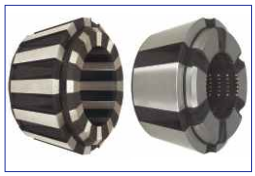
Workpiece Clamping

Tapping Attachments, Quick Change Chucks

Delivery Programme



FAHRION® PRÄZISION

Collets for Workpiece Clamping

Collet Chucks for Workpiece Clamping with Accessories

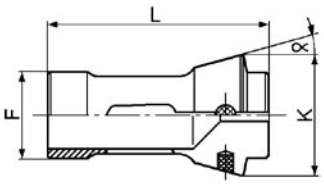
Tapping Attachments

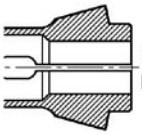
Quick Change Chucks with Accessories

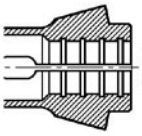
Appendix

We reserve the right to change the design and specification of any product shown within this catalogue, which does not result in the adverse function of the corresponding tools.

Type DL
Dead Length Collets




B = G (with plain bore)


B = Q (with annular serration)

Concentricity and repeatability – to DIN6343 on page 27

Application – for workpiece clamping (bar or chuck work) in conventional single spindle lathes and CNC-turning machines directly in the spindle or in a collet chuck (see pages 12 to 17) • plain bores are mainly used in counter spindle of CNC-turning machines

Bore execution – see B in the chart • with plain bore or annular serration

Collapse – h9, i.e. only nominal size can be clamped

Special features – minimal axial movement of the collet while clamping, therefore component positioning when clamping is axially consistent

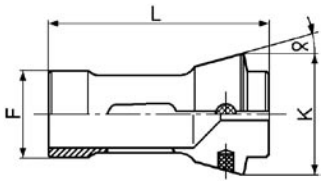
Remark – interchangeable multi-range collets (see pages 8 and 9) marked with * are available • dead length collets are designed for clamping bars • when clamping short components we recommend reducing the clamping pressure to help eliminate the risk of premature breakage

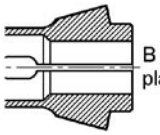
E-No. FM-No. DIN6343	Order-No.	F	K	L	α	B	P	from-to	steps
100E FM1150	**10101**	6	10	30	15°	G	●	3,0-4,5	0,5
101E FM1260/1	**10102**	8	12	42	16°	G	●	1,5-6,0	0,5
103E FM1151	**10104**	8	14	35	15°	G	●	3,0-5,0	0,5
109E FM1260	**10106**	10	15,5	47,5	20°	G	●	1,5-7,0	0,5
120E FM1263	**10112**	15	21	64	16°	G	●	1,5-8,0	0,5
						Q	●	8,5-12,0	0,5
						G	⬢	4,0-9,0	1,0
							■	4,0-7,0	1,0
125E FM1138 DIN6343 17,5-R14	**10113**	17,5	22	51	15°	G	●	1,0-8,0	0,5
						Q	●	8,5-14,0	0,5
136E FM1141	**10114**	20	26	54	15°	G	●	2,0-8,0	0,5
						Q	●	8,5-16,0	0,5
						G	●	9,0-15,0	1,0
138E FM1265	**10116**	20	28	67	16°	G	●	3,0-8,0	0,5
						Q	●	8,5-16,0	0,5
						G	●	9,0-15,0	1,0
							⬢	4,0-12,0	1,0
						Q	⬢	13,0-14,0	1,0
						G	■	4,0-11,0	1,0
140E FM1140 * DIN6343 22-R16	**10117**	22	30	55	15°	G	●	2,0-8,0	0,5
						Q	●	8,5-16,0	0,5
						G	⬢	4,0-12,0	1,0
						Q	⬢	13,0-14,0	1,0
						G	■	4,0-10,0	1,0
143E FM1142	**10118**	25	31	54	15°	G	●	3,0-8,0	0,5
						Q	●	8,5-16,0	0,5
145E FM1267	**10120**	25	35	77	16°	G	●	3,0-8,0	0,5
						Q	●	8,5-20,0	0,5
						G	●	9,0-20,0	1,0
							⬢	4,0-12,0	1,0
						Q	⬢	13,0-17,0	1,0
						G	■	4,0-12,0	1,0
						Q	■	13,0-14,0	1,0
148E FM1143 * DIN6343 28-R24	**10122**	28	38	70	15°	G	●	2,0-8,0	0,5
						Q	●	8,5-24,0	0,5
						G	⬢	4,0-12,0	1,0
						Q	⬢	13,0-17,0	1,0
							⬢	19,0	
						G	■	4,0-12,0	1,0
						Q	■	13,0-16,0	1,0
1446E FM1185E	**10136**	30	38	65	15°	G	●	3,0-8,0	1,0
						Q	●	9,0-26,0	1,0

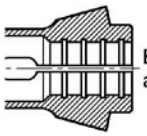
E-No. FM-No. DIN6343	Order-No.	F	K	L	α	B	P	from-to	steps
161E FM1144 * DIN6343 32-R26	**10124**	32	45	75	15°	G	●	2,0-8,0	0,5
						Q	●	8,5-26,0	0,5
						G	⬢	4,0-12,0	1,0
						Q	⬢	13,0-17,0	1,0
							⬢	19,0•22,0	
						G	■	5,0-12,0	1,0
						Q	■	13,0-16,0	1,0
							■	18,0	
162E FM1146	**10125**	35	43	70	15°	G	●	3,0-8,0	0,5
						Q	●	8,5-25,0	0,5
						G	⬢	4,0-12,0	1,0
						Q	⬢	13,0-17,0	1,0
							⬢	19,0•22,0	
						G	■	5,0-12,0	1,0
						Q	■	13,0-16,0	1,0
							■	18,0	
163E FM1145 * DIN6343 35-R30	**10126**	35	48	80	15°	G	●	2,0-8,0	0,5
						Q	●	8,5-30,0	0,5
						G	⬢	4,0-12,0	1,0
						Q	⬢	13,0-17,0	1,0
							⬢	19,0•22,0•24,0•27,0	
						G	■	5,0-12,0	1,0
						Q	■	13,0-16,0	1,0
							■	18,0•20,0	
1536E FM3166/1	**10137**	37	47	92	16°	G	●	4,0-8,0	0,5
						Q	●	8,5-32,0	0,5
						G	●	9,0-31,0	1,0
							⬢	4,0-12,0	1,0
						Q	⬢	13,0-17,0	1,0
							⬢	19,0•22,0•24,0•27,0	
						G	■	4,0-12,0	1,0
						Q	■	13,0-16,0	1,0
							■	18,0•20,0•22,0	
164E FM1053	**10138**	38,08	49	107,5	15°	G	●	3,0-8,0	1,0
						Q	●	9,0-32,0	1,0
						G	⬢	6,0-12,0	1,0
						Q	⬢	13,0-17,0	1,0
							⬢	19,0•22,0•24,0•27,0	
						G	■	6,0-12,0	1,0
						Q	■	13,0-16,0	1,0
							■	18,0•20,0•22,0	
171E FM1147 DIN6343 42-R37	**10127**	42	55	94	15°	G	●	3,0-8,0	0,5
						Q	●	8,5-37,0	0,5
						G	⬢	4,0-12,0	1,0
						Q	⬢	13,0-17,0	1,0
							⬢	19,0•22,0•24,0•27,0 30,0•32,0	
						G	■	4,0-12,0	1,0
						Q	■	13,0-16,0	1,0
							■	18,0•20,0•22,0•25,0	

Type DL

Dead Length Collets

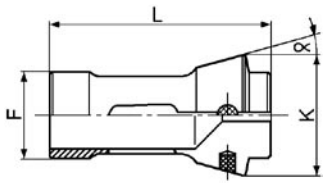


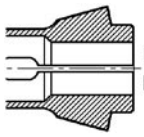


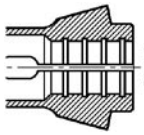


Type DL

Dead Length Collets



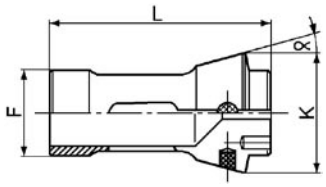




E-No. FM-No. DIN6343	Order-No.	F	K	L	α	B	P	from-to	steps
173E FM1148 *	10128	48	60	94	15°	G	●	1,0-8,0	0,5
						Q	●	8,5-42,0	0,5
						G	●	9,0-42,0	1,0
							⬢	6,0-12,0	1,0
						Q	⬢	13,0-17,0	1,0
								19,0•22,0•24,0•27,0•30,0•32,0•36,0	
						G	■	6,0-12,0	1,0
						Q	■	13,0-16,0	1,0
							■	18,0•20,0•22,0•25,0•28,0•30,0	
185E FM1149 * DIN6343 66-R60	10130	66	84	110	15°	G	●	4,0-8,0	1,0
						Q	●	9,0-60,0	1,0
						G	⬢	8,0-12,0	1,0
						Q	⬢	13,0-17,0	1,0
								19,0•22,0•24,0•27,0•30,0•32,0•36,0•38,0•41,0•46,0•50,0	
						G	■	7,0-12,0	1,0
						Q	■	13,0-16,0	1,0
							■	18,0•20,0•22,0•25,0•28,0•30,0•32,0•36,0•40,0	
190E FM4659/1	10131	88	106	115	15°	Q	●	60,0-80,0	1,0
193E FM4659	10132	90	107	130	15°	Q	●	20,0-80,0	1,0

Type DL-V

Emergency Dead Length Collets



Concentricity and repeatability – best concentricity with high flexibility

Application – for workpiece clamping (bar or chuck work) as per series 100 dead length collets • emergency collets are not intended for volume production

