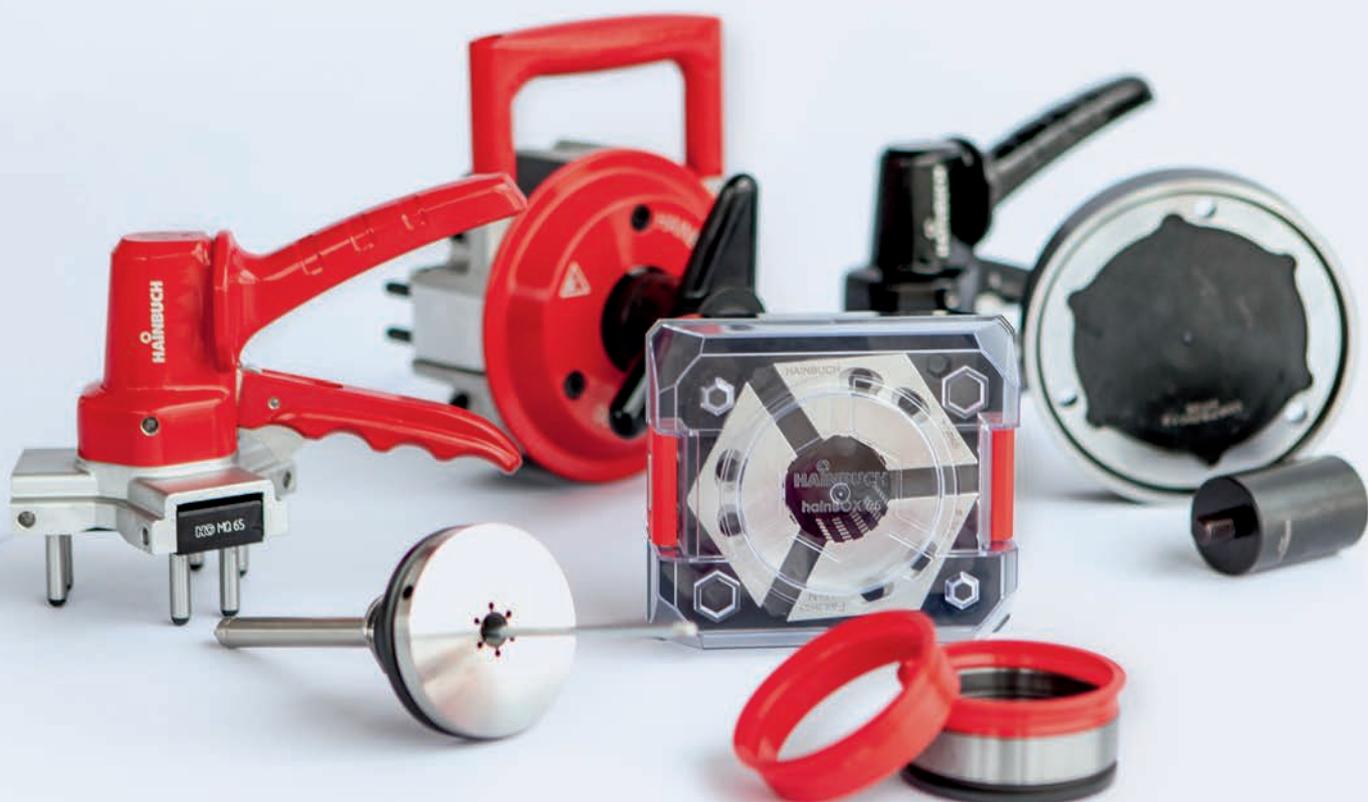


# Overview

Find what's important fast



Accessories

	vario part end-stop system	480		Adaptation set for MANDO G211	528
	vario quick end-stop system	483		Tandem cylinder / base plate for HYDROK	530
	vario flex end-stop system	494		Multiple clamping pallets	533
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	Adapters for air sensing control	524			
	Base plate for TOROK	526			

# ACCESSORIES

## Quick reference overview

### Overview of accessories

	<i>vario part end-stop system</i>	<i>vario quick end-stop system</i>	<i>vario flex end-stop system</i>	<i>End-stop blanks</i>	<i>Front end-stops</i>	<i>Chip protection rings</i>	<i>Adaptation ring HAINBUCH SYSTEM</i>
							
	Page 480	Page 483	Page 494	Page 496	Page 502	Page 505	Page 508
<b>Chucks</b>							
	X	X	X	X	X	X	
Chuck TOPlus premium	X	X	X	X	X	X	
Chuck TOPlus	X	X	X	X	X	X	
Chuck SPANNTOP mini	X	X	X	X	X	X	X
Chuck SPANNTOP nova	X	X	X	X	X	X	
Manual chuck TOROK	X	X			X		
Jaw chuck B-Top							
Jaw chuck B-Top3							
Eccentric chuck							
InoFlex VD							
InoFlex VT-S							
<b>Mandrels</b>							
				X			
Mandrel MANDO G							
Mandrel MAXXOS				X			
Mandrel actuating units ms dock / hs dock							
<b>Stationary clamping devices</b>							
				X			
Manual stationary chuck MANOK plus	X	X			X		
Hydraulic stationary chuck HYDROK					X		
InoFlex VF							
<b>Adaptation clamping devices</b>							
				X			
Jaw module							
Face driver / morse taper adaptation							
Magnet module							
<b>Clamping elements [clamping heads]</b>							
							
Clamping heads SE							
Clamping heads RD							
Clamping heads with special profiles							

Customer-specific adaptations and other accessories available upon request.

# ACCESSORIES

## Quick reference overview

<i>Insert bushings jaw chuck</i>	<i>Clamping head adapter</i>	<i>Flanges / drawtube adapters / drawtubes</i>	<i>Adapters for air sensing control</i>	<i>Base plate for TOROK</i>	<i>Adaptation set for MANDO G211</i>	<i>Tandem cylinder / base plate for HYDROK</i>	<i>Multiple clamping pallets</i>	<i>hainBOX storage system</i>	<i>Changing fixtures</i>	<i>Alignment set</i>	<i>Grease</i>	<i>Various</i>
												
Page 510	Page 513	Page 517	Page 524	Page 526	Page 528	Page 530	Page 533	Page 535	Page 537	Page 540	Page 542	Page 545

	X	X								X	X	X
	X	X								X	X	X
	X	X								X	X	X
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								X	X		X	
								X	X		X	
								X	X		X	

Clamping elements /  
Accessories

Services

Multi spindles

## End-stop system vario part



### End-stop system vario part

The vario part is an extremely rigid and precise end-stop system that functions like a gauge block box. With the ground gauge discs the clamping length can be determined with millimeter accuracy. Thus, in principle you already have the suitable end-stop ready in the drawer – and this saves valuable work preparation time.

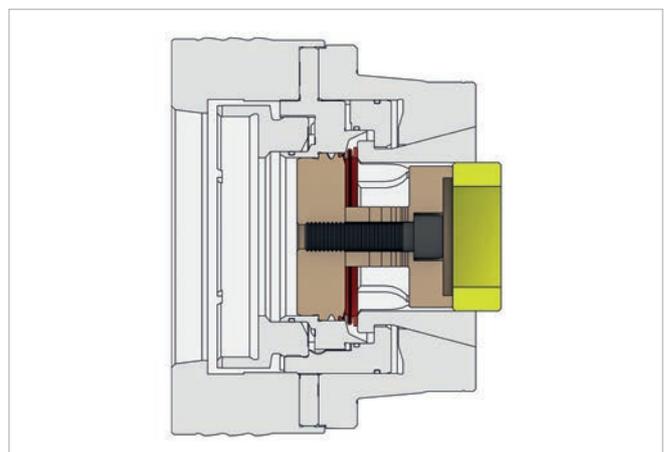
The offered sets can be extended as desired with further end-stop plates.

### Key advantages

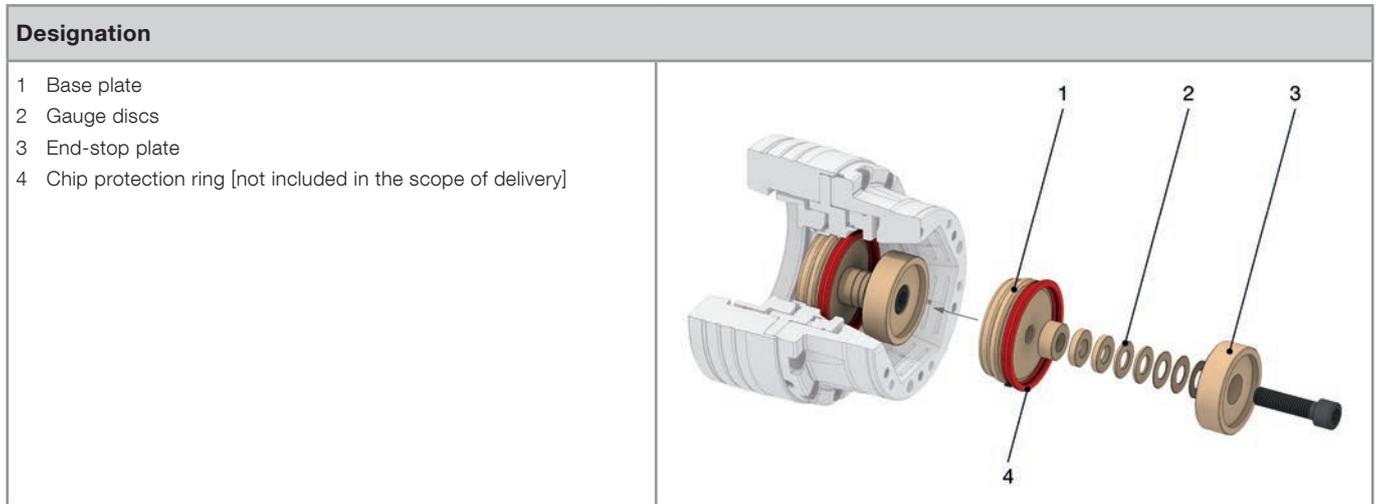
- Standardized workpiece end-stops
- Proven and well-known system with gauge discs
- Through gauge discs the clamping length is flexibly adjustable and adaptable to the workpiece in 1 mm increments
- Can be used rotating and stationary
- Practical storage box

### Your benefits

- End-stop design is virtually unnecessary
- Faster set-up
- Multiple use through modular structure



vario part in detail



vario part SETS. Order overview

Size	Suitable for	In addition to the basic equipment* set also contains	In stock	Material no.
32	SPANNTOP mini	End-stop plate Ø 29 mm	✓	10000440
	SPANNTOP nova		✓	10000399
40	TOPlus mini TOPlus premium	End-stop plate Ø 29 / 34 mm	✓	10000442
	42	SPANNTOP mini	End-stop plate Ø 29 / 39 mm	✓
SPANNTOP nova		✓		10000400
52	TOPlus mini TOPlus premium SPANNTOP mini	End-stop plate Ø 29 / 39 / 49 mm	✓	10000445
	TOPlus SPANNTOP nova		✓	10000401
	TOROK steel SE/RD TOROK CFK SE/RD MANOK plus CFK SE/RD		✓	10000449
65	TOPlus mini TOPlus premium SPANNTOP mini	End-stop plate Ø 29 / 39 / 49 / 59 mm Chip protection ring	✓	10019018
	TOPlus SPANNTOP nova		✓	10019023
	TOROK steel SE/RD TOROK CFK SE/RD		✓	10019025
	MANOK plus SE/RD MANOK plus CFK SE/RD		✓	10019024

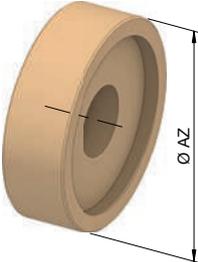
## ACCESSORIES

### End-stop system vario part

Size	Suitable for	In addition to the basic equipment* set also contains	In stock	Material no.
80	TOPlus mini TOPlus premium SPANNTOP mini	End-stop plate Ø 29 / 39 / 49 / 59 / 69 / 79 mm Chip protection ring	✓	10019020
	SPANNTOP nova		✓	10019026
	TOROK steel RD		✓	10019117
100	TOPlus mini TOPlus premium SPANNTOP mini	End-stop plate Ø 49 / 59 / 69 / 79 / 89 mm Chip protection ring	✓	10019021
	TOPlus combi pull-back SPANNTOP nova combi pull-back		✓	10019027
	TOPlus combi deadlength SPANNTOP nova combi deadlength		✓	10019028
	TOROK SE/RD		✓	10019029

\* Basic equipment: Allen wrench, gauge discs, base plate and a magnet.

### Supplemental end-stop plates for vario part [included in some sets]

Product	Figure	End-stop outer Ø [mm] AZ	In stock	Material no.
End-stop plate		29,0	✓	10000419
		34,0	✓	10000426
		39,0	✓	10000420
		44,0	✓	10000427
		49,0	✓	10000421
		54,0	✓	10000428
		59,0	✓	10000422
		64,0	✓	10000429
		69,0	✓	10000423
		74,0	✓	10000430
		79,0	✓	10000424
		84,0	✓	10000431
		89,0	✓	10000425
		94,0	✓	10000432



### End-stop system vario quick

Vario quick is an end-stop system with standardized adjustable workpiece end-stops. It saves valuable work preparation time and gives you significantly more flexibility. Since you always have the required clamping length on hand – without having to produce the end-stops yourself.

The clamping length is set for the end-stop screws / blank screws via a threaded spindle. One half turn corresponds to 1 mm adjustment travel.

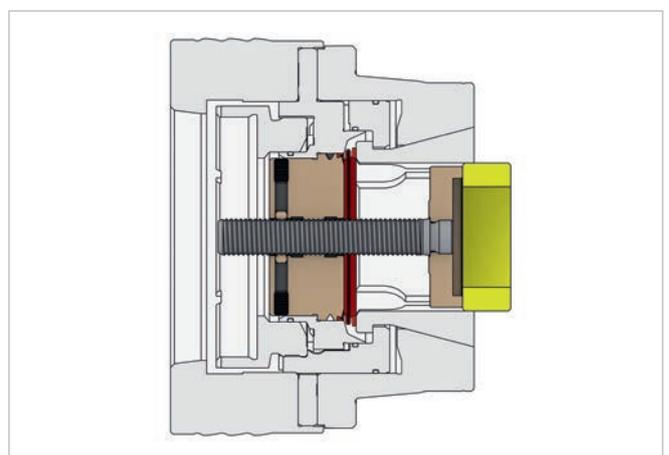
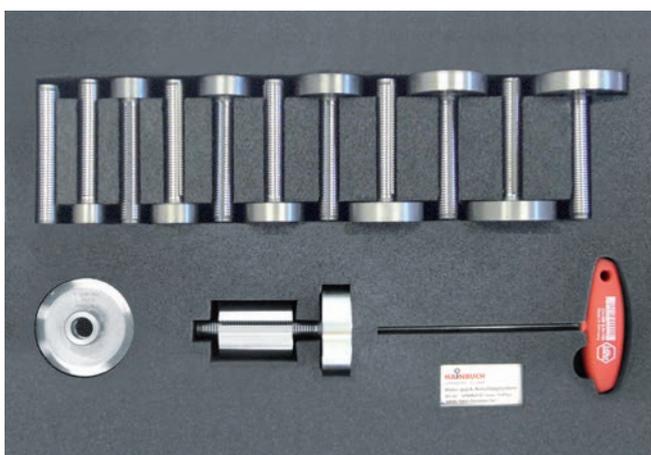
The sets can be extended individually with separately available end-stop screws and blank screws. The vario quick end-stop system can also be used stationary under specific conditions [table bore required]. As an alternative, we recommend our vario part system.

#### Key advantages

- Standardized workpiece end-stops
- End-stop depth can quickly be adjusted in 1 mm increments
- End-stop blanks available
- Can be used rotating and stationary
- Practical storage box

#### Your benefits

- End-stop design is virtually unnecessary
- Faster set-up
- Multiple use through modular structure



## ACCESSORIES

### End-stop system vario quick

#### vario quick in detail

Designation	
<p>1 Base plate [By replacing the base plate the end-stop screws and blank screws can also be used on other clamping devices.]</p> <p>2 End-stop screws</p> <p>3 Blank screw</p> <p>4 Chip protection ring [not included in the scope of delivery]</p>	

#### vario quick SETS. Order overview

Size	Suitable for	Variant	In addition to the basic equipment* set also contains	In stock	Material no.
32	SPANNTOP mini	Starter set	End-stop screw Ø 15,5 mm Blank screw Ø 30 mm Chip protection ring	✓	10000376
		Standard set	End-stop screw Ø 15,5 / 29 mm Blank screw Ø 30 mm Chip protection ring	✓	10000377
	SPANNTOP nova	Starter set	End-stop screw Ø 15,5 mm Blank screw Ø 30 mm	✓	10000310
		Standard set	End-stop screw Ø 15,5 / 29 mm Blank screw Ø 30 mm	✓	10000301
40	TOPlus mini TOPlus premium	Starter set	End-stop screw Ø 15,5 / 29 mm Blank screw Ø 40 mm Chip protection ring	✓	10000378
		Standard set	End-stop screw Ø 15,5 / 29 / 34 mm Blank screw Ø 40 mm Chip protection ring	✓	10000379
42	SPANNTOP mini	Starter set	End-stop screw Ø 15,5 / 29 mm Blank screw Ø 40 mm Chip protection ring	✓	10000380
		Standard set	End-stop screw Ø 15,5 / 29 / 34 mm Blank screw Ø 40 mm Chip protection ring	✓	10000381
	SPANNTOP nova	Starter set	End-stop screw Ø 15,5 / 29 mm Blank screw Ø 40 mm	✓	10000311
		Standard set	End-stop screw Ø 15,5 / 29 / 39 mm Blank screw Ø 40 mm	✓	10000302

## ACCESSORIES

### End-stop system vario quick

Size	Suitable for	Variant	In addition to the basic equipment* set also contains	In stock	Material no.
52	TOPlus mini TOPlus premium SPANNTOP mini	Starter set	End-stop screw Ø 15,5 / 39 mm Blank screw Ø 50 mm Chip protection ring	✓	10000382
		Standard set	End-stop screw Ø 15,5 / 29 / 39 / 49 mm Blank screw Ø 50 mm Chip protection ring	✓	10000383
	TOPlus SPANNTOP nova	Starter set	End-stop screw Ø 15,5 / 39 mm Blank screw Ø 50 mm Chip protection ring	✓	10000312
	TOPlus SPANNTOP nova	Standard set	End-stop screw Ø 15,5 / 29 / 39 / 49 mm Blank screw Ø 50 mm Chip protection ring	✓	10000303
	TOROK CFK SE/RD TOROK steel SE/RD MANOK plus CFK SE/RD	Starter set	End-stop plate Ø 29 / 39 mm Blank screw Ø 50 mm	✓	10000391
		Standard set	End-stop screw Ø 15,5 / 29 / 39 / 49 mm Blank screw Ø 50 mm	✓	10000392
65	TOPlus mini TOPlus premium SPANNTOP mini	Starter set	End-stop screw Ø 15,5 / 39 mm Blank screw Ø 63 mm Chip protection ring	✓	10000384
		Standard set	End-stop screw Ø 15,5 / 29 / 39 / 49 / 59 mm Blank screw Ø 63 mm Chip protection ring	✓	10000385
	TOPlus SPANNTOP nova	Starter set	End-stop screw Ø 15,5 / 39 mm Blank screw Ø 63 mm Chip protection ring	✓	10000313
		Standard set	End-stop screw Ø 15,5 / 29 / 39 / 49 / 59 mm Blank screw Ø 63 mm Chip protection ring	✓	10000304
	TOROK steel / CFK SE/RD MANOK plus CFK SE/RD	Starter set	End-stop screw Ø 15,5 / 39 mm Blank screw Ø 63 mm Chip protection ring	✓	10000372
		Standard set	End-stop screw Ø 15,5 / 29 / 39 / 49 / 59 mm Blank screw Ø 63 mm Chip protection ring	✓	10000373
	MANOK plus steel SE/RD	Starter set	End-stop screw Ø 15,5 / 39 mm Blank screw Ø 63 mm Chip protection ring	✓	10000314
		Standard set	End-stop screw Ø 15,5 / 29 / 39 / 49 / 59 mm Blank screw Ø 63 mm Chip protection ring	✓	10000305

## ACCESSORIES

### End-stop system vario quick

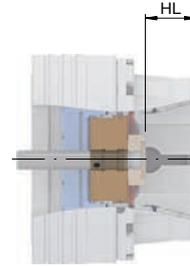
Size	Suitable for	Variant	In addition to the basic equipment* set also contains	In stock	Material no.
80	TOPlus mini TOPlus premium SPANNTOP mini	Starter set	End-stop screw Ø 15,5 / 39 / 69 mm Blank screw Ø 78 mm Chip protection ring	✓	10000386
		Standard set	End-stop screw Ø 15,5 / 29 / 39 / 49 / 59 / 69 / 79 mm Blank screw Ø 78 mm Chip protection ring	✓	10000387
	SPANNTOP nova	Starter set	End-stop screw Ø 15,5 / 39 / 69 mm Blank screw Ø 78 mm Chip protection ring	✓	10000316
		Standard set	End-stop screw Ø 15,5 / 29 / 39 / 49 / 59 / 69 / 79 mm Blank screw Ø 78 mm Chip protection ring	✓	10000307
	TOROK steel RD	Starter set	End-stop screw Ø 15,5 / 39 / 69 mm Blank screw Ø 78 mm Chip protection ring	✓	10019119
		Standard set	End-stop screw Ø 15,5 / 29 / 39 / 49 / 59 / 69 / 79 mm Blank screw Ø 78 mm Chip protection ring	✓	10019118
100	TOPlus mini TOPlus premium SPANNTOP mini	Starter set	End-stop screw Ø 39 / 79 mm Blank screw Ø 93 mm Chip protection ring	✓	10000388
		Standard set	End-stop screw Ø 39 / 49 / 59 / 69 / 79 / 89 mm Blank screw Ø 93 mm Chip protection ring	✓	10000389
	TOPlus combi pull-back SPANNTOP nova combi pull-back	Starter set	End-stop screw Ø 39 / 79 mm Blank screw Ø 93 mm Chip protection ring	✓	10019007
		Standard set	End-stop screw Ø 39 / 49 / 59 / 69 / 79 / 89 mm Blank screw Ø 93 mm Chip protection ring	✓	10019015
	TOPlus combi deadlength SPANNTOP nova combi deadlength	Starter set	End-stop screw Ø 39 / 79 mm Blank screw Ø 93 mm Chip protection ring	✓	10019016
		Standard set	End-stop screw Ø 39 / 49 / 59 / 69 / 79 / 89 mm Blank screw Ø 93 mm Chip protection ring	✓	10019017
	TOROK steel SE/RD	Starter set	End-stop screw Ø 39 / 79 mm Blank screw Ø 93 mm Chip protection ring	✓	10019031
		Standard set	End-stop screw Ø 39 / 49 / 59 / 69 / 79 / 89 mm Blank screw Ø 93 mm Chip protection ring	✓	10019032

\*Basic equipment: Clamping sleeve, base plate and allen wrench.

## ACCESSORIES

### End-stop system vario quick

Base plate for TOPlus mini and SPANNTOP mini [included in the set of the respective size]



Size	Suitable for	Description	Maximum clamping depth for TOPlus mini pull-back [mm] HL	Maximum clamping depth for TOPlus mini deadlength [mm] HL	Maximum clamping depth for SPANNTOP mini pull-back [mm] HL	Maximum clamping depth for SPANNTOP mini deadlength [mm] HL	In stock	Material no.
32	SPANNTOP mini	prepared for chip protection ring			31	31,5	✓	10000356
40	TOPlus mini TOPlus premium	prepared for chip protection ring	33	32,6			✓	10000366
42	SPANNTOP mini	prepared for chip protection ring			28	31,2	✓	10000364
52	TOPlus mini TOPlus premium SPANNTOP mini	prepared for chip protection ring	32	31,8	32	31,8	✓	10000360
65	TOPlus mini TOPlus premium SPANNTOP mini	prepared for chip protection ring	40	40	40	40	✓	10000358
80	TOPlus mini TOPlus premium SPANNTOP mini	prepared for chip protection ring	40	41	40	41	✓	10000363
100	TOPlus mini TOPlus premium SPANNTOP mini	prepared for chip protection ring	58	60	58	60	✓	10000361

## ACCESSORIES

### End-stop system vario quick

Base plate for TOPlus and SPANNTOP nova [included in the set of the respective size]

Size	Suitable for	Description	Max. clamping depth pull-back [mm] HL	Max. clamping depth deadlength [mm] HL	In stock	Material no.
32	SPANNTOP nova	not prepared for chip protection ring	38,5	38,5	✓	10000319
42	SPANNTOP nova	not prepared for chip protection ring	42,5	40,8	✓	10000320
52	TOPlus SPANNTOP nova	prepared for chip protection ring	42,5	40,8	✓	10000321
65	TOPlus SPANNTOP nova	prepared for chip protection ring	49,5	51	✓	10000322
80	SPANNTOP nova	prepared for chip protection ring	49,5	51	✓	10000326
100	TOPlus combi pull-back SPANNTOP nova combi pull-back	prepared for chip protection ring	59	71,5	✓	10017273
	TOPlus combi deadlength SPANNTOP nova combi deadlength				✓	10017274

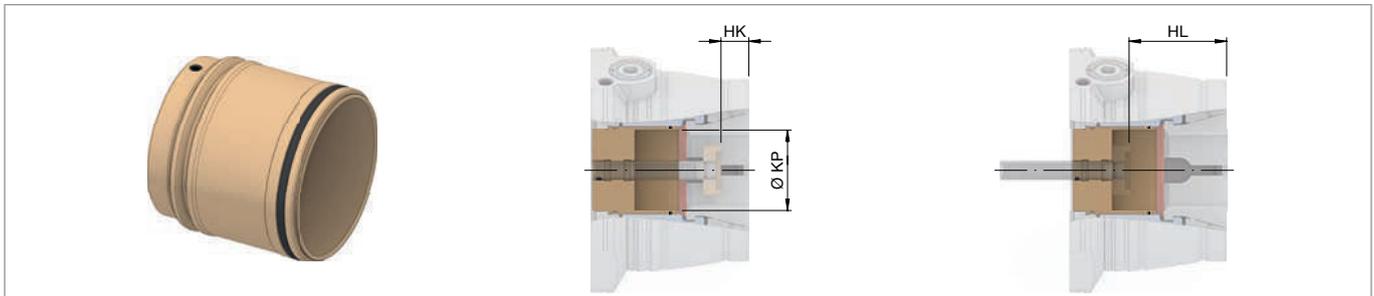
Base plate for TOROK - end-stop type 1 [included in the set of the respective size]

Size	End-stop type	Description	Maximal clamping depth [mm] HL	In stock	Material no.
52	T1	not prepared for chip protection ring	49,5	✓	10000370
65	T1	prepared for chip protection ring	49,5	✓	10000374
80	T1	prepared for chip protection ring	53,5	✓	10019120
100	T1	prepared for chip protection ring	51,5	✓	10018994

## ACCESSORIES

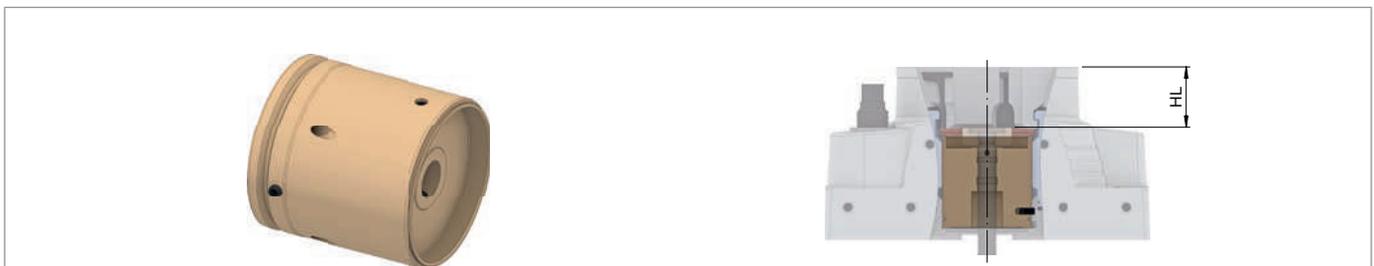
### End-stop system vario quick

Base plate for TOROK – end-stop type 2 for greater clamping depth [not included in the scope of delivery of the set]



Size	End-stop type	Description	Minimal clamping depth [mm] HK	Maximal clamping depth [mm] HL	Workpiece Ø [mm] KP	In stock	Material no.
52	T2	not prepared for chip protection ring	23	76	50	✓	10000390
65	T2	not prepared for chip protection ring	22	77	63	✓	10000375
80	T2	prepared for chip protection ring	30,5	81	78	✓	10019127
100	T2	prepared for chip protection ring	31	86		✓	10018995

Base plate for MANOK plus – end-stop type 1 [included in the set of the respective size]

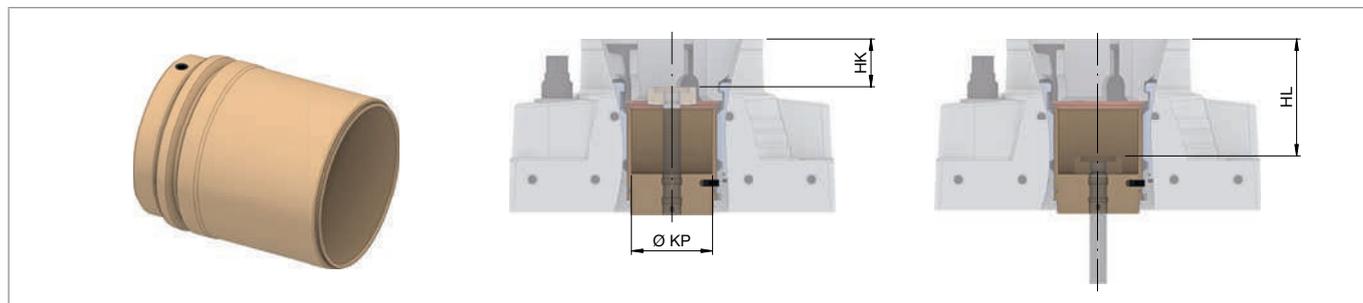


Size	Suitable for	Description	End-stop type	Maximal clamping depth [mm] HL	In stock	Material no.
52	CFK model	not prepared for chip protection ring	T1	49,5	✓	10000370
65	Steel model	prepared for chip protection ring	T1	48	✓	10000324
	CFK model			49	✓	10000374

