

OPTIMUM®
MASCHINEN - GERMANY

ACCESSORIES FOR LATHES



Revolving tailstock centre	Article no.
max. radial run-out 0.006 mm	
MT 1	3440701
› Max. speed 5 000 rpm; radial load max. 320 N	
MT 2	3440702
› Max. speed 5 000 rpm; radial load max. 400 N	
MT 3	3440703
› Max. speed 4 500 rpm; radial load max. 800 N	
MT 4	3440704
› Max. speed 3 500 rpm; radial load max. 1 250 N	
MT 5	3440705
› Max. speed 3 000 rpm; radial load max. 1 500 N	
MT 6	3440706
› Max. speed 2 500 rpm; radial load max. 1 800 N	



Collet set SPZ - 5C	3441509
› 17-part, clamping range 3 - 25 mm	
› Standard 385 E	
› For universal collet chuck device	



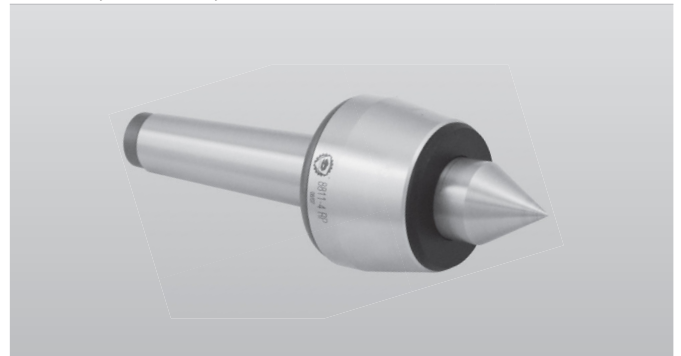
Collet set	Article no.
› DIN 6499	
ER 16	3440282
› 12-part, clamping range \varnothing 1 - 10 mm	
ER 25	3441109
› 15-part, clamping range \varnothing 1 - 16 mm	
ER 32	3441122
› 18-part, clamping range \varnothing 3 - 20 mm	



Universal collet chuck device 5C	Article no.
› for lathe TH 42 (not Vario)	3441507



Revolving tailstock centre	Article no.
max. radial run-out 0.005 mm	
MT 2 (NSK ball roller bearings and INA needle bearings)	3451002
› Max. speed 7 000 rpm; radial load max. 2 000 N	
MT 3 (NSK ball roller bearings and INA needle bearings)	3451003
› Max. speed 5 000 rpm; radial load max. 4 000 N	
MT 4 (NSK ball roller bearings and INA needle bearings)	3451004
› Max. speed 3 800 rpm; radial load max. 8 000 N	
MT 5 (2-row SKF angular contact bearings)	3451005
› Max. speed 3 000 rpm; radial load max. 20 000 N	



Revolving tailstock centre	Article no.
› With 7 replaceable tips	
› Body made of hardened and ground tool steel	
› Precision needle bearings guarantee excellent true running accuracy	
MT 2	3440732
MT 3	3440733
MT 4	3440734



Position stop	Article no.
With fine adjustment	
› for lathe TH 3309	3441522
› for lathe TH 3610	3441523
› for lathe TH 46	3444022
› for lathe TH 56	3444023



The clamping height must be adjusted to the bed by reworking.

Compatibility overview accessories for lathes

Turning accessories		Article no.	TU 1503V	TU 2004V	TU 2304V	TU 2406V	TU 2506V	TU 2807V	TU 3008/GV	TM 3110	TH 3309/D/V	TM 3310/D	TH 3610/D	TH 4010V	TM 4010/D	TH 42	TH 4210V	TH 46	TH 4615V	TZ 4/ TZ4V	TX 4412	TX 5216	TX 6222	TH 56	TH 5620V	TH 66	TH 80			
SWH	SWH AA	3384311	●																											
	SWH 1 - A	3384301		●	●	●	●	●	●																					
	SWH 3 - E	3384303								●	●	●	●	L	L															
	SWH 5 - B	3384305														●	L	L	L	L	L									
	SWH 7 - C	3384307																					L	L	L	L				
	SWH 9 - D	3384309																									L	L		
Lathe tool	HM 8 mm	3441662	●	●	●																									
	HM 10 mm	3441664			●	●	●	●	●																					
	HM 12 mm	3441666			●	●	●	●	●																					
	HM 12 mm	3441212			●	●	●	●	●																					
	HM 16 mm	3441668								●	●	●	●	●	●															
	HM 16 mm	3441216								●	●	●	●	●	●															
	HM 16 mm	3441610								●	●	●	●	●	●															
	HM 20 mm	3441670														●	●	●	●	●	●	●	●		●	●				
	HM 20 mm	3441617														●	●	●	●	●	●	●	●		●	●				
	HM 25 mm	3441672															●	●	●		●	●	●					●	●	
	HM 25 mm	3441623															●	●	●		●	●	●					●	●	
	HM 32 mm	3441674																										●	●	
Single lathe tool 12 mm	SSSC L1212J09	3441225			●	●	●	●	●																					
	SCLC L1212J09	3441226			●	●	●	●	●																					
Lathe tool	HM 8 mm	3441601	●	●	●																									
	HM 10 mm	3441602			●	●	●	●	●																					
	HM 12 mm	3441603			●	●	●	●	●																					
	HM 16 mm	3441604								●	●	●	●	●	●															
Inside turning tool set	10 mm	3441640			●	●	●	●	●																					
	12 mm	3441641			●	●	●	●	●		●	●	●	●	●															
	Set	3441650									●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Pilot bit set	3203010			●	●	●	●	●		●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Anti-vibration element	SE 1	3381012		●*	●*	●*	●*	●*	●*	●	●	●		●						●										
	SE 2	3381016												●							●	●	●							
	SE 3	3381018														●	●	●	●					●	●	●	●			
Levelling platen	SE 55	3352981		○*	○*	○*	○*	○*	○*	●	●	●		●							●									
	SE 85	3352982												●		●	●	●	●		●	●	●	●	●	●	●	●	●	
Machine base	MST1	3440409		●	●	●	●	●	●																					
Number of SE required (*if using the MST)				6*	6*	6*	6*	6*	6*	8	6	6	6	6	6	6	6	6	6	6	8	6	6	6	6	6	6/8	8		
Clamping block	Set 16- 05	3440653							●	●	●	●	●	●																
	Set 20- 05	3440654													●	●	●	●	●	●	●	●	●	●	●	●				
	Set 25- 05	3440655																									●	●		
Twist drill HSS	MT 2	3051002	●	●	●	●	●																							
	MT 3	3051003							●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
Clamping disc	Ø 170 mm	3440295	●																											
	Ø 220 mm	3440552			●																									
	Ø 240 mm	3441352					●																							
	Ø 265 mm	3441452						●																						
	Ø 300 mm Camlock No. 4	3442976							●	●																				
	Ø 320 mm Camlock No. 5	3442979												●							●									
	Ø 330 mm Camlock No. 5	3442978											●																	
	Ø 350 mm Camlock No. 6	3442980														●	●	●												
Ø 450 mm Camlock No. 8	3442982																	●			●	●	●	●	●	●	●	●		
Chuck flange	Ø 100 mm cylindrical	3440312	●																											
	Ø 125 mm cylindrical	3440313		●																										
	Ø 125 mm cylindrical	3440511			●																									
	Ø 125 mm short taper	3441312				●	●																							
	Ø 160 mm short taper	3441413						●																						

Turning accessories	Article no.	TU 1503V	TU 2004V	TU 2304/V	TU 2406/V	TU 2506/V	TU 2807/V	TU 3008/6/V	TM 3110	TH 3309/D/V	TM 3310/D	TH 3610/D	TH 4010V	TM 4010/D	TH 4210V	TH 46	TH 4615V	TZ 4/1Z4V	TX 4412	TX 5216	TX 6222	TH 56	TH 5620V	TH 66	TH 80
Bison chuck flange	Ø 160 mm	3450245								●								●							
Collet chuck	ER16	3440281	●																						
	ER25	3440305		●	●																				
	ER25	3440505				●																			
	ER32	3440506				●																			
	ER25	3441305					●	●																	
	ER32	3441306					●	●																	
BISON Collet chuck	16C	3450246																●							
Collet chuck	5C - No. 4	3441554						●	●	●	●														
	5C - No. 5	3441555										●	●	●											
	5C - No. 6	3441556													●	●	●								
	5C - No. 8	3441558															●			●	●	●	●	●	●
Collet set	5C	3441509						●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●
Revolving tailstock centre	MT 2	3440702		●	●	●	●	●																	
	MT 3	3440703						●	●	●	●	●	●	●					●						
	MT 4	3440704													●	●	●	●		●					
	MT 5	3440705																		●	●	●	●	●	●
Revolving tailstock centre with replaceable tips	MT 2	3440732		●	●	●	●	●																	
	MT 3	3440733						●	●	●	●	●	●	●						●	●			●	●
	MT 4	3440734													●	●	●	●		●					
BISON Revolving tailstock centre	MT 2	3451002	●	●	●	●	●																		
	MT 3	3451003					●	●	●	●	●	●	●										●		
	MT 4	3451004												●	●	●	●	●		●					
	MT 5	3451005																		●	●	●	●	●	●
Collet set	ER 16	3440282	●																						
	ER 25	3441109		●	●	●	●	●																	
	ER 32	3441122		●		●	●	●																	
Collet chuck device	5C	3441507												●											
Position stop		3441522								●															
		3441523										●													
		3444022														●	●								
		3444023																					●	●	
Steady rest		3440211	●																						
		3440231		●																					
		3440361			●																				
		3440515																							
		3441315				●	●																		
		3441415						●																	
		3441461							●																
		3441470								●															
Follower rest		3440210	●																						
		3440230		●																					
		3440360			●																				
		3441310				●	●																		
		3441410						●																	
		3441469								●															
Universal coolant system		3351999	●	●	●	●	●	●	●	●	●	●	●	L	L	L	L	L	L	L	L	L	L	L	L
Digital position display	DRO 5	3383975			●	●	●	●	●																

L - Included in scope of delivery ● Recommended ○ Recommended - restrictions apply

This equipment table covers all recommended equipment options. Depending on the individual case, use of accessories can be meaningful beyond this.

