

**Design**

- Precision manufacture thanks to the high repeatability and turning accuracy (0.005 mm)

No cassette changes:

- Inner and outer adjustment in one clamping position
- Quick clamping device. Type RD has 9° graduations and 40 positions
- Deliverable in four sizes depending on the application
- Up to four tool holders can be clamped at the same time

Applications

For manufacturing high-precision turned parts with a highly accurate tool change system that is easy to use.

Note:

Quick-change holders, see art. no. 21871–21876.

**21870 101-104****Parat 4x turret head type RD****Design**

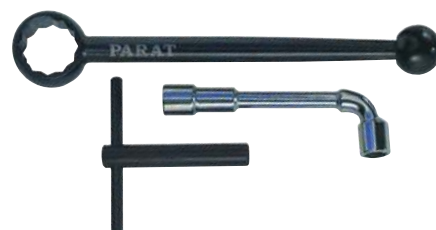
- Holds up to 4 tool holders
- Manual swivel
- 9° graduations = 40 engage positions

Scope of delivery:

- Spanner
- Cranked box spanner
- Socket wrench



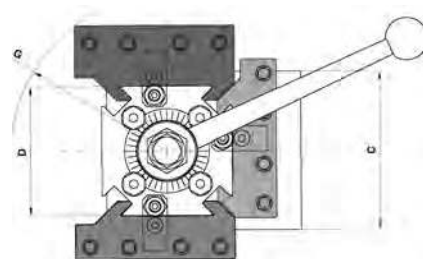
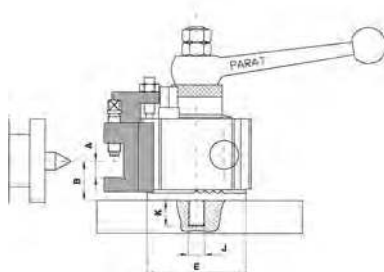
21870 101-104

**21870 201-204****Parat 4x turret head with internal cooling type RD/IC****Design**

- Holds up to 4 tool holders
- Manual swivel
- 9° graduations = 40 engage positions

Scope of delivery:

- Spanner
- Cranked box spanner
- Socket wrench
- Clamping screw with inner bore
- Cooling hose
- Connecting piece
- Angled piece
- Sealing plug



Technical data for sizing		21870 101+201	21870 102+202	21870 103+203	21870 104+204
Size		1	2	3	4
Max. lathe drive power	KW	3.7	7.4	14.7	22
Max. lathe chisel cross-section	A	20	25	40	50
Cutting edge height	B	30	40	60	80
Min. tool carriage width	C	90–100	110–150	150–180	200–250
Turret head (square basic body)	D	84	106	134	154
Indexing disc with protective ring Ø	E	80	102	133	150
Turning circle with tool holder Ø	G	180	240	300	350
Clamping screw in support	J	M 14 x 2	M 16 x 2	M 20 x 2.5	M 24 x 3
Thread length mm	K	21	25	30	35
Approx. weight (without tool holder)	kg	3.5	6.5	15	22

Size	Type RD		Type RD/IC	
	21870	...	21870	...
1			101	201
2			102	202
3			103	203
4			104	204

21871 - 21876

Quick-change holders

**Applications**

Accessories for art. no. 21870.

21871**Quick-change holder type WD****Applications**

For internal and external machining.

21872**Quick-change holder type WDL****Applications**

For internal machining.

21873**Quick-change holder type WDR****Applications**

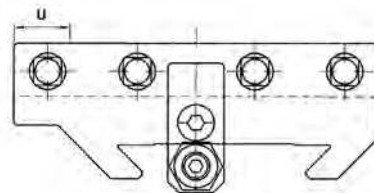
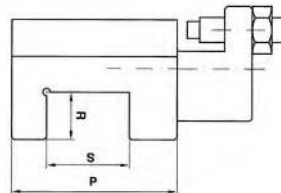
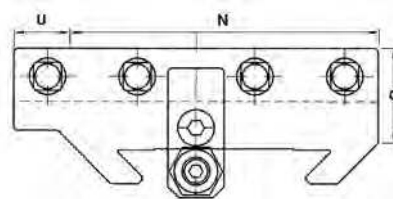
For external machining.

