

Catalogue presentation	2 - 3
Product overview	Monobloc holders and Graflex adapters.....	4 - 5
	Shrinkfit devices.....	6
	Graflex Modular System.....	7
	Additional equipment.....	8 - 9
Alphanumerical index	10 - 12
Technical Guide	13 - 59
	Quality.....	13
	Holders, designed for HSM.....	14
	Code key.....	15 - 16
	Balancing.....	17 - 18
	Front end types.....	19 - 29
	Shrinkfit devices.....	30 - 35
	Graflex Modular System.....	36 - 52
	Additional equipment.....	53 - 59
Product pages	60 - 340
Monobloc holders	HSK-A holders.....	60 - 95
	HSK-E holders.....	96 - 106
	DIN 69871 holders.....	107 - 145
	BT JIS holders.....	146 - 182
	CAT/DIN holders.....	183 - 198
	DIN 2080 holders.....	199 - 214
Shrinkfit devices	EasyShrink devices.....	215 - 220
Graflex Modular System	Arbors.....	222 - 231
	Intermediates.....	232 - 239
	Tool holding adapters.....	240 - 270
	Boring heads.....	271 - 288
	Inserts for boring heads.....	289 - 290
	Insert locking keys and spare screws.....	291
	Connection locking keys and spare parts.....	292 - 293
Additional equipment	HSK-A coolant tubes, tube spanners and sealing plugs.....	294
	Pull studs.....	295 - 297
	Spare sealing plugs for ADB tapers.....	298
	Shrinkfit extensions.....	299 - 300
	Setting adapters for the stop end screw of the Shrinkfit holders.....	301
	D type collets.....	302 - 303
	D type sealing rings.....	304 - 305
	Reduction sleeves, control gauges and cleaning brushes for hydraulic chucks.....	306 - 307
	ER collet chucks with cylindrical shank.....	308
	ER collets standard and high precision.....	309 - 312
	ER sealing rings.....	313 - 315
	OZ collets.....	316 - 323
	Jacobs drill chucks.....	324
	Morse Taper reducers.....	325
	Quick change tapping chucks with cylindrical shank.....	326
	Quick change tap adapters.....	327 - 330
	Spindle cleaning wipers.....	331
	Assembly supports, Tool Boy.....	332
	HSK locking units and locking flange mounts, TF.....	333 - 340

EPB tooling systems are now part of the Seco 'Machining Navigator' collection.

You will find the most recent spindle tooling products and application techniques needed to successfully equip all types of machine tools. The products are divided into four 'product families': MONOBLOC - SHRINKFIT DEVICES - GRAFLEX® - ADDITIONAL EQUIPMENT.

Information and advice related to all products (e.g. key codes, balancing, norms, tolerances, setting procedures and recommendations) are grouped in the 'Technical Guide' pages, at the beginning of the catalogue.

MONOBLOC

MONOBLOC - solid holders. There are two HSK 'hollow shank taper' ranges (HSK-A and HSK-E) and four SA 'steep angle' ranges (DIN 69871- BT - CAT/ DIN Combined - DIN 2080). 'Front end' types to hold all milling, drilling, tapping and reaming tools are available.

Recently introduced ranges of tenon drive milling cutter holders, having coolant channels through the spigot, available in different lengths to facilitate deep wall milling and plunging are shown.

Shrinkfit holders, type D collet chucks and hydraulic chucks form the HSM 'High Speed Machining' programme of products within the MONOBLOC ranges.



SHRINKFIT DEVICES

Here you can select dedicated tool shrinking equipment to meet your requirements. The EasyShrink® 10 device, for example, achieves fast and reliable shrink grip and shrink release operations of all tool shank types (carbide - heavy metal - steel - HSS). Optional systems and accessories are available for tool height setting and the required cooling process.



GRAFLEX®

The Graflex® Modular System has a leading reputation for 'flexibility' without 'weakness'. Customised toolholder types and dimensions closest to the required machining operation can rapidly be built together from standard modules.

Graflex® boring heads, for diameters 2 to 655 mm, guarantee 'class' leading productivity and precision. The rough boring heads have a coupling mechanism for a simultaneous adjustment of the insert holders and permit both symmetrical and staggered boring modes.

Libraflex® balanceable fine boring heads are equipped with a balancing mechanism, to achieve quality bores at high speeds (up to 20.000 rpm for \varnothing 2 to 32 mm and up to Vc 1500 m/min for \varnothing 30 to 115 mm).

The largest bores are produced using 'bridge bar head' modules.



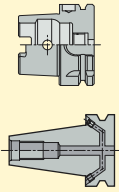
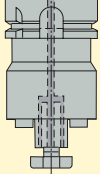
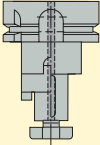

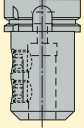
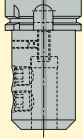
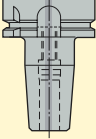
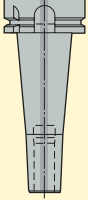
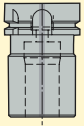
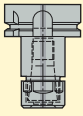
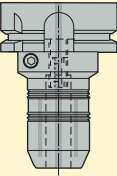
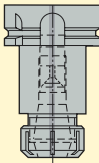
ADDITIONAL EQUIPMENT

This shows the items to be used in conjunction with the Monobloc and the Graflex® toolholders (e.g. pull studs, collets, tap adapters, Shrinkfit - collet chuck - tapping extensions, plus e.g. Tool Boy assembly supports, HSK locking units).

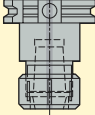
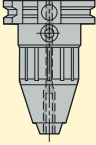
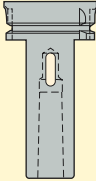
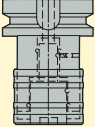
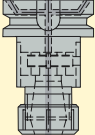


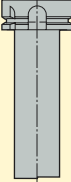
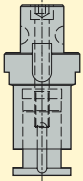
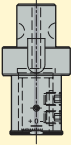
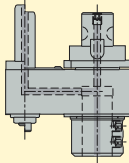

Note: 'Accessories' shown in the sub-tables of the Monobloc and Graflex pages, are items for handling or adapting the main products shown on the page (e.g. spanners, stop end screws, sealing nuts).



Monobloc holders and Graflex adapters (overview page 1/2)

<p>Guide pages:</p> <p>Product pages: HSK-A HSK-E DIN 69871 JIS (BT) CAT/DIN DIN 2080 Graflex</p>	<p>Taper norms and Graflex connection</p>  <p>page 15-16, 36-38</p> <p>page 60 page 96 page 107 page 146 page 183 page 199 –</p>	<p>Shell mill holders (incl. through coolant channels type)</p>  <p>page 19</p> <p>page 61-64 page 97 page 108-110 page 147-148 page 184 page 200-201 page 240</p>	<p>Combi shell mill holders</p>  <p>page 19</p> <p>page 65 – page 111 page 149 – page 202 page 241</p>	<p>Milling cutter holders, flange mounting</p>  <p>page 19</p> <p>page 66 – page 112 page 150 page 185 page 203 page 242</p>
<p>Guide pages:</p> <p>Product pages: HSK-A HSK-E DIN 69871 JIS (BT) CAT/DIN DIN 2080 Graflex</p>	<p>Side lock holders, Weldon</p>  <p>page 20</p> <p>page 67-70 – page 113-118 page 151-156 page 186 page 204-205 page 243-244</p>	<p>Side lock holders, Whistle Notch</p>  <p>page 20</p> <p>page 71-73 – page 119 page 157 page 187 – page 245</p>	<p>Shrinkfit holders, DIN type</p>  <p>page 14, 21-22</p> <p>page 74-77 page 98-99 page 120-121 page 158-160 – –</p>	<p>Shrinkfit holders, Mould and Die type</p>  <p>page 14, 21-22</p> <p>page 78-79 page 100 page 122 page 161-162 – –</p>
<p>Guide pages:</p> <p>Product pages: HSK-A HSK-E DIN 69871 JIS (BT) CAT/DIN DIN 2080 Graflex</p>	<p>Shrinkfit holders, cylindrical type</p>  <p>page 14, 21-22</p> <p>page 80 – – – – –</p>	<p>D type precision collet chucks (incl. Libraflex balanceable type)</p>  <p>page 14, 23</p> <p>page 81-83 page 101-102 page 123-124 page 163-164 – – page 246</p>	<p>Hydraulic chucks</p>  <p>page 14, 24</p> <p>page 84-85 page 103 page 125 page 165 – – page 247</p>	<p>ER collet chucks</p>  <p>page 25</p> <p>page 86-87 page 104 page 126-127 page 166-167 page 188 page 206 page 248</p>

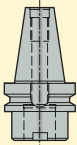
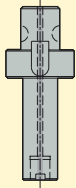
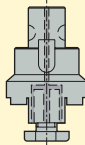

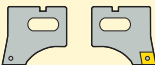
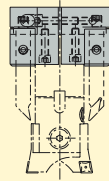
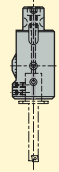
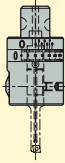

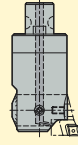
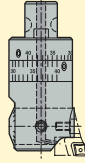


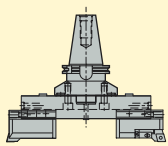

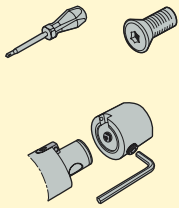
Monobloc holders and Graflex adapters (overview page 2/2)

<p>Guide pages:</p> <p>Product pages:</p> <p>HSK-A</p> <p>HSK-E</p> <p>DIN 69871</p> <p>JIS (BT)</p> <p>CAT/DIN</p> <p>DIN 2080</p> <p>Graflex</p>	<p>OZ collet chucks</p>  <p>page 26</p> <p>–</p> <p>page 128-129</p> <p>page 168</p> <p>page 189</p> <p>page 207</p> <p>page 249</p>	<p>Universal drill chucks and Jacobs chuck holders</p>  <p>page 26</p> <p>page 88</p> <p>–</p> <p>page 130-131</p> <p>page 169-170</p> <p>page 190-191</p> <p>page 208-209</p> <p>page 250</p>	<p>Holders for Morse Taper (with tang/ with thread types)</p>  <p>page 26</p> <p>page 89-90</p> <p>–</p> <p>page 132-135</p> <p>page 171-174</p> <p>page 192-193</p> <p>page 210-211</p> <p>page 251-253</p>	<p>Quick change tapping chucks (with/ without compensation)</p>  <p>page 27</p> <p>page 91-92</p> <p>–</p> <p>page 136-139</p> <p>page 175-177</p> <p>page 194-195</p> <p>page 212</p> <p>page 254-256</p>
<p>Guide pages:</p> <p>Product pages:</p> <p>HSK-A</p> <p>HSK-E</p> <p>DIN 69871</p> <p>JIS (BT)</p> <p>CAT/DIN</p> <p>DIN 2080</p> <p>Graflex</p>	<p>ER tapping chucks (without compensation)</p>  <p>page 27</p> <p>page 93</p> <p>–</p> <p>page 140</p> <p>page 178</p> <p>page 196</p> <p>–</p> <p>page 257</p>	<p>Taper adapters (SA/ HSK)</p>  <p>–</p> <p>–</p> <p>–</p> <p>page 141-142</p> <p>page 179-180</p> <p>page 197</p> <p>page 213</p> <p>–</p>	<p>Greenstock blanks</p>  <p>page 29</p> <p>page 94</p> <p>page 105</p> <p>page 143-144</p> <p>page 181</p> <p>page 198</p> <p>page 214</p> <p>page 258</p>	<p>Test/ Control bars</p>  <p>page 29</p> <p>page 95</p> <p>page 106</p> <p>page 145</p> <p>page 182</p> <p>–</p> <p>–</p>
<p>Guide pages:</p> <p>Product pages:</p> <p>HSK-A</p> <p>HSK-E</p> <p>DIN 69871</p> <p>JIS (BT)</p> <p>CAT/DIN</p> <p>DIN 2080</p> <p>Graflex</p>	<p>Disc mill holders</p>  <p>page 28</p> <p>–</p> <p>–</p> <p>–</p> <p>–</p> <p>–</p> <p>–</p> <p>–</p> <p>page 259</p>	<p>Adjustable drill holders</p>  <p>page 28</p> <p>–</p> <p>–</p> <p>–</p> <p>–</p> <p>–</p> <p>–</p> <p>–</p> <p>page 260</p>	<p>Rotary coolant inducers</p>  <p>page 28</p> <p>–</p> <p>–</p> <p>–</p> <p>–</p> <p>–</p> <p>–</p> <p>–</p> <p>page 261-270</p>	<p>Note: For Combimaster holders, see Milling catalogue</p>  <p>see Milling catalogue</p> <p>see Milling catalogue</p> <p>see Milling catalogue</p> <p>see Milling catalogue</p> <p>see Milling catalogue</p> <p>–</p> <p>–</p>

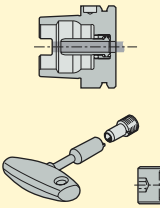
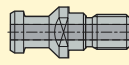
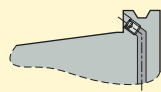

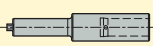


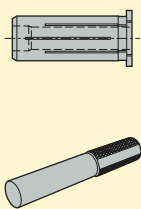


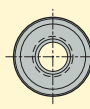

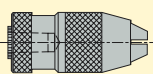
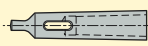
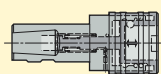
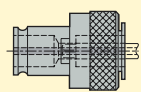
Shrinkfit devices (overview page 1/1)

	<p>EasyShrink (EasyShrink kits and devices)</p> 	<p>Height setting systems (Stop rods and digital types)</p> 	<p>Cooling systems (Box, liquid and Vortex types)</p> 	
<p>Guide pages: Product pages:</p>	<p>page 30-32 page 216-217</p>	<p>page 33 page 218</p>	<p>page 34-35 page 219-220</p>	

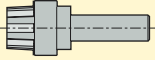

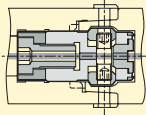
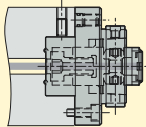
Graflex Modular System (overview page 1/1)

<p>Guide pages:</p> <p>Product pages:</p>	<p>Arbors (HSK, SA, Adjustable, VDI and Flange mounts)</p>  <p>page 39 page 222-231</p>	<p>Intermediates (Extensions, Reducers, Enlargers, Cyl. extensions)</p>  <p>page 40-41 page 232-239</p>	<p>Tool holding adapters (for details, see Monobloc holders and Graflex adapters overview pages)</p>  <p>page 41 page 240-270</p>	<p>Rough boring heads (type A750..)</p>  <p>page 42-43, 50 page 271</p>
<p>Guide pages:</p> <p>Product pages:</p>	<p>Insert holders for rough boring heads</p>  <p>page 42-43 page 272-273</p>	<p>Chamfering rings (incl. tools)</p>  <p>page 44 page 274-275</p>	<p>Fine boring heads, axial types (A72002 and A78000)</p>  <p>page 44-45, 50 page 276-277</p>	<p>Libraflex balanceable fine boring head, axial type (A79000 and Kits)</p>  <p>page 45, 50 page 278</p>
<p>Guide pages:</p> <p>Product pages:</p>	<p>Boring tools for axial type fine boring heads</p>  <p>page 45 page 279</p>	<p>Fine boring heads, radial type (type A780..)</p>  <p>page 46-47, 50 page 280</p>	<p>Libraflex balanceable fine boring heads, radial type (type A790..)</p>  <p>page 46, 50 page 281</p>	<p>Insert holders for radial type fine boring heads</p>  <p>page 46 page 282</p>
<p>Guide pages:</p> <p>Product pages:</p>	<p>Chamfering and back-boring insert holders for radial type fine boring heads</p>  <p>page 47 page 283-284</p>	<p>Bridge bar boring heads</p>  <p>page 48-49, 50 page 285-288</p>	<p>Inserts for boring heads</p>  <p>page 51-52 page 289-290</p>	<p>Accessories and spare parts (for insert locking and Graflex connection)</p>  <p>page 37-38 page 291-293</p>

Additional equipment (overview page 1/2)

<p>Guide pages:</p> <p>Product pages:</p>	<p>HSK-A coolant tubes and sealing plugs (incl. tube fitting keys)</p>  <p>page 53 page 294</p>	<p>Pull studs</p>  <p>page 53 page 295-297</p>	<p>Sealing plugs for ADB tapers (spare parts)</p>  <p>page 53 page 298</p>	<p>Shrinkfit extensions (with cylindrical and with Morse Taper shank)</p>  <p>page 21 page 299-300</p>
<p>Guide pages:</p> <p>Product pages:</p>	<p>Setting adapters for the stop end screw of the type 5803 Shrinkfit holders</p>  <p>page 54 page 301</p>	<p>D type collets</p>  <p>page 55 page 302-303</p>	<p>D type sealing rings</p>  <p>page 55 page 304-305</p>	<p>Reduction sleeves, control gauges and cleaning brushes for hydraulic chucks</p>  <p>page 54 page 306-307</p>
<p>Guide pages:</p> <p>Product pages:</p>	<p>ER collet chucks with cylindrical shank</p>  <p>page 25 page 308</p>	<p>ER collets (standard and high precision types)</p>  <p>page 56, 57 page 309-312</p>	<p>ER sealing rings</p>  <p>page 56 page 313-315</p>	<p>OZ collets</p>  <p>page 57 page 316-323</p>
<p>Guide pages:</p> <p>Product pages:</p>	<p>Jacobs drill chucks</p>  <p>— page 324</p>	<p>Morse Taper reducers</p>  <p>— page 325</p>	<p>Quick change tapping chucks with cylindrical shank (with compensation)</p>  <p>page 27 page 326</p>	<p>Quick change tap adapters (with and without torque limiter)</p>  <p>page 58 page 327-330</p>

Additional equipment (overview page 2/2)

	Spindle cleaning wipers 	Assembly supports, Tool Boy 	HSK locking units, TF 	HSK locking flange mounts, TF 
Guide pages: Product pages:	– page 331	page 58 page 332	page 59 page 333-337	page 59 page 335-336,338-340

Part No.	Page	Part No.	Page	Part No.	Page
01B5872	304, 305	CPGT0502	289	584	115
01B5875	313, 314, 315	D		5873	129
02E93	294	DIN 2080 norm	199	5875	127
03E93	294	DIN 69871 norm	107	E3871	
05F5832	306	E		5023	144
05R5800	301	E0040		536	133
05RS5800	218	5023	214	584	116
20E93	294	506	209	5873	129
24H5095	333	5085	208	5875	127
501	325	533	211	E3871731200	285
5450	308	536	210	E4014	
5872	302, 303	552	201	536	172
5880	309, 310, 311, 312	5521	200	584	153
5883A	316, 317, 318	553	202	5875	167
5883B	319, 320, 321, 322	584	204	E4016	
5883C	323	5873	207	536	172
90F	292	5875	206	584	154
90M	292	E0050		5875	167
935N	331	5023	214	E4040	
935ND	307	5085	208	506	170
950A0406	298	533	211	552	148
950A0606	298	536	210	5801	161
A		543	213	5803	165
A5162	274	552	201	584	151
A72002	276	5521	200	5873	168
A721	279	553	202	5875	166
A725	282	569	203	E4041	
A726	282	584	205	5023	181
A728	279	5873	207	506	170
A729	283	5875	206	5095	180
A731	286, 287	E0050731200	285	533	174
A731200	285	E3414		536	171, 173
A750	271, 272, 273	5085	169	543	179
A780	280	5525	147	552	148
A78000	277	5801	159	553	149
A789X	284	5803	84	569	150
A79000	278, 281	584	155	584	151
A792	279	5843	157	5842	156
A795	279	5865	178	586	182
B		E3416		5872	163
B06A	275	5085	169	5873	168
B08B	275	5525	147	5875	166
BC0205801	300	5803	160	E4464	
BC0305801	300	584	155	506	131
BD0165801	299	5843	157	552	110
BD0205801	299	5865	178	584	113
BM06161	260	E3469		5873	128
BR1	334	5085	130	5875	126
BR2	335	5525	108	E4466	
BR3	336	5803	125	5023	198
BSM 261, 262, 263, 264, 265, 266, 267, 268,		584	117	506	191
269, 270		5843	119	5085	190
BT JIS norm	146	5865	140	533	193
C		E3471		536	192
CA5832	307	5085	130	543	197
CAT/ DIN Combined norm	183	5525	109	552	184
CCGT0602	289, 290	5803	121	569	185
CCGT09T3	289, 290	584	117	584	186
CCGT1204	289	5843	119	5843	187
CCMT0602	289, 290	5865	140	5873	189
CCMT09T3	289, 290	E3476		5875	188
CCMT1204	289	5801	120	E4468	
CCMT1605	289	E3869		5023	198
CCMW0602	290	5023	144	5085	190
CCMW09T3	290	536	133	533	193

Part No.	Page	Part No.	Page	Part No.	Page
543	197	5875	86	586	106
552	184	E9302		5872	101
569	185	5023	94	E9341	
584	186	552	64	5023	105
5865	196	5801	70	5801	162
5873	189	5834	103	5803	158
5875	188	586	82, 95	5872	101
E4468731200	285	5872	81	5875	104
E4469		5875	86	E9342	
5023	143	E9303		5023	105
506	131	5023	94	5801	162
5095	142	5085	89	5803	158
533	135	533	63	5834	122
536	132, 134	552	64	5872	101
543	141	5801	70	5875	104
552	110	5834	103	E9343	
553	111	584	67	552	97
569	112	586	82, 95	5801	162
584	113	5872	81	5834	122
5842	118	5875	86	5872	102
586	145	E9304		5875	104
5872	123	5023	94	E9344	
5873	128	5085	89	552	97
5875	126	533	63	5801	162
E4470		536	65	5834	122
5023	143	552	64	5872	102
543	141	5525	61	5875	104
E4471		553	78	E9509	296
5023	143	5800	80	E9539	297
506	131	5801	75, 79	E9540	296
5095	142	5803	76	E9544	295
533	135	5834	85	E9552	296
536	132, 134	584	68, 69	E9555	296
543	141	5843	71	E9557	296
552	110	586	82, 95	E9568	296
553	111	5865	87	E9599	296, 297
569	112	5872	88	EM	222, 223, 224, 225, 226, 227, 228
584	114	5875	86	EQ4041	
586	145	E9305		5872	164
5872	123	5023	94	EQ4469	
5873	128	5525	61	5872	124
5875	126	5803	77	EQ9304	
E4471731200	285	5843	72	5872	83
E5766		586	82, 95	ER	229
5023	181	5865	87	ET0040	
506	170	5872	88	5283	212
5095	180	5875	90	ET0050	
533	174	E9306		5283	212
536	171, 173	5023	94	ET3869	
543	179	5085	89	5260	139
552	148	533	63	5283	137
5521	148	536	65	ET3871	
553	149	5521	66	5260	139
569	150	5525	62	5283	137
584	152	553	78	ET4014	
5872	163	569	74	5260	177
5873	168	5801	79	ET4016	
5875	166	5803	99	5260	177
E5766731200	285	584	92	ET4040	
E9301	60	5843	73, 93	5283	175
5023	94	586	82, 95	ET4041	
552	64	5865	87	5260	176
5801	70	5872	88	5283	175
5834	103	5875	90	ET4466	
586	82, 95	E9306731200	285	5260	195
5872	81	E9340		5283	194

Part No.	Page	Part No.	Page	Part No.	Page
ET4468		SSRCL16CA-15	288		
5260	195	STGCL16CA-16	288		
5283	194	STSC16CA-16	288		
ET4469		STTCL16CA-16	288		
5260	138	T			
5283	136	T5241	329, 330		
ET4471		T5283	326		
5260	138	T5285	327, 328		
5283	136	TCGT1102	290		
ET5766		TCGT16T3	289		
5260	176	TCMT16T3	289		
5283	175	TCMW1102	290		
ET9303		TPGT0702	290		
5260	100	V			
5283	91, 98	VBMX1102	289		
ET9304		VBMX1604	289		
5260	100	VDI	230		
5283	91, 98	W			
ET9305		WBGTO301	290		
5260	100	WBGW0301	290		
ET9306		Z			
5260	100	ZFAD04	217		
5283	91, 98	ZFAG01	217		
H		ZFAR0240	219		
HSK-A norm	60	ZFAR0240H	220		
HSK-E norm	96	ZFAR0250	219		
L		ZFAR0250H	220		
L5065	324	ZFAR02B	220		
M		ZFAR02C	220		
M210	332	ZFAR10D	220		
M211	332	ZFAT03C	217		
M401	238, 239	ZFCM02IN111	218		
M402	232, 233	ZFM02IN	216		
M403	234, 235, 236, 237	ZFM02IN40	216		
M409	231	ZFM02IN50	216		
M5023	258	ZFM03IN	216		
M5085	250	ZFM03IN40	216		
M5260	256	ZFM03IN50	216		
M5283	254, 255	ZFQMS02	218		
M533	253	ZFQRA01	219		
M536	251, 252	ZFQRE01	219		
M5525	240	ZFQRE02	219		
M553	241	ZFS02IN020	218		
M5656	259				
M569	242				
M5834	247				
M584	243, 244				
M5843	245				
M5865	257				
M5872	246				
M5873	249				
M5875	248				
S					
S08B-SV	275				
S10D-SV	275				
S12E-SV	275				
S16J-SV	275				
SCGCL16CA-16	288				
SCGX0502	289				
SCGX1505	289				
SCMT0602	289				
SCMT09T3	289				
SCMT1204	289				
SCMT1505	289				

Tooling systems



This Technical Guide contains information and application advice related to:

MONOBLOC Solid holders including HSM (High Speed Machining), e.g. Shrinkfit holders.

GRAFLEX® Modular System, e.g. boring heads.

DEVICES Tool Shrinkfit equipment.

ADDITIONAL equipment e.g. collets, tapping adapters, pull studs.

Quality

The philosophy behind EPB products is based on total quality and is applied to each tool holder within this catalogue. Controls are carried out at all stages of the manufacturing process in accordance with ISO 9001.

- Material characteristics - 'classic' tool holders: case hardened steel, tensile strength 950 N/mm², surface hardness 58 ± 2 HRC - HSM tool holders are made from materials chosen for their superior performance.
- Taper precision - SA tapers according to DIN 2080, tolerance class AT3, Ra < 0,2 µm - HSK according to ISO 12164.
- Geometrical tolerances - direct run-out measured on the holder and/or run-out measured on a test gauge are in the catalogue.
- Overall finish - fully deburred, black oxide or special surface treatment and laser marking.
- Traceability - full identification and control report.
- Fine balancing or pre-balancing information is listed in this catalogue for each holder.



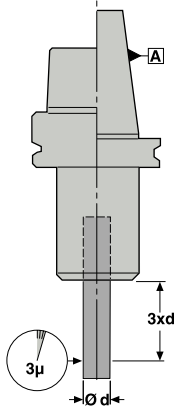
HSM (High Speed Machining) technology gives significant productivity and quality improvements. Three EPB holder types meet all the requirements of HSM:

Shrinkfit holders

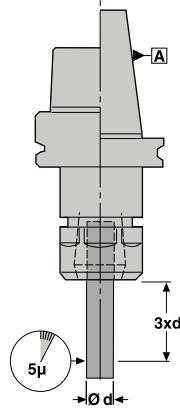
D type collet chucks

Hydraulic chucks

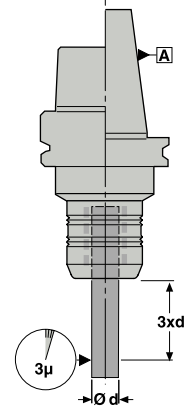
- Balance : HSM holders are all fine balanced as standard.
- Precision: Maximum run-out at $3 \times d$ is 3 to 5 μm . See below.
- Rigidity.
- High transmittable torque.



Shrinkfit holders



D type collet chucks



Hydraulic chucks

Main features	Shrinkfit holders	D Type collet chucks	Hydraulic chucks
Run-out precision	+++ (3 μm)	++ (5 μm)	+++ (3 μm)
Balance quality as standard	+++ (fine balanced)	+++ (fine balanced)	+++ (fine balanced)
Transmittable torque	+++	++	+++
RPM max. front end	up to 45 000*	up to 100 000*	up to 40 000*
Rigidity	+++	++	+(avoid radial forces)
Accessibility	+++	+	+
Additional equipment	Shrinkfit device required	Collets and compression tool required	Clamping test gauges recommended
Flexibility	+(extensions)	+++ (collets)	++ (sleeves)
Shank diameter and relevant tolerances - max.	3, 4, & 5 mm: h5 - 6, 8, 10, 12, 14, 16, 18, 20, 25, 32mm: h6 (h5 recommended)	Collets 1 to 20 mm by steps 0,5 mm: h8	3, 4 and 5 mm: with sleeves - 6, 8, 10, 12, 14, 16, 18, 20, 25 and 32 mm: h6
Available types	Types 5803, 5801 and 5800	Types 5872 and LIBRAFLEX 5872	Type 5834

+ = Good, ++ = Very good, +++ = Excellent

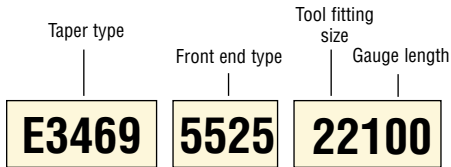
* For details see following pages

Other holders suitable for HSM:

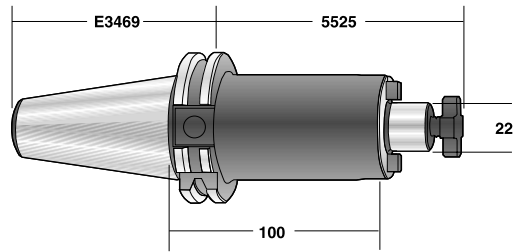
D type collet chucks are also available in balanceable Libraflex type, in order to balance an assembled tool and holder.

Selected shell-mill holders, Weldon and ER collet chucks are fine balanced as standard, see product pages.

Balanceable Graflex boring heads (Libraflex) are available for fine boring at high rpm, and most Graflex arbors are fine balanced as standard.



Code separation spaces are only there to facilitate easy reading of the part numbers. They do not form part of the ordering code.



Taper types

HSK-A, ISO 12164-1

- Form A**, for NC machines with automatic tool changer. Form A has a radial hole through the taper for manual clamping, compatible with form C.
- E9301... HSK-A32, coolant supply through coolant connection tube.
 - E9302... HSK-A40, coolant supply through coolant connection tube.
 - E9303... HSK-A50, coolant supply through coolant connection tube.
 - E9304... HSK-A63, coolant supply through coolant connection tube.
 - E9305... HSK-A80, coolant supply through coolant connection tube.
 - E9306... HSK-A100, coolant supply through coolant connection tube.

Note: For HSK-A holders, sealing plugs, coolant tubes and tube spanners are available from Additional equipment. They are not supplied as standard.

HSK-E, DIN 69893

- Form E**, for high-speed machines with automatic tool changer.
- E9340... HSK-E25, coolant supply through channel.
 - E9341... HSK-E32, coolant supply through channel.
 - E9342... HSK-E40, coolant supply through channel.
 - E9343... HSK-E50, coolant supply through channel.
 - E9344... HSK-E63, coolant supply through channel.

DIN 69871

- E4464... DIN taper size 30, Form AD or A, coolant through the centre or no coolant through.
- E4469... DIN taper size 40, Form AD or A, coolant through the centre or no coolant through.
- E3869... DIN taper size 40, Form B, coolant through the flange.
- E3469... DIN taper size 40, Form ADB, coolant through the centre and the flange.
- E3476... DIN taper size 40, Form ADB, coolant through the centre and the flange, with CAT compatible front end flange neck.
- E4471... DIN taper size 50, Form AD or A, coolant through the centre or no coolant through.
- E3871... DIN taper size 50, Form B, coolant through the flange.
- E3471... DIN taper size 50, Form ADB, coolant through the centre and the flange.
- E3478... DIN taper size 50, Form ADB, coolant through the centre and the flange, with CAT compatible front end flange neck.

Note: ADB holders are fitted with sealing plugs which are also shown in Additional equipment.

BT JIS B 6339

- E4040... BT taper size 30, Form AD or A, coolant through the centre or no coolant through.
- E4041... BT taper size 40, Form AD or A, coolant through the centre or no coolant through.
- E4014... BT taper size 40, Form B, coolant through the flange.
- E3414... BT taper size 40, Form ADB, coolant through the centre and the flange.
- E5766... BT taper size 50, Form AD or A, coolant through the centre or no coolant through.
- E4016... BT taper size 50, Form B, coolant through the flange.
- E3416... BT taper size 50, Form ADB, coolant through the centre and the flange.

Note: ADB holders are fitted with sealing plugs which are also shown in Additional equipment.

CAT/DIN Combined

E4466...	DIN taper size 40, Form AD or A, coolant through the centre or no coolant through, with CAT compatible front end flange neck.
E4468...	DIN taper size 50, Form AD or A, coolant through the centre or no coolant through, with CAT compatible front end flange neck.

DIN 2080

E0040...	DIN 2080 taper size 40, no coolant through.
E0050...	DIN 2080 taper size 50, no coolant through.

Front end types

5525	Shell mill holders, enlarged face, with through coolant channels.
5521	Shell mill holders, enlarged face.
552	Shell mill holders.
553	Combi shell mill holders.
569	Milling cutter holders, flange mounting.
584	Side lock holders, Weldon.
5842	Side lock holders, Weldon short.
5843	Side lock holders, Whistle Notch.
5803	Shrinkfit holders, DIN type.
5801	Shrinkfit holders, Mould and Die type.
5800	Shrinkfit holders, cylindrical type.
5872	D type precision collet chucks.
Q5872	D type precision collet chucks, Libraflex balanceable.
5834	Hydraulic chucks.
5875	ER collet chucks.
5873	OZ collet chucks.
5085	Universal drill chucks.
506	Jacobs chuck holders.
536	Holders for Morse Taper with tang.
533	Holders for Morse Taper with thread.
5283	Quick change tapping chucks with axial compensation.
5260	Quick change tapping chucks for synchronised tapping.
5865	ER tapping chucks for synchronised tapping.
543	Taper adapters SA.
5095	Taper adapters HSK.
5023	Greenstock blanks.
586	Test/Control bars.
5656	Disc mill holders, Graflex.
6100/6101	Adjustable drill holders, Graflex.
BSM	Rotary coolant inducers, Graflex.

Note: For Combimaster holders, see Milling catalogue

Note: DIN 69882 defines the overall dimensions of some HSK-A holder sizes for types 5525, 5521, 553, 584, 5843, 5803, 5834 and 5875. EPB holders that conform to DIN 69882 are marked in the product pages with an asterisk.

Delivery contents

Each holder is delivered with all components included, also shown in the product pages as 'Spare parts'. 'Accessories' and 'Additional equipment' are not included in the delivery content.

Identification microchips

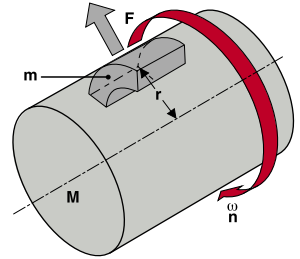
Identification microchips can be fitted to the holders, please enquire.

The ISO 1940 NORM:

ISO 1940 has established G as the unit of measurement for the balance quality of rotating parts.

$$G = e \times \omega \Rightarrow G = \frac{U}{M} \times \frac{2 \pi n}{60}$$

G = balance quality in mm/s
 e = specific unbalance in g.mm/kg or μm
 ω = speed in rad/s
 U = residual unbalance, ($U = e \times M$) in g.mm
 M = mass of toolholder in kg
 n = rpm
 m = unbalance mass in g
 r = distance between the unbalance mass and rotational axis in mm



G is the tangential speed of the centre of gravity in reference to the rotational axis.
 G is depending on n , M , U . It is not possible to define G without referring to the rotational speed.

Residual unbalance U:

$$U = m \times r$$

U [g.mm] is the product of the unbalance mass m [g] and its distance to the rotational axis r [mm].
 Value and direction of the residual unbalance U are measured using a balancing machine.

Residual unbalance U causes a centrifugal force F to act on the rotating parts. This force will have, for example, a negative effect on the useful life of the spindle bearings.

$$F = U \times \omega^2$$

Balancing is the process which improves the distribution of the mass of a solid piece, in order to reduce the unbalance effects U and F to an acceptable level.

Balancing can be achieved by different methods: by adding weights [e.g. when balancing car wheels], removing material (EPB holders), or utilising settable compensations (e.g. EPB Libraflex).

Specific unbalance e:

$$e = U/M \Leftrightarrow U = e \times M$$

e is also called unbalance eccentricity: e [g.mm]/[kg] \Leftrightarrow [g.mm]/1000 [g] \Leftrightarrow [mm]/1000 \Leftrightarrow [μm] is the distance to which the centre of gravity is offset in regard to the holder's rotational axis.

Balancing reduces e , in other words, brings back the centre of gravity as near as possible to the axis of rotation.

EPB uses the specific unbalance e to define the holder's balancing quality:

- e can be generalised for all holders, while G has to be expressed against a specific n .
- e can easily be calculated from U , given by a balancing machine, divided by the mass M of the holder.

The balancing quality of each holder is shown on the product pages: 1 = Fine-balanced, 2 = Pre-balanced.

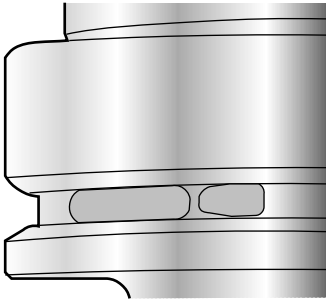
Fine balancing quality:

All EPB holders suitable for HSM applications are balanced to $e = 3 \text{ g.mm/kg}$ maximum for holders with mass $M \geq 1 \text{ kg}$ or $U = 3 \text{ g.mm}$ maximum for holders $< 1 \text{ kg}$.

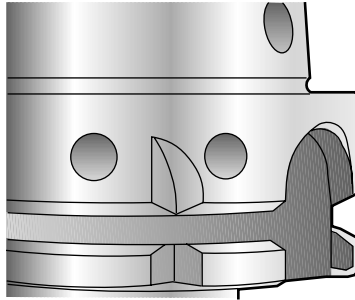
Pre-balancing quality:

The majority of EPB holders are pre-balanced to $e = 30 \text{ g.mm/kg}$ maximum for holders with mass $M \geq 1 \text{ kg}$ or $U = 30 \text{ g.mm}$ maximum for holders $< 1 \text{ kg}$.

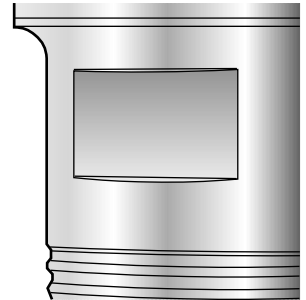
Most of the pre-balanced holders can be fine-balanced on request, please enquire.



Fine balancing, individual operation

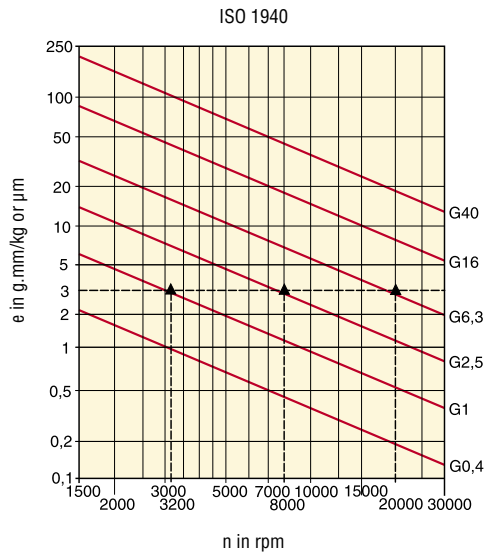


Pre-balancing, standard operation



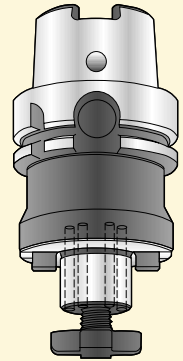
E.g.: Fine balancing a 2 kg holder to $e = 3 \text{ g.mm/kg}$ max means that the permitted residual unbalance U can be 6 g.mm max. Fine balancing a holder weighing 0,7 kg, means that U can be 3 g.mm max.

The relation between G and n in regard to e is shown on the chart taken from the norm ISO 1940.



Shell mill holders, available in Monobloc and Graflex®

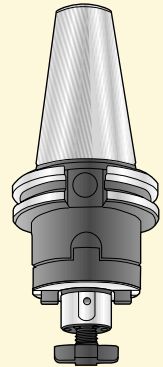
- Types:** 5525, 5521 and 552 – Holders for tenon drive milling cutters. Offering good rigidity, especially the types 5521 and 5525 with enlarged bearing face (which remains smaller than the cutter diameter). Type 5525 is designed with coolant channels through the spigot.
- Norms:** Type 552, ISO 3937.
Type 5525, 5521 : No norm, larger bearing face.
Types 5525 and 5521 with $\varnothing 40$ have 4 threaded holes according to DIN 6357 in addition to the central locking screw.
- Run-out:** Direct run-out of the spigot in relation to the external taper is 5 μm maximum.
- Balancing:** See product pages.
- Accessories:** When the cutter has no through coolant channels, it is possible to replace the standard cross head centre bolt (arbor screw) by a cross head centre bolt with through coolant channels shown in Accessories. This will direct the coolant towards cutter's front end.



Type 5525

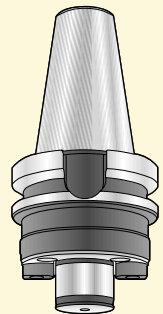
Combi shell mill holders, available in Monobloc and Graflex®

- Type:** 553 – For mounting tenon drive cutters or key drive cutters by removing the driving ring.
- Norm:** DIN 6358
- Run-out:** Direct run-out of the spigot in relation to the external taper is 5 μm maximum.
- Balancing:** Cannot be balanced.



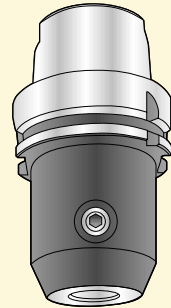
Milling cutter holders, flange mounting, available in Monobloc and Graflex®

- Type:** 569 – For large diameter face mill cutters. Offering a large bearing face and secure locking using 4 screws according to DIN2079. High torque transmission thanks to large driving keys.
- Norm:** DIN 6357/DIN 2079
- Run-out:** Direct run-out of the spigot in relation to the external taper is 5 μm maximum.
- Balancing:** See product pages.



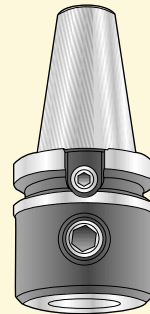
Side lock holders, Weldon, available in Monobloc and Graflex®

- Type:** **584** – The tool position is fixed as a result of the tool shank flat(s) and cannot be adjusted. The locking method offers high torque transmission. Bore sizes Ø 20, 25, 32 and 40 mm have the front face ground (Seco Weldon shanks compatible).
- Norm:** DIN 1835-2 Form B/ISO 5414-1.
- Tool shanks:** Weldon DIN 1835-1 Form B/ DIN 6535 Form HB
- Run-out:** Direct run-out of the bore to the external taper is 3 µm. Reduced bore tolerances on Ø 6 to 18 mm is +1 to +5 µm and Ø 20 and > is +1 to +7 µm.
- Balancing:** See product pages.



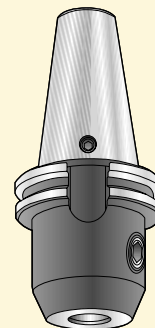
Side lock holders, Weldon short, available in Monobloc

- Type:** **5842** – Short, giving maximum rigidity. Bore sizes Ø 20, 25 and 32 mm have the front face ground (Seco Weldon shanks compatible).
- Norm:** Compatible to DIN 1835-1 Form B/ISO 5414-1 but not conformed.
- Tool shanks:** Weldon DIN 1835-1 Form B/ DIN 6535 Form HB
- Run-out:** Direct run-out of the bore to the external taper is 5 µm. Reduced bore tolerances on Ø 6 to 18 mm are +1 to +5 µm and on Ø 20 and > are +1 to +7 µm.
- Balancing:** See product pages.



Side lock holders, Whistle Notch, available in Monobloc and Graflex®

- Type:** **5843** – Similar to Weldon, but with screw(s) angled 2° to lock the tool against an adjustable stop screw. Ø 16, 20, 25 and 32 mm have the front face ground. A securing screw is provided for the stop screw.
- Norm:** DIN 1835-2 Form E
- Tool shanks:** Whistle Notch DIN 1835-1 Form E/DIN 6535 Form HE
- Run-out:** Direct run-out of the bore to the external taper is 3 µm. Reduced bore tolerances on Ø 6 to 18 mm is +1 to +5 µm and Ø 20 and > is +1 to +7 µm.
- Balancing:** See product pages (balancing with median clamping position of the screws).



Shrinkfit holders

A Shrinkfit tool holder works in conjunction with a specialised heater - EasyShrink. The holder takes advantage of thermal expansion and contraction to clamp the tool. The bore in which the tool locates is slightly undersized compared to the tool shank. Heating the holder opens up this bore, allowing the tool to be inserted. As the holder cools, the bore shrinks around the tool to create a concentric and rigid clamping.

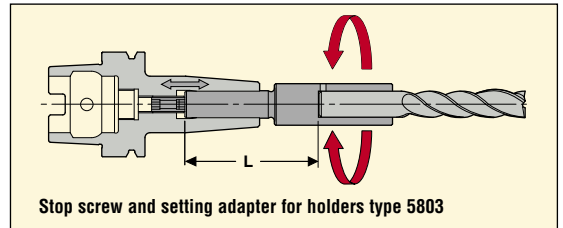
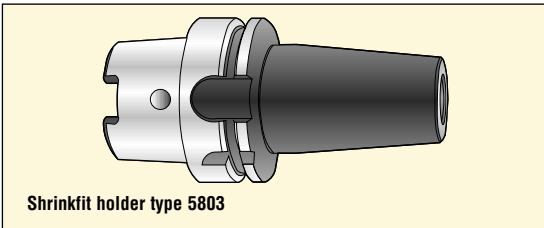
Thermal expansion: Approx. 11 µm/m/° for steel and HSS Approx. 6 µm/m/° for carbide and heavy metal	e.g.: Ø20, heating from 20°C to 270°C, increase of 250°C. Steel: 0,020 x 11 x 250 = + 55 µm Carbide: 0,020 x 6 x 250 = + 30 µm
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Shrinkfit holders type 5803, available in Monobloc

Type 5803 has a 4,5° nose angle and a thread for a stop screw according to draft E DIN 69882-8. E DIN 69882-8 defines the overall dimensions of some HSK holder sizes, refer to the product page. For the other holder types this norm only applies to the front end. Bore size Ø 6 mm to Ø 32 mm.

Stop screws must be ordered separately, see Additional equipment.

Setting adapter: To adjust the stop screw before the shrinkfit operation, use the setting adapter shown in Additional equipment. Adapter bore is oversized compared to the tool shank, the adapter shank is undersized with a hex-end to turn the stop screw.



Shrinkfit holders type 5801 and 5800, available in Monobloc

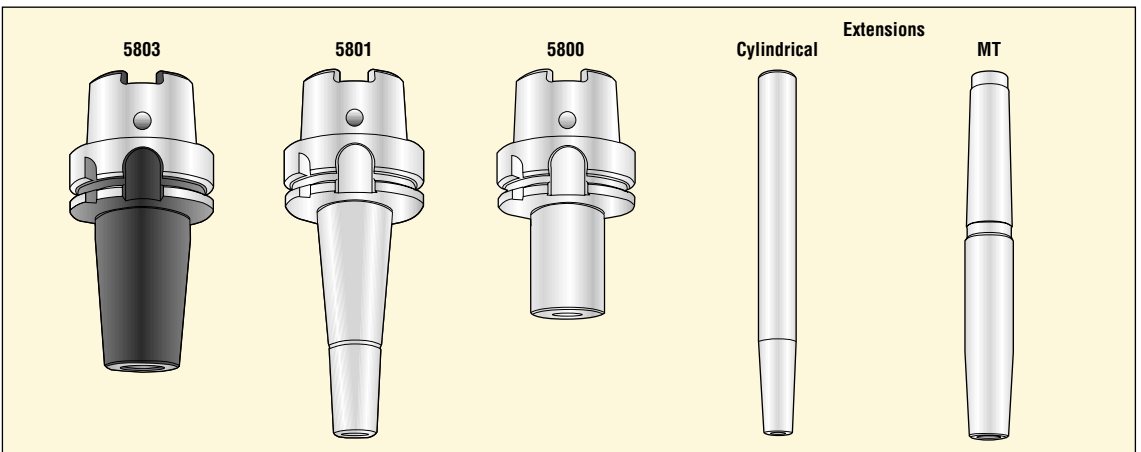
Type 5801 long and slim 5°/3° nose angle design, with coated external surfaces. Designed to be suitable for Mould & Die application. Bore size Ø 3 mm to Ø 16 mm.

Type 5800 cylindrical external shape, with coated external surfaces. Type 5800 is available in HSK-A63. Bore size Ø 6 mm to Ø 32 mm.

Shrinkfit extensions

Together with the Shrinkfit holders, comes a complete range of type 5801 slim Shrinkfit extensions with cylindrical shank or Morse Taper for pull-back screw.

Extensions can be used for extending the overall length of holders, or holding small diameter tools. Bore size Ø 3 mm to Ø 12 mm.



Shrinkfit holders

Tool shank types and tolerances for Shrinkfit holders.

Tool shanks: Cylindrical DIN 1835-1 Form A/DIN 6535 Form HA.

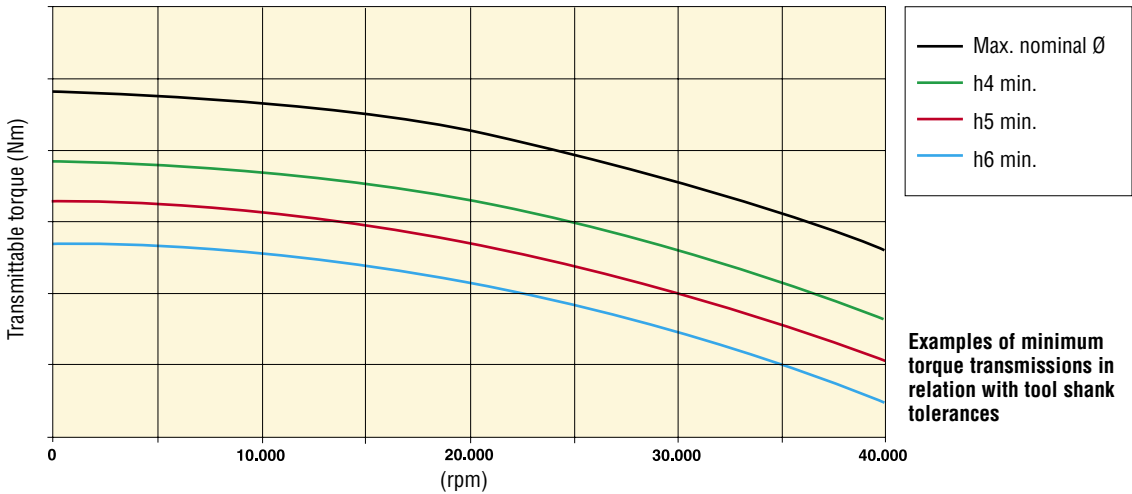
Shank tolerance, Ø 3 to 5 mm maximum h5, tool shank must be carbide or heavy metal (e.g. Densimet). Ø 6 to 32 mm maximum h6, tool shank can be steel, HSS, carbide or heavy metal.

Run-out: Maximum run-out when measured at a gauge projection of $3 \times d$ (d = bore dia.) in relation to the external taper is $3 \mu\text{m}$, except for the extensions, with cylindrical shank maximum run-out of $5 \mu\text{m}$, and with Morse Taper maximum run-out of $10 \mu\text{m}$.

Direct run-out of the holder bore in relation to the taper is $3 \mu\text{m}$ maximum.

Balancing, all Shrinkfit holders are fine-balanced as standard.

Tolerance h5 instead of h6 is recommended for Ø 6 to 32 mm to provide a safer minimum clamping torque



Transmittable torque to the tool shank (Nm), Shrinkfit holders type 5803

Clamp Ø (mm)	Minimum static transmittable torque (Nm)	Shrinkfit clamping system Max RPM*
6	22	45 000
8	35	45 000
10	65	40 000
12	110	40 000
14	150	38 000
16	200	38 000
18	250	35 000
20	320	35 000
25	500	32 000
32	550	30 000

* The maximum RPM for holders equipped with this clamping system is often restricted by the holder's back-end taper type and size.

High precision D type collet chucks, available in Monobloc and Graflex®

Type 5872 – Alternative solution to hydraulic chucks and Shrinkfit suitable for HSM. Good flexibility is a result of the interchangeability of the collets (D type collets available from Ø 1 to 20 mm).

Norm: No norm.

Tool shanks: Cylindrical DIN 1835-1 Form A/DIN 6535 Form HA, tolerance h8.

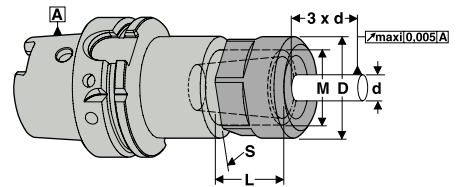
Dedicated clamping size on the nominal diameter.

Collets available in steps of 0,5 mm.

Run-out: Maximum run-out when measured at a gauge projection of $3 \times d$ in relation to the external taper is $5 \mu\text{m}$.

Balancing: Fine balanced is standard.

Note: D type chucks are delivered as standard without stop end screws. Stop end screws are not recommended for high spindle speeds, e.g. over 10 000 rpm. Stop end screws have to be ordered separately, see Accessories.



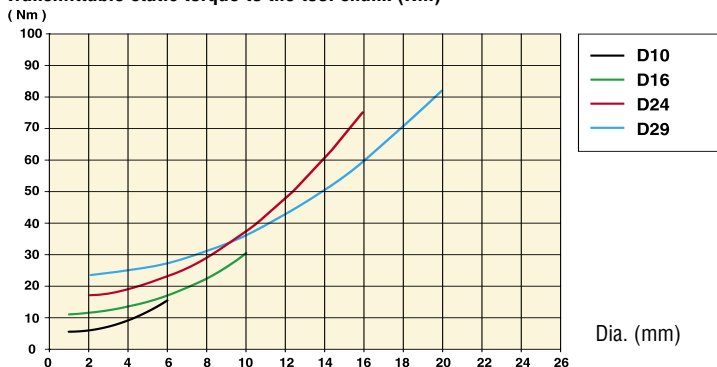
Recommended tightening torque for the locking nut

Collet chuck size	Capacity d mm	D	L	M	S	Max. tightening torque	D type clamping system Max RPM*
D10	1–6	15,7	14	M12 x 0,7	14	15 Nm	100 000
D16	1–10	27	19	M20 x 1	24	40 Nm	60 000
D24	2–16	36	22	M28 x 1	32	70 Nm	40 000
D29	2–20	42	25	M34 x 1	38	80 Nm	30 000

* The maximum RPM for holders equipped with this clamping system is often restricted by the holder's back-end taper type and size.

Note: Suitable torque control keys are not available from Seco/EPB. On request we can advise on possible suppliers.

Transmittable static torque to the tool shank (Nm)



Libraflex® high precision D type collet chucks, available in Monobloc

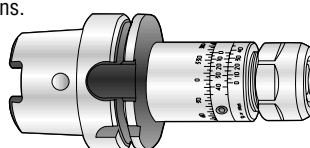
Type Q 5872 (Libraflex) has the same features as D type collet chuck.

The Libraflex type has two settable rings graduated in g. mm, and has graduation from 0 to 360° around the body. This offers the possibility to have a balanced holder and cutting tool assembly. Up to 120 g.mm unbalance can be compensated.

Max rpm for Libraflex chucks, see product pages.

Note! A balancing machine is necessary to indicate the rings settings.

Balancing: Fine balanced with rings in the 0 'zero' positions.



Hydraulic chucks, available in Monobloc and Graflex®

Type 5834: A good choice for HSM and high precision. **It is not recommended where high radial forces are involved.**

An internal piston pressurises hydraulic fluid into a chamber surrounding the holder bore. The high pressure is uniformly applied to grip 360° around the tool shank. Cutting tools are held with excellent precision. The bore has a helical groove where dirt, oil or grease can collect when it has inadvertently been left on the tool shank. The pressurising screw must be completely tightened.

PLEASE NOTE: NEVER LOCK THE CHUCK WITHOUT A TOOL IN PLACE.

DIN 69882-7 defines the overall dimensions of some HSK holder sizes, refer to the product pages. For the other holder types this norm only applies to the front end.

Tool shanks: Cylindrical DIN 1835-1 Form A/DIN 6535 Form HA, Ø 6 to 32 mm and Weldon DIN 1835-1 Form B/ DIN 6535 Form HB, Ø 6 to 20 mm.

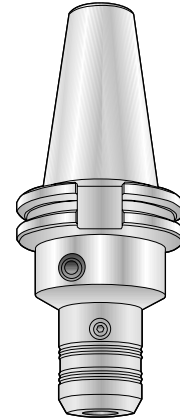
Cylindrical	Weldon	Weldon	Whistle Notch
	Ø 6 mm – Ø 20 mm	Ø 25 mm – Ø 32 mm	

Shank tolerance: h6 maximum.

Run-out: Maximum run-out when measured at a gauge projection of 3 x d in relation to the external taper is 3 µm .

Balancing: Fine-balanced is standard.

Clamp Ø (mm)	Minimum static transmittable torque (Nm)	Operating temperature	Maxi coolant pressure	Hydraulic system Max RPM*
6	20	10 – 50°C	50 bar	40 000
8	30			40 000
10	40			40 000
12	70			40 000
14	100			40 000
16	120			40 000
18	140			40 000
20	170			40 000
25	200			25 000
32	250			25 000



*The maximum RPM for holders equipped with this clamping system is often restricted by the holder's back-end taper type and size.

To reach maximum transmittable torque, the tool shank and bore must be clean and dry.

Control gauges:

To check that the pressure remains sufficient it is recommended to regularly test the chucks with suitable gauges, available from Additional equipment. For application details refer to the instruction sheet supplied with the chuck.

Cleaning brushes:

Available from Additional equipment.

Reduction sleeves for hydraulic chucks:

The reduction sleeves for hydraulic chucks act like a split collet, more shank types and sizes can be gripped: cylindrical, Weldon, Whistle Notch Ø < 25 mm.

The run-out with the sleeve is maximum 5 µm at 3 x d.

Cylindrical	Weldon	Weldon	Whistle Notch
	Ø 6 mm – Ø 20 mm	Ø 25 mm	Ø 6 mm – Ø 25 mm

ER collet chucks, available in Monobloc and Graflex®

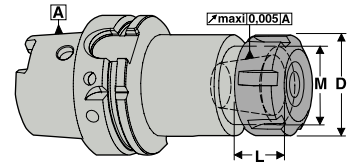
Type 5875 offers good flexibility thanks to the interchangeability of the collets. The clamping range of an ER collet is up to 1 mm.

Norm: DIN 6499

Tool shanks: Cylindrical DIN 1835-1 Form A/DIN 6535 Form HA.

Run-out: Direct run-out of the ER taper in relation to the external taper is 5 µm maximum. Run-out at the tool is related to the collet used: ER standard collets and ER high precision collets are available from Additional equipment.

Balancing: See product pages.



Recommended tightening torque for the locking nut

Collet chuck size	D	L	M	Max. tightening torque
ER16	32	18	M22 x 1,5	48 Nm
ER25	42	21	M32 x 1,5	57 Nm
ER32	50	23	M40 x 1,5	72 Nm
ER40	63	26	M50 x 1,5	83 Nm

ER collet chuck extensions, with cylindrical shank

Type 5450 – these collet chuck extensions have a cylindrical shank. They can be used where there is restricted access, when a long reach is required or to hold small tools. Extensions in sizes ER08R, ER11R, ER16R and ER25R are equipped with reduced diameter locking nuts.

Direct run-out of the ER taper is 5 µm.

Balancing: See product pages

Norm: DIN 6499

Tool shanks: Cylindrical DIN 1835-1 Form A/DIN 6535 Form HA.



Recommended tightening torque for the locking nut

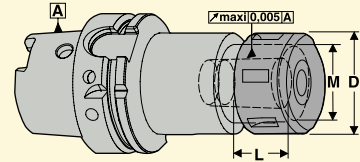
Collet chuck size	D	L	M	Max. tightening torque
ER08R	12	11	M10 x 0,75	10 Nm
ER11R	16	12	M13 x 0,75	20 Nm
ER16R	22	18	M19 x 1	30 Nm
ER25R	32	20	M30 x 1	38 Nm
ER32	50	23	M40 x 1,5	72 Nm

OZ collet chucks, available in Monobloc and Graflex®

- Type:** 5873 – Flexibility thanks to the interchangeability of collets. Ball bearing type locking nut.
- Norm:** DIN 6388
- Tool shanks:** Cylindrical DIN 1835-1 Form A/DIN 6535 Form HA (with collet type A and B), or cylindrical with thread DIN 1835-1 Form D (with collet type C).
- Run-out:** Direct run-out of the OZ taper in relation to the external taper is 5 µm maximum. Run-out at the tool is related to the collet used: OZ collets are available from Additional equipment.
- Balancing:** See product pages.

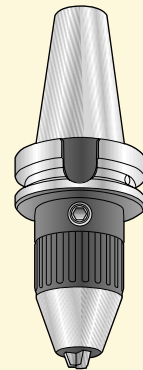
Recommended tightening torque for the locking nut

Collet chuck size	D	L	M	Max. tightening torque
OZ16	43	24	M33 x 1,5	65 Nm
OZ25	60	30	M48 x 2	90 Nm
OZ32	72	33,5	M60 x 2,5	140 Nm
OZ40	85	37	M68 x 2,5	160 Nm



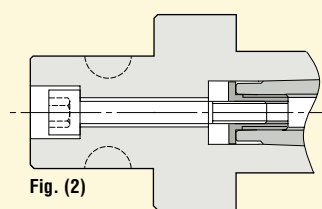
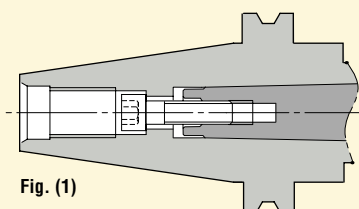
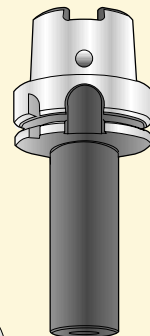
Universal drill chucks, available in Monobloc and Graflex®

- Type:** 5085 – Compact one piece design, allowing both CW or CCW spindle rotation. Clamping is made through a hexagonal screw and gear mechanism.
- Norm:** No norm.
- Tool shanks:** Cylindrical DIN 1835-1 Form A/DIN 6535 Form HA.
- Run-out:** Maximum run-out when measured at a gauge projection of 2,5 x d in relation to the external taper is 40 µm.
- Balancing:** See product pages.



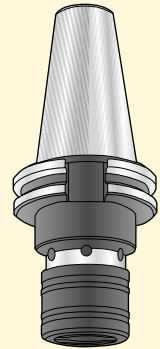
Holders for Morse Taper, available in Monobloc and Graflex®

- Type:** 533 – Holder for Morse Taper with thread, and equipped with a pull screw.
- Norm:** DIN 228-2 Form C.
- Type:** 536 – Holder for Morse Taper with tang.
- Some sizes can be equipped with a pull-back screw to hold Morse Tapers with thread, (fig. 1); some Graflex adapters require a pull-back screw and a pull-back sleeve (fig. 2).
- Norm:** DIN 228-2 Form D.
- Run-out:** Direct run-out of the Morse Taper in relation to the external taper is 5 µm.
- Balancing:** See product pages.



Quick change Tapping chucks, available in Monobloc and Graflex®

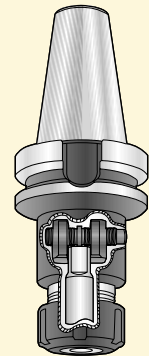
- Type:** 5283 – Offers an axial feed compensation in extension and compression which protects the tap against breakage.
- Type:** 5260 – No axial compensation. Most machines on the market today are available with a standard option of rigid synchronized tapping.
- Norm:** No norm.
- Adapters:** Tapping adapters, with or without torque limiter, are available from Additional equipment.
- Tool shanks:** DIN 374/376, DIN 371, ISO R529, PIPE.
- Balancing:** Pre balanced, cannot be fine balanced.
- Assembly advice for the adapters:**
Push the adapter into the chuck until it is locked automatically.
To dismantle, push the front sleeve of the chuck to unlock and remove the adapter. In size 4, pulling the sleeve also unlocks the adapter.



Type 5283

ER tapping chucks, available in Monobloc and Graflex®

- Type:** 5865 – For rigid synchronized tapping, with ER collets, offering great flexibility, and precise tap holding. The square clamping system is based on two driving jaws, the tap square is clamped between the jaws, while the cylindrical shank is clamped into the ER collet.
- Norm:** No norm.
- Tool shanks:** Only the cylindrical part should be located in the collet.
- Balancing:** See product pages.

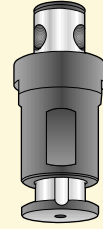


Disc mill holders, available in Graflex®

Type: **M5656** – The Disc mill is held by an adjustable sliding shaft arbor equipped with a driving key. The arbor and Disc mill are locked using a pulling screw. Discmill holders are only available with Graflex back end.

Norm: No norm.

Balancing: See product pages.



Adjustable drill holders, available in Graflex®

Type: **BM/6100-6101** – These holders allow SECO Perfomax drills to be radially offset from centre. Available for R7 drill shanks, ISO 9766, Ø 25, 32 and 40. Reducing sleeves are available. See Accessories.

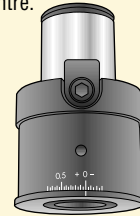
Norm: No norm.

Runout: Offset is adjusted by rotating the holder's internal sleeve and then locked.

- Adjustable +0,8 to - 0,3 mm on diameter.
- Internal sleeve graduated in increments of 0,05 mm on diameter.
- Maximum radial adjustment for the drills is shown in the Drilling catalogue.

Holders are available with Graflex male back end size 6. Through coolant capability.

Balancing: No



Rotary coolant inducers for drills, available in Graflex®

For machines not equipped with 'through the spindle' coolant, these inducers provide a way of delivering coolant through the drill.

Inducers are available with Graflex back end size 5 or 6.

Inducers are available in five types of front end, suitable for:

Type BSM/6180-6182: for R5 drill shanks, e.g. brazed drills (Whistle Notch with shoulder compatible).

Type BSM/6181-6183: for R7 drill shanks, ISO 9766. Reducing sleeves are available. See Accessories.

Type BSM/5872: for D type precision collets for cylindrical drill shanks (sealing rings must be used and are available in Additional equipment).

Type BSM/6100-6101: for Perfomax drills with R7 shanks, adjustable + 0,8 to - 0,3 mm on Ø.

Type BSM/401: for Graflex modular system modules.

Manual inducers:

Connection to the coolant feed pipe has to be made manually after every holder change.

Inducers for automatic tool change:

The inducer has an indexable and compressible connecting pipe. The pipe connects to a coolant supply socket on the machine's static spindle housing, during the automatic tool change procedure. Before use, the connecting pipe has to be shortened to the required length. Pipe orientation has to be set in line with the socket position.

For application details, e.g. pipe shortening procedure, refer to the instruction sheet supplied with the inducers.

If not already available, the coolant supply socket has to be ordered and fitted. The socket is shown in Accessories.

Application note: (also marked on the inducer body):

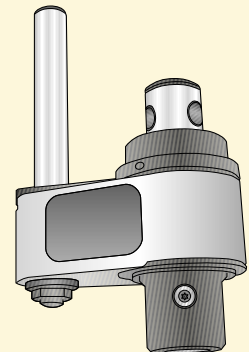
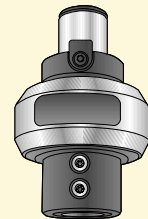
Max. coolant supply pressure: 20 bar (240 psi).

Never run the inducer without coolant.

Max. speed: 4000 or 6000 rpm, depending on the inducer's size (shown on product pages).

Coolant to be filtered to 40 µm maximum.

Balancing: No



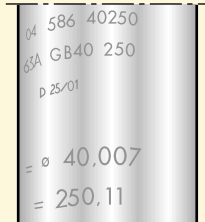
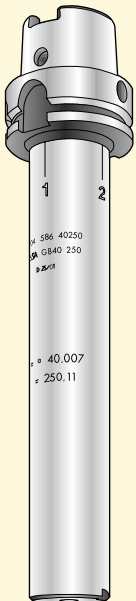
Greenstock blanks, available in Monobloc and Graflex®

- Type:** 5023 – The taper/flange and Graflex connection are case hardened and ground. The cylindrical front part 120 to 130 daN/mm² tensile strength it is not hardened and can be machined by the customer. Subsequent heat treatment is not possible.
- Norm:** No norm.
Used for special (custom-made) tooling.
- Balancing:** No.

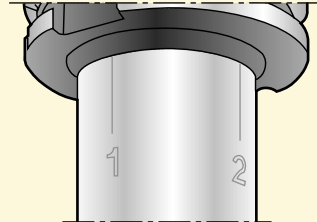


Test/Control bars, available in Monobloc

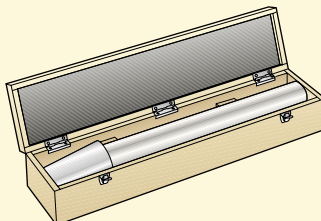
- Type:** 586 – Test bars are used primarily for checking the accuracy and to set the axes of the machine tool and tool presetter.
- Norm:** No norm.
- Accuracy:** Direct run-out between front part and taper 5 µm maximum. Measurement values are tabulated on the accompanying datasheet and certificate of accuracy.



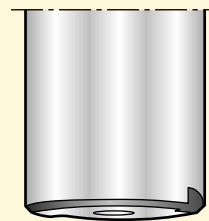
Diameter and length measurement values are laser engraved on each test bar.



Measurement positions are laser engraved.



Delivered in a protective case.



The front leading edge can be used for optical presetting.

The Shrinkfit holder's inside diameter is slightly smaller than the shank diameter of the cutting tool. When placed into the induction heating system, the clamping end is heated and expands. The tool shank can then slip easily into the holder. As the holder cools down, it exerts a powerful uniform pressure around the entire surface of the tool shank.

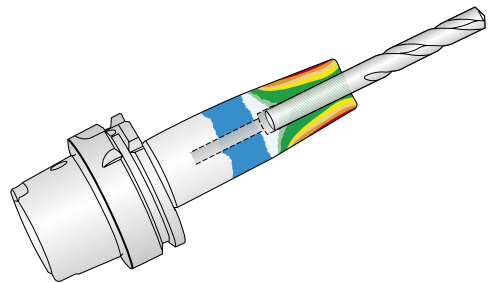


Advantages, Shrinkfit tooling

- Higher spindle speeds and feeds, reducing cycle time and machining costs.
- Reduced run-out permits a better balanced chip load and improves the surface finish of the machined component.
- Rigidity similar to a solid tool.
- Tool life is extended, reducing the number of tool changes.
- This highly symmetrical tooling minimizes wear on the spindle bearings.

Advantages, EasyShrink® devices

- Induction heating: low or high power.
- Stop rod system can be provided as standard or as an option.
- Different cooling possibilities, fan assisted, vortex or liquid.



EasyShrink® 10

High power induction heating is focused onto the holder's front end, which expands at a greater rate than the tool shank to be fitted. Shrink-release of all tool shank materials is possible: carbide, heavy metal, steel and HSS.

EasyShrink® 5

Low power induction heating exerts less thermal stress, and Shrink-release is only possible on materials with lower thermal expansion than steel: i.e. carbide and heavy metal.

EasyShrink® 10 Kit, high power

For 'shrink grip' and 'shrink release' of carbide, heavy metal, steel and HSS shanks.
Shrinking time: approx. 10 sec.

There are two EasyShrink 10 kits:

- | | |
|--|--|
| <ul style="list-style-type: none">10/40 for SA40/HSK-A63 and smaller- Induction heating device capacity \varnothing 3 to 32 mm for carbide and heavy metal, \varnothing 6 to 32 mm for steel and HSS- 3 heat focusing plates for \varnothing 6 to 32 mm*- Integrated height setting system with stop rods- Fan assisted cooling box 40 with 6 cooling cones | <ul style="list-style-type: none">10/50 for SA50/HSK-A100 and smaller- Induction heating device capacity \varnothing 3 to 32 mm for carbide and heavy metal, \varnothing 6 to 32 mm for steel and HSS- 3 heat focusing plates for \varnothing 6 to 32 mm- Integrated height setting system with stop rods- Fan assisted cooling box 50 with 6 cooling cones |
|--|--|

Electrical connecting cables, air filtering unit, protective gloves, operating instructions and a dust cover are supplied.

Connection: EasyShrink 10 device: AC 3x400V + PE/16A/50-60Hz, and air 2-6 bar/5 l/min. (Electrical plug not supplied)

Cooling box: AC 1x230V + PE/1A/50-60Hz

Ordering example for EasyShrink 10/50 kit = ZFM03IN50

* Focusing plate ZFAT03C21 for \varnothing 3 to 5 mm must be ordered separately

EasyShrink® 5 Kit, low power

For 'shrink grip' and 'shrink release' of carbide and heavy metal shanks.
Shrinking time: approx. 30 sec.

There are two EasyShrink 5 kits:

- | | |
|--|---|
| <ul style="list-style-type: none">5/40 for SA40/HSK-A63 and smaller- Induction heating device capacity \varnothing 6 to 32 mm- Integrated height setting system with stop rods- Fan assisted cooling box 40 with 6 cooling cones | <ul style="list-style-type: none">5/50 for SA50/HSK-A100 and smaller- Induction heating device capacity \varnothing 6 to 32 mm- Integrated height setting system with stop rods- Fan assisted cooling box 50 with 6 cooling cones |
|--|---|

Electrical connecting cables, air filtering unit, protective gloves, operating instructions and a dust cover are supplied.

Connection: EasyShrink 5 device: AC 3x400V + PE/16A/50-60Hz, and air 2-6 bar/5 l/min. (Electrical plug not supplied)

Cooling box: AC 1x230V + PE/1A/50-60Hz

Ordering example for EasyShrink 5/40 kit = ZFM02IN40



EasyShrink® 10 device, high power

Basic induction heating device for 'shrink grip' and 'shrink release' of carbide, heavy metal, steel and HSS shanks.

Capacity Ø 3 to 32 mm for carbide and heavy metal, Ø 6 to 32 mm for steel and HSS.

3 heat focusing plates for Ø 6 to 32 mm are supplied.

The basic device does not include the cooling or height setting equipment.

Shrinking time: approx. 10 sec.

Electrical connecting cable, air filtering unit, protective gloves, operating instructions and a dust cover are supplied.

Connection:

AC 3x400V + PE/16A/50-60Hz, and air 2–6 bar/5 l/min. (Electrical plug not supplied)



EasyShrink® 5 device, low power

Basic induction heating device for 'shrink grip' and 'shrink release' of carbide and heavy metal shanks Ø 6 to 32 mm.

The basic device does not include the cooling or height setting equipment.

Shrinking time: approx. 30 sec.

Electrical connecting cable, air filtering unit, protective gloves, operating instructions and a dust cover are supplied.

Connection:

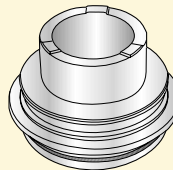
AC 3x400V + PE/16A/50-60Hz, and air 2–6 bar/5 l/min. (Electrical plug not supplied)



Flanges

Aluminium flanges are required to provide stable and precise positioning of the tool holder in the heating device. They are available from HSK-A32 to HSK-A100, and from SA30 to SA50.

The flanges have to be ordered separately.



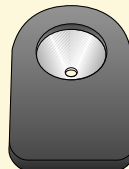
Heat focusing plates for EasyShrink® 10

Four plates cover the complete range of holder sizes Ø 3 to 32 mm.

For holder sizes Ø 6 to 32 mm, three plates are included in the delivery of EasyShrink 10.

For holder sizes Ø 3, 4, 5 mm, plate must be ordered separately

Tools with larger front ends require an optional induction coil and split heat focusing plates. Please enquire.



Stop rod height setting system

The height setting system includes 8 different stop rods covering a capacity from 0 to 240 mm. Stop rod adjustment is made by using the graduated hand wheel and the result is shown on the visual indicator. This system allows easy setting of the cutting tool position without the need to use stop screws. Using stop rods instead of stop screws eliminates the risk of tool deformation.

Note: Stop rods included in the delivery are for Ø 6 mm and above. Stop rods for Ø 3 to 5 mm have to be ordered separately, see Accessories.

When ordered with the EasyShrink heating device, this height setting system will be integrated before delivery. EasyShrink devices previously supplied without this setting system should be returned to Seco/EPB for modification, if required. Please enquire.



Digital height setting system

Used in combination with the stop rod setting system, this device allows an easy and precise setting of the tool position. The device is composed of a 0,01 mm precision comparator fixed on a strong vertical column and a 0,01 mm digital display. Fine adjustment can be made using the fine pitch setting wheel. Shrink grip height setting accuracy is $\pm 0,05$ mm. The digital height setting system can be combined with the Vortex cooling system, if required. Please enquire.



Tool supporting sleeves

Used in conjunction with the digital height setting system, this sleeve locates the cutter onto the stop rod during the presetting. This enables the system to be operated using both hands. A sleeve for each tool shank diameter is available.



Fan assisted cooling boxes

Ventilators stream air through aluminium cones to force and concentrate the air towards the tool holders. Cooling time approx. 7 minutes.

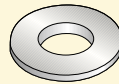
Box 40 has 6 locations for SA40/HSK-A63.

Box 50 has 6 locations for SA50/HSK-A100.

Connection: AC 1x230V + PE/1A/50-60 Hz

Reduction rings:

By ordering the appropriate reduction rings smaller taper sizes can be accommodated.

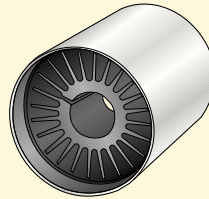


Cooling sleeves with heat dissipation fins

Fins offer a greater surface area for faster heat dispersal. These can be used in conjunction with both Box 40 and 50.

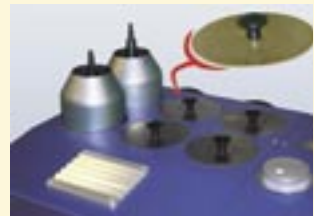
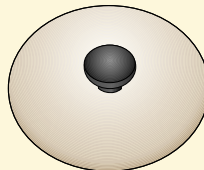
Cooling time approx. 3 minutes.

Adapted for type 5803 or 5801 Shrinkfit holders.



Covering lid

Covers the unused positions on the cooler in order to force more air towards the active positions and reduce the cooling time. These can be used in conjunction with both Box 40 and 50.



Liquid cooling system

Aluminium bells are cooled by refrigerated water and placed over reduction sleeves on the front end of the holder.

Cooling time approx. 1 minute.

Liquid cooling kit 2 contents 3 bells.

Connection: AC 1x230V + PE/6A/50-60Hz.

System is designed to be attached to the fan assisted cooling device.

Reduction sleeves have to be ordered separately. Available for type 5803, 5801 and 5800 Shrinkfit holders.



Vortex cooling system

A vortex system delivers refrigerated air through a diffuser located around the holder.

Cooling time approx. 2 minutes.

No contact with the holder suitable for all holder shapes.

Mounted on a vertical column for a correct centring of the adapter around the holder.

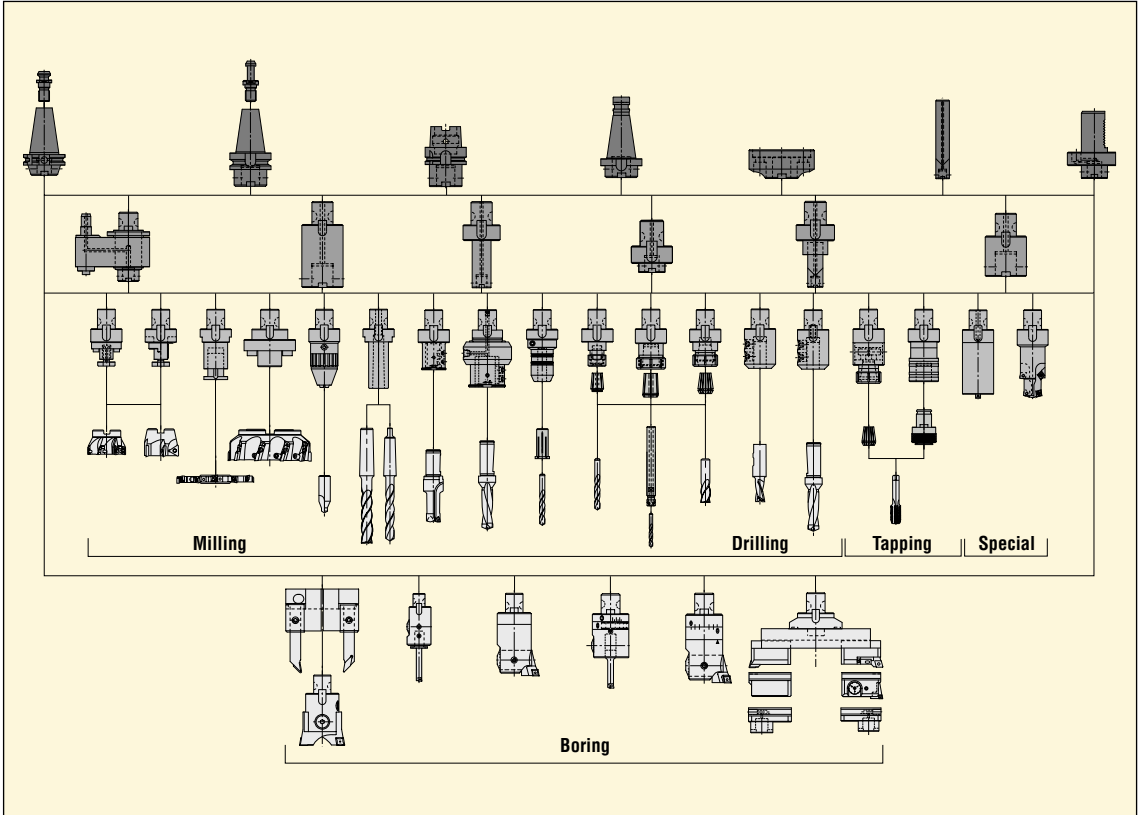
Connection. 5–7 bar/700 l/min.