Bore execution – plain and pre-drilled as the chart

Collapse – h9, i.e. only nominal size can be clamped

Special features – execution V (see photo) is hardened and tempered to 45 HRC – execution W is soft, i.e. not hardened (after having sold the stock of execution W only execution V will be available in future) • both executions are completely ground and pre-drilled (Ø see chart) and enable the customer to machine the collet bore to suit their requirement • minimum axial movement of collet while clamping

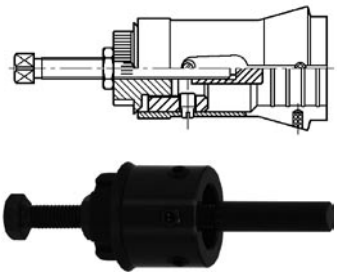
E-No. FM-No.	Order-No.	F	K	L	α	B	P	Bore (pre-drilled)
148E FM1143-V	1012201	28	38	70	15°	G	●	2,0
161E FM1144-W	1012401	32	45	75	15°	G	●	3,0
163E FM1145-V	1012601	35	48	80	15°	G	●	3,0
171E FM1147-V	1012701	42	55	94	15°	G	●	3,0
173E FM1148-V	1012801	48	60	94	15°	G	●	3,0
185E FM1149-V	1013001	66	84	110	15°	G	●	4,0

Operating instructions:

By means of three fixing pins, which can be inserted from the grinding face, the emergency collet can be clamped in the collet chuck and be machined directly in the machine to the required bore-Ø or to a step bore.

Type DL-IA

Inner Stop for Dead Length Collets



Application – for collets DIN6343

Special features – simple, low priced and in spite of this a fully functional inner stop for collets to DIN6343 • can be used for ●, ⬢ und ■ • absolutely firm seat • quick assembly • collet shanks are not deformed • clamping of the collet is not effected • can also be used as stop for hollow parts

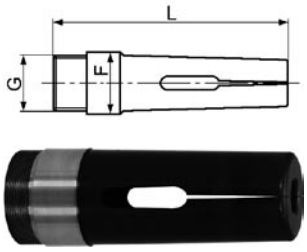
for E-No. FM-No.	Order-No.
140E FM1140-IA	14140
148E FM1143-IA	14148
161E FM1144-IA	14161
162E FM1146-IA	14162
163E FM1145-IA	14163
171E FM1147-IA	14171
173E FM1148-IA	14173
185E FM1149-IA	14185

Assembly:

Screw in the three (resp. four) cross screws totally and insert the stop into the collet, so that the cross screws are visible in the slots of the collet. Now screw out the cross screws and tighten the stop with the lock-nut.

Type FF

Feed Fingers



Application – used on turning machines for the purpose of projecting the work bar through the collet, when the collet jaws are open, and as a bar end puller on some CNC turning machines

Bore execution – plain, see B in the chart

Collapse – h9, i.e. only nominal size can be clamped

E-No. FM-No. DIN6344	Order-No.	F	L	G	B	P	from-to	steps
207E FM1140a DIN6344 A18	10201	18	70	M16x1L	G	●	1,5-12,0	0,5
						⬢	4,0-11,0	1,0
						■	5,0-9,0	1,0
217E FM1142a	10202	21	70	M20x1L	G	●	3,0-16,0	0,5
220E FM1143a DIN6344 A24	10203	24	85	M22x1L	G	●	3,0-18,0	0,5
						⬢	4,0-16,0	1,0
						■	5,0-12,0	1,0
236E FM1145a DIN6344 A30	10204	30	95	M28x1L	G	●	3,0-24,0	0,5
						⬢	4,0-17,0	1,0
						⬢	19,0	
						■	7,0-14,0	1,0
						■	16,0	
237E FM1146a	10205	31	90	M29x1L	G	●	3,0-25,0	0,5
						⬢	4,0-17,0	1,0
						⬢	19,0•22,0	
						■	5,0-14,0	1,0
						■	16,0•18,0	
254E FM1148a DIN6344 A42	10206	42	116	M40x1L	G	●	4,0-36,0	0,5
						⬢	10,0-17,0	1,0
						⬢	19,0•22,0•24,0•27,0•30,0	
						■	10,0-14,0	1,0
						■	16,0•18,0•20,0•25,0	
273E FM1149a DIN6344 A60	10207	60	140	M58x1L	G	●	10,0-52,0	1,0
						⬢	24,0•27,0•30,0•32,0•36,0	

Type RF
Rubber-Flex® Collets

Concentricity and repeatability – to DIN6343 on page 27

Application – for workpiece clamping (bar or chuck work) in conventional single spindle lathes and CNC-turning machines directly in the spindle or in a collet chuck (see pages 12 to 17)

Collapse – nominal size reduced by T

Special features – interchangeable with the corresponding DIN6343 steel collet, i.e. a different pressure sleeve, cap nut or additional clamping device is not required • minimal axial movement of the collet while clamping, therefore component positioning when clamping is axially consistent • collet external taper corresponds to the taper of the chuck pressure sleeve or machine tool spindle, which guarantees an axially parallel clamping pressure along the entire bore length and results in a higher grip force compared to dead-length collets • safe opening by high rubber tension, which prevents the segmented collet from sticking • resistant against coolant and heat up to 100° C • provides a perfect seal against coolant and swarf

with Plain Bore

T = collapse

Bore execution – with plain bore

Special features – the 775E/FM1148-RFG can be used on the Index synchronised spindle (clamping tolerance -1 mm, max. stroke is 2,1 mm) • when clamping short parts the collet must be supported in the rear

E-No. FM-No.	Order-No.	Series	T	P	from-to	steps
755E FM1140-RFG	**1701210**	12	-1,0	●	4,0-16,0	1,0
760E FM1143-RFG	**1701810**	18	-2,0	●	6,0-20,0	2,0
765E FM1144-RFG	**1702010**	20	-2,0	●	6,0-26,0	2,0
770E FM1145-RFG	**1702410**	24	-2,0	●	8,0-30,0	2,0
775E FM1148-RFG	**1703610**	36	-2,0	●	9,0-43,0	2,0
780E FM1149-RFG	**1705210**	52	-2,0	●	21,0-61,0	2,0
785E FM4828-RFG *	**17065**	65	-2,0	●	59,0-65,0	2,0

* with at least 12 steel segments and double serration

with Full-Grip Serration

T = collapse

Bore execution – with Full-Grip serration for highest axial and radial clamping forces

Special features – especially intended for gripping black bar on bar machines • the strongest clamping force and vibration free gripping can be achieved by a double gripping pressure sleeve in collet chuck KSF (see page 16)

E-No. FM-No.	Order-No.	Series	T	P	from-to	steps
775E-F FM1148-RF	**17036**	36	-2,0	●	13,0-43,0	2,0
780E-F FM1149-RF	**17052**	52	-2,0	●	21,0-61,0	2,0

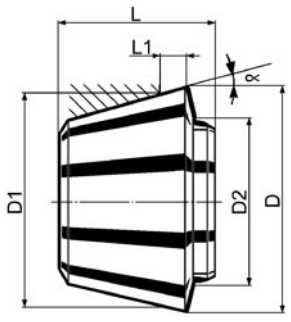
Ordering examples:

770E FM1145-RFG Ø 26,0 mm (2 mm collapse - clamping range 24-26 mm)

780E-F FM1149-RF Ø 61,0 mm (2 mm collapse - clamping range 59-61 mm)

Intermediate dimensions (surcharge on request) can be ground off!

Technical Data



E-No. equivalent	FM-No.	L	L1 min.	L1 max.	D min. approx.	D max. approx.	D1	D2	α	max.-Ø
140E	FM1140-RFG	21	1	4,5	29,5	31,4	29	22	14°45′	18 *
148E	FM1143-RFG	25	1	6,5	37,5	40,4	37	29	14°45′	24 *
161E	FM1144-RFG	30	1	6,5	44,5	47,4	44	35	14°45′	28 *
163E	FM1145-RFG	30	1	6,5	47,5	50,4	47	39	14°45′	32 *
173E	FM1148-RF+G	39/36	1	6,5	59,5	62,4	59	51	14°45′	45 *
185E	FM1149-RF+G	48	1	6,5	83,5	86,4	83	75	14°45′	65 *
-	FM4828-RFG	56	1	6,5	94,4	97,3	94,9	85	15°	65

* Plain bore diameters can be enlarged by re-grinding to the maximum stated diameter

Concentricity and repeatability – about 50% higher as dead length collets to DIN6343 on page 27

Application – for workpiece clamping (bar or chuck work) in conventional single spindle lathes and CNC-turning machines directly in the spindle or in a collet chuck (see pages 12 to 27)

Bore execution – see B in chart • with plain bore, spiral serration or SUPER-GRIP serration • SUPER-GRIP achieves up to 100% higher clamping forces

Collapse – nominal size reduced by T

Special features – interchangeable with the corresponding DIN6343 steel collet, i.e. a different pressure sleeve, cap nut or additional clamping device is not required • minimal axial movement of the collet while clamping, therefore component positioning when clamping is axially consistent • collet external taper corresponds to the taper of the chuck pressure sleeve or machine tool spindle, which guarantees an axially parallel clamping pressure along the entire bore length and results in a higher grip force compared to dead length collets • safe opening by high rubber tension, which prevents the segmented collet from sticking • circlips and rubber inserts can be replaced and are available on request

Remark – other steps and types are available upon request

E-No. equivalent FM-No.	Order-No.	T	B	P	from-to	steps
173E FM1148-MUG	**1713601**	-2,0	G	●	6,0-12,0	2,0
173E FM1148-MUS			S	●	14,0-42,0	
173E FM1148-MUG	**1713610**		G	●	14,0-42,0	
173E FM1148-MUZ	**1713608**		Z	●	16,0-42,0	
185E FM1149-MUG	**1715201**	-2,0	G	●	8,0-12,0	2,0
185E FM1149-MUS			S	●	14,0-60,0	
185E FM1149-MUG	**1715210**		G	●	14,0-60,0	
185E FM1149-MUZ	**1715208**		Z	●	16,0-60,0	

Ordering examples:

FM1148-MUS Ø 20,0 mm (2 mm collapse - clamping range 18-20 mm)

Intermediate dimensions are available on request!

