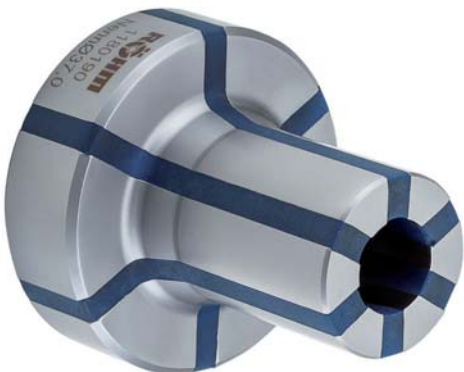




## INNOVATIVE VULCANISATE IN THE SEGMENT CLAMPING SLEEVE



- ④ Segment clamping sleeve with innovative vulcanisate for great elongation, longest service life and vibration dampening
- ④ Hardened and ground steel segments for high resistance to wear



Video ABSIS



Video AGILIS

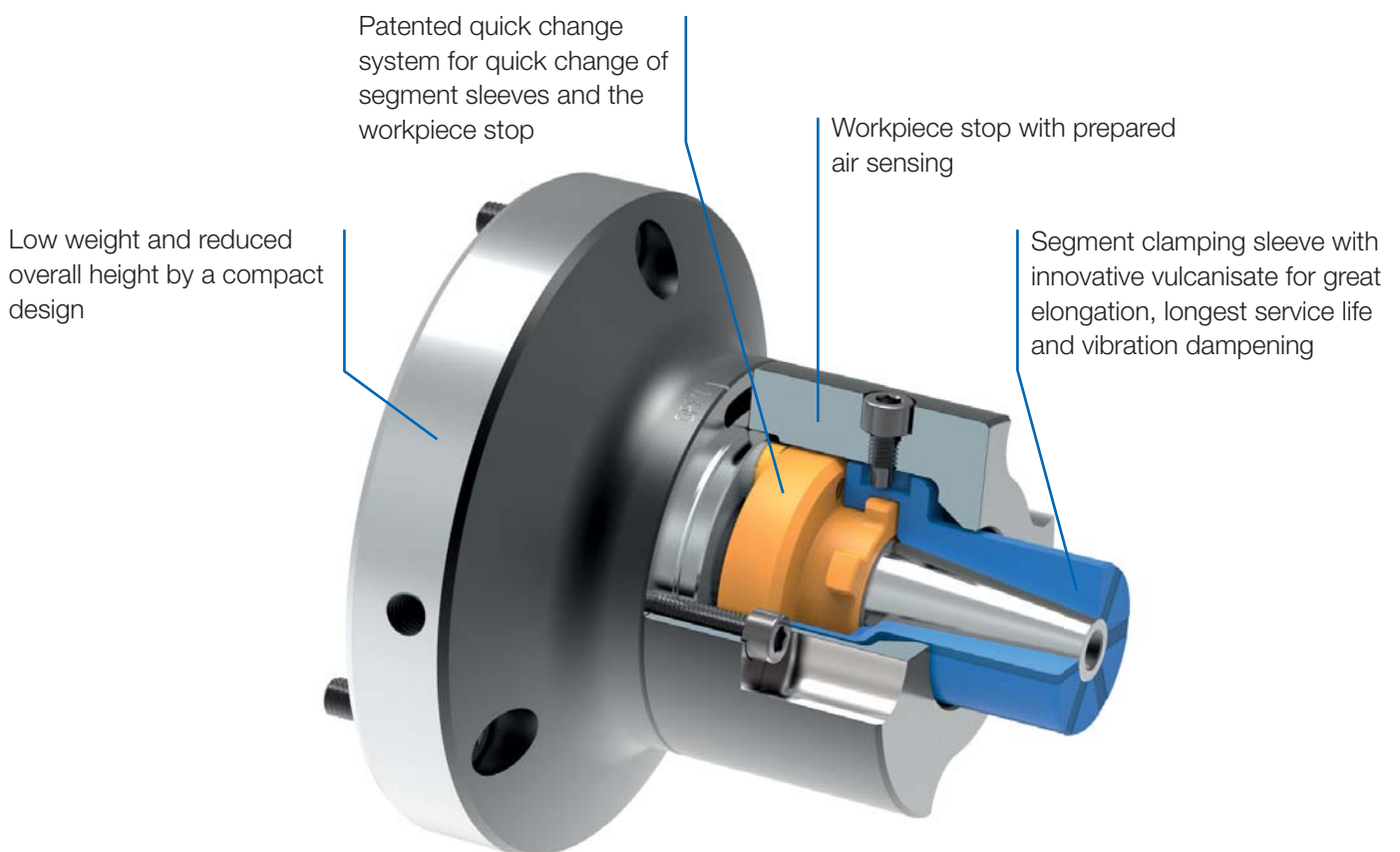


# SEGMENT CLAMPING MANDREL

Modern manufacturing technology can hardly do without the use of segment clamping mandrels. In the fields of precision machining, turning, grinding, gear cutting and checking, segment clamping mandrels assume important tasks that are associated with challenging conditions. The innovative rubber segments enable a great elongation of the clamping sleeve to 1.2 mm.

## ADVANTAGES AT A GLANCE

- ⊕ Short tooling and non-productive times thanks to the great elongation of the clamping sleeve up to 1.2 mm
- ⊕ Vibration dampening and long service life thanks to innovative vulcanisate of the clamping sleeves
- ⊕ Fast replacement of the clamping mandrel thanks to the patented bayonet quick change system





Segment clamping mandrel

# ABSIS - for long clamping lengths, with axial tightening

## APPLICATION

Internal clamping of round workpieces. Turning, milling, grinding and tothing operations, as well as for balancing and measuring. Ideal for clamping in through holes.

## TYPE

Force-actuated.

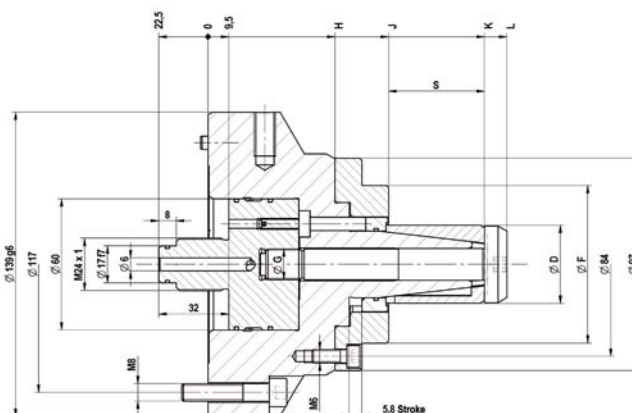
## CUSTOMER BENEFITS

- ⊕ Short setup and non-productive times thanks to great expansion of the segment sleeves
- ⊕ Vibration damping due to high vulcanized rubber component of the clamping sleeves
- ⊕ Sturdy clamping of the workpiece thanks to axial tension against the workpiece stop
- ⊕ Fast change of segment sleeves thanks to central clamping screw
- ⊕ High concentricity, axial run-out and repeatability

## TECHNICAL FEATURES

- Manual lubrication
- Air sensing prepared

ABSIS = in Latin: segment



C 18

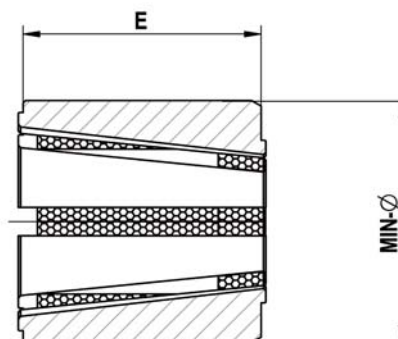
ABSIS segment clamping mandrel, power-operated with flanged seat, for internal clamping  
Consisting of basic mandrel, adapter, ejector ring, locking belt

	ABSIS 00	ABSIS 01	ABSIS 02	ABSIS 03	ABSIS 04
Segment clamping mandrel	1110000	1110001	1110002	1110003	1110004
Basic mandrel	1110100	1110101	1110102	1110103	1110104
Adapter power-operated	1110040	1110041	1110042	1110043	1110044
Ejector ring	1110020	1110021	1110022	1110023	1110024
Locking bolt	1110060	1110061	1110062	1110063	1110064
F max, in kN	7	10	20	25	30
Max, total clamping force approx, kN	32	46	92	115	138
D Min-Ø unclamped from mm	19,7	25,7	35,7	50,7	72,7
D Min-Ø unclamped to mm	27,7	38,7	54,7	81,7	105,7
Clamping-Ø max, mm	29	40	56	83	107
S mm	23	27	44	50	60
Ø F mm	58	58	72	90	120
Ø G	M6x0,75	M10x1	M14x1	M18x1	M20x1
H mm	55	55	58	58,5	60
J mm	75	75	82,5	84,5	86
K mm	98	102	126,3	134,5	146
L mm	103,5	108,5	136,5	146,5	160



Segment clamping mandrel

# Accessories ABSIS



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Segment clamping sleeve - standard design

	ABSIS 00	ABSIS 01	ABSIS 02	ABSIS 03	ABSIS 04
Expansion in Ø mm	1,2	1,2	1,2	1,2	1,2
Total length E mm	23	27	44	50	60
Min-Ø mm	19,7	25,7	35,7	50,7	72,7
Segment sleeve	<b>1111400</b>	<b>1111409</b>	<b>1111423</b>	<b>1111443</b>	<b>1111475</b>
Work stop	1110070	1110071	1110072	1110073	1110074
Min-Ø mm	20,7	26,7	36,7	51,7	73,7
Segment sleeve	<b>1111401</b>	<b>1111410</b>	<b>1111424</b>	<b>1111444</b>	<b>1111476</b>
Work stop	1110070	1110071	1110072	1110073	1110074
Min-Ø mm	21,7	27,7	37,7	52,7	74,7
Segment sleeve	<b>1111402</b>	<b>1111411</b>	<b>1111425</b>	<b>1111445</b>	<b>1111477 ▲</b>
Work stop	1110070	1110071	1110072	1123341	1123372
Min-Ø mm	22,7	28,7	38,7	53,7	75,7
Segment sleeve	<b>1111403</b>	<b>1111412</b>	<b>1111426</b>	<b>1111446</b>	<b>1111478 ▲</b>
Work stop	1110070	1110071	1110072	1123342	1123373
Min-Ø mm	23,7	29,7	39,7	54,7	76,7
Segment sleeve	<b>1111404</b>	<b>1111413</b>	<b>1111427</b>	<b>1111447</b>	<b>1111479 ▲</b>
Work stop	1110070	1110071	1110072	1123343	1123374
Min-Ø mm	24,7	30,7	40,7	55,7	77,7
Segment sleeve	<b>1111405</b>	<b>1111414</b>	<b>1111428</b>	<b>1111448</b>	<b>1111480 ▲</b>
Work stop	1110070	1110071	1110072	1123344	1123375
Min-Ø mm	25,7	31,7	41,7	56,7	78,7
Segment sleeve	<b>1111406</b>	<b>1111415</b>	<b>1111429</b>	<b>1111449</b>	<b>1111481</b>
Work stop	1110070	1110071	1110072	1123345	1123376
Min-Ø mm	26,7	32,7	42,7	57,7	79,7
Segment sleeve	<b>1111407</b>	<b>1111416</b>	<b>1111430</b>	<b>1111450</b>	<b>1111482 ▲</b>
Work stop	1123305	1110071	1123327	1123346	1123377
Min-Ø mm	27,7	33,7	43,7	58,7	80,7
Segment sleeve	<b>1111408</b>	<b>1111417</b>	<b>1111431</b>	<b>1111451</b>	<b>1111483 ▲</b>
Work stop	1123306	1123315	1123328	1123347	1123378
Min-Ø mm		34,7	44,7	59,7	81,7
Segment sleeve		<b>1111418</b>	<b>1111432</b>	<b>1111452</b>	<b>1111484 ▲</b>
Work stop		1123316	1123329	1123348	1123379
Min-Ø mm		35,7	45,7	60,7	82,7
Segment sleeve		<b>1111419</b>	<b>1111433</b>	<b>1111453</b>	<b>1111485 ▲</b>
Work stop		1123317	1123330	1123349	1123380
Min-Ø mm		36,7	46,7	61,7	83,7
Segment sleeve		<b>1111420</b>	<b>1111434</b>	<b>1111454</b>	<b>1111486</b>
Work stop		1123318	1123331	1123350	1123381
Min-Ø mm		37,7	47,7	62,7	84,7
Segment sleeve		<b>1111421</b>	<b>1111435</b>	<b>1111455</b>	<b>1111487 ▲</b>
Work stop		1123319	1123332	1123351	1123382
Min-Ø mm		38,7	48,7	63,7	85,7
Segment sleeve		<b>1111422</b>	<b>1111436</b>	<b>1111456</b>	<b>1111488</b>
Work stop		1123320	1123333	1123352	1123383
Min-Ø mm			49,7	64,7	86,7
Segment sleeve			<b>1111437</b>	<b>1111457</b>	<b>1111489 ▲</b>
Work stop			1123334	1123353	1123384
Min-Ø mm			50,7	65,7	87,7
Segment sleeve			<b>1111438</b>	<b>1111458</b>	<b>1111490 ▲</b>
Work stop			1123335	1123354	1123385
Min-Ø mm			51,7	66,7	88,7
Segment sleeve			<b>1111439</b>	<b>1111459</b>	<b>1111491</b>
Work stop			1123336	1123355	1123386

