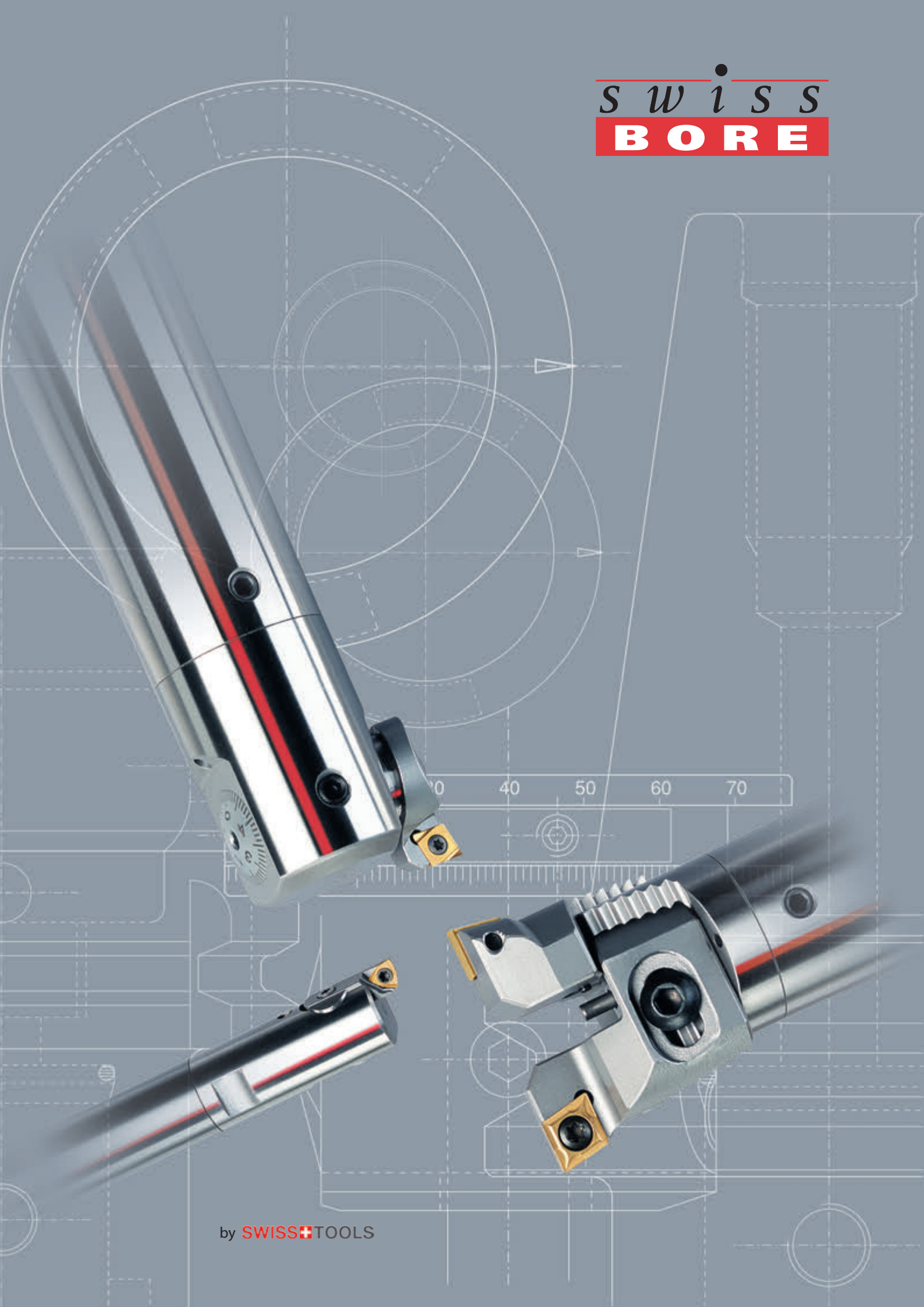
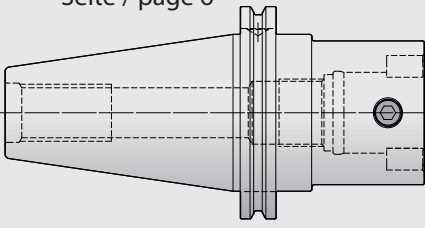


S W I S S
BORE

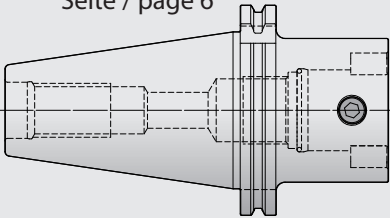


by **SWISS** TOOLS

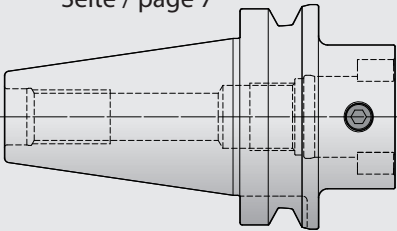
Seite / page 6



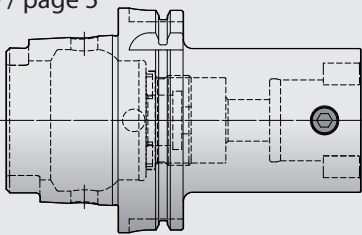
Seite / page 6



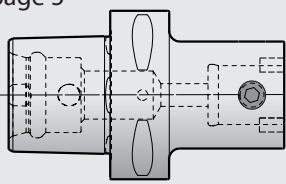
Seite / page 7



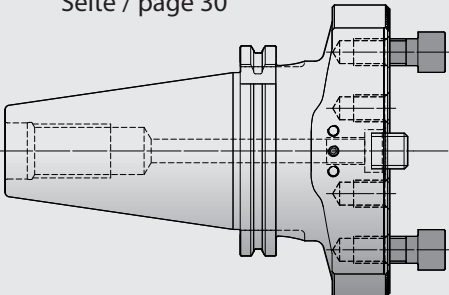
Seite / page 5



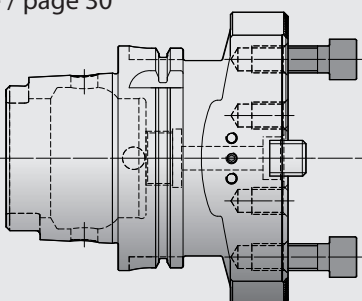
Seite / page 5



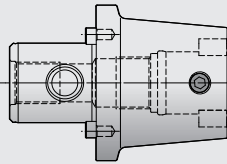
Seite / page 30



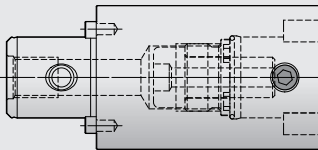
Seite / page 30



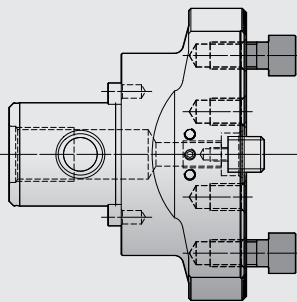
Seite / page 9



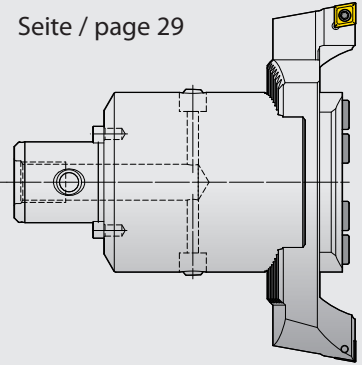
Seite / page 8



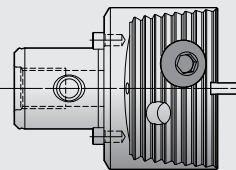
Seite / page 30



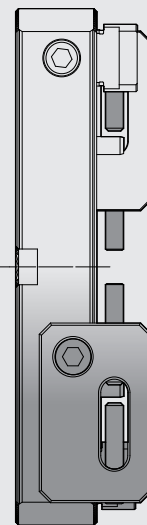
Seite / page 29



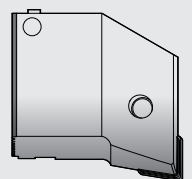
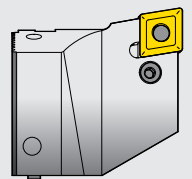
Seite / page 26



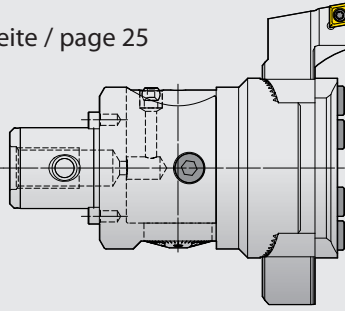
Seite / page 31



Seite / page 33

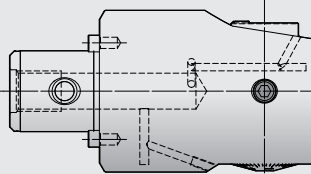
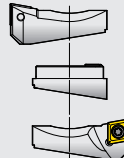


Seite / page 25

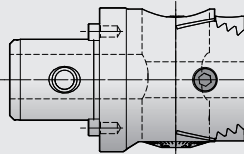


Seite / page 40+41

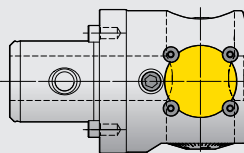
Seite / page 22-24



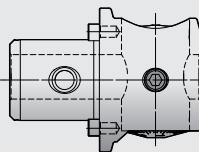
Seite / page 13



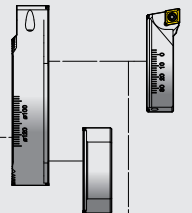
Seite / page 12



Seite / page 10+12



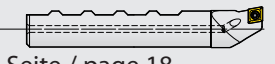
Seite / page 13



Seite / page 17



Seite / page 16



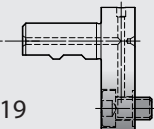
Seite / page 15



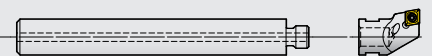
Seite / page 18



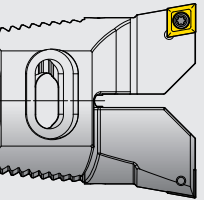
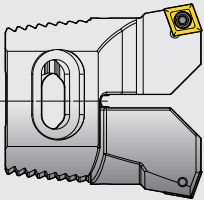
Seite / page 20



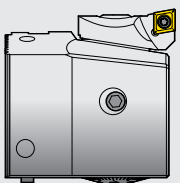
Seite / page 19



Seite / page 27+28



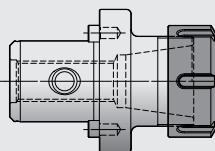
Seite / page 33



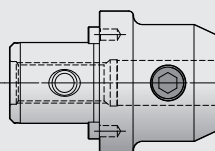
Seite / page 13



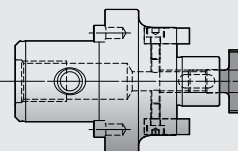
Seite / page 34



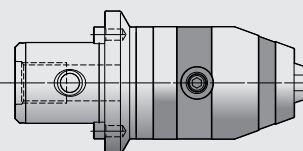
Seite / page 34



Seite / page 35

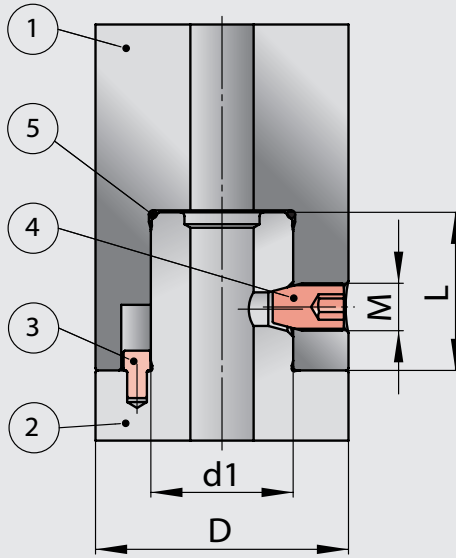


Seite / page 35



Spannsystem ST

Durch die seitliche Spannschraube (4) wird der Zapfen (2) in die Aufnahme (1) gezogen. Dank grosser Auflageflächen und hoher Vorspannung wird eine sehr grosse Steifigkeit erzielt. Zwei Nocken (3) sichern die genaue Schneidenorientierung und dienen zusätzlich als Mitnehmer. Am Grund der Aufnahmebohrung ist zusätzlich ein O-Ring (5) eingelegt.



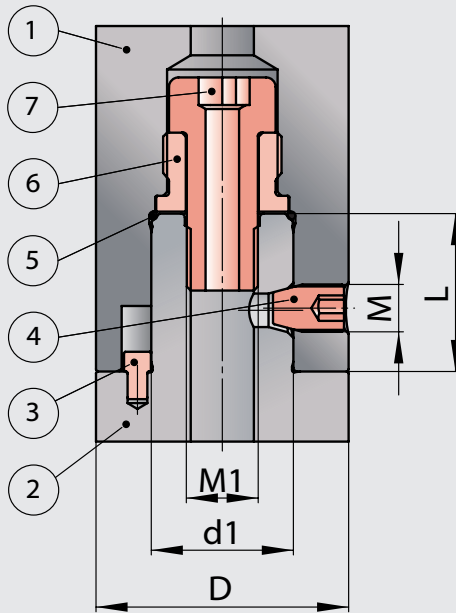
quick-change coupling system ST

The male pilot (2) will be clamped into the female receptacle (1) by using a radial clamping screw (4). A very high rigidity is achieved by a big contact surface and high prestress. Two drive lugs (3) ensure an accurate tip orientation and are used additionally for driving. On the female receptacle's base an O-ring (5) is fitted.

Spannsystem ST+

ST+ besitzt die gleichen Elemente wie ST, zusätzlich wird mittels einer Zugschraube (7) die Vorspannung massiv erhöht. Durch die extrem hohe Vorspannung wird die höchste Steifigkeit erreicht. Durch den Gewindingring (6) wird die Zugschraube (7) in der Aufnahme befestigt.

Weil die Zugschraube (7) nur unter extremen Zerspanungsbedingungen benötigt werden alle ST+-Komponenten ohne Zugschraube (7) und Gewindingring (6) ausgeliefert. Diese Bauteile müssen separat bestellt und durch den Kunden montiert werden.



quick-change coupling system ST+

ST+ provides an additional feature for heavy machining applications. By using tension screw (7) a massive increase in prestress is achieved causing a maximum in rigidity. The tension screw (7) is fitted in female receptacle by a threaded ring (6).

Clamping of the system elements with the tension screw (7) is required only for extreme cutting conditions. Therefore the ST+-components are supplied without tension screw (7) and threaded ring (6). These parts must be ordered separately and assembled by the user.

höchste Steifigkeit

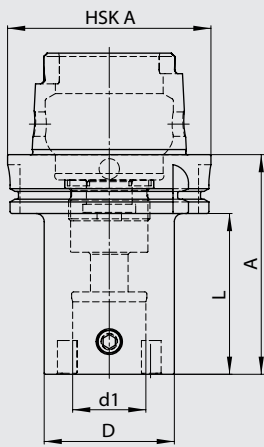
highest rigidity

Dimensionen		Dimensions			④	
ST	D	d1	L	M	Anzugsdrehmoment / Torque	M1
ST1	20	11	13	M4x0.5	2.5Nm	
ST2	25	14	16	M5x0.5	3Nm	
ST3	32	18	20	M6x0.75	5Nm	
ST4	39	22	24	M8x0.75	10Nm	
ST5	50	28	30	M10x1	20Nm	
ST6/ST6+	64	36	40	M12x1	40Nm	M18x2
ST7+	90	46	50	M20x1.5	60Nm	M24x2

Aufnahmen DIN 69893

Master shanks to DIN 69893

144



Bestell-Nr. / Order number	HSK A	ST	D	d1	A	L
144.806.020.042	63	ST1	20	11	42	16
144.806.025.042	63	ST2	25	14	42	16
144.806.032.044	63	ST3	32	18	44	18
144.806.039.048	63	ST4	39	22	48	22
144.806.050.059	63	ST5	50	28	59	33
144.806.064.070	63	ST6	64	36	70	44
144.806.064.100	63	ST6+	64	36	100	74
144.810.020.055	100	ST1	20	11	55	26
144.810.025.055	100	ST2	25	14	55	26
144.810.032.057	100	ST3	32	18	57	28
144.810.039.061	100	ST4	39	22	61	32
144.810.050.072	100	ST5	50	28	72	43
144.810.064.078	100	ST6	64	36	78	49
144.810.064.108	100	ST6+	64	36	108	79
144.810.090.127	100	ST7+	90	46	127	98



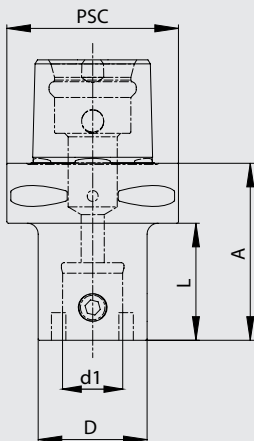
• ST+/HSK-Aufnahmen werden mit Gewinding ausgeliefert aber ohne Zugschraube

• ST+/HSK-shanks are supplied with threaded ring but without tension screw

Aufnahmen ISO 26623-1

Master shanks to ISO 26623-1

154



Bestell-Nr. / Order number	PSC	ST	D	d1	A	L
154.806.020.065	63	ST1	20	11	65	43
154.806.025.065	63	ST2	25	14	65	43
154.806.032.065	63	ST3	32	18	65	43
154.806.039.058	63	ST4	39	22	58	36
154.806.050.048	63	ST5	50	28	48	26
154.806.064.059	63	ST6	64	36	59	37
154.806.064.094	63	ST6+	64	36	94	72



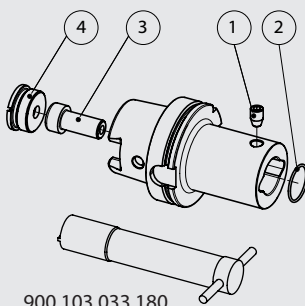
• ST+-Aufnahmen werden ohne Zugschraube und Gewinding ausgeliefert
• Ersatzteile siehe Seite 7

• ST+-shanks are supplied without tension screw and threaded ring
• Spare parts Page 7

Ersatzteile / Zubehör

Spare parts / Accessories

144



900.103.033.180

Für ST For ST	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
Für HSK A For HSK A	Klemmschraube / Clamping screw ①	O-Ring / O-ring ②	Zugschraube / Tension screw ③	Gewinding / Threaded ring ④
ST1	900.100.004.005	900.101.008.002		
ST2	900.100.005.006	900.101.011.002		
ST3	900.100.006.008	900.101.015.002		
ST4	900.100.008.011	900.101.019.002		
ST5	900.100.010.012	900.101.025.002		
ST6	900.100.012.018	900.101.032.002		
ST6+	900.100.012.018	900.101.032.002	900.102.018.040	
ST7+	900.100.020.029	900.101.043.002	900.102.024.045	
HSK A 63				900.104.030.014
HSK A 100				900.104.040.020

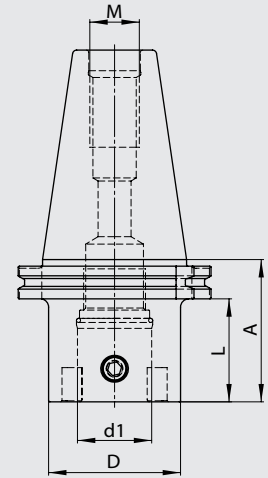
114

Aufnahmen DIN 69871 A/D

Master shanks to DIN 69871 A/D



Bestell-Nr. / Order number	ISO	ST	D	d1	A	L	M
114.430.050.050	30	ST5	50	28	50	30.9	M12
114.440.020.035	40	ST1	20	11	35	15.9	M16
114.440.025.040	40	ST2	25	14	40	20.9	M16
114.440.032.040	40	ST3	32	18	40	20.9	M16
114.440.039.043	40	ST4	39	22	43	23.9	M16
114.440.050.043	40	ST5	50	28	43	23.9	M16
114.440.064.059	40	ST6+	64	36	59	39.9	M16
114.450.020.045	50	ST1	20	11	45	25.9	M24
114.450.025.050	50	ST2	25	14	50	30.9	M24
114.450.032.050	50	ST3	32	18	50	30.9	M24
114.450.039.053	50	ST4	39	22	53	33.9	M24
114.450.050.053	50	ST5	50	28	53	33.9	M24
114.450.064.069	50	ST6+	64	36	69	49.9	M24
114.450.090.085	50	ST7+	90	46	85	65.9	M24



