.	HF mm	Insert	
25	60	M05 20110	14.48	TO.. 0902	**14400**

TORX® Screws

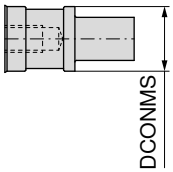
62 950 ...

Spare parts

Insert	
TO.. 0902	**09900**

MicroKom – Filling piece for hi.flex micro

▲ For targeted redirecting of the through coolant to the cutting edge when using insert holders with diameters from 45 mm



NEW

62 862 ...

DCONMS mm	KOMET no.	
12	M05 90700	**01200**

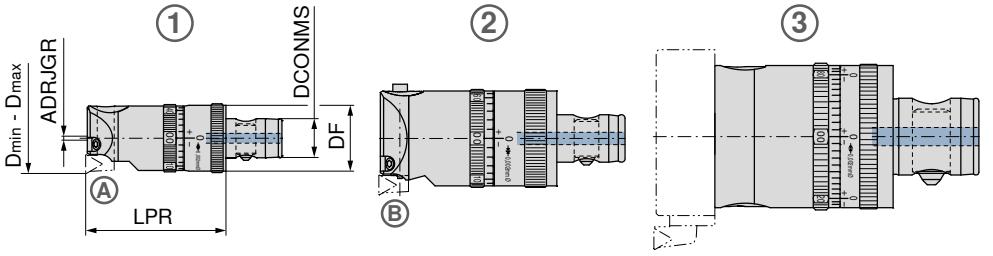
→ **Page 61+62**
Find suitable indexable inserts here.

MicroKom – M03Speed – precision adjustment head

Scope of supply:

Precision adjustment head with clamping screw
Please order insert holder and indexable insert separately

ABS



62 815 ...

D_{min} - D_{max} mm	KOMET no.	Adapter	DCONMS mm	DF mm	LPR mm	Fig.	Suitable insert holders	ADJRGR mm	WT kg	
24.8 - 33.0	M03 00115	ABS 25	13	25	50	1	62 864 03300	0.25 Ø	0.15	**03390**
29 - 39	M03 00515	ABS 25	13	25	50	1	62 864 03900	0.4 Ø	0.17	**03990**
38 - 50	M03 01025	ABS 32	16	32	60	2	62 864 05000	0.4 Ø	0.35	**05089**[1)]
49 - 63	M03 01535	ABS 40	20	40	70	2	62 864 08000	0.4 Ø	0.63	**06388**[1)]
62 - 80	M03 02045	ABS 50	28	50	75	2	62 864 08000	0.6 Ø	1.12	**08097**[1)]
79 - 103	M03 02555	ABS 63	34	63	80	2	62 864 10300	0.6 Ø	1.91	**10396**[1)]
38 - 63	M03 20170	ABS 32	16	32	81	3		0.4 Ø	0.35	**06389**[2)]
62 - 103	M03 20140	ABS 50	28	50	103	3		0.6 Ø	1.30	**10397**[2)]
100 - 206	M03 20090	ABS 63	34	63	106	3		0.6 Ø	1.91	**20696**[2)]

1) With dynamic balancing compensation
2) With dynamic balancing compensation / can only be used with interchangeable bridge (Art. No. 62 865 ...)


TORX® Screws


Clamping screw


Grub screw

Spare parts for Article no.		**62 950 ...**		**62 950 ...**		**10 950 ...**
62 815 03390					M4x0.5	**15600**
62 815 03990					M4x0.5	**15600**
62 815 05089	M3.5x7.3 - 10IP	**12600**			M4x0.5	**15600**
62 815 06388	M3.5x7.3 - 10IP	**12600**			M5x0.5	**15700**
62 815 08097	M3.5x7.3 - 10IP	**12600**			M5x0.5	**15700**
62 815 10396	M5x9.4/IP6	**45400**			M6x8 - SW3	**11300**
62 815 06389			M8x10	**37400**		
62 815 10397			M8x10	**37400**		
62 815 20696	M5x9.4/IP6	**45400**	M8x10	**37400**		

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

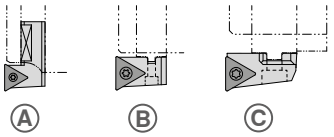
A detailed operating manual is available for download in the online shop next to the product.

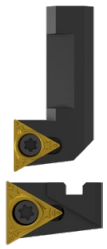
Suitable ABS adapters can be found in → **Chapter 16, Adaptors and Accessories.**

→ **Page 8**
Here you will find a detailed system overview.

MicroKom – M03Speed – Insert holder

Scope of supply:
without inserts
incl. mounting screws





62 864 ...

For precision adjustment head	For precision adjustment head (with interchangeable bridge)	KOMET no.	Insert	Fig.	
62 815 03390		M03 10011	TO.. 06T1	A	**03300**
62 815 03990		M03 10021	TO.. 06T1	A	**03900**
62 815 05089	62 815 06389 (62 865 05100 / 62 865 06300)	M03 10033	TO.. 06T1	B	**05000**
62 815 06388 / 62 815 08097	62 815 10397 (62 865 08300 / 62 865 10300)	M03 10043	TO.. 0902	B	**08000**
62 815 10396		M03 10063	TO.. 0902	B	**10300**
	62 815 20696 (62 865 13000 / 62 865 16800 / 62 865 20600)	M03 10070	TO.. 0902	C	**20600**


TORX® Screws

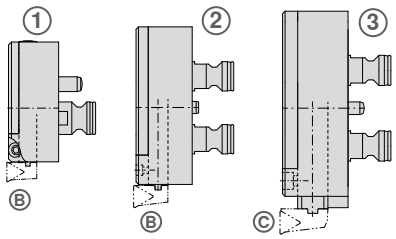
62 950 ...

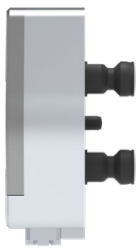
Spare parts Insert		
TO.. 06T1	M2x4.9/IP6	**09700**
TO.. 0902	M2.6x5.2 - 08IP	**12000**

→ **Page 61+62**
Find suitable indexable inserts here.

MicroKom – M03Speed – Interchangeable bridge

Scope of supply:
without insert holder





62 865 ...

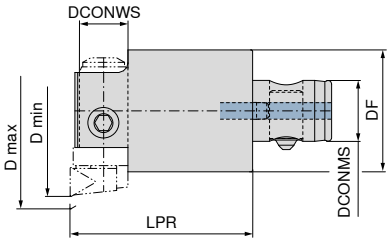
D_{min} - D_{max} mm	KOMET no.	Fig.	WT kg	For precision adjustment head	Suitable insert holders	
38 - 51	M03 20180	1	0.06	62 815 06389	62 864 05000	**05100**
50 - 63	M03 20190	1	0.08	62 815 06389	62 864 05000	**06300**
62 - 83	M03 20150	2	0.20	62 815 10397	62 864 08000	**08300**
82 - 103	M03 20160	2	0.24	62 815 10397	62 864 08000	**10300**
100 - 130	M03 20100	3	0.39	62 815 20696	62 864 20600	**13000**
128 - 168	M03 20110	3	0.49	62 815 20696	62 864 20600	**16800**
166 - 206	M03 20120	3	0.59	62 815 20696	62 864 20600	**20600**

MicroKom – FF precision adjustment head

Scope of supply:

Head with clamping screw
Without precision turning insert

ABS



D_{min} - D_{max} mm	KOMET no.	Adapter	DCONWS mm	DCONMS mm	DF mm	LPR mm	WT kg	62 810 ...
29.5 - 36	B30 11010	ABS 25	10	13	25	50	0.17	**03690**
35.5 - 42	B30 11020	ABS 25	10	13	25	50	0.18	**04290**
39 - 45	B30 12010	ABS 32	12	16	32	60	0.35	**04589**
44 - 50	B30 12020	ABS 32	12	16	32	60	0.35	**05089**
47 - 57	B30 13010	ABS 40	16	20	40	60	0.52	**05788**
56 - 66	B30 13020	ABS 40	16	20	40	60	0.52	**06688**
58 - 71	B30 14010	ABS 50	20	28	50	70	0.97	**07197**
70 - 83	B30 14020	ABS 50	20	28	50	70	1.05	**08397**
79 - 94	B30 15010	ABS 63	25	34	63	70	1.58	**09496**
93 - 108	B30 15020	ABS 63	25	34	63	70	1.61	**10896**
100 - 121	B30 16010	ABS 80	32	46	80	90	3.33	**12192**
120 - 141	B30 16020	ABS 80	32	46	80	90	3.37	**14192**
138 - 159	B30 17010	ABS 100	32	56	100	90	6.56	**15991**
158 - 179	B30 17020	ABS 100	32	56	100	90	6.80	**17991**
178 - 199	B30 17030	ABS 100	32	56	100	90	6.61	**19991**

Clamping screw

Spare parts for Article no.		62 950 ...
62 810 03690	M6x6/SW3	**44700**
62 810 04290	M6x6/SW3	**44700**
62 810 04589	M8x8 - SW4	**14700**
62 810 05089	M8x10 - SW4	**44800**
62 810 05788	M10x10/SW5	**44900**
62 810 06688	M10x10/SW5	**44900**
62 810 07197	M12x12/SW6	**45000**
62 810 08397	M12x12/SW6	**45000**
62 810 09496	M16x16/SW8	**45100**
62 810 10896	M16x16/SW8	**45100**
62 810 12192	M20x20 - SW10	**45200**
62 810 14192	M20x20 - SW10	**45200**
62 810 15991	M20x30/SW10	**45300**
62 810 17991	M20x20 - SW10	**45200**
62 810 19991	M20x20 - SW10	**45200**

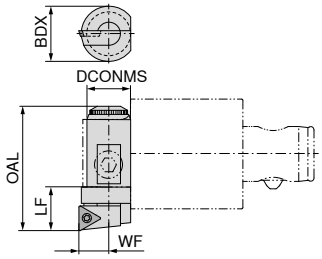
Suitable ABS adapters can be found in → **Chapter 16, Adaptors and Accessories.**

→ **Page 8**
Here you will find a detailed system overview.

MicroKom – FF precision turning insert

Scope of supply:

Precision turning insert with fixing screw
Please order indexable insert separately



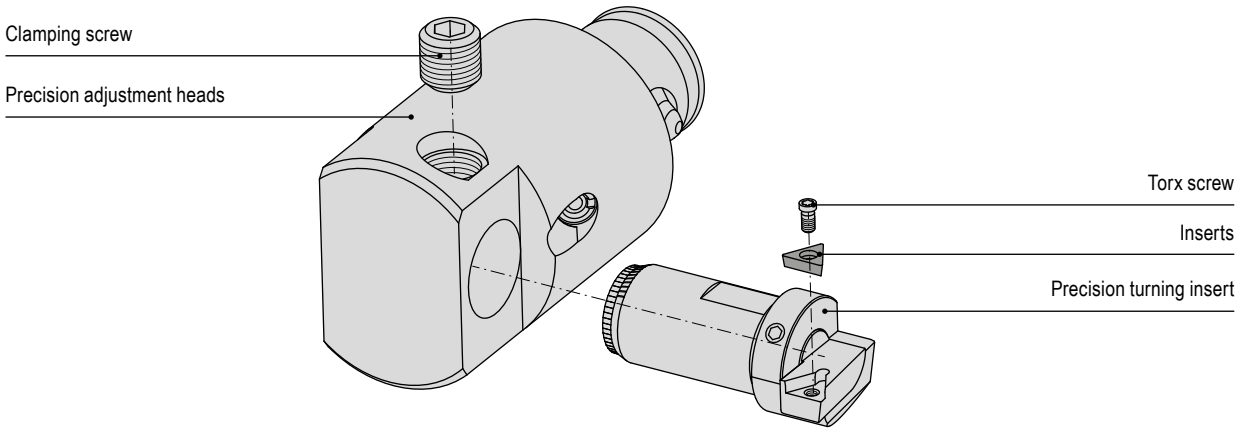
for	DCONMS mm	KOMET no.	LF mm	WF mm	BDX mm	OAL mm	Insert	62 855 ...
62 810 03690 / 62 810 04290	10	M30 20011	11.0	7.5	14	28.5	TO.. 06T1	**03000**
62 810 04589 / 62 810 05089	12	M30 20021	12.5	9.0	16	37.5	TO.. 06T1	**03900**
62 810 05788 / 62 810 06688	16	M30 20031	16.0	11.0	20	45.0	TO.. 0902	**04700**
62 810 07197 / 62 810 08397	20	M30 20041	18.0	14.5	25	56.0	TO.. 0902	**05800**
62 810 09496 / 62 810 10896	25	M30 20051	21.6	16.0	32	77.5	TO.. 1403	**07900**
62 810 12192 / 62 810 14192	32	M30 20061	25.5	19.0	40	97.0	TO.. 1403	**10000**
62 810 15991 / 62 810 17991 / 62 810 19991	32	M30 20071	25.5	19.0	40	131.0	TO.. 1403	**13800**


TORX® Screws


Key

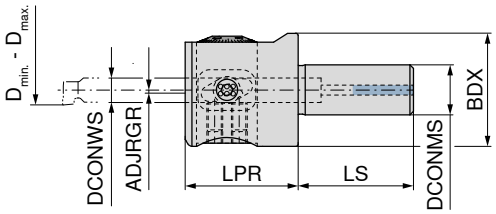
Spare parts DCONMS	62 950 ...		80 950 ...	
10	M2x3.8/IP6	**12800**	T06 - IP	**058**
12	M2x3.8/IP6	**12800**	T06 - IP	**058**
16	M2.6x5.2 - 08IP	**12000**	T08 - IP	**060**
20	M2.6x6.2 - 08IP	**09900**	T08 - IP	**060**
25	M3.5x7.3 - 10IP	**12600**	T10 - IP	**062**
32	M3.5x7.3 - 10IP	**12600**	T10 - IP	**062**

→ **Page 61+62**
Find suitable indexable inserts here.



SpinTools – Micro-Boring Head

▲ max. speed 30,000 rev/min
▲ Digital variant: please order the digital stick separately



D_{min} - D_{max}	BDX	DCONWS	DCONMS	LPR	LS	ADJRGR	WT	Analog	Digital
mm	mm	mm	mm	mm	mm	mm	kg	62 382 ...	62 386 ...
0.3 - 7.1	25	4	10	25	25	0 - 1.7	0.10	025	025
0.3 - 19.1	32	7	16	32	40	0 - 2.75	0.25	032	032


Clamping screw ST


Locking screw

Spare parts for Article no.		62 950 ...		62 950 ...
62 382 025 / 62 386 025	M5x4	214	M4x8	228
62 382 032 / 62 386 032	M6x5	215	M6x10	229

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

→ **Page 7**
Here you will find a detailed system overview.

SpinTools – Digital Stick

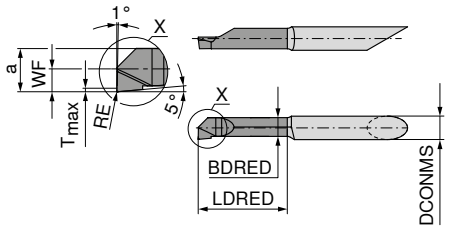
▲ suitable for all SpinTools digital heads as well as for hi.flex Digital
▲ revised software for even more precise adjustment
▲ Inch and Metric Display

Scope of supply:
incl. AAA Battery

62 309 ...
00100

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

SpinTools – Solid carbide boring bar



TiN

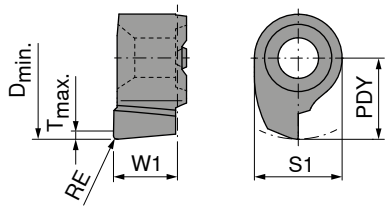
62 383 ...

D_{min} - D_{max} mm	DCONMS mm	LDRED mm	RE mm	a mm	BDRED mm	WF mm	$T_{max.}$ mm	
0.3 - 0.7	4	1.2		0.25	0.15	0.15	0.03	003
0.6 - 1.1	4	2.5		0.55	0.46	0.30	0.05	006
1.0 - 2.3	4	4.0	0.05	0.95	0.65	0.50	0.10	010
2.2 - 3.3	4	6.0	0.05	2.00	1.55	1.10	0.20	022
3.2 - 4.3	4	10.2	0.05	3.00	2.55	1.60	0.20	032
3.9 - 7.1	4	15.2	0.05	3.70	3.45	1.95	0.30	039
5.2 - 6.3	7	20.3	0.05	5.00	4.25	2.60	0.50	052
6.2 - 7.3	7	20.3	0.05	6.00	5.25	3.10	0.50	062
6.9 - 8.1	7	25.4	0.20	6.70	6.25	3.45	0.50	069

P	●
M	●
K	●
N	●
S	●
H	○
O	●

→ v_c Page 71

SpinTools – Carbide inserts



TiN

62 384 ...

D_{min} - D_{max} mm	RE mm	PDY mm	S1 mm	W1 mm	$T_{max.}$ mm	
6.9 - 8.1	0.2	3.45	4.8	3.5	1	069
7.9 - 9.1	0.2	3.95	4.8	3.5	1	079
8.9 - 10.1	0.2	4.45	4.8	3.5	1	089
9.9 - 12.1	0.2	4.95	7.0	3.9	1	099
11.9 - 14.1	0.2	5.95	7.0	3.9	1	119
13.9 - 19.1	0.2	6.95	7.0	3.9	1	139

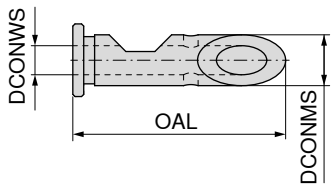
P	●
M	●
K	●
N	●
S	●
H	○
O	●

→ v_c Page 71

SpinTools – Toolholder for carbide inserts

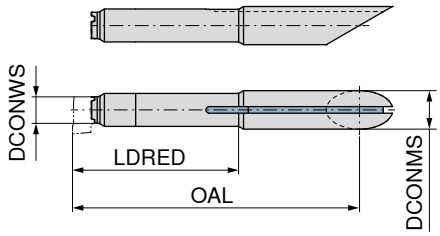
▲ with through coolant
▲ appropriate inserts for article no. 62 384 ... can be found in the table above

SpinTools – Adapter



62 335 ...

DCONMS mm	DCONWS mm	OAL mm	
7	4	30	407



62 385 ...

DCONMS mm	LDRED mm	DCONWS mm	OAL mm	
7	30	4.8	56	330
7	35	7.0	61	350

TORX® Screws

62 950 ...

Screwdriver

80 950 ...

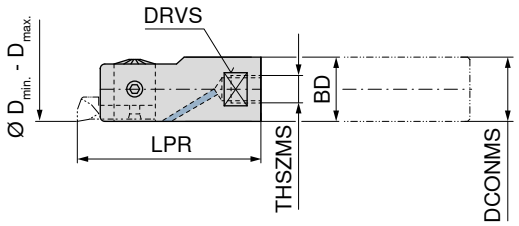
Spare parts for Article no.			
62 385 330	007		124
62 385 350	094		126

SpinTools – Precision boring head

▲ with through coolant

Scope of supply:

Fine boring head without shank, without insert holder



BD	D_{min} - D_{max}	THSZMS	DCONMS	LPR	DRVS	WT	62 304 ...
mm	mm		mm	mm	mm	kg	
14	14.7 - 17.1	M6	14	39.8	12	0.05	**017**
16	16.7 - 20.1	M10	16	39.8	14	0.07	**020**
19	19.7 - 24.1	M10	18	39.8	16	0.09	**024**

TORX® Screws

Screwdriver

Clamping screw ST

Spare parts for Article no.		62 950 ...		80 950 ...		62 950 ...
62 304 017	M2.5x6 - T07	**022**	T07	**109**	M3x2	**017**
62 304 020	M2.5x6 - T07	**022**	T07	**109**	M3x2.5	**018**
62 304 024	M2.5x6 - T07	**022**	T07	**109**	M3x4	**019**

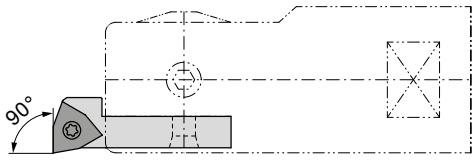
→ **Page 81**
Here you will find information about the working length.

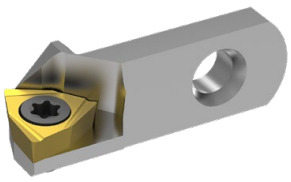
→ **Page 9**
Here you will find a detailed system overview.

SpinTools – Insert holder, 90°

Scope of supply:

without insert





Insert	62 317 ...
WC.. 0201..	**024**

TORX® Screws

Screwdriver

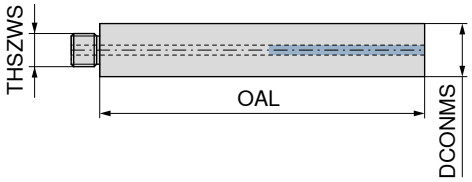
Spare parts Insert		62 950 ...		80 950 ...
WC.. 0201..	M2.3x3.7 - T06	**021**	T06	**108**

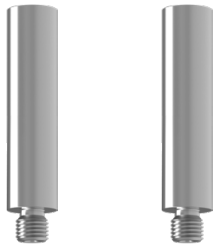
→ **Page 66**
Find suitable indexable inserts here.

SpinTools – High-speed carbide boring bars

▲ with threaded mounting stud made of high quality steel
▲ with through 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



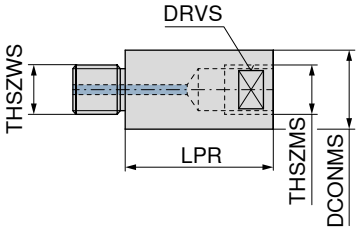


DCONMS mm	OAL mm	THSZWS	62 353 ...	62 353 ...
14	110	M6	**014**	
16	120	M10	**016**	
18	100	M10		**018**
18	140	M10		**118**
18	180	M10		**218**

→ **Page 81**
Here you will find information about the working length.

SpinTools – Shank extensions (tempered steel)

▲ with through coolant

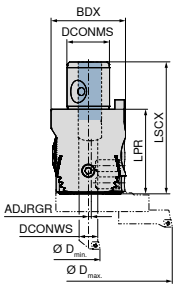


DCONMS mm	LPR mm	THSZWS	THSZMS	DRVS mm	62 349 ...
16	32	M10	M10	14	**732**
16	64	M10	M10	14	**764**

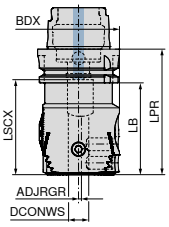
SpinTools – Multi-Head – boring and fine boring head

▲ **For boring bars Ø 16 mm and bridges**
▲ With internal coolant supply
▲ LSCX = Boring depth

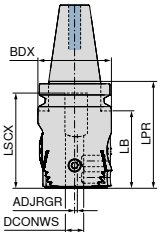
Scope of supply:
without boring bar, bridge and insert holder



STM Modular



HSK-A 63



MAS-BT 40


STM Modular


HSK-A


MAS-BT

D_{min} - D_{max}	Adapter	DCONMS	BDX	LPR	LB	LSCX	ADJRGR	WT	STM Modular	HSK-A	MAS-BT
mm		mm	mm	mm	mm	mm	mm	kg	62 372 ...	62 373 ...	62 373 ...
3 - 320	STM 36	36	63	71.6		111.6	0 - 2.7	1.69	653		
3 - 320	BT 40		63	91.6	69.0	81.6	0 - 2.7	2.20			453
3 - 320	HSK-A 63		63	96.6	70.6	73.0	0 - 2.7	1.90		653	


Clamping screw


Screw for drivers


Driver


Clamping screw MH


Flange screw

Spare parts D_{min} - D_{max}	Clamping screw	Screw for drivers	Driver	Clamping screw MH	Flange screw
	62 950 ...	62 950 ...	62 950 ...	62 950 ...	62 950 ...
3 - 320	227	167	040	226	225

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

→ **Page 54–59**
Here you will find the suitable base adaptors.

