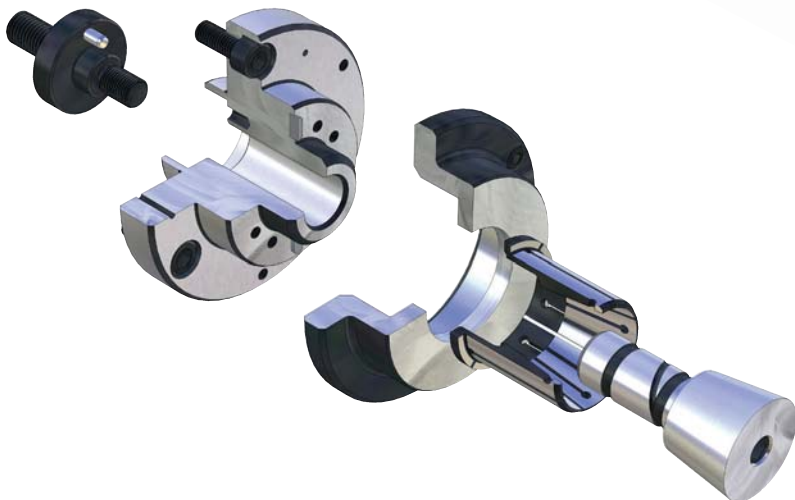




HIGH AXIAL RUN-OUT PRECISION; CONCENTRICITY AND REPEATABILITY



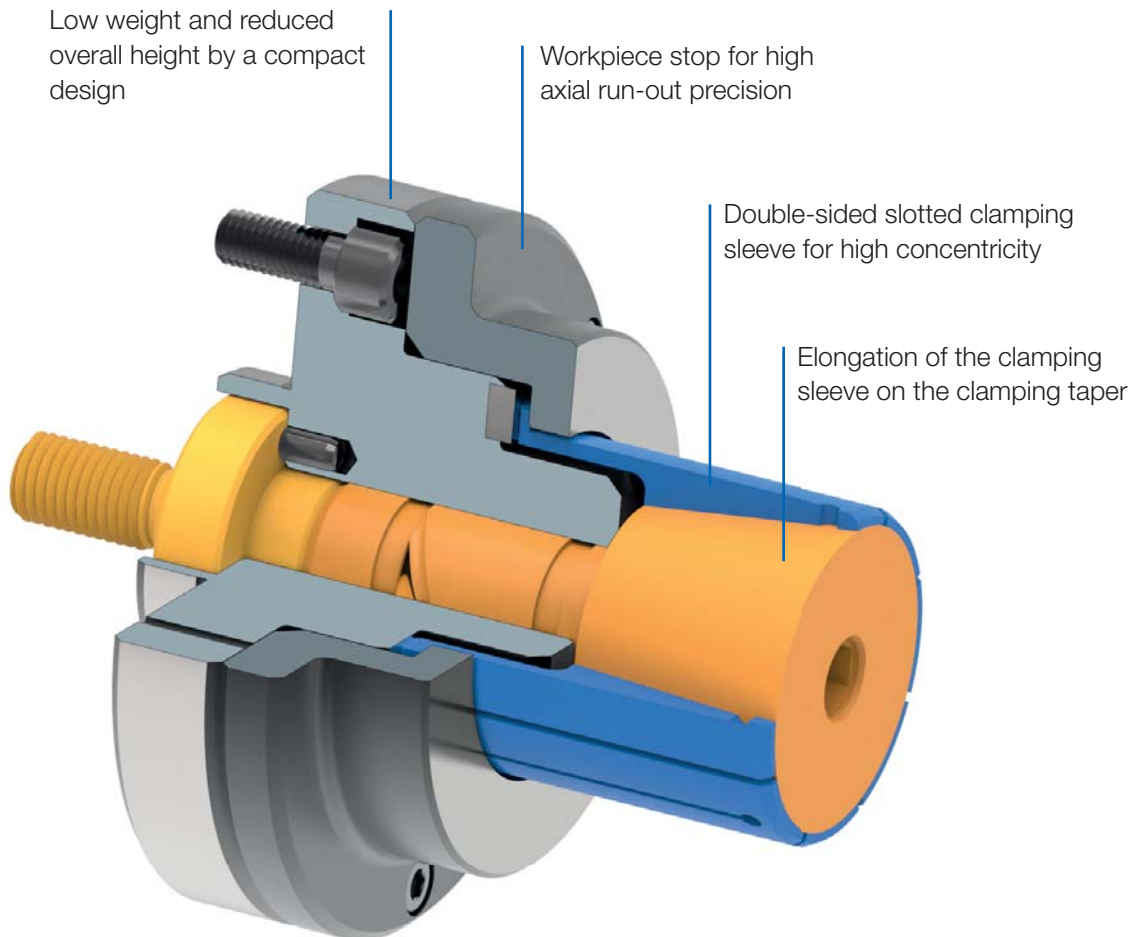
Custom-fit interaction of the individual components enables the highest degree of axial run-out precision, concentricity and repeatability.

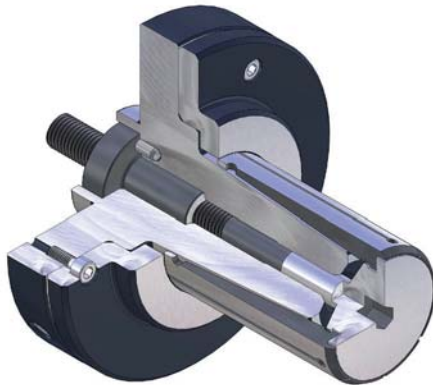
CARTRIDGE MANDRELS

The various application areas of the cartridge mandrels require a varied programme which ranges from manual or power-operated versions to versions with and without axial tension. The centric and comprehensive internal clamping of cartridge mandrels are particularly impressive for very small clamping diameters and at low overall heights.

ADVANTAGES AT A GLANCE

- ⊕ Stable clamping by axial tension against workpiece stop
- ⊕ Low weight and reduced overall height by a compact design
- ⊕ High axial run-out precision, concentricity and repeatability





APPLICATION

Internal clamping of round workpieces. Turning, milling, grinding and toothing operations, as well as for balancing and measuring. Ideal for thin-walled and long workpieces or long clamping lengths.

TYPE

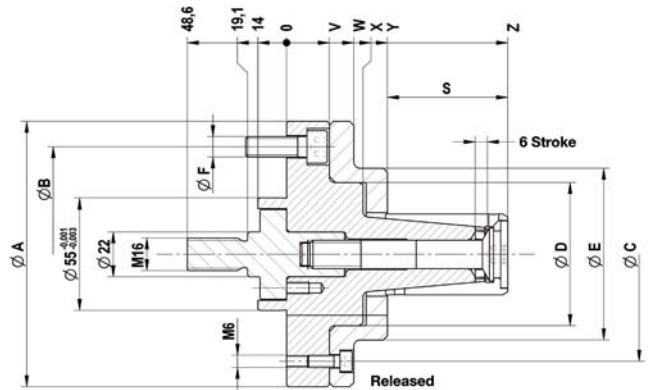
Force-actuated. Clamping sleeves optionally vulcanized. Convertible to MFS (required new intermediate piece).

CUSTOMER BENEFITS

- ③ Sturdy clamping of the workpiece thanks to axial tension against the workpiece stop
- ③ High concentricity, axial run-out and repeatability
- ③ Light weight and reduced height thanks to compact design
- ③ High flexibility thanks to modular system
- ③ Fast change of clamping sleeves thanks to central clamping screw

TECHNICAL FEATURES

- Hardened, low-wear design
- Integrated lubrication
- Air sensing prepared



C18
KFS cartridge mandrel
Consisting of basic mandrel and intermediate piece

	KFS 00	KFS 01	KFS 02	KFS 03	KFS 04	KFS 05	KFS 06	KFS 07	KFS 08	KFS 09	KFS 10	KFS 11
Cartridge Mandrel	599800	599801	599802	599803	599804	599805	599806	599807	599808	599809	599810	599811
Basic mandrel	599820	599821	599822	599823	599824	599825	599826	599827	599828	599829	599830	599831
Adapter power operated	599833	599834	599980	599981	599982	599983	599984	599984	599984	315456	315456	315456
F max, in kN	7	9	12	12	15	15	20	20	25	25	25	25
Min-Ø unclamped from	14,7	19,7	24,7	29,7	34,7	39,7	44,7	54,7	64,7	81,7	100,7	119,7
Min-Ø unclamped to	19,7	24,7	29,7	34,7	39,7	44,7	54,7	64,7	81,7	100,7	119,7	139,7
Clamping-Ø max,	20,7	25,7	30,7	35,7	40,7	45,7	55,7	65,7	82,7	101,7	120,7	140,7
External-Ø A	100	100	100	100	100	130	130	130	160	160	160	160
Pitch diameter B	75	75	75	75	75	105	105	105	130	130	130	130
Pitch diameter C	75	75	75	75	75	105	105	105	130	130	130	149
Ø D mm	40	40	46	46	46	70	70	70	83	91	87	107
Ø E mm	54	54	60	60	60	84	84	84	103	160	160	160
Ø F mm	M10	M10	M10	M10	M10	M10	M10	M10	M12	M12	M12	M12
S mm	31,5	36	45	49	59	59	79	89	99	121	138,9	171
V mm	21	21	21	21	21	21	21	21	23	21	21	25
W mm	33	33	33	33	33	33	33	33	35	21	21	25
X mm	36	36	37	41	36,5	37,5	35,5	35,5	35			
Y mm	47,5	47,5	48	51,5	46	49,5	47	47	47	33	37	57
Z mm	79	83,5	93	100,5	105	108,5	126	136	146	154	176	228

Max. clamping force kN: 3,7-4,7-6,4-6,4-8,0-7,9-10,5-10,5-13,5-13,5-13,5-13,0

MFS



APPLICATION

Internal clamping of round workpieces. Turning, milling, grinding and toothing operations, as well as for balancing and measuring. Ideal for thin-walled and long workpieces or long clamping lengths.

TYPE

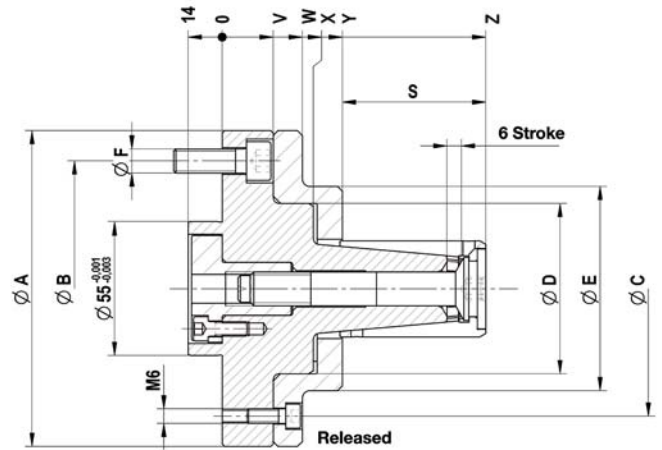
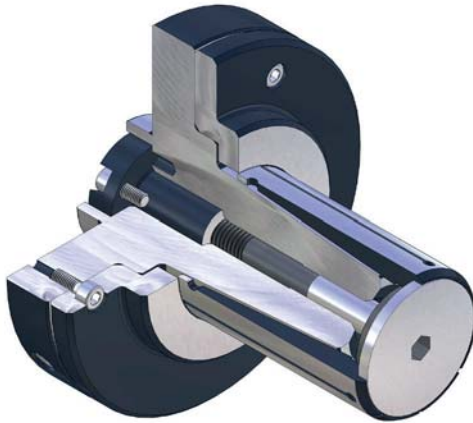
Manually actuated. Clamping sleeves optionally vulcanized. Convertible to KFS (new adapter required).

CUSTOMER BENEFITS

- ④ Sturdy clamping of the workpiece thanks to axial tension against the workpiece stop
- ④ High concentricity, axial run-out and repeatability
- ④ Light weight and reduced height thanks to compact design
- ④ High flexibility thanks to modular system
- ④ Fast change of clamping sleeves thanks to central clamping screw

TECHNICAL FEATURES

- Hardened, low-wear design
- Integrated lubrication
- Air sensing prepared



C18
MFS cartridge mandrel
Consisting of basic mandrel and intermediate piece

	MFS 00	MFS 01	MFS 02	MFS 03	MFS 04	MFS 05	MFS 06
Cartridge Mandrel	1082800	1082801	1082802	1082803	1082804	1082805	1082806
Basic mandrel	599820	599821	599822	599823	599824	599825	599826
Adapter hand-operated	599985	599986	599987	599988	599989	599990	599991
Md max, kN	7	12	20	22	30	35	45
Min-Ø unclamped from	14,7	19,7	24,7	29,7	34,7	39,7	44,7
Min-Ø unclamped to	19,7	24,7	29,7	34,7	39,7	44,7	54,7
Clamping-Ø max,	20,7	25,7	30,7	35,7	40,7	45,7	55,7
External-Ø A	100	100	100	100	100	130	130
Pitch diameter B	75	75	75	75	75	105	105
Pitch diameter C	75	75	75	75	75	105	105
Ø D mm	40	40	46	46	46	70	70
Ø E mm	54	54	60	60	60	84	84
Ø F mm	M10	M10	M10	M10	M10	M10	M10
S mm	31,5	36	45	49	59	59	79
V mm	21	21	21	21	21	21	21
W mm	33	33	33	33	33	33	33
X mm	36	36	37	41	36,5	37,5	35,5
Y mm	47,5	47,5	48	51,5	46	49,5	47
Z mm	79	83,5	93	100,5	105	108,5	126

Accessories KFS / MFS

C18

Clamping set KFS/MFS (not vulcanized), consisting of clamping sleeve and clamping screw