• ST+-Aufnahmen werden ohne Zug-
schraube und Gewinding ausgeliefert

• ST+-shanks are supplied without ten-
sion screw and threaded ring

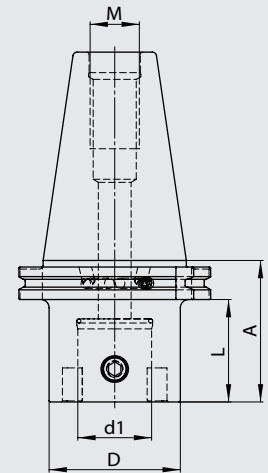
124

Aufnahmen DIN 69871 B

Master shanks to DIN 69871 B



Bestell-Nr. / Order number	ISO	ST	D	d1	A	L	M
124.440.020.035	40	ST1	20	11	35	15.9	M16
124.440.025.040	40	ST2	25	14	40	20.9	M16
124.440.032.040	40	ST3	32	18	40	20.9	M16
124.440.039.043	40	ST4	39	22	43	23.9	M16
124.440.050.043	40	ST5	50	28	43	23.9	M16
124.440.064.059	40	ST6	64	36	59	39.9	M16
124.450.020.045	50	ST1	20	11	45	25.9	M24
124.450.025.050	50	ST2	25	14	50	30.9	M24
124.450.032.050	50	ST3	32	18	50	30.9	M24
124.450.039.053	50	ST4	39	22	53	33.9	M24
124.450.050.053	50	ST5	50	28	53	33.9	M24
124.450.064.069	50	ST6	64	36	69	49.9	M24



• Kühlmittelzufuhr über den Bund

• coolant supply through the tool
flange

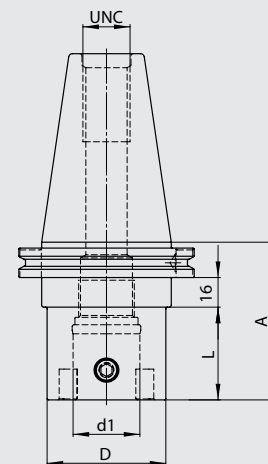
104

Aufnahmen ANSI B5.50

Master shanks to ANSI B5.50



Bestell-Nr. / Order number	CAT	ST	D	d1	A	L	UNC
104.340.020.051	40	ST1	20	11	51	16	5/8"-11
104.340.025.056	40	ST2	25	14	56	21	5/8"-11
104.340.032.056	40	ST3	32	18	56	21	5/8"-11
104.340.039.059	40	ST4	39	22	59	24	5/8"-11
104.340.050.059	40	ST5	50	28	59	24	5/8"-11
104.340.064.075	40	ST6+	64	36	75	40	5/8"-11
104.350.020.061	50	ST1	20	11	61	26	1"-8
104.350.025.066	50	ST2	25	14	66	31	1"-8
104.350.032.066	50	ST3	32	18	66	31	1"-8
104.350.039.069	50	ST4	39	22	69	34	1"-8
104.350.050.069	50	ST5	50	28	69	34	1"-8
104.350.064.085	50	ST6+	64	36	85	50	1"-8
104.350.090.085	50	ST7+	90	46	85	50	1"-8



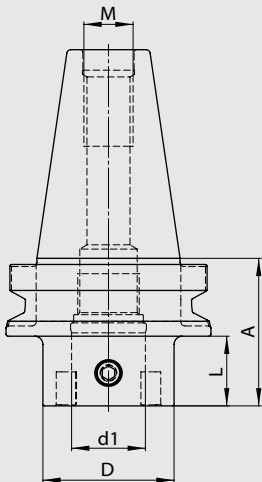
• ST+-Aufnahmen werden ohne Zug-
schraube und Gewinding ausgeliefert

• ST+-shanks are supplied without ten-
sion screw and threaded ring

Aufnahmen MAS-BT «A/D»

Master shanks to MAS-BT «A/D»

134.5xx



Bestell-Nr. / Order number	BT	ST	D	d1	A	L	M
134.530.050.038	30	ST5	50	28	38	16	M12
134.540.020.042	40	ST1	20	11	42	15	M16
134.540.025.042	40	ST2	25	14	42	15	M16
134.540.032.044	40	ST3	32	18	44	17	M16
134.540.039.048	40	ST4	39	22	48	21	M16
134.540.050.055	40	ST5	50	28	55	28	M16
134.540.064.046	40	ST6+	64	36	46	19	M16
134.550.020.063	50	ST1	20	11	63	25	M24
134.550.025.063	50	ST2	25	14	63	25	M24
134.550.032.065	50	ST3	32	18	65	27	M24
134.550.039.069	50	ST4	39	22	69	31	M24
134.550.050.072	50	ST5	50	28	72	34	M24
134.550.064.072	50	ST6+	64	36	72	34	M24
134.550.090.086	50	ST7+	90	46	86	48	M24



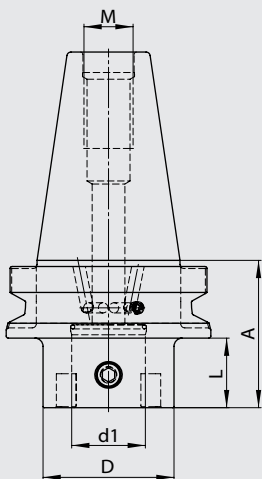
• ST+-Aufnahmen werden ohne Zugschraube und Gewinding ausgeliefert

• ST+-shanks are supplied without tension screw and threaded ring

Aufnahmen MAS-BT «B»

Master shanks to MAS-BT «B»

134.6xx



Bestell-Nr. / Order number	BT	ST	D	d1	A	L	M
134.640.020.042	40	ST1	20	11	42	15	M16
134.640.025.042	40	ST2	25	14	42	15	M16
134.640.032.044	40	ST3	32	18	44	17	M16
134.640.039.048	40	ST4	39	22	48	21	M16
134.640.050.055	40	ST5	50	28	55	28	M16
134.640.064.046	40	ST6	64	36	46	19	M16
134.650.020.063	50	ST1	20	11	63	25	M24
134.650.025.063	50	ST2	25	14	63	25	M24
134.650.032.065	50	ST3	32	18	65	27	M24
134.650.039.069	50	ST4	39	22	69	31	M24
134.650.050.072	50	ST5	50	28	72	34	M24
134.650.064.072	50	ST6	64	36	72	34	M24



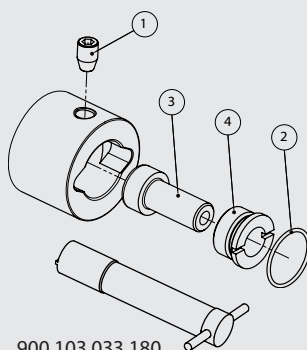
• Kühlmittelzufuhr über den Bund

• coolant supply through the tool flange

Ersatzteile / Zubehör

Spare parts / Accessories

114/124/134/154

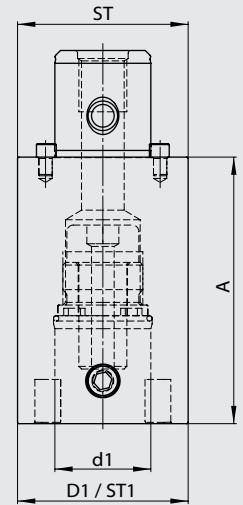


900.103.033.180

Für ST For ST	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Klemmschraube / Clamping screw ①	O-Ring / O-ring ②	Zugschraube / Tension screw ③	Gewinding / Threaded ring ④
ST1	900.100.004.005	900.101.008.002		
ST2	900.100.005.006	900.101.011.002		
ST3	900.100.006.008	900.101.015.002		
ST4	900.100.008.011	900.101.019.002		
ST5	900.100.010.012	900.101.025.002		
ST6	900.100.012.018	900.101.032.002		
ST6+	900.100.012.018	900.101.032.002	900.102.018.040	900.103.030.020
ST7+	900.100.020.029	900.101.043.002	900.102.024.045	900.103.040.020



Bestell-Nr. / Order number	ST	ST1	D1	d1	A
164.020.020.020	ST1	ST1	20	11	20
164.020.020.030	ST1	ST1	20	11	30
164.025.025.030	ST2	ST2	25	14	30
164.025.025.045	ST2	ST2	25	14	45
164.032.032.030	ST3	ST3	32	18	30
164.032.032.045	ST3	ST3	32	18	45
164.039.039.040	ST4	ST4	39	22	40
164.039.039.060	ST4	ST4	39	22	60
164.050.050.060	ST5	ST5	50	28	60
164.050.050.090	ST5	ST5	50	28	90
164.064.064.060	ST6+	ST6	64	36	60
164.064.064.100	ST6+	ST6+	64	36	100
164.090.090.100	ST7+	ST7+	90	46	100
164.090.090.160	ST7+	ST7+	90	46	160

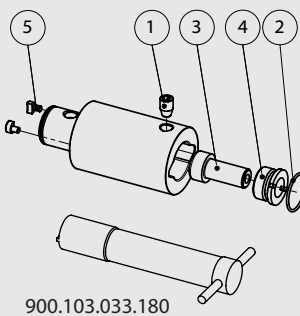


• ST+-Verlängerungen werden ohne Zugschraube und Gewinding ausgeliefert

• ST+-extensions are supplied without tension screw and threaded ring

Ersatzteile / Zubehör

Spare parts / Accessories

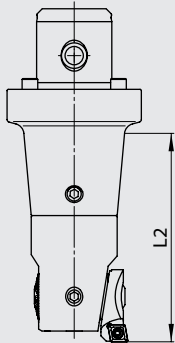
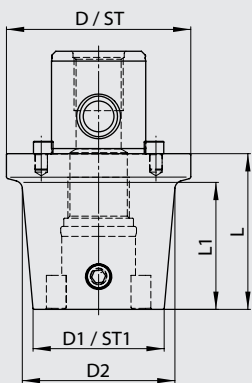


Für ST For ST	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Klemmschraube / Clamping screw ①	O-Ring / O-ring ②	Zugschraube / Tension screw ③	Gewinding / Threaded ring ④	Mitnehmer / Drive lug ⑤
ST1	900.100.004.005	900.101.008.002			900.102.020.000
ST2	900.100.005.006	900.101.011.002			900.102.025.000
ST3	900.100.006.008	900.101.015.002			900.102.032.000
ST4	900.100.008.011	900.101.019.002			900.102.039.000
ST5	900.100.010.012	900.101.025.002			900.102.050.000
ST6	900.100.012.018	900.101.032.002			900.102.064.000
ST6+	900.100.012.018	900.101.032.002	900.102.018.040	900.103.030.020	900.102.064.000
ST7+	900.100.020.029	900.101.043.002	900.102.024.045	900.103.040.020	900.102.090.000

Reduktionen

Reductions

184



Bestell-Nr. / Order number	ST	D	ST1	D1	D2	L	L1	L2
184.025.020.036	ST2	25	ST1	20	23	36	25	60.5
184.032.020.040	ST3	32	ST1	20	23	40.5	28	63.5
184.032.025.034	ST3	32	ST2	25	29	34.5	20	60
184.039.020.057	ST4	39	ST1	20	23	57.5	42	77.5
184.039.025.051	ST4	39	ST2	25	29	51.5	37	77
184.039.032.047	ST4	39	ST3	32	38	47	35	82
184.050.020.057	ST5	50	ST1	20	23	57.5	38.5	74
184.050.025.051	ST5	50	ST2	25	29	51.5	33.5	73.5
184.050.032.047	ST5	50	ST3	32	38	47.0	30.5	77.5
184.050.039.040	ST5	50	ST4	39	48	40.0	25.5	82.5
184.064.020.066	ST6+	64	ST1	20	23	66.5	45.5	81
184.064.020.101	ST6+	64	ST1	20	23	101.5	80.5	116
184.064.020.119	ST6+	64	ST1	20	23	119.5	100.5	136
184.064.020.139	ST6+	64	ST1	20	23	139.5	120.5	156
184.064.025.060	ST6+	64	ST2	25	29	60.5	40.5	80.5
184.064.025.095	ST6+	64	ST2	25	29	95.5	75.5	115.5
184.064.025.135	ST6+	64	ST2	25	29	135.0	115	155
184.064.025.175	ST6+	64	ST2	25	29	175.0	155	195
184.064.032.056	ST6+	64	ST3	32	38	56.0	37.5	84.5
184.064.032.091	ST6+	64	ST3	32	38	91.0	72	119
184.064.032.158	ST6+	64	ST3	32	38	158.0	139	186
184.064.032.198	ST6+	64	ST3	32	38	198.0	179	226
184.064.039.049	ST6+	64	ST4	39	48	49.0	32	89
184.064.039.084	ST6+	64	ST4	39	48	84.0	66.5	123.5
184.064.039.129	ST6+	64	ST4	39	48	129.0	111.5	168.5
184.064.039.218	ST6+	64	ST4	39	48	218.0	200.5	257.5
184.064.050.039	ST6+	64	ST5	50	60	39.0	24	104
184.064.050.074	ST6+	64	ST5	50	60	74.0	58.5	138.5
184.064.050.119	ST6+	64	ST5	50	60	119.0	103.5	183.5
184.064.050.234	ST6+	64	ST5	50	60	234.0	218	298
184.090.064.076	ST7+	90	ST6+	64	75	76	60	160

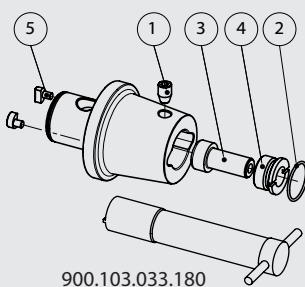


- Länge L2 bezeichnet die maximale Ausdrehiefe mit Zweischneider- oder Feinbohrkopf
- length L2 stands for the maximal boring depth with twin cutter or fine boring head
- ST+-Reduktionen werden ohne Zugschraube und Gewinding ausgeliefert
- ST+-reductions are supplied without tension screw and threaded ring

Ersatzteile / Zubehör

Spare parts / Accessories

184



Für ST For ST	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Klemmschraube / Clamping screw ①	O-Ring / O-ring ②	Zugschraube / Tension screw ③	Gewinding / Threaded ring ④	Mitnehmer / Drive lug ⑤
ST1	900.100.004.005	900.101.008.002			900.102.020.000
ST2	900.100.005.006	900.101.011.002			900.102.025.000
ST3	900.100.006.008	900.101.015.002			900.102.032.000
ST4	900.100.008.011	900.101.019.002			900.102.039.000
ST5	900.100.010.012	900.101.025.002			900.102.050.000
ST6+	900.100.012.018	900.101.032.002	900.102.018.040	900.103.030.020	900.102.064.000
ST7+					900.102.090.000

900.103.033.180

204

Mini Ausdrehköpfe ø 0.3-19.1

Mini fine boring heads ø 0.3-19.1



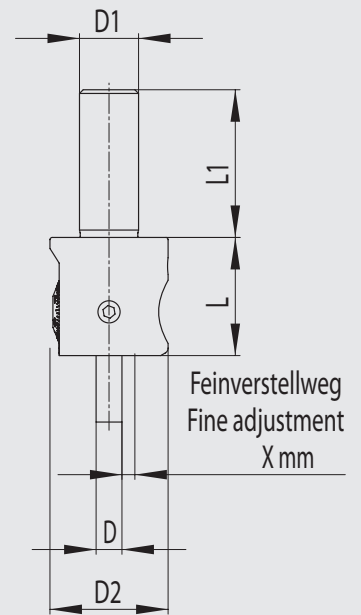
- Durchmessereinstellung mit geringstem Umkehrspiel
- Zustellgenauigkeit von 0.002mm über Nonius im Durchmesser
- mit Innenkühlung

- diametrical adjustment with maximal reduced reversal backlash
- 0.002mm diametrical adjustment by nonius
- with inner coolant supply

Bestell-Nr. / Order number	D	D1	D2	X	L	L1
204.010.025.025	4	10	25	1.5	25	25
204.016.032.032	7	16	32	2.5	32	40

- Schneideinsätze müssen separat bestellt werden.

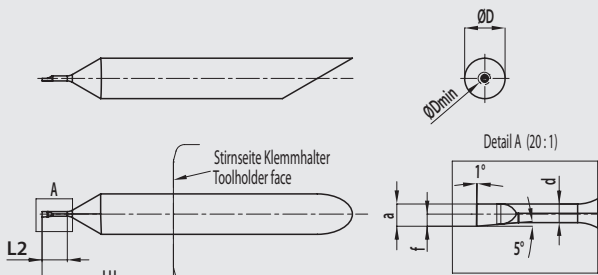
- Boring bars must be ordered separately



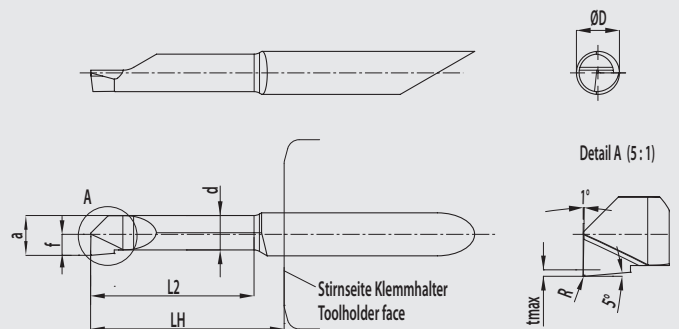
255

Schneideinsätze

Boring bars



Typ A



Typ B

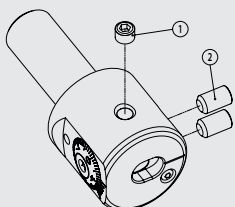
Bestell-Nr. / Order number	ØD	L2	Ød min	Ød max	R	a	d	f	LH	t max	Typ
255.004.003.013	4.0	1.2	0.3	0.7	-	0.25	0.15	0.15	13.0	0.03	A
255.004.006.013	4.0	2.5	0.6	1.1	-	0.55	0.46	0.30	13.0	0.05	A
255.004.010.013	4.0	4.0	1.0	2.3	0.05	0.95	0.65	0.50	13.0	0.1	B
255.004.022.013	4.0	6.0	2.2	3.3	0.05	2.00	1.55	1.10	13.0	0.2	B
255.004.032.013	4.0	10.2	3.2	4.3	0.05	3.00	2.55	1.60	13.0	0.2	B
255.004.039.018	4.0	15.2	3.9	(7.1)	0.05	3.70	3.45	1.95	18.0	0.3	B
255.007.052.023	7.0	20.3	5.2	6.3	0.05	5.00	4.25	2.60	23.0	0.5	B
255.007.062.023	7.0	20.3	6.2	7.3	0.05	6.00	5.25	3.10	23.0	0.5	B
255.007.069.028	7.0	25.4	6.9	(12.1)	0.20	6.70	6.25	3.45	28.0	0.5	B