## ACCESSORIES

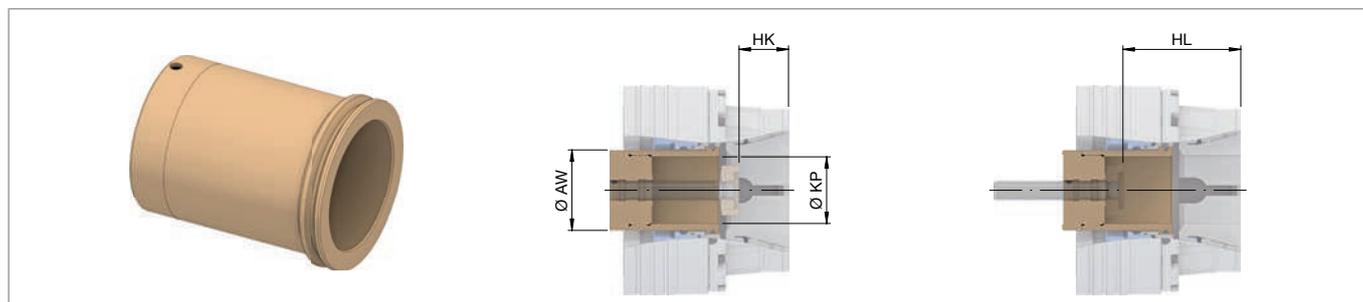
### End-stop system vario quick

Base plate for MANOK plus – end-stop type 2 for greater clamping depth [not included in the scope of delivery of the set]



Size	Suitable for	Description	End-stop type	Minimal clamping depth [mm] HK	Maximal clamping depth [mm] HL	Workpiece Ø [mm] KP	In stock	Material no.
52	CFK model	not prepared for chip protection ring	T2	23	76	50	✓	10000390
65	Steel model	not prepared for chip protection ring	T2	38	93	63	✓	10019030
	CFK model			23	77		✓	10000375

Depth end-stop, short [not included in the scope of delivery of the set]



Size	Suitable for	Minimal clamping depth [mm] HK	Maximal clamping depth [mm] HL	Workpiece Ø [mm] KP	Outer Ø [mm] AW	In stock	Material no.
32	SPANNTOP nova	37,5	88	23,5	32,6	✓	10000490
	SPANNTOP mini	30	82			✓	10000502
40	TOPlus mini TOPlus premium	32	86	33,5	42	✓	10000504
42	SPANNTOP nova	41,5	92	33,5	42	✓	10000492
	SPANNTOP mini	27	81			✓	10000506

## ACCESSORIES

### End-stop system vario quick

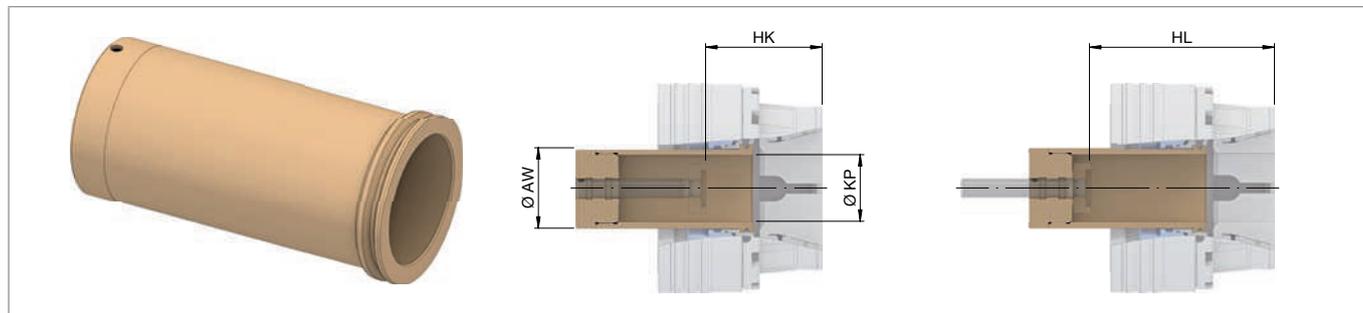
Size	Suitable for	Minimal clamping depth [mm]	Maximal clamping depth [mm]	Workpiece Ø [mm]	Outer Ø [mm]	In stock	Material no.
		HK	HL	KP	AW		
52	TOPlus SPANNTOP nova	41,5	94	44	51,5	✓	10000494
	TOPlus mini TOPlus premium SPANNTOP mini	31	85			✓	10000508
65	TOPlus SPANNTOP nova	48,5	102	52	64,5	✓	10000496
	TOPlus mini TOPlus premium SPANNTOP mini	39	93		64	✓	10000510
80	TOPlus mini TOPlus premium SPANNTOP mini	39	93	65	78	✓	10000512
	SPANNTOP nova	48,5	102		78,5	✓	10000498
100	TOPlus SPANNTOP nova	57	110,5	89	100	✓	10000500
	TOPlus mini TOPlus premium SPANNTOP mini		111			✓	10000514

Delivery without end-stop / blank screw.

## ACCESSORIES

### End-stop system vario quick

Depth end-stop, long [not included in the scope of delivery of the set]



Size	Suitable for	Minimal clamping depth [mm]	Maximal clamping depth [mm]	Workpiece Ø [mm]	Outer Ø [mm]		In stock	Material no.
		HK	HL		KP	AW		
32	SPANNTOP nova	87	130	23,5	32,6		✓	10000491
	SPANNTOP mini	78					✓	10000503
40	TOPlus mini TOPlus premium	81	135	33,5	42		✓	10000505
42	SPANNTOP nova	91	141	33,5	42		✓	10000493
	SPANNTOP mini	80	134				✓	10000507
52	TOPlus SPANNTOP nova	93	145,5	44	51,5		✓	10000495
	TOPlus mini TOPlus premium SPANNTOP mini	84	138				✓	10000509
65	TOPlus SPANNTOP nova	101	154,5	52	64,5		✓	10000497
	TOPlus mini TOPlus premium SPANNTOP mini	92	146		64		✓	10000511
80	TOPlus mini TOPlus premium SPANNTOP mini	92	146	65	78		✓	10000513
	SPANNTOP nova	101	154,5		78,5		✓	10000499
100	TOPlus SPANNTOP nova	108,5	162	89	100		✓	10000501
	TOPlus mini TOPlus premium SPANNTOP mini	110	164				✓	10000515

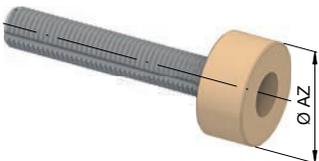
Delivery without end-stop / blank screw.

## ACCESSORIES

### End-stop system vario quick

Product	Figure	Description	In stock	Material no.
Assembly aid [for depth end-stops]		With trapezoidal thread	✓	10000250

#### Supplemental end-stop/blank screws – suitable for all sets and depth end-stops

Product	Figure	End-stop outer Ø [mm] AZ	In stock	Material no.
End-stop screw		15,5	✓	10000352
		19,0	✓	10000336
		24,0	✓	10000337
		29,0	✓	10000338
		34,0	✓	10000339
		39,0	✓	10000340
		44,0	✓	10000341
		49,0	✓	10000342
		54,0	✓	10000343
		59,0	✓	10000344
		64,0	✓	10000345
		69,0	✓	10000346
		74,0	✓	10000347
		79,0	✓	10000348
		84,0	✓	10000349
Blank screw		89,0	✓	10000350
		94,0	✓	10000351
		30,0	✓	10000329
		40,0	✓	10000330
		50,0	✓	10000331
		63,0	✓	10000332
		78,0	✓	10000333
		93,0	✓	10000334

## End-stop system vario flex



### End-stop system vario flex

With the vario flex gas pressure workpiece ejector the machined workpiece is automatically ejected out of the clamping device. This automation increases your process reliability and reduces cycle times.

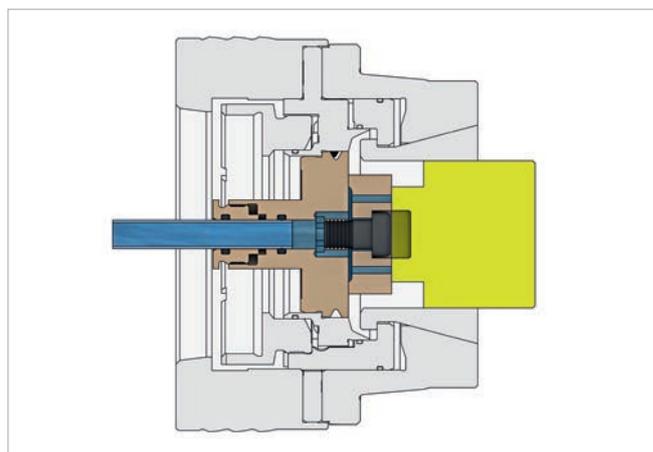
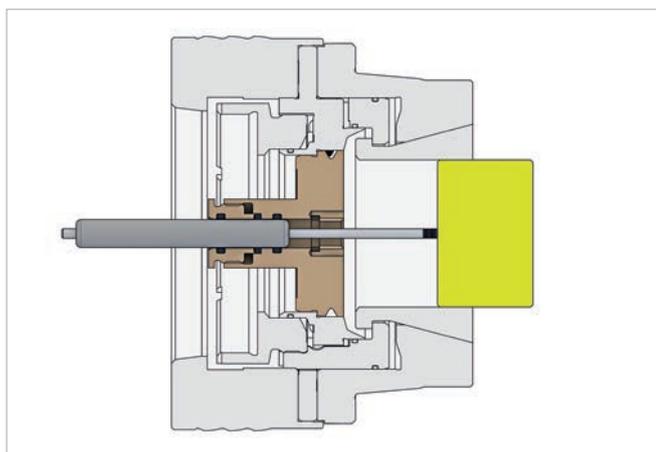
Moreover, the vario flex workpiece ejector can also be used as base end-stop for the flushing or air sensing system connection. Therefore the gas pressure spring is removed and replaced with a media connection.

### Key advantages

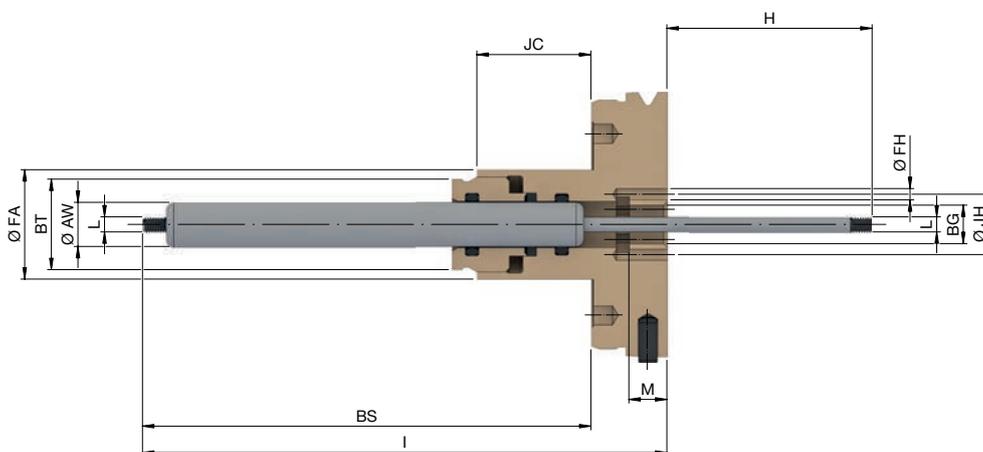
- For automatic ejection of the workpiece out of the chuck
- Workpiece ejector or base end-stop for flushing or air sensing system

### Your benefits

- Process reliability through automatic workpiece ejection
- Productivity increase through reduced cycle time
- Flexibility through different implementation possibilities



vario flex. Technical data



Suitable for	TOPlus mini TOPlus premium SPANNTOP mini							
		32	40	42	52	65	80	100
Length [mm]	H	45	48,1	42,6	46	54	80	72
Piston force [N]					40			
Thread size [M]	L				4			
End-stop thread size [M]	BG		10			12		
Depth of thread [mm]	M				10			
Total length [mm]	I	127	123,9	129,4	126	138		160
Length 2 [mm]	BS	113,5	111	116	106	118		138
Outer Ø [mm]	AW				12			
Length 3 [mm]	JC				30			
Outer Ø 2 [mm]	FA				29			
Bore-Ø	FH				3			
Bolt hole circle [mm]	JH		14			16		
Wrench size [SW]	BT				24			
In stock		✓	✓	✓	✓	✓	✓	✓
Material no.		10001374	10001375	10001376	10001377	10001378	10001379	10001380

Suitable for	TOPlus SPANNTOP nova						
		32	42	52	65	80	100
Length [mm]	H	53,5	56		65	80	85
Piston force [N]					40		
Thread size [M]	L				4		
End-stop thread size [M]	BG		10			12	
Depth of thread [mm]	M				10		
Total length [mm]	I	118,5		116		127	147
Length 2 [mm]	BS	101,5		99		110	127
Outer Ø [mm]	AW				12		
Length 3 [mm]	JC				30		
Outer Ø 2 [mm]	FA				29		
Bore-Ø	FH				3		
Bolt hole circle [mm]	JH		14			16	
Wrench size [SW]	BT				24		
In stock		✓	✓	✓	✓	✓	✓
Material no.		10001368	10001369	10001370	10001371	10001372	10001373

## ACCESSORIES

### End-stop blanks



#### End-stop blanks

With the workpiece end-stop blanks you have pre-fabricated workpiece end-stops »in the drawer« that you can adapt individually to your workpieces and clamping situations. The hardness of the blanks is 42 HRC – which allows good machining.

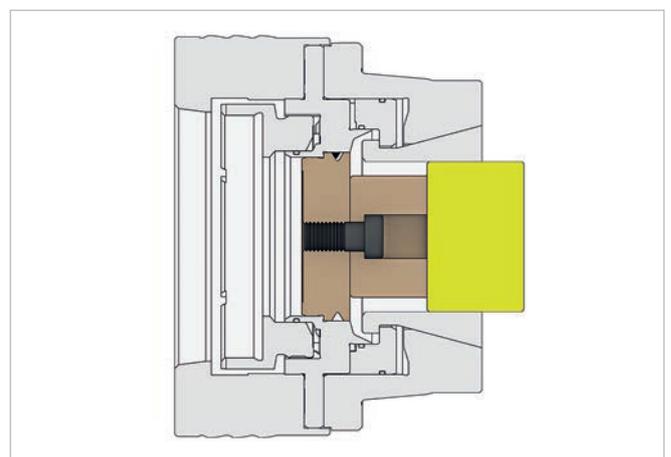
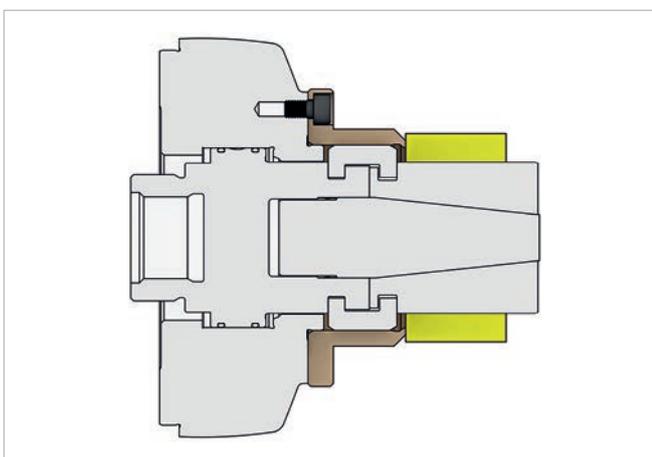
The workpiece end-stop blanks are mounted on the base plate included in the scope of delivery.

#### Key advantages

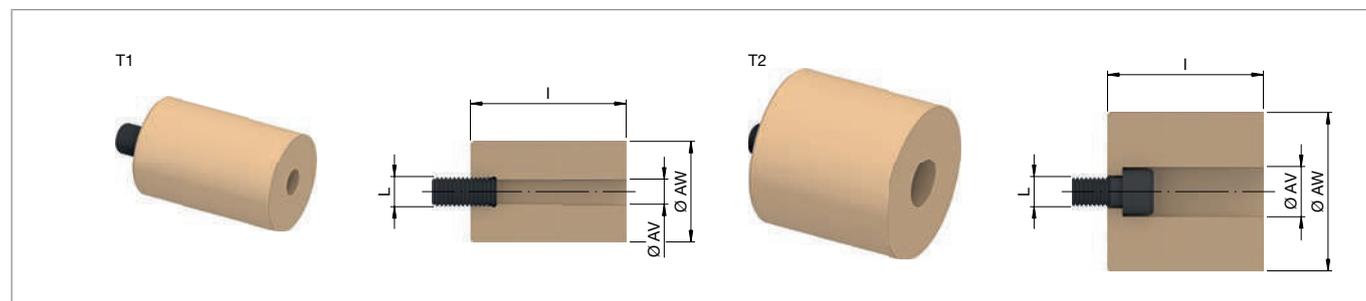
- Prefabricated workpiece end-stops that can be individually adapted in diameter and length
- Easy to change through assembly on the base end-stop plate

#### Your benefits

- Time saving and ready to use immediately
- Cost saving because work preparation is not required



**TOPlus / SPANNTOP chuck.** Workpiece end-stops for machining to size



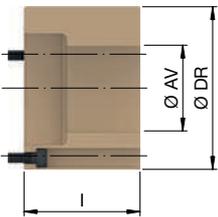
Size	End-stop type	Suitable for	Outer Ø [mm] AW	Inner Ø [mm] AV	Total length [mm] l	Thread size [M] L	In stock	Material no.
32	T1	SPANNTOP nova SPANNTOP mini	30	8	50,5	10	✓	10000539
40/42/52	T1	TOPlus mini TOPlus premium TOPlus SPANNTOP mini SPANNTOP nova	40	8	54,5	10	✓	10000540
52	T2	TOPlus mini TOPlus premium TOPlus SPANNTOP mini SPANNTOP nova	50	18	54,5	10	✓	10000535
65/80	T1	TOPlus mini TOPlus premium TOPlus SPANNTOP mini SPANNTOP nova	40	10	61,5	12	✓	10000541
65	T2	TOPlus mini TOPlus premium TOPlus SPANNTOP mini SPANNTOP nova	63	20	61,5	12	✓	10000536
80	T2	TOPlus mini TOPlus premium SPANNTOP mini SPANNTOP nova	78	20	61,5	12	✓	10000537
100	T1	TOPlus mini TOPlus premium TOPlus SPANNTOP mini SPANNTOP nova	42	10	71	12	✓	10000542
	T2		98	32			✓	10000538

# ACCESSORIES

## End-stop blanks

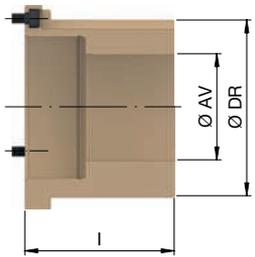
### MANDO / MANDO Adapt T211 [mandrel and mandrel adaptation].

End-stops for machining to size for SB and SAD segmented clamping bushing

Size MANDO / MANDO Adapt	Figure	Outer Ø [mm] DR	Total length [mm] l	Inner Ø [mm] AV	In stock	Material no.	
0		65	30	24,5	✓	10006455	
				32,5	✓	10006457	
				20,5	✓	10006454	
				28,5	✓	10006456	
1		69	40	26,5	✓	10006459	
				32,5	✓	10006460	
				38,5	✓	10006461	
				39,5	✓	10006462	
65			24,5	✓	10006458		
2			93	55	36,5	✓	10006464
					42,5	✓	10006465
					48,5	✓	10006466
		54,5			✓	10006468	
50,5		✓		10006467			
3		106		63	90,6	✓	10006477
					96	68,6	✓
	116				100,6	✓	10006469
	96	50,6	✓		10006471		
		56,6	✓		10006472		
		62,6	✓		10006473		
		70,6	✓		10006475		
		80,6	✓		10006476		
4	120	75	92,8	✓	10006485		
			70,8	✓	10006482		
			76,8	✓	10006483		
			84,8	✓	10006484		
			100,8	✓	10006478		
			106,8	✓	10006479		
			130	113,8	✓	10006480	
				120,8	✓	10006481	
5		150	104	131	✓	10006489	
				101	✓	10006486	
	111			✓	10006487		
	121			✓	10006488		
6	180	112	161	✓	10006493		
			151	✓	10006492		
			141	✓	10006491		
			131	✓	10006490		
7	220	125,5	191,8	✓	10006497		
			171,8	✓	10006495		
			201,8	✓	10006498		
			181,8	✓	10006496		
			161,8	✓	10006494		

**MANDO / MANDO Adapt T212 / T812 [mandrel and mandrel adaptation].**

End-stops for machining to size for SB segmented clamping bushings [When using SAD segmented clamping bushings please see the following table.]

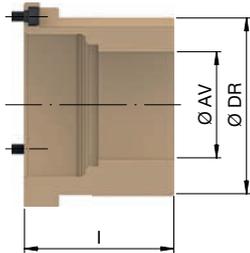
Size	Figure	Outer Ø [mm] DR	Total length [mm] l	Inner Ø [mm] AV	In stock	Material no.
XXS		41	45,5	8,5	✓	10006540
				9,5	✓	10006541
				10,5	✓	10006538
				13,5	✓	10006539
XS		42	45,5	13,5	✓	10006535
				18,5	✓	10006536
				19,5	✓	10006537
S		45	47,5	16,5	✓	10006533
				21,5	✓	10006534
0		54	58,5	20,5	✓	10006499
				24,5	✓	10006500
				28,5	✓	10006501
1		62	64,5	26,5	✓	10006502
				32,5	✓	10006503
				38,5	✓	10006504
2		76	80,5	36,5	✓	10006505
	42,5			✓	10006506	
	48,5			✓	10006507	
	54,5			✓	10006508	
3	105	87,5	50,6	✓	10006509	
			56,6	✓	10006510	
			62,6	✓	10006511	
			70,6	✓	10006512	
			80,6	✓	10006513	
4	124	97,5	70,8	✓	10006515	
			76,8	✓	10006516	
			84,8	✓	10006517	
			92,8	✓	10006518	
			100,8	✓	10006514	
5	160	112,5	100,8	-	10006519	
			106,8	-	10006520	
			114,8	-	10006521	
			122,8	-	10006522	
			130,8	-	10006523	
6	190	122	130,8	-	10006524	
			136,8	-	10006525	
			144,8	-	10006526	
			152,8	-	10006527	
			160,8	-	10006528	
7	212	115	161,8	-	10006529	
			171,8	-	10006530	
			181,8	-	10006531	
			192	-	10006532	

# ACCESSORIES

## End-stop blanks

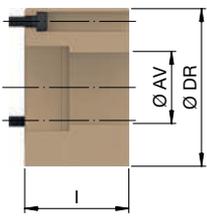
### MANDO / MANDO Adapt T212 / T812 [mandrel and mandrel adaptation].

End-stops for machining to size with use of SAD segmented clamping bushings

Size	Figure	Outer Ø [mm] DR	Total length [mm] l	Inner Ø [mm] AV	In stock	Material no.
XS		42	45,5	13,5	✓	10006663
				18,5	✓	10006664
S		45	47,5	16,5	✓	10006661
				21,5	✓	10006662
0		54	58,5	20,5	✓	10006627
				24,5	✓	10006628
				28,5	✓	10006629
1		62	64,5	26,5	✓	10006630
				32,5	✓	10006631
				38,5	✓	10006632
2		76	80,5	36,5	✓	10006633
				42,5	✓	10006634
				48,5	✓	10006635
				54,5	✓	10006636
3	105	87,5	50,6	✓	10006637	
			56,6	✓	10006638	
			62,6	✓	10006639	
			70,6	✓	10006640	
			80,6	✓	10006641	
4	124	97,5	70,8	✓	10006643	
			76,8	✓	10006644	
			84,8	✓	10006645	
			92,8	✓	10006646	
			100,8	✓	10006642	
5	160	112,5	100,8	✓	10006647	
			106,8	✓	10006648	
			114,8	✓	10006649	
			122,8	✓	10006650	
			130,8	✓	10006651	
6	190	122	130,8	✓	10006652	
			136,8	✓	10006653	
			144,8	✓	10006654	
			152,8	✓	10006655	
			160,8	✓	10006656	
7	212	115	161,8	✓	10006657	
			171,8	✓	10006658	
			181,8	✓	10006659	
			192	✓	10006660	

**MAXXOS T211 mandrel.**

End-stops for machining to size for SB and SAD segmented clamping bushing

Size MAXXOS	Figure	Outer Ø [mm] DR	Total length [mm] l	Inner Ø [mm] AV	In stock	Material no.
A		65	30	18,5	✓	10006453
A				20,5	✓	10006454
B				24,5	✓	10006455
				28,5	✓	10006456
				32,5	✓	10006457
C		69	40	24,5	✓	10006458
				26,5	✓	10006459
				32,5	✓	10006460
				38,5	✓	10006461
D		93	55	39,5	✓	10006462
				32,5	✓	10006463
				36,5	✓	10006464
				42,5	✓	10006465
				48,5	✓	10006466
E		96	63	50,5	✓	10006467
F				54,5	✓	10006468
				39,6	✓	10006470
				50,6	✓	10006471
	56,6			✓	10006472	
	62,6			✓	10006473	
	68,6			✓	10006474	
	70,6	✓	10006475			
	80,6	✓	10006476			
	106		90,6	✓	10006477	
	116		100,6	✓	10006469	

**MANOK manual stationary chuck. Workpiece end-stop**

Product	Figure	Size	In stock	Material no.
Workpiece end-stop		65	✓	10001988

## Front end-stops



### Front end-stop blanks

With the front end-stop blanks you have prefabricated workpiece end-stops on hand that you can adapt individually to your workpieces and clamping situations. The hardness of the blanks is 42 HRC – which allows good machining.

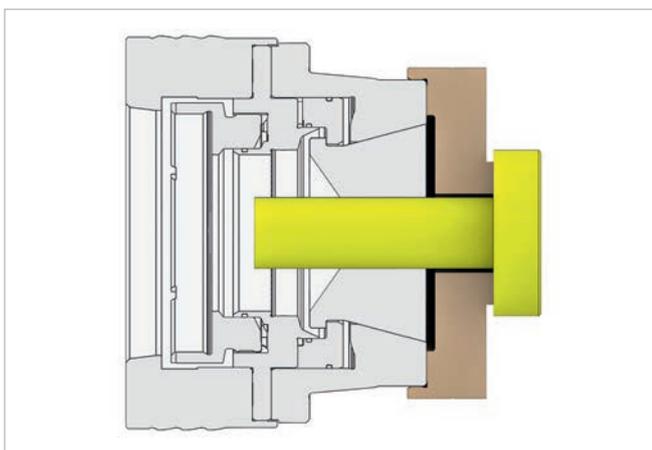
The front end-stop blanks are mounted on the face of the chuck. For the SPANNTOP mini chucks, they are mounted on the adaptation ring.

### Key advantages

- Prefabricated workpiece end-stops that can be individually adapted in diameter and length
- Easy to change
- Higher force transmission compared to inside end-stop

### Your benefits

- Time saving and ready to use immediately
- Cost saving because work preparation is not required
- Higher machining parameters are possible



Front end-stop for machining to size

Size	Figure	Suitable for	End-stop height [mm] GZ	Effective length [mm] HJ	Outer Ø [mm] DR	Bore-Ø FH	In stock	Material no.
26		TOPlus mini pull-back TOPlus premium	27	17	72	4	-	10000525
32		SPANNTOP mini pull-back	30	17	78	4	-	10000524
		SPANNTOP combi pull-back / modular HYDROK RD	29,5		85		✓	10000516
40		TOPlus mini pull-back TOPlus premium	29	17	101	4	✓	10000526
42/52		SPANNTOP combi pull-back / modular SPANNTOP mini pull-back TOROK CFK RD TOROK RD MANOK plus CFK RD HYDROK RD	27,5	17	135	4	✓	10000517
52		TOPlus mini pull-back TOPlus premium	28	17	129	4	✓	10000527
		TOPlus combi pull-back / modular TOROK CFK SE TOROK SE MANOK plus CFK SE HYDROK SE	26		135		✓	10000521
65		TOPlus mini pull-back TOPlus premium	28	17	139	4	✓	10000528
		TOPlus combi pull-back / modular TOROK CFK SE TOROK SE MANOK plus CFK SE MANOK plus SE HYDROK SE	24,5		155		✓	10000522

## ACCESSORIES

### Front end-stops

Size	Figure	Suitable for	End-stop height [mm] GZ	Effective length [mm] HJ	Outer Ø [mm] DR	Bore-Ø FH	In stock	Material no.
65		SPANNTOP combi pull-back / modular SPANNTOP mini pull-back TOROK CFK RD TOROK RD MANOK plus CFK RD MANOK plus RD HYDROK RD	27	17	155	4	✓	10000518
80		TOPlus mini pull-back TOPlus premium	28	17	160	4	✓	10017159
		SPANNTOP combi pull-back / modular SPANNTOP mini pull-back TOROK RD HYDROK RD	27		170		✓	10000519
100		TOPlus mini pull-back TOPlus premium	30,5	17	193	4	✓	10000529
		TOPlus combi pull-back / modular TOROK SE HYDROK SE	26		✓		10000523	
		SPANNTOP combi pull-back / modular SPANNTOP mini pull-back TOROK RD HYDROK RD	30,5		✓		10000520	

Please note: The front end-stops only fit for clamping heads size 32 – 80 BZIG, or size 100 BZG [clamping of finished material].