→ **Page 7**
Here you will find a detailed system overview.

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

▲ suitable for Ø 3 – Ø 320 mm

Scope of supply:

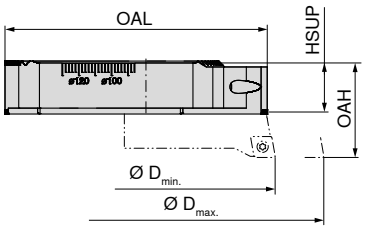
▲ **1 Tool Kit**
▲ **1 Multi-Head-Boring- and Fine Boring Head (depending on selection)**
▲ **4 Boring bars**
– 62 345 015 Ø 9.75 – Ø 15.1 mm
– 62 345 020 Ø 14.75 – Ø 20.1 mm
– 62 345 024 Ø 19.75 – Ø 25.1 mm
– 62 345 029 Ø 24.75 – Ø 30.1 mm
▲ **2 Boring tools, adjustable**
– 62 375 048 Ø 29.75 – Ø 48.1 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**

D_{min} - D_{max}	Adapter	STM Modular	HSK-A	MAS-BT
mm		62 374 ...	62 379 ...	62 379 ...
9.75 - 164	HSK-A 63		996	
9.75 - 164	BT 40			993
9.75 - 164	STM 36	999		

SpinTools – Bridge for Multi-Head

▲ Ø adjustable
▲ With internal coolant supply

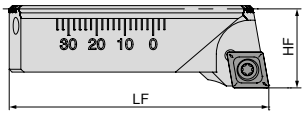
Scope of supply:
without tool holder
including fixation screws

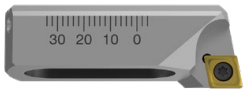


D_{min} - D_{max}	OAL	HSUP	OAH	62 376 ...
mm	mm	mm	mm	
86 - 164	80	15	29	**164**
162 - 320	158	15	29	**320**

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

Scope of supply:
without inserts
incl. mounting screws

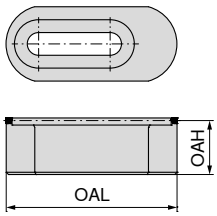




for	LF	HF	Insert	62 377 ...
	mm	mm		
62 375 048	28.2	12	CC.. 0602	**048**
62 375 088 / 62 376 ...	46.0	14	CC.. 0602	**088**
62 375 088 / 62 376 ...	46.0	14	CC.. 09T3	**089**

SpinTools – Counterweight

Scope of supply:
Including fixation screw



for	OAL	OAH	62 378 ...
	mm	mm	
62 376 ...	38	12	**320**

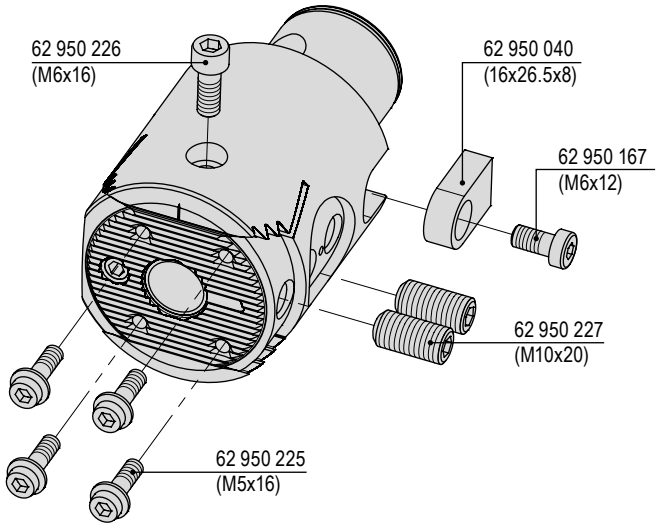

TORX® Screws


Screwdriver


Flange screw

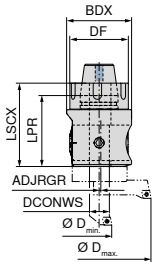
Spare parts	TORX® Screws 62 950 ...	Screwdriver 80 950 ...	Flange screw 62 950 ...
62 377 048 / 62 377 088	**022**	**109**	**225**
62 377 089	**023**	**113**	**225**

→ **Page 67**
Find suitable indexable inserts here.

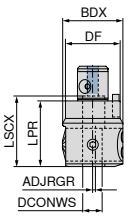


SpinTools – Single point boring heads – Modular system

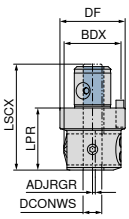
▲ LSCX = Recess depth of boring bar
▲ With through coolant supply
▲ Digital variant: please order the digital stick separately



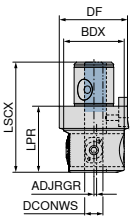
ER 32



without flange



with flange



Digital with collar

ER 32

without flange STM Modular

with flange STM Modular

Digital with collar STM Modular

									62 332 ...		62 332 ...		62 332 ...		62 326 ...	
D_{min} - D_{max} mm	Adapter	BDX mm	DF mm	DCONWS mm	LPR mm	LSCX mm	ADJRGR mm	WT kg								
3.0 - 88.1	ER 32	55	49.5	16	60	86.5	0 - 2.7	0.43		732						
3.0 - 88.1	STM 28	55	50.0	16	60	62.0	0 - 2.7	0.98				553				
3.0 - 88.1	STM 36	55	63.0	16	60	101.0	0 - 2.7	1.26						653		
3.0 - 88.1	STM 36	55	63.0	16	60	106.0	0 - 2.7	0.43								036

Clamping screw

Screw for drivers

Driver

Clamping screw ST

Spare parts for Article no.									62 950 ...		62 950 ...		62 950 ...		62 950 ...	
62 332 732	M10x16	047													M10x8	046
62 332 553	M10x16	047	M5x10	166									12x20x6	039	M10x8	046
62 332 653	M10x16	047	M6x12	167									16x26.5x8	040	M10x8	046
62 326 036	M10x16	047	M6x12	167									16x26.5x8	040	M10x8	046

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

→ **Page 54–59**
Here you will find the suitable base adaptors.

→ **Page 7**
Here you will find a detailed system overview.

SpinTools – Digital Stick

▲ suitable for all SpinTools digital heads as well as for hi.flex Digital
▲ revised software for even more precise adjustment
▲ Inch and Metric Display

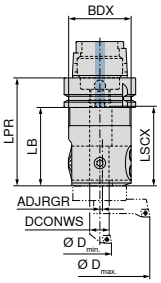
Scope of supply:
incl. AAA Battery

	62 309 ...
	00100

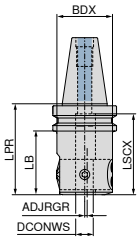
A detailed operating manual is available for download in the online shop next to the product.

SpinTools – Single point boring head – Monoblock analog

▲ LSCX = Boring depth
▲ With internal coolant supply



HSK-A 63



MAS-BT 40

HSK-A

62 333 ...

MAS-BT

62 333 ...

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			**653**	
3.0 - 88.1	BT 40	55	16	90	63	80	0 - 2.7	1.90				**453**

Clamping screw

62 950 ...

Clamping screw ST

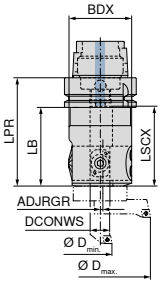
62 950 ...

Spare parts

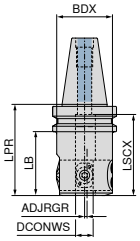
D_{min} - D_{max}				
3.0 - 88.1	M10x16	**047**	M10x8	**046**

SpinTools – Single point boring head – Monoblock digital

▲ LSCX = Recess depth of boring bar
▲ With through coolant supply
▲ Digital variant: please order the digital stick separately



HSK-A 63



MAS-BT 40

Digital HSK-A

62 363 ...

Digital MAS-BT

62 363 ...

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	70	70	0 - 2.7	1.66			**688**	
3.0 - 88.1	BT 40	55	16	90	59	80	0 - 2.7	1.90				**488**

Clamping screw

62 950 ...

Clamping screw ST

62 950 ...

Spare parts

D_{min} - D_{max}				
3.0 - 88.1	M10x16	**047**	M10x8	**046**

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

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 through coolant

Scope of supply:

▲ 1 Tool Kit
▲ 1 single point boring head (depending on selection)
▲ 4 Boring bars (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 62 334 ...	MAS-BT 62 345 ...
9.75 - 30.1	BT 40		993
9.75 - 40.1	STM 36	999	

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 through 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 62 334 ...	HSK-A 62 345 ...	MAS-BT 62 345 ...
9.75 - 88.1	HSK-A 63		997	
9.75 - 88.1	BT 40			999
9.75 - 88.1	STM 36	997		

SpinTools – Single point boring heads ER32 Set

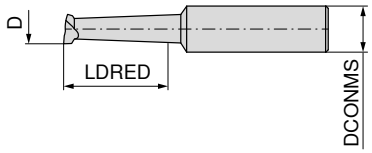
▲ Suitable for Ø 3.0 – Ø 88.1 mm
▲ Scope of supply Ø 9.75 – Ø 30.1 mm
▲ with through coolant supply

Scope of supply:

▲ 1 tool kit
▲ 1 single point boring head (62332732)
▲ 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	999

SpinTools – Boring tools with carbide cutting edge



62 346 ...

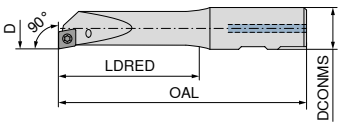
D_{min} - D_{max} mm	LDRED mm	DCONMS h6 mm	
3.0 - 8.0	20	10	008
4.0 - 9.0	23	10	009
5.0 - 10.0	25	10	010
6.0 - 11.0	25	10	011
7.0 - 12.0	31	10	012

P	●
M	○
K	○
N	●
S	
H	
O	

→ v_c Page 71

SpinTools – Steel boring bars

▲ with through coolant



62 345 ...

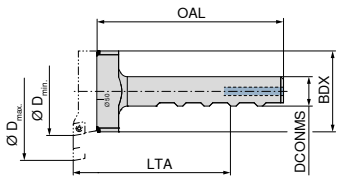
D_{min} - D_{max} mm	OAL mm	LDRED mm	DCONMS h6 mm	Insert	
9.75 - 15.1	75	30	16	CC.. 0602	015
11.75 - 17.1	80	37	16	CC.. 0602	017
13.75 - 19.1	85	43	16	CC.. 0602	019
14.75 - 20.1	90	51	16	CC.. 0602	020
15.75 - 21.1	95	57	16	CC.. 0602	021
17.75 - 23.1	100	67	16	CC.. 0602	023
19.75 - 25.1	105	72	16	CC.. 0602	024
19.75 - 25.1	105	72	16	CC.. 09T3	025
21.75 - 27.1	110	77	16	CC.. 09T3	027
24.75 - 30.1	115	82	16	CC.. 0602	029
24.75 - 30.1	115	82	16	CC.. 09T3	030
27.75 - 33.1	115	82	16	CC.. 09T3	033
31.75 - 37.1	115	82	16	CC.. 09T3	037
34.75 - 40.1	115	82	16	CC.. 09T3	040
38.75 - 44.1	115	82	16	CC.. 09T3	044
42.75 - 48.1	115	82	16	CC.. 09T3	048
47.75 - 53.1	115	82	16	CC.. 09T3	053

→ **Page 67**
Find suitable indexable inserts here.

SpinTools – Adjustable boring bar bridge

▲ with through coolant

Scope of supply:
without insert holder

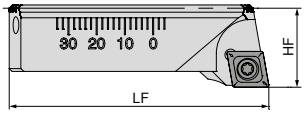


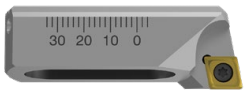
62 375 ...

D_{min} - D_{max} mm	OAL mm	BDX mm	LTA mm	DCONMS mm	
29.75 - 48.1	103	25	85	16	048
47.75 - 88.1	101	44	85	16	088

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

Scope of supply:
without inserts
incl. mounting screws





62 377 ...

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


TORX® Screws


Screwdriver


Flange screw

62 950 ... | 80 950 ... | 62 950 ...

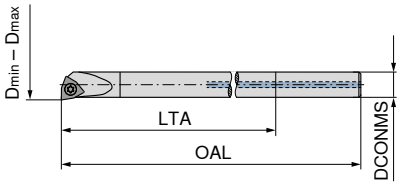
Spare parts for Article no.					
62 377 048	022		109		225
62 377 088	022		109		225
62 377 089	023		113		225

→ **Page 67**
Find suitable indexable inserts here.

5

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..	**011**
7.8 - 13.2	6	100	60	WC.. 0201..	**013**

TORX® Screws

62 950 ...

Screwdriver

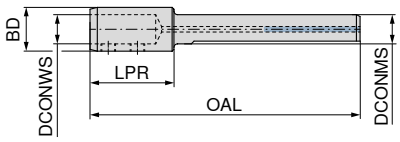
80 950 ...

Spare parts Insert		
WC.. 0201..	**021**	**108**

→ **Page 66**
Find suitable indexable inserts here.

SpinTools –
Boring tool extensions

▲ with through coolant



62 337 ...

DCONWS mm	DCONMS mm	BD mm	OAL mm	LPR mm	
10	16	16	128		**128**
16	16	24	148	44	**148**

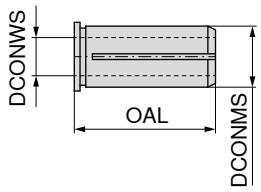
Clamping screw

62 950 ...

Spare parts for Article no.	
62 337 128	**048**
62 337 148	**049**

SpinTools – Reduction sleeves

▲ for boring bars and boring tools



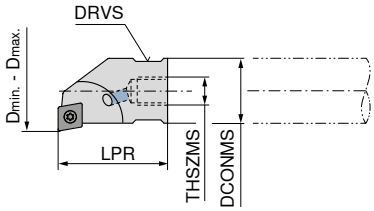
62 335 ...

DCONMS mm	DCONWS mm	OAL mm	
16	4	37	**104**
16	5	37	**105**
16	6	37	**106**
16	8	37	**108**
16	9	37	**109**
16	10	37	**110**
16	11	37	**111**
16	12	37	**112**
16	13	37	**113**
16	14	37	**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	
8.75 - 14.1	18	M5	8	CC.. 0602	**014**
9.75 - 15.1	18	M5	9	CC.. 0602	**015**
10.75 - 16.1	23	M6	10	CC.. 0602	**016**
11.75 - 17.1	23	M6	11	CC.. 0602	**017**
12.75 - 18.1	23	M6	12	CC.. 0602	**018**
13.75 - 19.1	23	M6	13	CC.. 0602	**019**
14.75 - 20.1	23	M6	14	CC.. 0602	**020**
15.75 - 21.1	23	M6	14	CC.. 0602	**021**
16.75 - 22.1	27	M10	16	CC.. 0602	**022**
17.75 - 23.1	27	M10	16	CC.. 0602	**023**
19.75 - 25.1	27	M10	16	CC.. 0602	**025**
21.75 - 27.1	27	M10	16	CC.. 0602	**027**
24.75 - 30.1	27	M10	16	CC.. 0602	**030**
27.75 - 33.1	27	M10	16	CC.. 0602	**033**
31.75 - 37.1	27	M10	16	CC.. 0602	**037**
34.75 - 40.1	27	M10	16	CC.. 0602	**040**


TORX® Screws


Screwdriver

62 950 ... | **80 950 ...**

Spare parts

Insert		
CC.. 0602	**022**	**109**

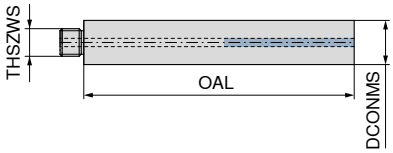
→ **Page 67**
Find suitable indexable inserts here.

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

SpinTools –
High-speed carbide boring bars

▲ with threaded mounting stud made of high quality steel
▲ with through coolant
▲ Shank clamping length 35 mm

Scope of supply:
boring shank, without boring head



62 353 ...

DCONMS mm	OAL mm	THSZWS	
8	73	M5	**008**
9	80	M5	**009**
10	82	M6	**010**
11	89	M6	**011**
12	96	M6	**012**
13	103	M6	**013**
14	110	M6	**014**
16	120	M10	**016**

→ **Page 81**
Here you will find information about the working length.

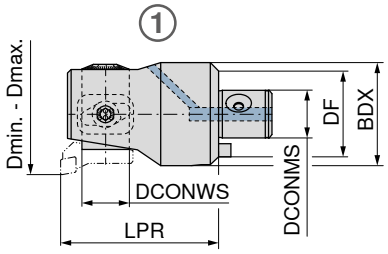
5

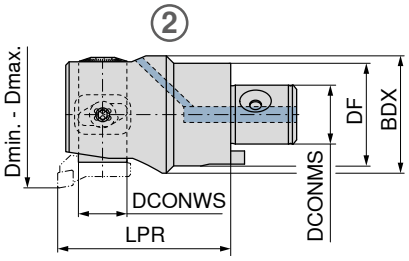
SpinTools – Single point finish boring heads

▲ With through coolant supply
▲ Digital variant: please order the digital stick separately

Scope of supply:
without insert holder and inserts

STM





										Analog	Digital
										62 303 ...	62 308 ...
D_{min} - D_{max} mm	D_{min} - D_{max} extended mm	Adapter	DCONMS mm	BDX mm	DF mm	LPR mm	DCONWS mm	WT kg	Fig.		
23.9 - 31.1	29.9 - 37.1	STM 11	11	22.5	20	40	11	0.08	1	**031**	**031**
30.9 - 40.1	37.9 - 47.1	STM 14	14	29.0	25	45	13	0.15	1	**040**	**040**
39.9 - 51.1	47.9 - 59.1	STM 18	18	37.0	32	65	17	0.38	1	**051**	**051**
50.9 - 67.1	64.9 - 81.1	STM 22	22	47.0	40	72	22	0.70	1	**067**	**067**
66.9 - 87.1	84.9 - 105.1	STM 28	28	59.0	50	82	30	1.32	2	**087**	**087**
86.9 - 116.1	104.9 - 134.1 (124.9 - 154.1)	STM 36	36	72.0	63	105	30	3.15	2	**116**	**116**

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 ...	
Spare parts for Article no.									
62 303 031 / 62 308 031	M2x2.5	**162**	5x8.5x3	**035**	M4x6	**287**	M4x3	**213**
62 303 040 / 62 308 040	M2.5x6	**163**	6x10.3x4	**036**	M5x8	**288**	M5x4	**214**
62 303 051 / 62 308 051	M3x8	**164**	8x15x5	**037**	M6x10	**289**	M6x5	**215**
62 303 067 / 62 308 067	M4x10	**165**	10x18.1x6	**038**	M8x12	**290**	M8x6	**216**
62 303 087 / 62 308 087	M5x10	**166**	12x20x6	**039**	M10x16	**291**	M10x10	**217**
62 303 116 / 62 308 116	M6x12	**167**	16x26.5x8	**040**	M10x16	**291**	M10x18	**218**

→ **Page 54–59**
Here you will find the suitable base adaptors.

→ **Page 9**
Here you will find a detailed system overview.

SpinTools – Digital Stick

▲ suitable for all SpinTools digital heads as well as for hi.flex Digital
▲ revised software for even more precise adjustment
▲ Inch and Metric Display

Scope of supply:
incl. AAA Battery

62 309 ...
00100

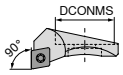
A detailed operating manual is available for download in the online shop next to the product.

SpinTools – Insert holder

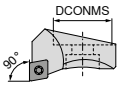
▲ for single point finish boring heads Art. 62 303 ..., 62 308 ...

Scope of supply:

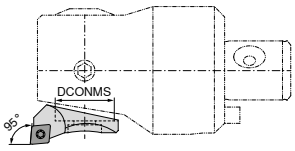
incl. Torx clamping screw for inserts, without fixing bolt for holder



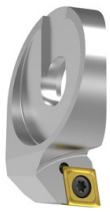
90°



Extended 90°

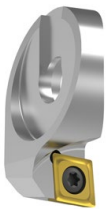


95°



90°

90° extended



95°

D_{min} - D_{max} mm	D_{min} - D_{max} extended mm	DCONMS mm	Insert	62 318 ...	62 318 ...	62 320 ...
23.9 -31.1	29.9 - 37.1	11	CC.. 0602	**031**	**037**	**031**
30.9 - 40.1	37.9 - 47.1	13	CC.. 0602	**040**	**047**	**040**
39.9 - 51.1	47.9 - 59.1	17	CC.. 0602	**051**	**059**	**051**
50.9 - 67.1	64.9 - 81.1	22	CC.. 0602	**067**	**081**	**067**
66.9 - 87.1	84.9 - 105.1	30	CC.. 0602	**087**	**105**	
66.9 - 87.1		30	CC.. 09T3			**087**
86.9 - 116.1	104.9 - 134.1	30	CC.. 09T3	**116**	**134**	
	124.9 - 154.1	30	CC.. 09T3		**154**	

TORX® Screws

Screwdriver

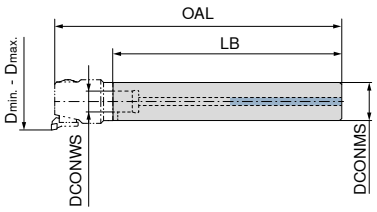
Spare parts **Insert**		62 950 ...		80 950 ...
CC.. 0602	M2.5x6 - T07	**022**	T07	**109**
CC.. 09T3	M4x9 - T15	**023**	T15	**113**

→ **Page 67**
Find suitable indexable inserts here.

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

SpinTools – High-speed carbide boring tools

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



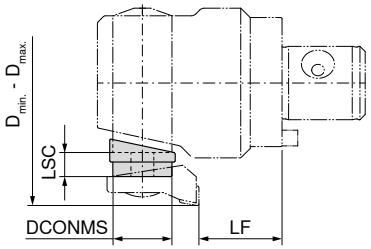
D_{min} - D_{max} mm	DCONWS mm	DCONMS mm	OAL mm	LB mm	WT kg	62 354 ...
23.9 - 31.1	11	20	250	210	0.81	**020**
30.9 - 40.1	14	25	306	261	1.54	**025**
39.9 - 51.1	18	32	380	315	3.03	**032**

SpinTools – Reverse adapter for back boring

▲ For insert holder article nos. 62 318 ... / 62 320 ...