- Schnittwerte (Start) f 0.02 mm/rev

- Cutting parameters (Start) f 0.02 mm/rev

Ersatzteile / Zubehör

Spare parts / Accessories



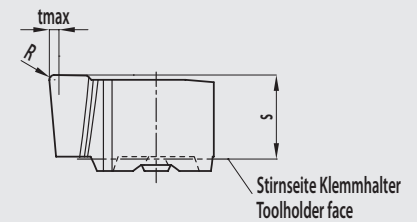
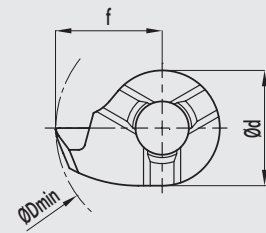
Für Ausdrehkopf For boring head	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Klemmschraube/ Clamping screw ①	Befestigungsschraube / Fastening screw ②
204.010.025.025	900.204.005.004	900.204.006.005
204.016.032.032	900.204.004.008	900.204.006.010

Schneidplatten

inserts

283

Bestell-Nr. / Order number	Ød min	Ød max	R	f	Ød	S	tmax	Code
283.007.069.004	6.9	8.1	0.2	3.45	4.8	3.5	1.0	D07
283.007.079.004	7.9	9.1	0.2	3.95	4.8	3.5	1.0	D07
283.007.089.004	8.9	10.1	0.2	4.45	4.8	3.5	1.0	D07
283.010.099.004	9.9	12.1	0.2	4.95	7	3.9	1.0	D10
283.010.119.004	11.9	14.1	0.2	5.95	7	3.9	1.0	D10
283.010.139.004	13.9	19.1	0.2	6.95	7	3.9	1.0	D10



• Schnittwerte (Start) f 0.02 mm/U

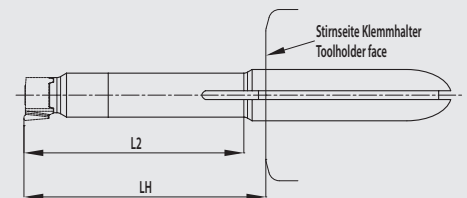
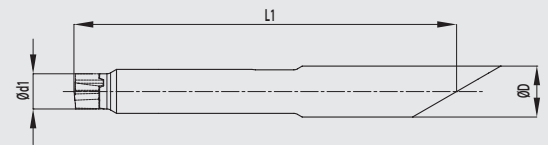
• Cutting parameters (Start) f 0.02 mm/rev

**Adapter
für Schneidplatten**

**Adapter
for inserts**

282

Bestell-Nr. / Order number	ØD h6	L2	Ø d1	L1	LH	Schraube/ screw	Torx	Code
282.007.007.033	7.0	30	4.8	56	33	M2x7.5	T7	D07
282.007.010.038	7.0	35	7.0	61	38	M3x9.0	T9	D10

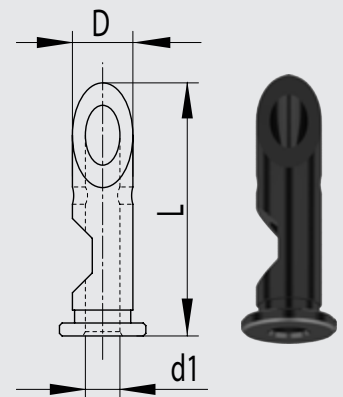


Reduktionshülsen

Reduction sleeves

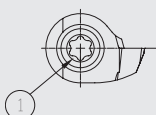
224

Bestell-Nr. / Order number	D	d1	L
224.007.004.030	7	4	(30)



Ersatzteile / Zubehör

Spare parts / Accessories



Für Adapter For Adapter	Bestell-Nr. / Order number
	Torx-Schraube / Torx screw ^①
282.007.007.033	900.254.020.007
282.007.010.038	900.254.030.009

204/208

Ausdrehköpfe ø3-88.1

Fine boring heads ø3-88.1



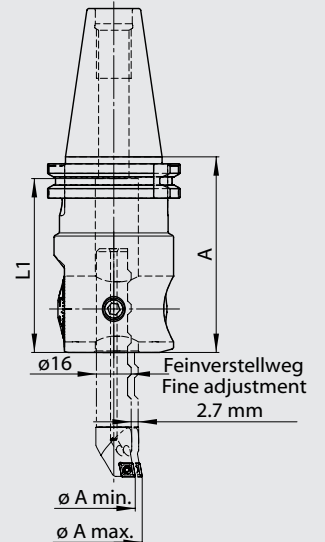
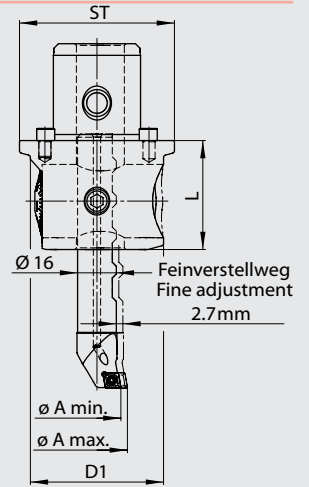
- für Ausdrehstäbe mit Schaftdurchmesser 16mm
- DurchmesserEinstellung mit geringstem Umkehrspiel
- Zustellgenauigkeit von 0.01mm resp. über Nonius 0.002mm im Durchmesser
- mit Innenkühlung
- Ausdrehstäbe durchschiebbar

- for boring bars with a shank diameter of 16mm
- diametrical adjustment with maximal reduced reversal backlash
- 0.01mm diametrical adjustment resp. 0.002mm by nonius
- with inner coolant supply
- boring bars go through head

Bestell-Nr. / Order number	System	D1	ø A min.	ø A max.	L (A)	L1
ST modular						
204.050.025.045	ST5	55	3	88.1	45	-
204.064.025.045	ST6	55	3	88.1	45	-
DIN 69893 HSK 63 A						
208.806.055.095	HSK 63 A	55	3	88.1	95	69
DIN 69871 AD 40						
208.440.055.090	ISO 40	55	3	88.1	90	70
MAS BT 40						
208.540.055.090	BT40	55	3	88.1	90	63

- Ausdrehstäbe müssen separat bestellt werden.
- die Ausdrehdurchmesser ø A min. - A max. werden mit Ausdrehstäben der Serien 254 bis 294 erreicht

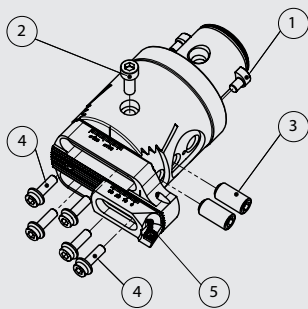
- boring bars must be ordered separately
- boring diameter ø A min. - A max. are only available with boring bars from series 254 to 294



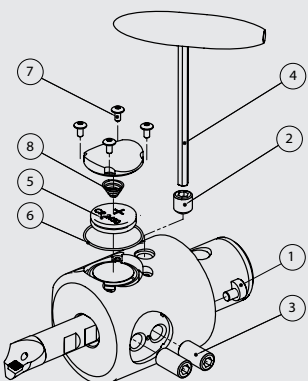
Ersatzteile / Zubehör

Spare parts / Accessories

204/206/208/210



Für Ausdrehkopf For boring head	Bestell-Nr. / Order number	①	Bestell-Nr. / Order number	②	Bestell-Nr. / Order number	③	Bestell-Nr. / Order number	④
Mitnehmer / Drive lug	Klemmschraube / Clamping screw	Befestigungsschraube / Fastening screw	Befestigungsschraube / Fastening screw					
210.064.025.065	900.102.064.000		900.210.006.016		900.210.010.020		900.256.005.016	
Für Wp-Halter For insert holder	Bestell-Nr. / Order number	⑤	Bestell-Nr. / Order number					
Torx-Schraube / Torx screw	Torx-Schlüssel / Torx driver							
256.xxx.006.xxx	900.254.025.006		900.254.007.000					
256.xxx.009.xxx	900.254.040.009		900.254.009.000					

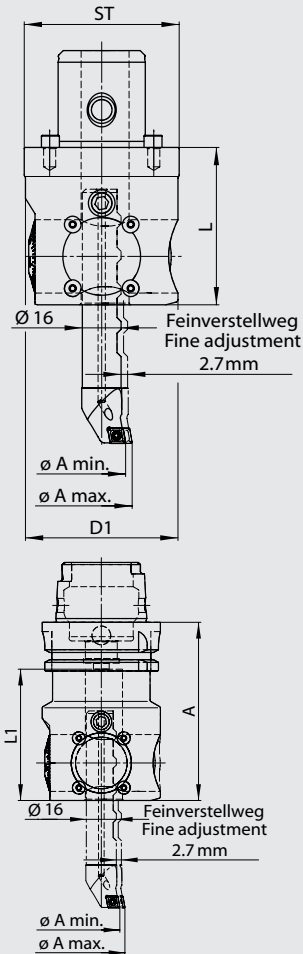


Für Ausdrehkopf For boring head	Bestell-Nr. / Order number	①	Bestell-Nr. / Order number	②	Bestell-Nr. / Order number	③	Bestell-Nr. / Order number	④
Mitnehmer / Drive lug	Klemmschraube / Clamping screw	Befestigungsschraube / Fastening screw	Einstellschlüssel / Setting key					
204.050.025.045	900.102.050.000		900.204.010.008		900.204.010.016			
204.064.025.045	900.102.064.000		900.204.010.008		900.204.010.016			
206.064.025.065	900.102.064.000		900.206.010.010		900.206.010.020		900.206.500.000	
Für Ausdrehkopf For boring head	Bestell-Nr. / Order number	⑤	Bestell-Nr. / Order number	⑥	Bestell-Nr. / Order number	⑦	Bestell-Nr. / Order number	⑧
Batteriesatz / Batterie set	O-Ring / O-ring	Linsenschrauben / Lens head screw	Vorspannfeder / Coil spring					
206.064.025.065	900.206.100.000		900.206.200.000		900.206.300.000		900.206.400.000	

Ausdrehkopf ø3-88.1 mit Digitalanzeige

Fine boring head ø3-88.1 with digital display

206



- Zustellgenauigkeit 0.002mm im Durchmesser über Digitalanzeige
- Direktes Wegmesssystem - kein Umkehrspiel
- Einschalten über Magnetschalter (kühlmitteldicht und verschleissfest)
- für Ausdrehstähle mit Schaftdurchmesser 16mm
- Ausdrehstähle durchschiebbar
- mit Innenkühlung
- Analogbetrieb durch Skalaschraube möglich

- 0.002mm diametrical adjustment by digital display
- direct measuring system - without reversal backlash
- switch on with a magnetic switch (waterproof and wear resistant)
- for boring bars with a shank diameter of 16mm
- boring bars go through head
- with inner coolant supply
- analog mode is possible by using scale screw

Bestell-Nr. / Order number	System	D1	ø A min.	ø A max.	L (A)	L1
ST modular						
206.064.025.065	ST6	63	3	88.1	65	-
DIN 69893 HSK 63 A						
206.806.055.095	HSK 63 A	63	3	88.1	95	69
DIN 69871 AD 40						
206.440.055.090	ISO 40	63	3	88.1	90	70
MAS BT 40						
206.540.055.090	BT40	63	3	88.1	90	63

- Ausdrehstähle müssen separat bestellt werden.
- die Ausdrehdurchmesser ø A min. - A max. werden mit Ausdrehstählen der Serien 254 bis 294 erreicht
- Ersatzteile Seite 10

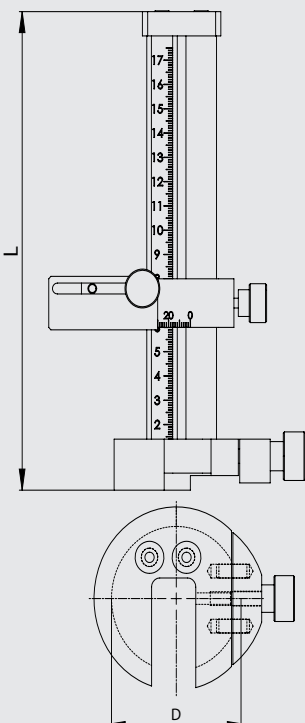
- boring bars must be ordered separately
- boring diameters ø A min. - A max. are only available with boring bars from series 254 to 294
- Spare parts page 10



Einstellvorrichtung

Setting Jig

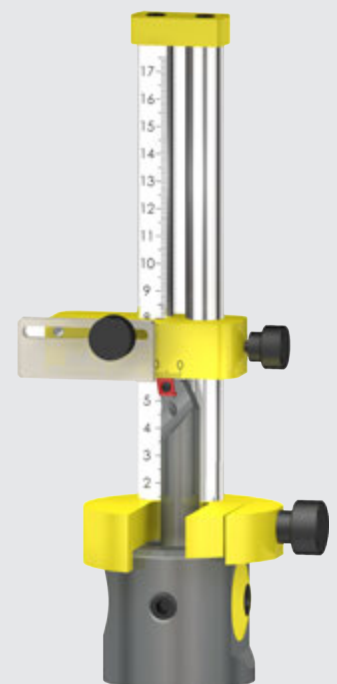
200



- Orientierung der Werkzeugschneide
- Einstellung der Ausraglänge der Bohrstange
- Grobeinstellung des Ausdrehdurchmessers

- alignment of the cutting edge
- adjustment of the boring bar projection length
- coarse diameter adjustment

Bestell-Nr. / Order number	D	L	für Ausdrehkopf / for fine boring head
200.055.055.197	55	197	204 /208
200.063.063.197	63	197	206
200.163.063.207	63	207	210



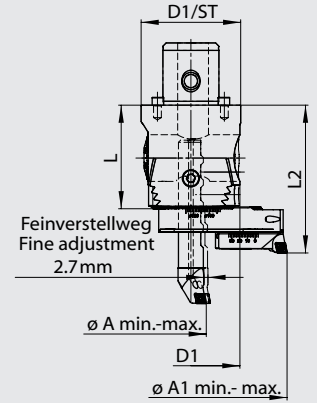
210 **Ausdrehkopf ø3-320** **Fine boring head ø3-320**



- für Ausdrehstähle mit Schaftdurchmesser 16mm und Feinbohrbrücken
- Durchmessereinstellung mit geringstem Umkehrspiel
- Zustellgenauigkeit von 0.01mm resp. über Nonius 0.002mm im Durchmesser
- mit Innenkühlung
- Ausdrehstähle durchschiebbar
- for boring bars with a shank diameter of 16mm and fine boring bridges
- diametrical adjustment with maximal reduced reversal backlash
- 0.01mm diametrical adjustment resp. 0.002mm by nonius
- with inner coolant supply
- boring bars go through head

Bestell-Nr. / Order number	System	D1	ø A min.- max.	ø A1 min.- max.	L (A)	L1	L2
ST6 modular							
210.064.025.065	ST6	63	3 - 88.1	86 - 320	67	-	95
DIN 69893 HSK 63 A							
210.806.063.095	HSK 63 A	63	3 - 88.1	86 - 320	96	72	125
DIN 69871 AD 40							
210.440.063.090	ISO 40	63	3 - 88.1	86 - 320	91	81	120
MAS BT 40							
210.540.063.090	BT40	63	3 - 88.1	86 - 320	91	81	120

- Ausdrehstähle, Feinbohrbrücken und Wendeplattenhalter müssen separat bestellt werden.
- die Ausdrehdurchmesser ø A min.-max. werden mit Ausdrehstählen der Serien 254 bis 294 erreicht
- die Ausdrehdurchmesser ø A1 min.-max. werden mit Feinbohrbrücken der Serie 212 erreicht
- Ersatzteile Seite 10
- boring bars, fine boring bridges and insert holders must be ordered separately
- boring diameters ø A min.-max. are only available with boring bars from series 254 to 294
- boring diameters ø A1 min.-max. are only available with fine boring bridges from serie 212
- Spare parts page 10

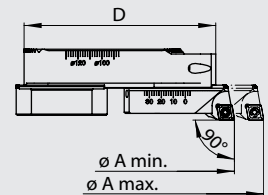


212 **Feinbohrbrücken ø86-320** **Fine boring bridges ø86-320**



- mit Innenkühlung
- Aluminium-Brücken
- Aluminium bridges
- with inner coolant supply

Bestell-Nr. / Order number	D	ø A min.	ø A max.
212.086.164.080	80	86	164
212.162.320.158	158	162	320



- mit Innenkühlung
- Wendeplattenhalter
- Insert holders
- with inner coolant supply

Bestell-Nr. / Order number	Wendeplatte / Insert	ø A min.	ø A max.
256.048.006.014	CC .. 06 02 ..	86	320
256.048.009.014	CC .. 09 T3 ..	86	320



- für hohe Drehzahlen
- Gegengewicht
- Counter weight
- for high revolution speed

Bestell-Nr. / Order number
212.038.045.012

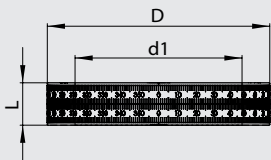
Universal-Auswuchtringe

Universal balancing rings

216

- zum Auswuchten verstellbarer Werkzeuge, z.B. Ausdrehköpfe der Serie 204 - 206
- für die Ausdrehköpfe der Serie 204 und 206 (mit den Ausdrehstäben der Serie 254,274,284,294) sind Einstelltabelle verfügbar, womit die Unwucht über 90% reduziert wird

- to balance adjustable tools, e.g. fine boring heads from series 204-206
- balancing charts for fine boring heads from serie 204 and 206 (with boring bars from serie 254,274,284,294) are available in order to reduce unbalance by 90%



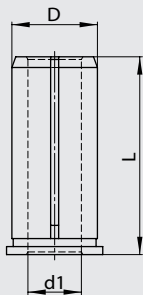
Bestell-Nr. / Order number	D	d1	L
216.050.070.016	70	50	16
216.055.075.016	75	55	16
216.063.084.016	84	63	16
216.064.084.016	84	64	16



Reduktionshülsen

Reduction sleeves

224



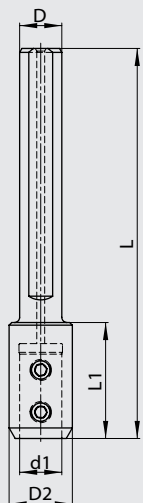
Bestell-Nr. / Order number	D	d1	L
224.016.004.037	16	4	37
224.016.005.037	16	5	37
224.016.006.037	16	6	37
224.016.008.037	16	8	37
224.016.009.037	16	9	37
224.016.010.037	16	10	37
224.016.011.037	16	11	37
224.016.012.037	16	12	37
224.016.013.037	16	13	37
224.016.014.037	16	14	37



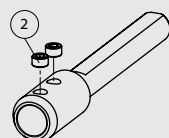
Ausdrehstahl-Verlängerungen

Boring bar extensions

234



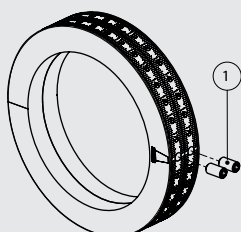
Bestell-Nr. / Order number	D	d1	D2	L	L1
234.016.010.128	16	10	16	128	-
234.016.016.148	16	16	24	148	44



Ersatzteile / Zubehör

Spare parts / Accessories

216/234



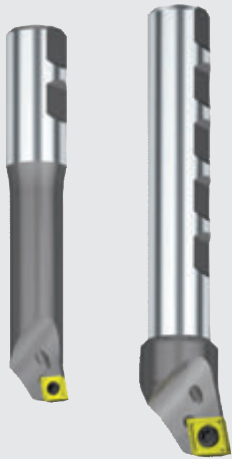
Für Auswuchtring For balancing ring	Bestell-Nr. / Order number	Für Ausdrehstahl-Verlängerung For boring bar extension	Bestell-Nr. / Order number
	Klemmschraube / Clamp screw (1)		Spannschraube / Clamp screw (2)
216.xxx.xxx.016	900.216.004.008	234.016.010.128	900.234.006.003
			900.234.008.005

Ausdrehstäbe $\varnothing 9.75-48.1$

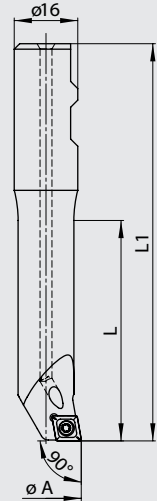
Boring bars $\varnothing 9.75-48.1$

- mit Innenkühlung
- werden die Ausdrehstäbe zentrisch gespannt (Weldonfutter), kann mit $\varnothing A$ min. ausgedreht werden

- with inner coolant supply
- if the boring bars are clamped centrally (weldon adapter), the minimum diameter ($\varnothing A$ min.) is provided

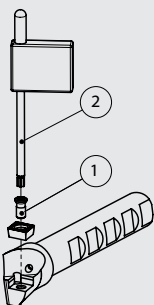


Bestell-Nr. / Order number	$\varnothing A$ min.	$\varnothing A$ max.	L	L1	Wendeplatte / Insert
254.010.006.075	9.75	15.1	30	75	CC .. 06 02 ..
254.012.006.080	11.75	17.1	37	80	CC .. 06 02 ..
254.014.006.085	13.75	19.1	43	85	CC .. 06 02 ..
254.015.006.090	14.75	20.1	51	90	CC .. 06 02 ..
254.016.006.095	15.75	21.1	57	95	CC .. 06 02 ..
254.018.006.100	17.75	23.1	67	100	CC .. 06 02 ..
254.020.006.105	19.75	25.1	72	105	CC .. 06 02 ..
254.020.009.105	19.75	25.1	72	105	CC .. 09 T3 ..
254.022.009.110	21.75	27.1	77	110	CC .. 09 T3 ..
254.025.006.115	24.75	30.1	82	115	CC .. 06 02 ..
254.025.009.115	24.75	30.1	82	115	CC .. 09 T3 ..
254.028.009.115	27.75	33.1	82	115	CC .. 09 T3 ..
254.030.006.115	29.75	35.1	82	115	CC .. 06 02 ..
254.032.009.115	31.75	37.1	82	115	CC .. 09 T3 ..
254.035.006.115	34.75	40.1	82	115	CC .. 06 02 ..
254.035.009.115	34.75	40.1	82	115	CC .. 09 T3 ..
254.039.009.115	38.75	44.1	82	115	CC .. 09 T3 ..
254.043.009.115	42.75	48.1	82	115	CC .. 09 T3 ..