### Chip protection rings

Chip protection rings extensively protect the chuck mechanism from contaminants and thus guarantee high process reliability.

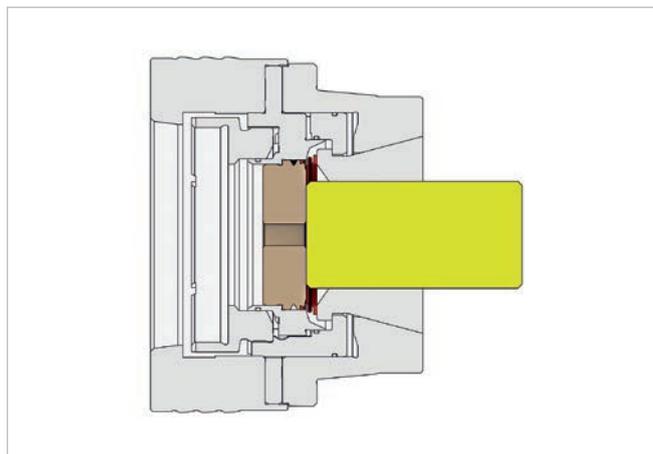
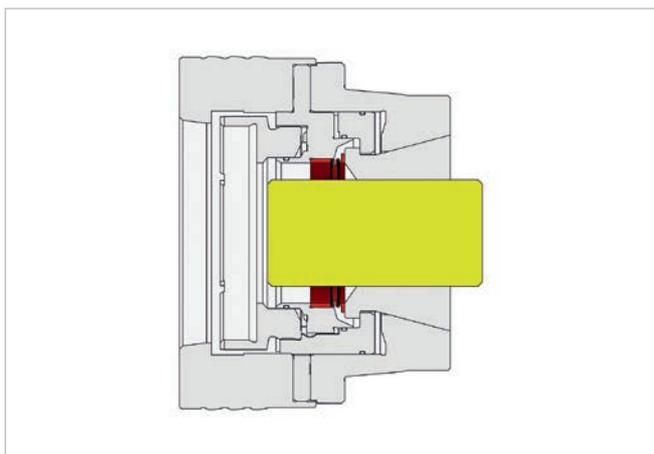
Two variants are available that are suited for the different chuck models: One variant for use of the existing unrestricted chuck capacity, the other variant for use when the workpiece is clamped position-oriented on a base end-stop.

#### Key advantages

- Protects the chuck mechanism from contamination
- Fast and easy assembly
- Variant with full chuck capacity or base end-stop available
- Dimensionally stable seal ring produced through machining

#### Your benefits

- Less machine downtime
- Increased process reliability
- Longer service life of the chuck

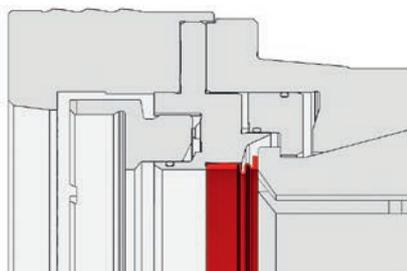


## ACCESSORIES

### Chip protection rings

#### Chuck TOPlus / TOPlus mini / SPANNTOP nova / SPANNTOP mini.

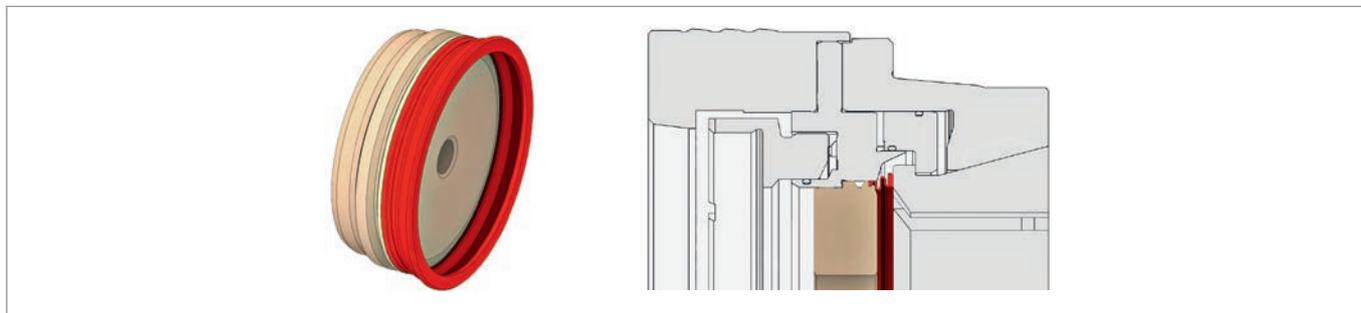
Chip protection ring for sealing, with through-bore



Size	Suitable for	Ø Capacity [mm]	In stock	Order no.
26	TOPlus mini TOPlus premium	26,5	✓	10001338
32	SPANNTOP nova	33	✓	10001346
	SPANNTOP mini		✓	10001339
40	TOPlus mini TOPlus premium	41	✓	10001340
42	SPANNTOP nova	43	✓	10001347
	SPANNTOP mini		✓	10001341
52	TOPlus SPANNTOP nova	53	✓	10001348
	TOPlus mini TOPlus premium SPANNTOP mini		✓	10001342
65	TOPlus SPANNTOP nova	66	✓	10001349
	TOPlus mini TOPlus premium SPANNTOP mini		✓	10001343
80	TOPlus mini TOPlus premium SPANNTOP mini	81	✓	10001344
	SPANNTOP nova		✓	10001350
100	TOPlus combi pull-back SPANNTOP nova combi pull-back	101	✓	10001351
	TOPlus combi deadlength SPANNTOP nova combi deadlength		✓	10001352
	TOPlus mini TOPlus premium SPANNTOP mini		✓	10001345

**Chuck TOPlus / TOPlus mini / SPANNTOP nova / SPANNTOP mini.**

Chip protection ring for sealing, with base end-stop



Size	Suitable for	Workpiece Ø [mm]	In stock	Order no.
26	TOPlus mini TOPlus premium	26,5	✓	10001353
32	SPANNTOP nova	31	✓	10001361
	SPANNTOP mini	33	✓	10001354
40	TOPlus mini TOPlus premium	41	✓	10001355
42	SPANNTOP nova	40	✓	10001362
	SPANNTOP mini	43	✓	10001356
52	TOPlus SPANNTOP nova	50	✓	10001363
	TOPlus mini TOPlus premium SPANNTOP mini	53	✓	10001357
65	TOPlus SPANNTOP nova	63	✓	10001364
	TOPlus mini TOPlus premium SPANNTOP mini	66	✓	10001358
80	TOPlus mini TOPlus premium SPANNTOP mini	81	✓	10001359
	SPANNTOP nova	79	✓	10001365
100	TOPlus combi pull-back SPANNTOP nova combi pull-back	101	✓	10001366
	TOPlus combi deadlength SPANNTOP nova combi deadlength		✓	10001367
	TOPlus mini TOPlus premium SPANNTOP mini		✓	10001360

## Adaptation ring HAINBUCH SYSTEM



### Adaptation ring for HAINBUCH SYSTEM

Mounting the adaptation ring on the SPANNTOP mini chuck, in spite of the extremely slender chuck contour, makes it possible to use modular adaptations, such as the MANDO Adapt, the jaw module or the magnet module.

The adaptation ring is bolted onto the face of the chuck with 3 screws. Due to the fit, the adaptation ring is self-centering in all pullback chucks, therefore eliminating the need for alignment. For all deadlength chucks the adaptation ring may be aligned manually.

### Key advantages

- Enables use of the HAINBUCH SYSTEM
- For SPANNTOP mini chuck
- Self-aligning for SPANNTOP mini pull-back

### Your benefits

- Application areas of the chuck are extended through the adaptations = fast changing from O.D. clamping to I.D. clamping, jaw clamping or clamping of magnetic parts



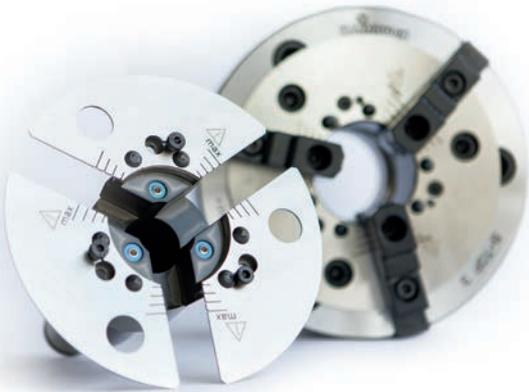
## Adaptation ring HAINBUCH SYSTEM

**SPANNTOP mini chuck.**

Adaptation ring for assembly of MANDO Adapt, jaw module, face driver, and morse taper

Size	Figure	Variant	In stock	Material no.
42		Pull-back	✓	10000984
		Deadlength	✓	10000989
52		Pull-back	✓	10000985
		Deadlength	✓	10000990
65		Pull-back	✓	10000986
		Deadlength	✓	10000991
80		Pull-back	✓	10000987
		Deadlength	✓	10000992
100		Pull-back	✓	10000988

## Insert bushings jaw chuck



### Bushing inserts

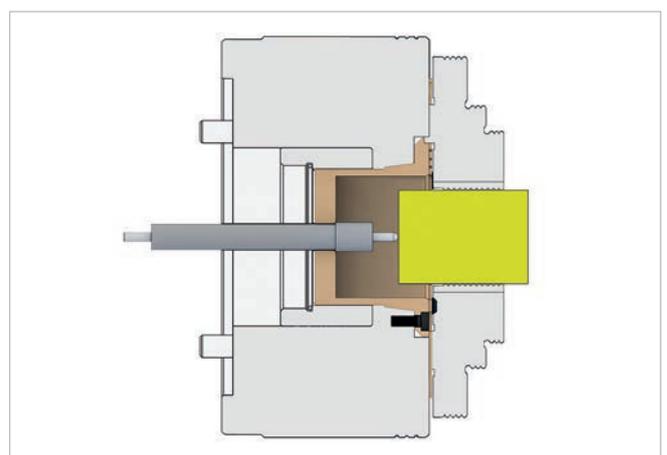
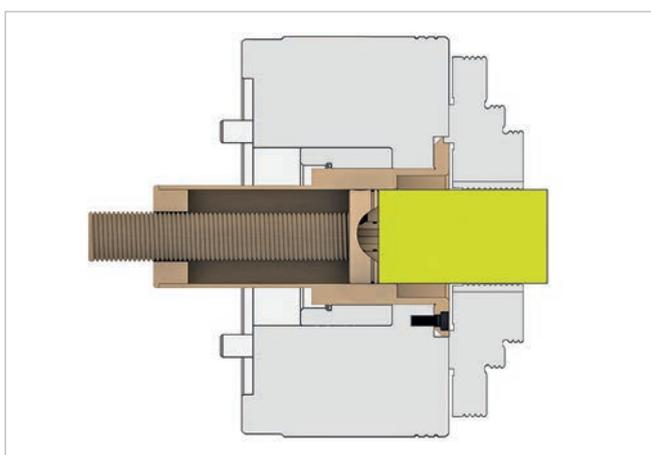
With the insert bushings the B-Top and B-Top3 jaw chucks can be expanded with many additional useful functions. Whether automatic ejection of the workpiece after a machining process or use of an adjustable workpiece end-stop. To do this the insert bushing with through-bore mounted in the jaw chuck will be replaced with a different insert bushing.

### Key advantages

- Additional functions for jaw chucks, such as ejecting the workpiece or the adjustable workpiece depth end-stop
- Easy to change

### Your benefits

- Cost saving through fast response to different requirements
- Time saving and ready to use immediately



## ACCESSORIES

### Insert bushings jaw chuck

#### B-Top jaw chuck. Bushing inserts

Product	Figure	Size	In stock	Material no.
Bushing insert with through-bore		165	✓	10002040
		215	✓	10002041
		260	✓	10002042
		315	✓	10002043
Bushing insert, closed		165	✓	10002044
		215	✓	10002045
		260	✓	10002046
		315	✓	10002047
Bushing insert with ejector		165	✓	10002064
		215	✓	10002065
		260	✓	10002066
		315	✓	10002067
Bushing insert with spray nozzles		165	✓	10002052
		215	✓	10002053
		260	✓	10002054
		315	✓	10002055
Bushing insert with adjustable end-stop		165	✓	10002058
		215	✓	10002059
		260	✓	10002060
		315	✓	10002061

## ACCESSORIES

### Insert bushings jaw chuck

#### B-Top3 jaw chuck. Bushing inserts

Product	Figure	Jaw width [mm]	In stock	Material no.
Bushing insert with through-bore		22	✓	10002049
		40	✓	10002050
Bushing insert, closed		22	✓	10002048
		40	✓	10002051
Bushing insert with ejector		22	✓	10002068
		40	✓	10002069
Bushing insert with spray nozzles		22	✓	10002056
		40	✓	10002057
Bushing insert with adjustable end-stop		22	✓	10002062
		40	✓	10002063

Insert bushings include mounted guard plates.



### Clamping head adapter

Large workpieces – large chucks – large clamping heads. So far so good, but sometimes you also have to machine smaller workpieces? Instead of buying large clamping heads with a small diameter, there is now a better alternative: the clamping head adapter.

For example, it can basically turn a size 100 chuck into a size 65 chuck and you can then change your normal size 65 heads using this clamping head adapter. Your advantages are in-stock availability and a lower price for the smaller clamping heads. You also save the costs of purchasing new large clamping heads if you are already using smaller clamping heads.

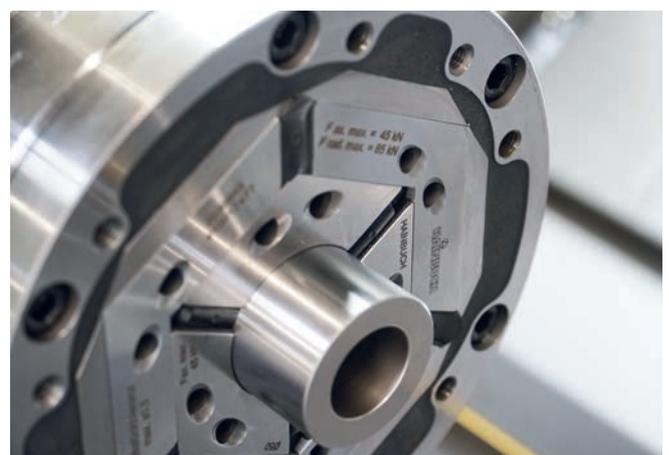
Changing the clamping head adapter is fast and easy with the suitable changer interface.

### Key advantages

- Smaller clamping heads can be used in larger chucks [size 100, 125 and 160]
- Use existing clamping heads [size 65 and 100]
- Fast and easy change-over

### Your benefits

- Reduced costs due to use of smaller clamping heads
- Smaller clamping heads can be kept in stock for faster availability
- Covers a larger range of clamping diameters
- Productivity boost and saving of time due to faster change-over between large and small clamping diameters
- Flexible production since single clamping heads can be used on multiple machines



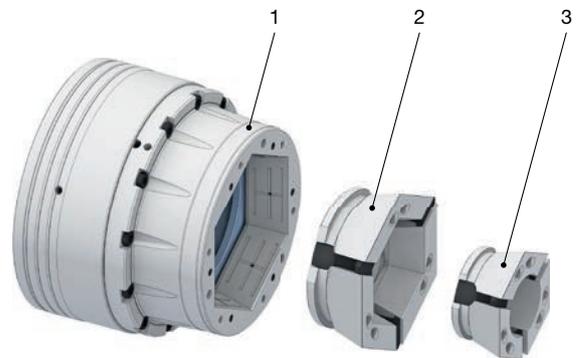
## ACCESSORIES

### Clamping head adapter

#### Clamping head adapter SE in detail

##### Designation

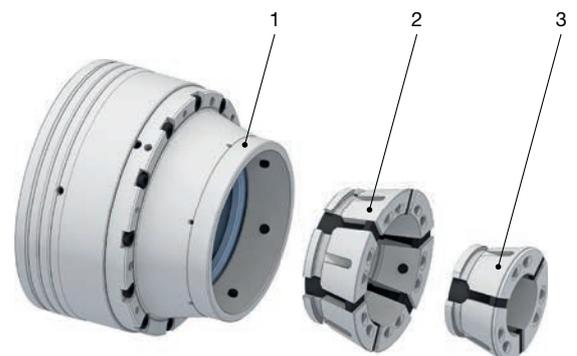
- 1 Chuck
- 2 Clamping head adapter
- 3 Standard clamping head



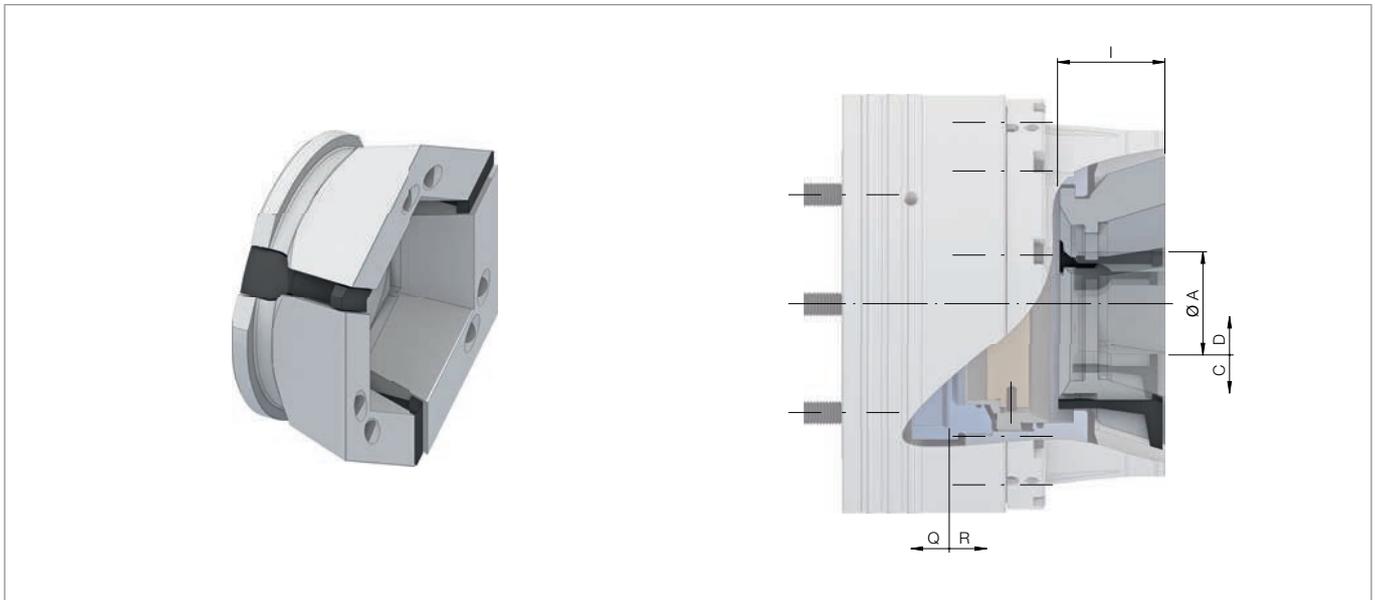
#### Clamping head adapter RD in detail

##### Designation

- 1 Chuck
- 2 Clamping head adapter
- 3 Standard clamping head



**Clamping head adapter TOPlus.** Technical data



Size	100	160
<b>Adaptation size</b>		<b>65</b>
Run-out ≤ [mm]		0,030
Max. radial clamping force on the clamping head [kN]		85
Max. axial drawtube force [pull / push] [kN]		45
RPM n max. [1/min.]	5000	3200
Clamping range [mm]	A	3 – 65
Reserve stroke in Ø [mm]	D	1
Release stroke in Ø [mm]	C	0,6
Range / recommended workpiece tolerance [mm]		± 0,5
Reserve stroke axial [mm]	Q	2
Release stroke axial [mm]	R	2,5
Total length [mm]	I	56,5
Weight [kg]		2,7
In stock	✓	✓
Material no.	10017477	10017478

Important: Never exceed the usable clamping reserve in the diameter!

The run-out refers to the workpiece in clamped state, including the clamping head.

## ACCESSORIES

### Clamping head adapter

#### Clamping head adapter SPANNTOP. Technical data



Size	100	125	160
<b>Adaptation size</b>		<b>65</b>	<b>100</b>
Run-out ≤ [mm]	0,030		0,040
Max. radial clamping force on the clamping head [kN]		90	127
Max. axial drawtube force [pull / push] [kN]		45	65
RPM n max. [1/min.]	3900		3200
Clamping range [mm]	A	3 – 65	15 – 100
Reserve stroke in Ø [mm]	D		1
Release stroke in Ø [mm]	C	0,6	1,6
Range / recommended workpiece tolerance [mm]		± 0,5	± 0,7
Reserve stroke axial [mm]	Q		2
Release stroke axial [mm]	R	2,5	4
Total length [mm]	l	56,5	59,5
Weight [kg]		2,5	5,7
In stock		✓	✓
Material no.	10018455	10017475	10017476

Important: Never exceed the usable clamping reserve in the diameter!

The run-out refers to the workpiece in clamped state, including the clamping head.

## Flanges / drawtube adapters / drawtubes



### Flanges / drawtube adapters / drawtubes

The flange and the drawtube adapter create the connection between the clamping device and machine spindle. This allows you the flexibility to use your clamping devices on different machines.

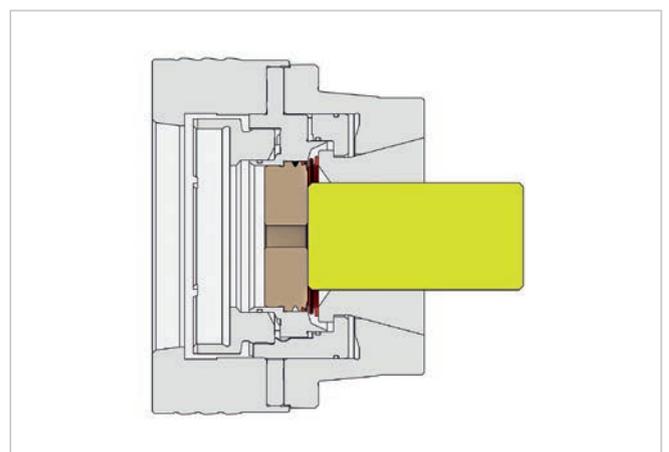
The flanges are already configured for the different spindle standards. The drawtube adapter and the drawtube are adapted individually to your machine. This makes it possible to comply with special requirements imposed by machine builders, such as sealing relative to the drawtube.

### Key advantages

- Flange: Standard flange for the major spindle norms
- Drawtube adapters / drawtube: Individually configured for your machine

### Your benefits

- On-site design and safety calculation are not required
- Time saving through plug & play solution



ACCESSORIES

Flanges / drawtube adapters / drawtubes

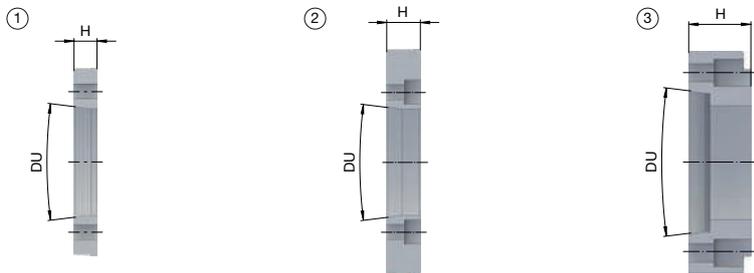
MANDO / MAXXOS mandrels. Flanges

Size	Figure	Spindle nose	Flange height [mm]	Interface	Outer Ø [mm]	Bolt hole circle	In stock	Material no.	
		DU	AP		AW				V
XXS - 4 / A - F		A2-4	40	Ø 131	140	LK Ø 82,6 [3 x M10]	✓	10014772	
		A2-5	77			LK Ø 104,8 [6 x M10]	✓	10014771	
			85				✓	10014781	
			✓				10014782		
		A2-6	40				LK Ø 133,4 [6 x M12]	✓	10014770
			60					✓	10014783
			80		✓			10014784	
		100	✓		10014785				
		A2-8	44		LK Ø 171,4 [6 x M16]	✓		10014773	
		AP120	40		140	LK Ø 104,8 [6 x M10]		✓	10014774
					150		✓	10014775	
					180	LK Ø 133,4 [6 x M12]	✓	10014776	
					230	LK Ø 171,4 [6 x M16]	✓	10014777	
		5 - 7			A2-6	63,5	Ø 219	235	LK Ø 133,4 [6 x M12]
A2-8	67,5			LK Ø 171,4 [6 x M16]	✓	10014779			
A2-11	73,5			280	LK Ø 235 [6 x M20]	✓		10014780	

Machine spindle standard DIN ISO 702-1.  
Flanges size 5 - 7 AP upon request.

## Flanges / drawtube adapters / drawtubes

### InoFlex manual / power chucks. Flanges for short taper



Size	Suitable for	Spindle nose DU	Designation	Flange type	Length [mm] H	In stock	Material no.
165	VD / VT-S	A2-5	VZ165	1	17	✓	10014728
		A2-6	VZ166	3	46	✓	10014729
		A2-8	VZ168		35	✓	10014730
215	VD / VT-S	A2-5	VZ265	2	25	✓	10014736
		A2-6	VZ266	1	17	✓	10014737
		A2-8	VZ268	3	44	✓	10014738
260/315	VD [size 260/315] / VT-S [size 260]	A2-6	VZ366	2	28	✓	10014744
		A2-8	VZ368	1	19	✓	10014745
		A2-11	VZ3611	3	47	✓	10014746
315	VT-S	A2-8	VZ468	2	30	✓	10014751
		A2-11	VZ4611	1		✓	10014752

Machine spindle standard DIN DIN 55026 / ISO 702-1.

### InoFlex manual / power chucks. Flanges for short taper with bayonet



Size	Suitable for	Spindle nose DU	Designation	Flange type	Length [mm] H	In stock	Material no.
165	VD / VT-S	A2-5	VZ175	1	17	✓	10014731
		A2-6	VZ176	2	46	✓	10014732
		A2-8	VZ178		34	✓	10014733
215	VD / VT-S	A2-5	VZ275	1	19	✓	10014739
		A2-6	VZ276			✓	10014740
		A2-8	VZ278	2	40	✓	10014741
260/315	VD [size 260/315] / VT-S [size 260]	A2-6	VZ376	1	28	✓	10014747
		A2-8	VZ378			✓	10014748
315	VT-S	A2-8	VZ478	1	36	✓	10014753
		A2-11	VZ4711			✓	10014754

Machine spindle standard DIN 55027 / ISO 702-3.

## ACCESSORIES

### Flanges / drawtube adapters / drawtubes

**InoFlex manual / power chucks.** Flanges for short taper with camlock

Size	Suitable for	Spindle nose	Designation	Flange type	Length [mm] H	In stock	Material no.
		DU					
165	VD / VT-S	A2-5	VZ195	2	48	✓	10014734
		A2-6	VZ196		52,5	✓	10014735
215	VD / VT-S	A2-5	VZ295	1	30	✓	10014742
		A2-6	VZ296	2	55	✓	10014743
260/315	VD [size 260/315] / VT-S [size 260]	A2-6	VZ396	1	34	✓	10014749
		A2-8	VZ398		56	✓	10014750
315	VT-S	A2-8	VZ498	1	38	✓	10014755
		A2-11	VZ4911		52	✓	10014756

Machine spindle standard DIN DIN 55029 / ISO 702-2.

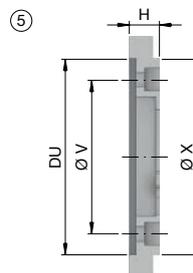
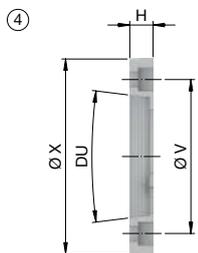
**B-Top jaw chuck.** Flanges

Size	Spindle nose	Flange type	Interface	Length [mm] H	Bolt hole circle V	In stock	Material no.
	DU						
165	A2-4	2	Ø 140	21	LK Ø 82,6 [6 x M10]	✓	10014760
	A2-5	1		16	LK Ø 104,8 [6 x M10]	✓	10014761
	A2-6	3		34	LK Ø 133,4 [6 x M12]	✓	10014762
215	A2-5	2	Ø 170	25	LK Ø 104,8 [6 x M10]	✓	10014763
	A2-6	1		17	LK Ø 133,4 [6 x M12]	✓	10014764
	A2-8	3		40	LK Ø 171,4 [6 x M16]	✓	10014765
260/315	A2-5	2	Ø 220	28	LK Ø 104,8 [6 x M10]	✓	10014766
	A2-6				LK Ø 133,4 [6 x M12]	✓	10014767
	A2-8	1		19	LK Ø 171,4 [6 x M16]	✓	10014768
	A2-11	3		50	LK Ø 235 [6 x M16]	✓	10014769

Machine spindle standard DIN 55026.

## Flanges / drawtube adapters / drawtubes

### B-Top3 jaw chuck. Flanges



Size	Spindle nose DU	Flange type	Interface X	Length [mm] H	Bolt hole circle V	In stock	Material no.
215	A2-6	4	Ø 170	20	LK Ø 133,4 [6 x M12]	✓	10014757
	A2-8			37	LK Ø 171,4 [6 x M16]	✓	10014758
	AP170	5		20	LK Ø 133,4 [6 x M12]	✓	10014759

Machine spindle standard DIN 55026.