The Vortex cooling system can be combined with the digital height setting system, if required. Please enquire.

Note: The diffuser can emit noise equivalent to 78 dBA.



A complete range of modules, suitable for all machines and all machining operations



A modular system for flexibility and performance

Flexibility:

Tooling of variable lengths and diameters can rapidly be built together, when they are needed. All Graflex modules e.g. tool holding adapters and boring heads, as well as all cutting tools can be fitted on all types of machines, by the substitution of only the basic Graflex arbor.

The Graflex modules are suitable for milling, drilling, tapping, reaming and boring.

Performance:

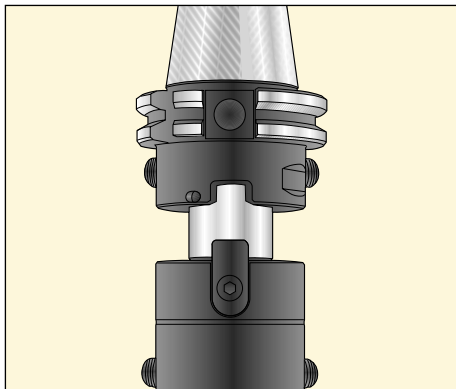
The connection rigidity and precision, enables Graflex assemblies to be used in similar machining conditions as the same sized Monobloc holders. The wide range of modules permits tooling dimensions closest to the required machining operation, for optimised cutting conditions.

All basic arbors, all extensions and reducers, main tool holding adapters and all boring heads have 'through' coolant possibilities.



Power milling with Graflex Modular System:
metal removal rate 432 cm³/min

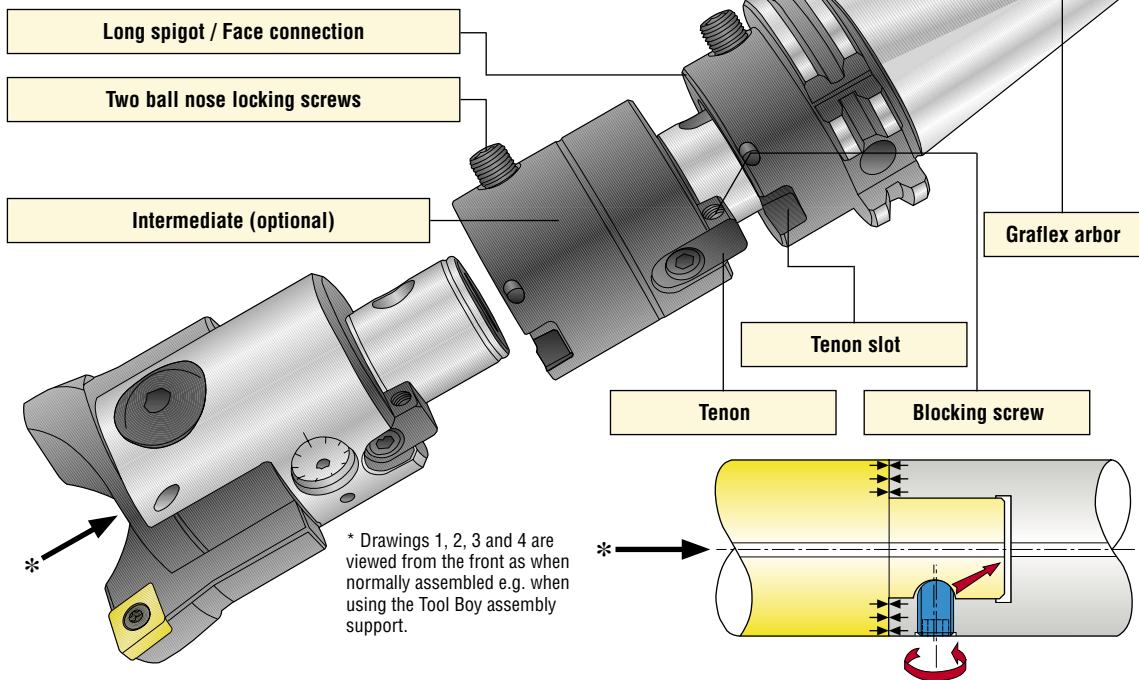
The Graflex® connection (patented)



The long spigot and face connection, combined with EPB's production quality, masters all machining requirements, e.g. strength and precision in milling as well as in boring.

Radial access to the locking screws = easy handling
High face contact pressure which can be enhanced by self-locking of the connection during machining = improved rigidity

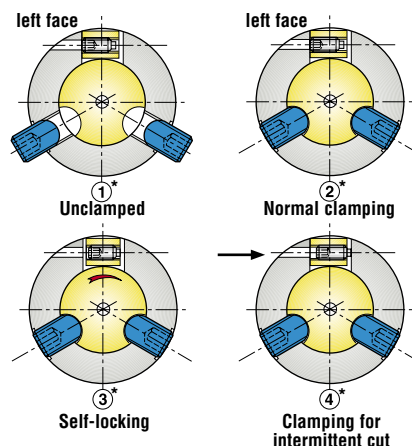
Graflex is a registered trademark of Seco/EPB.



Graflex® assembly procedure

1. Assemble the Graflex arbor and module(s) using the tenon(s) for easy orientation. Tighten the ball nose locking screws ensuring that the left face of the tenon contacts the left face of the tenon slot (Drawings 1 & 2).
2. Strong machining torque e.g. during boring may create micro rotational movement of the spigot in relation to the bore, causing micro displacement of the ball nose screw's contact surfaces. This results in complementary self-locking of the connection, enhancing the system's rigidity (Drawing 3).
3. For operations involving intermittent cutting e.g. heavy milling, the blocking screw provided in the tenon can be tightened so as to avoid micro rotational movement and prevent self locking (Drawing 4).

Note: For 'optimised' assembly procedure, see next page.



'Optimised' assembly procedure

Normal clamping for continuous cut, e.g. boring, light duty milling

1. Clean the parts to be assembled*.
2. Assemble the parts ensuring that the left face of tenon contacts the left face of the tenon slot.
3. Lightly tighten screw A
4. Lightly tighten screw B

5. 'Torque' screw A (low values).
6. 'Torque' screw B (low values).

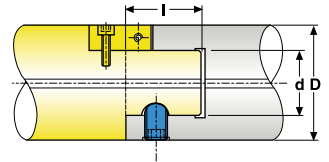
*Apply thin film lubrication.

Clamping for intermittent cut, e.g. interrupted boring, heavy duty milling

5. 'Torque' the blocking screw C.
6. 'Torque' screw A (high values).
7. 'Torque' screw B (high values).
8. Double check the blocking screw tightening.

Graflex®, sizes and recommended locking torques

The Graflex connection is self locking, therefore it has a low requirement for checking that the locking torques have been applied. There is usually no requirement for torque control. The table shows the recommended torque ranges, as a guide for 'optimised' assembly precision (low values) and rigidity/heavy duty (high values).



Graflex size	d mm	D mm	l mm	Recommended Graflex connection locking torques	
				Ball nose screws Low values – High values	Tenon blocking screw
0	08	16	12	1,5 – 2 Nm	–
1	11	20	13	1,5 – 2 Nm	–
2	14	25	16	2,5 – 4 Nm	–
3	18	32	20	5 – 8 Nm	0,4 Nm
4	22	40	24	13 – 20 Nm	0,7 Nm
5	28	50	30	17 – 25 Nm	2 Nm
6	36	63	40	23 – 35 Nm	4 Nm
7	46	90	50	40 – 60 Nm	8 Nm

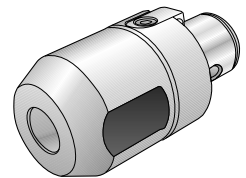
Balancing of the Graflex® modules

All basic arbors except size 7 are fine balanced as standard for optimised compatibility with the Libraflex boring heads used at high speeds. Graflex intermediates and adapters are pre-balanced.

In the product pages, each Graflex module balancing quality is indicated in the balancing column.

See also the 'Maximum speeds for Graflex boring heads' guide page.

Main Graflex intermediates and adapters can be fine balanced on request, please enquire.



Graflex® connection, Accessories and Spare Parts

Accessories (locking keys) and spare parts (two ball nose screws kits or tenon kits - a tenon kit comprises the tenon with its locking screw and the integrated blocking screw) are shown in the Graflex product pages.

Graflex modules, delivery contents:

Graflex modules are delivered with all components included, also shown in the product pages as 'Spare parts'.

'Accessories' shown in the product pages are not included in the delivery content, to be ordered separately.

'Additional equipment' e.g. collets, are not included in the delivery content, see related catalogue chapter.

Hydraulic chuck adapters, automatic rotary coolant inducers, rough and fine boring heads are delivered with an operating instruction sheet.

Graflex® arbors - Type EM..., VDI..., ER..., M409...

**Graflex basic arbors are available for all machine spindles type HSK and SA:
Type EM...**

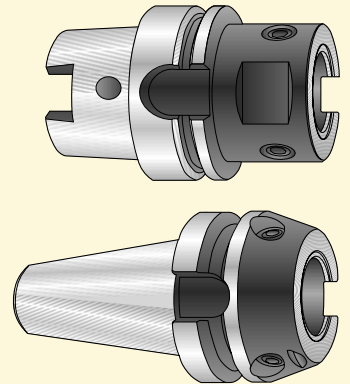
Case hardened to 58 HRC.

HSK are according to ISO 12164-1/DIN 69893-1

SA taper precision AT3.

Arbors are mainly available in 3 different lengths (short, medium and long).

All HSK and SA arbors except size 7 are fine balanced as standard, see balancing quality in the product pages.



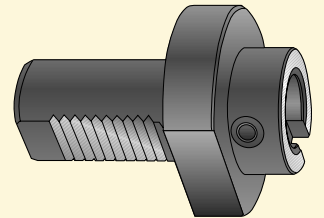
Arbors Type VDI...

With VDI (DIN 69880) back-end shank in order to use Graflex modules on lathes.

Graflex adjustable arbors - Type ER...401...

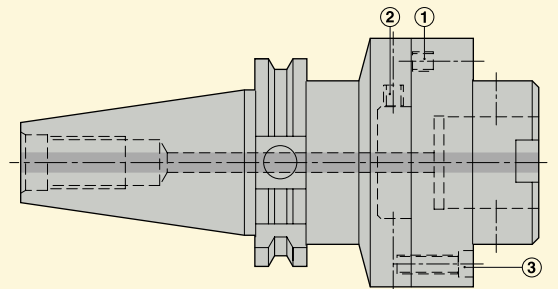
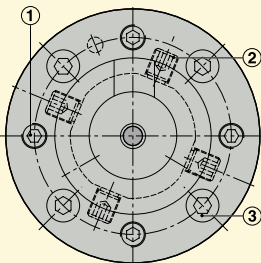
Radial and angular adjustment enable the elimination of run-out of the cutting tool edge

(e.g. reamer) in any Graflex adapter e.g. hydraulic chuck, Weldon, collet chuck.



Setting:

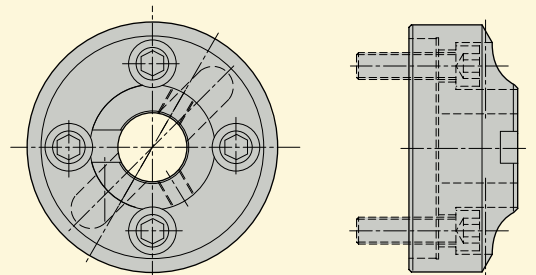
In order to adjust the cutting tool centre line, 4 screws (1) perform the angular adjustment and 4 screws (2) the radial adjustment. The assembly is locked by 4 screws (3).



Graflex flange mounts - Type M409...

Graflex modules can be securely locked onto the machine spindle, without being influenced by the taper precision and the locking performance of the spindle.

Designed to suit to DIN2079 spindle front ends.

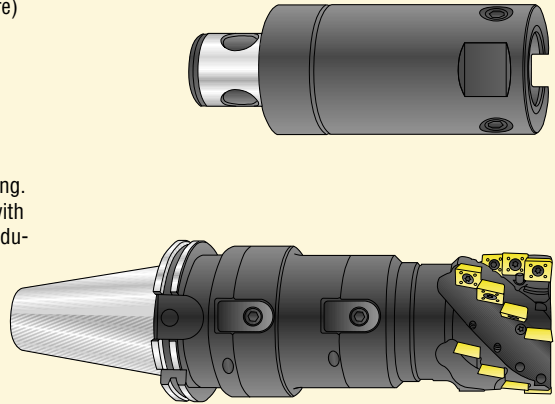


Graflex® extensions - Type M402...

Extensions have the same Graflex size at the front (Graflex bore) and at the back (Graflex shank). They are mainly available in different lengths: short, medium and long.

Graflex extensions with reduced outer diameter – type M40277..R:

With an outer diameter reduced to 78 mm instead of 90 mm, these extensions are suitable for 'deep wall' milling and plunging. These extensions with reduced outer diameter are best used with Graflex reduced shell mill adapters, e.g. M55254632R (with reduced OD of connection 78 mm, holding milling cutters with OD 80 mm).



Graflex® reducers - Type M403...

Reducers have a smaller Graflex size at the front (Graflex bore) in relation to the back (Graflex shank).

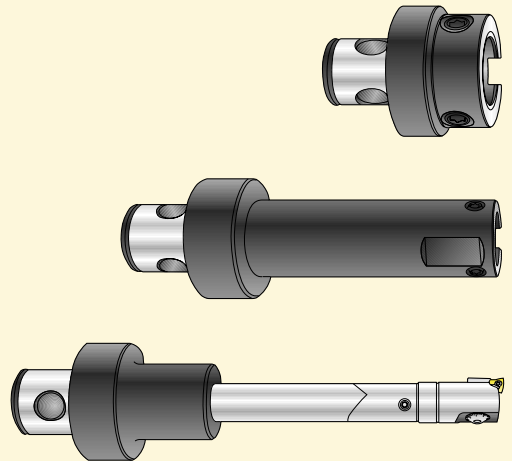
Long Graflex reducers

When used with a Graflex boring head, long Graflex reducers give boring length to diameter ratio of approx. 4xD.

Extra long Graflex reducers, carbide type – Type M403...C...

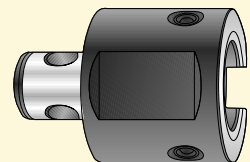
The extension section is manufactured from carbide. The extra long reducers to be used with fine boring heads for boring length to diameter ratio of approx. 7xD. Maximum boring lengths are listed in the product pages (I_U).

Other lengths can be supplied on request, please enquire.



Graflex® enlargers - Part No. M40356 and M40367

The enlargers enable the mounting of modules with large Graflex connection size 6 or 7 on arbors with maximum connection size 5 or 6.



Graflex® cylindrical extensions – Type M401...

Cylindrical Graflex extensions, steel type

The cylindrical shank with flat can be held in Weldon holders, or any other suitable holding system.

Suitable for long rough or fine boring.

Maximum boring lengths are listed in the product pages (lu).



These extensions have a 'through' coolant channel.

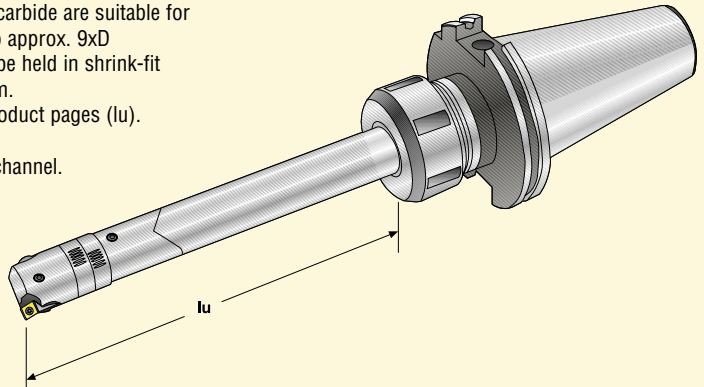
Cylindrical Graflex extensions, carbide type M401...C

Graflex extensions with cylindrical shank in carbide are suitable for fine boring length to diameter ratios of up to approx. 9xD

The cylindrical shank with tolerance h5 can be held in shrink-fit holders, or any other suitable holding system.

Maximum boring lengths are listed in the product pages (lu).

These extensions have a 'through' coolant channel.



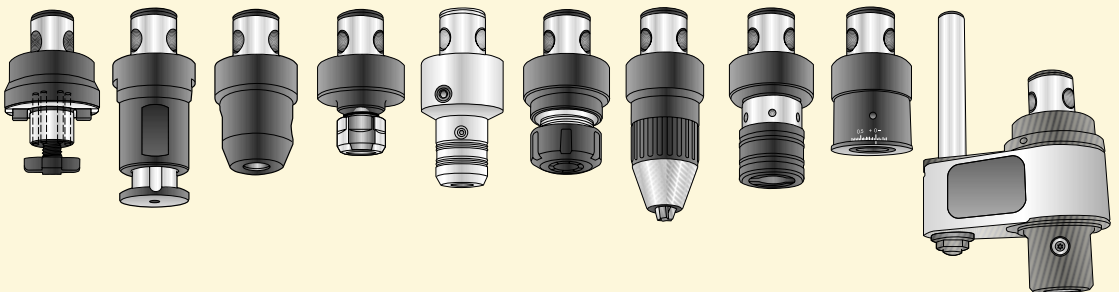
Graflex® tool holding adapters – Type M5525..., M584..., etc

Graflex adapters are holders with a Graflex back end.

They are available with main front end types similar to EPB Monobloc holders. Disk mill holders, adjustable drill holders and rotary coolant inducers only exist in Graflex.

Please see features in 'front end' guide pages.

Graflex adapters are available for a full range of applications including milling, drilling, tapping and reaming.



Graflex® rough boring heads – Type A750...

8 boring heads for rough boring \varnothing 18 to 205 mm.

Symmetrical or staggered positioning of the insert holders is possible.
See setting procedures in the following guide page.

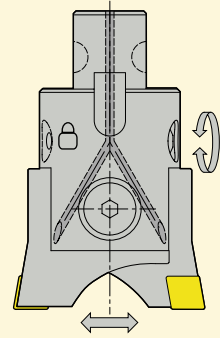
Simultaneous or independent adjustment of the insert holders is possible:
Simultaneous adjustment by the built-in coupling mechanism (no coupling mechanism in the smallest head \varnothing 18 to 24 mm).
Simultaneous adjustment is accessible from both sides of the boring head, using either of two graduated adjusting screws (1 increment = 0,1 mm on the diameter).

The insert holders are axially and radially locked in the body by the central clamping screw. Easy assembly and interchange of the insert holders.

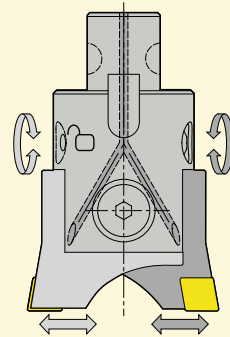
'Through' coolant is directed towards the inserts.

Angular orientation of the cutting edges according to DIN69871.

Minimised unbalance thanks to a symmetrical design.



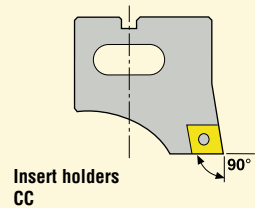
Simultaneous adjustment



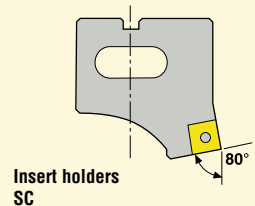
Independent adjustment

Rough boring insert holders (have to ordered separately) – standard 'A' types and extended 'B' types

Insert holders A75...CC...have a 90° lead angle for rhombic and A75...SC... have a 80° lead angle for square.



Insert holders
CC



Insert holders
SC

Setting procedure for Graflex® rough boring heads type A750...

Symmetrical boring (fig. 1):

Symmetrical boring requires two identical type A standard insert holders (with identical lead angle). Symmetrical positioning of the insert holders is achieved by using the integrated coupling mechanism of the head for simultaneous movement.

The feed per rev. equals the recommended feed per tooth, times the number of teeth. A caliper gauge can be used to measure the diameter adjustment.

The graduated adjusting screws allow additional diameter adjustment directly on the machine tool.

Note: A750 boring heads are delivered with the coupling mechanism engaged ready for symmetrical boring.

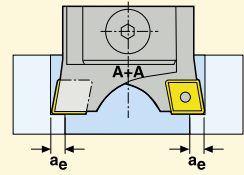


Fig. 1 Symmetrical boring

Staggered boring (fig. 2):

When the symmetrical positioning does not allow the required radial depth of cut, staggered positioning is possible. It permits e.g. completion of machining in one operation instead of two, saving tooling as well as tool changing time.

Inserts have to be set so that each one cuts half ($a_e/2$) of the total radial depth of cut (a_e). The required (Z) axial leading offset on the minor diameter is obtained by substitution of one type A (black) insert holder by an extended type B (grey, with a distinguishing mark in front) of identical lead angle, see fig. (3).

Independent adjustment is obtained by disengaging the coupling mechanism of the head, and by independent use of each adjusting screw.

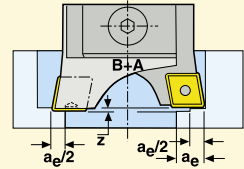


Fig. 2 Staggered boring

Maximum feed per rev. when staggered boring ($f_{Max.}$) is dictated by type B insert holder and is shown in the table below. The feed per rev. equals the recommended feed for one tooth.

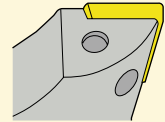


Fig. 3

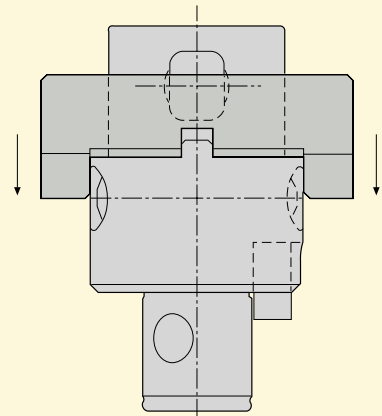
Insert holder size (type B)	01	11	21	31	41	51	61	66	71	76
f Max. (mm/rev)	0,25	0,3	0,4	0,5	0,6	0,6	0,6	0,6	0,6	0,6

To return from staggered into symmetrical positioning by re-engaging the coupling mechanism there is the choice between two methods:

- use a pre-setter and two identical insert holders with inserts fitted.
- use the setting gauge to index the coupling mechanism, without insert holders.

Setting gauges – Type CAA750... are available for each head size with coupling mechanism (dia 23 and more). Shown as accessories on 'A750... heads' product page.

For further application details refer to the instruction sheet supplied with the boring head.

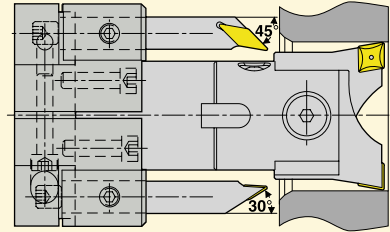


Chamfering rings - Type A5162...

Chamfering rings allow the combination of one or two chamfering operations together with a boring operation. The rings fit onto the external diameter of the Graflex arbors and intermediates.

Each ring covers the full range of the corresponding boring head. On each of both sliding blocks, a square shank tool can be fitted, allowing the machining of chamfers or other specific machining operations.

Square shank tools with a 15°, 30° or 45° lead angle are available and are shown in the product pages, please order separately.



Graflex® fine boring head, axial type - Part N° A72002

Head for fine boring \varnothing 2 to 24 mm, using axially fitted boring tools

A72002 has a slim body with external diameter 36 mm, useful for difficult to access bores.

Boring tool setting mechanism with a micrometric adjusting screw (1 increment = 0,01 mm on the diameter) and a vernier scale (resolution of 2,5 μ m on the diameter).

The precision of the mechanism guarantees repeatable accuracy. Dust proof micrometric system.

Coolant through the head, with an adjustable nozzle on the head front.

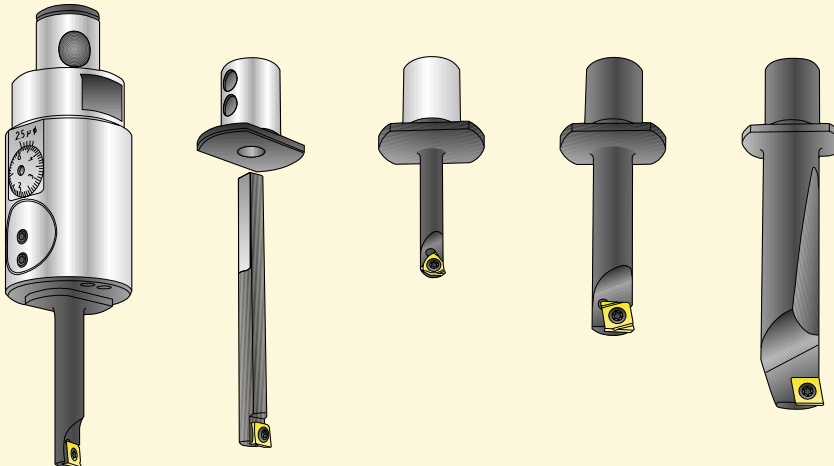
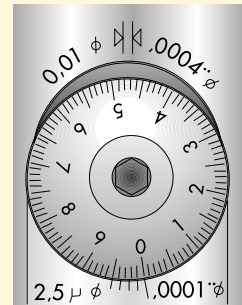
Two-part design, allowing the indexing of the cutting edge orientation in relation to the spindle stop, every 30°.

See also 'Max. speeds for boring heads' guide page.

For application details refer to the instruction sheet supplied with the boring head.

Boring tools have to be ordered separately: available for \varnothing 2 to 6 mm in solid carbide, \varnothing 6 to 24 mm as indexable insert boring tools, \varnothing 6 to 18 mm as heavy metal indexable insert boring tools in longer lengths.

The reduction bushing (14-6 mm) for fitting small boring tools is delivered with the boring head.

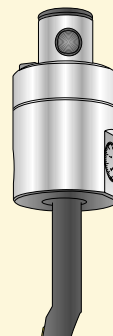


Graflex® fine boring head, axial type - Part N° A78000

Head for fine boring \varnothing 2 to 32 mm, using axially fitted boring tools

A78000 is the classic type, similar to Libraflex type A79000 (see below) but without the balancing possibility.

See also 'Max. speeds for boring heads' guide page.



Libraflex® balanceable fine boring head, axial type - Part N° A79000

Libraflex is a system of holders and boring heads equipped with a balancing mechanism.

Head for fine boring \varnothing 2 to 32 mm, at high speeds, using axially fitted boring tools

Boring speeds up to 20,000 rpm meet the latest machining requirements.

Balancing reduces spindle stress, cutting parameters can be optimised, better machining qualities are achieved even at conventional speeds.

Best performance of this head is obtained with fine balanced Graflex arbors and modules.

Boring tool setting mechanism with a micrometric adjusting screw (1 increment = 0,01 mm on the diameter) and a vernier scale (resolution of 2,5 μ m on the diameter).

The setting system is dust proof and lubricated for life.

The precision of the mechanism guarantees repeatable accuracy.

Angular orientation of the cutting edge according to DIN 69871/ISO 7388 for SA and ISO 12164 for HSK.

Rigid body with external diameter 54 mm, designed for reliable setting and holding of a large range of boring tools (bore length up to 112 mm is standard).

Coolant is directed towards the cutting edge: through the head and the boring tools (insert types), through the head and along the boring tools (solid carbide types).

See also 'Max. speeds for boring heads' guide page.

For application details refer to the instruction sheet supplied with the boring head.

Balancing procedure for Libraflex head, axial type

Balancing is performed easily by two alphanumerical graduated rings, adjusted according to the values given in a chart (the chart is part of the instruction sheet supplied with the boring head), in relation to the tool used and the diameter to be bored.

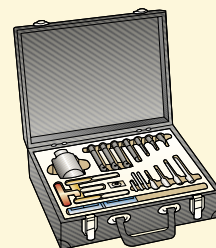
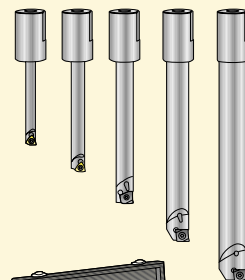
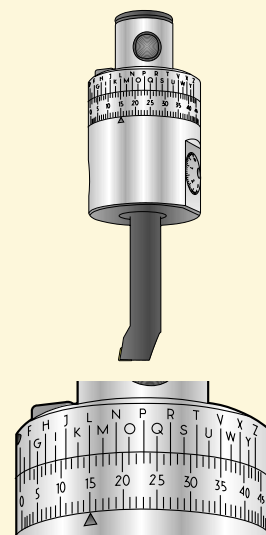
Example: with boring tool A795003, and required bore diameter of 12,10 mm, set the rings graduation (39 and W) in line with the mark on the head's body.

Boring tools have to be ordered separately: available for \varnothing 2 to 6 mm in solid carbide, \varnothing 6 to 32 mm as indexable insert boring tools, \varnothing 6 to 16 mm as heavy metal indexable insert boring tools in longer lengths, and \varnothing 6 to 18 mm as carbide (extended section) indexable insert boring tools for extra long lengths.

The reduction bushing (16-6 mm) for fitting small boring tools must be ordered separately, see Accessories in head's product page.

Libraflex axial type boring kits - Part N° A79001; A79002 and A79003

The kits include the head A79000, the reduction bushing, setting keys and a set of tools. Kits are delivered in a protective case. See boring head A79000 product page.

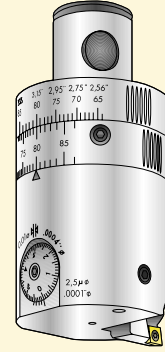


Libraflex® balanceable fine boring heads, radial type - Type A790...

5 boring heads for fine boring \varnothing 30 to 115 mm, at high speeds, using radially fitted insert holders

Libraflex radial boring heads accept cutting speeds up to 1500 m/min. The built-in balancing system is based on two precision balancing rings.

Balancing reduces spindle stress, cutting parameters can be optimised, better machining qualities are achieved even at conventional speeds. The best performances of these heads are obtained with fine balanced Graflex arbors and modules.



Insert holder setting mechanism with a micrometric adjusting screw (1 increment = 0,01 mm on the diameter) and a vernier scale (resolution of 2,5 μ m on the diameter).

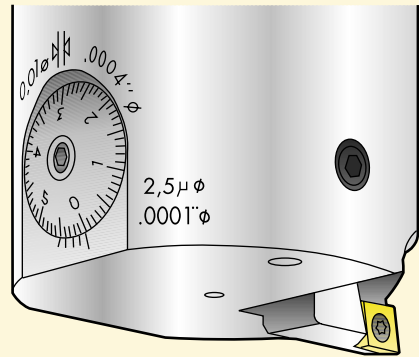
The setting system is dust proof and lubricated for life. The precision of the mechanism guarantees repeatable accuracy.

Angular orientation of the cutting edge according to DIN 69871/ISO 7388 for SA and ISO 12164 for HSK.

Coolant through the head directed towards the cutting edge.

See also 'Maximum speeds for boring heads' guide page.

For application details refer to the instruction sheet supplied with the boring head.

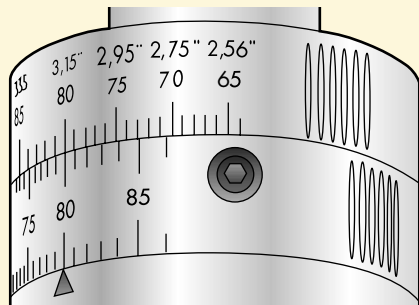


Balancing procedure for the Libraflex heads, radial type

Balancing is performed by setting both graduated rings in accordance with the diameter to be bored (pitch on rings is 1 mm; set to the nearest value). The residual unbalance once adjusted is 10 or 20 g.mm maximum (see values in product page).

Example: with boring head A79030, and required bore diameter of 45 mm, set the graduation (45) of both rings in line with the mark on the head's body.

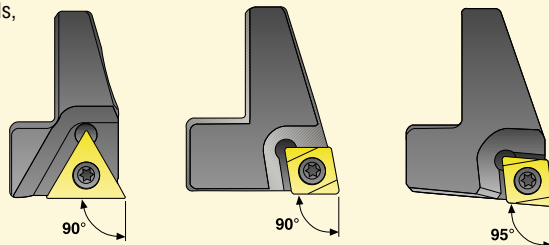
For balancing details refer to the instruction sheet supplied with the boring head.



Fine boring insert holders have to be ordered separately - Type A724..., A725... and A726...

They are suitable for both A790... and A780... fine boring heads, radial types.

Available with a 90° lead angle for both rhombic and triangular and a 95° lead angle for rhombic.



Graflex® fine boring heads, radial type – Type A780...

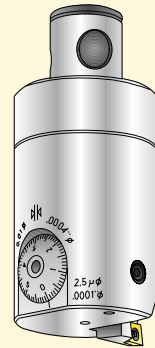
9 boring heads for fine boring \varnothing 15 to 205 mm, using radially fitted insert holders

A780... are the classic type, similar to Libraflex type A790... but without the balancing possibility.

The five smallest heads covering \varnothing 15 to 51 mm, when mounted onto carbide extensions, enable high performance fine boring, also in extremely long reach applications.

Fine boring insert holders - Type A724..., A725... and A726...

See details in A790... guide.

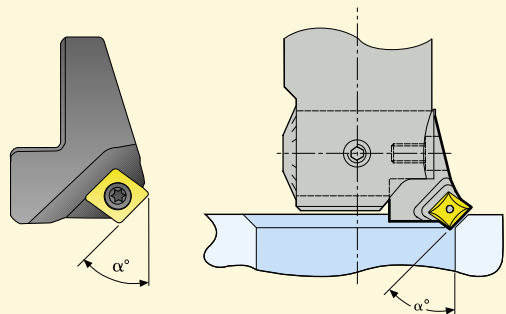


Chamfering insert holders for radial type fine boring heads – Type A729...

Chamfering Insert holders are suitable for fine boring heads, type A780... and A790..., radial types.

Available with a 15°, 30° or 45° lead angle for rhombic inserts.

Libraflex balancing can also be achieved when using chamfering insert holders.



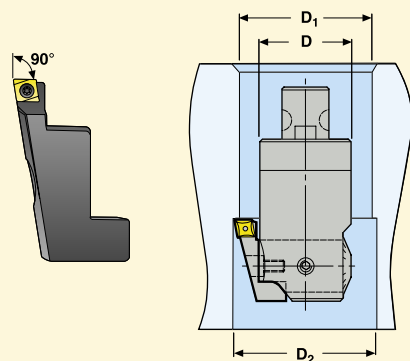
Fine back-boring insert holders for radial type fine boring heads – Type A789...

Fine back boring insert holders are suitable for fine boring heads type A780... and A790..., radial type.

When using these insert holders, please note the minimum access diameter (D_1 min)* and the left hand cutting action.

Libraflex precision balancing is not possible when using back-boring insert holders. In this case, the highest unbalance reduction is obtained when both balancing rings are set on their largest graduation.

The back boring insert holders are delivered with a screw to fix them on the head, this has to replace the standard screw already fitted on the head (excluding the smallest item A789X08WB0390, for which the standard screw is suitable).



For head sizes 08, 09 and 10: $D_1 \text{ mini} = \frac{D_2 + D}{2} + 0,5$

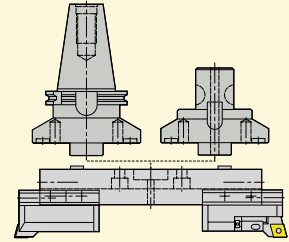
For head sizes 20 to 70: $D_1 \text{ mini} = \frac{D_2 + D}{2} + 1$

Holders and adapter for Bridge bars – Large boring

Dedicated holders permit shortest possible bridge bar holding. The Graflex size 7 adapter permits flexibility in length as well as flange mounting, with the use of a Graflex flange mount.

One holder or adapter size to hold all bridge bars.

Indexable fixing onto bridge bars every 30° to facilitate tool storage in the machine magazine.



Bridge bars – Large boring

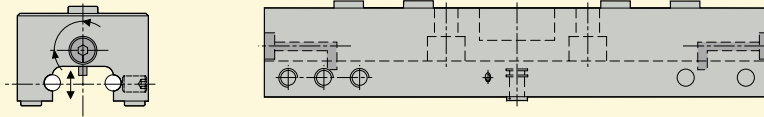
6 Bridge bars for boring \varnothing 204 to 655 mm

Bridge bars can hold rough, fine or counter weight boring blocks.

The sliding and holding design is the linear version of the Graflex connection.

Easy assembly and setting of the blocks using a 'cam' driving mechanism and 3 clamping screws.

Bridge bars are delivered with plugged through coolant channels, they can be equipped with two indexable coolant pipes available in Accessories to direct coolant towards the cutting edges, please order separately.



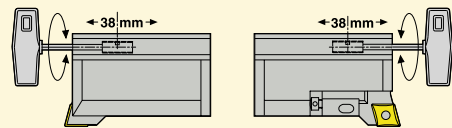
Note: Three aluminium 'Jumbo bridge bars' are available on request, type A731001 (for bore diameters 654-1105 mm), type A731002 (for bore diameters 1104-1630 mm) and type A731003 (for bore diameters 1629-2155 mm). Jumbo bridge bars are designed to hold two standard bridge bars. Please enquire.

Sliding blocks – Large boring

Boring sliding blocks are adjusted on the bridge bars by an integrated adjusting mechanism (38 mm stroke on radius).

Rough boring sliding block

A large twin rough boring head is assembled using two rough boring blocks. Blocks equipped with a cartridge can be set on the same diameter or in a staggered position. For staggered boring, the cutting edge operating on the minor diameter must be advanced to a leading position. This can be achieved by using the height adjustment screw of the cartridge or by using shims under the cartridge. The minimum advanced value is equal to half the feed per revolution.



Suitable cartridges have to be ordered separately, see product pages

Fine boring sliding block and Counter weight sliding block

A large fine boring head is assembled from one fine boring block and one counter weight block.

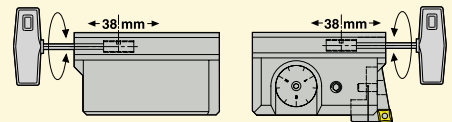
Insert holder setting mechanism of the fine boring block with a micrometric setting screw

(1 increment = 5 μ m on the diameter).

The setting system is dust proof and lubricated for life.

The precision of the mechanism guarantees repeatable accuracy.

The adjusting screw is located on the side of the block to offer an easy access.



Suitable fine boring insert holders A72460, A72560 or A72660 have to be ordered separately, see product pages Fine boring insert holders.

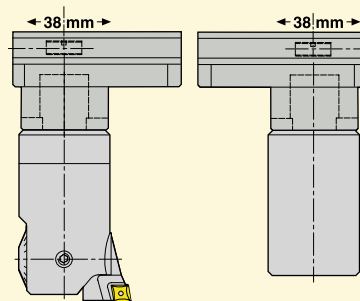
Sliding block with Graflex® connection – Large boring

This block has a female Graflex connection size 5.

Any Graflex special tool or standard Graflex module size 5 can be mounted onto the bridge bars, e.g. for external boss machining. The drawing shows a typical set-up for external boss machining.

Two positions of the Graflex module are possible on the block, as there are two times two ball nose screw positions, and two tenon notches placed at 180°.

It also has the integrated adjusting mechanism (38 mm stroke on radius).

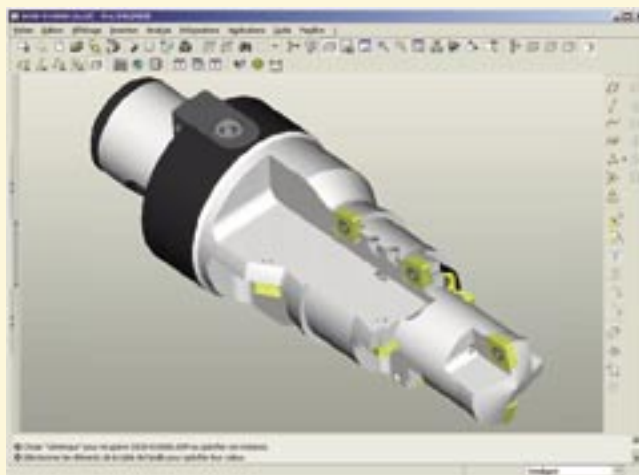


EPB Engineering, customised tool holders and multi-step boring bars

3D CAD-CAM system, dedicated quotation, order and production flow complete the engineering know-how for customised EPB solutions.

Note: Multi-step boring bars mainly use the Graflex connection, so as to permit flexibility in use (same boring bar suitable for any machine, by replacing the Graflex arbor only).

Please enquire.



Maximum speeds for Graflex® boring heads

Head	Capacity Ø	Max. Rpm	Max. cutting speed v_c at min. Cap.	Max. cutting speed v_c at max. Cap.
	(mm)	(Rpm)	(m / min)	(m / min)
Rough boring heads (with two identical insert holders set symmetrically)				
A75000	18 - 24	15000	848	1131
A75010	23 - 31	12000	867	1169
A75020	30 - 40	9500	895	1194
A75030	39 - 51	7500	919	1202
A75040	50 - 65	5700	895	1164
A75050	64 - 86	4500	905	1216
A75060	85 - 115	3500	935	1264
	114 - 144	2700	967	1221
A75070	114 - 160	2500	895	1257
	159 - 205	2000	999	1288
Bridge bar boring heads (with the two sliding blocks set symmetrically)				
A731010	204 - 280	650	417	572
A731020	279 - 355	525	460	585
A731030	354 - 430	425	473	574
A731040	429 - 505	350	472	555
A731050	504 - 580	300	475	547
A731060	579 - 655	260	473	535
Libraflex balanceable fine boring heads				
A79000	2 - 32	20000	126	2011
A79020	30 - 40	16000	1508	2011
A79030	39 - 51	12250	1501	1963
A79040	50 - 65	10000	1571	2042
A79050	64 - 86	7500	1508	2026
A79060	85 - 115	5600	1495	2023
Fine boring heads				
A72002	2 - 24	6000	38	452
A78000	2 - 32	8000	50	804
A78008	15 - 18,5	16000	754	930
A78009	18 - 23,5	13000	735	960
A78010	23 - 31	10000	723	974
A78020	30 - 40	8000	754	1005
A78030	39 - 51	6000	735	961
A78040	50 - 65	5000	785	1021
A78050	64 - 86	3700	744	1000
A78060	85 - 115	2700	721	975
	114 - 144	2200	788	995
A78070	114 - 160	2000	716	1005
	159 - 205	1600	799	1030

Note: The maximum speeds are related to the boring head's mechanical design and balancing quality. Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. workpiece material, cutting edge (insert), tooling length, machine spindle. At speeds from approx. 8000 rpm and above, the basic holders and the extensions/reducers should be fine balanced. Using Libraflex balanceable heads, fine balanced arbors and modules improves the tool life and the boring performances even at lower speeds.

Inserts for boring

This Seco/EPB range of inserts has been selected to provide the best possible characteristics for a full range of boring applications. The insert sizes are all suitable for the Graflex range of boring heads.

The inserts are listed in the tables shown in the last few Graflex modular system product pages, (inserts for chamfering tools are in the rough boring inserts table).

Code key, examples

CCMT120408	-	F2	TP3000
size (ISO designation)		Seco geometry	Seco grade
CCGT09T304	-	03	G3
size (ISO designation)		EPB grade	EPB geometry

Inserts for rough boring have high toughness and mainly positive geometries to guarantee high chip removal and minimised spindle torque requirement.

Inserts for fine boring have mainly positive geometries and small radii for accurate control of the bore tolerance, geometry and surface finish.

Recommended insert grades - Boring applications (Seco material groups)

Grade	Application (Seco material groups)
KX 03 (EPB)	Grades for light rough boring, semi-fine boring and fine boring in aluminium, Al-alloys, copper, brass, bronze and synthetic materials (Groups 16 - 17), superalloys and Ti-alloys (Groups 20 - 22).
TP40 T300D TP400	CVD coated grades, for rough boring in carbon steel, alloyed steel, cast steel (Groups 1 - 6) and stainless steel (Groups 8 - 11). Very tough grades suitable in the most difficult conditions.
TP3000 T2000D TP200 25 (EPB)	CVD coated grades, for rough boring in carbon steel, alloyed steel, cast steel (Groups 1 - 6), in stainless steel (Groups 8 - 11) and cast iron (Groups 12 - 15). Universal grades, combines good wear resistance with high toughness.
CP500 26 (EPB)	PVD coated grades, for fine boring in steel (Groups 1 - 11), cast iron (Groups 12 - 15) and non ferrous metals (Groups 16 - 17), superalloys and Ti-alloys (Groups 20 - 22).
CMP 51 (EPB)	Cermet for fine boring in steel (Groups 1 - 11). The grades have high strength and a high wear resistance.
CBN10 81 (EPB)	CBN, Cubic boron nitride grades, for fine boring in hardened steel (Group 7) with continuous to moderate interrupted cuts.
82 (EPB)	CBN, Cubic boron nitride, for fine boring in grey cast iron (Group 12). This grade has high strength and high wear resistance.
PCD20 91 (EPB)	PCD, polycrystalline diamond, for fine boring in aluminium and Al-alloys, copper, brass, bronze, and synthetic materials (Groups 16 - 17).

Insert grades - ISO classification

		P					M					K					N				S				H												
		P01 P10 P20 P30 P40 P50	M01 M10 M20 M30 M40	K01 K10 K20 K30 K40	N01 N10 N20 N30	S01 S10 S20 S30	H01 H10 H20 H30																														
CVD	TP3000																																				
	TP200																																				
	TP400																																				
	TP40																																				
	T2000D																																				
	T300D																																				
PVD	25																																				
	CP500																																				
Un-coated	26																																				
	KX																																				
Cer-met	03																																				
	CMP																																				
CBN	51																																				
	CBN10																																				
PCD	81																																				
	82																																				
PCD	PCD20																																				
	91																																				

Insert grades – Recommended cutting speeds for boring

Workpiece material (Seco material groups)	Hardness HB	Grades/Cutting speeds v_c (m/min)*							
		Uncoated	Coated carbide			Cermet	CBN		PCD
		KX 03	TP40 T300D TP400	TP3000 T2000D TP200 25	CP500 26	CMP 51	CBN10 81	82	PCD20 91
Carbon steel C<0,5% (Groups 1 - 3)	<180		60–180	80–200	80–200	100–350			
Carbon steel C>0,5% (Group 4)	>180		60–150	80–180	80–180	100–300			
Alloy steel (Group 4)	<210		60–140	80–160	80–180	100–300			
Alloy steel treated (Group 5)	210–270		60–140	80–160	80–160	100–250			
Alloy steel treated (Group 6)	>270		60–120	80–130	80–130	100–250			
Stainless steel (Groups 8 - 11)	150–270		60–130	80–180	60–160	80–180			
Hardened steel (Group 7)						80–180			
Grey cast-iron (Group 12)	150–270		60–140	80–180	60–160		150–800		
Spheroidal and malleable cast-iron (Group 15)	150–270		60–130	80–150	60–160				
Aluminium and Al-alloys Si<16% (Group 16)	60–120	150–800			150–800				150–1000
Al-alloys Si>16% (Group 17)	60–120	150–500			150–500				150–800
Copper, brass and bronze (Groups 16 - 17)	60–120	150–400			150–400				150–600
Superalloys and Ti-alloys (Groups 20 - 22)		20-50			20-50				

* For recommended depth of cut and feed, see inserts product pages.

HSK coolant tubes and sealing plugs

Depending on the machine requirements, HSK form A, -B or -D holders must be equipped with a coolant tube or a sealing plug.

WARNING :

Using holders without a coolant tube or a plug fitted, when required, could cause unseen machine spindle damage.

EPB holders HSK-A (standard range), and HSK-B and -D (special), are delivered without coolant tube (2) or sealing plug (1).

Coolant tube (2), tube spanner (3) and sealing plug (1) are shown as Additional equipment: please order separately.

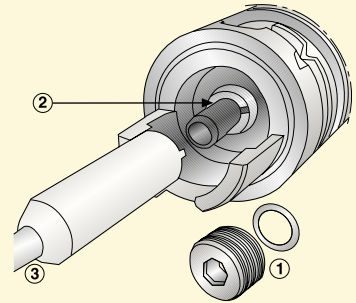
Features:

Coolant tubes, made of two parts and including two identical seals, allow a slight angular movement of $\pm 1^\circ$ (standard requirement).

They require a specific design of mounting spanner (there is no standardised design) shown in Additional equipment.

Plugs (delivered with a seal) use standard hexagonal keys, not available in the catalogue.

Note: DIN 69893 Form C, -E and -F do not require a coolant tube or plug. Through coolant and sealing functions are provided by the locking unit.



Pull studs

Pull studs (also called retention knobs) are the link between the drawbar of the machine and the holder.

The superior material and hardening quality of EPB pull studs is important, as the pulling forces exerted on them can be up to 3000 daN on SA 50 spindles.

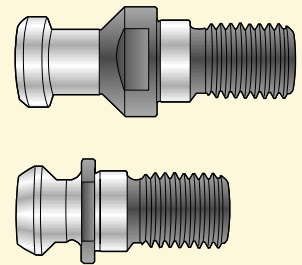
Precision machining of the pull studs guarantees precise positioning and safe locking of the holder in the spindle.

Most machines require a standard pull stud design (DIN, ISO, BT, CAT), but some require a specific design.

Standard pull studs are in the product pages.

Pull studs to convert DIN 69871, BT and CAT holders to DIN 2080 are also shown in the product pages.

Specific pull studs are available on request, please enquire: a sketch or drawing should accompany the enquiry.

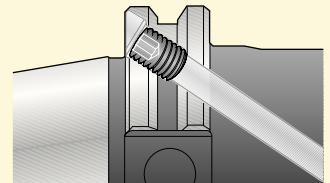


Note: A number of holders are of the ADB through coolant design.

For B through coolant (flange through coolant), the two originally fitted sealing plugs in the holder's flange have to be removed, and a non through coolant pull stud has to be used so as to seal the back of the holder.

For AD through coolant (central 'draw bar' through coolant), the two plugs in the holder's flange have to be in place, and a through coolant pull stud has to be used.

Spare sealing plugs are shown as Additional equipment.



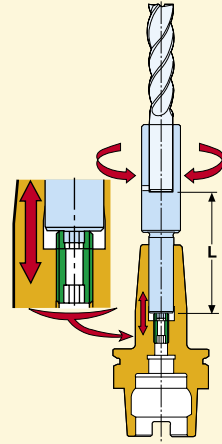
Stop screws and stop screw adjusting adapters for Shrinkfit holders type 5803

The adapter bore is oversized in relation to the cutting tool shank, and the adapter shank is undersized to the Shrinkfit holder bore.

The adapter is placed into the Shrinkfit holder. The back end of the adapter has an hexagonal location which engages the axial stop screw. The tool is placed into the adapter. By turning the adapter the stop screw is moved and the tool length can be adjusted.

When using a presetter you must take into account the length of the adapter from the bottom of the bore to the back end of the shank ($L = 80$ mm).

Adapters work only in conjunction with type 5803 Shrinkfit holders equipped with an axial stop screw. Stop screw and adapter are not delivered as standard with the holders, they must be ordered separately.



Reduction sleeves and control gauges for hydraulic chucks

The reduction sleeves for hydraulic chucks act like split collets, more shank types and sizes can be gripped:

cylindrical, Weldon, Whistle Notch $\varnothing \leq 25$ mm.

The run-out with the sleeve is maximum $5 \mu\text{m}$ at $3 \times d$ (d being the internal diameter of the sleeve).

Transmittable torque with a reduction sleeve is at least equivalent to chucks without a sleeve.

Control gauges:

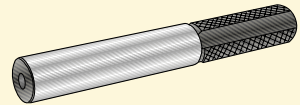
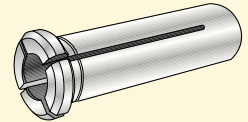
To check the clamping capability of the hydraulic chuck:

Insert the test bar in to the chuck.

Tighten the clamping screw until you cannot turn the test bar.

Then it should be possible to complete a minimum of three full turns of the pressurising screw, before completely tightening.

This will confirm that the clamping capability is adequate.



D type collets (high precision, suitable for high speed applications)

Norm: No norm

Collet taper angle: 10°

The locking face of the collet is flat so as to avoid radial influence during locking. This type of locking does not influence run-out.

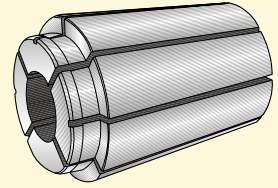
Run-out: Maximum run-out when measured at a gauge projection of $3 \times d$ in relation to the external taper of the chuck is 5 μm .

Suitable for HSM.

Dedicated clamping size on the nominal diameter.

Collets available in steps of 0,5 mm.

Tool shanks: Cylindrical DIN 1835-1 Form A/DIN 6535 Form HA, tolerance h8.



Assembly advice for D type collets

(1) Press the collet into the special compression tool.*

(2) Locate the collet's flat face into the nut.

(3) To remove the collet from the compression tool, push the spherical back end.

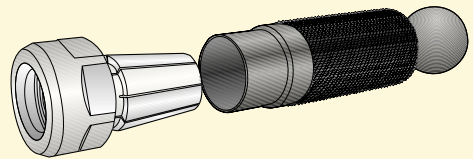
To dismantle, push the compression tool onto the taper of the collet and then remove the nut.

Finally, push the spherical back end to remove the collet.

The collet must always be inserted into the nut, and the nut screwed on to the chuck before introducing the tool into the collet.

Never lock the nut without a tool shank located in the full length of the collet.

* **A compression tool** is available for each collet size D10, D16, D24 and D29. To be ordered separately.

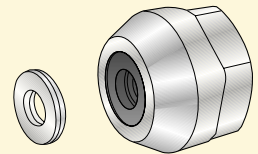


Sealing rings for D type sealing nuts

In order to seal tool shanks, nuts for sealing rings can be provided as accessories shown in D type collet chucks product pages.

Sealing rings available in steps of 0,5 mm, dedicated sealing size on the nominal diameter.

Coolant pressure maximum 100 bar.



ER collets

Norm: DIN 6499

Collet taper angle: 16°.

High flexibility: The clamping range of an ER collet is nominal to -1 mm (-0,5 mm for ER 08 and ER 11).

ER collets are available in two versions:

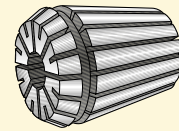
- ER collets, standard

Run-out: Maximum run-out when measured at a gauge projection of approx. 3 x d in relation to the external taper of the collet is 35 µm.

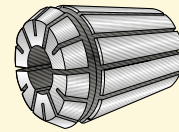
- ER collets, HP (High Precision)

ER-HP are polished and precision deburred.

Run-out: Maximum run-out when measured at a gauge projection of approx. 3 x d in relation to the external taper of the collet is 15 µm.



ER collet, standard



ER collet, HP

Sealing rings for ER sealing nuts

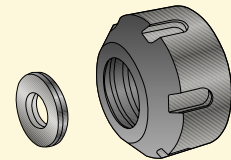
ER chucks are delivered as standard with stop screws for plain ended tool shanks.

In order to seal other types of shanks, nuts for sealing rings can be provided as accessories shown in ER collet chucks product pages.

Sealing range of a ring is nominal to -0,5 mm.

Coolant pressure maximum 100 bar.

Sealing rings are inserted into the nut from the back, by applying a slight pressure.



OZ collets

Norm: DIN 6388

Collet taper angle 1/10 (approx. 5° 44')

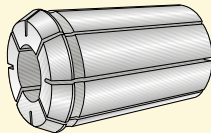
Run-out: Maximum run-out when measured at a gauge projection of approx. 3 x d in relation to the external taper of the collet is 35 µm.

3 OZ collet types

Type A:

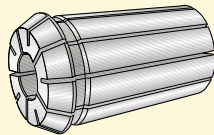
Dedicated clamping size on the nominal diameter.

Collets available in steps of 0,5 mm.



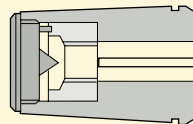
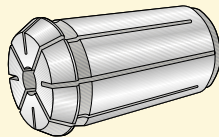
Type B:

More slots than on type A. The clamping range of a type B collet is nominal to -0,5 mm.



Type C:

For threaded tool shanks (also called Clarkson), dedicated clamping size on the nominal diameter.

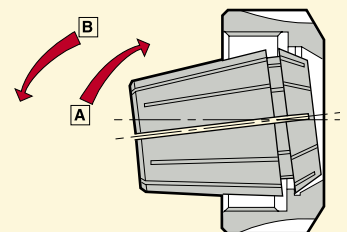


Assembly advice for ER and OZ collets

The collet must always be inserted into the nut, and the nut screwed on the chuck before introducing the tool into the collet.

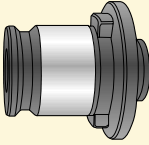
The collet is fitted inside the nut by applying slight pressure A, and released by a radial pressure B.

Never lock the nut without a tool in place.

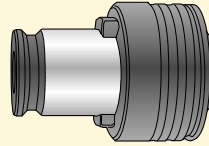


Quick change tap adapters

Permit quick changing of the tap and adapter.



Adapters without torque limiter
Type T5241

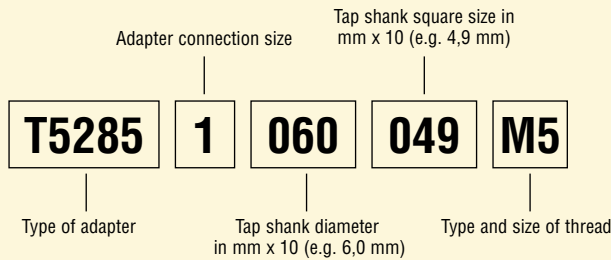


Adapters with torque limiter
Type T5285

The adapter has to be chosen according to the tap shank diameter and its square size. Both dimensions are in relation to norms DIN, ISO, PIPE, which also cover the thread size. Suitable for taps with or without through coolant channel.

The torque of an adapter with a torque limiter, is set according to the thread size, when delivered. Therefore a tap with the same shank diameter and same square size, but with a different pitch (e.g. Ø 6 x 4,9, comes in M5 and M6) cannot be substituted.

For adapters without torque limiter this can be done, as only tap shank diameter and square are critical.



Assembly supports, Tool Boy

This indexable toolholder assembly support provides a safe and efficient tool preparation facility. Easily fixed to a workbench.

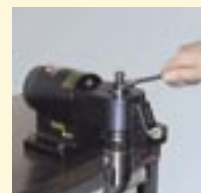
Modular concept: The common base unit accommodates all head types and sizes.

Available as complete kits or as individual modules, see product page.

Horizontal orientation to right or left, e.g. for tool and insert assembly.



Vertical orientation up or downwards, e.g. for boring head setting or pull stud mounting.



HSK locking units, TF

TF units enable spindles with HSK interface to be adapted to take HSK-C and HSK-A holders.

For access to the locking mechanism, HSK-A holders must have the radial access hole in the taper.

Units also enable the release of the holder from the spindle (HSK is self-locking).

Operating principle

Locking: the side access locking screw activates two gripping jaws, which exert axial and radial locking forces on to the holder's internal pulling taper. This locks the holder into the spindle and pushes the coolant seal on to the internal face. (fig. 1 and 2).

Releasing: by turning the screw in the opposite direction the jaws are removed from the pulling taper and the ejector pushes on the holder's internal face to release it from the spindle (fig. 3).

Main features:

The two locking jaws are self orientating in order to achieve four point locking.

The locking principle guarantees the required HSK locking pressures.

Sealing is designed to withstand high pressure coolant flow.

Symmetrical acting ejector, no risk of holder sticking.

Unit fitting:

Simple and inexpensive spindle machining operations for fitting the unit, based on a thread and a centring bore. See machining advice in product pages.

The unit is fitted by screwing down to a dead stop. Before securing, a slip clutch allows alignment of the unit clamping screw with the access holes in the spindle.

For installing and removing the units use the dedicated spanners available in Accessories. Indexing pins are also available, they are not included in the delivery content, please order separately. For application details, refer to the instruction sheet supplied with the unit.

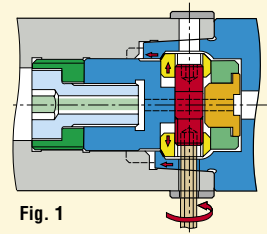


Fig. 1

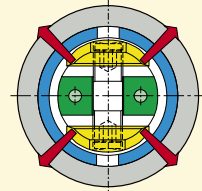


Fig. 2

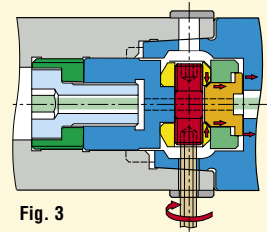


Fig. 3

HSK locking flange mounts, TF

TF flange mounts allow spindle front faces to be easily equipped with a complete HSK connection (HSK interface and locking). The flange mounts have a precise HSK taper/face, drivers for HSK-A and HSK-C holders, and include a TF locking unit, already fitted.

Three flange types are available:

- Type BR1: with radial and angular adjustment.
- Type BR2: short, with radial adjustment.
- Type BR3: short and slim, with radial adjustment.

Features:

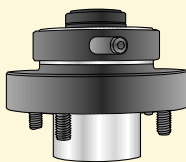
Protecting ring to seal the mount's radial holes for TF unit access.

Simple and inexpensive spindle machining operations for fitting the flange mount.

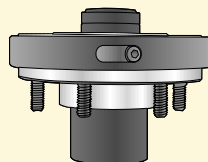
See machining advice in product pages.

Flanges are delivered with all components included, also shown as spare parts.

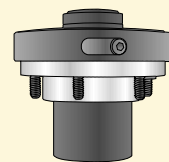
Spanners to release the TF units, and indexing pins are not included in the delivery content, please order separately: they are listed on the TF unit product page.



BR1



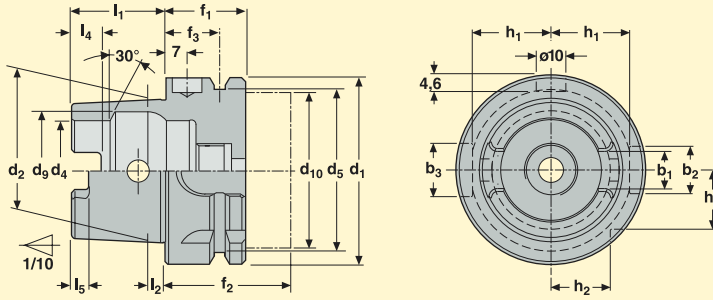
BR2



BR3

HSK-A norm, dimensions

ISO 12164-1 Form A/ DIN 69893 Form A compatible



HSK	Part No. prefix	Dimensions in mm																	
		d ₁	d ₂	d _{10 max}	d ₄	d ₅	d ₉	f ₁	f ₂	f ₃	l ₁	l ₂	l ₄	l ₅	b ₁	b ₂	b ₃	h ₁	h ₂
HSK-A32	E9301...	32	24	26	17	26,5	21	20	35	16	16	3,2	5	3	7,05	7	9	13	9,5
HSK-A40	E9302...	40	30	34	21	34,8	25,5	20	35	16	20	4	6	3,5	8,05	9	11	17	12
HSK-A50	E9303...	50	38	42	26	43	32	26	42	18	25	5	7,5	4,5	10,54	12	14	21	15,5
HSK-A63	E9304...	63	48	53	34	55	40	26	42	18	32	6,3	10	6	12,54	16	18	26,5	20
HSK-A80	E9305...	80	60	67	42	70	50	26	42	18	40	8	12	8	16,04	18	20	34	25
HSK-A100	E9306...	100	75	88	53	92	63	29	45	20	50	10	15	10	20,02	20	22	44	31,5

EPB's holders HSK-A have a radial hole through the taper for manual clamping, compatible with HSK-C.

The norm dimensions are applied to all the holders shown in following product pages.

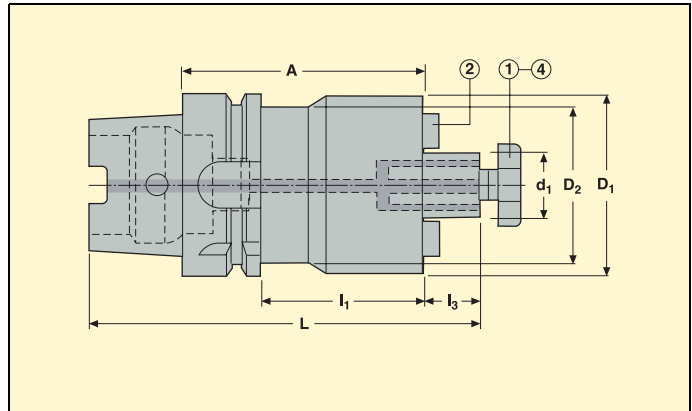
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5525 - Shell mill holders, with through coolant channels

HSK-A/ ISO 12164-1-A



- Direct run-out 5 μ m maximum.
- With coolant supply channels through the spigot.



Page 1 of 2		Dimensions in mm							*	Balancing	
Taper	d ₁ mm	Part No.	A	D ₁	D ₂	L	I ₁	I ₃			
HSK-A63	16	E9304 5525 1650	50	38	38	99	24	17		1	0.90
	16	E9304 5525 16100	100	38	38	149	74	17		1	1.35
	16	E9304 5525 16145	145	38	38	194	119	17		1	1.75
	22	E9304 5525 2250	50	48	48	101	24	19	*	1	1.10
	22	E9304 5525 22100	100	48	48	151	74	19		1	1.80
	22	E9304 5525 22160	160	48	48	211	134	19		1	2.65
	27	E9304 5525 2760	60	60	53	113	34	21	*	1	1.45
	27	E9304 5525 27100	100	60	53	153	74	21		1	2.30
	27	E9304 5525 27160	160	60	53	213	134	21		1	3.65
	32	E9304 5525 3260	60	78	53	116	34	24	*	1	1.75
	32	E9304 5525 32100	100	78	53	156	74	24		1	3.25
	32	E9304 5525 32160	160	78	53	216	134	24		1	5.50
40	E9304 5525 4060	60	89	53	119	34	27	*	1	2.10	
HSK-A80	16	E9305 5525 1650	50	38	38	107	24	17		1	1.35
	16	E9305 5525 16100	100	38	38	157	74	17		1	1.80
	22	E9305 5525 2250	50	48	48	109	24	19		1	1.55
	22	E9305 5525 22100	100	48	48	159	74	19		1	2.25
	27	E9305 5525 2750	50	60	60	111	24	21		1	1.80
	32	E9305 5525 3260	60	78	67	124	34	24		1	2.50
	40	E9305 5525 4060	60	89	67	127	33	27		1	2.75

d₁ 40, includes 4 threaded holes on the flange according to DIN 6357.

* Conform to DIN 69882-3.

Accessories

Spare parts

For d ₁	Spanner	Bolt, through coolant type (4)	Bolt (1)	Tenon/ Screw (2)	
16	5811608	5801608L	5801608	16C10810164	950D0312
22	5812210	5802210L	5802210	16C11012206	950D0416
27	5812712	5802712L	5802712	16C11214243	951D0516
32	5813216	5803216L	5803216	16C2141421	951D0516
40	5814020	5804020L	5804020	16C2161621	951D0616

Please check availability in current price and stock-list.

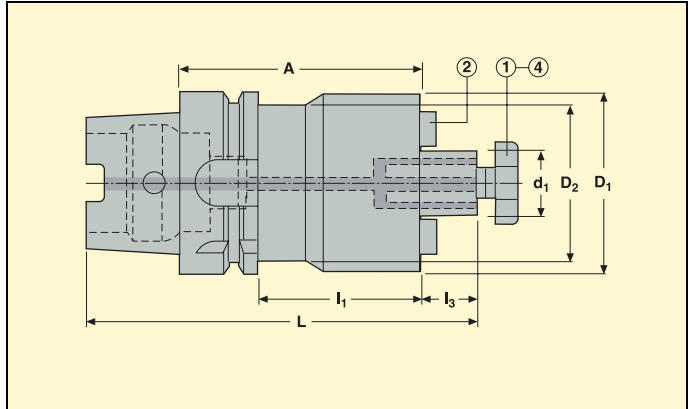
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5525 - Shell mill holders, with through coolant channels

HSK-A/ ISO 12164-1-A



- Direct run-out 5 μm maximum.
- With coolant supply channels through the spigot.



Page 2 of 2		Part No.	Dimensions in mm						*	Balancing	KG	
Taper	d ₁ mm		A	D ₁	D ₂	L	I ₁	I ₃				
HSK-A100	16	E9306 5525 16100	100	38	38	167	71	17		1	1,35	
	22	E9306 5525 2250	50	48	48	119	21	19	*	1	3,25	
	22	E9306 5525 22100	100	48	48	169	71	19		1	4,00	
	22	E9306 5525 22160	160	48	48	229	131	19		1	5,95	
	27	E9306 5525 2750	50	60	60	121	21	21	*	1	3,50	
	27	E9306 5525 27100	100	60	60	171	71	21		1	4,60	
	27	E9306 5525 27160	160	60	60	231	131	21		1	5,50	
	32	E9306 5525 3250	50	78	78	124	21	24	*	1	3,70	
	32	E9306 5525 32100	100	78	78	174	71	24		1	5,60	
	32	E9306 5525 32160	160	78	78	234	131	24		1	7,05	
	40	E9306 5525 4060	60	89	88	137	31	27	*	1	3,95	
	40	E9306 5525 40100	100	89	88	177	71	27		1	6,25	
	40	E9306 5525 40160	160	89	88	237	131	27		1	8,60	

d₁ 40, includes 4 threaded holes on the flange according to DIN 6357.

* Conform to DIN 69882-3.

Accessories

Spare parts

For d ₁	Spanner	Bolt, through coolant type (4)	Bolt (1)	Tenon/ Screw (2)	
16	5811608	5801608L	5801608	16C10810164	950D0312
22	5812210	5802210L	5802210	16C11012206	950D0416
27	5812712	5802712L	5802712	16C11214243	951D0516
32	5813216	5803216L	5803216	16C2141421	951D0516
40	5814020	5804020L	5804020	16C2161621	951D0616

Please check availability in current price and stock-list.

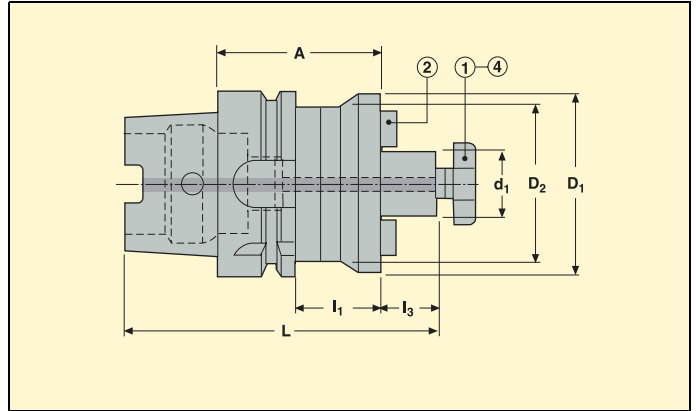
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5521 - Shell mill holders, enlarged face

HSK-A/ ISO 12164-1-A



- Direct run-out 5 µm maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm						*	Balancing	KG
			A	D ₁	D ₂	L	I ₁	I ₃			
HSK-A100	22	E9306 5521 2250	50	48	50	119	21	19	*	1	3,25
	27	E9306 5521 2750	50	60	60	121	21	21	*	1	3,50
	32	E9306 5521 3250	50	78	78	124	21	24	*	1	3,70
	40	E9306 5521 4060	60	89	88	137	31	27	*	1	3,95

d₁ 40, includes 4 threaded holes on the flange according to DIN 6357.

* Conform to DIN 69882-3.

Accessories

Spare parts

For d ₁	Spanner	Bolt, through coolant type (4)	Bolt (1)	Tenon/ Screw (2)	
22	5812210	5802210L	5802210	16C11012206	950D0416
27	5812712	5802712L	5802712	16C11214243	951D0516
32	5813216	5803216L	5803216	16C2141421	951D0516
40	5814020	5804020L	5804020	16C2161621	951D0616

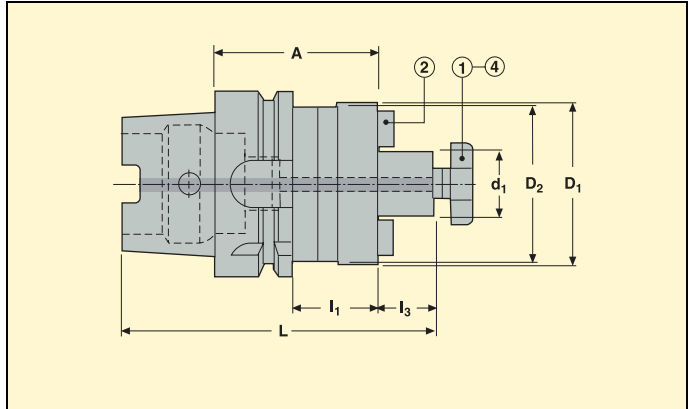
Please check availability in current price and stock-list.
 For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 552 - Shell mill holders - ISO 3937

HSK-A/ ISO 12164-1-A



- Direct run-out 5 μm maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm						Balancing	KG
			A	D ₁	D ₂	L	I ₁	I ₃		
HSK-A32	13	E9301 552 1350	50	28	26	78	30	12	1	0,27
	16	E9301 552 1650	50	32	26	83	30	17	1	0,30
HSK-A40	16	E9302 552 1650	50	32	32	87	30	17	1	0,45
	22	E9302 552 2250	50	40	34	89	30	19	1	0,55
HSK-A50	16	E9303 552 1640	40	32	32	82	14	17	1	0,50
	22	E9303 552 2245	45	40	40	89	19	19	1	0,70
	27	E9303 552 2760	60	48	42	106	34	21	1	1,10
HSK-A63	16	E9304 552 1650	50	32	32	99	24	17	1	0,85
	22	E9304 552 2250	50	40	40	101	24	19	1	0,95
	27	E9304 552 2760	60	48	48	113	34	21	1	1,25
	32	E9304 552 3260	60	58	53	116	34	24	1	1,45
	40	E9304 552 4060	60	70	53	119	34	27	1	2,10

Accessories

For d ₁	Spanner	Bolt, through coolant type (4)
13	5811306	5801306L
16	5811608	5801608L
22	5812210	5802210L
27	5812712	5802712L
32	5813216	5803216L
40	5814020	5804020L

Spare parts

Bolt (1)	Tenon/ Screw (2)
5801306	16C116
5801608	16C116
5802210	16C122
5802712	16C127
5803216	16C13201
5804020	16C2161613

Please check availability in current price and stock-list.

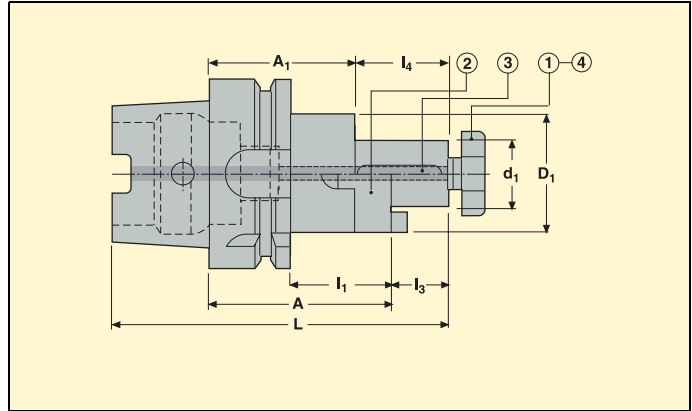
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 553 - Combi shell mill holders - DIN 6358

HSK-A/ ISO 12164-1-A



- Direct run-out 5 μm maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm							*	Balancing	
			A	A ₁	D ₁	L	I ₁	I ₃	I ₄			
HSK-A63	16	E9304 553 1660	60	50	32	109	34	17	27	*	–	0.90
	22	E9304 553 2260	60	48	40	111	34	19	31	*	–	1.05
	27	E9304 553 2760	60	48	48	113	34	21	33	*	–	1.25
	32	E9304 553 3260	60	46	58	116	34	24	38	*	–	1.60
HSK-A100	16	E9306 553 1660	60	50	32	127	31	17	27	*	–	2.40
	22	E9306 553 2260	60	48	40	129	31	19	31	*	–	2.60
	27	E9306 553 2760	60	48	48	131	31	21	33	*	–	2.80
	32	E9306 553 3260	60	46	58	134	31	24	38	*	–	3.00
	40	E9306 553 4070	70	56	70	147	41	27	41	*	–	3.40
	50	E9306 553 5080	80	64	90	160	51	30	46	*	–	3.80

* Conform to DIN 69882-2.

Accessories

Spare parts

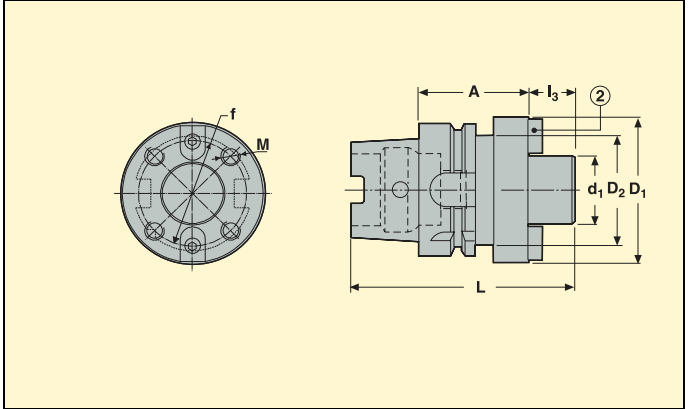
For d ₁	Spanner	Bolt, through coolant type (4)	Bolt (1)	Driving ring (2)	Flat key (3)
16	5811608	5801608L	5801608	58316	04C216
22	5812210	5802210L	5802210	58322	04C222
27	5812712	5802712L	5802712	58327	04C227
32	5813216	5803216L	5803216	58332	04C232
40	5814020	5804020L	5804020	58340	04C240
50	5815024	5805024L	5805024	58350	04C250

Please check availability in current price and stock-list.

For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 569 - Milling cutter holders, flange mounting - DIN 6357/ DIN 2079

HSK-A/ ISO 12164-1-A



- Direct run-out 5 μm maximum.

Taper	d ₁ mm	Part No.	Dimensions in mm							Balancing	
			A	D ₁	D ₂	L	l ₃	f	M		
HSK-A100	60	E9306 569 6075	75	129	88	165	40	101,6	M16	2	6,85

Spare parts

For d ₁	Tenon/ Screw (2)	
60	16C35060	951D1225

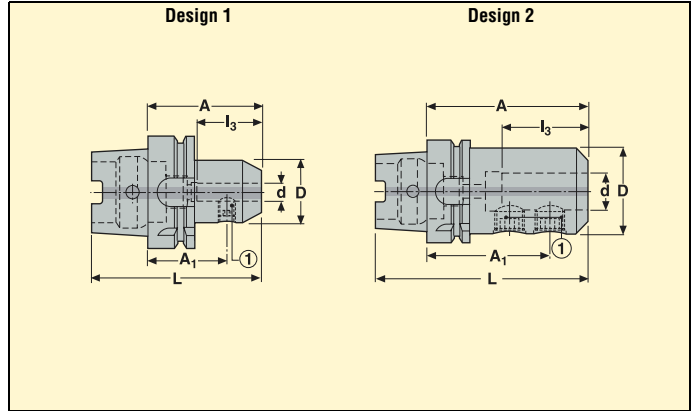
Please check availability in current price and stock-list.
 For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 584 - Side lock holders, Weldon - DIN 1835 Form B/ DIN 6535 Form HB

HSK-A/ ISO 12164-1-A



- Direct run-out 3 μ m maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



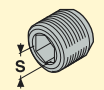
Page 1 of 4	Dimensions in mm										
	d mm	Part No.	A	D	L	I ₃	A ₁	*	Design	Balancing	KG
HSK-A50	6	E9303 584 0665	65	25	90	30	47,5	*	1	1	0.55
	8	E9303 584 0865	65	28	90	30	47,5	*	1	1	0.60
	10	E9303 584 1065	65	35	90	39	45,5	*	1	1	0.70
	12	E9303 584 1280	80	42	105	44	58	*	1	1	0.90
	14	E9303 584 1480	80	44	105	44	58	*	1	1	0.95
	16	E9303 584 1680	80	48	105	47	56,5	*	1	1	1.00

Balancing 1, with steel shank.

* Conform to DIN 69882-4.

Spare parts

For d	Locking screw (1)	
	Qty	S
6	951C0610	3
8	951C0810	4
10	951C1012	5
12-14	951C1216	6
16	951C1416	6



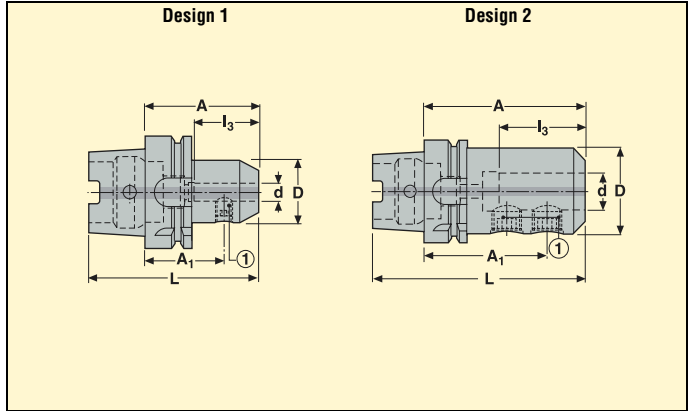
Please check availability in current price and stock-list. For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 584 - Side lock holders, Weldon - DIN 1835 Form B/ DIN 6535 Form HB

HSK-A/ ISO 12164-1-A



- Direct run-out 3 μ m maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



Page 2 of 4		Part No.	Dimensions in mm					*	Design	Balancing	KG
Taper	d mm		A	D	L	I ₃	A ₁				
HSK-A63	6	E9304 584 0665	65	25	97	30	47,5	*	1	1	0,85
	6	E9304 584 06120	120	25	152	30	102,5		1	1	1,05
	6	E9304 584 06160	160	25	192	30	142,5		1	1	1,20
	8	E9304 584 0865	65	28	97	30	47,5	*	1	1	0,90
	8	E9304 584 08120	120	28	152	30	102,5		1	1	1,15
	8	E9304 584 08160	160	28	192	30	142,5		1	1	1,35
	10	E9304 584 1065	65	35	97	39	45,5	*	1	1	1,00
	10	E9304 584 10120	120	35	152	39	100,5		1	1	1,40
	10	E9304 584 10160	160	35	192	39	140,5		1	1	1,70
	12	E9304 584 1280	80	42	112	44	58	*	1	1	1,25
	12	E9304 584 12120	120	42	152	44	98		1	1	1,70
	12	E9304 584 12160	160	42	192	44	138		1	1	2,10
	14	E9304 584 1480	80	44	112	44	58	*	1	1	1,30
	14	E9304 584 14160	160	44	192	44	138		1	1	2,25
	16	E9304 584 1680	80	48	112	47	56,5	*	1	1	1,30
	16	E9304 584 16120	120	48	152	47	96,5		1	1	1,85
	16	E9304 584 16160	160	48	192	47	136,5		1	1	2,40
	18	E9304 584 1880	80	50	112	47	56,5	*	1	1	1,35
	18	E9304 584 18160	160	50	192	47	136,5		1	1	2,55
	20	E9304 584 2080	80	52	112	49	55,5	*	1	1	1,45
20	E9304 584 20120	120	52	152	49	95,5		1	1	2,10	
20	E9304 584 20160	160	52	192	49	135,5		1	1	2,75	

Balancing 1, with steel shank.