- Länge L bezeichnet die maximale Ausdrehlänge
- die Ausdrehdurchmesser $\varnothing A$ min. - A max. werden mit Ausdrehköpfen der Serien 204 bis 210 erreicht

- length L stands for the maximal boring depth
- boring diameters $\varnothing A$ min. - A max. are only available with fine boring heads from series 204 to 210



Ersatzteile / Zubehör

Spare parts / Accessories

Für Ausdrehstahl For boring bar	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Torx-Schraube / Torx screw ①	Torx-Schlüssel / Torx driver ②
254.010.006.075	900.254.025.005	900.254.007.000
254.xxx.006.xxx	900.254.025.006	900.254.007.000
254.xxx.009.xxx	900.254.040.009	900.254.009.000

**Verstellbare
Ausdrehstähle ø29.75-88.1**

**Adjustable
boring bars ø29.75-88.1**

256

- sehr gute Dämpfungseigenschaften

- high end absorbability

Schäfte

- mit Innenkühlung

Shanks

- with inner coolant supply

Bestell-Nr. / Order number	ø A min.	ø A max.	L	L1	für Wendeplattenhalter / for insert holder
256.030.048.115	29.75	48.1	85	115	256.030.006.012
256.048.088.115	47.75	88.1	85	115	256.048.xxx.014

Wendeplattenhalter

- mit Innenkühlung

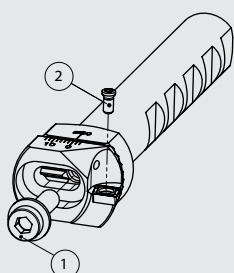
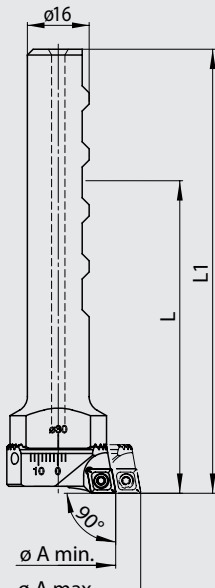
Insert holders

- with inner coolant supply

Bestell-Nr. / Order number	ø A min.	ø A max.	Wendeplatte / Insert
256.030.006.012	29.75	48.1	CC .. 06 02 ..
256.048.006.014	47.75	88.1	CC .. 06 02 ..
256.048.009.014	47.75	88.1	CC .. 09 T3 ..

- Länge L bezeichnet die maximale Ausdrehlänge
- ab ø67 kann die Ausdrehlänge mit Verlängerungen der Serie 164 erhöht werden
- die Ausdrehdurchmesser ø A min. - A max. werden mit Ausdrehköpfen der Serien 204 bis 210 erreicht
- Schäfte und Wendeplattenhalter müssen separat bestellt werden

- length L stands for the maximal boring depth
- using boring bars for ø67 or bigger the maximal boring depth can be increased by extensions from serie 164
- boring diameters ø A min. - A max. are only available with fine boring heads from series 204 to 210
- shanks and insert holder must be ordered separately



Ersatzteile / Zubehör

Spare parts / Accessories

256

Für Schaft For shank	Bestell-Nr. / Order number	Für Wp-Halter For insert holder	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Befestigungsschraube / Fastening screw ①		Torx-Schraube / Torx screw ②	Torx-Schlüssel / Torx driver
256.030.048.115	900.256.005.016	256.xxx.006.xxx	900.254.025.006	900.254.007.000
256.048.088.115	900.256.005.016	256.xxx.009.xxx	900.254.040.009	900.254.009.000

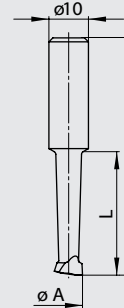
264

**Ausdrehstähle
mit Hartmetallschneide**

**Boring bars
with carbide tips**



Bestell-Nr. / Order number	ø A min.	ø A max.	L	HM Sorte / Carbide quality
264.003.010.020	3.0	8.0	20	K10
264.003.020.020	3.0	8.0	20	P20
264.004.010.023	4.0	9.0	23	K10
264.004.020.023	4.0	9.0	23	P20
264.005.010.025	5.0	10.0	25	K10
264.005.020.025	5.0	10.0	25	P20
264.006.010.028	6.0	11.0	28	K10
264.006.020.028	6.0	11.0	28	P20
264.007.010.031	7.0	12.0	31	K10
264.007.020.031	7.0	12.0	31	P20
264.009.010.034	9.0	14.0	34	K10
264.009.020.034	9.0	14.0	34	P20
264.010.010.037	10.0	15.0	37	K10
264.010.020.037	10.0	15.0	37	P20
264.012.010.040	12.0	17.0	40	K10
264.012.020.040	12.0	17.0	40	P20
264.014.010.043	14.0	19.0	43	K10
264.014.020.043	14.0	19.0	43	P20



- die Ausdrehdurchmesser ø A min. - A max. werden mit Ausdrehköpfen der Serien 204 bis 210 erreicht
- Hartmetall Sorte K10 für Guss, Aluminium usw.
- Hartmetall Sorte P20 für Stahl, Chromnickelstahl usw.
- boring diameters ø A min. - A max. are only available with fine boring heads from series 204 to 210
- carbide quality K10 for cast iron, aluminium etc.
- carbide quality P20 for steel, chrome nickel steel etc.

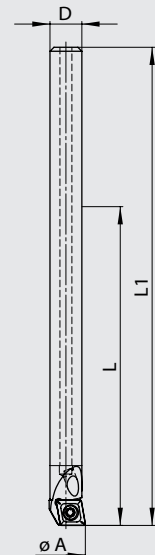
274

**Ausdrehstähle
mit Hartmetallschaft**

**Boring bars
with solid carbide shank**



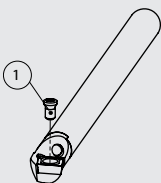
Bestell-Nr. / Order number	ø A min.	ø A max.	D	L	L1	Wendeplatte / Insert
274.006.002.080	5.8	11.2	5	50	85	WC .. 02 01 ..
274.008.002.100	7.8	13.2	6	60	95	WC .. 02 01 ..
274.010.006.120	9.8	15.0	8	80	120	CC .. 06 02 ..
274.014.006.140	13.8	19.0	10	100	140	CC .. 06 02 ..
274.018.009.170	17.8	23.0	12	120	170	CC .. 09 T3 ..
274.022.009.210	21.8	27.0	16	160	210	CC .. 09 T3 ..



- Länge L bezeichnet die maximale Ausdrehlänge
- die Ausdrehdurchmesser ø A min. - A max. werden mit Ausdrehköpfen der Serien 204 bis 210 erreicht
- length L stands for the maximal boring depth
- boring diameters ø A min. - A max. are only available with fine boring heads from series 204 to 210

Ersatzteile / Zubehör

Spare parts / Accessories



Für Ausdrehstahl For boring bar	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Torx-Schraube / Torx screw ①	Torx-Schlüssel / Torx driver
274.xxx.002.xxx	900.254.020.004	900.254.006.000
274.010.006.120	900.254.025.005	900.254.007.000
274.xxx.006.xxx	900.254.025.006	900.254.007.000
274.xxx.009.xxx	900.254.040.009	900.254.009.000

274

**Hartmetall Ausdrehstähle
mit Schraubverbindung**

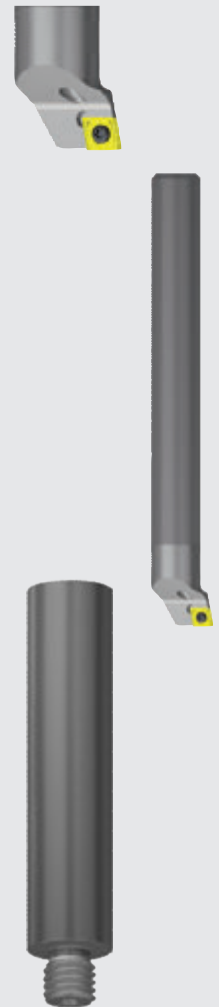
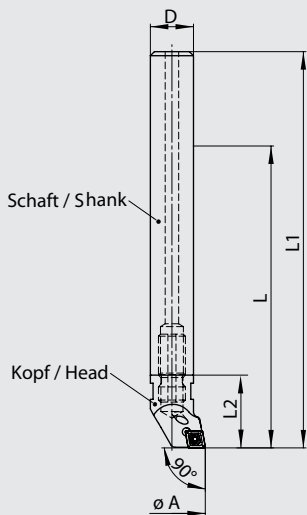
**Solid carbide boring bars
with thread connection**

284/294

- zum Ausdrehen von langen Bohrungen
- sehr gute Dämpfungseigenschaften durch Hartmetallschaft
- mit Innenkühlung

- to machine long holes
- high end absorbability by solid carbide shank
- with inner coolant supply

Kopf / head Bestell-Nr. / Order number	ø A min.	ø A max.	D	L max.	L2	Wende- platte / Insert	für Schaft / for shank Bestell-Nr. / Order number
294.009.006.018	8.75	14.1	8	56	18	CC..06 02 ..	284.008.005.073
294.010.006.018	9.75	15.1	9	63	18	CC..06 02 ..	284.009.005.080
294.011.006.023	10.75	16.1	10	70	23	CC..06 02 ..	284.010.006.082
294.012.006.023	11.75	17.1	11	77	23	CC..06 02 ..	284.011.006.089
294.013.006.023	12.75	18.1	12	84	23	CC..06 02 ..	284.012.006.096
294.014.006.023	13.75	19.1	13	91	23	CC..06 02 ..	284.013.006.103
294.015.006.023	14.75	20.1	14	98	23	CC..06 02 ..	284.014.006.110
294.016.006.023	15.75	21.1	14	98	23	CC..06 02 ..	284.014.006.110
294.017.006.027	16.75	22.1	16	112	27	CC..06 02 ..	284.016.010.120
294.018.006.027	17.75	23.1	16	112	27	CC..06 02 ..	284.016.010.120
294.020.006.027	19.75	25.1	16	112	27	CC..06 02 ..	284.016.010.120
294.022.006.027	21.75	27.1	16	112	27	CC..06 02 ..	284.016.010.120
294.025.006.027	24.75	30.1	16	112	27	CC..06 02 ..	284.016.010.120
294.028.006.027	27.75	33.1	16	112	27	CC..06 02 ..	284.016.010.120
294.032.006.027	31.75	37.1	16	112	27	CC..06 02 ..	284.016.010.120
294.035.006.027	34.75	40.1	16	112	27	CC..06 02 ..	284.016.010.120



Hartmetallschaft

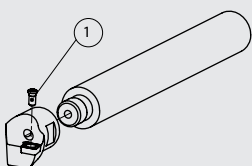
Solid carbide shank

Schaft / shank Bestell-Nr. / Order number	D	L1	für Kopf / for head Bestell-Nr. / Order number
284.008.005.073	8	91	294.009.006.018
284.009.005.080	9	98	294.010.006.018
284.010.006.082	10	105	294.011.006.023
284.011.006.089	11	112	294.012.006.023
284.012.006.096	12	119	294.013.006.023
284.013.006.103	13	126	294.014.006.023
284.014.006.110	14	133	294.015.006.023 294.016.006.023
284.016.010.120	16	147	294.017.006.027 294.018.006.027 294.020.006.027 294.022.006.027 294.025.006.027 294.028.006.027 294.032.006.027 294.035.006.027

Ersatzteile / Zubehör

Spare parts / Accessories

294



Für Kopf For head	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Torx-Schraube / Torx screw	Torx-Schlüssel / Torx driver
294.009-012.006.xxx	900.254.025.005	900.254.007.000
294.013-035.006.xxx	900.254.025.006	900.254.007.000

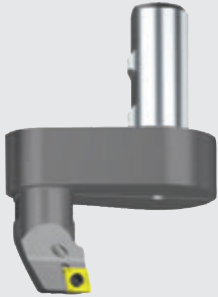
285

Überdrehhalter ø5.3-48.6

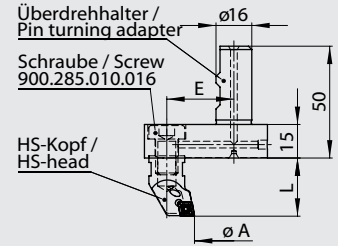
Pin turning adapter ø5.3-48.6

- für die Verwendung in Ausdrehköpfen der Serien 204 bis 210
- mit Innenkühlung

- for use in fine boring heads from series 204 to 210
- with inner coolant supply



Überdrehhalter / Pin turning adapter Bestell-Nr. / Order number	HS-Kopf / HS-head Bestell-Nr. / Order number	ø A min.	ø A max.	E	L	Wende- platte / Insert
285.020.010.050	294.035.006.027	5.3	10.6	20	27	CC..06 02..
285.020.010.050	294.032.006.027	8.3	13.6	20	27	CC..06 02..
285.020.010.050	294.028.006.027	12.3	17.6	20	27	CC..06 02..
285.020.010.050	294.025.006.027	15.3	20.6	20	27	CC..06 02..
285.020.010.050	294.022.006.027	18.3	23.6	20	27	CC..06 02..
285.020.010.050	294.020.006.027	20.3	25.6	20	27	CC..06 02..
285.020.010.050	294.018.006.027	22.3	27.6	20	27	CC..06 02..
285.020.010.050	294.017.006.027	23.3	28.6	20	27	CC..06 02..
285.030.010.050	294.035.006.027	25.3	30.6	30	27	CC..06 02..
285.030.010.050	294.032.006.027	28.3	33.6	30	27	CC..06 02..
285.030.010.050	294.028.006.027	32.3	37.6	30	27	CC..06 02..
285.030.010.050	294.025.006.027	35.3	40.6	30	27	CC..06 02..
285.030.010.050	294.022.006.027	38.3	43.6	30	27	CC..06 02..
285.030.010.050	294.020.006.027	40.3	45.6	30	27	CC..06 02..
285.030.010.050	294.018.006.027	42.3	47.6	30	27	CC..06 02..
285.030.010.050	294.017.006.027	43.3	48.6	30	27	CC..06 02..



- die maximale Überdrehlänge L kann mit der Verlängerung 286.016.016.032 oder 286.016.016.064 verlängert werden
- Überdrehhalter und Kopf müssen separat bestellt werden
- **Achtung: Linkslauf**

- the maximal turning length L can be increased by extension 286.016.016.032 or 286.016.016.064
- pin turning adapter and head must be ordered separately
- **Caution: anticlockwise rotation**

286

HS-Schaftverlängerungen

HS-shank extensions

- zur Verlängerung von HS-Schäften und Überdrehhalter
- mit Innenkühlung
- aus gehärtetem Stahl

- to extend HS-shanks and pin turning adapter
- with inner coolant supply
- made of hardened steel



Bestell-Nr. / Order number	D	L	M	SW / AF
286.008.008.016	8	16	M 5	7
286.008.008.032	8	32	M 5	7
286.009.009.018	9	18	M 5	8
286.009.009.036	9	36	M 5	8
286.010.010.020	10	20	M 6	8
286.010.010.040	10	40	M 6	8
286.011.011.022	11	22	M 6	9
286.011.011.044	11	44	M 6	9
286.012.012.024	12	24	M 6	10
286.012.012.048	12	48	M 6	10
286.013.013.026	13	26	M 6	11
286.013.013.052	13	52	M 6	11
286.014.014.028	14	28	M 6	12
286.014.014.056	14	56	M 6	12
286.016.016.032	16	32	M10	14
286.016.016.064	16	64	M10	14



**Feinbohrköpfe mit
Schraubverbindung**

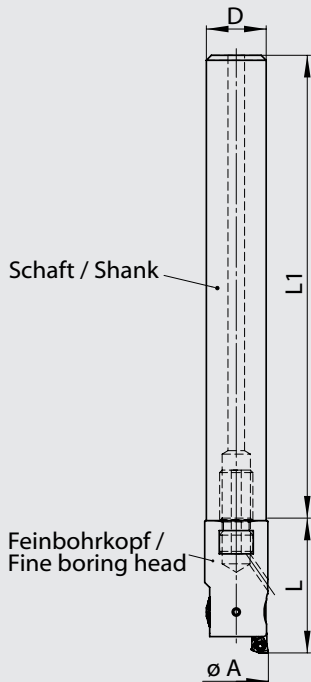
**Fine boring heads with
thread connection**

282/284/300

- Durchmessereinstellung mit geringstem Umkehrspiel
- Zustellgenauigkeit von 0.01mm resp. über Nonius 0.002mm im Durchmesser
- mit Innenkühlung

- diametrical adjustment with maximal reduced reversal backlash
- 0.01mm diametrical adjustment resp. 0.002mm by nonius
- with inner coolant supply

Feinbohrkopf / Fine boring head Bestell-Nr. / Order number	ø A min.	ø A max.	D	L	für Wendeplat- tenhalter / for insert holder
300.014.015.040	14.7	17.1	14	40	302.005.017.002
300.016.017.040	16.7	20.1	16	40	302.005.017.002
300.019.020.040	19.7	24.1	18	40	302.005.017.002
300.020.024.080	23.9	31.1	20	80	314.011.024.006
300.025.031.100	30.9	40.1	25	100	314.013.031.006
300.032.040.128	39.9	51.1	32	128	314.017.040.006



Hartmetallschaft

Solid carbide shank

Schaft / shank Bestell-Nr. / Order number	D	L1	für Feinbohrkopf / for fine boring head
284.014.006.110	14	110	300.014.015.040
284.016.010.120	16	120	300.016.017.040
284.018.010.140	18	140	300.019.020.040
284.020.010.170	20	170	300.020.024.080
284.025.012.206	25	206	300.025.031.100
284.032.016.252	32	252	300.032.040.128