▲ on request





Segment clamping mandrel

# Accessories ABSIS

C 18

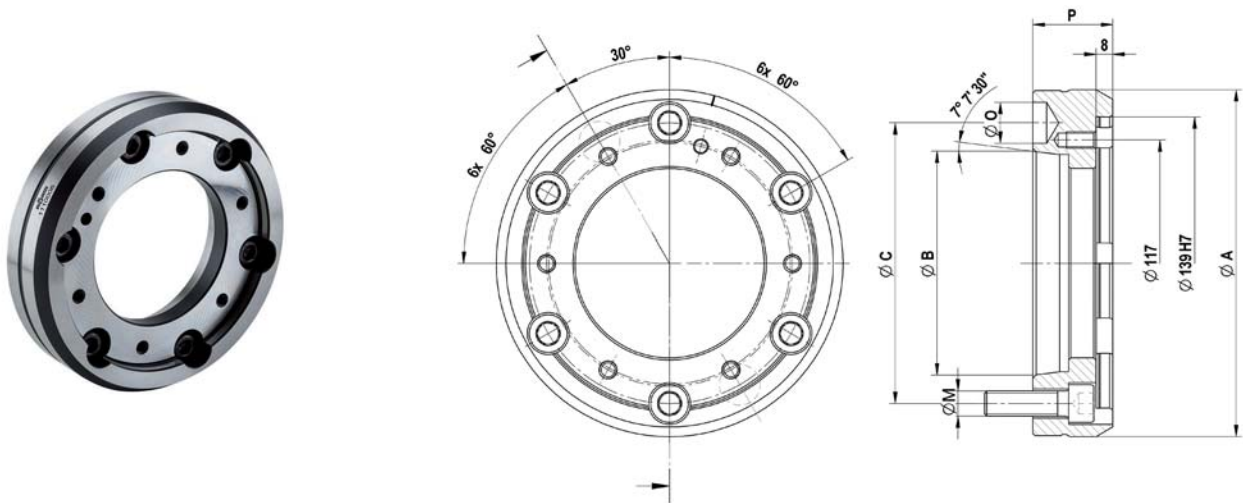
Segment clamping sleeve - standard design

	ABSIS 00	ABSIS 01	ABSIS 02	ABSIS 03	ABSIS 04
Expansion in Ø mm	1,2	1,2	1,2	1,2	1,2
Total length E mm	23	27	44	50	60
Min-Ø mm			52,7	67,7	89,7
Segment sleeve			<b>1111440</b>	<b>1111460</b>	<b>1111492</b>
Work stop			1123337	1123356	1123387
Min-Ø mm			53,7	68,7	90,7
Segment sleeve			<b>1111441</b>	<b>1111461</b>	<b>1111493</b>
Work stop			1123338	1123357	1123388
Min-Ø mm			54,7	69,7	91,7
Segment sleeve			<b>1111442</b>	<b>1111462</b>	<b>1111494</b>
Work stop			1123339	1123358	1123389
Min-Ø mm				70,7	92,7
Segment sleeve				<b>1111463</b>	<b>1111495</b>
Work stop				1123359	1123390
Min-Ø mm				71,7	93,7
Segment sleeve				<b>1111464</b>	<b>1111496</b>
Work stop				1123360	1123391
Min-Ø mm				72,7	94,7
Segment sleeve				<b>1111465</b>	<b>1111497</b>
Work stop				1123361	1123392
Min-Ø mm				73,7	95,7
Segment sleeve				<b>1111466</b>	<b>1111498 ▲</b>
Work stop				1123362	1123393
Min-Ø mm				74,7	96,7
Segment sleeve				<b>1111467</b>	<b>1111499</b>
Work stop				1123363	1123394
Min-Ø mm				75,7	97,7
Segment sleeve				<b>1111468</b>	<b>1111500</b>
Work stop				1123364	1123395
Min-Ø mm				76,7	98,7
Segment sleeve				<b>1111469</b>	<b>1111501</b>
Work stop				1123365	1123396
Min-Ø mm				77,7	99,7
Segment sleeve				<b>1111470</b>	<b>1111502</b>
Work stop				1123366	1123397
Min-Ø mm				78,7	100,7
Segment sleeve				<b>1111471</b>	<b>1111503</b>
Work stop				1123367	1123398
Min-Ø mm				79,7	101,7
Segment sleeve				<b>1111472</b>	<b>1111504 ▲</b>
Work stop				1123368	1123399
Min-Ø mm				80,7	102,7
Segment sleeve				<b>1111473</b>	<b>1111505 ▲</b>
Work stop				1123369	1123400
Min-Ø mm				81,7	103,7
Segment sleeve				<b>1111474</b>	<b>1111506 ▲</b>
Work stop				1123370	1123401
Min-Ø mm					104,7
Segment sleeve					<b>1111507 ▲</b>
Work stop					1123402
Min-Ø mm					105,7
Segment sleeve					<b>1111508 ▲</b>
Work stop					1123403



Segment clamping mandrel

## Accessories ABSIS



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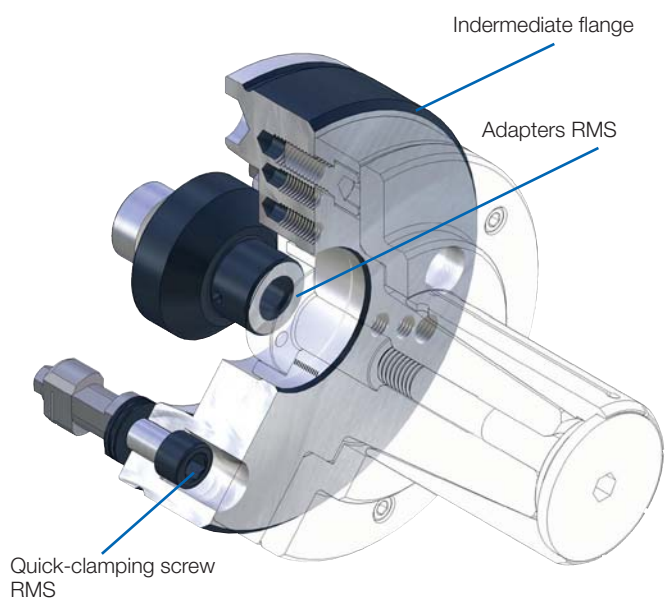
Intermediate flange ISO 702-1 (DIN 55028), for size 00-04

	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)	Nr. 11 (A 11)
Intermediate flange	1110005	1110006	1110008	1110011 ▲
Ø A mm	165	170	220	282
Ø B mm	82,563	106,375	139,719	196,869
Ø C mm	104,8	133,4	171,4	235
Thread-Ø M	M10	M12	M16	M20
Ø O mm	16,3	19,45	24,2	29,4
P mm	36	38	45	45



Segment clamping mandrel

# Accessories ABSIS



## APPLICATION

For manual clamping device exchange in a minimum of time.

## TYPE

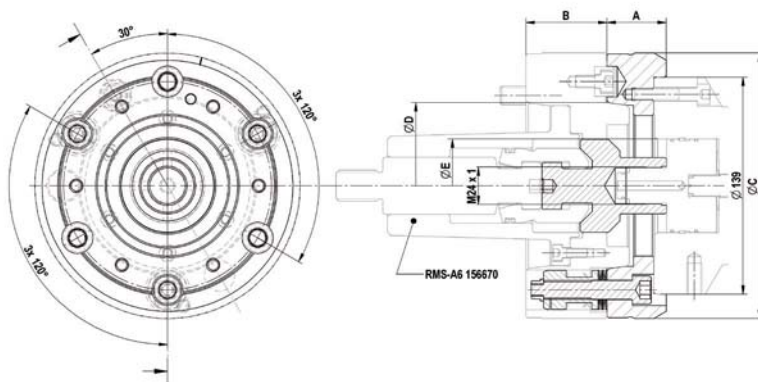
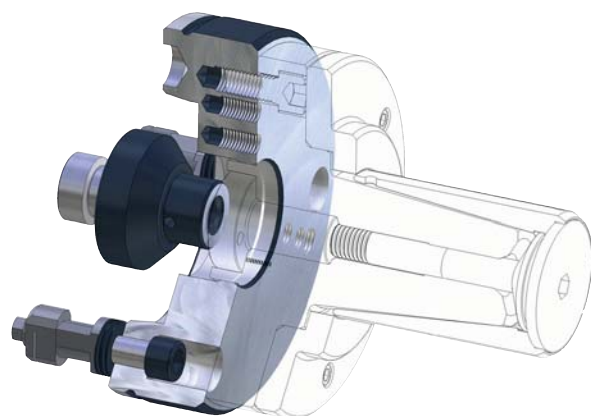
Manual quick-change system for clamping devices.  
Fits for ABSIS (269-00) and AGILIS (296-00).  
Central lubrication and/or air sensing control possible.

## 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)	1160028 ▲	1160029 ▲
Adapters RMS	1183312 ▲	1183313 ▲
A	38	45
Ø B	170	220
Ø C	133,4	171,4
Ø D	106,375	139,719
Ø E mm	M8	M8
Ø F mm	139 H7	139 H7

Accessories ABSIS



Segment clamping mandrel

# ABSIS-C - patented quick-change function



## APPLICATION

Internal clamping of round workpieces. Turning, milling, grinding and toothing operations, as well as for balancing and measuring. Rotational machining with adaptation to CAPTIS-D, CAPTIS-A. Stationary machining with adaptation to CAPTIS-M. Ideal for clamping in through holes.

## TYPE

Manual with adaptation to CAPTIS-M.  
Force-actuation with adaptation to CAPTIS-D, CAPTIS-A.

