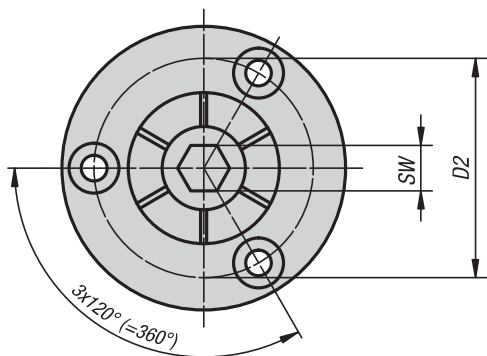
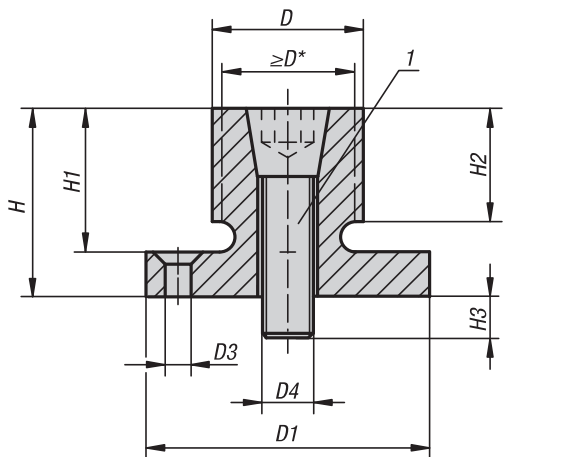
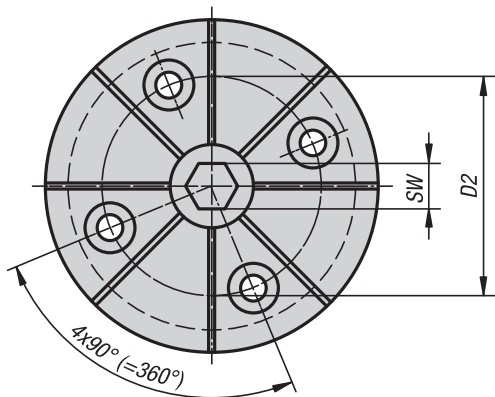


Mandrel collets



K0357.1630175



Material:
Mandrel mild steel.
Taper-head screw low-carbon steel

Version:
Mandrel black oxidised.
Taper-head screw case-hardened.

Sample order:
K0357.081420

Note:
The mandrel collet is ideal for finish machining turned parts. The diameter D can be turned or milled to suit the workpiece ID.
Low design - no interfering clamp straps.
Tightened using a hex socket wrench or hydraulics.

* D min. = smallest diameter to which „D“ may be turned or milled.

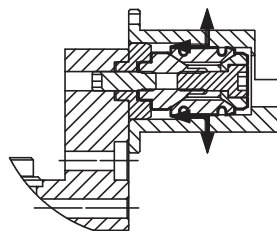
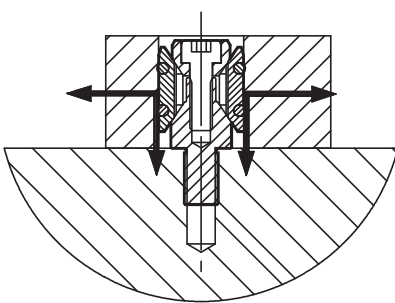
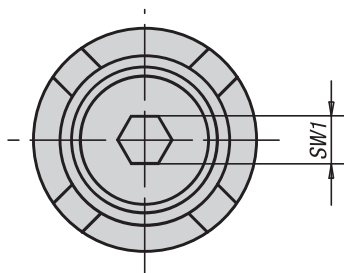
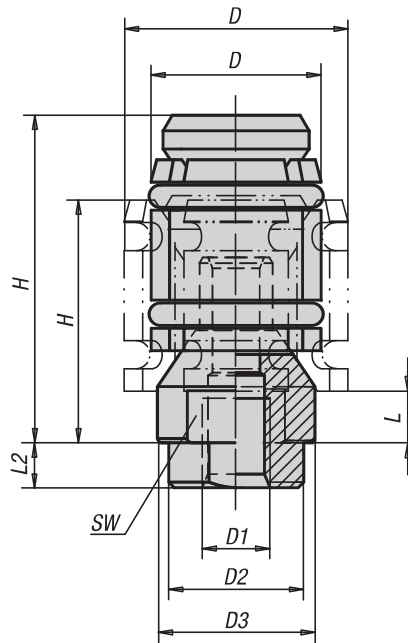
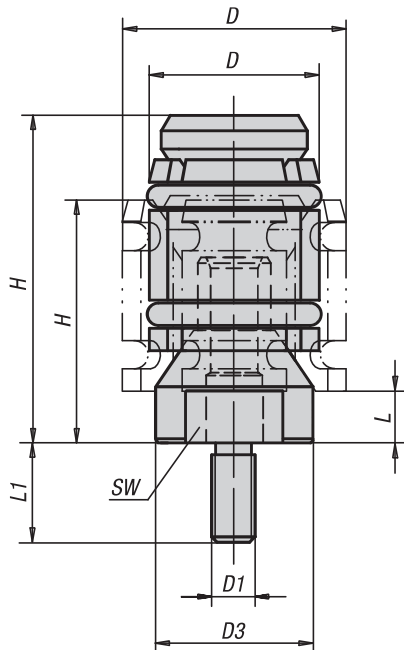
Assembly:
Expand the mandrel approx. 0.1 mm over the relaxed diameter. Turn or mill the mandrel to suit the internal diameter of the workpiece. The base flange can be centred in a pocket or using dowel pins.