	00	01	02	03	04	05	06	07	08	09	10	11
For size												
Expansion in Ø mm	1	1	1	1	1	1	1	1	1	1	1	1
Length L mm	35	40	46	50	60	60	80	90	100	122	140	180
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476 ▲	315477 ▲	315478 ▲	315479 ▲	599998 ▲
Work stop	599966	599967	599968	599969	599970	599971	599878	599888 ▲	599898 ▲	599915 ▲	599934 ▲	599953 ▲
Montage mandrel clamping	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	19,7	24,7	29,7	34,7	39,7	44,7	54,7	64,7	74,7	91,7	110,7	129,7
Clamping set	1086321	1086332	1086343	1086354	1086365	1086376	1086387	1086398 ▲	1086409 ▲	1086427 ▲	1086447 ▲	1086467 ▲
Clamping sleeve	650030	650043	650056	650069	650082	650095	650107	650119 ▲	315390 ▲	315388 ▲	315389 ▲	315405 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476 ▲	315477 ▲	315478 ▲	315479 ▲	599998 ▲
Work stop	599966	599967	599968	599969	599970	599971	599879	599889 ▲	599899 ▲	599916 ▲	599935 ▲	599954 ▲
Montage mandrel clamping	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									75,7	92,7	111,7	130,7
Clamping set									1086410 ▲	1086428 ▲	1086448 ▲	1086468 ▲
Clamping sleeve									650133 ▲	650152 ▲	650173 ▲	650194 ▲
Locking bolt									315477 ▲	315478 ▲	315479 ▲	599998 ▲
Work stop									599900 ▲	599917 ▲	599936 ▲	599955 ▲
Montage mandrel clamping									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									76,7	93,7	112,7	131,7
Clamping set									1086411 ▲	1086429 ▲	1086449 ▲	1086469 ▲
Clamping sleeve									315393 ▲	315391 ▲	315392 ▲	315406 ▲
Locking bolt									315477 ▲	315478 ▲	315479 ▲	599998 ▲
Work stop									599901 ▲	599918 ▲	599937 ▲	599956 ▲
Montage mandrel clamping									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									77,7	94,7	113,7	132,7
Clamping set									1086412 ▲	1086430 ▲	1086450 ▲	1086470 ▲
Clamping sleeve									650135 ▲	650154 ▲	650175 ▲	650196 ▲
Locking bolt									315477 ▲	315478 ▲	315479 ▲	599998 ▲
Work stop									599902 ▲	599919 ▲	599938 ▲	599957 ▲
Montage mandrel clamping									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									78,7	95,7	114,7	133,7
Clamping set									1086413 ▲	1086431 ▲	1086451 ▲	1086471 ▲
Clamping sleeve									315396 ▲	315394 ▲	315395 ▲	315407 ▲
Locking bolt									315477 ▲	315478 ▲	315479 ▲	599998 ▲
Work stop									599903 ▲	599920 ▲	599939 ▲	599958 ▲
Montage mandrel clamping									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									79,7	96,7	115,7	134,7
Clamping set									1086414 ▲	1086432 ▲	1086452 ▲	1086472 ▲
Clamping sleeve									650137 ▲	650156 ▲	650177 ▲	650198 ▲
Locking bolt									315477 ▲	315478 ▲	315479 ▲	599998 ▲
Work stop									599904 ▲	599921 ▲	599940 ▲	599959 ▲
Montage mandrel clamping									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									80,7	97,7	116,7	135,7
Clamping set									1086415 ▲	1086433 ▲	1086453 ▲	1086473 ▲
Clamping sleeve									315399 ▲	315397 ▲	315398 ▲	315408 ▲
Locking bolt									315477 ▲	315478 ▲	315479 ▲	599998 ▲
Work stop									599905 ▲	599922 ▲	599941 ▲	599960 ▲
Montage mandrel clamping									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									81,7	98,7	117,7	136,7
Clamping set									1086416 ▲	1086434 ▲	1086454 ▲	1086474 ▲
Clamping sleeve									650139 ▲	650158 ▲	650179 ▲	650200 ▲
Locking bolt									315477 ▲	315478 ▲	315479 ▲	599998 ▲
Work stop									599906 ▲	599923 ▲	599942 ▲	599961 ▲
Montage mandrel clamping									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm										99,7	118,7	137,7
Clamping set										1086435 ▲	1086455 ▲	1086475 ▲
Clamping sleeve										315400 ▲	315401 ▲	315409 ▲
Locking bolt										315478 ▲	315479 ▲	599998 ▲
Work stop										599924 ▲	599943 ▲	599962 ▲
Montage mandrel clamping										724185 ▲	724186 ▲	724187 ▲
Min-Ø mm										100,7	119,7	138,7
Clamping set										1086436 ▲	1086456 ▲	1086476 ▲
Clamping sleeve										650160 ▲	650181 ▲	650202 ▲
Locking bolt										315478 ▲	315479 ▲	599998 ▲
Work stop										599925 ▲	599944 ▲	599963 ▲
Montage mandrel clamping										724185 ▲	724186 ▲	724187 ▲
Min-Ø mm												139,7
Clamping set												1086477 ▲
Clamping sleeve												315410 ▲
Locking bolt												599998 ▲
Work stop												599964 ▲
Montage mandrel clamping												724187 ▲

Intermediate flange KFS / MFS



APPLICATION

For adaptation of cartridge mandrel KFR/MFR/KFR-SE/MFR-SE or KFS/MFS - on spindle head ISO 702-1 / ISO 702-3 (DIN 55021/55022/55026 and 55027).

TYPE

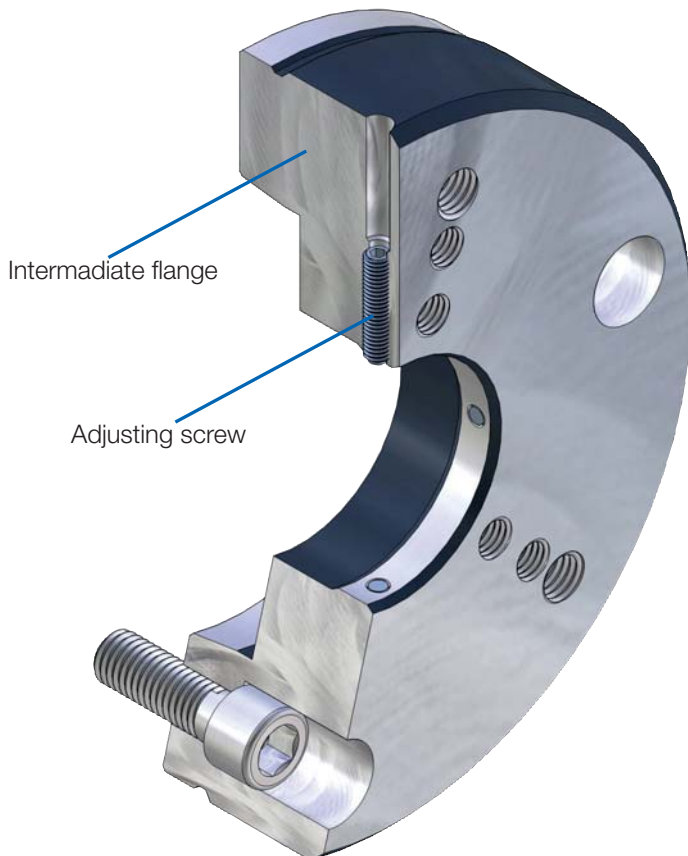
For KFR/MFR/KFR-SE/MFR-SE or KFS/MFS.

CUSTOMER BENEFITS

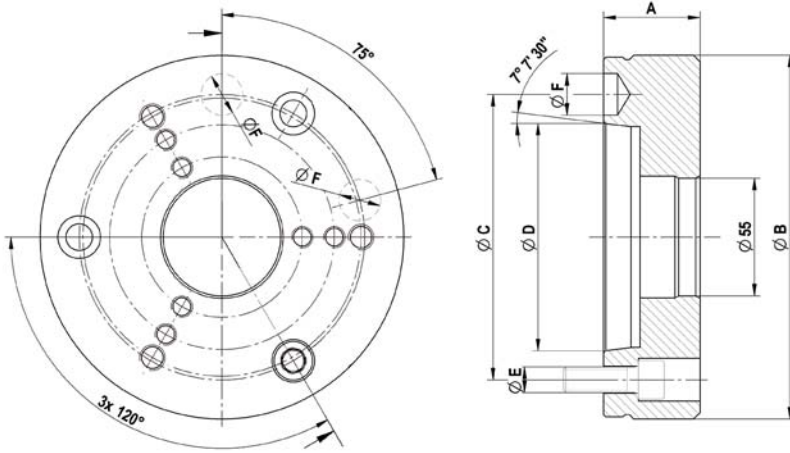
- By replacement of the intermediate flange, one cartridge mandrel can be used on different machines

TECHNICAL FEATURES

Adaptation of KFR/MFR/KFR-SE/MFR-SE cartridge mandrel or KFS/MFS on spindle head, with or without adjusting screw, with or without performing air sensing. Version acc. to ISO 702-1 (DIN 55028-A) or ISO 702-3 (DIN 55028-C), in size no. 5, no. 6, no. 8, no. 11 or no. 5, no. 6, no. 8 (A5, A6, A8, A11 or C5, C6, C8).

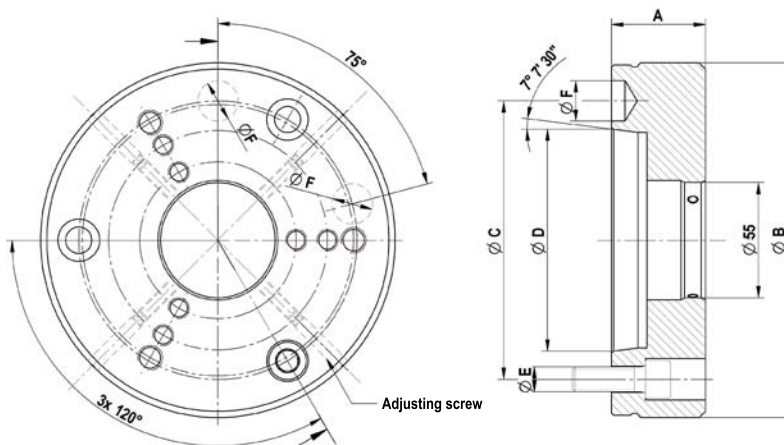


Accessories KFS / MFS



C 18
Intermediate flange ISO 702-1 (DIN 55026/55021) without adjusting screws

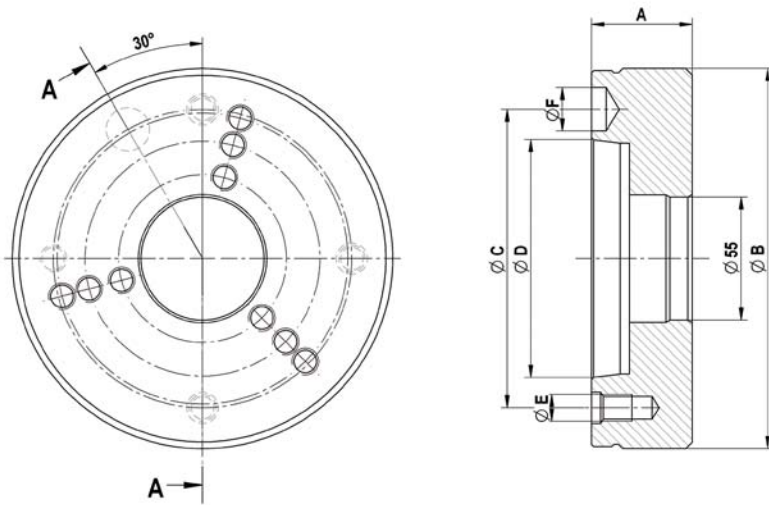
	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)	Nr. 11 (A 11)
Intermediate flange	893975	893976	893977	893978 ▲
Design	without air-sensing	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A mm	45	45	50	50
Ø B	165	170	220	282
Ø C mm	104,8	133,4	171,4	235
Ø D mm	82,563	106,375	139,719	196,869
Ø E	M10	M12	M16	M20
Ø F mm	16,3	19,45	24,2	29,4



C 18
Intermediate flange ISO 702-1 (DIN 55028) with adjusting screw

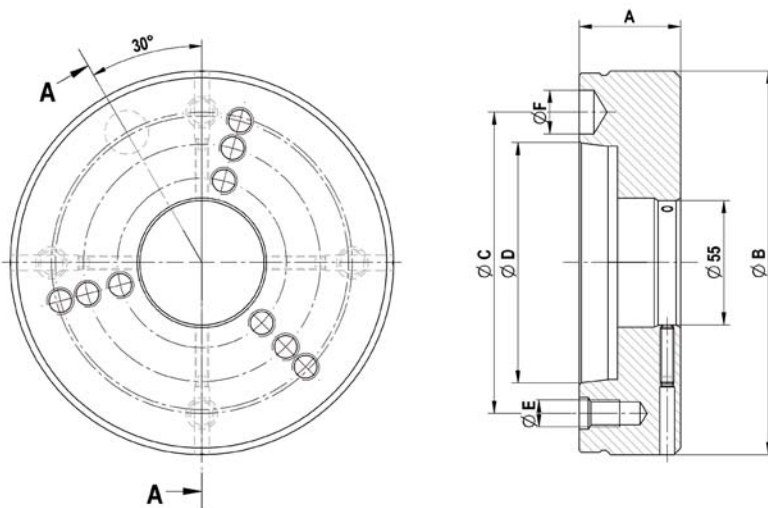
	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)
Intermediate flange	893979	893980	893981
Design	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A mm	45	45	50
Ø B	165	170	220
Ø C mm	104,8	133,4	171,4
Ø D mm	82,563	106,375	139,719
Ø E	M10	M12	M16
Ø F mm	16,3	19,45	24,2

Accessories KFS / MFS



C 18
Intermediate flange ISO 702-3 (DIN 55027/55022) without adjusting screws

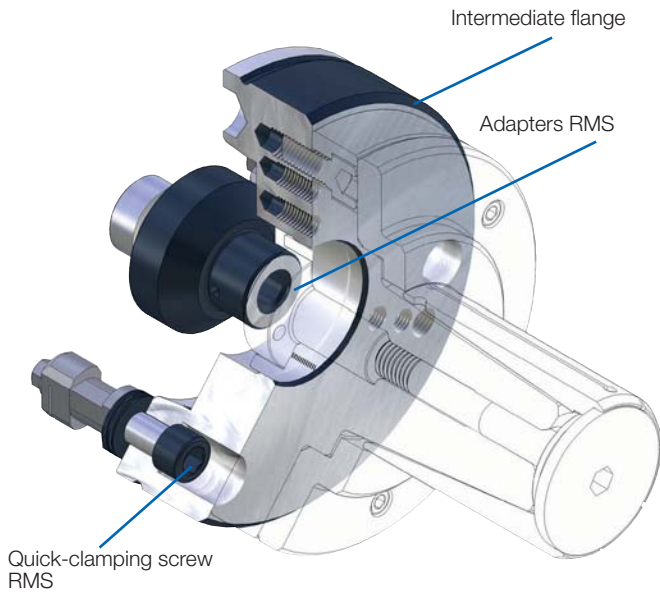
	Nr. 5 (C 05)	Nr. 6 (C 06)	Nr. 8 (C 08)
Intermediate flange	893982	893983	893984
Design	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A mm	45	45	50
Ø B	165	170	220
Ø C mm	104,8	133,4	171,4
Ø D mm	82,563	106,375	139,719
Ø E	M 10	M 12	M 16
Ø F mm	16,3	19,45	24,2



C 18
Intermediate flange ISO 702-3 (DIN 55027/55022) with adjusting screws

	Nr. 5 (C 05)	Nr. 6 (C 06)	Nr. 8 (C 08)
Intermediate flange	893985	893986	893987
Design	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A mm	45	45	50
Ø B	165	170	220
Ø C mm	104,8	133,4	171,4
Ø D mm	82,563	106,375	139,719
Ø E	M 10	M 12	M 16
Ø F mm	16,3	19,45	24,2

Accessories KFS / MFS



APPLICATION

For manual clamping devices exchange in a minimum of time.