Scope of supply:

Adapter including fixing bolt



LSC mm	DCONMS mm	LF mm	D_{min} - D_{max} mm	62 321 ...
6.5	11	13.0	37 - 44	**044**
8.0	11	13.0	40 - 47	**051**
6.5	13	12.6	44 - 53	**053**
10.0	13	12.6	51 - 60	**060**
6.5	17	31.3	53 - 64	**064**
10.0	17	31.3	60 - 71	**071**
6.5	22	31.2	68 - 80	**080**
12.0	22	31.2	75 - 91	**091**
10.0	30	29.0	87 - 107	**107**

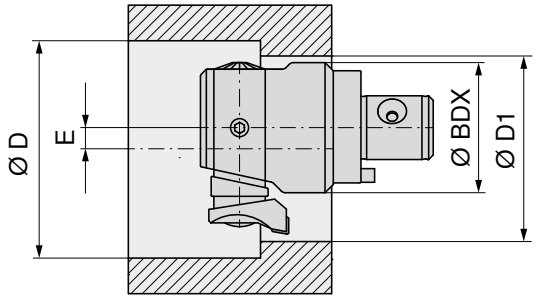
Note left hand direction of spindle rotation when in use

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

Fillister-head screw

Spare parts for Article no.		62 950 ...
62 321 044	M4x12	**278**
62 321 051	M4x13	**279**
62 321 053	M5x14	**280**
62 321 060	M5x16	**281**
62 321 064	M6x15	**282**
62 321 071	M6x20	**283**
62 321 080	M8x20	**284**
62 321 091	M8x25	**285**
62 321 107	M10x30	**286**

Minimum diameter (Ø D1) during retraction for back boring



Minimum diameter (Ø D1) of the entry bore

$$Ø\,D1 = \frac{Ø\,BDX + Ø\,D}{2} + 1^{*}$$

Minimum offset (E) for starting

$$E = \frac{Ø\,D - Ø\,D1}{2} + 0.5^{*}$$

*Safety margin

Example

Single point finish boring head 62 303 031 (Ø BDX = 22.5 mm)	
Reverse adapter 62 321 044 (Ø D_{min} – Ø D_{max} = 37 – 44 mm)	**Selected** **Ø D = 37 mm**
Insert holder 62 318 031	

$$Ø\,D1 = \frac{Ø\,22.5\text{ mm} + Ø\,37\text{ mm}}{2} + 1\text{ mm} = 30.75\text{ mm}$$

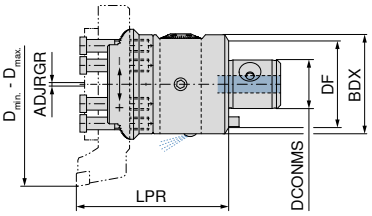
$$E = \frac{Ø\,37\text{ mm} - Ø\,30.75\text{ mm}}{2} + 0.5\text{ mm} = 3.625\text{ mm}$$

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



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	**302**

Cylindrical screw

62 950 ...

Spare parts for Article no.		
62 305 302	M8x45	**292**

Screw for drivers

62 950 ...

M6x12	**167**

Driver

62 950 ...

16x26.5x8	**040**

Clamping screw ST

62 950 ...

M8x60	**011**

→ **Page 54–59**
Here you will find the suitable base adaptors.

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

→ **Page 9**
Here you will find a detailed system overview.

SpinTools – Boring set

▲ suitable for Ø 86 – Ø 402 mm
▲ supplied with Ø 86 – Ø 302 mm
▲ with through coolant

Scope of supply:

▲ 1 Case
▲ 1 single point finish boring head
– 62 305 302
▲ 3 insert holders
– 62 438 138 Ø 86 – Ø 138 mm
– 62 438 220 Ø 136 – Ø 220 mm
– 62 438 302 Ø 188 – Ø 302 mm
▲ 2 pressure plates and 2 supports
– 62 950 149
– 62 950 150
– 62 950 152
– 62 950 153
▲ 1 Allen Key – SW5
▲ 1 Torx Key – T15

STM Modular

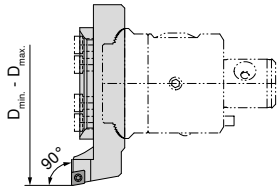
62 439 ...

D_{min} - D_{max} mm	Adapter	
86 - 302	STM 36	**999**

SpinTools – Tool holder

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

Scope of supply:
incl. cover plate and support



D_{min} - D_{max} mm	Insert	62 438 ...
86 - 138	CC.. 09T3	**138**
136 - 220	CC.. 09T3	**220**
188 - 302	CC.. 09T3	**302**
242 - 402	CC.. 09T3	**402**


TORX® Screws

Screwdriver


Pressure plate


Support

Spare parts for Article no.		62 950 ...		80 950 ...		62 950 ...		62 950 ...
62 438 138	M4x9 - T15	**023**	T15	**113**		**152**		**149**
62 438 220	M4x9 - T15	**023**	T15	**113**		**153**		**150**
62 438 302	M4x9 - T15	**023**	T15	**113**		**153**		**150**
62 438 402	M4x9 - T15	**023**	T15	**113**		**153**		**150**

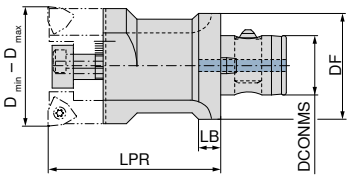
→ **Page 67**
Find suitable indexable inserts here.

TwinKom – Base body

Scope of supply:

Clamping plate incl. adjustment and fixing screws
Order tool holder and indexable inserts separately

ABS



							short	long
							62 881 ...	62 881 ...
D_{min} - D_{max} inch	KOMET no.	DCONMS inch	DF inch	Adapter	LPR inch	LB inch		
1.181 - 1.575	G04 00500	0.512	0.984	ABS 25	1.969		**04190**	
1.181 - 1.575	G04 01000	0.630	1.260	ABS 32	3.346	0.295		**44189**
1.575 - 2.008	G04 01010	0.630	1.260	ABS 32	2.362		**05189**	
1.575 - 2.008	G04 01500	0.787	1.575	ABS 40	4.724	0.335		**45188**
2.008 - 2.677	G04 01510	0.787	1.575	ABS 40	2.362		**07188**	
2.008 - 2.677	G04 02000	1.102	1.969	ABS 50	5.315	0.413		**47197**
2.677 - 3.425	G04 02010	1.102	1.969	ABS 50	2.756		**09197**	
2.677 - 3.425	G04 02020	1.102	1.969	ABS 50	5.315			**49197**
3.425 - 4.567	G04 02500	1.339	2.480	ABS 63	2.756		**12196**	
3.425 - 4.567	G04 02510	1.339	2.480	ABS 63	6.102			**52196**
4.567 - 6.024	G04 03000	1.811	3.150	ABS 80	3.543		**15792**	
4.567 - 6.024	G04 03010	1.811	3.150	ABS 80	6.890			**55792**
6.024 - 8.031	G04 03500	2.205	3.937	ABS 100	4.921		**20491**	

	 Cylindrical screw TwinKom	 Cylindrical screw TwinKom	 Adjustment screw	 Adjustment screw	 TwinKom clamping plate
	62 950 ...	84 950 ...	10 950 ...	62 950 ...	62 950 ...
Spare parts D_{min} - D_{max}					
1.181 - 1.575	**45500**			**53800**	**55000**
1.575 - 2.008	**45600**		**11200**		**55100**
2.008 - 2.677	**54400**			**53900**	**55200**
2.677 - 3.425		**42600**		**54000**	**55300**
3.425 - 4.567	**54500**			**54100**	**55400**
4.567 - 6.024	**54600**			**54200**	**55500**
6.024 - 8.031	**54700**			**54300**	**55600**

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

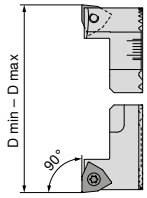
→ **Page 10**
Here you will find a detailed system overview.

TwinKom – Tool holder 90°

▲ radially adjustable

Scope of supply:

including pair of holders and clamping screws
Order indexable inserts separately



67 871 ...

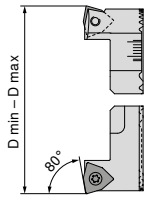
D_{min} - D_{max} inch	KOMET no.	Insert	
1.181 - 1.614	G03 60410	WO.X 05T3..	04100
1.535 - 2.008	G03 60420	WO.X 06T3..	05100
1.929 - 2.795	G03 60430	WO.X 06T3..	07100
2.520 - 3.853	G03 60440	WO.X 0804..	09800
3.268 - 4.764	G03 60450	WO.X 1005..	12100
4.291 - 6.181	G03 60460	WO.X 1005..	15700
5.472 - 8.031	G03 60470	WO.X 1206..	20400

TwinKom – Tool holder 80°

▲ radially adjustable

Scope of supply:

including pair of holders and clamping screws
Order indexable inserts separately



67 875 ...

D_{min} - D_{max} inch	KOMET no.	Insert	
1.181 - 1.614	G03 50410	WO.X 05T3..	04100
1.535 - 2.008	G03 50420	WO.X 06T3..	05100
1.929 - 2.795	G03 50430	WO.X 06T3..	07100
2.520 - 3.853	G03 50440	WO.X 0804..	09800
3.268 - 4.764	G03 50450	WO.X 1005..	12100
4.291 - 6.181	G03 50460	WO.X 1005..	15700
5.472 - 8.031	G03 50470	WO.X 1206..	20400


Screwdriver


Clamping screw

80 950 ... **10 950 ...**

Spare parts Insert		
WO.X 05T3..	125	10500
WO.X 06T3..	127	10600
WO.X 0804..	128	12700
WO.X 1005..	128	12700
WO.X 1206..	129	17400

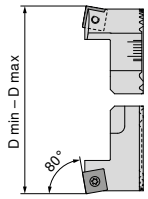
→ **Page 63+64**
Find suitable indexable inserts here.

TwinKom – Tool holder 80°

▲ radially adjustable

Scope of supply:

including pair of holders and clamping screws
Order indexable inserts separately



67 872 ...

D_{min} - D_{max} inch	KOMET no.	Insert	
1.181 - 1.614	G03 80200	SOEX 07T308	04100
1.535 - 2.008	G03 80211	SOEX 090408	05100[1)]
1.929 - 2.795	G03 80220	SOEX 090408	07100
2.520 - 3.853	G03 80230	SOEX 120508	09800
3.268 - 4.764	G03 80240	SOEX 120508	12100
4.291 - 6.181	G03 80250	SOEX 120508	15700
5.472 - 8.031	G03 80260	SOEX 120508	20400

1) Not in stock


Screwdriver


Clamping screw

80 950 ... **10 950 ...**

Spare parts Insert		
SOEX 07T308	125	10800
SOEX 090408	128	10300
SOEX 120508	129	10400

→ **Page 65**
Find suitable indexable inserts here.

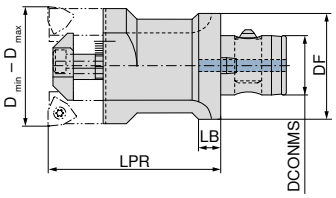
5

TwinKom – Base body

Scope of supply:

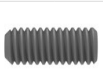
Clamping plate incl. adjustment and fixing screws
Order tool holder (+indexable insert) and indexable inserts separately

ABS



								long	short
								62 870 ...	62 870 ...
D_{min} - D_{max} mm	KOMET no.	DCONMS mm	DF mm	Adapter	LPR mm	LB mm	WT kg		
24 - 32	G01 70552	13	25	ABS 25	45	6.0	0.11		03290
24 - 32	G01 71072	16	32	ABS 32	70	7.0	0.21	13289	
30 - 41	G01 70562	13	25	ABS 25	50		0.12		04190
30 - 41	G01 71132	16	32	ABS 32	85	7.5	0.30	14189	
39 - 53	G01 71022	16	32	ABS 32	60		0.29		05389
39 - 53	G01 71622	20	40	ABS 40	120	8.0	0.68	15388	
51 - 71	G01 71522	20	40	ABS 40	60		0.44		07188
51 - 71	G01 72122	28	50	ABS 50	135	10.0	1.24	17197	
64 - 91	G01 72022	28	50	ABS 50	70		0.82		09197
64 - 91	G01 72622	34	63	ABS 63	155	13.0	2.25	19196	
83 - 124	G01 72522	34	63	ABS 63	70		1.35		12496
83 - 124	G01 73122	46	80	ABS 80	155	16.5	3.80	12592	
109 - 167	G01 73032	46	80	ABS 80	90		3.10		16792[1)]
109 - 167	G01 73042	46	80	ABS 80	175		6.20	16892[1)]	
139 - 215	G01 73562	56	100	ABS 100	125		6.47		21591[1)]
139 - 215	G01 73572	56	100	ABS 100	240		13.25	21691[1)]	

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


Adjustment screw


TwinKom clamping plate


Fixing screw

								10 950 ...		62 950 ...	
Spare parts D_{min} - D_{max}											
24 - 32	M2.5X5.SW1.3	16500						46900	M2x4.5 - T06		15800
30 - 41	M2.5X5.SW1.3	16500						47000	M2.5x5.3 - T08		15900
39 - 53	M4x8 - SW2	11100						47100	M2.5x7 - T08		16000
51 - 71	M4x10 - SW2	11200						47200	M3.5x9.4 - T10		16300
64 - 91	M6X12 SW3	16100						47300	M4.5x11.5 - T15		13500
83 - 124	M6X20 SW3	16200						47400	M5x12 - SW2.5		11000
109 - 167	M8X20.SW4	16600						47500			
139 - 215	M10X20 DIN 913	17500						47700	M6x20 Sw5		17600


Cylindrical screw TwinKom


Cylindrical screw


Adjustment pin

								62 950 ...		62 950 ...	
Spare parts D_{min} - D_{max}											
24 - 32	M3X16	46000									46200
30 - 41	M4X20	45500									46300
39 - 53	M5X25	45600									46400
51 - 71	M6X30	45700									46500
64 - 91	M8X35	45800									46600
83 - 124	M8X45	45900									46700
109 - 167	M10X50	46100						M5x16		00000	46800
139 - 215	M12x60	47600									47800

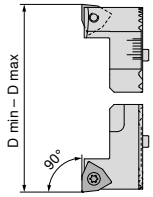
A detailed operating manual is available for download in the online shop next to the product.

→ **Page 10**
Here you will find a detailed system overview.

TwinKom – Tool holder 90°

▲ radially adjustable

Scope of supply:
including clamping screw
Order indexable inserts separately

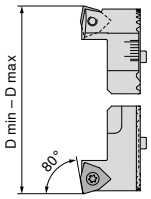


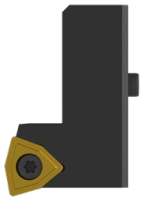
D_{min} - D_{max} mm	KOMET no.	Insert	62 871 ...
24 - 32	G03 70330	WO.X 0403..	**03200**
30 - 41	G03 70141	WO.X 05T3..	**04100**
39 - 53	G03 70230	WO.X 05T3..	**05300**
51 - 71	G03 70240	WO.X 06T3..	**07100**
64 - 91	G03 70250	WO.X 0804..	**09100**
83 - 124	G03 70260	WO.X 1005..	**12400**

TwinKom – Tool holder 80°

▲ radially adjustable

Scope of supply:
including clamping screw
Order indexable inserts separately





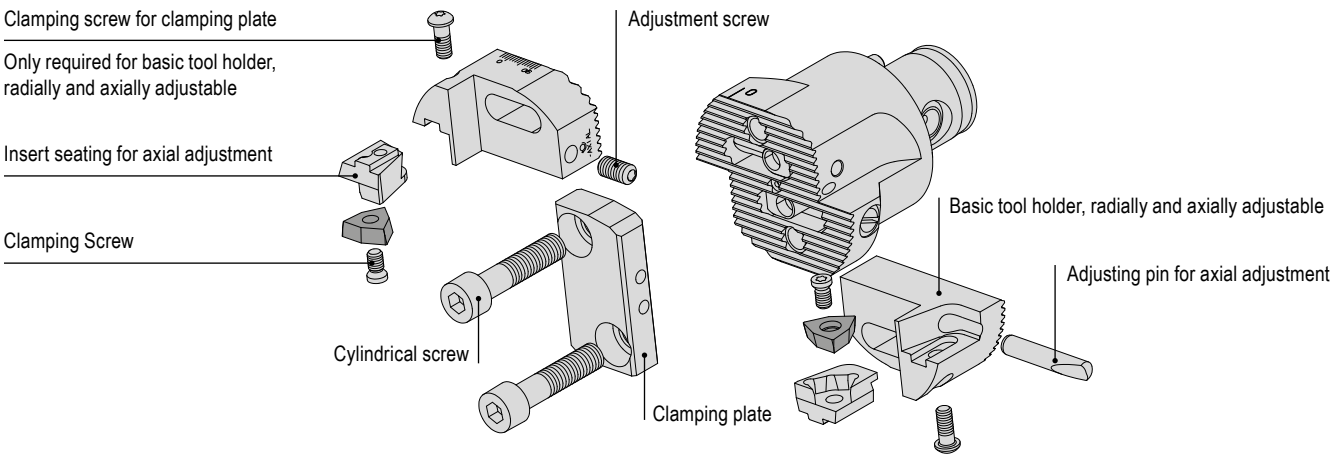
D_{min} - D_{max} mm	KOMET no.	Insert	62 875 ...
24 - 32	G03 80310	WO.X 0403..	**03200**
30 - 41	G03 80021	WO.X 05T3..	**04100**
39 - 53	G03 80090	WO.X 05T3..	**05300**
51 - 71	G03 80100	WO.X 06T3..	**07100**
64 - 91	G03 80110	WO.X 0804..	**09100**
83 - 124	G03 80120	WO.X 1005..	**12400**

Clamping screw

Spare parts D_{min} - D_{max}		10 950 ...
24 - 32	M2.2x5.5 - 06IP	**10700**
30 - 41	M2.5x7.2 - 08IP	**10500**
39 - 53	M2.5x7.2 - 08IP	**10500**
51 - 71	M3.5x7.3 - 10IP	**10600**
64 - 91	M4.5x9 - 15IP	**12700**
83 - 124	M4.5x9 - 15IP	**12700**

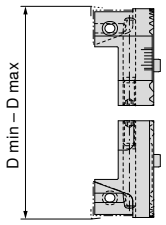
→ **Page 63+64**
Find suitable indexable inserts here.

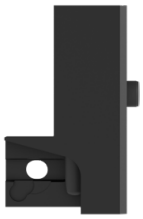
Suitable ABS adapters can be found in → **Chapter 16, Adaptors and Accessories.**



TwinKom – Basic tool holder, radially and axially adjustable

Scope of supply:
Order indexable insert seats and indexable inserts separately



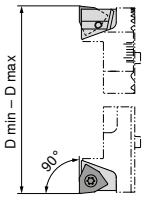


D_{min} - D_{max} mm	KOMET no.	62 872 ...
24 - 32	G03 70011	**03200**
30 - 41	G03 70021	**04100**
39 - 53	G03 70031	**05300**
51 - 71	G03 70041	**07100**
64 - 91	G03 70061	**09100**
83 - 124	G03 70071	**12400**
109 - 167	G03 70081	**16700**
139 - 215	G03 70091	**21500**

TwinKom – Indexable insert, 90°

▲ axially adjustable

Scope of supply:
including clamping screw
Order indexable inserts separately

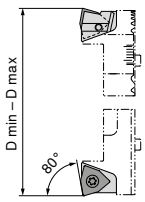


D_{min} - D_{max} mm	KOMET no.	Insert	62 873 ...
24 - 32	D54 60510	WO.X 0302..	**03200**
30 - 41	D54 60520	WO.X 0403..	**04100**
39 - 53	D54 60030	WO.X 05T3..	**05300**
51 - 71	D54 60040	WO.X 06T3..	**07100**
64 - 91	D54 60050	WO.X 0804..	**09100**
83 - 167	D54 60060	WO.X 1005..	**12400**
139 - 215	D54 60070	WO.X 1206..	**21500**

TwinKom – Indexable insert, 80°

▲ axially adjustable

Scope of supply:
including clamping screw
Order indexable inserts separately



D_{min} - D_{max} mm	KOMET no.	Insert	62 874 ...
24 - 32	D54 60610	WO.X 0302..	**03200**
30 - 41	D54 60620	WO.X 0403..	**04100**
39 - 53	D54 60130	WO.X 05T3..	**05300**
51 - 71	D54 60140	WO.X 06T3..	**07100**
64 - 91	D54 60150	WO.X 0804..	**09100**
83 - 167	D54 60160	WO.X 1005..	**16700**
139 - 215	D54 60170	WO.X 1206..	**21500**

Clamping screw

Spare parts D_{min} - D_{max}		10 950 ...
24 - 32	M2.0x4.3 - 06IP	**10000**
30 - 41	M2.2x5.5 - 06IP	**10700**
39 - 53	M2.5x6.3 - 08IP	**10800**
51 - 71	M3.5x6.6 - 10IP	**16400**
64 - 91	M4.5x9 - 15IP	**12700**
83 - 167	M4.5x9 - 15IP	**12700**
139 - 215	M5.5x11 - 20IP	**17400**

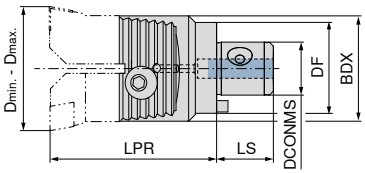
SpinTools – Boring heads for roughing with 2 cutting edges

▲ with through coolant

Scope of supply:

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

STM



D_{min} - D_{max} mm	Adapter	DCONMS mm	BDX mm	DF mm	LPR mm	LS mm	WT kg	62 295 ...
23.5 - 30.5	STM 11	11	20	20	40	13	0.05	**030**
29.5 - 40.1	STM 14	14	25	25	45	16	0.09	**040**
39.5 - 50.5	STM 18	18	32	32	65	20	0.25	**050**
49.5 - 66.5	STM 22	22	42	40	72	24	0.38	**066**
65.5 - 87.5	STM 28	28	55	50	82	30	0.59	**087**

Fillister-head screw

Spring ring

Location Pin

Spare parts for Article no.		62 950 ...		62 950 ...		62 950 ...
62 295 030	M4x8	**298**	Ø 4.3/7.3	**311**		**231**
62 295 040	M5x12	**293**	Ø 5.3/9.3	**312**		**231**
62 295 050	M6x16	**294**	Ø 6.4/10.2	**313**		**231**
62 295 066	M8x20	**295**	Ø 8.4/14.0	**314**		**234**
62 295 087	M10x25	**296**	Ø 10.5/17.0	**315**		**234**

Screw for drivers

Driver

Spare parts for Article no.		62 950 ...		62 950 ...
62 295 030	M2x2.5	**162**	5x8.5x3	**035**
62 295 040	M2.5x6	**163**	6x10.3x4	**036**
62 295 050	M3x8	**164**	8x15x5	**037**
62 295 066	M4x10	**165**	10x18.1x6	**038**
62 295 087	M5x10	**166**	12x20x6	**039**

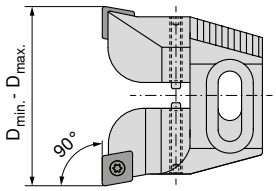
→ **Page 54–59**
Here you will find the suitable base adaptors.

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

→ **Page 10**
Here you will find a detailed system overview.