Drawing reference:
1) taper-head screw

KIPP Mandrel collets

Order No.	D	D min.	D1	D2	D3 for screw ISO 10642	D4 Tapered-head bolt	H	H1	H2	H3	SW Tapered-head bolt	Tightening torque max. Nm	Clamping force max. kN
K0357.020407	7,4	4,1	20 h9	13,7	M2	M2	10,7	7,6	6,1	4,1	1,5	0,7	1,1
K0357.040812	12,4	8	29,72 h9	21	M3	M4	21,8	16	15	8	3	5	4,2
K0357.061214	14,2	12,2	31,5 h9	23,1	M3	M6	24,9	19	15	12	5	17	8,5
K0357.081420	20	13,5	37,5 h9	29	M3	M8	24,9	19	15	14	6	34	11,1
K0357.062027	27	18	50 h9	39,4	M4	M10	28,6	22,2	17,5	17	8	60	20
K0357.102535	35,3	23	56 h9	45,5	M4	M12	31,8	25,4	20,6	21	10	150	26,3
K0357.123442	42	29,3	69,5 h8	55,9	M5	M16	39,6	31,8	27	22	14	280	44,5
K0357.123452	51,5	29,3	75,5 h9	63,9	M5	M16	39,6	31,8	27	22	14	280	44,5
K0357.163077	77,7	29,3	107,5 h9	92,5	M6	M16	45,5	37,6	32,3	20	14	280	44,5
K0357.1630103	103	29,3	132,9 h9	118	M6	M16	45,5	37,6	32,3	20	14	280	44,5
K0357.1630175	175	29,3	132,9 h9	118	M6	M16	45,5	37,6	32,3	20	14	280	44,5

Centring clamps



Material:
Body steel.
Bushes carbon steel.

Version:
Black oxidised.