21874**Quick-change holder type WDPL****Applications**

For boring bars.

21875**Quick-change holder type WB****Applications**For mounting clamping sleeves
(see art. no. 21877–21878).**21876****Quick-change holder type WBW (blank)****Applications**

With soft, unfinished clamping side for fitting special tools.



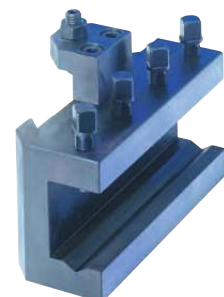
21871



21872



21873



21874



21875



21876

Type	Size	N	O	P	R	S	U	kg
WD	1/12	84	24	47	14	22	-	0.7
WDL/WDR	1/12	100	24	47	14	22	16	0.8
WD	1/20	84	33	52	20	22	-	0.8
WDL/WDR	1/20	100	33	52	20	22	16	0.9
WDPL	1/12	100	28	47	16	22	16	0.9
WB/WBW	1/30	84	39	47	30	-	-	0.8
WD	2/25	110	36	66	19	33	-	1.9
WDL/WDR	2/25	130	36	66	19	33	20	2.1
WDPL	2/25	130	50	62	31	33	20	2.3
WB/WBW	2/40	110	51	63	40	-	-	1.8
WD	3/32	140	44	76	25	33	-	3.0
WDL/WDR	3/32	165	44	76	25	33	25	3.4
WDPL	3/32	165	53	66	31	33	25	3.6
WD	3/40	140	44	76	25	43	-	3.1
WDL/WDR	3/40	165	44	76	25	43	25	3.4
WB/WBW	3/40	140	53	66	40	-	-	2.7
WB/WBW	3/50	140	63	76	50	-	-	3.5
WD	4/40	160	53	96	30	44	-	5.0
WDL/WDR	4/40	190	53	96	30	44	30	5.8
WDPL	4/40	190	63	96	40	52	30	6.5
WD	4/50	160	63	96	40	54	-	5.5
WDL/WDR	4/50	190	63	96	40	54	30	6.0
WB/WBW	4/60	160	77	96	60	-	-	6.0

Size	for Turret head/size	Type WD 21871	Type WDL ... 21872	Type WDR ... 21873	Type WDPL ... 21874	...
1/12	Type RD/1 and type UD/1	101		101	101	101
1/20	Type RD/1 and type UD/1	102		102	102	
2/25	Type RD/2 and type UD/2	103		103	103	102
3/32	Type RD/3 and type UD/3	104		104	104	103
3/40	Type RD/3 and type UD/3	105		105	105	
4/40	Type RD/4 and type UD/4	106		106	106	105
4/50	Type RD/4 and type UD/4	107		107	107	

Size	for Turret head/size	Type WB 21875	Type WBW ... 21876	...
1/30	Type RD/1 and type UD/1		101	101
2/40	Type RD/2 and type UD/2		102	102
3/40	Type RD/3 and type UD/3		103	103
3/50	Type RD/3 and type UD/3		104	104
4/60	Type RD/4 and type UD/4		105	105

21877 - 21878

Clamping sleeves



21877

Design

Clamping sleeves for quick-change holder type WB (see art. no. 21875).

Applications

For mounting tools with an MK shanks.

21878

Design

Clamping sleeves, slotted for quick-change holder type WB (see art. no. 21875).

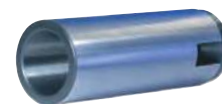
Applications

For mounting tools with straight shanks.