TYPE

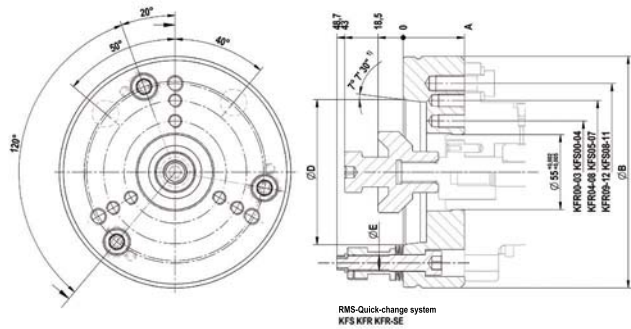
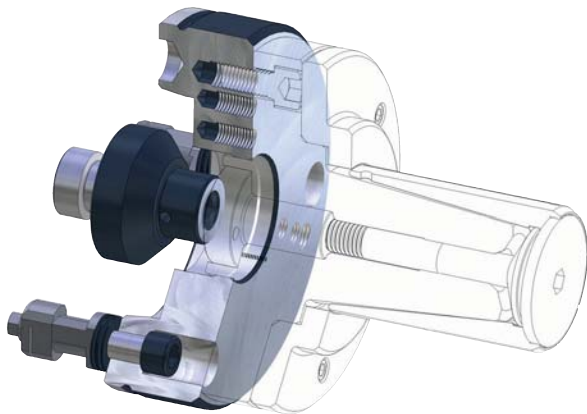
Manual quick-change system for clamping devices. Fits KFR/MFR or KFS/MFS. Central lubrication and / or air sensing control possible.

CUSTOMER BENEFITS

- ⌚ Manual clamping devices change in about 30 seconds
- ⌚ High change precision within 0.005 mm
- ⌚ Quick change of different clamping devices with short time, similar to the automatic or semiautomatic clamping devices changing systems

TECHNICAL FEATURES

- Quick-change system suitable due to recording RMS see quick-change system RMS (Product Group 6)
- Corresponds to the guidelines of the Employer's Liability Insurance Association in combination with ROHM safety clamping cylinder OVS and LVS

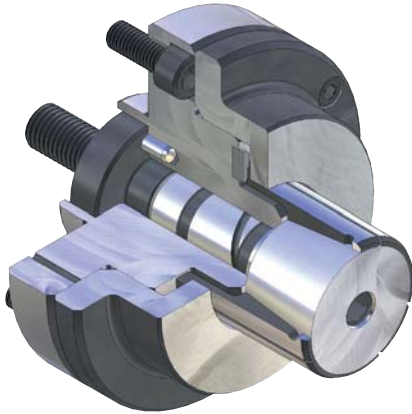


C18

RMS quick-change system, hand-operated for clamping devices

	KK 06	KK 08
RMS - complete (flange incl, quick-clamping screw)	1160026 ▲	1160027 ▲
Adapters RMS	1183310 ▲	1183311 ▲
A	45	50
Ø B	170	220
Ø C	133,4	171,4
Ø D	106,375	139,719
Ø E mm	M12	M16
Ø F mm	55 (+0,003/+0,001)	55 (+0,003/+0,001)

KFR - without axial tightening



APPLICATION

Internal clamping of round workpieces. Turning, grinding and tothing operations, as well as for balancing and measuring.
Ideal for short clamping lengths / workpieces.

TYPE

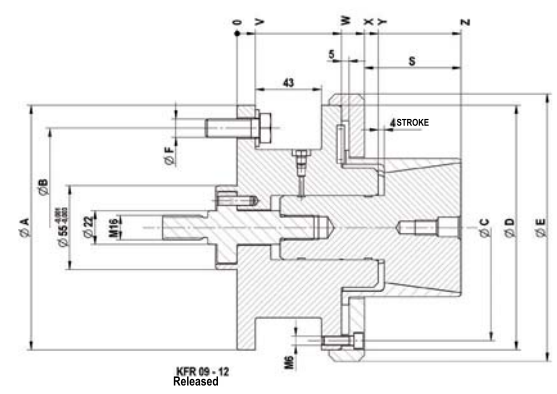
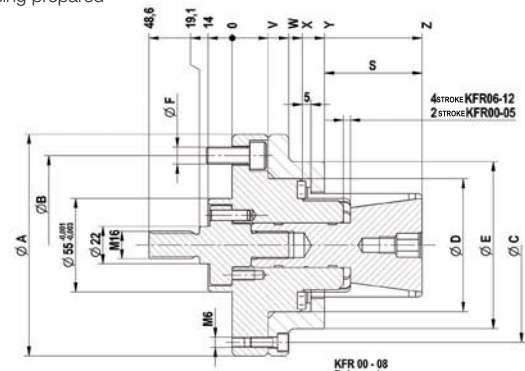
Force-actuated. Clamping sleeves optionally vulcanized.
Convertible to MFR (new intermediate piece required).

CUSTOMER BENEFITS

- ③ No workpiece tension thanks to def. axial tension against the workpiece stop
- ③ High concentricity, axial run-out and repeatability
- ③ Low-maintenance

TECHNICAL FEATURES

- Hardened, low-wear design
- Integrated lubrication
- Air sensing prepared

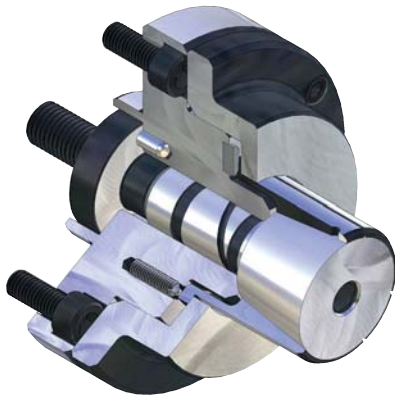


C18
KFR cartridge mandrel, power-operated with flanged seat, for internal clamping
Consisting of basic body, clamping taper, intermediate piece, nut

	KFR 00	KFR 01	KFR 02	KFR 03	KFR 04	KFR 05	KFR 06	KFR 07	KFR 08	KFR 09	KFR 10	KFR 11	KFR 12
Cartridge Mandrel	893960	893961	893962	893963	893964	893965	893966 ▲	893967 ▲	893968 ▲	893969 ▲	893970 ▲	893971 ▲	893972 ▲
Base bolt	893800	893801	893802	893803	893804	893805	893806 ▲	893807 ▲	893807 ▲	893809 ▲	893809 ▲	893809 ▲	893809 ▲
Clamping taper	650340	650341	650342	650343	650344	650345	650346 ▲	650347 ▲	650348 ▲	650349 ▲	650350 ▲	650351 ▲	650352 ▲
Adapter power operated	893816	893817	893818	893819	893820	893820	893821 ▲	893822 ▲	893822 ▲	893822 ▲	893822 ▲	893822 ▲	893822 ▲
Nut	893814	893814	893814										
F max, in kN	4,65	13,1	19,5	24,4	26,8	33	33	33	33	33	33	33	33
Max, total clamping force							140	140	140	140	140	140	140
Min-Ø unclamped from	14,2	19,7	25,2	35,2	40,2	50,2	60,7	70,7	80,7	90,7	100,7	110,7	120,7
Min-Ø unclamped to	19,7	25,2	35,2	40,2	50,2	60,7	70,7	80,7	90,7	100,7	110,7	120,7	130,7
Clamping-Ø max,	20,2	25,7	35,72	40,7	61,2	61,2	71,7	81,7	91,7	101,7	111,7	121,7	131,7
External-Ø A	100	100	100	100	130	130	130	160	160	160	160	160	160
Pitch diameter B	75	75	75	75	105	105	105	130	130	130	130	130	130
Pitch diameter C	85	85	85	85	114	114	114	145	145	148	148	148	148
Ø C mm							98	130	130	175	175	175	175
Ø D mm	50	50	50	50	78	78	78	100	100	160	160	160	160
Ø E mm	70	70	70	70	98	98	98	130	130	175	175	175	175
Ø F mm	M10	M10	M10	M10	M10	M10	M10	M12	M12	M12	M12	M12	M12
S mm	21	27	27	27	42	42	57	55	55	63	63	63	63
V mm	21	21	21	21	21	21	21	32	32	12	12	12	12
W mm	33	33	33	33	33	33	33	50	50	68	68	68	68
X mm	39	39	39	39	41	41	41	58	58	83	83	83	83
Y mm	50	52	52	52	54	54	54	73	73	92	92	92	92
Z mm	71	79	79	79	96	96	111	128	128	146	146	146	146

Max. clamping force kN: 1,9-5,5-8,3-10,4-11,4-14,0-14,0-14,0-14,0-14,0-14,0-14,0-14,0

KFR - with axial tightening



APPLICATION

Internal clamping of round workpieces. Turning, grinding and tothing operations, as well as for balancing and measuring. Ideal for short clamping lengths / workpieces.

TYPE

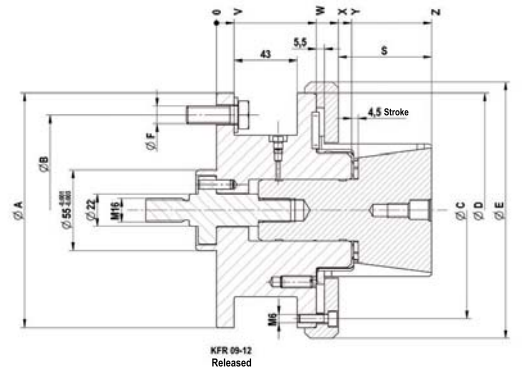
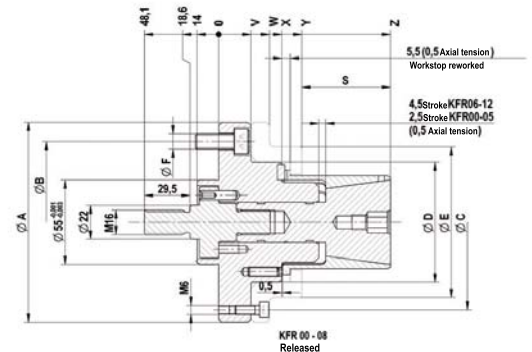
Force-actuated. Sleeve optional vulcanized. Convertible to MFR (new intermediate piece required).