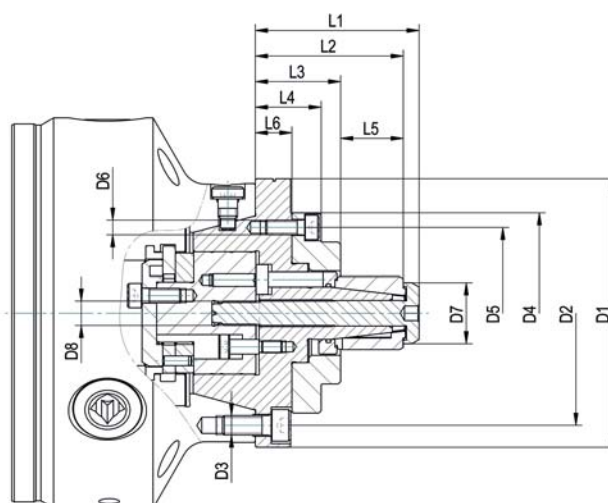
## CUSTOMER BENEFITS

- ⊕ Short setup and non-productive times thanks to great expansion of the segment sleeves
- ⊕ Vibration damping due to high vulcanized rubber component of the clamping sleeves
- ⊕ Sturdy clamping of the workpiece thanks to axial tension against the workpiece stop
- ⊕ Fast change of segment sleeves thanks to central clamping screw
- ⊕ High concentricity, axial run-out and repeatability
- ⊕ Innovative quick-change function for fast retrofitting from external to internal clamping

## TECHNICAL FEATURES

- Identical change parts as for standard segment clamping mandrel ABSIS

ABSIS-C = in Latin: segment, CAPTIS



ABSIS-C clamping mandrel

Size	ABSIS 00	ABSIS 00	ABSIS 00	ABSIS 00	ABSIS 01	ABSIS 01	ABSIS 01	ABSIS 01	ABSIS 02	ABSIS 02	ABSIS 02	ABSIS 03
Segment clamping mandrel	1286200	1286201	1286202	1286203	1286204	1286205	1286206	1286207	1286208	1286209	1286210	1286211
For	CAPTIS 32	CAPTIS 42	CAPTIS 52	CAPTIS 65	CAPTIS 32	CAPTIS 42	CAPTIS 52	CAPTIS 65	CAPTIS 42	CAPTIS 52	CAPTIS 65	CAPTIS 65
D Min-Ø unclamped from mm	19,7	19,7	19,7	19,7	25,7	25,7	25,7	25,7	35,7	35,7	35,7	50,7
D Min-Ø unclamped to mm	27,7	27,7	27,7	27,7	38,7	38,7	38,7	38,7	54,7	54,7	54,7	81,7
D1	88	108	110	128	88	108	110	128	110	110	128	128
D2	70	90	92	110	70	90	92	110	90	92	110	110
D3	3x M8	3x M8	3x M8	3x M8	3x M8	3x M8	3x M8	3x M8	3x M8	3x M8	3x M8	3x M8
D4	82	82	82	82	82	82	82	82	97	97	97	102
D5	70	70	70	70	70	70	70	70	84	84	84	89
D6	3x M6	3x M6	3x M6	3x M6	3x M6	3x M6	3x M6	3x M6	3x M6	3x M6	3x M6	3x M6
D7	19	19	19	19	25	25	25	25	35	35	35	48
D8	M6x0,75	M6x0,75	M6x0,75	M6x0,75	M10x1	M10x1	M10x1	M10x1	M14x1	M14x1	M14x1	M18x1
L1	62,2	62,2	62,2	62,2	67,2	67,2	67,2	67,2	95,2	95,2	95,2	105,2
L2	56,7	56,7	56,7	56,7	60,7	60,7	60,7	60,7	85	85	85	93,2
L3	35	35	35	35	35	35	35	35	42,5	42,5	42,5	44,5
L4	25	25	25	25	27	27	27	27	30,25	30,25	30,25	31,5
L5	21,7	21,7	21,7	21,7	25,7	25,7	25,7	25,7	42,5	42,5	42,5	48,7
L6	15	15	15	15	15	15	15	15	18	18	18	18,5

Collet chuck system  
CAPTIS





Segment clamping mandrel

# AGILIS - for short clamping lengths, with axial tightening

## APPLICATION

Internal clamping of round workpieces. Turning, milling, grinding and toothing operations, as well as for balancing and measuring. Suitable for short clamping lengths and very small clamping diameters starting from 10 mm.

## TYPE

Force-actuated.

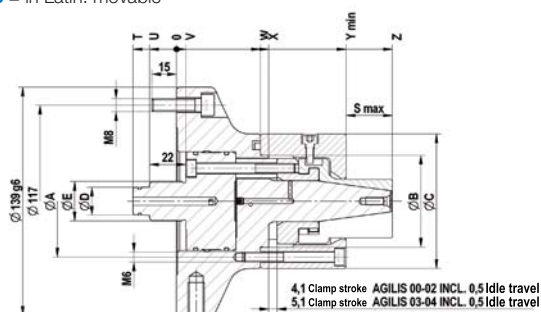
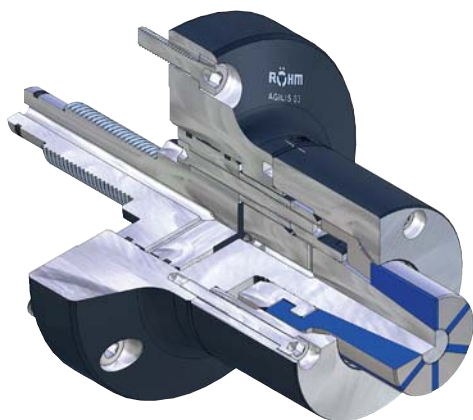
## CUSTOMER BENEFITS

- ⊕ Short setup and non-productive times thanks to great expansion of the segment sleeves
- ⊕ Vibration damping due to high vulcanized rubber component of the clamping sleeves
- ⊕ Sturdy clamping of the workpiece thanks to axial tension against the workpiece stop
- ⊕ Fast change thanks to bayonet catch
- ⊕ High concentricity, axial run-out and repeatability

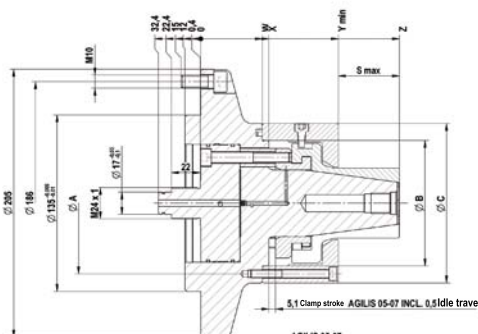
## TECHNICAL FEATURES

- Manual lubrication
- Air sensing prepared

AGILIS = in Latin: movable



AGILIS 00-04 Released



AGILIS 05-07 Released

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AGILIS segment clamping mandrel, power-operated with flanged seat, for internal clamping

	AGILIS 00	AGILIS 01	AGILIS 02	AGILIS 03	AGILIS 04	AGILIS 05	AGILIS 06	AGILIS 07
Segment clamping mandrel	1180000	1180001	1180002	1180003	1180004	1180005	1180006 ▲	1180007 ▲
Basic mandrel	1180010	1180011	1180012	1180013	1180014	1180015	1180016 ▲	1180017 ▲
Adapter power-operated	1180030	1180030	1180032	1180032	1180034	1180035	1180036 ▲	1180037 ▲
Bolt spacer	1180060	1180060	1180062	1180063	1180064	1180065	1180066 ▲	1180066 ▲
Retaining ring	1180050	1180050	1180052	1180052	1180054	1180055	1180056 ▲	1180057 ▲
F max, in kN	5	7,5	15	20	25	30	35	35
Max, total clamping force approx, kN	26	39	79	85	106	127	149	149
Min-Ø unclamped from mm	9,7	13,7	18,7	26,7	36,7	53,7	71,7	94,7
Min-Ø unclamped to mm	15,7	24,7	34,7	44,7	64,7	84,7	104,7	129,7
Pitch diameter A mm	54	54	69	69	88	108	127	152
Guide diameter B mm	42	42	56	56	75	96	114	135
Ø C mm	68	68	82	82	101	122	140	169
Ø D mm	12	12	17	17	17			
Ø E mm	M 16	M 16	M 24x1	M 24x1	M 24x1			
S max, mm	16,8	18,8	23,8	28,1	42,1	46,1	57,1	67,1
T mm	27,7	27,7	25,4	26,4	26,4			
U mm	17,7	17,7	15,4	16,4	16,4			
V mm	4,3	4,3	6,6	5,6	5,6			
W mm	41,5	41,5	52	51	52	47	49	49
X mm	46,5	46,5	57,2	56	57	52	54	54
Y min, mm	80	80	103	103	108	105	109	109
Z mm	96,8	98,8	126,8	131,1	150,1	151,1	166,1	176,1

▲ on request

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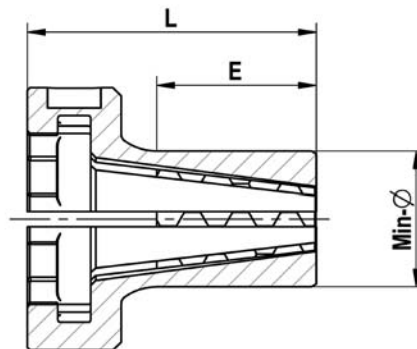
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Segment clamping mandrel AGILIS



Segment clamping mandrel

# Accessories AGILIS



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Segment clamping sleeves AGILIS

	AGILIS 00	AGILIS 01	AGILIS 02	AGILIS 03	AGILIS 04	AGILIS 05	AGILIS 06	AGILIS 07
Expansion in Ø mm	0,6	0,6	0,6	1,2	1,2	1,2	1,2	1,2
Total length L	38	40	52,5	57	76	82	95	105
Min-Ø mm	9,7	13,7	18,7	26,7	36,7	53,7	71,7	94,7
Segment sleeve	<b>1180100</b>	<b>1180120</b>	<b>1180140</b>	<b>1180170</b>	<b>1180190</b>	<b>1180220</b>	<b>1180250 ▲</b>	<b>1180290 ▲</b>
Work stop	1180400 ▲	1180420 ▲	1180440 ▲	1180470 ▲	1180490 ▲	1180520 ▲	1180550 ▲	1180590 ▲
Min-Ø mm	10,2	14,2	19,2	27,7	37,7	54,7	72,7	95,7
Segment sleeve	<b>1180101</b>	<b>1180121</b>	<b>1180141</b>	<b>1180171</b>	<b>1180191</b>	<b>1180221</b>	<b>1180251 ▲</b>	<b>1180291 ▲</b>
Work stop	1180401 ▲	1180421 ▲	1180441 ▲	1180471 ▲	1180491 ▲	1180521 ▲	1180551 ▲	1180591 ▲
Min-Ø mm	10,7	14,7	19,7	28,7	38,7	55,7	73,7	96,7
Segment sleeve	<b>1180102</b>	<b>1180122</b>	<b>1180142</b>	<b>1180172</b>	<b>1180192</b>	<b>1180222</b>	<b>1180252 ▲</b>	<b>1180292 ▲</b>
Work stop	1180402 ▲	1180422 ▲	1180442 ▲	1180472 ▲	1180492 ▲	1180522 ▲	1180552 ▲	1180592 ▲
Min-Ø mm	11,2	15,2	20,2	29,7	39,7	56,7	74,7	97,7
Segment sleeve	<b>1180103</b>	<b>1180123</b>	<b>1180143</b>	<b>1180173</b>	<b>1180193</b>	<b>1180223</b>	<b>1180253 ▲</b>	<b>1180293 ▲</b>
Work stop	1180403 ▲	1180423 ▲	1180443 ▲	1180473 ▲	1180493 ▲	1180523 ▲	1180553 ▲	1180593 ▲
Min-Ø mm	11,7	15,7	20,7	30,7	40,7	57,7	75,7	98,7
Segment sleeve	<b>1180104</b>	<b>1180124</b>	<b>1180144</b>	<b>1180174</b>	<b>1180194</b>	<b>1180224</b>	<b>1180254 ▲</b>	<b>1180294 ▲</b>
Work stop	1180404 ▲	1180424 ▲	1180444 ▲	1180474 ▲	1180494 ▲	1180524 ▲	1180554 ▲	1180594 ▲
Min-Ø mm	12,2	16,2	21,2	31,7	41,7	58,7	76,7	99,7
Segment sleeve	<b>1180105</b>	<b>1180125</b>	<b>1180145</b>	<b>1180175</b>	<b>1180195</b>	<b>1180225</b>	<b>1180255 ▲</b>	<b>1180295</b>
Work stop	1180405 ▲	1180425 ▲	1180445 ▲	1180475 ▲	1180495 ▲	1180525 ▲	1180555 ▲	1180595 ▲
Min-Ø mm	12,7	16,7	21,7	32,7	42,7	59,7	77,7	100,7
Segment sleeve	<b>1180106</b>	<b>1180126</b>	<b>1180146</b>	<b>1180176</b>	<b>1180196</b>	<b>1180226</b>	<b>1180256 ▲</b>	<b>1180296 ▲</b>
Work stop	1180406 ▲	1180426 ▲	1180446 ▲	1180476 ▲	1180496 ▲	1180526 ▲	1180556 ▲	1180596 ▲
Min-Ø mm	13,2	17,2	22,2	33,7	43,7	60,7	78,7	101,7
Segment sleeve	<b>1180107</b>	<b>1180127</b>	<b>1180147</b>	<b>1180177</b>	<b>1180197</b>	<b>1180227</b>	<b>1180257 ▲</b>	<b>1180297 ▲</b>
Work stop	1180407 ▲	1180427 ▲	1180447 ▲	1180477 ▲	1180497 ▲	1180527 ▲	1180557 ▲	1180597 ▲
Min-Ø mm	13,7	17,7	22,7	34,7	44,7	61,7	79,7	102,7
Segment sleeve	<b>1180108</b>	<b>1180128</b>	<b>1180148</b>	<b>1180178</b>	<b>1180198</b>	<b>1180228</b>	<b>1180258 ▲</b>	<b>1180298 ▲</b>
Work stop	1180408 ▲	1180428 ▲	1180448 ▲	1180478 ▲	1180498 ▲	1180528 ▲	1180558 ▲	1180598 ▲
Min-Ø mm	14,2	18,2	23,2	35,7	45,7	62,7	80,7	103,7
Segment sleeve	<b>1180109</b>	<b>1180129</b>	<b>1180149</b>	<b>1180179</b>	<b>1180199</b>	<b>1180229</b>	<b>1180259 ▲</b>	<b>1180299 ▲</b>
Work stop	1180409 ▲	1180429 ▲	1180449 ▲	1180479 ▲	1180499 ▲	1180529 ▲	1180559 ▲	1180599 ▲
Min-Ø mm	14,7	18,7	23,7	36,7	46,7	63,7	81,7	104,7
Segment sleeve	<b>1180110</b>	<b>1180130</b>	<b>1180150</b>	<b>1180180</b>	<b>1180200</b>	<b>1180230</b>	<b>1180260 ▲</b>	<b>1180300 ▲</b>
Work stop	1180410 ▲	1180430 ▲	1180450 ▲	1180480 ▲	1180500 ▲	1180530 ▲	1180560 ▲	1180600 ▲
Min-Ø mm	15,2	19,2	24,2	37,7	47,7	64,7	82,7	105,7
Segment sleeve	<b>1180111</b>	<b>1180131</b>	<b>1180151</b>	<b>1180181</b>	<b>1180201</b>	<b>1180231</b>	<b>1180261 ▲</b>	<b>1180301 ▲</b>
Work stop	1180411 ▲	1180431 ▲	1180451 ▲	1180481 ▲	1180501 ▲	1180531 ▲	1180561 ▲	1180601 ▲
Min-Ø mm	15,7	19,7	24,7	38,7	48,7	65,7	83,7	106,7
Segment sleeve	<b>1180112</b>	<b>1180132</b>	<b>1180152</b>	<b>1180182</b>	<b>1180202</b>	<b>1180232</b>	<b>1180262 ▲</b>	<b>1180302 ▲</b>
Work stop	1180412 ▲	1180432 ▲	1180452 ▲	1180482 ▲	1180502 ▲	1180532 ▲	1180562 ▲	1180602 ▲
Min-Ø mm		20,2	25,2	39,7	49,7	66,7	84,7	107,7
Segment sleeve		<b>1180133</b>	<b>1180153</b>	<b>1180183</b>	<b>1180203</b>	<b>1180233</b>	<b>1180263 ▲</b>	<b>1180303 ▲</b>
Work stop		1180433 ▲	1180453 ▲	1180483 ▲	1180503 ▲	1180533 ▲	1180563 ▲	1180603 ▲
Min-Ø mm		20,7	25,7	40,7	50,7	67,7	85,7	108,7
Segment sleeve		<b>1180134</b>	<b>1180154</b>	<b>1180184</b>	<b>1180204</b>	<b>1180234</b>	<b>1180264 ▲</b>	<b>1180304 ▲</b>
Work stop		1180434 ▲	1180454 ▲	1180484 ▲	1180504 ▲	1180534 ▲	1180564 ▲	1180604 ▲
Min-Ø mm		21,2	26,2	41,7	51,7	68,7	86,7	109,7
Segment sleeve		<b>1180135</b>	<b>1180155</b>	<b>1180185</b>	<b>1180205</b>	<b>1180235</b>	<b>1180265 ▲</b>	<b>1180305 ▲</b>
Work stop		1180435 ▲	1180455 ▲	1180485 ▲	1180505 ▲	1180535 ▲	1180565 ▲	1180605 ▲