SpinTools – Pair of tool holders, standard, 90°

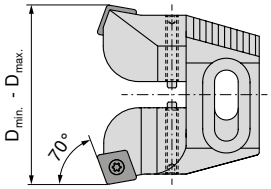
Scope of supply:
Adjustment screws, positioning pin, insert clamping screws



D_{min} - D_{max} mm	Insert	62 296 ...
23.5 - 30.5	CC.. 0602	**030**
29.5 - 40.1	CC.. 0602	**040**
39.5 - 50.5	CC.. 09T3	**050**
49.5 - 66.5	CC.. 09T3	**066**
65.5 - 87.5	CN.. 1204	**088**
65.5 - 87.5	CC.. 1204	**087**

SpinTools – Pair of tool holders, standard, 70°

Scope of supply:
Adjustment screws, positioning pin, insert clamping screws



D_{min} - D_{max} mm	Insert	62 299 ...
23.5 - 30.5	CC.. 0602	**030**
29.5 - 40.1	CC.. 0602	**040**
39.5 - 50.5	CC.. 09T3	**050**
49.5 - 66.5	CC.. 09T3	**066**
65.5 - 87.5	CN.. 1204	**088**
65.5 - 87.5	CC.. 1204	**087**


TORX® Screws


Screwdriver


Adjustment screw

Spare parts D_{min} - D_{max}	Insert	62 950 ...		80 950 ...		62 950 ...	
23.5 - 30.5	CC.. 0602	M2.5x6 - T07	**022**	T07	**109**	M4x0.5x7	**238**
29.5 - 40.1	CC.. 0602	M2.5x6 - T07	**022**	T07	**109**	M4x0.5x9.5	**239**
39.5 - 50.5	CC.. 09T3	M4x9 - T15	**023**	T15	**113**	M4x0.5x13	**240**
49.5 - 66.5	CC.. 09T3	M4x9 - T15	**023**	T15	**113**	M6x14	**241**
65.5 - 87.5	CC.. 1204	M5x10 - T20	**232**	T20	**114**	M6x20	**242**


Shim


Elbow lever screw


Lever

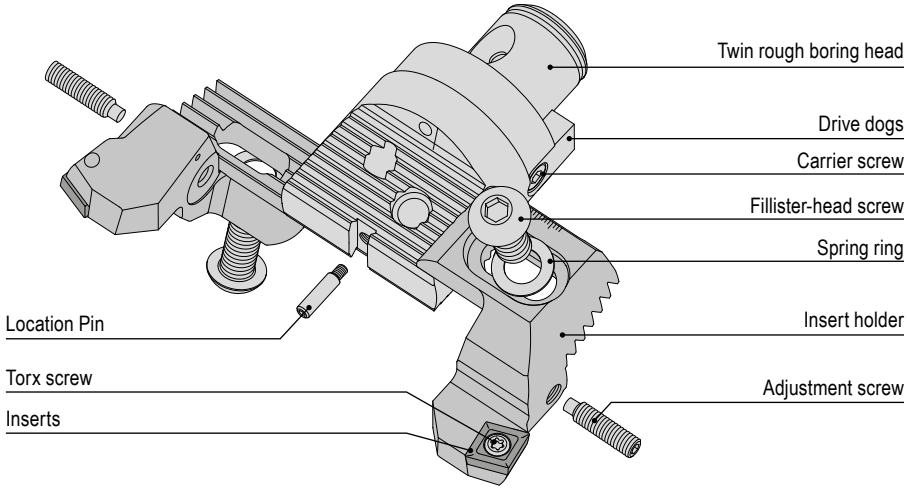

Carbide type C


Adjustment screw

Spare parts D_{min} - D_{max}	Insert	62 950 ...	62 950 ...	62 950 ...	62 950 ...	62 950 ...	
65.5 - 87.5	CN.. 1204	**096**	**136**	**125**	**117**	M6x20	**242**

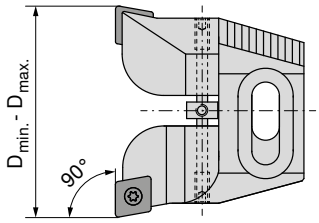
→ **Page 67**
Find suitable indexable inserts here.

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



SpinTools – Pair of tool holders, ‘Synchro’, 90°

Scope of supply:
Insert clamping screws, synchronization screw



D_{min} - D_{max} mm	Insert	62 297 ...
23.5 - 30.5	CC.. 0602	**030**
29.5 - 40.1	CC.. 0602	**040**
39.5 - 50.5	CC.. 09T3	**050**
49.5 - 66.5	CC.. 09T3	**066**
65.5 - 87.5	CC.. 1204	**087**


TORX® Screws

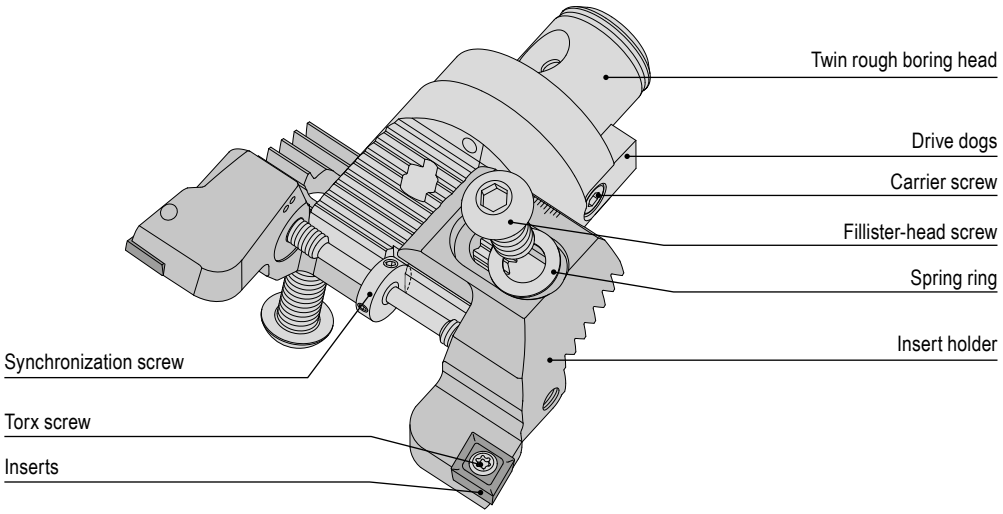

Synchronization screw


Screwdriver

Spare parts for Article no.	62 950 ...		62 950 ...		80 950 ...	
62 297 030	M2.5x6 - T07	**022**	M4x0.5x18	**207**	T07	**109**
62 297 040	M2.5x6 - T07	**022**	M4x0.5x23	**208**	T07	**109**
62 297 050	M4x9 - T15	**023**	M4x0.5x30	**209**	T15	**113**
62 297 066	M4x9 - T15	**023**	M6x40	**210**	T15	**113**
62 297 087	M5x10 - T20	**232**	M6x52	**211**	T20	**114**

→ **Page 67**
Find suitable indexable inserts here.

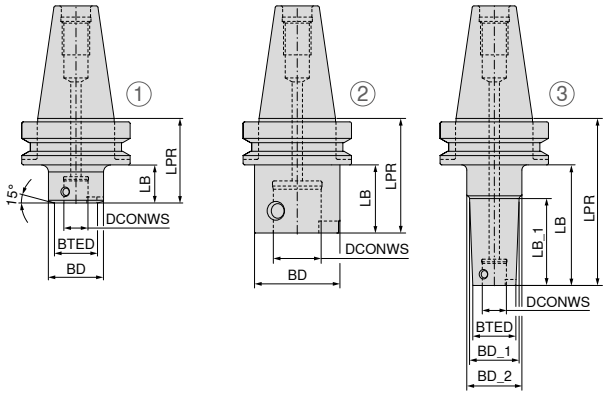
A detailed operating manual is available for download in the online shop next to the product.



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	
short	BT 30	2	STM 28	28		50			55			0.64	**328**
	BT 40	1	STM 11	11	20	32			50	23		1.09	**111** 1)
	BT 40	1	STM 14	14	25	32			50	23		1.08	**114** 1)
	BT 40	2	STM 18	18		32			50	23		1.06	**118**
	BT 40	2	STM 22	22		40			50	23		1.10	**122**
	BT 40	2	STM 28	28		50			50	23		1.14	**128**
	BT 40	2	STM 36	36		63			60	33		1.38	**136**
	BT 50	2	STM 28	28		50			63	25		3.75	**428**
	BT 50	2	STM 36	36		63			63	25		3.78	**436**
long	BT 40	3	STM 11	11	20		23	32	90	63	43	1.20	**211** 1)
	BT 40	3	STM 14	14	25		28	32	90	63	43	1.24	**214** 1)
	BT 40	2	STM 18	18		32			90	63		1.30	**218**
	BT 40	2	STM 22	22		40			100	73		1.57	**222**
	BT 40	2	STM 28	28		50			100	73		1.87	**228**
	BT 40	2	STM 36	36		63			120	93		2.78	**236**
	BT 50	2	STM 36	36		63			120	82		5.18	**536**

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

O-Ring

Clamping screw ST

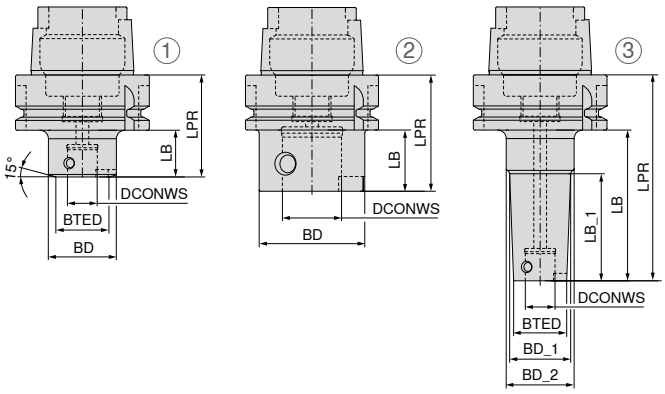
Spare parts DCONWS	O-Ring	**62 950 ...**	Clamping screw ST	**62 950 ...**
11	9x1.5	**254**	M4x0.5x6	**026**
14	12x1.5	**255**	M5x0.5x7.5	**027**
18	16x1.5	**256**	M6x0.75x9.5	**028**
22	19x2	**257**	M8x0.75x12	**029**
28	25x2	**258**	M10x1x14.2	**030**
36	33x2	**259**	M12x1x18	**031**

Suitable pull studs can be found in → **Chapter 16, Adapters and accessories.**

ABS base adapters can be found in → **Chapter 16, Adapters 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	
short	HSK-A 63	1	STM 11	11	20	32			50	24		0.77	**111** [1]
	HSK-A 63	1	STM 14	14	25	32			50	24		0.76	**114** [1]
	HSK-A 63	2	STM 18	18		32			50	24		0.74	**118**
	HSK-A 63	2	STM 22	22		40			50	24		0.79	**122**
	HSK-A 63	2	STM 28	28		50			55	24		0.91	**128**
	HSK-A 63	2	STM 36	36		63			65	34		1.10	**136**
	HSK-A 100	2	STM 28	28		50			63	34		2.32	**428**
	HSK-A 100	2	STM 36	36		63			70	34		2.61	**436**
long	HSK-A 63	3	STM 11	11	20		23	32	90	64	44	0.87	**211** [1]
	HSK-A 63	3	STM 14	14	25		28	32	90	64	44	0.93	**214** [1]
	HSK-A 63	2	STM 18	18		32			90	64		0.98	**218**
	HSK-A 63	2	STM 22	22		40			100	74		1.26	**222**
	HSK-A 63	2	STM 28	28		50			100	74		1.58	**228**
	HSK-A 63	2	STM 36	36		63			120	94		2.41	**236**

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

O-Ring

Clamping screw ST

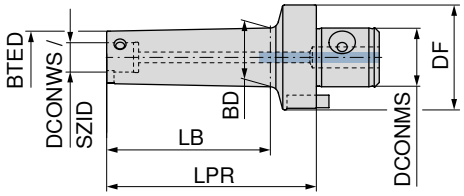
Spare parts DCONWS				
		62 950 ...		**62 950 ...**
11	9x1.5	**254**	M4x0.5x6	**026**
14	12x1.5	**255**	M5x0.5x7.5	**027**
18	16x1.5	**256**	M6x0.75x9.5	**028**
22	19x2	**257**	M8x0.75x12	**029**
28	25x2	**258**	M10x1x14.2	**030**
36	33x2	**259**	M12x1x18	**031**

ABS base adapters can be found in → **Chapter 16, Adapters and accessories.**

SpinTools – Reductions

▲ with through coolant

STM



62 357 ...

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

ABS reductions can be found in → **Chapter 16, Adapters and accessories.**

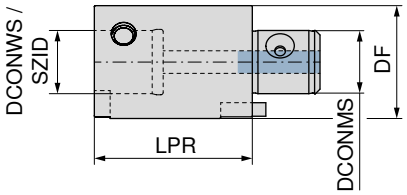
Reductions – Spare Parts

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

SpinTools – Extensions

▲ with through coolant

STM



Adapter	LPR mm	SZID	DCONWS mm	DF mm	DCONMS mm	WT kg	62 351 ...
STM 11	25	STM 11	11	20	11	0.06	**111**
STM 11	35	STM 11	11	20	11	0.09	**211**
STM 14	30	STM 14	14	25	14	0.11	**114**
STM 14	45	STM 14	14	25	14	0.17	**214**
STM 18	40	STM 18	18	32	18	0.23	**118**
STM 18	60	STM 18	18	32	18	0.35	**218**
STM 22	50	STM 22	22	40	22	0.45	**122**
STM 22	80	STM 22	22	40	22	0.73	**222**
STM 28	50	STM 28	28	50	28	0.71	**128**
STM 28	75	STM 28	28	50	28	1.07	**228**
STM 28	100	STM 28	28	50	28	1.44	**328**
STM 36	60	STM 36	36	63	36	1.33	**136**
STM 36	90	STM 36	36	63	36	2.02	**236**
STM 36	120	STM 36	36	63	36	2.72	**336**

O-Ring

Screw for drivers

Driver

Clamping screw ST

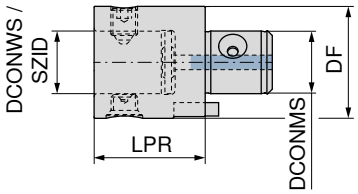
Spare parts DCONWS		62 950 ...		62 950 ...		62 950 ...		62 950 ...
11	9x1.5	**254**	M2x2.5	**162**	5x8.5x3	**035**	M4x0.5x6	**026**
14	12x1.5	**255**	M2.5x6	**163**	6x10.3x4	**036**	M5x0.5x7.5	**027**
18	16x1.5	**256**	M3x8	**164**	8x15x5	**037**	M6x0.75x9.5	**028**
22	19x2	**257**	M4x10	**165**	10x18.1x6	**038**	M8x0.75x12	**029**
28	25x2	**258**	M5x10	**166**	12x20x6	**039**	M10x1x14.2	**030**
36	33x2	**259**	M6x12	**167**	16x26.5x8	**040**	M12x1x18	**031**

ABS extensions can be found in → **Chapter 16, Adapters and accessories.**

SpinTools – ABS/STM adapters

▲ using this adapter, ABS core drilling and precision boring systems can be accommodated reliably and precisely in STM base adapters
▲ with through coolant supply

STM



NEW

62 359 ...

Adapter	LPR mm	SZID	DCONWS mm	DF mm	DCONMS mm	
STM 14	35	ABS 25	13	25	14	**02519**
STM 18	40	ABS 32	16	32	18	**03218**
STM 22	45	ABS 40	20	40	22	**04017**
STM 28	50	ABS 50	28	50	28	**05016**
STM 36	60	ABS 63	34	63	36	**06315**


Clamping screw

62 950 ...

DCONWS	
13	
16	**13989**
20	
28	
34	


Clamping screw

84 950 ...

	26800
	26900
	20300
	25500


Driver

62 950 ...

	036
	037
	038
	039
	040


Taper screw

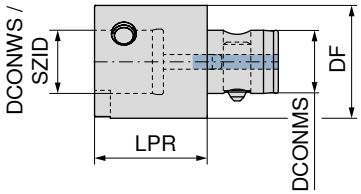
84 950 ...

	27000
	27100
	27200
	20400
	27300

MicroKom – STM/ABS adapters

▲ using this adapter, STM core drilling and precision boring systems can be accommodated reliably and precisely in ABS base adapters
▲ with through coolant supply

ABS



NEW

62 359 ...

Adapter	LPR mm	SZID	DCONWS mm	DF mm	DCONMS mm	
ABS 25	30	STM 14	14	25	13	**02590**
ABS 32	40	STM 18	18	32	16	**03289**
ABS 40	40	STM 22	22	40	20	**04088**
ABS 50	50	STM 28	28	50	28	**05097**
ABS 63	60	STM 36	36	63	34	**06396**


Clamping screw ST

62 950 ...

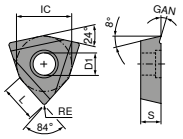
Spare parts

DCONWS	
14	**027**
18	**028**
22	**029**
28	**030**
36	**031**

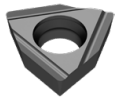
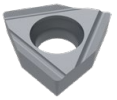
5

WOHX

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



WOHX

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

→ v_c Page 70

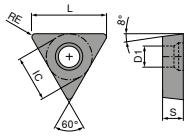
Material group	Guideline recommendation Grade	Chip groove
P	BK8440	-G12
M	BK8440	-G12
K	BK2710	-G12
N	K10	-G12
S	K10	-G12
H1.1	BK8440	-G12
O	K10	-G12

The guideline recommendation shown here is based on experience and serves only to make it easy to find the correct indexable insert for your application.

Additional indexable inserts can be found in our online shop at cuttingtools.ceratizit.com

TOGX

Designation	L	S	D1	IC
	mm	mm	mm	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



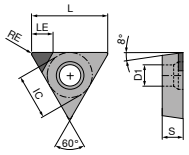
TOGX

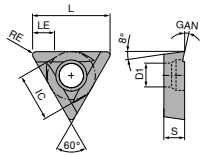
	-18 CK32	-14 CK3230	-14 BK60	-14 BK8430	-12 BK7710	-12 K10
						
	F	F	F	F	F	F
	CERMET TOGX	CERMET TOGX	TOGX	TOGX	TOGX	TOGX
	62 607 ...	62 606 ...	62 601 ...	62 601 ...	62 601 ...	62 601 ...
ISO	KOMET no.	RE mm											
06T102EN	W57 04140.0260	0.2						90206					
06T102EN	W57 04140.028430	0.2								30201			
06T102EN	W57 04140.023230	0.2			10201								
06T102EN	W57 04180.0432	0.4	20401										
06T102FN	W57 04120.027710	0.2										70201	
06T102FN	W57 04120.0223	0.2											50206
090202EN	W57 14140.028430	0.2								33801			
090204EN	W57 14140.048430	0.4								30401			
090204EN	W57 14140.0460	0.4						70409					
090204EN	W57 14140.043230	0.4			11401								
090204EN	W57 14180.0432	0.4	21401										
090204FN	W57 14120.047710	0.4										70401	
090204FN	W57 14120.0423	0.4											50409
140302EN	W57 26140.028430	0.2								34401			
140304EN	W57 26140.0460	0.4						70414					
140304EN	W57 26140.043230	0.4			12601								
140304EN	W57 26180.0432	0.4	22601										
140304FN	W57 26120.047710	0.4										71401	
140304FN	W57 26120.0423	0.4											50414
P			●		●			●		○			
M			●		●			●		○			
K								●		○			
N												●	●
S										●		○	●
H										●		○	
O												○	●

→ v_c Page 70

TOGX / TOEX / TOHX

Designation	L	S	D1	IC	LE
	mm	mm	mm	mm	mm
TO.X 06T1..	6.64	1.80	2.2	4.0	1.8
TO.X 0902..	9.12	2.50	2.8	5.6	2.7
TO.X 1403..	13.62	3.00	3.8	8.2	2.7
TOHX 06T1..	6.50	1.80	2.2	4.0	1.0
TOHX 0902..	9.12	2.50	2.8	5.6	2.5
TOHX 1403..	13.62	3.00	3.8	8.2	4.5





TOGX / TOEX / TOHX

	CBN40	CTDPU20	-G12 BK8425	-G06 BK2710	-G06 BK6110	-G06 BK7615
						
	F	F	F	F	F	F
	TOGX	DIAMOND TOEX	TOHX	TOHX	TOHX	TOHX
	62 601 ...	62 605 ...	62 603 ...	62 602 ...	62 602 ...	62 602 ...

ISO	KOMET no.	RE											
		mm											
06T102FN	W30 04990.025510	0.2			00201								
06T102TN	W30 04990.0240	0.2	60206										
06T103EL	W30 04120.038425	0.3				30200							
06T103EL	W30 04060.037615	0.3										80606	
06T103EL	W30 04060.036110	0.3								40606			
06T103EL	W30 04060.032710	0.3						10606					
090204EL	W30 14120.048425	0.4				31800							
090204EL	W30 14060.047615	0.4										80409	
090204EL	W30 14060.046110	0.4								40409			
090204EL	W30 14060.042710	0.4						10409					
090204FN	W30 14990.045510	0.4			01401								
090204TN	W30 14990.0440	0.4	60409										
140304EL	W30 26120.048425	0.4				32600							
140304EL	W30 26060.047615	0.4										82600	
140304EL	W30 26060.046110	0.4								40414			
140304EL	W30 26060.042710	0.4						12600					
140304FN	W30 26990.045510	0.4			02601								
140304TN	W30 26990.0440	0.4	62600										

P						●		●		●			
M						●		●		●			
K						●		●		●		●	
N					●	○							
S						●		●					
H		●				○				●			
O					●								

→ v_c Page 70

Material group	Guideline recommendation	
	Grade	Chip groove
P	BK60	-14
M	BK2710	-G06
K	BK7615	-G06
N	BK7710	-12
S1.1 – S2.3	BK2710	-G06
S3.1 – S3.3	BK7710	-12
H	CBN40	
O	BK7710	-12

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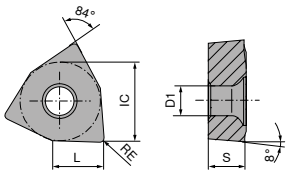
WOEX / WOGX

Designation	L	S	D1	IC
	mm	mm	mm	mm
WO.X 0302..	3.2	2.30	2.30	5.00
WO.X 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
WOEX 1206..	11.6	6.00	5.95	17.60



WOEX

	-01 BK8425	-01 BK7935	-01 BK7615	-11 BK77
	WOEX	WOEX	WOEX	WOEX
	10 821 ...	10 821 ...	10 821 ...	10 821 ...
ISO	KOMET no.	RE mm						
020102	W29 04010.027935	0.2		50201				
030204	W29 10010.047935	0.4		50301				
030204	W29 10110.0477	0.4						80311
030204	W29 10010.047615	0.4				05301		
030204	W29 10010.048425	0.4	30301					
040304	W29 18010.047935	0.4		50401				
040304	W29 18110.0477	0.4						80411
040304	W29 18010.047615	0.4				05401		
040304	W29 18010.048425	0.4	30401					
05T304	W29 24010.047935	0.4		50501				
05T304	W29 24110.0477	0.4						80511
05T304	W29 24010.047615	0.4				05501		
05T304	W29 24010.048425	0.4	30501					
06T304	W29 34010.047935	0.4		50601				
06T304	W29 34110.0477	0.4						80611
06T304	W29 34010.047615	0.4				05601		
06T304	W29 34010.048425	0.4	30601					
080404	W29 42010.047935	0.4		50801				
080404	W29 42110.0477	0.4						80811
080404	W29 42010.047615	0.4				05801		
080404	W29 42010.048425	0.4	30801					
100504	W29 50010.047935	0.4		51001				
100504	W29 50110.0477	0.4						81011
100504	W29 50010.047615	0.4				06001		
100504	W29 50010.048425	0.4	31001					
100508	W29 50010.088425	0.8	39001					
100508	W29 50010.087615	0.8				08001		
120608	W29 58010.087935	0.8		53201				
120608	W29 58010.087615	0.8				08201		
120608	W29 58010.088425	0.8	31201					
P			●	●				
M			●	●				
K			●	●		●		
N			○	○				
S			●	●				●
H			○					○
O								○

→ v_c Page 70

WOEX / WOGX

			-01 BK6115	-02 BK6440	-15 BK8430	-11 BK7710
						
			WOEX	WOEX	WOGX	WOEX
			10 821 ...	10 821 ...	10 821 ...	10 821 ...
ISO	KOMET no.	RE mm				
030204	W29 10150.048430	0.4			00315	
030204	W29 10110.047710	0.4				90311
030204	W29 10010.046115	0.4	40301			
040304	W29 18150.048430	0.4			00415	
040304	W29 18110.047710	0.4				90411
040304	W29 18010.046115	0.4	40401			
05T304	W29 24020.046440	0.4		25502		
05T304	W29 24110.047710	0.4				90511
05T304	W29 24150.048430	0.4			00515	
05T304	W29 24010.046115	0.4	40501			
06T304	W29 34020.046440	0.4		25602		
06T304	W29 34110.047710	0.4				90611
06T304	W29 34150.048430	0.4			00615	
06T304	W29 34010.046115	0.4	40601			
080404	W29 42020.046440	0.4		25802		
080404	W29 42110.047710	0.4				90811
080404	W29 42150.048430	0.4			00815	
080404	W29 42010.046115	0.4	40801			
100504	W29 50020.046440	0.4		26002		
100504	W29 50110.047710	0.4				91011
100504	W29 50010.046115	0.4	41001			
120608	W29 58020.086440	0.8		21202		
120608	W29 58010.086115	0.8	41201			
P			●	●	○	
M			●	●	○	
K			●		○	
N						●
S					●	○
H			○		●	○
O						○

→ v_c Page 70

Material group	Guideline recommendation Grade / chip breaker
P	BK8425 / -01
M	BK7935 / -01
K	BK7615 / -01
N	BK7710 / -11
S1.1 – S2.3	BK7935 / -01
S3.1 – S3.3	BK7710 / -11
O	BK7710 / -11

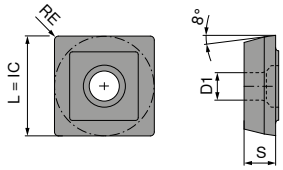
Material group	Maximum feed values						
	WO.X 0302	WO.X 0403	WO.X 05T3	WO.X 06T3	WO.X 0804	WO.X 1005	WO.X 1206
	a_p max. (mm)						
P	1.5	2.5	4.5	6.0	7.5	9.0	9.0
M	1.0	1.5	3.5	4.0	6.0	9.0	9.0
K	1.5	3.0	5.0	6.0	7.5	9.0	9.0
N	2.0	3.0	5.0	6.0	7.5	9.0	9.0
S	1.0	1.5	3.5	4.0	6.0	9.0	9.0
O	1.0	1.5	3.5	4.0	7.5	9.0	9.0

The guideline recommendation shown here is based on experience and serves only to make it easy to find the correct indexable insert for your application.