* Conform to DIN 69882-4.

Spare parts

For d	Locking screw (1)		
		Qty	S
6	951C0610	1	3
8	951C0810	1	4
10	951C1012	1	5
12-14	951C1216	1	6
16-18	951C1416	1	6
20	951C1616	1	8

Please check availability in current price and stock-list.

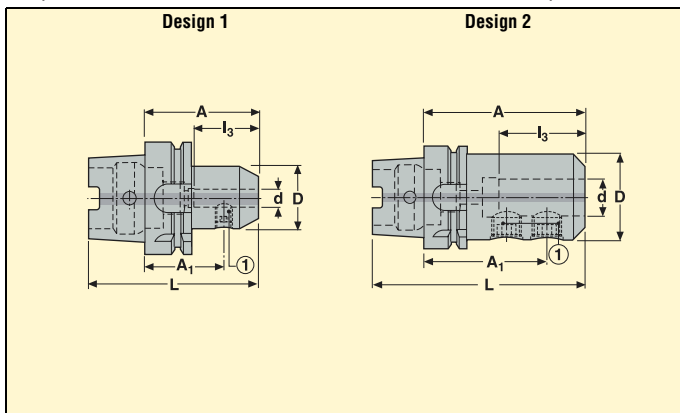
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 584 - Side lock holders, Weldon - DIN 1835 Form B/ DIN 6535 Form HB

HSK-A/ ISO 12164-1-A



- Direct run-out 3 µm maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



Page 3 of 4		Dimensions in mm							*	Design	Balancing	
Taper	d mm	Part No.	A	D	L	I ₃	A ₁					
HSK-A63	25	E9304 584 25110	110	63	142	54	86,5	*	2	1	2,25	
	25	E9304 584 25160	160	63	192	54	136,5	*	2	1	3,45	
	32	E9304 584 32110	110	72	142	58	86,5	*	2	1	2,55	
HSK-A80	6	E9305 584 0680	80	25	120	30	62,5	*	1	1	1,30	
	8	E9305 584 0880	80	28	120	30	62,5	*	1	1	1,35	
	10	E9305 584 1080	80	35	120	39	60,5	*	1	1	1,50	
	12	E9305 584 1280	80	42	120	44	58	*	1	1	1,65	
	14	E9305 584 1480	80	44	120	44	58	*	1	1	1,70	
	16	E9305 584 16100	100	48	140	47	76,5	*	1	1	2,05	
	18	E9305 584 18100	100	50	140	47	76,5	*	1	1	2,10	
	20	E9305 584 20100	100	52	140	49	75,5	*	1	1	2,15	
	25	E9305 584 25100	100	65	140	54	76,5	*	2	1	2,60	
	32	E9305 584 32110	110	72	150	58	86,5	*	2	1	3,25	

Balancing 1, with steel shank.

* Conform to DIN 69882-4.

Spare parts

For d	Locking screw (1)	
	Qty	S
6	951C0610	3
8	951C0810	4
10	951C1012	5
12-14	951C1216	6
16-18	951C1416	6
20	951C1616	8
25	951C1820	10
32	951C2020	10

Please check availability in current price and stock-list.

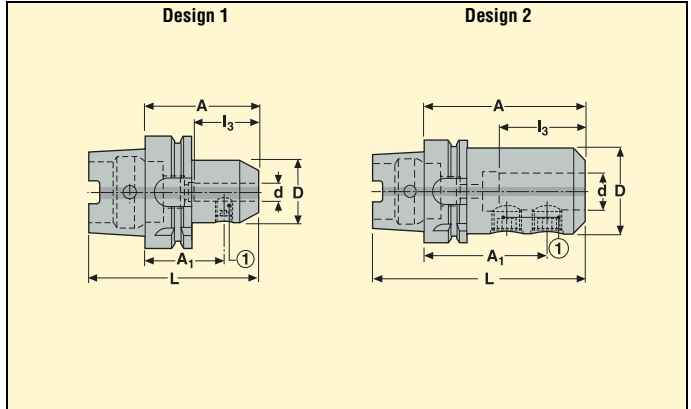
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 584 - Side lock holders, Weldon - DIN 1835 Form B/ DIN 6535 Form HB

HSK-A/ ISO 12164-1-A



- Direct run-out 3 μm maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



Page 4 of 4		Part No.	Dimensions in mm					*	Design	Balancing	KG
Taper	d mm		A	D	L	I ₃	A ₁				
HSK-A100	6	E9306 584 0680	80	25	130	27	62,5	*	1	1	2,35
	6	E9306 584 06160	160	25	210	27	142,5		1	1	2,60
	8	E9306 584 0880	80	28	130	30	62,5	*	1	1	2,40
	8	E9306 584 08160	160	28	210	30	142,5		1	1	2,70
	10	E9306 584 1080	80	35	130	39	60,5	*	1	1	2,50
	10	E9306 584 10160	160	35	210	39	140,5		1	1	3,00
	12	E9306 584 1280	80	42	130	44	58	*	1	1	2,60
	12	E9306 584 12160	160	42	210	44	138		1	1	3,40
	14	E9306 584 1480	80	44	130	44	58	*	1	1	2,65
	14	E9306 584 14160	160	44	210	44	138		1	1	3,55
	16	E9306 584 16100	100	48	150	47	76,5	*	1	1	3,00
	16	E9306 584 16160	160	48	210	47	136,5		1	1	3,80
	18	E9306 584 18100	100	50	150	47	76,5	*	1	1	3,10
	20	E9306 584 20100	100	52	150	49	75,5	*	1	1	3,10
	20	E9306 584 20160	160	52	210	49	135,5		1	1	4,05
	25	E9306 584 25100	100	65	150	54	76,5	*	2	1	3,60
	25	E9306 584 25160	160	65	210	54	136,5		2	1	5,10
	32	E9306 584 32100	100	72	150	58	76,5	*	2	1	3,85
	32	E9306 584 32160	160	72	210	58	136,5		2	1	5,70
	40	E9306 584 40120	120	90	170	68	90,5		2	1	5,50

Balancing 1, with steel shank.

* Conform to DIN 69882-4.

Spare parts

For d	Locking screw (1)	Qty	
		S	S
6	951C0610	1	3
8	951C0810	1	4
10	951C1012	1	5
12-14	951C1216	1	6
16-18	951C1416	1	6
20	951C1616	1	8
25	951C1820	2	10
32	951C2020	2	10
40	951C2025	2	10

Please check availability in current price and stock-list.

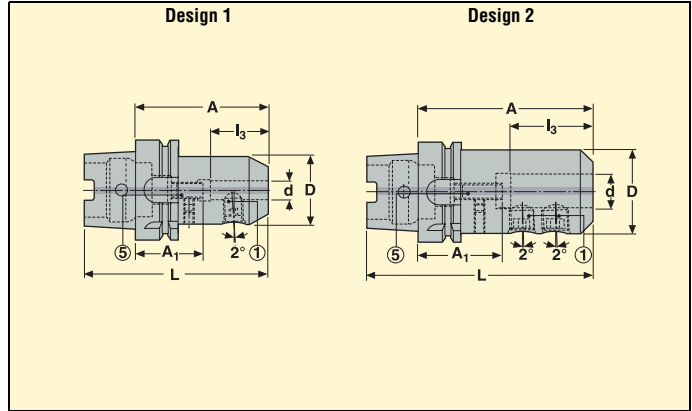
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5843 - Side lock holders, Whistle Notch - DIN 1835 Form E/ DIN 6535 Form HE

HSK-A/ ISO 12164-1-A



- Direct run-out 3 μm maximum.
- Whistle Notch d 16, 20, 25 and 32 with ground face.



Page 1 of 3		Dimensions in mm							*	Design	Balancing	
Taper	d mm	Part No.	A	D	L	l ₃	A ₁ min-max					
HSK-A63	6	E9304 5843 0680	80	25	112	30	40-50	*	1	2	0,90	
	6	E9304 5843 06125	125	25	157	30	83-95		1	2	1,10	
	8	E9304 5843 0880	80	28	112	30	40-50	*	1	2	0,95	
	10	E9304 5843 1080	80	35	112	39	36-46	*	1	2	1,05	
	10	E9304 5843 10125	125	35	157	39	80-92		1	2	1,40	
	12	E9304 5843 1290	90	42	122	44	38-46	*	1	2	1,35	
	12	E9304 5843 12125	125	42	157	44	73-83		1	2	1,75	
	14	E9304 5843 1490	90	44	122	44	38-46	*	1	2	1,40	
	16	E9304 5843 16100	100	48	132	47	45-55	*	1	2	1,60	
	18	E9304 5843 18100	100	50	132	47	45-55	*	1	2	1,65	
	20	E9304 5843 20100	100	52	132	49	43-53	*	1	2	1,75	
	25	E9304 5843 25110	110	63	142	54	46-56	*	2	2	2,25	
	32	E9304 5843 32110	110	72	142	58	42-52	*	2	2	2,55	

* Conform to DIN 69882-5.

Spare parts

For d	Locking screw (1)		Stop end screw (5)		
	Qty	S	Qty	S	
6	951C0610	1	3	19L0816	4
8	951C0810	1	4	19L1016	5
10	951C1012	1	5	19TLR0816	4
12-14	951C1216	1	6	19TLR1016	5
16-18	951C1416	1	6	19L1020	5
20	951C1616	1	8	19L1020	5
25	951C1820	2	10	19L1020	5
32	951C2020	2	10	19L1020	5

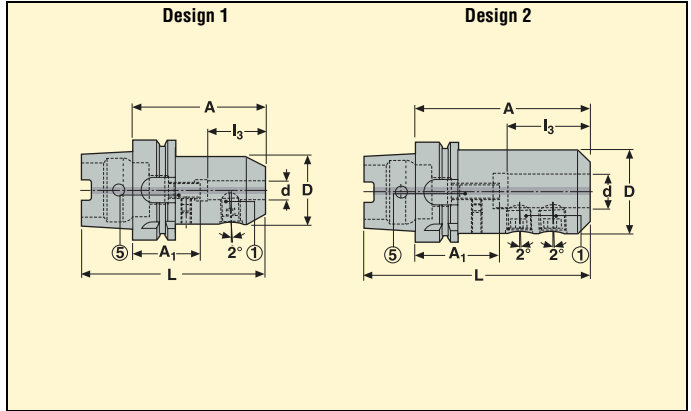
Please check availability in current price and stock-list.
 For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5843 - Side lock holders, Whistle Notch - DIN 1835 Form E/ DIN 6535 Form HE

HSK-A/ ISO 12164-1-A



- Direct run-out 3 µm maximum.
- Whistle Notch d 16, 20, 25 and 32 with ground face.



Page 2 of 3		Dimensions in mm										
Taper	d mm	Part No.	A	D	L	l ₃	A ₁ min-max	*	Design	Balancing	KG	
HSK-A80	6	E9305 5843 0690	90	25	130	30	50-60	*	1	2	1,35	
	8	E9305 5843 0890	90	28	130	30	50-60	*	1	2	1,40	
	10	E9305 5843 1090	90	35	130	39	55-60	*	1	2	1,60	
	12	E9305 5843 12100	100	42	140	44	48-53	*	1	2	1,85	
	14	E9305 5843 14100	100	44	140	44	48-56	*	1	2	1,90	
	16	E9305 5843 16100	100	48	140	47	45-48	*	1	2	2,05	
	18	E9305 5843 18100	100	50	140	47	45-51	*	1	2	2,10	
	20	E9305 5843 20110	110	52	150	49	53-58	*	1	2	2,30	
	25	E9305 5843 25120	120	65	160	54	52-62	*	2	2	3,30	
	32	E9305 5843 32120	120	72	160	58	52-62	*	2	2	3,60	

* Conform to DIN 69882-5.

Spare parts

For d	Locking screw (1)	Stop end screw (5)			
		Qty	S	S	S
6	951C0610	1	3	19TLR0816	4
8	951C0810	1	4	19TLR1016	5
10	951C1012	1	5	19TLR0816	4
12-14	951C1216	1	6	19TLR1016	5
16-18	951C1416	1	6	19TLR1016	5
20	951C1616	1	8	19L1020	5
25	951C1820	2	10	19TLR1030	5
32	951C2020	2	10	19TLR1016	5

Please check availability in current price and stock-list.

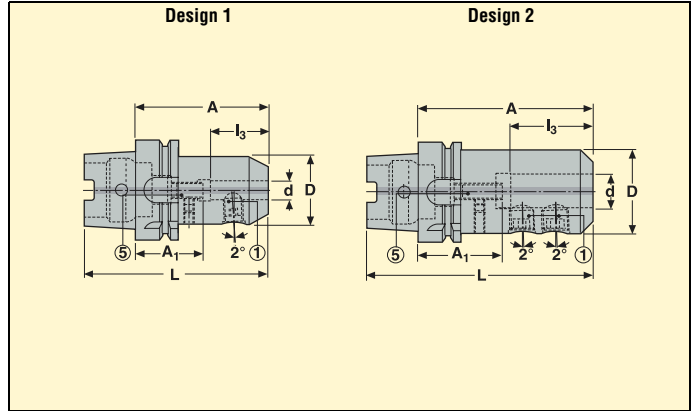
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5843 - Side lock holders, Whistle Notch - DIN 1835 Form E/ DIN 6535 Form HE

HSK-A/ ISO 12164-1-A



- Direct run-out 3 μm maximum.
- Whistle Notch d, 16, 20, 25 and 32 with ground face.



Page 3 of 3		Dimensions in mm									
Taper	d mm	Part No.	A	D	L	l ₃	A ₁ min-max	*	Design	Balancing	KG
HSK-A100	6	E9306 5843 0690	90	25	140	30	50-60	*	1	2	2,40
	8	E9306 5843 0890	90	28	140	30	50-60	*	1	2	2,45
	10	E9306 5843 1090	90	35	140	39	35-40	*	1	2	2,60
	12	E9306 5843 12100	100	42	150	44	48-54	*	1	2	2,80
	14	E9306 5843 14100	100	44	150	44	48-58	*	1	2	2,85
	16	E9306 5843 16100	100	48	150	47	45-53	*	1	2	3,00
	18	E9306 5843 18100	100	50	150	47	45-51	*	1	2	3,10
	20	E9306 5843 20110	110	52	160	49	53-58	*	1	2	3,10
	25	E9306 5843 25120	120	65	170	54	56-66	*	2	2	4,10
	32	E9306 5843 32120	120	72	170	58	52-57	*	2	2	4,55

* Conform to DIN 69882-5.

Spare parts

For d	Locking screw (1)		Stop end screw (5)		
	Qty	S	Qty	S	
6	951C0610	1	3	19TLR0816	4
8	951C0810	1	4	19TLR1016	5
10	951C1012	1	5	19TLR0816	4
12-14	951C1216	1	6	19TLR1016	5
16	951C1416	1	6	19L1012	5
18	951C1416	1	6	19TLR1016	5
20	951C1616	1	8	19L1020	5
25	951C1820	2	10	19TLR1030	5
32	951C2020	2	10	19TLR1016	5

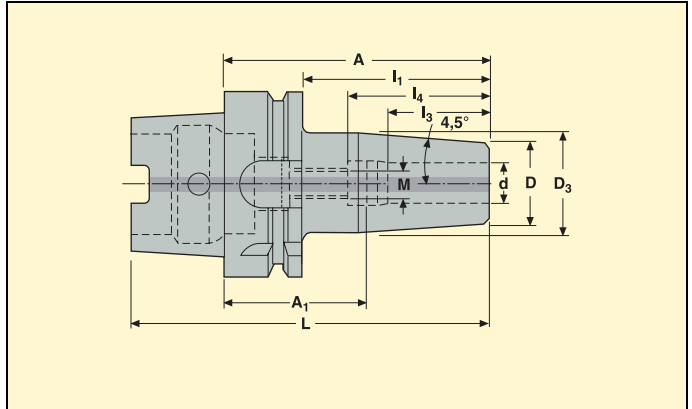
Please check availability in current price and stock-list.
 For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5803 - Shrinkfit holders, DIN type

HSK-A/ ISO 12164-1-A



- Direct run-out 3 μ m (3 μ m at 3xd) maximum.



Page 1 of 4		Part No.	Dimensions in mm									*	Balancing	KG
Taper	d mm		A	D	D ₃	L	I ₁	I ₃	I ₄	M	A ₁ min-max			
HSK-A32	6	E9301 5803 0670	70	21	26	86	50	26	36	M5	34-44	*	1	0,29
	8	E9301 5803 0870	70	21	26	86	50	26	36	M5	34-44	*	1	0,28
	10	E9301 5803 1075	75	24	30	91	55	31	41	M5	34-44	*	1	0,40
	12	E9301 5803 1280	80	24	31	96	60	34	47	M10	33-43	*	1	0,45
HSK-A40	6	E9302 5803 0680	80	21	27	100	60	26	36	M5	44-54	*	1	0,41
	8	E9302 5803 0880	80	21	27	100	60	26	36	M6	44-54	*	1	0,41
	10	E9302 5803 1080	80	24	32	100	60	31	41	M6	39-49	*	1	0,48
	12	E9302 5803 1290	90	24	32	110	70	34	47	M10	43-53	*	1	0,50
	14	E9302 5803 1490	90	27	34	110	70	34	47	M10	43-53	*	1	0,56
	16	E9302 5803 1690	90	27	34	110	70	38	50	M10	40-50	*	1	0,54
HSK-A50	6	E9303 5803 0680	80	21	27	105	54	26	36	M8	44-54	*	1	0,58
	8	E9303 5803 0880	80	21	27	105	54	26	36	M8	44-54	*	1	0,57
	10	E9303 5803 1085	85	24	32	110	59	31	41	M8	44-54	*	1	0,65
	12	E9303 5803 1290	90	24	32	115	64	34	47	M10	43-53	*	1	0,66
	14	E9303 5803 1490	90	27	34	115	64	34	47	M10	43-53	*	1	0,71
	16	E9303 5803 1695	95	27	34	120	69	38	50	M10	45-55	*	1	0,72
	18	E9303 5803 1895	95	33	42	120	69	38	50	M10	45-55	*	1	0,90
	20	E9303 5803 20100	100	33	42	125	74	42	52	M10	48-58	*	1	0,92

For Shrinkfit extensions, see catalogue chapter Additional equipment.

* Conform to DIN E 69882-8.

Accessories

For HSK/d	Stop end screw		
		S ₁	∅
A32/6-10	19LS0520A	3	3
A32/12	19LS1016A	5	5
A40/6-10	19LS0620A	3	3
A40/12-16	19LS1016A	5	5
A50/6-10	19LS0820T	3	3
A50/12-20	19LS1016A	5	5

Please check availability in current price and stock-list.

For stop screw setting adapters, see catalogue chapter Additional equipment.

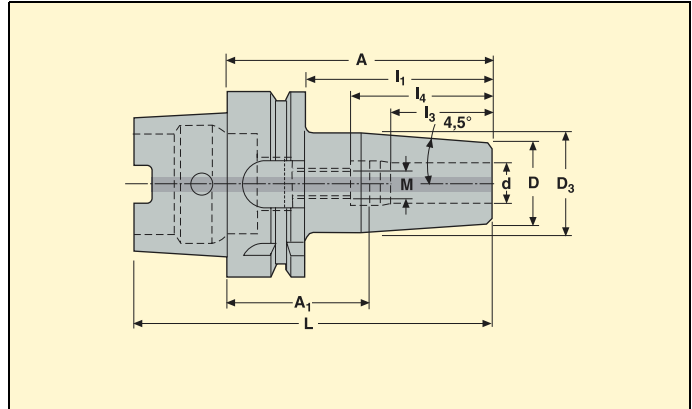
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5803 - Shrinkfit holders, DIN type

HSK-A/ ISO 12164-1-A



- Direct run-out 3 μ m (3 μ m at 3xd) maximum.



Page 2 of 4		Dimensions in mm										*	Balancing	
Taper	d mm	Part No.	A	D	D ₃	L	I ₁	I ₃	I ₄	M	A ₁ min-max			
HSK-A63	6	E9304 5803 0680	80	21	27	112	54	26	36	M8	44-54	*	1	0.83
	6	E9304 5803 06120	120	21	27	152	94	26	36	M8	74-84		1	0.99
	6	E9304 5803 06160	160	21	27	192	134	26	36	M8	114-124		1	1.15
	8	E9304 5803 0880	80	21	27	112	54	26	26	M8	44-54	*	1	0.83
	8	E9304 5803 08120	120	21	27	152	94	26	36	M8	74-84		1	0.99
	8	E9304 5803 08160	160	21	27	192	134	26	36	M8	114-124		1	1.15
	10	E9304 5803 1085	85	24	32	117	59	31	41	M8	44-54	*	1	0.90
	10	E9304 5803 10120	120	24	32	152	94	31	41	M8	69-79		1	1.10
	10	E9304 5803 10160	160	24	32	192	134	31	41	M8	119-129		1	1.35
	12	E9304 5803 1290	90	24	32	122	64	34	47	M10	43-53	*	1	0.91
	12	E9304 5803 12120	120	24	32	152	94	34	47	M10	73-83		1	1.10
	12	E9304 5803 12160	160	24	32	192	134	34	47	M10	113-123		1	1.35
	14	E9304 5803 1490	90	27	34	122	64	34	47	M10	43-53	*	1	0.96
	14	E9304 5803 14120	120	27	34	152	94	34	47	M10	73-83		1	1.20
	14	E9304 5803 14160	160	27	34	192	134	34	47	M10	113-123		1	1.43
	16	E9304 5803 1695	95	27	34	127	69	38	50	M10	45-55	*	1	0.98
	16	E9304 5803 16120	120	27	34	152	94	38	50	M10	70-80		1	1.20
	16	E9304 5803 16160	160	27	34	192	134	38	50	M10	110-120		1	1.43
	18	E9304 5803 1895	95	33	42	127	69	38	50	M10	45-55	*	1	1.15
	18	E9304 5803 18120	120	33	42	152	94	38	50	M10	70-80		1	1.43
	18	E9304 5803 18160	160	33	42	192	134	38	50	M10	110-120		1	1.83
	20	E9304 5803 20100	100	33	42	132	74	42	52	M10	48-58	*	1	1.18
	20	E9304 5803 20120	120	33	42	152	94	42	52	M10	68-78		1	1.45
	20	E9304 5803 20160	160	33	42	192	134	42	52	M10	108-118		1	1.80
25	E9304 5803 25115	115	44	53	147	89	44	58	M10	57-67		1	1.78	
25	E9304 5803 25160	160	44	53	192	134	44	58	M10	102-112		1	2.54	
32	E9304 5803 32120	120	44	53	152	94	52	62	M10	58-68	*	1	1.72	

For Shrinkfit extensions, see catalogue chapter Additional equipment.

* Conform to DIN E 69882-8.

Accessories

Stop end screw			
For d		S ₁	Ø
6-10	19LS0820T	3	3
12-32	19LS1020A	5	5

Please check availability in current price and stock-list.

For stop screw setting adapters, see catalogue chapter Additional equipment.

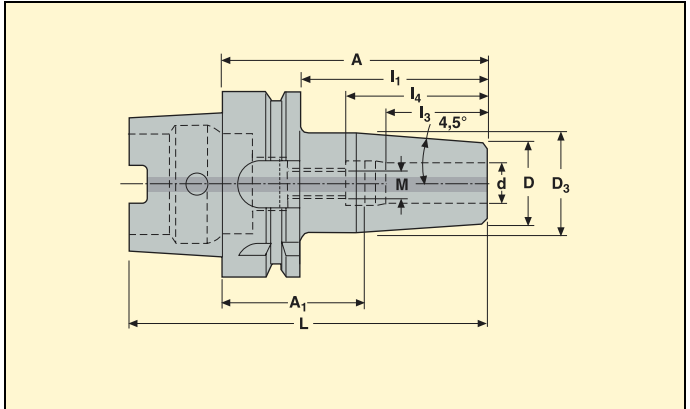
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5803 - Shrinkfit holders, DIN type

HSK-A/ ISO 12164-1-A



- Direct run-out 3 μm (3 μm at 3xd) maximum.



Page 3 of 4		Dimensions in mm										*	Balancing	
Taper	d mm	Part No.	A	D	D ₃	L	I ₁	I ₃	I ₄	M	A ₁ min-max			
HSK-A80	6	E9305 5803 0685	85	21	27	125	59	26	36	M8	49-59	*	1	1,29
	6	E9305 5803 06120	120	21	27	160	94	26	36	M8	84-94		1	1,43
	6	E9305 5803 06160	160	21	27	200	134	26	36	M8	124-134		1	1,58
	8	E9305 5803 0885	85	21	27	125	59	26	36	M8	49-59	*	1	1,29
	8	E9305 5803 08120	120	21	27	160	94	26	36	M8	84-94		1	1,42
	8	E9305 5803 08160	160	21	27	200	134	26	36	M8	124-134		1	1,58
	10	E9305 5803 1090	90	24	32	130	64	31	41	M8	49-59	*	1	1,38
	10	E9305 5803 10120	120	24	32	160	94	31	41	M8	79-89		1	1,55
	10	E9305 5803 10160	160	24	32	200	134	31	41	M8	119-129		1	1,77
	12	E9305 5803 1295	95	24	32	135	69	34	47	M10	51-61	*	1	1,39
	12	E9305 5803 12120	120	24	32	160	94	34	47	M10	76-86		1	1,53
	12	E9305 5803 12160	160	24	32	200	134	34	47	M10	116-126		1	1,76
	14	E9305 5803 1495	95	27	34	135	69	34	47	M10	51-61	*	1	1,44
	16	E9305 5803 16100	100	27	34	140	74	38	50	M10	50-60	*	1	1,45
	16	E9305 5803 16160	160	27	34	200	134	38	50	M10	110-120		1	1,84
	18	E9305 5803 18100	100	33	42	140	74	38	50	M10	50-60	*	1	1,65
	20	E9305 5803 20105	105	33	42	145	79	42	52	M10	53-63	*	1	1,67
	20	E9305 5803 20160	160	33	42	200	134	42	52	M10	108-118		1	2,23
	25	E9305 5803 25115	115	44	53	155	89	44	58	M10	57-67	*	1	2,22
	25	E9305 5803 25160	160	44	53	200	134	44	58	M10	102-112		1	2,97
32	E9305 5803 32120	120	44	53	160	94	52	62	M10	58-68	*	1	2,94	

For Shrinkfit extensions, see catalogue chapter Additional equipment.

* Conform to DIN E 69882-8.

Accessories

For d	Stop end screw		
		S ₁	∅
6-10	19LS0820T	3	3
12-32	19LS1020A	5	5

Please check availability in current price and stock-list.

For stop screw setting adapters, see catalogue chapter Additional equipment.

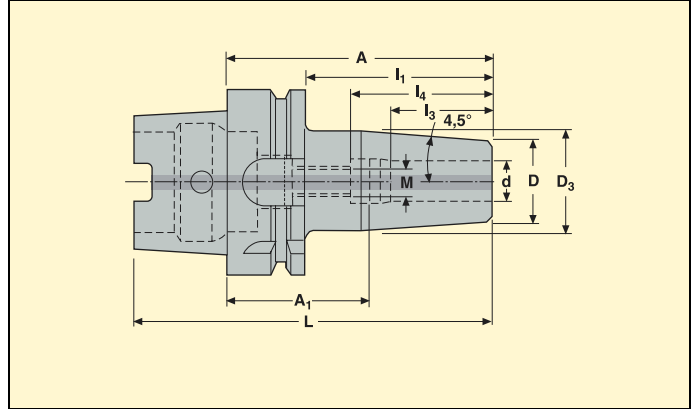
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5803 - Shrinkfit holders, DIN type

HSK-A/ ISO 12164-1-A



- Direct run-out 3 μm (3 μm at 3xd) maximum.



Page 4 of 4		Dimensions in mm										*	Balancing	
Taper	d mm	Part No.	A	D	D ₃	L	I ₁	I ₃	I ₄	M	A ₁ min-max			
HSK-A100	6	E9306 5803 0685	85	21	27	135	56	26	-	M8	49-59	*	1	2,19
	6	E9306 5803 06120	120	21	27	170	91	26	-	M8	84-94		1	2,32
	6	E9306 5803 06160	160	21	27	210	131	26	-	M8	124-134		1	2,47
	8	E9306 5803 0885	85	21	27	135	56	26	36	M8	49-59	*	1	2,19
	8	E9306 5803 08120	120	21	27	170	170	26	36	M8	84-94		1	2,32
	8	E9306 5803 08160	160	21	27	210	131	26	36	M8	124-134		1	2,46
	10	E9306 5803 1090	90	24	32	140	61	31	41	M8	49-59	*	1	2,27
	10	E9306 5803 10120	120	24	32	170	91	31	41	M8	79-89		1	2,44
	10	E9306 5803 10160	160	24	32	210	131	31	41	M8	119-129		1	2,66
	12	E9306 5803 1295	95	24	32	145	66	34	47	M10	51-61	*	1	2,28
	12	E9306 5803 12120	120	24	32	170	91	34	47	M10	76-86		1	2,42
	12	E9306 5803 12160	160	24	32	210	131	34	47	M10	116-126		1	2,64
	14	E9306 5803 1495	95	27	34	145	66	34	47	M10	51-61	*	1	2,34
	16	E9306 5803 16100	100	27	34	150	71	38	50	M10	50-60	*	1	2,35
	16	E9306 5803 16130	130	27	34	180	101	38	50	M10	80-90		1	2,54
	16	E9306 5803 16160	160	27	34	210	131	38	50	M10	110-120		1	2,72
	18	E9306 5803 18100	100	33	42	150	71	38	50	M10	50-60	*	1	2,53
	20	E9306 5803 20105	105	33	42	155	76	42	52	M10	53-63	*	1	2,56
20	E9306 5803 20130	130	33	42	180	101	42	52	M10	78-88		1	2,8	
20	E9306 5803 20160	160	33	42	210	131	42	52	M10	108-118		1	3,11	
25	E9306 5803 25115	115	44	53	165	86	44	58	M10	57-67	*	1	3,09	
25	E9306 5803 25160	160	44	53	210	131	44	58	M10	102-112		1	3,83	
32	E9306 5803 32120	120	44	53	170	91	52	62	M10	58-68	*	1	3,01	

For Shrinkfit extensions, see catalogue chapter Additional equipment.

* Conform to DIN E 69882-8.

Accessories

Stop end screw			
For d		S ₁	Ø
6-10	19LS0820T	3	3
12-32	19LS1020A	5	5

Please check availability in current price and stock-list.

For stop screw setting adapters, see catalogue chapter Additional equipment.

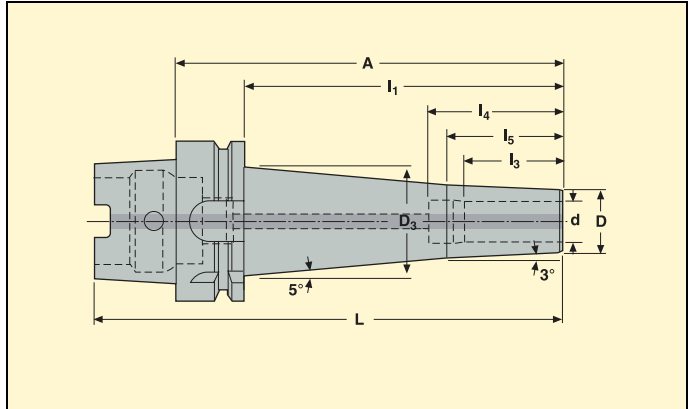
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5801 - Shrinkfit holders, Mould and Die type

HSK-A/ ISO 12164-1-A



- Direct run-out 3 μm (3 μm at 3xd) maximum.



Page 1 of 2		Dimensions in mm										Balancing	
Taper	d mm	Part No.	A	D	D ₃	L	I ₁	I ₃	I ₄	I ₅			
HSK-A32	3	E9301 5801 0370	70	9	16	86	50	13	–	25	1	0,19	
	3	E9301 5801 03100	100	9	22	116	80	13	–	25	1	0,25	
	4	E9301 5801 0470	70	10	17	86	50	15	–	25	1	0,19	
	4	E9301 5801 04100	100	10	23	116	80	15	–	25	1	0,25	
	5	E9301 5801 0570	70	11	18	86	50	18	–	25	1	0,19	
	5	E9301 5801 05100	100	11	24	116	80	18	–	25	1	0,25	
	6	E9301 5801 0670	70	12	18,50	86	50	26	40	32	1	0,19	
	6	E9301 5801 06100	100	12	24	116	80	26	40	32	1	0,25	
HSK-A40	8	E9301 5801 0870	70	16	22	86	50	30	44	–	1	0,24	
	8	E9301 5801 08100	100	16	25	116	80	30	44	–	1	0,30	
	3	E9302 5801 0370	70	9	15,99	90	50	13	–	25	1	0,24	
	3	E9302 5801 03100	100	9	22	120	80	13	–	25	1	0,30	
	4	E9302 5801 0470	70	10	16,99	90	50	15	–	25	1	0,29	
	4	E9302 5801 04100	100	10	23	120	80	15	–	25	1	0,35	
	5	E9302 5801 0570	70	11	17,99	90	50	18	–	25	1	0,29	
	5	E9302 5801 05100	100	11	24	120	80	18	–	25	1	0,35	
HSK-A50	6	E9302 5801 0670	70	12	18,50	90	50	26	40	32	1	0,29	
	6	E9302 5801 06100	100	12	24	120	80	26	40	32	1	0,35	
	8	E9302 5801 0870	70	16	22,22	90	50	30	44	36	1	0,34	
	8	E9302 5801 08100	100	16	28	120	80	30	44	36	1	0,40	
	10	E9302 5801 1080	80	18	25,83	100	60	32	45	38	1	0,51	
	10	E9302 5801 10120	120	18	33	140	100	32	45	38	1	0,55	
	12	E9302 5801 1280	80	20	26,29	100	60	34	46	–	1	0,61	
	12	E9302 5801 12130	130	20	32	150	110	34	46	–	1	0,65	
HSK-A50	3	E9303 5801 03100	100	9	21	125	74	13	–	25	1	0,50	
	4	E9303 5801 04100	100	10	22	125	74	15	–	25	1	0,50	
	5	E9303 5801 05100	100	11	23	125	74	18	–	25	1	0,55	
	6	E9303 5801 06100	100	12	23	125	74	26	40	32	1	0,55	
	8	E9303 5801 08100	100	16	27	125	74	30	44	36	1	0,60	
	10	E9303 5801 10120	120	18	32	145	94	32	45	38	1	0,75	
	12	E9303 5801 12130	130	20	36	155	104	34	46	40	1	0,85	
	14	E9303 5801 14140	140	22	40	165	114	34	48	40	1	1,00	
16	E9303 5801 16150	150	24	37	175	124	38	52	–	1	1,05		

Please check availability in current price and stock-list.

For Shrinkfit extensions, see catalogue chapter Additional equipment.

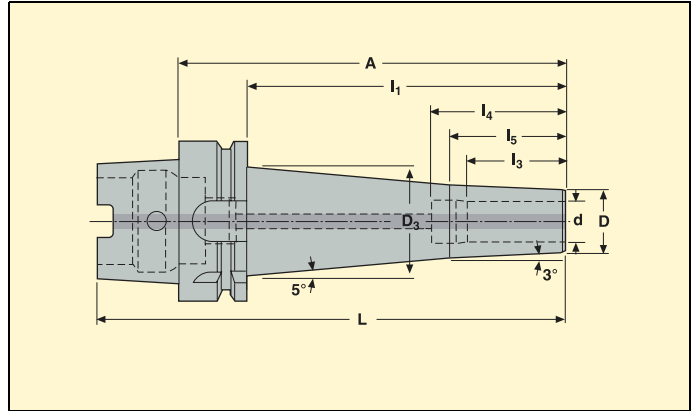
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5801 - Shrinkfit holders, Mould and Die type

HSK-A/ ISO 12164-1-A



- Direct run-out 3 μm (3 μm at 3xd) maximum.



Page 2 of 2	d mm	Part No.	Dimensions in mm								Balancing		
			A	D	D ₃	L	I ₁	I ₃	I ₄	I ₅			
HSK-A63	3	E9304 5801 03100	100	9	21	132	74	13	—	25	1	0.80	
	3	E9304 5801 03140	140	9	28	172	114	13	—	25	1	0.90	
	4	E9304 5801 04100	100	10	22	132	74	15	—	25	1	0.80	
	4	E9304 5801 04140	140	10	29	172	114	15	—	25	1	0.95	
	5	E9304 5801 05100	100	11	23	132	74	18	—	25	1	0.80	
	5	E9304 5801 05140	140	11	30	172	114	18	—	25	1	0.95	
	6	E9304 5801 06100	100	12	23	132	74	26	40	32	1	0.80	
	6	E9304 5801 06140	140	12	30	172	114	26	40	32	1	1.00	
	8	E9304 5801 08100	100	16	27	132	74	30	44	36	1	0.85	
	8	E9304 5801 08140	140	16	34	172	114	30	44	36	1	1.10	
	10	E9304 5801 10120	120	18	32	152	94	32	45	38	1	1.00	
	10	E9304 5801 10160	160	18	39	192	134	32	45	38	1	1.30	
	12	E9304 5801 12130	130	20	36	162	104	34	46	40	1	1.10	
	12	E9304 5801 12170	170	20	43	202	144	34	46	40	1	1.45	
	14	E9304 5801 14140	140	22	40	172	114	34	48	40	1	1.25	
	14	E9304 5801 14180	180	22	47	112	154	34	48	40	1	1.70	
16	E9304 5801 16150	150	24	43	182	124	38	52	45	1	1.40		
16	E9304 5801 16190	190	24	50	222	164	38	52	45	1	1.95		
HSK-A100	6	E9306 5801 06160	160	12	33	210	131	26	40	32	1	2.40	
	8	E9306 5801 08160	160	16	37	210	131	30	44	36	1	2.50	
	10	E9306 5801 10180	180	18	42	230	151	32	45	38	1	2.80	
	12	E9306 5801 12180	180	20	44	230	151	34	46	40	1	2.90	
	14	E9306 5801 14180	180	22	46	230	151	34	48	40	1	3.00	
	16	E9306 5801 16200	200	24	51	250	171	38	52	45	1	3.35	

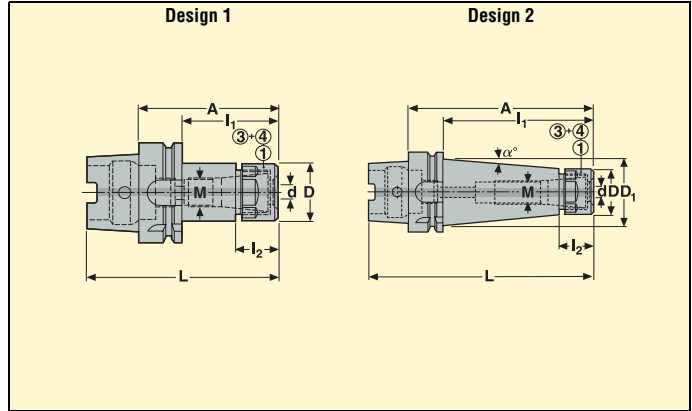
Please check availability in current price and stock-list.
 For Shrinkfit extensions, see catalogue chapter Additional equipment.
 For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5872 - D type precision collet chucks

HSK-A/ ISO 12164-1-A



- Direct run-out 3 μm (5 μm with collet at 3xd) maximum.



Page 1 of 2		Dimensions in mm												
Taper	Capacity d mm	Part No.	Size	A	D	D ₁	L	I ₁	I ₂	M	Design	α°	Balancing	KG
HSK-A32	1-6	E9301 5872 1050	D type 10	50	15,7	-	66	30	18	M5	1	-	1	0,15
	1-6	E9301 5872 1090	D type 10	90	15,7	25	106	70	18	M6	2	5	1	0,25
	1-10	E9301 5872 1660	D type 16	60	27	-	76	40	23,3	M5	1	-	1	0,25
	1-10	E9301 5872 16110	D type 16	110	27	-	126	90	23,3	M8	1	-	1	0,45
HSK-A40	1-6	E9302 5872 1050	D type 10	50	15,7	-	70	30	18	M6	1	-	1	0,25
	1-6	E9302 5872 1090	D type 10	90	15,7	25	110	70	18	M6	2	5	1	0,35
	1-10	E9302 5872 1660	D type 16	60	27	-	80	40	23,3	M6	1	-	1	0,35
	1-10	E9302 5872 16120	D type 16	120	27	34	140	100	23,3	M8	2	3	1	0,70
	2-16	E9302 5872 2470	D type 24	70	36	-	90	50	26,3	M6	1	-	1	0,45
	2-16	E9302 5872 24130	D type 24	130	36	-	150	110	26,3	M18x1,5	1	-	1	0,80
HSK-A50	1-6	E9303 5872 1060	D type 10	60	15,7	-	85	34	18	M6	1	-	1	0,50
	1-10	E9303 5872 16100	D type 16	100	27	-	125	74	23,3	M8	1	-	1	0,65
	2-16	E9303 5872 24100	D type 24	100	36	-	125	74	26,3	M18x1,5	1	-	1	0,80

For D type collets (10° taper), see catalogue chapter Additional equipment.

Accessories

For Size	Compression tool	Stop end screw	Sealing nut (4)		Sealing ring (3)		Nut (1)				
			S	L ₁	S	d ₁	L ₁	S			
D type 10	03D587210	19B5870610	2	08B587210BE	20	14	01B587210(03-035-...-06)	3-3,5-...-6	08B587210	14	14
D type 16	03D587216	19B5870812	3	08B587216BE	25	24	01B587216(03-035-...-10)	3-3,5-...-10	08B587216	19	24
D type 24	03D587224	19B58718	3	08B587224BE	28	32	01B587224(03-035-...-16)	3-3,5-...-16	08B587224	22	32

Please check availability in current price and stock-list.

For D type sealing rings Part No., see catalogue chapter Additional equipment.

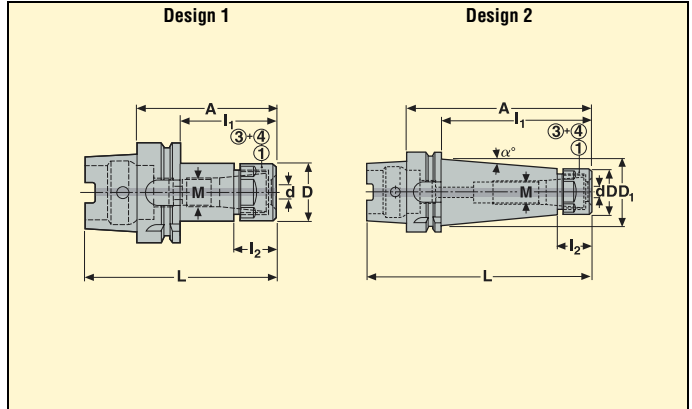
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5872 - D type precision collet chucks

HSK-A/ ISO 12164-1-A



- Direct run-out 3 μm (5 μm with collet at 3xd) maximum.



Page 2 of 2	Capacity d mm	Part No.	Size	Dimensions in mm							Design	α°	Balancing	KG
				A	D	D ₁	L	I ₁	I ₂	M				
HSK-A63	1-6	E9304 5872 1060	D type 10	60	15,7	—	92	37	18	M6	1	—	1	0,80
	1-6	E9304 5872 10100	D type 10	100	15,7	25,5	132	68	18	M6	2	5	1	0,90
	1-10	E9304 5872 16100	D type 16	100	27	—	132	74	23,3	M8	1	—	1	1,00
	1-10	E9304 5872 16130	D type 16	130	27	41	162	104	23,3	M8	2	5	1	1,40
	1-10	E9304 5872 16160	D type 16	160	27	46,5	192	134	23,3	M8	2	5	1	1,60
	2-16	E9304 5872 24100	D type 24	100	36	—	132	74	26,3	M18x1,5	1	—	1	1,10
	2-16	E9304 5872 24130	D type 24	130	36	48	162	104	26,3	M18x1,5	2	5	1	1,70
	2-16	E9304 5872 24160	D type 24	160	36	53	192	134	26,3	M18x1,5	2	5	1	2,05
	2-20	E9304 5872 29100	D type 29	100	42	—	132	74	29,7	M22x1,5	1	—	1	1,25
	2-20	E9304 5872 29130	D type 29	130	42	—	162	104	29,7	M22x1,5	1	—	1	1,60
HSK-A80	2-20	E9304 5872 29160	D type 29	160	42	53	192	134	29,7	M22x1,5	2	3	1	2,05
	1-10	E9305 5872 16100	D type 16	100	27	36	140	74	23,3	M8	2	5	1	1,45
	2-16	E9305 5872 24100	D type 24	100	36	—	140	74	26,3	M18x1,5	1	—	1	1,50
HSK-A100	2-20	E9305 5872 29100	D type 29	100	42	—	140	74	29,7	M22x1,5	1	—	1	1,60
	1-10	E9306 5872 16100	D type 16	100	27	35,5	150	71	23,3	M8	2	5	1	2,35
	1-10	E9306 5872 16160	D type 16	160	27	44	210	131	23,3	M8	2	5	1	2,50
	2-16	E9306 5872 24100	D type 24	100	36	—	150	71	26,3	M18x1,5	1	—	1	2,40
	2-16	E9306 5872 24160	D type 24	160	36	52	210	131	26,3	M18x1,5	2	5	1	2,70
	2-20	E9306 5872 29100	D type 29	100	42	—	150	71	29,7	M22x1,5	1	—	1	2,50
2-20	E9306 5872 29160	D type 29	160	42	—	210	131	29,7	M22x1,5	1	—	1	3,08	

For D type collets (10° taper), see catalogue chapter Additional equipment.

Accessories

Spare parts

For Size	Compression tool	Stop end screw	Sealing nut (4)		Sealing ring (3)		Nut (1)				
			S	L ₁	S	d ₁	L ₁	S			
D type 10	03D587210	19B5870610	2	08B587210BE	20	14	01B587210(03-035-...-06)	3-3,5-...-6	08B587210	14	14
D type 16	03D587216	19B5870812	3	08B587216BE	25	24	01B587216(03-035-...-10)	3-3,5-...-10	08B587216	19	24
D type 24	03D587224	19B58718	3	08B587224BE	28	32	01B587224(03-035-...-16)	3-3,5-...-16	08B587224	22	32
D type 29	03D587229	19B58722	3	08B587229BE	31	38	01B587229(03-035-...-20)	3-3,5-...-20	08B587229	25	38

Please check availability in current price and stock-list.

For D type sealing rings Part No., see catalogue chapter Additional equipment.

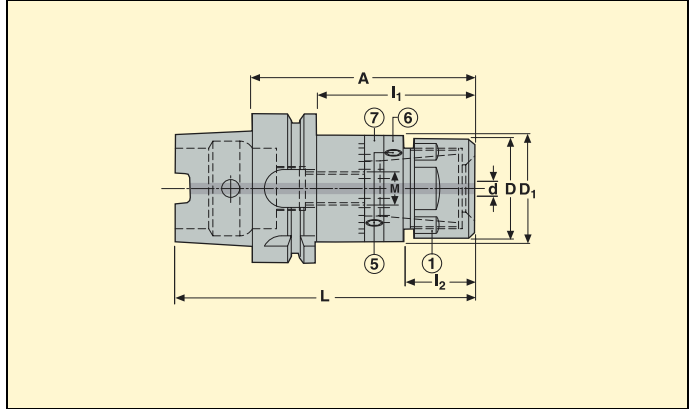
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type Q5872 - D type precision collet chucks, Libraflex balanceable

HSK-A/ ISO 12164-1-A



- Direct run-out $3\ \mu\text{m}$ ($5\ \mu\text{m}$ with collet at 3xd) maximum.



Taper	Capacity d mm	Part No.	Size	Dimensions in mm							Max. bal. compens. g.mm	Max rpm	KG
				A	D	D ₁	L	I ₁	I ₂	M			
HSK-A63	1-10	EQ9304 5872 1675	D type 16	75	27	37	107	49	23,3	M8	50 g.mm	24 000	1,25
	2-16	EQ9304 5872 2480	D type 24	80	36	37	112	54	26,3	M8	50 g.mm	24 000	1,30
	2-20	EQ9304 5872 2980	D type 29	80	42	45	112	54	29,7	M8	75 g.mm	20 000	1,35

For D type collets (10° taper), see catalogue chapter Additional equipment.

Accessories

Spare parts

For Size	Ring locking key		Nut (1)		Balancing ring (6)	Balancing ring (7)	Ring locking screw (5)		
		S		L ₁				S	
D type 16	03M025	2,5	08B587216	19	24	00Q03003708B	00Q03003708A	19A71010	2,5
D type 24	03M025	2,5	08B587224	22	32	00Q03003708B	00Q03003708A	19A71010	2,5
D type 29	03M025	2,5	08B587229	25	38	00Q03804508B	00Q03804508A	19A71010	2,5

Please check availability in current price and stock-list.

Accessories and Spare parts of holders type 5872 are also suitable.

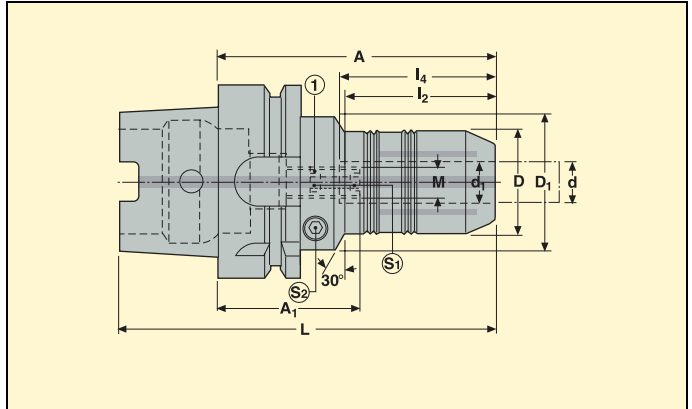
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5834 - Hydraulic chucks

HSK-A/ ISO 12164-1-A



• Run-out 3 μm maximum at 3xd.



Page 1 of 2	d ₁ mm	Part No.	Dimensions in mm								A ₁ min-max	*	Balancing	KG
			A	D	D ₁	L	l ₂	l ₄	M	S ₁				
HSK-A32	6	E9301 5834 0685	85	26	34	101	23	38	M5	47-57		1	0,75	
	8	E9301 5834 0885	85	28	34	101	24	38	M5	47-57		1	0,75	
	10	E9301 5834 1090	90	30	34	106	34	42	M8	47-57		1	0,75	
HSK-A40	6	E9302 5834 0670	70	26	34	90	23	38	M5	32-42	*	1	0,85	
	8	E9302 5834 0870	70	28	34	90	24	38	M5	32-42	*	1	0,85	
	10	E9302 5834 1075	75	30	34	95	34	42	M8	33-43	*	1	0,75	
	12	E9302 5834 1280	80	32	34	100	40	47	M10	33-43	*	1	0,70	
HSK-A50	12	E9303 5834 1285	85	32	42	110	40	47	M10	38-48	*	1	0,90	
	20	E9303 5834 2090	90	42	55	115	28	52	M10	38-48	*	1	1,63	

For reduction sleeves and control gauges, see catalogue chapter Additional equipment. * Conform to DIN 69882-7.

Accessories

Spare parts

For Taper/d ₁	Locking key		Stop end screw (1)		
		S ₂	S ₁	∅	
HSK-A32/6-8	03M03	3	19LS0520A	3	3
HSK-A32/10	03M03	3	19LS0820A	3	3
HSK-A40/6-12	03M03	3	19LS0516A	3	3
HSK-A50/12	03M03	3	19LS0816A	3	3
HSK-A50/20	03M03	3	19LS0820A	3	3

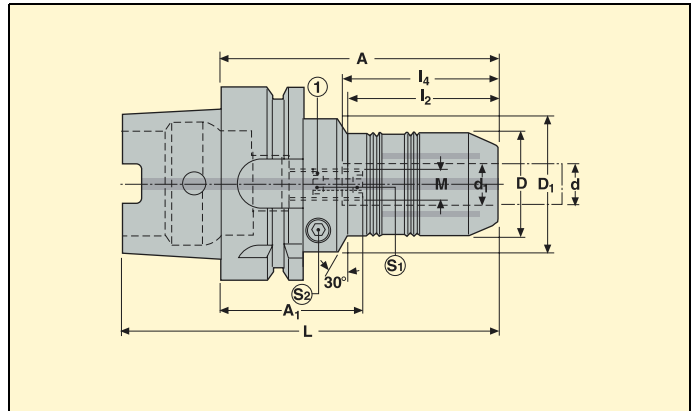
Please check availability in current price and stock-list.
 For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5834 - Hydraulic chucks

HSK-A/ ISO 12164-1-A



- Run-out 3 μm maximum at 3x d_1 .



Page 2 of 2		Dimensions in mm										*	Balancing	
Taper	d ₁ mm	Part No.	A	D	D ₁	L	I ₂	I ₄	M	A ₁ min-max				
HSK-A63	6	E9304 5834 0670	70	26	50	102	23	38	M5	32-42	*	1	1,00	
	8	E9304 5834 0870	70	28	50	102	24	38	M5	32-42	*	1	1,00	
	10	E9304 5834 1080	80	30	50	112	34	42	M8	38-48	*	1	1,00	
	12	E9304 5834 1285	85	32	50	117	40	47	M10	38-48	*	1	1,25	
	14	E9304 5834 1485	85	34	50	117	40	47	M10	38-48	*	1	1,25	
	16	E9304 5834 1690	90	38	50	122	46	50	M10	40-50	*	1	1,25	
	18	E9304 5834 1890	90	40	50	122	48	50	M10	40-50	*	1	1,25	
	20	E9304 5834 2090	90	42	50	122	47	52	M10	38-48	*	1	1,45	
	25	E9304 5834 25120	120	58	53	152	78	58	M10	62-72	*	1	1,80	
	32	E9304 5834 32125	125	64	53	157	83	61	M10	64-74	*	1	1,85	
HSK-A80	12	E9305 5834 1285	85	32	50	125	40	47	M10	38-48	*	1	1,70	
	20	E9305 5834 2095	95	42	50	125	47	52	M10	43-53	*	1	2,40	
	32	E9305 5834 32125	125	64	70	155	60	63	M10	62-72	*	1	3,60	
HSK-A100	12	E9306 5834 1295	95	32	50	145	40	47	M10	48-58	*	1	2,10	
	16	E9306 5834 1695	95	38	50	145	46	40	M10	55-65	*	1	2,50	
	20	E9306 5834 20105	105	42	50	155	48	52	M10	53-63	*	1	2,80	
	25	E9306 5834 25110	110	58	70	160	50	58	M10	52-62	*	1	3,50	
	32	E9306 5834 32110	110	64	70	160	50	63	M10	47-57	*	1	3,70	

For reduction sleeves and control gauges, see catalogue chapter Additional equipment.

* Conform to DIN 69882-7.

Accessories

Spare parts

For Taper/d ₁	Locking key		Stop end screw (1)		
		S ₂		S ₁	∅
HSK-A63/6-8	03M04	4	19LS0520A	3	3
HSK-A63/10	03M04	4	19LS0820T	3	3
HSK-A63/12-20	03M05C	5	19LS1016A	5	5
HSK-A63/25-32	03M05C	5	19LS1020A	5	5
HSK-A80/12	03M05C	5	19LS1020A	5	5
HSK-A80/20	03M05C	5	19LS1016A	5	5
HSK-A80/32	03M05C	5	19LS1020A	5	5
HSK-A100/12-32	03M05C	5	19LS1020A	5	5

Please check availability in current price and stock-list.

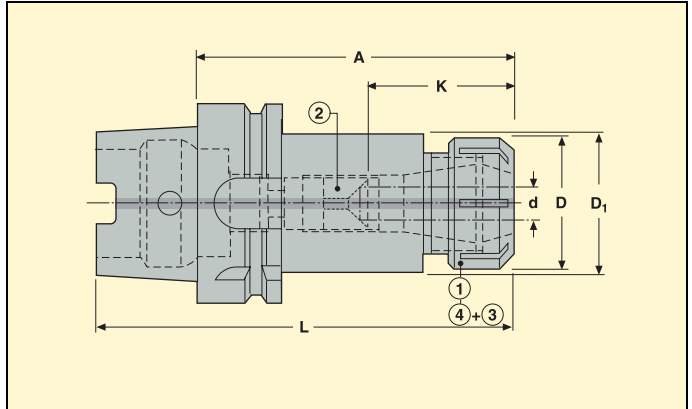
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5875 - ER collet chucks - DIN 6499

HSK-A/ ISO 12164-1-A



• Direct run-out 5 μm maximum.



Page 1 of 2	Capacity d mm	Part No.	Size	Dimensions in mm					*	Balancing	KG
				A	D	D ₁	L	K min-max			
HSK-A32	0,5 - 10	E9301 5875 1660	ER 16	60	32	32	76	30-36		1	0,25
HSK-A40	0,5-10	E9302 5875 1660	ER 16	60	32	32	80	30-34		1	0,40
	1-16	E9302 5875 2570	ER 25	70	42	34	90	-		1	0,50
HSK-A50	0,5-10	E9303 5875 16100	ER 16	100	32	32	125	30-44	*	1	0,50
	1-16	E9303 5875 25100	ER 25	100	42	42	125	38-55	*	1	0,70
	2-20	E9303 5875 32100	ER 32	100	50	42	125	43-55	*	1	0,75
HSK-A63	0,5-10	E9304 5875 16100	ER 16	100	32	32	132	30-44		1	1,00
	0,5-10	E9304 5875 16160	ER 16	160	32	32	192	30-44	*	1	1,35
	1-16	E9304 5875 25100	ER 25	100	42	42	132	38-53	*	1	1,20
	1-16	E9304 5875 25160	ER 25	160	42	42	192	38-53		1	1,80
	2-20	E9304 5875 32100	ER 32	100	50	50	132	43-53	*	1	1,40
	2-20	E9304 5875 32160	ER 32	160	50	50	192	43-67		1	2,20
	3-26	E9304 5875 40120	ER 40	120	63	53	152	50-65	*	1	2,25

For ER collets (16° taper, standard and precision types) and ER extensions, see catalogue chapter Additional equipment.

* Conform to DIN 69882-6.

Accessories

Spare parts

For Taper/Size	Spanner	Sealing nut (4)	Sealing ring (3)	Nut (1)	Stop end screw (2)				
		L ₁	d ₁	L ₁	S				
A32/ER 16	03B587516	08B587516IC	22,5	01B587516(03-035-...-10)	3-3,5-...-10	08B587516X	18	19B5870510	2,5
A40/ER 16	03B587516	08B587516IC	22,5	01B587516(03-035-...-10)	3-3,5-...-10	08B587516X	18	19B5870610	2
A50/ER 16	03B587516	08B587516IC	22,5	01B587516(03-035-...-10)	3-3,5-...-10	08B587516X	18	19B58708	3
A63/ER 16	03B587516	08B587516IC	22,5	01B587516(03-035-...-10)	3-3,5-...-10	08B587516X	18	19B58708R10	3/4
All ER 25	03B587525	08B587525IC	25	01B587525(03-035-...-16)	3-3,5-...-16	08B587525X	21	19B58718	3
All ER 32	03B587532	08B587532IC	27,5	01B587532(03-035-...-20)	3-3,5-...-20	08B587532X	23	19B58722	3
All ER 40	03B587540	08B587540IC	30,5	01B587540(03-035-...-26)	3-3,5-...-26	08B587540X	26	19B58730	3

Please check availability in current price and stock-list.

For ER sealing rings Part No., see catalogue chapter Additional equipment.

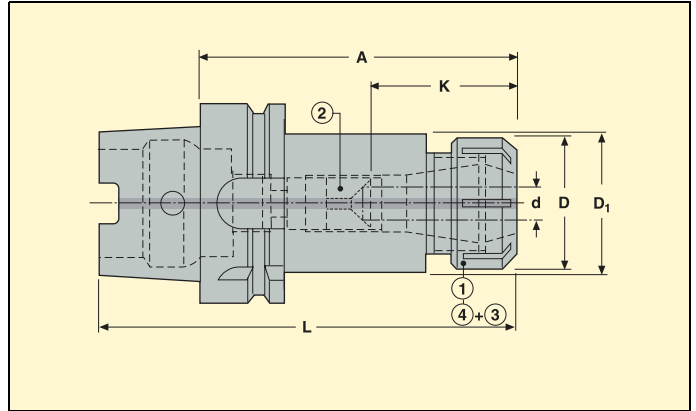
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5875 - ER collet chucks - DIN 6499

HSK-A/ ISO 12164-1-A



- Direct run-out 5 μm maximum.



Page 2 of 2		Dimensions in mm									
Taper	Capacity d mm	Part No.	Size	A	D	D ₁	L	K min-max	*	Balancing	KG
HSK-A80	1-16	E9305 5875 25100	ER 25	100	42	42	140	38-50		1	1,80
	2-20	E9305 5875 32100	ER 32	100	50	50	140	43-48	*	1	2,00
	3-26	E9305 5875 40120	ER 40	120	63	63	160	50-68	*	1	2,80
HSK-A100	0,5-10	E9306 5875 16100	ER 16	100	32	32	150	30-40		1	2,90
	0,5-10	E9306 5875 16160	ER 16	160	32	32	210	30-40	*	1	3,23
	1-16	E9306 5875 25100	ER 25	100	42	42	150	38-46		1	2,95
	1-16	E9306 5875 25160	ER 25	160	42	42	210	38-46		1	3,55
	2-20	E9306 5875 32100	ER 32	100	50	50	150	43-46	*	1	3,00
	2-20	E9306 5875 32160	ER 32	160	50	50	210	43-46		1	3,87
	3-26	E9306 5875 40120	ER 40	120	63	63	170	50-65	*	1	3,15

For ER collets (16° taper, standard and precision types) and ER extensions, see catalogue chapter Additional equipment. * Conform to DIN 69882-6.

Accessories

Spare parts

For Size	Spanner	Sealing nut (4)	Sealing ring (3)			Nut (1)	Stop end screw (2)		
		L ₁		d ₁		L ₁	S		
ER 16	03B587516	08B587516IC	22,5	01B587516(03-035-...-10)	3-3,5-...-10	08B587516X	18	19B58708R10	3/4
ER 25	03B587525	08B587525IC	25	01B587525(03-035-...-16)	3-3,5-...-16	08B587525X	21	19B58718	3
ER 32	03B587532	08B587532IC	27,5	01B587532(03-035-...-20)	3-3,5-...-20	08B587532X	23	19B58722	3
ER 40	03B587540	08B587540IC	30,5	01B587540(03-035-...-26)	3-3,5-...-26	08B587540X	26	19B58730	3

Please check availability in current price and stock-list.

For ER sealing rings Part No., see catalogue chapter Additional equipment.

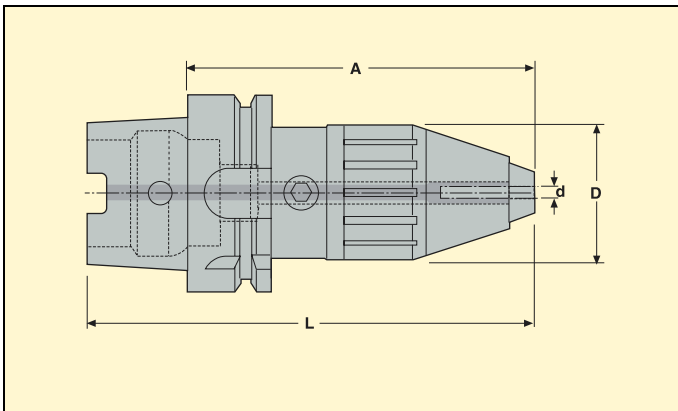
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5085 - Universal drill chucks

HSK-A/ ISO 12164-1-A



- Run-out 40 μm maximum at 2,5xd.



Taper	Capacity d mm	Part No.	Dimensions in mm			Balancing	
			A	D	L		
HSK-A50	1-13	E9303 5085 13	108	43	133	2	1,30
	1-13	E9304 5085 13	110	43	142	2	2,00
HSK-A100	2,5-16	E9306 5085 16	134	56	184	2	3,50

Accessories

For Capacity d	Locking key	
		S
1-13	03M06	6
2,5-16	03M06	6

Please check availability in current price and stock-list.

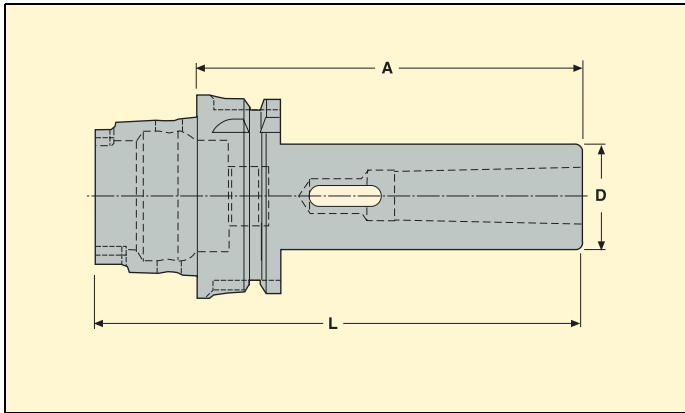
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 536 - Holders for Morse Taper with tang - DIN 228-2 Form D

HSK-A/ ISO 12164-1-A



- Direct run-out 5 μm maximum.

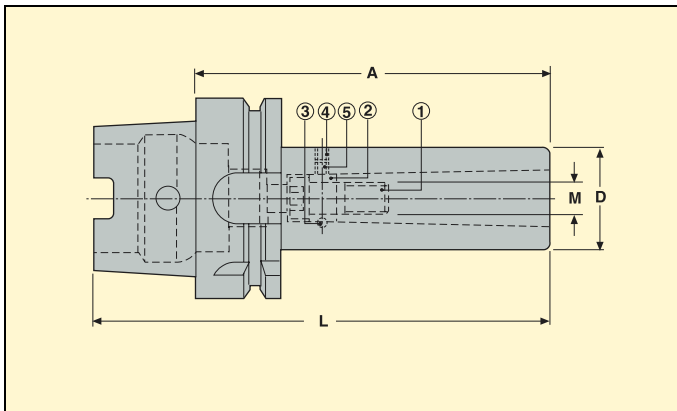


Taper	MT	Part No.	Dimensions in mm			Balancing	KG
			A	D	L		
HSK-A63	1	E9304 536 1100	100	25	132	2	0,90
	2	E9304 536 2120	120	32	152	2	1,15
	3	E9304 536 3140	140	40	172	2	1,45
	4	E9304 536 4160	160	48	192	2	1,90
HSK-A100	1	E9306 536 1110	110	25	160	2	2,50
	2	E9306 536 2120	120	32	170	2	2,80
	3	E9306 536 3150	150	40	200	2	3,00
	4	E9306 536 4170	170	48	220	2	3,60
	5	E9306 536 5200	200	63	250	2	4,20

Please check availability in current price and stock-list.
 For Morse reducers, see catalogue chapter Additional equipment.
 For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.



• Direct run-out 5 μ m maximum.



Taper	MT	Part No.	Dimensions in mm				Balancing	KG
			A	D	L	M		
HSK-A50								
	2	E9303 533 2110	110	32	135	M10	2	1,10
HSK-A63	2	E9304 533 2110	110	32	142	M10	2	1,15
	3	E9304 533 3135	135	40	167	M12	2	1,40
HSK-A100	2	E9306 533 2115	115	32	165	M 10	2	2,80
	3	E9306 533 3145	145	40	195	M 12	2	3,00
	4	E9306 533 4165	165	48	215	M 16	2	3,60

Spare parts

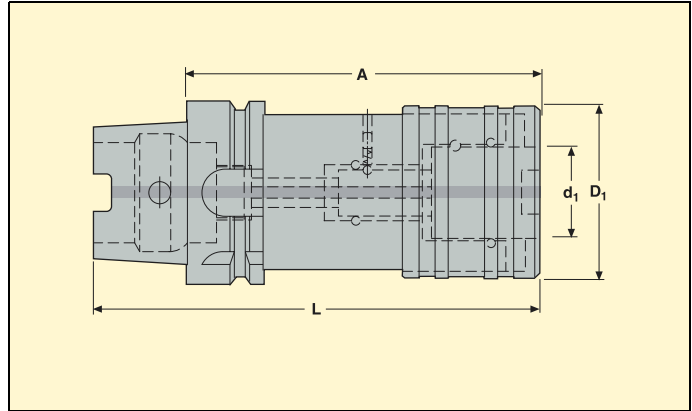
For Taper/MT	Screw (1)	Ring (2)	Ball (3)	Screw (4)	Screw (5)
	S				
50/2	19B53310252	02B53302	901B03	–	950T0408
63/2	19B53310252	02B53302	901B03	–	950T0408
63/3	19B081240	02B53303	901B04	950A0504	950T0508
100/2	19B53310252	02B53302	901B03	–	950T0408
100/3	19B081240	19B53303	901B04	950A0504	950T0508
100/4	19B5331635	19B53304	901B04	950A0504	950T0508

Please check availability in current price and stock-list.

For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5283 - Quick change tapping chucks with axial compensation

HSK-A/ ISO 12164-1-A



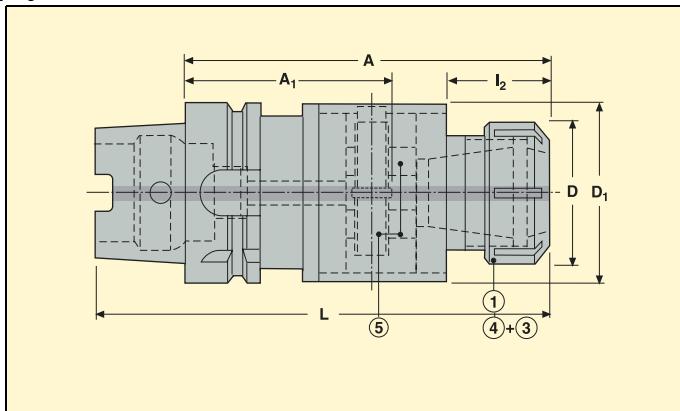
- With extension and compression.
- Maximum coolant pressure 15 bar; size 1 without coolant through.

Taper	Tapping range	Part No.	For tap adapter		Dimensions in mm					Balancing	 KG
			Size	d ₁ mm	Compression	Extension	A	D ₁	L		
HSK-A50	M1,5-M6	ET9303 5283 1	1	13	6,5	6,5	105	29	130	-	0,90
	M3-M12	ET9303 5283 2L	2	19	7,5	7,5	115	39	140	-	1,10
HSK-A63	M1,5-M6	ET9304 5283 1	1	13	6,5	6,5	105	29	137	-	1,40
	M3-M12	ET9304 5283 2L	2	19	7,5	7,5	120	39	152	-	1,60
	M8-M20	ET9304 5283 3L	3	31	12,5	12,5	155	59	187	-	2,30
HSK-A100	M3-M12	ET9306 5283 2L	2	19	7,5	7,5	125	39	175	-	3,50
	M8-M20	ET9306 5283 3L	3	31	12,5	12,5	165	59	215	-	4,50
	M14-M33	ET9306 5283 4L	4	48	20	20	225	84	275	-	6,50

Please check availability in current price and stock-list.
 For quick change tap adapters, see catalogue chapter Additional equipment.
 For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.



- No compensation.
- Direct run-out 5 µm maximum.



Taper	Tapping range	Part No.	Size	Dimensions in mm						Balancing	
				A	D	D ₁	L	I ₂	A ₁		
HSK-A63	M5-M30	E9304 5865 32130	ER 32	130	50	63	162	37	73,5	2	1,70
	M5-M30	E9305 5865 32110	ER 32	110	50	63	150	37	53,5	2	2,00
HSK-A100	M12-M33	E9306 5865 40115	ER 40	115	63	63	165	-	52,5	2	2,80

For ER collets (16° taper, standard and precision types), see catalogue chapter Additional equipment.

Accessories

For Size	Spanner	Sealing nut (4)		Sealing ring (3)	
			L ₁		d ₁
ER 32	03B587532	08B587532IC	27,5	01B587532(03-035-...-20)	3-3,5-...-20
ER 40	03B587540	08B587540IC	30,5	01B587540(03-035-...-26)	3-3,5-...-26

Spare parts

Nut (1)	Driving system (5)		
			S
L ₁		S	
08B587532X	23	90T586532	5
08B587540X	26	90T586532	5

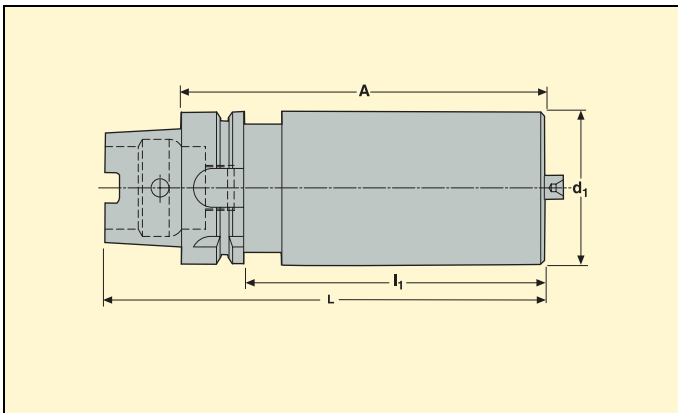
Please check availability in current price and stock-list.

For ER sealing rings Part No., see catalogue chapter Additional equipment.

For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 5023 - Greenstock blanks

HSK-A/ ISO 12164-1-A



Taper	d ₁ mm	Part No.	Dimensions in mm			Balancing	
			A	L	l ₁		
HSK-A32	32	E9301 5023 32120	120	136	100	2	0,75
HSK-A40	40	E9302 5023 40150	150	170	130	2	1,50
HSK-A50	50	E9303 5023 50210	210	235	184	2	2,85
	63	E9304 5023 63250	250	282	224	2	5,50
HSK-A80	80	E9305 5023 80250	250	290	224	2	9,80
	63	E9306 5023 63250	250	300	221	2	6,50
HSK-A100	95	E9306 5023 95250	250	300	221	2	12,00

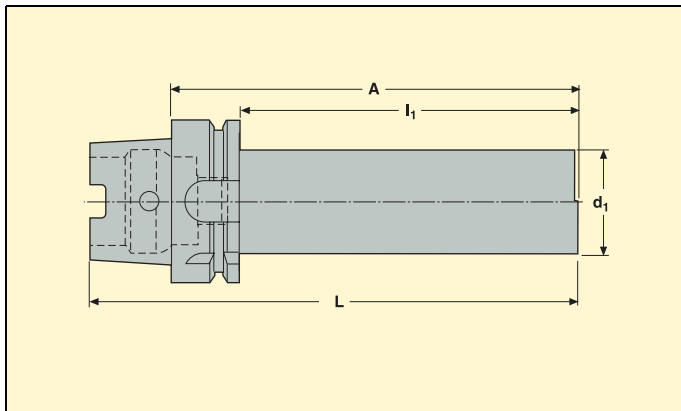
Please check availability in current price and stock-list.
 For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.

Type 586 - Test/Control bars

HSK-A/ ISO 12164-1-A

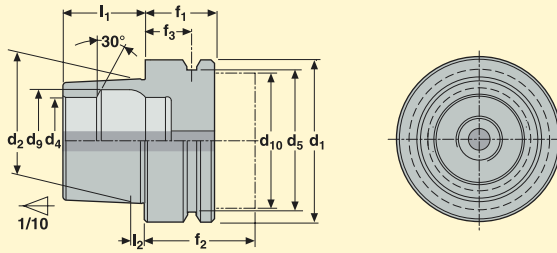


- Run-out 5 µm maximum.
- With protective case and measurement report.



Taper	d ₁ mm	Part No.	Dimensions in mm			Balancing	
			A	L	I ₁		
HSK-A32	25	E9301 586 25150	150	166	130	-	0,65
	25	E9302 586 25150	150	170	130	-	0,70
HSK-A50	32	E9303 586 32200	200	225	174	-	1,50
	40	E9304 586 40250	250	282	224	-	2,85
HSK-A80	50	E9305 586 50320	320	360	294	-	5,65
	50	E9306 586 50320	320	370	291	-	6,50

Please check availability in current price and stock-list.
For HSK-A sealing plugs, coolant tubes and tube spanners, see catalogue chapter Additional equipment.



Taper	Part No. prefix	Dimensions in mm										
		d_1	d_2	d_3	d_8	d_9	$d_{10} \text{ max}$	f_1	f_2	f_3	l_1	l_2
HSK-E25	E9340...	25	19	22	14	16,4	20	10	20	4,5	13	2,5
HSK-E32	E9341...	32	24	26,5	17	21	26	20	35	16	16	3,2
HSK-E40	E9342...	40	30	34,8	21	25,5	34	20	35	16	20	4
HSK-E50	E9343...	50	38	43	26	32	42	26	42	18	25	5
HSK-E63	E9344...	63	48	55	34	40	53	26	42	18	32	6,3

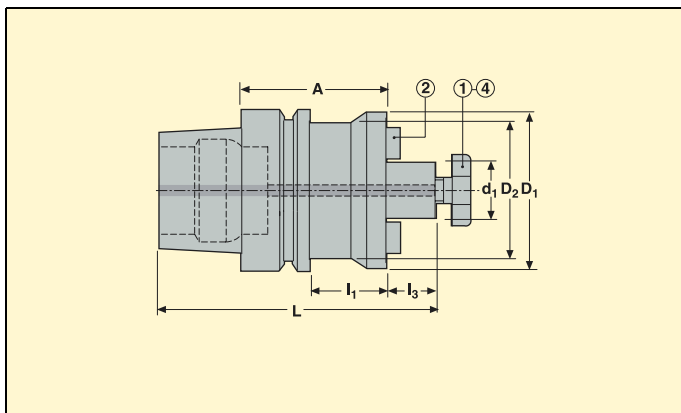
The norm dimensions are applied to all the holders shown in following product pages.

Type 552 - Shell mill holders - ISO 3937

HSK-E



- Direct run-out 5 μm maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm						Balancing		
			A	D ₁	D ₂	L	I ₁	I ₃			
HSK-E50	16	E9343 552 1640	40	32	32	82	14	17	1	0,50	
	22	E9344 552 2250	50	48	48	101	24	19	1	1,10	
HSK-E63	16	E9344 552 1650	50	32	32	99	24	17	1	0,85	
	22	E9344 552 1 2250	50	48	48	101	24	19	1	1,10	

HSK-E63 with d₁ 22 is a type 5521, with enlarged face.

Accessories

	Spanner	Bolt, through coolant type (4)
For d ₁		
16	5811608	5801608L
22	5812210	5802210L

Spare parts

Bolt (1)	Tenon/ Screw (2)
5801608	16C116
5802210	16C1102206
	950D0308
	950D0416

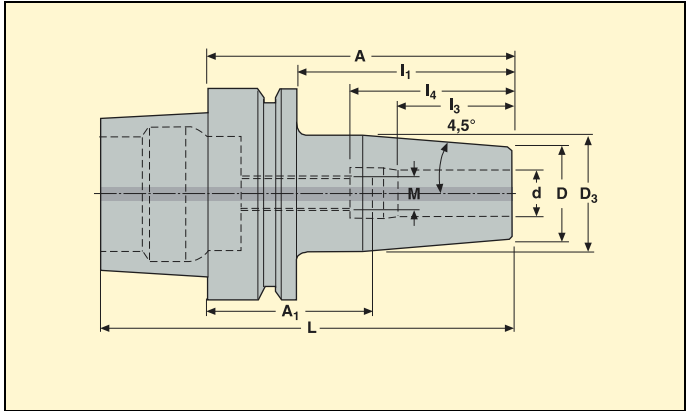
Please check availability in current price and stock-list.

Type 5803 - Shrinkfit holders, DIN type

HSK-E



- Direct run-out 3 μm (3 μm at 3xd) maximum.



Page 1 of 2		Dimensions in mm										Balancing	
Taper	d mm	Part No.	A	D	D ₃	L	I ₁	I ₃	I ₄	M	A ₁ min-max		
HSK-E32	6	E9341 5803 0670	70	21	27	86	50	26	36	M5	34-44	1	0,35
	8	E9341 5803 0870	70	21	27	86	50	26	36	M5	34-44	1	0,35
	10	E9341 5803 1075	75	24	32	91	50	31	41	M5	34-44	1	0,45
	12	E9341 5803 1280	80	24	32	96	55	34	47	M5	33-43	1	0,50
HSK-E40	6	E9342 5803 0680	80	21	27	100	60	26	36	M6	44-54	1	0,48
	8	E9342 5803 0880	80	21	27	100	60	26	36	M6	44-54	1	0,48
	10	E9342 5803 1080	80	24	32	100	60	31	41	M6	39-49	1	0,58
	12	E9342 5803 1290	90	24	32	110	70	34	47	M6	43-53	1	0,65
	14	E9342 5803 1490	90	27	34	110	70	34	47	M6	43-53	1	0,66
	16	E9342 5803 1690	90	27	34	110	70	38	50	M6	40-50	1	0,70

For Shrinkfit extensions, see catalogue chapter Additional equipment.

Accessories

For Taper/d	Stop end screw	
	S ₁	∅
E32/6-10	19LS0520A	3
E32/12	19LS1016A	5
E40/6-10	19LS0620A	3
E40/12-16	19LS1016A	5

Please check availability in current price and stock-list.

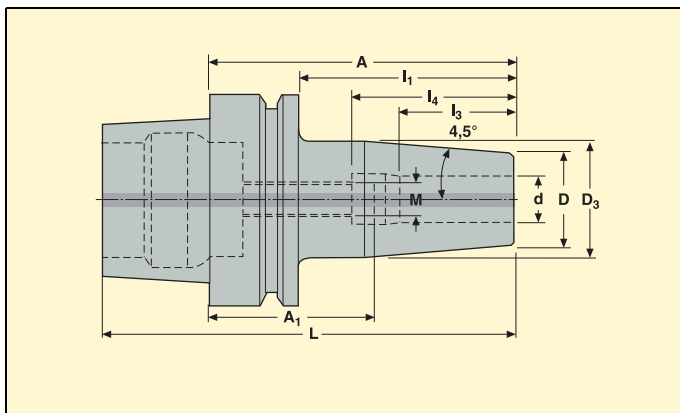
For stop screw setting adapters, see catalogue chapter Additional equipment.