Sample order:
K0893.0615

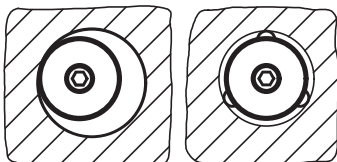
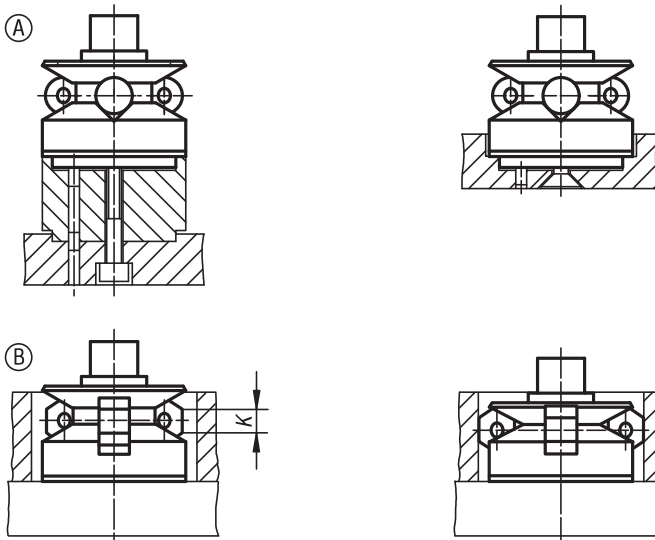
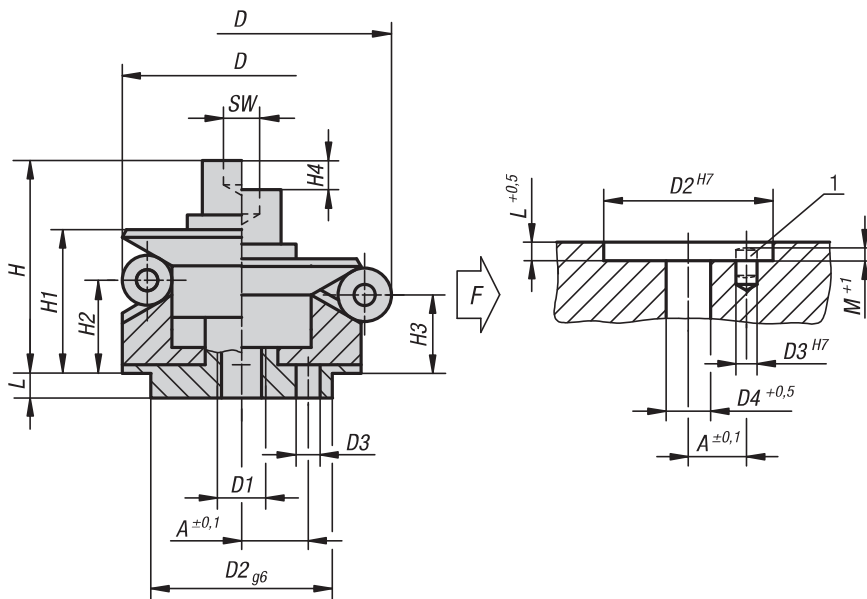
Note:
These centring clamps allow workpieces to be centred on and clamped in a bore. The clamps have a wide expansion range. The series covers a bore range of Ø12 to Ø30 mm. To increase the centring accuracy the clamps with internal thread have a centring spigot (D2) for a locating hole. These are also suitable for M6 grid systems (see application example).

KIPP Centring clamps

Order No.	Version	D1	L1	L2	D min.	D max.	D2	D3	H min.	H max.	L min.	SW	SW1
K0893.0615	internal thread	M6	-	4	12	15	12	11,4	22	27,5	4,8	9	2,5
K0893.0619	internal thread	M6	-	4	15	19	12	14	24,5	32	4,8	12	4
K0893.0624	internal thread	M6	-	4	19	24	12	17,8	26	35	4,5	15	5
K0893.0630	internal thread	M6	-	4	24	30	12	23	32	44,5	7	19	5
K0893.061215	external thread	M6	12	-	12	15	-	11,4	22	27,5	4,8	9	2,5
K0893.061219	external thread	M6	12	-	15	19	-	14	24,5	32	4,8	12	4
K0893.081624	external thread	M8	16	-	19	24	-	17,8	26	35	4,5	15	5
K0893.081630	external thread	M8	16	-	24	30	-	23	32	44,5	7	19	5

Centring clamps

with ball or hexagon segments



Material:

Body 1.2842.
Ball and hex segments 1.4112.
Tension spring 1.4310.

Version:

Body hardened and black oxidised.
Ball and hex segments hardened and ground.

Sample order:

K0358.101203

Note:

Form A: With balls for holes where light marking is acceptable.
Form B: With hexagons for sensitive hole surfaces.

Application:

To position and centre existing bores on the machining surface.

Advantages:

- Precise self-centring.
- Distortion free clamping.
- Large spread range.
- Low overall height.

Technical data:

Repetitive accuracy ± 0.025
Concentric accuracy ± 0.05

Drawing reference:

Form A: With balls for holes where light marking is acceptable.
Form B: With hexagons for sensitive hole surfaces.

1) Mounting aid:

pin to accurately position the mandrel segments.