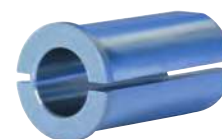
For Quick-change holder	MK	21877	...
Type WB 1/30	1		101
Type WB 1/30	2		102
Type WB 2+ 3/40	3		103
Type WB 2+ 3/40	4		104

For Quick-change holder	MK	21877	...
Type WB 3/50	3		105
Type WB 3/50	4		106
Type WB 4/60	4		107
Type WB 4/60	5		108

For Quick-change holder	Inner Ø mm	21878	...
Type WB 1/30	8		101
Type WB 1/30	10		102
Type WB 1/30	12		103
Type WB 1/30	15		104
Type WB 1/30	16		105
Type WB 1/30	20		106
Type WB 1/30	25		107
Type WB 2+ 3/40	10		109
Type WB 2+ 3/40	12		110
Type WB 2+ 3/40	15		111
Type WB 2+ 3/40	16		112
Type WB 2+ 3/40	20		113
Type WB 2+ 3/40	25		114
Type WB 2+ 3/40	32		115
Type WB 3/50	20		117
Type WB 3/50	25		118
Type WB 3/50	32		119
Type WB 3/50	40		120
Type WB 4/60	25		123
Type WB 4/60	32		124
Type WB 4/60	40		125



21877



21878

22950 - 22955

Wiper

Design

- Made from impact-resistant plastic with fleece lining inserted in grooves and thus secured against rotation
- Excellent resistance to oil and grease
- High tolerance conformity

Applications

For fast and thorough cleaning of tool chucks.

22950

For Morse tapers.

22951

For steep tapers.

22955

For HSK tool chucks.



22950



22951



22955

For taper MK	22950	...
1		301
2		302
3		303
4		304
5		305

For taper SK	22951	...
30		201
40		202
50		203

For taper HSK	22955	...
40		102
50		103
63		104
80		105
100		106



Steel holder head and replacement holder, profile-ground. Height adjustment of the steel by knurled screw on the steel holder without underlaying of support shims. Repeat accuracy 0.01 mm. Easy release and locking of the respective tool holder by eccentric clamping lever. 40 possible angle settings of the tools. Simple operation – short set-up times!

Assembly on the lathe:

The steel holder head with ground toothing is secured with the support screw. To do this, the centring disc must be unscrewed to the dimension (fit not required) of the support screw. It is recommended that the steel holder head is aligned with the the clamped boring bar holder and the boring bar at right angles to the face plate. The steel holder head is secured by 2 dowel pins in the support. The mark is then set to 0 and the nut of the support screw is tightened accordingly.

When selecting the size, please note:

1. Drive power of the lathe.
2. Required minimum dimension x.
3. The length of the replacement holder I should correspond as far as possible to the width z of the top support.
4. The steel height h to be used. Together with the steel height y and the space remaining below it, this gives the required dimension x (see table).

Example of size selection:

Drive power of the machine	KW	6
Turning diameter of the machine	mm	500
Slide width	z	mm 145
Steel height	h	mm 30
Cutting edge height	x	mm 45

Required:

Steel holder head	Size B	(Cat. no. 21880 104)
Replacement holder	Type B D 32 x 140	(Cat. no. 21882 211)
Replacement holder	Type B H 30 x 130	(Cat. no. 21884 204)
Replacement holder	Type B J 40 x 120	(Cat. no. 21886 205)
Replacement holder	Type BA-A2a	(Cat. no. 21896 203)

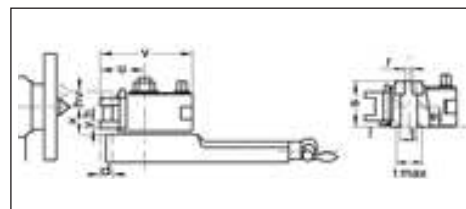
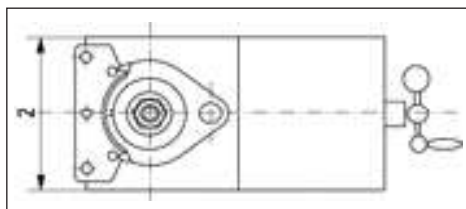
Required minimum dimension x for steel height h:

The hole in the centring disc must be increased to the dimension of the clamping screw.