Additional indexable inserts can be found in our online shop at cuttingtools.ceratizit.com

SOEX

Designation	L	IC	D1	S
	mm	mm	mm	mm
SOEX 0502..	5.56	5.56	2.30	2.38
SOEX 0603..	6.35	6.35	2.65	3.18
SOEX 07T3..	7.94	7.94	2.85	3.58
SOEX 0904..	9.52	9.52	4.10	4.37
SOEX 1205..	12.70	12.70	5.20	5.16



SOEX

			-01 BK8425	-01 BK7615	-01 BK7935
					
			SOEX	SOEX	SOEX
			10 822 ...	**10 822 ...**	**10 822 ...**
ISO	KOMET no.	RE mm			
050204	W83 13010.047615	0.4		**05501**	
050204	W83 13010.047935	0.4			**50501**
050204	W83 13010.048425	0.4	**30501**		
060306	W83 18010.067615	0.6		**05601**	
060306	W83 18010.067935	0.6			**50601**
060306	W83 18010.068425	0.6	**30601**		
07T308	W83 23010.087615	0.8		**05701**	
07T308	W83 23010.087935	0.8			**50701**
07T308	W83 23010.088425	0.8	**30701**		
090408	W83 32010.087615	0.8		**05901**	
090408	W83 32010.087935	0.8			**50901**
090408	W83 32010.088425	0.8	**30901**		
120508	W83 44010.087615	0.8		**06201**	
120508	W83 44010.087935	0.8			**51201**
120508	W83 44010.088425	0.8	**31201**		
P			●		●
M			●		●
K			●	●	●
N			○		○
S			●		●
H			○		
O					○

→ v_c Page 76

Material group	Maximum feed values						
	SOEX 0502	SOEX 0603	SOEX 07T3	SOEX 0904		SOEX 1205	
				Ø 39 – 53 mm	Ø 51 – 71 mm	Ø 64 – 91 mm	Ø 83 – 124 mm
	a_p max. (mm)						
P	2.5	2.5	4.5	4.5	6.0	7.5	9.0
M	1.5	1.5	3.5	3.5	4.0	6.0	9.0
K	3.0	3.0	5.0	5.0	6.0	7.5	9.0
N	3.0	3.0	5.0	5.0	6.0	7.5	9.0
S	1.5	1.5	3.5	3.5	4.0	6.0	9.0
O	1.5	1.5	3.5	3.5	4.0	7.5	9.0

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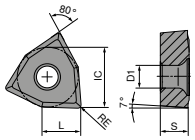
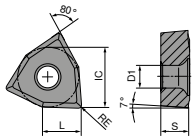
WCMT / WCGT

Designation	L	S	D1	IC
	mm	mm	mm	mm
WC.T 0201..	2.71	1.59	2.1	3.97

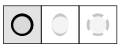
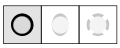
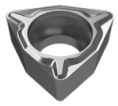
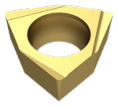


WCMT



WCGT

WCMT / WCGT

	-SF30	-SF20	-SF16
	CWC06	CWN10	CWP25
			
			
	F	F	F
	CERMET		
	WCMT	WCGT	WCGT
	70 294 ...	70 295 ...	70 295 ...

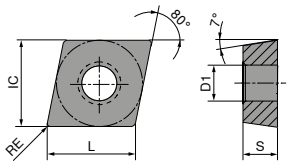
ISO	RE					
	mm					
020102	0.2	850		850		500
020104	0.4			852		
P		●		●		●
M		○		●		●
K		●		●		○
N		●		●		●
S				●		
H				●		
O						

→ v_c Page 71

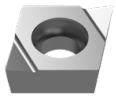
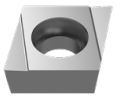
Additional indexable inserts can be found in → **Chapter 9, Indexable insert turning tools**
or in our online shop at cuttingtools.ceratizit.com

CCGT

Designation	L	S	D1	IC
	mm	mm	mm	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
		CERMET	CERMET
	CCGT	CCGT	CCGT
	70 296 ...	70 296 ...	70 300 ...

ISO	RE					
	mm					
060202L	0.2	300		850		903
060204L	0.4	302		852		905
09T302L	0.2	304		854		911
09T304L	0.4	306		856		913
P		●		●		●
M		●		○		●
K		●		●		●
N		●		●		
S		●				
H		●				
O						

→ v_c Page 71

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Material examples for cutting data tables

	Material sub-group	Index	Composition / Structure / Heat treatment		Tensile strength lbf/in²* / HB / HRC	Material number	Material designation	Material number	Material designation
P	Unalloyed steel	P.1.1	< 0.15 % C	Annealed	60900 lbf/in² / 125 HB	1.0401	1015	1.0301	1010
		P.1.2	< 0.45 % C	Annealed	92800 lbf/in² / 190 HB	1.1191	1045	1.0737	12L14
		P.1.3		Tempered	121800 lbf/in² / 250 HB	1.1191	1045	1.0503	1043
		P.1.4	< 0.75 % C	Annealed	132000 lbf/in² / 270 HB	1.1223	1060	1.0535	1055
		P.1.5		Tempered	146500 lbf/in² / 300 HB	1.1223	1060	1.1274	1095
	Low-alloy steel	P.2.1		Annealed	88500 lbf/in² / 180 HB	1.7131	5115	1.6523	8620
		P.2.2		Tempered	134900 lbf/in² / 275 HB	1.7131	5115	1.6582	4340
		P.2.3		Tempered	146500 lbf/in² / 300 HB	1.7225	4142	1.7131	5115
		P.2.4		Tempered	174000 lbf/in² / 375 HB	1.7225	4142	17223	4140
	High-alloy steel and high-alloy tool steel	P.3.1		Annealed	98600 lbf/in² / 200 HB	1.4021	420	1.2379	D2
		P.3.2		Hardened and tempered	159500 lbf/in² / 300 HB	1.2343	H11	1.3343	M2
		P.3.3		Hardened and tempered	188500 lbf/in² / 400 HB	1.2343	H11	1.2363	A2
	Stainless steel	P.4.1	Ferritic / martensitic	Annealed	98600 lbf/in² / 200 HB	1.4016	430	1.4125	440C
		P.4.2	Martensitic	Tempered	117500 lbf/in² / 250 HB	1.4112	S44003	1.4021	420
M	Stainless steel	M.1.1	Austenitic / austenitic-ferritic	Quenched	88500 lbf/in² / 200 HB	1.4301	304	1.4401	316
		M.2.1	Austenitic	Tempered	300 HB	1.4841	314	1.4568	17-7 PH
		M.3.1	Austenitic / ferritic (Duplex)		113100 lbf/in² / 230 HB	1.4462	S32205	1.4410	S32750
K	Grey cast iron	K.1.1	Pearlitic / ferritic		88500 lbf/in² / 180 HB	0.6010	A48-20B	0.6025	A48-40 B
		K.1.2	Pearlitic (martensitic)		127600 lbf/in² / 260 HB	0.6030	A48-45B	0.6040	A48-60 B
	Spherulitic graphite cast iron	K.2.1	Ferritic		78300 lbf/in² / 160 HB	0.7040	60-40-18	0.7050	65-45-12
		K.2.2	Pearlitic		122600 lbf/in² / 250 HB	0.7070	100-70-03	0.7660	A439 Type D2
	Malleable iron	K.3.1	Ferritic		63800 lbf/in² / 130 HB	0.8035	GTW-35-04		
		K.3.2	Pearlitic		113100 lbf/in² / 230 HB	0.8170	70003		
N	Aluminium wrought alloy	N.1.1	Non-hardenable		60 HB	3.0255	A91060	3.0255	A91060
		N.1.2	Hardenable		49300 lbf/in² / 100 HB	3.1355	2024	3.1355	2024
	Cast aluminium alloy	N.2.1	≤ 12 % Si, non-hardenable		36300 lbf/in² / 75 HB	3.2581	A04130 / A413-0	3.2581	A04130 / A413-0
		N.2.2	≤ 12 % Si, hardenable		43500 lbf/in² / 90 HB	3.2134	G-AlSi5Cu1Mg		
		N.2.3	> 12 % Si, non-hardenable		63800 lbf/in² / 130 HB		G-AlSi17Cu4Mg		
	Copper and copper alloys (bronze/brass)	N.3.1	Free-machining alloys, PB > 1 %		54400 lbf/in² / 110 HB	2.0380	CuZn39Pb2 (Ms58)	2.0380	C37700
		N.3.2	CuZn, CuSnZn		43500 lbf/in² / 90 HB	2.0331	CuZn15	2.0331	C34000
		N.3.3	CuSn, lead-free copper and electrolytic copper		49300 lbf/in² / 100 HB	2.0060	E-Cu57		
	Magnesium alloys	N.4.1	Magnesium and magnesium alloys		70 HB	3.5612	MgAl6Zn		
S	Heat-resistant alloys	S.1.1	Fe - basis	Annealed	98600 lbf/in² / 200 HB	1.4864	X12NiCrSi 36-16	1.4864	330
		S.1.2			137800 lbf/in² / 280 HB	1.4980	X6NiCrTiMoVB25-15-2	1.4980	S66286
		S.2.1	Ni or Co basis	Annealed	121800 lbf/in² / 250 HB	2.4856	Inconel 625	2.4812	Hastelloy C
		S.2.2			171100 lbf/in² / 350 HB	2.4952	Nimonic 80A	2.4668	Inconel 718
		S.2.3		Cast	156600 lbf/in² / 320 HB	2.4674	Nimocast PK24	2.4670	Nimocast 713
	Titanium alloys	S.3.1	Pure titanium		5800 lbf/in²	3.7025	Ti99,8		
		S.3.2	Alpha + beta alloys		152300 lbf/in²	3.7165	TiAl6V4		
		S.3.3	Beta alloys		203100 lbf/in² / 410 HB	Ti555.3	Ti-5Al-5V-5Mo-3Cr		
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		≤ 21800 lbf/in²				
		O.1.2	Plastics, thermoplastic		≤ 14500 lbf/in²				
		O.2.1	Aramid fibre-reinforced		≤ 145000 lbf/in²				
		O.2.2	Glass/carbon-fibre reinforced		≤ 145000 lbf/in²				
		O.3.1	Graphite						

*** Tensile Strength at Rupture (Rm)**

Cutting data standard values for indexable inserts – MicroKom tools

Index	Indexable inserts for ...												
	MicroKom												
	62 800 ..., 62 810 ..., 62 815 ..., 62 820 ..., 62 840 ..., 67 800 ...												
	K10	BK 2710	BK 60	BK 6110	BK 7615	BK 7710	BK 8425	BK 8430	BK 8440	CBN 40	CTDPU 20	CK 3230	CK 32
	v_c (ft/min)												
P.1.1		750	890	980			850	660	560			1150	1150
P.1.2		750	890	980			850	660	560			1150	1150
P.1.3		750	890	980			890	660	560			1150	1150
P.1.4		690	820	980			790	590	490			1050	1050
P.1.5		690	820	980			750	590	490			1050	1050
P.2.1		590	690	890			890	520	460			920	920
P.2.2		590	690	890			850	520	460			920	920
P.2.3		590	690	890			590	520	460			920	920
P.2.4		590	690	890			490	520	460			920	920
P.3.1		520	620	820			520	460	390			820	820
P.3.2		520	620	820			430	460	390			820	820
P.3.3		520	620	820			390	460	390			820	820
P.4.1		460	520	720			590	390	330			690	690
P.4.2		460	520	720			430	390	330			690	690
M.1.1		590	920	720			490	520	460			920	920
M.2.1		520	820	720			490	460	390			820	820
M.3.1		390	590	660			430	330	300			590	590
K.1.1		690	690	950	950		520	590	490				
K.1.2		590	590	950	950		390	520	460				
K.2.1		520	520	890	890		520	460	390				
K.2.2		520	520	820	820		330	460	390				
K.3.1		460	460	720	720		390	390	330				
K.3.2		460	460	720	720		330	390	330				
N.1.1	820					1970	1310				1640		
N.1.2	820					1640	1310				1640		
N.2.1	820					1310	820				1640		
N.2.2	820					980	820				1640		
N.2.3	820					820	750				1640		
N.3.1	750					1310	660				1480		
N.3.2	750					980	720				1480		
N.3.3	750					980	1080				1480		
N.4.1	750					980	660				1480		
S.1.1	70	200				200	200	200					
S.1.2	70	160				200	160	160					
S.2.1	70	200				200	200	200					
S.2.2	70	160				200	160	160					
S.2.3	70	100				200	100	100					
S.3.1	200	330				260	330	330					
S.3.2	100	260				260	260	260					
S.3.3	100	160				260	160	160					
H.1.1				330		260	330	330	300	520			
H.1.2				260		130	260	260	230	610			
H.1.3				160		130	160	160	130	710			
H.1.4						130				790			
H.2.1				330		260	330	330	300				
H.3.1				260		260	260	260	230				
O.1.1	330					330					1640		
O.1.2	330					330					1640		
O.2.1											1640		
O.2.2	330					330					980		
O.3.1	330					330					980		

Index	TwinKom							
	62 881 ...							
	BK 6115	BK 6440	BK 7615	BK 77	BK 7710	BK 7935	BK 8425	BK 8430
	v_c (ft/min)							
P.1.1	980	790				820	850	660
P.1.2	980	790				720	850	660
P.1.3	890	720				890	890	660
P.1.4	820	720				790	790	590
P.1.5	890	720				660	750	590
P.2.1	890	660				890	890	520
P.2.2	850	660				850	850	520
P.2.3	790	660				520	590	520
P.2.4	620	660				430	490	520
P.3.1	660	590				460	520	460
P.3.2	520	520				360	430	460
P.3.3	460	520				330	390	460
P.4.1	720	460				520	590	390
P.4.2	520	460				360	430	390
M.1.1	720	660				520	490	520
M.2.1	720	590				520	490	460
M.3.1	660	520				490	430	330
K.1.1	790		950			490	520	590
K.1.2	460		950			360	390	520
K.2.1	520		890			490	520	460
K.2.2	330		820			300	330	460
K.3.1	390		720			360	390	390
K.3.2	330		720			300	330	390
N.1.1					1970	1310	1310	
N.1.2					1640	1310	1310	
N.2.1					1310	820	820	
N.2.2					980	820	820	
N.2.3					820	750	750	
N.3.1					1310	660	660	
N.3.2					980	720	720	
N.3.3					980	1080	1080	
N.4.1					980	660	660	
S.1.1				160	200	160	200	200
S.1.2				130	200	130	160	160
S.2.1				160	200	160	200	200
S.2.2				130	200	130	160	160
S.2.3				100	200	100	100	100
S.3.1				230	260	230	330	330
S.3.2				200	260	200	260	260
S.3.3				130	260	130	160	160
H.1.1	330			130	260		330	330
H.1.2	260			100	130		260	260
H.1.3	160			70	130		160	160
H.1.4					130			
H.2.1	330			130	260		330	330
H.3.1	260			100	260		260	260
O.1.1				330	330			
O.1.2				330	330			
O.2.1								
O.2.2				330	330			
O.3.1				330	330			

→ v_c Page 69 → $n_{max.}$ Page 80+82 → LTA Page 80+82

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, the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length (LTA).

Cutting data standard values for indexable inserts – MicroKom tools

Index	Indexable inserts for ...																			
	MicroKom													TwinKom						
	62 800 ..., 62 810 ..., 62 815 ..., 62 820 ..., 62 840 ...													62 870 ...						
	K10	BK 2710	BK 60	BK 6110	BK 7615	BK 7710	BK 8425	BK 8430	BK 8440	CBN 40	CTDPU 20	CK 3230	CK 32	BK 6115	BK 6440	BK 7615	BK 77	BK 7710	BK 7935	BK 8425	BK 8430
	v_c (m/min)													v_c (m/min)							
P.1.1		230	270	300			260	200	170			350	350	300	240				250	260	200
P.1.2		230	270	300			260	200	170			350	350	300	240				220	260	200
P.1.3		230	270	300			270	200	170			350	350	270	220				270	270	200
P.1.4		210	250	300			240	180	150			320	320	250	220				240	240	180
P.1.5		210	250	300			230	180	150			320	320	270	220				200	230	180
P.2.1		180	210	270			270	160	140			280	280	270	200				270	270	160
P.2.2		180	210	270			260	160	140			280	280	260	200				260	260	160
P.2.3		180	210	270			180	160	140			280	280	240	200				160	180	160
P.2.4		180	210	270			150	160	140			280	280	190	200				130	150	160
P.3.1		160	190	250			160	140	120			250	250	200	180				140	160	140
P.3.2		160	190	250			130	140	120			250	250	160	160				110	130	140
P.3.3		160	190	250			120	140	120			250	250	140	160				100	120	140
P.4.1		140	160	220			180	120	100			210	210	220	140				160	180	120
P.4.2		140	160	220			130	120	100			210	210	160	140				110	130	120
M.1.1		180	280	220			150	160	140			280	280	220	200				160	150	160
M.2.1		160	250	220			150	140	120			250	250	220	180				160	150	140
M.3.1		120	180	200			130	100	90			180	180	200	160				150	130	100
K.1.1		210	210	290	290		160	180	150					240		290			150	160	180
K.1.2		180	180	290	290		120	160	140					140		290			110	120	160
K.2.1		160	160	270	270		160	140	120					160		270			150	160	140
K.2.2		160	160	250	250		100	140	120					100		250			90	100	140
K.3.1		140	140	220	220		120	120	100					120		220			110	120	120
K.3.2		140	140	220	220		100	120	100					100		220			90	100	120
N.1.1	250					600	400				500							600	400	400	
N.1.2	250					500	400				500							500	400	400	
N.2.1	250					400	250				500							400	250	250	
N.2.2	250					300	250				500							300	250	250	
N.2.3	250					250	230				500							250	230	230	
N.3.1	230					400	200				450							400	200	200	
N.3.2	230					300	220				450							300	220	220	
N.3.3	230					300	330				450							300	330	330	
N.4.1	230					300	200				450							300	200	200	
S.1.1	20	60				60	60	60									50	60	50	60	60
S.1.2	20	50				60	50	50									40	60	40	50	50
S.2.1	20	60				60	60	60									50	60	50	60	60
S.2.2	20	50				60	50	50									40	60	40	50	50
S.2.3	20	30				60	30	30									30	60	30	30	30
S.3.1	60	100				80	100	100									70	80	70	100	100
S.3.2	30	80				80	80	80									60	80	60	80	80
S.3.3	30	50				80	50	50									40	80	40	50	50
H.1.1				100		80	100	100	90	160				100			40	80		100	100
H.1.2				80		40	80	80	70	185				80			30	40		80	80
H.1.3				50		40	50	50	40	215				50			20	40		50	50
H.1.4						40				240								40			
H.2.1				100		80	100	100	90					100			40	80		100	100
H.3.1				80		80	80	80	70					80			30	80		80	80
O.1.1	100					100					500						100	100			
O.1.2	100					100					500						100	100			
O.2.1											500										
O.2.2	100					100					300						100	100			
O.3.1	100					100					300						100	100			

→ v_c Page 70+71 → $n_{max.}$ Page 80+82 → LTA Page 80+82

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, the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length (LTA).

Cutting data standard values for indexable inserts – SpinTools tools

Index	Indexable inserts for ...									Boring steel	Inserts Cutting insert
	62 295 ...					62 303 ..., 62 304 ..., 62 305 ..., 62 308 ..., 62 326 ..., 62 332 ..., 62 333 ..., 62 363 ..., 62 372 ..., 62 373 ...				62 346 ...	62 383 ..., 62 384 ...
	CTCP125 (HCX1125)	CTCP115 (HCX1115)	CTCP135 (HCR1135)	CTC2135 (CWN2135)	H10T (CWK15)	CWN10	CWP25	CWC06	CWC10	HM uncoated	Solid carbide TiN
	v_c (m/min)					v_c (m/min)				v_c (m/min)	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

→ v_c Page 70+71 → $n_{max.}$ Page 80+82 → LTA Page 80+82

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, the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length (LTA).