ACCESSORIES

Flanges / drawtube adapters / drawtubes

**TOROK, TOROK CFK, and actuating unit ms dock [size XXS - 4]. Flanges**

Size	Figure	Spindle nose DU	Length 2 [mm] BS	Interface X	Interface hole circle Y	Outer Ø [mm] AW	Bolt hole circle V	Variant	In stock	Material no.
52		A2-5	20	Ø 145 g5	LK Ø 156 [6 x M8]	195	LK Ø 104,8 [4 x M10]	Adjustable bolt DIN ISO 702-3 M10x43	✓	10000220
		A2-6					LK Ø 133,4 [4 x M12]	Adjustable bolt DIN ISO 702-3 M12x50	✓	10000221
		A2-8				210	LK Ø 171,4 [4 x M16]	Adjustable bolt DIN ISO 702-3 M16x60	✓	10000222
65		A2-5	20	Ø 162 g5	LK Ø 176 [6 x M8]	195	LK Ø 104,8 [4 x M10]	Adjustable bolt DIN ISO 702-3 M10x43	✓	10000223
		A2-6					LK Ø 133,4 [4 x M12]	Adjustable bolt DIN ISO 702-3 M12x50	✓	10000224
		A2-8				210	LK Ø 171,4 [4 x M16]	Adjustable bolt DIN ISO 702-3 M16x60	✓	10000225
80/100		A2-5	26,5	Ø 240 g5	LK Ø 235 [6 x M10]	260	LK Ø 104,8 [4 x M10]	Adjustable bolt DIN ISO 702-3 M10x43	✓	10015276
		A2-6	20				LK Ø 133,4 [4 x M12]	Adjustable bolt DIN ISO 702-3 M12x50	✓	10015277
		A2-8	26,5				LK Ø 171,4 [4 x M16]	Adjustable bolt DIN ISO 702-3 M16x60	✓	10015278

Camlock flange [DIN 55029] on request.

## Flanges / drawtube adapters / drawtubes

**TOPlus / SPANNTOP chucks and MAXXOS / MANDO mandrels. Drawtube adapters**

Product	Description	Sizes	In stock	Material no.
Drawtube adapters	Connects your clamping device with the drawtube to the machine. We require your spindle data for configuration.	Chucks up to size 100 and mandrels	-	F17010
		Chuck from size 125	-	F17010

Drawtube adapter order form see page 604.

**TOPlus / SPANNTOP chucks and MAXXOS / MANDO mandrels. Drawtube**

Product	Description	Sizes	In stock	Material no.
Drawtube	Transmits the motion of the machine's clamping cylinder to the drawtube adapter. To design this solution we need the spindle and clamping cylinder drawing, as well as the designation of the clamping device. The balance quality can be adapted to customer requirements. Anti-rust coating is possible.	All chuck and mandrel sizes	-	F17030

Drawtube adapter order form see page 604.

## Adapter for air sensing control



### Adapter for air sensing control

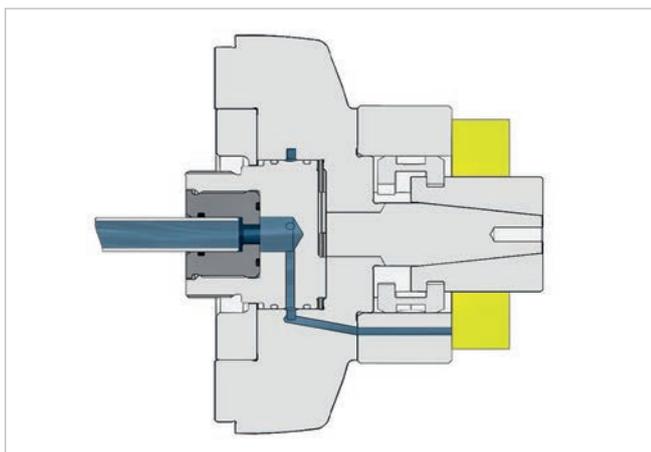
With the adapter for air sensing control the air system can be integrated in a mandrel with minimal assembly effort. It is the connecting link between air lance and end-stop surface on the mandrel. Screwing in the adapter in the MANDO / MAXXOS mandrel seals it on the connection side. The air lance that is routed out of the machine spindle and into the mandrel is sealed with an O-ring. Now the force is transmitted via the O.D. thread that is attached on the mandrel.

### Key advantages

- Enables workpiece scan for mandrels
- Fast and easy assembly
- Sealed to the media tube

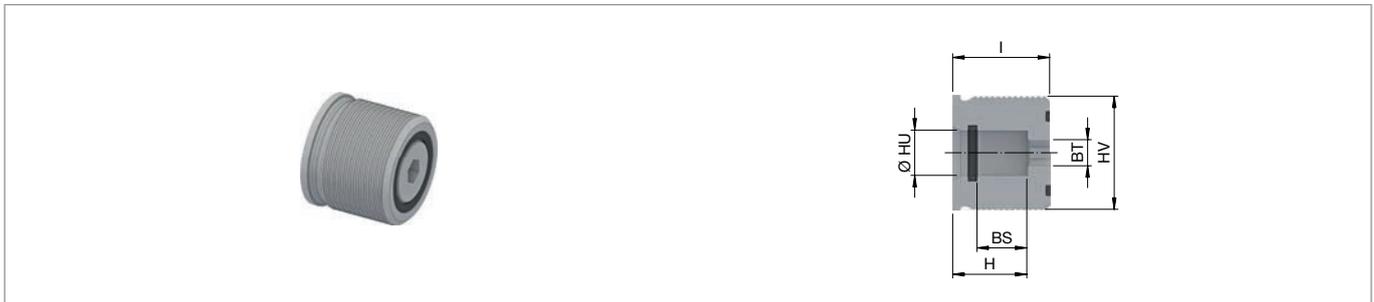
### Your benefits

- Process reliability through workpiece scan
- Reduction of scrap
- Basis for automation



ACCESSORIES  
**Adapter for air sensing control**

**Mandrels MANDO T211 / T212 / MAXXOS T211.** Adapter for air sensing control



Size	Inner Ø [mm] HU	Total length [mm] I	Length [mm] H	Length 2 [mm] BS	Wrench size [SW] BT	Thread size HV	In stock	Material no.
XXS - 4 / A - F	12 H7	25,5	19,5	13	6	M30 x 1,5	✓	10000133

The adapter is screwed into the M30 x 1.5 inner thread of the MANDO or MAXXOS mandrel and is used as a location of the air lance. For force actuation, please use the M44 x 1.5 O.D. thread.

## Base plate for TOROK



### Base plate for stationary use

The base plate enables stationary use of the TOROK manual chuck. Thus the TOROK can be used on different machines. Sensitive clamping, including use of different adaptation possibilities, is available for stationary machining.

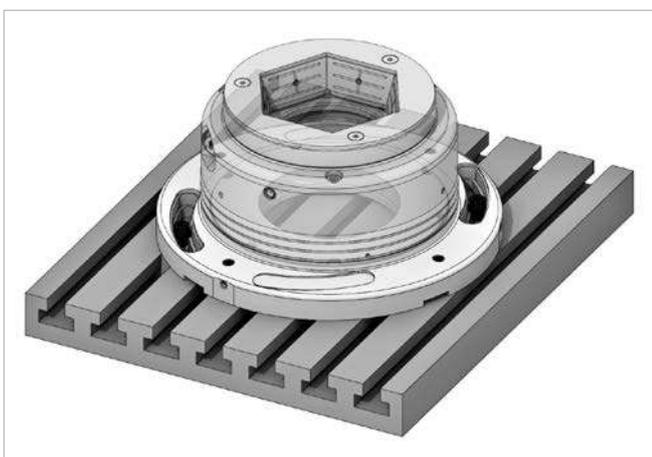
By means of the integrated slotted holes the base plate can be used on almost all major T-groove machine tables.

### Key advantages

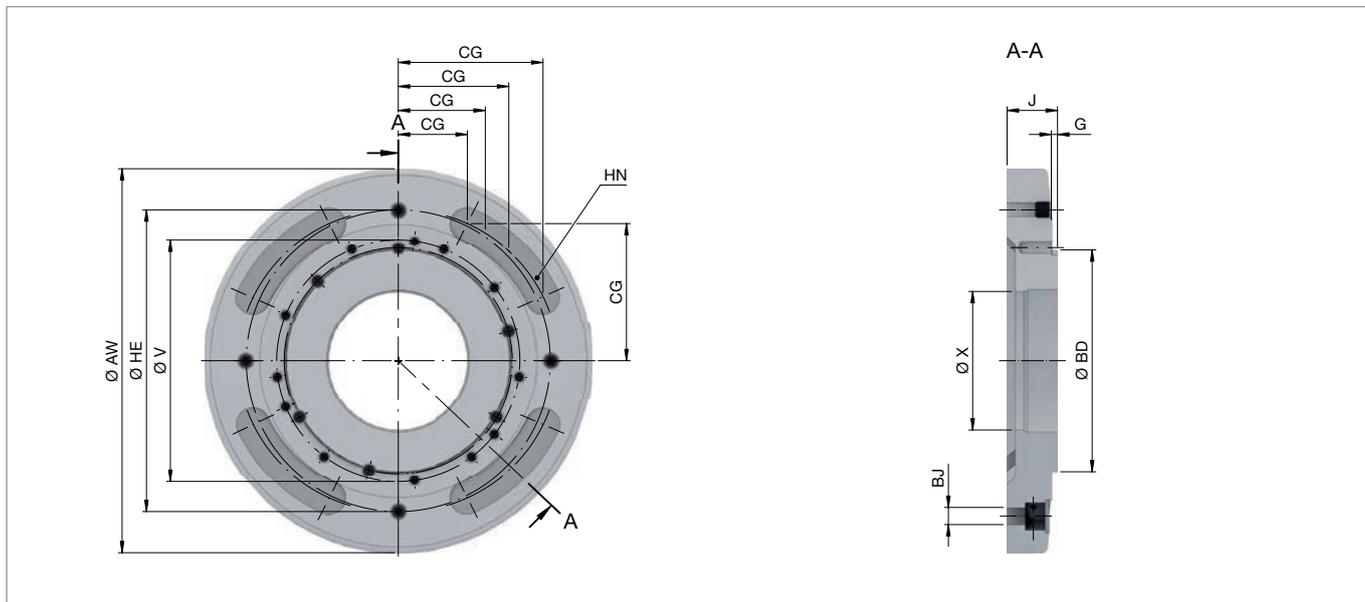
- Enables stationary use of the TOROK manual chuck
- Rotation-symmetric interference contour and thus use of the TOROK's full rotational speed
- Flexible use on major T-groove machine tables

### Your benefits

- Cost saving through machine-independent use of the TOROK



**TOROK manual chuck.** Base plate for stationary use



Size		<b>52 SE / RD</b>	<b>65 SE / RD</b>	<b>80/100 SE / RD</b>
<b>Bolt hole circle</b>	V	<b>LK Ø 156 [6 x M8]</b>	<b>LK Ø 176 [6 x M8]</b>	<b>LK Ø 234 [6 x M10]</b>
Flange location	BD	Ø 145 g5	Ø 162 g5	Ø 240 f7
Interface	X	Ø 101 H7		Ø 140 H7
Outer Ø [mm]	AW	280		350
Height [mm]	J	36	36,5	35
Centering length [mm]	G	4	4,5	3,5
Mounting slots for T-groove table with groove spacing [mm]	CG	50, 63, 80, 100		
Groove width [mm]	BJ	12,5		13,5
Protective cover	HN	4x		
Torsional safety	HE	220 [4 x M10]		300 [4 x M10]
Weight [kg]		10,5	10,7	17
In stock		✓	✓	✓
Material no.		10001437	10001436	10001434

## Adaptation sets for MANDO G211



### Adaptation sets for MANDO G211

The MANDO G mandrel and the ms / hs dock actuating units, the mandoteX quick change-over interface, and various flanges all have inner fits and thus can be directly connected.

With these adaptation sets the connection is made quickly and easily. The set consists of a ring and a drawtube adapter. The ring is centered on the inner fit of the MANDO G, and on the interface of the actuating unit / the quick change-over interface or of the flange. The drawtube adapter is screwed into the mandrel and connects the connecting thread of the actuating unit with the mandrel.

### Key advantages

- Connection between MANDO G mandrel and ms / hs dock actuating units, mandoteX quick change-over interface or flange

### Your benefits

- Fast and easy assembly



ACCESSORIES  
Adaptation sets for MANDO G211

For connection of the ms / hs dock actuating units



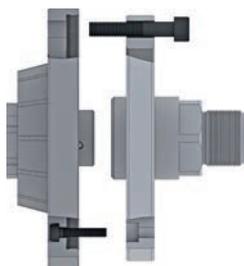
Product	In stock	Material no.
Adaptation set	✓	10001404

For connection of MANDO / MAXXOS standard flanges



Product	In stock	Material no.
Adaptation set	✓	10018246

For connection on the mandoteX quick change-over interface



Product	In stock	Material no.
Adaptation set	✓	10001405

Incl. mandoteX clamping device adapter

## Tandem cylinder / base plate for HYDROK



### Tandem cylinder / base plate for HYDROK

With the HYDROK base plate the »small« HYDROKs [40 SE / 32 RD] can be mounted on the machine table incl. media connection. To place multiple HYDROKs on the machine table, the individual base plates are simply fitted together. Thus, you benefit from multiple clamping with incredible holding forces in a very small space.

The tandem cylinder is always used in conjunction with the base plate and enables full clamping force at minimal actuating pressure.

### Key advantages

- Base plate: for assembly of the HYDROK on the machine table including media connection
- Tandem cylinder: enables the max. clamping force of the HYDROK at half the actuating pressure

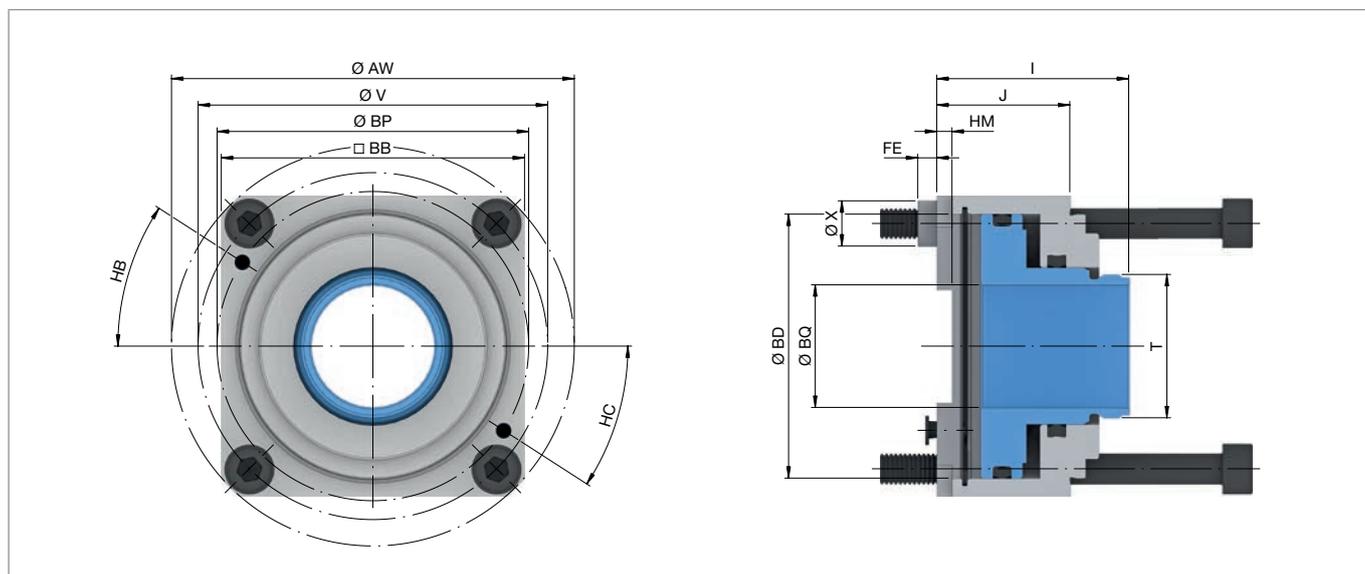
### Your benefits

- Base plate: easy and fast assembly, multiple clamping in a very small space
- Tandem cylinder: optimized clamping through max. clamping force



## Tandem cylinder / base plate for HYDROK

## HYDROK stationary chuck size 40 SE / 32 RD. Tandem cylinder



Product line	SE/RD	
Size	40/32	
Max. axial drawtube force [pull / push] [kN]	13,5	
Max. actuating pressure [bar]	55	
Outer Ø [mm]	AW	106 g6
Bolt hole circle	V	LK Ø 92 [4 x M8]
Interface	X	Ø 12 H7
Height [mm]	J	35
Ø Capacity [mm]	BQ	32,5
Flange location	BD	Ø 70 H7/g7
Centering height 1 [mm]	FE	5
Outer variant [mm]	BB	79,8
Connecting position [mm]	BP	82
Clamping via base plate [°]	HB	33
Release via base plate [°]	HC	33
Installation depth [mm]	HM	5 +0,005
Total length [mm]	I	50,5
Connecting thread outside	T	M38 x 1
In stock	✓	
Material no.	10000451	

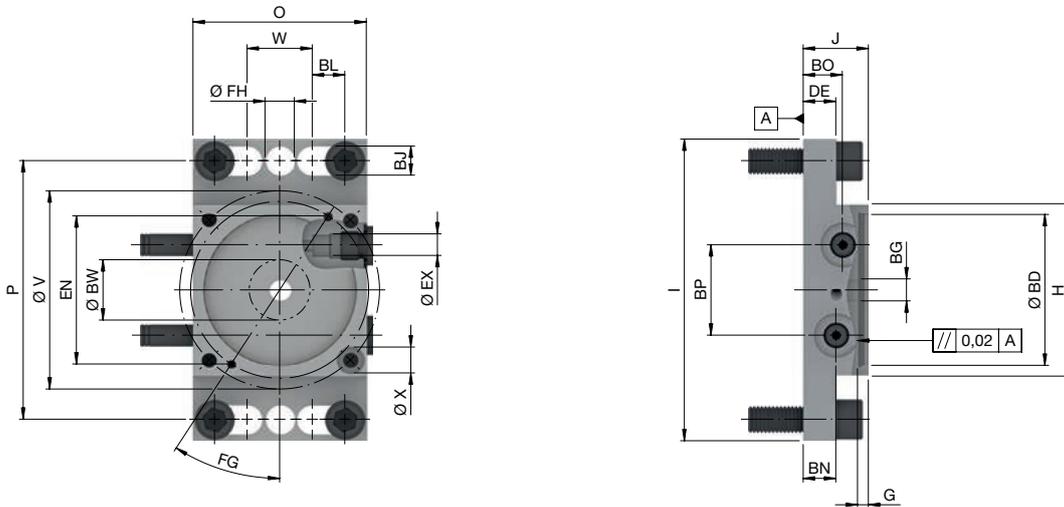
With adaptation of the tandem cylinder to HYDROK size 40 SE, the maximum clamping force of 75 kN can be achieved, even at 43 bar.

With adaptation of the tandem cylinder to HYDROK size 32 RD, the maximum clamping force of 70 kN can be achieved, even at 50 bar.

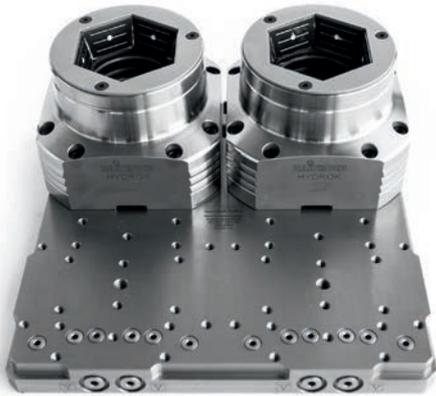
ACCESSORIES

Tandem cylinder / base plate for HYDROK

HYDROK stationary chuck size 40 SE / 32 RD. Base plate



Product line	SE/RD	
Size	40/32	
Bolt hole circle	V	LK Ø 92 [4 x M8]
Interface	X	Ø 12 H7
Release	BN	15 [1/4"]
Clamping	BO	18 [1/4"]
Clamping edge height [mm]	DE	15
Length [mm]	H	80
Total length [mm]	I	140
Height [mm]	J	30
Width [mm]	O	79,8
Flange location	BD	Ø 70 H7
End-stop thread size [M]	BG	12
Connecting position [mm]	BP	42
Centering length [mm]	G	5
Max. permissible turning Ø [mm]	BW	28
Grooves [mm]	BL	15 [4 x]
Bolt hole distance [mm]	W	30
Fitting bore	EX	10 H11
Groove width [mm]	BJ	13,5
Screw connection width [mm]	P	120
Fluid connection 1 [mm]	EN	69,5
Angle position [°]	FG	33
Bore-Ø	FH	13,5
In stock		✓
Material no.		10001435



### Multiple clamping pallets

The multiple clamping pallets are expansions for the HYDROK hydraulic stationary chucks and the hs dock actuating units. A plate makes it possible to actuate up to four hydraulic clamping devices simultaneously.

Through the pre-bored bolt hole circles the clamping devices can be easily bolted on and they are actuated through channels in the interior of the clamping plate. The bores for the hydraulics on the multiple clamping pallet can be sealed with screw plugs. Thus it is possible to adapt the number of clamping devices to the manufacturing process.

### Key advantages

- Ideal for automated clamping
- For assembly of multiple hydraulic clamping devices in a row or in a square arrangement
- Central media activation for control of all clamping devices

### Your benefits

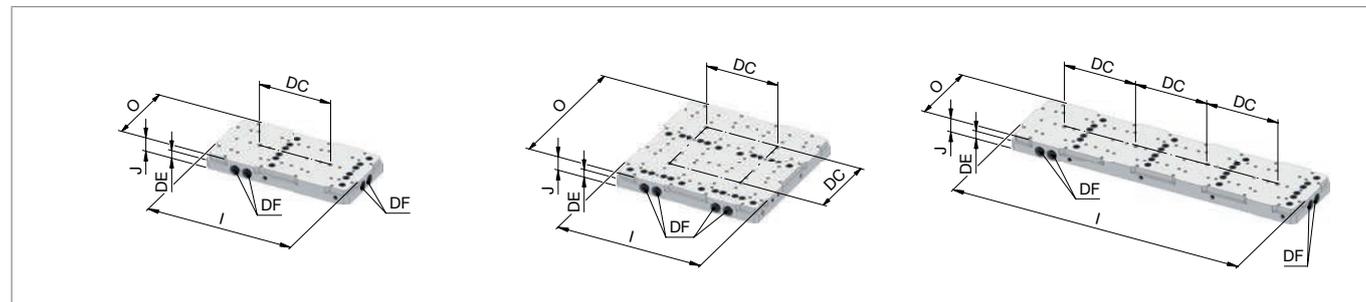
- Better utilization of machine capacity
- Multiple clamping in a very small installation space
- Time saving through automated clamping



## ACCESSORIES

### Multiple clamping pallets

#### Multiple clamping pallets. Technical data and order overview



Size	2-fold		4-fold	
Variant	In series		Angular	In series
Linear dimensions of the clamping position [mm]	DC		180	
Parallelism [mm]			0,01	
Total length [mm]	I	360		720
Width [mm]	O	180	360	180
Height [mm]	J		35	
Clamping edge height [mm]	DE		20	
Connecting thread two-side [selectable connecting side]	DF		G1/4"	
Max. actuating pressure [bar]			100	
Weight [kg]		16,7		33
In stock		✓	✓	✓
Material no.		10001431	10001433	10001432

Please note: The multiple clamping pallet is suitable for the HYDROK hydraulic stationary chuck size 65 SE / RD, the hs dock actuating unit size XXS - 4, and special stationary chucks that are available upon request.



	
Actuating units	Stationary chucks
Page 226	Page 252



### **hainBOX system for proper storage**

The practical hainBOX storage system allows proper storage of your clamping heads. Safe actuation of the clamping head ensures successful machining. Both depend upon the accuracy, cleanliness, and condition of the clamping head. In this respect, clean storage is a component of high process reliability.

The hainBOX is made of high-impact ABS plastic, so the clamping head is safely protected from damage and contamination. The transparent lid enables easy bore size identification of the clamping head within the hainBOX.

The individual hainBOXes can be stowed in drawers or cabinets. The hainBOX for TOPIus and SPANNTOP is available for clamping heads in sizes 40, 42, 52, 65, 80 and 100.

#### **Key advantages**

- Storage system for clamping heads
- Protects the clamping head from contamination and damage
- Stackable

#### **Your benefits**

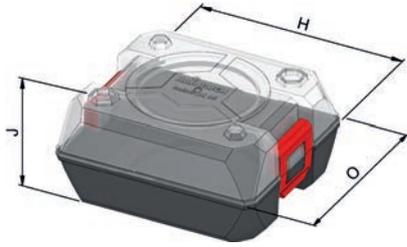
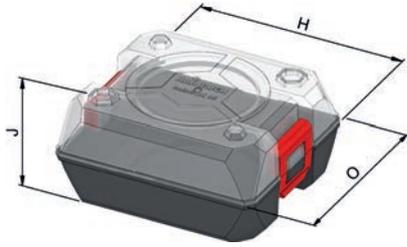
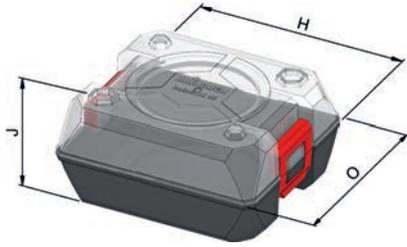
- Higher process reliability and accuracy
- Reduction of set-up times thanks to good »clamping head organization« and no need of repeated cleaning of the clamping head



# ACCESSORIES

## hainBOX system for proper storage

### hainBOX system for proper storage

Product	Figure	Suitable for	Max. total length of clamping head [mm]	Length [mm]	Width [mm]	Height [mm]	In stock	Order no.
hainBOX 52		TOP40 TOP40HSW	47,2	118,9	103,4	63	✓	10017173
		TOP40G	44				✓	10017172
		SK42BZIG SK42BZIHSW	42				✓	10017171
		TOP52 TOP52G TOP52HSW SK42BZI	47				✓	10017169
		SK52BZI SK52 BZIG SK52BZIHSW	46				✓	10017170
hainBOX 65		TOP65 TOP65G TOP65HSW	49	134	118	72	✓	10001387
		SK65BZI	58				✓	10001389
		SK65BZIG SK65BZIHSW	53				✓	10001388
hainBOX 100		TOP80 TOP80G TOP80HSW SK80BZI SK80BZIG SK80BZIHSW	53	199,3	179,3	73,8	✓	10017174
		TOP100 TOP100G SK100BZ SK100BZG SK100BZHSW	59				✓	10017175

When you purchase a clamping head, a hainBOX in the correct size is always included.



### Changing fixtures

The changing fixture allows safe and easy insertion and removal of the clamping head. This allows you to quickly change your clamping device over to a different clamping diameter or to one of our adaptations.

The changing fixtures are available in a manual or pneumatic version, with wheel or 2-hand safety operation. In this regard, the PPGV is especially suited for use with vertical machines.

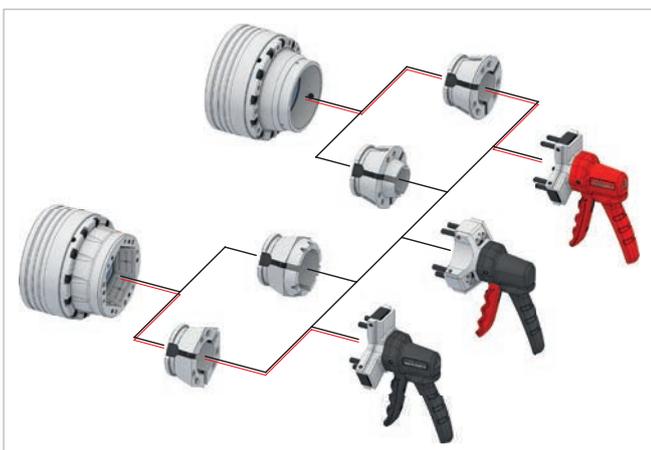
Note: Whether you use TOPlus and/or SPANNTOP clamping heads, you need only one universal manual changing fixture for each size [42/52, 65 and 80]. It can even be used to change clamping heads with an extension length of up to 19 mm.

### Key advantages

- Set-up device for changing clamping heads
- Ergonomic handle
- Manual and pneumatic version available

### Your benefits

- Saves time when setting up
- Changing fixture that is ideally matched to the HAINBUCH clamping head
- Comfortable work through perfect ergonomics
- Only one changing fixture per size [42/52, 65 and 80] for TOPlus and SPANNTOP clamping heads



# ACCESSORIES

## Changing fixtures

### Changing fixtures for clamping heads

Variant	Figure	Description	Size	Suitable for	Min. actuating pressure [bar]	Type	Weight [kg]	In stock	Material no.
Manual		Standard	26	SE		mqtop26	1	✓	10007002
			32	SE/RD		mq32		✓	10006985
			40	SE		mqtop40		✓	10007003
			42	RD		mq42	1,1	✓	10006986
		Universal	42/52	SE/RD [front nose extension up to 19 mm]		mq-uni42/52	2,3	✓	10019111
			65			mq-uni65	2,6	✓	10019112
			80			mq-uni80	2,9	✓	10019113
		With wheel	100	SE		mvtop100	3,4	✓	10007008
				RD		mv100		✓	10007006
	Pneumatic		Standard	32	RD	6	pp32	1,9	✓
42				pp42			✓		10007096
42/52				SE/RD	pp42/52		2	✓	10007098
65					pp65		2,2	✓	10007100
80					pp80		2,5	✓	10007102
100				SE	pptop100		2,8	✓	10007114
				RD	pp100			✓	10007093
		2-hand operation	100	RD	6	ppg100	3	✓	10007103
			120			ppg120		✓	10007104
			125			ppg125		✓	10007105
			140			ppg140	3,5	✓	10007106
			160			ppg160		✓	10007107
		2-hand operation / for vertical machines	100	RD	6	ppgv100	3	✓	10007108
			120			ppgv120	3,5	✓	10007109
			125			ppgv125		✓	10007110
			140			ppgv140		✓	10007111

## ACCESSORIES

### Changing fixtures

Variant	Figure	Description	Size	Suitable for	Min. actuating pressure [bar]	Type	Weight [kg]	In stock	Material no.
Pneumatic		2-hand operation / for vertical machines	140	RD	6	ppgv140	3,5	✓	10007111
			160			ppgv160	3,8	✓	10007112
		2-hand operation	160	SE	6		3,5	-	10019114

Please note:

mq 42 and pp 42: for clamping heads with one changing fixture bore per segment

mq 42/52 an pp 42/52: for clamping heads with a minimum of two changing fixture bores per segment

Optimal changing fixtures for multi spindle starting on page 564.