E-No. equivalent	FM-No.	L	D	D1	α	max. Ø
173E	FM1148-MU	39	61,5	50,5	14°45'	42
185E	FM1149-MU	45	85,5	73,5	14°45'	60

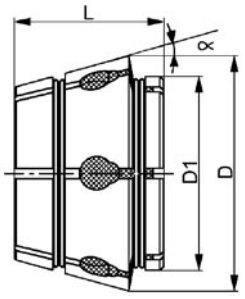
Type MU

Multi-Range Collets with Plain Bore, Spiral or SUPER-GRIP Serration

T = collapse
B = bore execution

B = G **B = S** **B = Z**

Technical Data



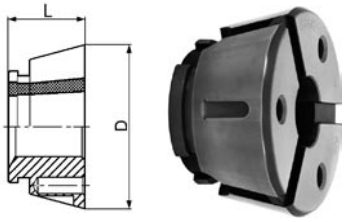
Type GT
Top-Grip Gripping Jaws

Application – for workpiece clamping (bar or chuck work) in CNC-turning, grinding or milling machines with Top-Grip Through Hole and Back Stop Chucks (see pages 18 and 19)

Collapse – nominal size reduced by T

Special features – draw-in clamping for highest gripping force and rigidity • quick change of gripping jaws with manual or pneumatic changing fixtures • vulcanised rubber-steel gripping jaws to the proven Rubber-Flex principle

without Projection – Plain Bore or Soft to rework on the Machine for Counter Spindle or Sub Spindle



T = collapse
B = bore execution

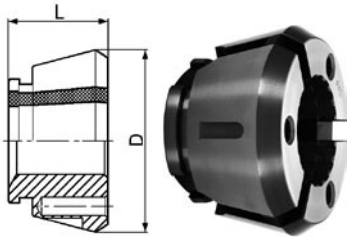
Concentricity and repeatability – ≤ 8µm resp. highest possible concentricity by refinishing the soft gripping jaws (GW) in the Top-Grip chuck directly on the machine spindle

Bore execution – see B in chart • with plain bore (G=hardened resp. GW=soft)

Special features – without projection • min. clamping length 6 mm

E-No. Description	Order-No.	T	L	D	B	P	from-to	steps
781E GT42-G	**1724210**	-0,5	42	79,3	G	●	4,0-42,0	0,5
781E GT42-GW	**1724301**				GW	●	5,0•15,0•30,0	
787E GT65-G	**1726510**	-0,5	53	99,5	G	●	5,0-65,0	0,5
787E GT65-GW	**1726601**				GW	●	8,0•20,0•40,0	

with Projection – Annular Serration or Double Serration for Main Spindle



T = collapse
B = bore execution

Concentricity and repeatability – ≤ 15µm (similar resp. better than DIN6343 class 1)

Bore execution – see B in chart • with annular serration (Q) or double serration (LQ)

Special features – with projection • min. clamping length 11 mm

E-No. Description	Order-No.	T	L	D	B	P	from-to	steps
782E GT42-Q	**1724201**	-0,5	47	79,3	Q	●	8,0-10,5	0,5
782E GT42-LQ	**1724208**				LQ	●	11,0-42,0	0,5
782E GT42-Q	**1724203**				Q	⬢	8,0-36,0	1,0
	1724202					■	8,0-30,0	1,0
788E GT65-Q	**1726501**	-0,5	58	99,5	Q	●	8,0-10,5	0,5
788E GT65-LQ	**1726508**				LQ	●	11,0-65,0	0,5
788E GT65-Q	**1726503**				Q	⬢	8,0-56,0	1,0
	1726502					●	8,0-46,0	1,0

Turning Fixture

Special features – support device for turning off soft gripping jaws

Description	Order-No.	for gripping jaws
GT42-AR	**1724300**	781E GT42-GW
GT65-AR	**1726600**	787E GT65-GW

Concentricity and repeatability – to DIN6341 on page 27

Application – to clamp work pieces after turning, e.g. grinding and devices with high accuracy and clamping forces, best results are obtained when using close toleranced material and the correct size collet

Bore execution – plain, see B in the chart

Collapse – h8, i.e. only nominal size can be clamped

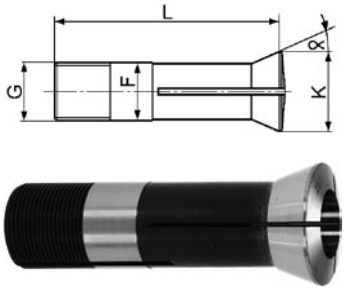
Special features – higher clamping forces as dead length collets, but axial movement while clamping

E-No. FM-No. DIN6341	Order-No.	F	K	L	α	B	P	from-to	steps
302E FM997	**10301**	8	13	34	20°	G	●	1,5-6,0	0,5
		G	W6,85x40Gg.						
324E FM823	**10303**	15	21,5	53	20°	G	●	1,5-13,0	0,5
		G	M13x1						
349E FM856 W20	**10304**	20	26,3	69	15°	G	●	1,5-20,0	0,5
		G	SG19,5x1,667						
351E FM610 DIN6341 K20	**10306**	20	28	80	20°	G	●	1,5-17,5	0,5
		G	TR20x1,5						
355E FM845e	**10308**	20	28	117,5	17°30'	G	●	1,5-18,0	0,5
		G	SG20x2						
358E FM824/23 W23	**10310**	23	32	82	20°	G	●	1,5-20,0	0,5
		G	M21,1x1						
359E FM611 DIN6341 K23	**10311**	23	32	90	20°	G	●	1,5-20,0	0,5
		G	TR23x1,5						
363E FM841	**10314**	25	33,5	84	16°	G	●	1,5-22,0	0,5
		G	M23x1						
364E FM1771 W25	**10315**	25	34	92,5	15°	G	●	1,5-22,0	0,5
		G	SG25x15Gg.						
366E FM816/1	**10316**	28	36	102	18°	G	●	1,5-25,0	0,5
		G	TR27x20Gg.						
367E FM612 DIN6341 K28	**10317**	28	38	100	20°	G	●	1,5-24,0	0,5
		G	TR28x1,5						
385E FM1844 5C	**10318**	31,75	37,5	83	10°	G	●	1,5-26,0	0,5
		G	USST31,45x20Gg.						
386E FM613 DIN6341 K32	**10319**	32	45	110	20°	G	●	1,0-29,0	0,5
		G	TR32x1,5				●	29,5-30,0 *	0,5
	10321	Set 27 parts					●	3,0-29,0	1,0
	10322	Set 53 parts					●	3,0-29,0	0,5
3713E FM821 B32	**10326**	32	40	100	15°	G	●	1,5-30,0	0,5
		G	SG29,7x15Gg.						

* max. insertion depth 11 mm (drilling at the top)

Type DI

Draw-in Collets



Type SSF

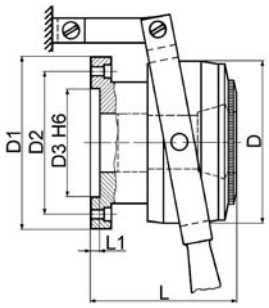
Quick Action Lever Operated Collet Chucks

Application – for rotating and static workpiece clamping on all types of machine tools, e.g. lathes, mills, grinders or drills

Special features – ready for mounting clamping unit to take interchangeable dead length collets or multi-range collets DIN6343 • clamping is started by a chuck lever • no axial movement of the workpiece when clamping • simple construction and low imbalance permits increased spindle speed • clamping force is transmitted to the pressure sleeve by means of balls • when using Rubber-Flex collets the chuck compensates up to 0.7 mm diameter tolerances of work pieces without adjusting the cap nut • through hole construction of the chuck enables chucking of long material

Remark – for all versions technical data sheets with all necessary dimensions are available • additional support bolt is necessary for chuck sizes from SSF30 to support the chuck lever

with Flat Back Mounting



Flange execution – universal application due to flat back mounting for mounting on special or intermediate flanges

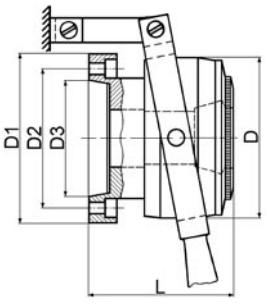
Extend of delivery – with chuck lever • without collets, keys, screws, fork head (absolutely necessary for the function) and support bolt

Description	Order-No.	Mount	Clamping range	Collets pages 4, 5, 6, 8 and 9
SSF16Z	**71510**	cyl. Ø 42 mm	2,0-16,0 mm	140E•755E
SSF20Z	**71520**	cyl. Ø 54 mm	2,0-24,0 mm	148E•760E
SSF30Z	**71530**	cyl. Ø 72 mm	2,0-30,0 mm	163E•770E
SSF40Z	**71540**	cyl. Ø 88 mm	1,0-42,0 mm	173E•775E
SSF60Z	**71560**	cyl. Ø 115 mm	4,0-60,0 mm	185E•780E
SSF80Z	**71580**	cyl. Ø 130 mm	20,0-80,0 mm	193E