Cutting data standard values for precision adjustment heads – MicroKom

Index	62 820 …, 62 840 …, 62 800 …, 67 800 … BluFlex 2, hi.flex – Fine machining with depth of cut a_p = .004 – .008 inch				62 800 06089 hi.flex micro – Fine machining with depth of cut a_p = .004 – .008 inch			● 1st choice ○ suitable		
	Ø .020" – .220"	Ø .220" – .315"	Ø .315" – .472"	Ø .472" – 14.37"	Ø .020" – .315"	Ø .315" – .472"	Ø .472" – 2.362"	Emulsion	Compressed air	MQL
	f (inch/rev)				f (inch/rev)					
P.1.1	.001 – .002	.001 – .002	.002 – .003	.003 – .004	.001 – .002	.002 – .003	.003 – .004	●	○	
P.1.2	.001 – .002	.001 – .002	.002 – .003	.003 – .005	.001 – .002	.002 – .003	.003 – .005	●	○	
P.1.3	.001 – .002	.001 – .002	.002 – .002	.003 – .005	.001 – .002	.002 – .002	.003 – .005	●	○	
P.1.4	.001 – .002	.001 – .002	.002 – .002	.003 – .004	.001 – .002	.002 – .002	.003 – .004	●	○	
P.1.5	.001 – .002	.001 – .002	.002 – .003	.003 – .005	.001 – .002	.002 – .003	.003 – .005	●	○	
P.2.1	.001 – .002	.001 – .002	.002 – .002	.003 – .005	.001 – .002	.002 – .002	.003 – .005	●	○	
P.2.2	.001 – .002	.001 – .002	.002 – .002	.003 – .004	.001 – .002	.002 – .002	.003 – .004	●	○	
P.2.3	.001 – .002	.001 – .001	.002 – .002	.003 – .004	.001 – .002	.002 – .002	.003 – .004	●	○	
P.2.4	.001 – .002	.001 – .001	.001 – .002	.002 – .003	.001 – .002	.001 – .002	.002 – .003	●	○	
P.3.1	.001 – .002	.001 – .001	.002 – .002	.002 – .003	.001 – .002	.002 – .002	.002 – .003	●	○	
P.3.2	.001 – .002	.001 – .001	.001 – .002	.002 – .003	.001 – .002	.001 – .002	.002 – .003	●	○	
P.3.3	.001 – .002	.001 – .001	.001 – .002	.002 – .003	.001 – .002	.001 – .002	.002 – .003	●	○	
P.4.1	.001 – .002	.001 – .001	.002 – .002	.003 – .004	.001 – .002	.002 – .002	.003 – .004	●	○	
P.4.2	.001 – .002	.001 – .001	.001 – .002	.002 – .003	.001 – .002	.001 – .002	.002 – .003	●	○	
M.1.1	.001 – .002	.000 – .001	.002 – .002	.003 – .004	.001 – .002	.002 – .002	.003 – .004	●	○	
M.2.1	.001 – .002	.000 – .001	.001 – .002	.002 – .003	.001 – .002	.001 – .002	.002 – .003	●	○	
M.3.1	.001 – .002	.000 – .001	.001 – .002	.002 – .003	.001 – .002	.001 – .002	.002 – .003	●	○	
K.1.1	.001 – .002	.002 – .002	.002 – .003	.004 – .006	.001 – .002	.002 – .003	.004 – .006	○	●	
K.1.2	.001 – .002	.002 – .002	.002 – .003	.004 – .006	.001 – .002	.002 – .003	.004 – .006	○	●	
K.2.1	.001 – .002	.001 – .002	.002 – .003	.004 – .006	.001 – .002	.002 – .003	.004 – .006	○	●	
K.2.2	.001 – .002	.001 – .001	.002 – .003	.003 – .005	.001 – .002	.002 – .003	.003 – .005	○	●	
K.3.1	.001 – .002	.001 – .002	.002 – .003	.004 – .006	.001 – .002	.002 – .003	.004 – .006	○	●	
K.3.2	.001 – .002	.001 – .001	.002 – .003	.003 – .005	.001 – .002	.002 – .003	.003 – .005	○	●	
N.1.1	.001 – .002	.000 – .001	.002 – .002	.003 – .004	.001 – .002	.002 – .002	.003 – .004	●	○	
N.1.2	.001 – .002	.000 – .001	.002 – .002	.003 – .004	.001 – .002	.002 – .002	.003 – .004	●	○	
N.2.1	.001 – .002	.002 – .002	.002 – .003	.003 – .005	.001 – .002	.002 – .003	.003 – .005	●	○	
N.2.2	.001 – .002	.002 – .002	.002 – .003	.003 – .005	.001 – .002	.002 – .003	.003 – .005	●	○	
N.2.3	.001 – .002	.002 – .002	.002 – .003	.003 – .005	.001 – .002	.002 – .003	.003 – .005	●	○	
N.3.1	.001 – .002	.000 – .001	.001 – .002	.002 – .003	.001 – .002	.001 – .002	.002 – .003	●	○	
N.3.2	.001 – .002	.000 – .001	.001 – .002	.002 – .003	.001 – .002	.001 – .002	.002 – .003	●	○	
N.3.3	.001 – .002	.002 – .002	.002 – .003	.004 – .006	.001 – .002	.002 – .003	.004 – .006	●	○	
N.4.1	.001 – .002	.000 – .001	.001 – .002	.002 – .003	.001 – .002	.001 – .002	.002 – .003	●	○	
S.1.1	.001 – .003	.000 – .001	.001 – .002	.002 – .003	.001 – .003	.001 – .002	.002 – .003	●	○	
S.1.2	.001 – .003	.000 – .001	.001 – .001	.002 – .002	.001 – .003	.001 – .001	.002 – .002	●	○	
S.2.1	.001 – .003	.000 – .001	.001 – .002	.002 – .003	.001 – .003	.001 – .002	.002 – .003	●	○	
S.2.2	.001 – .003	.000 – .001	.001 – .001	.002 – .002	.001 – .003	.001 – .001	.002 – .002	●	○	
S.2.3	.001 – .003	.000 – .001	.002 – .003	.002 – .002	.001 – .003	.002 – .003	.002 – .002	●	○	
S.3.1	.001 – .003	.000 – .001	.001 – .002	.002 – .003	.001 – .003	.001 – .002	.002 – .003	●	○	
S.3.2	.001 – .003	.000 – .001	.001 – .002	.002 – .003	.001 – .003	.001 – .002	.002 – .003	●	○	
S.3.3	.001 – .003	.000 – .001	.000 – .001	.001 – .002	.001 – .003	.000 – .001	.001 – .002	●	○	
H.1.1	.001 – .002		.002 – .002	.002 – .003	.001 – .002	.002 – .002	.002 – .003		●	
H.1.2	.001 – .002		.002 – .002	.002 – .003	.001 – .002	.002 – .002	.002 – .003		●	
H.1.3	.001 – .002		.001 – .001	.001 – .002	.001 – .002	.001 – .001	.001 – .002		●	
H.1.4										
H.2.1	.001 – .002		.002 – .002	.002 – .003	.001 – .002	.002 – .002	.002 – .003		●	
H.3.1	.001 – .002		.002 – .002	.002 – .003	.001 – .002	.002 – .002	.002 – .003		●	
O.1.1	.001 – .002		.002 – .003	.002 – .003	.001 – .002	.002 – .003	.002 – .003	○	●	
O.1.2	.001 – .002		.002 – .003	.002 – .003	.001 – .002	.002 – .003	.002 – .003	○	●	
O.2.1										
O.2.2	.001 – .002		.002 – .003	.003 – .004	.001 – .002	.002 – .003	.003 – .004		●	
O.3.1	.001 – .002		.002 – .003	.003 – .004	.001 – .002	.002 – .003	.003 – .004		●	

→ v_c Page 69 → $n_{max.}$ Page 80+82 → LTA Page 80+82

The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The specified values represent guideline cutting data that can be adjusted within the range according to the usage conditions! It is essential to observe the v_c values of the type used, the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length (LTA).

Cutting data standard values for precision adjustment heads – MicroKom

Index	62 820 …. 62 840 …. 62 800 … BluFlex 2. hi.flex Fine machining with depth of cut a_p = 0.1 – 0.2 mm				62 800 06089 hi.flex micro Fine machining with depth of cut a_p = 0.1 – 0.2 mm			● 1st choice ○ suitable		
	Ø 0.5 – 5.6 mm	Ø 5.6 – 8 mm	Ø 8 – 12 mm	Ø 12 – 365 mm	Ø 0.5 – 8 mm	Ø 8 – 12 mm	Ø 12 – 60 mm	Emulsion	Compressed air	MQL
	f (mm/rev)				f (mm/rev)					
P.1.1	0.02–0.05	0.03–0.04	0.05–0.07	0.07–0.10	0.02–0.05	0.05–0.07	0.07–0.10	●	○	
P.1.2	0.02–0.05	0.03–0.04	0.05–0.07	0.08–0.12	0.02–0.05	0.05–0.07	0.08–0.12	●	○	
P.1.3	0.02–0.05	0.03–0.04	0.04–0.06	0.08–0.12	0.02–0.05	0.04–0.06	0.08–0.12	●	○	
P.1.4	0.02–0.05	0.03–0.04	0.04–0.06	0.07–0.10	0.02–0.05	0.04–0.06	0.07–0.10	●	○	
P.1.5	0.02–0.05	0.03–0.04	0.05–0.07	0.08–0.12	0.02–0.05	0.05–0.07	0.08–0.12	●	○	
P.2.1	0.02–0.05	0.03–0.04	0.04–0.06	0.08–0.12	0.02–0.05	0.04–0.06	0.08–0.12	●	○	
P.2.2	0.02–0.05	0.03–0.04	0.04–0.06	0.07–0.10	0.02–0.05	0.04–0.06	0.07–0.10	●	○	
P.2.3	0.02–0.05	0.02–0.03	0.04–0.06	0.07–0.10	0.02–0.05	0.04–0.06	0.07–0.10	●	○	
P.2.4	0.02–0.05	0.02–0.03	0.03–0.04	0.06–0.08	0.02–0.05	0.03–0.04	0.06–0.08	●	○	
P.3.1	0.02–0.05	0.02–0.03	0.04–0.06	0.06–0.08	0.02–0.05	0.04–0.06	0.06–0.08	●	○	
P.3.2	0.02–0.05	0.02–0.03	0.03–0.04	0.06–0.08	0.02–0.05	0.03–0.04	0.06–0.08	●	○	
P.3.3	0.02–0.05	0.02–0.03	0.03–0.04	0.06–0.08	0.02–0.05	0.03–0.04	0.06–0.08	●	○	
P.4.1	0.02–0.05	0.02–0.03	0.04–0.05	0.07–0.10	0.02–0.05	0.04–0.05	0.07–0.10	●	○	
P.4.2	0.02–0.05	0.02–0.03	0.03–0.04	0.06–0.08	0.02–0.05	0.03–0.04	0.06–0.08	●	○	
M.1.1	0.02–0.05	0.01–0.015	0.04–0.05	0.07–0.10	0.02–0.05	0.04–0.05	0.07–0.10	●	○	
M.2.1	0.02–0.05	0.01–0.015	0.03–0.04	0.06–0.08	0.02–0.05	0.03–0.04	0.06–0.08	●	○	
M.3.1	0.02–0.05	0.01–0.015	0.03–0.04	0.06–0.08	0.02–0.05	0.03–0.04	0.06–0.08	●	○	
K.1.1	0.02–0.05	0.04–0.05	0.06–0.08	0.11–0.15	0.02–0.05	0.06–0.08	0.11–0.15	○	●	
K.1.2	0.02–0.05	0.04–0.05	0.06–0.08	0.11–0.15	0.02–0.05	0.06–0.08	0.11–0.15	○	●	
K.2.1	0.02–0.05	0.03–0.04	0.06–0.08	0.11–0.15	0.02–0.05	0.06–0.08	0.11–0.15	○	●	
K.2.2	0.02–0.05	0.02–0.03	0.05–0.07	0.08–0.12	0.02–0.05	0.05–0.07	0.08–0.12	○	●	
K.3.1	0.02–0.05	0.03–0.04	0.06–0.08	0.11–0.15	0.02–0.05	0.06–0.08	0.11–0.15	○	●	
K.3.2	0.02–0.05	0.02–0.03	0.05–0.07	0.08–0.12	0.02–0.05	0.05–0.07	0.08–0.12	○	●	
N.1.1	0.02–0.05	0.01–0.02	0.04–0.06	0.07–0.10	0.02–0.05	0.04–0.06	0.07–0.10	●	○	
N.1.2	0.02–0.05	0.01–0.02	0.04–0.06	0.07–0.10	0.02–0.05	0.04–0.06	0.07–0.10	●	○	
N.2.1	0.02–0.05	0.04–0.05	0.06–0.08	0.08–0.12	0.02–0.05	0.06–0.08	0.08–0.12	●	○	
N.2.2	0.02–0.05	0.04–0.05	0.06–0.08	0.08–0.12	0.02–0.05	0.06–0.08	0.08–0.12	●	○	
N.2.3	0.02–0.05	0.04–0.05	0.06–0.08	0.08–0.12	0.02–0.05	0.06–0.08	0.08–0.12	●	○	
N.3.1	0.02–0.05	0.01–0.02	0.03–0.04	0.06–0.08	0.02–0.05	0.03–0.04	0.06–0.08	●	○	
N.3.2	0.02–0.05	0.01–0.02	0.03–0.04	0.06–0.08	0.02–0.05	0.03–0.04	0.06–0.08	●	○	
N.3.3	0.02–0.05	0.04–0.05	0.06–0.08	0.11–0.15	0.02–0.05	0.06–0.08	0.11–0.15	●	○	
N.4.1	0.02–0.05	0.01–0.02	0.03–0.04	0.06–0.08	0.02–0.05	0.03–0.04	0.06–0.08	●	○	
S.1.1	0.02–0.08	0.01–0.015	0.03–0.04	0.06–0.08	0.02–0.08	0.03–0.04	0.06–0.08	●	○	
S.1.2	0.02–0.08	0.01–0.015	0.02–0.03	0.04–0.06	0.02–0.08	0.02–0.03	0.04–0.06	●	○	
S.2.1	0.02–0.08	0.01–0.015	0.03–0.04	0.06–0.08	0.02–0.08	0.03–0.04	0.06–0.08	●	○	
S.2.2	0.02–0.08	0.01–0.015	0.02–0.03	0.04–0.06	0.02–0.08	0.02–0.03	0.04–0.06	●	○	
S.2.3	0.02–0.08	0.01–0.015	0.06–0.08	0.04–0.06	0.02–0.08	0.06–0.08	0.04–0.06	●	○	
S.3.1	0.02–0.08	0.01–0.015	0.03–0.04	0.06–0.08	0.02–0.08	0.03–0.04	0.06–0.08	●	○	
S.3.2	0.02–0.08	0.01–0.015	0.03–0.04	0.06–0.08	0.02–0.08	0.03–0.04	0.06–0.08	●	○	
S.3.3	0.02–0.08	0.01–0.015	0.01–0.02	0.03–0.04	0.02–0.08	0.01–0.02	0.03–0.04	●	○	
H.1.1	0.02–0.05		0.04–0.05	0.06–0.08	0.02–0.05	0.04–0.05	0.06–0.08		●	
H.1.2	0.02–0.05		0.04–0.05	0.06–0.08	0.02–0.05	0.04–0.05	0.06–0.08		●	
H.1.3	0.02–0.05		0.02–0.03	0.03–0.04	0.02–0.05	0.02–0.03	0.03–0.04		●	
H.1.4										
H.2.1	0.02–0.05		0.04–0.05	0.06–0.08	0.02–0.05	0.04–0.05	0.06–0.08		●	
H.3.1	0.02–0.05		0.04–0.05	0.06–0.08	0.02–0.05	0.04–0.05	0.06–0.08		●	
O.1.1	0.02–0.05		0.06–0.08	0.06–0.08	0.02–0.05	0.06–0.08	0.06–0.08	○	●	
O.1.2	0.02–0.05		0.06–0.08	0.06–0.08	0.02–0.05	0.06–0.08	0.06–0.08	○	●	
O.2.1										
O.2.2	0.02–0.05		0.06–0.08	0.07–0.10	0.02–0.05	0.06–0.08	0.07–0.10		●	
O.3.1	0.02–0.05		0.06–0.08	0.07–0.10	0.02–0.05	0.06–0.08	0.07–0.10		●	

→ v_c Page 70 → $n_{max.}$ Page 80+82 → LTA Page 80+82

The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The specified values represent guideline cutting data that can be adjusted within the range according to the usage conditions! It is essential to observe the v_c values of the type used, the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length (LTA).

Cutting data standard values for precision adjustment heads – MicroKom

Index	62 815 … M03 Speed, Fine machining with depth of cut a_p = 0.1 – 0.2 mm		62 810 … FF precision adjustment head, Fine machining with depth of cut a_p = 0.1 – 0.2 mm			● 1st choice ○ suitable		
	Ø 24.8 – 63 mm	Ø 63 – 206 mm	Ø 29.5 – 50 mm	Ø 47 – 83 mm	Ø 79 – 199 mm	Emulsion	Compressed air	MQL
	f (mm/rev)		f (mm/rev)					
P.1.1	0.06–0.08	0.07–0.10	0.06–0.08	0.07–0.10	0.11–0.15	●	○	○
P.1.2	0.07–0.10	0.11–0.15	0.07–0.10	0.11–0.15	0.14–0.20	●	○	○
P.1.3	0.06–0.08	0.08–0.12	0.06–0.08	0.08–0.12	0.14–0.20	●	○	○
P.1.4	0.05–0.07	0.07–0.10	0.05–0.07	0.07–0.10	0.13–0.18	●	○	○
P.1.5	0.06–0.09	0.09–0.13	0.06–0.09	0.09–0.13	0.13–0.18	●	○	○
P.2.1	0.06–0.08	0.08–0.12	0.06–0.08	0.08–0.12	0.14–0.20	●	○	○
P.2.2	0.05–0.07	0.07–0.10	0.05–0.07	0.07–0.10	0.13–0.18	●	○	○
P.2.3	0.06–0.08	0.07–0.10	0.06–0.08	0.07–0.10	0.14–0.20	●	○	○
P.2.4	0.04–0.06	0.06–0.08	0.04–0.06	0.06–0.08	0.07–0.10	●	○	○
P.3.1	0.04–0.06	0.07–0.10	0.04–0.06	0.07–0.10	0.11–0.15	●	○	○
P.3.2	0.03–0.04	0.06–0.08	0.03–0.04	0.06–0.08	0.08–0.12	●	○	○
P.3.3	0.03–0.04	0.05–0.07	0.03–0.04	0.05–0.07	0.07–0.10	●	○	○
P.4.1	0.04–0.06	0.07–0.10	0.04–0.06	0.07–0.10	0.11–0.15	●	○	○
P.4.2	0.03–0.04	0.06–0.08	0.03–0.04	0.06–0.08	0.08–0.12	●	○	○
M.1.1	0.04–0.06	0.07–0.10	0.04–0.06	0.07–0.10	0.11–0.15	●	○	○
M.2.1	0.04–0.06	0.07–0.10	0.04–0.06	0.07–0.10	0.11–0.15	●	○	○
M.3.1	0.04–0.05	0.06–0.09	0.04–0.05	0.06–0.09	0.08–0.12	●	○	○
K.1.1	0.11–0.15	0.14–0.20	0.11–0.15	0.14–0.20	0.21–0.30	○	●	○
K.1.2	0.11–0.15	0.14–0.20	0.11–0.15	0.14–0.20	0.21–0.30	○	●	○
K.2.1	0.07–0.10	0.11–0.15	0.07–0.10	0.11–0.15	0.18–0.25	○	●	○
K.2.2	0.06–0.08	0.08–0.12	0.06–0.08	0.08–0.12	0.14–0.20	○	●	○
K.3.1	0.07–0.10	0.11–0.15	0.07–0.10	0.11–0.15	0.18–0.25	○	●	○
K.3.2	0.06–0.08	0.08–0.12	0.06–0.08	0.08–0.12	0.14–0.20	○	●	○
N.1.1	0.06–0.08	0.08–0.12	0.06–0.08	0.08–0.12	0.11–0.15	●	○	○
N.1.2	0.06–0.08	0.08–0.12	0.06–0.08	0.08–0.12	0.11–0.15	●	○	○
N.2.1	0.07–0.10	0.11–0.15	0.07–0.10	0.11–0.15	0.14–0.20	●	○	○
N.2.2	0.07–0.10	0.11–0.15	0.07–0.10	0.11–0.15	0.14–0.20	●	○	○
N.2.3	0.06–0.09	0.08–0.12	0.06–0.09	0.08–0.12	0.13–0.18	●	○	○
N.3.1	0.07–0.10	0.11–0.15	0.07–0.10	0.11–0.15	0.14–0.20	●	○	○
N.3.2	0.07–0.10	0.11–0.15	0.07–0.10	0.11–0.15	0.15–0.22	●	○	○
N.3.3	0.07–0.10	0.11–0.15	0.07–0.10	0.11–0.15	0.14–0.20	●	○	○
N.4.1	0.07–0.10	0.11–0.15	0.07–0.10	0.11–0.15	0.14–0.20	●	○	○
S.1.1	0.04–0.06	0.06–0.08	0.04–0.06	0.06–0.08	0.07–0.10	●	○	○
S.1.2	0.03–0.04	0.04–0.06	0.03–0.04	0.04–0.06	0.06–0.08	●	○	○
S.2.1	0.04–0.06	0.06–0.08	0.04–0.06	0.06–0.08	0.07–0.10	●	○	○
S.2.2	0.03–0.04	0.04–0.06	0.03–0.04	0.04–0.06	0.06–0.08	●	○	○
S.2.3	0.03–0.04	0.04–0.06	0.03–0.04	0.04–0.06	0.04–0.06	●	○	○
S.3.1	0.04–0.06	0.06–0.08	0.04–0.06	0.06–0.08	0.08–0.11	●	○	○
S.3.2	0.04–0.06	0.06–0.08	0.04–0.06	0.06–0.08	0.07–0.10	●	○	○
S.3.3	0.03–0.04	0.04–0.06	0.03–0.04	0.04–0.06	0.07–0.10	●	○	○
H.1.1	0.06–0.08	0.06–0.08	0.06–0.08	0.06–0.08	0.07–0.10		●	○
H.1.2	0.04–0.06	0.04–0.06	0.04–0.06	0.04–0.06	0.06–0.08		●	○
H.1.3	0.03–0.04	0.03–0.04	0.03–0.04	0.03–0.04	0.03–0.04		●	○
H.1.4								
H.2.1	0.04–0.05	0.04–0.06	0.04–0.05	0.04–0.06	0.07–0.10		●	○
H.3.1	0.04–0.05	0.04–0.06	0.04–0.05	0.04–0.06	0.06–0.08		●	○
O.1.1	0.06–0.08	0.06–0.08	0.06–0.08	0.06–0.08	0.06–0.08	○	●	○
O.1.2	0.06–0.08	0.06–0.08	0.06–0.08	0.06–0.08	0.06–0.08	○	●	○
O.2.1								
O.2.2	0.06–0.08	0.06–0.08	0.06–0.08	0.06–0.08	0.06–0.08		●	
O.3.1	0.06–0.08	0.06–0.08	0.06–0.08	0.06–0.08	0.06–0.08		●	

→ v_c Page 70 → $n_{max.}$ Page 80+82 → LTA Page 80+82

The cutting data is significantly dependent on the external conditions. e.g. stability of the tool and workpiece clamping. material and machine type! The specified values represent guideline cutting data that can be adjusted within the range according to the usage conditions! It is essential to observe the v_c values of the type used. the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length (LTA).