OPTIMUM Three-jaw lathe chuck



OPTIMUM Three-jaw lathe chuck	Article no.
<ul style="list-style-type: none"> › Centre clamping › Cylindrical centring mount as per DIN 6350 › Concentricity better than 0.05 mm › Chuck flange required see page 228 	
Ø 80 mm	3440287
Block jaw set, soft, single-piece	3442902
Ø 100 mm	3442710
Block jaw set, soft, single-piece	3442904
Ø 125 mm	3442712
Block jaw set, soft, single-piece	3442906
Ø 160 mm	3442716
Block jaw set, soft, single-piece	3442907

DIN
6350

CAST

Scope of delivery

- › Single-piece hard jaws for outside-inside clamping
- › Chuck key



OPTIMUM* Three-jaw lathe chuck	Article no.
<ul style="list-style-type: none"> › centric clamping DIN ISO 702- 2 › DIN ISO 702- 2 › Camlock direct mount DIN 55029 	
Ø 160 mm Camlock No. 4 Block jaw set, soft, single-piece	3442761 3442907
Ø 200 mm Camlock No. 4 Block jaw set, soft, single-piece	3442762 3442910
Ø 200 mm Camlock No. 5 Block jaw set, soft, single-piece	3442764 3442910
Ø 200 mm Camlock No. 6 Block jaw set, soft, single-piece	3442763 3442910
Ø 250 mm Camlock No. 6 Block jaw set, soft, single-piece	3442765 3442912
Ø 315 mm Camlock No. 8 Block jaw set, soft, single-piece	3442768 3442916

DIN
55029

CAST

Camlock

Scope of delivery

- › Single-piece hard jaws for outside-inside clamping
- › Chuck key



OPTIMUM Four-jaw lathe chucks



OPTIMUM Four-jaw lathe chuck	Article no.
<ul style="list-style-type: none"> › Centre clamping › Cylindrical centring mount as per DIN 6350 › Concentricity better than 0.05 mm › Chuck flange required see page 228 	
Ø 80 mm	3442808
Block jaw set, soft, single-piece	3442920
Ø 100 mm	3442810
Block jaw set, soft, single-piece	3442922
Ø 125 mm	3442812
Block jaw set, soft, single-piece	3442924
Ø 160 mm	3442816
Block jaw set, soft, single-piece	3442926

DIN
6350

CAST

Scope of delivery

- › Chuck key
- Lathe chuck centrically clamping:**
- › Hard jaws, single-part, with outside-inside clamping
- Lathe chuck single clamping:**
- › Set of hard reversible jaws



OPTIMUM* Four-jaw lathe chuck	Article no.
<ul style="list-style-type: none"> › Centre clamping › DIN ISO 702- 2 › Camlock direct mount DIN 55029 	
Ø 160 mm Camlock No. 4 Block jaw set, soft, single-piece	3442840 3442926
Ø 200 mm Camlock No. 4 Block jaw set, soft, single-piece	3442843 3442927
Ø 200 mm Camlock No. 5 Block jaw set, soft, single-piece	3442845 3442927
Ø 200 mm Camlock No. 6 Block jaw set, soft, single-piece	3442846 3442928
Ø 250 mm Camlock No. 6 Block jaw set, soft, single-piece	3442852 3442935
Ø 315 mm Camlock No. 8 Block jaw set, soft, single-piece	3442856 3442938

DIN
55029

CAST

Camlock

Scope of delivery

- › Chuck key
- Lathe chuck centrically clamping:**
- › Hard jaws, single-part, with outside-inside clamping
- Lathe chuck single clamping:**
- › Set of hard reversible jaws



OPTIMUM* Four-jaw lathe chuck	Article no.
<ul style="list-style-type: none"> › individually clamping 	
Ø 200 mm Camlock No. 4	3442879
Ø 200 mm Camlock No. 5	3442880
Ø 250 mm Camlock No. 6	3442884
Ø 315 mm Camlock No. 8	3442888
Ø 400 mm Camlock No. 8	3442890



Technical data for Lathe chucks, see page 220 „Chuck flange“ on page 228



Three-jaw lathe chuck



BISON [®] Three-jaw lathe chuck		Article no.
<ul style="list-style-type: none"> › Centre clamping › All work surfaces induction hardened and ground › Permanently high clamping and repeating accuracy › Uniform clamping forces › High true running accuracy (better than DIN 6386) 		
Ø 125 mm		3450230
Block jaw set, soft		3450410
Ø 160 mm		3450232
Block jaw set, soft		3450412

DIN 6350

CAST

STEEL

BISON [®] Three-jaw lathe chuck		Article no.
<ul style="list-style-type: none"> › Centre clamping 		
Ø 250 mm		3450530
Block jaw set, soft		3450426

Scope of delivery

- › Single-piece hard jaws for outside-inside clamping
- › Chuck key



DIN 55029

CAST

Camlock

BISON [®] Three-jaw lathe chuck		Article no.
<ul style="list-style-type: none"> › Centre clamping › DIN ISO 702-2 › All work surfaces induction hardened and ground › Camlock direct mount DIN 55029 › High true running accuracy (better than DIN 6386) 		
Ø 160 mm Camlock No. 4		3450305
Block jaw set, soft		3450412
Ø 200 mm Camlock No. 4		3450310
Block jaw set, soft		3450414
Ø 200 mm Camlock No. 5		3450315
Block jaw set, soft		3450414
Ø 200 mm Camlock No. 6		3450320
Block jaw set, soft		3450414
Ø 200 mm DIN 6350 A2-5		3450210
Block jaw set, soft		3450414
Ø 250 mm Camlock No. 5		3450325
Block jaw set, soft		3450416
Ø 250 mm Camlock No. 6		3450330
Block jaw set, soft		3450416
Ø 250 mm Camlock No. 8		3450331
Block jaw set, soft		3450416
Ø 315 mm Camlock No. 8		3450335
Block jaw set, soft		3450418

Scope of delivery

- › Hard jaws, single-part, with outside-inside clamping
- › Chuck key



Four-jaw lathe chucks



BISON [®] Four-jaw lathe chuck		Article no.
<ul style="list-style-type: none"> › Centre clamping › All work surfaces induction hardened and ground to ensure a high level of clamping and repeating accuracy › Uniform clamping forces › High true running accuracy (better than DIN 6386) 		
Ø 125 mm		3450234
Block jaw set, soft		3450420
Ø 160 mm		3450236
Block jaw set, soft		3450422

DIN 6350

CAST

Scope of delivery

- › Single-piece hard jaws for outside-inside clamping
- › Chuck key



DIN 55029

CAST

Camlock

BISON [®] Four-jaw lathe chucks		Article no.
<ul style="list-style-type: none"> › Centre clamping › DIN ISO 702-2 		
Ø 160 mm Camlock No. 4		3450355
Block jaw set, soft		3450422
Ø 200 mm Camlock No. 4		3450360
Block jaw set, soft		3450424
Ø 200 mm Camlock No. 5		3450365
Block jaw set, soft		3450424
Ø 200 mm Camlock No. 6		3450370
Block jaw set, soft		3450424
Ø 250 mm DIN 6350 A2-5		3450216
Block jaw set, soft		3450426
Ø 250 mm Camlock No. 5		3450375
Block jaw set, soft		3450426
Ø 250 mm Camlock No. 6		3450380
Block jaw set, soft		3450426
Ø 250 mm Camlock No. 8		3450381
Block jaw set, soft		3450426
Ø 315 mm Camlock No. 8		3450385
Block jaw set, soft		3450428
Ø 400 mm Camlock No. 8		3450390
Block jaw set, soft		3450430

STEEL

BISON [®] Four-jaw lathe chucks		Article no.
<ul style="list-style-type: none"> › Centre clamping 		
Ø 250 mm Camlock No. 6		3450580
Block jaw set, soft		3450426
Ø 250 mm DIN 6350 A2-5		3450217
Block jaw set, soft		3450426

Scope of delivery

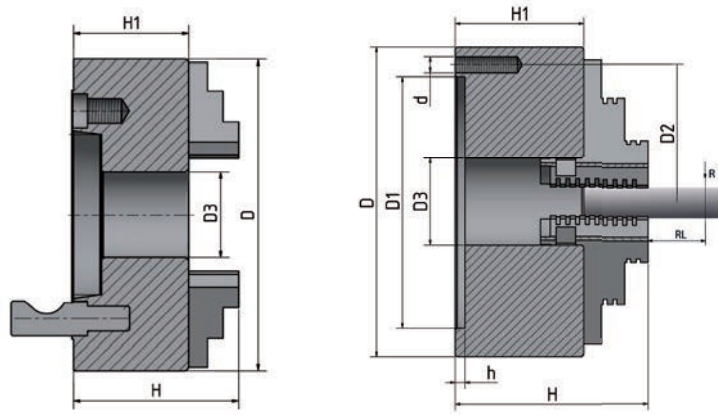
- › Hard jaws, single-part, with outside-inside clamping
- › Chuck key



Technical data for Lathe chucks, see page 221

OPTIMUM

Three-jaw lathe chuck

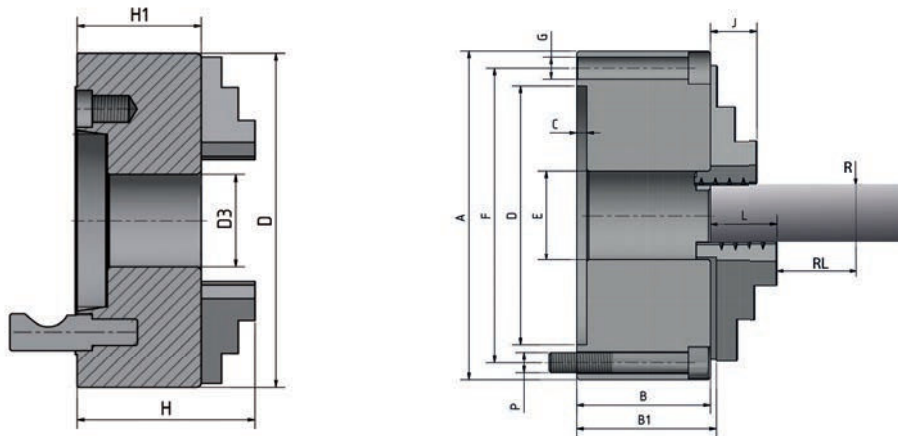


Chuck	Article no.	D	D1	D2	D3	d	H	H1	h	RL	True running accuracy (R)	Speed (rpm)
Ø 80 mm	3440287	80	55	66	16	M6	66	50	3.5	50	0.06	4 000
Ø 100 mm	3442710	100	72	84	22	M8	75	55	3.5	50	0.06	4 200
Ø 125 mm	3442712	125	95	108	30	M8	84	58	4	50	0.06	3 800
Ø 160 mm	3442716	160	130	142	45	M8	95	65	5	50	0.06	3 000