Technical Data

Description	Speed max. r.p.m.	L min.	L1	D	D1	D2	D3 H6	Number of Fixing Screws DIN912 12.9
SSF16Z	6000	72	4	66	69	57	42	4 x M5
SSF20Z	5000	91	4	85	88	74	54	6 x M6
SSF30Z	4000	101,5	4	104	105	90	72	6 x M6
SSF40Z	4000	107	4	129	122	107	88	8 x M6
SSF60Z	3000	127	4	154	150	131	115	8 x M8
SSF80Z	2500	152	5	180	178	158	130	8 x M8

with Short Taper DIN/ISO



Flange execution – short taper DIN55026-55027/ISO702/I+III

Extend of delivery – with chuck lever • without collets, keys, studs, fork head (absolutely necessary for the function) and support bolt • fixing screws DIN55026-55027 see page 20

Description	Order-No.	Short Taper	Clamping range	Collets pages 5, 6, 8 and 9
SSF30/5	**71635**	Gr. 5	2,0-30,0 mm	163E•770E
SSF40/5	**71645**	Gr. 5	1,0-42,0 mm	173E•775E
SSF40/6	**71646**	Gr. 6		
SSF60/6	**71666**	Gr. 6	4,0-60,0 mm	185E•780E
SSF60/8	**71668**	Gr. 8		

Technical Data

Description	Speed max. r.p.m.	L min.	D	D1	D2	D3	Number of Studs
SSF30/5	4000	114,5	104	135	104,8	82,575	4 x M10
SSF40/5	4000	119	129	135	104,8	82,575	4 x M10
SSF40/6		122		170	133,4	106,39	4 x M12
SSF60/6	3000	140	154	170	133,4	106,39	4 x M12
SSF60/8		143		220	171,4	139,735	4 x M16

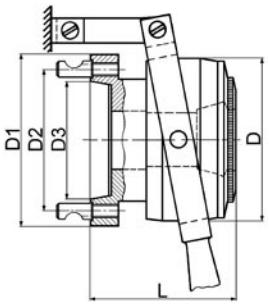
Flange execution – short taper DIN55029/ISO702/II (Camlock)
Extend of delivery – with chuck lever and Camlock bolts • without collets, keys, fork head (absolutely necessary for the function) and support bolt

Description	Order-No.	Short Taper	Clamping range	Collets pages 4, 6, 8 and 9
SSF20/C4	**71724**	Size C4"	2,0-24,0 mm	148E•760E
SSF40/C4	**71744**	Size C4"	1,0-42,0 mm	173E•775E
SSF40/C5	**71745**	Size C5"		
SSF40C/6	**71746**	Size C6"		
SSF60/C6	**71766**	Size C6"	4,0-60,0 mm	185E•780E

Technical Data

Description	Speed max. r.p.m.	L min.	D	D1	D2	D3 H6	Number of Camlock Bolts
SSF20/C4	5000	108	85	117	82,6	63,513	3 x M10x1
SSF40/C4		135		117	82,6	63,513	3 x M10x1
SSF40/C5	4000	120	129	135	104,8	82,575	6 x M12x1
SSF40C/6		128		170	133,4	106,39	6 x M16x1,5
SSF60/C6	3000	146	154	170	133,4	106,39	6 x M16x1,5

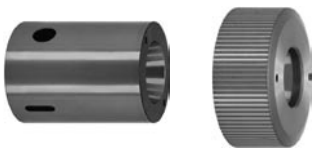
with Short Taper DIN/ISO (Camlock)



Special features – change from larger to smaller, less expensive collets by use of reducing parts • pressure sleeve (DH) and cap nut (ÜW), which also fit to the power chucks, must be exchanged • recommended is, however, to use a new chuck

Description	Order-No.	Reducing from	Reducing to	Collets pages 6, 8 and 9
SSF60/SSF40-DH	**71568000040**	SSF60	SSF40	173E•775E
KSF60/KSF40-ÜW	**72169000040**			
SSF80/SSF60-DH	**71588000060**	SSF80	SSF60	185E•780E
KSF80/KSF60-ÜW	**72189000060**			

Reducing Parts for Quick Action Lever Operated Collet Chucks



Application – for fixing the chuck lever of the quick action chuck SSF at the machine
Remark – customer has to produce an intermediate piece (we recommend a flat metal bar with elongated holes) as connection piece between the fork head, which is adapted to the machine, and the chuck lever • customer can produce the back stop completely by himself, however, it is absolutely necessary for the function of the chuck

Description	Order-No.	for Quick Action Lever Operated Collet Chucks sizes
GK16	**71519**	SSF16
GK20	**71529**	SSF20
GK30	**71539**	SSF30
GK40/60/80	**71549**	SSF40•SSF60•SSF80

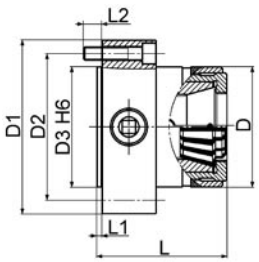
Fork Heads for Back Stopping

Type HSPF
Manually Operated Collet Chucks

Application – various possibilities on conventional as well as on CNC-machines, e.g. lathes, drills, mills and grinders • ideal for small production batches • can be used on pallets and machining centre tables (see examples at the bottom)

Special features – wear resistant construction • durable, simple design • contamination and dirt ingress almost eliminated • higher clamping force and improved concentricity due to holding workpieces with collets (see concentricity table on page 27) compared with 3 jaw chucks • large clamping range Ø 1,0 bis 42,0 mm with free bar passage for bar material • low surface stresses due to large clamping surface area of the collets – thus no pressure marks on the workpiece profile • standard-, emergency-, multi-range- and profiled collets can be inserted • profiled collets eliminate the time wasting exchange of chucks and/or jaws when changing from round to profiled material • no problem using on machines with CE-mark

with Flat Back Mounting



Flange execution – universal application due to flat back mounting for mounting on special or intermediate flanges

Extend of delivery – with safety key • without collets

Description	Order-Nr	Mount	Clamping range	Collets pages 6, 8 and 9
HSPF40-Z130	**71240**	zyl. Ø 130 mm	1,0-42,0 mm	173E•775E

Technical Data

Speed max. r.p.m.	L	L1	L2	D	D1	D2	D3 H6	Number of Fixing Screws DIN912 12.9
5000	95	4	15	90	130	110	90	3 x M10x45

Inner Stops

Application – for all designs of the matching collets 173E and 775E

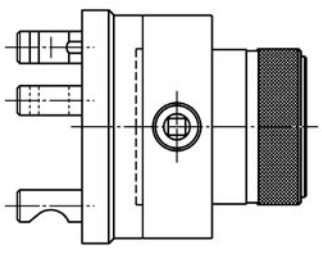
Special features – when mounted adjustable over the whole length of the collet • built into the key operated chucks

Extend of delivery – as complete set, including necessary items for fixing

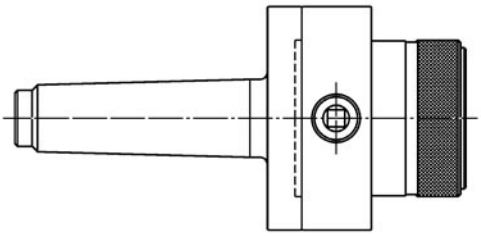
Description	Order-No	for Collets pages 6, 8 and 9
HSPF40-IA	**71294**	173E•775E

Examples of Applications

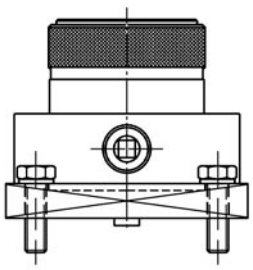
HSPF40-C5" DIN55029



HSPF40-MT5



HSPF40 for machining centres tables with intermediate plate



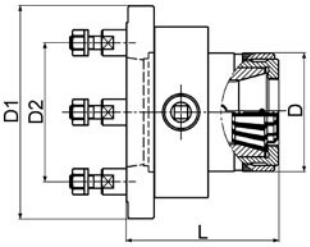
with Short Taper DIN/ISO

Flange execution – short taper DIN55027/ISO702/III
Extend of delivery – chuck complete with adaptor plate, safety key and studs • without collets

Description	Order-No.	Short Taper	Clamping range	Collets pages 6, 8 and 9
HSPF40-Gr.4	**71244**	Size 4	1,0-42,0 mm	173E•775E
HSPF40-Gr.5	**71245**	Size 5		
HSPF40-Gr.6	**71246**	Size 6		

Technical Data

Description	Speed max. r.p.m.	L	D	D1	D2	Number of Studs
HSPF40-Gr.4	5000	116	90	131	85	3 x M10
HSPF40-Gr.5				137	104,8	4 x M10
HSPF40-Gr.6		127		167	133,4	4 x M12



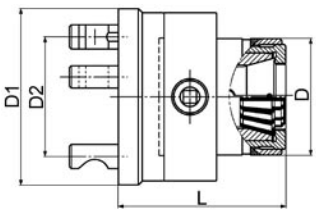
with Short Taper DIN/ ISO (Camlock)

Flange execution – short taper DIN55029/ISO702/II (Camlock)
Extend of delivery – chuck complete with adaptor plate, safety key and Camlock bolts • without collets

Description	Order-No.	Short Taper	Clamping range	Collets pages 6, 8 and 9
HSPF40-C4"	**71254**	Gr. C4"	1,0-42,0 mm	173E•775E
HSPF40-C5"	**71255**	Gr. C5"		
HSPF40-C6"	**71256**	Gr. C6"		

Technical Data

Description	Speed max. r.p.m.	L	D	D1	D2	Number of Camlock Bolts
HSPF40-C4"	5000	123	90	131	82,6	3 x M10x1
HSPF40-C5"				137	104,8	6 x M12x1
HSPF40-C6"		131		167	133,4	6 x M16x1,5