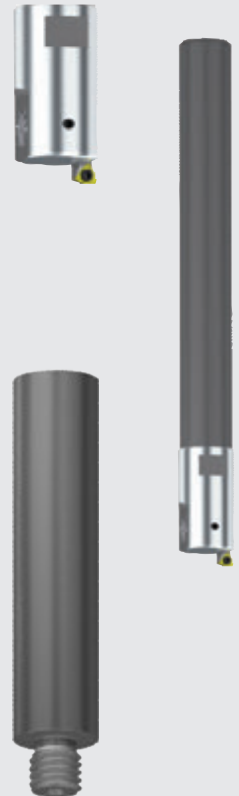
Stahlschaft

Steel shank

Schaft / shank Bestell-Nr. / Order number	D	L1	für Feinbohrkopf / for fine boring head
282.014.006.060	14	60	300.014.015.040
282.016.010.070	16	70	300.016.017.040
282.018.010.080	18	80	300.019.020.040

- Feinbohrkopf, Schaft und Wendeplattenhalter müssen separat bestellt werden
- Wendeplattenhalter der Serie 314 siehe Seite 21
- Ersatzteile Seite 20

- fine boring head, shank and insert holder must be ordered separately
- insert holder from serie 314 see page 21
- spare parts page 20



Wendeplattenhalter

Insert holders

C02

Bestell-Nr. / Order number	Wendeplatte / Insert	Feinbohrkopf / Fine boring head
		300.014.015.040
302.005.017.002	WC . . 02 01 . .	300.016.017.040
		300.019.020.040

- Ersatzteile Seite 21

- spare parts page 21



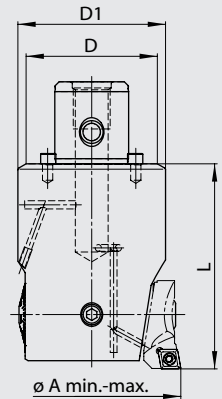
Feinbohrköpfe

Fine boring heads

- DurchmesserEinstellung mit geringstem Umkehrspiel
- Zustellgenauigkeit von 0.01mm resp. über Nonius 0.002mm im Durchmesser
- mit Innenkühlung
- diametrical adjustment nearly without reversal backlash
- 0.01mm diametrical adjustment resp. 0.002mm by nonius
- with inner coolant supply



Bestell-Nr. / Order number	ø A min.	ø A max.	ST	D	D1	L	Wendeplattenhalter / Insert holder
304.020.024.035	23.9	31.1	ST1	20	20	35.5	314.011.024.006 314.011.030.006
304.025.031.040	30.9	40.1	ST2	25	25	40	314.013.031.006 314.013.038.006
304.032.040.047	39.9	51.1	ST3	32	32	47	314.017.040.006 314.017.048.006
304.039.051.057	50.9	67.1	ST4	39	42	57	314.022.051.006 314.022.065.006
304.050.067.080	66.9	87.1	ST5	50	55	80	314.030.067.009 314.030.067.006 314.030.085.006/9
304.064.087.100	86.9	116.1	ST6+	64	72	100	314.030.067.009 314.030.067.006 314.030.085.006/9
304.090.116.130	115.9	153.1	ST7+	90	94	130	314.030.067.009 314.030.067.006 314.030.085.006/9

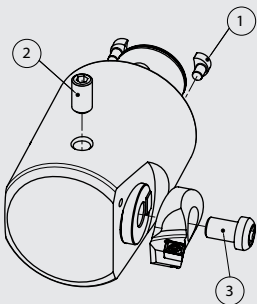


- die fettgedruckten Nummern sind für eine optimale Stabilität zu bevorzugen
- Wendeplattenhalter müssen separat bestellt werden
- the highlighted articles meet high end stability needs
- insert holders must be ordered separately

Ersatzteile / Zubehör

Spare parts / Accessories

300/304



Für Feinbohrkopf For fine boring head	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Mitnehmer / Drive lug ①	Klemmschraube / Clamping screw ②	Befestigungsschraube / Fastening screw ③
	300.014.015.040	900.881.280.140	900.882.280.140
	300.016.017.040	900.881.280.160	900.882.280.160
	300.019.020.040	900.881.280.180	900.288.280.180
	300.020.024.080	900.304.004.003	900.314.004.006
	300.025.031.100	900.304.005.004	900.314.005.008
	300.032.040.128	900.304.006.005	900.314.006.010
	304.020.024.035	900.102.020.000	900.304.004.003
	304.025.031.040	900.102.025.000	900.304.005.004
	304.032.040.047	900.102.032.000	900.304.006.005
	304.039.051.057	900.102.039.000	900.304.008.006
	304.050.067.080	900.102.050.000	900.304.010.010
	304.064.087.100	900.102.064.000	900.304.010.018
	304.090.116.130	900.102.090.000	900.304.010.030

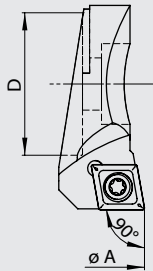
Wendepplattenhalter 90°

Insert holders 90°

314

• für die Verwendung in Feinbohrköpfen der Serie 304 und 590

• for use in fine boring heads from serie 304 and 590



Bestell-Nr. / Order number	ø A min.	ø A max.	D	Wendepplatte / Insert	Feinbohrkopf / fine boring head
314.011.024.006	23.9	31.1	11	CC .. 06 02 ..	304.020.024.035
314.011.030.006	29.9	37.1	11	CC .. 06 02 ..	304.020.024.035
314.013.031.006	30.9	40.1	13	CC .. 06 02 ..	304.025.031.040
314.013.038.006	37.9	47.1	13	CC .. 06 02 ..	304.025.031.040
314.017.040.006	39.9	51.1	17	CC .. 06 02 ..	304.032.040.047
314.017.048.006	47.9	59.1	17	CC .. 06 02 ..	304.032.040.047
314.022.051.006	50.9	67.1	22	CC .. 06 02 ..	304.039.051.057
314.022.065.006	64.9	81.1	22	CC .. 06 02 ..	304.039.051.057
314.030.067.006	66.9	87.1	30	CC .. 06 02 ..	304.050.067.080
314.030.067.009	66.9	87.1	30	CC .. 09 T3 ..	304.050.067.080
314.030.085.006	84.9	105.1	30	CC .. 06 02 ..	304.050.067.080
314.030.085.009	84.9	105.1	30	CC .. 09 T3 ..	304.050.067.080
314.030.067.006	86.9	116.1	30	CC .. 06 02 ..	304.064.087.100
314.030.067.009	86.9	116.1	30	CC .. 09 T3 ..	304.064.087.100
314.030.085.006	104.9	134.1	30	CC .. 06 02 ..	304.064.087.100
314.030.085.009	104.9	134.1	30	CC .. 09 T3 ..	304.064.087.100
314.030.067.006	115.9	153.1	30	CC .. 06 02 ..	304.090.116.130
314.030.067.009	115.9	153.1	30	CC .. 09 T3 ..	304.090.116.130
314.030.085.006	133.9	171.1	30	CC .. 06 02 ..	304.090.116.130
314.030.085.009	133.9	171.1	30	CC .. 09 T3 ..	304.090.116.130



• die fettgedruckten Nummern sind, für eine optimale Stabilität, zu bevorzugen

• the highlighted articles meet high end stability needs

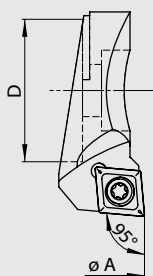
Wendepplattenhalter 95°

Insert holders 95°

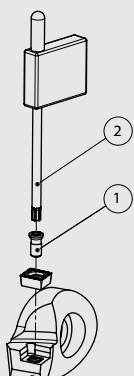
315

• für die Verwendung in Feinbohrköpfen der Serie 304 und 590

• for use in fine boring heads from serie 304 and 590



Bestell-Nr. / Order number	ø A min.	ø A max.	D	Wendepplatte / Insert	Feinbohrkopf / fine boring head
315.011.024.006	23.9	31.1	11	CC .. 06 02 ..	304.020.024.035
315.013.031.006	30.9	40.1	13	CC .. 06 02 ..	304.025.031.040
315.017.040.006	39.9	51.1	17	CC .. 06 02 ..	304.032.040.047
315.022.051.006	50.9	67.1	22	CC .. 06 02 ..	304.039.051.057
315.030.067.009	66.9	87.1	30	CC .. 09 T3 ..	304.050.067.080
315.030.067.009	86.9	116.1	30	CC .. 09 T3 ..	304.064.087.100
315.030.067.009	115.9	153.1	30	CC .. 09 T3 ..	304.090.116.130



Ersatzteile / Zubehör

Spare parts / Accessories

302/314/315

Für Wendepplattenhalter For insert holder	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Torx-Schraube / Torx screw ^①	Torx-Schlüssel / Torx driver ^②
302.005.017.002	900.254.020.004	900.254.006.000
314/315.xxx.xxx.006	900.254.025.006	900.254.007.000
314/315.xxx.xxx.009	900.254.040.009	900.254.009.000

**Umkehradapter
für Rückwärtsbearbeitung**

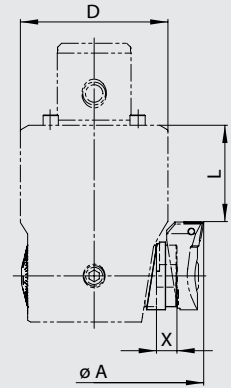
**Reversal adapter
for reverse machining**

- für die Verwendung in Feinbohrköpfen der Serie 304
- damit können die Wendeplattenhalter der Serie 314 und 315 rückwärts montiert werden

- for use in fine boring heads from serie 304
- the insert holders from serie 314 and 315 will be fitted backwards on the adapter



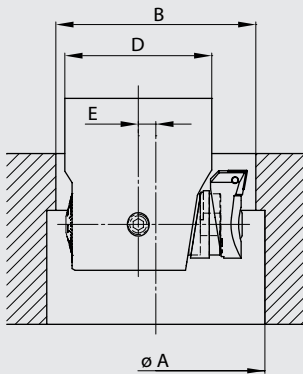
Bestell-Nr. / Order number	ø A min.	ø A max.	D	L	X	Feinbohrkopf / fine boring head
324.011.065.008	37	44	20	8.5	6.5	304.020.024.035
324.011.080.008	40	51	20	8.5	8.0	304.020.024.035
324.013.065.007	44	53	25	7.6	6.5	304.025.031.040
324.013.100.007	51	60	25	7.6	10.0	304.025.031.040
324.017.065.013	53	64	32	13.3	6.5	304.032.040.047
324.017.100.013	60	71	32	13.3	10.0	304.032.040.047
324.022.065.016	64	80	42	16.2	6.5	304.039.051.057
324.022.120.016	75	91	42	16.2	12.0	304.039.051.057
324.030.100.027	87	107	55	27.0	10.0	304.050.067.080
324.030.100.027	107	136	72	47.0	10.0	304.064.087.100
324.030.100.027	136	173	90	77.0	10.0	304.090.116.130



- Befestigungsschrauben werden mitgeliefert
- Achtung: Linkslauf

- fastening screws will be delivered with adapters
- Caution: counterclockwise rotation

Einfahren
Enter into the bore



- Mindestdurchmesser der Eintrittsbohrung

$$B = \frac{D + A}{2} - 1^*$$

- Mindestversatz zum Einfahren

$$E = \frac{A - B}{2} + 0.5^*$$

*Sicherheitsabstand

- minimum entry bore diameter

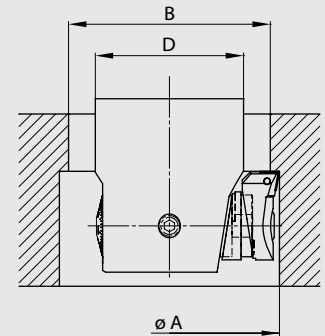
$$B = \frac{D + A}{2} - 1^*$$

- minimum off centre to enter into the bore

$$E = \frac{A - B}{2} + 0.5^*$$

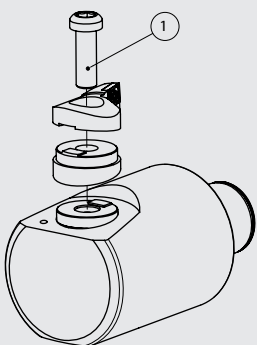
*safety distance

Rückwärtsbearbeitung
Back boring



Ersatzteile / Zubehör

Spare parts / Accessories

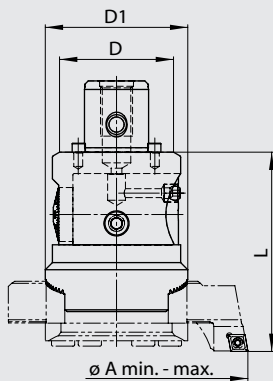


Für Umkehradapter For reversal adapter	Bestell-Nr. / Order number	Befestigungsschraube / Fastening screw ①
324.011.065.008	900.324.004.012	
324.011.080.008	900.324.004.013	
324.013.065.007	900.324.005.014	
324.013.100.007	900.324.005.016	
324.017.065.013	900.324.006.015	
324.017.100.013	900.324.006.020	
324.022.065.016	900.324.008.020	
324.022.120.016	900.324.008.025	
324.030.100.027	900.324.010.030	

Feinbohrkopf ø86-402

Fine boring head ø86-402

344



- Durchmessereinstellung mit geringstem Umkehrspiel
- Zustellgenauigkeit von 0.01mm im Durchmesser
- mit Innenkühlung

- diametrical adjustment with maximal reduced reversal backlash
- 0.01mm diametrical adjustment
- with inner coolant supply

Bestell-Nr. / Order number	ø A min.	ø A max.	ST	D	D1	L
344.064.086.112	86	402	ST6+	64	80	112

- Wendeplattenhalter der Serie 354 müssen separat bestellt werden

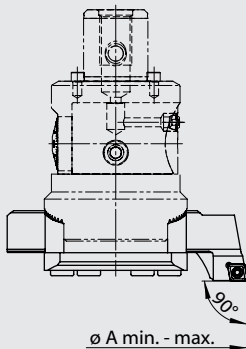
- insert holders from serie 354 must be ordered separately



**Wendeplattenhalter inkl.
Druckplatte und Abstützung**

**Insert holders incl.
clamp plate and support block**

354



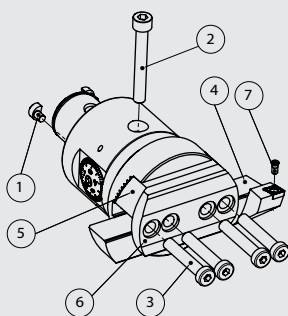
Bestell-Nr. / Order number	ø A min.	ø A max.	Wendeplatte / Insert
354.086.138.009	86	138	CC.. 09 T3 ..
354.086.138.012	86	138	CC.. 12 04 ..
354.136.220.009	136	220	CC.. 09 T3 ..
354.136.220.012	136	220	CC.. 12 04 ..
354.188.302.009	188	302	CC.. 09 T3 ..
354.242.402.009	242	402	CC.. 09 T3 ..



Ersatzteile / Zubehör

Spare parts / Accessories

344/354



Für Feinbohrkopf For fine boring head	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Mitnehmer / Drive lug ^①	Klemmschraube / Clamping screw ^②	Befestigungsschraube / Fastening screw ^③		
344.064.086.112	900.102.064.000	900.344.008.065	900.344.008.044		
Für Wendeplattenhalter For insert holder set	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Wendeplattenhalter / Insert holder ^④	Abstützung / Support block ^⑤	Druckplatte / Clamp plate ^⑥	Torx-Schraube / Torx screw ^⑦	Torx-Schlüssel / Torx driver
354.086.138.009	900.354.086.009	900.345.020.086	900.345.010.086	900.254.040.009	900.254.009.000
354.086.138.012	900.354.086.012	900.345.020.086	900.345.010.086	900.254.050.010	900.254.012.000
354.136.220.009	900.354.136.009	900.345.020.136	900.345.010.136	900.254.040.009	900.254.009.000
354.136.220.012	900.354.136.012	900.345.020.136	900.345.010.136	900.254.050.010	900.254.012.000
354.188.302.009	900.354.188.009	900.345.020.136	900.345.010.136	900.254.040.009	900.254.009.000
354.242.402.009	900.354.242.009	900.345.020.136	900.345.010.136	900.254.040.009	900.254.009.000

Zweischneiderköpfe

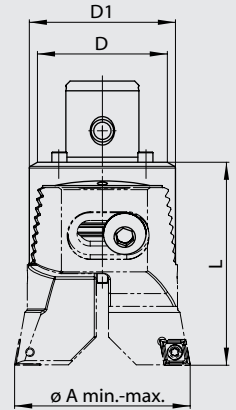
Twin cutter boring heads

• mit Innenkühlung

• with inner coolant supply



Bestell-Nr. / Order number	ø A min.	ø A max.	ST	D	D1	L	Wendeplattenhalter / Insert holder
404.020.024.035	23.5	30.5	ST1	20	20	35.5	414.020.024.006 424.020.024.006 434.020.024.006 437.020.024.006
404.025.031.040	29.5	40.1	ST2	25	25	40	414.025.031.006 424.025.031.006 434.025.031.006 437.025.031.006
404.032.040.047	39.5	50.5	ST3	32	32	47	414.032.040.009 424.032.040.009 434.032.040.009 437.032.040.009
404.039.051.057	49.5	66.5	ST4	39	42	57	414.039.051.009 424.039.051.009 434.039.051.009 437.039.051.009
404.050.067.080	65.5	87.5	ST5	50	55	80	414.050.067.012/112 424.050.067.012/112 434.050.067.012 437.050.067.012
404.064.087.100	86.5	115.5	ST6+	64	72	100	414.064.087.012/116 424.064.087.012/116 434.064.087.012 437.064.087.012
404.090.115.130	114.5	153	ST7+	90	94	130	414.090.115.012/116 424.090.115.116 434.090.115.012 437.090.115.012

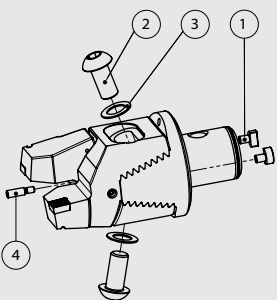


• Wendeplattenhalter müssen separat bestellt werden

• insert holders must be ordered separately

Ersatzteile / Zubehör

Spare parts / Accessories



Für Zweischneider- kopf	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
For twin cutter boring head	Mitnehmer / Drive lug ①	Befestigungsschraube / Fastening screw ②	Federring / Spring washer ③	Anschlag / Stopper ④
404.020.024.035	900.102.020.000	900.404.004.008	900.405.004.000	900.406.025.008
404.025.031.040	900.102.025.000	900.404.005.012	900.405.005.000	900.406.025.008
404.032.040.047	900.102.032.000	900.404.006.016	900.405.006.000	900.406.030.012
404.039.051.057	900.102.039.000	900.404.008.020	900.405.008.000	900.406.030.014
404.050.067.080	900.102.050.000	900.404.010.025	900.405.010.000	900.406.040.020
404.064.087.100	900.102.064.000	900.404.012.025	900.405.012.000	900.406.060.020
404.090.116.130	900.102.090.000	900.404.016.035	900.405.016.000	900.406.060.020