Centring clamps

with ball or hexagon segments



KIPP Centring clamps with ball segments

Order No.	Form	A	D min.	D max.	D1	D2	D3	D4	H	H1	H2	H3	H4	L	M	SW	Ball-Ø	No. of balls	F kN
K0358.101203	A	3,5	11,7	14,2	M4	10	1,5	4,3	15	10	4,2	3	1,5	3,5	2,5	3	2,5	3	0,5
K0358.101504	A	4,5	14,5	18,5	M4	12	2	4,3	19,5	14,5	9,8	8,6	2,3	5,5	3	3	4	3	3,5
K0358.101905	A	5,5	18,5	22,5	M5	15	2,5	5,3	23,5	16,5	11,6	10,4	2,3	7,5	3	4	4	3	4
K0358.102306	A	7	22,5	26,5	M6	20	3	6,4	28,8	19,8	14,2	13	2,3	6	4	5	4	3	4,5
K0358.102706	A	7	26,5	30,5	M6	20	3	6,4	28,8	19,8	14,2	13	2,3	6	4,5	5	4	3	4,5
K0358.103106	A	9	30,5	38,5	M6	25	4	6,4	32,7	23,1	14,2	11,9	4,6	7	4,5	5	8	3	4,5
K0358.103908	A	11	38,5	46,5	M8	30	4	8,4	39,2	27,2	17,8	15,5	4,6	7,5	4,5	6	8	6	6,5
K0358.104708	A	11	46,5	54,5	M8	30	4	8,4	39,2	27,2	18	15,7	4,6	7,5	4,5	6	8	6	6,5
K0358.105510	A	15	54,5	70,5	M10	45	5	10,5	54,6	40,6	23,7	19,1	9,3	9	5,5	8	16	6	8
K0358.107112	A	17	70,5	86,5	M12	60	5	13	63,1	46,1	28,3	23,7	9,3	10	5,5	10	16	6	10
K0358.108712	A	25	86,5	102,5	M16	60	5	17	73	51	30,2	25,7	9,3	10	5,5	14	16	6	12,5

KIPP Centring clamps with hexagon segments

Order No.	Form	A	D min.	D max.	D1	D2	D3	D4	H	H1	H2	H3	H4	L	M	K	SW	No. of hex	F kN
K0358.201504	B	4,5	14,5	18,5	M4	12	2	4,3	19,5	14,5	9,8	8,6	2,3	5,5	3	4	3	3	3,5
K0358.201905	B	5,5	18,5	22,5	M5	15	2,5	5,3	23,5	16,5	11,6	10,4	2,3	7,5	3	4	4	3	4
K0358.202306	B	7	22,5	26,5	M6	20	3	6,4	28,8	19,8	14,2	13	2,3	6	4	4	5	3	4,5
K0358.202706	B	7	26,5	30,5	M6	20	3	6,4	28,8	19,8	14,2	13	2,3	6	4,5	4	5	3	4,5
K0358.203106	B	9	30,5	38,5	M6	25	4	6,4	32,7	23,1	14,2	11,9	4,6	7	4,5	8	5	3	4,5
K0358.203908	B	11	38,5	46,5	M8	30	4	8,4	39,2	27,2	17,8	15,5	4,6	7,5	4,5	8	6	6	6,5
K0358.204708	B	11	46,5	54,5	M8	30	4	8,4	39,2	27,2	18	15,7	4,6	7,5	4,5	8	6	6	6,5
K0358.205510	B	15	54,5	70,5	M10	45	5	10,5	54,6	40,6	23,7	19,1	9,3	9	5,5	16	8	6	8
K0358.207112	B	17	70,5	86,5	M12	60	5	13	63,1	46,1	28,3	23,7	9,3	10	5,5	16	10	6	10
K0358.208712	B	25	86,5	102,5	M16	60	5	17	73	51	30,2	25,7	9,3	10	5,5	16	14	6	12,5

Centring clamps

round



Material:

Carbon steel.

Version:

Hardened (33–39 HRC) and black oxidised.

Sample order:

K1166.10804

Note:

The centring clamp enables a workpiece to be centred and clamped in the bore.

The wedges generate higher clamping forces.

The centring clamp is available with a cap screw or countersunk screw.

Centring clamp with pull-down effect.