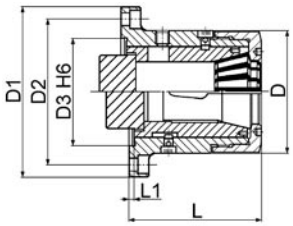
Type KSF
Power Operated Collet Chucks

Application – on lathes, NC/CNC-machines, special machines etc., on which the clamping pressure is transmitted to the pressure sleeve by a draw tube • max. stroke of the pressure sleeve is 7.5 mm

Special features – no axial movement of the workpiece when clamping • ideal dimensions with a low weight • intended for high speed • only a small loss of clamping force as spindle speed is increased • economical by using collets DIN6343 • quick exchange by opening the threaded cap nut • greatly increased clamping force by exchanging the dead length collet DIN6343 with a multi-range collet with Full-Grip or spiral serration or by modifying the KSF into a double gripping collet chuck with two Rubber-Flex collets • a collapse of 2 mm can be achieved by using Rubber-Flex or multi-range collets

Remark – the drawtube connector can be machined by the customer himself • drawtube connector produced by FAHRION on request • an inner stop for KSF40 and KSF60, when using Rubber-Flex or multi-range collets, is available on request • for all versions technical data sheets with all necessary dimensions are available

with Flat Back Mounting



Flange execution – universal application due to flat back mounting for mounting on special or intermediate flanges

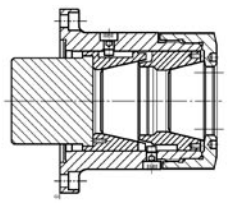
Extend of delivery – with blank drawtube connector • without collets, keys and screws

Description	Order-No.	Mount * DIN6353	Clamping range	Collets pages 4, 5, 6, 8 and 9
KSF20Z	**72120**	cyl. Ø 54 mm	2,0-24,0 mm	148E•760E
KSF30Z	**72130**	cyl. Ø 72 mm	2,0-30,0 mm	163E•770E
KSF40Z	**72140**	cyl. Ø 88 mm	1,0-42,0 mm	173E•775E
KSF40Z/120	**72141**	cyl. Ø 120 mm *		
KSF40Z/140	**72142**	cyl. Ø 140 mm *		
KSF60Z	**72160**	cyl. Ø 115 mm	4,0-60,0 mm	185E•780E
KSF60Z/170	**72161**	cyl. Ø 170 mm *		
KSF65Z	**72170**	cyl. Ø 130 mm	43,0-65,0 mm	785E
KSF80Z	**72180**	cyl. Ø 130 mm	20,0-80,0 mm	193E
KSF100Z	**72200**	cyl. Ø 158 mm	60,0-100,0 mm	196E

Technical Data

Description	Speed max. r.p.m. without balancing	L	L1	D	D1	D2	D3 H6	Number of Fixing Screws DIN912 12.9
KSF20Z	6000	92	4	66	88	74	54	6 x M6
KSF30Z	6000	105,5	4	82	105	90	72	6 x M6
KSF40Z	6000	115	4	100	132	115	88	6 x M8
KSF40Z/120		117	6		160	104,8	120	6 x M10
KSF40Z/140							140	
KSF60Z	5000	131	4	120	154	136	115	8 x M8
KSF60Z/170		133	6		195	133,4	170	6 x M12
KSF65Z	5000	132	5	138	183	166	130	8 x M8
KSF80Z	4000	155	5	150	183	166	130	8 x M8
KSF100Z	2500	152	5	195	230	210	158	8 x M8

Double Gripping for Power Operated Collet Chucks



Application – for strong and vibration free clamping of bar stock at high speed we recommend the modification of the normal power chuck KSF into a double gripping collet chuck by simply exchanging the pressure sleeve

Special features – gripping is made by two Rubber-Flex collets in Full-Grip execution, which bite into the material and thus guarantee highest axial and radial clamping forces

Extend of deliveries – pressure sleeve (DH) for double gripping (basic chuck must be ordered separately) • complete price of the chuck with double gripping on request

Description	Order-No.	Clamping range	Collets pages 6, 8 and 9
D-KSF40-DH	**72146000040**	7,0-43,0 mm	173E•775E
D-KSF60-DH	**72166000060**	19,0-61,0 mm	185E•780E

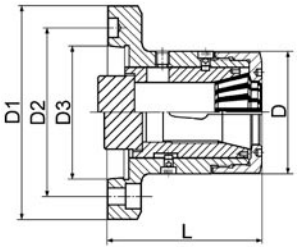
with Short Taper DIN/ISO

Flange execution – short taper DIN55026-55027/ISO702/I+III
Extend of delivery – with blank drawtube connector • without collets, keys and studs • fixing screws DIN55026-55027 see page 20

Description	Order-No.	Short Taper	Clamping range	Collets pages 6, 8 and 9
KSF40/5	**72245**	Size 5	1,0-42,0 mm	173E•775E
KSF40/6	**72246**	Size 6		
KSF60/6	**72266**	Size 6	4,0-60,0 mm	185E•780E
KSF60/8	**72268**	Size 8		
KSF65/8	**72278**	Size 8	43,0-65,0 mm	785E
KSF80/8	**72288**	Size 8	20,0-80,0 mm	193E

Technical Data

Description	Speed max. r.p.m. without balancing	L	D	D1	D2	D3	Number of Studs
KSF40/5	6000	126	100	135	104,8	82,575	4 x M10
KSF40/6				170	133,4	106,39	4 x M12
KSF60/6	5000	143	120	170	133,4	106,39	4 x M12
KSF60/8		146		220	171,4	139,735	4 x M16
KSF65/8	5000	146	138	220	171,4	139,735	4 x M16
KSF80/8	4000	170	150	220	171,4	139,735	4 x M16



for Direct Mounting

Flange execution – for direct mounting on the corresponding machine tool spindle nose
Remark – the drawtube connector must be adapted to the existing machine tool drawtube as the machine tool producers often supply different drawtube configurations on their machines • exceptions are the KSFI for Index, which are supplied completely with all mounting parts
Extend of delivery – with blank drawtube connector • without collets, keys and screws

Description	Order-No.	Machine Producer	Clamping range	Collets pages 5, 6, 8 and 9
KSFI30/4A	**72331000010**	Index 30D ABC	2,0-30,0 mm	163E•770E
KSFI40/5A	**72341000010**	Index 40D ABC	1,0-42,0 mm	173E•775E
KSFI40/5	**72341000020**	Index 40D G200		
KSFI60/A	**72361000010**	Index 60D ABC	4,0-60,0 mm	185E•780E
KSFI60	**72361000020**	Index 60D G200		
KSF42/100	**72342000010**	Gildemeister CT 20	1,0-42,0 mm	173E•775E
KSF40Z/140	**72142**	Gildemeister DIN6353 Ø 140		
KSF60Z/170	**72161**	Gildemeister DIN6353 Ø 170	4,0-60,0 mm	185E•780E

Technical Data

Please ask for the technical data sheets that apply to these chucks relative to the machine tool! Other chucks, relative to some other machine tools not listed, are in preparation!

Reducing Parts for Power Operated Collet Chucks

Special features – change from larger to smaller, less expensive collets by use of reducing parts • pressure sleeve (DH) and cap nut (ÜW) must be exchanged • recommended is, however, to use a new chuck

Description	Order-No.	Reducing from	Reducing to	Collets pages 6, 8 and 9
KSF60/KSF40-DH	**72168000040**	KSF60	KSF40	173E•775E
KSF60/KSF40-ÜW	**72169000040**			
KSF80/KSF60-DH	**72188000060**	KSF80	KSF60	185E•780E
KSF80/KSF60-ÜW	**72189000060**			

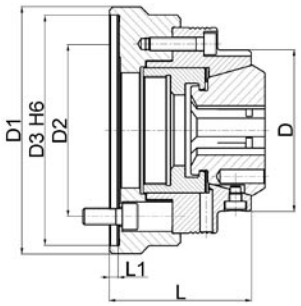
Type GT
Top-Grip

Application – for workpiece clamping (bar or chuck work) in CNC-turning, grinding or milling machines

Special features – draw-in clamping for highest gripping force and rigidity • quick change of gripping jaws (collapse –0,5) from front • axial movement of workpieces when clamping • ideal dimensions with a low weight • intended for high speed (statically balanced) • only a small loss of clamping force as spindle speed is increased

Remark – the drawtube connector can be machined by the customer himself • drawtube connector produced by FAHRION on request • for all versions technical data sheets with all necessary dimensions are available

Through Hole Chucks with Flat Back Mounting



Flange execution – universal application due to flat back mounting for mounting on special or intermediate flanges

Special features – only for bar work

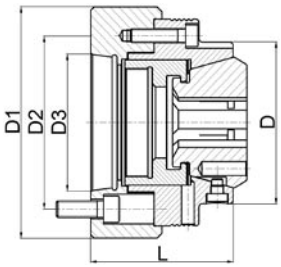
Extend of delivery – with blank drawtube connector • without gripping jaws and screws

Description	Order-No.	Mount DIN6353	Clamping range	Gripping Jaws page 10
GT42Z/140D	**73042**	cyl. Ø 140 mm	4,0-42,0 mm	781E•782E
GT65Z/170D	**73065**	cyl. Ø 170 mm	5,0-65,0 mm	787E•788E

Technical Data

Description	Speed max. r.p.m.	L	L1	D	D1	D2	D3 H6	Number of Fixing Screws DIN912 12.9
GT42Z/140D	7000	90	6	98,3	150	104,8	140	3xM10
GT65Z/170D	6000	95	6	102,3	185	133,4	170	6xM12