Chuck	Camlock	Item No.	D	D3	H	H1	Indexing circle	RL	True running accuracy (R)	Speed (rpm)
Ø 160 mm	No.4	3442761	160	40	101	71	82.6	50	0.06	3 000
Ø 200 mm	No.4	3442762	200	50	124	86	82.6	50	0.06	3 000
Ø 200 mm	No.5	3442764	200	52	124	86	104.8	50	0.06	3 000
Ø 200 mm	No.6	3442763	200	65	128	86	133.4	50	0.06	3 000
Ø 250 mm	No.6	3442765	250	70	140	98	133.4	50	0.06	2 400
Ø 315 mm	No.8	3442768	315	105	180	102.5	171.4	75	0.01	1 800



Three-jaw lathe chuck



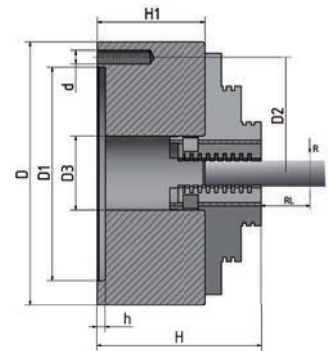
Chuck	Camlock	Item No.	D	D3	H1	H	Indexing circle	RL	True running accuracy (R)	Speed (rpm)
Ø 160 mm	No.4	3450305	160	42	81.5	124.5	82.6	60	0.03	3 600
Ø 200 mm	No.4	3450310	200	56	107	136	82.6	80	0.04	3 000
Ø 200 mm	No.5	3450315	200	56	107	136	104.8	80	0.04	3 000
Ø 200 mm	No.6	3450320	200	55	91	136	133.4	80	0.04	3 000
Ø 250 mm	No.5	3450325	250	76	103.5	156.5	104.8	80	0.04	2 500
Ø 250 mm	No.6	3450330	250	76	103.5	156.5	133.4	80	0.04	2 500
Ø 250 mm	No.8	3450331	250	76	103.5	156.5	171.4	80	0.04	2 500
Ø 315 mm	No.8	3450335	315	103	117.7	174.7	171.4	120	0.05	2 000

Chuck	Article no.	B	B1	C	D	E	F	G	J	L	kg	Speed (rpm)
Ø 125 mm	3450230	56	60.8	4	95	32	108	3 x M8	20	40	5	4 000
Ø 160 mm	3450232	64.5	69.3	4	125	42	140	3 x M10	32	43	10	3 600

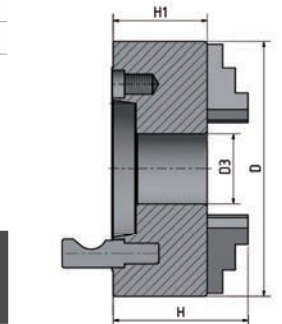
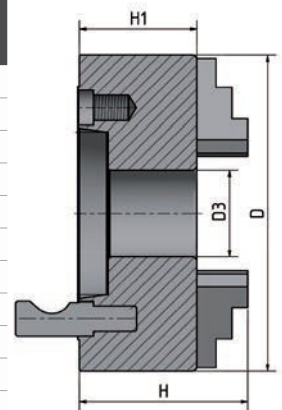
OPTIMUM

Four-jaw lathe chuck

Chuck	Article no.	D	D1	D2	D3	d	H	H1	h	Speed (rpm)
Centre clamping										
Ø 80 mm	3442808	80	55	66	16	M6	66	50	3.5	4 300
Ø 100 mm	3442810	100	72	84	22	M8	75	55	3.5	3 400
Ø 125 mm	3442812	125	95	108	30	M8	84	58	4	2 750
Ø 160 mm	3442816	160	130	142	45	M8	95	65	5	2 150
individually clamping										
Ø 80 mm	3440286	80	55	66	22	M6	59	42	4	4 800
Ø 100 mm	3442872	100	72	84	25	M8	75	54	4	3 500
Ø 125 mm	3442874	125	95	108	30	M8	78	58	6	3 000

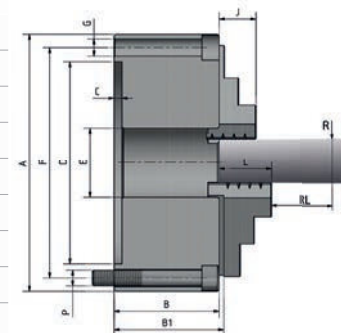


Chuck	Camlock	Item No.	D	D3	H	H1	RL	True running accuracy (R)	Indexing circle	Speed (rpm)
Camlock centre clamping										
Ø 160 mm	No.4	3442840	160	40	95	71	50	0.06	82.6	2 150
Ø 200 mm	No.4	3442843	200	50	109	86	50	0.06	82.6	3 000
Ø 200 mm	No.5	3442845	200	52	109	86	50	0.06	104.8	3 000
Ø 200 mm	No.6	3442846	200	65	109	86	50	0.06	133.4	3 000
Ø 250 mm	No.6	3442852	250	70	120	98	50	0.06	133.4	2 400
Ø 315 mm	No.8	3442856	315	105	142.5	102.5	75	0.01	171.4	1 800
Camlock individual clamping										
Ø 200 mm	No.4	3442879	200	56	107	75	50	0.06	82.6	2 100
Ø 200 mm	No.5	3442880	200	56	107	75	50	0.06	104.8	2 100
Ø 250 mm	No.6	3442884	250	100	120	80	50	0.06	133.4	1 600
Ø 315 mm	No.8	3442888	320	95	134	100	75	0.01	171.4	1 200
Ø 400 mm	No.8	3442890	400	125	148	101	75	0.01	171.4	1 000



Four-jaw lathe chuck

Chuck	Camlock	Item No.	D	D3	H1	H	RL	True running accuracy (R)	Indexing circle	Speed (rpm)
Centre clamping										
Ø 160 mm	No.4	3450355	160	42	81.5	124.5	60	0.03	82.6	3 600
Ø 200 mm	No.4	3450360	200	55	91	136	80	0.04	82.6	3 000
Ø 200 mm	No.5	3450365	200	55	91	136	80	0.04	104.8	3 000
Ø 200 mm	No.6	3450370	200	55	91	136	80	0.04	133.4	3 000
Ø 250 mm	No.5	3450375	250	76	103.5	156.5	80	0.04	104.8	2 500
Ø 250 mm	No.6	3450380	250	76	103.5	156.5	80	0.04	133.4	2 500
Ø 250 mm	No.8	3450381	250	76	103.5	156.5	80	0.04	171.4	2 500
Ø 315 mm	No.8	3450385	315	103	117.7	174.7	120	0.05	171.4	2 000
Ø 400 mm	No.8	3450390	400	136	128.5	207.5	120	0.06	171.4	1 600



Chuck	Article no.	B	B1	C	H7	E	F	G	J	L	kg	Speed (rpm)
Ø 125 mm	3450234	56	60.8	4	95	32	108	3 x M8	20	40	5	4 000
Ø 160 mm	3450236	64.5	69.3	4	125	42	140	3 x M10	32	43	10	3 600
Ø 250 mm	3450216	75	79.8	4	160	55	176	6 x M10	29	45	17.5	2 500
Ø 250 mm	3450217	75	79.8	4	160	55	176	6 x M10	29	45	17.5	3 500

Quick change tool holder

Quick change tool holder	Article no.
› Repeating accuracy 0.01 mm · angle scale on tool holder head	
› 40 different angle settings · Height adjustment via knurled screw	
› Tool holder head and tool holder with profile ground gears	
› Play-free and repetition-accurate clamping of the change holder	
› For self-assembly	

Quick change tool holder set SWH AA	3384311
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› Tool holder head AA	
› 3 units tool holder 12 x 50 type D for square chisels	
› 1 unit tool holder 12 x 50 type H for round chisels	

Spare tool holder 12 x 50 type D for square chisels	3384312
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Spare tool holder 12 x 50 type H for round chisels	3384320
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Quick change tool holder set SWH 1-A	3384301
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› Tool holder head A	
› 3 units tool holder 20 x 90 type D for square chisels	
› 1 unit tool holder 20 x 85 type H for round chisels	

Spare tool holder 20 x 90 type D for square chisels	3384302
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Spare tool holder 20 x 85 type H for round chisels	3384321
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Quick change tool holder set SWH 3-E	3384303
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› Tool holder head E	
› 3 units tool holder 20 x 100 type D for square chisels	
› 1 unit tool holder 30 x 100 type H for round chisels	

Spare tool holder 20 x 100 type D for square chisels	3384304
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Spare tool holder 30 x 100 type H for round chisels	3384322
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Quick change tool holder set SWH 5-B	3384305
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› Tool holder head B	
› 3 units tool holder 25 x 120 type D for square chisels	
› 1 unit tool holder 32 x 130 type H for round chisels	

Spare tool holder 25 x 120 type D for square chisels	3384306
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Spare tool holder 32 x 130 type H for round chisels	3384324
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Quick change tool holder set SWH 7-C	3384307
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› Tool holder head C	
› 3 units tool holder 32 x 150 type D for square chisels	
› 1 unit tool holder 40 x 160 type H for round chisels	

Spare tool holder 32 x 150 type D for square chisels	3384308
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Spare tool holder 40 x 160 type H for round chisels	3384326
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Quick change tool holder set SWH 9-D	3384309
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› Tool holder head D	
› 3 units tool holder 40 x 180 type D for square chisels	
› 1 unit tool holder 63 x 180 type H for round chisels	