Size	Aa	A	E	B	C	D 1
Steel height	x	x	x	x	x	x
h mm	D 12	D 16 D 20	D 20 D 25	D 25 D 32	D 32 D 40 D 45	D 40 D 50 D 63
6	12					
8	14	18				
10	16	20 20	20 22			
12	18	22 22	22 24	24 25		
16		26 26	26 28	28 29	31 32.5 32.5	
20			30 32	32 33	35 36.5 36.5	
25			37	37 38	40 41.5 41.5	45
32				45	47 48.5 48.5	52 52 52
40					56.5 56.5	60 60 60
45					61.5	65 65
50						70 70
63						83

Technical data:

Art. no.	21880...	101	102	103	104	105	106						
Size	Aa	A	E	B	C	D 1							
Replacement holder size	D 12	D 16	D 20	D 20	D 25	D 32	D 40	D 45	D 40	D 50	D 63		
Drive power of the machine approx. kW	1.2	2.2	5.0	6.6	13.2	22.0							
Turning diameter of the machine mm	120-220	150-300	200-400	300-500	400-700	600-1000							
Slide width max. z mm	80	100	120	150	180	200							
Cutting edge height min. x mm	h + y	h + y	h + y	h + y	h + y	h + y							
Cutting edge height max. mm	x + hv	x + hv	x + hv	x + hv	x + hv	x + hv							
Height adjustability hv mm	8	11	17	15	20	11	40	35	30	35	30	20	
Steel support y mm	6.2	9.1	10.1	10.5	12	12	13.5	17	18	18	20.5		
Support width for working steel d mm	10	14	16	16	20	20	21	30.5	30.5	30	34	40	
Height of working steel max. h mm	12	16	20	20	25	25	32	32	40	45	40	50	63
Total width max. v mm	70	100	125	150	192	202	202	230	234	242			
Total height s mm	32	54	68	75	105	122							
Overhang max. u mm	30	48	60	71	92	102	102	112	117	124			
Hole normal t mm	12	20	20	32	40	40							
Hole max. t mm	12	32	42	51	74	82							
Depth of hole max. e mm	-	35	35	45	75	75							
Weight without replacement holder kg	0.34	1.2	3.5	4.5	10.7	18.0							



21880

Steel tool holder heads

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Applications

For mounting tool holders.

Note:

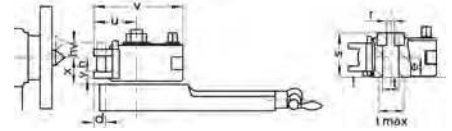
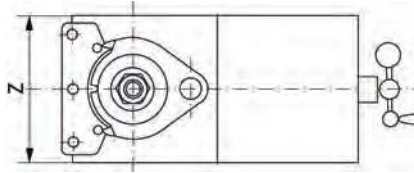
For technical data, see info on quick-change steel tool holder on previous page.

For spare parts, see art. no. 21898.

21880



Size	21880	...
Aa	101	
A	102	
E	103	
B	104	
C	105	
D 1	106	



21882

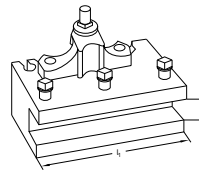
Tool holder D

ATORN®

Applications

For mounting square lathe tools.

21882



Type	For size	a mm	I ₁ mm	21882	...
Aa D 12 x 50	Aa	12	50	201	
A D 20 x 75	A	20	75	204	
A D 20 x 90	A	20	90	205	
E D 20 x 100	E	20	100	206	
E D 25 x 100	E	25	100	207	
B D 25 x 120	B	25	120	208	
B D 25 x 140	B	25	140	209	
B D 32 x 120	B	32	120	210	
B D 32 x 140	B	32	140	211	

Type	For size	a mm	I ₁ mm	21882	...
C D 32 x 150	C	32	150	212	
C D 32 x 170	C	32	170	213	
C D 40 x 150	C	40	150	214	
C D 40 x 170	C	40	170	215	
C D 45 x 170	C	45	170	216	
D 1 D 40 x 180	D 1	40	180	217	
D 1 D 50 x 180	D 1	50	180	218	
D 1 D 63 x 180	D 1	63	180	219	

21884

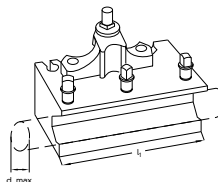
Tool holder H

ATORN®

Applications

For mounting round lathe tools.