Accessories AGILIS



Segment clamping mandrel

# Accessories AGILIS

C18

Segment clamping sleeves AGILIS

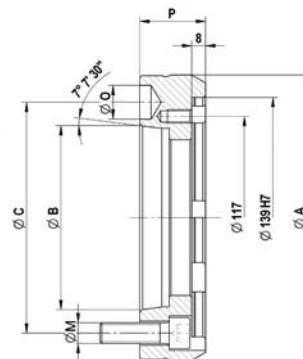
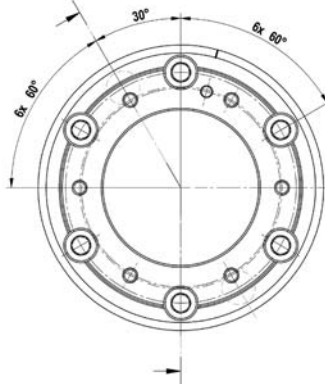
	AGILIS 00	AGILIS 01	AGILIS 02	AGILIS 03	AGILIS 04	AGILIS 05	AGILIS 06	AGILIS 07
Expansion in Ø mm	0,6	0,6	0,6	1,2	1,2	1,2	1,2	1,2
Total length L	38	40	52,5	57	76	82	95	105
Min-Ø mm		21,7	26,7	42,7	52,7	69,7	87,7	110,7
Segment sleeve		<b>1180136</b>	<b>1180156</b>	<b>1180186</b>	<b>1180206</b>	<b>1180236</b>	<b>1180266 ▲</b>	<b>1180306 ▲</b>
Work stop		1180436 ▲	1180456 ▲	1180486 ▲	1180506 ▲	1180536 ▲	1180566 ▲	1180606 ▲
Min-Ø mm		22,2	27,2	43,7	53,7	70,7	88,7	111,7
Segment sleeve		<b>1180137</b>	<b>1180157</b>	<b>1180187</b>	<b>1180207</b>	<b>1180237</b>	<b>1180267 ▲</b>	<b>1180307 ▲</b>
Work stop		1180437 ▲	1180457 ▲	1180487 ▲	1180507 ▲	1180537 ▲	1180567 ▲	1180607 ▲
Min-Ø mm		22,7	27,7	44,7	54,7	71,7	89,7	112,7
Segment sleeve		<b>1180138</b>	<b>1180158</b>	<b>1180188</b>	<b>1180208</b>	<b>1180238</b>	<b>1180268 ▲</b>	<b>1180308 ▲</b>
Work stop		1180438 ▲	1180458 ▲	1180488 ▲	1180508 ▲	1180538 ▲	1180568 ▲	1180608 ▲
Min-Ø mm		23,2	28,2		55,7	72,7	90,7	113,7
Segment sleeve		<b>1180139</b>	<b>1180159</b>		<b>1180209</b>	<b>1180239</b>	<b>1180269 ▲</b>	<b>1180309 ▲</b>
Work stop		1180439 ▲	1180459 ▲		1180509 ▲	1180539 ▲	1180569 ▲	1180609 ▲
Min-Ø mm		23,7	28,7		56,7	73,7	91,7	114,7
Segment sleeve		<b>1180350</b>	<b>1180160</b>		<b>1180210</b>	<b>1180240</b>	<b>1180270 ▲</b>	<b>1180310 ▲</b>
Work stop		1180630 ▲	1180460 ▲		1180510 ▲	1180540 ▲	1180570 ▲	1180610 ▲
Min-Ø mm		24,2	29,2		57,7	74,7	92,7	115,7
Segment sleeve		<b>1180351</b>	<b>1180161</b>		<b>1180211</b>	<b>1180241</b>	<b>1180271 ▲</b>	<b>1180311 ▲</b>
Work stop		1180631 ▲	1180461 ▲		1180511 ▲	1180541 ▲	1180571 ▲	1180611 ▲
Min-Ø mm		24,7	29,7		58,7	75,7	93,7	116,7
Segment sleeve		<b>1180352</b>	<b>1180162</b>		<b>1180212</b>	<b>1180242</b>	<b>1180272 ▲</b>	<b>1180312 ▲</b>
Work stop		1180632 ▲	1180462 ▲		1180512 ▲	1180542 ▲	1180572 ▲	1180612 ▲
Min-Ø mm			30,2		59,7	76,7	94,7	117,7
Segment sleeve			<b>1180163</b>		<b>1180213</b>	<b>1180243</b>	<b>1180273 ▲</b>	<b>1180313 ▲</b>
Work stop			1180463 ▲		1180513 ▲	1180543 ▲	1180573 ▲	1180613 ▲
Min-Ø mm			30,7		60,7	77,7	95,7	118,7
Segment sleeve			<b>1180164</b>		<b>1180214</b>	<b>1180244</b>	<b>1180274 ▲</b>	<b>1180314 ▲</b>
Work stop			1180464 ▲		1180514 ▲	1180544 ▲	1180574 ▲	1180614 ▲
Min-Ø mm			31,2		61,7	78,7	96,7	119,7
Segment sleeve			<b>1180165</b>		<b>1180215</b>	<b>1180245</b>	<b>1180275 ▲</b>	<b>1180315 ▲</b>
Work stop			1180465 ▲		1180515 ▲	1180545 ▲	1180575 ▲	1180615 ▲
Min-Ø mm			31,7		62,7	79,7	97,7	120,7
Segment sleeve			<b>1180166</b>		<b>1180216</b>	<b>1180246</b>	<b>1180276 ▲</b>	<b>1180316 ▲</b>
Work stop			1180466 ▲		1180516 ▲	1180546 ▲	1180576 ▲	1180616 ▲
Min-Ø mm			32,2		63,7	80,7	98,7	121,7
Segment sleeve			<b>1180167</b>		<b>1180217</b>	<b>1180247</b>	<b>1180277 ▲</b>	<b>1180317 ▲</b>
Work stop			1180467 ▲		1180517 ▲	1180547 ▲	1180577 ▲	1180617 ▲
Min-Ø mm			32,7		64,7	81,7	99,7	122,7
Segment sleeve			<b>1180168</b>		<b>1180218</b>	<b>1180248</b>	<b>1180278 ▲</b>	<b>1180318 ▲</b>
Work stop			1180468 ▲		1180518 ▲	1180548 ▲	1180578 ▲	1180618 ▲
Min-Ø mm			33,2			82,7	100,7	123,7
Segment sleeve			<b>1180169</b>			<b>1180249</b>	<b>1180279 ▲</b>	<b>1180319 ▲</b>
Work stop			1180469 ▲			1180549 ▲	1180579 ▲	1180619 ▲
Min-Ø mm			33,7			83,7	101,7	124,7
Segment sleeve			<b>1180360</b>			<b>1180370</b>	<b>1180280 ▲</b>	<b>1180320 ▲</b>
Work stop			1180640 ▲			1180650 ▲	1180580 ▲	1180620 ▲
Min-Ø mm			34,2			84,7	102,7	125,7
Segment sleeve			<b>1180361</b>			<b>1180371</b>	<b>1180281 ▲</b>	<b>1180321 ▲</b>
Work stop			1180641 ▲			1180651 ▲	1180581 ▲	1180621 ▲
Min-Ø mm			34,7				103,7	126,7
Segment sleeve			<b>1180362</b>				<b>1180282 ▲</b>	<b>1180322 ▲</b>
Work stop			1180642 ▲				1180582 ▲	1180622 ▲
Min-Ø mm							104,7	127,7
Segment sleeve							<b>1180283 ▲</b>	<b>1180323 ▲</b>
Work stop							1180583 ▲	1180623 ▲
Min-Ø mm								128,7
Segment sleeve								<b>1180324 ▲</b>
Work stop								1180624 ▲
Min-Ø mm								129,7
Segment sleeve								<b>1180325 ▲</b>
Work stop								1180625 ▲

Accessories AGILIS



Segment clamping mandrel

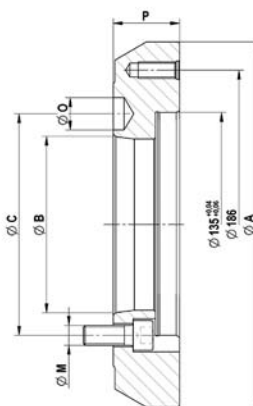
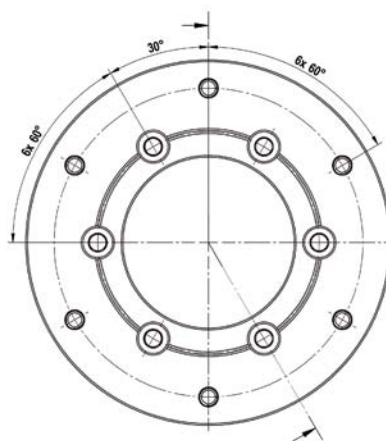
# Accessories AGILIS