#### Scope of delivery

- Changing fixture
- Changing fixture holder

#### Changing fixture holder

Product	Figure	Application	In stock	Material no.
Changing fixture holder		Fits all standard changing fixtures except mqtop26, ppg160 and ppgv160.	✓	10000693

## ACCESSORIES

### Alignment set



#### Alignment set

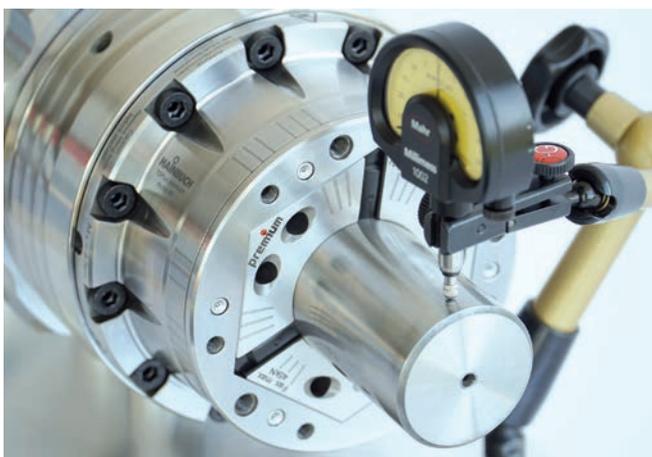
The alignment set allows precise alignment of your chuck to the machine within  $\mu\text{m}$  accuracy, to ensure that your parts comply with the required run-out. All you have to do is insert the measuring clamping head, clamp the test shaft, and align the chuck. The set saves you time and includes everything you need for the job.

#### Key advantages

- Consists of measuring clamping head and test shaft
- Alignment of the chuck with  $\mu\text{m}$  precision

#### Your benefits

- Exact alignment ensures process reliability
- Saves time



**Alignment set [master clamping head + test shaft].** For alignment of the chuck with  $\mu\text{m}$  precision

Size	Figure	In stock	Material no.
26		✓	10018832
40		✓	10018833
52		✓	10018819
65		✓	10018820
80		✓	10018834
100		✓	10018835

## Grease



### Grease

To ensure the long service life of your clamping devices, they must be lubricated at regular intervals. Inadequate lubrication can result in malfunctions, reduced clamping force, and inaccuracies, as well as excessive wear extending to blocking of the clamping device.

### Key advantages

- For lubrication of the clamping mechanism
- Constant low coefficient friction
- High bonding strength
- High resistance to pressure and water

### Your benefits

- To maintain the mechanical function and clamping force
- Extension of the maintenance intervals



Grease

Product	Figure	Suitable for	Description	Packaging type	Content [g]	In stock	Material no.
Universal grease		High-pressure grease gun	For all chucks except eccentric chucks / InoFlex	Cartridge	500	✓	10001489
		Grease gun		Can	1000	✓	10001488
Special grease		High-pressure grease gun	For eccentric chucks	Cartridge	400	✓	10001491
			for InoFlex VD / VT-S / VF			✓	10001230
			for InoZet			✓	10001232
Special grease		Grease gun	For eccentric chucks	Can	1000	✓	10001490
Antiadhesion spray		All products	Reduces friction, wear and the adhesion between clamping element and clamping device. Ideally suited for service and maintenance tasks.	Spray can	400	✓	10007052

Antiadhesion spray is only sold in Europe.

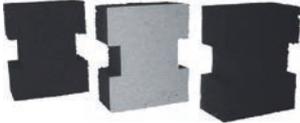
## ACCESSORIES

### Grease

#### Grease guns

Product	Figure	Description	In stock	Material no.
High-pressure grease gun		Including pointed mouth piece and flexible hose with mouth	✓	10001493
Grease gun		With pointed mouth piece	✓	10001492

**B-Top / B-Top3 jaw chuck. Chip protection and wrench**

Product	Figure	Size	In stock	Material no.
Chip protection		165/215	✓	10002033
		260	✓	10002034
		315	✓	10002035
Ejector wrench		165/215	✓	10002036
		260/315	✓	10002037
Assembly wrench		260	✓	10002038
		315	✓	10002039

**Various accessories**

Product	Figure	Description	Suitable for	In stock	Material no.
Adjustable end-stop		Lateral stop for positive stop jaws and movable jaws	InoFlex VF [VCF / VCB / VCG]	✓	10015066
Torque wrench		Torque wrench 10-100 Nm, flex ratchet handle, extension, hexagon socket wrench SW17 [inner and outer]	TOROK MANOK MANOK plus ms dock InoFlex VD InoFlex VF	✓	10001468
Mounting set		Set with 4 clamps for fastening the clamping vices on the machine table	InoFlex VF	✓	10015065
Allen key insert with journal pivot 1/2" connection		SW 5 mm	SPANNTOP mini pull-back size 32 / SPANNTOP mini deadlength size 32 / TOPlus mini pull-back size 26, 40 / TOPlus mini deadlength size 26, 40	✓	10001469
		SW 6 mm	SPANNTOP mini pull-back size 42, 52, 65, 80, 100 / SPANNTOP mini deadlength size 42, 52, 65, 80, 100 / TOPlus mini pull-back size 26, 52, 65, 80, 100 / TOPlus mini deadlength size 52, 65, 80, 100	✓	10001470

# Services

Discover potentials and make provisions



**Services product area**



**Consulting & engineering**

548



**Product service**

- On-site installation
- On-site service
- Repair & spare parts
- Maintenance & reconditioning
- Service contract
- Clamping force measurement
- Factory calibration of TESTit
- 24-hr troubleshooting hotline

550

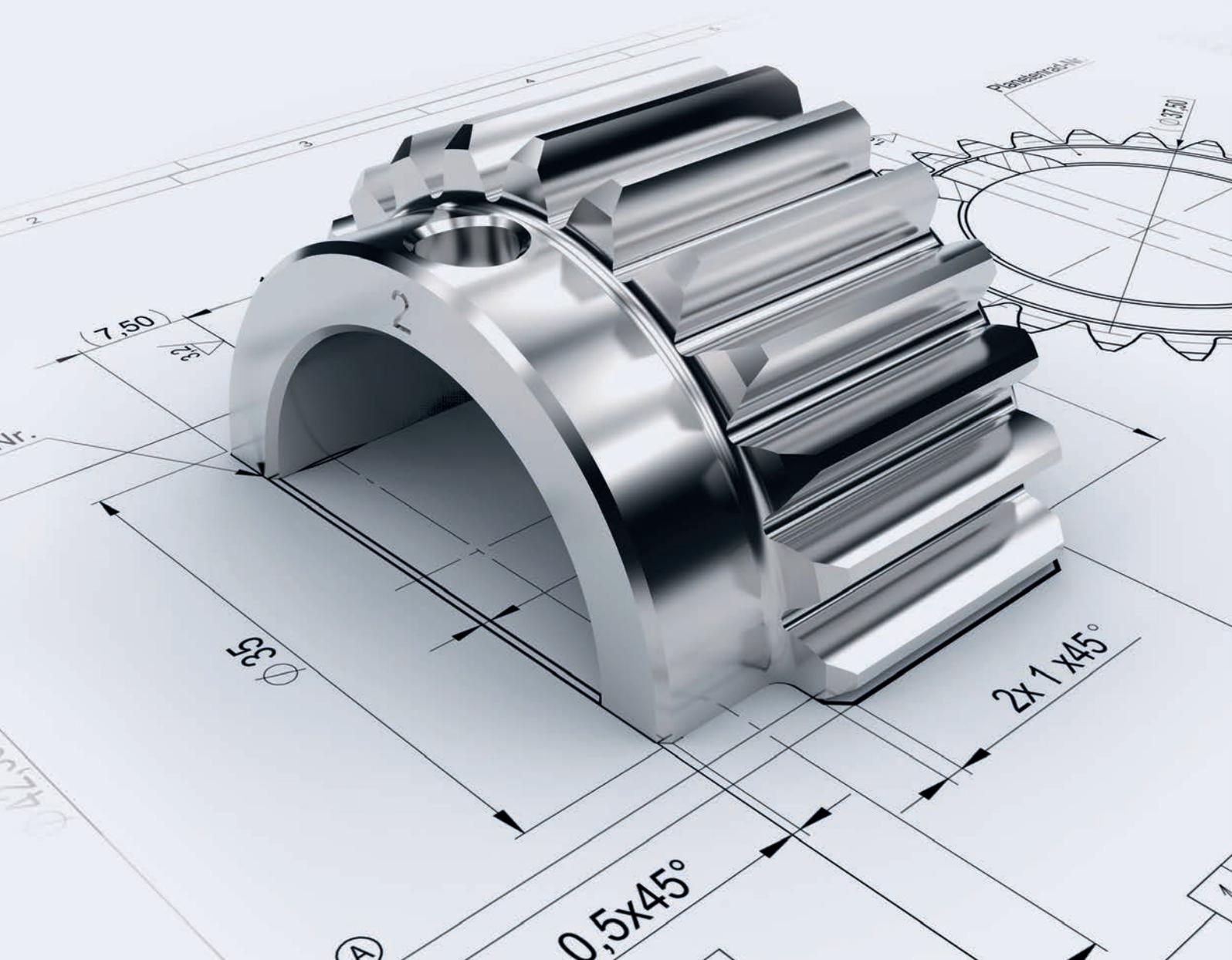


**campus**

Training & events

552

Take advantage of more than 70 years of experience in the development of clamping devices and process optimization. In this regard no challenge is too big, no quantity too small, and no distance too far.



## Consulting and production coaching

**While you continue to produce we explore the savings potential for you.**

80% less set-up time, 70% better roundness, 50% less scrap – these are the results achieved by our customers with HAINBUCH. Are you in need of optimization? Would you like to know how to boost the efficiency of your parts manufacturing processes? We will find the optimal solution, and that means: shorter set-up times, less machining time and reduced costs.

### Our services

- Individual consultation and elaboration of details
- Support with on-site implementation, on request
- In-house tests in our facilities, with original workpieces
- Parts manufacturing for demonstration purposes and for measurement series
- Analysis and reporting of results, with recommendation
- In case you have capacity bottlenecks, we will be glad to design the parts manufacturing process

## Engineering

**If a suitable product does not yet exist, we will develop it for you.**

You tell us what you need and we will develop the ideal product for your application. The more unusual and unique, the better. That is when our design engineers, and research and development specialists are in their element. What you get is a custom tailored solution, not an ordinary »off-the-shelf« product. Basically we start with a blank sheet of paper; all you have to do is define which of our services you would like to use.

By the way: We always determine w-t is effective and feasible for your particular application, such as sensors in the clamping device for automated measuring and monitoring for example.

### Our services

- Analysis of your requirements
- Drawing up specification sheets, cost schedule and timetable
- Design, manufacturing drawing and prototype
- Documentation and presentation of the results
- Elastomer technology
- Composite fiber technology
- FEM calculations
- Sensors, actuators, mechatronics
- Customized clamping force measurement technology

### Installation & commissioning

Our specialists take care of everything to ensure successful commissioning and smooth production processes – right from the start. You save time and money as machines are quickly available again, thanks to our competent instruction.

#### Our services

- Installation of the new clamping device
- Adjusting the clamping device
- Function test
- User instruction: Operation, maintenance & service, occupational health and safety

### On-site service

Our service technicians provide on-site support in case of failures and difficulties. After an analysis of the situation, the necessary steps are taken.

#### Our services

- Root cause analysis: Disassembly and inspection of the clamping device
- If possible: On-site repair, assembly and alignment of the [replacement] clamping device
- Return transport for repair [in the case of smaller clamping devices]
- User instruction: Operation, maintenance & service, occupational health and safety

### Repair & spare parts

If your clamping device should at some point no longer provide the customary performance – our service organization is ready. Fast repair and delivery of spare parts minimizes downtimes in your production.

#### Our services

- Profitability analysis with recommendation
- Repair or replacement of components
- Coating or re-vulcanization
- All work is carried out by HAINBUCH experts
- Fast availability of original HAINBUCH spare parts

### Maintenance & reconditioning

Regular professional maintenance and optimal adjustment ensure that your clamping device always achieves the best results. More extensive repairs are avoided and wear-related failures are a thing of the past.

#### Our services

- Disassembling and cleaning the chuck
- Replacement of wear parts
- Checking the parts that are not replaced
- Assembling and adjusting the chuck
- Test log and report with recommendations
- Execution at HAINBUCH or on site

### Service contract

A HAINBUCH service contract offers precisely the services that you require – no more, no less. At fixed, clearly calculated costs.

#### Our services

- Flexible drafting of your contract
- Possible components – as agreed: Clamping device inspection, maintenance, training, reconditioning, customer-specific stocking of spare parts, etc.

### Clamping force measurement

Scrap due to deformation? Optimization of maintenance intervals? Checking of holding power / clamping force? You don't have your own measuring gauge? Our technicians provide on-site support.

#### Our services

- On-site clamping force measurement and logging
- Stationary measurement or at speed
- Two or three clamping positions, I.D. and O.D. clamping set-ups
- We have every standard measuring head that you might need
- In addition, we provide the clamping elements for measuring HAINBUCH clamping devices
- For custom diameters we manufacture measuring bolts for any diameter up to 120 mm

### Factory calibration of TESTit

Do you use our TESTit clamping force gauges? Like all testing tools, TESTit gauges require regular inspection and calibration. Because there is nothing worse than a false sense of safety! Send us your TESTit and the service pass once a year, and we will take care of everything. Factory calibration must be carried out in accordance with ISO 10012.

#### Our services

- Function test
- Factory calibration based on ISO 10012
- Reference measuring equipment is DAkkS calibrated
- Detailed documentation
- Updating of service pass
- Preparation of the calibration certificate
- Return shipment

### 24-hr troubleshooting hotline +49 7144.907-444

We are happy to help, when things get jammed. When you call HAINBUCH, you are immediately connected with the right person, who knows our clamping devices inside out. That means your problem will be quickly resolved and you can return to normal work.

#### Our services

- Fast help if there is a crash or emergency
- Direct line to HAINBUCH experts
- Often a solution to the problem is available in minutes

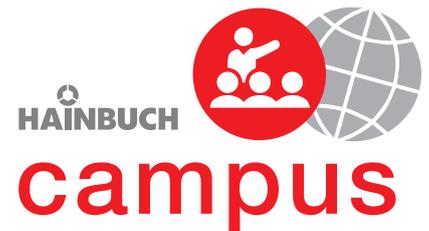


# Your »campus« academy

Individual and practically oriented,  
with a solid knowledge base



Stay on the ball and perfect your processes and your production, also with a view toward digitization and automation.



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- Precision training
- Individual training

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Many-faceted and practically oriented.  
For beginners and experts.

- »Set-up, clamping and machining« workshop  
Subject: Workpiece analysis and the effects on production planning, provision of information in the CAM system, set-up, and the right choice of workholding technology in practice.

## WEBINARS

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Expertise from a specialist – and from the convenience of your workplace.

- Gear cutting webinar
- Workholding technology webinar
- I.D. clamping webinar
- Automation webinar
- Efficient small and large series manufacturing webinar
- Milling webinar
- Reducing set-up times webinar

For more information contact your local subsidiary or [campus@hainbuch.de](mailto:campus@hainbuch.de)

# Overview

Find what's important fast



**Equipment for multi spindle**

 GILDEMEISTER	Gildemeister	564
 INDEX	INDEX	570
 Schütte	Schütte	581
 TORNOS	Tornos	595

# Multi spindle

Two cost-effective systems



Automated manufacturing with our feedfingers, or flexible, functional and user friendly set-up work with our SPANNTOP system: Both are extremely economical, offer significant extension possibilities and fulfill the most demanding tasks.

### Key advantages

- Reduced set-up times due to modular systems
- Increased production due to longer runtimes and maintenance intervals
- Significantly reduced marking on bar material
- Lower inventory through multiple use of individual modules

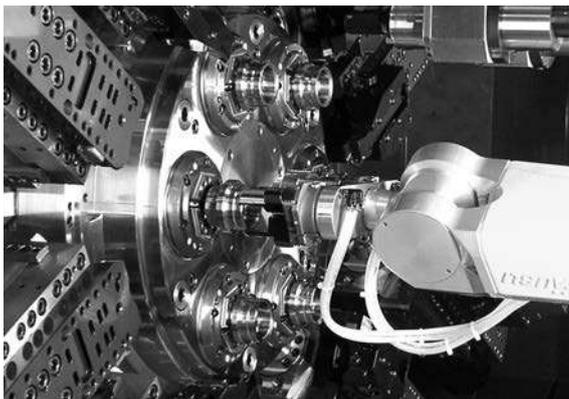


Photo: INDEX-Werke GmbH & Co. KG



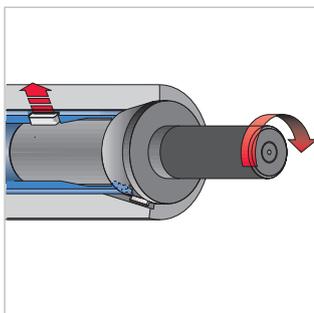
## SPANNTOP system

In terms of functionality, flexibility and user friendly set-up of multi spindles, our SPANNTOP system is just the right partner.

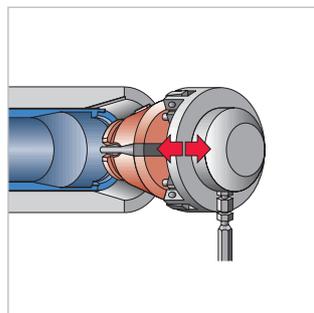
The system consists of an elastic clamping part, the clamping head, a rigid pipe part and the basic body. Both parts are coupled together to form a single unit that has the outer contour of a conventional clamping collet. Installation in the spindle nose is easy.

## Key advantages

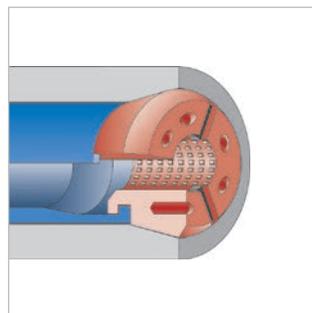
- Easy clamping head change-over from the front
- Long lifespan through case-hardened steel
- Typical HAINBUCH features, such as parallel clamping, optimal power conversion, extreme stiffness and high holding power, as well as little wear and tear



The basic body is installed or removed with an assembly aid.

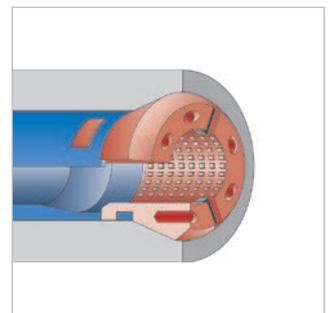


Use a changing fixture that is inserted into the face holes to collapse the segments of the clamping head far enough to the inside that it can uncouple easily.



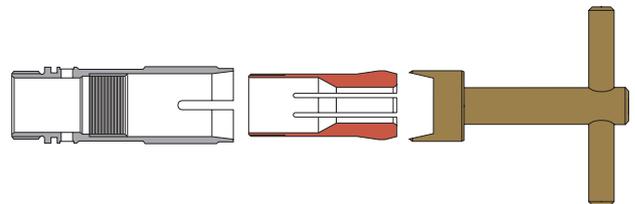
## The System BZ

- Simple »original« coupling
- Used wherever there are no space or wall thickness problems



## The System ZW

- Coupling type especially for multi spindles
- Offers more capacity with the same outer geometry



### RS feedfingers

HAINBUCH feedfingers have set standards with their adjustable thrust force. The tasks and requirements are diverse: various materials, high RPM, feed speeds and process reliability.

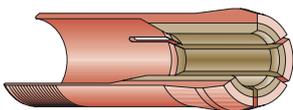
The inner collet is screwed into the outer sleeve with a special wrench. A marking ring on the inner collet in conjunction with a scale on the outer sleeve provides reference values of the level of thrust force.

#### Key advantages

- Adjustable thrust force, thus reduced abrasion and wear
- Significantly reduced marking on bar material
- Multi-slot inner collet fits on the bar, thereby resulting in minimal wear
- Inner collet can be adjusted multiple times, resulting in a longer lifespan

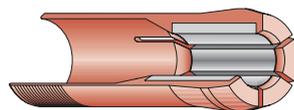
### Variants

In most application cases you are absolutely right with the selection of our steel inner collets. If you have more rigorous requirements on the surface condition of the bar material, then with the 3 variants below you have all possibilities to prevent bothersome scoring on the material.



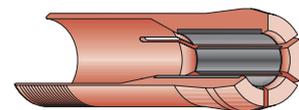
#### KSB [plastic coating]

This coating is recommended wherever an absolutely score-free and scratch-free surface is required. Profiles can be worked in.



#### OXK [ceramic coating]

The extraordinary hardness of the ceramic coating prevents »build up« and »smearing« in the bores. Particularly recommended for rust-resistant and acid-resistant steels. The extremely long service life makes it suitable for continuous-operation machines with bar feeders. Only available for round dimensions.



#### HM [carbide coating]

Characteristics and implementation recommendations similar to those specified for the ceramic coating. Steel brass and SPH inner collets have particularly proven themselves as cost-effective alternatives for rust-resistant and acid-resistant steels, to prevent scoring.

## Retrofit

Older machines gain profit from conversion to a modern clamping system. If the possibility exists to exchange the collet location in the spindle drum with TOPlus locations with hexagon clamping geometry, the clamping system can fully exploit its advantages due to the full-surface support of the clamping head, which is resistant to contamination. You will particularly notice it through the rigidity when recessing and the lower cycle times, since in most cases machining parameters can be increased.

Regardless of whether you are giving your machine a general overhaul, or are only replacing the clamping system. With conversion to our hexagon clamping heads, you have a genuine alternative compared to purchasing a new machine but at a significantly lower investment.

Retrofit – modern and more efficient.

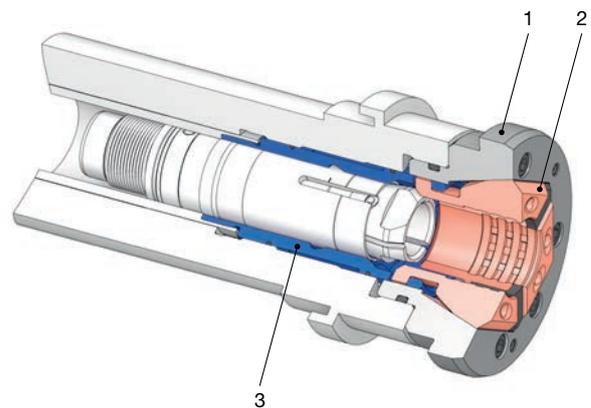
## Key advantages

- Get more capacity out of your machine:  
Conversion from conventional collets to hexagon clamping heads
- Higher rigidity than with round clamping elements
- Significantly higher resistance to contamination
- Cycle time reduction is possible through increased machining parameters
- Ensures less tool wear and thus reduces costs and machine downtimes

## Detail

### Designation

- 1 TOPlus unit [with exchange of the previous collet fixture]
- 2 Clamping head
- 3 Basic body



EQUIPMENT FOR MULTI SPINDLE

# Selection

Here's how to select your equipment



**The equipment categories**

	<b>Standard equipment</b>	<b>Special equipment</b>
Description	The standard equipment fits on a variety of Gildemeister, INDEX, Schütte and Tornos machines. In this regard, we make a distinction between SPANNTOP system, RS system and conventional clamping collets.	The special equipment is based on the same principle as the standard equipment. However, in this case all components can be specially adapted to your requirements.
	 <b>Page 564</b>	 <b>Upon request</b>

# EQUIPMENT FOR MULTI SPINDLE

## Gildemeister

### Gildemeister GM 20 / AS 16-20 / GS 20. Main spindle

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
SPANNTOP BZ	Basic body BZ			34	42	M30 x 1 - LH	90	-	10009440
	Clamping head BZ	●	6,0 - 20,0					-	sk9012bzc6,0-20,0
		■	8,0 - 9,0					-	sk9012bzc8,0-9,0
			10,0 - 14,0					-	sk9012bzc10,0-14,0
		⬡	7,0 - 9,0					-	sk9012bzc7,0-9,0
10,0 - 17,0						-	sk9012bzc10,0-17,0		
	Hydraulic changing fixture						✓	10014565	
	Manual changing fixture						✓	10007001	
	Pneumatic pressure converter						-	10014711	
	Assembling aid						-	10006700	
Conventional	Collet	●	4,0 - 20,0	34	42	M30 x 1 - LH	90	-	9012er4,0-20,0
		■	7,0 - 9,0					-	9012ev7,0-9,0
			10,0 - 14,0					-	9012ev10,0-14,0
		⬡	7,0 - 9,0					-	9012es7,0-9,0
			10,0 - 17,0					-	9012es10,0-17,0

### Feed tube

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
RS system	Outer sleeve			24,6	25	M24 x 1	90	✓	10006234
	Inner collet steel	●	4,0 - 18,0					✓	rs20/st/r4,0-18,0
		■	4,0 - 9,0					-	rs20/st/v4,0-9,0
			10,0 - 12,0					-	rs20/st/v10,0-12,0
		⬡	4,0 - 9,0					-	rs20/st/s4,0-9,0
	10,0 - 14,5						-	rs20/st/s10,0-14,5	
	Inner collet steel brass	●	4,0 - 18,0					-	rs20/sb/r4,0-18,0
		■	4,0 - 9,0					-	rs20/sb/v4,0-9,0
			10,0 - 12,0					-	rs20/sb/v10,0-12,0
		⬡	4,0 - 9,0					-	rs20/sb/s4,0-9,0
			10,0 - 14,5					-	rs20/sb/s10,0-14,5

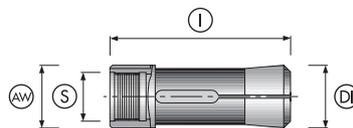
# EQUIPMENT FOR MULTI SPINDLE

## Gildemeister

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.	
RS system	Inner collet SPH	●	4,0 - 18,0					-	rs20/sph/r4,0-18,0	
		■	4,0 - 9,0					-	rs20/sph/v4,0-9,0	
			10,0 - 12,0					-	rs20/sph/v10,0-12,0	
		⬡	4,0 - 9,0					-	rs20/sph/s4,0-9,0	
	10,0 - 15,0						-	rs20/sph/s10,0-15,0		
	Inner collet KSB	●	5,0 - 16,0					-	rs20/ksb/r5,0-16,0	
		■	5,0 - 9,0					-	rs20/ksb/v5,0-9,0	
			10,0 - 11,0					-	rs20/ksb/v10,0-11,0	
		⬡	5,0 - 9,0					-	rs20/ksb/s5,0-9,0	
	10,0 - 14,0						-	rs20/ksb/s10,0-14,0		
	Inner collet OXK	●	3,1 - 16,0					-	rs20/oxk/r3,1-16,0	
		Wrench							✓	10008166
	Conventional	Feedfinger	●	4,0 - 20,0	24,6	25	M24 x 1	90	-	9258er4,0-20,0
■			7,0 - 9,0	-					9258ev7,0-9,0	
			10,0 - 14,0	-					9258ev10,0-14,0	
⬡			7,0 - 9,0	-					9258es7,0-9,0	
			10,0 - 16,5	-					9258es10,0-16,5	
Guide ring for feed tube	●	4,0 - 20,0						✓	9258e/fr4,0-20,0	
	■	7,0 - 9,0						-	9258e/fv7,0-9,0	
		10,0 - 14,0						-	9258e/fv10,0-14,0	
	⬡	7,0 - 9,0						-	9258e/fs7,0-9,0	
		10,0 - 17,0						-	9258e/fs10,0-17,0	

SPH = special cast coating; KSB = plastic coating; OXK = oxidized ceramic coating

### Sub spindle



Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread inside S	Total length [mm] I	In stock	Material no.
Pick-off collet	●	4,0 - 20,0	26	28,5	M21,5 x 0,75	80	-	9012e/gr4,0-20,0
	■	7,0 - 9,0					-	9012e/gv7,0-9,0
		10,0 - 14,0					-	9012e/gv10,0-14,0
	⬡	7,0 - 9,0					-	9012e/gs7,0-9,0
		10,0 - 17,0					-	9012e/gs10,0-17,0