CUSTOMER BENEFITS

- ① No workpiece tension thanks to def. axial tension against the workpiece stop
- ② High concentricity, axial run-out and repeatability
- ③ Low-maintenance

TECHNICAL FEATURES

- Hardened, low-wear design
- Integrated lubrication
- Air sensing φ

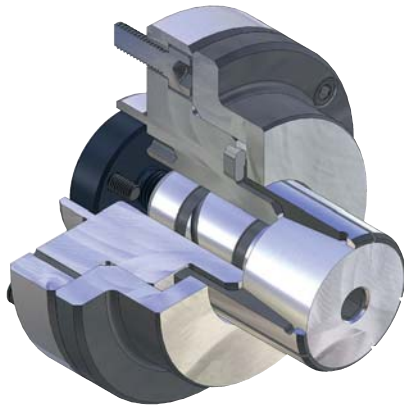


C18
KFR cartridge mandrel, power-operated with flanged seat, for internal clamping
Consisting of basic body, clamping taper, intermediate piece, nut

	KFR 00	KFR 01	KFR 02	KFR 03	KFR 04	KFR 05	KFR 06	KFR 07	KFR 08	KFR 09	KFR 10	KFR 11	KFR 12
Cartridge Mandrel	1077600	1077601	1077602	1077603	1077604	1077605	1077606	1077607	1077608	1077609	1077610	1077611	1077612
Base bolt	1077620	1077621	1077622	1077623	1077624	1077625	1077626	1077627	1077627	1077628	1077628	1077628	1077628
Clamping taper	650340	650341	650342	650343	650344	650345	650346 ▲	650347 ▲	650348 ▲	650349 ▲	650350 ▲	650351 ▲	650352 ▲
Adapter power operated	1061892	1061919	1077615	1061921	1050020	1050020	1050021	1077619	1077619	1077619	1077619	1077619	1077619
Nut	893814	893814	893814										
F max, in kN	4,65	13,1	19,5	24,4	26,8	33	33	33	33	33	33	33	33
Max, total clamping force approx, kN	20	56	83	104	114	140	140	140	140	140	140	140	140
Min-Ø unclamped from	14,2	19,7	25,2	35,2	40,2	50,2	60,7	70,7	80,7	90,7	100,7	110,7	120,7
Min-Ø unclamped to	19,7	25,2	35,2	40,2	50,2	60,7	70,7	80,7	90,7	100,7	110,7	120,7	130,7
Clamping-Ø max,	20,2	25,7	35,7	40,7	50,7	61,3	71,7	81,7	91,7	101,7	111,7	121,7	131,7
External-Ø A	100	100	100	100	130	130	130	160	160	160	160	160	160
Pitch diameter B	75	75	75	75	105	105	105	130	130	130	130	130	130
Pitch diameter C	85	85	85	85	114	114	114	145	145	148	148	148	148
Ø D mm	50	50	50	50	78	78	78	100	100	160	160	160	160
Ø E mm	70	70	70	70	98	98	98	130	130	175	175	175	175
Ø F mm	M10	M10	M10	M10	M10	M10	M10	M12	M12	M12	M12	M12	M12
S mm	21,5	27,5	27,5	27,5	42,5	42,5	57,5	55,5	55,5	63,5	63,5	63,5	63,5
V mm	21	21	21	21	21	21	21	32	32	12	12	12	12
W mm	33	33	33	33	33	33	33	50	50	68	68	68	68
X mm	39	39	39	39	41	41	41	58	58	92	92	92	92
Y mm	50	52	52	52	54	54	54	73	73	83	83	83	83
Z mm	71,5	79,5	79,5	79,5	96,5	96,5	111,5	128,5	128,5	146,5	146,5	146,5	146,5

Max. clamping force: 1,9-5-5-8,3-10,4-11,4-14,0-14,0-14,0-14,0-14,0-14,0-14,0-14,0

MFR - without axial tightening



APPLICATION

Internal clamping of round workpieces. Turning, grinding and toothing operations, as well as for balancing and measuring. Ideal for short clamping lengths / workpieces.

TYPE

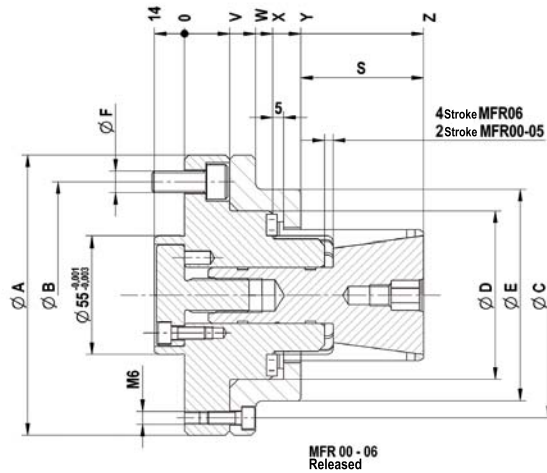
Manually actuated.
Optional vulcanized clamping sleeves/segment sleeves (segment clamping mandrel KFR-SE).

CUSTOMER BENEFITS

- ⊕ No workpiece tension thanks to def. axial tension against the workpiece stop
- ⊕ High concentricity, axial run-out and repeatability
- ⊕ Low-maintenance

TECHNICAL FEATURES

- Hardened, low-wear design
- Integrated lubrication
- Air sensing prepared

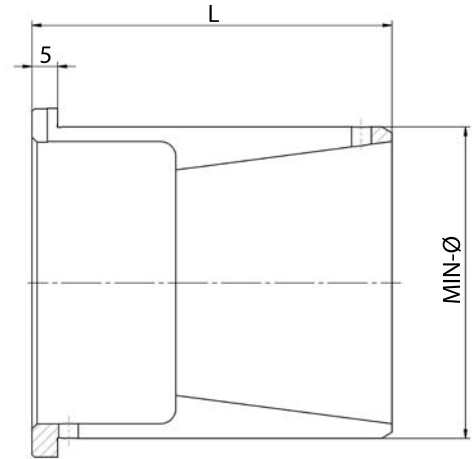


MFR 00 - 06
Released

C18
MFR cartridge mandrel, hand-operated with flanged seat, for internal clamping
Consisting of basic body, clamping taper, intermediate piece

	MFR 00	MFR 01	MFR 02	MFR 03	MFR 04	MFR 05	MFR 06
Cartridge Mandrel	1077700	1077701	1077702	1077703	1077704	1077705	1077706 ▲
Base bolt	893800	893801	893802	893803	893804	893805	893806 ▲
Clamping taper	650340	650341	650342	650343	650344	650345	650346 ▲
Adapter hand-operated	893823	893824	893825	893826	893827	893827	893828 ▲
Md max, kN	4	5	40	55	60	75	85
Min-Ø unclamped from	14,2	19,7	25,2	35,2	40,2	50,2	60,7
Min-Ø unclamped to	19,7	25,2	35,2	40,2	50,2	60,7	70,7
Clamping-Ø max,	20,2	25,7	35,7	40,7	50,7	61,2	71,7
External-Ø A	100	100	100	100	130	130	130
Pitch diameter B	75	75	75	75	105	105	105
Pitch diameter C	85	85	85	85	114	114	114
Ø D mm	50	50	50	50	78	78	78
Ø E mm	70	70	70	70	98	98	98
Ø F mm	M10	M10	M10	M10	M10	M10	M10
S mm	21	27	27	27	42	42	57
V mm	21	21	21	21	21	21	21
W mm	33	33	33	33	33	33	33
X mm	39	39	39	39	41	41	41
Y mm	50	52	52	52	54	54	54
Z mm	71	79	79	79	96	96	111

Accessories KFR / MFR



C 18

Clamping sleeve Type R - standard design (not vulcanized)

For size	00	01	02	03	04	05	06	07	08	09	10	11	12
Expansion in Ø mm	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length L	32	40	40	40	55	55	70	70	70	78	78	78	78
Min-Ø mm	14,2	19,7	25,2	35,2	40,2	50,2	60,7	70,7	80,7	90,7	100,7	110,7	120,7
Clamping sleeve	1015500	1015513	1015526	1015548	1015560	1015582	1015605 ▲	1015617 ▲	1015629 ▲	1015641 ▲	1015653 ▲	1015665 ▲	1015677 ▲
Work stop	893830	893836	893842	893852	893857	893867	893878	893888	893897	893907	893917	893927	893937
Min-Ø mm	14,7	20,2	25,7	35,7	40,7	50,7	61,7	71,7	81,7	91,7	101,7	111,7	121,7
Clamping sleeve	1015501	1015514	1015527	1015549	1015561	1015583	1015606 ▲	1015618 ▲	1015630 ▲	1015642 ▲	1015654 ▲	1015666 ▲	1015678 ▲
Work stop	893830	893836	893842	893852	893857	893867	893879	893889	893898	893908	893918	893928	893938
Min-Ø mm	15,2	20,7	26,2	36,2	41,2	51,2	62,7	72,7	82,7	92,7	102,7	112,7	122,7
Clamping sleeve	1015502	1015515	1015528	1015550	1015562	1015584	1015607 ▲	1015619 ▲	1015631 ▲	1015643 ▲	1015655 ▲	1015667 ▲	1015679 ▲
Work stop	893830	893837	893842	893852	893857	893867	893880	893890	893899	893909	893919	893929	893939
Min-Ø mm	15,7	21,2	26,7	36,7	41,7	51,7	63,7	73,7	83,7	93,7	103,7	113,7	123,7
Clamping sleeve	1015503	1015516	1015529	1015551	1015563	1015585	1015608 ▲	1015620 ▲	1015632 ▲	1015644 ▲	1015656 ▲	1015668 ▲	1015680 ▲
Work stop	893831	893837	893843	893853	893858	893868	893881	893891	893900	893910	893920	893930	893940
Min-Ø mm	16,2	21,7	27,2	37,2	42,2	52,2	64,7	74,7	84,7	94,7	104,7	114,7	124,7
Clamping sleeve	1015504	1015517	1015530	1015552	1015564	1015586	1015609 ▲	1015621 ▲	1015633 ▲	1015645 ▲	1015657 ▲	1015669 ▲	1015681 ▲
Work stop	893831	893838	893843	893853	893858	893868	893882	893892	893901	893911	893921	893931	893941
Min-Ø mm	16,7	22,2	27,7	37,7	42,7	52,7	65,7	75,7	85,7	95,7	105,7	115,7	125,7
Clamping sleeve	1015505	1015518	1015531	1015553	1015565	1015587	1015610 ▲	1015622 ▲	1015634 ▲	1015646 ▲	1015658 ▲	1015670 ▲	1015682 ▲
Work stop	893832	893838	893844	893854	893859	893869	893883	893893	893902	893912	893922	893932	893942
Min-Ø mm	17,2	22,7	28,2	38,2	43,2	53,2	66,7	76,7	86,7	96,7	106,7	116,7	126,7
Clamping sleeve	1015506	1015519	1015532	1015554	1015566	1015588	1015611 ▲	1015623 ▲	1015635 ▲	1015647 ▲	1015659 ▲	1015671 ▲	1015683 ▲
Work stop	893832	893839	893844	893854	893859	893869	893884	893894	893903	893913	893923	893933	893943
Min-Ø mm	17,7	23,2	28,7	38,7	43,7	53,7	67,7	77,7	87,7	97,7	107,7	117,7	127,7
Clamping sleeve	1015507	1015520	1015533	1015555	1015567	1015589	1015612 ▲	1015624 ▲	1015636 ▲	1015648 ▲	1015660 ▲	1015672 ▲	1015684 ▲
Work stop	893833	893839	893845	893855	893860	893870	893885	893895	893904	893914	893924	893934	893944
Min-Ø mm	18,2	23,7	29,2	39,2	44,2	54,2	68,7	78,7	88,7	98,7	108,7	118,7	128,7
Clamping sleeve	1015508	1015521	1015534	1015556	1015568	1015590	1015613 ▲	1015625 ▲	1015637 ▲	1015649 ▲	1015661 ▲	1015673 ▲	1015685 ▲
Work stop	893833	893840	893845	893855	893860	893870	893886	893947	893905	893915	893925	893935	893945
Min-Ø mm	18,7	24,2	29,7	39,7	44,7	54,7	69,7	79,7	89,7	99,7	109,7	119,7	129,7
Clamping sleeve	1015509	1015522	1015535	1015557	1015569	1015591	1015614 ▲	1015626 ▲	1015638 ▲	1015650 ▲	1015662 ▲	1015674 ▲	1015686 ▲
Work stop	893834	893840	893846	893856	893861	893871	893887	893896	893906	893916	893926	893936	893946
Min-Ø mm	19,2	24,7	30,2	40,2	45,2	55,2	70,7	80,7	90,7	100,7	110,7	120,7	130,7
Clamping sleeve	1015510	1015523	1015536	1015558	1015570	1015592	1015615 ▲	1015627 ▲	1015639 ▲	1015651 ▲	1015663 ▲	1015675 ▲	1015687 ▲
Work stop	893834	893841	893846	893856	893861	893871	893887	893896	893906	893916	893926	893936	893946
Min-Ø mm	19,7	25,2	30,7		45,7	55,7							
Clamping sleeve	1015511	1015524	1015537		1015571	1015593							
Work stop	893835	893841	893847		893862	893872							
Min-Ø mm			31,2		46,2	56,2							

Different chucking Ø and profiled clamping sleeves on request

Accessories KFR / MFR

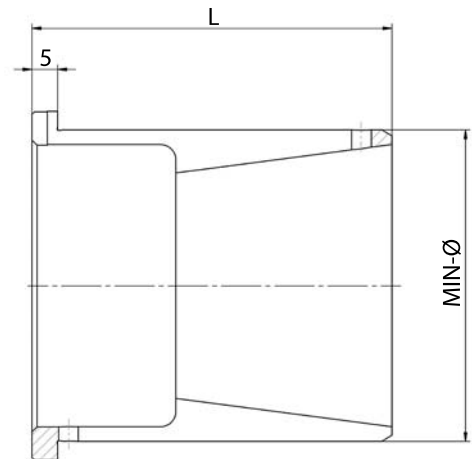
C 18

Clamping sleeve Type R - standard design (not vulcanized)

For size	00	01	02	03	04	05	06	07	08	09	10	11	12
Expansion in Ø mm	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length L	32	40	40	40	55	55	70	70	70	78	78	78	78
Clamping sleeve			1015538		1015572	1015594							
Work stop			893847		893862	893872							
Min-Ø mm			31,7		46,7	56,7							
Clamping sleeve			1015539		1015573	1015595							
Work stop			893848		893863	893873							
Min-Ø mm			32,2		47,2	57,2							
Clamping sleeve			1015540		1015574	1015596							
Work stop			893848		893863	893873							
Min-Ø mm			32,7		47,7	57,7							
Clamping sleeve			1015541		1015575	1015597							
Work stop			893849		893864	893874							
Min-Ø mm			33,2		48,2	58,2							
Clamping sleeve			1015542		1015576	1015598							
Work stop			893849		893864	893874							
Min-Ø mm			33,7		48,7	58,7							
Clamping sleeve			1015543		1015577	1015599							
Work stop			893850		893865	893875							
Min-Ø mm			34,2		49,2	59,2							
Clamping sleeve			1015544		1015578	1015600							
Work stop			893850		893865	893875							
Min-Ø mm			34,7		49,7	59,7							
Clamping sleeve			1015545		1015579	1015601							
Work stop			893851		893866	893876							
Min-Ø mm			35,2		50,2	60,2							
Clamping sleeve			1015546		1015580	1015602							
Work stop			893851		893866	893876							
Min-Ø mm						60,7							
Clamping sleeve						1015603							
Work stop						893877							