Spare tool holder 40 x 180 type D for square chisels	3384332
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Spare tool holder 63 x 180 type H for round chisels	3384333
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Factory assembly and adjustment SWH	
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› Only with orders for new machines	
for SWH AA / SWH 1-A	9000401
for SWH 3-E to SWH 9D	9000400



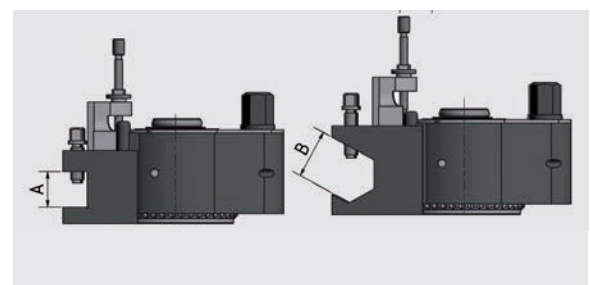
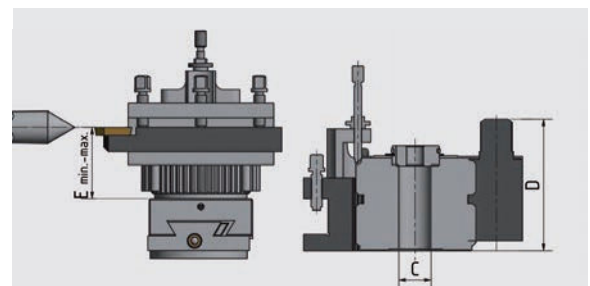
Tool holder head



Tool holder type D for square chisels



Tool holder type H for round chisels



Tool holder head dimensions			SWH AA	SWH 1-A	SWH 3-E	SWH 5-B	SWH 7-C	SWH 9-D
Turning diameter		mm	120 - 220	150 - 300	200 - 400	300 - 500	400 - 700	600 - 800
Drive output lathe max.		kW	1	2	4.5	7	13	20
Support width square chisel max.	A	mm	12	20	20	25	32	40
Diameter round chisel max.	B	mm	∅ 12	∅ 20	∅ 20	∅ 25	∅ 32	∅ 40
Normal hole	C	mm	∅ 13	∅ 20	∅ 20	∅ 32	∅ 40	∅ 40
Height of base body/overall	D	mm	37	56	68	79	110	122
Height top carriage to lathe centre	E	mm	18 - 26	28.5 - 39.5	28.5 - 39.5	37 - 57	47 - 87	60 - 95

Lathe tool set

Lathe tool set HM 8 mm

Lathe tool set	Article no.
HM 8 mm	3441662

- > 5-part
- > With HM turning plates
- > TiN coated
- > Aluminium box

ISO				
1	SWGC	L0808	D05	8 mm
2	SSDC	N0808	D06	8 mm
3	SWGC	R0808	D05	8 mm
4	STGC	R0808	D09	8 mm
5	SDJC	R0808	D07	8 mm



Carbide replacement indexing inserts (5 pcs. each)

No.	Article no.	ISO	D1	D2	B1	S1	right
1/3	3441759	WCMT050308	7.94	3.2	80°	3.18	0.8
2	3441761	SCMT060204	6.35	2.8	90°	2.38	0.4
4	3441760	TCMT090204	5.56	2.5	60°	2.38	0.4
5	3441758	DCMT070204	6.35	2.8	55°	2.38	0.4

Lathe tool set HM 10 mm

Lathe tool set	Article no.
HM 10 mm	3441664

- > 5-part
- > With HM turning plates
- > TiN coated
- > Aluminium box

ISO				
1	SWGC	L1010	E05	10 mm
2	SSDC	N1010	E06	10 mm
3	SWGC	R1010	E05	10 mm
4	STGC	R1010	E09	10 mm
5	SDJC	R1010	E07	10 mm



Carbide replacement indexing inserts (5 pcs. each)

No.	Article no.	ISO	D1	D2	B1	S1	right
1/3	3441759	WCMT050308	7.94	3.2	80°	3.18	0.8
2	3441761	SCMT060204	6.35	2.8	90°	2.38	0.4
4	3441760	TCMT090204	5.56	2.5	60°	2.38	0.4
5	3441758	DCMT070204	6.35	2.8	55°	2.38	0.4

Lathe tool set HM 12 mm

Lathe tool set	Article no.
HM 12 mm	3441666

- > 5-part
- > With HM turning plates
- > TiN coated
- > Aluminium box

ISO				
1	SWGC	L1212	H 05	12 mm
2	SSDC	N1212	H 09	12 mm
3	SWGC	R1212	H 05	12 mm
4	STGC	R1212	H 11	12 mm
5	SDJC	R1212	H 07	12 mm



Carbide replacement indexing inserts (5 pcs. each)

No.	Article no.	ISO	D1	D2	B1	S1	right
1/3	3441759	WCMT050308	7.94	3.2	80°	3.18	0.8
2	3441763	SCMT09T304	9.525	4.4	90°	3.97	0.4
4	3441762	TCMT110204	6.35	2.8	60°	2.38	0.4
5	3441758	DCMT070204	6.35	2.8	55°	2.38	0.4

**Lathe tool set
HM 12 mm**

Lathe tool set	Article no.
HM 12 mm	3441212
<ul style="list-style-type: none"> > 5-part > With HM turning plates > TiN coated 	

	ISO		Art.no.
1	SSSC R1212 J09	12 mm	3441220
2	SCLC R1212 J09	12 mm	3441221
3	SDNC N1212 J11	12 mm	3441222
4	SDJC R1212 J11	12 mm	3441223
5	SDJC L1212 J11	12 mm	3441224

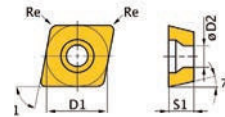
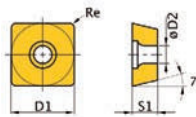


Carbide replacement indexing inserts (5 pcs. each)

No.	Article no.	ISO	D1	D2	B1	S1	right
1	3441280	SCMT09T304	9.525	4.4	90°	3.97	0.4
2	3441282	CCMT09T304	9.525	4.4	80°	3.97	0.4
3-5	3441281	DCMT11T304	9.525	4.4	55°	3.97	0.4

Lathe tool 12 mm	Article no.
SSSC L1212J09	3441225
HM replacement turning plates(5 pcs. each)	3441280
SCMT09T304	9.525 4.4 90° 3.97 0.4

Lathe tool 12 mm	Article no.
SCLC L1212J09	3441226
HM replacement turning plates (5 pcs. each)	3441282
CCMT09T304	9.525 4.4 80° 3.97 0.4



**Lathe tool set
HM 16 mm**

Lathe tool set	Article no.
HM 16 mm	3441216
<ul style="list-style-type: none"> > 5-part > With HM turning plates > TiN coated 	

	ISO		Article no.
1	SSSC R1616 J09	16 mm	3441230
2	SCLC R1616 J09	16 mm	3441231
3	SDNC N1616 J11	16 mm	3441232
4	SDJC R1616 J11	16 mm	3441233
5	SDJC L1616 J11	16 mm	3441234



Carbide replacement indexing inserts (5 pcs. each)

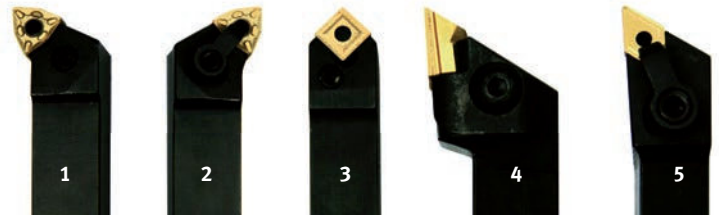
No.	Article no.	ISO	D1	D2	B1	S1	right
1	3441280	SCMT09T304	9.525	4.4	90°	3.97	0.4
2	3441282	CCMT09T304	9.525	4.4	80°	3.97	0.4
3-5	3441281	DCMT11T304	9.525	4.4	55°	3.97	0.4

Lathe tool set HM 16 mm

Lathe tool set	Article no.
HM 16 mm	3441668

- > 5-part
- > With HM turning plates
- > TiN coated
- > Aluminium box

ISO				h1
1	PWLN	R1616	H06	16 mm
2	PWLN	L1616	H06	16 mm
3	PSDNN	1616	H09	16 mm
4	CKJN	R1616	H16	16 mm
5	MDJN	R1616	H11	16 mm



Carbide replacement indexing inserts (5 pcs. each)

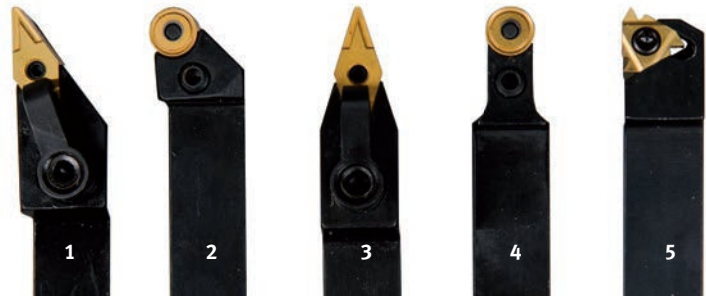
No.	Article no.	ISO	D1	D2	B1	S1	right	L1
1/2	3441753	WNMG060408	9.252	3.81	80°	4.76	0.8	-
3	3441755	SNMG090304	9.252	3.81	90°	3.18	0.4	-
4	3441754	KNUX160405R	9.252		55°	4.76	0.5	16.15
5	3441750	DNMG110408	9.525	3.81	55°	4.76	0.8	-

Lathe tool set HM 16 mm

Lathe tool set	Article no.
HM 16 mm	3441610

- > 5-part
- > With HM turning plates
- > TiN coated
- > Aluminium box

ISO				h1
1	MVJNR	1616	H16	16 mm
2	MVVNN	1616	H16	16 mm
3	PRANN	1616	H10	16 mm
4	PRGNR	1616	H10	16 mm
5	SER	1616	H16	16 mm