Through Hole Chucks with Short Taper DIN/ISO



Flange execution – short taper DIN55026-55027/ISO702/I+III

Special features – only for bar work

Extend of delivery – with blank drawtube connector • without gripping jaws and studs • fixing screws DIN55026-55027 see page 20

Description	Order-No.	Short Taper	Clamping range	Gripping Jaws page 10
GT42/5D	**73145**	Size 5	4,0-42,0 mm	781E•782E
GT42/6D	**73146**	Size 6		
GT65/5D	**73165**	Size 5	5,0-65,0 mm	787E•788E
GT65/6D	**73166**	Size 6		
GT65/8D	**73168**	Size 8		

Technical Data

Description	Speed max. r.p.m.	L	D	D1	D2	D3	Number of Studs
GT42/5D	7000	90	98	140	104,8	82,575	4 x M10
GT42/6D				165	133,4	106,39	4 x M12
GT65/5D	6000	95	120	150	104,8	82,575	4 x M10
GT65/6D				165	133,4	106,39	4 x M12
GT65/8D		100		210	171,4	139,735	4 x M16

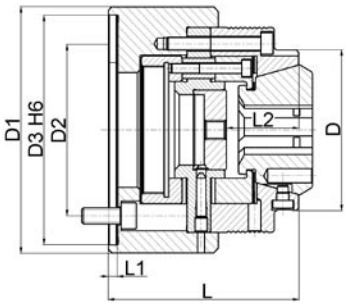
Back Stop Chucks with Flat Back Mounting

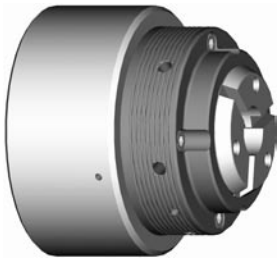
Flange execution – universal application due to flat back mounting for mounting on special or intermediate flanges
Special features – with stop for chuck work • for bars the stop has to be removed
Extend of delivery – with blank drawtube connector • without gripping jaws and screws

Description	Order-No.	Mount DIN6353	Clamping range	Gripping Jaws page 10
GT42Z/140A	**73242**	cyl. Ø 140 mm	4,0-42,0 mm	781E•782E
GT65Z/170A	**73265**	cyl. Ø 170 mm	5,0-65,0 mm	787E•788E

Technical Data

Description	Speed max. r.p.m.	L	L1	L2	D	D1	D2	D3 H6	Number of Fixing Screws DIN912 12.9
GT42Z/140A	7000	126	6	46	98	150	104,8	140	3xM10
GT65Z/170A	6000	130	6	55	120	185	133,4	170	6xM12





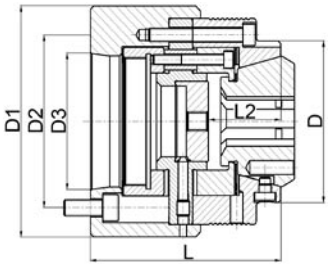
Back Stop Chucks with Short Taper DIN/ISO

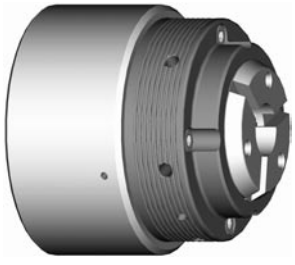
Flange execution – short taper DIN55026-55027/ISO702/I+III
Special features – with stop for chuck work • for bars the stop has to be removed
Extend of delivery – with blank drawtube connector • without gripping jaws and studs • fixing screws DIN55026-55027 see page 20

Description	Order-No.	Short Taper	Clamping range	Gripping Jaws page 10
GT42/5A	**73345**	Size 5	4,0-42,0 mm	781E•782E
GT42/6A	**73346**	Size 6		
GT65/5A	**73365**	Size 5	5,0-65,0 mm	787E•788E
GT65/6A	**73366**	Size 6		
GT65/8A	**73368**	Size 8		

Technical Data

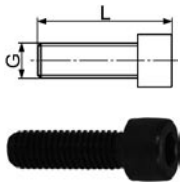
Description	Speed max. r.p.m.	L	L2	D	D1	D2	D3	Number of Studs
GT42/5A	7000	121	46	98	140	104,8	82,575	4 x M10
GT42/6A					165	133,4	106,39	4 x M12
GT65/5A	6000	130	55	120	155	104,8	82,575	4 x M10
GT65/6A					165	133,4	106,39	4 x M12
GT65/8A		135			210	171,4	139,735	4 x M16





Type SSF, HSPF, KSF and GT

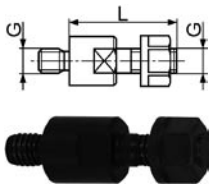
Cylindrical Screws DIN55026



Application – for all flange acceptances DIN55026
Special features – cylindrical screws to DIN912 12.9

Description	Order-No.	Flange	G	L	Pieces per set
DIN55026 Gr. 5	**71145000190**	Size 5	M10	30	4
DIN55026 Gr. 6	**71146000190**	Size 6	M12	35	4
DIN55026 Gr. 8	**71148000190**	Size 8	M16	40	4

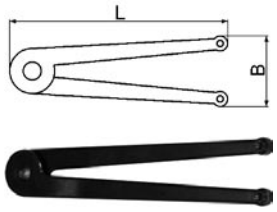
Stay Bolts and Collar Nuts DIN55027



Application – for all flange acceptances DIN55027

Description	Order-No.	Flange	G	L	Pieces per set
DIN55027 Gr. 5	**71145000180**	Size 5	M10	43	4
DIN55027 Gr. 6	**71146000180**	Size 6	M12	50	4
DIN55027 Gr. 8	**71148000180**	Size 8	M16	60	4

Adjustable Wrenches for Cap Nuts KSF/SSF

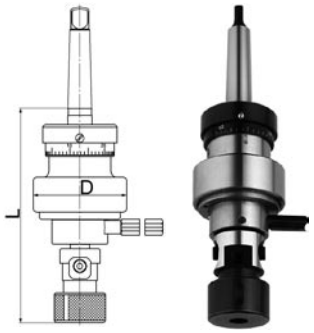


Application – for cap nuts KSF/SSF
Special features – adjustable wrench

Description	Order-No.	Plug-Ø	L	B	for chucks
SCHL-KSF/SSF20-80	**22856**	6	215	14-100	SSF/KSF 20-80

Type GAN

Tapping Attachments with Morse Taper



Application – on all conventional drill presses and radial arm drill presses for right hand tapping on non-reversing spindles (where you work with hand feed) for holding taps

Acceptance – Morse taper with tang DIN228-B

Special features – rapid backout with inbuilt planetary gear drive • immediate reversal with change of feed direction • safety clutch infinitely adjustable by rotation and locking of graduated collar • conversion from slipping clutch to friction operation by simply turning over the cam ring (for small threads) • suitable for right or left hand threads • clamping jaw mechanism grips all tap shanks within unit's capacity including intermediate and inch sizes

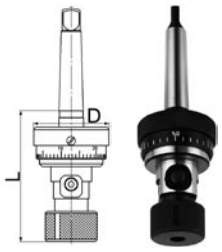
Description	Order-No.	MT	Cutting range *	Clamping range	Speed max. r.p.m.	D	L
GAN10-MK1	**56311**	1	M3-M10 (M12) #6-3/8" (1/2")	2,5-10 mm	600	69	156
GAN10-MK2	**56312**	2					158
GAN16-MK2	**56322**	2	M6-M16 1/4"-5/8"	4,5-12,5 mm	400	82	183
GAN16-MK3	**56323**	3					
GAN27-MK3	**56333**	3	M14-M27 (M30) 9/16"-1.1/8" (1.1/4")	11-22,4 mm	250	105	244
GAN27-MK4	**56334**	4					246

* Cutting range refers to materials with tensile strength of 500 N/mm²

( ) for light machining only, e.g. aluminium, grey cast iron, steal up to max. 350 N/mm² and fine pitch threads

Type GHN

Tapping Holders with Morse Taper



Application – for cutting of internal threads with drill presses, radial drill presses and vertical drill presses with reversing spindles

Acceptance – Morse taper with tang DIN228-B

Special features – without rapid backout • safety clutch infinitely adjustable by rotation and locking of graduated collar • conversion from slipping clutch to friction operation by simply turning over the cam ring (for small threads) • suitable for right or left hand threads • clamping jaw mechanism grips all tap shanks within unit's capacity including intermediate and inch sizes

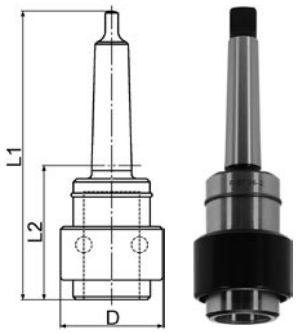
Description	Order-No.	MT	Cutting range *	Clamping range	Speed max. r.p.m.	D	L
GHN10-MK1	**56361**	1	M3-M10 (M12) #6-3/8" (1/2")	2,5-10 mm	600	55	93
GHN10-MK2	**56362**	2					95
GHN16-MK2	**56372**	2	M6-M16 1/4"-5/8"	4,5-12,5 mm	400	68	123
GHN16-MK3	**56373**	3					
GHN27-MK3	**56383**	3	M14-M27 (M30) 9/16"-1.1/8" (1.1/4")	11-22,4 mm	250	88	167
GHN27-MK4	**56384**	4					169

* Cutting range refers to materials with tensile strength of 500 N/mm²

( ) for light machining only, e.g. aluminium, grey cast iron, steal up to max. 350 N/mm² and fine pitch threads

Type SF

Quick Change Chucks with Morse Taper



Application – on vertical drilling and boring machines with right and left hand spindle rotation