C 18

Intermediate flange ISO 702-1 (DIN 55028), for size 00-04

	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)	Nr. 11 (A 11)
Intermediate flange	1110005	1110006	1110008	1110011 ▲
Ø A mm	165	170	220	282
Ø B	82,563	106,375	139,719	196,869
Ø C mm	104,8	133,4	171,4	235
Thread-Ø M	M10	M12	M16	M20
Ø O mm	16,3	19,45	24,2	29,4
P mm	36	38	45	45



C 18

Intermediate flange ISO 702-1 (DIN 55028)

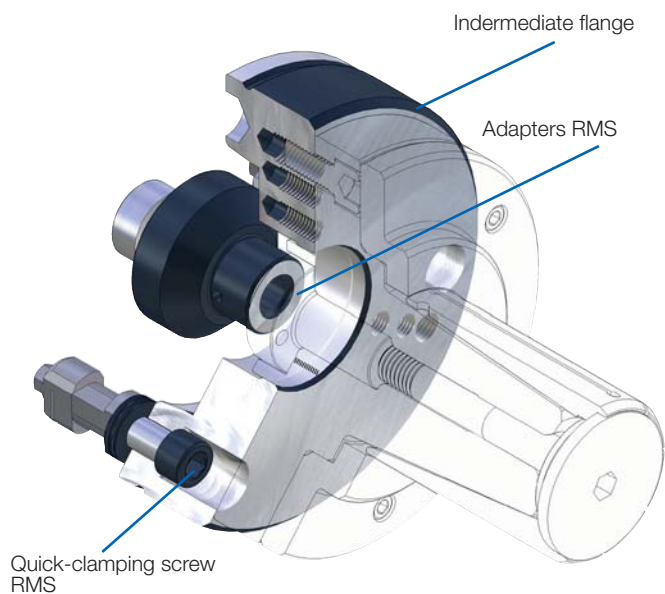
	Nr. 5 (A5)	Nr. 6 (A6)	Nr. 8 (A8)
Intermediate flange	1072115 ▲	1072117	1072119
For	KZF-S 80/AGILIS 05-07	KZF-S 120/AGILIS 05-07	KZF-S 120/AGILIS 05-07
Short-taper-Ø B	82,563	106,375	139,719
Short-taper pitch circle Ø C	104,8	133,4	171,4
Flange outer-Ø A	220	220	220
Ø D	135	135	135
Ø F mm	186	186	186
Ø O mm	16,3	19,45	24,2
Thread-Ø M	M10	M12	M16
Total length flange P	40	40	40

Accessories AGILIS



Segment clamping mandrel

# Accessories AGILIS



### APPLICATION

For manual clamping device exchange in a minimum of time.

### TYPE

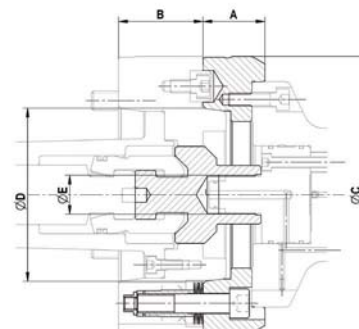
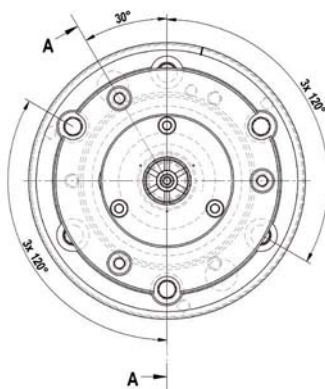
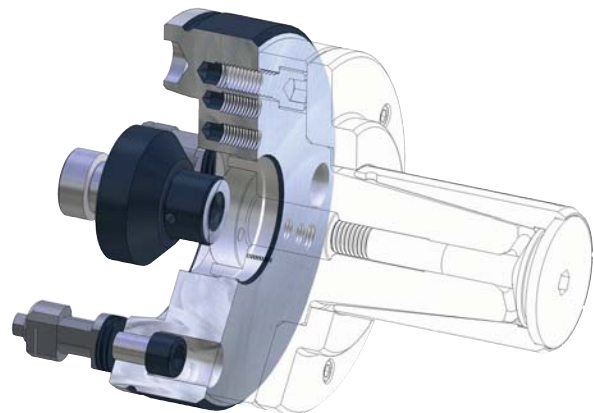
Manual quick-change system for clamping devices. Fits for ABSIS (269-00) and AGILIS (296-00). Central lubrication and/or air sensing control possible.

### 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

	A 06	A 08
For	AGILIS 00-04 296-00	AGILIS 00-04 296-00
RMS - complete (flange incl. quick-clamping screw)	1180340 ▲	1180342 ▲
Adapters RMS	1183314 ▲	1183314 ▲
A	38	45
Ø B	170	215
Ø C	133,4	171,4
Ø D	106,375	139,719
Ø E mm	M12	M16
Ø F mm	139 H7	139 H7

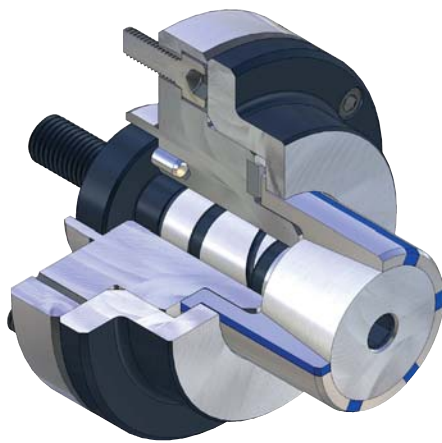
Matching intermediate pieces RMS KK6 and RMS KK8 can be found directly in the product table of the segment clamping mandrel AGILIS





Segment clamping mandrel

# KFR-SE - without axial tightening, force-actuated



## APPLICATION

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

## TYPE

Force-actuated. Ideal for short clamping lengths / workpieces.

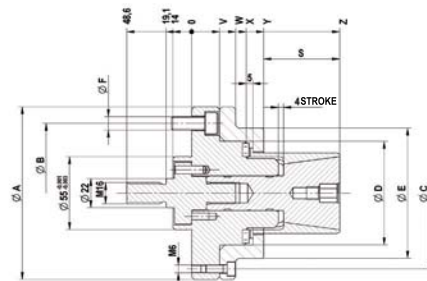
## CUSTOMER BENEFITS

- ⊕ Short setup and non-productive times thanks to great expansion of the segment sleeves
- ⊕ Vibration damping due to high vulcanized rubber component of the clamping sleeves
- ⊕ No workpiece tension thanks to def. axial tension against the workpiece stop
- ⊕ High concentricity, axial run-out and repeatability

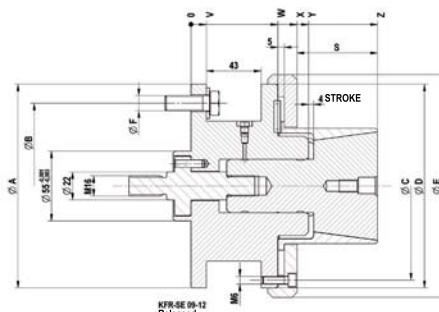
## TECHNICAL FEATURES

- Integrated lubrication
- Air sensing prepared

**KFR-SE** = force-actuated, flange, R-type, segment sleeve



KFR-SE 06-08  
Released



KFR-SE 08-12  
Released

C18

**KFR-SE** segment clamping 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
Segment clamping mandrel	1171410	1171411	1171412	1171413	1171414	1171415	893966	893967	893968	893969	893970	893971 ▲	893972 ▲
Base bolt	893800	893801	893802	893803	893804	893805	893806	893807	893807	893809	893809	893809	893809
Clamping taper	1171436	1171437	1171438	1171439	1171440	1171441	650346	650347	650348	650349	650350	650351 ▲	650352 ▲
Adapter power-operated	1199848	1199849	1199850	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 approx, kN	20	56	83	104	114	140	140	140	140	140	140	140	140
Min-Ø unclamped from mm	14,2	19,7	24,7	35,7	40,7	50,7	60,7	70,7	80,7	90,7	100,7	110,7	120,7
Min-Ø unclamped to mm	19,7	24,7	35,7	40,7	50,7	60,7	70,7	80,7	90,7	100,7	110,7	120,7	130,7
Clamping-Ø max, mm	20,7	25,7	36,7	41,7	51,7	61,7	71,7	81,7	91,7	101,7	111,7	121,7	131,7
External-Ø A mm	100	100	100	100	130	130	130	160	160	160	160	160	160
Pitch diameter B mm	75	75	75	75	105	105	105	130	130	130	130	130	130
Guide diameter B mm							78	100	100	160	160	160	160
Pitch diameter C mm	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
Ø F mm							98	130	130	175	175	175	175
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

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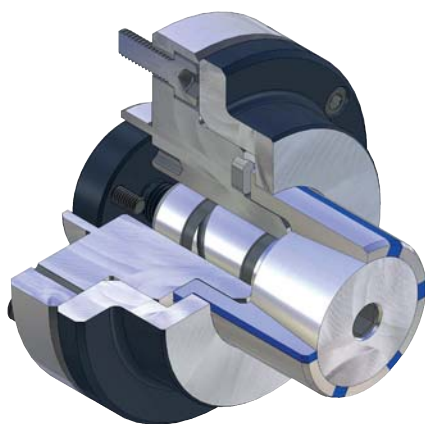
▲ on request

Segment clamping mandrel KFR/MFR



Segment clamping mandrel

# MFR-SE - without axial tightening, manually actuated



## 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.  
With vulcanized clamping sleeves / segment sleeves.

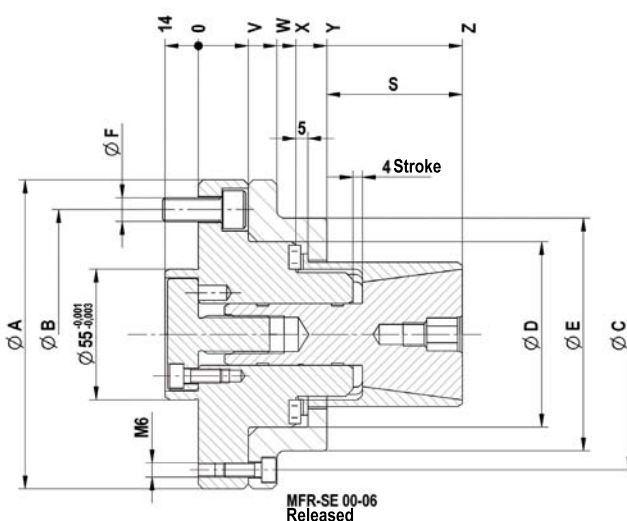
## CUSTOMER BENEFITS

- ⊕ 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-SE** = manually actuated, flange, R-type, segment sleeve



C18

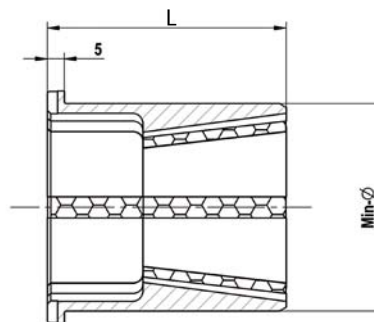
**MFR-SE** segment clamping mandrel, **hand-operated with flanged seat**, for internal clamping  
Consisting of basic body, clamping taper, intermediate piece