Type 5803 - Shrinkfit holders, DIN type

HSK-E



- Direct run-out 3 μm (3 μm at 3xd) maximum.



Page 2 of 2		Dimensions in mm										Balancing	KG	
Taper	d mm	Part No.	A	D	D ₃	L	I ₁	I ₃	I ₄	M	A ₁ min-max			
HSK-E50	6	E9343 5803 0680	80	21	27	105	54	26	36	M8	34-44	1	1,06	
	8	E9343 5803 0880	80	21	27	105	54	26	36	M8	34-44	1	1,06	
	10	E9343 5803 1085	85	24	32	110	59	31	41	M8	34-44	1	1,13	
	12	E9343 5803 1290	90	24	32	115	64	34	47	M8	43-53	1	1,14	
	14	E9343 5803 1490	90	27	34	115	64	34	47	M8	43-53	1	1,19	
	16	E9343 5803 1695	95	27	34	120	69	38	50	M8	45-55	1	2,30	
	18	E9343 5803 1895	95	33	42	120	69	38	50	M8	45-55	1	2,38	
	20	E9343 5803 20100	100	33	42	125	74	42	52	M8	48-58	1	2,40	
HSK-E63	6	E9344 5803 0680	80	21	27	112	54	26	36	M8	34-44	1	1,43	
	8	E9344 5803 0880	80	21	27	112	54	26	36	M8	34-44	1	1,43	
	10	E9344 5803 1085	85	24	32	117	59	31	41	M8	34-44	1	1,50	
	12	E9344 5803 1290	90	24	32	122	64	34	47	M10	43-53	1	1,51	
	14	E9344 5803 1490	90	27	34	122	64	34	47	M10	43-53	1	1,56	
	16	E9344 5803 1695	95	27	34	127	69	38	50	M10	45-55	1	2,65	
	18	E9344 5803 1895	95	33	42	127	69	38	50	M10	45-55	1	2,73	
	20	E9344 5803 20100	100	33	42	132	74	42	52	M10	48-58	1	2,76	
		25	E9344 5803 25115	115	44	53	147	89	44	58	M10	57-67	1	3,60

For Shrinkfit extensions, see catalogue chapter Additional equipment.

Accessories

Stop end screw			
For Taper/d		S ₁	∅
E50/6-10	19LS0820T	3	3
E50/12-20	19LS1016A	3	3
E63/6-10	19LS0820T	3	3
E63/12-25	19LS1020A	5	5

Please check availability in current price and stock-list.

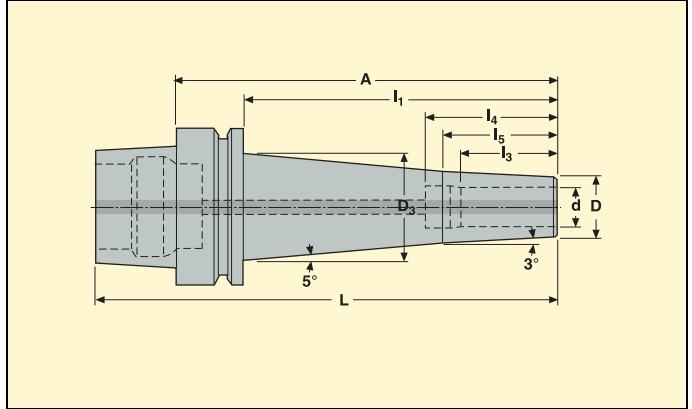
For stop screw setting adapters, see catalogue chapter Additional equipment.

Type 5801 - Shrinkfit holders, Mould and Die type

HSK-E



- Direct run-out 3 μ m (3 μ m at 3xd) maximum.



Taper	d mm	Part No.	Dimensions in mm								Balancing	
			A	D	D ₃	L	I ₁	I ₃	I ₄	I ₅		
HSK-E32	3	E9341 5801 03100	100	9	22	116	80	13	–	25	1	0,25
	4	E9341 5801 04100	100	10	23	116	80	15	–	25	1	0,25
	5	E9341 5801 05100	100	11	24	116	80	18	–	25	1	0,25
	6	E9341 5801 06100	100	12	24	116	80	26	40	32	1	0,25
	8	E9341 5801 08100	100	16	25	116	80	30	44	–	1	0,30
HSK-E40	3	E9342 5801 03100	100	9	22	120	80	13	–	25	1	0,30
	4	E9342 5801 04100	100	10	23	120	80	15	–	25	1	0,35
	5	E9342 5801 05100	100	11	24	120	80	18	–	25	1	0,35
	6	E9342 5801 06100	100	12	24	120	80	26	40	32	1	0,35
	6	E9342 5801 06140	140	12	31	160	120	26	40	32	1	0,55
	8	E9342 5801 08100	100	16	28	120	80	30	44	36	1	0,40
	8	E9342 5801 08140	140	16	34	160	120	30	44	36	1	0,65
	10	E9342 5801 10120	120	18	33	140	100	32	45	38	1	0,55
	12	E9342 5801 12130	130	20	32	150	110	34	46	–	1	0,65
	HSK-E50	3	E9343 5801 03100	100	9	21	125	74	13	–	25	1
4		E9343 5801 04100	100	10	22	125	74	15	–	25	1	0,50
5		E9343 5801 05100	100	11	23	125	74	18	–	25	1	0,55
6		E9343 5801 06100	100	12	23	125	74	26	40	32	1	0,55
6		E9343 5801 06140	140	12	30	165	114	26	40	32	1	0,70
8		E9343 5801 08100	100	16	27	125	74	30	44	36	1	0,60
8		E9343 5801 08140	140	16	34	165	114	30	44	36	1	0,80
10		E9343 5801 10120	120	18	32	145	94	32	45	38	1	0,75
10		E9343 5801 10160	160	18	39	185	134	32	45	38	1	1,05
12		E9343 5801 12130	130	20	36	155	104	34	46	40	1	0,85
14		E9343 5801 14140	140	22	40	165	114	34	48	40	1	1,00
16		E9343 5801 16150	150	24	37	175	124	38	52	–	1	1,05
HSK-E63	3	E9344 5801 03100	100	9	21	132	74	13	–	25	1	0,80
	4	E9344 5801 04100	100	10	22	132	74	15	–	25	1	0,80
	5	E9344 5801 05100	100	11	23	132	74	18	–	25	1	0,80
	6	E9344 5801 06100	100	12	23	132	74	26	40	32	1	0,80
	6	E9344 5801 06140	140	12	30	172	114	26	40	32	1	1,00
	8	E9344 5801 08100	100	16	27	132	74	30	44	36	1	0,85
	8	E9344 5801 08140	140	16	34	172	114	30	44	36	1	1,10
	10	E9344 5801 10120	120	18	32	152	94	32	45	38	1	1,00
	10	E9344 5801 10160	160	18	39	192	134	32	45	38	1	1,30
	12	E9344 5801 12130	130	20	36	162	104	34	46	40	1	1,10
	14	E9344 5801 14140	140	22	40	172	114	34	48	40	1	1,25
	16	E9344 5801 16150	150	24	43	182	124	38	52	45	1	1,40

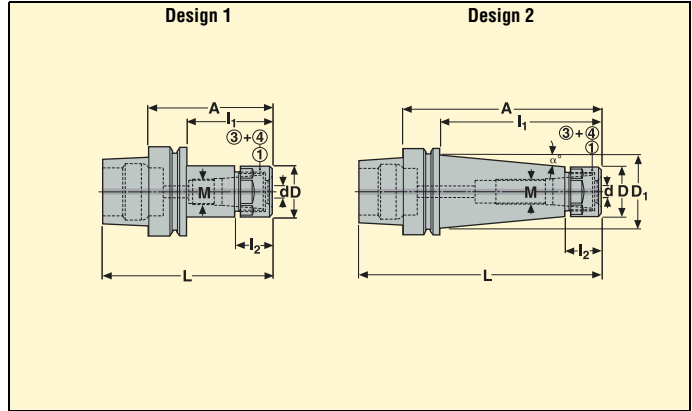
Please check availability in current price and stock-list.
For Shrinkfit extensions, see catalogue chapter Additional equipment.

Type 5872 - D type precision collet chucks

HSK-E



- Direct run-out 3 μm (5 μm with collet at 3xd) maximum.



Page 1 of 2		Capacity d mm	Part No.	Size	Dimensions in mm						Design	α°	Balancing	KG
Taper	A				D	D ₁	L	I ₁	I ₂	M				
HSK-E25	1-10	E9340 5872 1645	D type 16	45	27	-	58	35	23,3	-	1	-	1	0,15
HSK-E32	1-6	E9341 5872 1050	D type 10	50	15,7	-	66	30	18	M5	1	-	1	0,15
	1-6	E9341 5872 1090	D type 10	90	15,7	25	106	70	18	M6	2	5	1	0,25
	1-10	E9341 5872 1660	D type 16	60	27	-	76	40	23,3	M5	1	-	1	0,25
	1-10	E9341 5872 16110	D type 16	110	27	-	126	90	23,3	M8	1	-	1	0,45
HSK-E40	1-6	E9342 5872 1050	D type 10	50	15,7	-	70	30	18	M6	1	-	1	0,25
	1-6	E9342 5872 1090	D type 10	90	15,7	25	110	70	18	M6	2	5	1	0,35
	1-10	E9342 5872 1660	D type 16	60	27	-	80	40	23,3	M6	1	-	1	0,35
	1-10	E9342 5872 16120	D type 16	120	27	34	140	100	23,3	M8	2	3	1	0,70
	2-16	E9342 5872 2470	D type 24	70	36	-	90	50	26,3	M6	1	-	1	0,45

For D type collets (10° taper), see catalogue chapter Additional equipment.

Accessories

Spare parts

For Size	Compression tool	Stop end screw	Sealing nut (4)		Sealing ring (3)		Nut (1)				
			S	L ₁	S	d ₁	L ₁	S			
D type 10	03D587210	19B5870610	2	08B587210BE	20	14	01B587210(03-035-...-06)	3-3,5-...-6	08B587210	14	14
D type 16	03D587216	19B5870812	3	08B587216BE	25	24	01B587216(03-035-...-10)	3-3,5-...-10	08B587216	19	24
D type 24	03D587224	19B58718	3	08B587224BE	28	32	01B587224(03-035-...-16)	3-3,5-...-16	08B587224	22	32

Please check availability in current price and stock-list.

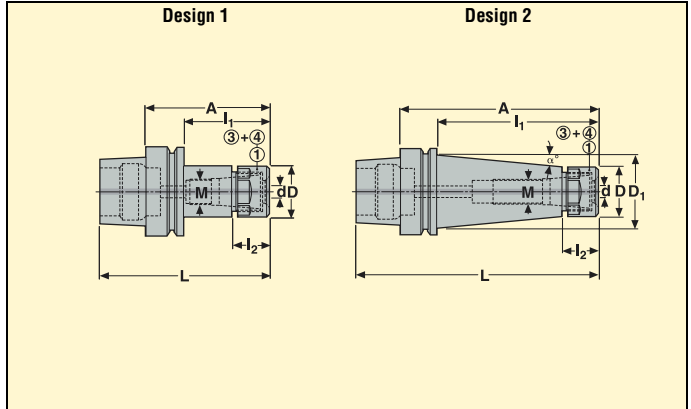
For D type sealing rings Part No., see catalogue chapter Additional equipment.

Type 5872 - D type precision collet chucks

HSK-E



- Direct run-out 3 μm (5 μm with collet at 3xd) maximum.



Page 2 of 2		Dimensions in mm												
Taper	Capacity d mm	Part No.	Size	A	D	D ₁	L	I ₁	I ₂	M	Design	α°	Balancing	KG
HSK-E50	1-6	E9343 5872 1060	D type 10	60	15,7	—	85	34	18	M6	1	—	1	0,50
	1-6	E9343 5872 10100	D type 10	100	15,7	25,5	125	74	18	M6	2	5	1	0,60
	1-10	E9343 5872 1660	D type 16	60	27	—	85	34	23,3	M8	1	—	1	0,55
	1-10	E9343 5872 16120	D type 16	120	27	39,5	145	94	23,3	M8	2	5	1	1,00
	2-16	E9343 5872 2470	D type 24	70	36	—	95	44	26,3	M8	1	—	1	0,65
	2-16	E9343 5872 24130	D type 24	130	36	41,5	155	104	26,3	M18x1,5	2	2	1	1,15
HSK-E63	1-10	E9344 5872 16100	D type 16	100	27	—	132	74	23,3	M8	1	—	1	1,00
	2-16	E9344 5872 24100	D type 24	100	36	—	132	74	26,3	M18x1,5	1	—	1	1,10
	2-16	E9344 5872 24160	D type 24	160	36	53	192	134	26,3	M18x1,5	2	5	1	2,05
	2-20	E9344 5872 29100	D type 29	100	42	—	132	74	29,7	M22x1,5	1	—	1	1,25
	2-20	E9344 5872 29160	D type 29	160	42	53	192	134	29,7	M22x1,5	2	3	1	2,05

For D type collets (10° taper), see catalogue chapter Additional equipment.

Accessories

Spare parts

For Size	Compression tool	Stop end screw	Sealing nut (4)		Sealing ring (3)		Nut (1)				
			S	L ₁	S	d ₁	L ₁	S			
D type 10	03D587210	19B5870610	2	08B587210BE	20	14	01B587210(03-035-...-06)	3-3,5-...-6	08B587210	14	14
D type 16	03D587216	19B5870812	3	08B587216BE	25	24	01B587216(03-035-...-10)	3-3,5-...-10	08B587216	19	24
D type 24	03D587224	19B58718	3	08B587224BE	28	32	01B587224(03-035-...-16)	3-3,5-...-16	08B587224	22	32
D type 29	03D587229	19B58722	3	08B587229BE	31	38	01B587229(03-035-...-20)	3-3,5-...-20	08B587229	25	38

Please check availability in current price and stock-list.

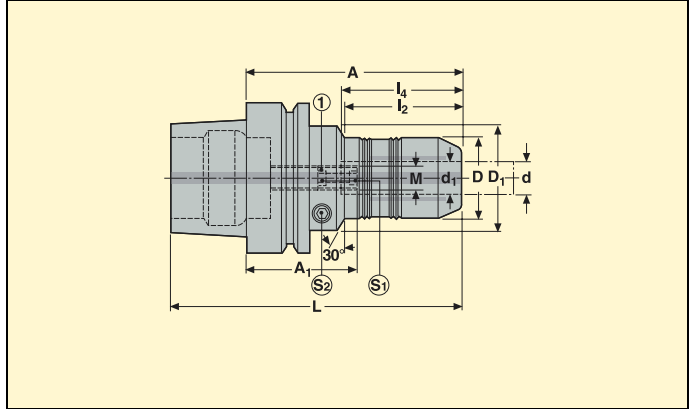
For D type sealing rings Part No., see catalogue chapter Additional equipment.

Type 5834 - Hydraulic chucks

HSK-E



- Run-out 3 μm maximum at 3xd.



Taper	d ₁ mm	Part No.	Dimensions in mm								Balancing	KG
			A	D	D ₁	L	l ₂	l ₄	M	A ₁ min-max		
HSK-E40	12	E9342 5834 1280	80	32	34	100	40	47	M10	33-43	1	0,71
	20	E9343 5834 2090	90	42	55	115	28	52	M10	38-48	1	1,65
HSK-E50	12	E9343 5834 1285	85	32	42	110	40	47	M10	38-48	1	0,90
	20	E9343 5834 2090	90	42	55	115	28	52	M10	38-48	1	1,65
HSK-E63	12	E9344 5834 1285	85	32	50	117	40	47	M10	38-48	1	1,35
	20	E9344 5834 2090	90	42	50	122	47	52	M10	38-48	1	2,90

For reduction sleeves and control gauges, see catalogue chapter Additional equipment.

Accessories

Spare parts

For d ₁	Locking key		Stop end screw (1)		
	S ₂	S ₁	S ₁	Ø	
12-20	03M05C	5	19LS1020A	5	5

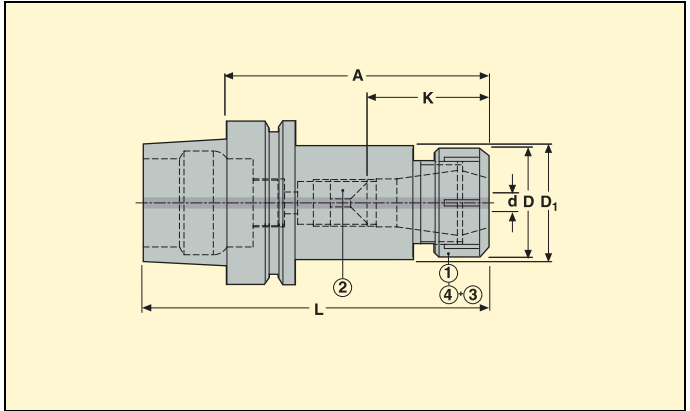
Please check availability in current price and stock-list.

Type 5875 - ER collet chucks - DIN 6499

HSK-E



• Direct run-out 5 μm maximum.



Taper	Capacity d mm	Part No.	Size	Dimensions in mm					Balancing	KG
				A	D	D ₁	L	K min-max		
HSK-E32	0,5-10	E9341 5875 1660	ER 16	60	32	32	76	30-36	1	0,25
	1-16	E9342 5875 2570	ER 25	70	42	34	90	-	1	0,50
HSK-E40	0,5-10	E9342 5875 1660	ER 16	60	32	32	80	30-34	1	0,40
	1-16	E9342 5875 2570	ER 25	70	42	34	90	-	1	0,50
	2-20	E9343 5875 32100	ER 32	100	50	42	125	43-55	1	0,75
HSK-E50	0,5-10	E9343 5875 16100	ER 16	100	32	32	125	30-44	1	0,50
	1-16	E9343 5875 25100	ER 25	100	42	42	125	38-55	1	0,70
	2-20	E9343 5875 32100	ER 32	100	50	42	125	43-55	1	0,75
HSK-E63	0,5-10	E9344 5875 16100	ER 16	100	32	32	132	30-44	1	1,00
	1-16	E9344 5875 25100	ER 25	100	42	42	132	38-53	1	1,20
	2-20	E9344 5875 32100	ER 32	100	50	50	132	43-63	1	1,40

For ER collets (16° taper, standard and precision types) and ER extensions, see catalogue chapter Additional equipment.

Accessories

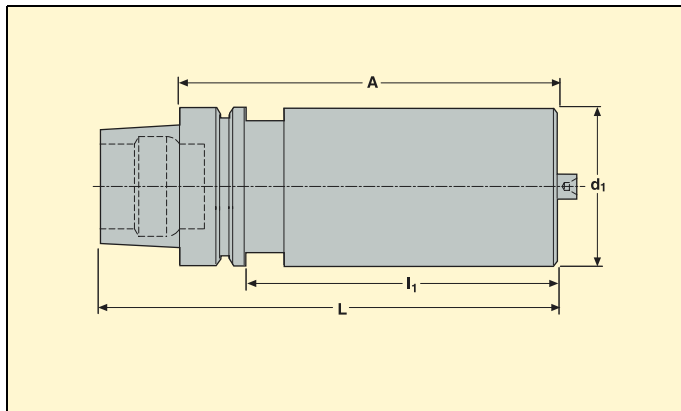
Spare parts

For Taper/Size	Spanner	Sealing nut (4)	Sealing ring (3)			Nut (1)	Stop end screw (2)		
		L ₁			d ₁	L ₁		S	
HSK-E32/ER 16	03B587516	08B587516IC	22,5	01B587516(03-035-...-10)	3-3,5-...-10	08B587516X	18	19B5870510	2,5
HSK-E40/ER 16	03B587516	08B587516IC	22,5	01B587516(03-035-...-10)	3-3,5-...-10	08B587516X	18	19B5870610	2
HSK-E50/ER 16	03B587516	08B587516IC	22,5	01B587516(03-035-...-10)	3-3,5-...-10	08B587516X	18	19B58708	4
HSK-E63/ER 16	03B587516	08B587516IC	22,5	01B587516(03-035-...-10)	3-3,5-...-10	08B587516X	18	19B58708R10	3/4
All ER 25	03B587525	08B587525IC	25	01B587525(03-035-...-16)	3-3,5-...-16	08B587525X	21	19B58718	3
All ER 32	03B587532	08B587532IC	27,5	01B587532(03-035-...-20)	3-3,5-...-20	08B587532X	23	19B58722	3

Please check availability in current price and stock-list.
For ER sealing rings Part No., see catalogue chapter Additional equipment.

Type 5023 - Greenstock blanks

HSK-E

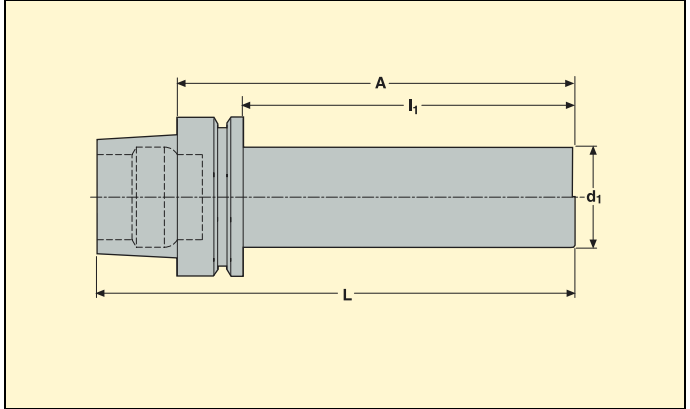


Taper	d ₁ mm	Part No.	Dimensions in mm			Balancing	
			A	L	I ₁		
HSK-E32	32	E9341 5023 32120	120	136	100	2	0,75
HSK-E40	40	E9342 5023 40150	150	170	130	2	1,50

Please check availability in current price and stock-list.

Type 586 - Test/Control bars

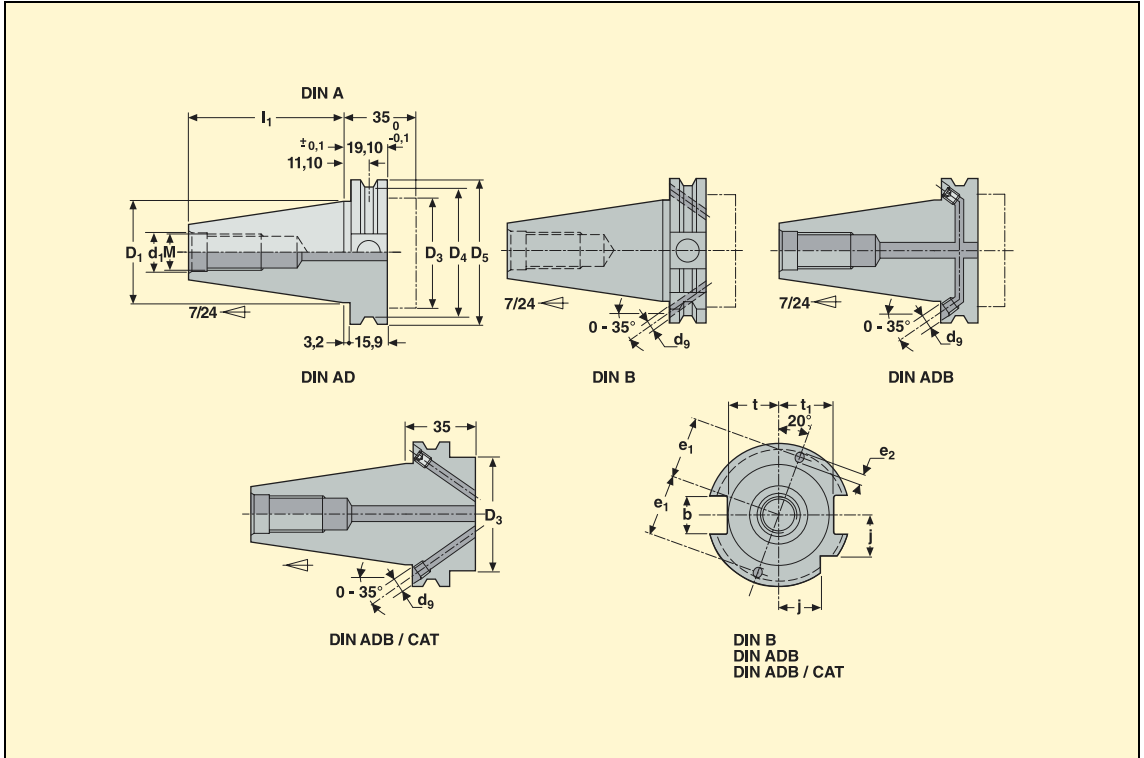
HSK-E



- Run-out 5 μm maximum.
- With protective case and measurement report.

Taper	d ₁ mm	Part No.	Dimensions in mm			Balancing	 KG
			A	L	I ₁		
HSK-E25	20	E9340 586 20140	140	153	130	-	0,40

Please check availability in current price and stock-list.



Taper	Through coolant form	Part No. prefix	Dimensions in mm													
			D_1	D_3	D_4	D_5	$l_1^{-0,2/0}$	M	d_1^{H7}	d_9	e_1	e_2 max	t	t_1	b	j
DIN30	A/AD	E4464...	31,75	45 max	44,30	50,00	47,80	M12	13	-	-	-	16,4	19,0	16,1	15,0
DIN40	A/AD	E4469...	44,45	50 max	56,25	63,55	68,40	M16	17	-	-	-	22,8	25,0	16,1	18,5
DIN40 B	B	E3869...	44,45	50 max	56,25	63,55	68,40	M16	17	4	27	5	22,8	25,0	16,1	18,5
DIN40 ADB	A/AD/B	E3469...	44,45	50 max	56,25	63,55	68,40	M16	17	4	27	5	22,8	25,0	16,1	18,5
DIN40 ADB/ CAT40	A/AD/B	E3476...	44,45	44,45	56,25	63,55	68,40	M16	17	4	27	5	22,8	25,0	16,1	18,5
DIN50	A/AD	E4471...	69,85	80 max	91,25	97,50	101,75	M24	25	-	-	-	35,5	37,7	25,7	30,0
DIN50 B	B	E3871...	69,85	80 max	91,25	97,50	101,75	M24	25	6	42	7	35,5	37,7	25,7	30,0
DIN50 ADB	A/AD/B	E3471...	69,85	80 max	91,25	97,50	101,75	M24	25	6	42	7	35,5	37,7	25,7	30,0
DIN50 ADB/ CAT50	A/AD/B	E3478...	69,85	69,85	91,25	97,50	101,75	M24	25	6	42	7	35,5	37,7	25,7	30,0

The norm dimensions are applied to all the holders shown in following product pages.

ADB type holders have two removable sealing plugs in the flange, in order to provide through coolant types A, AD, or B. For spare plugs and pull studs, see catalogue chapter Additional equipment.

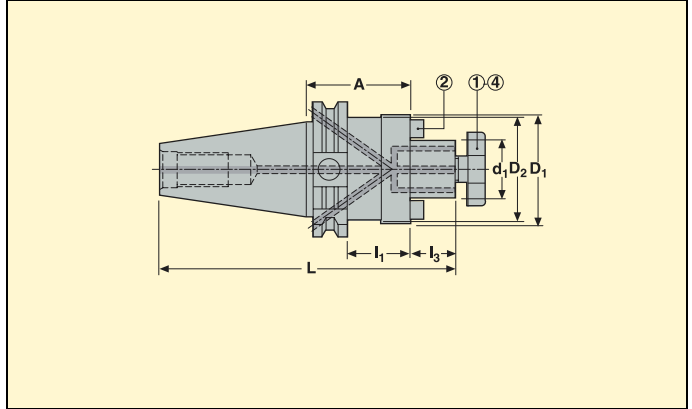
DIN/ CAT indicate these holders of the DIN 69871 range feature the controlled diameter D_3 of the CAT norm (CATERPILLAR ANSI B5 50 compatible only). Full CAT conformity restricted by timing notch inclusion and metric pull-stud thread). For more CAT holders, see separate catalogue range CAT/ DIN Combined.

Type 5525 - Shell mill holders, with through coolant channels

DIN 69871-ADB



- Direct run-out 5 μ m maximum.
- With coolant supply channels through the spigot.



Page 1 of 2		Dimensions in mm							Balancing	
Taper	d ₁ mm	Part No.	A	D ₁	D ₂	L	I ₁	I ₃		
DIN40 ADB	16	E3469 5525 1635	35	38	38	120,4	16	17	2	1,00
	16	E3469 5525 16100	100	38	38	185,4	81	17	2	2,56
	22	E3469 5525 2235	35	48	48	122,4	16	19	2	1,05
	22	E3469 5525 22100	100	48	48	187,4	81	19	2	2,18
	27	E3469 5525 2735	35	50	50	124,4	16	21	2	1,15
	27	E3469 5525 27100	100	50	50	189,4	81	21	2	3,05
	32	E3469 5525 3250	50	78	50	142,4	31	24	2	1,75
	32	E3469 5525 32100	100	78	50	192,4	81	24	2	3,15
	40	E3469 5525 4050	50	89	50	145,4	31	27	2	2,05

d₁ 40, includes 4 threaded holes on the flange according to DIN 6357.

Accessories

For Taper/d ₁	Spanner	Bolt, through coolant type (4)
40/16	5811608	5801608L
40/22	5812210	5802210L
40/27	5812712	5802712L
40/32	5813216	5803216L
40/40	5814020	5804020L

Spare parts

Bolt (1)	Tenon/ Screw (2)
5801608	16C10810164
5802210	16C11012206
5802712	16C127
5803216	16C2141421
5804020	16C2161621

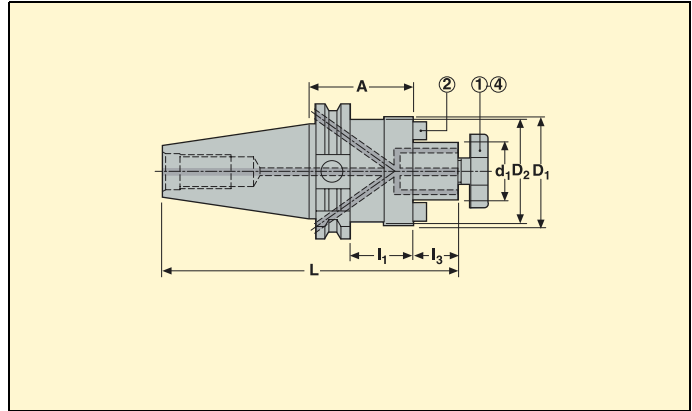
Please check availability in current price and stock-list.

Type 5525 - Shell mill holders, with through coolant channels

DIN 69871-ADB



- Direct run-out 5 μm maximum.
- With coolant supply channels through the spigot.



Page 2 of 2		Part No.	Dimensions in mm						Balancing	KG	
Taper	d ₁ mm		A	D ₁	D ₂	L	I ₁	I ₃			
DIN50 ADB	16	E3471 5525 16100	100	38	38	218,7	81	17	2	3,80	
	22	E3471 5525 2235	35	48	38	155,7	16	19	2	3,00	
	22	E3471 5525 22100	100	48	38	220,7	81	19	2	4,75	
	22	E3471 5525 22160	160	48	38	280,7	141	19	2	5,15	
	27	E3471 5525 2740	40	60	60	162,7	21	21	2	3,20	
	27	E3471 5525 27100	100	60	60	222,7	81	21	2	5,10	
	27	E3471 5525 27160	160	60	60	282,7	141	21	2	6,10	
	32	E3471 5525 3250	50	78	78	175,7	31	24	2	4,00	
	32	E3471 5525 32100	100	78	78	225,7	81	24	2	6,40	
	32	E3471 5525 32160	160	78	78	285,7	141	24	2	8,40	
	40	E3471 5525 4050	50	89	80	178,7	31	27	2	4,10	
	40	E3471 5525 40100	100	89	80	228,7	81	27	2	6,60	
	40	E3471 5525 40160	160	89	80	288,7	141	27	2	8,70	

d₁ 40, includes 4 threaded holes on the flange according to DIN 6357.

Accessories

Spare parts

Taper/d ₁	Spanner	Bolt, through coolant type (4)	Bolt (1)	Tenon/ Screw (2)
50/16	5811608	5801608L	5801608	16C10810164 950D0312
50/22	5812210	5802210L	5802210	16C11012206 950D0416
50/27	5812712	5802712L	5802712	16C11214243 951D0512
50/32	5813216	5803216L	5803216	16C2141421 951D0516
50/40	5814020	5804020L	5804020	16C2161621 951D0616

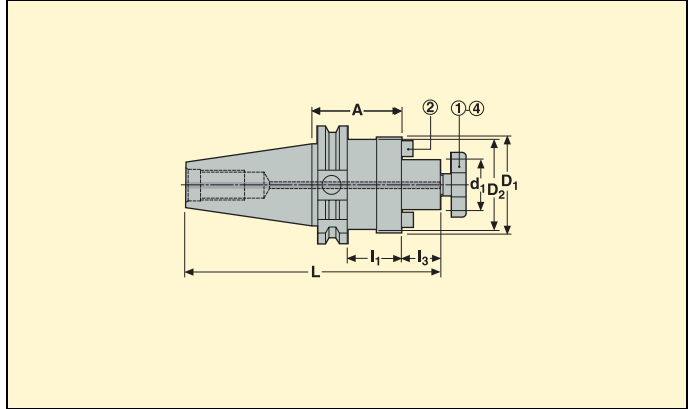
Please check availability in current price and stock-list.

Type 552 - Shell mill holders - ISO 3937

DIN 69871-AD



- Direct run-out 5 μ m maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm						Balancing	
			A	D ₁	D ₂	L	l ₁	l ₃		
DIN30 AD	16	E4464 552 1644	44	32	32	108,8	25	17	2	0,55
	22	E4464 552 2244	44	40	40	110,8	25	19	2	0,70
	27	E4464 552 2760	60	48	45	128,8	41	21	2	1,05
DIN40 AD	16	E4469 552 1644	44	32	32	129,4	25	17	2	1,05
	22	E4469 552 2244	44	40	40	131,4	25	19	2	1,15
	27	E4469 552 2744	44	48	48	133,4	25	21	2	1,30
	32	E4469 552 3260	60	58	50	152,4	41	24	2	1,80
	40	E4469 552 4060	60	70	50	155,4	41	27	2	2,15
DIN50 AD	22	E4471 552 2244	44	40	40	164,7	25	19	2	3,05
	27	E4471 552 2744	44	48	48	166,7	25	21	2	3,15
	32	E4471 552 3244	44	58	58	169,7	25	24	2	3,40
	40	E4471 552 4044	44	70	70	172,7	25	27	2	3,75
	50	E4471 5521 5050	50	120	80	181,7	31	30	2	4,20

DIN50 AD with d₁ 50 is type 5521, with enlarged face.

Accessories

Spare parts

For d ₁	Spanner	Bolt, through coolant type (4)	Bolt (1)	Tenon/ Screw (2)	
16	5811608	5801608L	5801608	16C116	950D0308
22	5812210	5802210L	5802210	16C122	951D0410
27	5812712	5802712L	5802712	16C127	951D0512
32	5813216	5803216L	5803216	16C132	951D0514
40	5814020	5804020L	5804020	16C140	951D0616
50	5815024	5805024L	5805024	16C2181831	951D0616

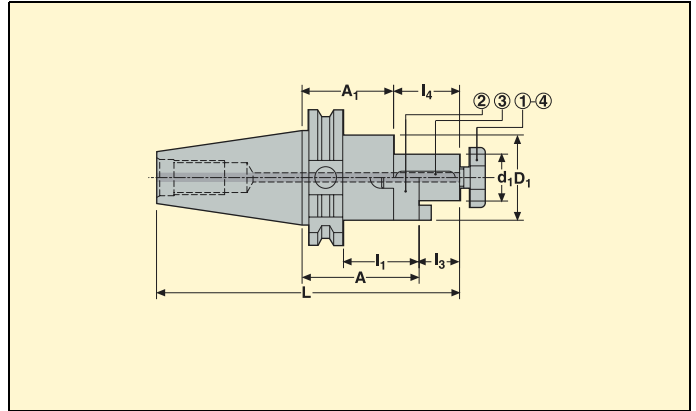
Please check availability in current price and stock-list.

Type 553 - Combi shell mill holders - DIN 6358

DIN 69871-AD



- Direct run-out 5 μm maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm							Balancing	KG
			A	D ₁	L	I ₁	I ₃	I ₄	A ₁		
DIN40 AD	16	E4469 553 1655	55	32	140,4	36	17	27	45	2	1,10
	22	E4469 553 2255	55	40	142,4	36	19	31	43	2	1,25
	27	E4469 553 2755	55	48	144,4	36	21	33	43	2	1,45
	32	E4469 553 3260	60	58	152,4	41	24	38	46	2	1,75
	40	E4469 553 4060	60	70	155,4	41	27	41	46	2	1,85
DIN50 AD	16	E4471 553 1655	55	32	173,7	36	17	27	45	2	2,95
	22	E4471 553 2255	55	40	175,7	36	19	31	43	2	3,10
	27	E4471 553 2755	55	48	177,7	36	21	33	43	2	3,30
	32	E4471 553 3255	55	58	180,7	36	24	38	41	2	3,60
	40	E4471 553 4055	55	70	183,7	36	27	41	41	2	4,05
	50	E4471 553 5070	70	90	201,7	51	30	46	54	2	5,60

Accessories

Spare parts

For d ₁	Spanner	Bolt, through coolant type (4)	Bolt (1)	Driving ring (2)	Flat key (3)
16	5811608	5801608L	5801608	58316	04C216
22	5812210	5802210L	5802210	58322	04C222
27	5812712	5802712L	5802712	58327	04C227
32	5813216	5803216L	5803216	58332	04C232
40	5814020	5804020L	5804020	58340	04C240
50	5815024	5805024L	5805024	58350	04C250

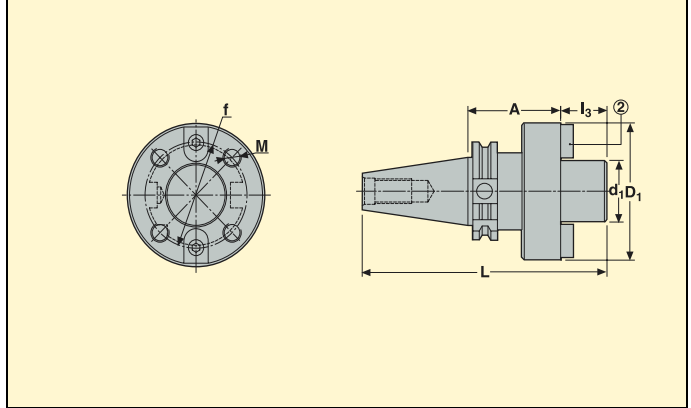
Please check availability in current price and stock-list.

Type 569 - Milling cutter holders, flange mounting - DIN 6357/ DIN 2079

DIN 69871-A



- Direct run-out 5 μm maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm						Balancing	
			A	D ₁	L	I ₃	f	M		
DIN40 A	40	E4469 569 4060	60	89	158,4	30	66,7	M12	2	2,50
	40	E4471 569 4070	70	89	201,7	30	66,7	M12	2	5,15
DIN50 A	60	E4471 569 6070	70	129	211,7	40	101,6	M16	2	7,70

Spare parts

For d ₁	Tenon/ Screw (2)	
40	16C34040	951D0616
60	16C35060	951D1225

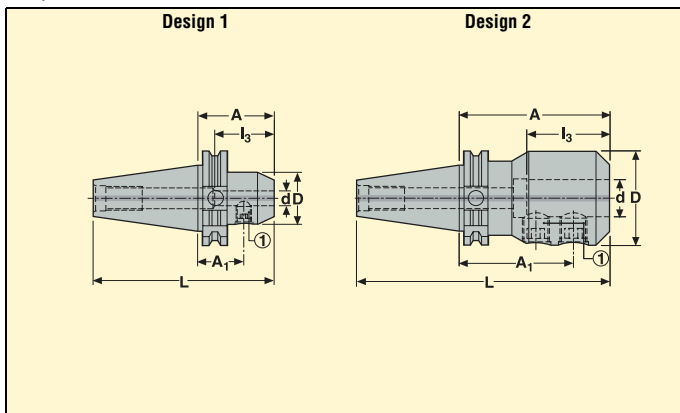
Please check availability in current price and stock-list.

Type 584 - Side lock holders, Weldon - DIN 1835 Form B/ DIN 6535 Form HB

DIN 69871-AD



- Direct run-out 3 μ m maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



Page 1 of 6		Dimensions in mm							Design	Balancing	
Taper	d mm	Part No.	A	D	L	I ₃	A ₁				
DIN30 AD	6	E4464 584 0650	50	25	97,8	30	32,5	1	2	0,50	
	8	E4464 584 0850	50	28	97,8	30	32,5	1	2	0,50	
	10	E4464 584 1050	50	35	97,8	39	30,5	1	2	0,55	
	12	E4464 584 1250	50	42	97,8	44	28	1	2	0,60	
	16	E4464 584 1670	70	48	117,8	47	46,5	1	2	0,75	
DIN40 AD	6	E4469 584 0650	50	25	118,4	30	32,5	1	2	0,90	
	8	E4469 584 0850	50	28	118,4	30	32,5	1	2	0,95	
	10	E4469 584 1050	50	35	118,4	39	30,5	1	2	1,00	
	12	E4469 584 1250	50	42	118,4	44	28	1	2	1,15	
	14	E4469 584 1450	50	44	118,4	44	28	1	2	1,15	
	16	E4469 584 1663	63	48	131,4	47	39,5	1	2	1,30	
	18	E4469 584 1863	63	50	131,4	47	39,5	1	2	1,30	
	20	E4469 584 2063	63	52	131,4	49	38,5	1	2	1,35	
	25	E4469 584 25100	100	63	168,4	54	76,5	2	2	2,25	
	32	E4469 584 32100	100	72	168,4	58	76,5	2	2	2,60	

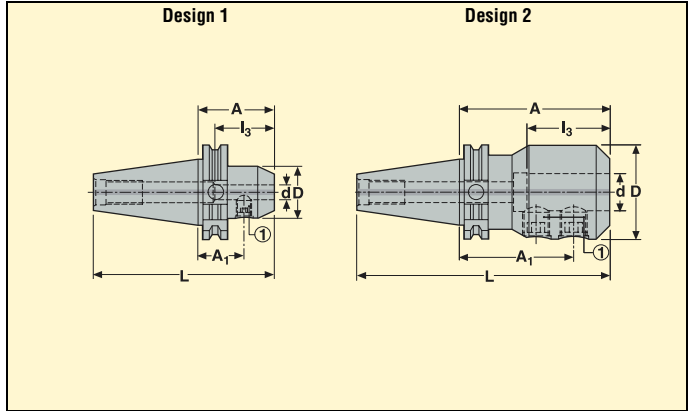
Spare parts

For d	Locking screw (1)	
	Qty	S
6	951C0610	3
8	951C0810	4
10	951C1012	5
12-14	951C1216	6
16-18	951C1416	6
20	951C1616	8
25	951C1820	10
32	951C2020	10

Please check availability in current price and stock-list.

Type 584 - Side lock holders, Weldon - DIN 1835 Form B/ DIN 6535 Form HB

DIN 69871-AD



- Direct run-out 3 μ m maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).

Page 2 of 6		Dimensions in mm						Design	Balancing	KG	
Taper	d mm	Part No.	A	D	L	I ₃	A ₁				
DIN50 AD	6	E4471 584 0663	63	25	164,7	30	45,5	1	2	2,71	
	8	E4471 584 0863	63	28	164,7	30	45,5	1	2	2,75	
	10	E4471 584 1063	63	35	164,7	39	43,5	1	2	2,85	
	12	E4471 584 1263	63	42	164,7	44	41	1	2	2,95	
	14	E4471 584 1463	63	44	164,7	44	41	1	2	2,95	
	16	E4471 584 1663	63	48	164,7	47	39,5	1	2	3,00	
	18	E4471 584 1863	63	50	164,7	47	39,5	1	2	3,00	
	20	E4471 584 2063	63	52	164,7	49	38,5	1	2	3,20	
	25	E4471 584 2580	80	65	181,7	54	56,5	2	2	3,80	
	32	E4471 584 32100	100	72	201,7	58	76,5	2	2	4,60	
	40	E4471 584 40120	120	90	221,7	68	90,5	2	2	6,40	
	50	E4471 584 50130	130	100	231,7	78	95,5	2	2	7,35	

Spare parts

For d	Locking screw (1)		
	Part No.	Qty	S
6	951C0610	1	3
8	951C0810	1	4
10	951C1012	1	5
12-14	951C1216	1	6
16-18	951C1416	1	6
20	951C1616	1	8
25	951C1820	2	10
32	951C2020	2	10
40	951C2025	2	10
50	951C2425	2	12

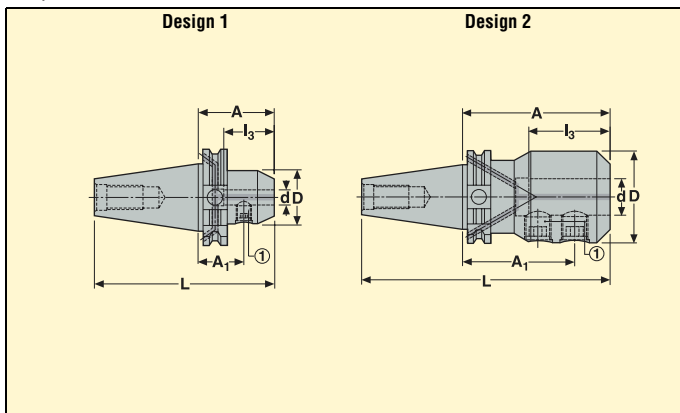
Please check availability in current price and stock-list.

Type 584 - Side lock holders, Weldon - DIN 1835 Form B/DIN 6535 Form HB

DIN 69871-B



- Direct run-out 3 μm maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).

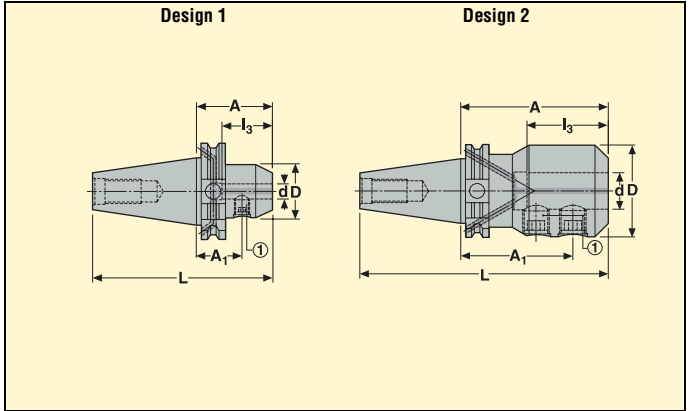


Page 3 of 6		Dimensions in mm							Design	Balancing	
Taper	d mm	Part No.	A	D	L	I ₃	A ₁				
DIN40 B	6	E3869 584 0650	50	25	118,4	30	32,5	1	2	0,90	
	8	E3869 584 0850	50	28	118,4	30	32,5	1	2	0,95	
	10	E3869 584 1050	50	35	118,4	39	30,5	1	2	1,00	
	12	E3869 584 1250	50	42	118,4	44	28	1	2	1,15	
	16	E3869 584 1663	63	48	131,4	47	39,5	1	2	1,30	
	20	E3869 584 2063	63	52	131,4	49	38,5	1	2	1,35	
	25	E3869 584 25100	100	63	168,4	54	76,5	2	2	2,25	
	32	E3869 584 32100	100	72	168,4	58	76,5	2	2	2,60	

Spare parts

For d	Locking screw (1)	
	Qty	S
6	951C0610	3
8	951C0810	4
10	951C1012	5
12	951C1216	6
16	951C1416	6
20	951C1616	8
25	951C1820	10
32	951C2020	10

Please check availability in current price and stock-list.



- Direct run-out 3 μ m maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).

Page 4 of 6		Dimensions in mm							Design	Balancing	KG
Taper	d mm	Part No.	A	D	L	I ₃	A ₁				
DIN50 B	6	E3871 584 0663	63	25	164,7	30	45,5	1	2	2,71	
	8	E3871 584 0863	63	28	164,7	30	45,5	1	2	2,75	
	10	E3871 584 1063	63	35	164,7	39	43,5	1	2	2,85	
	12	E3871 584 1263	63	42	164,7	44	41	1	2	2,95	
	14	E3871 584 1463	63	44	164,7	44	41	1	2	2,95	
	16	E3871 584 1663	63	48	164,7	47	39,5	1	2	3,00	
	18	E3871 584 1863	63	50	164,7	47	39,5	1	2	3,00	
	20	E3871 584 2063	63	52	164,7	49	38,5	1	2	3,20	
	25	E3871 584 2580	80	65	181,7	54	56,5	2	2	3,80	
	32	E3871 584 32100	100	72	201,7	58	76,5	2	2	4,60	
	40	E3871 584 40120	120	90	221,7	68	90,5	2	2	6,40	
	50	E3871 584 50130	130	100	231,7	78	95,5	2	2	7,35	

Spare parts

For d	Locking screw (1)		
	Qty	S	
6	951C0610	1	3
8	951C0810	1	4
10	951C1012	1	5
12-14	951C1216	1	6
16-18	951C1416	1	6
20	951C1616	1	8
25	951C1820	2	10
32	951C2020	2	10
40	951C2025	2	10
50	951C2425	2	12

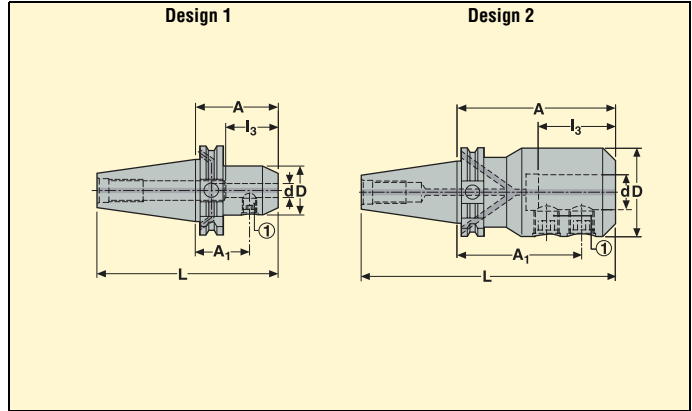
Please check availability in current price and stock-list.

Type 584 - Side lock holders, Weldon long - DIN 1835 Form B/ DIN 6535 Form HB

DIN 69871-ADB



- Direct run-out 3 µm maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



Page 5 of 6		Dimensions in mm							Design	Balancing	
Taper	d mm	Part No.	A	D	L	I ₃	A ₁				
DIN40 ADB	6	E3469 584 06120	120	25	188,4	30	102,5	1	2	1,20	
	8	E3469 584 08120	120	28	188,4	20	102,5	1	2	1,30	
	10	E3469 584 10120	120	35	188,4	39	100,5	1	2	1,55	
	12	E3469 584 12120	120	42	188,4	44	98	1	2	1,90	
	16	E3469 584 16120	120	48	188,4	47	96,5	1	2	2,10	
20	E3469 584 20120	120	52	188,4	49	95,5	1	2	2,30		
DIN50 ADB	6	E3471 584 06120	120	25	221,75	30	102,5	1	2	2,95	
	6	E3471 584 06160	160	25	261,75	30	142,5	1	2	3,10	
	8	E3471 584 08120	120	28	221,75	30	102,5	1	2	3,05	
	8	E3471 584 08160	160	28	261,75	30	142,5	1	2	3,20	
	10	E3471 584 10120	120	35	221,75	39	100,5	1	2	3,30	
	10	E3471 584 10160	160	35	261,75	39	140,5	1	2	3,60	
	12	E3471 584 12120	120	42	221,75	44	98	1	2	3,55	
	12	E3471 584 12160	160	42	261,75	44	138	1	2	4,00	
	16	E3471 584 16120	120	48	221,75	47	96,5	1	2	3,80	
	16	E3471 584 16160	160	48	261,75	47	136,5	1	2	4,40	
	20	E3471 584 20120	120	52	221,75	49	95,5	1	2	4,15	
	25	E3471 584 25120	120	63	221,75	54	96,5	2	2	4,80	

Spare parts

For d	Locking screw (1)	
	Qty	S
6	951C0610	3
8	951C0810	4
10	951C1012	5
12	951C1216	6
16	951C1416	6
20	951C1616	8
25	951C1820	10

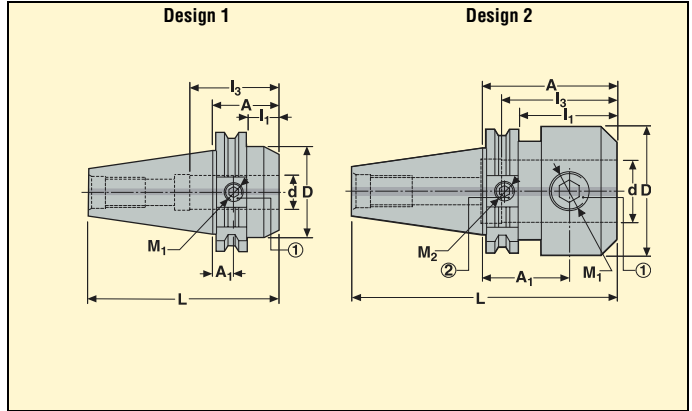
Please check availability in current price and stock-list.

Type 5842 - Side lock holders, Weldon short

DIN 69871-AD



- Direct run-out 5 μ m maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



Page 6 of 6	d mm	Part No.	Dimensions in mm								Design	Balancing	KG
			A	D	L	I ₁	I ₃	M ₁	M ₂	A ₁			
DIN40 AD	16	E4469 5842 1635	35	48	103,4	15,9	47	M14	-	11,5	1	2	0,95
	20	E4469 5842 2035	35	50	103,4	15,9	49	M16	-	10,5	1	2	1,00
	25	E4469 5842 2560	60	50	128,4	40,9	54	M18x2	-	36,5	2	2	1,60
	32	E4469 5842 3275	75	72	143,4	55,9	58	M20x2	M14	51,5	2	2	1,70

Spare parts

For d	Locking screw (1)			Locking screw (2)		
		Qty	S		Qty	S
16	951C1416	1	6	-	-	-
20	951C1616	1	8	-	-	-
25	951C1814	1	10	-	-	-
32	951C2020	1	10	950A1410	1	6

Please check availability in current price and stock-list.

EPB - Monobloc holders DIN 69871

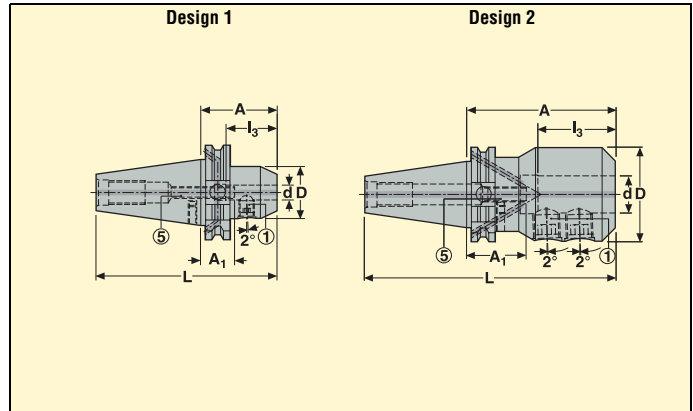


Type 5843 - Side lock holders, Whistle Notch - DIN 1835 Form E/ DIN 6535 Form HE

DIN 69871-ADB



- Direct run-out 3 µm maximum.
- Whistle Notch d 16, 20, 25 and 32 with ground face.



Taper	d mm	Part No.	Dimensions in mm					Design	Balancing	KG
			A	D	L	l ₃	A ₁ min-max			
DIN40 ADB	6	E3469 5843 0650	50	25	118,4	30	10-20	1	2	0,90
	8	E3469 5843 0850	50	28	118,4	30	10-20	1	2	0,95
	10	E3469 5843 1050	50	35	118,4	39	5-20	1	2	1,00
	12	E3469 5843 1250	50	42	118,4	44	-2-20	1	2	1,15
	14	E3469 5843 1450	50	44	118,4	44	-2-20	1	2	1,15
	16	E3469 5843 1663	63	48	131,4	47	8-18	1	2	1,30
	18	E3469 5843 1863	63	50	131,4	47	8-18	1	2	1,30
	20	E3469 5843 2063	63	52	131,4	49	6-16	1	2	1,35
	25	E3469 5843 25100	100	63	168,4	54	36-46	2	2	2,25
	32	E3469 5843 32100	100	72	168,4	58	32-42	2	2	2,60
DIN50 ADB	6	E3471 5843 0663	63	25	164,7	30	23-33	1	2	2,71
	8	E3471 5843 0863	63	28	164,7	30	23-33	1	2	2,75
	10	E3471 5843 1063	63	35	164,7	39	18-33	1	2	2,85
	12	E3471 5843 1263	63	42	164,7	44	8-20	1	2	2,95
	14	E3471 5843 1463	63	44	164,7	44	8-20	1	2	2,95
	16	E3471 5843 1663	63	48	164,7	47	8-18	1	2	3,00
	18	E3471 5843 1863	63	50	164,7	47	8-18	1	2	3,00
	20	E3471 5843 2063	63	52	164,7	49	6-16	1	2	3,20
	25	E3471 5843 2580	80	65	181,7	54	16-26	2	2	3,80
	32	E3471 5843 32100	100	72	201,7	58	32-42	2	2	4,60

Spare parts

For d	Locking screw (1)		Stop end screw (5)		
	Qty	S	Qty	S	
6	951C0610	1	3	19TLR0830	4
8	951C0810	1	4	19TLR1030	5
10	951C1012	1	5	19TLR0830	4
12-14	951C1216	1	6	19TLR1030	5
16-18	951C1416	1	6	19TLR1030	5
20	951C1616	1	8	19TLR1030	5
25	951C1820	2	10	19TLR1030	5
32	951C2020	2	10	19TLR1030	5

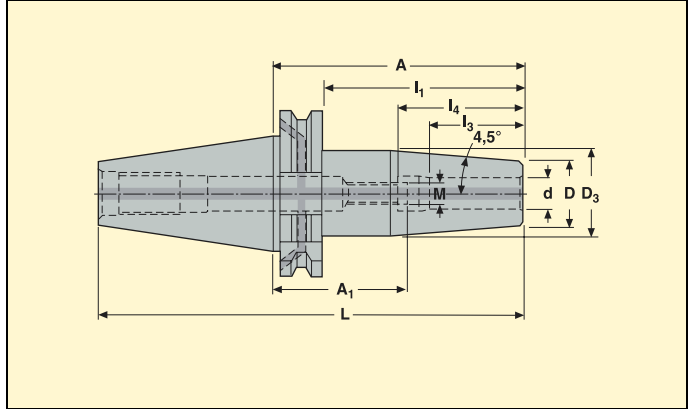
Please check availability in current price and stock-list.

Type 5803 - Shrinkfit holders, DIN type

DIN 69871-ADB



- Direct run-out 3 μ m (3 μ m at 3xd) maximum.



Page 1 of 2		Dimensions in mm										Balancing	
Taper	d mm	Part No.	A	D	D ₃	L	I ₁	I ₃	I ₄	M	A ₁ min-max		
DIN40 ADB	6	E3469 5803 0680	80	21	27	148,4	60,9	26	36	M8	54-54	1	1,00
	6	E3469 5803 06120	120	21	27	188,4	100,9	26	36	M8	94-94	1	1,14
	6	E3469 5803 06160	160	21	27	228,4	140,9	26	36	M8	134-134	1	1,30
	8	E3469 5803 0880	80	21	27	148,4	60,9	26	36	M8	54-54	1	0,99
	8	E3469 5803 08120	120	21	27	188,4	100,9	26	36	M8	94-94	1	1,13
	8	E3469 5803 08160	160	21	27	228,4	140,9	26	36	M8	134-134	1	1,28
	10	E3469 5803 1080	80	24	32	148,4	60,9	31	41	M8	39-49	1	1,05
	10	E3469 5803 10120	120	24	32	188,4	100,9	31	41	M8	79-89	1	1,28
	10	E3469 5803 10160	160	24	32	228,4	140,9	31	41	M8	119-129	1	1,48
	12	E3469 5803 1280	80	24	32	148,4	60,9	34	47	M10	33-43	1	1,04
	12	E3469 5803 12120	120	24	32	188,4	100,9	34	47	M10	73-83	1	1,25
	12	E3469 5803 12160	160	24	32	228,4	140,9	34	47	M10	113-123	1	1,46
	14	E3469 5803 1480	80	27	34	148,4	60,9	34	47	M10	33-43	1	1,08
	14	E3469 5803 14120	120	27	34	188,4	100,9	34	47	M10	73-83	1	1,33
	16	E3469 5803 1680	80	27	34	148,4	60,9	38	50	M10	30-40	1	1,08
	16	E3469 5803 16120	120	27	34	188,4	100,9	38	50	M10	70-80	1	1,31
	16	E3469 5803 16160	160	27	34	228,4	140,9	38	50	M10	110-120	1	1,55
	18	E3469 5803 1880	80	33	42	148,4	60,9	38	50	M10	30-40	1	1,21
	18	E3469 5803 18120	120	33	42	188,4	100,9	38	50	M10	70-80	1	1,60
	20	E3469 5803 2080	80	33	42	148,4	60,9	42	52	M10	28-38	1	1,18
	20	E3469 5803 20120	120	33	42	188,4	100,9	42	52	M10	68-78	1	1,58
	20	E3469 5803 20160	160	33	42	228,4	140,9	42	52	M10	108-118	1	1,97
	25	E3469 5803 25100	100	44	53	168,4	80,9	44	58	M10	42-52	1	1,64

For Shrinkfit extensions, see catalogue chapter Additional equipment.

Accessories

Stop end screw			
For d		S ₁	Ø
6-10	19LS0820T	3	3
12-25	19LS1020A	5	5

Please check availability in current price and stock-list.

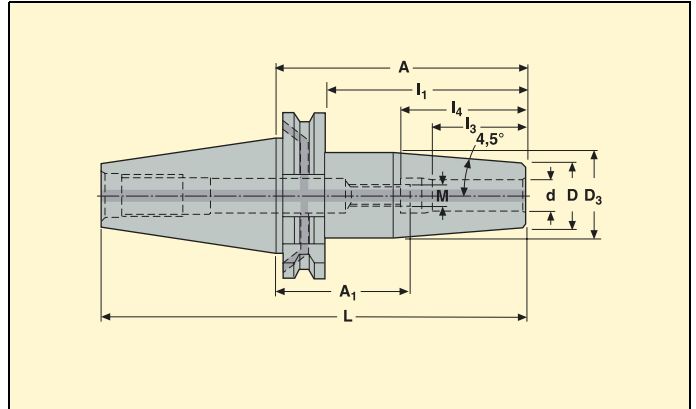
For stop screws setting adapters, see catalogue chapter Additional equipment.

Type 5803 - Shrinkfit holders, DIN type

DIN 69871-ADB



- Direct run-out 3 μm (3 μm at 3xd) maximum.



Page 2 of 2		Dimensions in mm											Balancing	KG
Taper	d mm	Part No.	A	D	D ₃	L	I ₁	I ₃	I ₄	M	A ₁ min-max			
DIN50 ADB	6	E3471 5803 06100	100	21	27	201,8	80,9	26	36	M8	64-74	1	2,89	
	6	E3471 5803 06160	160	21	27	201,8	140,9	26	36	M8	124-134	1	3,09	
	8	E3471 5803 08100	100	21	27	201,8	80,9	26	36	M8	64-74	1	2,88	
	8	E3471 5803 08160	160	21	27	261,8	140,9	26	36	M8	124-134	1	3,09	
	10	E3471 5803 10100	100	24	32	201,8	80,9	31	41	M8	59-69	1	2,98	
	10	E3471 5803 10160	160	24	32	261,8	140,9	31	41	M8	119-129	1	3,19	
	12	E3471 5803 12100	100	24	32	201,8	80,9	34	47	M10	53-63	1	2,96	
	12	E3471 5803 12160	160	24	32	261,8	140,9	34	47	M10	113-123	1	3,28	
	14	E3471 5803 14100	100	27	34	201,8	80,9	34	47	M10	53-63	1	3,02	
	16	E3471 5803 16100	100	27	34	201,8	90,9	38	50	M10	50-60	1	3,00	
	16	E3471 5803 16160	160	27	34	261,8	140,9	38	50	M10	110-120	1	3,37	
	18	E3471 5803 18100	100	33	42	201,8	80,9	38	50	M10	50-60	1	3,28	
	20	E3471 5803 20100	100	33	42	201,8	80,9	42	52	M10	48-58	1	3,20	
	20	E3471 5803 20160	160	33	42	261,8	140,9	42	52	M10	108-118	1	3,79	
	25	E3471 5803 25100	100	44	53	201,8	80,9	44	58	M10	42-52	1	3,60	
	25	E3471 5803 25160	160	44	53	261,8	140,9	44	58	M10	102-112	1	4,57	
	32	E3471 5803 32110	110	44	53	211,8	90,9	52	62	M10	48-58	1	3,60	

For Shrinkfit extensions, see catalogue chapter Additional equipment.

Accessories

Stop end screw			
For d		S ₁	∅
6-10	19LS0820T	3	3
12-32	19LS1020A	5	5

Please check availability in current price and stock-list.

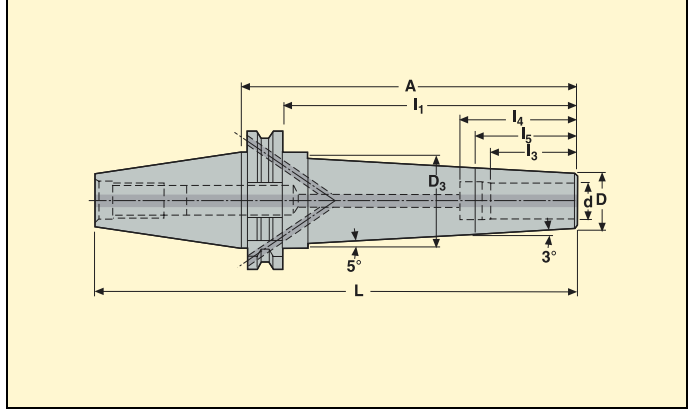
For stop screws setting adapters, see catalogue chapter Additional equipment.

Type 5801 - Shrinkfit holders, Mould and Die type

DIN 69871-ADB/ CAT Combined



- Direct run-out 3 μm (3 μm at 3xd) maximum.



Taper	d mm	Part No.	Dimensions in mm								Balancing	
			A	D	D ₃	L	I ₁	I ₃	I ₄	I ₅		
DIN40 ADB/ CAT40	3	E3476 5801 0380	80	9	15	148,4	60,9	13	-	25	1	1,06
	3	E3476 5801 03140	140	9	26	208,4	120,9	13	-	25	1	1,20
	4	E3476 5801 0480	80	10	16	148,4	60,9	15	-	25	1	1,10
	4	E3476 5801 04140	140	10	27	208,4	120,9	15	-	25	1	1,25
	5	E3476 5801 05140	140	11	28	208,4	120,9	18	-	25	1	1,25
	6	E3476 5801 0680	80	12	17	148,4	60,9	26	40	-	1	1,10
	6	E3476 5801 06140	140	12	30	208,4	120,9	26	40	32	1	1,25
	8	E3476 5801 0880	80	16	21	148,4	60,9	30	44	-	1	1,20
	8	E3476 5801 08140	140	16	32	208,4	120,9	30	44	36	1	1,35
	10	E3476 5801 1080	80	18	23	148,4	60,9	32	45	-	1	1,25
	10	E3476 5801 10160	160	18	38	228,4	140,9	32	45	38	1	1,55
	12	E3476 5801 1280	80	20	25	148,4	60,9	34	46	-	1	1,30
	12	E3476 5801 12170	170	20	41	238,4	150,9	34	46	40	1	1,75
	14	E3476 5801 14180	180	22	44,45	248,4	160,9	34	48	40	1	1,90
	16	E3476 5801 16190	190	24	41	258,4	170,9	38	52	-	1	1,95

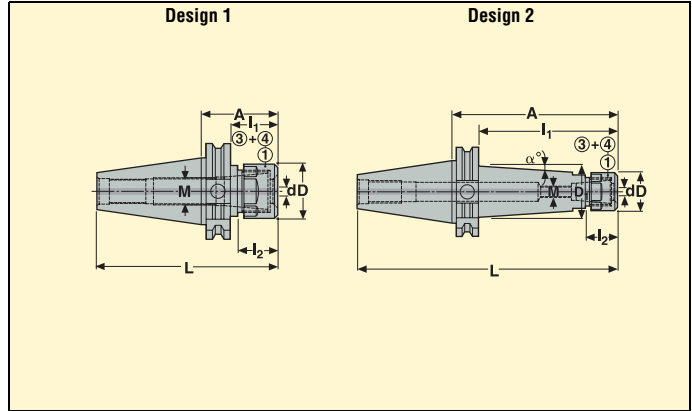
Please check availability in current price and stock-list.
For Shrinkfit extensions, see catalogue chapter Additional equipment.

Type 5872 - D type precision collet chucks

DIN 69871-AD



- Direct run-out 3 μm (5 μm with collet at 3xd) maximum.



Taper	Capacity d mm	Part No.	Size	Dimensions in mm							Design	α°	Balancing	KG	
				A	D	D ₁	L	I ₁	I ₂	M					
DIN40 AD	1-6	E4469 5872 1040	D type 10	40	15,7	–	108,4	20,9	18	M6	1	–	1	1,00	
	1-6	E4469 5872 1095	D type 10	95	15,7	25,8	163,4	75,9	18	M6	2	5	1	1,10	
	1-10	E4469 5872 1645	D type 16	45	27	–	113,4	25,9	–	M8	1	–	1	1,05	
	1-10	E4469 5872 16130	D type 16	130	27	42,3	198,4	110,9	23,3	M8	2	5	1	1,35	
	2-16	E4469 5872 2450	D type 24	50	36	–	118,4	30,9	26,3	M18x1,5	1	–	1	1,05	
	2-16	E4469 5872 24160	D type 24	160	36	50	228,4	140,9	26,3	M18x1,5	2	5	1	1,40	
	2-20	E4469 5872 2960	D type 29	60	42	–	128,4	40,9	29,7	M22x1,5	1	–	1	1,10	
	2-20	E4469 5872 29160	D type 29	160	42	50	228,4	140,9	29,7	M22x1,5	2	3	1	1,40	
DIN50 AD	2-16	E4471 5872 2480	D type 24	80	36	–	181,7	60,9	26,3	M18x1,5	1	–	1	2,90	
	2-20	E4471 5872 2980	D type 29	80	42	–	181,7	60,9	29,7	M22x1,5	1	–	1	2,95	

For D type collets (10° taper), see catalogue chapter Additional equipment.

Accessories

Spare parts

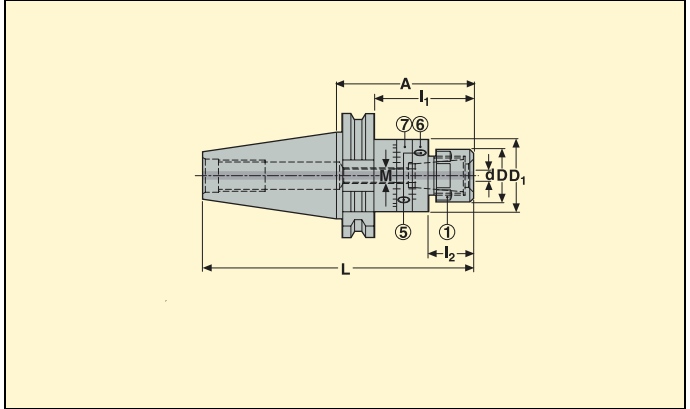
For Size	Compression tool	Stop end screw	Sealing nut (4)		Sealing ring (3)		Nut (1)				
			S	L ₁	S	d ₁	L ₁	S			
D type 10	03D587210	19B5870610	2	08B587210BE	20	14	01B587210(03-035-...-06)	3-3,5-...-6	08B587210	14	14
D type 16	03D587216	19B5870812	3	08B587216BE	25	24	01B587216(03-035-...-10)	3-3,5-...-10	08B587216	19	24
D type 24	03D587224	19B58718	3	08B587224BE	28	32	01B587224(03-035-...-16)	3-3,5-...-16	08B587224	22	32
D type 29	03D587229	19B58722	3	08B587229BE	31	38	01B587229(03-035-...-20)	3-3,5-...-20	08B587229	25	38

Please check availability in current price and stock-list.

For D type sealing rings Part No., see catalogue chapter Additional equipment.

Type Q5872 - D type precision collet chucks, Libraflex balanceable

DIN 69871-AD



- Direct run-out 3 μ m (5 μ m with collet at 3xd) maximum.

Taper	Capacity d mm	Part No.	Size	Dimensions in mm							Max. bal. compens. g.mm	Max rpm	KG
				A	D	D ₁	L	I ₁	I ₂	M			
DIN40 AD	1-10	EQ4469 5872 1670	D type 16	70	27	37	138,4	50,9	23,3	M8	50 g.mm	24 000	1,05
	2-16	EQ4469 5872 2470	D type 24	70	36	37	138,4	50,9	26,3	M18x1,5	50 g.mm	24 000	1,05
	2-20	EQ4469 5872 2975	D type 29	75	42	45	143,4	55,9	29,7	M22x1,5	75 g.mm	20 000	1,10

For D type collets (10° taper), see catalogue chapter Additional equipment.

Accessories

Spare parts

For Size	Ring locking key		Nut (1)			Balancing ring (6)	Balancing ring (7)	Ring locking screw (5)	
		S	L ₁	S					S
D type 16	03M025	2,5	08B587216	19	24	00Q03003708B	00Q03003708A	19A71010	2,5
D type 24	03M025	2,5	08B587224	22	32	00Q03003708B	00Q03003708A	19A71010	2,5
D type 29	03M025	2,5	08B587229	25	38	00Q03804508B	00Q03804508A	19A71010	2,5

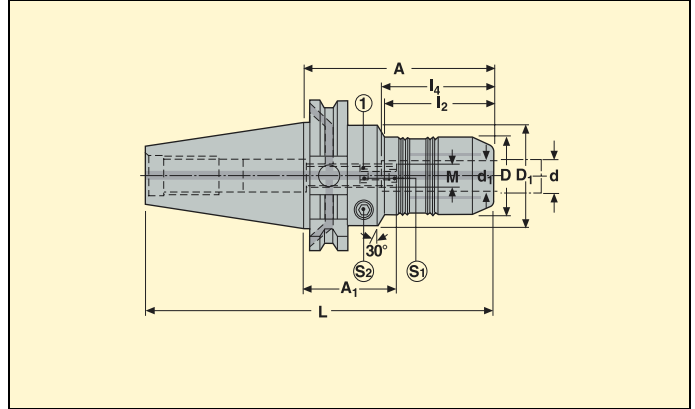
Please check availability in current price and stock-list.
 Accessories and Spare parts of holders type 5872 are also suitable.
 For D type sealing rings Part No., see catalogue chapter Additional equipment.

Type 5834 - Hydraulic chucks

DIN 69871-ADB



- Run-out 3 μm maximum at 3xd.



Taper	d ₁ mm	Part No.	Dimensions in mm								Balancing	KG
			A	D	D ₁	L	I ₂	I ₄	M	A ₁ min-max		
DIN40 ADB	6	E3469 5834 0680	80	26	50	148,4	23	38	M5	42-52	1	1,40
	8	E3469 5834 0880	80	28	50	148,4	24	38	M5	42-52	1	1,40
	10	E3469 5834 1080	80	30	50	148,4	34	42	M8	38-48	1	1,30
	12	E3469 5834 1280	80	32	50	148,4	40	47	M10	33-43	1	1,30
	14	E3469 5834 1480	80	34	50	148,4	40	47	M10	33-43	1	1,30
	16	E3469 5834 1680	80	38	50	148,4	46	50	M10	30-40	1	1,40
	18	E3469 5834 1880	80	40	50	148,4	48	50	M10	30-40	1	1,40
	20	E3469 5834 2080	80	42	50	148,4	47	52	M10	28-38	1	1,40
DIN50 ADB	12	E3471 5834 1280	80	32	50	181,8	40	47	M10	33-43	1	5,00
	20	E3471 5834 2080	80	42	50	181,8	47	52	M10	28-38	1	5,40
	32	E3471 5834 3290	90	64	70	191,8	50	63	M10	27-37	1	5,70

For reduction sleeves and test bars, see catalogue chapter Additional equipment.

Accessories

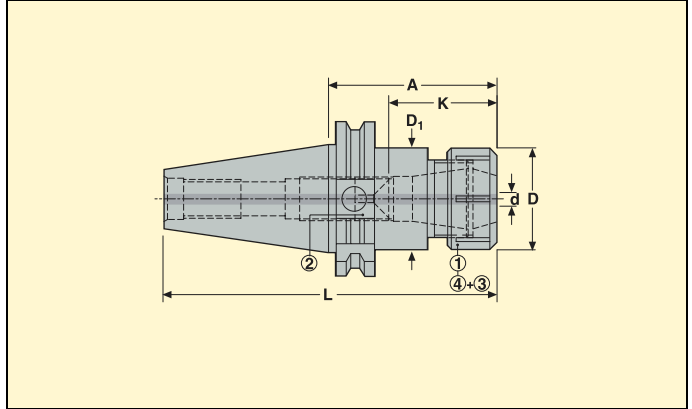
Spare parts

For d ₁	Locking key		Stop end screw (1)		
		S ₂		S ₁	∅
6-8	03M03	3	19LS0520A	3	3
10	03M03	3	19LS0820A	3	3
12-32	03M05C	5	19LS1020A	5	5

Please check availability in current price and stock-list.



- Direct run-out 5 μm maximum.



Page 1 of 2	Capacity d mm	Part No.	Size	Dimensions in mm					Balancing	KG
				A	D	D ₁	L	K min-max		
DIN30 AD	0,5-10	E4464 5875 1660	ER 16	60	32	32	107,8	30-44	2	0,55
	1-16	E4464 5875 2570	ER 25	70	42	42	117,8	38-68	2	0,60
DIN40 AD	0,5-10	E4469 5875 1670	ER 16	70	32	32	138,4	30-44	2	1,00
	0,5-10	E4469 5875 16120	ER 16	120	32	32	188,4	30-44	2	1,10
	1-16	E4469 5875 2570	ER 25	70	42	42	138,4	38-68	2	1,05
	1-16	E4469 5875 25120	ER 25	120	42	42	188,4	38-68	2	1,30
	2-20	E4469 5875 3270	ER 32	70	50	50	138,4	43-77	2	1,10
	2-20	E4469 5875 32120	ER 32	120	50	50	188,4	43-77	2	1,35
	3-26	E4469 5875 4070	ER 40	70	63	50	138,4	50-69	2	1,25
DIN50 AD	0,5-10	E4471 5875 1670	ER 16	70	32	32	171,7	30-44	2	3,05
	0,5-10	E4471 5875 16120	ER 16	120	32	32	221,7	30-44	2	3,15
	1-16	E4471 5875 2590	ER 25	90	42	42	191,7	38-69	2	3,15
	2-20	E4471 5875 3290	ER 32	90	50	50	191,7	43-117	2	3,20
	2-20	E4471 5875 32150	ER 32	150	50	50	251,7	43-121	2	3,60
	3-26	E4471 5875 40100	ER 40	100	63	63	201,7	50-81	2	3,55

For ER collets (16° taper, standard and precision types) and ER extensions, see catalogue chapter Additional equipment.

Accessories

For Size	Spanner	Sealing nut (4)	Sealing ring (3)		
		L ₁	d ₁	d ₁	
ER 16	03B587516	08B587516IC	22,5	01B587516(03-035-...-10)	3-3,5-...-10
ER 25	03B587525	08B587525IC	25	01B587525(03-035-...-16)	3-3,5-...-16
ER 32	03B587532	08B587532IC	27,5	01B587532(03-035-...-20)	3-3,5-...-20
ER 40	03B587540	08B587540IC	30,5	01B587540(03-035-...-26)	3-3,5-...-26

Spare parts

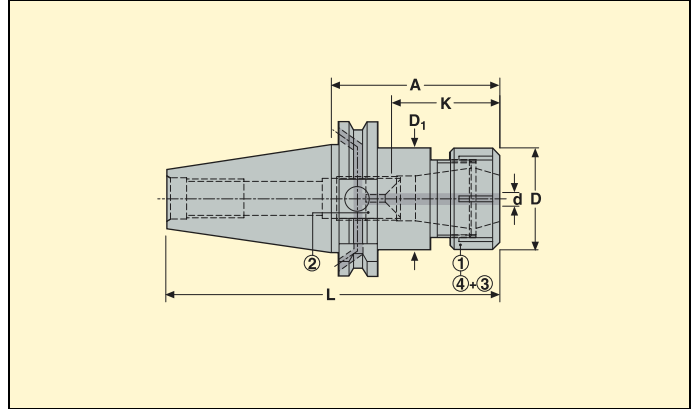
Nut (1)		Stop end screw (2)	
	L ₁	S	S
08B587516X	18	19B58708R10	3/4
08B587525X	21	19B58718	3
08B587532X	23	19B58722	3
08B587540X	26	19B58730	3

Please check availability in current price and stock-list.

For ER sealing rings Part No., see catalogue chapter Additional equipment.



- Direct run-out 5 μm maximum.



Page 2 of 2		Dimensions in mm									Balancing	KG
Taper	Capacity d mm	Part No.	Size	A	D	D ₁	L	K min-max				
DIN40 B	0,5-10	E3869 5875 1670	ER 16	70	32	32	138,4	30-44	2	1,00		
	0,5-10	E3869 5875 16120	ER 16	120	32	32	188,4	30-44	2	1,10		
	1-16	E3869 5875 2570	ER 25	70	42	42	138,4	38-68	2	1,05		
	1-16	E3869 5875 25120	ER 25	120	42	42	188,4	38-68	2	1,30		
	2-20	E3869 5875 3270	ER 32	70	50	50	138,4	43-77	2	1,10		
	2-20	E3869 5875 32120	ER 32	120	50	50	188,4	43-77	2	1,35		
	3-26	E3869 5875 40100	ER 40	100	63	50	168,4	50-69	2	1,50		
DIN50 B	0,5-10	E3871 5875 16120	ER 16	120	32	32	221,7	30-44	2	3,15		
	2-20	E3871 5875 3290	ER 32	90	50	50	191,7	43-117	2	3,20		
	2-20	E3871 5875 32150	ER 32	150	50	50	251,7	43-121	2	3,60		
	3-26	E3871 5875 40100	ER 40	100	63	63	201,7	50-81	2	3,55		

For ER collets (16° taper, standard and precision types) and ER extensions, see catalogue chapter Additional equipment.