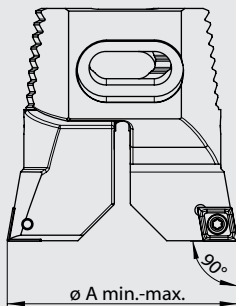
Wendeplattenhalter 90°

Insert holders 90°

414

- für die Verwendung in Zweiseiderköpfen der Serie 404

- for use in twin cutter boring heads from serie 404



Bestell-Nr. / Order number	ø A min.	ø A max.	Wendeplatte / Insert	Zweiseiderkopf / twin cutter boring head
414.020.024.006	23.5	30.5	CC ..06 02 ..	404.020.024.035
414.025.031.006	29.5	40.1	CC ..06 02 ..	404.025.031.040
414.032.040.009	39.5	50.5	CC ..09 T3 ..	404.032.040.047
414.039.051.009	49.5	66.5	CC ..09 T3 ..	404.039.051.057
414.050.067.012	65.5	87.5	CC ..12 04 ..	404.050.067.080
414.050.067.112	65.5	87.5	CN ..12 04 ..	404.050.067.080
414.064.087.012	86.5	115.5	CC ..12 04 ..	404.064.087.100
414.064.087.116	86.5	115.5	CN ..16 06 ..	404.064.087.100
414.090.115.012	114.5	153	CC ..12 04 ..	404.090.115.130
414.090.115.116	114.5	153	CN ..16 06 ..	404.090.115.130



- Wendeplattenhalter werden paarweise geliefert

- insert holders will be supplied in pairs

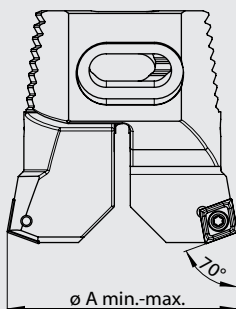
Wendeplattenhalter 70°

Insert holders 70°

424

- für die Verwendung in Zweiseiderköpfen der Serie 404

- for use in twin cutter boring heads from serie 404



Bestell-Nr. / Order number	ø A min.	ø A max.	Wendeplatte / Insert	Zweiseiderkopf / twin cutter boring head
424.020.024.006	23.5	30.5	CC ..06 02 ..	404.020.024.035
424.025.031.006	29.5	40.1	CC ..06 02 ..	404.025.031.040
424.032.040.009	39.5	50.5	CC ..09 T3 ..	404.032.040.047
424.039.051.009	49.5	66.5	CC ..09 T3 ..	404.039.051.057
424.050.067.012	65.5	87.5	CC ..12 04 ..	404.050.067.080
424.050.067.112	65.5	87.5	CN ..12 04 ..	404.050.067.080
424.064.087.012	86.5	115.5	CC ..12 04 ..	404.064.087.100
424.064.087.116	86.5	115.5	CN ..16 06 ..	404.064.087.100
424.090.115.116	114.5	153	CN ..16 06 ..	404.090.115.130



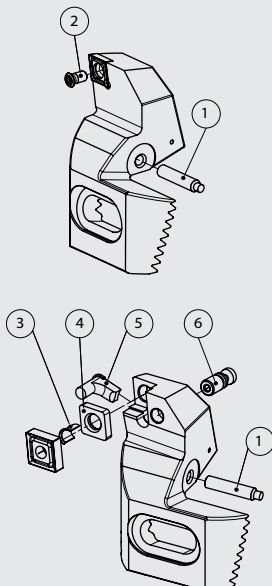
- Wendeplattenhalter werden paarweise geliefert

- insert holders will be supplied in pairs

Ersatzteile / Zubehör

Spare parts / Accessories

414/424/437



Für Wendeplattenhalter For insert holder	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Einstellschraube / Adjustment screw ①	Torx-Schraube / Torx screw ②	Torx-Schlüssel / Torx driver	
414/424/437.020.024.006	900.414.004.007	900.254.025.006	900.254.007.000	
414/424/437.025.031.006	900.414.004.010	900.254.025.006	900.254.007.000	
414/424/437.032.040.009	900.414.004.013	900.254.040.009	900.254.009.000	
414/424/437.039.051.009	900.414.006.014	900.254.040.009	900.254.009.000	
414/424/437.050.067.xxx	900.415.006.020	900.254.050.010	900.254.012.000	
414/424/437.064.087.xxx	900.415.006.030	900.254.050.010	900.254.012.000	
414/424/437.090.115.xxx	900.415.006.040	900.254.050.010	900.254.012.000	
Für Wendeplattenhalter For insert holder	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Rohrstift / Hollow pin ③	Zwischenlage / Tip pad ④	Kniehebel / Lever ⑤	Schraube zu Kniehebel / Lever screw ⑥
414/424.050.067.112	900.416.012.000	900.417.012.000	900.418.012.000	900.419.012.000
414/424.064.087.116	900.416.016.000	900.417.016.000	900.418.016.000	900.419.016.000
414/424.090.115.116	900.416.016.000	900.417.016.000	900.418.016.000	900.419.016.000

434

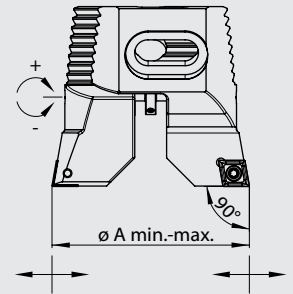
Synchro-Wendeplattenhalter 90° Synchronised insert holders 90°

- für die Verwendung in Zweischneiderköpfen der Serie 404
- mit der Synchrospindel können beide Wendeplattenhalter gleichzeitig symmetrisch eingestellt werden
- for use in twin cutter boring heads from serie 404
- with synchro spindle both insert holders can be adjusted synchronously and symmetrically



Bestell-Nr. / Order number	ø A min.	ø A max.	Wendeplatte / Insert	Zweischneiderkopf / twin cutter boring head
434.020.024.006	23.5	30.5	CC ..06 02 ..	404.020.024.035
434.025.031.006	29.5	40.1	CC ..06 02 ..	404.025.031.040
434.032.040.009	39.5	50.5	CC ..09 T3 ..	404.032.040.047
434.039.051.009	49.5	66.5	CC ..09 T3 ..	404.039.051.057
434.050.067.012	65.5	87.5	CC ..12 04 ..	404.050.067.080
434.064.087.012	86.5	115.5	CC ..12 04 ..	404.064.087.100
434.090.115.012	114.5	153	CC ..12 04 ..	404.090.115.130

- Wendeplattenhalter werden paarweise geliefert
- insert holders will be supplied in pairs



437

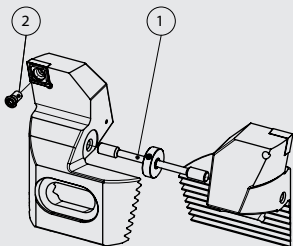
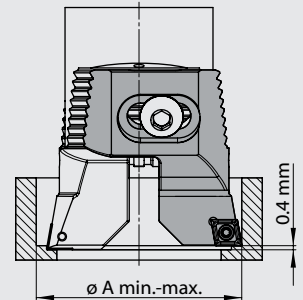
Wendeplattenhalter 90° axial 0.4mm zurückgesetzt Insert holders 90° axial 0.4mm staggered

- für die Verwendung in Zweischneiderköpfen der Serie 404
- zur Schnittaufteilung bei grosser Spantiefe
- for use in twin cutter boring heads from serie 404
- for divided cut



Bestell-Nr. / Order number	ø A min.	ø A max.	Wendeplatte / Insert	Zweischneiderkopf / twin cutter boring head
437.020.024.006	23.5	30.5	CC ..06 02 ..	404.020.024.035
437.025.031.006	29.5	40.1	CC ..06 02 ..	404.025.031.040
437.032.040.009	39.5	50.5	CC ..09 T3 ..	404.032.040.047
437.039.051.009	49.5	66.5	CC ..09 T3 ..	404.039.051.057
437.050.067.012	65.5	87.5	CC ..12 04 ..	404.050.067.080
437.064.087.012	86.5	115.5	CC ..12 04 ..	404.064.087.100
437.090.115.012	114.5	153	CC ..12 04 ..	404.090.115.130

- Wendeplattenhalter werden paarweise geliefert
- Ersatzteile siehe Seite 25
- insert holders will be supplied in pairs
- spare parts see page 25



Ersatzteile / Zubehör

Spare parts / Accessories

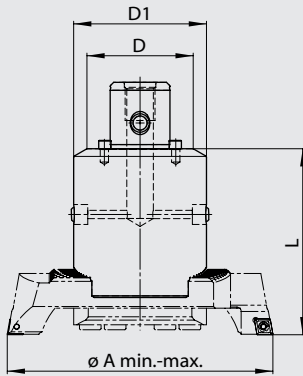
434

Für Wendeplattenhalter For insert holder	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Einstellschraube / Adjustment screw ①	Torx-Schraube / Torx screw ②	Torx-Schlüssel / Torx driver
434.020.024.006	900.434.004.018	900.254.025.006	900.254.007.000
434.025.031.006	900.434.004.023	900.254.025.006	900.254.007.000
434.032.040.009	900.434.004.030	900.254.040.009	900.254.009.000
434.039.051.009	900.434.006.040	900.254.040.009	900.254.009.000
434.050.067.012	900.434.006.052	900.254.050.010	900.254.012.000
434.064.087.012	900.434.006.068	900.254.050.010	900.254.012.000
434.090.115.012	900.434.006.090	900.254.050.010	900.254.012.000

Zweischneiderkopf ø86-402

Twin cutter boring head ø86-402

444



• mit Innenkühlung

• with inner coolant supply

Bestell-Nr. / Order number	ø A min.	ø A max.	ST	D	D1	L
444.064.086.112	68	402	ST6+	64	80	112

• Wendeplattenhalter der Serie 454 müs-
sen separat bestellt werden

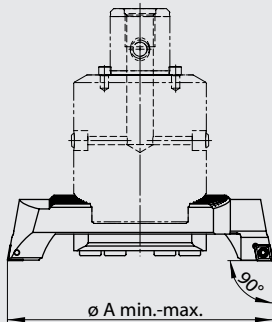
• insert holders from serie 454 must be
ordered separately



**Wendeplattenhalterpaare
inkl. Druckplatte**

**Insert holder pairs
incl. clamp plate**

454



Bestell-Nr. / Order number	ø A min.	ø A max.	Wendeplatte / Insert
454.086.138.009	86	138	CC.. 09 T3 ..
454.086.138.012	86	138	CC.. 12 04 ..
454.136.220.009	136	220	CC.. 09 T3 ..
454.136.220.012	136	220	CC.. 12 04 ..
454.188.302.009	188	302	CC.. 09 T3 ..
454.242.402.009	242	402	CC.. 09 T3 ..

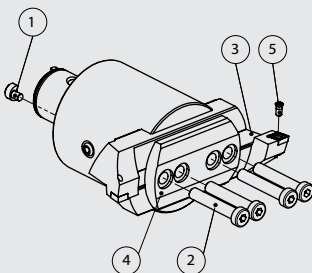


Ersatzteile / Zubehör

Spare parts / Accessories

444/454

Für Zweischneiderkopf For twin cutter boring head	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Mitnehmer / Drive lug ^①	Befestigungsschraube / Fastening screw ^②		
444.064.086.112	900.102.064.000	900.344.008.044		
Für Wendeplatten- haltersatz For insert holder set	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Wendeplattenhal- ter / Insert holder ^③	Druckplatte / Clamp plate ^④	Torx-Schraube / Torx screw ^⑤	Torx-Schlüssel / Torx driver
454.086.138.009	900.354.086.009	900.345.010.086	900.254.040.009	900.254.009.000
454.086.138.012	900.354.086.012	900.345.010.086	900.254.050.010	900.254.012.000
454.136.220.009	900.354.136.009	900.345.010.136	900.254.040.009	900.254.009.000
454.136.220.012	900.354.136.012	900.345.010.136	900.254.050.010	900.254.012.000
454.188.302.009	900.354.188.009	900.345.010.136	900.254.040.009	900.254.009.000
454.242.402.009	900.354.242.009	900.345.010.136	900.254.040.009	900.254.009.000



504 / 514 / 534 / 544

Aufnahmen mit Konsole

Master shanks with bridge adapter



• ANSI B5.50

Bestell-Nr. / Order number	CAT	D	A
504.340.130.069	40	130	69.1
504.350.130.069	50	130	69.1

• DIN 69871 A/D

Bestell-Nr. / Order number	ISO	D	A
514.440.130.069	40	130	69.1
514.450.130.069	50	130	69.1

• MAS BT 403

Bestell-Nr. / Order number	BT	D	A
534.540.130.077	40	130	77
534.550.130.088	50	130	88

• DIN 69893 HSK A

Bestell-Nr. / Order number	HSK A	D	A
544.806.130.075	63	130	77
544.810.130.075	100	130	88

• Kühlmittelset muss separat bestellt werden 900.500.028.015

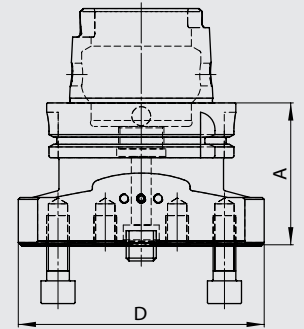
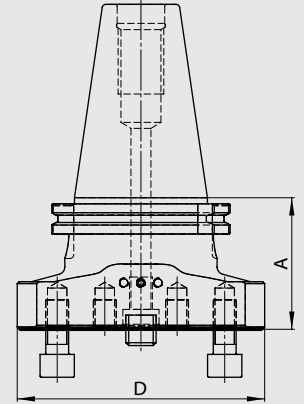
• ANSI B5.50

• DIN 69871 A/D

• MAS BT 403

• DIN 69893 HSK A

• cooling set must be ordered separately 900.500.028.015



554

Zwischenkonsolen

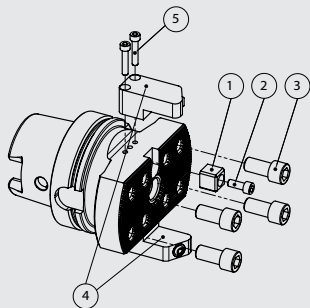
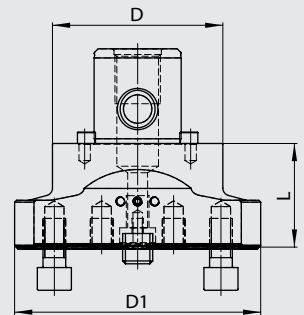
Bridge adapters



Bestell-Nr. / Order number	ST	D	D1	L
554.064.130.055	ST6+	64	130	55
554.090.130.055	ST7+	90	130	55

• Kühlmittelset muss separat bestellt werden 900.500.028.015

• cooling set must be ordered separately 900.500.028.015



Ersatzteile / Zubehör

Spare parts / Accessories

504/514/534/544/554

Für Konsole For bridge adapter	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Mitnehmerstein / Drive lug ①	Schraube / Screw ②	Befestigungsschraube / Fastening screw ③
504-554	900.514.016.016	900.515.006.015	900.516.012.025
	Kühlmittelset / Cooling set ④	Befestigungsschraube / Fastening screw ⑤	
504-554	900.500.028.015	900.500.005.025	

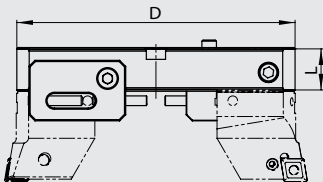
Verlängerungskonsolen
ø150-655

Extension bridges
ø150-655

560

• für die Verwendung auf Konsolen der Serien 504 bis 554

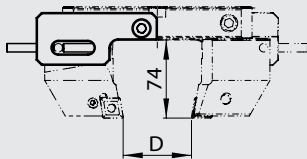
• for use on bridge adapters from series 504 to 554



Bestell-Nr. / Order number	D	L	Ausdrehdurchmesser / Boring diameter
560.130.130.030	130	30	150 – 205
560.130.180.030	180	30	200 – 255
560.130.230.035	230	35	250 – 305
560.130.280.035	280	35	300 – 355
560.130.330.040	330	40	350 – 405
560.130.380.040	380	40	400 – 455
560.130.430.040	430	40	450 – 505
560.130.480.040	480	40	500 – 555
560.130.530.050	530	50	550 – 605
560.130.580.050	580	50	600 – 655



Einstellplatte zum Überdrehen **Adjustment plate for pin turning**



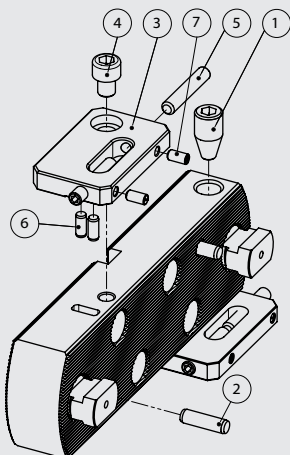
Einstellplatte / Adjustment plate Bestell-Nr. / Order number	Für Verlängerungskonsole / For extensions bridge	D
900.561.080.012	560.130.180.030	10 - 65
900.561.080.012	560.130.230.035	60 - 115
900.561.080.012	560.130.280.035	110 - 165
900.561.080.012	560.130.330.040	160 - 215
900.561.080.012	560.130.380.040	210 - 265
900.561.080.012	560.130.430.040	260 - 315
900.561.080.012	560.130.480.040	310 - 365
900.561.080.012	560.130.530.050	360 - 415
900.561.080.012	560.130.580.050	410 - 465



Ersatzteile / Zubehör

Spare parts / Accessories

560/562/564



Für Verlängerungskonsole / Schieber	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
For extension bridge / Slider	Klemmschr. / Clamping screw ①	Stift / Pin ②		Feststellschraube / Tightening screw ⑦
560 / 564	900.560.016.030	900.560.008.028		900.560.006.012
Für Verlängerungskonsole / Schieber	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
For extension bridge / Slider	Einstellplatte / Adjustment plate ③	Schraube / Screw ④	Einstellschraube / Adjustment screw ⑤	Stift / Pin ⑥
560.130.130/230.030	900.560.080.012	900.560.110.012	900.560.008.045	900.560.006.014
560.130.180/280-580.xxx	900.560.080.012	900.560.110.018	900.560.008.045	900.560.006.014
564.000.xxx.048	900.560.080.012	900.560.110.018	900.560.008.045	900.560.006.014
Für Basis For basis	Bestell-Nr. / Order number	Bestell-Nr. / Order number		Bestell-Nr. / Order number
	Zentrierbuchse / Centering sleeve	Schraube m. U-Scheibe / Screw w. washer		Unterlage / Mat
562.060.xxx.080	900.562.018.012	900.562.012.080		900.562.138.005

562/564

Verlängerungskonsolen
ø650-2205

Extension bridges
ø650-2205

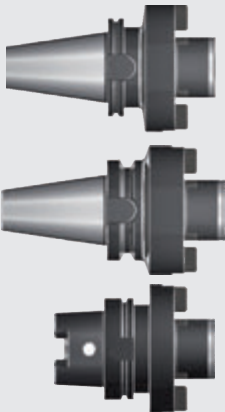
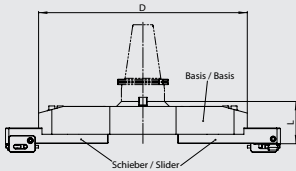
- für die Verwendung auf Aufnahme-
dorn ø60 / ø129 DIN 6357
- Basis aus Aluminium
- fragen Sie uns an für optimierte Kom-
plettlösungen

- for use on holding arbor ø60 / ø129
- basis made of aluminium
- please get in touch with us for
customized solutions

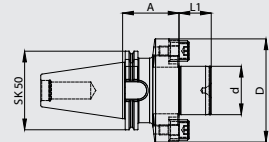
Basis / Basis Bestell-Nr. / Order number	Schieber / Slider Bestell-Nr. / Order number	D	L	Ausrehdurchmesser / Boring diameter
562.060.063.080	564.000.310.048	630	128	650 – 1105
562.060.108.080	564.000.360.048	1080	128	1100 - 1655
562.060.163.080	564.000.360.048	1630	128	1650 – 2205

- Schieber müssen separat bestellt wer-
den und werden paarweise geliefert
- Ersatzteile siehe Seite 29

- sliders must be ordered separatly
and will be supplied in pairs
- spare parts see page 29

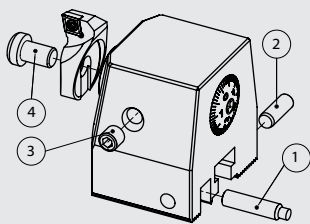
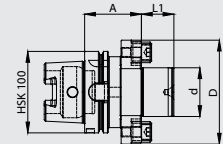


Bestell-Nr. / Order number	SK	d	A	L1	D
558.450.060.070	SK 50	60	70	40	128



Bestell-Nr. / Order number	BT	d	A	L1	D
558.550.060.080	BT 50	60	80	40	128

Bestell-Nr. / Order number	HSK-A	d	A	L1	D
558.810.060.070	HSK-A 100	60	70	40	128



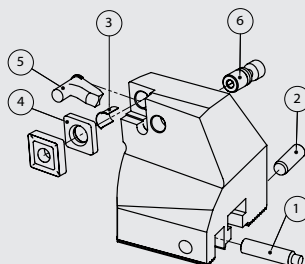
Ersatzteile / Zubehör

Spare parts / Accessories

570/580/590

Für Feinbohrkopf For fine boring head	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Einstellschraube / Adjustment screw ①	Stift / Pin ②	Klemmschraube / Clamping screw ③	Befestigungsschraube / Fastening screw ④
	590.070.030.075	900.570.008.035	900.570.008.024	900.590.010.020
				900.314.010.016

Für Wendepplattenhalter For insert holder	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Einstellschraube / Adjustment screw ①	Stift / Pin ②	Torx-Schraube / Torx screw	Torx-Schlüssel / Torx driver
	570.070.009.075	900.570.008.035	900.570.008.024	900.254.040.009
	570.070.012.075	900.570.008.035	900.570.008.024	900.254.009.000
	570.070.019.075	900.570.008.035	900.570.008.024	
	580.070.019.075	900.570.008.035	900.570.008.024	

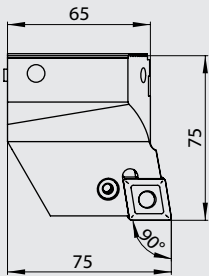


Für Wendepplattenhalter For insert holder	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Rohrstift / Hollow pin ③	Zwischenlage / Tip pad ④	Kniehebel / Lever ⑤	Schraube zu Kniehebel / Lever screw ⑥
	570.070.012.075	900.416.012.000	900.417.012.000	900.418.012.000
	570.070.019.075	900.416.019.000	900.417.019.000	900.418.019.000
	580.070.019.075	900.416.019.000	900.417.019.000	900.418.019.000

Wendeplattenhalter 90°

Insert holder 90°

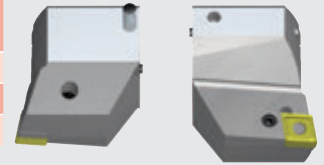
570



- für die Verwendung auf Verlängerungskonsolen der Serien 560 und 564

- for use on extension bridges from series 560 and 564

Bestell-Nr. / Order number	Wendeplatte / Insert
570.070.009.075	CC .. 09 T3 ..
570.070.012.075	CN .. 12 04 ..
570.070.019.075	CN .. 19 06 ..