Cutting data standard values for boring heads for roughing – TwinKom

Index	62 881 … TwinKom G04 with WOEX / WOGX Cutting depth a_p = .039 – .354 inch Ø 1.181" – 1.614"	Ø 1.535" – 2.008"	Ø 1.929" – 2.795"	Ø 2.520" – 3.853"	Ø 3.268" – 4.764"	Ø 4.291" – 6.181"	Ø 5.472" – 8.031"	● 1st choice ○ suitable Emulsion	Compressed air	MQL
	f (inch/rev.)									
P.1.1	.009 – .012	.011 – .016	.011 – .016	.013 – .018	.014 – .020	.014 – .020	.014 – .020	●	○	○
P.1.2	.009 – .012	.011 – .016	.011 – .016	.013 – .018	.014 – .020	.014 – .020	.014 – .020	●	○	○
P.1.3	.009 – .012	.011 – .016	.011 – .016	.013 – .018	.014 – .020	.014 – .020	.014 – .020	●	○	○
P.1.4	.009 – .012	.011 – .016	.011 – .016	.013 – .018	.014 – .020	.014 – .020	.014 – .020	●	○	○
P.1.5	.009 – .012	.011 – .016	.011 – .016	.013 – .018	.014 – .020	.014 – .020	.014 – .020	●	○	○
P.2.1	.009 – .012	.011 – .016	.011 – .016	.013 – .018	.014 – .020	.014 – .020	.014 – .020	●	○	○
P.2.2	.009 – .012	.011 – .016	.011 – .016	.013 – .018	.014 – .020	.014 – .020	.014 – .020	●	○	○
P.2.3	.009 – .012	.011 – .016	.011 – .016	.013 – .018	.014 – .020	.014 – .020	.014 – .020	●	○	○
P.2.4	.009 – .012	.011 – .016	.011 – .016	.013 – .018	.014 – .020	.014 – .020	.014 – .020	●	○	○
P.3.1	.007 – .010	.009 – .013	.009 – .013	.011 – .015	.011 – .017	.011 – .017	.011 – .017	●	○	○
P.3.2	.007 – .010	.009 – .013	.009 – .013	.011 – .015	.011 – .017	.011 – .017	.011 – .017	●	○	○
P.3.3	.007 – .010	.009 – .013	.009 – .013	.011 – .015	.011 – .017	.011 – .017	.011 – .017	●	○	○
P.4.1	.006 – .008	.007 – .010	.007 – .010	.008 – .011	.010 – .014	.010 – .014	.010 – .014	●	○	○
P.4.2	.006 – .008	.007 – .010	.007 – .010	.008 – .011	.010 – .014	.010 – .014	.010 – .014	●	○	○
M.1.1	.007 – .009	.007 – .009	.007 – .009	.008 – .012	.011 – .016	.011 – .016	.013 – .018	●	○	○
M.2.1	.007 – .009	.011 – .016	.011 – .016	.008 – .012	.011 – .016	.011 – .016	.013 – .018	●	○	○
M.3.1	.006 – .008	.006 – .008	.006 – .008	.007 – .010	.008 – .012	.008 – .012	.010 – .014	●	○	○
K.1.1	.011 – .016	.014 – .020	.014 – .020	.015 – .022	.017 – .024	.017 – .024	.017 – .024	○	●	○
K.1.2	.011 – .016	.014 – .020	.014 – .020	.015 – .022	.017 – .024	.017 – .024	.017 – .024	○	●	○
K.2.1	.011 – .016	.014 – .020	.014 – .020	.015 – .022	.017 – .024	.017 – .024	.017 – .024	○	●	○
K.2.2	.008 – .012	.013 – .018	.013 – .018	.013 – .018	.014 – .020	.014 – .020	.014 – .020	○	●	○
K.3.1	.008 – .011	.010 – .014	.010 – .014	.011 – .016	.013 – .018	.013 – .018	.013 – .018	○	●	○
K.3.2	.008 – .011	.010 – .014	.010 – .014	.011 – .016	.013 – .018	.013 – .018	.013 – .018	○	●	○
N.1.1	.014 – .020	.014 – .020	.014 – .020	.017 – .024	.019 – .028	.019 – .028	.019 – .028	●	○	○
N.1.2	.014 – .020	.014 – .020	.014 – .020	.017 – .024	.019 – .028	.019 – .028	.019 – .028	●	○	○
N.2.1	.014 – .020	.014 – .020	.014 – .020	.017 – .024	.019 – .028	.019 – .028	.019 – .028	●	○	○
N.2.2	.014 – .020	.014 – .020	.014 – .020	.017 – .024	.019 – .028	.019 – .028	.019 – .028	●	○	○
N.2.3	.014 – .020	.014 – .020	.014 – .020	.017 – .024	.019 – .028	.019 – .028	.019 – .028	●	○	○
N.3.1	.014 – .020	.014 – .020	.014 – .020	.017 – .024	.019 – .028	.019 – .028	.019 – .028	●	○	○
N.3.2	.014 – .020	.014 – .020	.014 – .020	.017 – .024	.019 – .028	.019 – .028	.019 – .028	●	○	○
N.3.3	.014 – .020	.014 – .020	.014 – .020	.017 – .024	.019 – .028	.019 – .028	.019 – .028	●	○	○
N.4.1	.014 – .020	.014 – .020	.014 – .020	.017 – .024	.019 – .028	.019 – .028	.019 – .028	●	○	○
S.1.1	.003 – .005	.004 – .006	.004 – .006	.005 – .007	.006 – .008	.006 – .008	.006 – .008	●	○	○
S.1.2	.003 – .004	.003 – .004	.003 – .004	.004 – .006	.004 – .006	.004 – .006	.004 – .006	●	○	○
S.2.1	.003 – .005	.004 – .006	.004 – .006	.005 – .007	.006 – .008	.006 – .008	.006 – .008	●	○	○
S.2.2	.003 – .004	.003 – .004	.003 – .004	.005 – .007	.004 – .006	.004 – .006	.004 – .006	●	○	○
S.2.3	.003 – .004	.003 – .004	.003 – .004	.004 – .006	.004 – .006	.004 – .006	.004 – .006	●	○	○
S.3.1	.003 – .005	.004 – .006	.004 – .006	.005 – .007	.006 – .008	.006 – .008	.006 – .008	●	○	○
S.3.2	.003 – .005	.004 – .006	.004 – .006	.005 – .007	.006 – .008	.006 – .008	.006 – .008	●	○	○
S.3.3	.003 – .004	.003 – .004	.003 – .004	.005 – .007	.004 – .006	.004 – .006	.004 – .006	●	○	○
H.1.1										
H.1.2										
H.1.3										
H.1.4										
H.2.1										
H.3.1										
O.1.1	.004 – .006	.006 – .008	.006 – .008	.006 – .008	.006 – .008	.006 – .008	.006 – .008	○	●	○
O.1.2	.004 – .006	.006 – .008	.006 – .008	.006 – .008	.006 – .008	.006 – .008	.006 – .008	○	●	○
O.2.1										
O.2.2	.003 – .004	.003 – .004	.003 – .004	.003 – .005	.003 – .005	.003 – .005	.004 – .006		●	
O.3.1	.003 – .004	.003 – .004	.003 – .004	.004 – .005	.003 – .005	.003 – .005	.004 – .006		●	

→ v_c Page 69 → $n_{max.}$ Page 80+82 → LTA Page 80+82

The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The specified values represent guideline cutting data that can be adjusted within the range according to the usage conditions! It is essential to observe the v_c values of the type used, the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length (LTA).

Cutting data standard values for boring heads for roughing – TwinKom

Index	62 881 … TwinKom G04 with SOEX										● 1st choice ○ suitable		
				Cutting depth a_p = 0.138 – 0.354 inch									
	BK8425	BK7935	BK7615	Ø 1.181" – 1.614"	Ø 1.535" – 2.008"	Ø 1.929" – 2.795"	Ø 2.520" – 3.853"	Ø 3.268" – 4.764"	Ø 4.291" – 6.181"	Ø 5.472" – 8.031"	Emulsion	Compressed air	MQL
	v_c (ft/min)			f (inch/rev.)									
P.1.1	850	820		.007–.011	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.019–.031	●	○	○
P.1.2	850	720		.007–.011	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.019–.031	●	○	○
P.1.3	890	890		.007–.011	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.019–.031	●	○	○
P.1.4	820	820		.007–.011	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.019–.031	●	○	○
P.1.5	890	660		.007–.011	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.019–.031	●	○	○
P.2.1	890	890		.007–.011	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.019–.031	●	○	○
P.2.2	850	850		.007–.011	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.019–.031	●	○	○
P.2.3	590	520		.007–.011	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.019–.031	●	○	○
P.2.4	490	430		.007–.011	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.019–.031	●	○	○
P.3.1	520	460		.006–.009	.007–.012	.009–.016	.012–.020	.012–.020	.014–.024	.014–.024	●	○	○
P.3.2	430	390		.006–.009	.007–.012	.009–.016	.012–.020	.012–.020	.014–.024	.014–.024	●	○	○
P.3.3	390	360		.006–.009	.007–.012	.009–.016	.012–.020	.012–.020	.014–.024	.014–.024	●	○	○
P.4.1	590	490		.006–.009	.007–.012	.009–.016	.012–.020	.012–.020	.014–.024	.014–.024	●	○	○
P.4.2	430	390		.006–.009	.007–.012	.009–.016	.012–.020	.012–.020	.014–.024	.014–.024	●	○	○
M.1.1	490	520		.006–.009	.007–.012	.009–.016	.012–.020	.012–.020	.014–.024	.014–.024	●	○	○
M.2.1	490	520		.006–.009	.007–.012	.009–.016	.012–.020	.012–.020	.014–.024	.014–.024	●	○	○
M.3.1	460	490		.006–.009	.007–.012	.009–.016	.012–.020	.012–.020	.014–.024	.014–.024	●	○	○
K.1.1	520	490	850	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	○	●	○
K.1.2	390	390	520	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	○	●	○
K.2.1	520	490	590	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	○	●	○
K.2.2	330	300	390	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	○	●	○
K.3.1	390	360	460	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	○	●	○
K.3.2	330	300	390	.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	○	●	○
N.1.1	1310	1310		.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	●	○	○
N.1.2	1310	1310		.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	●	○	○
N.2.1	820	820		.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	●	○	○
N.2.2	820	820		.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	●	○	○
N.2.3	750	750		.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	●	○	○
N.3.1	660	660		.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	●	○	○
N.3.2	720	720		.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	●	○	○
N.3.3	1080	1080		.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	●	○	○
N.4.1	660	660		.009–.016	.012–.020	.014–.024	.017–.028	.019–.031	.024–.039	.024–.039	●	○	○
S.1.1													
S.1.2													
S.2.1													
S.2.2													
S.2.3													
S.3.1													
S.3.2													
S.3.3													
H.1.1													
H.1.2													
H.1.3													
H.1.4													
H.2.1													
H.3.1													
O.1.1													
O.1.2													
O.2.1													
O.2.2													
O.3.1													

→ v_c Page 69 → $n_{max.}$ Page 80+82 → LTA Page 80+82

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, the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length (LTA).

Cutting data standard values for boring heads for roughing – TwinKom

Index	62 870 … Twin cutters Cutting depth a_p = 1 – 9 mm							● 1st choice ○ suitable		
	Ø 24–32 mm	Ø 30– 41 mm	Ø 39– 53 mm	Ø 51–71 mm	Ø 64–91 mm	Ø 83–124 mm	Ø 109–215 mm	Emulsion	Compressed air	MQL
	f (mm/rev)									
P.1.1	0.14–0.20	0.17–0.24	0.22–0.30	0.28–0.40	0.32–0.45	0.35–0.50	0.35–0.50	●	○	○
P.1.2	0.14–0.20	0.17–0.24	0.22–0.30	0.28–0.40	0.32–0.45	0.35–0.50	0.35–0.50	●	○	○
P.1.3	0.14–0.20	0.17–0.24	0.22–0.30	0.28–0.40	0.32–0.45	0.35–0.50	0.35–0.50	●	○	○
P.1.4	0.14–0.20	0.17–0.24	0.22–0.30	0.28–0.40	0.32–0.45	0.35–0.50	0.35–0.50	●	○	○
P.1.5	0.14–0.20	0.17–0.24	0.22–0.30	0.28–0.40	0.32–0.45	0.35–0.50	0.35–0.50	●	○	○
P.2.1	0.14–0.20	0.17–0.24	0.22–0.30	0.28–0.40	0.32–0.45	0.35–0.50	0.35–0.50	●	○	○
P.2.2	0.14–0.20	0.17–0.24	0.22–0.30	0.28–0.40	0.32–0.45	0.35–0.50	0.35–0.50	●	○	○
P.2.3	0.14–0.20	0.17–0.24	0.22–0.30	0.28–0.40	0.32–0.45	0.35–0.50	0.35–0.50	●	○	○
P.2.4	0.14–0.20	0.17–0.24	0.22–0.30	0.28–0.40	0.32–0.45	0.35–0.50	0.35–0.50	●	○	○
P.3.1	0.11–0.15	0.14–0.20	0.18–0.25	0.22–0.32	0.27–0.38	0.29–0.42	0.29–0.42	●	○	○
P.3.2	0.11–0.15	0.14–0.20	0.18–0.25	0.22–0.32	0.27–0.38	0.29–0.42	0.29–0.42	●	○	○
P.3.3	0.11–0.15	0.14–0.20	0.18–0.25	0.22–0.32	0.27–0.38	0.29–0.42	0.29–0.42	●	○	○
P.4.1	0.08–0.12	0.11–0.15	0.14–0.20	0.18–0.25	0.20–0.28	0.25–0.35	0.25–0.35	●	○	○
P.4.2	0.08–0.12	0.11–0.15	0.14–0.20	0.18–0.25	0.20–0.28	0.25–0.35	0.25–0.35	●	○	○
M.1.1	0.10–0.14	0.13–0.18	0.17–0.24	0.17–0.24	0.21–0.30	0.28–0.40	0.32–0.45	●	○	○
M.2.1	0.10–0.14	0.13–0.18	0.17–0.24	0.28–0.40	0.21–0.30	0.28–0.40	0.32–0.45	●	○	○
M.3.1	0.08–0.12	0.10–0.14	0.14–0.20	0.14–0.20	0.18–0.25	0.21–0.30	0.25–0.35	●	○	○
K.1.1	0.18–0.25	0.21–0.30	0.28–0.40	0.35–0.50	0.39–0.55	0.42–0.60	0.42–0.60	○	●	○
K.1.2	0.18–0.25	0.21–0.30	0.28–0.40	0.35–0.50	0.39–0.55	0.42–0.60	0.42–0.60	○	●	○
K.2.1	0.18–0.25	0.21–0.30	0.28–0.40	0.35–0.50	0.39–0.55	0.42–0.60	0.42–0.60	○	●	○
K.2.2	0.15–0.22	0.20–0.28	0.21–0.30	0.32–0.45	0.32–0.45	0.35–0.50	0.35–0.50	○	●	○
K.3.1	0.14–0.20	0.17–0.24	0.20–0.28	0.25–0.35	0.28–0.40	0.32–0.45	0.32–0.45	○	●	○
K.3.2	0.14–0.20	0.17–0.24	0.20–0.28	0.25–0.35	0.28–0.40	0.32–0.45	0.32–0.45	○	●	○
N.1.1	0.18–0.25	0.21–0.30	0.35–0.50	0.35–0.50	0.42–0.60	0.49–0.70	0.49–0.70	●	○	○
N.1.2	0.18–0.25	0.21–0.30	0.35–0.50	0.35–0.50	0.42–0.60	0.49–0.70	0.49–0.70	●	○	○
N.2.1	0.18–0.25	0.21–0.30	0.35–0.50	0.35–0.50	0.42–0.60	0.49–0.70	0.49–0.70	●	○	○
N.2.2	0.18–0.25	0.21–0.30	0.35–0.50	0.35–0.50	0.42–0.60	0.49–0.70	0.49–0.70	●	○	○
N.2.3	0.18–0.25	0.21–0.30	0.35–0.50	0.35–0.50	0.42–0.60	0.49–0.70	0.49–0.70	●	○	○
N.3.1	0.18–0.25	0.21–0.30	0.35–0.50	0.35–0.50	0.42–0.60	0.49–0.70	0.49–0.70	●	○	○
N.3.2	0.18–0.25	0.21–0.30	0.35–0.50	0.35–0.50	0.42–0.60	0.49–0.70	0.49–0.70	●	○	○
N.3.3	0.18–0.25	0.21–0.30	0.35–0.50	0.35–0.50	0.42–0.60	0.49–0.70	0.49–0.70	●	○	○
N.4.1	0.18–0.25	0.21–0.30	0.35–0.50	0.35–0.50	0.42–0.60	0.49–0.70	0.49–0.70	●	○	○
S.1.1	0.08–0.12	0.08–0.12	0.08–0.12	0.10–0.14	0.13–0.18	0.14–0.20	0.14–0.20	●	○	○
S.1.2	0.07–0.10	0.07–0.10	0.07–0.10	0.08–0.11	0.10–0.14	0.11–0.16	0.11–0.16	●	○	○
S.2.1	0.08–0.12	0.08–0.12	0.08–0.12	0.10–0.14	0.13–0.18	0.14–0.20	0.14–0.20	●	○	○
S.2.2	0.07–0.10	0.07–0.10	0.07–0.10	0.08–0.11	0.13–0.18	0.11–0.16	0.11–0.16	●	○	○
S.2.3	0.07–0.10	0.07–0.10	0.07–0.10	0.08–0.11	0.10–0.14	0.11–0.16	0.11–0.16	●	○	○
S.3.1	0.08–0.12	0.08–0.12	0.08–0.12	0.10–0.14	0.13–0.18	0.14–0.20	0.14–0.20	●	○	○
S.3.2	0.08–0.12	0.08–0.12	0.08–0.12	0.10–0.14	0.13–0.18	0.14–0.20	0.14–0.20	●	○	○
S.3.3	0.07–0.10	0.07–0.10	0.07–0.10	0.08–0.11	0.13–0.18	0.11–0.16	0.11–0.16	●	○	○
H.1.1										
H.1.2										
H.1.3										
H.1.4										
H.2.1										
H.3.1										
O.1.1	0.11–0.16	0.11–0.16	0.11–0.16	0.14–0.20	0.14–0.20	0.14–0.20	0.14–0.20	○	●	○
O.1.2	0.11–0.16	0.11–0.16	0.11–0.16	0.14–0.20	0.14–0.20	0.14–0.20	0.14–0.20	○	●	○
O.2.1										
O.2.2	0.06–0.08	0.06–0.08	0.07–0.10	0.07–0.10	0.08–0.12	0.08–0.12	0.10–0.14		●	
O.3.1	0.06–0.08	0.06–0.08	0.07–0.10	0.07–0.10	0.09–0.12	0.08–0.12	0.10–0.14		●	

→ v_c Page 70 → $n_{max.}$ Page 80+82 → LTA Page 80+82

The cutting data is significantly dependent on the external conditions. e.g. stability of the tool and workpiece clamping. material and machine type! The specified values represent guideline cutting data that can be adjusted within the range according to the usage conditions! It is essential to observe the v_c values of the type used. the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length (LTA).

Cutting data standard values for finish boring heads – SpinTools

Index	62 303 .... 62 308 ...	62 305 ...	● 1st choice ○ suitable			62 382 .... 62 386 ...	62 372 .... 62 373 ...	62 326 .... 62 332 .... 62 333 .... 62 363 ...	62 304 ...	● 1st choice ○ suitable		
	Single point finish boring head		Emulsion	Compressed air	MQL	Micro Boring Head	Multi-Head boring and fine boring head	Single point boring head	Fine boring head	Emulsion	Compressed air	MQL
	a_p = 0.1 – 0.4 mm					a_p = 0.1 – 0.2 mm	a_p = 0.1 – 0.4 mm	a_p = 0.1 – 0.4 mm	a_p = 0.1 – 0.4 mm			
	Ø 23.9–116.1 mm	Ø 86–402 mm				Ø 0.3–19.1 mm	Ø 2–320 mm	Ø 3–88 mm	Ø 14.7–24.1 mm			
	f (mm/rev)					f (mm/rev)						
P.1.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
P.1.2	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
P.1.3	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
P.1.4	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
P.1.5	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
P.2.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
P.2.2	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
P.2.3	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
P.2.4	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
P.3.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
P.3.2	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
P.3.3	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
P.4.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
P.4.2	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
M.1.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
M.2.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
M.3.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
K.1.1	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	○
K.1.2	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	○
K.2.1	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	○
K.2.2	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	○
K.3.1	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	○
K.3.2	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	○
N.1.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
N.1.2	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
N.2.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
N.2.2	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
N.2.3	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
N.3.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
N.3.2	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
N.3.3	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
N.4.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
S.1.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
S.1.2	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
S.2.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
S.2.2	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
S.2.3	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
S.3.1	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
S.3.2	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
S.3.3	0.03–0.12	0.03–0.12	●	○		0.02	0.03–0.12	0.03–0.12	0.03–0.10	●	○	○
H.1.1	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	○
H.1.2	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	○
H.1.3	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	○
H.1.4												
H.2.1	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	○
H.3.1	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	○
O.1.1	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	○
O.1.2	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	○
O.2.1	0.03–0.12	0.03–0.12	○	●		0.02	0.03–0.12	0.03–0.12	0.03–0.10	○	●	
O.2.2	0.03–0.12	0.03–0.12		●		0.02	0.03–0.12	0.03–0.12	0.03–0.10		●	
O.3.1	0.03–0.12	0.03–0.12		●		0.02	0.03–0.12	0.03–0.12	0.03–0.10		●	

→ v_c Page 71 → $n_{max.}$ Page 80+82 → LTA Page 80+82

The cutting data is significantly dependent on the external conditions. e.g. stability of the tool and workpiece clamping. material and machine type! The specified values represent guideline cutting data that can be adjusted within the range (i.e. by ± 20%) according to the usage conditions! It is essential to observe the v_c values of the type used. the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length (LTA).

Cutting data standard values for boring heads for roughing – SpinTools

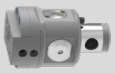
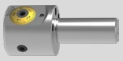
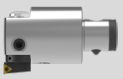
Index	62 295 … Twin rough boring head Cutting depth a_p = 2.5 – 7 mm			● 1st choice ○ suitable		
	Ø 23.5–40.5 mm	Ø 40.5–66.5 mm	Ø 66.5–87.5 mm	Emulsion	Compressed air	MQL
	f (mm/rev)					
P.1.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
P.1.2	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
P.1.3	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
P.1.4	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
P.1.5	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
P.2.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
P.2.2	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
P.2.3	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
P.2.4	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
P.3.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
P.3.2	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
P.3.3	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
P.4.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
P.4.2	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
M.1.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
M.2.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
M.3.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
K.1.1	0.3–0.4	0.4–0.5	0.5–0.7	○	●	
K.1.2	0.3–0.4	0.4–0.5	0.5–0.7	○	●	
K.2.1	0.3–0.4	0.4–0.5	0.5–0.7	○	●	
K.2.2	0.3–0.4	0.4–0.5	0.5–0.7	○	●	
K.3.1	0.3–0.4	0.4–0.5	0.5–0.7	○	●	
K.3.2	0.3–0.4	0.4–0.5	0.5–0.7	○	●	
N.1.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
N.1.2	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
N.2.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
N.2.2	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
N.2.3	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
N.3.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
N.3.2	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
N.3.3	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
N.4.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
S.1.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
S.1.2	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
S.2.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
S.2.2	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
S.2.3	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
S.3.1	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
S.3.2	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
S.3.3	0.3–0.4	0.4–0.5	0.5–0.7	●	○	
H.1.1	0.3–0.4	0.4–0.5	0.5–0.7	○	●	
H.1.2	0.3–0.4	0.4–0.5	0.5–0.7	○	●	
H.1.3	0.3–0.4	0.4–0.5	0.5–0.7	○	●	
H.1.4						
H.2.1	0.3–0.4	0.4–0.5	0.5–0.7	○	●	
H.3.1	0.3–0.4	0.4–0.5	0.5–0.7	○	●	
O.1.1	0.3–0.4	0.4–0.5	0.5–0.7	○	●	
O.1.2	0.3–0.4	0.4–0.5	0.5–0.7	○	●	
O.2.1	0.3–0.4	0.4–0.5	0.5–0.7	○		
O.2.2	0.3–0.4	0.4–0.5	0.5–0.7		●	
O.3.1	0.3–0.4	0.4–0.5	0.5–0.7		●	

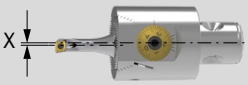
→ v_c Page 71 → $n_{max.}$ Page 80+82 → LTA Page 80+82

The cutting data is significantly dependent on the external conditions. e.g. stability of the tool and workpiece clamping. material and machine type! The specified values represent guideline cutting data that can be adjusted within the range according to the usage conditions! It is essential to observe the v_c values of the type used. the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length (LTA).