Different chucking Ø and profiled clamping sleeves on request

Accessories KFR / MFR



C 18
Clamping sleeve Type R - vulcanized

For size	00	01	02	03	04	05	06	07	08	09	10	11	12
Expansion in Ø mm	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length L	32	40	40	40	55	55	70	70	70	78	78	78	78
Min-Ø mm	14,2	19,7	25,2	35,2	40,2	50,2	60,7	70,7	80,7	90,7	100,7	110,7	120,7
Clamping sleeve	1015700	1015713	1015726	1015748	1015760	1015782	1015805 ▲	1015817 ▲	1015829 ▲	1015841 ▲	1015853 ▲	1015865 ▲	1015877 ▲
Work stop	893830	893836	893842	893852	893857	893867	893878	893888	893897	893907	893917	893927	893937
Min-Ø mm	14,7	20,2	25,7	35,7	40,7	50,7	61,7	71,7	81,7	91,7	101,7	111,7	121,7
Clamping sleeve	1015701	1015714	1015727	1015749	1015761	1015783	1015806 ▲	1015818 ▲	1015830 ▲	1015842 ▲	1015854 ▲	1015866 ▲	1015878 ▲
Work stop	893830	893836	893842	893852	893857	893867	893879	893889	893898	893908	893918	893928	893938
Min-Ø mm	15,2	20,7	26,2	36,2	41,2	51,2	62,7	72,7	82,7	92,7	102,7	112,7	122,7
Clamping sleeve	1015702	1015715	1015728	1015750	1015762	1015784	1015807 ▲	1015819 ▲	1015831 ▲	1015843 ▲	1015855 ▲	1015867 ▲	1015879 ▲
Work stop	893830	893837	893842	893852	893857	893867	893880	893890	893899	893909	893919	893929	893939
Min-Ø mm	15,7	21,2	26,7	36,7	41,7	51,7	63,7	73,7	83,7	93,7	103,7	113,7	123,7
Clamping sleeve	1015703	1015716	1015729	1015751	1015763	1015785	1015808 ▲	1015820 ▲	1015832 ▲	1015844 ▲	1015856 ▲	1015868 ▲	1015880 ▲
Work stop	893831	893837	893843	893853	893858	893868	893881	893891	893900	893910	893920	893930	893940
Min-Ø mm	16,2	21,7	27,2	37,2	42,2	52,2	64,7	74,7	84,7	94,7	104,7	114,7	124,7
Clamping sleeve	1015704	1015717	1015730	1015752	1015764	1015786	1015809 ▲	1015821 ▲	1015833 ▲	1015845 ▲	1015857 ▲	1015869 ▲	1015881 ▲
Work stop	893831	893837	893843	893853	893858	893868	893882	893892	893901	893911	893921	893931	893941
Min-Ø mm	16,7	22,2	27,7	37,7	42,7	52,7	65,7	75,7	85,7	95,7	105,7	115,7	125,7
Clamping sleeve	1015705	1015718	1015731	1015753	1015765	1015787	1015810 ▲	1015822 ▲	1015834 ▲	1015846 ▲	1015858 ▲	1015870 ▲	1015882 ▲
Work stop	893832	893838	893844	893854	893859	893869	893883	893893	893902	893912	893922	893932	893942
Min-Ø mm	17,2	22,7	28,2	38,2	43,2	53,2	66,7	76,7	86,7	96,7	106,7	116,7	126,7
Clamping sleeve	1015706	1015719	1015732	1015754	1015766	1015788	1015811 ▲	1015823 ▲	1015835 ▲	1015847 ▲	1015859 ▲	1015871 ▲	1015883 ▲
Work stop	893832	893838	893844	893854	893859	893869	893884	893894	893903	893913	893923	893933	893943
Min-Ø mm	17,7	23,2	28,7	38,7	43,7	53,7	67,7	77,7	87,7	97,7	107,7	117,7	127,7
Clamping sleeve	1015707	1015720	1015733	1015755	1015767	1015789	1015812 ▲	1015824 ▲	1015836 ▲	1015848 ▲	1015860 ▲	1015872 ▲	1015884 ▲
Work stop	893833	893839	893845	893855	893860	893870	893885	893895	893904	893914	893924	893934	893944
Min-Ø mm	18,2	23,7	29,2	39,2	44,2	54,2	68,7	78,7	88,7	98,7	108,7	118,7	128,7
Clamping sleeve	1015708	1015721	1015734	1015756	1015768	1015790	1015813 ▲	1015825 ▲	1015837 ▲	1015849 ▲	1015861 ▲	1015873 ▲	1015885 ▲
Work stop	893833	893839	893845	893855	893860	893870	893886	893947	893905	893915	893925	893935	893945
Min-Ø mm	18,7	24,2	29,7	39,7	44,7	54,7	69,7	79,7	89,7	99,7	109,7	119,7	129,7
Clamping sleeve	1015709	1015722	1015735	1015757	1015769	1015791	1015814 ▲	1015826 ▲	1015838 ▲	1015850 ▲	1015862 ▲	1015874 ▲	1015886 ▲
Work stop	893834	893840	893846	893856	893861	893871	893887	893896	893906	893916	893926	893936	893946
Min-Ø mm	19,2	24,7	30,2	40,2	45,2	55,2	70,7	80,7	90,7	100,7	110,7	120,7	130,7
Clamping sleeve	1015710	1015723	1015736	1015758	1015770	1015792	1015815 ▲	1015827 ▲	1015839 ▲	1015851 ▲	1015863 ▲	1015875 ▲	1015887 ▲
Work stop	893834	893840	893846	893856	893861	893871	893887	893896	893906	893916	893926	893936	893946
Min-Ø mm	19,7	25,2	30,7		45,7	55,7							
Clamping sleeve	1015711	1015724	1015737		1015771	1015793							
Work stop	893835	893841	893847		893862	893872							
Min-Ø mm			31,2		46,2	56,2							
Clamping sleeve			1015738		1015772	1015794							
Work stop			893847		893862	893872							
Min-Ø mm			31,7		46,7	56,7							

Different chucking Ø and profiled clamping sleeves on request

Accessories KFR / MFR

C 18

Clamping sleeve Type R - vulcanized

For size	00	01	02	03	04	05	06	07	08	09	10	11	12
Expansion in Ø mm	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length L	32	40	40	40	55	55	70	70	70	78	78	78	78
Clamping sleeve			1015739		1015773	1015795							
Work stop			893848		893863	893873							
Min-Ø mm			32,2		47,2	57,2							
Clamping sleeve			1015740		1015774	1015796							
Work stop			893848		893863	893873							
Min-Ø mm			32,7		47,7	57,7							
Clamping sleeve			1015741		1015775	1015797							
Work stop			893849		893864	893874							
Min-Ø mm			33,2		48,2	58,2							
Clamping sleeve			1015742		1015776	1015798							
Work stop			893849		893864	893874							
Min-Ø mm			33,7		48,7	58,7							
Clamping sleeve			1015743		1015777	1015799							
Work stop			893850		893865	893875							
Min-Ø mm			34,2		49,2	59,2							
Clamping sleeve			1015744		1015778	1015800							
Work stop			893850		893865	893875							
Min-Ø mm			34,7		49,7	59,7							
Clamping sleeve			1015745		1015779	1015801							
Work stop			893851		893866	893876							
Min-Ø mm			35,2		50,2	60,2							
Clamping sleeve			1015746		1015780	1015802							
Work stop			893851		893866	893876							
Min-Ø mm						60,7							
Clamping sleeve						1015803							
Work stop						893877							

Different chucking Ø and profiled clamping sleeves on request

Intermediate flange KFR / MFR



APPLICATION

For adaption of cartridge mandrel KFR/MFR/KFR-SE/MFR-SE or KFS/MFS - on spindle head ISO 702-1 / ISO 702-3 (DIN 55021/55022/55026 and 55027).

TYPE

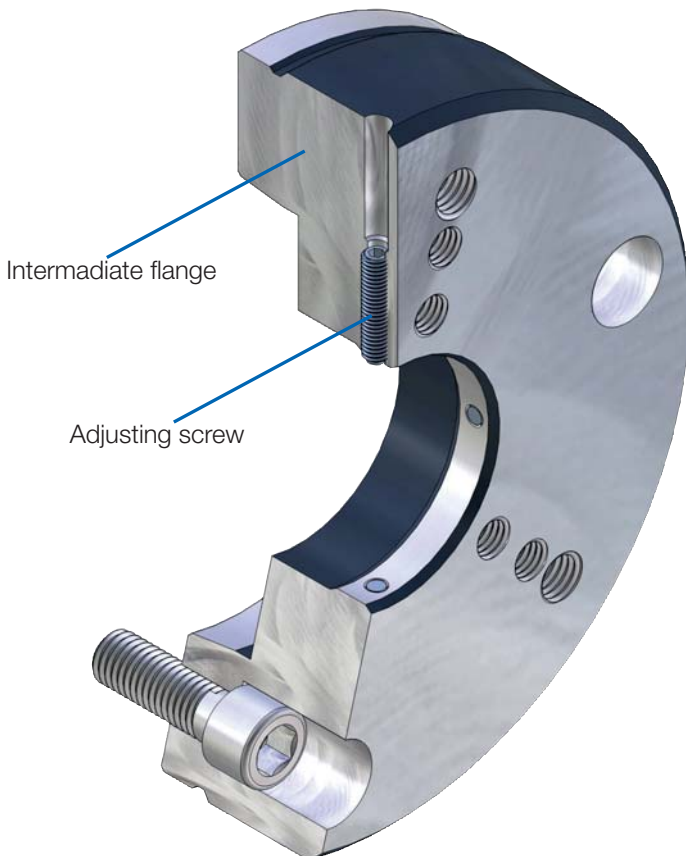
For KFR/MFR/KFR-SE/MFR-SE or KFS/MFS.

CUSTOMER BENEFITS

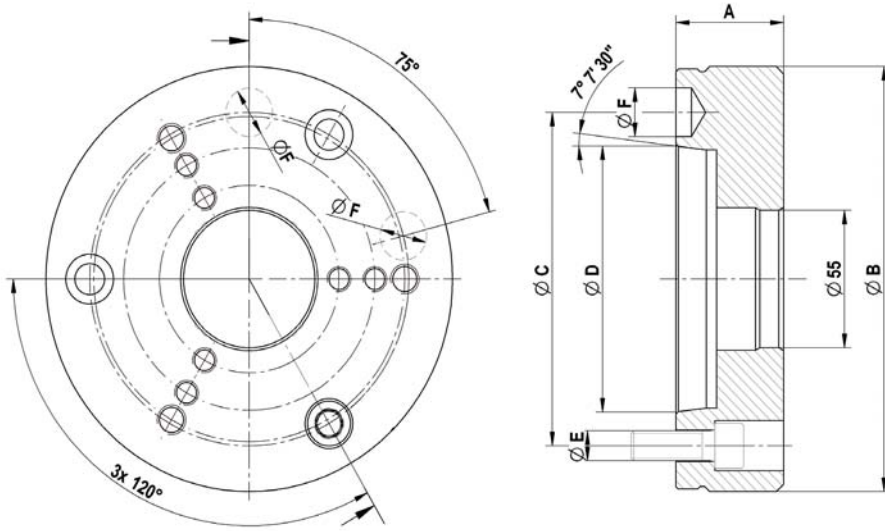
- By replacement of the Intermediate flange, one cartridge mandrel can be used on different machines

TECHNICAL FEATURES

Adaptation of mandrel KFR / MFR / KFR-SE / MFR SE or KFS / MFS on spindle head, with or without adjustment, with or without operation of air-conditioning control. Execution according to ISO 702-1 (DIN 55028-A) or ISO 702-3 (DIN 55028-C), in size no. 5, no. 6, no. 8, no. 11 or no. 5, no. 6. Nr. 8 (A5, A6, A8, A11 or C5, C6, C8).

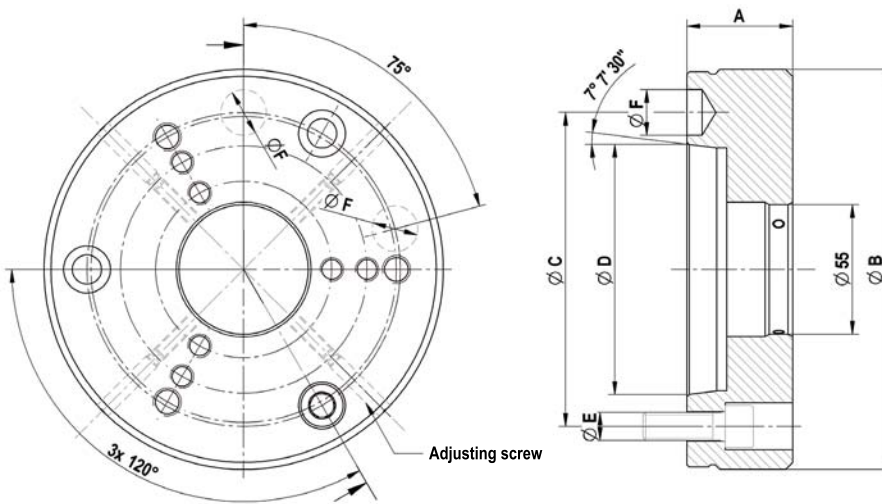


Accessories KFR / MFR



C 18
Intermediate flange ISO 702-1 (DIN 55026/55021) without adjusting screws

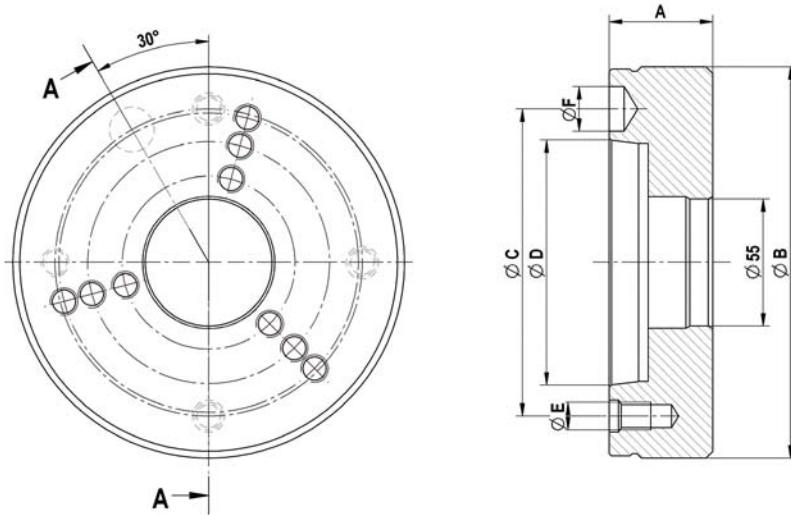
	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)	Nr. 11 (A 11)
Intermediate flange	893975	893976	893977	893978 ▲
Design	without air-sensing	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A mm	45	45	50	50
Ø B	165	170	220	282
Ø C mm	104,8	133,4	171,4	235
Ø D mm	82,563	106,375	139,719	196,869
Ø E	M10	M12	M16	M20
Ø F mm	16,3	19,45	24,2	29,4