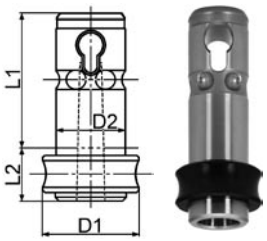
Acceptance – Morse taper with tang DIN228-B

Special features – competitive price • simple and uncomplicated design • high practical value • long lifetime

Remark – with quick change adaptors E for drilling and counter bores, PE for reaming and GE for tapping a machine can quickly and easily be changed over from one bore to the next resp. from drilling to reaming or tapping

Description	Order-No.	MT	for boring into steel	L1	L2	D	Adaptors
SF18-MK1	**31001**	1	15,0 mm Ø	127,5	65,5	36	E18
SF26-MK2	**31002**	2	24,0 mm Ø	150	75,5	48	E26•PE26•GE26
SF34-MK3	**31003**	3	32,0 mm Ø	176	82	61	E34•PE34•GE34
SF46-MK4	**31004**	4	50,0 mm Ø	222	104	86	E46•PE46•GE46
SF60-MK5	**31005**	5	60,0 mm Ø	282	133	107	E60•PE60•GE60

Tool Adaptors with Female Taper

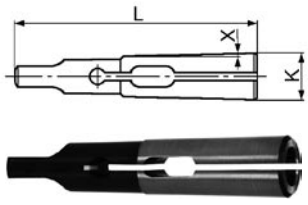


Application – for acceptance of split sleeves DIN6329 for clamping cylindrical twist drills with tangs and counterbores or cutting tools with Morse taper

Special features – female taper • ejection slot

Description	Order-No.	MT	L1	L2	D1	D2	Split sleeves
E18-MK0	**31101**	0	50	21	28	18	510E
E18-MK1	**31102**	1		25			511E
E26-MK1	**31103**	1	60	18	37	26	511E
E26-MK2	**31104**	2		30			514E
E34-MK1	**31105**	1	65	22	46	34	511E
E34-MK2	**31106**	2		26			514E
E34-MK3	**31107**	3		43			545E
E46-MK1	**31108**	1	82	23	58	46	511E
E46-MK2	**31109**	2					514E
E46-MK3	**31110**	3		27			545E
E46-MK4	**31111**	4		53			548E
E60-MK2	**31112**	2	105	26	74	60	514E
E60-MK3	**31113**	3					545E
E60-MK4	**31114**	4		29			548E
E60-MK5	**31115**	5		68			599E

Split Sleeves DIN6329



Application – for clamping cylindrical twist drills with tangs and counterbores in tool adaptors E-MK, automotive shanks and other Morse taper acceptances

Collapse – h7, i.e. only nominal size can be clamped

E-No. FM-No.	Order-No.	MT X	K	L	P	from-to	steps
510E FM500/0	**10501**	0	9,2	59,5	●	1,5-5,5	0,1
511E FM500/1	**10502**	1	12,2	65,5	●	3,0-8,0	0,1
514E FM500/2	**10503**	2	18	80	●	5,0-13,0	0,1
545E FM500/3	**10504**	3	24,1	99	●	8,0-18,0	0,5
548E FM500/4	**10505**	4	31,6	124	●	12,0-20,0	1,0
599E FM500/5	**10506**	5	44,7	156	●	20,0-36,0	1,0

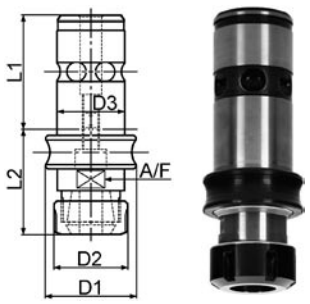
Tool Adaptors for Collets DIN6499/ISO15488 (ER/ESX)

Application – for acceptance of collets DIN6499/ISO15488 (ER/ESX) for clamping cylindrical twist drills and counterbores

Remark – collets, wrenches and nuts as spare parts see catalogue Tool Clamping

Extend of delivery – with clamping nut DIN6499/ISO15488 (with hexagon head form D for E26 – rest form E with six slots) and inner stop • without collets and wrench

Description	Order-No.	L1	L2	D1	D2	D3	A/F	Collets
E26-ER20	**31120**	60	56	37	34	26	22	428E
E34-ER25	**31123**	65	63	46	42	34	30	430E
E46-ER32	**31126**	82	74	58	50	46	36	470E
E60-ER40	**31129**	105	79	74	63	60	46	472E



Floating Adaptors for Collets DIN6499/ISO15488 (ER/ESX)

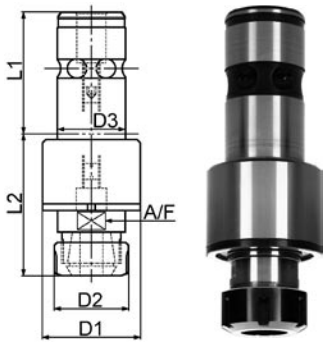
Application – for acceptance of collets DIN6499/ISO15488 (ER/ESX) for clamping reamers

Special features – with radial, parallel floating (P)

Remark – collets, wrenches and nuts as spare parts see catalogue Tool Clamping

Extend of delivery – with clamping nut DIN6499/ISO15488 (with hexagon head form D for PE26 – rest form E with six slots) and inner stop • without collets and wrench

Description	Order-No.	P	L1	L2	D1	D2	D3	A/F	Collets
PE26-ER20	**31160**	1	60	81	50	34	26	22	428E
PE34-ER25	**31163**	1	65	84	50	42	34	30	430E
PE46-ER32	**31166**	1,5	82	101	67	50	46	36	470E
PE60-ER40	**31169**	2	105	118	88	63	60	46	472E



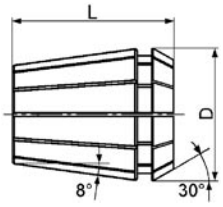
Precision Collets DIN6499/ISO15488-B (ER/ESX) – form B

Concentricity and repeatability – concentricity see ↗ in chart/repeatability 6µm

Application – for clamping cylindrical twist drills, counterbores and reamers in tool adaptors E-ER or floating adaptors PE-ER

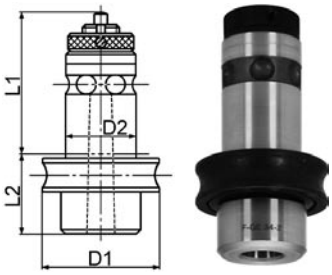
Collapse – nominal size reduced by T

E-No. Description	Order-No.	↗	T	D	L	P	from-to	steps
Ⓕ 428E GER20-B	**13002**	6µm	-0,5	21	31,5	●	1,0-1,5	0,5
			-1,0			●	2,0-13,0	0,5
Ⓕ 430E GER25-B	**13003**	6µm	-0,5	26	34	●	1,0-1,5	0,5
			-1,0			●	2,0-16,0	0,5
Ⓕ 470E GER32-B	**13004**	6µm	-1,0	33	40	●	2,0-20,0	0,5
Ⓕ 472E GER40-B	**13005**	6µm	-1,0	41	46	●	3,0-26,0	0,5
						●	27,0-30,0	1,0



↗ = concentricity
T = collapse

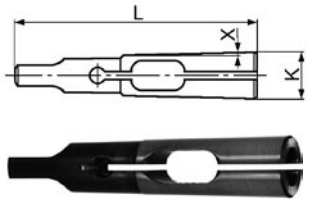
Tapping Adaptors with Female Taper



Application – for acceptance of split sleeves DIN6328 for clamping taps with square drive
Special features – female taper • adjustable safety slip clutch • scale of approximate values • ejector pin

Description	Order-No.	MT	Cutting range	L1	L2	D1	D2	Split sleeves
GE26-MK1	**31201**	1	M1-M10	60	28	43	26	501E
GE26-MK2	**31202**	2	M4-M16		39			504E
GE34-MK1	**31203**	1	M1-M10	65	23	56	34	501E
GE34-MK2	**31204**	2	M4-M16		37			504E
GE34-MK3	**31205**	3	M8-M20		53			535E
GE46-MK2	**31206**	2	M4-M16	82	28	70	46	504E
GE46-MK3	**31207**	3	M8-M20		42			535E
GE46-MK4	**31208**	4	M16-M33		67			538E
GE60-MK3	**31209**	3	M8-M20	105	45	84	60	535E
GE60-MK4	**31210**	4	M16-M33		58			538E
GE60-MK5	**31211**	5	M22-M39		91			589E

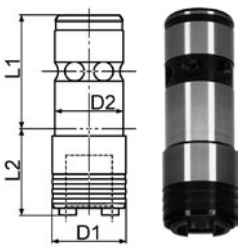
Split Sleeves DIN6328



Application – for clamping cylindrical taps with square drive in tap adaptors GE-MK, automotive shanks and other Morse taper acceptances
Collapse – h7, i.e. only nominal size can be clamped

E-No. FM-No.	Order-No.	MT X	K	L	P	Standard bore
501E FM501/1	**10512**	1	12,2	65,5	●	2,5•2,8•3,15•3,5•3,55•4,0•4,5•5,0•5,5•5,6•6,0•6,3•7,0•7,1•8,0
504E FM501/2	**10513**	2	18	80	●	4,5•5,0•5,5•5,6•6,0•6,3•7,0•7,1•8,0•9,0•9,5•10,0•11,0•11,2•12,0•12,5
535E FM501/3	**10514**	3	24,1	99	●	8,0•9,0•9,5•10,0•11,0•11,2•12,0•12,5•14,0•16,0
538E FM501/4	**10515**	4	31,6	124	●	12,0•12,5•14,0•16,0•18,0•20,0•22,0•22,4•25,0
589E FM501/5	**10516**	5	44,7	156	●	18,0•20,0•22,0•25,0•28,0•30,0•31,5•32,0•36,0