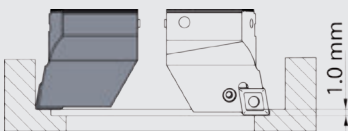
- Wendeplattenhalter werden paarweise geliefert

- insert holders will be supplied in pairs

Wendeplattenhalter 90° axial 1.0mm zurückgesetzt

Insert holder 90° axial 1.0mm staggered

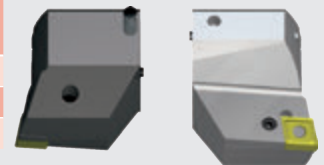
575



- für die Verwendung auf Verlängerungskonsolen der Serien 560 und 564

- for use on extension bridges from series 560 and 564

Bestell-Nr. / Order number	Wendeplatte / Insert
575.070.009.074	CC .. 09 T3 ..
575.070.012.074	CN .. 12 04 ..
575.070.019.074	CN .. 19 06 ..



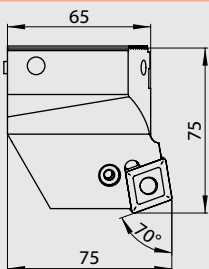
- Wendeplattenhalter werden paarweise geliefert

- insert holders will be supplied in pairs

Wendeplattenhalter 70°

Insert holder 70°

580



- für die Verwendung auf Verlängerungskonsolen der Serien 560 und 564

- for use on extension bridges from series 560 and 564

Bestell-Nr. / Order number	Wendeplatte / Insert
580.070.019.075	CN .. 19 06 ..



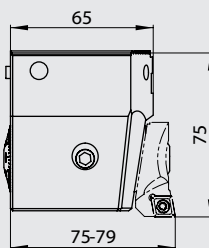
- Wendeplattenhalter werden paarweise geliefert

- insert holders will be supplied in pairs

Feinbohrkopf

Fine boring head

590



- für die Verwendung auf Verlängerungskonsolen der Serien 560 und 564
- DurchmesserEinstellung mit geringstem Umkehrspiel
- Zustellgenauigkeit von 0.01mm im Durchmesser

- for use on extension bridges from series 560 and 564
- diametrical adjustment with maximal reduced reversal backlash
- 0.01mm diametrical adjustment

Bestell-Nr. / Order number	Wendeplattenhalter
590.070.030.075	314.030.067.006 314.030.067.009



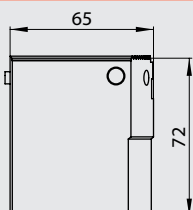
- Wendeplattenhalter müssen separat bestellt werden

- insert holder must be ordered separately

Gegengewicht

Counterweight

594



- zur Verwendung mit Feinbohrkopf der Serie 590

- for use with fine boring head from series 590

Bestell-Nr. / Order number
594.070.065.072

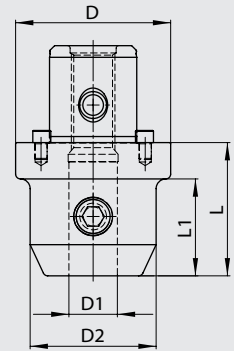


704

Spannfutter DIN1835 B (Weldon) End mill adapters DIN1835 B (Weldon)



Bestell-Nr. / Order number	ST	D	D1	D2	L1	L
704.064.006.045	ST6+	64	6	25	30	45
704.064.008.045	ST6+	64	8	28	30	45
704.064.010.045	ST6+	64	10	35	30	45
704.064.012.050	ST6+	64	12	42	35	50
704.064.014.050	ST6+	64	14	44	35	50
704.064.016.050	ST6+	64	16	48	35	50
704.064.018.050	ST6+	64	18	50	35	50
704.064.020.055	ST6+	64	20	52	40	55
704.064.025.065	ST6+	64	25	64	50	65



724

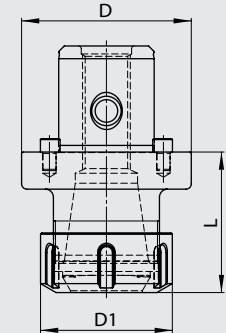
Spannzangenfutter DIN6499 Collet chuck adapters DIN6499



Bestell-Nr. / Order number	ST	D	L	Spannzange / Collet	Spannbereich / Clamping range	D1
724.025.016.035	ST2	25	35	ER 16	0.5-10	22
724.064.025.047	ST6+	64	47	ER 25	1 -16	42
724.064.032.053	ST6+	64	53	ER 32	1 -20	50
724.064.040.065	ST6+	64	65	ER 40	1 -26	63

- Spannmuttern sind im Lieferumfang enthalten
- Schlüssel und Spannzangen müssen separat bestellt werden (siehe Preisliste)

- collet chucks will be supplied with clamping nuts
- keys and collets must be ordered separately (see price list)



Ersatzteile / Zubehör

Spare parts / Accessories

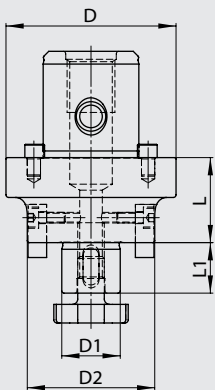
704/724

Für Fräsespannfutter For end mill adapter	Bestell-Nr. / Order number	Für Spannzangenfutter For collet chuck adapter	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Spannschraube / Clamping screw		Spannmutter / Clamping nut	Schlüssel / Key
704.064.006.045	900.704.006.010	724.025.016.035	900.724.016.001	900.724.016.010
704.064.008.045	900.704.008.010	724.064.025.047	900.724.025.001	900.724.025.010
704.064.010.045	900.704.010.012	724.064.032.053	900.724.032.001	900.724.032.010
704.064.012.050	900.704.012.016	724.064.040.065	900.724.040.001	900.724.040.010
704.064.014.050	900.704.012.016			
704.064.016.050	900.704.014.016			
704.064.018.050	900.704.014.016			
704.064.020.055	900.704.016.016			
704.064.025.065	900.704.018.020			

Aufsteckfräsdorne

Milling arbors

734



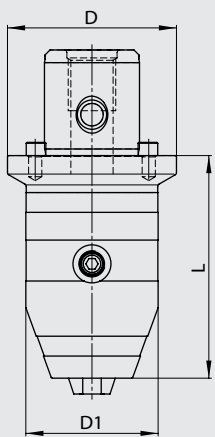
Bestell-Nr. / Order number	ST	D	D1	D2	L1	L
734.064.016.032	ST6+	64	16	39	17	32
734.064.022.032	ST6+	64	22	49	19	32
734.064.027.034	ST6+	64	27	58	21	34
734.064.032.038	ST6+	64	32	70	24	38
734.064.040.040	ST6+	64	40	80	27	40



NC-Bohrfutter

NC-Drillchucks

744



• mit Innenkühlung

• with inner coolant supply

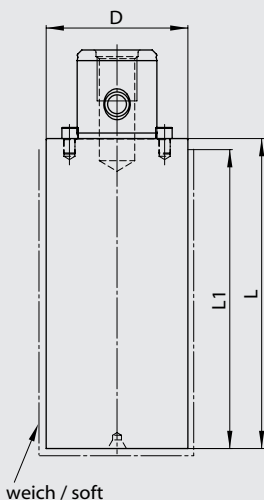
Bestell-Nr. / Order number	ST	D	D1	L	Spannbereich / Clamping range
744.064.013.084	ST6+	64	44	84	1 – 13
744.064.016.084	ST6+	64	49	88	2.5 – 16



Rohlinge

Blank adapters

764



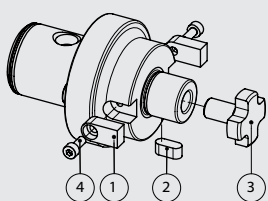
Bestell-Nr. / Order number	ST	D	L	L1
764.020.020.040	ST1	20	40	37
764.025.025.050	ST2	25	50	47
764.032.032.065	ST3	32	65	61
764.039.039.090	ST4	39	90	86
764.050.050.115	ST5	50	115	110
764.064.064.140	ST6+	64	140	135



Ersatzteile / Zubehör

Spare parts / Accessories

734



Für Aufsteckfräsdorn For milling arbor	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
	Mitnehmerkeil / Drive lug ^①	Passfeder / Splined key ^②	Fräseranzugsschraube / Clamping screw ^③	Schraube / Screw ^④
734.064.016.020	900.734.008.019	900.735.004.012	900.736.008.012	900.737.003.008
734.064.022.020	900.734.010.020	900.735.006.014	900.736.010.016	900.737.004.010
734.064.027.020	900.734.012.023	900.735.007.016	900.736.012.018	900.737.004.010
734.064.032.028	900.734.014.027	900.735.008.018	900.736.016.022	900.737.006.016
734.064.040.028	900.734.016.030	900.735.010.020	900.736.020.030	900.737.006.018

785

Ausdrehset ø9.75-30.1

Fine boring set ø9.75-30.1

• erweiterbar von ø3 bis ø88.1

• can be upgraded from ø3 up to ø88.1

ST6

Bestell-Nr. / Order number	ST	D	D1	ø A min.	ø A max.	Ausdrehkopf / Fine boring head
785.064.010.030	ST6	64	55	9.75	30.1	204.064.025.045

DIN 69871 AD 40

Bestell-Nr. / Order number	ISO	L	A	ø A min.	ø A max.	Ausdrehkopf / Fine boring head
785.415.010.030	40	70	90	9.75	30.1	208.440.055.090

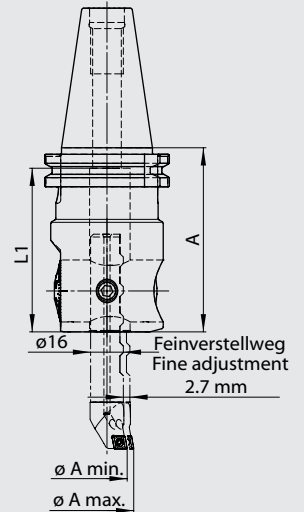
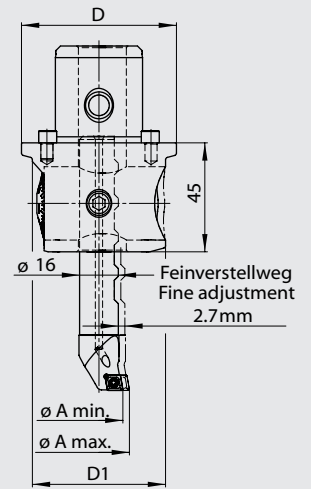
MAS BT 40

Bestell-Nr. / Order number	BT	L	A	ø A min.	ø A max.	Ausdrehkopf / Fine boring head
785.412.010.030	40	63	90	9.75	30.1	208.540.055.090

DIN 69893 HSK A 63

Bestell-Nr. / Order number	HSK	L	A	ø A min.	ø A max.	Ausdrehkopf / Fine boring head
785.063.010.030	63	69	95	9.75	30.1	208.806.055.095

Inhalt	Content	
1 Koffer / Case		
1 Ausdrehkopf / Fine boring head		
1 Ausdrehstahl / Boring bar	ø9.75-15.1	254.010.006.075
1 Ausdrehstahl / Boring bar	ø14.75-20.1	254.015.006.090
1 Ausdrehstahl / Boring bar	ø19.75-25.1	254.020.006.105
1 Ausdrehstahl / Boring bar	ø24.75-30.1	254.025.006.115
1 Inbusschlüssel / Allen wrench	SW5	
1 Torx-Schlüssel / Torx driver	T7	



786

Ausdrehset ø9.75-88.1

Fine boring set ø9.75-88.1

• erweiterbar von ø3 bis ø88.1

• can be upgraded from ø3 up to ø88.1

ST6

Bestell-Nr. / Order number	ST	D	D1	ø A min.	ø A max.	Ausdrehkopf / Fine boring head
786.064.010.088	ST6	64	55	9.75	88.1	204.064.025.045

DIN 69871 AD 40

Bestell-Nr. / Order number	ISO	L	A	ø A min.	ø A max.	Ausdrehkopf / Fine boring head
786.415.010.088	40	70	90	9.75	88.1	208.440.055.090

MAS BT 40

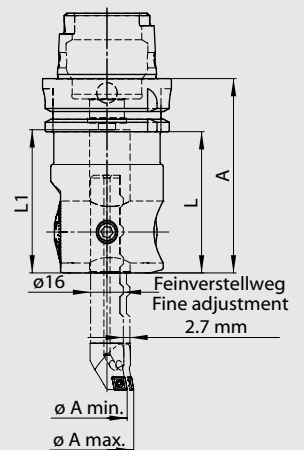
Bestell-Nr. / Order number	BT	L	A	ø A min.	ø A max.	Ausdrehkopf / Fine boring head
786.412.010.088	40	63	90	9.75	88.1	208.540.055.090

DIN 69893 HSK A 63

Bestell-Nr. / Order number	HSK	L	A	ø A min.	ø A max.	Ausdrehkopf / Fine boring head
786.063.010.088	63	69	95	9.75	88.1	208.806.055.095

• Inhalt siehe nächste Seite

• content see next page



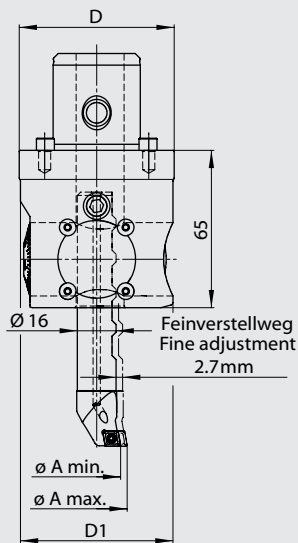
Ausdrehset $\varnothing 9.75-88.1$ mit Digitalanzeige

Fine boring set $\varnothing 9.75-88.1$ with digital display

787

• erweiterbar von $\varnothing 3$ bis $\varnothing 88.1$

• can be upgraded from $\varnothing 3$ up to $\varnothing 88.1$



ST6

Bestell-Nr. / Order number	ST	D	D1	$\varnothing A$ min.	$\varnothing A$ max.	Ausdrehkopf / Fine boring head
787.064.010.088	ST6	64	63	9.75	88.1	206.064.025.065

DIN 69871 AD 40

Bestell-Nr. / Order number	ISO	L	A	$\varnothing A$ min.	$\varnothing A$ max.	Ausdrehkopf / Fine boring head
787.415.010.088	40	70	90	9.75	88.1	206.440.055.090

MAS BT 40

Bestell-Nr. / Order number	BT	L	A	$\varnothing A$ min.	$\varnothing A$ max.	Ausdrehkopf / Fine boring head
787.412.010.088	40	63	90	9.75	88.1	206.540.055.090

DIN 69893 HSK A 63

Bestell-Nr. / Order number	HSK	L	A	$\varnothing A$ min.	$\varnothing A$ max.	Ausdrehkopf / Fine boring head
787.063.010.088	63	69	95	9.75	88.1	206.806.055.095

ST6

Bestell-Nr. / Order number	ST	D	D1	$\varnothing A$ min.	$\varnothing A$ max.	Ausdrehkopf / Fine boring head
787.064.010.088	ST6	64	63	9.75	88.1	206.064.025.065

DIN 69871 AD 40

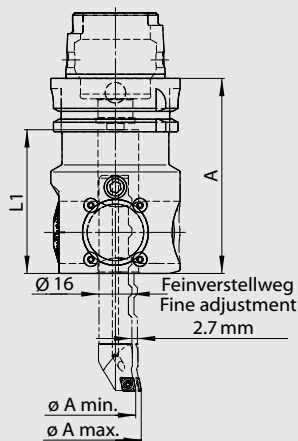
Bestell-Nr. / Order number	ISO	L	A	$\varnothing A$ min.	$\varnothing A$ max.	Ausdrehkopf / Fine boring head
787.415.010.088	40	70	90	9.75	88.1	206.440.055.090

MAS BT 40

Bestell-Nr. / Order number	BT	L	A	$\varnothing A$ min.	$\varnothing A$ max.	Ausdrehkopf / Fine boring head
787.412.010.088	40	63	90	9.75	88.1	206.540.055.090

DIN 69893 HSK A 63

Bestell-Nr. / Order number	HSK	L	A	$\varnothing A$ min.	$\varnothing A$ max.	Ausdrehkopf / Fine boring head
787.063.010.088	63	69	95	9.75	88.1	206.806.055.095



786/787

Inhalt	Content	
1 Koffer / Case		
1 Ausdrehkopf / Fine boring head		
1 Ausdrehstahl / Boring bar	$\varnothing 9.75-15.1$	254.010.006.075
1 Ausdrehstahl / Boring bar	$\varnothing 14.75-20.1$	254.015.006.090
1 Ausdrehstahl / Boring bar	$\varnothing 19.75-25.1$	254.020.006.105
1 Ausdrehstahl / Boring bar	$\varnothing 24.75-30.1$	254.025.006.115
1 Schaft / shank	$\varnothing 29.75-48.1$	256.030.048.115
1 Schaft / shank	$\varnothing 47.75-88.1$	256.048.088.115
1 Wendeplattenhalter / Insert holder	$\varnothing 29.75-48.1$	256.030.006.012
1 Wendeplattenhalter / Insert holder	$\varnothing 47.75-88.1$	256.048.006.014
1 Inbusschlüssel / Allen wrench	SW4	
1 Inbusschlüssel / Allen wrench	SW5	
1 Torx-Schlüssel / Torx driver	T7	