	MFR 00	MFR 01	MFR 02	MFR 03	MFR 04	MFR 05	MFR 06
Segment clamping mandrel	1171423	1171424	1171425	1171426	1171427	1171428	1077706
Base bolt	893800	893801	893802	893803	893804	893805	893806
Clamping taper	1171436	1171437	1171438	1171439	1171440	1171441	650346
Adapter hand-operated	893823	893824	893825	893826	893827	893827	893828
Md max, kN	4	5	20	40	55	60	85
Min-Ø unclamped from mm	14,7	19,7	24,7	35,7	40,7	50,7	60,7
Min-Ø unclamped to mm	19,7	24,7	35,7	40,7	50,7	60,7	70,7
Clamping-Ø max, mm	20,7	25,7	36,7	41,7	51,7	61,7	71,7
External-Ø A mm	100	100	100	100	130	130	130
Pitch diameter B mm	75	75	75	75	105	105	105
Guide diameter B mm							78
Pitch diameter C mm	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
Ø F mm							98
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



Segment clamping mandrel

# Accessories KFR-SE / MFR-SE



C18

Segment sleeve KFR-SE / MFR-SE

For size	00	01	02	03	04	05	06	07	08	09	10	11	12
Expansion in Ø mm	1	1	1	1	1	1	1	1	1	1	1	1	1
Total length	32	40	40	40	55	55	70	70	70	78	78	78	78
Min-Ø mm	14,7	19,7	24,7	35,7	40,7	50,7	60,7	70,7	80,7	90,7	100,7	110,7	120,7
Segment sleeve	1171000 ▲	1171006 ▲	1171012 ▲	1171024 ▲	1171030 ▲	1171041 ▲	1171052 ▲	1171063 ▲	1171074 ▲	1171085 ▲	1171096 ▲	1171107 ▲	1171118 ▲
Work stop	893830	893836	893842	893852	893857	893867	893878	893888	893897	893907	893917	893927	893937
Min-Ø mm	15,7	20,7	25,7	36,7	41,7	51,7	61,7	71,7	81,7	91,7	101,7	111,7	121,7
Segment sleeve	1171001 ▲	1171007 ▲	1171013 ▲	1171025 ▲	1171031 ▲	1171042 ▲	1171053 ▲	1171064 ▲	1171075 ▲	1171086 ▲	1171097 ▲	1171108 ▲	1171119 ▲
Work stop	893831	893837	893842	893853	893858	893868	893879	893889	893898	893908	893918	893928	893938
Min-Ø mm	16,7	21,7	26,7	37,7	42,7	52,7	62,7	72,7	82,7	92,7	102,7	112,7	122,7
Segment sleeve	1171002 ▲	1171008 ▲	1171014 ▲	1171026 ▲	1171032 ▲	1171043 ▲	1171054 ▲	1171065 ▲	1171076 ▲	1171087 ▲	1171098 ▲	1171109 ▲	1171120 ▲
Work stop	893832	893838	893843	893854	893859	893869	893880	893890	893899	893909	893919	893929	893939
Min-Ø mm	17,7	22,7	27,7	38,7	43,7	53,7	63,7	73,7	83,7	93,7	103,7	113,7	123,7
Segment sleeve	1171003 ▲	1171009 ▲	1171015 ▲	1171027 ▲	1171033 ▲	1171044 ▲	1171055 ▲	1171066 ▲	1171077 ▲	1171088 ▲	1171099 ▲	1171110 ▲	1171121 ▲
Work stop	893833	893839	893844	893855	893860	893870	893881	893891	893900	893910	893920	893930	893940
Min-Ø mm	18,7	23,7	28,7	39,7	44,7	54,7	64,7	74,7	84,7	94,7	104,7	114,7	124,7
Segment sleeve	1171004 ▲	1171010 ▲	1171016 ▲	1171028 ▲	1171034 ▲	1171045 ▲	1171056 ▲	1171067 ▲	1171078 ▲	1171089 ▲	1171100 ▲	1171111 ▲	1171122 ▲
Work stop	893834	893840	893845 ▲	893856	893861	893871	893882	893892	893901	893911	893921	893931	893941
Min-Ø mm	19,7	24,7	29,7	40,7	45,7	55,7	65,7	75,7	85,7	95,7	105,7	115,7	125,7
Segment sleeve	1171005 ▲	1171011 ▲	1171017 ▲	1171029 ▲	1171035 ▲	1171046 ▲	1171057 ▲	1171068 ▲	1171079 ▲	1171090 ▲	1171101 ▲	1171112 ▲	1171123 ▲
Work stop	893835	893841	893846	893856	893862	893872	893883	893893	893902	893912	893922	893932	893942
Min-Ø mm			30,7		46,7	56,7	66,7	76,7	86,7	96,7	106,7	116,7	126,7
Segment sleeve			1171018 ▲		1171036 ▲	1171047 ▲	1171058 ▲	1171069 ▲	1171080 ▲	1171091 ▲	1171102 ▲	1171113 ▲	1171124 ▲
Work stop			893847		893863	893873	893884	893894	893903	893913	893923	893933	893943
Min-Ø mm			31,7		47,7	57,7	67,7	77,7	87,7	97,7	107,7	117,7	127,7
Segment sleeve			1171019 ▲		1171037 ▲	1171048 ▲	1171059 ▲	1171070 ▲	1171081 ▲	1171092 ▲	1171103 ▲	1171114 ▲	1171125 ▲
Work stop			893848		893864	893874	893885	893895	893904	893914	893924	893934	893944
Min-Ø mm			32,7		48,7	58,7	68,7	78,7	88,7	98,7	108,7	118,7	128,7
Segment sleeve			1171020 ▲		1171038 ▲	1171049 ▲	1171060 ▲	1171071 ▲	1171082 ▲	1171093 ▲	1171104 ▲	1171115 ▲	1171126 ▲
Work stop			893849		893865	893875	893886	893947	893905	893915	893925	893935	893945
Min-Ø mm			33,7		49,7	59,7	69,7	79,7	89,7	99,7	109,7	119,7	129,7
Segment sleeve			1171021 ▲		1171039 ▲	1171050 ▲	1171061 ▲	1171072 ▲	1171083 ▲	1171094 ▲	1171105 ▲	1171116 ▲	1171127 ▲
Work stop			893850		893866	893876	893887	893896	893906	893916	893926	893936	893946
Min-Ø mm			34,7		50,7	60,7	70,7	80,7	90,7	100,7	110,7	120,7	130,7
Segment sleeve			1171022 ▲		1171040 ▲	1171051 ▲	1171062 ▲	1171073 ▲	1171084 ▲	1171095 ▲	1171106 ▲	1171117 ▲	1171128 ▲
Work stop			893851		893867	893877	893887	893896	893906	893916	893926	893936	893946
Min-Ø mm			35,7										
Segment sleeve			1171023 ▲										
Work stop			893852										

Accessories KFR-SE / MFR-SE



Segment clamping mandrel

## Intermediate flange KFR-SE / MFR-SE



### 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

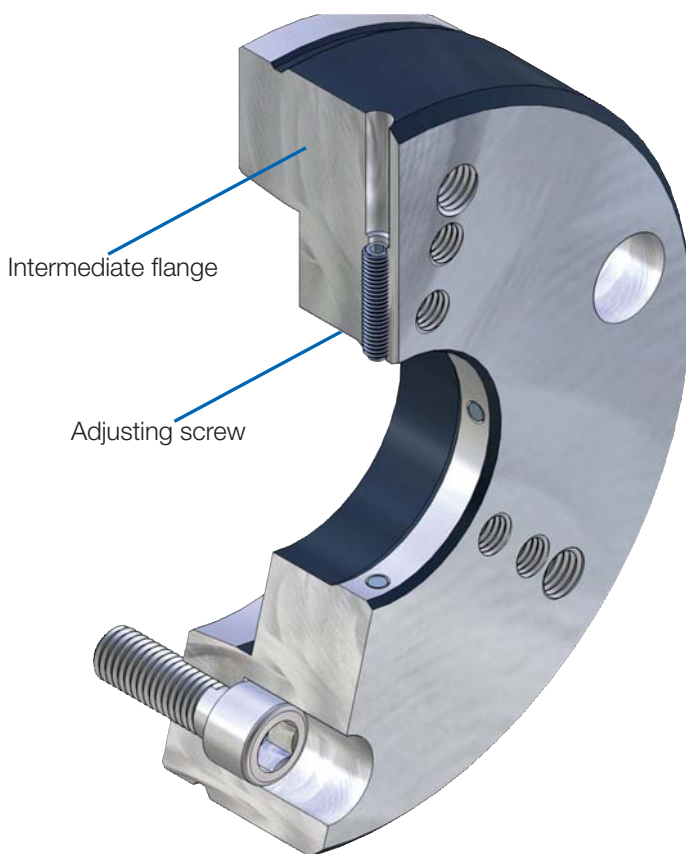
For KFR/MFR/KFR-SE/MFR-SE or KFS/MFS.