Accessories

For Size	Spanner	Sealing nut (4)	Sealing ring (3)		
		L ₁		d ₁	
ER 16	03B587516	08B587516IC	22,5	01B587516(03-035-...-10)	3-3,5-...-10
ER 25	03B587525	08B587525IC	25	01B587525(03-035-...-16)	3-3,5-...-16
ER 32	03B587532	08B587532IC	27,5	01B587532(03-035-...-20)	3-3,5-...-20
ER 40	03B587540	08B587540IC	30,5	01B587540(03-035-...-26)	3-3,5-...-26

Spare parts

Nut (1)		Stop end screw (2)	
	L ₁		S
08B587516X	18	19B58708R10	3/4
08B587525X	21	19B58718	3
08B587532X	23	19B58722	3
08B587540X	26	19B58730	3

Please check availability in current price and stock-list.

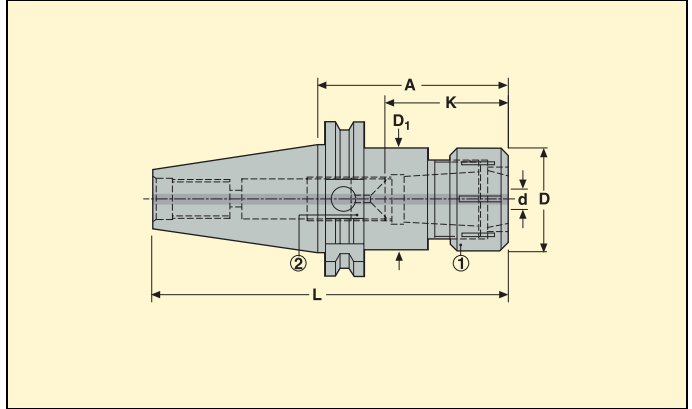
For ER sealing rings Part No., see catalogue chapter Additional equipment.

Type 5873 - OZ collet chucks - DIN 6388

DIN 69871-AD



• Direct run-out 5 μm maximum.



Page 1 of 2	Capacity d mm	Part No.	Size	Dimensions in mm					Balancing	KG
				A	D	D ₁	L	K min-max		
DIN30 AD	2-16	E4464 5873 1670	OZ 16	70	43	43	117,8	42-57	2	0,65
	2-25	E4464 5873 2570	OZ 25	70	60	45	117,8	55-60	2	0,90
DIN40 AD	2-16	E4469 5873 1670	OZ 16	70	43	43	138,4	42-79	2	1,05
	2-16	E4469 5873 16120	OZ 16	120	43	43	188,4	42-79	2	1,15
	2-25	E4469 5873 2570	OZ 25	70	60	50	138,4	55-78	2	1,20
	2-25	E4469 5873 25120	OZ 25	120	60	50	188,4	55-78	2	1,80
	4-32	E4469 5873 3290	OZ 32	90	72	50	158,4	65-75	2	1,75
DIN50 AD	2-25	E4471 5873 2570	OZ 25	70	60	60	171,7	55-98	2	3,05
	4-32	E4471 5873 3273	OZ 32	73	72	72	174,7	65-95	2	3,15
	6-40	E4471 5873 4095	OZ 40	95	85	80	196,7	75-110	2	3,65

For OZ collets (1/10 taper), see catalogue chapter Additional equipment.

Accessories

Spare parts

For Taper/Capacity	Spanner	Nut (1)	Stop end screw (2)	
			L ₁	S
30/2-16	03B587316	08B587316	24	19B58718
30/2-25	03B587325	08B587325	30	19B58718
40/2-16	03B587316	08B587316	24	19B58718
40/2-25	03B587325	08B587325	30	19B58727
40/4-32	03B587332	08B587332	33,5	19B58727
50/2-25	03B587325	08B587325	30	19B58727
50/4-32	03B587332	08B587332	33,5	19B58735
50/6-40	03B587340	08B587340	37	19B58742

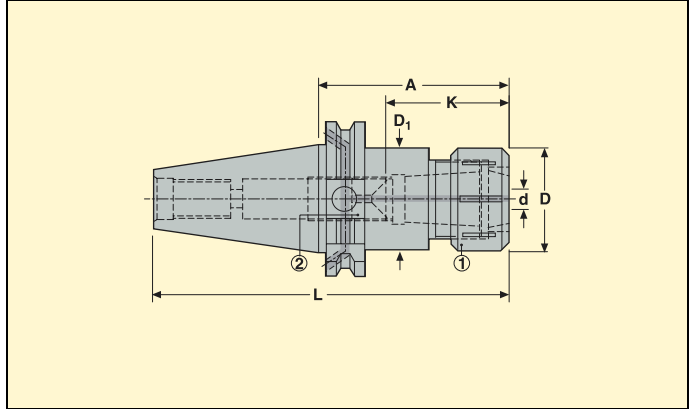
Please check availability in current price and stock-list.

Type 5873 - OZ collet chucks - DIN 6388

DIN 69871-B



- Direct run-out 5 μm maximum.



Page 2 of 2	Capacity d mm	Part No.	Size	Dimensions in mm					Balancing	KG
				A	D	D ₁	L	K min-max		
DIN40 B	2-16	E3869 5873 1670	OZ 16	70	43	43	138,4	42-79	2	1,05
	2-16	E3869 5873 16120	OZ 16	120	43	43	188,4	42-79	2	1,15
	2-25	E3869 5873 2570	OZ 25	70	60	50	138,4	55-78	2	1,20
	2-25	E3869 5873 25120	OZ 25	120	60	50	188,4	55-78	2	1,80
DIN50 B	2-25	E3871 5873 2570	OZ 25	70	60	60	171,7	55-98	2	3,05
	4-32	E3871 5873 3273	OZ 32	73	72	72	174,7	65-93	2	3,15
	6-40	E3871 5873 4095	OZ 40	95	85	80	196,7	75-110	2	3,65

For OZ collets (1/10 taper), see catalogue chapter Additional equipment.

Accessories

Spare parts

For Taper/Capacity	Spanner	Nut (1)	Stop end screw (2)	
			L₁	S
40/2-16	03B587316	08B587316	24	19B58718 3
40/2-25	03B587325	08B587325	30	19B58727 3
50/2-25	03B587325	08B587325	30	19B58727 3
50/4-32	03B587332	08B587332	33,5	19B58735 3
50/6-40	03B587340	08B587340	37	19B58742 4

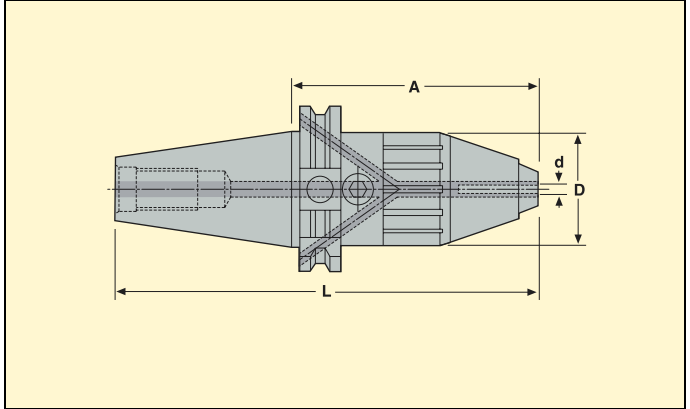
Please check availability in current price and stock-list.

Type 5085 - Universal drill chucks

DIN 69871-ADB



- Run-out 40 µm at 2,5xd maximum.

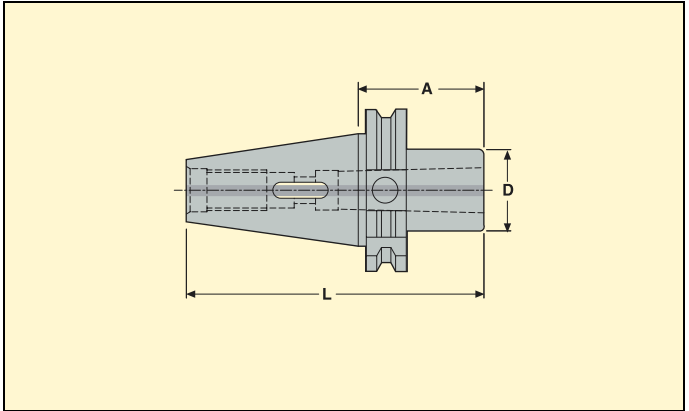


Taper	Capacity d mm	Part No.	Dimensions in mm			Balancing	KG
			A	D	L		
DIN40 ABD	1-13	E3469 5085 13	96	43	164,4	2	1,35
	2,5-16	E3471 5085 16	112	56	213,7	2	4,00

Accessories

For Capacity d	Locking key	
		S
1-13	03M06	6
2,5-16	03M06	6

Please check availability in current price and stock-list.



- Direct run-out 5 µm maximum.
- Design to fit a pull-back screw shown in Accessories.

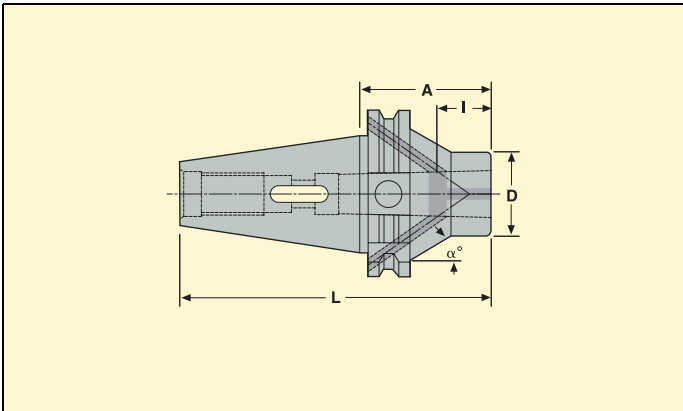
Page 1 of 3		Part No.	Dimensions in mm			Balancing	KG
Taper	MT		A	D	L		
DIN40 AD	1	E4469 536 150	50	25	118,4	2	0,90
	2	E4469 536 250	50	32	118,4	2	0,95
	3	E4469 536 370	70	40	138,4	2	1,05
	4	E4469 536 495	95	48	163,4	2	1,25
DIN50 AD	1	E4471 536 145	45	25	146,7	2	2,70
	2	E4471 536 260	60	32	161,7	2	2,85
	3	E4471 536 365	65	40	166,7	2	2,95
	4	E4471 536 495	95	48	196,7	2	3,10
	5	E4471 536 5105	105	63	206,7	2	3,30

For Morse reducers, see catalogue chapter Additional equipment.

Accessories

For Taper/MT		Pull-back screw	
			S
40/1	950D0640		5
40/2	19B5371035		8
50/1	950D0640		5
50/2	950D1060		8
50/3	950D1250		10
50/4	19B5371660		14

Please check availability in current price and stock-list.



- Direct run-out 5 μm maximum.
- Design to fit a pull-back screw shown in Accessories.

Page 2 of 3			Dimensions in mm				α°	Balancing	
Taper	MT	Part No.	A	D	L	I			
DIN40 B	1	E3869 536 150	50	25	118,4	19	35	2	0,90
	2	E3869 536 250	50	32	118,4	15,5	30	2	0,95
	3	E3869 536 370	70	40	138,4	-	-	2	1,05
DIN50 B	2	E3871 536 260	60	32	161,7	24,5	45	2	2,85
	3	E3871 536 365	65	40	166,7	26	45	2	2,95
	4	E3871 536 495	95	48	196,7	48	30	2	3,10
	5	E3871 536 5105	105	63	206,7	67,5	25	2	3,30

For Morse reducers, see catalogue chapter Additional equipment.

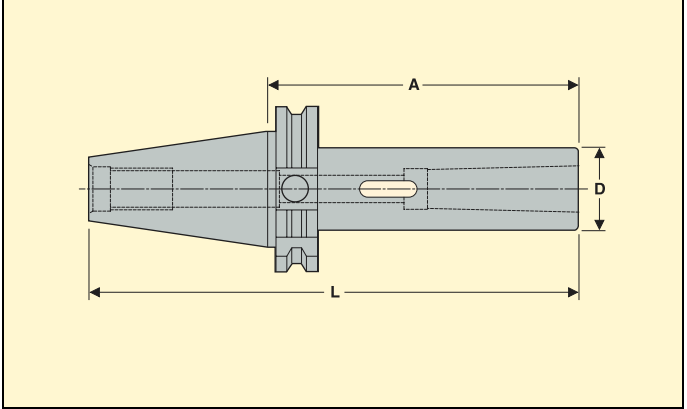
Accessories

For Taper/MT	Pull-back screw	
		S
40/1	950D0640	5
40/2	19B5371035	8
50/2	950D1060	8
50/3	950D1250	10
50/4	19B5371660	14

Please check availability in current price and stock-list.

Type 536 - Holders for Morse Taper with tang, long - DIN 228-2 Form D

DIN 69871-A



- Direct run-out 5 µm maximum.
- Design to fit a pull-back screw shown in Accessories.

Page 3 of 3			Dimensions in mm			Balancing	
Taper	MT	Part No.	A	D	L		
DIN40 A	1	E4469 536 1115	115	25	183,4	2	1,00
	2	E4469 536 2125	125	32	193,4	2	1,30
	3	E4469 536 3145	145	40	213,4	2	1,65
	4	E4469 536 4170	170	48	238,4	2	2,10
DIN50 A	1	E4471 536 1120	120	25	221,7	2	2,85
	2	E4471 536 2135	135	32	236,7	2	3,10
	3	E4471 536 3155	155	40	256,7	2	3,55
	4	E4471 536 4180	180	48	281,7	2	4,05
	5	E4471 536 5215	215	63	316,7	2	5,80

For Morse reducers, see catalogue chapter Additional equipment.

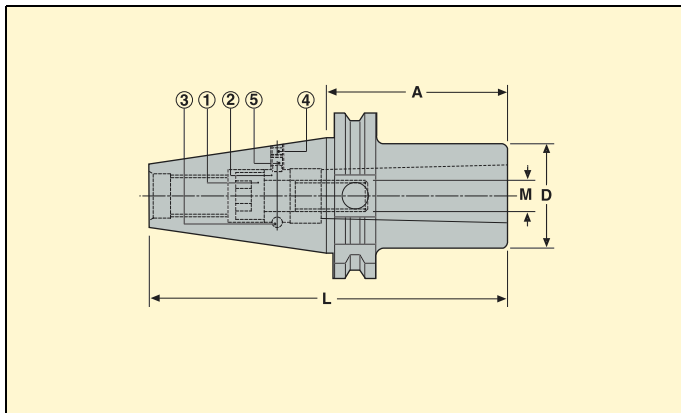
Accessories

For Taper/MT	Pull-back screw	
		S
40/1	950D0660	5
40/2	19B5371070	8
50/1	950D0680	5
50/2	950D10100	8
50/3	950D12100	10
50/4	19B53716110	14

Please check availability in current price and stock-list.



- Direct run-out 5 µm maximum.



Taper	MT	Part No.	Dimensions in mm				Balancing	
			A	D	L	M		
DIN40 A	3	E4469 533 370	70	40	138,4	M12	2	1,00
	4	E4469 533 495	95	48	163,4	M16	2	1,35
DIN50 A	4	E4471 533 470	70	48	171,7	M16	2	2,95
	5	E4471 533 5100	100	63	201,7	M20	2	3,30

Spare parts

For Taper/MT	Screw (1)		Ring (2)	Ball (3)		Screw (4)	Screw (5)
		S			Qty		
40/3	950D1240	10	02B53303	901B03	15	—	950T0508
40/4	19B5331635	12	02B53304	901B04	20	—	950T0508
50/4	19B5331635	12	02B53304	901B04	20	950A504	950T0508
50/5	19B5332040	12	02B53305	901B04	29	950A504	950T0508

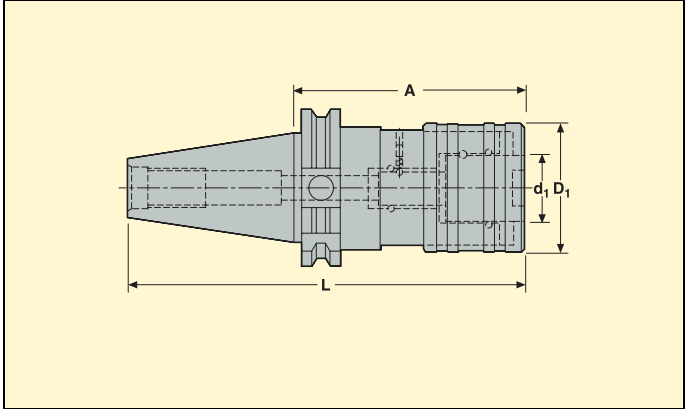
Please check availability in current price and stock-list.

Type 5283 - Quick change tapping chucks with axial compensation

DIN 69871-A



- With extension and compression.

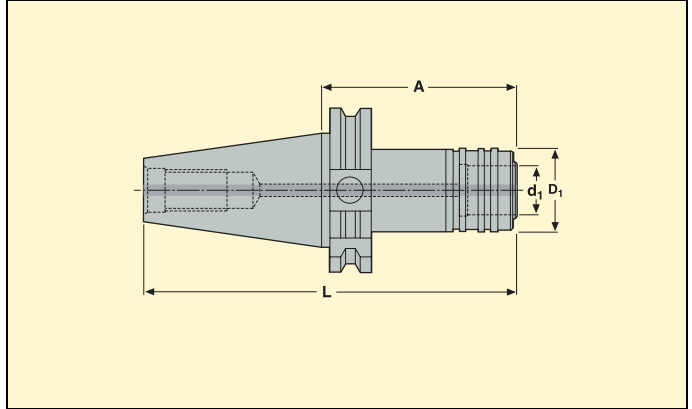



Page 1 of 2		Part No.	For tap adapter		Dimensions in mm					Balancing	KG
Taper	Tapping range		Size	d ₁ mm	Compression	Extension	A	D ₁	L		
DIN40 A	M1,5-M6	ET4469 5283 1	1	13	6,5	6,5	55	29	123,4	-	0,95
	M3-M12	ET4469 5283 2	2	19	7,5	7,5	70	39	138,4	-	1,15
	M8-M20	ET4469 5283 3	3	31	12,5	12,5	100	59	168,4	-	1,85
DIN50 A	M3-M12	ET4471 5283 2	2	19	7,5	7,5	70	39	171,7	-	2,95
	M8-M20	ET4471 5283 3	3	31	12,5	12,5	100	59	201,7	-	3,80
	M14-M33	ET4471 5283 4	4	48	20	20	140	84	241,7	-	5,70

Please check availability in current price and stock-list.
For quick change tap adapters, see catalogue chapter Additional equipment.



- No compensation.
- Maximum coolant pressure 50 bar.



Page 1 of 2	Taper	Tapping range	Part No.	For tap adapter		Dimensions in mm			Balancing	
				Size	d ₁ mm	A	D ₁	L		
	DIN40 AD	M3-M12	ET4469 5260 2	2	19	75	32	143,4	2	1,10
		M8-M20	ET4469 5260 3	3	31	95	52	163,4	2	1,70
		M14-M33	ET4469 5260 4	4	48	140	73	208,4	2	3,20
	DIN50 AD	M3-M12	ET4471 5260 2	2	19	75	32	176,7	2	3,15
		M8-M20	ET4471 5260 3	3	31	95	52	196,7	2	3,70
		M14-M33	ET4471 5260 4	4	48	125	73	226,7	2	4,90

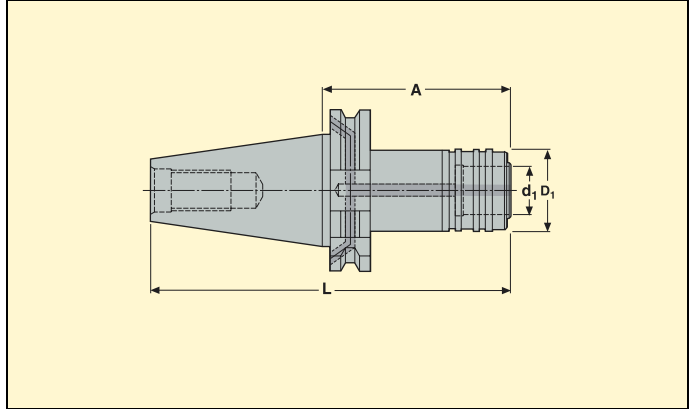
Please check availability in current price and stock-list.
 For quick change tap adapters, see catalogue chapter Additional equipment.


Type 5260 - Quick change tapping chucks for synchronized tapping

DIN 69871-B



- No compensation.
- Maximum coolant pressure 50 bar.



Page 2 of 2	Tapping range	Part No.	For tap adapter		Dimensions in mm			Balancing	
			Size	d ₁ mm	A	D ₁	L		
DIN40 B	M3-M12	ET3869 5260 2	2	19	75	32	143,4	2	1,10
	M8-M20	ET3869 5260 3	3	31	95	52	163,4	2	1,70
	M14-M33	ET3869 5260 4	4	48	140	73	208,4	2	3,20
DIN50-B	M8-M20	ET3871 5260 3	3	31	95	52	196,7	2	3,70
	M14-M33	ET3871 5260 4	4	48	125	73	226,7	2	4,90

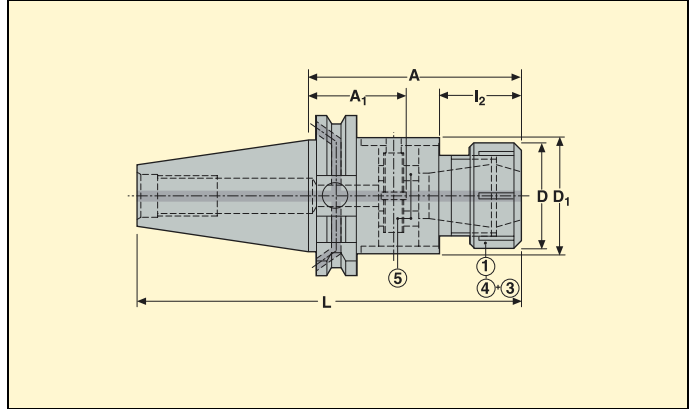
Please check availability in current price and stock-list.
 For quick change tap adapters, see catalogue chapter Additional equipment.

Type 5865 - ER tapping chucks for synchronized tapping - DIN 6499

DIN 69871-ADB



- No compensation.
- Direct run-out 5 μ m maximum.



Taper	Tapping range	Part No.	Size	Dimensions in mm						Balancing	KG
				A	D	D ₁	L	I ₂	A ₁		
DIN40 ADB	M5-M20	E3469 5865 2585	ER 25	85	42	42	153,4	-	39,5	2	1,80
	M5-M30	E3469 5865 32125	ER 32	125	50	63	193,4	37	68,5	2	1,90
DIN50 ADB	M5-M30	E3471 5865 32105	ER 32	105	50	63	206,7	37	48,5	2	3,25
	M12-M33	E3471 5865 40110	ER 40	110	63	63	211,7	-	47,5	2	3,60

For ER collets (16° taper), see catalogue chapter Additional equipment.

Accessories

For Size	Spanner	Sealing nut (4)	Sealing ring (3)		
				L_1	d_1
ER 25	03B587525	08B587525IC	25	01B587525(03-035-...-16)	3-3,5-...-16
ER 32	03B587532	08B587532IC	27,5	01B587532(03-035-...-20)	3-3,5-...-20
ER 40	03B587540	08B587540IC	30,5	01B587540(03-035-...-26)	3-3,5-...-26

Spare parts

Nut (1)		Driving system (5)	
	L_1		S
08B587525X	21	90T586525	3
08B587532X	23	90T586532	5
08B587540X	26	90T586532	5

Please check availability in current price and stock-list.

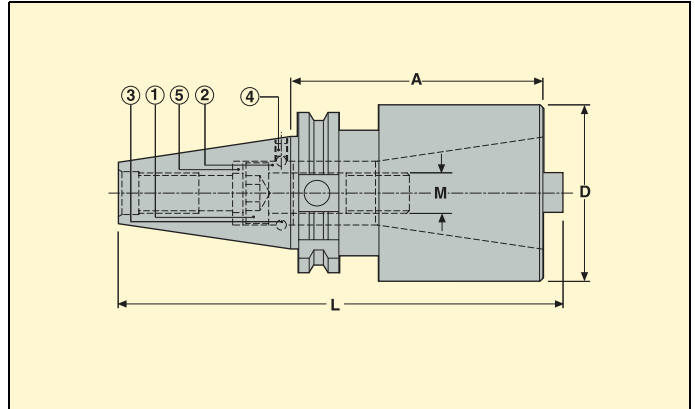
For ER sealing rings Part No., see catalogue chapter Additional equipment.

Type 543 - Taper adapters SA - DIN 2080-DIN 69871-BT-CAT

DIN 69871-A



- Direct run-out 5 µm maximum.



Taper	Taper/ Norm	Part No.	Dimensions in mm				Balancing	KG
			A	D	L	M		
DIN40 A	40 DIN 2080	E4469 543 40100	100	70	176,4	M16	2	2,45
	40 DIN 69871/BT/CAT	E4469 543 40100T	100	70	176,4	M16	2	2,45
DIN45 A	40 DIN 2080	E4470 543 4090	90	70	180,7	M16	2	3,65
	40 DIN 69871/BT/CAT	E4470 543 4090T	90	70	180,7	M16	2	3,65
DIN50 A	40 DIN 2080	E4471 543 4070	70	70	179,7	M16	2	3,60
	40 DIN 69871/BT/CAT	E4471 543 4070T	70	70	179,7	M16	2	3,60
	50 DIN 2080	E4471 543 50120	120	98	234,2	M24	2	6,10
	50 DIN 69871/BT/CAT	E4471 543 50120T	120	98	234,2	M24	2	6,10

Spare parts

For	Screw (1)		Ring (2)	Ball (3)		Screw (4)	Washer (5)
		S			Qty		
E446954340100	950E1645	12	02B54240	901B04	20	950A0505	-
E446954340100T	950E1670	12	02B54240	901B04	20	950A0505	-
E44705434090	950E1645	12	02B54240	901B04	20	950A0505	-
E44705434090T	950E1670	12	02B54240	901B04	20	950A0505	-
E44715434070	950E1645	12	02B54240	901B04	20	950A0505	15B54240
E44715434070T	950E1670	12	02B54240	901B04	20	950A0505	15B54240
E447154350120	19B172460	17	02B54250	901B05	24	950A0806	-
E447154350120T	19B172490	17	02B54250	901B05	24	950A0806	-

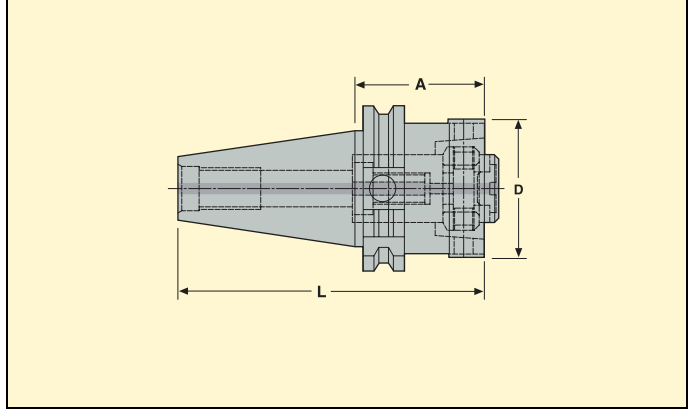
Please check availability in current price and stock-list.


Type 5095 - Taper adapters HSK

DIN 69871-AD



- Direct run-out 5 µm maximum.

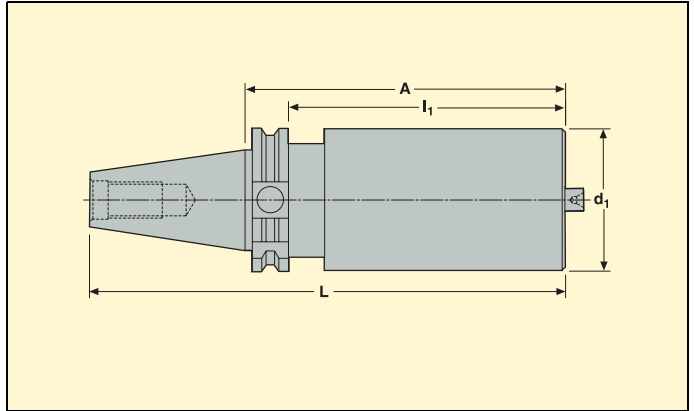


Taper	For HSK Form A/C	Part No.	Dimensions in mm			Equipped with TF unit ref.	Balancing	
			A	D	L			
DIN40 AD	50	E4469 5095 5050	50	55	118,4	24H509550	2	1,30
	63	E4469 5095 6375	75	70	143,4	24H509563	2	2,00
DIN50 AD	50	E4471 5095 5040	40	55	141,7	24H509550	2	2,60
	63	E4471 5095 6340	40	70	141,7	24H509563	2	2,80
	100	E4471 5095 10100	100	110	201,7	24H509510	2	6,00

Accessories

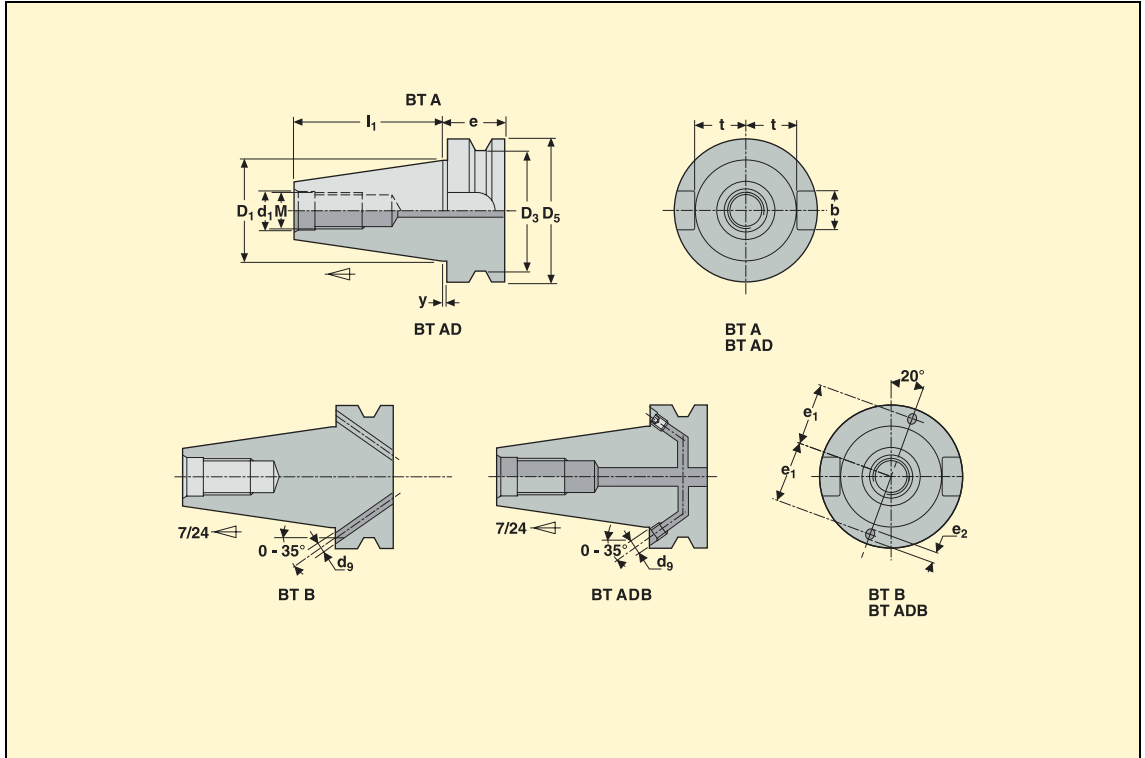
For HSK	Locking key	
		S
50	03M04	4
63	03M05C	5
100	03HL08	8

Please check availability in current price and stock-list.



Page 1 of 2	Taper	d ₁ mm	Part No.	Dimensions in mm			Balancing	
				A	L	I ₁		
DIN40 A		63	E4469 5023 63250	250	318,4	231	2	6,75
DIN45 A		80	E4470 5023 80315	315	397,7	296	2	13,25
DIN50 A		63	E4471 5023 63315	315	416,7	296	2	10,50
		95	E4471 5023 95315	315	416,7	296	2	19,30

Please check availability in current price and stock-list.



Taper	Through coolant form	Part No. prefix	Dimensions in mm												
			D ₁	D ₃	D ₅ *	l ₁	M	d ₉	e ₁	e ₂ max	e	d ₁	t	b	y
BT30	A/AD	E4040...	31,75	38	46	48,4	M12	-	-	-	22	12,5	16,3	16,1	2
BT40	A/AD	E4041...	44,45	53	63	65,4	M16	-	-	-	27	17,0	22,5	16,1	2
BT40 B	B	E4014...	44,45	53	63	65,4	M16	4	27	5	27	17,0	22,5	16,1	2
BT40 ADB	A/AD/B	E3414...	44,45	53	63	65,4	M16	4	27	5	27	17,0	22,5	16,1	2
BT50	A/AD	E5766...	69,85	85	100	101,8	M24	-	-	-	38	25,0	35,4	25,7	3
BT50 B	B	E4016...	69,85	85	100	101,8	M24	6	42	7	38	25,0	35,4	25,7	3
BT50 ADB	A/AD/B	E3416...	69,85	85	100	101,8	M24	6	42	7	38	25,0	35,4	25,7	3

The norm dimensions are applied to all the holders shown in following product pages.

The B coolant through design of B and ADB holders is made according to DIN 69871 Form B.

ADB type holders have two removable sealing plugs in the flange, in order to realize all coolant through types A, AD or B. For spare plugs and pull studs, see catalogue chapter Additional equipment.

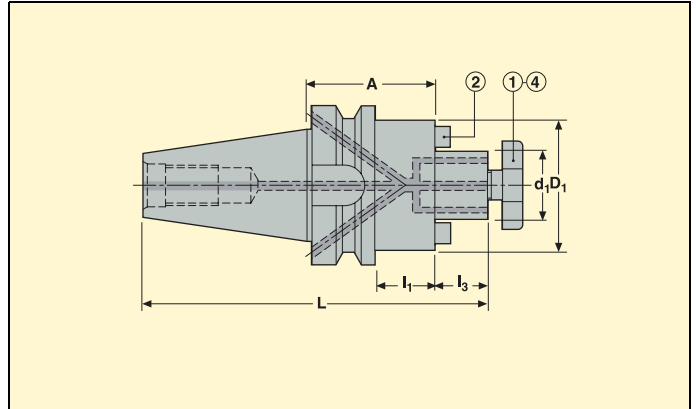
* EPB BT holders with a front end diameter in excess of diameter D₅, are produced with the following clearance diameters: BT30 = Ø45 mm max x 3 mm; BT40 = Ø62 mm max x 8 mm; BT50 = Ø98 mm max x 12 mm. This is compatible with the BT JIS norm which permits free dimensions in front of the taper.

Type 5525 - Shell mill holders, with through coolant channels

BT JIS B 6339-ADB



- Direct run-out 5 μ m maximum.
- With coolant supply channels through the spigot.



Taper	d ₁ mm	Part No.	Dimensions in mm					Balancing	KG
			A	D ₁	L	I ₁	I ₃		
BT40 ADB	16	E3414 5525 1645	45	38	127,4	18	17	2	1,00
	16	E3414 5525 16100	100	38	182,4	73	17	2	1,50
	22	E3414 5525 2245	45	48	129,4	18	19	2	1,15
	22	E3414 5525 22100	100	48	184,4	73	19	2	2,00
	27	E3414 5525 2745	45	60	131,4	18	21	2	1,35
	27	E3414 5525 27100	100	60	186,4	73	21	2	2,55
	32	E3414 5525 3250	50	78	139,4	23	24	2	1,60
	32	E3414 5525 32100	100	78	189,4	73	24	2	4,00
	40	E3414 5525 4050	50	89	142,4	23	27	2	2,10
	BT50 ADB	16	E3416 5525 16100	100	38	218,8	62	17	2
22		E3416 5525 2255	55	48	175,8	17	19	2	3,95
22		E3416 5525 22100	100	48	220,8	62	19	2	4,70
22		E3416 5525 22160	160	48	280,8	122	19	2	5,10
27		E3416 5525 2755	55	60	177,8	17	21	2	4,15
27		E3416 5525 27100	100	60	222,8	62	21	2	5,30
27		E3416 5525 27160	160	60	282,8	122	21	2	6,30
32		E3416 5525 3255	55	78	180,8	17	24	2	4,40
32		E3416 5525 32100	100	78	225,8	62	24	2	6,80
32		E3416 5525 32160	160	78	285,8	122	24	2	8,80
40		E3416 5525 4055	55	89	183,8	17	27	2	4,70
40		E3416 5525 40100	100	89	228,8	62	27	2	7,10
40		E3416 5525 40160	160	89	288,8	122	27	2	9,10

d₁ 40, with 4 threads according to DIN 6357.

Accessories

For d ₁	Spanner	Bolt, through coolant type (4)
16	5811608	5801608L
22	5812210	5802210L
27	5812712	5802712L
32	5813216	5803216L
40	5814020	5804020L

Spare parts

Bolt (1)	Tenon/ Screw (2)
5801608	16C10810164
5802210	16C11012206
5802712	16C11214243
5803216	16C2141421
5804020	16C2161621

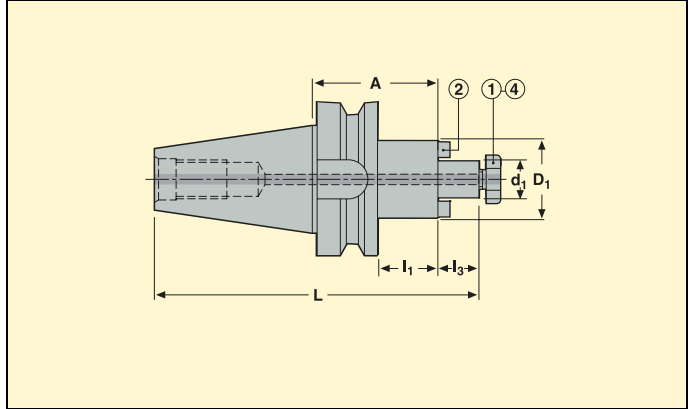
Please check availability in current price and stock-list.

Type 552 - Shell mill holders - ISO 3937

BT JIS B 6339-AD



- Direct run-out 5 μ m maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm					Balancing	
			A	D ₁	L	l ₁	l ₃		
BT30 AD	16	E4040 552 1640	40	32	105,4	18	17	2	0,50
	22	E4040 552 2240	40	40	107,4	18	19	2	0,60
	27	E4040 552 2740	40	48	109,4	18	21	2	0,75
BT40 AD	16	E4041 552 1652	52	32	134,4	25	17	2	1,10
	22	E4041 552 2252	52	40	136,4	25	19	2	1,20
	27	E4041 552 2752	52	48	138,4	25	21	2	1,40
	32	E4041 552 3252	52	58	141,4	25	24	2	1,60
	40	E4041 552 4060	60	70	152,4	33	27	2	2,20
BT50 AD	22	E5766 552 2263	63	40	183,8	25	19	2	3,95
	27	E5766 552 2763	63	48	185,8	25	21	2	4,15
	32	E5766 552 3263	63	58	188,8	25	24	2	4,40
	40	E5766 552 4063	63	70	191,8	25	27	2	4,70
	50	E5766 5521 5060	60	120	191,8	22	30	2	5,45

BT50 AD with d₁ 50 is type 5521, with enlarged face.

Accessories

For d ₁	Spanner	Bolt, through coolant type (4)	Spare parts		
			Bolt (1)	Tenon/ Screw (2)	
16	5811608	5801608L			
22	5812210	5802210L	5801608	16C116	950D0308
27	5812712	5802712L	5802210	16C122	951D0410
32	5813216	5803216L	5802712	16C127	951D0512
40	5814020	5804020L	5803216	16C132	951D0514
50	5815024	5805024L	5804020	16C140	951D0616
			5805024	16C2181831	951D0616

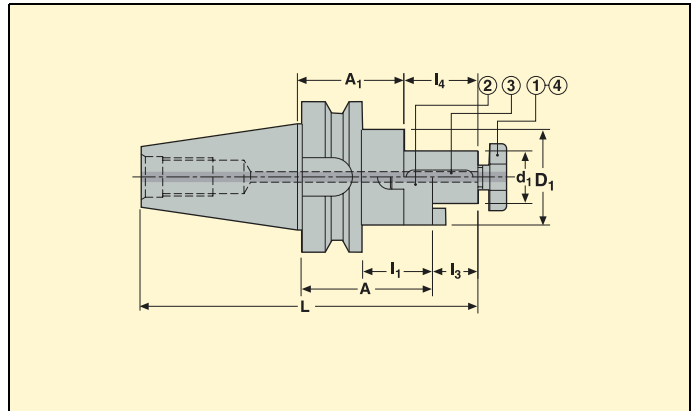
Please check availability in current price and stock-list.

Type 553 - Combi shell mill holders - DIN 6358

BT JIS B 6339-AD



- Direct run-out 5 μ m maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm							Balancing	KG
			A	D ₁	L	I ₁	I ₃	I ₄	A ₁		
BT40 AD	16	E4041 553 1655	55	32	137,4	28	17	27	45	-	1,10
	22	E4041 553 2255	55	40	139,4	28	19	31	43	-	1,25
	27	E4041 553 2755	55	48	141,4	28	21	33	43	-	1,45
	32	E4041 553 3260	60	58	149,4	33	24	38	46	-	1,75
	40	E4041 553 4060	60	70	152,4	33	27	41	46	-	2,05
BT50 AD	16	E5766 553 1670	70	32	188,8	32	17	27	60	-	3,80
	22	E5766 553 2270	70	40	190,8	32	19	31	58	-	4,00
	27	E5766 553 2770	70	48	192,8	32	21	33	58	-	4,20
	32	E5766 553 3270	70	58	195,8	32	24	38	56	-	4,55
	40	E5766 553 4070	70	70	198,8	32	27	41	56	-	4,90
	50	E5766 553 5070	70	90	201,8	32	30	46	54	-	5,70

Accessories

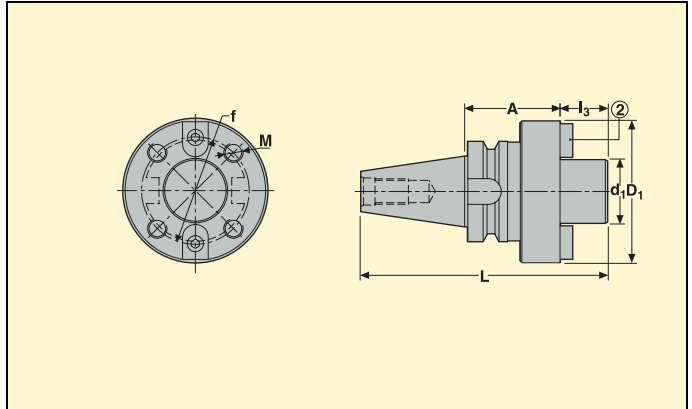
Spare parts

For d ₁	Spanner	Bolt, through coolant type (4)	Bolt (1)	Driving ring (2)	Flat key (3)
16	5811608	5801608L	5801608	58316	04C216
22	5812210	5802210L	5802210	58322	04C222
27	5812712	5802712L	5802712	58327	04C227
32	5813216	5803216L	5803216	58332	04C232
40	5814020	5804020L	5804020	58340	04C240
50	5815024	5805024L	5805024	58350	04C250

Please check availability in current price and stock-list.



- Direct run-out 5 μm maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm						Balancing	
			A	D ₁	L	I ₃	f	M		
BT40 A	40	E4041 569 4060	60	89	155,4	30	66,7	M12	2	2,65
	40	E5766 569 4070	70	89	201,8	30	66,7	M12	2	5,40
BT50 A	60	E5766 569 6080	80	129	221,8	40	101,6	M16	2	8,10

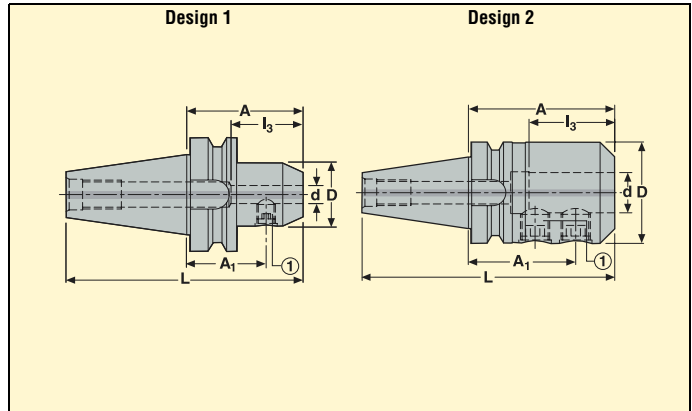
Spare parts

For d ₁	Tenon/ Screw (2)	
40	16C34040	951D0616
60	16C35060	951D1225

Please check availability in current price and stock-list.



- Direct run-out 3 µm maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).

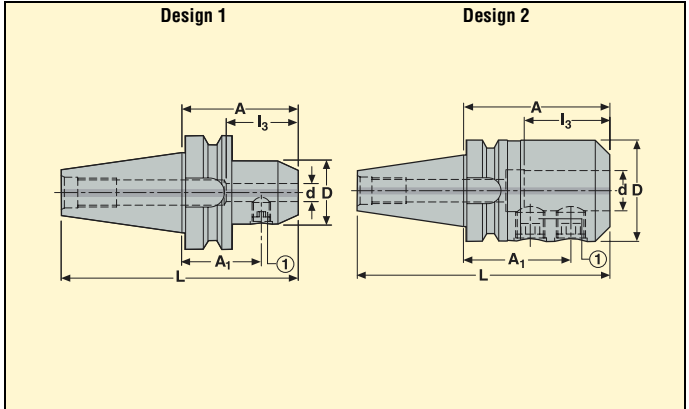


Page 1 of 6		Dimensions in mm							Design	Balancing	
Taper	d mm	Part No.	A	D	L	I ₃	A ₁				
BT30 AD	6	E4040 584 0650	50	25	98,4	30	32,5	1	2	0,50	
	8	E4040 584 0850	50	28	98,4	30	32,5	1	2	0,50	
	10	E4040 584 1060	60	35	108,4	39	40,5	1	2	0,60	
	12	E4040 584 1260	60	42	108,4	44	38	1	2	0,60	
	14	E4040 584 1460	60	44	108,4	44	38	1	2	0,70	
	16	E4040 584 1660	60	48	108,4	47	36,5	1	2	0,75	
BT40 AD	6	E4041 584 0650	50	25	115,4	30	32,5	1	2	1,00	
	8	E4041 584 0850	50	28	115,4	30	32,5	1	2	1,05	
	10	E4041 584 1063	63	35	128,4	39	43,5	1	2	1,10	
	12	E4041 584 1263	63	42	128,4	44	41	1	2	1,15	
	14	E4041 584 1463	63	44	128,4	44	41	1	2	1,15	
	16	E4041 584 1663	63	48	128,4	47	39,5	1	2	1,25	
	18	E4041 584 1863	63	50	128,4	47	39,5	1	2	1,30	
	20	E4041 584 2063	63	52	128,4	49	38,5	1	2	1,35	
	25	E4041 584 2590	90	63	155,4	54	66,5	2	2	2,20	
	32	E4041 584 32100	100	72	165,4	58	76,5	2	2	2,65	

Spare parts

For d	Locking screw (1)	
	Qty	S
6	951C0610	3
8	951C0810	4
10	951C1012	5
12-14	951C1216	6
16-18	951C1416	6
20	951C1616	8
25	951C1820	10
32	951C2020	10

Please check availability in current price and stock-list.



- Direct run-out 3 μ m maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).

Page 2 of 6		Dimensions in mm						Design	Balancing	KG	
Taper	d mm	Part No.	A	D	L	I ₃	A ₁				
BT50 AD	6	E5766 584 0663	63	25	164,8	30	45,5	1	2	3,55	
	8	E5766 584 0863	63	28	164,8	30	45,5	1	2	3,60	
	10	E5766 584 1063	63	35	164,8	39	43,5	1	2	3,80	
	12	E5766 584 1280	80	42	181,8	44	58	1	2	3,80	
	14	E5766 584 1480	80	44	181,8	44	58	1	2	3,95	
	16	E5766 584 1680	80	48	181,8	47	56,5	1	2	4,00	
	18	E5766 584 1880	80	50	181,8	47	56,5	1	2	4,05	
	20	E5766 584 2080	80	52	181,8	49	55,5	1	2	4,10	
	25	E5766 584 25100	100	65	201,8	54	76,5	2	2	4,80	
	32	E5766 584 32105	105	72	206,8	58	81,5	2	2	5,15	
	40	E5766 584 40120	120	90	221,8	68	90,5	2	2	6,60	
	50	E5766 584 50130	130	100	231,8	78	95,5	2	2	7,20	

Spare parts

For d	Locking screw (1)		
		Qty	S
6	951C0610	1	3
8	951C0810	1	4
10	951C1012	1	5
12-14	951C1216	1	6
16-18	951C1416	1	6
20	951C1616	1	8
25	951C1820	2	10
32	951C2020	2	10
40	951C2025	2	10
50	951C2425	2	12

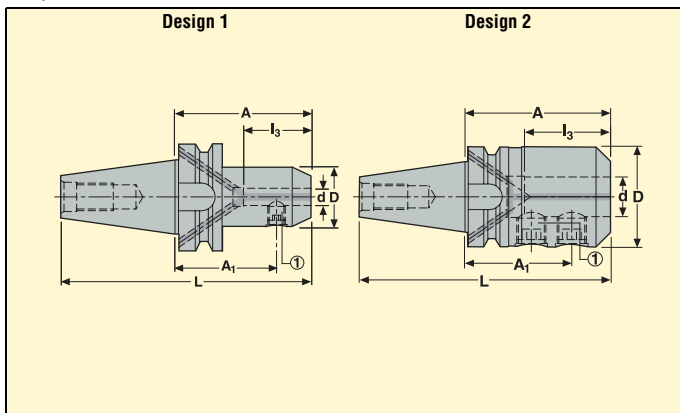
Please check availability in current price and stock-list.

Type 584 - Side lock holders, Weldon - DIN 1835 Form B/ DIN 6535 Form HB

BT JIS B 6339-B



- Direct run-out 3 µm maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



Page 3 of 6		Dimensions in mm							Design	Balancing	
Taper	d mm	Part No.	A	D	L	I ₃	A ₁				
BT40 B	6	E4014 584 0650	50	25	115,4	30	32,5	1	2	1,00	
	8	E4014 584 0850	50	28	115,4	30	32,5	1	2	1,05	
	10	E4014 584 1063	63	35	128,4	39	43,5	1	2	1,10	
	12	E4014 584 1263	63	42	128,4	44	41	1	2	1,15	
	14	E4014 584 1463	63	44	128,4	44	41	1	2	1,15	
	16	E4014 584 1663	63	48	128,4	47	39,5	1	2	1,25	
	18	E4014 584 1863	63	50	128,4	47	39,5	1	2	1,30	
	20	E4014 584 2063	63	52	128,4	49	38,5	1	2	1,35	
	25	E4014 584 2590	90	63	155,4	54	66,5	2	2	2,20	
	32	E4014 584 32100	100	72	165,4	58	76,5	2	2	2,65	

Spare parts

For d	Locking screw (1)		S
	Qty		
6	951C0610	1	3
8	951C0810	1	4
10	951C1012	1	5
12-14	951C1216	1	6
16-18	951C1416	1	6
20	951C1616	1	8
25	951C1820	2	10
32	951C2020	2	10

Please check availability in current price and stock-list.

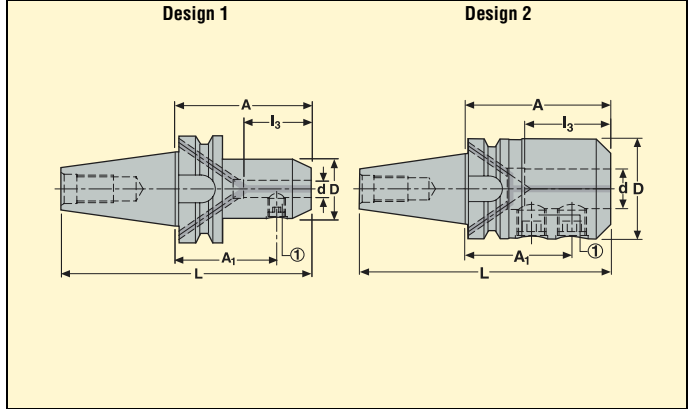
EPB - Monobloc holders BT JIS

Type 584 - Side lock holders, Weldon - DIN 1835 Form B/ DIN 6535 Form HB

BT JIS B 6339-B



- Direct run-out 3 μ m maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



Page 4 of 6	d mm	Part No.	Dimensions in mm					Design	Balancing	
			A	D	L	I ₃	A ₁			
BT50 B	16	E4016 584 1680	80	48	181,8	47	56,5	1	2	4,00
	20	E4016 584 2080	80	52	181,8	49	55,5	1	2	4,10
	25	E4016 584 25100	100	65	201,8	54	76,5	2	2	4,80
	32	E4016 584 32105	105	72	206,8	58	81,5	2	2	5,15
	40	E4016 584 40120	120	90	221,8	68	90,5	2	2	6,60
	50	E4016 584 50130	130	100	231,8	78	95,5	2	2	7,20

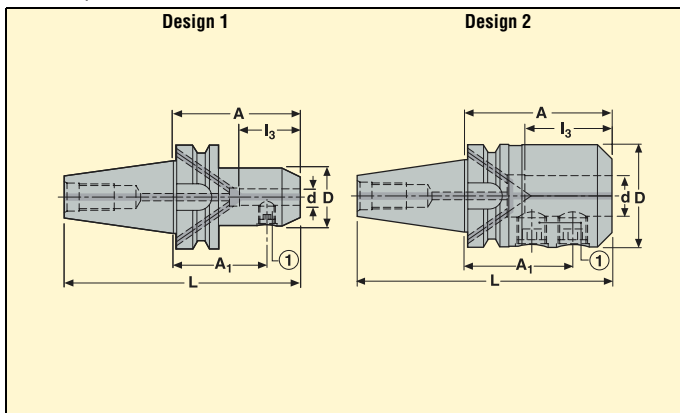
Spare parts

For d	Locking screw (1)		
		Qty	S
16	951C1416	1	6
20	951C1616	1	8
25	951C1820	2	10
32	951C2020	2	10
40	951C2025	2	10
50	951C2425	2	12

Please check availability in current price and stock-list.



- Direct run-out 3 μ m maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



Page 5 of 6		Dimensions in mm						Design	Balancing	KG
Taper	d mm	Part No.	A	D	L	I ₃	A ₁			
BT40 ADB	6	E3414 584 06120	120	25	185,4	30	102,5	1	2	2,30
	8	E3414 584 08120	120	28	185,4	30	102,5	1	2	2,35
	10	E3414 584 10120	120	35	185,4	39	100,5	1	2	2,40
	12	E3414 584 12120	120	42	185,4	44	98	1	2	2,45
	16	E3414 584 16120	120	48	185,4	47	96,5	1	2	2,55
20	E3414 584 20120	120	52	185,4	49	95,5	1	2	2,65	
BT50 ADB	6	E3416 584 06120	120	25	221,8	30	102,5	1	2	4,00
	6	E3416 584 06160	160	25	261,8	30	142,5	1	2	5,20
	8	E3416 584 08120	120	28	221,8	30	102,5	1	2	4,05
	8	E3416 584 08160	160	29	261,8	30	142,5	1	2	5,25
	10	E3416 584 10120	120	35	221,8	39	100,5	1	2	4,20
	10	E3416 584 10160	160	25	261,8	39	140,5	1	2	5,30
	12	E3416 584 12120	120	42	221,8	44	98	1	2	4,40
	12	E3416 584 12160	160	42	261,8	44	138	1	2	5,50
	16	E3416 584 16120	120	48	221,8	47	96,5	1	2	4,90
	16	E3416 584 16160	160	48	261,8	47	136,5	1	2	5,80
	20	E3416 584 20120	120	52	221,8	49	95,5	1	2	5,20
	25	E3416 584 25120	120	63	221,8	54	96,5	2	2	5,40

Spare parts

For d	Locking screw (1)	
	Qty	S
6	951C0610	3
8	951C0810	4
10	951C1012	5
12	951C1216	6
16	951C1416	6
20	951C1616	8
25	951C1820	10

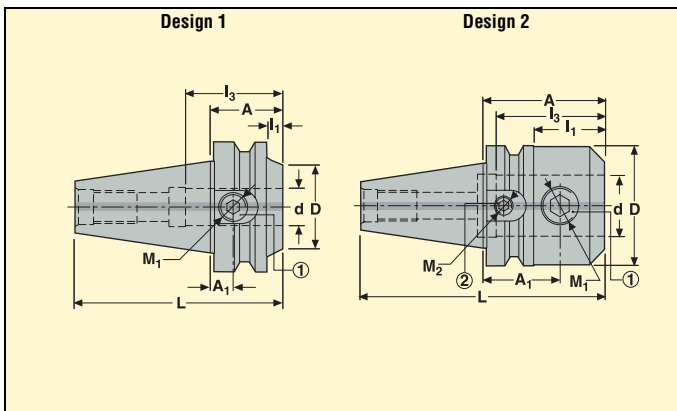
Please check availability in current price and stock-list.

Type 5842 - Side lock holders, Weldon short

BT JIS B 6339-AD



- Direct run-out 5 μ m maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



Page 6 of 6		Dimensions in mm										Design	Balancing	
Taper	d mm	Part No.	A	D	L	I ₁	I ₃	M ₁	M ₂	A ₁				
BT40 AD	16	E4041 5842 1635	35	48	100,4	8	47	M14	–	11,5	1	2	1,00	
	20	E4041 5842 2035	35	50	100,4	8	49	M16	–	10,5	1	2	1,05	
	25	E4041 5842 2560	60	62	125,4	33	54	M18x2	M14	36,5	2	2	1,65	
	32	E4041 5842 3265	65	62	130,4	38	58	M20x2	M10	41,5	2	2	1,75	

Spare parts

For d	Locking screw (1)			Locking screw (2)		
		Qty	S		Qty	S
16	951C1416	1	6	–	–	–
20	951C1616	1	8	–	–	–
25	951C1820	1	10	950A1412	1	6
32	951C2014	1	10	950A1008	1	5

Please check availability in current price and stock-list.

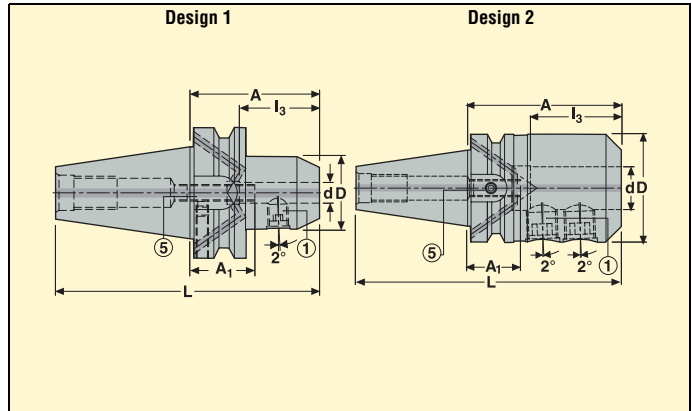
EPB - Monobloc holders BT JIS

Type 5843 - Side lock holders, Whistle Notch - DIN 1835 Form E/ DIN 6535 Form HE

BT JIS B 6339-ADB



- Direct run-out 3 μm maximum.
- Whistle Notch d 16, 20, 25 and 32 with ground face.



Taper	d mm	Part No.	Dimensions in mm					Design	Balancing	KG
			A	D	L	I ₃	A ₁ min-max			
BT40 ADB	6	E3414 5843 0650	50	25	115,4	30	10-20	1	2	1,00
	8	E3414 5843 0850	50	28	115,4	30	10-20	1	2	1,05
	10	E3414 5843 1063	63	35	128,4	39	18-30	1	2	1,10
	12	E3414 5843 1263	63	42	128,4	44	11-21	1	2	1,15
	14	E3414 5843 1463	63	44	128,4	44	11-21	1	2	1,15
	16	E3414 5843 1663	63	48	128,4	47	8-18	1	2	1,25
	18	E3414 5843 1863	63	50	128,4	47	8-18	1	2	1,30
	20	E3414 5843 2063	63	52	128,4	49	6-16	1	2	1,35
	25	E3414 5843 2590	90	63	155,4	54	26-36	2	2	2,20
	32	E3414 5843 32100	100	72	165,4	58	32-42	2	2	2,65
BT50 ADB	6	E3416 5843 0663	63	25	164,8	30	23-33	1	2	3,55
	8	E3416 5843 0863	63	28	164,8	30	23-33	1	2	3,60
	10	E3416 5843 1063	63	35	164,8	39	18-30	1	2	3,80
	12	E3416 5843 1280	80	42	181,8	44	28-38	1	2	3,80
	14	E3416 5843 1480	80	44	181,8	44	28-38	1	2	3,95
	16	E3416 5843 1680	80	48	181,8	47	25-35	1	2	4,00
	18	E3416 5843 1880	80	50	181,8	47	25-35	1	2	4,05
	20	E3416 5843 2080	80	52	181,8	49	23-33	1	2	4,10
	25	E3416 5843 25100	100	65	201,8	54	36-46	2	2	4,80
	32	E3416 5843 32105	105	72	206,8	58	37-47	2	2	5,15

Spare parts

For d	Locking screw (1)			Stop end screw (5)		
		Qty	S		S	
6	951C0610	1	3	19TLR0830	4	
8	951C0810	1	4	19TLR1030	5	
10	951C1012	1	5	19TLR0830	4	
12-14	951C1216	1	6	19TLR1030	5	
16-18	951C1416	1	6	19TLR1030	5	
20	951C1616	1	8	19TLR1030	5	
25	951C1820	2	10	19TLR1030	5	
32	951C2020	2	10	19TLR1030	5	

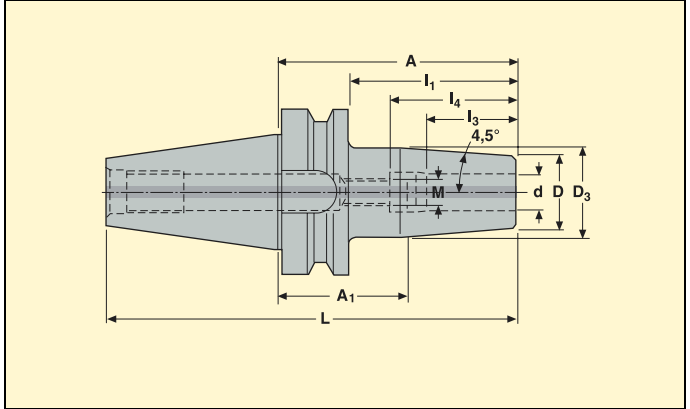
Please check availability in current price and stock-list.

Type 5803 - Shrinkfit holders, DIN type

BT JIS B 6339-AD



- Direct run-out $3\ \mu\text{m}$ ($3\ \mu\text{m}$ at 3xd) maximum.



Page 1 of 3		Dimensions in mm										Balancing	KG
Taper	d mm	Part No.	A	D	D ₃	L	I ₁	I ₃	I ₄	M	A ₁ min-max		
BT30 AD	6	E4040 5803 0680	80	21	27	128,4	58	26	36	M8	44-54	1	0,58
	8	E4040 5803 0880	80	21	27	128,4	58	26	36	M8	44-54	1	0,57
	10	E4040 5803 1080	80	24	32	128,4	58	31	41	M8	39-49	1	0,63
	12	E4040 5803 1280	80	24	32	128,4	58	34	47	M10	33-43	1	0,62
	16	E4040 5803 1680	80	27	34	128,4	58	38	50	M10	30-40	1	0,64

For Shrinkfit extensions, see catalogue chapter Additional equipment.

Accessories

For d	Stop end screw		
		S ₁	∅
6-10	19LS0820T	3	3
12-16	19LS1020A	5	5

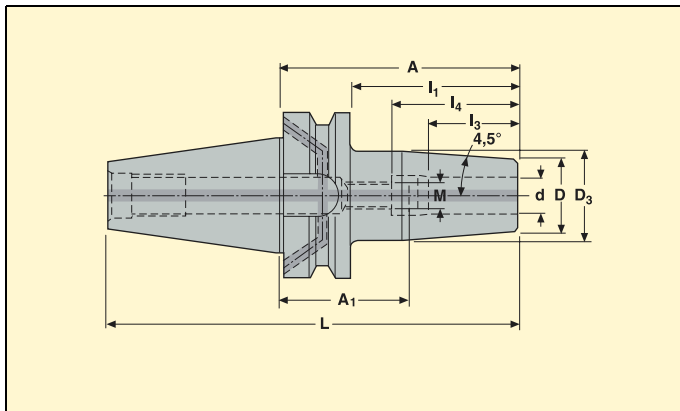
Please check availability in current price and stock-list.
For stop screws setting adapters, see catalogue chapter Additional equipment.

Type 5803 - Shrinkfit holders, DIN type

BT JIS B 6339-ADB



- Direct run-out 3 μm (3 μm at 3x d) maximum.



Page 2 of 3		Dimensions in mm										Balancing	KG
Taper	d mm	Part No.	A	D	D ₃	L	I ₁	I ₃	I ₄	M	A ₁ min-max		
BT40 ADB	6	E3414 5803 0690	90	21	27	155,4	63	26	36	M8	54-64	1	1,17
	6	E3414 5803 06120	120	21	27	185,4	93	26	36	M8	84-94	1	1,27
	6	E3414 5803 06160	160	21	27	225,4	133	26	36	M8	124-134	1	1,41
	8	E3414 5803 0890	90	21	27	155,4	63	26	36	M8	54-64	1	1,16
	8	E3414 5803 08120	120	21	27	185,4	93	26	36	M8	84-94	1	1,26
	8	E3414 5803 08160	160	21	27	225,4	133	26	36	M8	124-134	1	1,40
	10	E3414 5803 1090	90	24	32	155,4	63	31	41	M8	49-59	1	1,23
	10	E3414 5803 10120	120	24	32	185,4	93	31	41	M8	79-89	1	1,38
	10	E3414 5803 10160	160	24	32	225,4	133	31	41	M8	119-129	1	1,60
	12	E3414 5803 1290	90	24	32	155,4	63	34	47	M10	43-53	1	1,21
	12	E3414 5803 12120	120	24	32	185,4	93	34	47	M10	73-83	1	1,37
	12	E3414 5803 12160	160	24	32	225,4	133	34	47	M10	113-123	1	1,58
	14	E3414 5803 1490	90	27	34	155,4	63	34	47	M10	43-53	1	1,26
	14	E3414 5803 14120	120	27	34	185,4	93	34	47	M10	73-83	1	1,44
	16	E3414 5803 1690	90	27	34	155,4	63	38	50	M10	40-50	1	1,24
	16	E3414 5803 16120	120	27	34	185,4	93	38	50	M10	70-80	1	1,43
	16	E3414 5803 16160	160	27	34	225,4	133	38	50	M10	110-120	1	1,66
	18	E3414 5803 1890	90	33	42	155,4	63	38	50	M10	40-50	1	1,39
	18	E3414 5803 18120	120	33	42	185,4	93	38	50	M10	70-80	1	1,69
	20	E3414 5803 2090	90	33	42	155,4	63	42	52	M10	38-48	1	1,37
	20	E3414 5803 20120	120	33	42	185,4	93	42	52	M10	68-78	1	1,67
	20	E3414 5803 20160	160	33	42	225,4	133	42	52	M10	108-118	1	2,00
	25	E3414 5803 25100	100	44	53	165,4	73	44	58	M10	42-52	1	1,81

For Shrinkfit extension, see catalogue chapter Additional equipment.

Accessories

Stop end screw			
For d		S ₁	Ø
6-10	19LS0820T	3	3
12-25	19LS1020A	5	5

Please check availability in current price and stock-list.

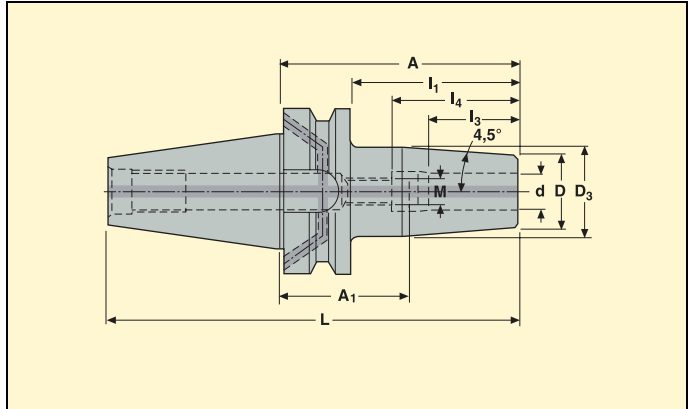
For stop screws setting adapters, see catalogue chapter Additional equipment.

Type 5803 - Shrinkfit holders, DIN type

BT JIS B 6339-ADB



- Direct run-out 3 μ m (3 μ m at 3xd) maximum.



Page 3 of 3		Dimensions in mm										Balancing	KG
Taper	d mm	Part No.	A	D	D ₃	L	I ₁	I ₃	I ₄	M	A ₁ min-max		
BT50 ADB	6	E3416 5803 06100	100	21	27	201,8	62	26	36	M8	64-74	1	3,72
	6	E3416 5803 06160	160	21	27	261,8	122	26	36	M8	124-134	1	3,90
	8	E3416 5803 08100	100	21	27	201,8	62	26	36	M8	64-74	1	3,71
	8	E3416 5803 08160	160	21	27	261,8	122	26	36	M8	124-134	1	3,90
	10	E3416 5803 10100	100	24	32	201,8	62	31	41	M8	59-69	1	3,78
	10	E3416 5803 10160	160	24	32	261,8	122	31	41	M8	119-129	1	4,06
	12	E3416 5803 12100	100	24	32	201,8	62	34	47	M10	53-63	1	3,76
	12	E3416 5803 12160	160	24	32	261,8	122	34	47	M10	113-123	1	4,04
	14	E3416 5803 14100	100	27	34	201,8	62	34	47	M10	53-63	1	3,81
	16	E3416 5803 16100	100	27	34	201,8	62	38	50	M10	50-60	1	3,76
	16	E3416 5803 16160	160	27	34	261,8	122	38	50	M10	110-120	1	4,10
	18	E3416 5803 18100	100	33	42	201,8	62	38	50	M10	50-60	1	3,95
	20	E3416 5803 20100	100	33	42	201,8	62	42	52	M10	48-58	1	3,90
	20	E3416 5803 20160	160	33	42	261,8	122	42	52	M10	108-118	1	4,43
	25	E3416 5803 25110	110	44	53	211,8	72	44	58	M10	52-62	1	4,35
	25	E3416 5803 25160	160	44	53	261,8	122	44	58	M10	102-112	1	5,10
	32	E3416 5803 32110	110	44	53	211,8	72	52	62	M10	48-58	1	4,19

For Shrinkfit extensions, see catalogue chapter Additional equipment.

Accessories

For d	Stop end screw		
		S ₁	∅
6-10	19LS0820T	3	3
12-32	19LS1020A	5	5

Please check availability in current price and stock-list.

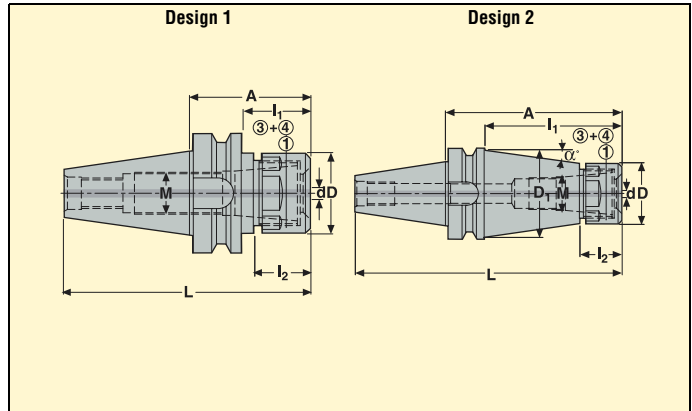
For stop screws setting adapters, see catalogue chapter Additional equipment.

Type 5872 - D type precision collet chucks

BT JIS B 6339-AD



- Direct run-out 3 μm (5 μm with collet at 3xd) maximum.



Taper	Capacity d mm	Part No.	Size	Dimensions in mm							Design	α°	Balancing	KG
				A	D	D ₁	L	I ₁	I ₂	M				
BT40 AD	1-6	E4041 5872 1045	D type 10	45	15,7	–	110,4	18	–	M6	1	–	1	1,05
	1-6	E4041 5872 10100	D type 10	100	15,7	25,4	165,4	73	14	M6	2	5°	1	1,15
	1-10	E4041 5872 1655	D type 16	55	27	–	120,4	28	23,3	M8	1	–	1	1,10
	1-10	E4041 5872 16160	D type 16	160	27	46,2	225,4	133	23,3	M8	2	5°	1	1,40
	2-16	E4041 5872 2455	D type 24	55	36	–	120,4	28	–	M18x1,5	1	–	1	1,10
	2-16	E4041 5872 24160	D type 24	160	36	54,7	225,4	133	26,3	M18x1,5	2	5°	1	1,45
	2-20	E4041 5872 2963	D type 29	63	42	–	128,4	36	29,7	M22x1,5	1	–	1	1,15
	2-20	E4041 5872 29160	D type 29	160	42	60,0	225,4	133	29,7	M22x1,5	2	5°	1	1,45
BT50 AD	2-16	E5766 5872 24100	D type 24	100	36	–	201,8	62	26,3	M18x1,5	1	–	1	3,85
	2-20	E5766 5872 29100	D type 29	100	42	–	201,8	62	29,7	M22x1,5	1	–	1	3,90

For D type collets (10° taper), see catalogue chapter Additional equipment.

Accessories

Spare parts

For Size	Compression tool	Stop end screw	Sealing nut (4)		Sealing ring (3)		Nut (1)				
			S	L ₁	S	d ₁	L ₁	S			
D type 10	03D587210	19B5870610	2	08B587210BE	20	14	01B587210(03-035-...-06)	3-3,5-...-6	08B587210	14	14
D type 16	03D587216	19B5870812	3	08B587216BE	25	24	01B587216(03-035-...-10)	3-3,5-...-10	08B587216	19	24
D type 24	03D587224	19B58718	3	08B587224BE	28	32	01B587224(03-035-...-16)	3-3,5-...-16	08B587224	22	32
D type 29	03D587229	19B58722	3	08B587229BE	31	38	01B587229(03-035-...-20)	3-3,5-...-20	08B587229	25	38

Please check availability in current price and stock-list.

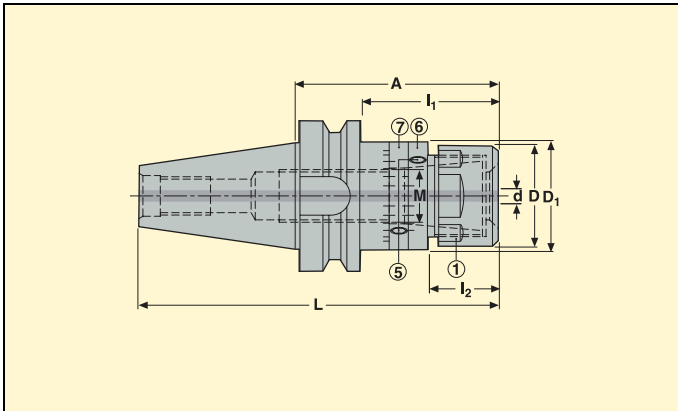
For D type sealing rings Part No., see catalogue chapter Additional equipment.

Type Q5872 - D type precision collet chucks, Libraflex balanceable

BT JIS B 6339-AD



- Direct run-out 3 μm (5 μm with collet at 3xd) maximum.



Taper	Capacity d mm	Part No.	Size	Dimensions in mm							Max. bal. compens. g.mm	Max rpm	KG
				A	D	D ₁	L	I ₁	I ₂	M			
BT40 AD	1-10	EQ4041 5872 1675	D type 16	75	27	37	140,4	48	23,3	M8	50 g.mm	24 000	1,15
	2-16	EQ4041 5872 2480	D type 24	80	36	37	145,4	53	26,3	M18x1,5	50 g.mm	24 000	1,20
	2-20	EQ4041 5872 2985	D type 29	85	42	45	150,4	58	29,7	M22x1,5	75 g.mm	20 000	1,30

For D type collets (10° taper), see catalogue chapter Additional equipment.

Accessories

For Size	Ring locking key	
		S
D type 16	03M025	2,5
D type 24	03M025	2,5
D type 29	03M025	2,5

Spare parts

	Nut (1)		Balancing ring (6)	Balancing ring (7)	Ring locking screw (5)	
		L ₁ S				S
	08B587216	19 24	00Q03003708B	00Q03003708A	19A71010	2,5
	08B587224	22 32	00Q03003708B	00Q03003708A	19A71010	2,5
	08B587229	25 38	00Q03804508B	00Q03804508A	19A71010	2,5

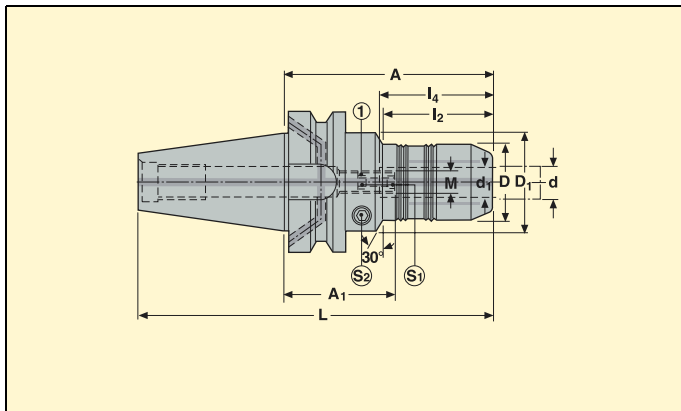
Please check availability in current price and stock-list.
Accessories and Spare parts of holders type 5872 are also suitable.

Type 5834 - Hydraulic chucks

BT JIS B 6339-ADB



- Run-out 3 μm maximum at 3xd.



Taper	d ₁ mm	Part No.	Dimensions in mm								Balancing	KG
			A	D	D ₁	L	L ₂	L ₄	M	A ₁ min-max		
BT40 ADB	6	E3414 5834 0690	90	26	50	155,4	23	38	M5	52-62	1	1,65
	8	E3414 5834 0890	90	28	50	155,4	24	38	M5	52-62	1	1,65
	10	E3414 5834 1090	90	30	50	155,4	34	42	M8	48-58	1	1,55
	12	E3414 5834 1290	90	32	50	155,4	40	47	M10	43-53	1	1,50
	14	E3414 5834 1490	90	34	50	155,4	40	47	M10	53-53	1	1,50
	16	E3414 5834 1690	90	38	50	155,4	46	50	M10	40-50	1	1,50
	18	E3414 5834 1890	90	40	50	155,4	48	50	M10	40-50	1	1,50
	20	E3414 5834 2090	90	42	50	155,4	47	52	M10	48-58	1	2,20
BT50 ADB	12	E3416 5834 12105	105	32	50	206,8	40	47	M10	58-68	1	4,80
	20	E3416 5834 20105	105	42	50	206,8	47	52	M10	53-63	1	6,50
	32	E3416 5834 32115	115	64	70	216,8	50	63	M10	52-62	1	6,80

For reduction sleeves and control gauges, see catalogue chapter Additional equipment.

Accessories

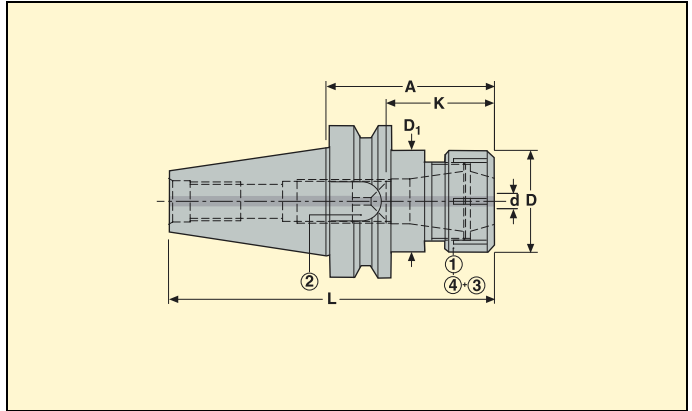
Spare parts

For d ₁	Locking key		Stop end screw (1)		
	S ₂		S ₁	∅	
6-8	03M03	3	19LS0520A	3	3
10	03M03	3	19LS0820A	3	3
12-32	03M05C	5	19LS1020A	5	5

Please check availability in current price and stock-list.



• Direct run-out 5 μm maximum.



Page 1 of 2		Dimensions in mm									Balancing	KG
Taper	Capacity d mm	Part No.	Size	A	D	D ₁	L	K min-max				
BT30 AD	0,5-10	E4040 5875 1660	ER 16	60	32	32	108,4	30-45	2	0,55		
	1-16	E4040 5875 2565	ER 25	65	42	42	113,4	38-68	2	0,65		
BT40 AD	0,5-10	E4041 5875 1670	ER 16	70	32	32	135,4	30-45	2	1,10		
	0,5-10	E4041 5875 16120	ER 16	120	32	32	185,4	30-45	2	1,15		
	1-16	E4041 5875 2570	ER 25	70	42	42	135,4	38-68	2	1,20		
	1-16	E4041 5875 25120	ER 25	120	42	42	185,4	38-68	2	1,30		
	2-20	E4041 5875 3270	ER 32	70	50	50	135,4	43-77	2	1,25		
	2-20	E4041 5875 32120	ER 32	120	50	50	185,4	43-77	2	1,40		
	3-26	E4041 5875 4075	ER 40	75	63	63	140,4	50-72	2	1,65		
BT50 AD	0,5-10	E5766 5875 16120	ER 16	120	32	32	221,8	30-44	2	3,20		
	1-16	E5766 5875 2590	ER 25	90	42	42	191,8	38-68	2	3,30		
	2-20	E5766 5875 3290	ER 32	90	50	50	191,8	43-117	2	3,35		
	2-20	E5766 5875 32150	ER 32	150	50	50	251,8	43-121	2	3,70		
	3-26	E5766 5875 40100	ER 40	100	63	63	201,8	50-84	2	3,90		

For ER collets (16° taper, standard and precision types) and ER extensions, see catalogue chapter Additional equipment.