Carbide replacement indexing inserts (5 pcs. each)

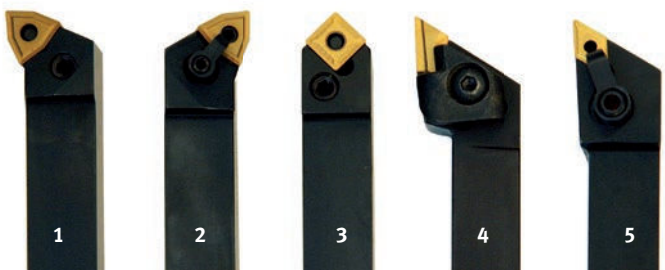
No.	Article no.	ISO	D1	D2	B1	S1	right
1/2	3441701	VNMG160408	9.525	3.81	35°	4.76	0.8
3/4	3441702	RNMG1003MO	10	3.6	-	3.97	-
5	3441703	16ER AG60	16	3.95	60°	3.65	-

Lathe tool set HM 20 mm

Lathe tool set	Article no.
HM 20 mm	3441670

- > 5-part
- > With HM turning plates
- > TiN coated
- > Aluminium box

ISO				h1
1	PWLN	R2020	K08	20 mm
2	PWLN	L2020	K08	20 mm
3	PSDN	N2020	K12	20 mm
4	CKJN	R2020	K16	20 mm
5	MDJN	R2020	K11	20 mm



Carbide replacement indexing inserts (5 pcs. each)

No.	Article no.	ISO	D1	D2	B1	S1	right	L1
1/2	3441752	WNMG080408	9.252	3.81	80°	4.76	0.8	-
3	3441756	SNMG120408	12.7	5.16	90°	4.76	0.8	-
4	3441754	KNUX160405R	9.252		55°	4.76	0.5	16.15
5	3441750	DNMG110408	9.525	3.81	55°	4.76	0.8	-

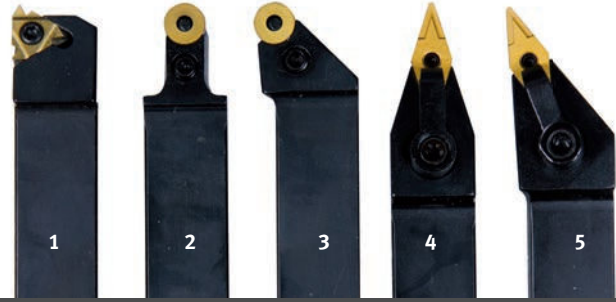
Lathe tool sets

Lathe tool set HM 20 mm

Lathe tool set	Article no.
HM 20 mm	3441617

- › 5-part
- › With HM turning plates
- › TiN coated
- › Aluminium box

ISO				
1	SER	2020	K16	20 mm
2	PRGNR	2020	K10	20 mm
3	PRANN	2020	K10	20 mm
4	MVVNN	2020	K16	20 mm
5	MVJNR	2020	K16	20 mm



Carbide replacement indexing inserts (5 pcs. each)

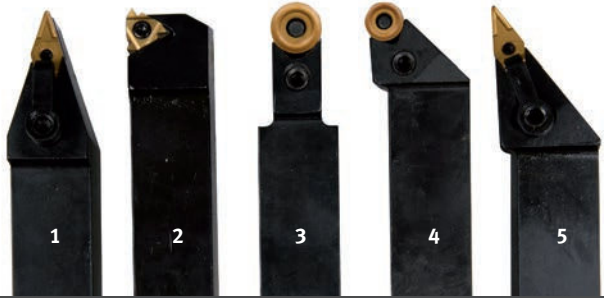
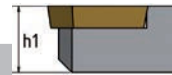
No.	Article no.	ISO	D1	D2	B1	S1	right
1	3441703	16ER AG60	16	3.95	60°	3.65	-
2/3	3441702	RNMG1003MO	10	3.6	-	3.97	-
4/5	3441701	VNMG160408	9 525	3.81	35°	4.76	0.8

Lathe tool set HM 25 mm

Lathe tool set	Article no.
HM 25 mm	3441623

- › 5-part
- › With HM turning plates
- › TiN coated
- › Aluminium box

ISO				
1	MVVN	N2525	M16	25 mm
2	SE	R2525	M16	25 mm
3	PRGN	R2525	M12	25 mm
4	PRAN	N2525	M16	25 mm
5	MVJN	R2525	M16	25 mm



Carbide replacement indexing inserts (5 pcs. each)

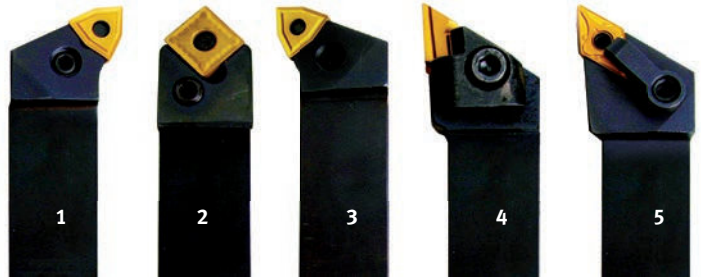
No.	Article no.	ISO	D1	D2	B1	S1	right
1/2	3441701	VNMG160408	9 525	3.81	35°	4.76	0.8
3	3441703	16ER AG60	16	3.95	60°	3.65	-
4	3441705	RNMG1204MO	12	4.75	R	5.1	-
5	3441704	RNMG1605MO	16	5.4	R	6.3	-

Lathe tool set HM 25 mm

Lathe tool set	Article no.
HM 25 mm	3441672

- › 5-part
- › With HM turning plates
- › TiN coated
- › Aluminium box

ISO				
1	PWLN	L2525	M08	25 mm
2	PSDN	N2525	M15	25 mm
3	PWLN	R2525	M08	25 mm
4	CKJNR	R2525	M16	25 mm
5	MDJN	R2525	M15	25 mm



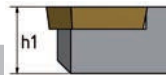
Carbide replacement indexing inserts (5 pcs. each)

No.	Article no.	ISO	D1	D2	B1	S1	right	L1
1/2	3441752	WNMG080408	9.252	3.81	80°	4.76	0.8	-
3	3441757	SNMG150608	15.875	06.35	90°	6.35	0.8	-
4	3441754	KNUX160405R	9.252	-	55°	4.76	0.5	16.15
5	3441751	DNMG150408	12.7	5.16	55°	4.76	0.8	-

Lathe tool set HM 32 mm

Lathe tool set	Article no.
HM 32 mm	3441674
<ul style="list-style-type: none"> > 5-part > With HM turning plates > TiN coated > Aluminium box 	

ISO				
1	PWLN	L3232	P08	32 mm
2	PSDN	N3232	P15	32 mm
3	PWLN	R3232	P08	32 mm
4	CKJN	R3232	P16	32 mm
5	MDJN	R3232	P15	32 mm



Carbide replacement indexing inserts (5 pcs. each)

No.	Article no.	ISO	D1	D2	B1	S1	right	L1
1/3	3441752	WNMG080408	9.252	3.81	80°	4.76	0.8	-
2	3441757	SNMG150608	15.875	06.35	90°	06:35	0.8	-
4	3441754	KNUX160405R	9.252	-	55°	4.76	0.5	16.15
3	3441751	DNMG150408	12.7	5.16	55°	4.76	0.8	-

Inside turning tool set 10 mm

Inside turning tool set	Article no.
10 mm	3441640
<ul style="list-style-type: none"> > 3-part > With carbide indexing inserts, TiN-coated > Aluminium box 	



No.	10 mm	10 mm		
1	S10K	S12M	SCFCR	06
2	S10K	S12M	SDQCR	07
3	S10K	S12M	STFCR	11

Inside turning tool set 12 mm

Inside turning tool set	Article no.
12 mm	3441641
<ul style="list-style-type: none"> > 3-part > With carbide indexing inserts, TiN-coated > Aluminium box 	

HM replacement turning plates (5 pcs. each)

No.	Article no.	ISO	l	s	R	d	d1	
1	3441164	CCMT060204	C/80°	6.35	2.60	0.40	6.35	2.70
2	3441163	TCMT110204	T/60°	10.84	2.53	0.40	9.1	2.70
3	3441166	DCMT070204	D/55°	7.30	2.53	0.40	6.35	2.70

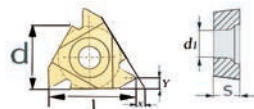
Inside thread turning tool set 8 - 20 mm

Inside thread turning tool	Article no.
8 - 20 mm	3441650
<ul style="list-style-type: none"> > 5-part (8/10/12/16/20 mm) > With HM turning plates > TiN coated > Aluminium box 	

No.	ISO			d
1	S10K	SIR 0008	H08	8 mm
2	S10K	SIR 0010	K11	10 mm
3	S10K	SIR 0012	M11	12 mm
4	S10K	SIR 0016	P16	16 mm
5	S10K	SIR 0020	S16	20 mm



Carbide replacement indexing inserts (5 pcs. each)



No.	Article no.	ISO	l	s	R	d	d1	
1	3441725	08IR A60	60° IR	8	2.22	4.76	2.5	M10
2/3	3441726	11IR A60	60° IR	11	3.22	6.35	3.0	M12
4/5	3441727	16IR A60	60° IR	16	3.65	9.5	3.95	M16

Lathe tool set 8 / 10 / 12 / 16 mm

Accessories	Article no.
Lathe tool set 8 mm	3441601
11-part . With carbide plates soldered on	
Lathe tool set 10 mm	3441602
11-part . With carbide plates soldered on	
Lathe tool set 12 mm	3441603
11-part . With carbide plates soldered on	
Lathe tool set 16 mm	3441604
11-part . With carbide plates soldered on	



Clamping disc	Article no.
Ø 170 mm for TU 2004V/TU 2304	3440295
Ø 240 mm for TU 2406	3440552
Ø 240 mm for TU 2506	3441352
Ø 265 mm for TU 2807	3441452
Ø 300 mm Camlock DIN ISO 702-2 No. 4	3442976
Ø 320 mm A 2-5	3442979
Ø 330 mm Camlock DIN ISO 702-2 No. 5	3442978
Ø 350 mm Camlock DIN ISO 702-2 No. 6	3442980
Ø 450 mm Camlock DIN ISO 702-2 No. 8	3442982