### 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).

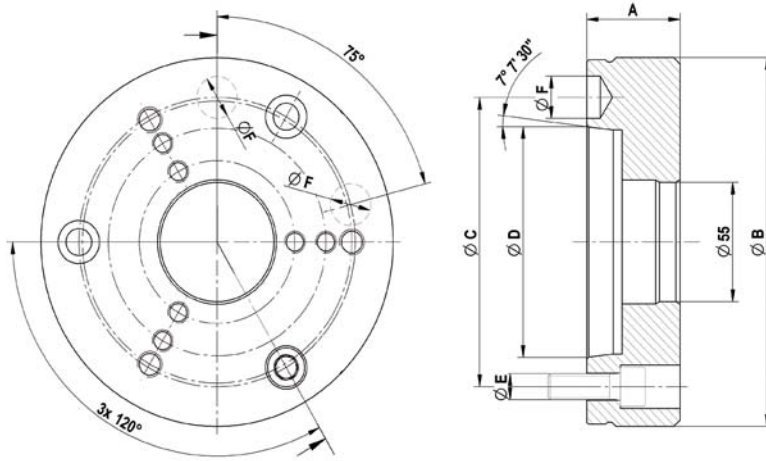


Intermediate flange  
KFR-SE / MFR-SE



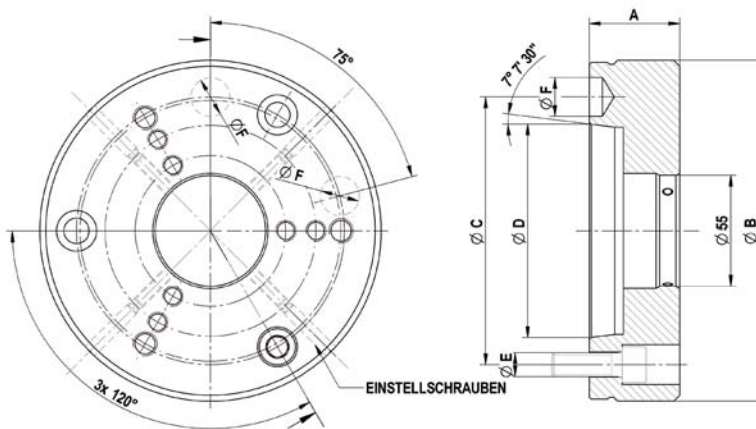
Segment clamping mandrel

# Accessories KFR-SE / MFR-SE



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

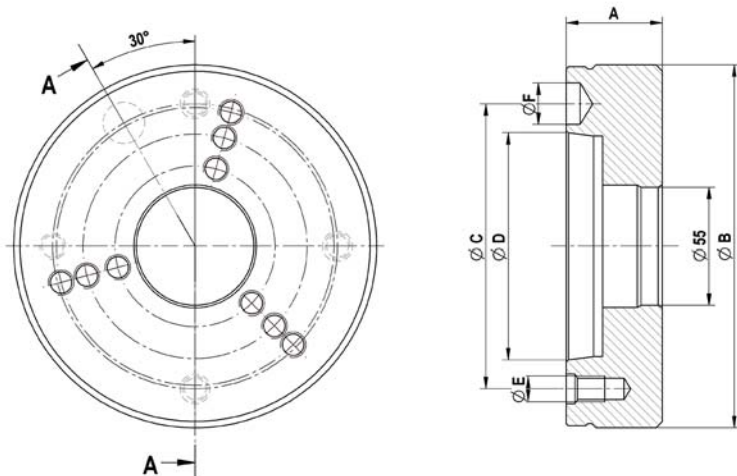
Accessories KFR-SE / MFR-SE





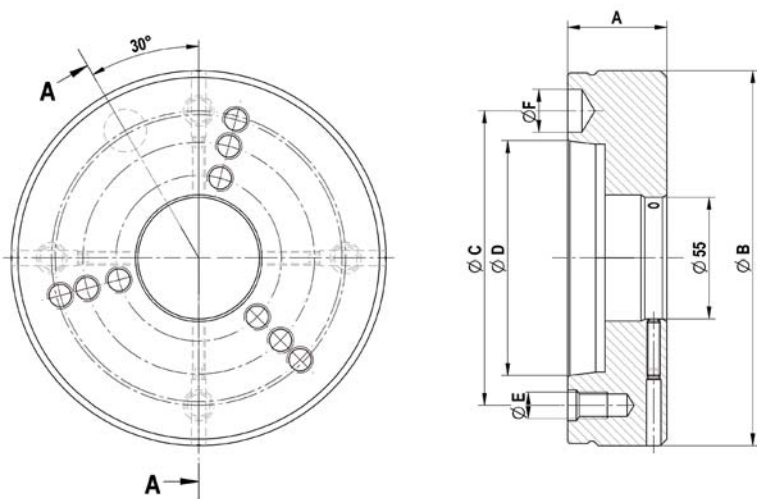
Segment clamping mandrel

## Accessories KFR-SE / MFR-SE



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



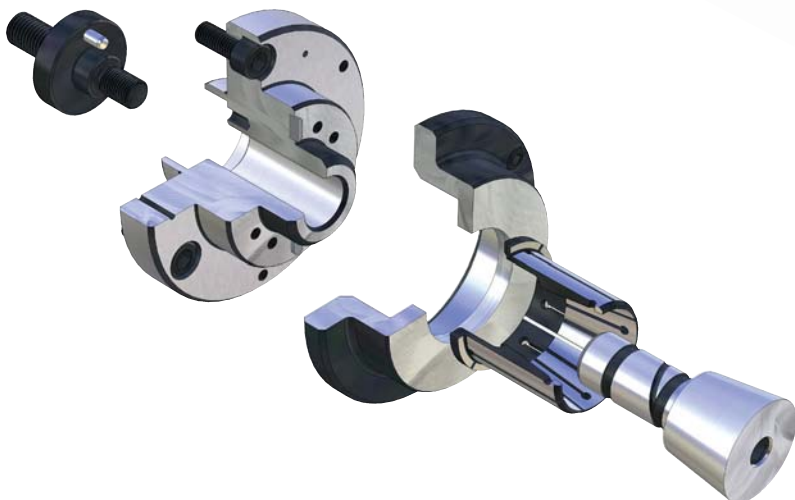
C 18  
Intermediate flange ISO 702-3 (DIN 55027/55022) with adjusting screws

	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

▲ on request



## 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.

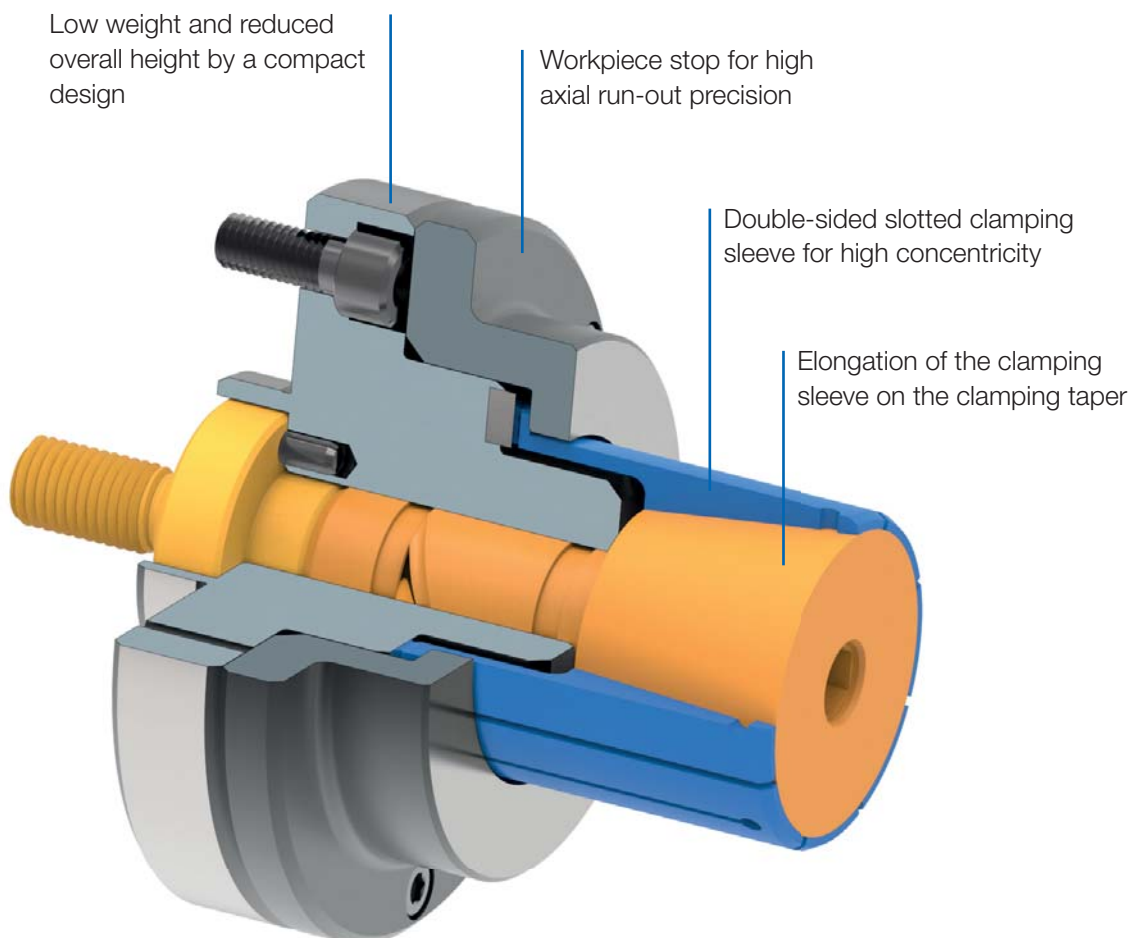


# CARTRIDGE MANDRELS

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

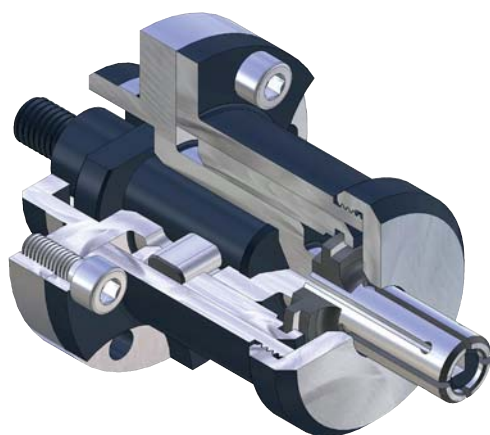


Cartridge mandrel



Cartridge Mandrel

# KFB - with axial tightening, force-actuated



## 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  $\varnothing$  5.5 mm or small workpieces.

## TYPE

Force-actuated. Clamping sleeves optionally vulcanized.

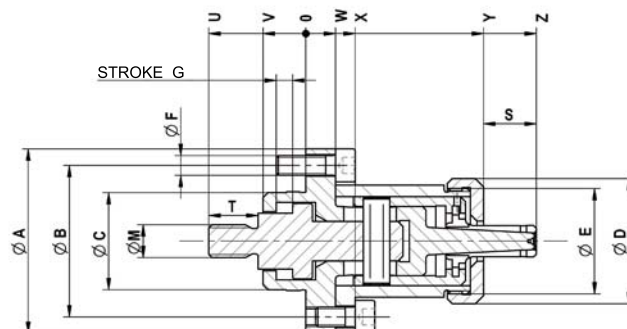
## CUSTOMER BENEFITS

- ⊕ 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

**KFB** = force-actuated, flange, B-type



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- $\varnothing$ unclamped from mm	5,5	7,5	9,5	12	14,5	19,5	24,7	29,7
Min- $\varnothing$ unclamped to mm	7	9	11,5	14,5	19	24,5	28,7	33,7
Clamping- $\varnothing$ max, mm	7,5	9,5	12	15	19,5	25	29,7	34,7
External- $\varnothing$ A mm	45	50	56	60	72	76	82	95
Pitch diameter B mm	36	39	46	50	60	64	70	80
$\varnothing$ C <sup>h6</sup> mm	25	25	30	30	40	40	40	60
$\varnothing$ D mm	24	31	38	40	52	54	60	66
$\varnothing$ E mm	M22x1,5	M27x1,5	M32x1,5	M36x1,5	M45x1,5	M48x1,5	M56x1,5	M60x1,5
$\varnothing$ F mm	M5	M6	M6	M6	M6	M6	M6	M8
Stroke G mm	5	5	5	5	5	5	6	6
$\varnothing$ M mm	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

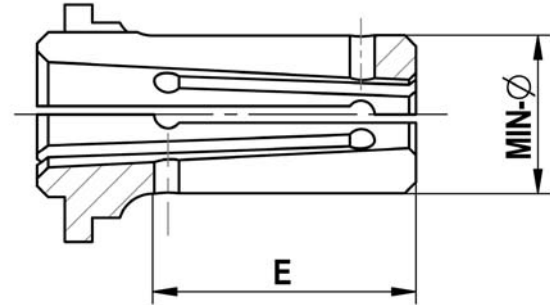
Cartridge Mandrel KFB





Cartridge Mandrel

# Accessories KFB



C 18

Clamping sleeve Type B - standard design (not vulcanized)

	KFB 00	KFB 01	KFB 02	KFB 03	KFB 04	KFB 05	KFB 06	KFB 07
For size								
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	<b>315139</b>	<b>315140</b>	<b>315141</b>	<b>315142</b>	<b>315143</b>	<b>315144</b>	<b>315145</b>	<b>315146</b>
Work stop	315126	315127	315128	315129	315130	315131	315132	315133 ▲
Min-Ø mm	6	8	10	12,5	15	20	25,7	30,7
Clamping sleeve	<b>315152</b>	<b>315153</b>	<b>315154</b>	<b>315155</b>	<b>315156</b>	<b>315157</b>	<b>315158</b>	<b>315159 ▲</b>
Work stop	315126	315127	315128	315129	315130	315131	315132	315133 ▲
Min-Ø mm	6,5	8,5	10,5	13	15,5	20,5	26,7	31,7
Clamping sleeve	<b>315165</b>	<b>315166</b>	<b>315167</b>	<b>315168</b>	<b>315169</b>	<b>315170</b>	<b>315171</b>	<b>315172 ▲</b>
Work stop	315126	315127	315128	315129	315130	315131	315132	315133 ▲
Min-Ø mm	7	9	11	13,5	16	21	27,7	32,7
Clamping sleeve	<b>315178</b>	<b>315179</b>	<b>315180</b>	<b>315181</b>	<b>315182</b>	<b>315183</b>	<b>315184</b>	<b>315185 ▲</b>
Work stop	315126	315127	315128	315129	315130	315131	315132	315133 ▲
Min-Ø mm			11,5	14	16,5	21,5	28,7	33,7
Clamping sleeve			<b>315191</b>	<b>315192</b>	<b>315193</b>	<b>315194</b>	<b>315195</b>	<b>315196 ▲</b>
Work stop			315128	315129	315130	315131	315132	315133 ▲
Min-Ø mm				14,5	17	22		
Clamping sleeve				<b>315202</b>	<b>315203</b>	<b>315204</b>		
Work stop				315129	315130	315131		
Min-Ø mm					17,5	22,5		
Clamping sleeve					<b>315209</b>	<b>315210</b>		
Work stop					315130	315131		
Min-Ø mm					18	23		
Clamping sleeve					<b>315215</b>	<b>315216</b>		
Work stop					315130	315131		
Min-Ø mm					18,5	23,5		
Clamping sleeve					<b>315221</b>	<b>315222</b>		
Work stop					315130	315131		
Min-Ø mm					19	24		
Clamping sleeve					<b>315227</b>	<b>315228</b>		
Work stop					315130	315131		
Min-Ø mm						24,5		
Clamping sleeve						<b>315233</b>		
Work stop						315131		