21884



Type	For size	d max mm	I ₁ mm	21884	...
Aa H 12 x 50	Aa	12	50	201	
A H 20 x 85	A	20	85	202	
E H 30 x 100	E	30	100	203	
B H 30 x 130	B	32	130	204	

Type	For size	d max mm	I ₁ mm	21884	...
C H 40 x 160	C	40	160	205	
C H 50 x 160	C	50	160	206	
D 1 H 63 x 180	D 1	63	180	207	

21886

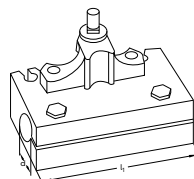
Tool holder J

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Applications

For mounting boring bars and round lathe blanks.

21886



Type	For size	Bore d mm	I ₁ mm	21886	...
Aa J 15 x 50	Aa	15	50	201	
A J 30 x 80	A	30	80	202	
E J 30 x 100	E	30	100	203	
E J 40 x 100	E	40	100	204	

Type	For size	Bore d mm	I ₁ mm	21886	...
B J 40 x 120	B	40	120	205	
C J 40 x 160	C	40	160	206	
C J 50 x 160	C	50	160	207	
D 1 J 63 x 180	d1	63	180	208	

21888

Sleeves L

ATORN®

Design

With Inner taper.

Applications

For use in boring bar holder no. 21886.

21888



Type	For size	d mm	Taper MK	21888	...
L 30 x 2	A/E	30	2		201
L 40 x 3	E/B/C	40	3		202
L 40 x 4	B/C	40	4		203
L 50 x 3	C	50	3		204
L 50 x 4	C	50	4		205
L 63 x 5	D 1	63	5		206

21894

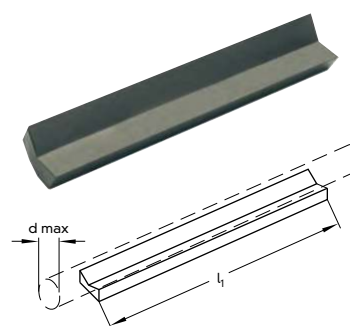
Prism inserts P

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Applications

For tool holder art. no. 21884.

21894



Type	For size	d max. mm	l1 mm	21894	...
A P 14 x 85	A	14	85		101
E P 14 x 100	E	14	100		102
B P 20 x 130	B	20	130		103
C P 25 x 160	C	25	160		104
C P 32 x 160	C	32	160		105
D 1 P 40 x 180	D 1	40	180		106

21896

Cutting-off tool holder A

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Applications

For mounting KOMET cutting-off tools.

21896



Type	For size	COMET size	Cross-section mm	21896	...
AA-A0	A	A0	10 x 2.7		201
EA-A0	E	A0	10 x 2.7		202
BA-A2A	B	A2a	16 x 4/3		203
CA-A3A	C	A3a	18.5 x 5/4		204

21898

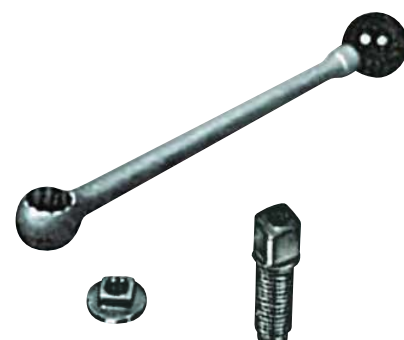
Spare parts for steel tool holders

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Applications

For art. no. 21880–21886 and 21896.

21898



Description	For steel tool holder type	21898	...
Tension lever SW 8 mm	Aa		201
Tension lever SW 12 mm	A		202
Tension lever SW 17 mm	E/B/C		203
Tension lever SW 22 mm	D 1		204
Square socket screw	Aa		210
Square socket screw	A/E		211
Square socket screw	B		212
Square socket screw	C/D 1		213
Height adjustment screw with nut	Aa		301
Height adjustment screw with nut	A		302
Height adjustment screw with nut	E		306
Height adjustment screw with nut	B		303
Height adjustment screw with nut	C		304
Height adjustment screw with nut	D 1		305