Collet chuck	Article no.
ER 16 Ø 22 mm	3440281
> cylindrical for TU 1503V	
ER 25 Ø 72 mm	3440305
> cylindrical for TU 2004V / TU 2304	
ER 25 Ø 52 mm	3440505
> cylindrical for TU 2406	
ER 32 Ø 52 mm	3440506
> cylindrical for TU 2406	
ER 25 Ø 52 mm	3441305
> cylindrical for TU 2506 / TU 2807	
ER 32 Ø 52 mm	3441306
> Short taper for TU 2506 / TU 2807	



Lathe chuck key	Article no.
10 mm (L x B 190 x 155 mm)	3442960
11 mm (L x B 190 x 155 mm)	3442961
12 mm (L x B 240 x 260 mm)	3442962
13 mm (L x B 240 x 260 mm)	3442963
14 mm (L x W 240 x 260 mm)	3442964



Chuck flange	Article no.
> For lathe chuck assembly	
Ø 160 mm Camlock DIN ISO 702-2 No. 4	3441512
> for four-jaw lathe chucks Ø 160 mm	
Ø 200 mm Camlock DIN ISO 702-2 No. 4	3441513
> for four-jaw lathe chucks Ø 200 mm	
Ø 200 mm Camlock DIN ISO 702-2 No. 5	3441514
> for four-jaw lathe chucks Ø 200 mm	
Ø 200 mm Camlock DIN ISO 702-2 No. 6	3444012
> for four-jaw lathe chucks Ø 200 mm	
Ø 250 mm Camlock DIN ISO 702-2 No. 6	3444013
> for four-jaw lathe chucks Ø 250 mm	
Ø 315 mm Camlock DIN ISO 702-2 No. 8	3444041
> for three- and four-jaw lathe chucks Ø 315 mm	

Chuck flange	Article no.
> For lathe chuck assembly	
Ø 100 mm	3440312
> cylindrical for TU 2004V	
Ø 125 mm	3440313
> cylindrical for TU 2304	
Ø 125 mm	3440511
> cylindrical for TU 2406	
Ø 125 mm	3441312
> Short taper for TU 2506 / TU 2807	
Ø 160 mm	3441413
> Short taper for TU 2807	



Accessories **Article no.**

Clamping block set 16-05 **3440653**

- Lathes: TU 3008 / TH 3309 / TH 3610
- › 1 unit clamping block SLTBN 16-05
 - › 1 each parting-off turning tool SLIH 26-2 / SLIH 26-3
 - › 5 pcs. cutting inserts GTN2 (cutting width 2.2 mm)
 - › 5 pcs. cutting inserts GTN3 (cutting width 3.1 mm)
 - › Aluminium box

Clamping block set 20-05 **3440654**

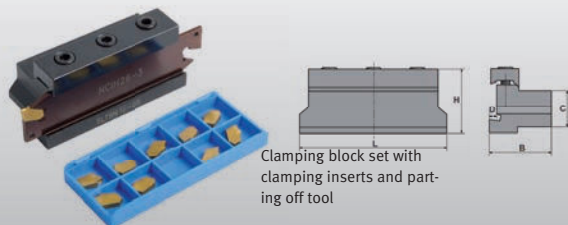
- Lathes: TH 4010 / TH 4210 / TH 46 / TH 56
- › 1 unit clamping block SLTBN 20-05
 - › 1 each parting-off turning tool SLIH 26-3 / SLIH 26-4
 - › 5 pcs. cutting inserts GTN3 (cutting width 3.1 mm)
 - › 5 pcs. cutting inserts GTN4 (cutting width 4.1 mm)
 - › Aluminium box

Clamping block set 25-05 **3440655**

- For the lathes: TH 66 / TH 80
- › 1 unit clamping block SLTBN 25-05
 - › 1 each parting-off turning tool SLIH 26-3 / SLIH 26-4
 - › 5 pcs. cutting inserts GTN3 (cutting width 3.1 mm)
 - › 5 pcs. cutting inserts GTN4 (cutting width 4.1 mm)
 - › Aluminium box

Replacement cutting insert set (10 pcs.) **Article no.**

- | | |
|----------------------------------|---------|
| for cutting inserts GTN 2 | 3440663 |
| for cutting inserts GTN 3 | 3440664 |
| for cutting inserts GTN 4 | 3440665 |



Clamping block	16-05	20-05	25-05
L x W x H	88 x 38 x 42 mm	88 x 38 x 43 mm	100 x 42 x 43.5 mm
C	16 mm	20 mm	25 mm
D	4 mm	5 mm	5 mm

Centre drill set **3203010**

- › As per DIN 333 shape A
- › 10-part: 0.75/1/1.5/1.6/2/2.5/3/3.15/4/5 mm
- › Right-hand cutting tapered grinding edge 120°
- › Centre drill angle 60°
- › High speed steel top quality for tensile strength up to approx. 750 N/mm²
- › Powerful shank, also well suited for predrilling and expansion drilling with a twist drill bit
- › Practical OPTIMUM plastic case



Workplace mats – for dry and wet areas **Article no.**

- › Fire retardant
- › Made of polyurethane on polyether basis
- › Surface: nubbed and underside nubbed: for maximum standing comfort and slip resistance
- › 14 mm thickness
- › Colour anthracite
- › Temperature resistant -35°C to +95°C
- › Fire classification B1 as per DIN 4102
- › 5-year warranty



Work mat 1 840 x 640 mm	6800000
Work mat 1 840 x 940 mm	6800005
Work mat 3 040 x 640 mm	6800001
Work mat 3 040 x 940 mm	6800006



Hollow spindle stop **Article no.**

- › Optimum auxiliary tool suits virtually any lathe
- › Worthwhile even for smallest batches
- › Expensive tooling time can be reduced to a minimum
- › Can be easily and quickly attached at any point of the hollow spindle

HSP 38	3444410
› Spindle Ø 35–42 mm	
HSP 52	3444415
› Spindle Ø 48–56 mm	
HSP 80	3444420
› Spindle Ø 76–84 mm	
HSP 105	3444425
› Spindle Ø 101–109 mm	



Collet chuck **Article no.**

- › for collets type 5C / 385E
- › as per DIN 6341
- › With spindle chuck as per DIN ISO 702- 2
- › Concentricity 0.02 mm

5C - Camlock no. 4	3441554
5C - Camlock Nr. 5	3441555
5C - Camlock no. 6	3441556
5C - Camlock no. 8	3441558



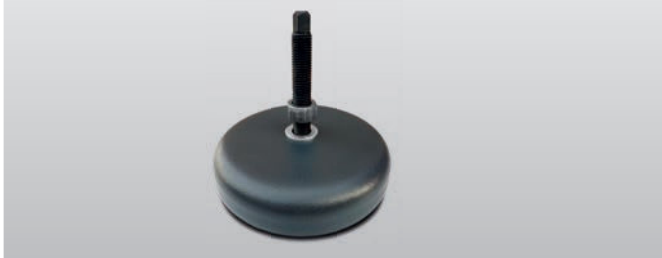
Accessories for lathes

Levelling platen

› The machines and equipment can be installed without anchors and precisely levelled using the height adjustment system.

› non-slip rubberised

SE 1	3381012
SE 2	3381016
SE 3	3381018



Load	SE 1	SE 2	SE 3
Milling machines	340 kg	460 kg	1 600 kg
Sawing/gen. Machine	570 kg	1 460 kg	3 500 kg
Thread	M12	M16	M20
Base Ø/Base height	120/32	160/35	185/39

Vibration damper machine foot

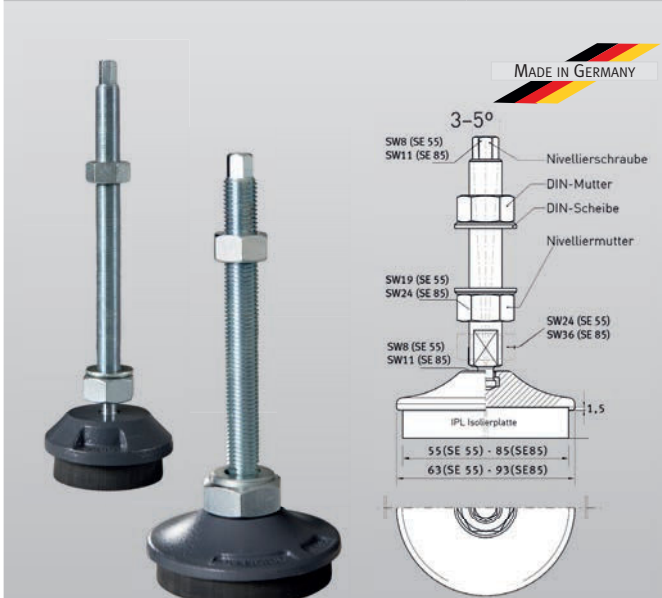
- › Excellent vibration and structure-borne noise insulation
- › Noise reduction
- › Eliminates floor unevenness up to 5°
- › Precision levelling by means of a regular threaded screw
- › Better distribution of impact-like axial forces due to the geometrically larger contact surface with the screw
- › No notching effect - like for example with conical screw tips
- › The levelling screw and the levelling disc are captively connected by a very simple system.
- › Problem-free changeover of the machine possible, as the complete levelling disc remains on the machine foot when the machine is lifted