# EQUIPMENT FOR MULTI SPINDLE

## Gildemeister

### Gildemeister AS 20-25. Main spindle

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread inside S	Total length [mm] I	In stock	Material no.
SPANNTOP BZ	Basic body BZ			38	45,5	M34,5 x 0,75 - LH	90	-	10009441
	Clamping head BZ	●	6,0 - 25,0					-	sk9012bz-2r6,0-25,0
		■	8,0 - 9,0					-	sk9012bz-2v8,0-9,0
		■	10,0 - 17,0					-	sk9012bz-2v10,0-17,0
		●	8,0 - 9,0					-	sk9012bz-2s8,0-9,0
●	10,0 - 21,0					-	sk9012bz-2s10,0-21,0		
	Hydraulic changing fixture							-	wv.0226.0004.00
	Pneumatic pressure converter							-	10014711
	Assembling aid							-	10006701
Conventional	Collet	●	4,0 - 25,0	38	45,5	M34,5 x 0,75 - LH	90	-	9012e-2r4,0-25,0
		■	7,0 - 9,0					-	9012e-2v7,0-9,0
		■	10,0 - 17,0					-	9012e-2v10,0-17,0
		●	7,0 - 9,0					-	9012e-2s7,0-9,0
		●	10,0 - 20,0					-	9012e-2s10,0-20,0

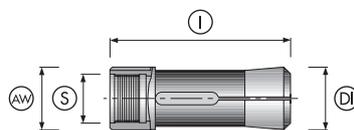
### Feed tube

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.	
RS system	Outer sleeve			30,5	30,5	M28,5 x 0,75	90	✓	10006194	
	Inner collet steel	●	4,0 - 22,0						✓	rs24/st/r4,0-22,0
		■	5,0 - 9,0						-	rs24/st/v5,0-9,0
		■	10,0 - 15,0						-	rs24/st/v10,0-15,0
		●	5,0 - 9,0						-	rs24/st/s5,0-9,0
	Inner collet steel brass	●	10,0 - 19,0						-	rs24/st/s10,0-19,0
		●	4,0 - 21,0						-	s24/sb/r4,0-21,0
		■	5,0 - 9,0						-	rs24/sb/v5,0-9,0
		■	10,0 - 15,0						-	rs24/sb/v10,0-15,0
		●	5,0 - 9,0						-	rs24/sb/s5,0-9,0
●		10,0 - 19,0						-	rs24/sb/s10,0-19,0	

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] l	In stock	Material no.
RS system	Inner collet SPH	●	4,0 - 21,0					-	rs24/sph/r4,0-21,0
		■	6,0 - 9,0					-	rs24/sph/v6,0-9,0
			10,0 - 14,0					-	rs24/sph/v10,0-14,0
		⬡	6,0 - 9,0					-	rs24/sph/s6,0-9,0
			10,0 - 17,0					-	rs24/sph/s10,0-17,0
		Inner collet KSB	●	5,0 - 19,5					-
	■		5,0 - 9,0					-	rs24/ksb/v5,0-9,0
			10,0 - 14,0					-	rs24/ksb/v10,0-14,0
	⬡		5,0 - 9,0					-	rs24/ksb/s5,0-9,0
			10,0 - 18,0					-	rs24/ksb/s10,0-18,0
	Inner collet OXK		●	5,0 - 20,0					-
		20,1 - 21,0						-	rs24/oxk/r20,1-21
		Wrench						✓	10008167
	Conventional	Feedfinger	●	4,0 - 25,0	30,5	30,5	M28,5 x 0,75	90	-
■			7,0 - 9,0	-					9258e-2v7,0-9,0
			10,0 - 17,0	-					9258e-2v10,0-17,0
⬡			7,0 - 9,0	-					9258e-2s7,0-9,0
			10,0 - 20,0	-					9258e-2s10,0-20,0
Guide ring for feed tube			●	4,0 - 22,0					
	■	7,0 - 9,0						-	9258e/f2v7,0-9,0
		10,0 - 15,0						-	9258e/f2v10,0-15,0
	⬡	7,0 - 9,0						-	9258e/f2s7,0-9,0
		10,0 - 19,0						-	9258e/f2s10,0-19,0

SPH = special cast coating; KSB = plastic coating; OXK = oxidized ceramic coating

### Sub spindle



Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread inside S	Total length [mm] l	In stock	Material no.
Pick-off collet	●	4,0 - 20,0	26	28,5	M21,5 x 0,75	80	-	9012e/gr4,0-20,0
	■	7,0 - 9,0					-	9012e/gv7,0-9,0
		10,0 - 14,0					-	9012e/gv10,0-14,0
	⬡	7,0 - 9,0					-	9012e/gs7,0-9,0
		10,0 - 17,0					-	9012e/gs10,0-17,0

# EQUIPMENT FOR MULTI SPINDLE

## Gildemeister

### Gildemeister AS 32 / GS 32 / GM 32. Main spindle

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread inside S	Total length [mm] I	In stock	Material no.
SPANNTOP BZ	Basic body BZ			53	69,4	M48 x 1,5 - LH	135	-	10009453
	Clamping head BZ	●	6,0 - 32,0					✓	sk6970bzc6,0-32,0
		■	7,0 - 9,0					-	sk6970bzc7,0-9,0
			10,0 - 22,0					-	sk6970bzc10,0-22,0
		⬡	7,0 - 9,0					-	sk6970bzs7,0-9,0
10,0 - 27,0						-	sk6970bzs10,0-27,0		
	Hydraulic changing fixture							✓	10014563
	Pneumatic pressure converter							-	10014711
	Assembling aid							✓	10006705
	Manual changing fixture							✓	10006995
Conventional	Collet	●	4,0 - 32,0	53	69,4	M48 x 1,5 - LH	128	-	9069er4,0-32,0
		■	7,0 - 9,0					-	9069ev7,0-9,0
		⬡	10,0 - 22,0					-	9069ev10,0-22,0
			7,0 - 9,0					-	9069es7,0-9,0
		⬡	10,0 - 27,0					-	9069es10,0-27,0

### Feed tube

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.	
RS system	Outer sleeve			39,8	40	M38 x 1,5 - LH	124	✓	10006322	
						M38 x 1,5		✓	10006321	
	Inner collet steel	●	4,0 - 32,0					✓	rs32/st/r4,0-32,0	
		■	7,0 - 9,0					-	rs32/st/v7,0-9,0	
			10,0 - 21,0					-	rs32/st/v10,0-21,0	
		⬡	7,0 - 9,0						-	rs32/st/s7,0-9,0
	10,0 - 27,0							-	rs32/st/s10,0-27,0	
	Inner collet steel brass	●	4,0 - 32,0						-	rs32/sb/r4,0-32,0
		■	7,0 - 9,0						-	rs32/sb/v7,0-9,0
			10,0 - 22,0						-	rs32/sb/v10,0-22,0
⬡		7,0 - 9,0						-	rs32/sb/s7,0-9,0	
	10,0 - 27,0						-	rs32/sb/s10,0-27,0		

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.	
RS system	Inner collet SPH	●	4,0 - 32,0					-	rs32/sph/r4,0-32,0	
		■	7,0 - 9,0					-	rs32/sph/v7,0-9,0	
			10,0 - 22,0					-	rs32/sph/v10,0-22,0	
			7,0 - 9,0					-	rs32/sph/s7,0-9,0	
		10,0 - 27,0					-	rs32/sph/s10,0-27,0		
	Inner collet KSB	●	4,0 - 29,5						-	rs32/ksb/r4,0-29,5
		■	8,0 - 9,0						-	rs32/ksb/v8,0-9,0
			10,0 - 22,0						-	rs32/ksb/v10,0-22,0
			8,0 - 9,0						-	rs32/ksb/s8,0-9,0
		10,0 - 27,0						-	rs32/ksb/s10,0-27,0	
	Inner collet OXK	●	6,0 - 20,0						-	rs32/oxk/r6,0-20,0
			20,1 - 26,5						-	rs32/oxk/r20,1-26,5
		Wrench							✓	10008171
	Conventional	Feedfinger	●	4,0 - 32,0	39,8	40	M38 x 1,5 - LH	136	-	9316er4,0-32,0
■			7,0 - 9,0	-					9316ev7,0-9,0	
			10,0 - 22,0	-					9316ev10,0-22,0	
			7,0 - 9,0	-					9316es7,0-9,0	
10,0 - 27,0			-	9316es10,0-27,0						
Guide ring for feed tube	●	4,0 - 32,0						-	9316e/f-vr4,0-32,0	
	■	7,0 - 9,0						-	9316e/f-vrv7,0-9,0	
		10,0 - 22,0						-	9316e/f-vrv10,0-22,0	
		7,0 - 9,0						-	9316e/f-vrs7,0-9,0	
	10,0 - 27,0						-	9316e/f-vrs10,0-27,0		
Support ring for bar guiding system	●	4,0 - 32,0						-	9316e/f-srr4,0-32,0	
	■	7,0 - 9,0						-	9316e/f-srv7,0-9,0	
		10,0 - 22,0						-	9316e/f-srv10,0-22,0	
		7,0 - 9,0						-	9316e/f-srs7,0-9,0	
	10,0 - 27,0						-	9316e/f-srs10,0-27,0		

SPH = special cast coating; KSB = plastic coating; OXK = oxidized ceramic coating

### Sub spindle

Product	Description	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread inside S	Total length [mm] I	In stock	Material no.
Pick-off collet	Triple slot- ted	●	4,0 - 32,0	38	43	M24 x 1,5	80	-	9069e/gr4,0-32,0
		■	7,0 - 9,0					-	9069e/gv7,0-9,0
			10,0 - 22,0					-	9069e/gv10,0-22,0
			7,0 - 9,0					-	9069e/gs7,0-9,0
		10,0 - 27,0	-					9069e/gs10,0-27,0	
	Sextuple slotted	●	4,0 - 32,0	39	44		82	-	90699h/gr4,0-32,0
		■	7,0 - 9,0					-	90699h/gv7,0-9,0
			10,0 - 22,0					-	90699h/gv10,0-22,0
			7,0 - 9,0					-	90699h/gs7,0-9,0
		10,0 - 27,0	-					90699h/gs10,0-27,0	

# EQUIPMENT FOR MULTI SPINDLE INDEX

## INDEX MS 16. Main spindle

Product variants	Product	Profile	Clamping range [mm]	Type of serration	Increments [mm]	Connecting thread outside T	Total length [mm] I	In stock	Material no.
SPANNTOP BZ	Basic body BZ					M32 x 1	71	✓	10009428
	Clamping head BZI	●	4,0 - 7,0	Smooth	1			✓	sk16bzir4,0-7,0
			8,0 - 10,0	Radial grooves			✓	sk16bzir8,0-10,0	
			11,0 - 16,0	Radial and axial grooves			✓	sk16bzir11,0-16,0	
		■	7,0 - 9,0	Smooth			-	sk16bziv7,0-9,0	
			10,0 - 11,0	Radial grooves			-	sk16bziv10,0-11,0	
			⬡	7,0 - 9,0		Smooth		-	sk16bzis7,0-9,0
	10,0 - 13,0	Radial grooves			-	sk16bzis10,0-13,0			
	Assembling aid						✓	10006683	
	Manual changing fixture						✓	10007001	

## Synchron spindle

Product variants	Product	Variant	Profile	Clamping range [mm]	Type of serration	Increments [mm]	Particularity	In stock	Material no.
SPANNTOP BZ	SPANNTOP chuck	Combi deadlength						✓	10001866
	Clamping head BZI		●	4,0 - 16,0	Smooth	0,5	No front nose	✓	sk16bzig4,0-16,0

## Feed tube

Product variants	Product	Description	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
RS system	Outer sleeve				25,7	16	M22 x 1	99	✓	10015488
	Inner collet steel		●	4,0 - 10,0					✓	rs12/st/r4,0-10,0
	Inner collet steel brass							-	rs12/sb/r4,0-10,0	
	Inner collet SPH							-	rs12/sph/r4,0-10,0	
	Inner collet KSB							-	rs12/ksb/r4,0-10,0	
	Inner collet OXK							-	rs12/oxk/r4,0-10,0	
	Wrench								✓	10008160

# EQUIPMENT FOR MULTI SPINDLE INDEX

Product variants	Product	Description	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] l	In stock	Material no.	
	Key to change the entire RS 12 unit								✓	10000197	
RS system	Outer sleeve	for Ø >8-16 for hexagon SW 10-13			25,7	25	M22 x 1	95	✓	10015489	
		for hexagon SW 4-10							✓	10000193	
	Inner collet steel		●	4,0 - 16,0					✓	rs20/st/r4,0-16,0	
			■	4,0 - 9,0					-	rs20/st/v4,0-9,0	
			■	10,0 - 12,0					-	rs20/st/v10,0-12,0	
			●	4,0 - 9,0					-	rs20/st/s4,0-9,0	
			●	10,0 - 14,5					-	rs20/st/s10,0-14,5	
	Inner collet steel brass		●	4,0 - 16,0						-	rs20/sb/r4,0-16,0
			■	4,0 - 9,0						-	rs20/sb/v4,0-9,0
			■	10,0 - 12,0						-	rs20/sb/v10,0-12,0
			●	4,0 - 9,0						-	rs20/sb/s4,0-9,0
			●	10,0 - 13,0						-	rs20/sb/s10,0-15,0
	Inner collet SPH		●	4,0 - 16,0						-	rs20/sph/r4,0-18,0
			■	4,0 - 9,0						-	rs20/sph/v4,0-9,0
			■	10,0 - 12,0						-	rs20/sph/v10,0-12,0
			●	4,0 - 9,0						-	rs20/sph/s4,0-9,0
			●	10,0 - 13,0						-	rs20/sph/s10,0-13,0
	Inner collet KSB		●	5,0 - 16,0						-	rs20/ksb/r5,0-16,0
			■	5,0 - 9,0						-	rs20/ksb/v5,0-9,0
			■	10,0 - 11,0						-	rs20/ksb/v10,0-11,0
			●	5,0 - 9,0						-	rs20/ksb/s5,0-9,0
			●	10,0 - 13,0						-	rs20/ksb/s10,0-13,0
	Inner collet OXK		●	3,1 - 16,0					-	rs20/oxk/r3,1-16,0	
	Wrench								✓	10008166	
	Key to change the entire RS 20 unit								✓	10000196	

SPH = special cast coating; KSB = plastic coating; OXK = oxidized ceramic coating

# EQUIPMENT FOR MULTI SPINDLE INDEX

## INDEX MS 16 Plus. Main spindle

Product variants	Product	Profile	Clamping Ø [mm] BU	Connecting thread outside T	Total length [mm] I	In stock	Material no.
SPANNTOP ZW	Basic body ZW			M32 x 1	74	✓	1000189
	Clamping head ZW	●	4,0 - 22,0			✓	sk9022zwr4,0-22,0
	Assembling aid					✓	10006689
	Manual changing fixture					✓	10006984

## Synchron spindle

Product variants	Product	Variant	Profile	Clamping Ø [mm] BU	Type of serration	Increments [mm]	In stock	Material no.
SPANNTOP ZW	SPANNTOP chuck	Combi deadlength					✓	10001724
	Clamping head ZW [smooth]		●	4,0 - 22,0	Smooth	0,5	✓	sk9022zwgr4,0-22,0

## INDEX MS 22. Main spindle

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
SPANNTOP ZW	Basic body ZW			32,8	44,3	M1 x 29	103	✓	10015867
	Clamping head ZW	●	4,0 - 22,0					✓	sk9022zwr4,0-22,0
	Clamping head ZW [smooth]							✓	sk9022zwgr4,0-22,0
	Assembling aid							✓	10006689
	Manual changing fixture							✓	10006984
	Deadlength chuck for sub spindles							✓	10001718



# EQUIPMENT FOR MULTI SPINDLE INDEX

## INDEX MS 25. Main spindle

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] l	In stock	Material no.
SPANNTOP BZ	Basic body BZ			46	60,4	M40 x 1,5 - LH	120	✓	10009449
	Clamping head BZ	●	5,0 - 26,0					✓	sk9039bzs5,0-26,0
		■	7,0 - 9,0					-	sk9039bzs7,0-9,0
			10,0 - 18,0					-	sk9039bzs10,0-18,0
		⬡	7,0 - 9,0					-	sk9039bzs7,0-9,0
10,0 - 22,0						-	sk9039bzs10,0-22,0		
	Hydraulic changing fixture							-	10014562
	Pneumatic pressure converter							-	10014711
	Assembling aid							-	10006703
	Manual changing fixture							-	10006994
Conventional	Collet	●	6,0 - 28,0	46	60,4	M40 x 1,5 - LH	120	-	9039er6,0-28,0
		■	7,0 - 9,0					-	9039ev7,0-9,0
			10,0 - 18,0					-	9039ev10,0-18,0
		⬡	7,0 - 9,0					-	9039es7,0-9,0
			10,0 - 25,0					-	9039es10,0-25,0

## Feed tube

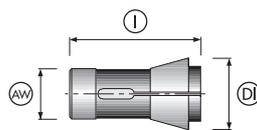
Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] l	In stock	Material no.	
RS system	Outer sleeve			35	33	M33 x 1,5	118	✓	10006307	
	Outer sleeve – feeder design							-	10006270	
	Inner collet steel		●	4,0 - 25,0					✓	rs25/st/r4,0-25,0
			■	7,0 - 9,0					-	rs25/st/v7,0-9,0
				10,0 - 17,0					-	rs25/st/v10,0-17,0
			⬡	6,0 - 9,0						-
	10,0 - 22,0							-	rs25/st/s10,0-22,0	
	Inner collet steel brass		●	4,0 - 25,0					-	rs25/sb/r4,0-25,0
			■	7,0 - 9,0					-	rs25/sb/v7,0-9,0
				10,0 - 17,0					-	rs25/sb/v10,0-17,0
			⬡	6,0 - 9,0						-
10,0 - 22,0							-	rs25/sb/s10,0-22,0		

# EQUIPMENT FOR MULTI SPINDLE INDEX

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] l	In stock	Material no.
RS system	Inner collet SPH	●	4,0 - 25,0					-	rs25/sph/r4,0-25,0
		■	7,0 - 9,0					-	rs25/sph/v7,0-9,0
			10,0 - 17,0					-	rs25/sph/v10,0-17,0
		⬡	6,0 - 9,0					-	rs25/sph/s6,0-9,0
	10,0 - 22,0						-	rs25/sph/s10,0-22,0	
	Inner collet KSB	●	7,0 - 23,5					-	rs25/ksb/r7,0-23,5
		■	7,0 - 9,0					-	rs25/ksb/v7,0-9,0
			10,0 - 17,0					-	rs25/ksb/v10,0-17,0
		⬡	7,0 - 9,0					-	rs25/ksb/s7,0-9,0
	10,0 - 21,0						-	rs25/ksb/s10,0-21,0	
	Inner collet OXK	●	5,0 - 20,0					-	rs25/oxk/r5,0-20,0
20,1 - 24,0							-	rs25/oxk/r20,1-24,0	
Wrench							✓	10008168	
Conventional	Feedfinger	●	6,0 - 28,0	35	33	M33 x 1,5	118	-	9282er6,0-28,0
		■	7,0 - 9,0					-	9282ev7,0-9,0
			10,0 - 18,0					-	9282ev10,0-18,0
		⬡	7,0 - 9,0					-	9282es7,0-9,0
			10,0 - 22,0					-	9282es10,0-22,0
	Guide ring for feed tube	●	4,0 - 26,0					✓	9282e/f-msr4,0-26,0
		■	14,0 - 17,0					-	9282e/f-msv14,0-17,0
		⬡	17,0 - 22,0					-	9282e/f-mss17,0-22,0

SPH = special cast coating; KSB = plastic coating; OXK = oxidized ceramic coating

## Synchron spindle



Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Total length [mm] l	In stock	Material no.
Pick-off collet	●	4,0 - 26,0	25	35,4	65	✓	9039e/syr4,0-26,0
	■	7,0 - 9,0				-	9039e/syv7,0-9,0
		10,0 - 14,0				-	9039e/syv10,0-14,0
	⬡	7,0 - 9,0				-	9039e/sys7,0-9,0
		10,0 - 17,0				-	9039e/sys10,0-17,0
Pick-off collet small model	●	4,0 - 21,0	25	31	54	-	14305h/syr4,0-21,0
	■	7,0 - 9,0				-	14305h/syv7,0-9,0
		10,0 - 14,0				-	14305h/syv10,0-14,0
	⬡	7,0 - 9,0				-	14305h/sys7,0-9,0
		10,0 - 17,0				-	14305h/sys10,0-17,0

# EQUIPMENT FOR MULTI SPINDLE INDEX

## INDEX MS 25. Main spindle

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
SPANNTOP ZW	Basic body ZW			46	60,5	M40 x 1,5 - LH	120,5	-	10009448
	Clamping head ZW	●	4,0 - 30,0					✓	sk9039zwr4,0-30,0
		■	7,0 - 9,0					-	sk9039zvw7,0-9,0
			10,0 - 20,0					-	sk9039zvw10,0-20,0
			7,0 - 9,0					-	sk9039zws7,0-9,0
		●	10,0 - 24,0					-	sk9039zws10,0-24,0
	Hydraulic changing fixture							✓	10014567
Pneumatic pressure converter							-	10014711	
Assembling aid							-	10006690	
Conventional	Collet	●	6,0 - 28,0	46	60,4	M40 x 1,5 - LH	120	-	9039er6,0-28,0
		■	7,0 - 9,0					-	9039ev7,0-9,0
			10,0 - 18,0					-	9039ev10,0-18,0
			7,0 - 9,0					-	9039es7,0-9,0
		●	10,0 - 25,0					-	9039es10,0-25,0

## Feed tube

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
RS system	Outer sleeve – feeder design			35	33	M33 x 1,5	118	-	10006270
	Inner collet steel	●	4,0 - 25,0					✓	rs25/st/r4,0-25,0
		■	7,0 - 9,0					-	rs25/st/v7,0-9,0
			10,0 - 17,0					-	rs25/st/v10,0-17,0
			6,0 - 9,0					-	rs25/st/s6,0-9,0
		●	10,0 - 22,0					-	rs25/st/s10,0-22,0
	Inner collet steel brass	●	4,0 - 25,0					-	rs25/sb/r4,0-25,0
		■	7,0 - 9,0					-	rs25/sb/v7,0-9,0
			10,0 - 17,0					-	rs25/sb/v10,0-17,0
			6,0 - 9,0					-	rs25/sb/s6,0-9,0
		●	10,0 - 22,0					-	rs25/sb/s10,0-22,0

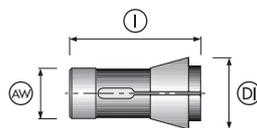
# EQUIPMENT FOR MULTI SPINDLE INDEX

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
RS system	Inner collet SPH	●	4,0 - 25,0					-	rs25/sph/r4,0-25,0
		■	7,0 - 9,0					-	rs25/sph/v7,0-9,0
			10,0 - 17,0					-	rs25/sph/v10,0-17,0
		⬡	6,0 - 9,0					-	rs25/sph/s6,0-9,0
			10,0 - 22,0					-	rs25/sph/s10,0-22,0
		Inner collet KSB	●	7,0 - 23,5					-
	■		7,0 - 9,0					-	rs25/ksb/v7,0-9,0
			10,0 - 17,0					-	rs25/ksb/v10,0-17,0
	⬡		7,0 - 9,0					-	rs25/ksb/s7,0-9,0
		10,0 - 21,0					-	rs25/ksb/s10,0-21,0	
	Inner collet OXK	●	5,0 - 20,0					-	rs25/oxk/r5,0-20,0
			20,1 - 24,0					-	rs25/oxk/r20,1-24,0
	Wrench							✓	10008168
Conventional	Feedfinger	●	6,0 - 28,0	35	33	M33 x 1,5	118	-	9282er6,0-28,0
		■	7,0 - 9,0					-	9282ev7,0-9,0
			10,0 - 18,0					-	9282ev10,0-18,0
		⬡	7,0 - 9,0					-	9282es7,0-9,0
			10,0 - 22,0					-	9282es10,0-22,0

SPH = special cast coating; KSB = plastic coating; OXK = oxidized ceramic coating

## Synchron spindle

Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Total length [mm] I	In stock	Material no.
Pick-off collet	●	4,0 - 26,0	25	35,4	65	✓	9039e/syr4,0-26,0
	■	7,0 - 9,0				-	9039e/syv7,0-9,0
		10,0 - 14,0				-	9039e/syv10,0-14,0
	⬡	7,0 - 9,0				-	9039e/sys7,0-9,0
		10,0 - 17,0				-	9039e/sys10,0-17,0
Pick-off collet small model	●	4,0 - 21,0	25	31	54	-	14305h/syr4,0-21,0
	■	7,0 - 9,0				-	14305h/syv7,0-9,0
		10,0 - 14,0				-	14305h/syv10,0-14,0
	⬡	7,0 - 9,0				-	14305h/sys7,0-9,0
		10,0 - 17,0				-	14305h/sys10,0-17,0



# EQUIPMENT FOR MULTI SPINDLE INDEX

## INDEX MS 25. Retrofit

Product variants	Product	Profile	Clamping Ø [mm] BU	Connecting thread outside T	Total length [mm] l	In stock	Material no.
TOPlus	TOPlus unit for M31825				51,5	-	10001048
	TOPlus unit for M31823					-	10001049
	Basic body			M40 x 1,5	126	-	10000190
	Clamping head SE	●	4,0 - 32,0			-	top32zwr4,0-32,0
		■	7,0 - 21,0			-	top32zvw7,0-21,0
		◆	7,0 - 26,0			-	top32zws7,0-26,0
	Assembling aid					-	10000180
Manual changing fixture					✓	10006996	

## INDEX MS 32 6.3. Main spindle

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Connecting thread outside T	Total length [mm] l	In stock	Material no.
TOPlus	Basic body			45	M40 x 1	150,5	✓	10018075
	Clamping head SE	●	4,0 - 32,0				✓	top32r4,0-32,0
		■	7,0 - 10,0				-	top32v7,0-10,0
			11,0 - 22,0				-	top32v11,0-22,0
		◆	7,0 - 10,0				-	top32s7,0-10,0
	11,0 - 26,0					-	top32s11,0-26,0	
	Assembling aid						✓	10017623
Manual changing fixture						✓	10006985	

## Sub spindle

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Connecting thread outside T	Total length [mm] l	In stock	Material no.
TOPlus	Basic body			45	M40 x 1	150,5	✓	10018075
	Clamping head SE	●	4,0 - 32,0				✓	top32r4,0-32,0

**INDEX MS 32 6.2. Main spindle**

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread inside S	Total length [mm] I	In stock	Material no.
SPANNTOP ZW	Basic body ZW			46	61	M42 x 1 - LH	109,5	✓	10009430
	Clamping head ZW	●	5,0 - 32,0					✓	sk32zwr5,0-32,0
		■	7,0 - 9,0					-	sk32zww7,0-9,0
			10,0 - 22,0					-	sk32zww10,0-22,0
		⬡	7,0 - 9,0					✓	sk32zws7,0-9,0
	10,0 - 27,0						✓	sk32zws10,0-27,0	
	Pneumatic changing fixture							✓	10007095
	Assembling aid							✓	10015551
Manual changing fixture							✓	10006996	
Deadlength chuck for synchron spindle							✓	10001719	

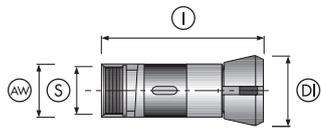
**INDEX MS 40. Main spindle**

Product variants	Product	Profile	Clamping range [mm]	Connecting thread inside S	Total length [mm] I	In stock	Material no.
TOPlus	Basic body			M48 x 1	122	✓	10000188
	Clamping head SE	●	4 - 7		47	✓	top40r4,0-7,0
			8			✓	top40r8,0
			9 - 10			✓	top40r9,0-10,0
			11 - 40			✓	top40r11,0-40,0
		■	7			-	top40v7,0
			8 - 10			-	top40v8,0-10,0
			11 - 27			-	top40v11,0-27,0
		⬡	7			-	top40s7,0
			8 - 10			-	top40s8,0-10,0
			11 - 32			-	top40s11,0-32,0
	Manual changing fixture					✓	10007003
	Assembling aid					✓	10000178
	Deadlength chuck for synchron spindle					✓	10000177

# EQUIPMENT FOR MULTI SPINDLE INDEX

## INDEX MS 52. Main spindle

Product variants	Product	Profile	Clamping range [mm]	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread inside S	Total length [mm] I	In stock	Material no.
SPANNTOP BZI	Basic body BZI			69	99,5	M62 x 1,5	53	✓	10001391
	Clamping head RD	●	4,0 - 7,5				58	✓	sk65bzir4,0-7,5
			8			✓		sk65bzir8,0	
			8,5 - 10,5			✓		sk65bzir8,5-10,5	
			11 - 65			✓		sk65bzir11,0-65,0	
		■	8 - 10			✓		sk65bziv8,0-10,0	
			11 - 45			✓		sk65bziv11,0-45,0	
			⬡	7				✓	sk65bzis7,0
				8 - 10				✓	sk65bzis8,0-10,0
				11 - 55				✓	sk65bzis11,0-55,0
Manual changing fixture							✓	10019112	



**Schütte SG 18 / AG 20 to Ø 20. Main spindle**



Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
SPANNTOP ZW	Basic body H-ZW			32	41,8	M28 x 1 - LH	84	✓	10009435
	Clamping head H-ZW	●	4,0 - 18,0					✓	sk90071h-zwr4,0-18,0
		■	7,0 - 9,0					-	sk90071h-zwv7,0-9,0
			10,0 - 13,0					-	sk90071h-zwv10,0-13,0
		⬡	7,0 - 9,0					-	sk90071h-zws7,0-9,0
10,0 - 15,0						-	sk90071h-zws10,0-15,0		
	Assembling aid						✓	10006698	
	Manual changing fixture						✓	10007001	
Conventional	Collet	●	5,0 - 20,0	32	41,8	M28 x 1 - LH	84	✓	90076hr5,0-20,0
			7,0 - 9,0					-	90076hv7,0-9,0
		■	10,0 - 12,0					-	90076hv10,0-12,0
			7,0 - 9,0					-	90076hs7,0-9,0
		⬡	10,0 - 15,0					-	90076hs10,0-15,0
			4,0 - 20,0					-	90078hr4,0-20,0
		●	7,0 - 9,0		-	90078hv7,0-9,0			
			10,0 - 14,0		-	90078hv10,0-14,0			
		■	7,0 - 9,0		-	90078hs7,0-9,0			
			10,0 - 17,0		-	90078hs10,0-17,0			