Fine boring tools

Maximum speed

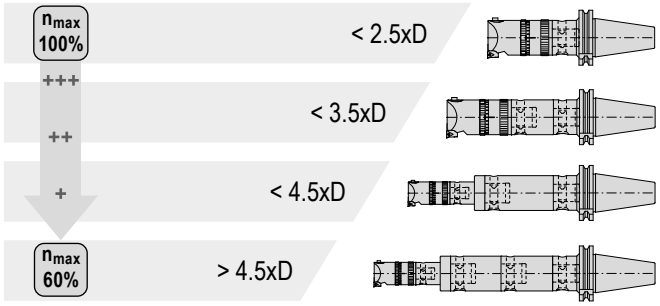
System / tool		Boring range Ø (mm)	Maximum speed in slide center position n_{max} in RPM
	**62 820 ..., 62 840 ...** BluFlex 2	0.5–365	20,000
	**62 800 ...** hi.flex	0.5–365	17,500
	**62 800 06089** hi.flex micro	0.5–60	30,000
	**62 386 ..., 62 382 ...** Micro Boring Head	0.3–19.1	30,000
	**62 815 ...** M03 Speed	24–39	40,000
		38–50	31,000
		49–63	24,000
		62–80	18,500
		79– 103	15,000
		100–130	11,500
		128–168	10,000
		166–206	8,000
	**62 810 ...** FF precision adjustment head	29.5–42	25,000
		39–50	18,000
		47–66	12,000
		58–83	9,000
		79– 108	6,000
		100–141	4,000
		138–179	3,500
		178–199	3,000
	**62 372 ..., 62 373 ...** Multi-Head boring and fine boring head with bridge	88–164	900
		164–320	250
	**62 305 ...** Single point finish boring head with insert holder	86–138	1,150
		136–220	720
		188–302	520
		242–402	400

System / tool 	Boring range Ø (mm)	Offset X ≤ 0.5 mm	Offset X > 0.5 mm
		Maximum speed n_{max} in RPM	
62 372 ..., 62 373 ... Multi-Head boring and fine boring head with boring bar	3–20	16,000	6,000
62 326 ..., 62 332 ..., 62 333 ..., 62 363 ... Single point boring head with boring bar	20–48	12,000	4,000
	48–88	8,000	2,000

System / tool 	Boring range Ø (mm)	Unbalanced	Balanced
		Maximum speed n_{max} in RPM	
62 308 ..., 62 303 ... Single point finish boring head with insert holder	24–31	9,000	12,000
	31–40	7,500	10,000
	40–51	5,250	8,000
	51–67	4,000	6,500
	67– 87	3,000	5,000
	87–116	2,500	4,000
	116–153	1,750	3,000

Selection of the maximum speed

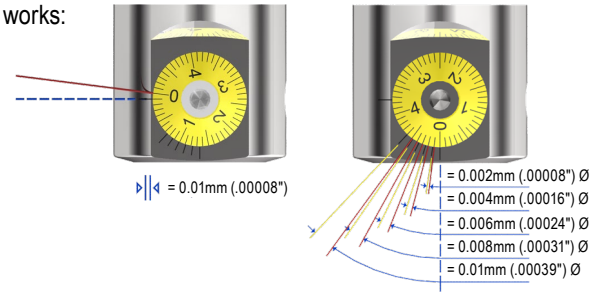
depending on the overhang length (LTA)



Scale accuracy

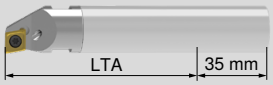
Large scale with 0.002 mm (.00008") adjustment

How it works:



Fine boring tools

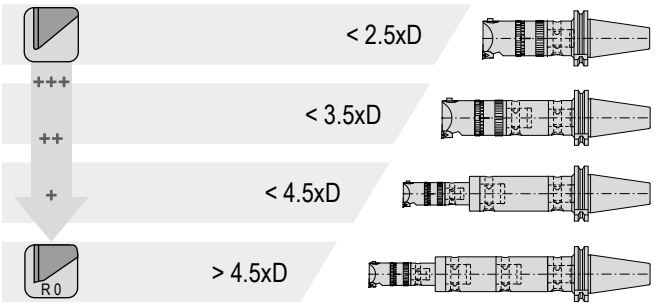
Maximum overhang length LTA at 35 mm shank clamping depth



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

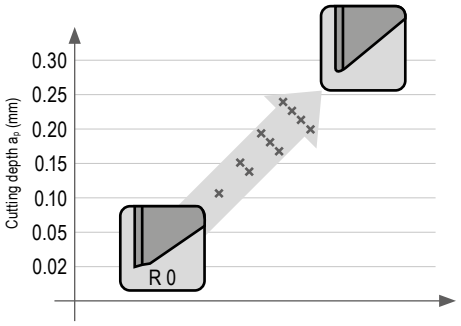
Selection of the cutting radius

depending on the overhang length (LTA)



Selection of the cutting radius

depending on the cutting depth a_p



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

Resulting force

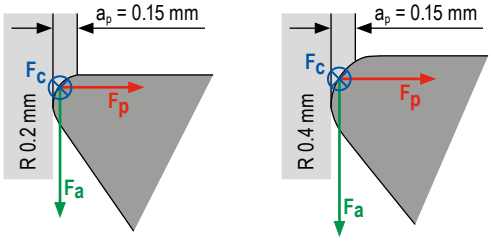
$$F_{res} = \sqrt{F_a^2 + F_p^2} = \sqrt{F_c^2 + F_f^2 + F_p^2}$$

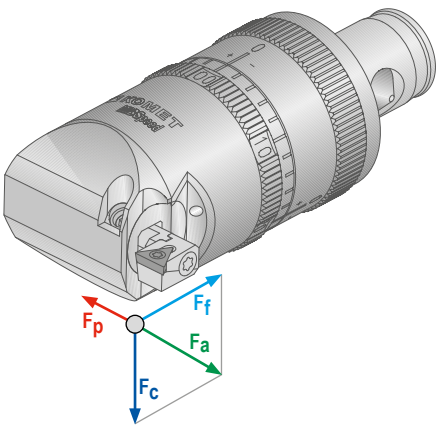
Tangential cutting force (Fc)
- ▲ pushes the tool down from the vertical central axis
- ▲ is influenced by the cutting depth and the chip thickness
- ▲ reduces the clearance angle

Passive cutting force (Fp)
- ▲ pushes the tool away from the horizontal central axis
- ▲ increases the risk of vibrations and causes dimensional inaccuracies

Feed force (Ff)
- ▲ acts in the machining direction of the tool

Active cutting force (Fa)
- ▲ determined by F_c and F_f

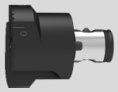




5

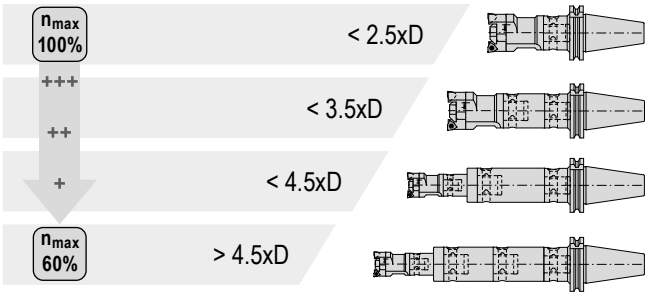
Rough boring tools

Maximum speed

System / tool		Boring range Ø (mm)	Boring range Ø (inch)	Maximum speed n_{max} in RPM
	**62 870 ..., 62 881 ...** TwinKom	24–31		12,000
		31–40	1.181–1.614	10,000
		40–51	1.535–2.008	8,000
		51–68	1.929–2.795	6,500
	**62 295 ...** Twin rough boring head	67–87	2.520–3.853	5,000
		87–116	3.268–4.764	4,000
		116–153	4.291–6.181	3,000
		153–215	5.472–8.031	2,200

Selection of the maximum speed

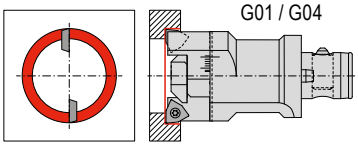
depending on the overhang length (LTA)



TwinKom applications

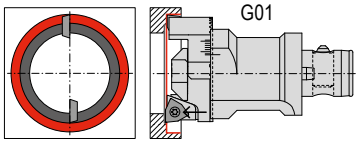
in pre-cast / premachined holes

Roughing as a "true" two-edged cutter

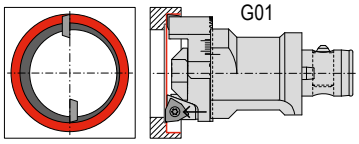


Axial adjustment required

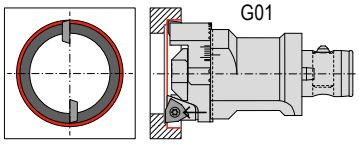
Roughing with large allowance



Roughing with large offset



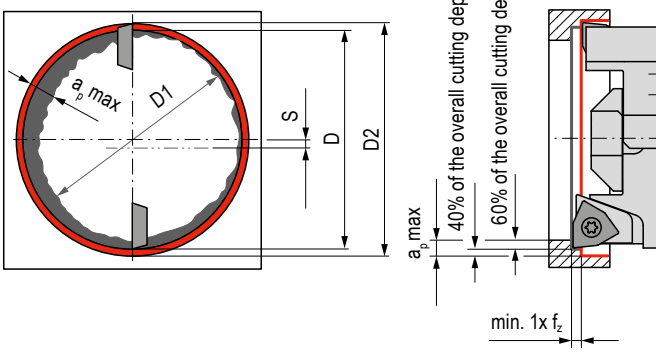
Roughing / Semi-Finishing



Cut distribution calculation

G01

Example:
D2 (finished Ø) = 100 mm,
D1 (raw Ø) = 80 mm,
S (offset) = 3 mm



Calculation formula

$$D = D2 - [(\frac{D2 - D1}{2}) + S] \times 0.8$$

$$D = 100 - [(\frac{100 - 80}{2}) + 3] \times 0.8 = 89.6 \text{ mm}$$

Feed rate guide values for surface finish quality

Roughness range R_Z in µm	R_{th}	Corresponds to R_a	Roughness index	ISO 1302	Corner radius RE in mm and feed f in mm/rev						
					RE = 0.1	RE = 0.2	RE = 0.4	RE = 0.8	RE = 1.2	RE = 1.6	RE = 2.4
63–100	$R_{th}63$	12.5–25	N11	25	0.22*	0.32*	0.45*	0.63	0.78	0.9	1.1
40–63	$R_{th}40$	6.3–12.5	N10	12.5	0.18*	0.25*	0.36	0.51	0.62	0.72	0.88
31.5–40	$R_{th}31.5$	4.9–6.3	N9	6.3	0.16*	0.22*	0.32	0.45	0.55	0.63	0.78
25–31.5	$R_{th}25$	4.0–4.9			0.14*	0.2*	0.28	0.4	0.49	0.57	0.69
16–25	$R_{th}16$	2.5–4.0	N8	3.2	0.11*	0.16	0.23	0.32	0.39	0.45	0.55
10–16	$R_{th}10$	1.6–2.5			0.09	0.13	0.18	0.25	0.31	0.36	0.44
6.3–10	$R_{th}6.3$	1.0–1.6	N7	1.6	0.07	0.1	0.14	0.2	0.25	0.28	0.35
4–6.3	$R_{th}4$	0.8–1.0	N6	0.8	0.06	0.08	0.11	0.16	0.2	0.23	0.28
2.5–4	$R_{th}2.5$	0.4–0.8	N5	0.4	0.04	0.06	0.09	0.13	0.15	0.18	0.22
1.6–2.5	$R_{th}1.6$	0.2–0.4	N4	0.2	0.04	0.05	0.07	0.1	0.12	0.14	0.18
1–1.6	$R_{th}1$	0.1–0.2	N3	0.1	0.03	0.04	0.06	0.08	0.1	0.11	0.14

*Please ensure that the feed rate values used do not exceed the corner radius (RE).

The feed rate values shown are recommended values and are based on purely theoretical calculations using the above-mentioned formula. These may however deviate in practice.

Insert

Selection of the rake angle

Recommendations for the usage of indexable inserts with ground chip breakers

	rounded E	Sharp F	chamfered T
0°	P	P	P
	M	M	M
	K	K	**K**
	N	**N**	N
	S	S	S
	H	H	**H**
≤ 6°	**P**	P	P
	M	M	M
	K	K	K
	N	N	N
	S	S	S
	H	H	H
≤ 12°	**P**	P	P
	M	M	M
	K	K	K
	N	**N**	N
	S	**S**	S
	H	H	H
≤ 20°	P	P	P
	M	M	M
	K	K	K
	N	**N**	N
	S	**S**	S
	H	H	H

→ **Page 87**
Here you will find a detailed chip groove description.

Number key

for MicroKom indexable inserts

W	2	9	2	4	0	1	0	.	0	4	8	4	2	5
	2	3	4	5	6	7	8		9	10	11	12	13	14

2 – 3 Type / shape

00	W...	84°	Regular version, periphery ground
29	W...	84°	Reinforced version
30	T...	60°	Periphery ground, clearance angle 8°
57	T...	60°	Periphery ground, clearance angle 11°
80	S...	90°	Periphery sintered

4 – 5 Size / IC

04	4.0 mm	**18**	6.2 mm 6.35 mm	**28**	8.9 mm	**42**	12.0 mm
10	4.8 mm 5.0 mm	**20**	7.0 mm 7.1 mm	**32**	9.52 mm 9.8 mm	**46**	13.2 mm
12	5.5 mm	**24**	8.0 mm	**34**	10.0 mm	**50**	15.0 mm
14	5.6 mm	**26**	8.2 mm	**38**	10.9 mm 11.1 mm	**58**	17.6 mm

6 – 7 Topography

Ground code

06	Left-hand cutting, 6°
12	Left-hand cutting, 12°
34	High-feed geometry, chamfered and rounded

Sintered code

01	Double grooves, cutting edge chamfered and rounded
02	Stepped geometry, cutting edge chamfered and rounded
03	Calotte geometry, cutting edge rounded
11	20° chip former, cutting edge rounded
12	Alu / finishing geometry
13	Shaft geometry, cutting edge rounded
14	Finishing topography
15	Semi-finishing topography
18	Finishing topography with wiper corner
32	Burr-minimised, periphery ground
33	Burr-minimised, periphery sintered

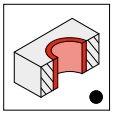
9 – 10 Corner radius

01	R 0.1	**04**	R 0.4
02	R 0.2	**06**	R 0.6
03	R 0.3	**08**	R 0.8

11 – 14 Grade

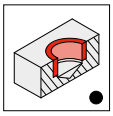
→ **Page 89**
Here you will find the detailed grade description.

Notes on boring technology – TwinKom

1. 

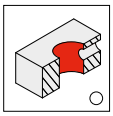
Boring a through hole

▲ Possible without any problems

2. 

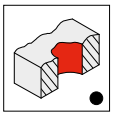
Boring a blind hole

▲ Possible without any problems

3. 

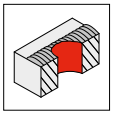
Boring through a cross hole

▲ Reduce feed by up to 50%, if necessary
▲ Check for chip jamming on the periphery of the tool
▲ Use tough indexable inserts
▲ Use stable corner radius

4. 

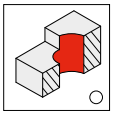
Boring uneven surfaces (casting surfaces)

▲ Feed must reduce by up to 40% when starting the bore
▲ Use tough indexable inserts
▲ Use stable corner radius

5. 

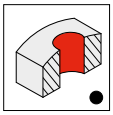
Boring a seam (forging/welding/casting seam)

▲ Reduce feed
▲ Use max. 3xD tools

6. 

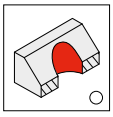
Entering on an edge

▲ Reduce feed to 50%
▲ Use tough indexable inserts
▲ Use stable corner radius

7. 

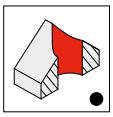
Entering on convex surfaces

▲ Possible without any problems
▲ If necessary, reduce feed

8. 

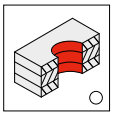
Boring angled surfaces

▲ From the interrupted cut, reduce the feed by up to 50%
▲ Use tough indexable inserts
▲ Use stable corner radius

9. 

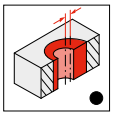
Boring a pointed contour

▲ Reduce the feed by up to 40% in the area where cutting is interrupted

10. 

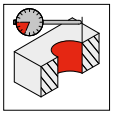
Stack plate boring

▲ Use holder with 80° positioning
▲ Good workpiece clamping required
▲ Max. gap size = 1 mm

11. 

Large hole offset

▲ Possible without any problems
▲ Axial-radial cut distribution, see graphic: Cut distribution

12. 

Adjustable in diameter

▲ Possible without any problems

Problems / possible causes / solutions – rough boring and fine boring

1. No chip breakage

▲ Cutting depth a_p too low for cutting edge topography used	→ If necessary, increase the cutting depth a_p → Use cutting edge topography for small to medium cutting depths
▲ Cutting depth a_p too big for cutting edge topography used	→ Reduce cutting depth a_p → Axial-radial cut distribution → Use cutting edge topography for larger cutting depths
▲ Feed/tooth too low	→ Increase feed/tooth
▲ RPM too high	→ Reduce RPM
▲ Cutting edges not same length axially	→ Correct axial offset: Use holder with axial length compensation

2. Chip jamming

▲ Unfavorable chip shape	→ Increase feed → Use cutting edge topography with chip breaker → Axial-radial cut distribution → See measures: 1. No chip breakage
▲ Workpiece clamping	→ In the case of through holes, check there is sufficient space for pecking behind the component
▲ Cooling lubricant pressure/quantity too low	→ Improve cooling lubricant pressure/quantity

3. Conical hole

→ See measures: 1. No chip breakage

4. Poor surface quality

▲ Feed too high	→ Reduce feed
▲ Cutting speed too low	→ Increase cutting speed
▲ Cutting radius too small	→ Use indexable insert with a larger cutting radius → Use indexable insert with wiper geometry
▲ Rake angle of the indexable insert too small	→ Use indexable insert with positive cutting edge geometry
▲ Built-up edge	→ Use indexable insert with positive cutting edge geometry → Use indexable insert with wider chip breaker groove
▲ Unfavorable chip shape	→ See measures: 1. No chip breakage → See measures: 2. Chip jam

5. Vibration

▲ Tool design – high L/D ratio	→ If necessary, check tool design → If possible, consistently avoid the same boring bar Ø → If possible, stepped tool design; design tool to be as stable as possible → Check axial-radial cutting settings → Use vibration-optimized boring bar, if necessary → Use HMD damping element, if necessary
▲ Feed too high	→ Reduce feed
▲ Cutting speed too high	→ Reduce cutting speed, see graphic: Selection of the cutting speed depending on the overhang length
▲ Depth of cut too big	→ Reduce depth of cut → Axial-radial cut distribution
▲ Cutting edge geometry too blunt	→ Use indexable insert with positive cutting edge geometry → Use indexable insert with wider chip breaker groove
▲ Cutting radius too big	→ Use indexable insert with a smaller cutting radius, see graphic: Selection of the cutting radius depending on the overhang length and the depth of cut

Types of wear

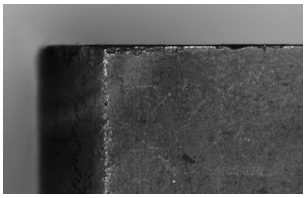
Wear on clearance face

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

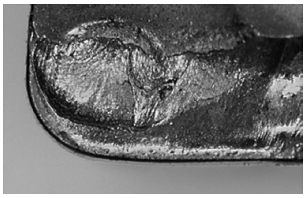


Increased mechanical stress on the cutting edge may result in carbide particles breaking off.

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

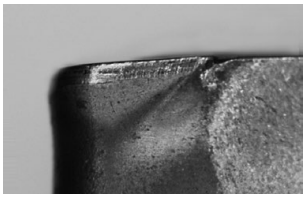


The outgoing hot chip is causing cratering of the cutting insert on the clamping surface.

Cause
- Cutting speed too high, feed too high
- Rake angle too low
- 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

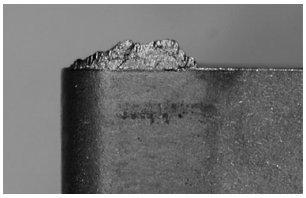


High machining temperature with simultaneous mechanical stress can lead to plastic deformation.

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
- Select more wear-resistant, more thermally stable carbide grade
- Make provisions for cooling / check supply

Built-up edge

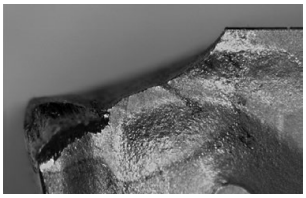


Material builds up on the cutting edge if the chip does not flow correctly due to the cutting temperature being too low.

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

Remedy
- Increase cutting speed
- Increase rake angle
- Use TiN coating
- Make provisions for cooling / 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

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 with high cutting edge sharpness
- Excellent chip control with minimum susceptibility to built-up edge formation
- Particularly good chip breakage with 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°
- Particularly smooth cutting thanks to the extremely positive rake angle
- Excellent chip control with minimum susceptibility to built-up edge formation
- Perfect cutting performance thanks to the extremely positive rake angle, particularly with low depths of cut 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
- Only suitable for small cutting depths < 1.5 mm under certain circumstances

-11

- Rake angle 20°
- Highly positive, minimally rounded chip breaker
- For soft-cutting usage
- Main application in aluminium

-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

Grades

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

BK60

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

BK6110

- Carbide, TiCN-TiN-Al_2O_3-coated
- ISO | P10 | **K10**
- Wear-resistant carbide grade for machining cast iron and steel materials

BK6115

- Carbide, TiCN-TiN-Al_2O_3-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

BK6440

- Carbide, CVD-TiCN-Al_2O_3-TiN coated
- ISO | **M25** | **K35**
- Extremely tough standard grain grade; good wear resistance in steel and stainless steel materials, even in unfavorable cutting conditions / interrupted cut

BK7615

- Carbide, TiCN-Al_2O_3-coated
- ISO | **K15**
- Highly productive grade with extreme edge stability for wet and dry machining of all cast iron materials

BK77

- Carbide, TiN-coated
- ISO | **S10** | H10 | O10
- The wear-resistant carbide grade for machining aluminum alloys, superalloys and plastics at medium cutting speeds

BK7710

- Carbide, TiB_2-coated
- ISO | **N10** | S10 | O10
- The wear-resistant grade with optimum cutting characteristics to prevent built-up edge formation for machining aluminium and titanium alloys

BK7935

- Carbide, AlTiN-coated
- ISO | **P35** | **M30** | **K30** | N30 | **S30** | O30
- The tough carbide grade for machining stainless steel and acid-resistant steels as well as special alloys

BK8425

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

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

BK8440

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

Grades

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

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 behavior with good wear resistance suitable for use also in interrupted cut

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)

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

CWC10

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

CWN10

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

CWP25

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

Coatings

TiN

- TiN coating
- Maximum application temperature: 450 °C