SE 55

- › Jackscrew M12 x 1 x 150
- › Maximum load: 600 kg

SE 85

- › Levelling screw M16 x 150
- › Maximum load: 1 500 kg



Steady rest

for TU 1503V

› a = Ø 40 mm; b = 145 mm; c = 70.5 mm

for TU 2004V

› a = Ø 50 mm; b = 200 mm; c = 100 mm

for TU 2304 / TU 2304V

› a = Ø 55 mm; b = 220 mm; c = 115 mm

for TU 2406 / TU 2506

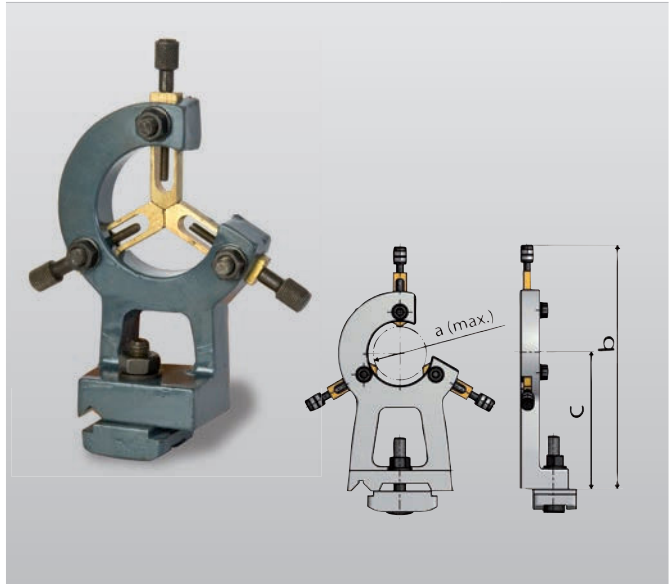
› a = Ø 50 mm; b = 245 mm; c = 125 mm

for TU 2807 / TU 2807V

› a = Ø 55 mm; b = 250 mm; c = 140 mm

for TU 3008 / TU 3008G / TU 3008V

› a = Ø 60 mm; b = 260 mm; c = 157 mm



Follower rest

for TU 1503V

› a = Ø 45 mm; b = 155 mm; c = 76 mm

for TU 2004V

› a = Ø 40 mm; b = 195 mm; c = 100 mm

for TU 2304 / TU 2304V

› a = Ø 34 mm; b = 200 mm; c = 97 mm

for TU 2406 / TU 2506

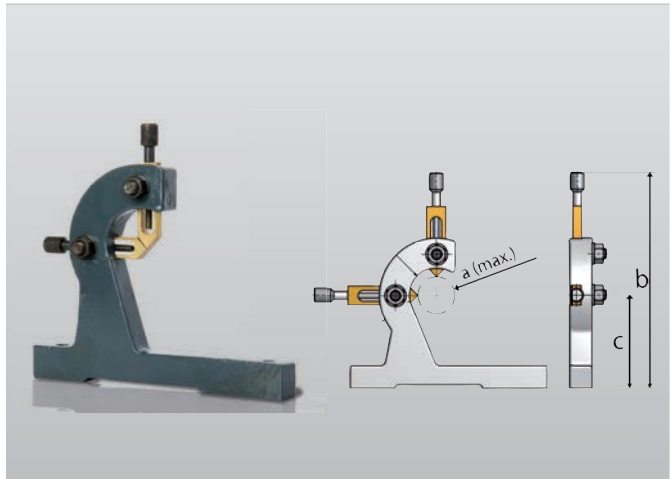
› a = Ø 34 mm; b = 220 mm; c = 107 mm

for TU 2807 / TU 2807V

› a = Ø 56 mm; b = 250 mm; c = 130 mm

for TU 3008 / TU 3008G / TU 3008V

› a = Ø 60 mm; b = 255 mm; c = 151 mm



POSITION DISPLAYS

DIGITAL POSITION DISPLAYS
LINEAR ENCODERS
MEASURING INSTRUMENTS



DRO 5 Digital 3-axis position display

DRO 5 Article no. 3383975

- › Digital 3-axis position display for milling machines (X - Y - Z) and for lathes (X, Z, Z₀)
- › For measuring positions
- › Rev counter
- › Three incremental inputs
- › Four-line LCD display
- › User-friendly menu navigation
- › Rugged aluminium housing
- › Programming from the front
- › Dimensions L x W x H: 98 x 65 x 134 mm

Including

- › Speed sensor cable length 5 metres
- › 3 units magnetic sensors without magnetic strip
- › Power supply cable length 6 metres
- › Magnetic plate



Accessories	Article no.
Magnetic strip length 1 100 mm	3383978
Magnetic strip length 2 000 mm	3383979
Magnetic strip per metre	3383980
Factory assembly	
Magnetic strip three axes	9000420
Speed sensor	9000421
Assembly kit	
TU 3008	3383985
MH 22V	3383990

The digital position displays for three axes with speed display support versatile use and are a genuine aid to the user, as they substantially boost precision and productivity.

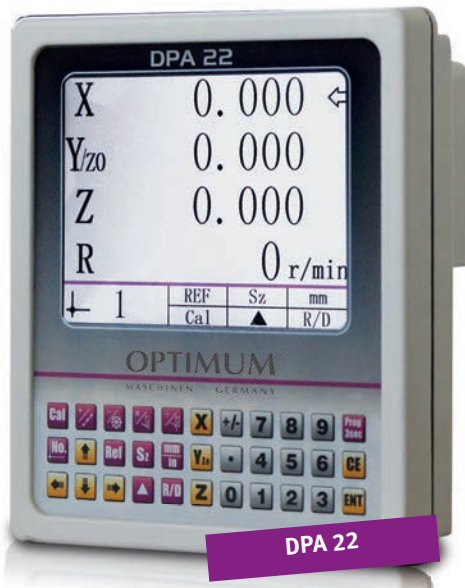
Differences:

DPA 21

- ▶ LED display

DPA 22

- ▶ LCD display
- ▶ High-contrast display
- ▶ Simplified menu navigation
- ▶ Graphical input for cycle programming



Digital position display	Article no.
DPA 21 (LED display)	3384020
DPA 22 (LCD display)	3384022
<ul style="list-style-type: none"> › User-friendly membrane keyboard, splash water protected, sealed and dazzle free › Switchable for milling machine and lathe, freely selectable input signal (sinus/square), e.g. usable for glass scales and/or magnetic strip system › Greater operation accuracy › Clear reduction of manufacturing times › Reduction of error quota › X, Y/Z0, Z axis each with 8-digit display › Sensor supplied for acquiring spindle speeds › Three measuring inputs can be evaluated with seven correction memory stores each for tools › Dimensions L x W x H: 230 x 80 x 260 mm . Weight: 2 kg 	

Possible functions

- › Calculator, speed display, axis coupling (total Z), sub-D connector sockets, absolute/incremental operation, conversion inch/metric thread, bolt circle computation (chain dimension), coordinates in circle (pitch circle), drill holes in circle (pitch circle), measured values switchable radius/diameter, Zero reset data default, self diagnostics, reference point, linear error correction, 99 tool memory

Scope of delivery

- › Speed sensor
- › Holder
- › Power supply 24 V

Magnetic strip

- › Magnetic strip for assembly on machines that do not have enough space for linear encoders
- › Connector 9-pin

Ø 1 100 mm long	3383978
Ø 2 000 mm long	3383979
Active scanning head	3383934



Linear encoders	Article no.
<ul style="list-style-type: none"> › Fully encapsulated measuring systems with high precision glass scale › Resolution 5 µm › Accuracy ± 0.003 mm › Scanning carriage guided by miniature ball bearings and connected to the mounting foot via coupling › Protected against dust, chips and splash water by a rubber lip › Flexible metal protection hose › Connecting cable three metres; four metres as of ML 620 › Without assembly 	
ML 80 mm	3384108
ML 100 mm	3384110
ML 120 mm	3384112
ML 170 mm	3384117
ML 220 mm	3384122
ML 270 mm	3384127
ML 320 mm	3384132
ML 370 mm	3384137
ML 420 mm	3384142
ML 470 mm	3384147
ML 520 mm	3384152
ML 570 mm	3384157
ML 620 mm	3384162
ML 670 mm	3384167
ML 720 mm	3384172
ML 770 mm	3384177
ML 820 mm	3384182
ML 870 mm	3384187
ML 920 mm	3384192
ML 970 mm	3384197
ML 1 020 mm	3384202
ML 1 250 mm	3384225
ML 1 400 mm	3384240
ML 1 520 mm	3384252
ML 1 670 mm	3384267
ML 1 940 mm	3384294
ML 2 010 mm	3384295
ML 3 000 mm	3384300
Factory assembly ML	9000410

› per linear encoder

Universal useable digital position displays for two or three axes, with speed display, for guaranteed excellent results on machines to improve accuracy

Digital position display	Article no.
DPA 31-2 for two axes	3384030
DPA 31-3 for three axes	3384031
› LED display › User-friendly membrane keyboard, splash water protected, sealed and dazzle free › Switchable for milling machine and lathe › Greater operation accuracy › Clear reduction of manufacturing times › Reduction of error quota › 8-digit display › Sensor supplied for acquiring spindle speeds › Three measuring inputs can be evaluated with seven correction memory stores each for tools › Dimensions L x W x H: 230 x 80 x 260 mm › Weight: 2 kg	



MSS31 linear encoders	Article no.
› The electronic measuring components of the linear encoders are protected and sealed in the housing › Provides accurate and reliable measurement results even if the measuring system is operated in oil or coolant › Tolerant towards vibration and magnetic interference › Without assembly	
51 mm (length 311 mm)	3384405
102 mm (length 362 mm)	3384410
152 mm (length 412 mm)	3384415
203 mm (length 463 mm)	3384417
254 mm (length 514 mm)	3384419
305 mm (length 565 mm)	3384421
356 mm (length 616 mm)	3384422
406 mm (length 666 mm)	3384423
457 mm (length 717 mm)	3384424
506 mm (length 766 mm)	3384425
559 mm (length 819 mm)	3384426
610 mm (length 870 mm)	3384427
660 mm (length 920 mm)	3384428
711 mm (length 971 mm)	3384429
762 mm (length 1022 mm)	3384430
813 mm (length 1073 mm)	3384431
864 mm (length 1124 mm)	3384432
914 mm (length 1174 mm)	3384433
965 mm (length 1225 mm)	3384434
1016 mm (length 1276 mm)	3384435
1118 mm (length 1378 mm)	3384437
1168 mm (length 1428 mm)	3384438
1219 mm (length 1479 mm)	3384439
1270 mm (length 1530 mm)	3384440
1321 mm (length 1581 mm)	3384441
1372 mm (length 1632 mm)	3384442
1422 mm (length 1882 mm)	3384443