**Feed tube**



Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
RS system	Outer sleeve			23	25	M23 x 1	88	✓	10006193
	Inner collet steel	●	2,5 - 16,0					✓	rs16/st/r2,5-16,0
			4,0 - 9,0					-	rs16/st/v4,0-9,0
		■	10,0 - 11,0					-	rs16/st/v10,0-11,0
			4,0 - 9,0					-	rs16/st/s4,0-9,0
		⬡	10,0 - 13,0					-	rs16/st/s10,0-13,0

# EQUIPMENT FOR MULTI SPINDLE

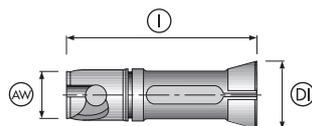
## Schütte

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.	
RS system	Inner collet steel brass	●	2,5 - 16,0					-	rs16/sb/r2,5-16,0	
		■	4,0 - 9,0					-	rs16/sb/v4,0-9,0	
			10,0 - 11,0					-	rs16/sb/v10,0-11,0	
		⬡	4,0 - 9,0					-	rs16/sb/s4,0-9,0	
			10,0 - 13,0					-	rs16/sb/s10,0-13,0	
		Inner collet SPH	●	2,5 - 16,0					-	rs16/sph/r2,5-16,0
	■		4,0 - 9,0					-	rs16/sph/v4,0-9,0	
			10,0 - 11,0					-	rs16/sph/v10,0-11,0	
	⬡		4,0 - 9,0					-	rs16/sph/s4,0-9,0	
			10,0 - 13,0					-	rs16/sph/s10,0-13,0	
	Inner collet KSB		●	5,0 - 14,0					-	rs16/ksb/r5,0-14,0
		5,0 - 9,0						-	rs16/ksb/v5,0-9,0	
		■	10,0					-	rs16/ksb/v10,0	
			5,0 - 9,0					-	rs16/ksb/s5,0-9,0	
	⬡	10,0 - 13,0					-	rs16/ksb/s10,0-13,0		
		Inner collet OXK	●	3,1 - 14,5					-	rs16/oxk/r3,1-14,5
	Wrench							✓	10008165	
Conventional	Feedfinger	●	4,0 - 18,0	23	25	M23 x 1	88	-	9255er4,0-18,0	
			■					7,0 - 9,0	-	9255ev7,0-9,0
								10,0 - 12,0	-	9255ev10,0-12,0
			⬡					7,0 - 9,0	-	9255es7,0-9,0
		10,0 - 15,0		-	9255es10,0-15,0					
		●	4,0 - 20,0	25,4	M24 x 1 [conical]	-	92554hr4,0-20,0			
			■			7,0 - 9,0	-	92554hv7,0-9,0		
						10,0 - 14,0	-	92554hv10,0-14,0		
			⬡			7,0 - 9,0	-	92554hs7,0-9,0		
		10,0 - 17,0		-	92554hs10,0-17,0					
		Guide ring for feed tube	●	4,0 - 20,0					-	9262e/f-sfr4,0-20,0
				7,0 - 9,0					-	9262e/f-sfv7,0-9,0
■	10,0 - 14,0						-	9262e/f-sfv10,0-14,0		
	7,0 - 9,0						-	9262e/f-sfs7,0-9,0		
⬡	10,0 - 17,0						-	9262e/f-sfs10,0-17,0		

SPH = special cast coating; KSB = plastic coating; OXK = oxidized ceramic coating

### Sub spindle

Product	Description	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Total length [mm] I	In stock	Material no.
Pick-off collet	Triple slotted	●	4,0- 20,0	25	32,1	91,5	✓	35161h/gr4,0-20,0
		■	7,0 - 9,0				-	35161h/gv7,0-9,0
			10,0 - 14,0				-	35161h/gv10,0-14,0
		⬡	7,0 - 9,0				-	35161h/gs7,0-9,0
			10,0 - 17,0				-	35161h/gs10,0-17,0



**Schütte SF 25 / SE 26 / AF 26 / SF 26 / SF 26S / SC 26 / SCX 26. Main spindle**

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
SPANNTOP BZ	Basic body BZ			46	60,4	M40 x 1,5 - LH	120	✓	10009449
	Clamping head BZ	●	5,0 - 26,0					✓	sk9039bzs5,0-26,0
		■	7,0 - 9,0					-	sk9039bzs7,0-9,0
		■	10,0 - 18,0					-	sk9039bzs10,0-18,0
		◆	7,0 - 9,0					-	sk9039bzs7,0-9,0
		◆	10,0 - 22,0				-	sk9039bzs10,0-22,0	
	Hydraulic changing fixture							-	10014562
	Pneumatic pressure converter							-	10014711
	Assembling aid							-	10006703
	Manual changing fixture							-	10006994
Conventional	Collet	●	6,0 - 28,0	46	60,4	M40 x 1,5 - LH	120	-	9039er6,0-28,0
		■	7,0 - 9,0					-	9039ev7,0-9,0
		■	10,0 - 18,0					-	9039ev10,0-18,0
		◆	7,0 - 9,0					-	9039es7,0-9,0
		◆	10,0 - 25,0					-	9039es10,0-25,0

# EQUIPMENT FOR MULTI SPINDLE

## Schütte

### Feed tube

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.	
RS system	Outer sleeve			35	33	M33 x 1,5	118	✓	10006307	
				37,5			106	✓	10000192	
	Inner collet steel	●	4,0 - 25,0						✓	rs25/st/r4,0-25,0
		■	7,0 - 9,0						-	rs25/st/v7,0-9,0
			10,0 - 17,0						-	rs25/st/v10,0-17,0
		⬡	6,0 - 9,0						-	rs25/st/s6,0-9,0
	Inner collet steel brass	●	4,0 - 25,0						-	rs25/sb/r4,0-25,0
		■	7,0 - 9,0						-	rs25/sb/v7,0-9,0
			10,0 - 17,0						-	rs25/sb/v10,0-17,0
		⬡	6,0 - 9,0						-	rs25/sb/s6,0-9,0
	Inner collet SPH	●	4,0 - 25,0						-	rs25/sph/r4,0-25,0
		■	7,0 - 9,0						-	rs25/sph/v7,0-9,0
			10,0 - 17,0						-	rs25/sph/v10,0-17,0
		⬡	6,0 - 9,0						-	rs25/sph/s6,0-9,0
	Inner collet KSB	●	7,0 - 23,5						-	rs25/ksb/r7,0-23,5
		■	7,0 - 9,0						-	rs25/ksb/v7,0-9,0
			10,0 - 17,0						-	rs25/ksb/v10,0-17,0
		⬡	7,0 - 9,0						-	rs25/ksb/s7,0-9,0
	Inner collet OXK	●	5,0 - 20,0						-	rs25/oxk/r5,0-20,0
			20,1 - 24,0						-	rs25/oxk/r20,1-24,0
	Wrench							✓	10008168	
Conventional	Feedfinger	●	6,0 - 28,0	35	33	M33 x 1,5	118	-	9282er6,0-28,0	
		■	7,0 - 9,0					-	9282ev7,0-9,0	
			10,0 - 18,0					-	9282ev10,0-18,0	
		⬡	7,0 - 9,0					-	9282es7,0-9,0	
			10,0 - 22,0					-	9282es10,0-22,0	
	Guide ring for feed tube	●	4,0 - 25,0					✓	9282e/f-sdr4,0-25,0	
		■	7,0 - 9,0					-	9282e/f-sdv7,0-9,0	
			10,0 - 17,0					-	9282e/f-sdv10,0-17,0	
		⬡	7,0 - 9,0					-	9282e/f-sds7,0-9,0	
			10,0 - 21,0					-	9282e/f-sds10,0-21,0	
		●	4,0 - 26,0					-	9282e/f-ser4,0-26,0	
		■	7,0 - 9,0					-	9282e/f-sev7,0-9,0	
			10,0 - 18,0					-	9282e/f-sev10,0-18,0	
		⬡	7,0 - 9,0					-	9282e/f-ses7,0-9,0	
			10,0 - 22,0					-	9282e/f-ses10,0-22,0	
		●	4,0 - 28,0					✓	9319e/f-sfr4,0-28,0	
		■	7,0 - 9,0					-	9319e/f-sfv7,0-9,0	
			10,0 - 22,0					-	9319e/f-sfv10,0-22,0	
		⬡	7,0 - 9,0					-	9319e/f-sfs7,0-9,0	
	10,0 - 27,0					-	9319e/f-sfs10,0-27,0			

SPH = special cast coating; KSB = plastic coating; OXK = oxidized ceramic coating

Sub spindle



Product	Description	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread inside S	Total length [mm] I	In stock	Material no.
Pick-off collet	Sextuple slotted	●	6,0 - 25,0	34	42	M24 x 1,5 - LH	53	✓	9039e/g-sfr6,0-25,0
		■	7,0 - 9,0					-	9039e/g-sfv7,0-9,0
		■	10,0 - 17,0					-	9039e/g-sfv10,0-17,0
		●	7,0 - 9,0	-	9039e/g-sfs7,0-9,0				
		●	10,0 - 21,0	-	9039e/g-sfs10,0-21,0				
		●	5,0 - 21,0	28	37			50	✓
		■	7,0 - 9,0				-		9016e/gv7,0-9,0
		■	10,0 - 14,0				-		9016e/gv10,0-14,0
		●	7,0 - 9,0				-		9016e/gs7,0-9,0
		●	10,0 - 14,0	-	9016e/gs10,0-14,0				
		●	4,0 - 40,0	52	60,6		60		✓
		■	7,0 - 9,0					-	9070e/g-sfv7,0-9,0
■	10,0 - 28,0	-	9070e/g-sfv10,0-28,0						
●	7,0 - 9,0	-	9070e/g-sfs7,0-9,0						
●	10,0 - 34,0	-	9070e/g-sfs10,0-34,0						

**Schütte SC7-26 / SC7-32. Sub spindle**

Product	Suitable for	Size	Product	Profile	Clamping Ø [mm]	Type of serration	Total length [mm]	In stock	Material no.
SPANNTOP pull-back	Chuck A030123.0008C and A030573.0003C	28	Clamping head	●	4,0 - 26,0	Smooth	31,5	-	A030126.0005A
			Manual changing fixture					-	10006985
	Chuck A019659.0003C	32	Clamping head	●	4,0 - 32,0	Smooth	33	-	A030633.0001A
			Manual changing fixture					-	10017417
SPANNTOP deadlength	Chuck A035510.0008C	32	Clamping head	●	4,0 - 32,0	Smooth	33	-	A030633.0001A
			Manual changing fixture					-	10017417

**Schütte SC9-26 / SC9-32. Sub spindle**

Product	Suitable for	Size	Product	Profile	Clamping Ø [mm]	Type of serration	Total length [mm]	In stock	Material no.
SPANNTOP pull-back	Chuck 2612/0014	28	Clamping head	●	4,0 - 26,0	Smooth	31,5	-	A030126.0005A
			Manual changing fixture					-	10006985
	Chuck 2612/0013	32	Clamping head	●	4,0 - 32,0	Smooth	33	-	A030633.0001A
			Manual changing fixture					-	A015903.0005B
SPANNTOP deadlength	Chuck A053509.0004C	32	Clamping bush	●	4,0 - 32,0	Smooth	30	-	A053515.0006A
			Manual changing fixture					-	A053526.0003B

# EQUIPMENT FOR MULTI SPINDLE

## Schütte

### SF 32 / SF 32S / AF 32 / AF 32S / S 32PC. Main spindle

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
SPANNTOP BZ	Basic body BZ			53	69,7	M47 x 1,5 - LH	136	✓	10009455
	Clamping head BZ	●	6,0 - 32,0					✓	sk6970bzc6,0-32,0
		■	7,0 - 9,0					-	sk6970bzc7,0-9,0
			10,0 - 22,0					-	sk6970bzc10,0-22,0
		●	7,0 - 9,0					-	sk6970bzc7,0-9,0
10,0 - 27,0						-	sk6970bzc10,0-27,0		
	Hydraulic changing fixture							✓	10014563
	Pneumatic pressure converter							-	10014711
	Assembling aid							✓	10006707
	Manual changing fixture							✓	10006995
Conventional	Collet	●	4,0 - 32,0	53	69,7	M47 x 1,5 - LH	136	✓	9070er4,0-32,0
		■	7,0 - 9,0					-	9070ev7,0-9,0
		●	10,0 - 22,0					-	9070ev10,0-22,0
			7,0 - 9,0					-	9070es7,0-9,0
			10,0 - 27,0					-	9070es10,0-27,0

### Feed tube

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.	
RS system	Outer sleeve			40	42	M38 x 1,5	130	✓	10006396	
	Inner collet steel	●	4,0 - 32,0					✓	rs32/st/r4,0-32,0	
		■	7,0 - 9,0					-	rs32/st/v7,0-9,0	
			10,0 - 21,0					-	rs32/st/v10,0-21,0	
		●	7,0 - 9,0					-	rs32/st/s7,0-9,0	
	10,0 - 27,0						-	rs32/st/s10,0-27,0		
	Inner collet steel brass	●	4,0 - 32,0						-	rs32/sb/r4,0-32,0
		■	7,0 - 9,0						-	rs32/sb/v7,0-9,0
			10,0 - 22,0						-	rs32/sb/v10,0-22,0
		●	7,0 - 9,0						-	rs32/sb/s7,0-9,0
	10,0 - 27,0							-	rs32/sb/s10,0-27,0	

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
RS system	Inner collet SPH	●	4,0 - 32,0					-	rs32/sph/r4,0-32,0
		■	7,0 - 9,0					-	rs32/sph/v7,0-9,0
			10,0 - 22,0					-	rs32/sph/v10,0-22,0
		⬡	7,0 - 9,0					-	rs32/sph/s7,0-9,0
			10,0 - 27,0					-	rs32/sph/s10,0-27,0
		Inner collet KSB	●	4,0 - 29,5					-
	■		8,0 - 9,0					-	rs32/ksb/v8,0-9,0
			10,0 - 22,0					-	rs32/ksb/v10,0-22,0
	⬡		8,0 - 9,0					-	rs32/ksb/s8,0-9,0
			10,0 - 27,0					-	rs32/ksb/s10,0-27,0
	Inner collet OXK		●	6,0 - 20,0					-
			20,1 - 26,5					-	rs32/oxk/r20,1-26,5
		Wrench						✓	10008171
	Conventional	Feedfinger	●	4,0 - 32,0	40	42	M38 x 1,5	130	-
■			7,0 - 9,0	-					9319ev7,0-9,0
			10,0 - 22,0	-					9319ev10,0-22,0
⬡			7,0 - 9,0	-					9319es7,0-9,0
			10,0 - 27,0	-					9319es10,0-27,0
Guide ring for feed tube		●	4,0 - 32,0					✓	9319e/f-sdr4,0-32,0
		■	7,0 - 9,0					-	9319e/f-sdv7,0-9,0
			10,0 - 22,0					-	9319e/f-sdv10,0-22,0
		⬡	7,0 - 9,0					-	9319e/f-sds7,0-9,0
			10,0 - 27,0					-	9319e/f-sds10,0-27,0
		●	4,0 - 28,0					✓	9319e/f-sfr4,0-28,0
		■	7,0 - 9,0					-	9319e/f-sfv7,0-9,0
			10,0 - 22,0					-	9319e/f-sfv10,0-22,0
		⬡	7,0 - 9,0					-	9319e/f-sfs7,0-9,0
			10,0 - 27,0					-	9319e/f-sfs10,0-27,0

SPH = special cast coating; KSB = plastic coating; OXK = oxidized ceramic coating

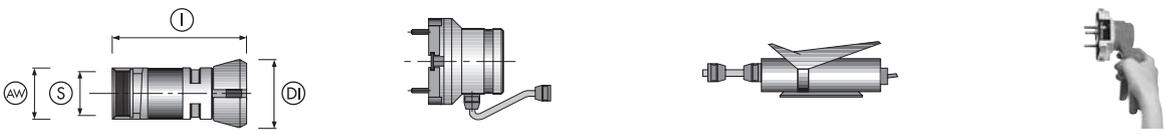
### Sub spindle

Product	Description	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Total length [mm] I	In stock	Material no.
Pick-off collet	Sextuple slotted	●	4,0 - 40,0	52	60,6	60	✓	9070e/g-sfr4,0-40,0
		■	7,0 - 9,0				-	9070e/g-sfv7,0-9,0
			10,0 - 28,0				-	9070e/g-sfv10,0-28,0
		⬡	7,0 - 9,0				-	9070e/g-sfs7,0-9,0
			10,0 - 34,0				-	9070e/g-sfs10,0-34,0
		●	4,0 - 32,0				44	54
		■	7,0 - 9,0	-	907034h/gv7,0-9,0			
			10,0 - 22,0	-	907034h/gv10,0-22,0			
		⬡	7,0 - 9,0	-	907034h/gs7,0-9,0			
			10,0 - 27,0	-	907034h/gs10,0-27,0			

# EQUIPMENT FOR MULTI SPINDLE

## Schütte

### Schütte S / A 36PC. Main spindle



Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread inside S	Total length [mm] I	In stock	Material no.
SPANNTOP ZW	Basic body ZW			56	72,2	M52 x 1,5 - LH	139	✓	10001393
	Clamping head ZW	●	4,0 - 36,0					-	sb.k.0096r4,0-36,0
		■	7,0 - 9,0					-	sb.k.0096v7,0-9,0
			10,0 - 25,0					-	sb.k.0096v10,0-25,0
		●	7,0 - 9,0					-	sb.k.0096s7,0-9,0
		■	10,0 - 31,0				-	sb.k.0096s10,0-31,0	
	Hydraulic changing fixture							✓	10014567
	Pneumatic pressure converter							-	10014711
	Assembling aid							-	ew.0115.0001.00
	Manual changing fixture							✓	10006999
Conventional	Collet	●	4,0 - 36,0	56	72,2	M52 x 1,5 - LH	139	-	se.f.0020r4,0-36,0
		■	7,0 - 9,0					-	se.f.0020v7,0-9,0
			10,0 - 25,0					-	se.f.0020v10,0-25,0
		●	7,0 - 9,0					-	se.f.0020s7,0-9,0
			10,0 - 31,0					-	se.f.0020s10,0-31,0

### Feed tube



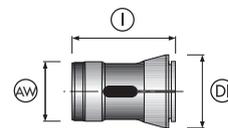
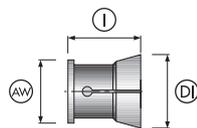
Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
RS system	Outer sleeve			45	43,8	M42 x 1,5 - LH	136	✓	10001397
	Inner collet steel	●	6,0 - 34,0					✓	rs36/st/r6,0-34,0
		■	8,0 - 9,0					-	rs36/st/v8,0-9,0
			10,0 - 29,0					-	rs36/st/v10,0-29,0
		●	8,0 - 9,0					-	rs36/st/s8,0-9,0
	10,0 - 27,0						-	rs36/st/s10,0-27,0	
	Inner collet steel brass	●	6,0 - 34,0					-	rs36/sb/r6,0-34,0
		■	8,0 - 9,9					-	rs36/sb/v8,0-9,9
			10,0 - 24,0					-	rs36/sb/v10,0-24,0
		●	8,0 - 9,9					-	rs36/sb/s8,0-9,9
	10,0 - 29,0						-	rs36/sb/s10,0-29,0	

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.	
RS system	Inner collet SPH	●	6,0 - 32,0					-	rs36/sph/r6,0-32,0	
		■	8,0 - 9,0					-	rs36/sph/v8,0-9,0	
			10,0 - 22,0					-	rs36/sph/v10,0-22,0	
		⬡	8,0 - 9,0					-	rs36/sph/s8,0-9,0	
			10,0 - 27,0					-	rs36/sph/s10,0-27,0	
		Inner collet KSB	●	6,0 - 32,0					-	rs36/ksb/r6,0-32,0
	■		8,0 - 9,0					-	rs36/ksb/v8,0-9,0	
			10,0 - 22,0					-	rs36/ksb/v10,0-22,0	
	⬡		8,0 - 9,0					-	rs36/ksb/s8,0-9,0	
			10,0 - 27,0					-	rs36/ksb/s10,0-27,0	
	Inner collet OXK		●	6,0 - 20,0					-	rs36/oxk/r6,0-20,0
		20,1-26,5						-	rs36/oxk/r20,1-26,5	
		26,6 - 35,0						-	rs36/oxk/r26,6-35,0	
	Wrench							✓	10008174	
	Conventional	Feedfinger	●	4,0 - 36,0	45	43,8	M42 x 1,5 - LH	136	-	se.v.0009r4,0-36,0
			■	7,0 - 9,0					-	se.v.0009v7,0-9,0
10,0 - 25,0				-					se.v.0009v10,0-25,0	
⬡			7,0 - 9,0	-					se.v.0009s7,0-9,0	
			10,0 - 31,0	-					se.v.0009s10,0-31,0	
Guide ring for feed tube			●	4,0 - 36,0						
	■	7,0 - 9,0						-	fs.1105.0005.00v7,0-9,0	
		10,0 - 25,0						-	fs.1105.0005.00v10,0-25,0	
	⬡	7,0 - 9,0						-	fs.1105.0005.00s7,0-9,0	
		10,0 - 31,0						-	fs.1105.0005.00s10,0-31,0	

SPH = special cast coating; KSB = plastic coating; OXK = oxidized ceramic coating

### Sub spindle

Product	Description	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Total length [mm] I	In stock	Material no.
Pick-off collet	Sextuple slotted	●	4,0 - 32,0	44	54	76	✓	907034h/gr4,0-32,0
		■	7,0 - 9,0				-	907034h/gv7,0-9,0
			10,0 - 22,0				-	907034h/gv10,0-22,0
		⬡	7,0 - 9,0				-	907034h/gs7,0-9,0
			10,0 - 27,0				-	907034h/gs10,0-27,0



# EQUIPMENT FOR MULTI SPINDLE

## Schütte

### AD 40 / AF 42 / SF 42 / SF 40. Main spindle

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
SPANNTOP BZ	Basic body BZ			62,9	78,8	M56 x 1,5 - LH	157	-	10009461
	Clamping head BZ	●	5,0 - 42,0					-	sk9112bzs5,0-42,0
		■	7,0 - 9,0					-	sk9112bzs7,0-9,0
			10,0 - 30,0					-	sk9112bzs10,0-30,0
		⬡	7,0 - 9,0					-	sk9112bzs7,0-9,0
10,0 - 36,0						-	sk9112bzs10,0-36,0		
	Hydraulic changing fixture							-	10014564
	Pneumatic pressure converter							-	10014711
	Assembling aid							✓	10006710
	Manual changing fixture							✓	10006997
Conventional	Collet only with radial grooves	●	4,0 - 42,0	62,9	78,8	M56 x 1,5 - LH	157	-	9112er4,0-42,0
		■	7,0 - 9,0					-	9112ev7,0-9,0
			10,0 - 29,0					-	9112ev10,0-29,0
		⬡	7,0 - 9,0					-	9112es7,0-9,0
			10,0 - 35,0					-	9112es10,0-35,0

### Feed tube

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.	
RS system	Outer sleeve			51	49	M48 x 1,5	140	✓	10006432	
	Inner collet steel	●	6,0 - 40,0						✓	rs40/st/r6,0-40,0
		■	10,0 - 28,0						-	rs40/st/v10,0-28,0
			7,0 - 9,0						-	rs40/st/s7,0-9,0
		10,0 - 34,0						-	rs40/st/s10,0-34,0	
	Inner collet steel brass	●	6,0 - 40,0						-	rs40/sb/r6,0-40,0
		■	10,0 - 28,0						-	rs40/sb/v10,0-28,0
			7,0 - 9,0						-	rs40/sb/s7,0-9,0
		10,0 - 34,0						-	rs40/sb/s10,0-34,0	

# EQUIPMENT FOR MULTI SPINDLE

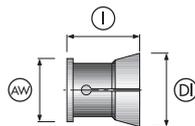
## Schütte

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.	
RS system	Inner collet SPH	●	6,0 - 40,0					-	rs40/sph/r6,0-40,0	
		■	10,0 - 28,0					-	rs40/sph/v10,0-28,0	
		⬡	7,0 - 9,0					-	rs40/sph/s7,0-9,0	
			10,0 - 34,0					-	rs40/sph/s10,0-34,0	
	Inner collet KSB	●	10,0 - 38,5					-	rs40/ksb/r10,0-38,5	
		■	10,0 - 27,0					-	rs40/ksb/v10,0-27,0	
		⬡	7,0 - 9,0					-	rs40/ksb/s7,0-9,0	
			10,0 - 34,0					-	rs40/ksb/s10,0-34,0	
	Inner collet OXK	●	10,0 - 20,0					-	rs40/oxk/r10,0-20,0	
			20,1 - 38,0					-	rs40/oxk/r20,1-38,0	
		Wrench							✓	10008175
	Conventional	Feedfinger	●	4,0 - 42,0	51	49	M48 x 1,5	152	-	9372er4,0-42,0
■			7,0 - 9,0	-					9372ev7,0-9,0	
			10,0 - 29,0	-					9372ev10,0-29,0	
⬡			7,0 - 9,0	-					9372es7,0-9,0	
			10,0 - 35,0	-					9372es10,0-35,0	
Guide ring for feed tube	Guide ring for feed tube	●	10,0 - 42,0					-	9372e/f-sfr10,0-42,0	
		■	7,0 - 9,0					-	9372e/f-sfv7,0-9,0	
			10,0 - 29,0					-	9372e/f-sfv10,0-29,0	
		⬡	7,0 - 9,0					-	9372e/f-sfs7,0-9,0	
			10,0 - 35,0					-	9372e/f-sfs10,0-35,0	
		●	4,0 - 40,0					-	9372e/f-sf-1r4,0-40,0	
			7,0 - 9,0					-	9372e/f-sf-1v7,0-9,0	
		■	10,0 - 28,0					-	9372e/f-sf-1v10,0-28,0	
			7,0 - 9,0					-	9372e/f-sf-1s7,0-9,0	
		10,0 - 34,0					-	9372e/f-sf-1s10,0-34,0		

SPH = special cast coating; KSB = plastic coating; OXK = oxidized ceramic coating

### Sub spindle

Product	Description	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Total length [mm] I	In stock	Material no.
Pick-off collet	Sextuple slotted	●	4,0 - 40,0	52	60,6	60	✓	9070e/g-sfr4,0-40,0
		■	7,0 - 9,0				-	9070e/g-sfv7,0-9,0
			10,0 - 28,0				-	9070e/g-sfv10,0-28,0
		⬡	7,0 - 9,0				-	9070e/g-sfs7,0-9,0
			10,0 - 34,0				-	9070e/g-sfs10,0-34,0



# EQUIPMENT FOR MULTI SPINDLE

## Schütte

### Schütte SD 50 / SF 51 / AF 51 / SF 51S. Main spindle

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.	
SPANNTOP BZ	Basic body BZ			75	98,2	M68 x 1,5 - LH	187	✓	10009465	
	Clamping head BZ	●	9,0 - 48,0					-	sk9139bzt9,0-48,0	
		■	20,0 - 34,0					-	sk9139bzv20,0-34,0	
		⬡	14,0 - 41,0					-	sk9139bzs14,0-41,0	
	Hydraulic changing fixture							-	wv.022a.0002.00	
	Pneumatic pressure converter								-	10014711
	Assembling aid								-	10006712
Conventional	Collet	●	9,0 - 51,0	75	98,2	M68 x 1,5 - LH	187	-	9139er9,0-51,0	

### Feed tube

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.		
RS system	Outer sleeve			58	62	M58 x 1,5	178,5	✓	10006443		
	Inner collet steel	●	6,0 - 48,0						✓	rs50/st/r6,0-48,0	
		■	12,0 - 34,0						-	rs50/st/v12,0-34,0	
		⬡	6,0 - 9,0							-	rs50/st/s6,0-9,0
			10,0 - 41,0							-	rs50/st/s10,0-41,0
	Inner collet steel brass	●	6,0 - 48,0						-	rs50/sb/r6,0-48,0	
		■	12,0 - 34,0						-	rs50/sb/v12,0-34,0	
		⬡	6,0 - 9,0							-	rs50/sb/s6,0-9,0
			10,0 - 41,0							-	rs50/sb/s10,0-41,0
	Inner collet SPH	●	6,0 - 48,0						-	rs50/sph/r6,0-48,0	
		■	12,0 - 34,0						-	rs50/sph/v12,0-34,0	
		⬡	6,0 - 9,0							-	rs50/sph/s6,0-9,0
			10,0 - 41,0							-	rs50/sph/s10,0-41,0
	Inner collet KSB	●	12,0 - 44,5						-	rs50/ksb/r12,0-44,5	
		■	12,0 - 31,0						-	rs50/ksb/v12,0-31,0	
		⬡	12,0 - 41,0						-	rs50/ksb/s12,0-41,0	
	Inner collet OXK	●	12,0 - 20,0						-	rs50/oxk/r12,0-20,0	
			20,1 - 40,0						-	rs50/oxk/r20,1-40,0	
			40,1 - 46,0						-	rs50/oxk/r40,1-46,0	
		Wrench							✓	10008179	

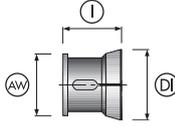
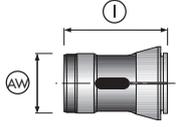
# EQUIPMENT FOR MULTI SPINDLE

## Schütte

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
Conventional	Feedfinger			58	62	M58 x 1,5	178,5	-	9406e
	Guide ring for feed tube							-	9406e/f-sd
								-	9406e/f-sf-1
									-
	Support ring for bar guiding system							-	9406e/st-sd
									-

SPH = special cast coating; KSB = plastic coating; OXK = oxidized ceramic coating

### Sub spindle

Product	Description	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Total length [mm] I	In stock	Material no.
								