788 **Ausdrehset \varnothing 9.75-164** **Fine boring set \varnothing 9.75-164**

- erweiterbar von \varnothing 3 bis \varnothing 320
- can be upgraded from \varnothing 3 up to \varnothing 320



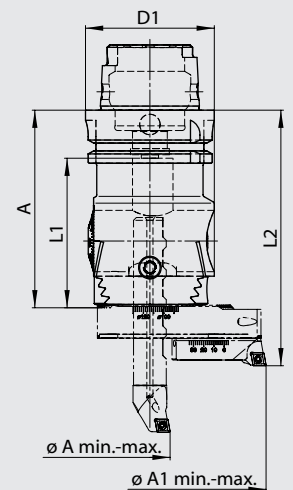
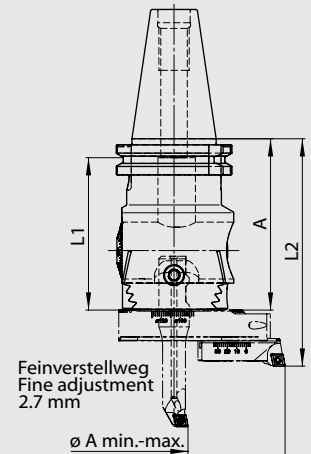
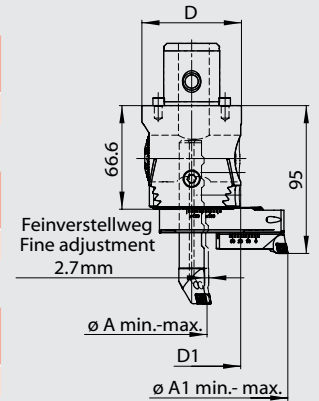
ST6				ST6		
Bestell-Nr. / Order number	ST	D	D1	\varnothing A min.	\varnothing A max.	Ausdrehkopf / Fine boring head
788.064.010.164	ST6	64	63	9.75	164	210.064.025.065

DIN 69871 AD 40				DIN 69871 AD 40		
Bestell-Nr. / Order number	ISO	L	A	\varnothing A min.	\varnothing A max.	Ausdrehkopf / Fine boring head
788.415.010.164	40	90	120	9.75	164	210.440.063.090

MAS BT 40				MAS BT 40		
Bestell-Nr. / Order number	BT	L	A	\varnothing A min.	\varnothing A max.	Ausdrehkopf / Fine boring head
788.412.010.164	40	90	120	9.75	164	210.540.063.090

DIN 69893 HSK A 63				DIN 69893 HSK A 63		
Bestell-Nr. / Order number	HSK	L	A	\varnothing A min.	\varnothing A max.	Ausdrehkopf / Fine boring head
788.063.010.164	63	95	125	9.75	164	210.806.063.095

Inhalt	Content	
1 Koffer / Case		
1 Ausdrehkopf / Fine boring head		
1 Ausdrehstahl / Boring bar	\varnothing 9.75-15.1	254.010.006.075
1 Ausdrehstahl / Boring bar	\varnothing 14.75-20.1	254.015.006.090
1 Ausdrehstahl / Boring bar	\varnothing 19.75-25.1	254.020.006.105
1 Ausdrehstahl / Boring bar	\varnothing 24.75-30.1	254.025.006.115
1 Schaft / shank	\varnothing 29.75-48.1	256.030.048.115
1 Schaft / shank	\varnothing 47.75-88.1	256.048.088.115
1 Brücke / Bridge	\varnothing 86.0-164.0	212.086.164.080
1 Wendeplattenhalter / Insert holder	\varnothing 29.75-48.1	256.030.006.012
1 Wendeplattenhalter / Insert holder	\varnothing 47.75-88.1	256.048.006.014
1 Inbusschlüssel / Allen wrench	SW4	
1 Inbusschlüssel / Allen wrench	SW5	
1 Torx-Schlüssel / Torx driver	T7	



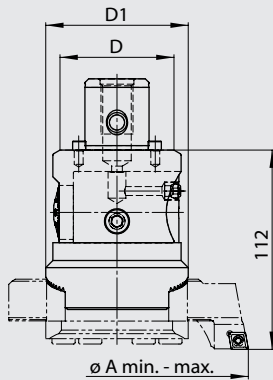
Ausdrehset ø86-302

Fine boring set ø86-302

790

• erweiterbar bis ø402

• can be upgraded up to ø402



ST6

Bestell-Nr. / Order number	ST	D	D1	ø A min.	ø A max.	Feinbohrkopf / Fine boring head
790.064.086.302	ST6+	64	80	86	302	344.064.086.112

Inhalt

Content

1 Koffer / Case						
1 Feinbohrkopf / Fine boring head						344.064.086.112
1 Wendeplattenhalter / Insert holder				ø86-138		900.354.086.009
1 Wendeplattenhalter / Insert holder				ø136-220		900.354.136.009
1 Wendeplattenhalter / Insert holder				ø188-302		900.354.188.009
1 Abstützung / Support block						900.354.020.086
1 Abstützung / Support block						900.354.020.136
1 Druckplatte / Clamp plate						900.354.010.086
1 Druckplatte / Clamp plate						900.354.010.136
10 Wendeplatten / Inserts				CC . . 09 T3 . .		800.600.200.094
1 Inbusschlüssel / Allen wrench				SW5		
1 Torx-Schlüssel / Torx driver				T15		



784

Ausdrehset ø39.9-70.1

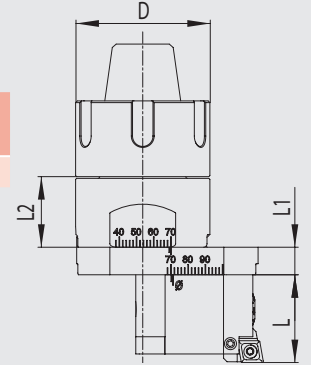
Fine boring set ø39.9-70.1

- Schnittstelle ER25 DIN6499
- Zustellgenauigkeit 0.01mm im Durchmesser
- für Wendeplatten CC . . 06 02 . .
- erweiterbar bis ø100.1

- connection ER25 DIN 6499
- 0.01mm diametrical adjustment
- for inserts CC . . 06 02 . .
- can be upgraded to ø100.1

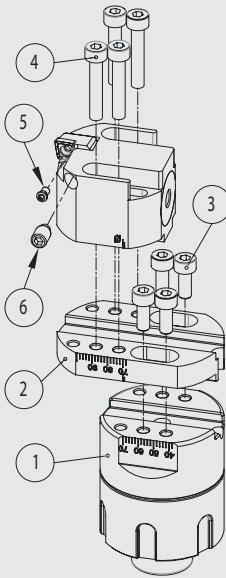


Bestell-Nr. / Order number	D	L	L1	L2	ø A min.	ø A max.	Ausdrehkopf / Fine boring head
784.001.040.070	39	25.5	8	20.5	39.9	70.1	598.040.070.009



Inhalt	Content	
1 Grundkörper / Base unit	ER25	726.025.000.000
1 Feinbohrkopf / Fine boring head	ø 39.9 - 70.1	598.040.070.009
4 Schraube / Screw	M4 x 25	900.726.004.025
1 Torxschlüssel / Torx wrench	T7	900.254.007.000
1 Inbusschlüsselset / Allen key set	1.5-8.0	900.892.015.080

Zubehör	Accessories	
Erweiterung / Extension	ø 69.9 - 100.1	215.070.100.000



Ersatzteile / Zubehör

Spare parts / Accessories

784

Für Feinbohrkopf	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
For fine boring head	Schraube / Screw (3)	Schraube / Screw (4)	Torx-Schraube / Torx-Screw (5)	Klemmschraube / Clamping screw (6)
598.040.070.009	900.726.004.010	900.726.004.025	900.254.025.006	900.598.005.008

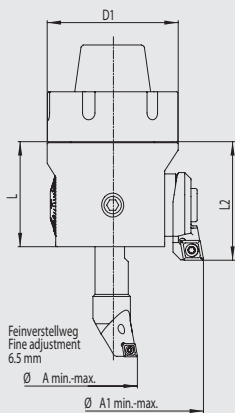
Ausdrehset Ø9.75-101.1

Fine boring set Ø9.75-101.1

783

- Schnittstelle ER40 DIN6499
- Zustellgenauigkeit 0.01mm resp. über Nonius 0.002mm im Durchmesser
- erweiterbar von Ø3 bis Ø152.1

- connection ER40 DIN 6499
- 0.01mm diametrical adjustment resp. 0.002mm by nonius
- can be upgraded from Ø3 up to Ø152.1

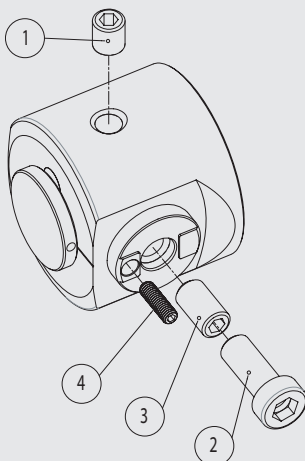


Bestell-Nr. / Order number	D1	L	L2	Ø A min.	Ø A max.	Ausdrehkopf / Fine boring head
783.001.010.101	63	50.5	57	9.75	101.1	205.040.003.152

Inhalt	Content	
1 Koffer / Case		
1 Ausdrehkopf / Fine boring head	ER40	205.040.003.152
1 Ausdrehstahl / Boring Bar	Ø 9.75 - 20.1	254.010.006.075
1 Ausdrehstahl / Boring Bar	Ø 19.75 - 30.1	254.020.006.105
1 Schaft / Shank	Ø 29.75 - 48.1	256.030.048.115
1 Schaft / Shank	Ø 47.75 - 88.1	256.048.088.115
1 Wendeplattenhalter / Insert holder	Ø 29.75 - 48.1	256.030.006.012
1 Wendeplattenhalter / Insert holder	Ø 47.75 - 88.1	256.048.006.014
1 Wendeplattenhalter / Insert holder CC . . 09 T3 . .	Ø 87.75 - 101.1 (Ø114.1)	314.726.001.009
1 Kühlmittleinsatz / Coolant plug		900.805.000.032
2 Torx-Schlüssel / Torx driver	T7 / T15	900.254.001.000 900.254.009.000
1 Inbusschlüsselset / Allen wrench set	SW 1.5 - 8	900.892.015.080



Zubehör	Accessories	
Wendeplattenhalter / Insert holder CC . . 09 T3 . .	Ø 105.75 - 119.0 (Ø 132.0)	314.726.002.009
Wendeplattenhalter / Insert holder CC . . 09 T3 . .	Ø 125.75 - 139.0 (Ø 152.0)	314.726.003.009
Distanzstück / Adapter F = 6.5 mm	Ø 114.0 / Ø 132.0 / Ø 152.0	900.803.001.006














Ersatzteile / Zubehör

Spare parts / Accessories

783

Für Feinbohrkopf	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number	Bestell-Nr. / Order number
For fine boring head	Klemmschraube / Clamping screw ①	Schraube / Screw ②	Schraube / Screw ③	Schraube / Screw ④
205.040.003.152	900.205.010.012	900.205.010.025	900.205.010.018	900.205.003.014

H00		Wendeplatten		Inserts			
Bestell-Nummer	Wendeplatte	Schneidstoff	Technische Informationen	Materialien	v [m/min]	f [mm/Z]	
Order number	Insert	Cutting mat.	Technical information	Materials	v [m/min]	f [mm/r]	
800.600.050.022	WCMT 020102	CTU	Cermet-Wendeplatte (Titan-Carbid / Titan-Nitrid) für Feinbohrarbeiten mit hoher Schnittgeschwindigkeit und gleichmässigem Aufmass. Titanium carbide / titanium nitride (Cermet) for fine bore machining with high cutting speed and regular cutting depth.	Stahl	50–300	0.04	
				Grauguss	50–300	bis	
				Aluminium	bis 800	0.10	
800.600.060.022	WCGT 020102	HUP	Unbeschichtete Hartmetall-Wendeplatte , allseitig geschliffen mit grossem Spanwinkel für Feinbohrarbeiten. Die Wendeplatte eignet sich insbesondere bei kleinem Aufmass und langen Bohrungen. Uncoated Carbide insert, ground all around with large rake angle for fine bore cutting. The insert is particularly good for small cutting depth in deep bores.	Stahl	50–250	0.04	
				Stahl rostfrei	30–200	bis	
				Grauguss	50–300	0.10	
				Aluminium	bis 800		
800.600.070.022	WCGT 020102	SFH	Mehrfach beschichtete superfeinstkorn Hartmetall-Wendeplatte zur Bearbeitung von harten und gehärteten Werkstoffen bis 62 HRC. Die Wendeplatte eignet sich hervorragend für Feinbohrarbeiten in gehärtetem Stahl als Alternative zum K-Schleifen.	Stahl weich	bis 300	0.04	
800.600.070.024	WCGT 020104					Stahl HRC 45	80–250
				Stahl HRC 50	80–200	0.20	
				Stahl HRC 55	50–150		
				Stahl HRC 60	30–100		
				Stahl HRC 62	20– 60		
			Repeat coated extremely fine grain carbide insert for machining of hard and hardened steels up to 62 HRC. Very suitable for fine boring of precision bores in hardened steel as an alternative to Jig-grinding.	Steel soft	bis 300	0.04	
				Steel HRC 45	80–250	to	
				Steel HRC 50	80–200	0.20	
				Steel HRC 55	50–150		
				Steel HRC 60	30–100		
				Steel HRC 62	20– 60		
800.600.200.062	CCMT 060202	CTU	Cermet-Wendeplatte (Titan-Carbid / Titan-Nitrid) für niedrige bis hohe Schnittgeschwindigkeiten beim Schlichten mit gleichbleibendem Aufmass. Auch für leichte Schrupparbeiten einsetzbar. Bester Widerstand gegen Verschleiss und Schneidekantendeformation. Geeignet für Feinbohrarbeiten mit normalem Aufmass von 0.25 mm im Durchmesser. Titanium carbide / titanium nitride (Cermet) for finishing with low to high cutting speeds with regular cutting depth. Also for light roughing. High resistance to wear and tip deformation. Suitable for fine boring with normal cutting depths from 0.25 mm in bored diameter.	Stahl	50–300	0.08	
800.600.200.064	CCMT 060204				Stahl rostfrei	30–250	bis
800.600.200.092	CCMT 09T302				Grauguss	50–300	0.15
800.600.200.094	CCMT 09T304				Aluminium	bis 800	
800.600.200.098	CCMT 09T308				Buntmetall	bis 500	
800.600.200.128	CCMT 120408						

HIT HRC+

Wendepplatten

Inserts

H00

Bestell-Nummer	Wendepplatte	Schneidstoff	Technische Informationen	Materialen	v [m/min]	f [mm/Z]
Order number	Insert	Cutting mat.	Technical information	Materials	v [m/min]	f [mm/r]
800.600.300.062	CCGT 060202L	CTG	<p>Allseitig geschliffene, hochpositive Cermet-Wendepplatte (Titan-Carbid / Titan-Nitrid), für alle Feinbohrarbeiten. Die Wendepplatte eignet sich insbesondere bei kleinem Aufmass und langen Bohrungen. Durch den grossen Spanwinkel sind die Druck- und Schnittkräfte sehr gering.</p>	Stahl	50–300	0.06
800.600.300.064	CCGT 060204L			Stahl rostfrei	30–250	bis
800.600.300.092	CCGT 09T302L			Grauguss	50–250	0.12
800.600.300.094	CCGT 09T304L			Aluminium	bis 800	
				Buntmetall	bis 500	
			<p>All ground, Cermet insert with highly positive rake angle for all fine bore machining. Very suitable for deep bores with small cutting depth. Low cutting and pressing forces due to large rake angle.</p>	<p>Steel Stainless steel Cast iron Aluminium Copper alloys</p>	<p>50–300 30–250 50–250 to 800 to 500</p>	<p>0.06 to 0.12</p>
800.600.800.062	CCGT 060202L	SFH	<p>Mehrfach beschichtete superfeinstkorn Hartmetall-Wendepplatte zur Bearbeitung von harten und gehärteten Werkstoffen bis 62 HRC. Die Wendepplatte eignet sich hervorragend für Feinbohrarbeiten in gehärtetem Stahl als Alternative zum K-Schleifen.</p>	Stahl weich	bis 300	0.04
800.600.800.064	CCGT 060204L			Stahl HRC 45	80–250	bis
800.600.800.092	CCGT 09T302L			Stahl HRC 50	80–200	0.20
800.600.800.094	CCGT 09T304L			Stahl HRC 55	50–150	
				Stahl HRC 60	30–100	
			Stahl HRC 62	20– 60		
			<p>Repeat coated extremely fine grain carbide insert for machining of hard and hardened steels up to 62 HRC. Very suitable for fine boring of precision bores in hardened steel as an alternative to Jig-grinding.</p>	<p>Steel soft Steel HRC 45 Steel HRC 50 Steel HRC 55 Steel HRC 60 Steel HRC 62</p>	<p>bis 300 80–250 80–200 50–150 30–100 20– 60</p>	<p>0.04 to 0.20</p>
800.600.400.064	CCMT 060204	HBH	<p>Mehrfach beschichtete Hartmetall-Wendepplatte mit hoher Verschleissfestigkeit und grossem Widerstand gegen plastische Verformung. Generell geeignet für die Stahlbearbeitung mit mittleren bis hohen Schnittgeschwindigkeiten.</p>	Stahl	20–280	0.10
800.600.400.094	CCMT 09T304			Stahl rostfrei	30–250	bis
800.600.400.098	CCMT 09T308			Grauguss	50–250	0.40
800.600.401.128	CCMT 1204.08			Sphäroguss	50–180	
800.600.400.128	CNMG 120408			Aluminium	bis 800	
800.600.400.168	CNMG 160608			Buntmetall	bis 500	
800.600.400.169	CNMG 160612					
800.600.400.198	CNMG 190612					
800.600.400.199	CNMG 190616					
				<p>Repeat coated carbide insert with high wear and plastic deformation resistance. Generally used for machining of ferrous steels with middle to high cutting speeds.</p>	<p>Steel Stainless steel Cast iron Spheroidal cast iron Aluminium Copper alloys</p>	<p>20–280 30–250 50–250 50–180 to 800 to 500</p>
800.600.500.128	CNMM 120408	HBZ	<p>Mehrfach beschichtete Hartmetall-Wendepplatte mit höchster Zähigkeit und Stabilität der Schneidekante. Geeignet für Stahlbearbeitung durch die positive Schneidegeometrie auch bei unterbrochenem Schnitt.</p>	Stahl	50–300	0.10
800.600.500.168	CNMM 160608			Stahl rostfrei	30–250	bis
800.600.500.169	CNMM 160612			Grauguss	50–300	0.60
800.600.500.198	CNMM 190612			Sphäroguss	50–200	
800.600.500.199	CNMM 190616			Aluminium	bis 800	
			Buntmetall	bis 500		
			<p>Repeat coated carbide insert, very tough with high stability cutting edge. Suitable for machining of ferrous steels also with interrupted cut due to its positive cutting geometry.</p>	<p>Steel Stainless steel Cast iron Spheroidal cast iron Aluminium Copper alloys</p>	<p>50–300 30–250 50–300 50–200 to 800 to 500</p>	<p>0.10 to 0.60</p>



SWISS  **TOOLS**

Swiss Tool Systems AG

Wydenstrasse 28

CH-8575 Bürglen

Phone +41 (0)71 634 85 20

Fax +41 (0)71 634 85 29

www.swisstools.org