C 18
Intermediate flange ISO 702-1 (DIN 55028) with adjusting screw

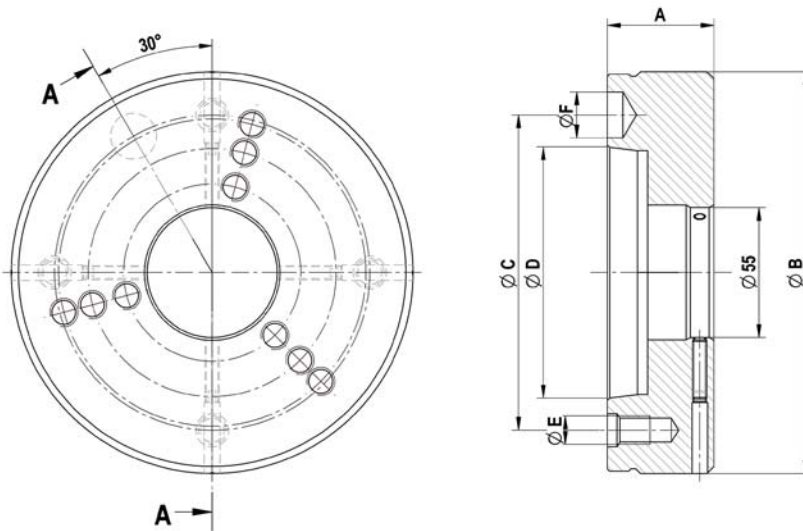
	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)
Intermediate flange	893979	893980	893981
Design	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A mm	45	45	50
Ø B	165	170	220
Ø C mm	104,8	133,4	171,4
Ø D mm	82,563	106,375	139,719
Ø E	M10	M12	M16
Ø F mm	16,3	19,45	24,2

Accessories KFR / MFR



C 18
Intermediate flange ISO 702-3 (DIN 55027/55022) without adjusting screws

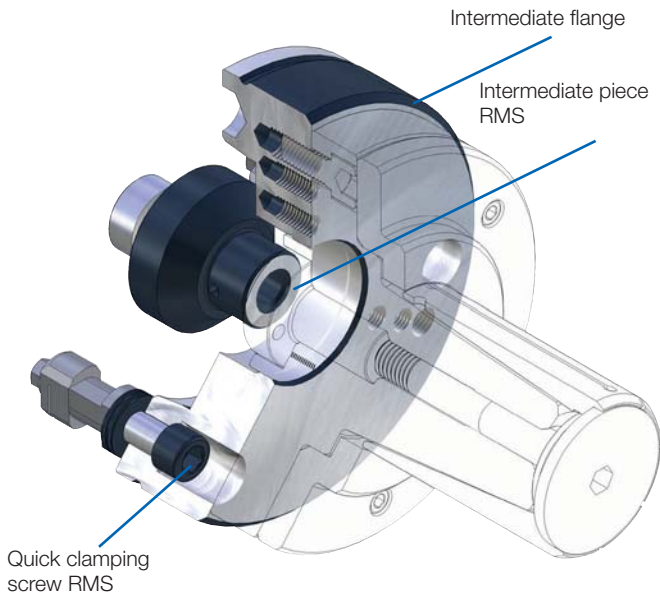
	Nr. 5 (C 05)	Nr. 6 (C 06)	Nr. 8 (C 08)
Intermediate flange	893982	893983	893984
Design	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A mm	45	45	50
Ø B	165	170	220
Ø C mm	104,8	133,4	171,4
Ø D mm	82,563	106,375	139,719
Ø E	M 10	M 12	M 16
Ø F mm	16,3	19,45	24,2



C 18
Intermediate flange ISO 702-3 (DIN 55027/55022) with adjusting screws

	Nr. 5 (C 05)	Nr. 6 (C 06)	Nr. 8 (C 08)
Intermediate flange	893985	893986	893987
Design	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A mm	45	45	50
Ø B	165	170	220
Ø C mm	104,8	133,4	171,4
Ø D mm	82,563	106,375	139,719
Ø E	M 10	M 12	M 16
Ø F mm	16,3	19,45	24,2

Accessories KFR / MFR



APPLICATION

For manual clamping devices exchange in a minimum of time.

TYPE

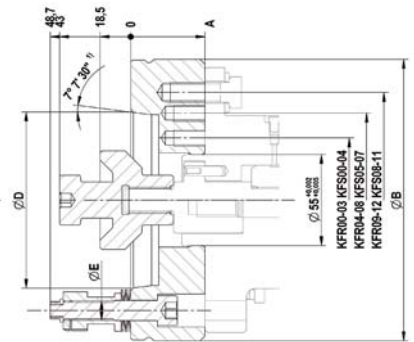
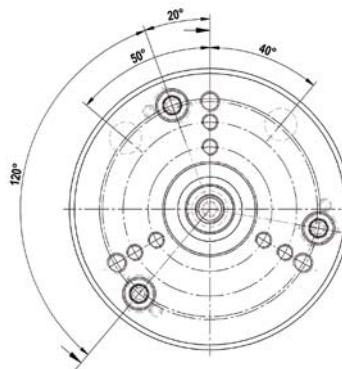
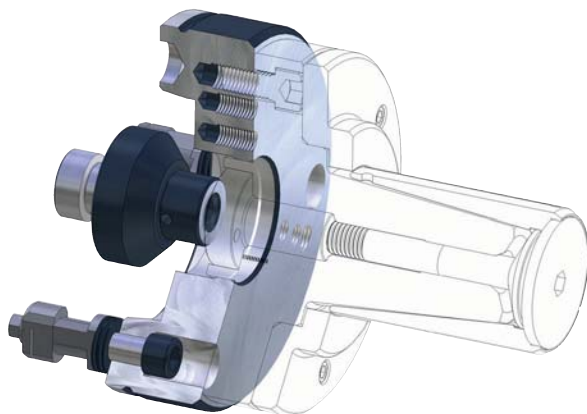
Manual quick-change system for clamping devices. Fits KFR/MFR or KFS/MFS. Central lubrication and / or air sensing control possible.

CUSTOMER BENEFITS

- ⌚ Manual clamping devices change in about 30 seconds
- ⌚ High change precision within 0.005 mm
- ⌚ Quick change of different clamping devices with short time, similar to the automatic or semiautomatic clamping devices changing systems

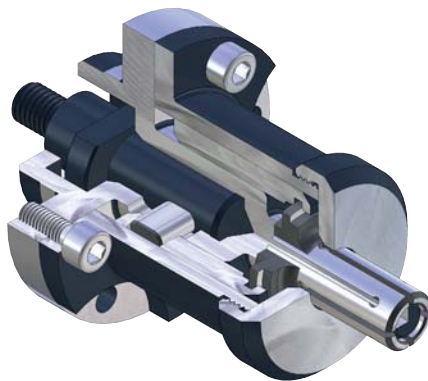
TECHNICAL FEATURES

- Quick-change system suitable due to recording RMS see quick-change system RMS (Product Group 6)
- Corresponds to the guidelines of the Employer's Liability Insurance Association in combination with ROHM safety clamping cylinder OVS and LVS



C18
RMS quick-change system, hand-operated for clamping devices

	KK 06	KK 08
RMS - complete (flange incl, quick-clamping screw)	1160026 ▲	1160027 ▲
Adapters RMS	1183310 ▲	1183311 ▲
A	45	50
Ø B	170	220
Ø C	133,4	171,4
Ø D	106,375	139,719
Ø E mm	M12	M16
Ø F mm	55 (+0,003/+0,001)	55 (+0,003/+0,001)



APPLICATION

Internal clamping of round workpieces. Turning, milling, grinding and toothing operations, as well as for balancing and measuring. Ideal for very small clamping diameters starting from Ø 5.5 mm or small workpieces.

TYPE

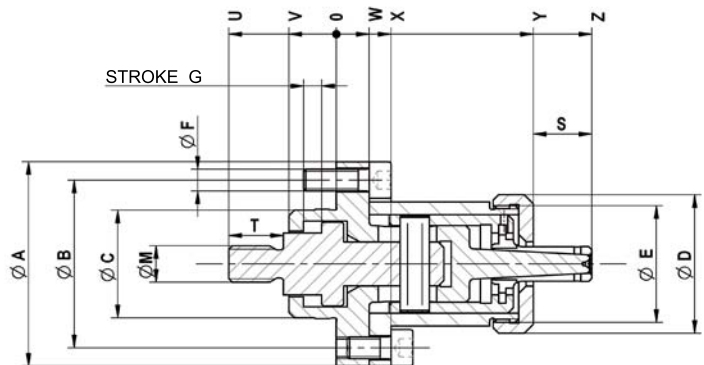
Force-actuated.
Clamping sleeves optionally vulcanized.

CUSTOMER BENEFITS

- ⊕ Sturdy clamping of the workpiece thanks to axial tension against the workpiece stop
- ⊕ High concentricity, axial run-out and repeatability
- ⊕ Light weight and reduced height thanks to compact design

TECHNICAL FEATURES

- Hardened, low-wear design

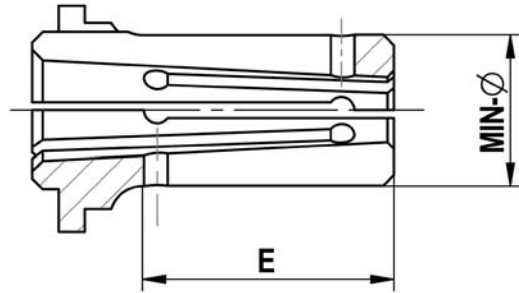


C18
KFB cartridge mandrel, power-operated with flanged seat, for internal clamping
Consisting of basic mandrel, stop sleeve, guide sleeve, cotter, draw bolt

	KFB 00	KFB 01	KFB 02	KFB 03	KFB 04	KFB 05	KFB 06	KFB 07
Cartridge Mandrel	327586	327587	327588	327589	327590	327591	327592	327593 ▲
Basic mandrel	323521	323522	323523	323524	323525	323526	323527	323528 ▲
Stop sleeve	323474	323475	323476	323477	323478	323479	323480	323481 ▲
Guide sleeve	323461	323462	323463	323464	323465	323466	323467	323468 ▲
Cotter	323508	323509	323510	323511	323512	323513	323514	323515 ▲
Draw bolt	323500	323501	323502	323502	323503	323504	323504	323505 ▲
F max, in kN	1,8	2,7	3,6	4,8	5,8	7,5	12	22
Max, total clamping force approx, kN	12	18	24	32	38	50	65	119
Min-Ø unclamped from	5,5	7,5	9,5	12	14,5	19,5	24,7	29,7
Min-Ø unclamped to	7	9	11,5	14,5	19	24,5	28,7	33,7
Clamping-Ø max,	7,5	9,5	12	15	19,5	25	29,7	34,7
External-Ø A	45	50	56	60	72	76	82	95
Pitch diameter B	36	39	46	50	60	64	70	80
Ø Ch6	25	25	30	30	40	40	40	60
Ø D mm	24	31	38	40	52	54	60	66
Ø E mm	M22x1,5	M27x1,5	M32x1,5	M36x1,5	M45x1,5	M48x1,5	M56x1,5	M60x1,5
Ø F mm	M5	M6	M6	M6	M6	M6	M6	M8
Stroke G	5	5	5	5	5	5	6	6
Ø M	M8	M8	M10	M10	M10	M12	M12	M12
S mm	9	13	15	20,5	24	30	36	40
T mm	14	14	15	15	15	18	18	18
U mm	27	27,5	29,5	29,5	30,5	33,5	33,5	36,5
V mm	11,5	12	13	13	14	14	14	17
W mm	7,5	8	9	9	10	10	10	12,5
X mm	12,5	13	15	15	16	16	16	18,5
Y mm	42	46	45	58	66	67	71	74
Z mm	51,5	58,5	70	78,5	90	97	107	114

Max. clamping force kN: 1,1-1,7-2,3-3,1-3,8-4,9-6,4-11,8

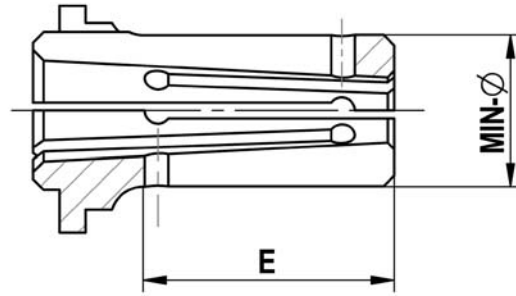
Accessories KFB



C 18
Clamping sleeve Type B - standard design (not vulcanized)