Tapping Adaptors for Quick Change Adaptors



Application – for acceptance of quick change adaptors GR (without clutch) or GRSB (with adjustable safety clutch) for clamping taps with square drive
Special features – without clutch • without length compensation

Description	Order-No.	Cutting range	L1	L2	D1	D2	Adaptors
GE26-GR1	**31221**	M3-M12	60	44	32	26	GR/GRSB1
GE26-GR2	**31222**	M8-M20		61	50		GR/GRSB2
GE34-GR1	**31226**	M3-M12	65	44	32	34	GR/GRSB1
GE34-GR2	**31227**	M8-M20		61	50		GR/GRSB2
GE46-GR1	**31231**	M3-M12	82	44	32	46	GR/GRSB1
GE46-GR2	**31232**	M8-M20		61	50		GR/GRSB2
GE46-GR3	**31233**	M14-M33		90	72		GR/GRSB3
GE60-GR2	**31237**	M8-M20	105	61	50	60	GR/GRSB2
GE60-GR3	**31238**	M14-M33		90	72		GR/GRSB3
GE60-GR4	**31239**	M22-M48		110	95		GR/GRSB4

Tapping Adaptors with Length Compensation for Quick Change Adaptors

Application – for acceptance of quick change adaptors GR (without clutch) or GRSB (with adjustable safety clutch) for clamping taps with square drive

Special features – without clutch • with length compensation on compression and tension (C/T)

Description	Order-No.	Cutting range	C/T	L1	L2	D1	D2	Adaptors
GE26-GRL1	**31241**	M3-M12	7,5	60	45	36	26	GR/GRSB1
GE26-GRL2	**31242**	M8-M20	12,5		69	53		GR/GRSB2
GE34-GRL1	**31246**	M3-M12	7,5	65	45	36	34	GR/GRSB1
GE34-GRL2	**31247**	M8-M20	12,5		69	53		GR/GRSB2
GE46-GRL1	**31251**	M3-M12	7,5	82	45	36	46	GR/GRSB1
GE46-GRL2	**31252**	M8-M20	12,5		69	53		GR/GRSB2
GE46-GRL3	**31253**	M14-M33	20		102	78		GR/GRSB3
GE60-GRL2	**31257**	M8-M20	12,5	105	69	53	60	GR/GRSB2
GE60-GRL3	**31258**	M14-M33	20		102	78		GR/GRSB3
GE60-GRL4	**31259**	M22-M48	22,5		113	96		GR/GRSB4

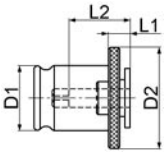
Quick Change Adaptors without Safety Clutch for Tapping

Application – for clamping cylindrical taps with driving square in tapping adaptors GE-GR or GE-GRL

Special features – without clutch • for left and right hand taps • fit into nearly all available tapping chucks on the market

Remark – the order number has to be completed with shank-Ø and square drive of tap • chart with tap shank dimensions DIN and ISO see pages 42 and 43 in the Tool Clamping catalogue • for the same shank-Ø the DIN as well as the ISO taps can be used

Description	Order-No.	Cutting range	Clamping range	L1	L2	D1	D2
GR0	**53100**	M1-M10	2,5-7	7	15	13	22
GR1	**53101**	M3-M12	3,5-11,2	7	17	19	30
GR2	**53102**	M8-M20	6-18	11	30	31	48
GR3	**53103**	M14-M33	11-28	14	44	48	70
GR4	**53104**	M22-M48	18-36	42	71	60	92



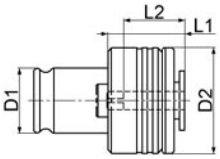
Quick Change Adaptors with Safety Clutch for Tapping

Application – for clamping cylindrical taps with driving square in tapping adaptors GE-GR or GE-GRL

Special features – with safety clutch • for right hand taps in through and blind holes • fit into nearly all available tapping chucks on the market

Remark – the order number has to be completed with shank-Ø and square drive of tap • chart with tap shank dimensions DIN and ISO see pages 42 and 43 in the Tool Clamping catalogue • for the same shank-Ø the DIN as well as the ISO taps can be used

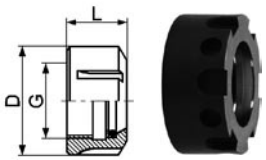
Description	Order-No.	Cutting range	Clamping range	L1	L2	D1	D2
GRSB0	**53200**	M1-M10	2,5-7	21	15	13	23
GRSB1	**53201**	M3-M12	3,5-11,2	25	17	19	32
GRSB2	**53202**	M8-M20	6-18	34	30	31	50
GRSB3	**53203**	M14-M33	11-28	45	44	48	72
GRSB4	**53204**	M22-M48	18-36	68	71	60	95



Type SM-SER
Quick Change Systems

Execution – by simply changing the clamping nut all kinds of collet chucks and collet holders with acceptances DIN6499/ISO15488 (ER/ESX) can be modified into a quick change system (it is not necessary to modify the closing taper of the spindle) • exact presetting with repeatability less then 0,01 mm

Standard Quick Change Nuts and Wrenches

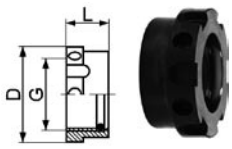


Special features – replaces the standard clamping nuts DIN6499/ISO15488 (ER/ESX) • quick change of the quick change adaptors by one turn of the quick change nut

Remark – fitting wrenches see last two columns of the chart

Description	Order-No.	D	L	G	replaces	Description	Order-No.
SM20E	**34402**	34	15	M25x1,5	STM20E	**SCHL-GR.34-36-B**	**21426**
SM25E	**34502**	42	15,5	M32x1,5	STM25E	**SCHL-STM25E**	**22804**
SM32E	**34602**	50	22	M40x1,5	STM32E	**SCHL-STM32E**	**22805**

Mini Quick Change Nuts and Wrenches



Special features – replaces the mini nuts • quick change of the quick change adaptors by one turn of the quick change nut

Remark – fitting wrenches see last two columns of the chart

Description	Order-No.	D	L	G	replaces	Description	Order-No.
SM20M	**34404**	34	16	M24x1	STM20M	**SCHL-GR.34-36-B**	**21426**
SM25M	**34504**	38	17,5	M30x1	STM25M	**SCHL-GR.40-42-B**	**21427**

Quick Change Adaptors with Acceptance DIN6499/ISO15488 (ER/ESX)

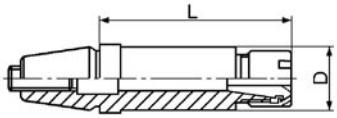
Application – for clamping twist drills, reamers, taps and end mills in collets DIN6499/ISO15488 (ER/ESX)

Special features – slim construction at execution with mini nuts (can be used also as extension) • short and strong construction at execution with standard nuts • presetting of length by adjustable screw

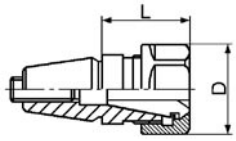
Remark – collets, wrenches and nuts as spare parts see catalogue Tool Clamping

Extend of delivery – with clamping nut DIN6499/ISO15488 (with mini nut for SER20M to 32M – with hexagon head form D for SER-ER16 and ER20 – rest form E with six slots) and inner stop • without collets and wrench

Picture 1



Picture 2



Description	Order-No.	Pic.	D	L	Collets	Wrenches
SER20-ER11M-L=26	**34412000260**	1	16	26	4008E	SCHL-STM11M
SER20-ER16M-L=25	**34413000250**		22	25	426E	SCHL-STM16M
SER20-ER16M-L=35	**34413000350**			35		
SER20-ER20M-L=34	**34414000340**		28	34	428E	SCHL-STM20M
SER20-ER16-L=25	**34423000250**	2		25	426E	SCHL-SW25
SER20-ER20-L=34	**34424000340**		34	34	428E	SCHL-SW30
SER25-ER16M-L=31	**34513000310**	1	22	31	426E	SCHL-STM16M
SER25-ER16M-L=58	**34513000580**			58		
SER25-ER25M-L=35	**34515000350**		35	35	430E	SCHL-STM25M
SER25-ER16-L=32	**34523000320**	2	28	32	426E	SCHL-SW25
SER25-ER20-L=33	**34524000330**		34	33	428E	SCHL-SW30
SER25-ER25-L=42	**34525000420**		42	42	430E	SCHL-STM25E
SER32-ER16M-L=25	**34613000250**	1	22	25	426E	SCHL-STM16M
SER32-ER16M-L=60	**34613000600**			60		
SER32-ER25-L=35	**34625000350**	2	42	35	430E	SCHL-STM25E
SER32-ER32-L=38	**34626000380**		50	38	470E	SCHL-STM32E

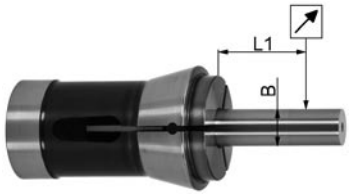
Concentricity for collets DIN6341 and DIN6343 on pages 4 bis 6 and 11.
The tolerances are classified to DIN into two classes:

- Class 2 is our standard execution
- Class 1 (higher accuracy) can be supplied against surcharge

B mm				L1 mm	DIN Class 2	Class 1
over	1,0	to	1,6	6	0,020	0,015
	1,6		3,0	10		
	3,0		6,0	16		
	6,0		10,0	25		
	10,0		18,0	40	0,030	0,020
	18,0		24,0	50		
	24,0		30,0	60		
	30,0		50,0	80	0,040	0,030
	50,0		60,0	100		

For applications which require highest concentricity, it is absolutely necessary to pay attention to the complete system (machine spindle, collet acceptance, clamping nut, collet and cutting tool).

Concentricity DIN6341/6343



Workpiece Clamping

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