1473 mm (length 1933 mm)	3384444
1524 mm (length 1784 mm)	3384445
1626 mm (length 1886 mm)	3384446
1727 mm (length 1987 mm)	3384447
1829 mm (length 2089 mm)	3384448
1930 mm (length 2190 mm)	3384449
2032 mm (length 2292 mm)	3384450
2134 mm (length 2394 mm)	3384451
2235 mm (length 2495 mm)	3384452
2337 mm (length 2597 mm)	3384453
2438 mm (length 2698 mm)	3384454
2540 mm (length 2800 mm)	3384455
2642 mm (length 2902 mm)	3384456
2743 mm (length 3003 mm)	3384457
2845 mm (length 3105 mm)	3384458
2946 mm (length 3206 mm)	3384459
3048 mm (length 3248 mm)	3384460

Accessories	Article no.
Extension cable 1 metres	3384040
Active scanning head	3384035



Magnetic strip	Article no.
› Magnetic strip for assembly machines that do not have enough space for magnetic scales › Connector 9-pin	
Ø 1 100 mm long	3383978
Ø 2 000 mm long	3383979

Digital position display DP700
for precise measurement of travels and positioning on machine and drives



Digital position display DP700	Article no. 3390073
---------------------------------------	------------------------

Attachment kit - Milling Spherosyn	3390220
<ul style="list-style-type: none"> › Digital position display DP700 › fitting › Attachment parts for assembling three axes Spherosyn 	

Attachment kit - Milling Microsyn	3390230
<ul style="list-style-type: none"> › Digital position display DP700 › fitting › Attachment parts for assembling three axes Microsyn 	

Attachment kit - Turning 1	3390405
<ul style="list-style-type: none"> › Digital position display DP700 › fitting › Attachment parts for assembling one axis Spherosyn and one axis Microsyn greater than 300 mm 	

Attachment kit - Turning 2	3390406
<ul style="list-style-type: none"> › Digital position display DP700 › fitting › Attachment parts for assembling one axis Spherosyn and one axis Microsyn less than 300 mm 	

Complete attachment kit MH 35G	3390330
<ul style="list-style-type: none"> › Digital position display DP700 › 3 units Microsyn linear encoder › Bracket · Attachment parts for linear encoder mounting 	

Complete attachment kit MH 50G	3390346
<ul style="list-style-type: none"> › Digital position display DP700 › 3 units Microsyn linear encoder › Bracket · Attachment parts for linear encoder mounting 	

Complete attachment kit TH 3309	3390420
<ul style="list-style-type: none"> › Digital position display DP700 › 2 pcs. Microsyn linear encoder · 1 pcs. Spherosyn linear encoder › Bracket · Attachment parts for linear encoder mounting 	

Complete attachment kit TH 3610 / TH 4010	3390430
<ul style="list-style-type: none"> › Digital position display DP700 › 2 pcs. Microsyn linear encoder · 1 pcs. Spherosyn linear encoder › Bracket · Attachment parts for linear encoder mounting 	

Digital position display DP700

- › Powerful DP display with many functions
- › Ergonomically shaped, slim-line aluminium housing
- › Has all necessary functions for a variety of machining applications
- › The operator works with an intuitive and user-friendly interface
- › Developed and manufactured in England
- › IP67 encoding units can be deployed under the toughest ambient conditions with a high degree of precision.
- › Five-year warranty on indicator and read heads
- › The linear encoding units are insensitive to soiling in the workshop, such as coolant, water, dust, chips, knocks and vibrations
- › No maintenance required
- › Fast and easy installation

Possible functions

Number of axes	2 or 3 axes	
	Milling machine	Lathe
Undo	•	•
Digfind (position search function)	•	•
Centrefind	•	•
Radius/diameter	•	•
Absolute/step wise	•	•
mm/inch	•	•
Axes preset/zero set	•	•
Zero point approach	•	•
Tool repository		•
Taper		•
Axis addition		•
PCD/bolt circle	•	
Arc control	•	
Polar coordinates	•	
Slotted rail	•	
Input mode/Sub-datum	•	•
Feed function	•	•
RS232 output	•	•
Linear error compensation	•	•
Segmental error compensation	•	•
Protection classes	IP 40 (digital display) IP 54 (front control panel)	
Languages	DE, EN, FR, ES, IT, TU, TR, CZ, RU, PT, DK	

Analogue measuring systems (Spherosyn & Microsyn)



The Spherosyn and Microsyn linear encoder systems are specially designed for requirements in the demanding environment of a workshop. The measuring transducers use a totally unique design with all components sealed and protected. This means that you can achieve precise and reliable measured values, even if the measuring systems are immersed in coolant, oil water or lubricant.



The advantages

- > Easy to install – low assembly costs
- > Degree of protection IP 67
- > Impermeable to coolants, oil, dust, chips and almost all workshop influences
- > No risk of broken or scratched glass
- > Tolerant towards vibration and magnetic interference
- > No regular maintenance or cleaning needed
- > No mechanical wear
- > Lifetime guarantee on the scale

More than 400 000 Spherosyn and Microsyn encoders worldwide offer the highest level of reliability.

Spherosyn and Microsyn can be used both for the digital position display DP700 and also be integrated for a variety of feedback applications, such as CNC systems and PLC.

How does that work?

The Spherosyn and Microsyn linear encoders are based on the principle of electromagnetism and consist of a stainless steel or carbon fibre tube filled with individually classified high-precision steel balls. The balls are pre-stressed and calibrated in a temperature-controlled environment in the tube.

The read head consists of six coils which are wound around a composite fibre coil. The coils and the required electronic circuitry are sealed on the inside of the read ahead by a special potting method. Applying voltage to the coil generates an electro-magnetic field in the read head. Due to the curvature of the balls on the inside of the tube, the output signal varies depending on the position of the coils above the balls. When the measuring head runs over the probe, signals are generated by the relative axial movement induced at each probe coil.



Difference between Spherosyn and Microsyn scales

Analogue measuring systems	Spherosyn	Microsyn
Measuring length	51 mm up to 2 945 mm	30 mm up to 1 000 mm
Scale	15.25 mm	6.5 mm
Scale material	Stainless steel	Carbon fibre
Scale length, total	Measuring length + 250 mm	Measuring length + 175 mm
Read head dimensions	51 mm x 131 mm x 28 mm	35 mm x 75 mm x 20 mm
Maximum feed	2.0 metres per second	0.75 metres per second
Output cable length	3.5 metre stainless steel armouring (Extension cable available as accessory page 208)	
Accuracy	+/- 10 micron	
Repeat accuracy	within one resolution step	
Input	85mA +/- 5mA	
Output	2.0 V +/- 0.5 RMS, 1 kHz phase-analogue, 360° per 12.7 mm	
Suitable	For large machines and machines without space problems when fitting the probes	For small machines with space problems when fitting the probes

Analogue measuring systems (Spherosyn & Microsyn)



Fig.: Spherosyn with optional attachment



Fig.: Microsyn with optional attachment

Spherosyn linear encoders	Article no.
MS S2G - 51 mm	3391005
MS S2G - 102 mm	3391010
MS S2G - 152 mm	3391015
MS S2G - 178 mm	3391018
MS S2G - 203 mm	3391020
MS S2G - 229 mm	3391023
MS S2G - 254 mm	3391025
MS S2G - 305 mm	3391030
MS S2G - 356 mm	3391035
MS S2G - 406 mm	3391040
MS S2G - 457 mm	3391046
MS S2G - 508 mm	3391051
MS S2G - 559 mm	3391056
MS S2G - 610 mm	3391061
MS S2G - 660 mm	3391066
MS S2G - 711 mm	3391071
MS S2G - 762 mm	3391076
MS S2G - 813 mm	3391081
MS S2G - 864 mm	3391086
MS S2G - 914 mm	3391091
MS S2G - 965 mm	3391097
MS S2G - 1 016 mm	3391101
MS S2G - 1 118 mm	3391111
MS S2G - 1 168 mm	3391117
MS S2G - 1 219 mm	3391121
MS S2G - 1 270 mm	3391127
MS S2G - 1 321 mm	3391132
MS S2G - 1 372 mm	3391137
MS S2G - 1 422 mm	3391142
MS S2G - 1 473 mm	3391147
MS S2G - 1 524 mm	3391152
MS S2G - 1 626 mm	3391162
MS S2G - 1 727 mm	3391172
MS S2G - 1 829 mm	3391182
MS S2G - 1 930 mm	3391193
MS S2G - 2 032 mm	3391203
MS S2G - 2 134 mm	3391213
MS S2G - 2 235 mm	3391223
MS S2G - 2 337 mm	3391233
MS S2G - 2 438 mm	3391243
MS S2G - 2 540 mm	3391254
MS S2G - 2 642 mm	3391264
MS S2G - 2 743 mm	3391274
MS S2G - 2 845 mm	3391284
MS S2G - 2 946 mm	3391294

Microsyn linear encoder	Article no.
MS M2G - 30 mm	3392003
MS M2G - 50 mm	3392005
MS M2G - 75 mm	3392007
MS M2G - 100 mm	3392010
MS M2G - 125 mm	3392012
MS M2G - 150 mm	3392015
MS M2G - 175 mm	3392017
MS M2G - 180 mm	3392018
MS M2G - 200 mm	3392020
MS M2G - 225 mm	3392022
MS M2G - 250 mm	3392025
MS M2G - 275 mm	3392027
MS M2G - 300 mm	3392030
MS M2G - 325 mm	3392032
MS M2G - 350 mm	3392035
MS M2G - 400 mm	3392040
MS M2G - 450 mm	3392045
MS M2G - 500 mm	3392050
MS M2G - 550 mm	3392055
MS M2G - 600 mm	3392060
MS M2G - 650 mm	3392065
MS M2G - 700 mm	3392070
MS M2G - 750 mm	3392075
MS M2G - 800 mm	3392080
MS M2G - 850 mm	3392085
MS M2G - 900 mm	3392090
MS M2G - 950 mm	3392095
MS M2G - 1 000 mm	3392100

Accessories	Article no.
Extension cable 1 metres	3393601
Extension cable 2 metres	3393602
Extension cable 3.5 metres	3393603
Extension cable 5 metres	3393604
Extension cable 10 metres	3393605