For size	KFB 00	KFB 01	KFB 02	KFB 03	KFB 04	KFB 05	KFB 06	KFB 07
Expansion in Ø mm	0,5	0,5	0,5	0,5	0,5	0,5	1	1
Total length E mm	11,5	15	19	20,5	28,5	34	40	43,5
Min-Ø mm	5,5	7,5	9,5	12	14,5	19,5	24,7	29,7
Clamping sleeve	315139	315140	315141	315142	315143	315144	315145	315146
Work stop	315126	315127	323426	315129	315130	323444	315132	315133
Min-Ø mm	6	8	10	12,5	15	20	25,7	30,7
Clamping sleeve	315152	315153	315154	315155	315156	315157	315158	315159 ▲
Work stop	323421	315127	323427	315129	323436	323445	323453	323460
Min-Ø mm	6,5	8,5	10,5	13	15,5	20,5	26,7	31,7
Clamping sleeve	315165	315166	315167	315168	315169	315170	315171	315172 ▲
Work stop	315126	315127	323428	315129	315130	315131	323454	315133
Min-Ø mm	7	9	11	13,5	16	21	27,7	32,7
Clamping sleeve	315178	315179	315180	315181	315182	315183	315184	315185 ▲
Work stop	315126	315127	323429	323433	315130	323447315131	315132	323541315133
Min-Ø mm			11,5	14	16,5	21,5	28,7	33,7
Clamping sleeve			315191	315192	315193	315194	315195	315196 ▲
Work stop			323489	315129	315130	315131	315132	323494
Min-Ø mm				14,5	17	22		
Clamping sleeve				315202	315203	315204		
Work stop				323490	315130	315131		
Min-Ø mm					17,5	22,5		
Clamping sleeve					315209	315210		
Work stop					323441	323450		
Min-Ø mm					18	23		
Clamping sleeve					315215	315216		
Work stop					315130	315131		
Min-Ø mm					18,5	23,5		
Clamping sleeve					315221	315222		
Work stop					323443	315131		
Min-Ø mm					19	24		
Clamping sleeve					315227	315228		
Work stop					315130	323458		
Min-Ø mm						24,5		
Clamping sleeve						315233		
Work stop						315131		

Accessories KFB



C 18
Clamping sleeve Type B - vulcanized (protected against chips and dirt)

For size	KFB 00	KFB 01	KFB 02	KFB 03	KFB 04	KFB 05	KFB 06	KFB 07
Expansion in Ø mm	0,5	0,5	0,5	0,5	0,5	0,5	1	1
Total length E mm	11,5	15	19	20,5	28,5	34	40	43,5
Min-Ø mm	5,5	7,5	9,5	12	14,5	19,5	24,7	29,7
Clamping sleeve	323739	323740	323741	323742	323743	323744	323745	323746 ▲
Work stop	323420	323423	323426	323430	323435	323444	323452	323459
Min-Ø mm	6	8	10	12,5	15	20	25,7	30,7
Clamping sleeve	323752	323753	323754	323755	323756	323757	323758	323759 ▲
Work stop	323421	323424	323427	323431	323436	323445	323453	323460
Min-Ø mm	6,5	8,5	10,5	13	15,5	20,5	26,7	31,7
Clamping sleeve	323765	323766	323767	323768	323769	323770	323771	323772 ▲
Work stop	323422	323425	323428	323432	323437	323446	323454	323540
Min-Ø mm	7	9	11	13,5	16	21	27,7	32,7
Clamping sleeve	323778	323779	323780	323781	323782	323783	323784	323785 ▲
Work stop	323487	323488	323429	323433	323438	323447	323455	323541
Min-Ø mm			11,5	14	16,5	21,5	28,7	33,7
Clamping sleeve			323791	323792	323793	323794	323795	323796 ▲
Work stop			323489	323434	323439	323448	323493	323494
Min-Ø mm				14,5	17	22		
Clamping sleeve				323802	323803	323804		
Work stop				323490	323440	323449		
Min-Ø mm					17,5	22,5		
Clamping sleeve					323809	323810		
Work stop					323441	323450		
Min-Ø mm					18	23		
Clamping sleeve					323815	323816		
Work stop					323442	323456		
Min-Ø mm					18,5	23,5		
Clamping sleeve					323821	323822		
Work stop					323443	323457		
Min-Ø mm					19	24		
Clamping sleeve					323827	323828		
Work stop					323491	323458		
Min-Ø mm						24,5		
Clamping sleeve						323833		
Work stop						323492		

Deviating clamping Ø as well as profiled clamping sleeves available on request



APPLICATION

Internal clamping of round workpieces. Turning, milling, grinding and toothing operations, as well as for balancing and measuring. Ideal for very small clamping diameters starting from Ø 5.5 mm or small workpieces.

TYPE

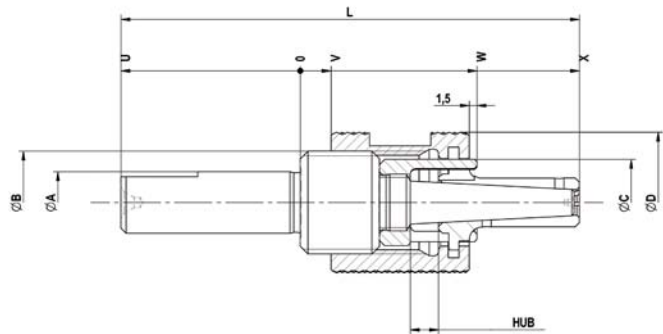
Manually actuated.
Clamping sleeves optionally vulcanized.

CUSTOMER BENEFITS

- ④ Sturdy clamping of the workpiece thanks to axial tension against the workpiece stop
- ④ High concentricity and repeatability
- ④ Light weight and reduced height thanks to compact design

TECHNICAL FEATURES

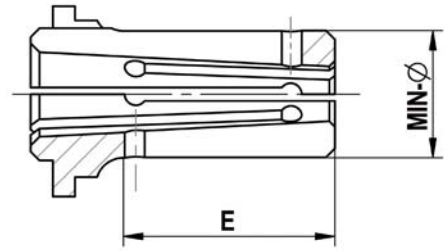
- Hardened, low-wear design



C18
MZB cartridge mandrel, hand-operated with centre hole, for internal clamping

	MZB 00	MZB 01	MZB 02	MZB 03	MZB 04	MZB 05	MZB 06	MZB 07	MZB 08	MZB 09	MZB 10	MZB 11	MZB 12
Cartridge Mandrel	1130361	1130362	1130363	1130364	1130365	1130366	1130367	1130368	1130369	1130370	1130371	1130372	1130373
Basic mandrel	315100	315101	315102	315103	315104	315105	315106	315107 ▲	315108 ▲	315109 ▲	315110 ▲	315111 ▲	315112 ▲
Nut	315113	315114	315115	315116	315117	315118	315119	315120 ▲	315121 ▲	315122 ▲	315123 ▲	315124 ▲	315125 ▲
Min-Ø unclamped from	5,5	7,5	9,5	12	14,5	19,5	24,7	29,7	34,7	39,7	44,7	54,7	64,7
Min-Ø unclamped to	7	9	11,5	14,5	19	24,5	28,7	33,7	38,7	43,7	53,7	63,7	78,7
Clamping-Ø max,	7,5	9,5	12	15	19,5	25	29,7	34,7	39,7	44,7	54,7	64,7	79,7
Ø A h6	10	12	12	14	18	20	25	30	40	40	45	50	50
Ø B	M14x1,5	M16x1,5	M20x1,5	M24x1,5	M30x1,5	M36x1,5	M42x1,5	M45x1,5	M52x1,5	M56x1,5	M65x1,5	M75x2	M95x2
Ø C mm	10,8	13	16,8	20,8	26,8	31,8	36,8	41,8	47,8	52,5	61,8	71,8	90,8
Ø D mm	19,5	23	28	31	38	47	54	57,5	66	74	83	93	108
Stroke G	5	5,5	5,5	5,5	5,5	6	6	6	6	6	6	6,5	7
L mm	74,5	79,5	89,5	97,5	102,5	113,5	136	144,5	156	166,5	197	208,5	221,5
U mm	30	30	35	35	35	40	45	50	55	60	67	67	67
V mm	5,5	6	6	6	6	6	7	7	7	7	7	7	7
W mm	29	33,5	34,5	36,5	37,5	37,5	48,5	48,5	48,5	48,5	53,5	56,5	58,5
X mm	44,5	48,5	53,5	61,5	66,5	72,5	89	92,5	99	104,5	128	139,5	152,5

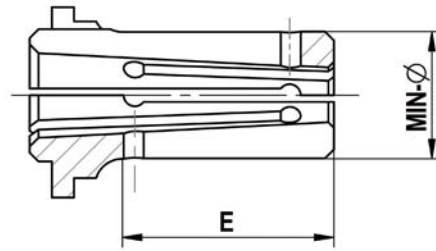
Accessories MZB



C 18
Clamping sleeve Type B - standard design (not vulcanized)

For size	MZB 00	MZB 01	MZB 02	MZB 03	MZB 04	MZB 05	MZB 06	MZB 07	MZB 08	MZB 09	MZB 10	MZB 11	MZB 12
Expansion in Ø mm	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length E mm	11,5	15	19	20,5	28,5	34	40	43,5	50	55,5	74	82,5	93,5
Min-Ø mm	5,5	7,5	9,5	12	14,5	19,5	24,7	29,7	34,7	39,7	44,7	54,7	64,7
Clamping sleeve	315139	315140	315141	315142	315143	315144	315145	315146	315147 ▲	315148 ▲	315149 ▲	315150 ▲	315151 ▲
Work stop	315126	315127	315128	315129 ▲	315130	315131	315132	315133 ▲	315134 ▲	315135 ▲	315136 ▲	315137 ▲	315138 ▲
Min-Ø mm	6	8	10	12,5	15	20	25,7	30,7	35,7	40,7	45,7	55,7	65,7
Clamping sleeve	315152	315153	315154	315155	315156	315157	315158	315159 ▲	315160 ▲	315161 ▲	315162 ▲	315163 ▲	315164 ▲
Work stop	315126	315127	315128	315129 ▲	315130	315131	315132	315133 ▲	315134 ▲	315135 ▲	315136 ▲	315137 ▲	315138 ▲
Min-Ø mm	6,5	8,5	10,5	13	15,5	20,5	26,7	31,7	36,7	41,7	46,7	56,7	66,7
Clamping sleeve	315165	315166	315167	315168	315169	315170	315171	315172 ▲	315173 ▲	315174 ▲	315175 ▲	315176 ▲	315177 ▲
Work stop	315126	315127	315128	315129 ▲	315130	315131	315132	315133 ▲	315134 ▲	315135 ▲	315136 ▲	315137 ▲	315138 ▲
Min-Ø mm	7	9	11	13,5	16	21	27,7	32,7	37,7	42,7	47,7	57,7	67,7
Clamping sleeve	315178	315179	315180	315181	315182	315183	315184	315185 ▲	315186 ▲	315187 ▲	315188 ▲	315189 ▲	315190 ▲
Work stop	315126	315127	315128	315129 ▲	315130	315131	315132	315133 ▲	315134 ▲	315135 ▲	315136 ▲	315137 ▲	315138 ▲
Min-Ø mm			11,5	14	16,5	21,5	28,7	33,7	38,7	43,7	48,7	58,7	68,7
Clamping sleeve			315191	315192	315193	315194	315195	315196 ▲	315197 ▲	315198 ▲	315199 ▲	315200 ▲	315201 ▲
Work stop			315128	315129 ▲	315130	315131	315132	315133 ▲	315134 ▲	315135 ▲	315136 ▲	315137 ▲	315138 ▲
Min-Ø mm				14,5	17	22					49,7	59,7	69,7
Clamping sleeve				315202	315203	315204					315205 ▲	315206 ▲	315207 ▲
Work stop				315129 ▲	315130	315131					315136 ▲	315137 ▲	315138 ▲
Min-Ø mm					17,5	22,5					50,7	60,7	70,7
Clamping sleeve					315209	315210					315211 ▲	315212 ▲	315213 ▲
Work stop					315130	315131					315136 ▲	315137 ▲	315138 ▲
Min-Ø mm					18	23					51,7	61,7	71,7
Clamping sleeve					315215	315216					315217 ▲	315218 ▲	315219 ▲
Work stop					315130	315131					315136 ▲	315137 ▲	315138 ▲
Min-Ø mm					18,5	23,5					52,7	62,7	72,7
Clamping sleeve					315221	315222					315223 ▲	315224 ▲	315225 ▲
Work stop					315130	315131					315136 ▲	315137 ▲	315138 ▲
Min-Ø mm					19	24					53,7	63,7	73,7
Clamping sleeve					315227	315228					315229 ▲	315230 ▲	315231 ▲
Work stop					315130	315131					315136 ▲	315137 ▲	315138 ▲
Min-Ø mm						24,5							74,7
Clamping sleeve						315233							315208 ▲
Work stop						315131							315138 ▲
Min-Ø mm													75,7
Clamping sleeve													315214 ▲
Work stop													315138 ▲
Min-Ø mm													76,7
Clamping sleeve													315220 ▲
Work stop													315138 ▲
Min-Ø mm													77,7
Clamping sleeve													315226 ▲
Work stop													315138 ▲
Min-Ø mm													78,7
Clamping sleeve													315232 ▲
Work stop													315138 ▲

Accessories MZB



C 18

Clamping sleeve Type B - vulcanized (protected against chips and dirt)