Accessories

For Size	Spanner	Sealing nut (4)	Sealing ring (3)	
		L ₁	d ₁	d ₁
ER 16	03B587516	08B587516IC 22,5	01B587516(03-035-...-10)	3-3,5-...-10
ER 25	03B587525	08B587525IC 25	01B587525(03-035-...-16)	3-3,5-...-16
ER 32	03B587532	08B587532IC 27,5	01B587532(03-035-...-20)	3-3,5-...-20
ER 40	03B587540	08B587540IC 30,5	01B587540(03-035-...-26)	3-3,5-...-26

Spare parts

Nut (1)		Stop end screw (2)	
	L ₁	S	S
08B587516X	18	19B58708R10	3/4
08B587525X	21	19B58718	3
08B587532X	23	19B58722	3
08B587540X	26	19B58730	3

Please check availability in current price and stock-list.

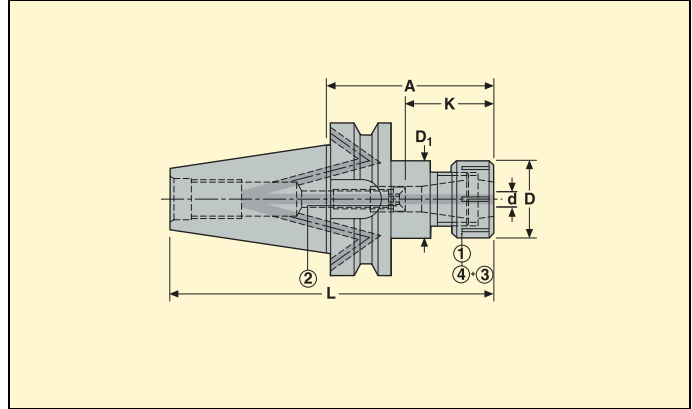
For ER sealing rings Part No., see catalogue chapter Additional equipment.

Type 5875 - ER collet chucks - DIN 6499

BT JIS B 6339-B



• Direct run-out 5 µm maximum.



Page 2 of 2		Dimensions in mm									Balancing	KG
Taper	Capacity d mm	Part No.	Size	A	D	D ₁	L	K min-max				
BT40 B	0,5-10	E4014 5875 1670	ER 16	70	32	32	135,4	30-45	2	1,10		
	0,5-10	E4014 5875 16120	ER 16	120	32	32	185,4	30-45	2	1,15		
	1-16	E4014 5875 2570	ER 25	70	42	42	135,4	38-68	2	1,20		
	1-16	E4014 5875 25120	ER 25	120	42	42	185,4	38-68	2	1,30		
	2-20	E4014 5875 3270	ER 32	70	50	50	135,4	43-77	2	1,25		
	2-20	E4014 5875 32120	ER 32	120	50	50	185,4	43-77	2	1,40		
	3-26	E4014 5875 40100	ER 40	100	63	63	165,4	50-73	2	1,95		
BT50 B	0,5-10	E4016 5875 16120	ER 16	120	32	32	221,8	30-44	2	3,20		
	2-20	E4016 5875 3290	ER 32	90	50	50	191,8	43-117	2	3,35		
	2-20	E4016 5875 32150	ER 32	150	50	50	251,8	43-121	2	3,70		
	3-26	E4016 5875 40100	ER 40	100	63	63	201,8	50-84	2	3,90		

For ER collets (16° taper, standard and precision types) and ER extensions, see catalogue chapter Additional equipment.

Accessories

Spare parts

For Size	Spanner	Sealing nut (4)	Sealing ring (3)			Nut (1)	Stop end screw (2)		
		L ₁			d ₁		L ₁	S	
ER 16	03B587516	08B5875161C	22,5	01B587516(03-035-...-10)	3-3,5-...-10	08B587516X	18	19B58708R10	3/4
ER 25	03B587525	08B5875251C	25	01B587525(03-035-...-16)	3-3,5-...-16	08B587525X	21	19B58718	3
ER 32	03B587532	08B5875321C	27,5	01B587532(03-035-...-20)	3-3,5-...-20	08B587532X	23	19B58722	3
ER 40	03B587540	08B5875401C	30,5	01B587540(03-035-...-26)	3-3,5-...-26	08B587540X	26	19B58730	3

Please check availability in current price and stock-list.

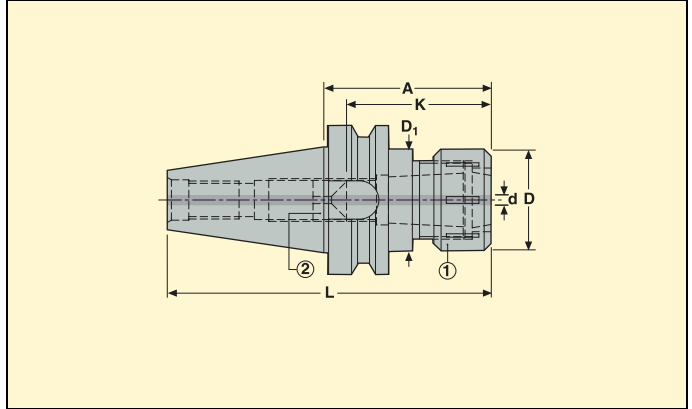
For ER sealing rings Part No., see catalogue chapter Additional equipment.

Type 5873 - OZ collet chucks - DIN 6388

BT JIS B 6339-AD



- Direct run-out 5 μm maximum.



Taper	Capacity d mm	Part No.	Size	Dimensions in mm					Balancing	KG
				A	D	D ₁	L	K min-max		
BT30 AD	2-16	E4040 5873 1660	OZ 16	60	43	43	108,4	42-57	2	0,70
	2-25	E4040 5873 2580	OZ 25	80	60	46	128,4	55-68	2	0,90
BT40 AD	2-16	E4041 5873 1670	OZ 16	70	43	43	135,4	42-79	2	1,10
	2-16	E4041 5873 16120	OZ 16	120	43	43	185,4	42-79	2	1,15
	2-25	E4041 5873 2570	OZ 25	70	60	60	135,4	55-78	2	1,25
	2-25	E4041 5873 25120	OZ 25	120	60	60	185,4	55-78	2	1,80
	4-32	E4041 5873 3290	OZ 32	90	72	63	155,4	65-75	2	1,75
BT50 AD	2-25	E5766 5873 2585	OZ 25	85	60	60	186,8	55-98	2	3,15
	4-32	E5766 5873 3290	OZ 32	90	72	72	191,8	65-86	2	3,30
	6-40	E5766 5873 4095	OZ 40	95	85	85	196,8	75-110	2	3,95

For OZ collets (1/10 taper), see catalogue chapter Additional equipment.

Accessories

Spare parts

For Taper/Capacity	Spanner	Nut (1)	Stop end screw (2)	
		L ₁	S	
30/2-16	03B587316	08B587316	24	19B58718
30/2-25	03B587325	08B587325	30	19B58718
40/2-16	03B587316	08B587316	24	19B58718
40/2-25	03B587325	08B587325	30	19B58727
40/4-32	03B587332	08B587332	33,5	19B58727
50/2-25	03B587325	08B587325	30	19B58727
50/4-32	03B587332	08B587332	33,5	19B58735
50/6-40	03B587340	08B587340	37	19B58742

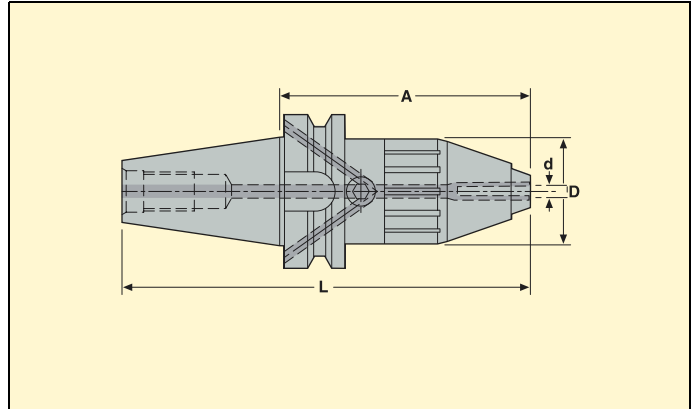
Please check availability in current price and stock-list.

Type 5085 - Universal drill chucks

BT JIS B 6339-ADB



- Run-out 40 μm at 2,5xd maximum.

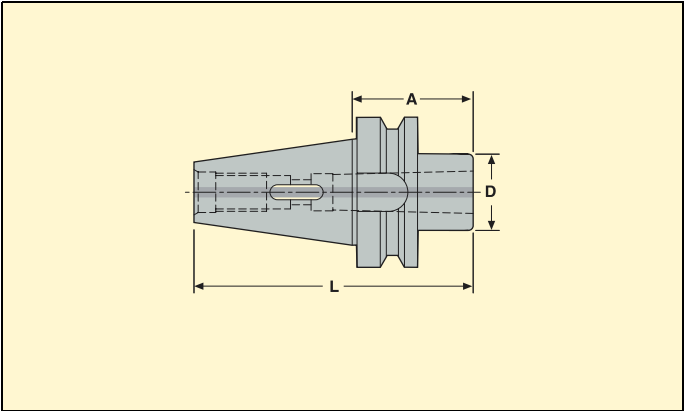


Taper	Capacity d mm	Part No.	Dimensions in mm			Balancing	
			A	D	L		
BT40 ADB	1-13	E3414 5085 13	104	43	169,4	-	1,45
	2,5-16	E3416 5085 16	131	56	232,8	-	5,00

Accessories

		Locking key	
For Capacity d		S	
1-13	03M06	6	
2,5-16	03M06	6	

Please check availability in current price and stock-list.



- Direct run-out 5 µm maximum.
- Designed to fit a pull-back screw shown in Accessories.

Page 1 of 3			Dimensions in mm			Balancing	
Taper	MT	Part No.	A	D	L		
BT40 AD	1	E4041 536 150	50	25	115,4	2	0,95
	2	E4041 536 250	50	32	115,4	2	1,00
	3	E4041 536 370	70	40	135,4	2	1,10
	4	E4041 536 495	95	48	160,4	2	1,30
BT50 AD	1	E5766 536 145	45	25	146,8	2	3,50
	2	E5766 536 260	60	32	161,8	2	3,65
	3	E5766 536 365	65	40	166,8	2	3,65
	4	E5766 536 495	95	48	196,8	2	3,80
	5	E5766 536 5105	105	63	206,8	2	3,80

For Morse reducers, see catalogue chapter Additional equipment.

Accessories

		Pull-back screw
For Taper/MT		S
40/1	950D0640	5
40/2	19B5371035	8
50/1	950D0640	5
50/2	950D1060	8
50/3	950D1250	10
50/4	19B5371660	14

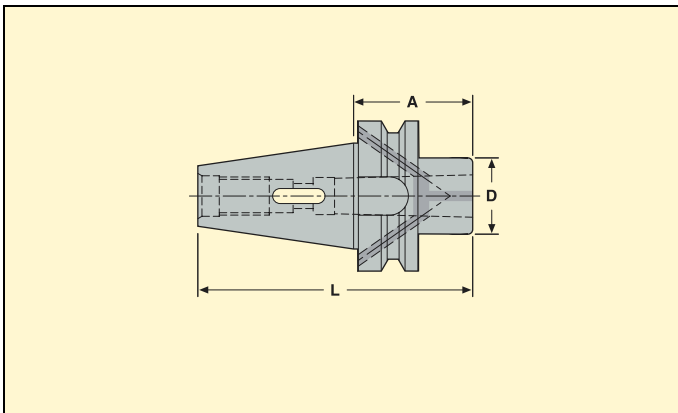
Please check availability in current price and stock-list.

Type 536 - Holders for Morse Taper with tang - DIN 228-2 Form D

BT JIS B 6339-B



- Direct run-out 5 µm maximum.
- Designed to fit a pull-back screw shown in Accessories.



Page 2 of 3			Dimensions in mm			Balancing	KG
Taper	MT	Part No.	A	D	L		
BT40 B	2	E4014 536 250	50	32	115,4	2	0,95
	3	E4014 536 370	70	40	135,4	2	1,05
BT50 B	3	E4016 536 365	65	40	166,8	2	3,65
	4	E4016 536 495	95	48	196,8	2	3,80

For Morse reducers, see catalogue chapter Additional equipment.

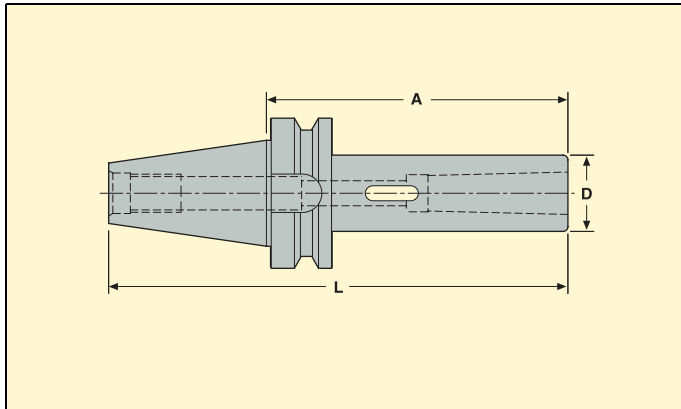
Accessories

For Taper/MT	Pull-back screw	
		S
40/2	19B5371035	8
50/3	950D1250	10
50/4	19B5371660	14

Please check availability in current price and stock-list.

Type 536 - Holders for Morse Taper with tang, long - DIN 228-2 Form D

BT JIS B 6339-A



- Direct run-out 5 µm maximum.
- Designed to fit a pull-back screw shown in Accessories.

Page 3 of 3	Taper	MT	Part No.	Dimensions in mm			Balancing	KG
				A	D	L		
BT40 A	1	E4041 536 1115	115	25	180,4	2	1,15	
	2	E4041 536 2125	125	32	190,4	2	1,25	
	3	E4041 536 3145	145	40	210,4	2	1,65	
	4	E4041 536 4170	170	48	235,4	2	2,25	
BT50 A	1	E5766 536 1120	120	25	221,8	2	3,50	
	2	E5766 536 2135	135	32	236,8	2	4,00	
	3	E5766 536 3155	155	40	256,8	2	4,50	
	4	E5766 536 4180	180	48	281,8	2	4,85	

For Morse reducers, see catalogue chapter Additional equipment.

Accessories

For Taper/MT	Pull-back screw	
		S
40/1	950D0660	5
40/2	19B5371070	8
50/1	950D0680	5
50/2	950D10100	8
50/3	950D12100	10
50/4	19B53716110	14

Please check availability in current price and stock-list.

EPB - Monobloc holders BT JIS

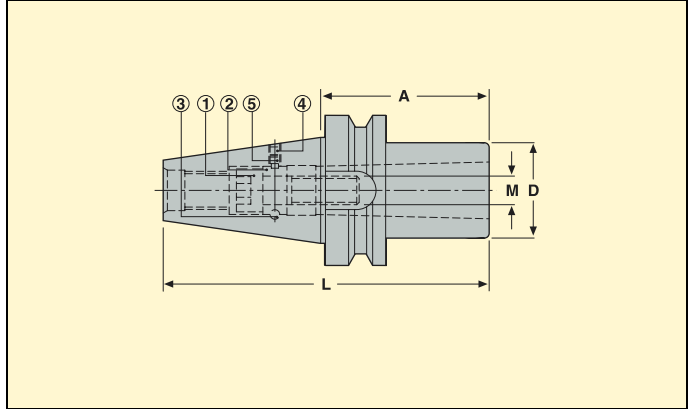


Type 533 - Holders for Morse Taper with thread - DIN 6364 Form B/ DIN 228-2 Form C

BT JIS B 6339-A



- Direct run-out 5 μm maximum.



Taper	MT	Part No.	Dimensions in mm				Balancing	KG
			A	D	L	M		
BT40 A	3	E4041 533 370	70	40	135,4	M12	2	1,10
	4	E4041 533 495	95	48	160,4	M16	2	1,35
BT50 A	4	E5766 533 470	70	48	171,8	M16	2	3,50
	5	E5766 533 5100	100	63	201,8	M20	2	4,15

Spare parts

For Taper/MT	Screw (1)		Ring (2)	Ball (3)		Screw (4)	Screw (5)
		S			Qty		
40/3	950D1240	10	02B53303	901B04	15	-	950T0508
40/4	19B5331635	12	02B53304	901B04	20	-	950T0508
50/4	19B5331635	12	02B53304	901B04	20	950A0504	950T0508
50/5	19B5332040	12	02B53305	901B04	29	950A0504	950T0508

Please check availability in current price and stock-list.

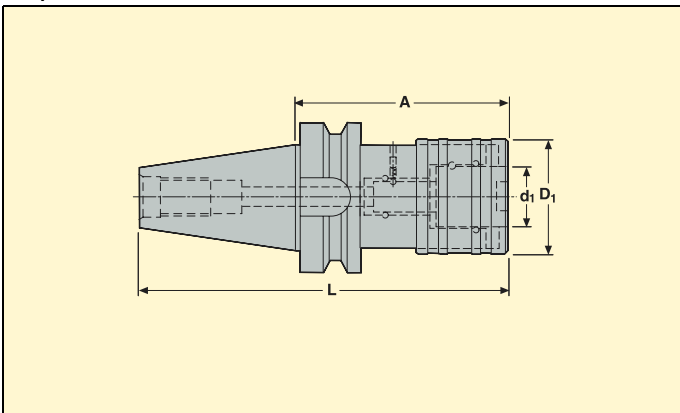
EPB - Monobloc holders BT JIS

Type 5283 - Quick change tapping chucks with axial compensation

BT JIS B 6339-A



- With extension and compression.



Taper	Tapping range	Part No.	For tap adapter		Dimensions in mm					Balancing	KG
			Size	d ₁ mm	Compression	Extension	A	D ₁	L		
BT30 A	M3-M12	ET4040 5283 2	2	19	7,5	7,5	65	39	113,4	–	0,60
	M3-M12	ET4041 5283 2	2	19	7,5	7,5	70	39	135,4	–	1,10
BT40 A	M8-M20	ET4041 5283 3	3	31	12,5	12,5	100	59	165,4	–	1,85
	M3-M12	ET5766 5283 2	2	19	7,5	7,5	80	39	181,8	–	4,00
BT50 A	M8-M20	ET5766 5283 3	3	31	12,5	12,5	105	59	206,8	–	4,50
	M14-M33	ET5766 5283 4	4	48	20	20	140	84	241,8	–	6,10

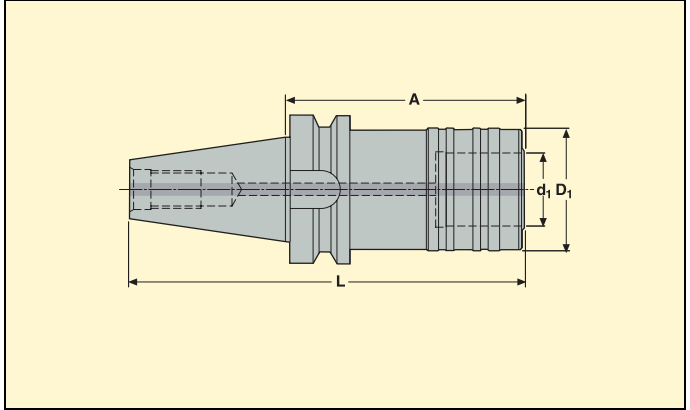
Please check availability in current price and stock-list. For quick change tap adapters, see catalogue chapter Additional equipment.

Type 5260 - Quick change tapping chucks for synchronized tapping

BT JIS B 6339-AD



- No compensation.
- Maximum coolant pressure 50 bar.

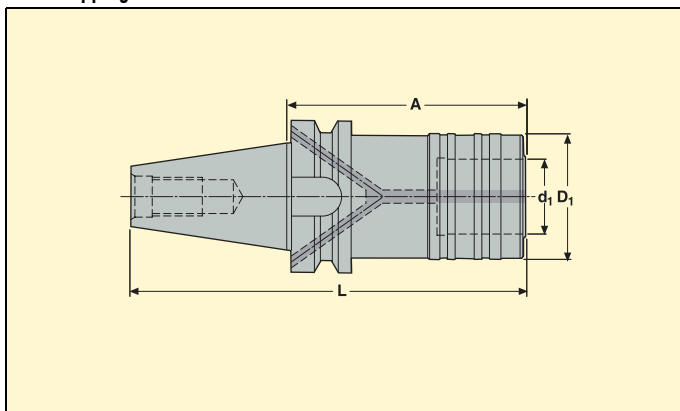



Page 1 of 2		Part No.	For tap adapter		Dimensions in mm			Balancing	
Taper	Tapping range		Size	d ₁ mm	A	D ₁	L		
BT40 AD	M3-M12	ET4041 5260 2	2	19	80	32	145,4	-	1,25
	M8-M20	ET4041 5260 3	3	31	100	52	165,4	-	1,90
	M14-M33	ET4041 5260 4	4	48	130	73	195,4	-	2,90
BT50 AD	M3-M12	ET5766 5260 2	2	19	85	32	186,8	-	4,25
	M8-M20	ET5766 5260 3	3	31	110	52	211,8	-	4,55
	M14-M33	ET5766 5260 4	4	48	143	73	244,8	-	5,60

Please check availability in current price and stock-list.
 For quick change tap adapters, see catalogue chapter Additional equipment.



- No compensation.
- Maximum coolant pressure 50 bar.



Page 2 of 2		Part No.	For tap adapter		Dimensions in mm			Balancing	KG 
Taper	Tapping range		Size	d ₁ mm	A	D ₁	L		
BT40 B	M3-M12	ET4014 5260 2	2	19	80	32	145,4	-	1,25
	M8-M20	ET4014 5260 3	3	31	100	52	165,4	-	1,90
	M14-M33	ET4014 5260 4	4	48	130	73	195,4	-	2,90
BT50 B	M8-M20	ET4016 5260 3	3	31	110	52	211,8	-	4,55
	M14-M33	ET4016 5260 4	4	48	143	73	244,8	-	5,60

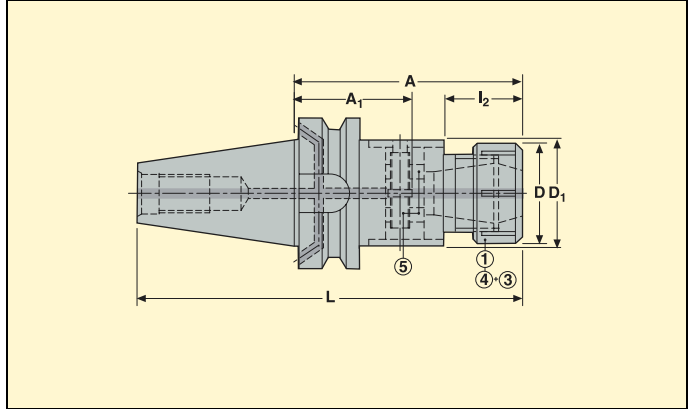
Please check availability in current price and stock-list.
 For quick change tap adapters, see catalogue chapter Additional equipment.

Type 5865 - ER tapping chucks for synchronized tapping - DIN 6499

BT JIS B 6339-ADB



- No compensation.
- Direct run-out 5 µm maximum.



Taper	Tapping range	Part No.	Size	Dimensions in mm						Balancing	
				A	D	D ₁	L	l ₂	A ₁		
BT40 ADB	M5-M20	E3414 5865 2595	ER 25	95	42	42	160,4	–	49	2	2,00
	M5-M30	E3414 5865 32110	ER 32	110	50	63	175,4	37	53,5	2	2,15
BT50 ADB	M5-M30	E3416 5865 32120	ER 32	120	50	63	221,8	37	63,5	2	3,35
	M12-M33	E3416 5865 40130	ER 40	130	63	63	231,8	–	67,5	2	3,80

For ER collets (16° taper), see catalogue chapter Additional equipment.

Accessories

For Size	Spanner	Sealing nut (4)	Sealing ring (3)		
		L ₁		d ₁	
ER 25	03B587525	08B587525IC	25	01B587525(03-035-...-16)	3-3,5-...-16
ER 32	03B587532	08B587532IC	27,5	01B587532(03-035-...-20)	3-3,5-...-20
ER 40	03B587540	08B587540IC	30,5	01B587540(03-035-...-26)	3-3,5-...-26

Spare parts

Nut (1)		Driving system (5)	
	L ₁		S
08B587525X	21	90T586525	3
08B587532X	23	90T586532	5
08B587540X	26	90T586532	5

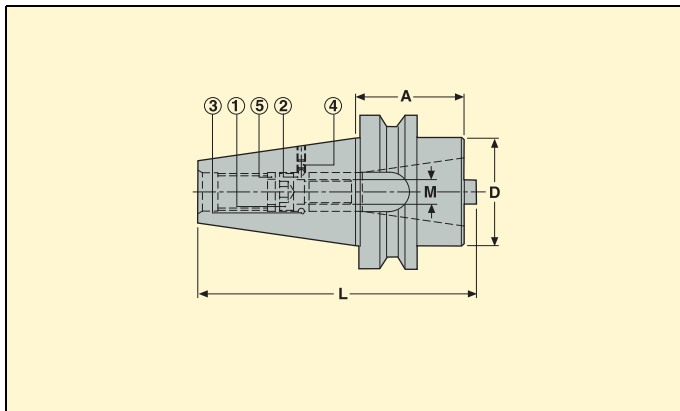
Please check availability in current price and stock-list.
For ER sealing rings Part No., see catalogue chapter Additional equipment.

Type 543 - Taper adapters SA - DIN 2080-DIN 69871-BT-CAT

BT JIS B 6339-A



- Direct run-out 5 μ m maximum.



Taper	int. Taper	Part No.	Dimensions in mm				Balancing	
			A	D	L	M		
BT40 A	40 DIN 2080	E4041 543 40100	100	70	173,4	M16	2	2,45
	40 DIN 69871/BT/CAT	E4041 543 40100T	100	70	173,4	M16	2	2,45
BT50 A	40 DIN 2080	E5766 543 4070	70	70	179,8	M16	2	4,30
	40 DIN 69871/BT/CAT	E5766 543 4070T	70	70	179,8	M16	2	4,30
	50 DIN 2080	E5766 543 50120	120	100	234,2	M24	2	6,75
	50 DIN69871/BT/CAT	E5766 543 50120T	120	100	234,2	M24	2	6,75

Spare parts

For	Screw (1)	S	Ring (2)	Ball (3)	Qty	Screw (4)	Washer (5)
E404154340100	950E1645	12	02B54240	901B04	20	950A0505	–
E404154340100T	950E1670	12	02B54240	901B04	20	950A0505	–
E57665434070	950E1645	17	02B54240	901B04	20	950A0505	15B54240
E57665434070T	950E1670	12	02B54240	901B04	20	950A0505	15B54240
E576654350120	19B172460	12	02B54250	901B05	24	950A0806	–
E576654350120T	19B172490	17	02B54250	901B05	24	950A0806	–

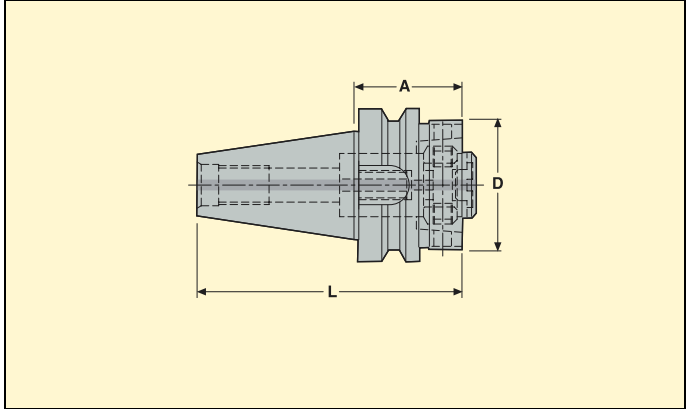
Please check availability in current price and stock-list.

Type 5095 - Taper adapters HSK - DIN 69893

BT JIS B 6339-AD



- Direct run-out 5 μ m maximum.



Taper	For HSK DIN 69893 Form A/C	Part No.	Dimensions in mm			Equipped with TF unit ref.	Balancing	KG
			A	D	L			
BT40 AD	50	E4041 5095 5045	45	55	110,4	24H509550	2	1,30
	63	E4041 5095 6370	70	70	135,4	24H509563	2	2,00
BT50 AD	50	E5766 5095 5055	55	55	156,8	24H509550	2	2,70
	63	E5766 5095 6360	60	70	161,8	24H509563	2	2,90
	100	E5766 5095 10100	100	110	201,8	24H509510	2	1,05

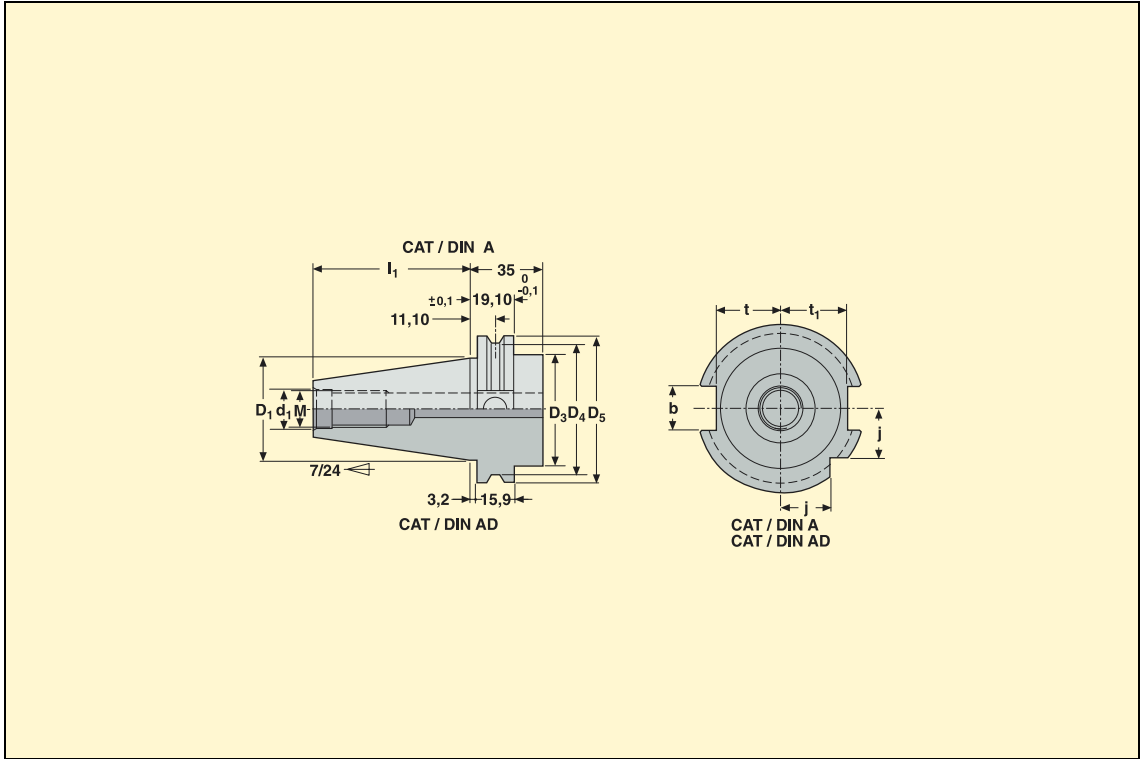
Accessories

For HSK	Locking key	
		S
50	03M04	4
63	03M05C	5
100	03HL08	8

Please check availability in current price and stock-list.

CAT/ DIN-A/AD Combined norm, dimensions

CATERPILLAR ANSI B5 50 compatible/ DIN 69871 Form A and AD



Taper	Through coolant form	Part No. prefix	Dimensions in mm										
			D ₁	D ₃ ^{±0,25}	D ₄	D ₅	I ₁ ^{-0,2/0}	M	d ₁ ^{H7}	t	t ₁	b	j
CAT40/ DIN40 AD	A/AD	E4466...	44,45	44,45	56,25	63,55	68,40	M16	17	22,80	25,0	16,1	18,5
CAT50/ DIN50 AD	A/AD	E4468...	69,85	69,85	91,25	97,50	101,75	M24	25	35,50	37,7	25,7	30,0

The norm dimensions are applied to the holders shown in following product pages, even if not repeated in the pages.

This combined standard has a timing notch and a metric pull stud locating threads to be in conformity with the DIN 69871/ ISO 7388 and is compatible with the CATERPILLAR ANSI B5 50 standard.

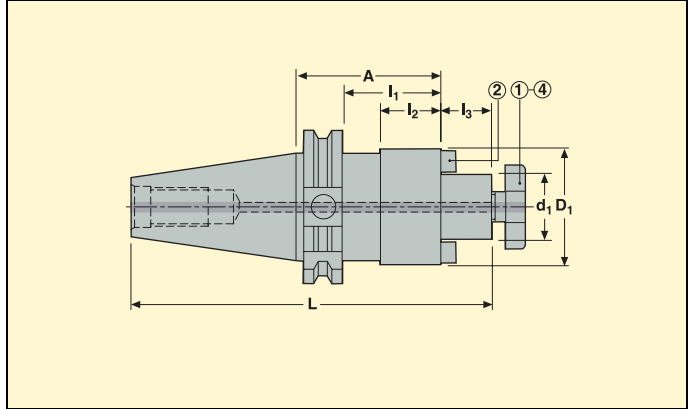
CAT/ DIN Combined holders suit both CAT and DIN machines. CAT/ DIN Combined indicates that these CAT holders conform to DIN 69871 as the D3 diameter falls within the DIN 69871 norm, and they have the DIN timing notch and metric thread for the pull stud. Timing notch and thread obstruct a CAT conformity: CAT/ DIN Combined holders are only CAT compatible. For CAT pull studs with metric thread, see catalogue chapter Additional equipment. For more CAT holders see DIN ADB/ CAT Combined types in the catalogue range DIN 69871.

Type 552 - Shell mill holders - ISO 3937

CAT ANSI B5 50 compatible/ DIN 69871-AD



- Direct run-out 5 μm maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm						Balancing	KG
			A	D ₁	L	I ₁	I ₂	I ₃		
CAT40/ DIN40 AD	16	E4466 552 1660	60	32	145,4	40,9	25	17	2	1,25
	22	E4466 552 2260	60	40	147,4	40,9	25	19	2	1,35
	27	E4466 552 2760	60	48	149,4	40,9	25	21	2	1,50
	32	E4466 552 3260	60	58	152,4	40,9	25	24	2	1,75
	40	E4466 552 4060	60	70	155,4	40,9	25	27	2	2,80
CAT50/ DIN50 AD	22	E4468 552 2260	60	40	180,7	40,9	25	19	2	3,45
	27	E4468 552 2760	60	48	182,7	40,9	25	21	2	3,60
	32	E4468 552 3260	60	58	185,7	40,9	25	24	2	3,85
	40	E4468 552 4060	60	70	188,7	40,9	25	27	2	4,20

Accessories

For d ₁	Spanner	Bolt, through coolant type (4)
16	5811606	5801608L
22	5812210	5802210L
27	5812712	5802712L
32	5813216	5803216L
40	5814020	5804020L

Spare parts

Bolt (1)	Tenon/ Screw (2)
5801608	16C116
5802210	16C122
5802712	16C127
5803216	16C132
5804020	16C140

Please check availability in current price and stock-list.

EPB - Monobloc holders CAT/ DIN Combined

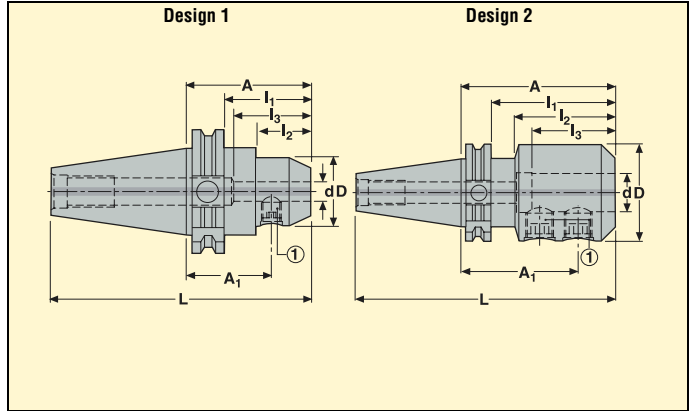


Type 584 - Side lock holders, Weldon - DIN 1835 Form B/ DIN 6535 Form HB

CAT ANSI B5 50 compatible/ DIN 69871-AD



- Direct run-out 3 μ m maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



Taper	d mm	Part No.	Dimensions in mm							Design	Balancing	KG
			A	D	L	I ₁	I ₂	I ₃	A ₁			
CAT40/ DIN40 AD	6	E4466 584 0663	63	25	131,4	43,9	28	30	45,5	1	2	1,05
	8	E4466 584 0863	63	28	131,4	43,9	28	30	45,5	1	2	1,10
	10	E4466 584 1063	63	35	131,4	43,9	28	39	43,5	1	2	1,15
	12	E4466 584 1263	63	42	131,4	43,9	28	44	41	1	2	1,20
	14	E4466 584 1463	63	44	131,4	43,9	28	44	41	1	2	1,25
	16	E4466 584 1670	70	48	138,4	50,9	35	47	46,5	1	2	1,35
	20	E4466 584 2070	70	52	138,4	50,9	35	49	45,5	1	2	1,35
	25	E4466 584 25100	100	63	168,4	80,9	65	54	76,5	2	2	2,15
	32	E4466 584 32100	100	72	168,4	80,9	65	58	76,5	2	2	2,50
CAT50/ DIN50 AD	10	E4468 584 1063	63	35	164,7	43,9	28	39	43,5	1	2	3,15
	12	E4468 584 1263	63	42	164,7	43,9	28	44	41	1	2	3,20
	16	E4468 584 1670	70	48	171,7	50,9	35	47	46,5	1	2	3,35
	20	E4468 584 2070	70	52	171,7	50,9	35	49	45,5	1	2	3,40
	25	E4468 584 25100	100	65	201,7	80,9	65	54	76,5	2	2	4,25
	32	E4468 584 32100	100	72	201,7	80,9	65	58	76,5	2	2	4,50
	40	E4468 584 40125	125	90	226,7	105,9	90	68	95,5	2	2	6,25

Spare parts

For d	Locking screw (1)		
		Qty	S
6	951C0610	1	3
8	951C0810	1	4
10	951C1012	1	5
12-14	951C1216	1	6
16	951C1416	1	6
20	951C1616	1	8
25	951C1820	2	10
32	951C2020	2	10
40	951C2025	2	10

Please check availability in current price and stock-list.

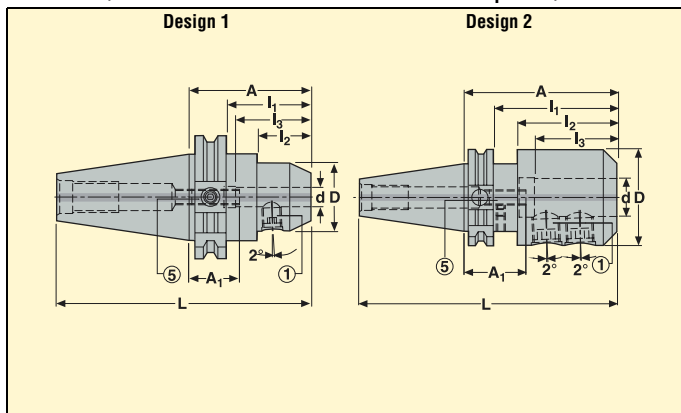
EPB - Monobloc holders CAT/ DIN Combined



Type 5843 - Side lock holders, Whistle Notch - DIN 1835 Form E/ DIN 6535 Form HE CAT ANSI B5 50 compatible/ DIN 69871-AD



- Direct run-out 3 µm maximum.
- Whistle Notch d 16, 20, 25 and 32 with ground face.



Taper	d mm	Part No.	Dimensions in mm							Design	Balancing	KG
			A	D	L	I ₁	I ₂	I ₃	A ₁ min-max			
CAT40/ DIN40 AD	6	E4466 5843 0663	63	25	131,4	43,9	28	30	23-33	1	2	1,05
	8	E4466 5843 0863	63	28	131,4	43,9	28	30	23-33	1	2	1,10
	10	E4466 5843 1063	63	35	131,4	43,9	28	39	18-33	1	2	1,15
	12	E4466 5843 1263	63	42	131,4	43,9	28	44	11-21	1	2	1,20
	16	E4466 5843 1670	70	48	138,4	50,9	35	47	15-30	1	2	1,35
	20	E4466 5843 2070	70	52	138,4	50,9	35	49	13-23	1	2	1,35
	25	E4466 5843 25100	100	63	168,4	80,9	65	54	36-46	2	2	2,15
	32	E4466 5843 32100	100	72	168,4	80,9	65	58	32-42	2	2	2,50

CAT50/ DIN50 AD are not standard, please inquire.

Spare parts

For d	Locking screw (1)		Stop end screw (5)		
	Qty	S	Qty	S	
6	951C0610	1	3	19TLR0830	4
8	951C0810	1	4	19TLR1030	5
10	951C1012	1	5	19TLR0830	4
12	951C1216	1	6	19TLR1030	5
16	951C1416	1	6	19TLR1030	5
20	951C1616	1	8	19TLR1030	5
25	951C1820	2	10	19TLR1030	5
32	951C2020	2	10	19TLR1030	5

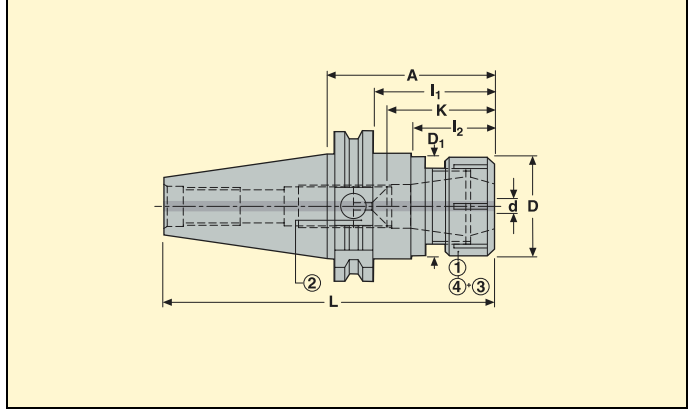
Please check availability in current price and stock-list.

Type 5875 - ER collet chucks - DIN 6499

CAT ANSI B5 50 compatible/ DIN 69871-AD



- Direct run-out 5 μ m maximum.



Taper	Capacity d mm	Part No.	Size	Dimensions in mm							Balancing	KG
				A	D	D ₁	L	I ₁	I ₂	K min-max		
CAT40/ DIN40 AD	2-16	E4466 5875 2570	ER 25	70	42	44,45	138,4	50,9	35	38-68	2	1,15
	2-20	E4466 5875 3270	ER 32	70	50	44,45	138,4	50,9	35	43-77	2	1,15
	2-20	E4466 5875 32120	ER 32	120	50	44,45	188,4	100,9	85	43-77	2	1,35
CAT50/ DIN50 AD	2-20	E4468 5875 3290	ER 32	90	50	50	191,7	70,9	55	43-117	2	3,45
	3-26	E4468 5875 40100	ER 40	100	63	63	201,7	80,9	65	50-82	2	3,65

For ER collets (16° taper, standard and precision types) and ER extensions, see catalogue chapter Additional equipment.

Accessories

Spare parts

For Size	Spanner	Sealing nut (4)	Sealing ring (3)	Nut (1)	Stop end screw (2)				
		L ₁	d ₁	L ₁	S				
ER 25	03B587525	08B587525IC	25	01B587525(03-035-...-16)	3-3,5-...-16	08B587525X	21	19B58718	3
ER 32	03B587532	08B587532IC	27,5	01B587532(03-035-...-20)	3-3,5-...-20	08B587532X	23	19B58722	3
ER 40	03B587540	08B587540IC	30,5	01B587540(03-035-...-26)	3-3,5-...-26	08B587540X	26	19B58730	3

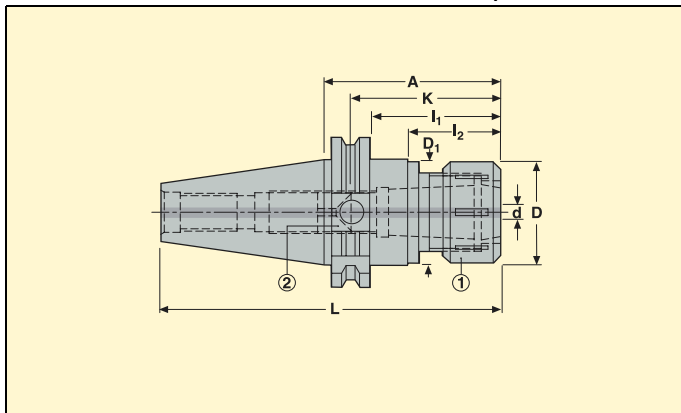
Please check availability in current price and stock-list.
For ER sealing rings Part No., see catalogue chapter Additional equipment.

Type 5873 - OZ collet chucks - DIN 6388

CAT ANSI B5 50 compatible/ DIN 69871-AD



- Direct run-out 5 μ m maximum.



Taper	Capacity d mm	Part No.	Size	Dimensions in mm							Balancing	KG
				A	D	D ₁	L	I ₁	I ₂	K min-max		
CAT40/ DIN40 AD	2-16	E4466 5873 1670	OZ 16	70	43	44,45	138,4	50,9	35	42-79	2	1,15
	2-25	E4466 5873 2570	OZ 25	70	60	44,45	138,4	50,9	35	55-78	2	1,25
CAT50/ DIN50 AD	2-25	E4468 5873 2570	OZ 25	70	60	69,85	171,7	50,9	35	55-94	2	3,25
	4-32	E4468 5873 3273	OZ 32	73	72	69,85	174,7	53,9	38	65-93	2	3,35

For OZ collets (1/10 taper), see catalogue chapter Additional equipment.

Accessories Spare parts

For Taper/Capacity	Spanner	Nut (1)	Stop end screw (2)
		L ₁	S
40/2-16	03B587316	08B587316	19B58718
40/2-25	03B587325	08B587325	19B58727
50/2-25	03B587325	08B587325	19B58727
50/4-32	03B587332	08B587332	19B58735

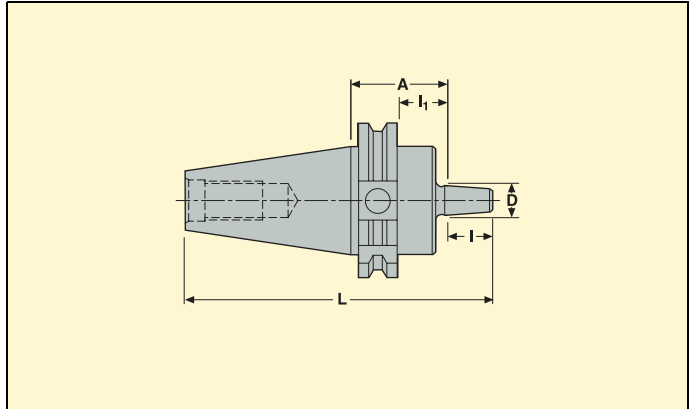
Please check availability in current price and stock-list.


Type 506 - Jacobs chuck holders - DIN 238

CAT ANSI B5 50 compatible/ DIN 69871-A



- Direct run-out 10 μm maximum.



Taper	Taper	Part No.	Dimensions in mm					Balancing	
			A	D	I ₁	L	I		
CAT40/ DIN40 A	B16	E4466 506 1640	40	15,733	20,9	132,4	24	2	1,15

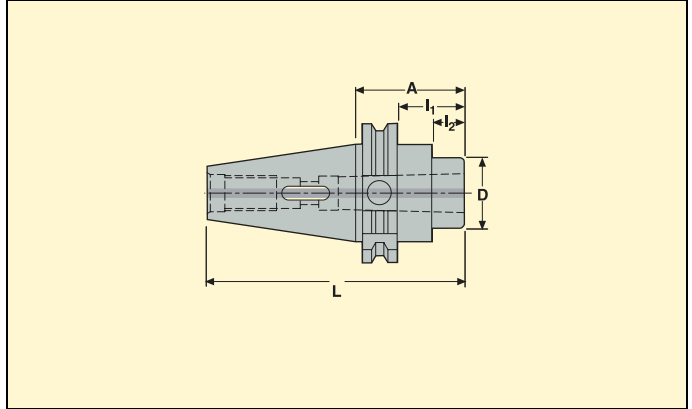
Please check availability in current price and stock-list.
 For chucks, see catalogue chapter Additional equipment.
 CAT50/ DIN50 AD are not standard, please inquire.

Type 536 - Holders for Morse Taper with tang - DIN 228-2 Form D

CAT ANSI B5 50 compatible/ DIN 69871-AD




- Direct run-out 5 μm maximum.
- Designed to fit a pull-back screw shown in Accessories.



Taper	MT	Part No.	Dimensions in mm					Balancing	KG
			A	D	L	l ₁	l ₂		
CAT40/ DIN40 AD	1	E4466 536 150	50	25	118,4	30,9	15	2	0,95
	2	E4466 536 250	50	32	118,4	30,9	15	2	1,00
	3	E4466 536 370	70	40	138,4	50,9	35	2	1,10
	4	E4466 536 495	95	48	163,4	75,9	60	2	1,25
CAT50/ DIN50 AD	2	E4468 536 260	60	32	161,7	40,9	25	2	3,10
	3	E4468 536 365	65	40	166,7	45,9	30	2	3,15
	4	E4468 536 495	95	48	196,7	75,9	60	2	3,20

For Morse reducers, see catalogue chapter Additional equipment.

Accessories

For Taper/MT		Pull-back screw	
			S
			
40/1	950D0640		5
40/2	19B5371035		8
50/2	950D1060		8
50/3	950D1250		10
50/4	19B5371660		14

Please check availability in current price and stock-list.

EPB - Monobloc holders CAT/ DIN Combined

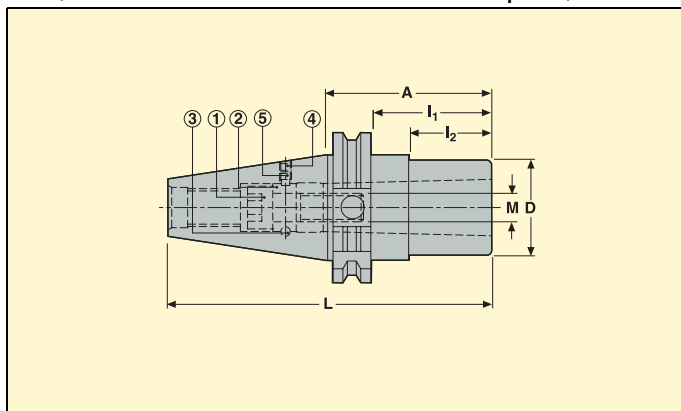


Type 533 - For Morse Taper with thread - DIN 6364 Form B/ DIN 228-2 Form C

CAT ANSI B5 50 compatible/ DIN 69871-A



- Direct run-out 5 µm maximum.



Taper	MT	Part No.	Dimensions in mm						Balancing	KG
			A	D	L	I ₁	I ₂	M		
CAT40/ DIN40 A	3	E4466 533 370	70	40	138,4	50,9	35	M12	2	1,15
	4	E4466 533 495	95	48	163,4	75,9	60	M16	2	1,35
CAT50/ DIN50 A	4	E4468 533 470	70	48	171,7	50,9	35	M16	2	3,00
	5	E4468 533 5100	100	63	201,7	80,9	65	M20	2	3,45

Spare parts

For Taper/MT	Screw (1)		Ring (2)	Ball (3)		Screw (4)	Screw (5)
	S			Qty			
40/3	950D1240	10		02B53303	901B04		
40/4	19B5331635	12	02B53304	901B04	20	-	950T0508
50/4	19B5331635	12	02B53304	901B04	20	950A0504	950T0508
50/5	19B5332040	12	02B53305	901B04	29	950A0504	950T0508

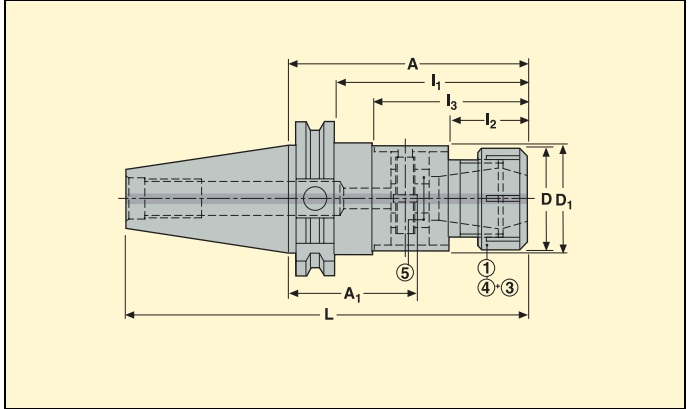
Please check availability in current price and stock-list.

Type 5865 - ER tapping chucks for synchronized tapping - DIN 6499

CAT ANSI B5 50 compatible/ DIN 69871-AD



- No compensation.
- Direct run-out 5 μm maximum.



Taper	Tapping range	Part No.	Size	Dimensions in mm								Balancing	KG
				A	D	D ₁	L	I ₁	I ₂	I ₃	A ₁		
CAT50/ DIN50 AD	M5-M30	E4468 5865 32120	ER 32	120	50	63	221,7	100,9	37	85	63,5	2	4,15
	M12-M33	E4468 5865 40125	ER 40	125	63	63	226,7	105,9	—	90	62,5	2	4,30

For ER collets (16° taper), see catalogue chapter Additional equipment. CAT40/ DIN40 AD are not standard, please inquire.

Accessories

For Size	Spanner	Sealing nut (4)	Sealing ring (3)
		L ₁	d ₁
ER 32	03B587532	08B587532IC	27,5
ER 40	03B587540	08B587540IC	30,5

Spare parts

Nut (1)		Driving system (5)	
	L ₁		S
08B587532X	23	90T586532	5
08B587540X	26	90T586532	5

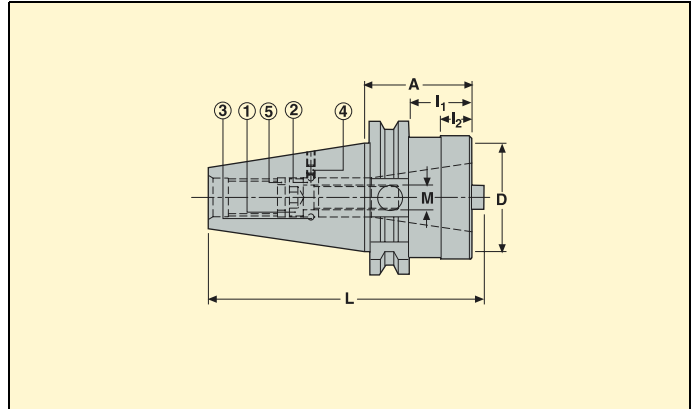
Please check availability in current price and stock-list.
 For ER sealing rings Part No., see catalogue chapter Additional equipment.

Type 543 - Taper adapters SA - DIN 2080-DIN 69871-BT-CAT

CAT ANSI B5 50 compatible/ DIN 69871-A



- Direct run-out 5 µm maximum.

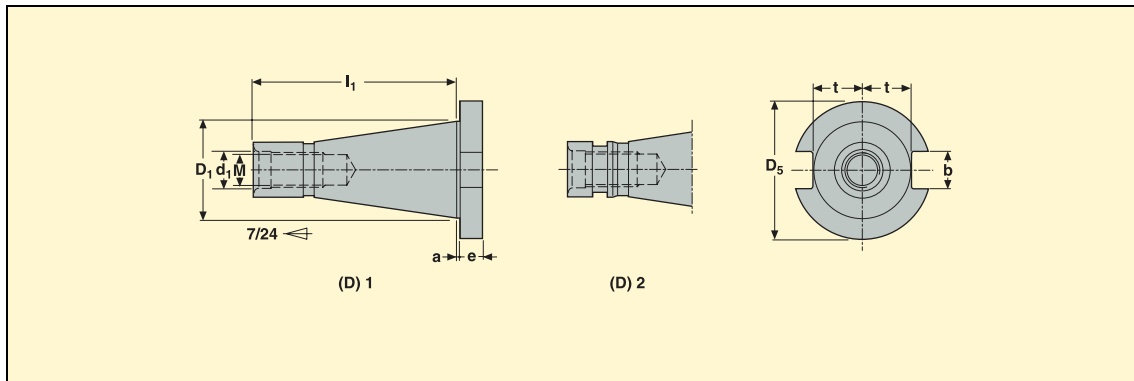


Taper	Taper	Part No.	Dimensions in mm						Balancing	KG
			A	D	L	I ₁	I ₂	M		
CAT40/ DIN40 A	40/DIN 2080	E4466 543 40100	100	70	176,4	80,9	65	M16	2	2,35
	40/DIN 69871/BT/CAT	E4466 543 40100T	100	70	176,4	80,9	65	M16	2	2,35
CAT50/ DIN50 A	40/DIN 2080	E4468 543 4070	70	70	179,7	50,9	35	M16	2	3,65
	40/DIN 69871/BT/CAT	E4468 543 4070T	70	70	179,7	50,9	35	M16	2	3,65
	50/DIN 2080	E4468 543 50120	120	98	234,2	100,9	65	M24	2	6,00
	50/DIN 69871/BT/CAT	E4468 543 50120T	120	98	234,2	100,9	65	M24	2	6,00

Spare parts

For	Screw (1)		Ring (2)	Ball (3)		Screw (4)	Washer (5)
		S			Qty		
E446654340100	950E1645	12	02B54240	901B04	20	950A0505	–
E446654340100T	950E1670	12	02B54240	901B04	20	950A0505	–
E446865434070	950E1645	12	02B54240	901B04	20	950A0505	15B54240
E44685434070T	950E1670	12	02B54240	901B04	20	950A0505	15B54240
E446854350120	19B172460	17	02B54250	901B05	24	950A0806	–
E446854350120T	19B172490	17	02B54250	901B05	24	950A0806	–

Please check availability in current price and stock-list.



Taper	Part No. prefix	Design (D)	Dimensions in mm								
			D ₁	D ₅	l ₁	M	e	d ₁	t	b	a
DIN(2080) 40	E0040...	2	44,45	63,0	93,4	M16	10	17	22,5	16,1	1,6
DIN(2080) 50	E0050...	1	69,85	97,5	126,8	M24	12	26	35,3	25,7	3,2

The norm dimensions are applied to all the holders shown in following product pages.

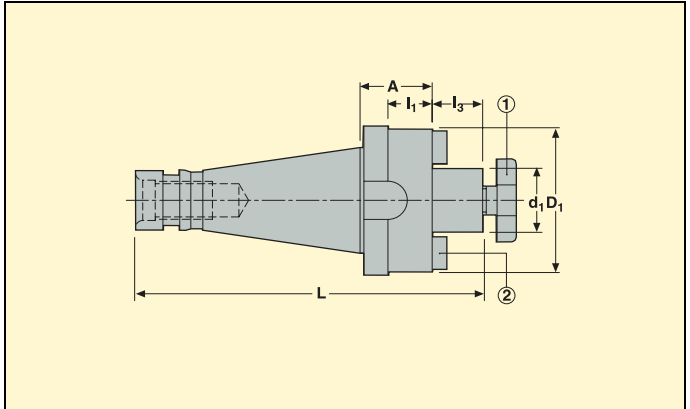
Note: For pull studs to convert DIN 69871, BT and CAT holders to DIN 2080 holders, see catalogue chapter Additional equipment.

Type 5521 - Shell mill holders, enlarged face

DIN 2080



• Direct run-out 5 µm maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm					Balancing	KG
			A	D ₁	L	I ₁	I ₃		
DIN(2080)40	22	E0040 5521 2230	30	48	142,4	18,4	19	2	1,10
	27	E0040 5521 2730	30	60	144,4	18,4	21	2	1,25
	32	E0040 5521 3230	30	78	147,4	18,4	24	2	1,50
	40	E0040 5521 4017	17	89	137,4	–	27	2	1,85
DIN(2080)50	22	E0050 5521 2235	35	48	180,8	19,8	19	2	3,00
	27	E0050 5521 2735	35	60	182,8	19,8	21	2	3,15
	32	E0050 5521 3235	35	78	185,8	19,8	24	2	3,40
	40	E0050 5521 4035	35	89	188,8	19,8	27	2	3,75

d₁ 40, with 4 threads according to DIN 6357.

Accessories

Spare parts

For d ₁	Spanner	Bolt (1)	Tenon/ Screw (2)
22	5812210	5802210	16C11012206 950D0416
27	5812712	5802712	16C11214243 951D0512
32	5813216	5803216	16C2141421 951D0516
40	5814020	5804020	16C2161621 951D0616

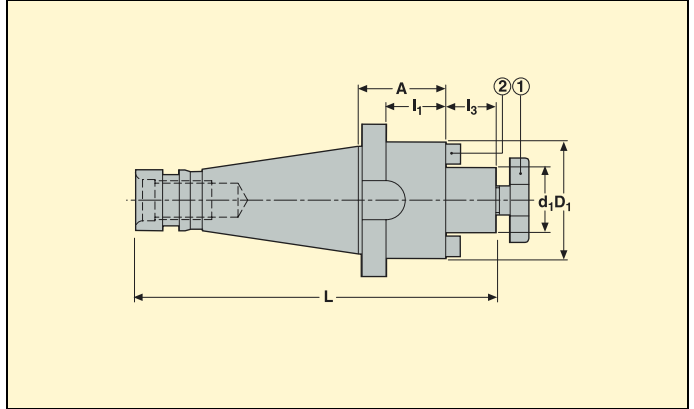
Please check availability in current price and stock-list.

Type 552 - Shell mill holders - ISO 3937

DIN 2080



- Direct run-out 5 μm maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm					Balancing	KG
			A	D ₁	L	I ₁	I ₃		
DIN(2080)40	16	E0040 552 1637	37	32	147,4	25	17	-	1,00
	22	E0040 552 2237	37	40	149,4	25	19	-	1,10
	27	E0040 552 2737	37	48	151,4	25	21	-	1,25
	32	E0040 552 3237	37	58	154,4	25	24	-	1,50
	40	E0040 552 4037	37	70	157,4	25	27	-	1,85
DIN(2080)50	22	E0050 552 2240	40	40	185,8	25	19	-	3,00
	27	E0050 552 2740	40	48	187,8	25	21	-	3,15
	32	E0050 552 3240	40	58	190,8	25	24	-	3,40
	40	E0050 552 4040	40	70	193,8	25	27	-	3,75

Accessories

Spare parts

For d ₁	Spanner	Bolt (1)	Tenon/ Screw (2)
16	5811608	5801608	16C116 950D0308
22	5812210	5802210	16C122 951D0410
27	5812712	5802712	16C127 951D0512
32	5813216	5803216	16C132 951D0514
40	5814020	5804020	16C140 951D0616

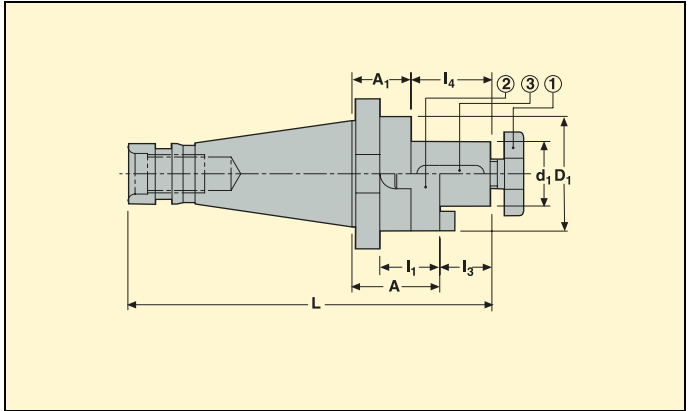
Please check availability in current price and stock-list.

Type 553 - Combi shell mill holders - DIN 6358

DIN 2080



• Direct run-out 5 µm maximum.



Taper	d ₁ mm	Part No.	Dimensions in mm							Balancing	
			A	D ₁	L	I ₁	I ₃	I ₄	A ₁		
DIN(2080)40	16	E0040 553 1637	37	32	147,4	25	17	27	27	-	1,00
	22	E0040 553 2237	37	40	149,4	25	19	31	25	-	1,10
	27	E0040 553 2737	37	48	151,4	25	21	33	25	-	1,25
	32	E0040 553 3252	52	58	169,4	40	24	38	38	-	1,80
	40	E0040 553 4052	52	70	172,4	40	27	41	38	-	2,25
DIN(2080)50	16	E0050 553 1655	55	32	198,8	40	17	27	45	-	3,10
	22	E0050 553 2255	55	40	200,8	40	19	31	43	-	3,20
	27	E0050 553 2755	55	48	202,8	40	21	33	43	-	3,50
	32	E0050 553 3255	55	58	205,8	40	24	38	41	-	3,70
	40	E0050 553 4055	55	70	208,8	40	27	41	41	-	4,10

Accessories

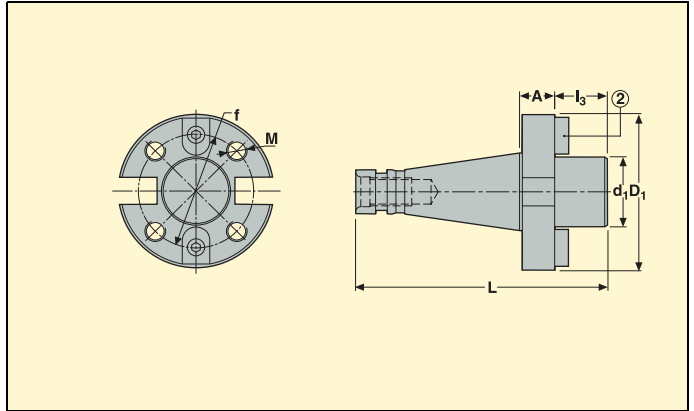
Spare parts

For d ₁	Spanner	Bolt (1)	Driving ring (2)	Flat key (3)
16	5811608	5801608	58316	04C216
22	5812210	5802210	58332	04C222
27	5812712	5802712	58327	04C227
32	5813216	5803216	58332	04C232
40	5814020	5804020	58340	04C240

Please check availability in current price and stock-list.



- Direct run-out 5 μm maximum.

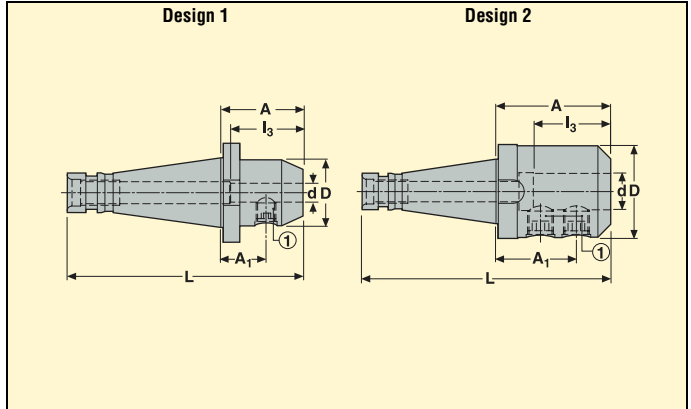


Taper	d ₁ mm	Part No.	Dimensions in mm					Balancing	KG	
			A	D ₁	L	l ₃	f			M
DIN(2080)50	40	E0050 569 4030	30	89	186,8	30	66,7	M12	2	4,50
	60	E0050 569 6030	30	129	196,8	40	101,6	M16	2	5,25

Spare parts

For d ₁	Tenon/ Screw (2)	
40	16C34040	951D0616
60	16C35060	951D1225

Please check availability in current price and stock-list.



- Direct run-out 3 μm maximum.
- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).

Page 1 of 2		Dimensions in mm							Design	Balancing	
Taper	d mm	Part No.	A	D	L	I ₃	A ₁				
DIN(2080)40	6	E0040 584 0650	50	25	143,4	30	32,5	1	2	0,90	
	8	E0040 584 0850	50	28	143,4	30	32,5	1	2	0,90	
	10	E0040 584 1050	50	35	143,4	39	30,5	1	2	1,00	
	12	E0040 584 1250	50	42	143,4	44	28	1	2	1,05	
	16	E0040 584 1663	63	48	156,4	47	39,5	1	2	1,30	
	20	E0040 584 2063	63	52	156,4	49	38,5	1	2	1,40	
	25	E0040 584 2580	80	63	173,4	54	56,5	2	2	2,05	
	32	E0040 584 3280	80	72	173,4	58	56,5	2	2	2,40	

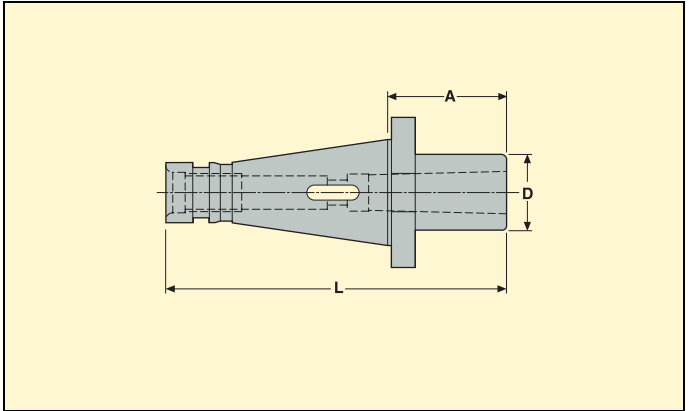
Spare parts

For d	Locking screw (1)		
		Qty	S
6	951C0610	1	3
8	951C0810	1	4
10	951C1012	1	5
12	951C1216	1	6
16	951C1416	1	6
20	951C1616	1	8
25	951C1820	2	10
32	951C2020	2	10

Please check availability in current price and stock-list.

Type 536 - Holders for Morse Taper with tang - DIN 228-2 Form D

DIN 2080



- Direct run-out 5 μ m maximum.
- Designed to fit a pull-back screw shown in Accessories.

Taper	MT	Part No.	Dimensions in mm			Balancing	KG
			A	D	L		
DIN(2080)40	1	E0040 536 150	50	25	143,4	2	0,85
	2	E0040 536 250	50	32	143,4	2	0,85
	3	E0040 536 365	65	40	158,4	2	1,00
	4	E0040 536 495	95	48	188,4	2	1,30
DIN(2080)50	2	E0050 536 260	60	32	186,8	2	2,80
	3	E0050 536 365	65	40	191,8	2	2,85
	4	E0050 536 470	70	48	196,8	2	3,05
	5	E0050 536 5105	105	63	231,8	2	3,55

For Morse reducers, see catalogue chapter Additional equipment.

Accessories

For Taper/MT	Pull-back screw	
		S
40/1	950D0640	5
40/2	19B5371035	8
50/2	950D1060	8
50/3	950D1250	10
50/4	19B5371660	14

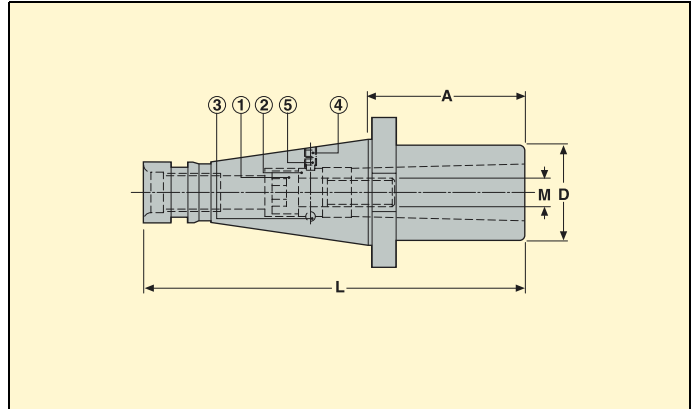
Please check availability in current price and stock-list.

Type 533 - Holders for Morse Taper with thread - DIN 6364 Form B/ DIN 228-2 Form C

DIN 2080



- Direct run-out 5 µm maximum.



Taper	MT	Part No.	Dimensions in mm				Balancing	
			A	D	L	M		
DIN(2080)40	3	E0040 533 365	65	40	158,4	M12	2	1,10
	4	E0040 533 495	95	48	188,4	M16	2	1,40
DIN(2080)50	4	E0050 533 485	85	48	211,8	M16	2	3,15
	5	E0050 533 5120	120	63	246,8	M20	2	3,90

Spare parts

For Taper/MT	Screw (1)		Ring (2)	Ball (3)		Screw (4)	Screw (5)
		S			Qty		
40/3	950D1240	10	02B53303	901B04	15	—	950T0508
40/4	19B5331635	12	02B53304	901B04	20	—	950T0508
50/4	19B5331635	12	02B53304	901B04	20	950A0504	950T0508
50/5	19B5332040	12	02B53305	901B04	29	950A0504	950T0508

Please check availability in current price and stock-list.



EasyShrink® kits



EasyShrink 10 kit

EasyShrink 5 kit

Kits	Part No.	Capacity tool shank mm		Shrinking time, approx.	For toolholder taper max.	Dimensions in mm			KG
		Carbide/ Cermet	Steel/ HSS			Width	Depth	Height	
EasyShrink 5/40 kit	ZFM02IN40	∅ 6-32	No	30 sec.	HSK63/ SA40	980	550	955	72
EasyShrink 5/50 kit	ZFM02IN50	∅ 6-32	No	30 sec.	HSK100/ SA50	980	550	955	72
EasyShrink 10/40 kit	ZFM03IN40	∅ 3-32*	∅ 6-32	10 sec.	HSK63/ SA40	980	550	955	77
EasyShrink 10/50 kit	ZFM03IN50	∅ 3 32*	∅ 6 32	10 sec.	HSK100/ SA50	980	550	955	77

An EasyShrink kit includes an EasyShrink device equipped with the stop rod height setting system and a cooling box.

Flanges for the holder positioning are required, see next page. * Three heat focusing plates for ∅ 6 to 32 mm are included in the EasyShrink 10 delivery content. For ∅ 3 to 5 mm, order the focusing plate shown in next page.

EasyShrink® devices






EasyShrink 10 device

EasyShrink 5 device

Devices	Part No.	Capacity tool shank mm		Shrinking time, approx.	For toolholder taper max.	Dimensions in mm			KG
		Carbide/ Cermet	Steel/ HSS			Width	Depth	Height	
EasyShrink 5	ZFM02IN	∅ 6-32	No	30 sec.	HSK100/ SA50	980	550	955	45
EasyShrink 10	ZFM03IN	∅ 3-32*	∅ 6-32	10 sec.	HSK100/ SA50	980	550	955	50




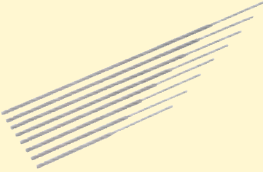

Flanges for the holder positioning are required, see next page. * Three heat focusing plates for ∅ 6 to 32 mm are included in the EasyShrink 10 delivery content. For ∅ 3 to 5 mm, order the focusing plate shown in next page.

Accessories and spare parts, for the EasyShrink® devices



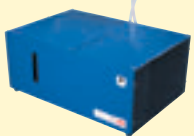

	Part No.	For
Flanges 	Accessories:	For holder taper:
	ZFAD04H32	HSK32 A/C/E and HSK40 B/D/F
	ZFAD04H40	HSK40 A/C/E and HSK50 B/D/F
	ZFAD04H50	HSK50 A/C/E and HSK63 B/D/F
	ZFAD04H63	HSK63 A/C/E and HSK80 B/D
	ZFAD04H80	HSK80 A/C and HSK100 B/D
	ZFAD04H10	HSK100 A/C and HSK 125 B/D
	ZFAD04S30	SA30
	ZFAD04S40	SA40
	ZFAD04S50	SA50
Heat focusing plates* 	Accessories:	For tool shank dia:
	ZFAT03C21	∅ 3-5
	Spare parts:	For tool shank dia:
	ZFAT03C02	∅ 6-14
	ZFAT03C03	∅ 16-20
	ZFAT03C04	∅ 25-32
Pair of gloves 	Spare part:	
	ZFAG01	

* For EasyShrink 10 kits and devices only (no plate required on EasyShrink 5).

Tool height setting systems and accessories, for the EasyShrink® devices

	Part No.	Height capacity mm	Stop rod ∅ mm	For tool shank ∅ mm	 KG
Stop rod height setting system, incl. 8 standard stop rods 	System:				
	ZFS02IN020	0 to 240	5	∅ 6 and upwards	5,00
Tool supporting sleeves 	Accessories:				
	05RS580006	-	5	6	-
	05RS580008	-	5	8	-
	05RS580010	-	5	10	-
	05RS580012	-	5	12	-
	05RS580014	-	5	14	-
	05RS580016	-	5	16	-
	05RS580018	-	5	18	-
	05RS580020	-	5	20	-
	05RS580025	-	5	25	-
	05RS580032	-	5	32	-
Slim stop rods, 8 pcs. 	Accessories:				
	ZFCM02IN111	0 to 240	2,8	∅ 3 and upwards	-
Digital height setting system 	System:				
	ZFQMS02	0 to 470	-	-	8

Cooling systems, for the EasyShrink® devices




	Part No.	For toolholder taper size max.	Cooling positions	Cooling time, approx.	Dimensions in mm			 KG
					Width	Depth	Height	
Fan assisted cooling boxes, types 40 or 50 	ZFAR0240	HSK63/ SA40*	6	7 min.**	430	550	955	22,00
	ZFAR0250	HSK100/ SA50*	6	7 min.**	430	550	955	22,00
Liquid cooling systems***  	ZFQRE01	–	1	1 min.	400	300	300	40,00
	ZFQRE02	–	3	1 min.	400	300	300	42,00
Vortex cooling system 	ZFQRA01	–	1	2 min.	300	150	100	12,00

* For smaller sizes, reduction rings are required, see next page.


** Cooling time is approx. 3 minutes when using the cooling sleeves with heat dissipation fins, see next page.

*** Reduction sleeves are required, see next page.

Accessories for the fan assisted cooling boxes

	Part No.	For cooling box type	For holder taper	For Shrinkfit holder front end type	For tool shank \varnothing mm	
Reduction rings 	ZFAR0240H32	40	HSK32 A/C/E	-	-	
	ZFAR0240H40	40	HSK40 A/C/E / SA30	-	-	
	ZFAR0240H50	40	HSK50 A/C/E	-	-	
	ZFAR0250H32	50	HSK32 A/C/E	-	-	
	ZFAR0250H40	50	HSK40 A/C/E / SA30	-	-	
	ZFAR0250H50	50	HSK50 A/C/E	-	-	
	ZFAR0250H63	50	HSK63 A/C/E / SA40	-	-	
	ZFAR0250H80	50	HSK80 A/C	-	-	
	Covering lid 	ZFAR02B	40 and 50	-	-	-
Cooling sleeves with heat dissipation fins 	ZFAR02C306	40 and 50	-	5803	\varnothing 6 and 8 mm	
	ZFAR02C310	40 and 50	-	5803	\varnothing 10 and 12 mm	
	ZFAR02C314	40 and 50	-	5803	\varnothing 14 and 16 mm	
	ZFAR02C318	40 and 50	-	5803	\varnothing 18 and 20 mm	
	ZFAR02C325	40 and 50	-	5803	\varnothing 25 and 32 mm	
	ZFAR02C103	40 and 50	-	5801	\varnothing 3 mm	
	ZFAR02C104	40 and 50	-	5801	\varnothing 4 mm	
	ZFAR02C105	40 and 50	-	5801	\varnothing 5 mm	
	ZFAR02C106	40 and 50	-	5801	\varnothing 6 mm	
	ZFAR02C108	40 and 50	-	5801	\varnothing 8 mm	
	ZFAR02C110	40 and 50	-	5801	\varnothing 10 mm	
	ZFAR02C112	40 and 50	-	5801	\varnothing 12 mm	
	ZFAR02C114	40 and 50	-	5801	\varnothing 14 mm	
	ZFAR02C116	40 and 50	-	5801	\varnothing 16 mm	

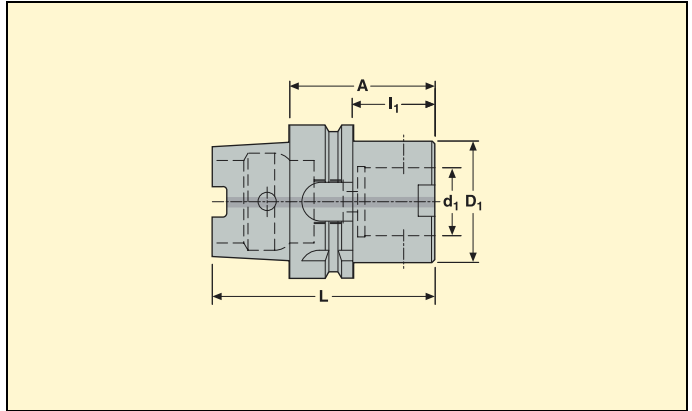
Accessories for the liquid cooling systems

	Part No.	For Shrinkfit holder front end type	For tool shank \varnothing mm
Reduction sleeves 	ZFAR10D306	5803	\varnothing 6 and 8 mm
	ZFAR10D310	5803	\varnothing 10 and 12 mm
	ZFAR10D314	5803	\varnothing 14 and 16 mm
	ZFAR10D318	5803	\varnothing 18 and 20 mm
	ZFAR10D325	5803	\varnothing 25 and 32 mm
	ZFAR10D103	5801	\varnothing 3 mm
	ZFAR10D104	5801	\varnothing 4 mm
	ZFAR10D105	5801	\varnothing 5 mm
	ZFAR10D106	5801	\varnothing 6 mm
	ZFAR10D108	5801	\varnothing 8 mm
	ZFAR10D110	5801	\varnothing 10 mm
	ZFAR10D112	5801	\varnothing 12 mm
	ZFAR10D114	5801	\varnothing 14 mm
	ZFAR10D116	5801	\varnothing 16 mm
	ZFAR10D006	5800	\varnothing 6 mm
	ZFAR10D008	5800	\varnothing 8 mm
	ZFAR10D010	5800	\varnothing 10 mm
	ZFAR10D012	5800	\varnothing 12 mm
	ZFAR10D014	5800	\varnothing 14 mm
	ZFAR10D016	5800	\varnothing 16 mm
	ZFAR10D018	5800	\varnothing 18 mm
	ZFAR10D020	5800	\varnothing 20 mm
	ZFAR10D025	5800	\varnothing 25 mm



Type EM - Arbors HSK-A

HSK-A/ ISO 12164-1-A

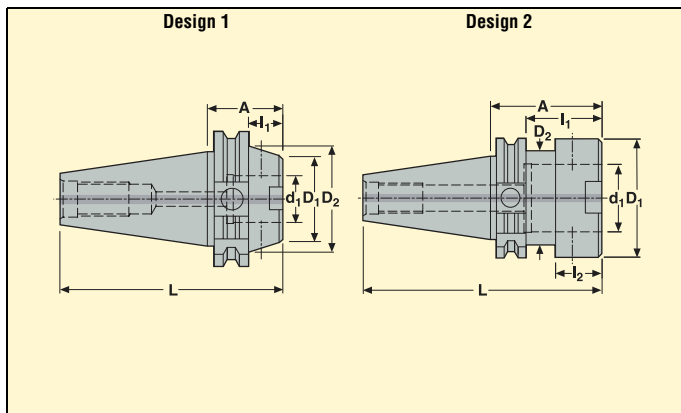


Taper	Graflex bore		Part No.	Dimensions in mm				Balancing	KG	
	Size	d ₁		A	L	I ₁	D ₁			
HSK-A50	3	18	EM9303 401 1850	50	75	24	32	1	0,40	
	5	28	EM9303 401 2870	70	95	44	50	1	0,85	
HSK-A63	3	18	EM9304 401 1850	50	82	24	32	1	0,80	
	4	22	EM9304 401 2255	55	87	29	40	1	0,90	
	5	28	EM9304 401 2860	60	92	34	50	1	1,00	
	5	28	EM9304 401 28100	100	132	74	50	1	1,60	
	5	28	EM9304 401 28140	140	172	114	50	1	2,25	
	6	36	EM9304 401 3670	70	102	44	63	1	1,25	
HSK-A80	6	36	EM9304 401 36120	120	152	94	63	1	2,25	
	5	28	EM9305 401 2860	60	100	74	50	1	1,45	
HSK-A100	6	36	EM9305 401 3675	75	160	94	63	1	1,95	
	7	46	EM9305 401 4685	85	125	59	90	2	2,95	
HSK-A100	3	18	EM9306 401 1855	55	105	26	32	1	1,90	
	4	22	EM9306 401 2260	60	110	31	40	1	2,10	
	5	28	EM9306 401 2865	65	115	36	50	1	2,30	
	5	28	EM9306 401 28110	110	160	81	50	1	3,00	
	5	28	EM9306 401 28150	150	200	121	50	1	3,60	
	6	36	EM9306 401 3675	75	125	46	63	1	2,60	
	6	36	EM9306 401 36120	120	170	91	63	1	4,50	
	6	36	EM9306 401 36160	160	210	131	63	1	4,90	
	7	46	EM9306 401 4685	85	135	56	90	2	4,20	
	7	46	EM9306 401 46160	160	210	131	90	2	6,00	
	7	46	EM9306 401 46240	240	290	211	90	2	8,00	

Please check availability in current price and stock-list.
 For HSK-A sealing plugs, coolant tubes and fitting keys, see catalogue chapter Additional equipment.