								
Pick-off collet	Sextuple slotted		15,0 - 19,0	63	71,6	60	-	9139e/g-sfr15,0-19,0
			20,0 - 51,0				✓	9139e/g-sfr20,0-51,0
			12,0 - 35,0				-	9139e/g-sfv12,0-35,0
			12,0 - 42,0	-	9139e/g-sfs12,0-42,0			
			10,0 - 49,0	59	67	76	✓	91397h/gr10,0-49,0
			12,0 - 34,0				-	91397h/gv12,0-34,0
			12,0 - 41,0				-	91397h/gs12,0-41,0

## EQUIPMENT FOR MULTI SPINDLE

**Schütte****Schütte S 51 PC. Main spindle**

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread inside S	Total length [mm] l	In stock	Material no.
SPANNTOP ZW	Basic body ZW [Cucci side loader]			75	98,5	M70 x 1,5 - LH	135,5	✓	10001395
						M68 x 1,5 - LH	147,5	-	10016313
	Basic body ZW [rear loader]							-	10016314
	Clamping head ZW							-	sb.k.0098
	Pneumatic changing fixture							-	10007113
	Assembling aid							-	ew.0117.0003.00
Conventional	Collet	●	10,0 - 56,0	75	98,5	M70 x 1,5 - LH	175	-	se.f.0023r10,0-56,0
			12,0 - 39,0					-	se.f.0023v12,0-39,0
		⬡	12,0 - 42,0					-	se.f.0023s12,0-42,0
			43,0 - 47,0					-	se.f.0023s43,0-47,0

**Sub spindle**

Product	Description	Profile	Clamping Ø [mm]	Outer Ø [mm]	Head Ø [mm]	Total length [mm]	In stock	Material no.
Pick-off collet	Sextuple slotted	●	10,0 - 49,0	59	67	76	✓	91397h/gr10,0-49,0
		■	12,0 - 34,0				-	91397h/gv12,0-34,0
		⬡	12,0 - 41,0				-	91397h/gs12,0-41,0

**Tornos Multi Deko 26/6. Main spindle**

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread inside S	Total length [mm] I	In stock	Material no.
SPANNTOP ZW	Basic body ZW			46	61	M42 x 1 - LH	109,5	✓	10009430
	Clamping head ZW	●	5,0 - 32,0					✓	sk32zwr5,0-32,0
		■	7,0 - 9,0					-	sk32zww7,0-9,0
			10,0 - 22,0					-	sk32zww10,0-22,0
		⬡	7,0 - 9,0					✓	sk32zws7,0-9,0
	10,0 - 27,0						✓	sk32zws10,0-27,0	
	Hydraulic changing fixture						✓	10014567	
	Pneumatic pressure converter						-	10014711	
	Assembling aid						✓	10015551	
Conventional	Collet	●	6,0 - 28,0	46	60,4		120	-	9039er6,0-28,0
		■	7,0 - 9,0					-	9039ev7,0-9,0
			10,0 - 18,0					-	9039ev10,0-18,0
		⬡	7,0 - 9,0					-	9039es7,0-9,0
			10,0 - 25,0					-	9039es10,0-25,0

**Feed tube**

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
RS system	Outer sleeve			35	33	M33 x 1,5	118	✓	10006307
	Inner collet steel	●	4,0 - 25,0					✓	rs25/st/r4,0-25,0
		■	7,0 - 9,0					-	rs25/st/v7,0-9,0
			10,0 - 17,0					-	rs25/st/v10,0-17,0
		⬡	6,0 - 9,0					-	rs25/st/s6,0-9,0
	10,0 - 22,0						-	rs25/st/s10,0-22,0	
	Inner collet steel brass	●	4,0 - 25,0					-	rs25/sb/r4,0-25,0
		■	7,0 - 9,0					-	rs25/sb/v7,0-9,0
			10,0 - 17,0					-	rs25/sb/v10,0-17,0
		⬡	6,0 - 9,0					-	rs25/sb/s6,0-9,0
		10,0 - 22,0					-	rs25/sb/s10,0-22,0	

## EQUIPMENT FOR MULTI SPINDLE

**Tornos**

Product variants	Product	Profile	Clamping Ø [mm] BU	Outer Ø [mm] AW	Head Ø [mm] DI	Connecting thread outside T	Total length [mm] I	In stock	Material no.
RS system	Inner collet SPH	●	4,0 - 25,0					-	rs25/sph/r4,0-25,0
		■	7,0 - 9,0					-	rs25/sph/v7,0-9,0
			10,0 - 17,0					-	rs25/sph/v10,0-17,0
		⬡	6,0 - 9,0					-	rs25/sph/s6,0-9,0
			10,0 - 22,0					-	rs25/sph/s10,0-22,0
	Inner collet KSB	●	7,0 - 23,5					-	rs25/ksb/r7,0-23,5
		■	7,0 - 9,0					-	rs25/ksb/v7,0-9,0
			10,0 - 17,0					-	rs25/ksb/v10,0-17,0
		⬡	7,0 - 9,0					-	rs25/ksb/s7,0-9,0
			10,0 - 21,0					-	rs25/ksb/s10,0-21,0
	Inner collet OXK	●	5,0 - 20,0					-	rs25/oxk/r5,0-20,0
			20,1 - 24,0					-	rs25/oxk/r20,1-24,0
	Wrench							✓	10008168
	Conventional	Feedfinger	●	6,0 - 28,0	35	33	M33 x 1,5	118	-
■				7,0 - 9,0					-
			10,0 - 18,0	-					9282ev10,0-18,0
⬡			7,0 - 9,0	-					9282es7,0-9,0
			10,0 - 22,0	-					9282es10,0-22,0

SPH = special cast coating; KSB = plastic coating; OXK = oxidized ceramic coating

EQUIPMENT FOR MULTI SPINDLE  
**Tornos**

# Overview

Find what's important fast



**Facts worth knowing**

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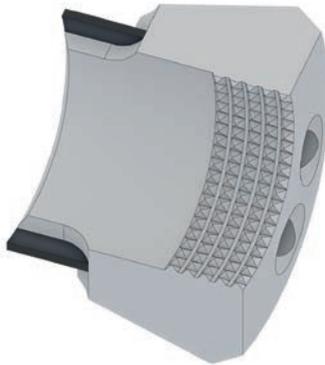
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Contact 612

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**Serrations for increased clamping power**

	HN 01-F	Clamping Ø
	Multitude of small pointed teeth for round stock	10 – 100
		100.1 – 180

	HN 01-Z	Clamping Ø
	Fewer teeth for rolled material and extreme loads	10 – 100
		100.1 – 180

**Custom diameter**

In stock clamping heads and segmented clamping bushings can be enlarged or reduced by up to 0.5 mm. This allows the fast and economical production of intermediate clamping diameters.

Custom diameter
Enlargement of clamping diameter for clamping head
Reduction of clamping diameter for segmented clamping bushing [size S and larger]

## Vulcanizing

New vulcanization is necessary as soon as there are signs of wear on the rubber, such as erosion, deep scratches or cracks, resulting from chips and cooling lubricants. For re-vulcanization, the old rubber coating is first removed and the single segments are cleaned. Then a special vulcanizing process is used to insert new rubber between the segments. After all protruding burrs have been removed the clamping element can be used again with the usual high-precision features.

<b>Re-vulcanization of clamping element</b>	
Clamping head Delivery after 7 work days [Rush surcharge + 25%, if shorter delivery times are desired.]	Size 32 / 42 / 52 / 65 / 80
	Size 100 / 125 / 120 / 140
	Size 160 / 180 / 200
Segmented clamping bushing Delivery after 7 work days [Rush surcharge + 25%, if shorter delivery times are desired.]	Clamping diameter [mm] 3 – 120
	Clamping diameter [mm] 121 – 220

## Evening-out

If a clamping surface shows signs of light damage such as marks, scratches or other minor defects, this is not a reason to discard it in most cases. The evening-out process makes use of high-precision grinding to eliminate uneven areas on the clamping surface, to ensure clamping with the original clamping diameter. Clamping heads with a size of 160 or larger must be re-vulcanized when evened out.

<b>Evening-out of clamping surface</b>
Clamping head
Segmented clamping bushing

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# FACTS WORTH KNOWING

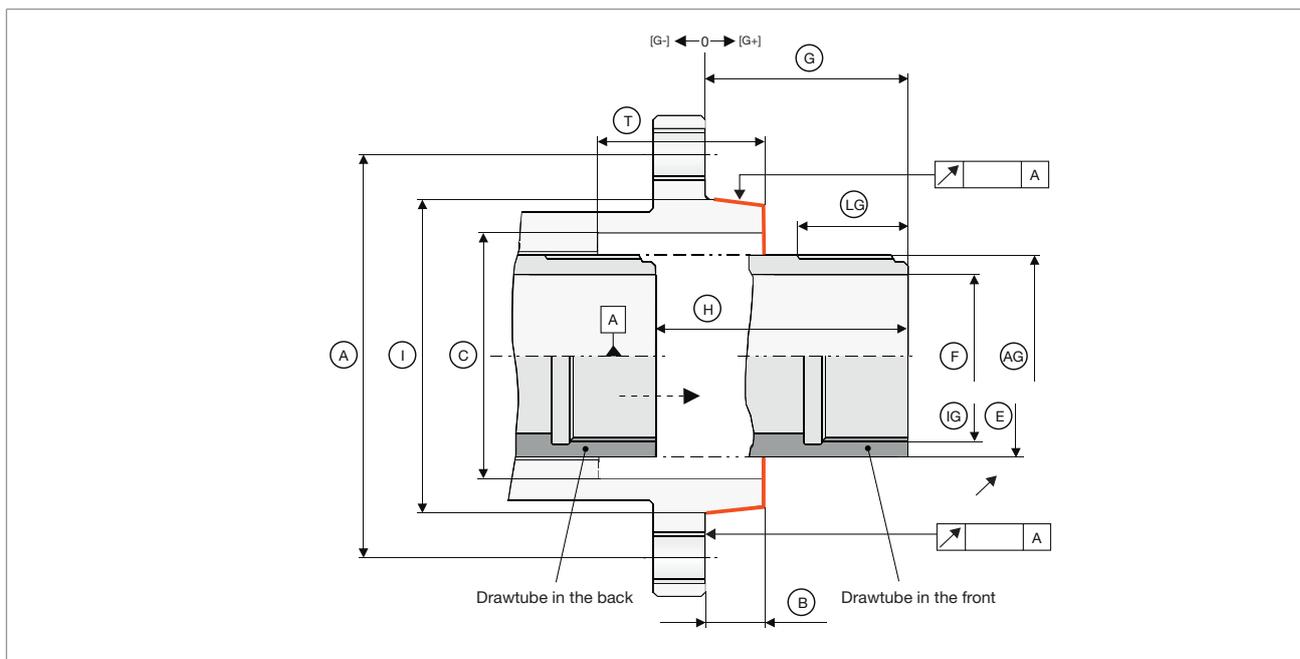
## Conditions & Forms

### Coatings and inserts

	Coating				
	Diamond	KSB [plastic coating]	WK [carbide coating]	WKW [carbon coating]	ZSV [epoxy resin coating]
<b>Properties</b>	<ul style="list-style-type: none"> <li>Higher power transmission</li> </ul>	<ul style="list-style-type: none"> <li>Prevention of part marking</li> </ul>	<ul style="list-style-type: none"> <li>Higher power transmission</li> <li>Higher wear resistance</li> </ul>	<ul style="list-style-type: none"> <li>Reduction of friction and adhesion wear</li> <li>Higher wear resistance</li> <li>Improved resistance to corrosion</li> </ul>	<ul style="list-style-type: none"> <li>Prevention of part marking</li> </ul>
<b>Application</b>	<ul style="list-style-type: none"> <li>Clamping surfaces of segmented clamping bushings</li> <li>Clamping heads</li> <li>Workpiece end-stop</li> </ul>	<ul style="list-style-type: none"> <li>RS inner collets</li> </ul>	<ul style="list-style-type: none"> <li>Clamping surfaces of RS inner collets</li> <li>Collet chucks</li> <li>Segmented clamping bushings</li> <li>Clamping heads</li> </ul>	<ul style="list-style-type: none"> <li>Collet chucks</li> <li>Clamping element receptions</li> <li>Segmented clamping bushings</li> <li>Clamping heads</li> </ul>	<ul style="list-style-type: none"> <li>Smooth clamping surfaces of collets</li> <li>Segmented clamping bushings</li> <li>Clamping heads</li> </ul>
<b>Note</b>		<ul style="list-style-type: none"> <li>Bars should be pointed at both ends</li> <li>Only partly suitable for relatively small bores [under Ø 10 mm]</li> <li>For large quantities or if loading magazines are used, an OXK coating is better</li> </ul>			
<b>Workpiece material</b>	All	All	All	All	All
<b>Hardness</b>	n.a.	90 Shore A	65 HRC	3000 HV [approx. 70 HRC]	approx. 80 Shore D
<b>Recoating</b>	upon request	not possible	possible	upon request	possible

Loading		Base material	
HM [carbide insert]	OXK [oxide ceramic insert]	SPH	Steel bronze
<ul style="list-style-type: none"> <li>■ Higher wear resistance</li> </ul>	<ul style="list-style-type: none"> <li>■ Higher wear resistance</li> <li>■ Prevention of part marking</li> </ul>	<ul style="list-style-type: none"> <li>■ Prevention of part marking</li> <li>■ Higher wear resistance than plastic coating</li> </ul>	<ul style="list-style-type: none"> <li>■ Prevention of part marking</li> <li>■ Higher wear resistance than plastic coating</li> </ul>
<ul style="list-style-type: none"> <li>■ RS inner collets</li> <li>■ Collet chucks</li> </ul>	<ul style="list-style-type: none"> <li>■ RS inner collets</li> </ul>	<ul style="list-style-type: none"> <li>■ RS inner collets</li> </ul>	<ul style="list-style-type: none"> <li>■ RS inner collets</li> </ul>
<p>Bars should be pointed at both ends</p>			<ul style="list-style-type: none"> <li>■ Not recommended for soft materials such as brass or aluminum</li> <li>■ Bars should be pointed at both ends</li> </ul>
All	All	<ul style="list-style-type: none"> <li>■ Steels</li> <li>■ Brass</li> <li>■ Aluminum</li> </ul>	<ul style="list-style-type: none"> <li>■ Steels</li> <li>■ Hard metals</li> </ul>
75 HRC	90 HRC	approx. 180 HB	approx. 160 HV
upon request	possible	upon request	not possible

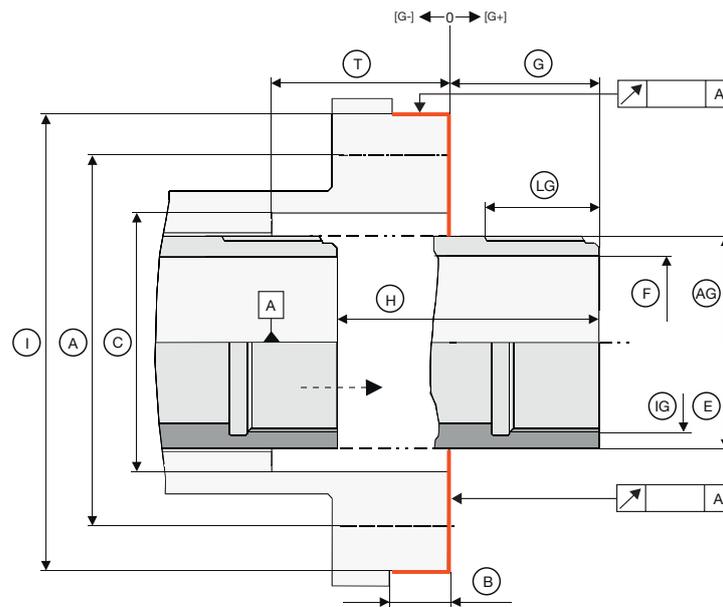
**Short taper.** Spindle data for configuration of drawtube adapter



Spindle nose		Size
Bolt hole circle	A	mm
Amount of threads		<input type="text"/> x M <input type="text"/>
Height of spindle nose	B	mm
Spindle bore Ø	C	mm
Outside thread or	AG	<input type="text"/> x M <input type="text"/>
Inside thread	IG	
Thread length	LG	mm
Drawtube O.D. Ø	E	mm
Drawtube I.D. Ø	F	mm
Front position drawtube [-/+]	G	mm
Stroke [Clamping cylinder]	H	mm
Spindle nose Ø	I	mm
Spindle bore depth	T	mm

Offer- / Order-No.:	
Company address / Name:	
Machine type:	

**Outside fitting.** Spindle data for configuration of drawtube adapter

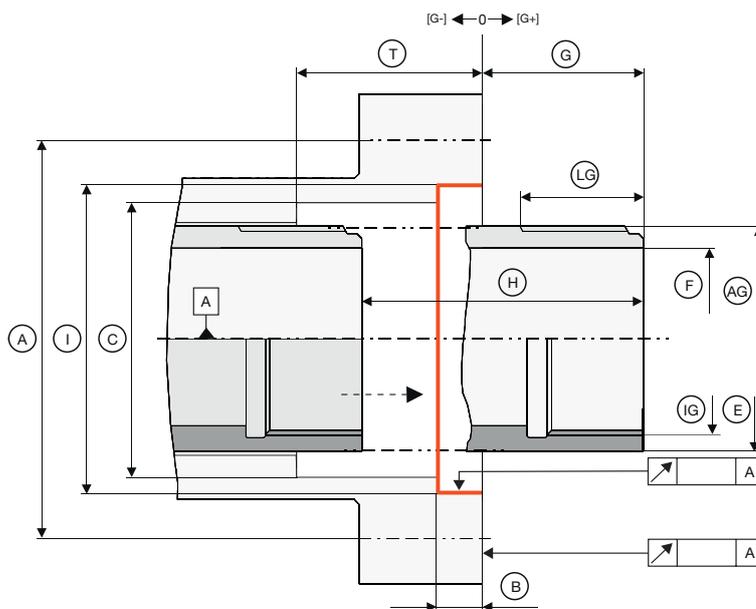


Spindle nose		Size
Bolt hole circle	A	mm
Amount of threads		<input type="text"/> x M <input type="text"/>
Height of spindle nose	B	mm
Spindle bore Ø	C	mm
Outside thread or inside thread	AG IG	<input type="text"/> x M <input type="text"/>
Thread length	LG	mm
Drawtube O.D. Ø	E	mm
Drawtube I.D. Ø	F	mm
Front position drawtube [-/+]	G	mm
Stroke [Clamping cylinder]	H	mm
Spindle nose Ø	I	mm
Spindle bore depth	T	mm

Offer- / Order-No.:	
Company address / Name:	
Machine type:	

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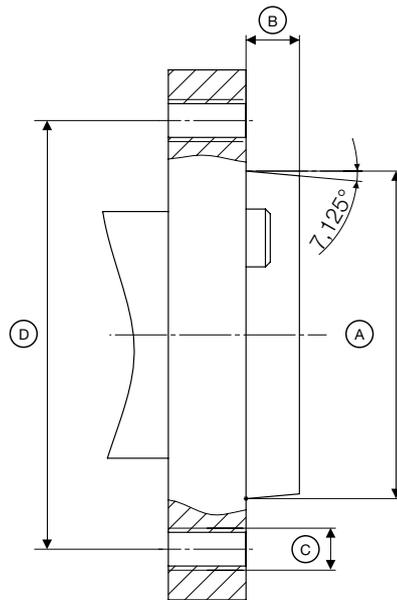
**Inside fitting.** Spindle data for configuration of drawtube adapter



Spindle nose		Size
Bolt hole circle	A	mm
Amount of threads		<input type="text"/> x M <input type="text"/>
Height of spindle nose	B	mm
Spindle bore Ø	C	mm
Outside thread or inside thread	AG IG	<input type="text"/> x M <input type="text"/>
Thread length	LG	mm
Drawtube O.D. Ø	E	mm
Drawtube I.D. Ø	F	mm
Front position drawtube [-/+]	G	mm
Stroke [Clamping cylinder]	H	mm
Spindle nose Ø	I	mm
Spindle bore depth	T	mm

Offer- / Order-No.:	
Company address / Name:	
Machine type:	

**Connection machine data.**



**Standard spindle: DIN 55026**

Short taper size	A	B	C	D
	Spindle nose Ø [mm]	Spindle nose height [mm]	Thread	Bolt hole circle [mm]
4	63.521	11,0	11xM10	82.6
5	82.573	13,0	11xM10	104.8
6	106.385	14,0	11xM12	133.4
8	139.731	16,0	11xM16	171.4
11	196.883	18,0	11xM20	235.0
15	285.791	19,0	12xM24	330.2

**Standard spindle: DIN ISO 702-1 and ASA B5.9 A2, B2**

Short taper size	A	B	C		D
	Spindle nose Ø [mm]	Spindle nose height [mm]	Thread		Bolt hole circle [mm]
4	63.525	11,1	11xM10	11 x 7/16-14 UNC	82.6
5	82.575	12,7	11xM10	11 x 7/16-14 UNC	104.8
6	106.390	14,3	11xM12	11 x 1/2-13 UNC	133.4
8	139.735	15,9	11xM16	11 x 5/8-11 UNC	171.4
11	196.885	17,5	11xM20	11 x 3/4-10 UNC	235.0
15	285.800	19,0	12xM24	12 x 7/8-9 UNC	330.2

## Explanations & Glossary of clamping technology terms

### Conversion table inches mm

Inch	Inch decimal	mm
<b>&lt; 1"</b>		
1/16"	0.0625"	1.587 mm
1/8"	0.1250"	3.175 mm
3/16"	0.1875"	4.7625 mm
1/4"	0.2500"	6.35 mm
5/16"	0.3125"	7.9375 mm
3/8"	0.3750"	9.525 mm
7/16"	0.4375"	11.1125 mm
1/2"	0.5000"	12.7 mm
9/16"	0.5625"	14.2875 mm
5/8"	0.6250"	15.875 mm
11/16"	0.6875"	17.4625 mm
3/4"	0.7500"	19.05 mm
13/16"	0.8125"	20.6375 mm
7/8"	0.8750"	22.225 mm
15/16"	0.9375"	23.8125 mm
<b>1"</b>	1.0000"	25.4 mm
1.1/16"	1.0625"	26.9875 mm
1.1/8"	1.1250"	28.575 mm
1.3/16"	1.1875"	30.1625 mm
1.1/4"	1.2500"	31.75 mm
1.5/16"	1.3125"	33.3375 mm
1.3/8"	1.3750"	34.925 mm
1.7/16"	1.4375"	36.5125 mm
1.1/2"	1.5000"	38.1 mm
1.9/16"	1.5625"	39.6875 mm
1.5/8"	1.6250"	41.275 mm
11/16"	1.6875"	42.8625 mm
1.3/4"	1.7500"	44.5 mm
1.13/16"	1.8125"	46.0375 mm
1.7/8"	1.8750"	47.625 mm
1.15/16"	1.9375"	49.2125 mm

Inch	Inch decimal	mm
<b>2"</b>	2.0000"	50.8 mm
2.1/16"	2.0625"	52.3875 mm
2.1/8"	2.1250"	53.975 mm
2.3/16"	2.1875"	55.5625 mm
2.1/4"	0.2500"	57.15 mm
2.5/16"	2.3125"	58.7375 mm
2.3/8"	2.3750"	60.325 mm
2.7/16"	2.4375"	61.9125 mm
2.1/2"	2.5000"	63.5 mm
2.9/16"	2.5625"	65.0875 mm
2.5/8"	2.6250"	66.675 mm
2.11/16"	2.6875"	68.2625 mm
2.3/4"	2.7500"	69.85 mm
2.13/16"	2.8125"	71.4375 mm
2.7/8"	2.8750"	73.025 mm
2.15/16"	2.9375"	74.6125 mm
<b>3"</b>	3.0000"	76.2 mm
3.1/16"	3.0625"	77.7875 mm
3.1/8"	3.1250"	79.375 mm
3.3/16"	3.1875"	80.9625 mm
3.1/4"	3.2500"	82.55 mm
3.5/16"	3.3125"	84.1375 mm
3.3/8"	3.3750"	85.725 mm
3.7/16"	3.4375"	87.3125 mm
3.1/2"	3.5000"	88.9 mm
3.9/16"	3.5625"	90.4875 mm
3.5/8"	3.6250"	92.075 mm
3.11/16"	3.6875"	93.6625 mm
3.3/4"	3.7500"	95.25 mm
3.13/16"	3.8125"	95.8375 mm
3.7/8"	3.8750"	98.425 mm
3.15/16"	3.9375"	100.0125 mm
<b>4"</b>	4.0000"	101.6 mm

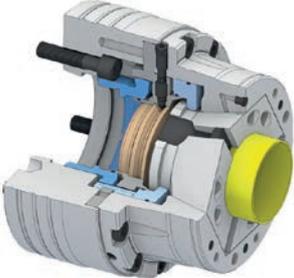
FACTS WORTH KNOWING

## Explanations & Glossary of clamping technology terms

### Measuring run-out accuracy: Examples

		
<b>Variant</b>	<b>Chuck, e.g. TOPlus mini</b>	<b>Mandrel, e.g. MAXXOS</b>
<b>Description</b>	Measured on a ground test shaft in accordance with HAINBUCH standard, at a defined distance from the chuck	Measured on a ground run-out control ring in accordance with HAINBUCH standard

### Color explanation: Graphics in detail

	
<span style="display: inline-block; width: 15px; height: 15px; background-color: #cccccc; border: 1px solid #000; margin-right: 5px;"></span> Light gray	External components, e.g. clamping element reception, flange, steel segments of clamping elements
<span style="display: inline-block; width: 15px; height: 15px; background-color: #333333; border: 1px solid #000; margin-right: 5px;"></span> Dark gray	Internal components, e.g. centering disc; accessory components
<span style="display: inline-block; width: 15px; height: 15px; background-color: #add8e6; border: 1px solid #000; margin-right: 5px;"></span> Light blue	Coupling through which clamping is effected directly on the clamping element
<span style="display: inline-block; width: 15px; height: 15px; background-color: #00008b; border: 1px solid #000; margin-right: 5px;"></span> Dark blue	Components involved in clamping from the drawtube to the coupling; CENTREX
<span style="display: inline-block; width: 15px; height: 15px; background-color: #8b4513; border: 1px solid #000; margin-right: 5px;"></span> Brown	[Base] end-stop
<span style="display: inline-block; width: 15px; height: 15px; background-color: #000000; border: 1px solid #000; margin-right: 5px;"></span> Black	Standard items, vulcanized rubber in clamping heads; SE changing fixture
<span style="display: inline-block; width: 15px; height: 15px; background-color: #ff0000; border: 1px solid #000; margin-right: 5px;"></span> Red	Vulcanized rubber in segmented clamping bushings; chip protection; RD changing fixture
<span style="display: inline-block; width: 15px; height: 15px; background-color: #ffff00; border: 1px solid #000; margin-right: 5px;"></span> Yellow	Workpiece



<b>Actuating torque</b>	Torque with which the clamping device is actuated, e.g. with a torque wrench.
<b>Base end-stop</b>	Workpiece end-stop within the chuck.
<b>Centrifugal force</b>	Occurs at rotation, with a jaw chuck for example. The jaws are forced outward and the clamping force decreases. TOPlus and SPANNTOP on the other hand enclose the clamping head with their chuck body and therefore are virtually loss-free.
<b>Clamped position</b>	Defined position of the clamping element, in which the nominal diameter is clamped, if the workpiece does not have any tolerance deviation.
<b>Clamping force, radial [frad]</b>	Force with which the workpiece is radially clamped by the clamping device.
<b>Clamping head protrusion length</b>	Front nose extension of the clamping head that projects beyond the face of the chuck.
<b>Clamping of finished material</b>	Workpiece that is clamped on a finish-machined surface.
<b>Clamping of raw material</b>	Workpiece that is clamped on an unmachined surface.
<b>Clamping range</b>	Indicates the total range of the clamping diameters that can be covered with the respective size of the clamping device. Multiple clamping elements are required to use the entire range.

FACTS WORTH KNOWING

## Explanations & Glossary of clamping technology terms

<b>Clamping reserve in Ø</b>	Additional clamping distance of the clamping device for spanning negative workpiece tolerances.
<b>Concentric precision</b>	Deviation [difference between the greatest and lowest dial gauge indication] of a test piece at rotation relative to the reference axis.
<b>Draw force / compression force axial [fax]</b>	Force, with which the clamping device is actuated, e.g. by a clamping cylinder.
<b>Drawtube position</b>	Dimensions of the front edge of the drawtube inside/outside of the machine spindle to the bolt-on surface of the clamping device on the spindle.
<b>Holding power</b>	The force with which the workpiece is clamped in the clamping device.
<b>RD</b>	Round geometry, e.g. clamping head outer geometry SPANNTOP.
<b>Release stroke in Ø</b>	Distance of the clamping element from the theoretical clamping position to the release position, in which the workpiece can be removed or the clamping element can be changed.
<b>Repeatability</b>	Deviation that can be measured as the spread of two successive assembly and disassembly processes. It cannot be corrected manually, it is intrinsic.
<b>Rigidity</b>	Resistance of the clamping device against plastic deformation due to force or a moment.
<b>SE</b>	Hexagonal geography e.g. clamping head outer geometry TOPlus.
<b>Span / recommended workpiece tolerance</b>	Clamping range, in which the workpiece tolerance should be.
<b>Spindle nose</b>	Standardized interface between clamping device and machine spindle.
<b>Torsional safety</b>	Positioning of the clamping element in the clamping device.
<b>Vulcanization</b>	Procedure for producing high-quality rubber-steel combinations. It is used with our clamping heads, for example.

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