For size	MZB 00	MZB 01	MZB 02	MZB 03	MZB 04	MZB 05	MZB 06	MZB 07	MZB 08	MZB 09	MZB 10	MZB 11	MZB 12
Expansion in Ø mm	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length E mm	11,5	15	19	20,5	28,5	34	40	43,5	50	55,5	74	82,5	93,5
Min-Ø mm	5,5	7,5	9,5	12	14,5	19,5	24,7	29,7	34,7	39,7	44,7	54,7	64,7
Clamping sleeve	323739	323740	323741	323742	323743	323744	323745	323746 ▲	323747 ▲	323748 ▲	323749 ▲	323750 ▲	323751 ▲
Work stop	315126	315127	315128	315129 ▲	315130	315131	315132	315133 ▲	315134 ▲	315135 ▲	315136 ▲	315137 ▲	315138 ▲
Min-Ø mm	6	8	10	12,5	15	20	25,7	30,7	35,7	40,7	45,7	55,7	65,7
Clamping sleeve	323752	323753	323754	323755	323756	323757	323758	323759 ▲	323760 ▲	323761 ▲	323762 ▲	323763 ▲	323764 ▲
Work stop	315126	315127	315128	315129 ▲	315130	315131	315132	315133 ▲	315134 ▲	315135 ▲	315136 ▲	315137 ▲	315138 ▲
Min-Ø mm	6,5	8,5	10,5	13	15,5	20,5	26,7	31,7	36,7	41,7	46,7	56,7	66,7
Clamping sleeve	323765	323766	323767	323768	323769	323770	323771	323772 ▲	323773 ▲	323774 ▲	323775 ▲	323776 ▲	323777 ▲
Work stop	315126	315127	315128	315129 ▲	315130	315131	315132	315133 ▲	315134 ▲	315135 ▲	315136 ▲	315137 ▲	315138 ▲
Min-Ø mm	7	9	11	13,5	16	21	27,7	32,7	37,7	42,7	47,7	57,7	67,7
Clamping sleeve	323778	323779	323780	323781	323782	323783	323784	323785 ▲	323786 ▲	323787 ▲	323788 ▲	323789 ▲	323790 ▲
Work stop	315126	315127	315128	315129 ▲	315130	315131	315132	315133 ▲	315134 ▲	315135 ▲	315136 ▲	315137 ▲	315138 ▲
Min-Ø mm			11,5	14	16,5	21,5	28,7	33,7	38,7	43,7	48,7	58,7	68,7
Clamping sleeve			323791	323792	323793	323794	323795	323796 ▲	323797 ▲	323798 ▲	323799 ▲	323800 ▲	323801 ▲
Work stop			315128	315129 ▲	315130	315131	315132	315133 ▲	315134 ▲	315135 ▲	315136 ▲	315137 ▲	315138 ▲
Min-Ø mm				14,5	17	22					49,7	59,7	69,7
Clamping sleeve				323802	323803	323804					323805 ▲	323806 ▲	323807 ▲
Work stop				315129 ▲	315130	315131					315136 ▲	315137 ▲	315138 ▲
Min-Ø mm					17,5	22,5					50,7	60,7	70,7
Clamping sleeve					323809	323810					323811 ▲	323812 ▲	323813 ▲
Work stop					315130	315131					315136 ▲	315137 ▲	315138 ▲
Min-Ø mm					18	23					51,7	61,7	71,7
Clamping sleeve					323815	323816					323817 ▲	323818 ▲	323819 ▲
Work stop					315130	315131					315136 ▲	315137 ▲	315138 ▲
Min-Ø mm					18,5	23,5					52,7	62,7	72,7
Clamping sleeve					323821	323822					323823 ▲	323824 ▲	323825 ▲
Work stop					315130	315131					315136 ▲	315137 ▲	315138 ▲
Min-Ø mm					19	24					53,7	63,7	73,7
Clamping sleeve					323827	323828					323829 ▲	323830 ▲	323831 ▲
Work stop					315130	315131					315136 ▲	315137 ▲	315138 ▲
Min-Ø mm						24,5							74,7
Clamping sleeve						323833							323808 ▲
Work stop						315131							315138 ▲
Min-Ø mm													75,7
Clamping sleeve													323814 ▲
Work stop													315138 ▲
Min-Ø mm													76,7
Clamping sleeve													323820 ▲
Work stop													315138 ▲
Min-Ø mm													77,7
Clamping sleeve													323826 ▲
Work stop													315138 ▲
Min-Ø mm													78,7
Clamping sleeve													323832 ▲
Work stop													315138 ▲

Deviating clamping Ø as well as profiled clamping sleeves available on request

MZE



APPLICATION

Internal clamping of round workpieces, measuring operations, light grinding operations.
Ideal for long clamping lengths / long workpieces.

TYPE

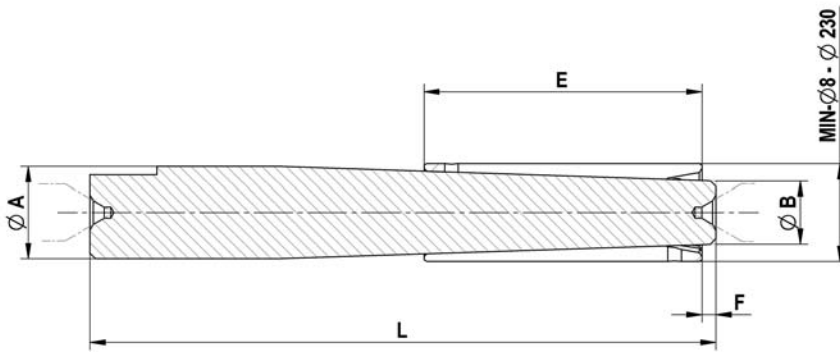
Manually actuated.
Available as clamping mandrel assortment for various clamping diameters.
Clamping sleeve separately available.

CUSTOMER BENEFITS

- ⊕ Quick change of clamping sleeve without tools
- ⊕ High concentricity and repeatability
- ⊕ High flexibility thanks to mount on the shaft or between points
- ⊕ Short retrofiting times

TECHNICAL FEATURES

- Hardened, low-wear design

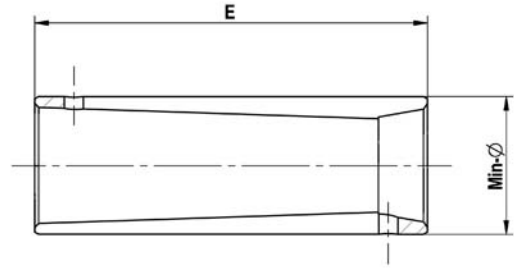


C18

MZE basic mandrel, hand-operated with centre hole, for internal clamping

	MZE 00	MZE 01	MZE 02	MZE 03	MZE 04	MZE 05	MZE 06	MZE 07	MZE 08	MZE 09	MZE 10	MZE 11	MZE 12	MZE 13	MZE 14	MZE 15
Basic mandrel	315000	315001	315002	315003	315004	315005	315006	315007	315008	315009	315010	315011	315012	315013	315014	315015
Min-Ø unclamped from	8	10	12	14	16	19	22	25	35	45	55	68	80	105	135	185
Min-Ø unclamped to	9	11	13	15	18	21	24	34	44	54	65	80	100	135	180	230
Clamping-Ø max,	10,5	12,5	15	17	20	23	26	37	47	59	70	85	105	140	185	235
Ø A	8	10	12	14	16	19	21	25	33	45	53	64	76	99	124	145,5
Ø B	4,1	5,3	5,7	6,9	8,5	10,7	12,2	14,6	22,6	31,1	38	48,2	60,9	80,4	97,4	122,4
E	40	45	60	70	70	80	80	100	100	125	135	150	150	170	180	200
F	3	3	4	4	4	4	4	4	5	5	5	5	5	5	82	63
L	75	110	125	140	150	170	175	225	225	300	330	350	350	400	442	443

Accessories MZE



C 18

Clamping sleeve Type E - for basic mandrel MZE

For size	MZE 00	MZE 01	MZE 02	MZE 03	MZE 04	MZE 05	MZE 06	MZE 07	MZE 08	MZE 09	MZE 10	MZE 11	MZE 12	MZE 13	MZE 14	MZE 15
Expansion in Ø mm	1,5	1,5	2	2	2	2	2	3	3	5	5	5	5	5	5	5
Total length E mm	40	45	60	70	70	80	80	100	100	125	135	150	150	170	180	200
Min-Ø mm	8	10	12	14	16	19	22	25	35	45	55	68	80	105	135	185
Clamping sleeve	315016	315017	315018	315019	315020	315021	315022	315023	315024	315025	315026	315027	315028	315029	315030	315031
Clamping sleeve												▲		▲	▲	▲
Min-Ø mm	9	11	13	15	17	20	23	26	36	48	58	70	85	110	140	190
Clamping sleeve	315032	315033	315034	315035	315036	315037	315038	315039	315040	315041	315042	315043	315044	315045	315046	315047
Clamping sleeve											▲			▲	▲	▲
Min-Ø mm					18	21	24	28	38	50	60	72	90	115	145	195
Clamping sleeve					315048	315049	315050	315051	315052	315053	315054	315055	315056	315057	315058	315059
Clamping sleeve											▲			▲	▲	▲
Min-Ø mm								30	40	52	62	75	95	120	150	200
Clamping sleeve								315060	315061	315062	315063	315064	315065	315066	315067	315068
Clamping sleeve											▲			▲	▲	▲
Min-Ø mm								32	42	54	65	78	100	125	155	205
Clamping sleeve								315069	315070	315071	315072	315073	315074	315075	315076	315077
Clamping sleeve											▲			▲	▲	▲
Min-Ø mm								34	44			80		130	160	210
Clamping sleeve								315078	315079			315080		315081	315082	315083
Clamping sleeve														▲	▲	▲
Min-Ø mm														135	165	215
Clamping sleeve														315084	315085	315086
Clamping sleeve														▲	▲	▲
Min-Ø mm															170	220
Clamping sleeve															315087	315088
Clamping sleeve															▲	▲
Min-Ø mm															175	225
Clamping sleeve															315089	315090
Clamping sleeve															▲	▲
Min-Ø mm															180	230
Clamping sleeve															315091	315092
Clamping sleeve															▲	▲

Deviating clamping Ø as well as profiled and vulcanized clamping sleeves available on request

Product ranges MZE cartridge mandrel



Product ranges in wooden box size 1 – ID 315093

CONTENT

Consisting of 5 basic mandrels 02 - 06 and 7 clamping sleeves in the clamping range 12-26, Ø 12-14-16-18-20-22-24 mm



Product range in wooden box size 2 – ID 315094

CONTENT

Consisting of 3 basic mandrels 07 - 09 and 6 clamping sleeves in the clamping range 25-55, Ø 25-30-35-40-45-50 mm

Special solutions KFS



Cartridge mandrel KFS clamping-Ø 22,65 mm

APPLICATION

Turning

Clamping mandrel in special version due to required freedom of the tool. The clamping is done in the root circle of the toothing using a diagonally slotted clamping sleeve. Tilting in the toothing is prevented by the angled slotting.

CUSTOMER BENEFITS

- ⊕ Optimal clamping of the toothed workpiece
- ⊕ High concentricity and run-out precision of 0.02 mm



Cartridge mandrel KFS clamping-Ø SW 27,8 mm

APPLICATION

Turning

The clamping is done using a hexagonal clamping sleeve with axial pull via the draw bar against a fixed stop. The workpiece stop is designed of a two-sided loading of the workpiece.

CUSTOMER BENEFITS

- ⊕ Clamping of special contours is possible
- ⊕ Concentricity of 0.05 mm



Cartridge mandrel KFS clamping-Ø 34,3 mm

APPLICATION

Turning / Cutting

Cartridge mandrel force-actuated with axial pull and fixed stop. Clamping sleeve profiled for cutting off of the workpieces.

CUSTOMER BENEFITS

- ⊕ Low-cost production of small parts
- ⊕ Concentricity of 0.01 mm

Special solutions KFR / MFR



Cartridge mandrel KFR clamping-Ø 45 mm

APPLICATION

Turning of a pressed part

Force-actuated cartridge mandrel actuated via draw bar. Clamping mandrel is designed for different workpieces. Fixed stop with damping ring, air sensing and ejector.

CUSTOMER BENEFITS

- ⊕ Can be easily reconfigured to other clamping diameters by changing of clamping sleeve and/or stop
- ⊕ Concentricity of 0.01 mm



Cartridge mandrel KFR clamping-Ø TK-Ø 90 mm

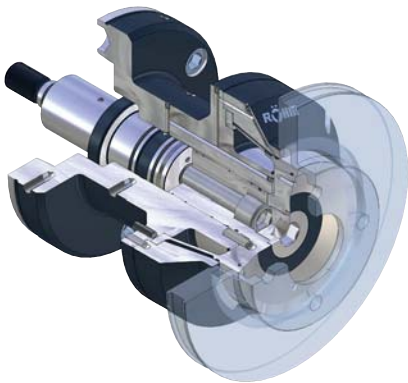
APPLICATION

Turning

Force-actuated cartridge mandrel with toothed clamping sleeve for clamping in the tooth flanks. Collet with quick change system.

CUSTOMER BENEFITS

- ⊕ Concentricity for toothing
- ⊕ Concentricity of 0.03 mm



Cartridge mandrel KFR clamping-Ø 136 mm

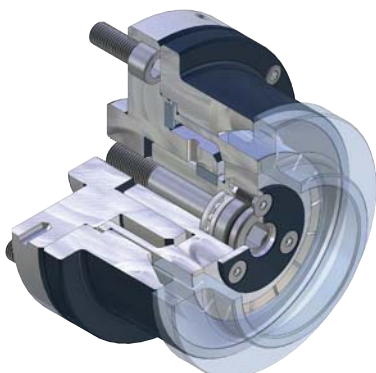
APPLICATION

Turning of brake discs

Force-actuated cartridge mandrel actuated via draw bar. Sealed against penetration of chips. Fixed stop with air sensing.

CUSTOMER BENEFITS

- ⊕ Stable version of the clamping mandrel
- ⊕ Concentricity of 0.02 mm



Cartridge mandrel MFR clamping-Ø 88 mm

APPLICATION

Milling / drilling for stationary use on clamping devices.

Cartridge mandrel in special version with manual actuation. The actuation is done via the hexagon socket.

CUSTOMER BENEFITS

- ⊕ Simple actuation by light roller bearing
- ⊕ Concentricity of 0.015 mm

Special solutions KFB



Cartridge mandrel KFB clamping-Ø 42 mm

APPLICATION

Turning

Clamping of the workpiece with axial tension against the stop. Clamping mandrel is hermetically sealed against penetration by dirt and cooling water. The stop and clamping sleeve can be replaced together using the quick change system.

CUSTOMER BENEFITS

- ⊕ Fast adjustment to different workpieces thanks to the quick change system
- ⊕ Concentricity of 0.015 mm



Cartridge mandrel KFB clamping-Ø 114 mm

APPLICATION

Turning

Clamping is done via draw bar with axial tension against the fixed stop. Idle stroke enables simpler stroke control in the clamping cylinder. The workpiece stop can be replaced quickly using the bayonet system.

CUSTOMER BENEFITS

- ⊕ Simple handling
- ⊕ Stable clamping using axial pull
- ⊕ Concentricity of 0.01 mm