Type EM - Arbors DIN 69871-AD

DIN 69871-AD

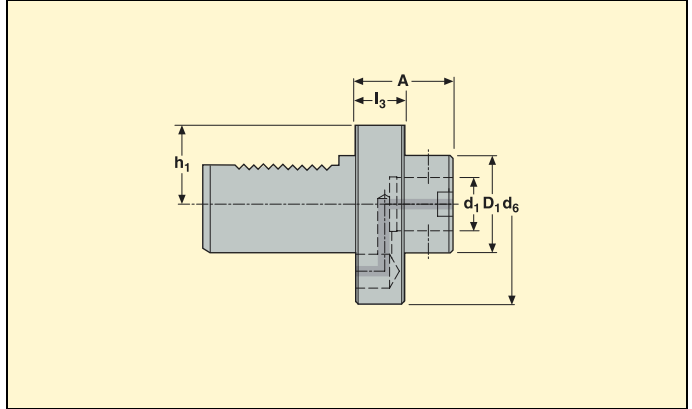


Taper	Graflex bore		Part No.	Dimensions in mm						Design	Balancing	KG
	Size	d ₁ mm		A	I ₁	I ₂	D ₁	D ₂	L			
DIN30 AD	3	18	EM4464 401 1835	35	15,9	–	32	45	82,8	1	1	0,55
	5	28	EM4464 401 2855	55	35,9	20	50	45	102,8	2	1	0,60
DIN40 AD	1	11	EM4469 401 1190	90	70,9	–	20	20	158,4	2	1	0,90
	2	14	EM4469 401 1490	90	70,9	–	25	25	158,4	2	1	0,95
	3	18	EM4469 401 1835	35	15,9	–	32	50	103,4	1	1	0,80
	3	18	EM4469 401 18100	100	80,9	–	32	32	168,4	2	1	0,95
	4	22	EM4469 401 2235	35	15,9	–	40	50	103,4	1	1	0,80
	4	22	EM4469 401 22100	100	80,9	–	40	40	168,4	2	1	1,05
	5	28	EM4469 401 2840	40	20,9	–	50	50	108,4	2	1	0,80
	5	28	EM4469 401 2880	80	60,9	–	50	50	148,4	2	1	1,55
	5	28	EM4469 401 28120	120	100,9	–	50	50	188,4	2	1	2,10
	6	36	EM4469 401 3660	60	40,9	25	63	50	128,4	2	1	1,35
DIN45 AD	6	36	EM4469 401 36120	120	100,9	85	63	50	128,4	2	1	2,85
	5	28	EM4470 401 2840	40	20,9	–	50	63	122,7	1	1	1,70
	6	36	EM4470 401 3645	45	25,9	–	63	63	127,7	2	1	1,75
DIN50 AD	6	36	EM4470 401 36140	140	120,9	–	63	63	222,7	2	1	4,10
	1	11	EM4471 401 1190	90	70,9	–	20	20	191,7	2	1	2,80
	2	14	EM4471 401 14100	100	80,9	–	25	25	201,7	2	1	2,85
	3	18	EM4471 401 1835	35	15,9	–	32	80	136,7	1	1	2,80
	3	18	EM4471 401 18110	110	90,9	–	32	32	211,7	2	1	2,90
	4	22	EM4471 401 2235	35	15,9	–	40	80	136,7	1	1	2,80
	4	22	EM4471 401 22120	120	100,9	–	40	40	221,7	2	1	2,95
	5	28	EM4471 401 2840	40	20,9	–	50	80	141,7	1	1	2,85
	5	28	EM4471 401 28100	100	80,9	–	50	50	201,7	2	1	3,80
	5	28	EM4471 401 28140	140	120,9	–	50	50	241,7	2	1	4,25
	6	36	EM4471 401 3645	45	25,9	–	63	80	146,7	1	1	3,10
	6	36	EM4471 401 36100	100	80,9	–	63	63	201,7	2	1	4,10
	6	36	EM4471 401 36140	140	120,9	–	63	63	241,7	2	1	5,15
	7	46	EM4471 401 4650	50	30,9	15	90	80	151,7	2	2	4,25
	7	46	EM4471 401 46120	120	100,9	85	90	80	221,7	2	2	6,60
7	46	EM4471 401 46200	200	180,9	165	90	80	301,7	2	2	10,50	

Please check availability in current price and stock-list.

Type VDI - Arbors VDI

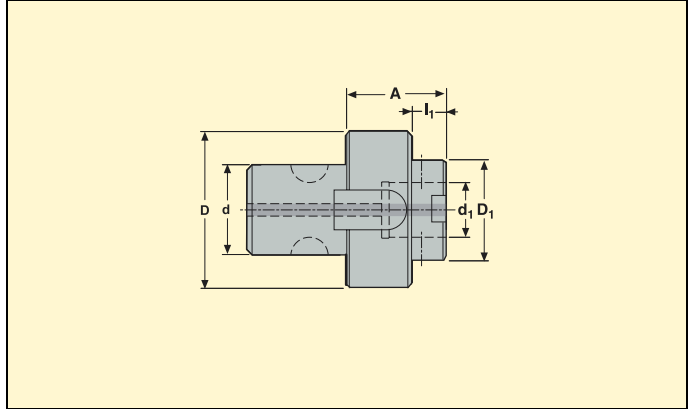
VDI DIN 69880



VDI back-end	Graflex bore		Part No.	Dimensions in mm					Balancing	KG
	Size	d ₁ mm		A	l ₃	D ₁	d ₆	h ₁		
VDI16	3	18	VDI16 401 18	30	15	32	40	-	-	0,65
	3	18	VDI20 401 18	30	15	32	50	22	-	0,80
VDI30	3	18	VDI30 401 18	30	20	32	68	28	-	0,90
	4	22	VDI30 401 22	40	20	40	68	28	-	0,95
	5	28	VDI30 401 28	40	20	50	68	28	-	0,95
VDI40	4	22	VDI40 401 22	40	20	40	83	32,5	-	1,50
	5	28	VDI40 401 28	40	20	50	83	32,5	-	1,50
	6	36	VDI40 401 36	50	20	63	83	32,5	-	1,85
VDI50	5	28	VDI50 401 28	40	20	50	98	35	-	2,35
	6	36	VDI50 401 36	50	25	63	98	35	-	2,75
	7	46	VDI50 401 46	65	25	90	98	-	-	3,90
VDI60	5	28	VDI60 401 28	40	20	50	123	42,5	-	3,90
	6	36	VDI60 401 36	50	25	63	123	42,5	-	4,40
	7	46	VDI60 401 46	65	25	90	123	42,5	-	5,45

Please check availability in current price and stock-list.

Type M403 - Reducers



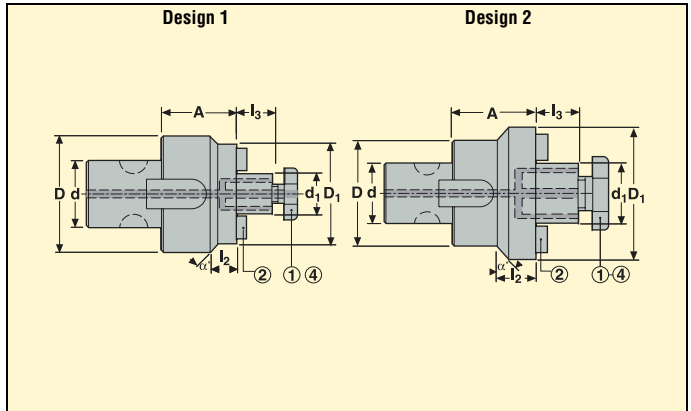
Graflex shank		Graflex bore		Part No.	Dimensions in mm				Balancing	
Size	d mm	Size	d ₁ mm		A	l ₁	D	D ₁		
1	11	0	8	M403 10	30	22	20	16	2	0,10
2	14	0	8	M403 20	30	19	25	16	2	0,10
2	14	1	11	M403 21	30	19	25	20	2	0,10
3	18	0	8	M403 30	30	16	32	16	2	0,15
3	18	1	11	M403 31	30	16	32	20	2	0,15
3	18	2	14	M403 32	30	16	32	25	2	0,20
4	22	0	8	M403 40	30	13	40	16	2	0,25
4	22	1	11	M403 41	30	13	40	20	2	0,25
4	22	2	14	M403 42	30	13	40	25	2	0,25
4	22	3	18	M403 43	30	13	40	32	2	0,20
5	28	0	8	M403 50	40	20	50	16	2	0,45
5	28	1	11	M403 51	40	20	50	20	2	0,50
5	28	2	14	M403 52	40	20	50	25	2	0,50
5	28	3	18	M403 53	40	20	50	32	2	0,55
5	28	4	22	M403 54	40	20	50	40	2	0,55
6	36	0	8	M403 60	40	14	63	16	2	0,95
6	36	1	11	M403 61	40	14	63	20	2	1,00
6	36	2	14	M403 62	40	14	63	25	2	1,00
6	36	3	18	M403 63	40	14	63	32	2	1,00
6	36	4	22	M403 64	40	14	63	40	2	1,05
6	36	5	28	M403 65	45	19	63	50	2	1,10
7	46	5	28	M403 75	50	24	90	50	-	2,15
7	46	6	36	M403 76	55	29	90	63	-	2,35

Please check availability in current price and stock-list.

Type M5525 - Shell mill holders, with through coolant channels



- With coolant supply channels through the spigot.



Graflex shank			Part No.	Dimensions in mm						Design	*	Balancing	KG
Size	d mm	d ₁ mm		A	I ₂	α°	I ₃	Graflex D	Front D ₁				
3	18	16	M5525 18 16	20	–	–	17	32	32	1	*	2	0,35
4	22	16	M5525 22 16R	25	–	–	17	38 (R)	38	1		2	0,40
4	22	22	M5525 22 22	25	19	45	19	40	48	2	*	2	0,40
5	28	16	M5525 28 16	32	6	45	17	50	38	1		2	0,59
5	28	16	M5525 28 16120	120	90	30	17	50	38	1	*	2	1,37
5	28	22	M5525 28 22R	32	–	–	19	48 (R)	48	1	*	2	0,60
5	28	27	M5525 28 27	32	24	45	21	50	60	2	*	2	0,98
6	36	22	M5525 36 22	40	6,5	45	19	63	48	1		2	1,60
6	36	22	M5525 36 22120	120	81	30	19	63	48	1		2	2,36
6	36	27	M5525 36 27	40	–	–	21	60 (R)	60	1	*	2	1,49
6	36	27	M5525 36 27120R	120	–	–	21	60 (R)	60	1	*	2	3,00
6	36	32	M5525 36 32	40	14	30	24	63	78	2	*	2	1,60
7	46	27	M5525 46 27R	40	5	45	21	78 (R)	60	1		2	2,27
7	46	32	M5525 46 32	40	8	45	24	90	78	1		2	2,60
7	46	32	M5525 46 32R	40	–	–	24	78 (R)	78	1	*	2	2,25

* Suitable for long wall milling and plunging. (R) = reduced compared to the standard Graflex D.

Accessories

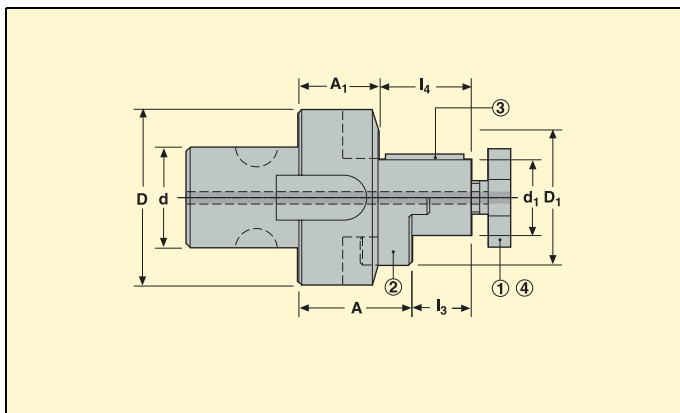
Spare parts

For d ₁ /shank	Spanner	Bolt, through coolant type (4)	Bolt (1)	Tenon/ Screw (2)
16/3	5811608	5801608L	5801608	16C116
16/4	5811608	5801608L	5801608	16C10810164
22/4	5812210	5802210L	5802210	16C11012206
22/5	5812210	5802210L	5802210	16C11012206
22/6	5812210	5802210L	5802210	16C11012206
27/5	5812712	5802712L	5802712	16C11214243
27/6	5812712	5802712L	5802712	16C11214243
27/7	5812712	5802712L	5802712	16C11214243
32/6	5813216	5803216L	5803216	16C2141421
32/7	5813216	5803216L	5803216	16C2141421

Please check availability in current price and stock-list.

Type M553 - Combi shell mill holders

DIN 6358



Graflex shank			Part No.	Dimensions in mm						Balancing	KG
Size	d mm	d ₁ mm		A	A ₁	I ₃	I ₄	D	D ₁		
5	28	16	M553 28 16	32	22	17	27	50	32	–	0,60
5	28	22	M553 28 22	32	20	19	31	50	40	–	0,70
5	28	27	M553 28 27	32	20	21	33	50	48	–	0,80
6	36	22	M553 36 22	40	28	19	31	63	40	–	1,25
6	36	27	M553 36 27	40	28	21	33	63	48	–	1,35
6	36	32	M553 36 32	40	26	24	38	63	58	–	1,52

Accessories

Spare parts

For d ₁	Spanner	Bolt, through coolant type (4)	Bolt (1)	Driving ring (2)	Flat key (3)	
16	5811608	5801608L	5801608	58316	04C216	
22	5812210	5802210L	5802210	58322	04C222	
27	5812712	5802712L	5802712	58327	04C227	
32	5813216	5803216L	5803216	58332	04C232	

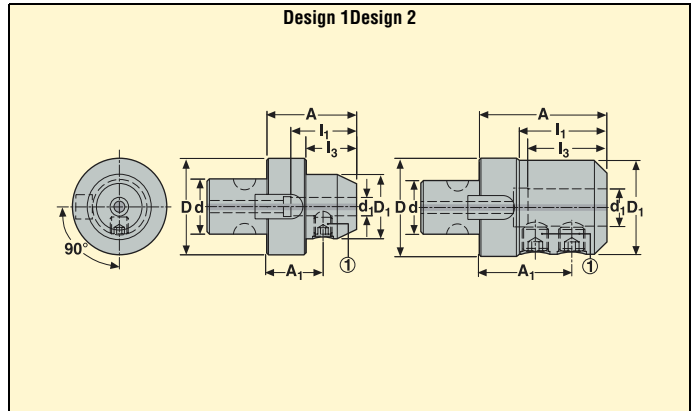
Please check availability in current price and stock-list.

Type M584 - Side lock holders, Weldon

DIN 1835 Form B/ DIN 6535 Form HB



- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



Graflex shank			Part No.	Dimensions in mm						Design	Balancing	KG
Size	d mm	d ₁ mm		A	I ₁	I ₃	D	D ₁	A ₁			
5	28	6	M584 28 06	45	25	27	50	25	27	1	2	0,55
5	28	8	M584 28 08	45	25	30	50	28	27	1	2	0,55
5	28	10	M584 28 10	55	35	39	50	35	35	1	2	0,70
5	28	12	M584 28 12	60	40	44	50	42	37,5	1	2	0,80
5	28	14	M584 28 14	60	40	44	50	44	37,5	1	2	0,80
5	28	16	M584 28 16	65	45	47	50	48	41	1	2	1,00
5	28	18	M584 28 18	65	45	47	50	50	41	1	2	1,00
5	28	20	M584 28 20	65	45	49	50	52	40	1	2	1,20
6	36	6	M584 36 06	45	19	27	63	25	27	1	2	1,05
6	36	8	M584 36 08	45	19	30	63	28	27	1	2	1,00
6	36	10	M584 36 10	55	29	39	63	35	35	1	2	1,15
6	36	12	M584 36 12	60	34	44	63	42	37,5	1	2	1,20
6	36	14	M584 36 14	60	34	44	63	44	37,5	1	2	1,20
6	36	16	M584 36 16	65	39	47	63	48	41	1	2	1,40
6	36	18	M584 36 18	65	39	47	63	50	41	1	2	1,40
6	36	20	M584 36 20	65	39	49	63	52	40	1	2	1,45
6	36	25	M584 36 25	80	—	54	63	63	56	2	2	2,05
6	36	32	M584 36 32	80	54	58	63	72	56	2	2	2,30

Spare parts

For d ₁	Locking screw (1)					
	Qty	S	Qty	S	Qty	S
6	951C0610	1	3	—	—	—
8	951C0810	1	4	—	—	—
10	951C1012	1	5	—	—	—
12-14	951C1216	1	6	—	—	—
16-18	951C1416	1	6	—	—	—
20	951C1616	1	8	—	—	—
25	951C1820	2	10	—	—	—
32	951C2020	1	10	951C2017	1	8

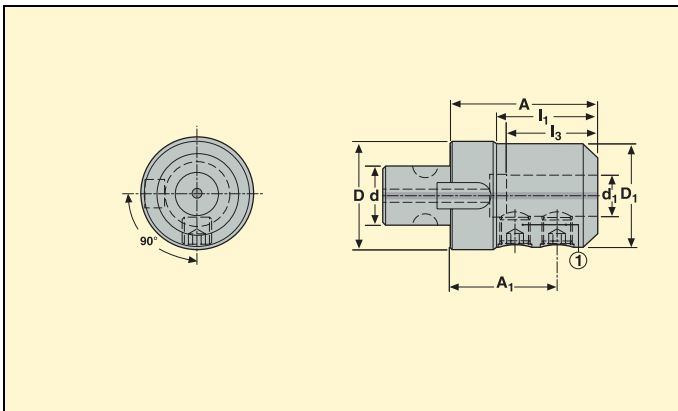
Please check availability in current price and stock-list.

Type M584 - Side lock holders, Weldon

DIN 1835 Form B/ DIN 6535 Form HB



- Weldon d 20, 25, 32 and 40 with ground face (Seco-Weldon compatible).



Graflex shank			Part No.	Dimensions in mm						Design	Balancing	KG
Size	d mm	d ₁ mm		A	I ₁	I ₃	D	D ₁	A ₁			
7	46	32	M584 46 32	80	54	58	90	72	56	2	–	3,20
7	46	40	M584 46 40	100	–	68	90	90	70	2	–	4,80

Spare parts

For d ₁	Locking screw (1)	Qty	S
32	951C2020	2	10
40	951C2025	2	10

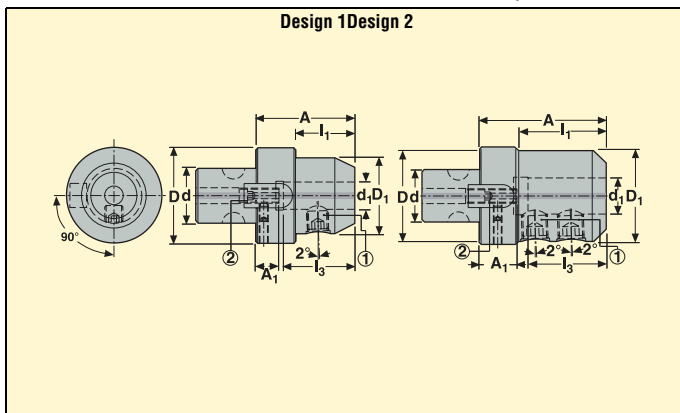
Please check availability in current price and stock-list.

Type M5843 - Side lock holders, Whistle Notch

DIN 1835 Form E/ DIN 6535 Form HE



- Whistle Notch d 16, 20, 25 and 32 with ground face.



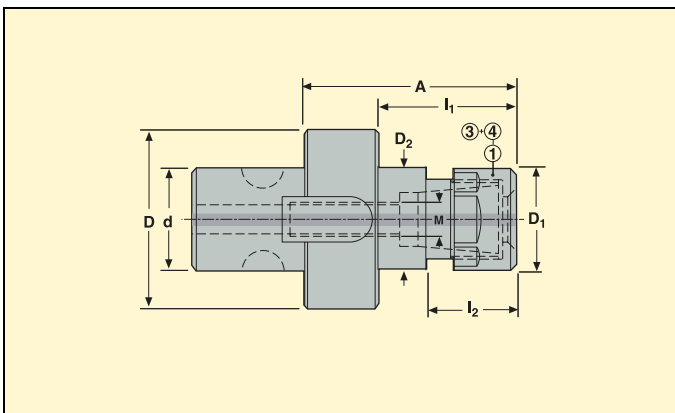
Graflex shank			Part No.	Dimensions in mm						Design	Balancing	KG
Size	d mm	d ₁ mm		A	I ₁	I ₃	D	D ₁	A ₁ min-max			
5	28	6	M5843 28 06	45	25	27	50	25	9-17	1	2	0,55
5	28	8	M5843 28 08	45	25	30	50	28	9-13	1	2	0,55
5	28	10	M5843 28 10	55	35	39	50	35	11-25	1	2	0,70
5	28	12	M5843 28 12	60	40	44	50	42	11-25	1	2	0,80
5	28	14	M5843 28 14	60	40	44	50	44	11-25	1	2	0,80
5	28	16	M5843 28 16	65	45	47	50	48	13-25	1	2	1,00
5	28	18	M5843 28 18	65	45	47	50	50	13-25	1	2	1,00
5	28	20	M5843 28 20	65	45	49	50	52	11-25	1	2	1,20
6	36	6	M58433606	45	19	27	63	25	9-17	1	2	1,05
6	36	8	M5843 36 08	45	19	30	63	28	9-13	1	2	1,00
6	36	10	M5843 36 10	55	29	39	63	35	11-25	1	2	1,15
6	36	12	M5843 36 12	60	34	44	63	42	11-25	1	2	1,20
6	36	14	M5843 36 14	60	34	44	63	44	11-25	1	2	1,20
6	36	16	M5843 36 16	65	39	47	63	48	13-25	1	2	1,40
6	36	18	M5843 36 18	65	39	47	63	50	13-25	1	2	1,40
6	36	20	M5843 36 20	65	39	49	63	52	11-25	1	2	1,45
6	36	25	M5843 36 25	80	—	54	63	63	16-24	2	2	2,05
6	36	32	M5843 36 32	80	54	58	63	72	17-22	2	2	2,30

Spare parts

For d ₁	Locking screw (1)			Stop end screw (2)		
		S		S		S
6	951C0610	3	—	—	19L0830	4
8	951C0810	4	—	—	19L1030	5
10	951C1012	5	—	—	19TLR0830	4
12-14	951C1216	6	—	—	19TLR1030	5
16-18	951C1416	6	—	—	19TLR1030	5
20	951C1616	8	—	—	19TLR1030	5
25	951C1820	10	—	—	19TLR1030	5
32	951C2017	10	951C2020	8	19TLR1030	5

Please check availability in current price and stock-list.

Type M5872 - D type precision collet chucks



Graflex shank		Size	Capacity mm	Part No.	Dimensions in mm							Balancing	KG
Size	d mm				A	I ₁	I ₂	D	D ₁	D ₂	M		
5	28	D type 16	1-10	M5872 28 16	50	30	23,3	50	27	27	M8	1	0,50
5	28	D type 24	1-16	M5872 28 24	60	40	26,3	50	36	36	M8	1	0,60
6	36	D type 29	2-20	M5872 36 29	70	44	29,7	63	42	42	M12	1	1,25

For D type collets (10° taper), see catalogue chapter Additional equipment.

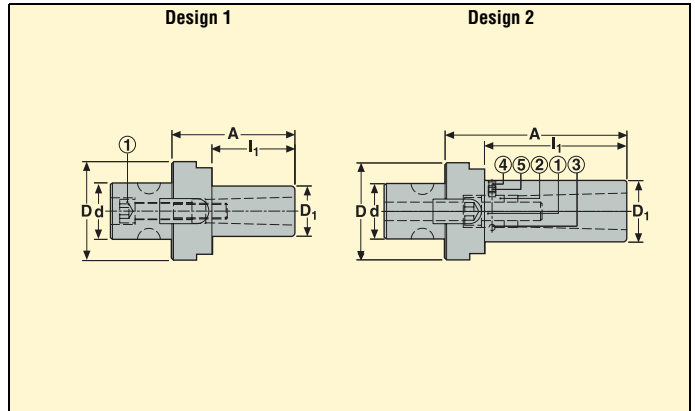
Accessories

For Size	Compression tool 	Sealing nut (4) 		Sealing ring (3) 		Nut (1) 			
		L ₁	S	d ₁	L ₁	S			
D type 16	03D587216	08B587216BE	25	24	01B587216(03-035-...-10)	3-3,5-...-10	08B587216	19	24
D type 24	03D587224	08B587224BE	28	32	01B587224(03-035-...-16)	3-3,5-...-16	08B587224	22	32
D type 29	03D587229	08B587229BE	31	38	01B587229(03-035-...-20)	3-3,5-...-20	08B587229	25	38

Please check availability in current price and stock-list.
For D type sealing rings Part No., see catalogue chapter Additional equipment.

Type M533 - Holders for Morse Taper with thread

DIN 6364 Form B/ DIN 228-2 Form C



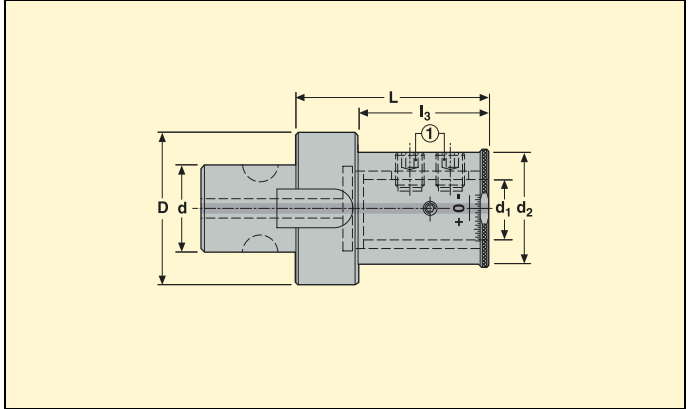
Graflex shank		MT	Part No.	Dimensions in mm				Design	Balancing	
Size	d mm			A	l ₁	D	D ₁			
5	28	2	M533 28 2	65	45	50	32	1	2	0,70
5	28	3	M533 28 3	120	100	50	40	2	2	1,20
6	36	2	M533 36 2	80	54	63	32	1	2	1,20
6	36	3	M533 36 3	120	94	63	40	2	2	1,60
6	36	4	M533 36 4	145	119	63	48	2	2	2,10
7	46	4	M533 46 4	145	119	90	48	2	2	3,00

Spare parts

For d/MT	Screw (1)		Ring (2)	Ball (3)		Screw (4)	Screw (5)
		S			Qty		
28/2	950D1040	8	-	-	-	-	-
28/3	950D1240	10	02B53303	901B04	15	950A0504	950T0508
36/2	950D1060	8	-	-	-	-	-
36/3	950D1240	10	02B53303	901B04	15	950A0504	950T0508
36/4	19B5331635	12	02B53304	901B04	20	950A0504	950T0508
46/4	19B5331635	12	02B53304	901B04	20	950A0504	950T0508

Please check availability in current price and stock-list.

Type BM/6100-6101 - Adjustable drill holders, for R7 drill shanks



- For Performax® drills.
- Adjustable from -0,3 mm to +0,8 mm on diameter.

Graflex shank		For drill shank type	d ₁ mm	d ₁ inch	Part No.	Dimensions in mm			Balancing	KG
Size	d mm					L	d ₂	l ₃		
mm-version										
6	36	R7	25	–	BM061 6100 25	70	49	54	–	1,20
6	36	R7	32	–	BM061 6100 32	85	71	69	–	2,10
6	36	R7	40	–	BM061 6100 40	85	81	69	–	2,60
inch-version										
6	36	R7	–	1	BM061 6101 25	70	49	54	–	1,20
6	36	R7	–	1,25	BM061 6101 31	85	71	69	–	2,20
6	36	R7	–	1,5	BM061 6101 38	85	81	69	–	2,70

Accessories

For holder d ₁ mm/inch	Reducing sleeve		Locking key		Locking screw (1)		
	D	d	S	S	S	S	
mm-version							
25	–	–	–	03M06	6	950AF1210014	6
32	05B61003225	32	25	03M06	6	950AF1210020	6
40	05B61004025	40	25	03M06	6	950AF1210020	6
40	05B61004032	40	32	03M06	6	950AF1210020	6
inch-version							
1,0	–	–	–	03M06	6	950AF1210014	6
1,25	05B61013125	1,25	1,0	03M06	6	950AF1210020	6
1,5	05B61013825	1,5	1,0	03M06	6	950AF1210020	6
1,5	05B61013831	1,5	1,25	03M06	6	950AF1210020	6

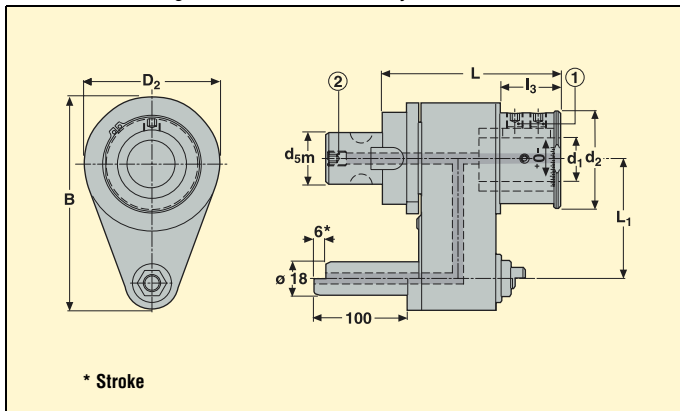
Please check availability in current price and stock-list.

Type BSM/6100-6101/A0 - Rotary coolant inducers, automatic tool change, for R7 drill shanks, adjustable

ISO 9766



- For Performax® drills.
- Adjustable from -0,3 mm to +0,8 mm on diameter.
- Filtration to 40 µm maximum required.



Graflex shank		For drill shank type	d ₁ mm	d ₁ inch	Part No.	Dimensions in mm						Max pressure in bar	Max rpm	Balancing	
Size	d _{5m} mm					L	B	D ₂	d ₂	L ₁	I ₃				
mm-version															
6	36	R7	25	–	BSM061 6100 254A0	110	127,5	90	49	65	42	20	4 000	–	2,2
6	36	R7	32	–	BSM061 6100 324A0	110	127,5	90	71	65	42	20	4 000	–	2,3
6	36	R7	40	–	BSM061 6100 404A0	110	127,5	90	78	65	42	20	4 000	–	2,3
6	36	R7	25	–	BSM061 6100 256A0	110	142,5	90	49	80	42	20	4 000	–	2,4
6	36	R7	32	–	BSM061 6100 326A0	110	142,5	90	71	80	42	20	4 000	–	2,5
6	36	R7	40	–	BSM061 6100 406A0	110	142,5	90	78	80	42	20	4 000	–	2,5
inch-version															
6	36	R7	–	1,0	BSM061 6101 254A0	110	127,5	90	49	65	42	20	4 000	–	2,2
6	36	R7	–	1,25	BSM061 6101 314A0	110	127,5	90	71	65	42	20	4 000	–	2,3
6	36	R7	–	1,5	BSM061 6101 384A0	110	127,5	90	78	65	42	20	4 000	–	2,5
6	36	R7	–	1,0	BSM061 6101 256A0	110	142,5	90	49	80	42	20	4 000	–	2,3
6	36	R7	–	1,25	BSM061 6101 316A0	110	142,5	90	71	80	42	20	4 000	–	2,4
6	36	R7	–	1,5	BSM061 6101 386A0	110	142,5	90	78	80	42	20	4 000	–	2,5

Accessories

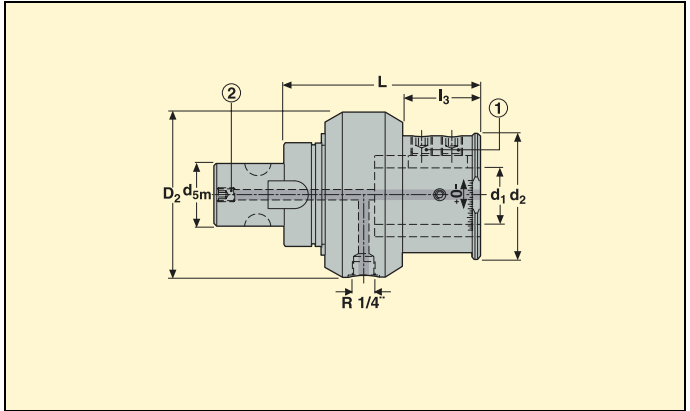
For holder d ₁ mm/inch	Socket	Reducing sleeve		Locking key		
		D	d	S	S	
mm-version						
25	E99000	–	–	03M06	6	
32	E99000	05B61003225	32	03M06	6	
40	E99000	05B61004025	40	03M06	6	
40	E99000	05B61004032	40	03M06	6	
inch-version						
1,0	E99000	–	–	03M06	6	
1,25	E99000	05B61003125	1,25	1,00	03M06	6
1,5	E99000	05B61003825	1,50	1,00	03M06	6
1,5	E99000	05B61003831	1,50	1,25	03M06	6

Spare parts

Locking screw (1)		Plug (2)
S	S	
950AF1210014	6	950A1012
950AF1210020	6	950A1012
950AF1210020	6	950A1012
950AF1210020	6	950A1012
inch-version		
950AF1210014	6	950A1012
950AF1210020	6	950A1012
950AF1210020	6	950A1012
950AF1210020	6	950A1012

Please check availability in current price and stock-list.

Type BSM/6100-6101/00 - Rotary coolant inducers, manual tool change, for R7 drill shanks, adjustable



- For Performax® drills.
- Adjustable from -0,3 mm to +0,8 mm on diameter.
- Filtration to 40 µm maximum required.

Graflex shank		For drill shank type	d ₁ mm	d ₁ inch	Part No.	Dimensions in mm				Max pressure bar	Max rpm	Balancing	KG
Size	d _{sm} mm					L	D ₂	d ₂	l ₃				
mm-version													
6	36	R7	25	–	BSM061 6100 25200	110	95	49	42	20	4 000	–	1,9
6	36	R7	32	–	BSM061 6100 32200	110	95	71	42	20	4 000	–	2,0
6	36	R7	40	–	BSM061 6100 40200	110	95	78	42	20	4 000	–	2,0
inch-version													
6	36	R7	–	1,0	BSM061 6101 25200	110	95	49	42	20	4 000	–	1,9
6	36	R7	–	1,25	BSM061 6101 31200	110	95	71	42	20	4 000	–	2,0
6	36	R7	–	1,5	BSM061 6101 38200	110	95	78	42	20	4 000	–	2,0

Accessories

For holder d ₁ mm/inch	Reducing sleeve		Locking key	
	D	d	S	S
mm-version				
25	–	–	03M06	6
32	05B61003225	32 25	03M06	6
40	05B61004025	40 25	03M06	6
40	05B61004032	40 32	03M06	6
inch-version				
1,0	–	–	03M06	6
1,25	05B61013125	1,25 1,0	03M06	6
1,5	05B61013825	1,5 1,0	03M06	6
1,5	05B61013831	1,5 1,25	03M06	6

Spare parts

Locking screw (1)		Plug (2)
S	S	
950AF1210014	6	950A1012
950AF1210020	6	950A1012
950AF1210020	6	950A1012
950AF1210020	6	950A1012
inch-version		
950AF1210014	6	950A1012
950AF1210020	6	950A1012
950AF1210020	6	950A1012
950AF1210020	6	950A1012

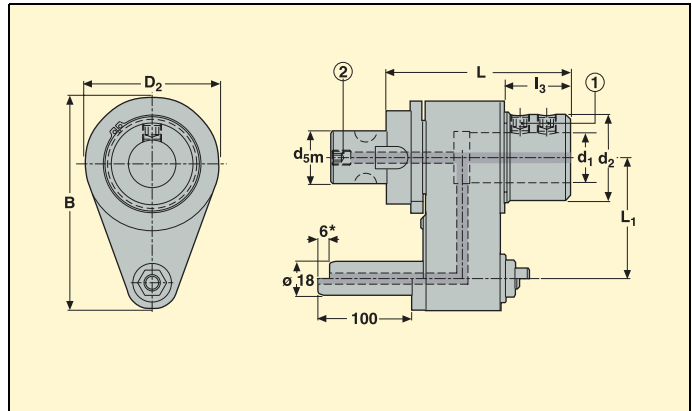
Please check availability in current price and stock-list.

Type BSM/6181-6183/A0 - Rotary coolant inducers, automatic tool change, for R7 drill shanks

ISO 9766



- For Performax® drills.
- Filtration to 40 µm maximum required.



Graflex shank		For drill shank type	d ₁ mm	d ₁ inch	Part No.	Dimensions in mm						Max pressure bar	Max rpm	Balancing	
Size	d _{5m} mm					L	B	D ₂	d ₂	L ₁	I ₃				
mm-version															
5	28	R7	25	–	BSM051 6181 253A0	105	112,5	60	39,5	65	42	20	6 000	–	2,2
5	28	R7	25	–	BSM051 6181 255A0	105	127,5	60	39,5	80	42	20	6 000	–	2,4
6	36	R7	32	–	BSM061 6181 324A0	110	127,5	90	55	65	42	20	4 000	–	2,3
6	36	R7	32	–	BSM061 6181 326A0	110	142,5	90	55	80	42	20	4 000	–	2,5
6	36	R7	40	–	BSM061 6181 404A0	115	127,5	90	63	65	47	20	4 000	–	2,3
6	36	R7	40	–	BSM061 6181 406A0	115	142,5	90	63	80	47	20	4 000	–	2,5
inch-version															
5	28	R7	–	1,0	BSM051 6183 253A0	105,4	112,5	60	39,5	65	42,4	20	6 000	–	2,2
5	28	R7	–	1,0	BSM051 6183 255A0	105,4	127,5	60	39,5	80	42,4	20	6 000	–	2,4
6	36	R7	–	1,25	BSM061 6183 314A0	110,5	127,5	90	55	65	42,5	20	4 000	–	2,3
6	36	R7	–	1,25	BSM061 6183 316A0	110,5	142,5	90	55	80	42,5	20	4 000	–	2,5
6	36	R7	–	1,5	BSM061 6183 384A0	115,5	127,5	90	63	65	47,5	20	4 000	–	2,3
6	36	R7	–	1,5	BSM061 6183 386A0	115,5	142,5	90	63	80	47,5	20	4 000	–	2,5

Accessories

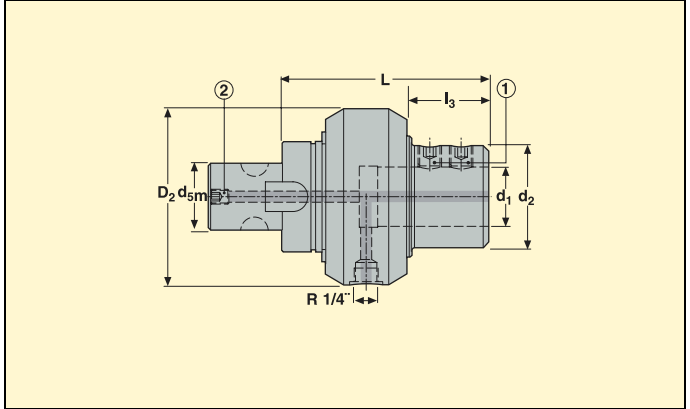
For holder d ₁ mm/inch	Socket	Reducing sleeve		Locking key		
		D	d	S	S	
mm-version						
25	E99000	–	–	03M06	6	
32	E99000	05B61003225	32	25	03M06	6
40	E99000	05B61004025	40	25	03M06	6
40	E99000	05B61004032	40	32	03M06	6
inch-version						
1,0	E99000	–	–	03M06	6	
1,25	E99000	05B61013125	1,25	1,00	03M06	6
1,5	E99000	05B61013825	1,50	1,00	03M06	6
1,5	E99000	05B61013831	1,50	1,25	03M06	6

Spare parts

Locking screw (1)	Plug (2)	
S	S	
19X60841208	6	950A0810
19X608412	6	950A1012
19X608412	6	950A1012
19X608412	6	950A1012
19X60841208	6	950A0810
19X608412	6	950A1012
19X608412	6	950A1012
19X608412	6	950A1012

Please check availability in current price and stock-list.

Type BSM/6181-6183/00 - Rotary coolant inducers, manual tool change, for R7 drill shanks



- For Performax® drills.
- Filtration to 40 µm maximum required.

Graflex shank		For drill shank type	d ₁ mm	d ₁ inch	Part No.	Dimensions in mm				Max pressure bar	Max rpm	Balancing	KG
Size	d _{5m} mm					L	D ₂	d ₂	l ₃				
mm-version													
5	28	R7	25	–	BSM051 6181 25100	105	75	39,5	42	20	6 000	–	1,8
6	36	R7	32	–	BSM061 6181 32200	110	95	55	42	20	4 000	–	1,9
6	36	R7	40	–	BSM061 6181 40200	115	95	63	47	20	4 000	–	2,0
inch-version													
5	28	R7	–	1,0	BSM051 6183 25100	105,4	75	39,5	42,4	20	6 000	–	1,8
6	36	R7	–	1,25	BSM061 6183 31200	110,5	95	55	42,5	20	4 000	–	1,9
6	36	R7	–	1,5	BSM061 6183 38200	115,5	95	63	47,5	20	4 000	–	2,0

Accessories

For holder d ₁ mm/inch	Reducing sleeve		Locking key	
	D	d	S	S
mm-version				
25	–	–	03M06	6
32	05B61003225	32 25	03M06	6
40	05B61004025	40 25	03M06	6
40	05B61004032	40 32	03M06	6
inch-version				
1,0	–	–	03M06	6
1,25	05B61013125	1,25 1,00	03M06	6
1,5	05B61013825	1,50 1,00	03M06	6
1,5	05B61013831	1,50 1,25	03M06	6

Spare parts

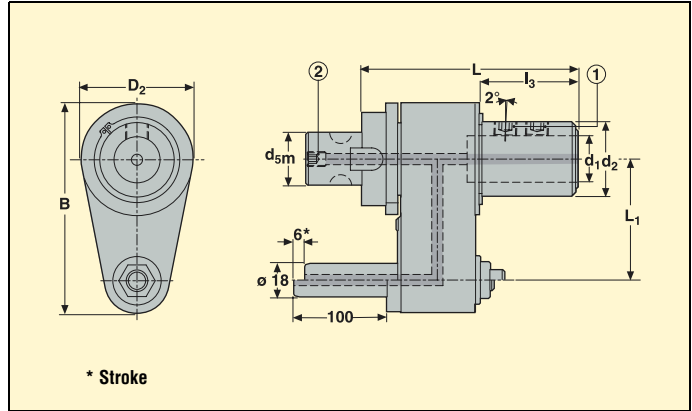
Locking screw (1)		Plug (2)
S	S	
19X60841208	6	950A0810
19X608412	6	950A1012
19X608412	6	950A1012
19X608412	6	950A1012
19X60841208	6	950A0810
19X608412	6	950A1012
19X608412	6	950A1012
19X608412	6	950A1012

Please check availability in current price and stock-list.

Type BSM/6180-6182/A0 - Rotary coolant inducers, automatic tool change, for R5 drill shanks



- For brazed drills & CrownLoc®.
- Filtration to 40 µm maximum required.



Graflex shank		For drill shank type	d ₁ mm	d ₁ inch	Part No.	Dimensions in mm						Max pressure bar	Max rpm	Balancing	KG
Graflex size	d _{5m} mm					L	B	D ₂	d ₂	L ₁	l ₃				
mm-version															
5	28	R5	16	-	BSM051 6180 163A0	100	112,5	60	32	65	37	20	6 000	-	2,3
5	28	R5	16	-	BSM051 6180 165A0	100	127,5	60	32	80	37	20	6 000	-	2,5
5	28	R5	20	-	BSM051 6180 203A0	100	112,5	60	36	65	37	20	6 000	-	2,4
5	28	R5	20	-	BSM051 6180 205A0	100	127,5	60	36	80	37	20	6 000	-	2,6
5	28	R5	25	-	BSM051 6180 253A0	115	112,5	60	39,5	65	52	20	6 000	-	2,9
5	28	R5	25	-	BSM051 6180 255A0	115	127,5	60	39,5	80	52	20	6 000	-	3,1
6	36	R5	32	-	BSM061 6180 324A0	110	127,5	90	55	65	42	20	4 000	-	2,9
6	36	R5	32	-	BSM061 6180 326A0	110	142,5	90	55	80	42	20	4 000	-	3,1
inch-version															
5	28	R5	-	0,625	BSM051 6182 153A0	101,6	112,5	60	32	65	38,6	20	6 000	-	2,3
5	28	R5	-	0,625	BSM051 6182 155A0	101,6	127,5	60	32	80	38,6	20	6 000	-	2,5
5	28	R5	-	0,75	BSM051 6182 193A0	101,6	112,5	60	36	65	38,6	20	6 000	-	2,4
5	28	R5	-	0,75	BSM051 6182 195A0	101,6	127,5	60	36	80	38,6	20	6 000	-	2,6
5	28	R5	-	1,0	BSM051 6182 253A0	115,5	112,5	60	39,5	65	52,5	20	6 000	-	2,9
5	28	R5	-	1,0	BSM051 6182 255A0	115,5	127,5	60	39,5	80	52,5	20	6 000	-	3,1
6	36	R5	-	1,25	BSM061 6182 314A0	110,5	127,5	90	55	65	42,5	20	4 000	-	2,9
6	36	R5	-	1,25	BSM061 6182 316A0	110,5	142,5	90	55	80	42,5	20	4 000	-	3,1

Accessories

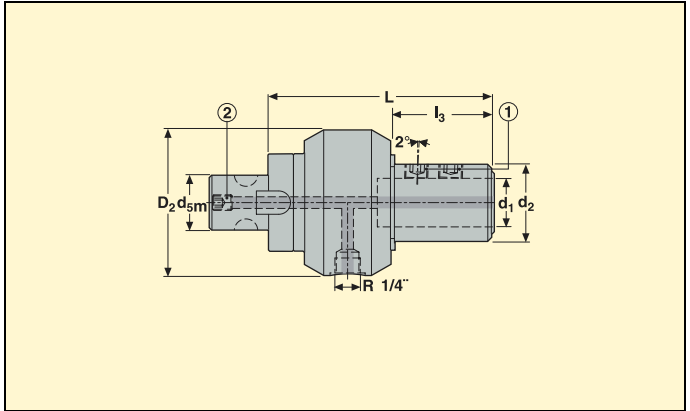
For holder d ₁ mm/inch	Socket	Locking key	
			S
mm-version			
16	E99000	03M05C	5
20	E99000	03M05C	5
25	E99000	03M06	6
32	E99000	03M06	6
inch-version			
0,625	E99000	03M05C	5
0,75	E99000	03M05C	5
1,0	E99000	03M06	6
1,25	E99000	03M06	6

Spare parts

	Locking screw (1)		Plug (2)
	Qty	S	
	19X608410	1	5
	19X608410	1	5
	19X60841208	2	6
	19X608412	2	6
	19X608410	1	5
	19X608410	1	5
	19X60841208	2	6
	19X608412	2	6

Please check availability in current price and stock-list.

Type BSM/6180-6182/00 - Rotary coolant inducers, manual tool change, for R5 drill shanks



- For brazed drills & CrownLoc®.
- Filtration to 40 µm maximum required.

Graflex shank		For drill shank type	d ₁ mm	d ₁ inch	Part No.	Dimensions in mm				Max pressure bar	Max rpm	Balancing	KG
Size	d _{5m} mm					L	D ₂	d ₂	I ₃				
mm-version													
5	28	R5	16	–	BSM051 6180 16100	100	75	32	37	20	6 000	–	1,8
5	28	R5	20	–	BSM051 6180 20100	100	75	36	37	20	6 000	–	2,9
5	28	R5	25	–	BSM051 6180 25100	115	75	39,5	52	20	6 000	–	2,4
6	36	R5	32	–	BSM061 6180 32200	110	95	55	42	20	4 000	–	2,6
inch-version													
5	28	R5	–	0,625	BSM051 6182 15100	101,6	75	32	38,6	20	6 000	–	1,8
5	28	R5	–	0,75	BSM051 6182 19100	101,6	75	36	38,6	20	6 000	–	2,9
5	28	R5	–	1,0	BSM051 6182 25100	115,5	75	39,5	52,5	20	6 000	–	2,4
6	36	R5	–	1,25	BSM061 6182 31200	110,5	95	55	42,5	20	4 000	–	2,6

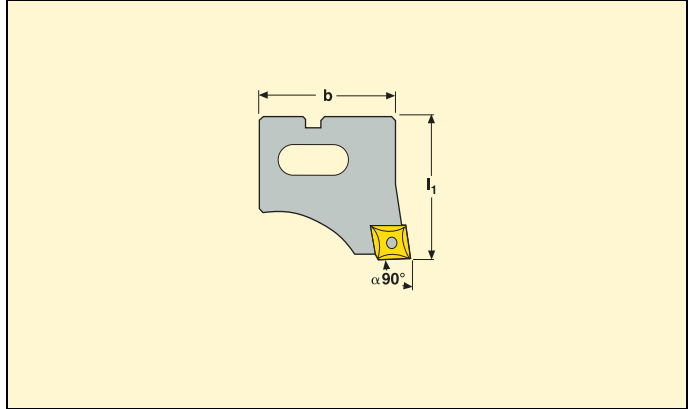
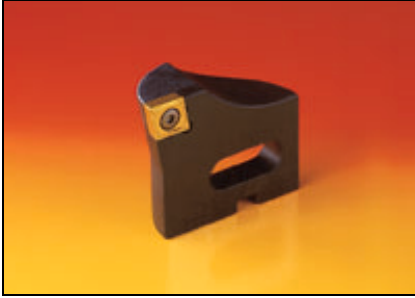
Accessories

Spare parts

For holder d ₁ mm/inch	Locking key		Locking screw (1)			Plug (2)
		S	Qty	S		
mm-version						
16	03M05C	5	19X608410	1	5	950A0810
20	03M05C	5	19X608410	1	5	950A0810
25	03M06	6	19X60841208	2	6	950A0810
32	03M06	6	19X608412	2	6	950A1012
inch-version						
0,625	03M05C	5	19X608410	1	5	950A0810
0,75	03M05C	5	19X608410	1	5	950A0810
1,0	03M06	6	19X60841208	2	6	950A0810
1,25	03M06	6	19X608412	2	6	950A1012

Please check availability in current price and stock-list.

Rough boring insert holders 90°, for heads type A750



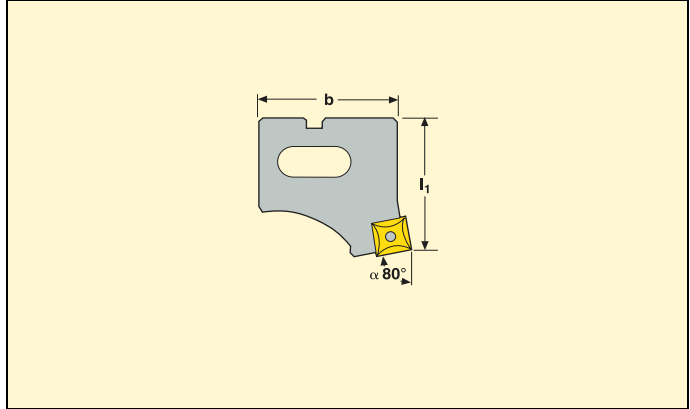
- For fitting on to type A750 heads.
- Symmetrical boring requires two standard type A insert holders.
- Staggered boring requires one standard type A and one extended type B insert holders.

Insert holders type	For head	Capacity Ø mm	Part No.	Lead angle α°	Dimensions in mm		Suitable insert size	KG
					l ₁	b		
Standard type A	A75000	18-24	A750 00CP05 90	90°	22,5	16,5	CP...0502...	0,010
	A75010	23-31	A750 10CC06 90	90°	26,5	21,5	CC...0602...	0,018
	A75020	30-40	A750 20CC06 90	90°	30	27	CC...0602...	0,035
	A75030	39-51	A750 30CC09 90	90°	41	35	CC...09T3...	0,080
	A75040	50-65	A750 40CC12 90	90°	45	43	CC...1204...	0,140
	A75050	64-86	A750 50CC12 90	90°	52	54	CC...1204...	0,250
	A75060	85-115	A750 60CC12 90	90°	68	70	CC...1204...	0,550
	A75060	85-115	A750 60CC16 90	90°	68	70	CC...1605...	0,550
	A75060	114-144	A750 65CC12 90	90°	68	100	CC...1204...	0,950
	A75060	114-144	A750 65CC16 90	90°	68	100	CC...1605...	0,950
	A75070	114-160	A750 70CC12 90	90°	81	95	CC...1204...	1,200
	A75070	114-160	A750 70CC16 90	90°	81	95	CC...1605...	1,200
	A75070	159-205	A750 75CC12 90	90°	81	141	CC...1204...	2,000
A75070	159-205	A750 75CC16 90	90°	81	141	CC...1605...	2,000	
Extended type B	A75000	18-24	A750 01CP05 90	90°	22,8	16,5	CP...0502...	0,010
	A75010	23-31	A750 11CC06 90	90°	26,85	21,5	CC...0602...	0,018
	A75020	30-40	A750 21CC06 90	90°	30,35	27	CC...0602...	0,035
	A75030	39-51	A750 31CC09 90	90°	41,4	35	CC...09T3...	0,080
	A75040	50-65	A750 41CC12 90	90°	45,5	43	CC...1204...	0,140
	A75050	64-86	A750 51CC12 90	90°	52,6	54	CC...1204...	0,250
	A75060	85-115	A750 61CC12 90	90°	68,6	70	CC...1204...	0,550
	A75060	85-115	A750 61CC16 90	90°	68,6	70	CC...1605...	0,550
	A75060	114-144	A750 66CC12 90	90°	68,6	100	CC...1204...	0,950
	A75060	114-144	A750 66CC16 90	90°	68,6	100	CC...1605...	0,950
	A75070	114-160	A750 71CC12 90	90°	81,6	95	CC...1204...	1,200
	A75070	114-160	A750 71CC16 90	90°	81,6	95	CC...1605...	1,200
	A75070	159-205	A750 76CC12 90	90°	81,6	141	CC...1204...	2,000
	A75070	159-205	A750 76CC16 90	90°	81,6	141	CC...1605...	2,000

Please check availability in current price and stock-list.

For insert fixing spare screws and torx keys, see page Insert locking screws and keys.

Rough boring insert holders 80°, for heads type A750



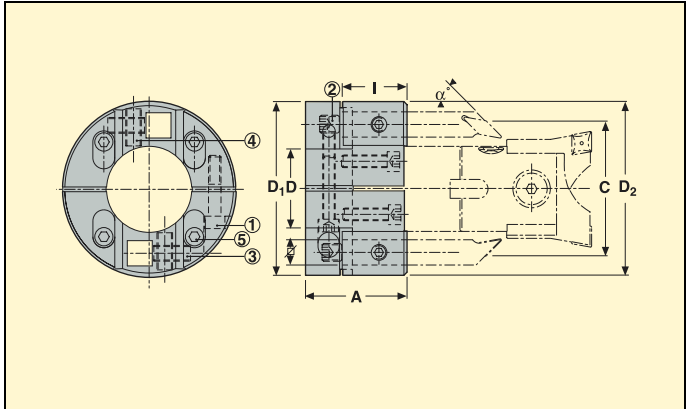
- For fitting on to type A750 heads.
- Symmetrical boring requires two standard type A insert holders.
- Staggered boring requires one standard type A and one extended type B insert holders.

Insert holders type	For head	Capacity \varnothing mm	Part No.	Lead angle α°	Dimensions in mm		Suitable insert size	
					l_1	b		
Standard type A	A75000	18-24	A750 00SC05 80	80°	22,5	16,5	SC...0502...	0,010
	A75010	23-31	A750 10SC06 80	80°	26,5	21,5	SC...0602...	0,018
	A75020	30-40	A750 20SC06 80	80°	30	27	SC...0602...	0,035
	A75030	39-51	A750 30SC09 80	80°	41	35	SC...09T3...	0,080
	A75040	50-65	A750 40SC12 80	80°	45	43	SC...1204...	0,140
	A75050	64-86	A750 50SC12 80	80°	52	54	SC...1204...	0,250
	A75060	85-115	A750 60SC12 80	80°	68	70	SC...1204...	0,550
	A75060	85-115	A750 60SC15 80	80°	68	70	SC...1505...	0,550
	A75060	114-144	A750 65SC12 80	80°	68	100	SC...1204...	0,950
	A75060	114-144	A750 65SC15 80	80°	68	100	SC...1505...	0,950
	A75070	114-160	A750 70SC12 80	80°	81	95	SC...1204...	1,250
	A75070	114-160	A750 70SC15 80	80°	81	95	SC...1505...	1,250
	A75070	159-205	A750 75SC12 80	80°	81	141	SC...1204...	2,080
A75070	159-205	A750 75SC15 80	80°	81	141	SC...1505...	2,080	
Extended type B	A75000	18-24	A750 01SC05 80	80°	23,2	16,5	SC...0502...	0,010
	A75010	23-31	A750 11SC06 80	80°	27,3	21,5	SC...0602...	0,018
	A75020	30-40	A750 21SC06 80	80°	30,9	27	SC...0602...	0,035
	A75030	39-51	A750 31SC09 80	80°	42,2	35	SC...09T3...	0,080
	A75040	50-65	A750 41SC12 80	80°	46,4	43	SC...1204...	0,140
	A75050	64-86	A750 51SC12 80	80°	53,7	54	SC...1204...	0,250
	A75060	85-115	A750 61SC12 80	80°	69,8	70	SC...1204...	0,550
	A75060	85-115	A750 61SC15 80	80°	70,3	70	SC...1505...	0,550
	A75060	114-144	A750 66SC12 80	80°	69,8	100	SC...1204...	0,950
	A75060	114-144	A750 66SC15 80	80°	70,3	100	SC...1505...	0,950
	A75070	114-160	A750 71SC12 80	80°	82,8	95	SC...1204...	1,250
	A75070	114-160	A750 71SC15 80	80°	83,3	95	SC...1505...	1,250
	A75070	159-205	A750 76SC12 80	80°	82,8	141	SC...1204...	2,080
	A75070	159-205	A750 76SC15 80	80°	83,3	141	SC...1505...	2,080

Please check availability in current price and stock-list.

For insert fixing spare screws and torx keys, see page Insert locking screws and keys.

Type A5162 - Chamfering rings



- One or two chamfering tools can be held.

Capacity C Ø mm				Part No.	Graflex external diameter		For square shank tools mm	Dimensions in mm				 KG
Ø Min mm	Ø Max α 15°	Ø Max α 30°	Ø Max α 45°		Graflex size	D mm		D ₁	D ₂	A	I	
18	27	30	32	A5162 16	0	16	6	38	43	25	16,5	0,10
23	34	41	46	A5162 20	1	20	8	47	54	33	20,5	0,10
30	43	50	55	A5162 25	2	25	8	52	61	33	20,5	0,15
39	56	61	66	A5162 32	3	32	10	65	78	40	25	0,25
50	70	75	80	A5162 40	4	40	12	85	101	49	29,5	0,55
64	94	101	108	A5162 50	5	50	16	110	132	65	41,5	1,25
85	123	130	137	A5162 63	6	63	16	134	162	70	42,5	1,90
114	168	175	182	A5162 90	7	90	16	165	207	75	44,5	3,00

Chamfering tools, square shank type, have to be ordered separately, see next page.

Spare parts

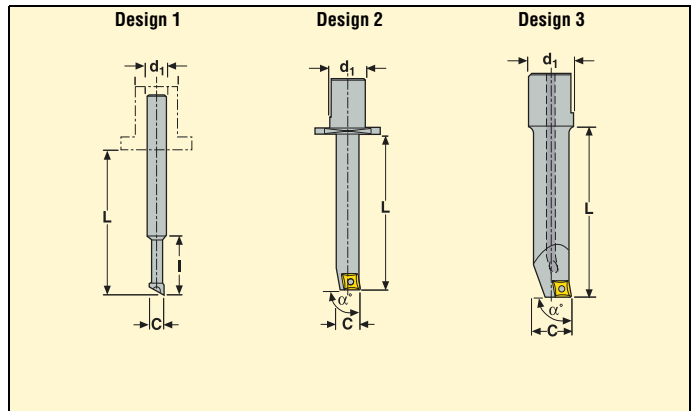
For D	Fixing screw (1)	Adjusting screw (2)	Locking screw (3)	Adjusting screw (4)	Locking screw (5)
16	950D0312	950A0408	950A0408	950A0408	950D0312
20-25	950D0416	950A0510	950A0510	950A0510	950D0416
32	950D0520	950A0612	950A0612	950A0612	950D0520
40	950D0625	950A0816	950A0820	950A0820	950D0625
50	950D0840	950A1020	950A1025	950A1025	950D0840
63	950D0850	950A1025	950A1030	950A1030	950D0840
90	950D1050	950A1030	950A1040	950A1030	950D1035

Please check availability in current price and stock-list.

Fine boring tools, for heads A72002, A78000 and A79000



- For fitting on to axial type Fine boring heads A72002, A78000 and A79000.

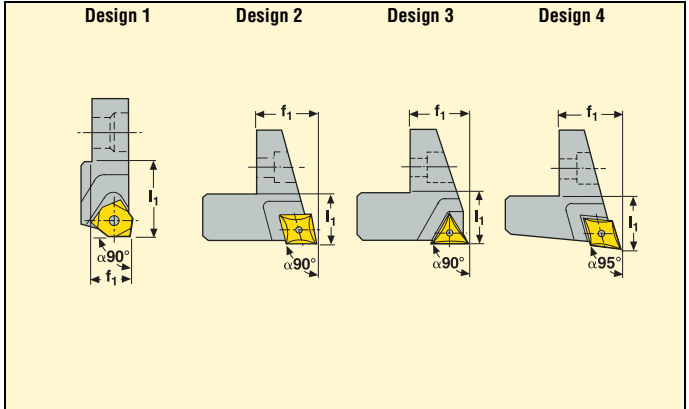


Tool material	For head	Capacity \varnothing C mm	d_1 mm	Lead angle α°	Part No.	Dimensions in mm		Suitable insert size	Design	KG
						L	I			
Solid carbide*	A72002/ A78000/ A79000	2-3	6	-	A721 012	16	10	-	1	0,01
	A72002/ A78000/ A79000	3-4,5	6	-	A721 032	34	10	-	1	0,015
	A72002/ A78000/ A79000	4,5-6	6	-	A721 042	34	14	-	1	0,015
Steel, indexable insert type	A72002	6-10	14	90°	A728 012	22	-	WB...0301...	2	0,03
	A72002	8-14	14	90°	A728 022	30	-	WB...0301...	2	0,04
	A72002	10-18	14	90°	A728 035	45	-	CC...0602...	2	0,05
	A72002	16-24	14	90°	A728 045	65	-	CC...0602...	2	0,09
Heavy metal, indexable insert type	A72002	6-10	14	90°	A728 112	32	-	WB...0301...	2	0,06
	A72002	8-14	14	90°	A728 122	45	-	WB...0301...	2	0,08
	A72002	10-18	14	90°	A728 135	60	-	CC...0602...	2	0,12
Steel, indexable insert type	A78000/ A79000	6-9	16	90°	A792 001	23	-	WB...0301...	3	0,04
	A78000/ A79000	8-11	16	90°	A792 002	30	-	WB...0301...	3	0,04
	A78000/ A79000	10-16	16	90°	A795 003	40	-	CC...0602...	3	0,05
	A78000/ A79000	15-20	16	90°	A795 004	60	-	CC...0602...	3	0,09
	A78000/ A79000	19-24	16	90°	A795 005	70	-	CC...0602...	3	0,11
	A78000/ A79000	23-28	16	90°	A795 006	70	-	CC...0602...	3	0,12
	A78000/ A79000	27-32	16	90°	A795 007	70	-	CC...0602...	3	0,12
Heavy metal, indexable insert type	A78000/ A79000	6-9	16	90°	A792 101	33	-	WB...0301...	3	0,09
	A78000/ A79000	8-11	16	90°	A792 102	45	-	WB...0301...	3	0,10
	A78000/ A79000	10-14	16	90°	A795 103A	55	-	CC...0602...	3	0,12
	A78000/ A79000	13-16	16	90°	A795 103B	70	-	CC...0602...	3	0,18
Carbide, indexable insert type	A78000/ A79000	6-9	16	90°	A792 201	42	-	WB...0301...	3	0,08
	A78000/ A79000	8-11	16	90°	A792 202	56	-	WB...0301...	3	0,10
	A78000/ A79000	10-14	16	90°	A795 203A	72	-	CC...0602...	3	0,10
	A78000/ A79000	13-16	16	90°	A795 203B	92	-	CC...0602...	3	0,16
	A78000/ A79000	15,5-18	16	90°	A795 204A	112	-	CC...0602...	3	0,18

Please check availability in current price and stock-list.

* Tools with shank dia 6 mm require the use of a reducing bushing for fitting into the heads, see Head pages.
For insert fixing spare screws and torx keys, see page insert locking screws and keys.

Fine boring insert holders 90° and 95°, for radial type heads type A780 and A790.



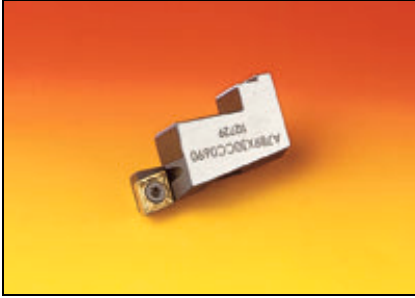
• For fitting on to type A780 and A790 radial heads.

Lead angle α°	For A780... and A790...	Insert holder size	Capacity \varnothing C mm	Part No.	Dimensions in mm		Suitable insert size	Design	
					l_1	f_1			
90° for WB inserts	...08 and ...09	09	15-23,5	A782 09	7,2	4	WB...0301...	1	0,002
90° for CC inserts	...10	10	23-31	A725 10	10,3	4,5	CC...0602...	2	0,005
	...20	20	30-40	A725 20	8,3	5	CC...0602...	2	0,005
	...30	30	39-51	A725 30	10,3	8	CC...0602...	2	0,010
	...40	40	50-65	A725 40	10,3	9,5	CC...0602...	2	0,012
	...50	50	64-86	A725 50	10,3	12,5	CC...0602...	2	0,017
	...60	60	85-115*	A725 60	16,5	18,9	CC...09T3...	2	0,070
	...60**	65	114-144*	A725 65	16,5	33,7	CC...09T3...	2	0,090
	...70	70	114-160	A725 70	16,5	18,9	CC...09T3...	2	0,090
90° for TC inserts	...70	75	159-205	A725 75	16,5	41,7	CC...09T3...	2	0,120
	...10	10	23-31	A724 10	7,3	4,5	TP...0702...	3	0,005
	...20	20	30-40	A724 20	7,3	5	TP...0702...	3	0,005
	...30	30	39-51	A724 30	10,3	7,9	TC...1102...	3	0,010
	...40	40	50-65	A724 40	10,3	9,4	TC...1102...	3	0,012
	...50	50	64-86	A724 50	10,3	12,4	TC...1102...	3	0,017
	...60	60	85-115*	A724 60	16,3	18,9	TC...1102...	3	0,070
	...60**	65	114-144*	A724 65	16,5	33,7	TC...1102...	3	0,090
95° for CC inserts	...70	70	114-160	A724 70	16,3	18,9	TC...1102...	3	0,090
	...70	75	159-205	A724 75	16,5	41,7	TC...1102...	3	0,120
	...10	10	23-31	A726 10	10,3	4,5	CC...0602...	4	0,005
	...20	20	30-40	A726 20	8,3	5	CC...0602...	4	0,005
	...30	30	39-51	A726 30	10,3	8	CC...0602...	4	0,010
	...40	40	50-65	A726 40	10,3	9,5	CC...0602...	4	0,012
	...50	50	64-86	A726 50	10,3	12,5	CC...0602...	4	0,017
	...60	60	85-115*	A726 60	16,5	18,9	CC...09T3...	4	0,070
	...60**	65	114-144*	A726 65	16,5	33,7	CC...09T3...	4	0,090
	...70	70	144-160	A726 70	16,5	18,9	CC...09T3...	4	0,090
...70	75	159-205	A726 75	16,5	41,7	CC...09T3...	4	0,120	

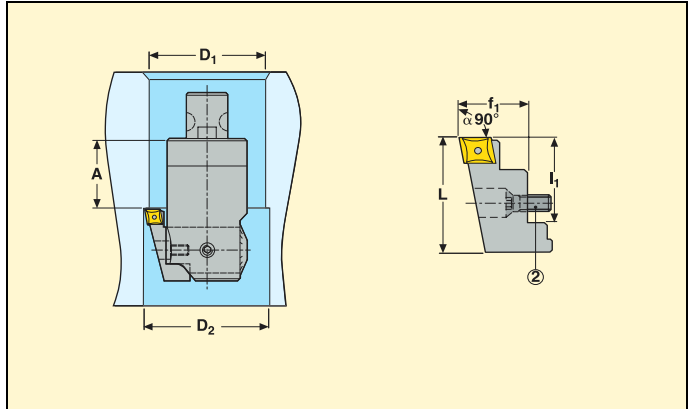
Please check availability in current price and stock-list.

* The insert holders size 60 also fit on to the fine boring sliding block for bridge bar boring heads. ** The precision balancing of type A790 heads is not possible when using the large insert holders. For insert fixing spare screws and torx keys, see page Insert locking screws and keys.

Fine back-boring insert holders



- For fitting on to type A780 and A790 radial heads.
- The precision balancing of type A790 heads is not possible when using back-boring insert holders.



Back-boring capacity D_2 related to head \varnothing mm	Lead angle α°	Part No.	Dimensions in mm					Suitable insert size	
			A	D_1	L	l_1	f_1		
A78008: 26,5-30 A78009: 29,5-35	90°	A789X08WB03 90	13/ 13	14/ 17	19	14,5	9,8	WB...0301...	0,008
A78010: 34-42	90°	A789X10WB03 90	16,5	21,5	22	16	10	WB...0301...	0,010
A78010: 39,5-47,5 A78020/ A79020: 46-56	90°	A789X10CC06 90	16,5/ 21,5	21,5/ 27	22	16	12,8	CC...0602...	0,015
A78030/ A79030: 53-65 A78040/ A79040: 61-76 A78050/ A79050: 69-91	90°	A789X30CC06 90	32/ 39/ 49	35/ 43/ 54	30	23	15	CC...0602...	0,025
A78060: 89-119	90°	A789X60CC06 90	50	70	50	38,5	21	CC...0602...	0,075
A78070: 118-164	90°	A789X70CC06 90	60	95	50	38,5	21	CC...0602...	0,090

For the minimum access diameter D_1 mini calculation, see the Guide page.

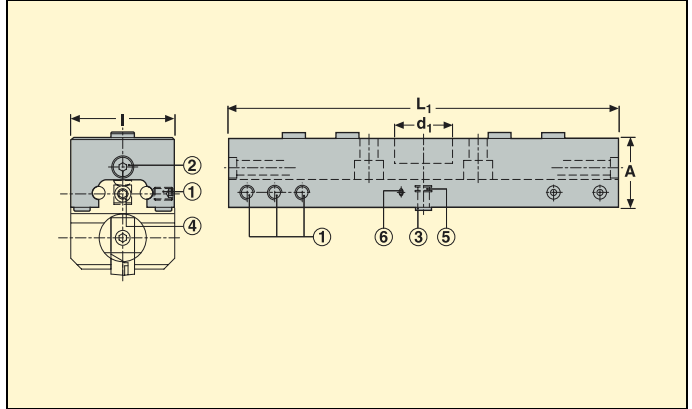
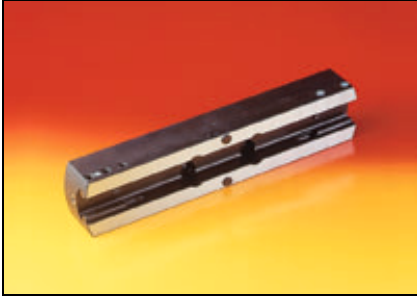
Spare parts

For	Dedicated back-boring insert holder locking screw (2)
A789X08WB0390	—
A789X10WB0390	950F0308
A789X10CC0690	950F0410
A789X30CC0690	950F0410
A789X60CC0690	950F0620
A789X70CC0690	950F0620

Please check availability in current price and stock-list.

For insert fixing spare screws and torx keys, see page insert locking screws and keys.

Bridge bars



Capacity \varnothing C mm	Part No.	Dimensions in mm				
		d_1	l	A	L_1	
204-280	A731 010	40	70	47	195	3,70
279-355	A731 020	40	70	47	269	5,10
354-430	A731 030	40	70	47	344	6,70
429-505	A731 040	40	70	47	419	8,30
504-580	A731 050	40	70	47	494	10,20
579-655	A731 060	40	70	47	569	12,10

For larger diameters, Jumbo Bridge bars are available on request.

Accessories

Spare parts

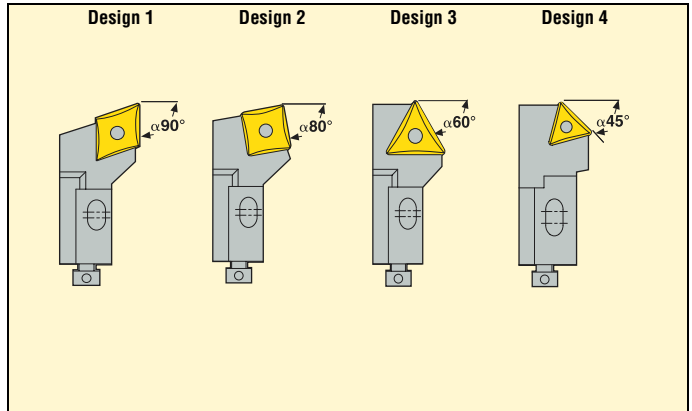
For capacity	Coolant pipe (3)		Screw (1)		Plug (5)		Screw (6)		Key for (1) (2) (4)	
		Qty		Qty		Qty		Qty		S
204-655	AU73100700	2	19A71060	6	AU73100600	2	950B0610	2	03M05C	5


Please check availability in current price and stock-list.

Cartridges, for the rough boring sliding block






- For fitting on to the rough boring sliding block.



Lead angle α°	Design	Part No.	ISO designation	Suitable insert size	
90°	1	SCGCL16CA-16	SCGCL16CA-16	CC...16	0,16
	1	STGCL16CA-16	STGCL16CA-16	TC...16	0,16
80°	2	SSRCL16CA-15	SSRCL16CA-15	SC...15	0,16
60°	3	STTCL16CA-16	STTCL16CA-16	TC...16	0,16
45°	4	STSCL16CA-16	STSCL16CA-16	TC...16	0,16

Spare parts

For	Anvil 	Anvil screw 	Key 
SCGCL16CA-16	–	–	–
STGCL16CA-16	STN160312	CA3510	9/64SMS875
SSRCL16CA-15	–	–	–
STTCL16CA-16	STN160312	CA3510	9/64SMS875
STSCL16CA-16	STN160312	CA3510	9/64SMS875

Please check availability in current price and stock-list.

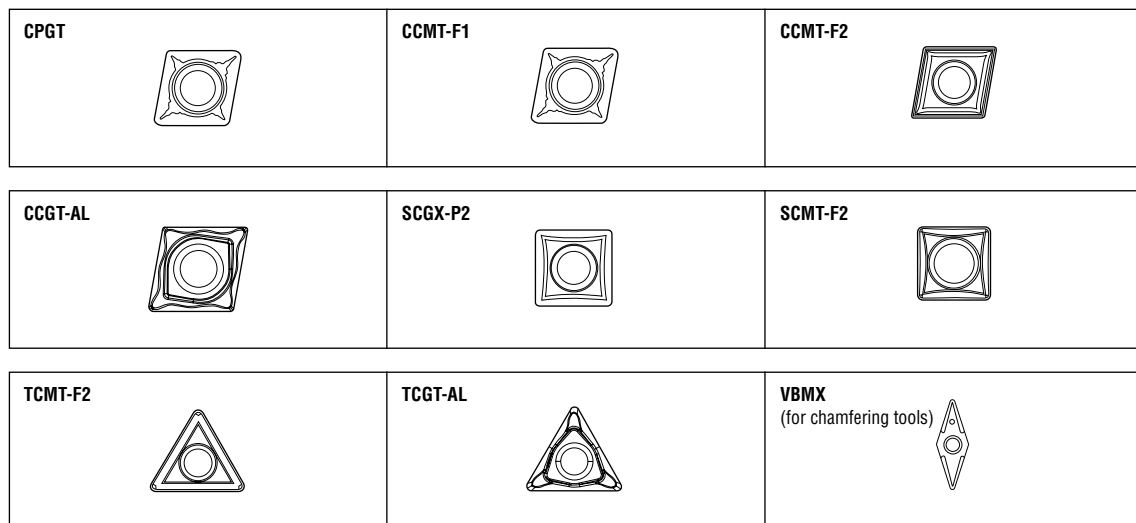
For insert fixing spare screws and torx keys, see page insert locking screws and keys.

Inserts, recommended for rough boring

Part No	Uncoated carbide			Coated carbide							Cutting data*	
	Ground flank and pressed chipbreaker ..KX	Ground flank and pressed chipbreaker ..03D3	Ground flank and chipbreaker, right hand cutting (for chamfering tools) ..03H6	Pressed chipbreaker							Max. depth of cut a_p (mm)	Feed per cutting edge f (mm/rev)
				..TP3000	..TP40	..T300D	..25C4	..TP200	..T2000D	..TP400		
CPGT 050204..		■					■				2	0,05–0,2
CCMT 060204-F1..				■	■						2,5	0,05–0,25
CCMT 060204-F2..				■	■							
CCGT 060204F-AL..	■										4	0,1–0,3
CCMT 09T308-F1..				■	■							
CCMT 09T308-F2..				■	■						5	0,15–0,4
CCGT 09T308F-AL..	■											
CCMT 120408-F2..				■	■						2	0,05–0,2
CCGT 120408F-AL..	■											
SCGX 050204-P2..						■				■	2,5	0,05–0,25
SCMT 060204-F2..				■	■						4	0,1–0,3
SCMT 09T308-F2..				■	■							
SCMT 120408-F2..				■	■						5	0,15–0,4
TCMT 16T308-F2..				■	■						4	0,15–0,4
TCGT 16T308F-AL..	■											
CCMT 160508-F2..									■		7	0,2–0,5
CCMT 160512-F2..									■	■		
SCMT 150512-F2..					■						-	-
SCGX 150512-P2..						■				■		
VBMX 110204..			■									
VBMX 160408..			■									

Please check availability in current price and stock-list.

* For recommended cutting speeds, see Guide pages.