Drawing reference:

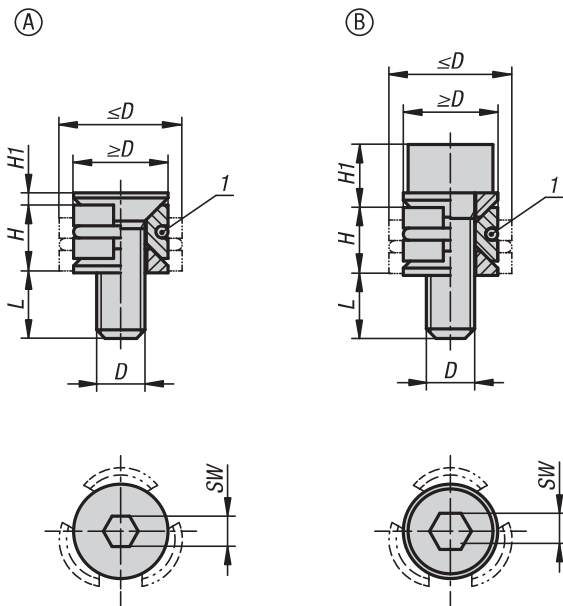
Form A: with countersunk screw

Form B: with cap screw

Dimension H refers to the height at $\geq D$.

1) O-ring

Dimension L refers to the length at $\leq D$



KIPP Centring clamp round

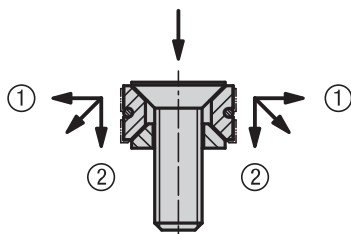
Order No.	Form	D	D min.	D max.	H	H1	L	SW	Clamping force kN	Tightening torque Nm
K1166.10804	A	M4	8	10,3	5,5	0,9	7,3	2,5	0,9	2,1
K1166.11005	A	M5	10	12,3	6,4	1,1	9,1	3	1,5	4,3
K1166.11206	A	M6	12	16,3	8,6	1,3	11,2	4	2,1	7,3
K1166.11608	A	M8	16	22	11,5	1,6	16,2	5	4	18
K1166.20804	B	M4	8	10,3	5,5	5,1	7,1	3	1,5	2,7
K1166.21005	B	M5	10	12,3	6,4	6,2	9	4	2,5	5,4
K1166.21206	B	M6	12	16,3	8,6	7,9	10,6	5	5	9,1
K1166.21608	B	M8	16	22	11,5	10,4	15,4	6	9	25

Centring clamps

round

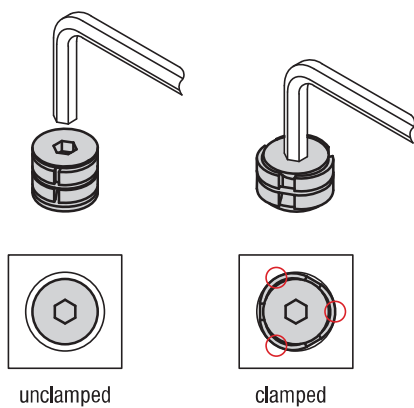
Technical information:

- These clamps grip the inside diameter of a workpiece.
- The wedge shape enables high clamping forces on the workpiece.

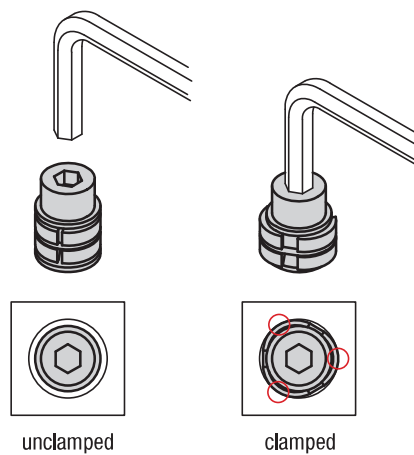


- (Jaws exert positive down force)
- ① Horizontal thrust against workpiece
 - ② Vertical thrust prevents the workpiece lifting

Form A:

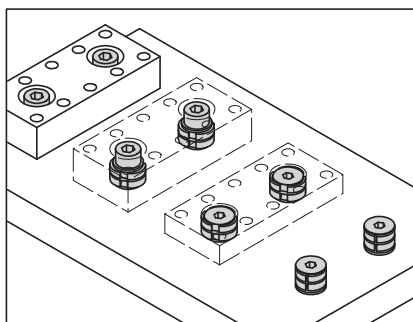


Form B:



Note:

The clamp makes point contact with the bore wall when clamped.



For accurate repeat positioning use these clamps together with a positioning unit. Clamping is carried out with the centring clamp.