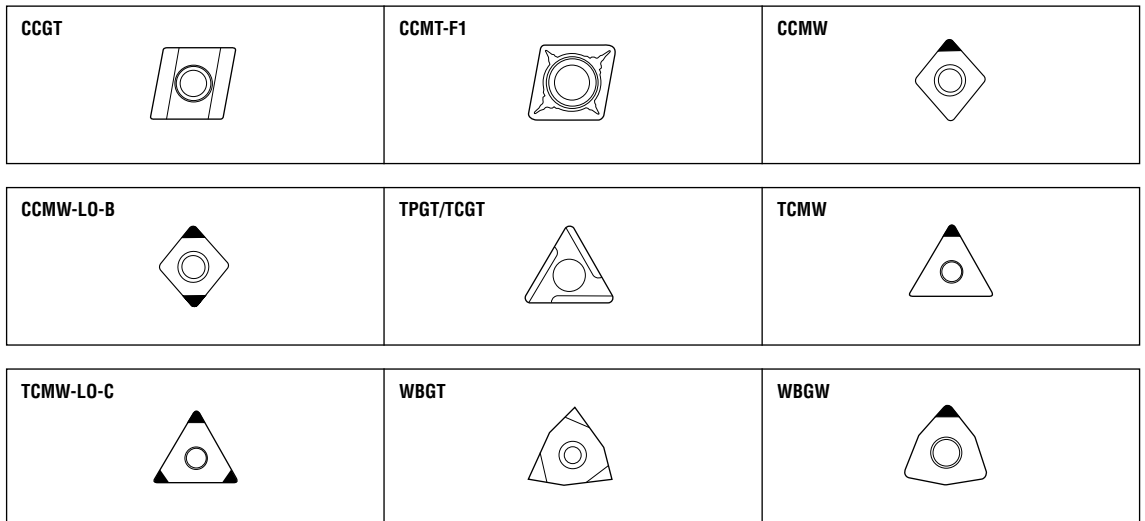
Inserts, recommended for fine boring

Part No.	Uncoated carbide		Coated carbide		Cermet		CBN			PCD			Cutting data*	
	Ground flank and chipbreaker, left hand cutting	Pressed chip-breaker	Ground flank and chipbreaker, left hand cutting	Ground flank and chipbreaker, left hand cutting	Pressed chip-breaker	Without chipbreaker, ground flank			Without chipbreaker, ground flank		Ground flank and chip-breaker	Depth of cut ap (mm)	Feed f (mm/rev)	
						..03G3	..CP500	..26G6	..51G1	..CMP				..CBN10
CCGT 060200..	■				■									
CCGT 060202..	■		■		■									
CCGT 060204..	■		■		■									
CCMT 060202-F1..		■			■									
CCMT 060204-F1..		■			■									
CCMW 060202..							■	■						
CCMW 060202F-L1..										■				
CCMW 060204F-L1..										■				
CCMW 060204E-LO..							■							
CCGT 09T302..	■		■		■									
CCGT 09T304..	■		■		■									
CCMT 09T302-F1..		■			■									
CCMT 09T304-F1..		■			■									
CCMW 09T304F-L1..										■				
CCMW 09T304E-LO..							■							
CCMW 09T308E-LO..							■							
CCMW 09T304E-LO-B							■							
CCMW 09T308E-LO-B							■							
CCMW 09T308..										■				
TPGT 070203..	■		■		■									
TCGT 110202..	■		■		■									
TCGT 110204..	■		■		■									
TCMW 110204E-LO..							■							
TCMW 110204E-LO-C..							■							
TCMW 110202F-L1..										■				
TCMW 110204F-L1..										■				
WBGT 030100L..					■									
WBGT 030102L..		■			■									
WBGT 030100..	■													
WBGT 030102..	■													
WBGW 030102..							■	■				■		

0.01–0.3
0.03–0.15

Please check availability in current price and stock-list.

* For recommended cutting speeds, see Guide pages.



This page summarises the insert locking keys and screws of all Graflex boring insert holders, tools and cartridges.

Recall : Spare parts are part of the original delivery content. Accessories are not included in the delivery content, to be ordered separately.

	Accessories		Spare parts	
	Torx driver for insert locking screw*		Insert locking screw	
For rough boring insert holders	For insert size	Part No.	Part No.	Torx
	CP...0502	03TT7	960C2205T	7
	CP...0602	03TT7	960A2505T	7
	CP...09T3	03T15	960C4008T	15
	CP...1214	03T15	960C5012T	15
	SC...0502	03TT7	960C2205T	7
	SC...0602	03TT7	960A2505T	7
	SC...09T3	03T15	960C4008T	15
	SC...1204	03T15	960C5012T	15

* one Torx driver is delivered with each rough boring head.

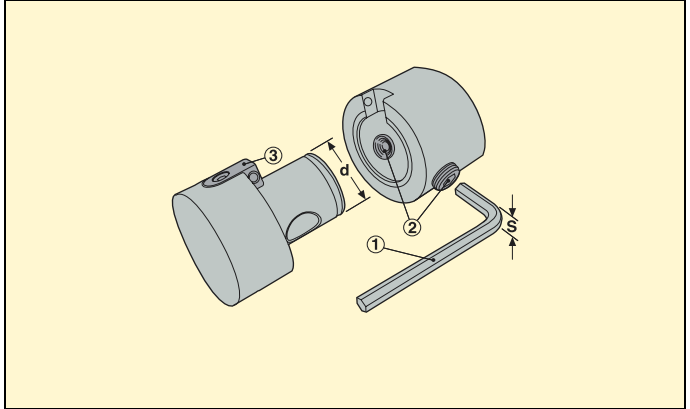
	Spare parts		Spare parts	
	Torx driver for insert locking screw		Insert locking screw	
For chamfering tools	For insert size	Part No.	Part No.	Torx
	VBMX110204...	03T7	960A2505T	7
	VBMX160408...	03T15	960C4008T	15

	Accessories		Spare parts	
	Torx driver for insert locking screw		Insert locking screw	
For fine boring tools	For insert size	Part No.	Part No.	Torx
	WB...0301...	03T6	LBHF0203T	6
	CC...0602...	03T7	960A2505T	7

	Spare parts		Spare parts	
	Torx driver for insert locking screw		Insert locking screw	
For fine boring insert holders, chamfering insert holders and back boring insert holders	For insert size	Part No.	Part No.	Torx
	WB...0301...	03T6	LBHF0203T	6
	CC...0602...	03T7	960A2505T	7
	CC...09T3...	03T15	960C4008T	15
	TP...0702...	03T6	LS203036TU	6
	TC...1102...	03T7	960A2505T	7

	Accessories		Spare parts	
	Torx driver for insert locking screw		Insert locking screw	
For cartridges	For insert size	Part No.	Part No.	Torx
	CC...16...	03T15	960C5012T	15
	SC...15...	03T15	960C5012T	15
	TC...16...	03T15	C03509	15

Accessories and Spare parts for the Graflex connections



- For connection details and locking procedures, see the guide pages.

Accessories and Spare parts	Description	Part No.	S	For Graflex connection	
				d mm	Size
Accessories	Locking key (1)	03H02	2	08/11	Female 0/1
	Locking key (1)	03H025	2,5	14	Female 2
	Locking key (1)	03H03	3	18	Female 3
	Locking key (1)	03H04	4	22	Female 4
	Locking key (1)	03H05	5	28	Female 5
	Locking key (1)	03H06	6	36	Female 6
	Locking key (1)	03H10	10	46	Female 7
Spare parts standard	Two ball nose screws kit (2)	90F0	2	08	Female 0
	Two ball nose screws kit (2)	90F1	2	11	Female 1
	Two ball nose screws kit (2)	90F2	2,5	14	Female 2
	Two ball nose screws kit (2)	90F3	3	18	Female 3
	Two ball nose screws kit (2)	90F4	4	22	Female 4
	Two ball nose screws kit (2)	90F5	5	28	Female 5
	Two ball nose screws kit (2)	90F6	6	36	Female 6
	Two ball nose screws kit (2)	90F7	10	46	Female 7
					-
	Tenon kit (3)	90M0	2	08	Male 0
	Tenon kit (3)	90M1	2	11	Male 1
	Tenon kit (3)	90M2	2,5	14	Male 2
	Tenon kit (3)	90M3	3	18	Male 3
	Tenon kit (3)	90M4	4	22	Male 4
	Tenon kit (3)	90M5	5	28	Male 5
	Tenon kit (3)	90M6	6	36	Male 6
	Tenon kit (3)	90M7	10	46	Male 7
Spare parts dedicated	Two short ball nose screws kit (2)	90F01	2	08	Female 0
	Two short ball nose screws kit (2)	90F51	5	28	Female 5
	Two short ball nose screws kit (2)	90F71	10	46	Female 7
					-
	Thin tenon kit (3)	90M01	2	08	Male 0
	Short tenon kit (3)	90M11	2	11	Male 1
	Short tenon kit (3)	90M21	2,5	14	Male 2
	Short tenon kit (3)	90M31	3	18	Male 3
	Short tenon kit (3)	90M41	4	22	Male 4
	Short tenon kit (3)	90M51	5	28	Male 5
	Short tenon kit (3)	90M61	6	36	Male 6
	Short tenon kit (3)	90M71	10	46	Male 7
	Thin tenon kit (3)	90M7R	10	46	Male 7

Please check availability in current price and stock-list.

The tenon kit comprises a tenon with its locking screw and the integrated blocking screw (column S is for the blocking screw). The following page lists the Graflex modules requiring dedicated Spare parts. All other Graflex modules utilise the Spare parts as listed above.

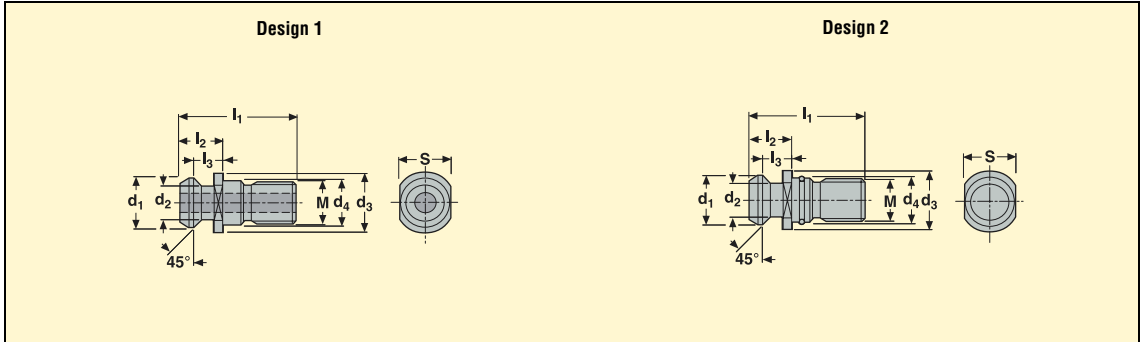
List of the Graflex items requiring dedicated Graflex connection Spare parts

Dedicated Spare part		Suitable for				
90F01	Two short ball nose screws kit	M4011408C	-	-	-	-
90F51	Two short ball nose screws kit	EM44664012840	-	-	-	-
90F71	Two short ball nose screws kit	M402770R	M402771R	M402772R	-	-
90M01	Thin tenon kit	A78008	-	-	-	-
90M11	Short tenon kit	A75010	-	-	-	-
90M21	Short tenon kit	A75020	-	-	-	-
90M31	Short tenon kit	A75030	-	-	-	-
90M41	Short tenon kit	A75040	-	-	-	-
90M51	Short tenon kit	BSM0516181252A0	BSM0516181255A0	BSM0516183253A0	BSM0516183255A0	BSM051618125100
		BSM051618325100	BSM0516180163A0	BSM0516180165A0	BSM0516180203A0	BSM0516180205A0
		BSM0516180253A0	BSM0516180255A0	BSM0516182153A0	BSM0516182155A0	BSM0516182193A0
		BSM0516182195A0	BSM0516182253A0	BSM0516182255A0	BSM051618016100	BSM051618020100
		BSM051618025100	BSM051618215100	BSM051618219100	BSM051618225100	BSM0515872293A0
		BSM0515872295A0	BSM051587229100	BSM05140114100	BSM051401143A0	BSM051401145A0
		BSM05140118100	BSM051401183A0	BSM051401185A0	BSM05140122100	BSM051401223A0
		BSM051401225A0	A75050	A79000	A79050	M5260328
90M61	Short tenon kit	BM061610025	BM061610032	BM061610040	BM061610125	BM061610131
		BM061610138	BSM0616100254A0	BSM0616100324A0	BSM0616100404A0	BSM0616100256A0
		BSM0616100326A0	BSM0616100406A0	BSM0616101254A0	BSM0616101384A0	BSM0616101256A0
		BSM0616101316A0	BSM0616101386A0	BSM061610025200	BSM061610032200	BSM061610040200
		BSM061610125200	BSM061610131200	BSM061610138200	BSM0616181324A0	BSM0616181326A0
		BSM0616181404A0	BSM0616181406A0	BSM0616183314A0	BSM0616183316A0	BSM0616183384A0
		BSM0616183386A0	BSM061618132200	BSM061618140200	BSM061618331200	BSM061618338200
		BSM0616180324A0	BSM0616180326A0	BSM0616182314A0	BSM0616182316A0	BSM061618032200
		BSM061618231200	BSM061401284A0	BSM061401286A0	BSM061401364A0	BSM061401366A0
		BSM06140128200	BSM06140136110	BSM06140136200	BSM061401364A0	BSM061401366A0
		BSM061401284A0	BSM061401286A0	M5260436	A75060	-
		90M71	Short tenon kit	A75070	-	-
90M7R	Thin tenon kit	M402771R	M402772R	-	-	

Graflex items not listed above require standard Graflex connection Spare parts.

Pull studs ISO

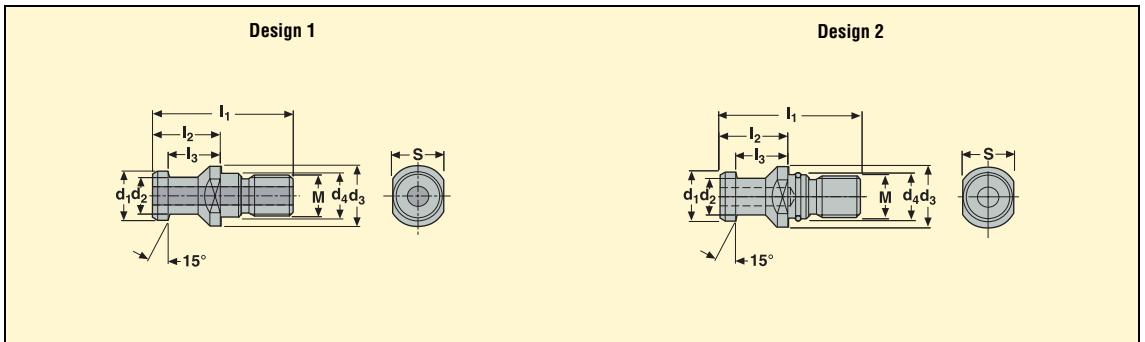
ISO 7388/2 Type B



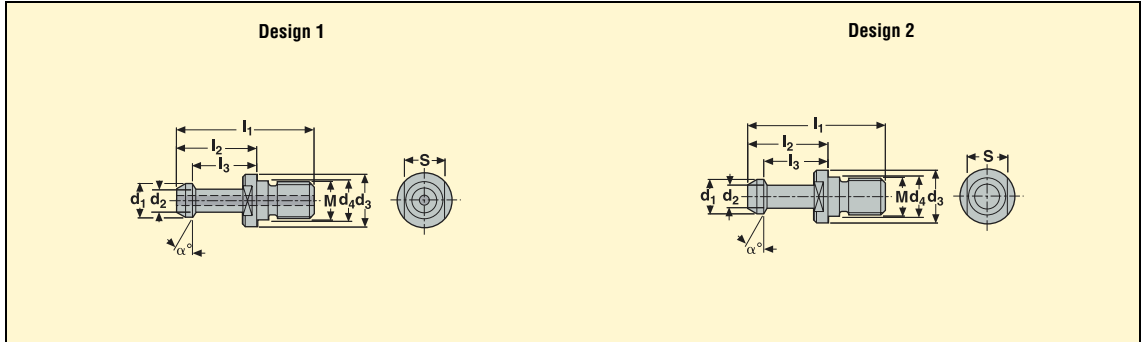
For taper	Part No.	M	Dimensions in mm								Coolant channel	Design	KG
			d ₁	d ₂	d ₃	d ₄	l ₁	l ₂	l ₃	S			
40	E954421628	M16	18,95	12,95	22,5	17	44,5	16,40	11,15	18	Yes	1	0,05
	E954421628B	M16	18,95	12,95	22,5	17	44,5	16,40	11,15	18	No	2	0,05
45	E954412035	M20	24,05	16,30	30	21	56	20,95	14,85	24	Yes	1	0,10
	E954412035B	M20	24,05	16,30	30	21	56	20,95	14,85	24	No	2	0,10
50	E954402440	M24	29,10	19,60	37,0	25	65,5	25,55	17,95	30	Yes	1	0,15
	E954402440B	M24	29,10	19,60	37,0	25	65,5	25,55	17,95	30	No	2	0,15

Pull studs DIN

DIN 69872



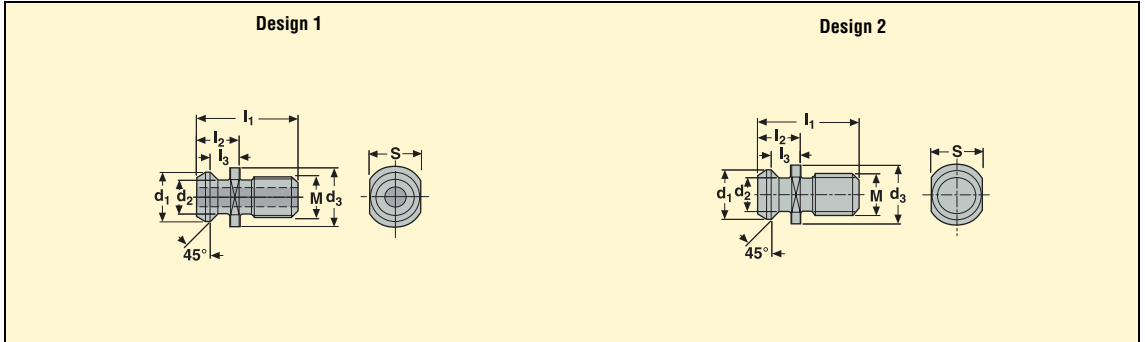
For taper	Code	M	Dimensions in mm								Coolant channel	Design	KG
			d ₁	d ₂	d ₃	d ₄	l ₁	l ₂	l ₃	S			
30	E954481220	M12	13	9	17	13	44	24	19	13	No	1	0,04
	E954481220B	M12	13	9	17	13	44	24	19	13	No	2	0,04
40	E954431628	M16	19	14	23	17	54	26	20	19	Yes	1	0,05
	E954431628B	M16	19	14	23	17	54	26	20	19	No	2	0,05
45	E954442035	M20	23	17	30	21	65	30	23	24	Yes	1	0,10
	E954442035B	M20	23	17	30	21	65	30	23	24	No	2	0,10
50	E954452440	M24	28	21	36	25	74	34	25	30	Yes	1	0,15
	E954452440B	M24	28	21	36	25	74	34	25	30	No	2	0,15



For taper	Part No.	M	α°	Dimensions in mm								Coolant channel	Design	KG
				d_1	d_2	d_3	d_4	l_1	l_2	l_3	S			
30	E950941220P	M12	45°	11	7	16,5	12,5	43	23	18	13	Yes	1	0,04
	E950951220P	M12	30°	11	7	16,5	12,5	43	23	18	13	Yes	1	0,04
	E950941220	M12	45°	11	7	16,5	12,5	43	23	18	13	No	2	0,04
	E950951220	M12	30°	11	7	16,5	12,5	43	23	18	13	No	2	0,04
40	E954001625P	M16	45°	15	10	23,0	17,0	60	35	28	19	Yes	1	0,05
	E955201625P	M16	30°	15	10	23,0	17,0	60	35	28	19	Yes	1	0,05
	E950911625P	M16	0°	15	10	23,0	17,0	60	35	28	19	Yes	1	0,05
	E955711625P	M16	0°	15	10	23,0	17,0	50	25	18	19	Yes	1	0,05
	E954001625	M16	45°	15	10	23,0	17,0	60	35	28	19	No	2	0,05
	E955201625	M16	30°	15	10	23,0	17,0	60	35	28	19	No	2	0,05
	E950911625	M16	0°	15	10	23,0	17,0	60	35	28	19	No	2	0,05
	E955711625	M16	0°	15	10	23,0	17,0	50	25	18	19	No	2	0,05
50	E955502440P	M24	45°	23	17	38,0	25,0	85	45	35	30	Yes	1	0,25
	E9599212440P	M24	30°	23	17	38,0	25,0	85	45	35	30	Yes	1	0,25
	E955702440P	M24	0°	24	18	36,0	25,0	71	31	23	30	Yes	1	0,20
	E956802440P	M24	0°	23	17	38,0	25,0	85	45	35	30	Yes	1	0,25
	E955502440	M24	45°	23	17	38,0	25,0	85	45	35	30	No	2	0,25
	E9599212440	M24	30°	23	17	38,0	25,0	85	45	35	30	No	2	0,25
	E955702440	M24	0°	24	18	36,0	25,0	71	31	23	30	No	2	0,20
	E956802440	M24	0°	23	17	38,0	25,0	85	45	35	30	No	2	0,25

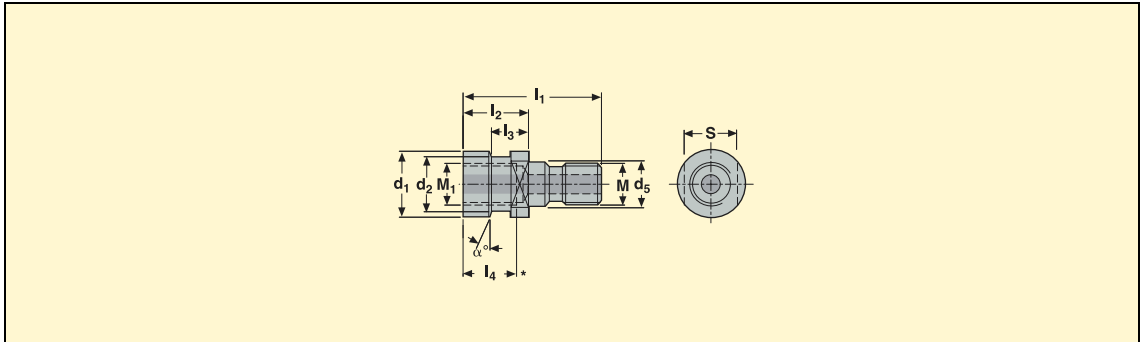
Pull studs CAT for CAT/ DIN Combined holders

ANSI B5-50 with metric thread



For taper	Part No.	M	Dimensions in mm							Coolant channel	Design	KG
			d ₁	d ₂	d ₃	l ₁	l ₂	l ₃	S			
40	E953961622	M16	18,95	12,95	22,5	38	16,40	11,0	18	Yes	1	0,05
	E953961622ST	M16	18,95	12,95	22,5	38	16,40	11,0	18	No	2	0,05
50	E953982433	M24	29,10	19,60	37,0	59	25,55	17,8	30	Yes	1	0,15
	E953982433ST	M24	29,10	19,60	37,0	59	25,55	17,8	30	No	2	0,15

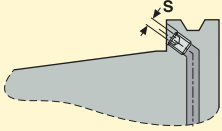
Pull studs DIN 2080 compatible



For taper	Holders	Part No.	M	α°	Dimensions in mm										Coolant channel	KG
					M ₁	d ₁	d ₂	d ₅	l ₁	l ₂	l ₃	l ₄	S			
40	DIN 69871 CAT/ DIN compatible	E9599161628	M16	15°	M16	25,3	21,1	17	53,1	25,1	14,2	19	18	Yes	0,10	
		E9599791628	M16	15°	M16	25,3	21,1	17	56,0	27,9	17,1	19	18	Yes	0,10	
50	DIN 69871 CAT/ DIN Combined BT	E9599322440	M24	0°	M24	39,6	32,0	25	65,1	25,1	13,3	18	30	Yes	0,25	

* Limited length, may require pulling system adaptation.

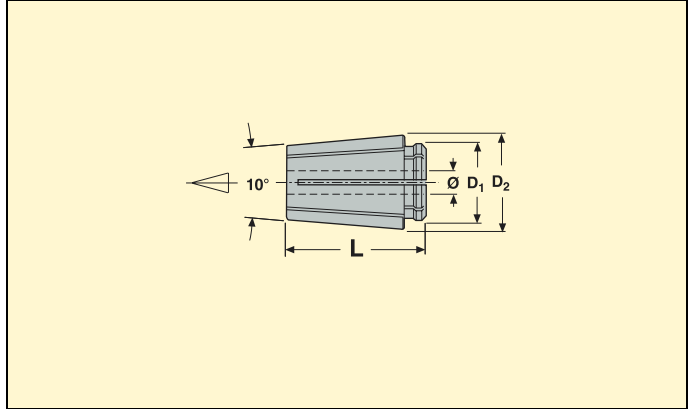
Sealing plugs for ADB tapers (Spare parts)

For holders		Sealing plugs for DIN ADB and BT ADB tapers	
			
		S	
DIN40 ADB	950A0406	2	
DIN50 ADB	950A0606	3	
BT40 ADB	950A0406	2	
BT50 ADB	950A0606	3	

D type collets



- Run-out 5 µm maxi at 3xd when assembled.
- Nominal clamping diameter only (no clamping range).
- Tool shank tolerance h8 maximum.



For chuck		Part No.	Dimensions in mm			
Capacity \varnothing mm	Size		Collet bore	D ₁	D ₂	L
1-5	D type 10	5872 10 01	1	8,4	10,1	20
	D type 10	5872 10 015	1,5	8,4	10,1	20
	D type 10	5872 10 02	2	8,4	10,1	20
	D type 10	5872 10 025	2,5	8,4	10,1	20
	D type 10	5872 10 03	3	8,4	10,1	20
	D type 10	5872 10 035	3,5	8,4	10,1	20
	D type 10	5872 10 04	4	8,4	10,1	20
	D type 10	5872 10 045	4,5	8,4	10,1	20
	D type 10	5872 10 05	5	8,4	10,1	20
	D type 10	5872 10 055	5,5	8,4	10,1	20
1-10	D type 16	5872 16 01	1	13	16,6	28,5
	D type 16	5872 16 015	1,5	13	16,6	28,5
	D type 16	5872 16 02	2	13	16,6	28,5
	D type 16	5872 16 025	2,5	13	16,6	28,5
	D type 16	5872 16 03	3	13	16,6	28,5
	D type 16	5872 16 035	3,5	13	16,6	28,5
	D type 16	5872 16 04	4	13	16,6	28,5
	D type 16	5872 16 045	4,5	13	16,6	28,5
	D type 16	5872 16 05	5	13	16,6	28,5
	D type 16	5872 16 055	5,5	13	16,6	28,5
	D type 16	5872 16 06	6	13	16,6	28,5
	D type 16	5872 16 065	6,5	13	16,6	28,5
	D type 16	5872 16 07	7	13	16,6	28,5
	D type 16	5872 16 075	7,5	13	16,6	28,5
	D type 16	5872 16 08	8	13	16,6	28,5
	D type 16	5872 16 085	8,5	13	16,6	28,5
	D type 16	5872 16 09	9	13	16,6	28,5
	D type 16	5872 16 095	9,5	13	16,6	28,5
D type 16	5872 16 10	10	13	16,6	28,5	
2-16	D type 24	5872 24 02	2	19,5	24,1	35
	D type 24	5872 24 025	2,5	19,5	24,1	35
	D type 24	5872 24 03	3	19,5	24,1	35
	D type 24	5872 24 035	3,5	19,5	24,1	35
	D type 24	5872 24 04	4	19,5	24,1	35
	D type 24	5872 24 045	4,5	19,5	24,1	35
	D type 24	5872 24 05	5	19,5	24,1	35
	D type 24	5872 24 055	5,5	19,5	24,1	35
	D type 24	5872 24 06	6	19,5	24,1	35
	D type 24	5872 24 065	6,5	19,5	24,1	35
	D type 24	5872 24 07	7	19,5	24,1	35

D type collets

For chuck		Part No.	Dimensions in mm			
Capacity \varnothing mm	Size		Collet bore	D ₁	D ₂	L
2-16	D type 24	5872 24 075	7,5	19,5	24,1	35
	D type 24	5872 24 08	8	19,5	24,1	35
	D type 24	5872 24 085	8,5	19,5	24,1	35
	D type 24	5872 24 09	9	19,5	24,1	35
	D type 24	5872 24 095	9,5	19,5	24,1	35
	D type 24	5872 24 10	10	19,5	24,1	35
	D type 24	5872 24 105	10,5	19,5	24,1	35
	D type 24	5872 24 11	11	19,5	24,1	35
	D type 24	5872 24 115	11,5	19,5	24,1	35
	D type 24	5872 24 12	12	19,5	24,1	35
	D type 24	5872 24 125	12,5	19,5	24,1	35
	D type 24	5872 24 13	13	19,5	24,1	35
	D type 24	5872 24 135	13,5	19,5	24,1	35
	D type 24	5872 24 14	14	19,5	24,1	35
	D type 24	5872 24 145	14,5	19,5	24,1	35
	2-20	D type 29	5872 29 02	2	24	29,1
D type 29		5872 29 025	2,5	24	29,1	40
D type 29		5872 29 03	3	24	29,1	40
D type 29		5872 29 035	3,5	24	29,1	40
D type 29		5872 29 04	4	24	29,1	40
D type 29		5872 29 045	4,5	24	29,1	40
D type 29		5872 29 05	5	24	29,1	40
D type 29		5872 29 055	5,5	24	29,1	40
D type 29		5872 29 06	6	24	29,1	40
D type 29		5872 29 065	6,5	24	29,1	40
D type 29		5872 29 07	7	24	29,1	40
D type 29		5872 29 075	7,5	24	29,1	40
D type 29		5872 29 08	8	24	29,1	40
D type 29		5872 29 085	8,5	24	29,1	40
D type 29		5872 29 09	9	24	29,1	40
D type 29		5872 29 095	9,5	24	29,1	40
D type 29		5872 29 10	10	24	29,1	40
D type 29		5872 29 105	10,5	24	29,1	40
D type 29		5872 29 11	11	24	29,1	40
D type 29		5872 29 115	11,5	24	29,1	40
D type 29		5872 29 12	12	24	29,1	40
D type 29		5872 29 125	12,5	24	29,1	40
D type 29		5872 29 13	13	24	29,1	40
D type 29		5872 29 135	13,5	24	29,1	40
D type 29		5872 29 14	14	24	29,1	40
D type 29		5872 29 145	14,5	24	29,1	40
D type 29		5872 29 15	15	24	29,1	40
D type 29		5872 29 155	15,5	24	29,1	40
D type 29		5872 29 16	16	24	29,1	40
D type 29		5872 29 165	16,5	24	29,1	40
D type 29		5872 29 17	17	24	29,1	40
D type 29		5872 29 175	17,5	24	29,1	40
D type 29		5872 29 18	18	24	29,1	40
D type 29		5872 29 185	18,5	24	29,1	40
D type 29	5872 29 19	19	24	29,1	40	
D type 29	5872 29 195	19,5	24	29,1	40	
D type 29	5872 29 20	20	24	29,1	40	

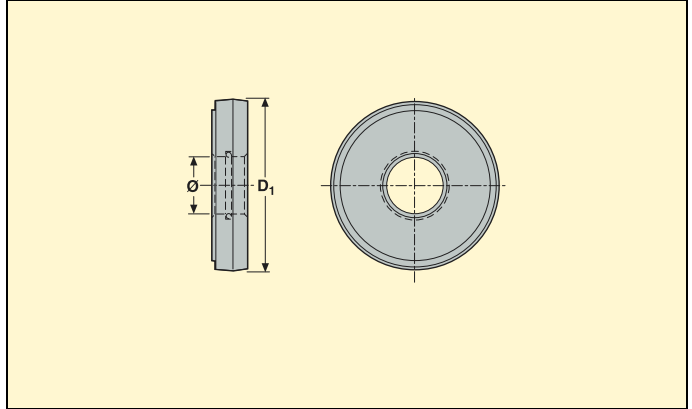
Please check availability in current price and stock-list.

For collet assembly, a compression tool is required, see Accessories in D type precision collet chucks pages.

D type sealing rings



- Fitting into D type sealing nuts

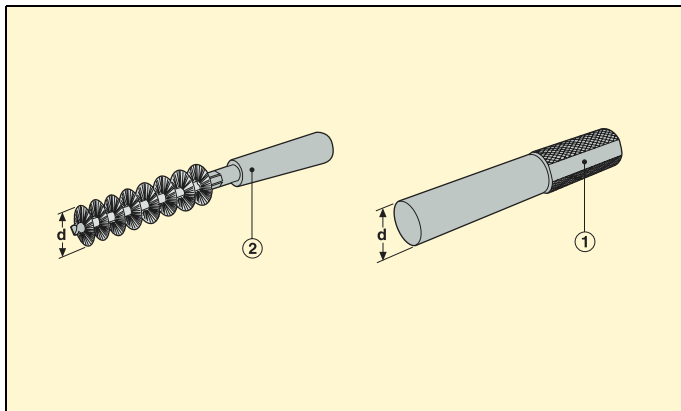


For sealing nut size/ Part No.	Sealing capacity Ø mm	Part No.	D ₁ mm	
D type 10/ 08B587210BE	2,5-3	01B5872 10 03	7,9	
	3-3,5	01B5872 10 035	7,9	
	3,5-4	01B5872 10 04	7,9	
	4-4,5	01B5872 10 045	7,9	
	4,5-5	01B5872 10 05	7,9	
	5-5,5	01B5872 10 055	7,9	
	5,5-6	01B5872 10 06	7,9	
D type 16/ 08B587216BE	2,5-3	01B5872 16 03	12,5	
	3-3,5	01B5872 16 035	12,5	
	3,5-4	01B5872 16 04	12,5	
	4-4,5	01B5872 16 045	12,5	
	4,5-5	01B5872 16 05	12,5	
	5-5,5	01B5872 16 055	12,5	
	5,5-6	01B5872 16 06	12,5	
	6-6,5	01B5872 16 065	12,5	
	6,5-7	01B5872 16 07	12,5	
	7-7,5	01B5872 16 075	12,5	
	7,5-8	01B5872 16 08	12,5	
	8-8,5	01B5872 16 085	12,5	
	8,5-9	01B5872 16 09	12,5	
	9-9,5	01B5872 16 095	12,5	
9,5-10	01B5872 16 10	12,5		
D type 24/ 08B587224BE	2,5-3	01B5872 24 03	19	
	3,5-4	01B5872 24 04	19	
	4,5-5	01B5872 24 05	19	
	5,5-6	01B5872 24 06	19	
	6,5-7	01B5872 24 07	19	
	7,5-8	01B5872 24 08	19	
	8,5-9	01B5872 24 09	19	
	9,5-10	01B5872 24 10	19	
	10,5-11	01B5872 24 11	19	
	11,5-12	01B5872 24 12	19	
	12,5-13	01B5872 24 13	19	
	13,5-14	01B5872 24 14	19	
	14,5-15	01B5872 24 15	19	
	15,5-16	01B5872 24 16	19	

Control gauges and cleaning brushes, for hydraulic chucks



- Control gauges to check chuck's clamping capability, see Guide pages.



Description	Part No.	d mm	
Control gauges (1)	CA5832 03	3	
	CA5832 04	4	
	CA5832 05	5	
	CA5832 06	6	
	CA5832 08	8	
	CA5832 10	10	
	CA5832 12	12	
	CA5832 14	14	
	CA5832 16	16	
	CA5832 18	18	
	CA5832 20	20	
	CA5832 25	25	
CA5832 32	32		
Cleaning brushes (2)	935ND03	3	
	935ND04	4	
	935ND05	5	
	935ND06	6	
	935ND08	8	
	935ND10	10	
	935ND12	12	
	935ND14	14	
	935ND16	16	
	935ND18	18	
	935ND20	20	
	935ND25	25	
	935ND32	32	

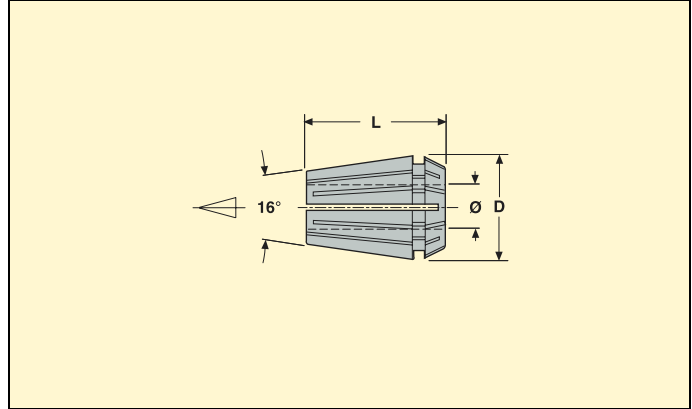
Please check availability in current price and stock-list.

ER collets, standard, type 5880

DIN 6499



- Run-out 35 µm maximum at 3xd.
- Clamping range -0,5 or -1 mm.
- See also ER collets high precision, type 5880HP, after type 5880 pages.



For chuck		Part No.	Dimensions in mm			
Capacity Ø mm	Size		Clamping range	Collet bore	D	L
0,5-5	ER 08	5880 08 01	-0,5	1	8,5	13,5
	ER 08	5880 08 015	-0,5	1,5	8,5	13,5
	ER 08	5880 08 02	-0,5	2	8,5	13,5
	ER 08	5880 08 025	-0,5	2,5	8,5	13,5
	ER 08	5880 08 03	-0,5	3	8,5	13,5
	ER 08	5880 08 035	-0,5	3,5	8,5	13,5
	ER 08	5880 08 04	-0,5	4	8,5	13,5
	ER 08	5880 08 045	-0,5	4,5	8,5	13,5
0,5-7	ER 11	5880 11 01	-0,5	1	11,5	11
	ER 11	5880 11 015	-0,5	1,5	11,5	11
	ER 11	5880 11 02	-0,5	2	11,5	11
	ER 11	5880 11 025	-0,5	2,5	11,5	11
	ER 11	5880 11 03	-0,5	3	11,5	11
	ER 11	5880 11 035	-0,5	3,5	11,5	11
	ER 11	5880 11 04	-0,5	4	11,5	11
	ER 11	5880 11 045	-0,5	4,5	11,5	11
	ER 11	5880 11 05	-0,5	5	11,5	11
	ER 11	5880 11 055	-0,5	5,5	11,5	11
	ER 11	5880 11 06	-0,5	6	11,5	11
	ER 11	5880 11 065	-0,5	6,5	11,5	11
0,5-10	ER 16	5880 16 01	-0,5	1	17	27
	ER 16	5880 16 02	-1	2	17	27
	ER 16	5880 16 03	-1	3	17	27
	ER 16	5880 16 04	-1	4	17	27
	ER 16	5880 16 05	-1	5	17	27
	ER 16	5880 16 06	-1	6	17	27
	ER 16	5880 16 07	-1	7	17	27
	ER 16	5880 16 08	-1	8	17	27
	ER 16	5880 16 09	-1	9	17	27
	ER 16	5880 16 10	-1	10	17	27

ER collets, standard, type 5880

DIN 6499

For chuck		Part No.	Dimensions in mm				
Capacity \varnothing mm	Size		Clamping range	Collet bore	D	L	
1-16							
	ER 25	5880 25 02	-1	2	26	34	
	ER 25	5880 25 03	-1	3	26	34	
	ER 25	5880 25 04	-1	4	26	34	
	ER 25	5880 25 05	-1	5	26	34	
	ER 25	5880 25 06	-1	6	26	34	
	ER 25	5880 25 07	-1	7	26	34	
	ER 25	5880 25 08	-1	8	26	34	
	ER 25	5880 25 09	-1	9	26	34	
	ER 25	5880 25 10	-1	10	26	34	
	ER 25	5880 25 11	-1	11	26	34	
	ER 25	5880 25 12	-1	12	26	34	
	ER 25	5880 25 13	-1	13	26	34	
	ER 25	5880 25 14	-1	14	26	34	
	ER 25	5880 25 15	-1	15	26	34	
	ER 25	5880 25 16	-1	16	26	34	
2-20							
	ER 32	5880 32 03	-1	3	33	40	
	ER 32	5880 32 04	-1	4	33	40	
	ER 32	5880 32 05	-1	5	33	40	
	ER 32	5880 32 06	-1	6	33	40	
	ER 32	5880 32 07	-1	7	33	40	
	ER 32	5880 32 08	-1	8	33	40	
	ER 32	5880 32 09	-1	9	33	40	
	ER 32	5880 32 10	-1	10	33	40	
	ER 32	5880 32 11	-1	11	33	40	
	ER 32	5880 32 12	-1	12	33	40	
	ER 32	5880 32 13	-1	13	33	40	
	ER 32	5880 32 14	-1	14	33	40	
	ER 32	5880 32 15	-1	15	33	40	
	ER 32	5880 32 16	-1	16	33	40	
	ER 32	5880 32 17	-1	17	33	40	
ER 32	5880 32 18	-1	18	33	40		
ER 32	5880 32 19	-1	19	33	40		
ER 32	5880 32 20	-1	20	33	40		
3-26							
	ER 40	5880 40 04	-1	4	41	46	
	ER 40	5880 40 05	-1	5	41	46	
	ER 40	5880 40 06	-1	6	41	46	
	ER 40	5880 40 07	-1	7	41	46	
	ER 40	5880 40 08	-1	8	41	46	
	ER 40	5880 40 09	-1	9	41	46	
	ER 40	5880 40 10	-1	10	41	46	
	ER 40	5880 40 11	-1	11	41	46	
	ER 40	5880 40 12	-1	12	41	46	
	ER 40	5880 40 13	-1	13	41	46	
	ER 40	5880 40 14	-1	14	41	46	
	ER 40	5880 40 15	-1	15	41	46	
	ER 40	5880 40 16	-1	16	41	46	
	ER 40	5880 40 17	-1	17	41	46	
	ER 40	5880 40 18	-1	18	41	46	
	ER 40	5880 40 19	-1	19	41	46	
	ER 40	5880 40 20	-1	20	41	46	
	ER 40	5880 40 21	-1	21	41	46	
	ER 40	5880 40 22	-1	22	41	46	
	ER 40	5880 40 23	-1	23	41	46	
	ER 40	5880 40 24	-1	24	41	46	
	ER 40	5880 40 25	-1	25	41	46	
	ER 40	5880 40 26	-1	26	41	46	

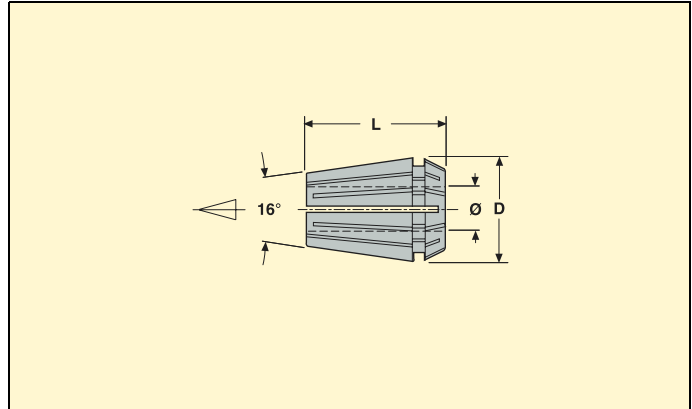
Please check availability in current price and stock-list.

ER collets, high precision, type 5880HP

DIN 6499



- Run-out 15 µm maximum at 3rd.
- Clamping range -0,5 or -1 mm.

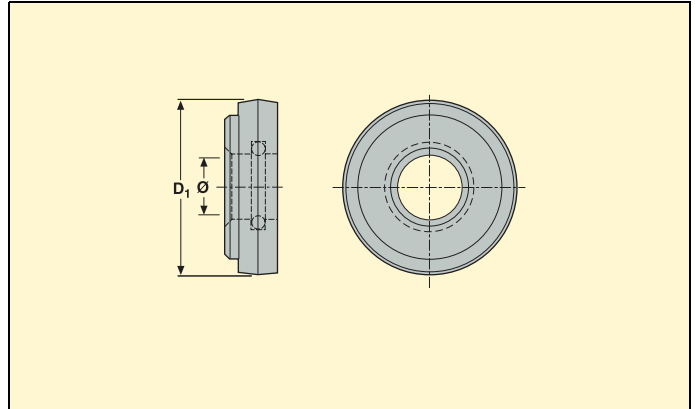


For chuck		Part No.	Dimensions in mm			
Capacity Ø mm	Size		Clamping range	Collet bore	D	L
0,5-10	ER 16	5880 16 01HP5	-0,5	1	17	27
	ER 16	5880 16 02HP5	-1	2	17	27
	ER 16	5880 16 03HP5	-1	3	17	27
	ER 16	5880 16 04HP5	-1	4	17	27
	ER 16	5880 16 05HP5	-1	5	17	27
	ER 16	5880 16 06HP5	-1	6	17	27
	ER 16	5880 16 07HP5	-1	7	17	27
	ER 16	5880 16 08HP5	-1	8	17	27
	ER 16	5880 16 09HP5	-1	9	17	27
	ER 16	5880 16 10HP5	-1	10	17	27
1-16	ER 25	5880 25 02HP5	-1	2	26	34
	ER 25	5880 25 03HP5	-1	3	26	34
	ER 25	5880 25 04HP5	-1	4	26	34
	ER 25	5880 25 05HP5	-1	5	26	34
	ER 25	5880 25 06HP5	-1	6	26	34
	ER 25	5880 25 07HP5	-1	7	26	34
	ER 25	5880 25 08HP5	-1	8	26	34
	ER 25	5880 25 09HP5	-1	9	26	34
	ER 25	5880 25 10HP5	-1	10	26	34
	ER 25	5880 25 11HP5	-1	11	26	34
	ER 25	5880 25 12HP5	-1	12	26	34
	ER 25	5880 25 13HP5	-1	13	26	34
	ER 25	5880 25 14HP5	-1	14	26	34
	ER 25	5880 25 15HP5	-1	15	26	34
	ER 25	5880 25 16HP5	-1	16	26	34
	2-20	ER 32	5880 32 10HP5	-1	10	33
ER 32		5880 32 11HP5	-1	11	33	40
ER 32		5880 32 12HP5	-1	12	33	40
ER 32		5880 32 13HP5	-1	13	33	40
ER 32		5880 32 14HP5	-1	14	33	40
ER 32		5880 32 15HP5	-1	15	33	40
ER 32		5880 32 16HP5	-1	16	33	40
ER 32		5880 32 17HP5	-1	17	33	40
ER 32		5880 32 18HP5	-1	18	33	40
ER 32		5880 32 19HP5	-1	19	33	40
ER 32		5880 32 20HP5	-1	20	33	40

ER sealing rings



- For fitting into ER sealing nuts.



For sealing nut size/ Part No.	Sealing capacity Ø mm	Part No.	D ₁ mm
ER 16/ 08B5875IC	2,5-3	01B5875 16 03	13
	3-3,5	01B5875 16 035	13
	3,5-4	01B5875 16 04	13
	4-4,5	01B5875 16 045	13
	4,5-5	01B5875 16 05	13
	5-5,5	01B5875 16 055	13
	5,5-6	01B5875 16 06	13
	6-6,5	01B5875 16 065	13
	6,5-7	01B5875 16 07	13
	7-7,5	01B5875 16 075	13
	7,5-8	01B5875 16 08	13
	8-8,5	01B5875 16 085	13
	8,5-9	01B5875 16 09	13
	9-9,5	01B5875 16 095	13
9,5-10	01B5875 16 10	13	
ER 25/ 08B587525IC	2,5-3	01B5875 25 03	21
	3-3,5	01B5875 25 035	21
	3,5-4	01B5875 25 04	21
	4-4,5	01B5875 25 045	21
	4,5-5	01B5875 25 05	21
	5-5,5	01B5875 25 055	21
	5,5-6	01B5875 25 06	21
	6-6,5	01B5875 25 065	21
	6,5-7	01B5875 25 07	21
	7-7,5	01B5875 25 075	21
	7,5-8	01B5875 25 08	21
	8-8,5	01B5875 25 085	21
	8,5-9	01B5875 25 09	21
	9-9,5	01B5875 25 095	21
	9,5-10	01B5875 25 10	21
	10-10,5	01B5875 25 105	21
	10,5-11	01B5875 25 11	21
	11-11,5	01B5875 25 115	21
	11,5-12	01B5875 25 12	21
	12-12,5	01B5875 25 125	21
	12,5-13	01B5875 25 13	21
	13-13,5	01B5875 25 135	21
	13,5-14	01B5875 25 14	21
	14-14,5	01B5875 25 145	21
14,5-15	01B5875 25 15	21	
15-15,5	01B5875 25 155	21	
15,5-16	01B5875 25 16	21	

OZ collets, type 5883A

For chuck		Collet type	Part No.	Dimensions in mm			
Capacity \varnothing mm	Size			Collet bore	D	L	
4-32							
		OZ 32	A	5883A432 04	4	43,7	60
		OZ 32	A	5883A432 045	4,5	43,7	60
		OZ 32	A	5883A432 05	5	43,7	60
		OZ 32	A	5883A432 055	5,5	43,7	60
		OZ 32	A	5883A432 06	6	43,7	60
		OZ 32	A	5883A432 065	6,5	43,7	60
		OZ 32	A	5883A432 07	7	43,7	60
		OZ 32	A	5883A432 075	7,5	43,7	60
		OZ 32	A	5883A432 08	8	43,7	60
		OZ 32	A	5883A432 085	8,5	43,7	60
		OZ 32	A	5883A432 09	9	43,7	60
		OZ 32	A	5883A432 095	9,5	43,7	60
		OZ 32	A	5883A432 10	10	43,7	60
		OZ 32	A	5883A432 105	10,5	43,7	60
		OZ 32	A	5883A432 11	11	43,7	60
		OZ 32	A	5883A432 115	11,5	43,7	60
		OZ 32	A	5883A432 12	12	43,7	60
		OZ 32	A	5883A432 125	12,5	43,7	60
		OZ 32	A	5883A432 13	13	43,7	60
		OZ 32	A	5883A432 135	13,5	43,7	60
		OZ 32	A	5883A432 14	14	43,7	60
		OZ 32	A	5883A432 145	14,5	43,7	60
		OZ 32	A	5883A432 15	15	43,7	60
		OZ 32	A	5883A432 155	15,5	43,7	60
		OZ 32	A	5883A432 16	16	43,7	60
		OZ 32	A	5883A432 165	16,5	43,7	60
		OZ 32	A	5883A432 17	17	43,7	60
		OZ 32	A	5883A432 175	17,5	43,7	60
		OZ 32	A	5883A432 18	18	43,7	60
		OZ 32	A	5883A432 185	18,5	43,7	60
		OZ 32	A	5883A432 19	19	43,7	60
	OZ 32	A	5883A432 195	19,5	43,7	60	
	OZ 32	A	5883A432 20	20	43,7	60	
	OZ 32	A	5883A432 205	20,5	43,7	60	
	OZ 32	A	5883A432 21	21	43,7	60	
	OZ 32	A	5883A432 215	21,5	43,7	60	
	OZ 32	A	5883A432 22	22	43,7	60	
	OZ 32	A	5883A432 225	22,5	43,7	60	
	OZ 32	A	5883A432 23	23	43,7	60	
	OZ 32	A	5883A432 235	23,5	43,7	60	
	OZ 32	A	5883A432 24	24	43,7	60	
	OZ 32	A	5883A432 245	24,5	43,7	60	
	OZ 32	A	5883A432 25	25	43,7	60	
	OZ 32	A	5883A432 255	25,5	43,7	60	
	OZ 32	A	5883A432 26	26	43,7	60	
	OZ 32	A	5883A432 265	26,5	43,7	60	
	OZ 32	A	5883A432 27	27	43,7	60	
	OZ 32	A	5883A432 275	27,5	43,7	60	
	OZ 32	A	5883A432 28	28	43,7	60	
	OZ 32	A	5883A432 285	28,5	43,7	60	
	OZ 32	A	5883A432 29	29	43,7	60	
	OZ 32	A	5883A432 295	29,5	43,7	60	
	OZ 32	A	5883A432 30	30	43,7	60	
	OZ 32	A	5883A432 305	30,5	43,7	60	
	OZ 32	A	5883A432 31	31	43,7	60	
	OZ 32	A	5883A432 315	31,5	43,7	60	
	OZ 32	A	5883A432 32	32	43,7	60	
6-40							
		OZ 40	A	5883A62906	6	52,2	68
		OZ 40	A	5883A62907	7	52,2	68
		OZ 40	A	5883A62908	8	52,2	68
		OZ 40	A	5883A62909	9	52,2	68

Please check availability in current price and stock-list.

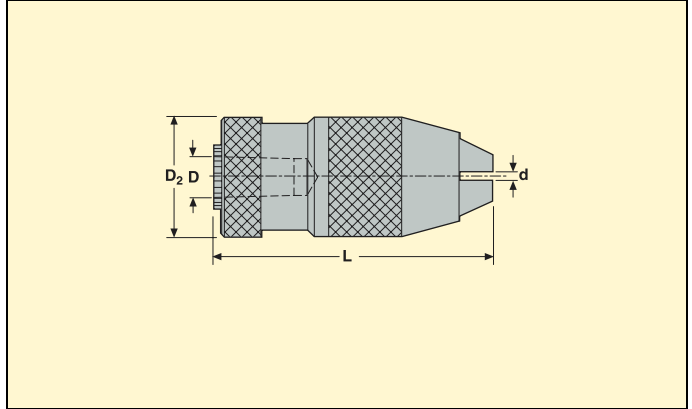
OZ collets, type 5883B

For chuck		Collet bore	Part No.	Dimensions in mm			
Capacity \varnothing mm	Site			Clamping range	Collet type	D	L
2-25	OZ 25	2	5883B625 02	-0,5	B	35,05	52
	OZ 25	2,5	5883B625 025	-0,5	B	35,05	52
	OZ 25	3	5883B625 03	-0,5	B	35,05	52
	OZ 25	3,5	5883B625 035	-0,5	B	35,05	52
	OZ 25	4	5883B625 04	-0,5	B	35,05	52
	OZ 25	4,5	5883B625 045	-0,5	B	35,05	52
	OZ 25	5	5883B625 05	-0,5	B	35,05	52
	OZ 25	5,5	5883B625 055	-0,5	B	35,05	52
	OZ 25	6	5883B625 06	-0,5	B	35,05	52
	OZ 25	6,5	5883B625 065	-0,5	B	35,05	52
	OZ 25	7	5883B625 07	-0,5	B	35,05	52
	OZ 25	7,5	5883B625 075	-0,5	B	35,05	52
	OZ 25	8	5883B625 08	-0,5	B	35,05	52
	OZ 25	8,5	5883B625 085	-0,5	B	35,05	52
	OZ 25	9	5883B625 09	-0,5	B	35,05	52
	OZ 25	9,5	5883B625 095	-0,5	B	35,05	52
	OZ 25	10	5883B625 10	-0,5	B	35,05	52
	OZ 25	10,5	5883B625 105	-0,5	B	35,05	52
	OZ 25	11	5883B625 11	-0,5	B	35,05	52
	OZ 25	11,5	5883B625 115	-0,5	B	35,05	52
	OZ 25	12	5883B625 12	-0,5	B	35,05	52
	OZ 25	12,5	5883B625 125	-0,5	B	35,05	52
	OZ 25	13	5883B625 13	-0,5	B	35,05	52
	OZ 25	13,5	5883B625 135	-0,5	B	35,05	52
	OZ 25	14	5883B625 14	-0,5	B	35,05	52
OZ 25	14,5	5883B625 145	-0,5	B	35,05	52	
OZ 25	15	5883B625 15	-0,5	B	35,05	52	
OZ 25	15,5	5883B625 155	-0,5	B	35,05	52	
OZ 25	16	5883B625 16	-0,5	B	35,05	52	
OZ 25	16,5	5883B625 165	-0,5	B	35,05	52	
OZ 25	17	5883B625 17	-0,5	B	35,05	52	
OZ 25	17,5	5883B625 175	-0,5	B	35,05	52	
OZ 25	18	5883B625 18	-0,5	B	35,05	52	
OZ 25	18,5	5883B625 185	-0,5	B	35,05	52	
OZ 25	19	5883B625 19	-0,5	B	35,05	52	
OZ 25	19,5	5883B625 195	-0,5	B	35,05	52	
OZ 25	20	5883B625 20	-0,5	B	35,05	52	
OZ 25	20,5	5883B625 205	-0,5	B	35,05	52	
OZ 25	21	5883B625 21	-0,5	B	35,05	52	
OZ 25	21,5	5883B625 215	-0,5	B	35,05	52	
OZ 25	22	5883B625 22	-0,5	B	35,05	52	
OZ 25	22,5	5883B625 225	-0,5	B	35,05	52	
OZ 25	23	5883B625 23	-0,5	B	35,05	52	
OZ 25	23,5	5883B625 235	-0,5	B	35,05	52	
OZ 25	24	5883B625 24	-0,5	B	35,05	52	
OZ 25	24,5	5883B625 245	-0,5	B	35,05	52	
OZ 25	25	5883B625 25	-0,5	B	35,05	52	

OZ collets, type 5883B

For chuck		Collet bore	Part No.	Dimensions in mm			
Capacity Ø mm	Site			Clamping range	Collet type	D	L
4-32	OZ 32	4	5883B1032 04	-0,5	B	43,7	60
	OZ 32	4,5	5883B1032 045	-0,5	B	43,7	60
	OZ 32	5	5883B1032 05	-0,5	B	43,7	60
	OZ 32	5,5	5883B1032 055	-0,5	B	43,7	60
	OZ 32	6	5883B1032 06	-0,5	B	43,7	60
	OZ 32	6,5	5883B1032 065	-0,5	B	43,7	60
	OZ 32	7	5883B1032 07	-0,5	B	43,7	60
	OZ 32	7,5	5883B1032 075	-0,5	B	43,7	60
	OZ 32	8	5883B1032 08	-0,5	B	43,7	60
	OZ 32	8,5	5883B1032 085	-0,5	B	43,7	60
	OZ 32	9	5883B1032 09	-0,5	B	43,7	60
	OZ 32	9,5	5883B1032 095	-0,5	B	43,7	60
	OZ 32	10	5883B1032 10	-0,5	B	43,7	60
	OZ 32	10,5	5883B1032 105	-0,5	B	43,7	60
	OZ 32	11	5883B1032 11	-0,5	B	43,7	60
	OZ 32	11,5	5883B1032 115	-0,5	B	43,7	60
	OZ 32	12	5883B1032 12	-0,5	B	43,7	60
	OZ 32	12,5	5883B1032 125	-0,5	B	43,7	60
	OZ 32	13	5883B1032 13	-0,5	B	43,7	60
	OZ 32	13,5	5883B1032 135	-0,5	B	43,7	60
	OZ 32	14	5883B1032 14	-0,5	B	43,7	60
	OZ 32	14,5	5883B1032 145	-0,5	B	43,7	60
	OZ 32	15	5883B1032 15	-0,5	B	43,7	60
	OZ 32	15,5	5883B1032 155	-0,5	B	43,7	60
	OZ 32	16	5883B1032 16	-0,5	B	43,7	60
	OZ 32	16,5	5883B1032 165	-0,5	B	43,7	60
	OZ 32	17	5883B1032 17	-0,5	B	43,7	60
	OZ 32	17,5	5883B1032 175	-0,5	B	43,7	60
	OZ 32	18	5883B1032 18	-0,5	B	43,7	60
	OZ 32	18,5	5883B1032 185	-0,5	B	43,7	60
	OZ 32	19	5883B1032 19	-0,5	B	43,7	60
	OZ 32	19,5	5883B1032 195	-0,5	B	43,7	60
OZ 32	20	5883B1032 20	-0,5	B	43,7	60	
OZ 32	20,5	5883B1032 205	-0,5	B	43,7	60	
OZ 32	21	5883B1032 21	-0,5	B	43,7	60	
OZ 32	21,5	5883B1032 215	-0,5	B	43,7	60	
OZ 32	22	5883B1032 22	-0,5	B	43,7	60	
OZ 32	22,5	5883B1032 225	-0,5	B	43,7	60	
OZ 32	23	5883B1032 23	-0,5	B	43,7	60	
OZ 32	23,5	5883B1032 235	-0,5	B	43,7	60	
OZ 32	24	5883B1032 24	-0,5	B	43,7	60	
OZ 32	24,5	5883B1032 245	-0,5	B	43,7	60	
OZ 32	25	5883B1032 25	-0,5	B	43,7	60	
OZ 32	25,5	5883B1032 255	-0,5	B	43,7	60	
OZ 32	26	5883B1032 26	-0,5	B	43,7	60	
OZ 32	26,5	5883B1032 265	-0,5	B	43,7	60	
OZ 32	27	5883B1032 27	-0,5	B	43,7	60	
OZ 32	27,5	5883B1032 275	-0,5	B	43,7	60	
OZ 32	28	5883B1032 28	-0,5	B	43,7	60	
OZ 32	28,5	5883B1032 285	-0,5	B	43,7	60	
OZ 32	29	5883B1032 29	-0,5	B	43,7	60	
OZ 32	29,5	5883B1032 295	-0,5	B	43,7	60	
OZ 32	30	5883B1032 30	-0,5	B	43,7	60	
OZ 32	30,5	5883B1032 305	-0,5	B	43,7	60	
OZ 32	31	5883B1032 31	-0,5	B	43,7	60	
OZ 32	31,5	5883B1032 315	-0,5	B	43,7	60	
OZ 32	32	5883B1032 32	-0,5	B	43,7	60	

Jacobs drill chucks



- Run-out 0,10 mm maximum at 3xd (at d max).

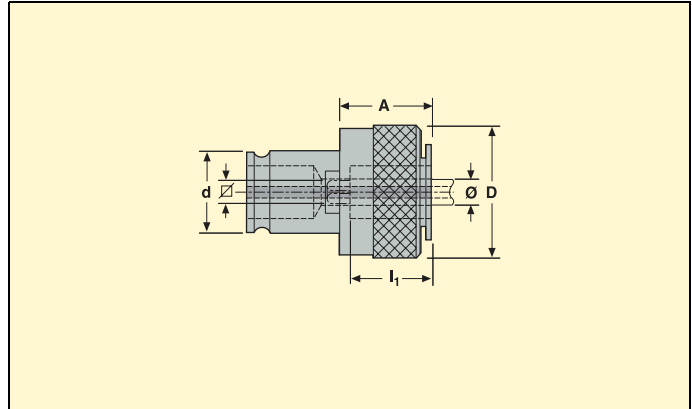
Capacity d mm	Part No.	Taper DIN 238	Dimensions in mm			Balancing	KG
			D	L	D ₂		
0,3-8	L5065 161B	B12	12,065	68	35	-	0,30
1-13	L5065 063	B16	15,733	102,5	46	-	0,85
3-16	L5065 164	B18C	17,431	107	51	-	1,10

Please check availability in current price and stock-list.

Quick change tap adapters, with torque limiter



- Torque is set according to the thread size.



For quick change tapping chuck		For tap			Part No.	Dimensions in mm				KG
Range	Size	For thread size	Ø mm	Square mm		d	A	D	l ₁	
M1,5-M6	1	M1,6	2,5	2,1	T52851 025 021M16	13	21	23	15	0,10
	1	M1,8	2,5	2,1	T52851 025 021M18	13	21	23	15	0,10
	1	M2	2,5	2	T52851 025 020M2	13	21	23	15	0,10
	1	M2	2,8	2,2	T52851 028 022M2	13	21	23	15	0,10
	1	M2,5	2,8	2,2	T52851 028 022M25	13	21	23	15	0,10
	1	M3	3,1	2,5	T52851 031 025M3	13	21	23	15	0,10
	1	M3	3,5	2,7	T52851 035 027M3	13	21	23	15	0,10
	1	M3,5	2,5	2,1	T52851 025 021M35	13	21	23	15	0,10
	1	M3,5	3,5	2,8	T52851 035 028M35	13	21	23	15	0,10
	1	M3,5	4	3	T52851 040 030M35	13	21	23	15	0,10
	1	M4	2,8	2,1	T52851 028 021M4	13	21	23	15	0,10
	1	M4	4	3,1	T52851 040 031M4	13	21	23	15	0,10
	1	M4	4,5	3,5	T52851 045 035M4	13	21	23	15	0,10
	1	M5	3,5	2,7	T52851 035 027M5	13	21	23	15	0,10
	1	M5	5	4	T52851 050 040M5	13	21	23	15	0,10
	1	M5	6	4,9	T52851 060 049M5	13	21	23	15	0,10
	1	M6	4,5	3,5	T52851 045 035M6	13	21	23	15	0,10
	1	M6	6	4,9	T52851 060 049M6	13	21	23	15	0,10
1	M6	6,3	5	T52851 063 050M6	13	21	23	15	0,10	
M3-M12	2	M3	3,1	2,5	T52852 031 025M3	19	25	32	17	0,15
	2	M3	3,5	2,7	T52852 035 027M3	19	25	32	17	0,15
	2	R1/8"	7	5,5	T52852 070 055R2	19	25	32	17	0,15
	2	M3,5	3,5	2,8	T52852 035 028M35	19	25	32	17	0,15
	2	M3,5	4	3	T52852 040 030M35	19	25	32	17	0,15
	2	M4	2,8	2,1	T52852 028 021M4	19	25	32	17	0,15
	2	M4	4	3,1	T52852 040 031M4	19	25	32	17	0,15
	2	M4	4,5	3,5	T52852 045 035M4	19	25	32	17	0,15
	2	M5	3,5	2,7	T52852 035 027M5	19	25	32	17	0,15
	2	M5	3,5	2,8	T52852 035 028M5	19	25	32	17	0,15
	2	M5	5	4	T52852 050 040M5	19	25	32	17	0,15
	2	M5	5	4,9	T52852 060 049M5	19	25	32	17	0,15
	2	M6	4,5	3,5	T52852 045 035M6	19	25	32	17	0,15
	2	M6	5	4,9	T52852 060 049M6	19	25	32	17	0,15
	2	M6	6,3	5	T52852 063 050M6	19	25	32	17	0,15
	2	M8	6	4,9	T52852 060 049M8	19	25	32	17	0,15
	2	M8	8	6,3	T52852 080 063M8	19	25	32	17	0,15
	2	M10	7	5,5	T52852 070 055M10	19	25	32	17	0,15
2	M10	10	8	T52852 100 080M10	19	25	32	17	0,15	
2	M12	9	7,1	T52852 090 071M12	19	25	32	17	0,15	

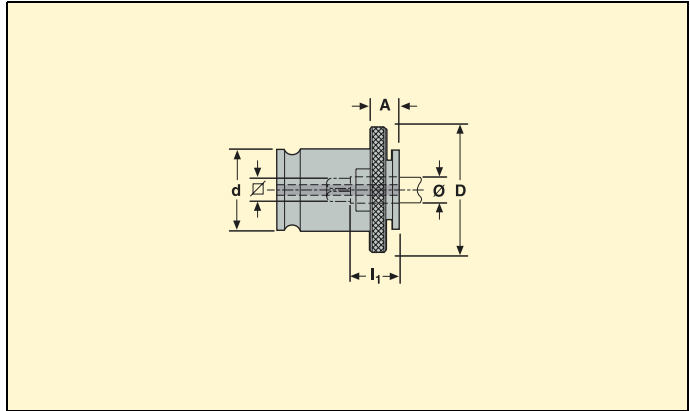
Quick change tap adapters, with torque limiter

For quick change tapping chuck		For tap			Part No.	Dimensions in mm				
Range	Size	For thread size	Ø mm	Square mm		d	A	D	I ₁	
M8-M20	3	R1/8"	7	5,5	T52853 070 055R2	31	34	50	30	0,50
	3	R1/4"	11	9	T52853 110 090R4	31	34	50	30	0,50
	3	M8	6	4,9	T52853 060 049M8	31	34	50	30	0,50
	3	M8	8	6,3	T52853 080 063M8	31	34	50	30	0,50
	3	R3/8"	12	9	T52853 120 090R6	31	34	50	30	0,50
	3	M10	7	5,5	T52853 070 055M10	31	34	50	30	0,50
	3	M10	10	8	T52853 100 080M10	31	34	50	30	0,50
	3	M12	9	7,1	T52853 090 071M12	31	34	50	30	0,50
	3	R1/2"	16	12	T52853 160 120R8	31	34	50	30	0,50
	3	M14	11	9	T52853 110 090M14	31	34	50	30	0,50
	3	M14	11	9	T52853 112 090M14	31	34	50	30	0,50
	3	M16	12	9	T52853 120 090M16	31	34	50	30	0,50
	3	M16	12	10	T52853 125 100M16	31	34	50	30	0,50
	3	M18	14	11	T52853 140 110M18	31	34	50	30	0,50
	3	M18	14	11,2	T52853 140 112M18	31	34	50	30	0,50
	3	M20	14	11,2	T52853 140 112M20	31	34	50	30	0,50
3	M20	16	12	T52853 160 120M20	31	34	50	30	0,50	
M14-M33	4	R1/2"	16	12	T52854 160 120R8	48	45	72	44	1,60
	4	M14	11	9	T52854 110 090M14	48	45	72	44	1,60
	4	M14	11,2	9	T52854 112 090M14	48	45	72	44	1,60
	4	M16	12	9	T52854 120 090M16	48	45	72	44	1,60
	4	M16	12,5	10	T52854 125 100M16	48	45	72	44	1,60
	4	M18	14	11	T52854 140 110M18	48	45	72	44	1,60
	4	M18	14	11,2	T52854 140 112M18	48	45	72	44	1,60
	4	R3/4"	20	16	T52854 200 160R12	48	45	72	44	1,60
	4	M20	14	11,2	T52854 140 112M20	48	45	72	44	1,60
	4	M20	16	12	T52854 160 120M20	48	45	72	44	1,60
	4	M22	16	12,5	T52854 160 125M22	48	45	72	44	1,60
	4	M22	18	14,5	T52854 180 145M22	48	45	72	44	1,60
	4	M24	18	14	T52854 180 140M24	48	45	72	44	1,60
	4	M24	18	14,5	T52854 180 145M24	48	45	72	44	1,60
	4	M27	20	16	T52854 200 160M27	48	45	72	44	1,60
	4	M30	20	16	T52854 200 160M30	48	45	72	44	1,60
	4	M30	22	18	T52854 220 180M30	48	45	72	44	1,60
	4	M33	22	18	T52854 224 180M33	48	45	72	44	1,60
	4	M33	25	20	T52854 250 200M33	48	45	72	44	1,60
	4	R2"	25	20	T52854 250 200R16	48	45	72	44	1,60

Please check availability in current price and stock-list.

For tap adapter code key, see Guide pages.

Quick change tap adapters, without torque limiter



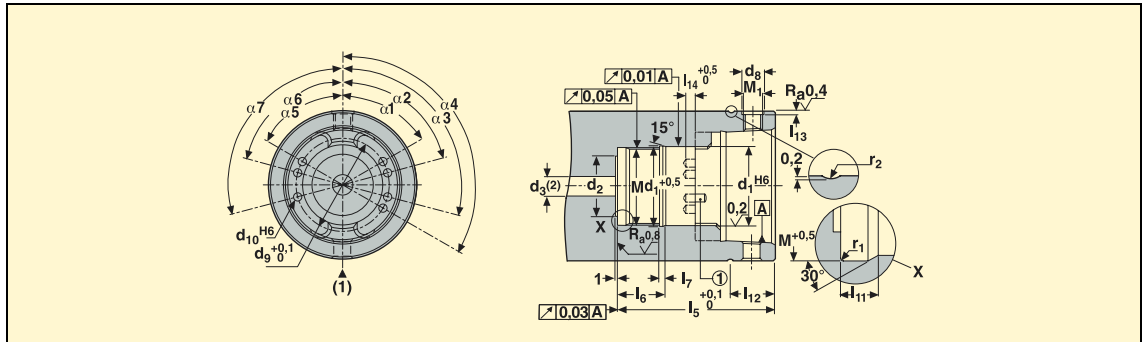
For quick change tapping chuck		For tap shank		Part No.	Dimensions in mm				KG	
Range	Size	Ø mm	Square mm		d	A	D	l ₁		
M1,5-M6	1	2,5	2	T52411 025 020	13	7	22	15	0,05	
	1	2,5	2,1	T52411 025 021	13	7	22	15	0,05	
	1	2,8	2,2	T52411 028 022	13	7	22	15	0,05	
	1	3,1	2,5	T52411 031 025	13	7	22	15	0,05	
	1	3,5	2,7	T52411 035 027	13	7	22	15	0,05	
	1	4	3,1	T52411 040 031	13	7	22	15	0,05	
	1	4,5	3,4	T52411 045 034	13	7	22	15	0,05	
	1	5	4	T52411 050 040	13	7	22	15	0,05	
	1	6	4,9	T52411 060 049	13	7	22	15	0,05	
	1	6,3	5	T52411 063 050	13	7	22	15	0,05	
	1	7	5,5	T52411 070 055	13	7	22	15	0,05	
1	8	6,3	T52411 080 063	13	7	22	15	0,05		
M3-M12	2	2,8	2,2	T52412 028 022	19	7	30	17	0,05	
	2	3,5	2,8	T52412 035 028	19	7	30	17	0,05	
	2	4	3,1	T52412 040 031	19	7	30	17	0,05	
	2	4,5	3,5	T52412 045 035	19	7	30	17	0,05	
	2	5	4	T52412 050 040	19	7	30	17	0,05	
	2	6	4,9	T52412 060 049	19	7	30	17	0,05	
	2	6,3	5	T52412 063 050	19	7	30	17	0,05	
	2	7	5,5	T52412 070 055	19	7	30	17	0,05	
	2	8	6,3	T52412 080 063	19	7	30	17	0,05	
	2	9	7,1	T52412 090 071	19	7	30	17	0,05	
2	10	8	T52412 100 080	19	7	30	17	0,05		
M8-M20	3	6	4,9	T52413 060 049	31	11	48	30	0,25	
	3	7	5,5	T52413 070 055	31	11	48	30	0,25	
	3	8	6,3	T52413 080 063	31	11	48	30	0,25	
	3	9	7,1	T52413 090 071	31	11	48	30	0,25	
	3	10	8	T52413 100 080	31	11	48	30	0,25	
	3	11	9	T52413 110 090	31	11	48	30	0,25	
	3	11,2	9	T52413 112 090	31	11	48	30	0,25	
	3	12	9	T52413 120 090	31	11	48	30	0,25	
	3	12,5	10	T52413 125 100	31	11	48	30	0,25	
	3	14	11	T52413 140 110	31	11	48	30	0,25	
	3	14	11,2	T52413 140 112	31	11	48	30	0,25	
	3	16	12	T52413 160 120	31	11	48	30	0,25	

Assembly supports, Tool Boy

	Code	For holder size(s)		 KG
Tool Boy, kit (base+head) 	M211H32	HSK-A/C32	HSK-B/D40	7,20
	M211H40	HSK-A/C40	HSK-B/D50	7,20
	M211H40E	HSK-E40	-	7,20
	M211H50	HSK-A/C50	HSK-B/D63	7,40
	M211H63	HSK-A/C63	HSK-B/D80	7,60
	M211H80	HSK-A/C80	HSK-B/D100	8,20
	M211H10	HSK-A/C100	HSK-B/D125	8,40
	M211S30	SA30	-	7,20
	M211S40	SA40	-	7,40
	M211S45	SA45	-	8,80
	M211S50	SA50	-	9,20
	M211V30	VDI30	-	7,60
	M211V40	VDI40	-	8,20
	M211V50	VDI50	-	8,40
	Tool Boy, base unit only 	M210C00	-	-
Tool Boy, head only 	M210H32	HSK-A/C32	HSK-B/D40	2,20
	M210H40	HSK-A/C40	HSK-B/D50	2,20
	M210H40E	HSK-E40	-	2,20
	M210H50	HSK-A/C50	HSK-B/D63	2,40
	M210H63	HSK-A/C63	HSK-B/D80	2,60
	M210H80	HSK-A/C80	HSK-B/D100	3,20
	M210H10	HSK-A/C100	HSK-B/D125	3,40
	M210S30	SA30	-	2,20
	M210S40	SA40	-	2,40
	M210S45	SA45	-	3,80
	M210S50	SA50	-	4,20
	M210V30	VDI30	-	2,60
	M210V40	VDI40	-	3,20
	M210V50	VDI50	-	3,40
	Wall mounted storage rack for Tool Boy heads 	M210Q00	-	-

Different heads can be fitted to the common base unit.

Machining advice for fitting the HSK locking units, TF



Spindle HSK Form C	Dimensions in mm												
	d ₁ H ₆	d ₂	(2) d ₃ max	d ₈	d ₉	d ₁₀ H ₁₂	l ₅ 0/+0.1	l ₆	l ₇	l ₁₁	l ₁₂	l ₁₃	l ₁₄ 0/+0.5
32	17	12	4,2	5	20	1,5	32,5	10	1,5	2,5	11	0,6	3,5
40	21	16	5	6,5	25	2	40,5	12	2	3	13	0,8	3,5
50	26	20	6,8	7,5	31	2,5	50,5	15	2	4	15	0,8	3,5
63	34	26	8,4	9,5	39,5	3,5	65,5	20	2,5	5	18	1	4
80	42	30,5	10,2	12	49,5	4,5	80	22	3	5	23	1,2	5
100	53	36,5	12	14	62	4,5	98	26	3	5	28	1,5	5

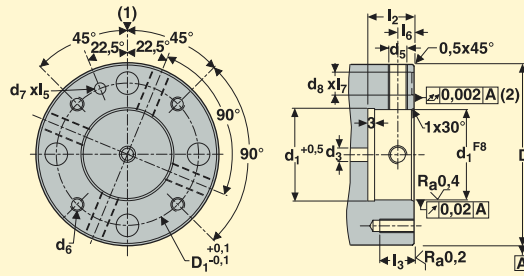
(1) Position of the access to the unit clamping screw. (2) If through coolant.

HSK	M	M1	r ₁	r ₂	α 1°	α 2°	α 3°	α 4°	α 5°	α 6°	α 7°		
32	M16 x 1	M4	0,4	1,4	50	75	100	127,5	50	80	105		
40	M20 x 1	M5	0,4	1,4	52,5	75	100	127,5	52,5	80	105		
50	M25 x 1	M6	0,4	1,6	55	75	100	125	55	80	105		
63	M33 x 1	M8	0,4	1,6	60	75	105	120	60	75	105		
80	M41 x 1,5	M10	0,8	2,2	60	75	105	120	60	75	105		
100	M52 x 1,5	M12	0,8	2,2	45	75	105	135	45	75	105		

Accessories

HSK	Indexing pin DIN 1481	
32	1,5 x 6	925E01506
40	2 x 6	925E02006
50	2,5 x 6	925E02506
63	3,5 x 6	925E03508
80	4,5 x 10	925E04510
100	4,5 x 10	925E04510

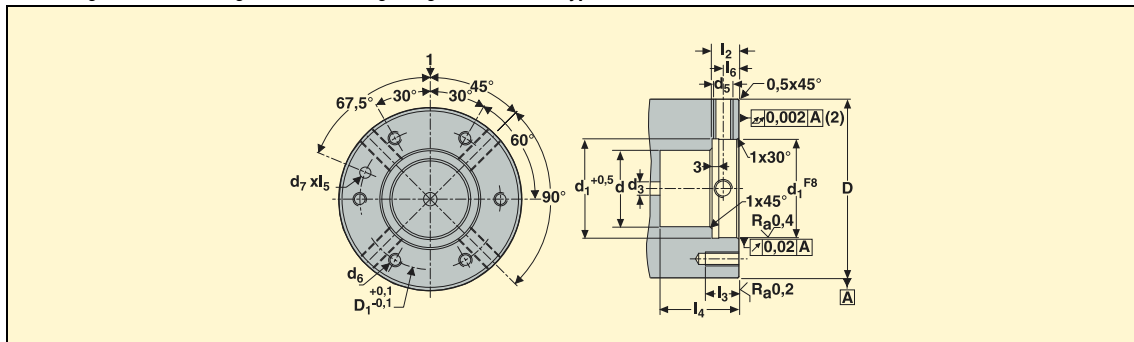
Machining advice for fitting the HSK locking flange mounts, TF, type BR1



HSK Form A Form C	Dimensions in mm											d ₅	d ₆
	d ₁ ^{F8}	D	D ₁ ^{-0,1/+0,1}	d ₃	d ₇	d ₈	l ₂	l ₃	l ₅	l ₆	l ₇		
32	30	60	44	4	5	10	12,3	14	3	7	0,5	M8 x 0,75	M5
40	35	70	53	5	5	10	15,3	14	3	7	0,5	M8 x 0,75	M6
50	40	80	63	6	5	10	20,3	16	3	7	0,5	M8 x 0,75	M6
63	50	100	79	8	5	12	27,3	16	3	8	0,8	M10 x 1	M8
80	60	117	96	10	6	12	35,3	20	4	8	0,8	M10 x 1	M8
100	80	140	119	12	6	12	35,3	20	4	8	0,8	M10 x 1	M10

(1) Position of the access to the unit clamping screw. (2) Not convex.

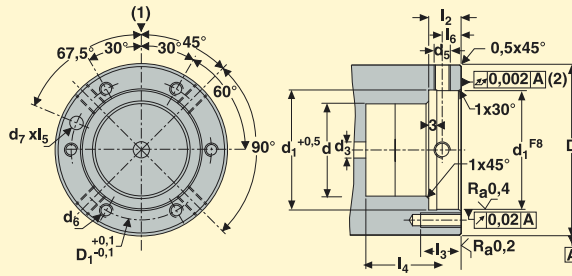
Machining advice for fitting the HSK locking flange mounts, TF, type BR2



HSK Form A Form C	Dimensions in mm											d ₅	d ₆
	d ₁ ^{F8}	D	D ₁ ^{-0.1/+0.1}	d ^{0/+0.1}	d ₃	d ₇	l ₂	l ₃	l ₄	l ₅	l ₆		
32	28	55	42	22,2	4	5	10	14	22,3	3	6	M5 x 0,5	M5
40	35	63	53	27,2	5	5	12	14	30,3	3	7	M6 x 0,75	M6
50	44	80	63	34,2	6	5	12	16	35,3	3	7	M8 x 0,75	M6
63	56	100	79	44,2	8	5	14	16	45,3	3	8	M10 x 1	M8
80	68	117	96	52,2	10	6	23	20	60,3	4	8	M10 x 1	M8
100	88	140	119	65,2	12	6	30	20	75,3	4	8	M10 x 1	M10

(1) Position of the access to the unit clamping screw. (2) Not convex.

Machining advice for fitting the HSK locking flange mounts, TF, type BR3



HSK Form A Form C	Dimensions in mm											d_5	d_6
	d_1^{F8}	D	$D_1^{-0,1/+0,1}$	$d^{-0,1/+0,1}$	d_3	d_7	l_2	l_3	l_4	l_5	l_6		
32	28	40	33	22,2	4	3	10	12	22,3	3	6	M4 x 0,5	M3
40	35	50	41	27,2	5	4	12	12	30,3	3	7	M5 x 0,5	M4
50	44	63	52	34,2	6	5	12	15	35,3	3	7	M6 x 0,75	M5
63	56	80	66	44,2	8	5	14	15	45,3	3	8	M6 x 0,75	M6
80	68	100	82	52,2	10	5	23	17	60,3	3	8	M10 x 1	M8

(1) Position of the access to the unit clamping screw. (2) Not convex.