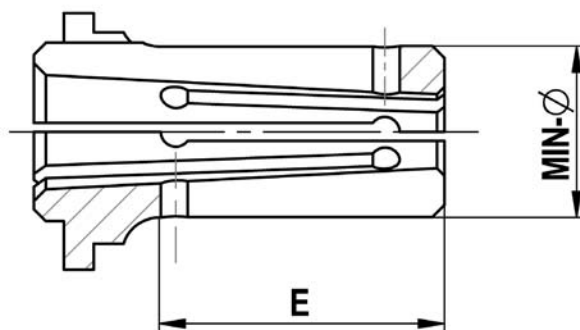
Accessories KFB





Cartridge Mandrel

# 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	<b>323739</b>	<b>323740</b>	<b>323741</b>	<b>323742</b>	<b>323743</b>	<b>323744 ▲</b>	<b>323745</b>	<b>323746 ▲</b>
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	<b>323752 ▲</b>	<b>323753 ▲</b>	<b>323754 ▲</b>	<b>323755 ▲</b>	<b>323756 ▲</b>	<b>323757</b>	<b>323758 ▲</b>	<b>323759</b>
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	<b>323765</b>	<b>323766</b>	<b>323767</b>	<b>323768 ▲</b>	<b>323769</b>	<b>323770</b>	<b>323771</b>	<b>323772</b>
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	<b>323778</b>	<b>323779 ▲</b>	<b>323780 ▲</b>	<b>323781</b>	<b>323782 ▲</b>	<b>323783 ▲</b>	<b>323784 ▲</b>	<b>323785 ▲</b>
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			<b>323791 ▲</b>	<b>323792</b>	<b>323793</b>	<b>323794 ▲</b>	<b>323795</b>	<b>323796 ▲</b>
Work stop			323489	323434	323439	323448	323493	323494
Min-Ø mm				14,5	17			
Clamping sleeve				<b>323802 ▲</b>	<b>323803</b>	<b>323804 ▲</b>		
Work stop				323490	323440	323449		
Min-Ø mm					17,5	22,5		
Clamping sleeve					<b>323809</b>	<b>323810</b>		
Work stop					323441	323450		
Min-Ø mm					18	23		
Clamping sleeve					<b>323815</b>	<b>323816</b>		
Work stop					323442	323456		
Min-Ø mm					18,5	23,5		
Clamping sleeve					<b>323821</b>	<b>323822</b>		
Work stop					323443	323457		
Min-Ø mm					19	24		
Clamping sleeve					<b>323827 ▲</b>	<b>323828 ▲</b>		
Work stop					323491	323458		
Min-Ø mm						24,5		
Clamping sleeve						<b>323833 ▲</b>		
Work stop						323492		

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

Accessories KFB



Cartridge Mandrel

# MZB - with axial tightening, manually actuated

## 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.

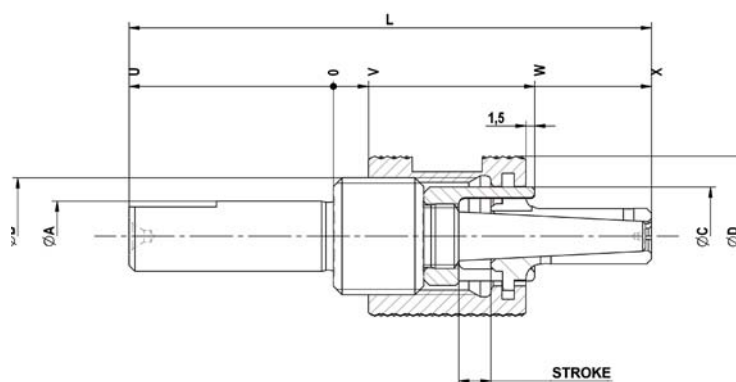
## CUSTOMER BENEFITS

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

## TECHNICAL FEATURES

- Hardened, low-wear design

**MZB** = manually actuated, centre hole, B-type



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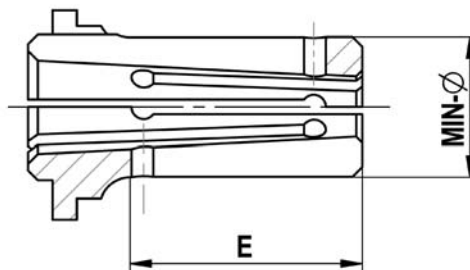
**MZB** cartridge mandrel, hand-operated with centre hole, for internal clamping

	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
<b>Cartridge Mandrel</b>	1130361	1130362	1130363	1130364	1130365	1130366	1130367	1130368 ▲	1130369 ▲	1130370 ▲	1130371 ▲	1130372 ▲	1130373
<b>Basic mandrel</b>	315100	315101	315102	315103	315104	315105	315106	315107 ▲	315108 ▲	315109 ▲	315110 ▲	315111 ▲	315112
<b>Nut</b>	315113	315114	315115	315116	315117	315118	315119	315120 ▲	315121 ▲	315122 ▲	315123 ▲	315124 ▲	315125
Min-Ø unclamped from 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
Min-Ø unclamped to mm	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, mm	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 mm	10	12	12	14	18	20	25	30	40	40	45	50	50
Ø B mm	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 mm	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



Cartridge Mandrel

# Accessories MZB



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Clamping sleeve Type B - standard design (not vulcanized)

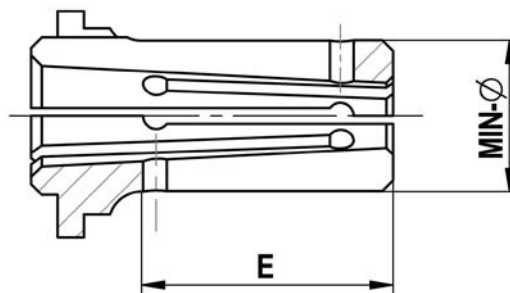
For size	MZB 00	MZB 01	MZB 02	MZB 03	MZB 04	MZB 05	MZB 06	MZB 07	MZB 08	MZB 09	MZB 10	MZB 11	MZB 12
Expansion in Ø mm	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length E mm	11,5	15	19	20,5	28,5	34	40	43,5	50	55,5	74	82,5	93,5
Min-Ø mm	5,5	7,5	9,5	12	14,5	19,5	24,7	29,7	34,7	39,7	44,7	54,7	64,7
Clamping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

Accessories MZB



Cartridge Mandrel

# Accessories MZB



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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	<b>323739</b>	<b>323740</b>	<b>323741</b>	<b>323742</b>	<b>323743</b>	<b>323744</b> ▲	<b>323745</b>	<b>323746</b> ▲	<b>323747</b> ▲	<b>323748</b> ▲	<b>323749</b> ▲	<b>323750</b> ▲	<b>323751</b> ▲
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	<b>323752</b> ▲	<b>323753</b> ▲	<b>323754</b> ▲	<b>323755</b> ▲	<b>323756</b> ▲	<b>323757</b>	<b>323758</b> ▲	<b>323759</b>	<b>323760</b> ▲	<b>323761</b> ▲	<b>323762</b> ▲	<b>323763</b> ▲	<b>323764</b> ▲
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	<b>323765</b>	<b>323766</b>	<b>323767</b>	<b>323768</b> ▲	<b>323769</b>	<b>323770</b>	<b>323771</b>	<b>323772</b>	<b>323773</b> ▲	<b>323774</b> ▲	<b>323775</b> ▲	<b>323776</b> ▲	<b>323777</b> ▲
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	<b>323778</b>	<b>323779</b> ▲	<b>323780</b> ▲	<b>323781</b>	<b>323782</b> ▲	<b>323783</b> ▲	<b>323784</b> ▲	<b>323785</b> ▲	<b>323786</b> ▲	<b>323787</b> ▲	<b>323788</b> ▲	<b>323789</b> ▲	<b>323790</b> ▲
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			<b>323791</b> ▲	<b>323792</b>	<b>323793</b>	<b>323794</b> ▲	<b>323795</b>	<b>323796</b> ▲	<b>323797</b> ▲	<b>323798</b> ▲	<b>323799</b> ▲	<b>323800</b> ▲	<b>323801</b> ▲
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				<b>323802</b> ▲	<b>323803</b>	<b>323804</b> ▲					<b>323805</b> ▲	<b>323806</b> ▲	<b>323807</b> ▲
Work stop				315129	315130	315131					315136 ▲	315137 ▲	315138
Min-Ø mm					17,5	22,5					50,7	60,7	70,7
Clamping sleeve					<b>323809</b>	<b>323810</b>					<b>323811</b> ▲	<b>323812</b> ▲	<b>323813</b> ▲
Work stop					315130	315131					315136 ▲	315137 ▲	315138
Min-Ø mm					18	23					51,7	61,7	71,7
Clamping sleeve					<b>323815</b>	<b>323816</b>					<b>323817</b> ▲	<b>323818</b> ▲	<b>323819</b> ▲
Work stop					315130	315131					315136 ▲	315137 ▲	315138
Min-Ø mm					18,5	23,5					52,7	62,7	72,7
Clamping sleeve					<b>323821</b>	<b>323822</b>					<b>323823</b> ▲	<b>323824</b> ▲	<b>323825</b> ▲
Work stop					315130	315131					315136 ▲	315137 ▲	315138
Min-Ø mm					19	24					53,7	63,7	73,7
Clamping sleeve					<b>323827</b> ▲	<b>323828</b> ▲					<b>323829</b> ▲	<b>323830</b> ▲	<b>323831</b> ▲
Work stop					315130	315131					315136 ▲	315137 ▲	315138
Min-Ø mm						24,5							74,7
Clamping sleeve						<b>323833</b> ▲							<b>323808</b> ▲
Work stop						315131							315138
Min-Ø mm													75,7
Clamping sleeve													<b>323814</b> ▲
Work stop													315138
Min-Ø mm													76,7
Clamping sleeve													<b>323820</b> ▲
Work stop													315138
Min-Ø mm													77,7
Clamping sleeve													<b>323826</b> ▲
Work stop													315138
Min-Ø mm													78,7
Clamping sleeve													<b>323832</b> ▲
Work stop													315138

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



Cartridge Mandrel

# MZE - for long clamping lengths, manually actuated



## APPLICATION

Internal clamping of round workpieces. Measuring operations and 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.

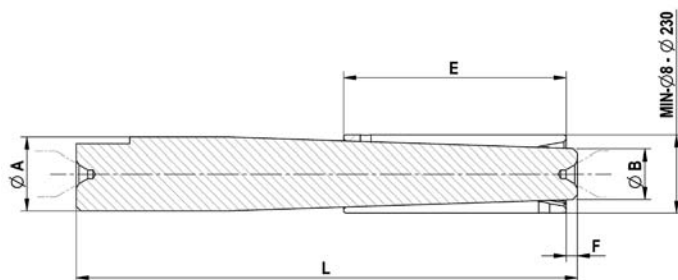
## CUSTOMER BENEFITS

- ⊕ 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

**MZE** = manually actuated, centre hole, E-type



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

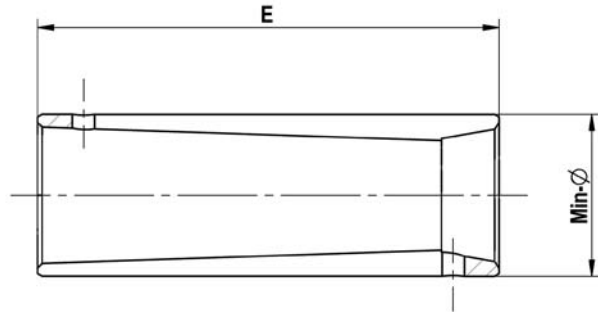
	MZE 00	MZE 01	MZE 02	MZE 03	MZE 04	MZE 05	MZE 06	MZE 07	MZE 08	MZE 09	MZE 10	MZE 11	MZE 12	MZE 13	MZE 14	MZE 15
Basic mandrel	315000	315001	315002	315003	315004	315005	315006	315007	315008	315009	315010	315011	315012	315013 ▲	315014 ▲	315015 ▲
Min-Ø unclamped from mm	8	10	12	14	16	19	22	25	35	45	55	68	80	105	135	185
Min-Ø unclamped to mm	9	11	13	15	18	21	24	34	44	54	65	80	100	135	180	230
Clamping-Ø max, mm	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 mm	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





Cartridge Mandrel

# Accessories MZE



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**Clamping sleeve Type E - for basic mandrel MZE**

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

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

Accessories MZE



Cartridge Mandrel

## 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

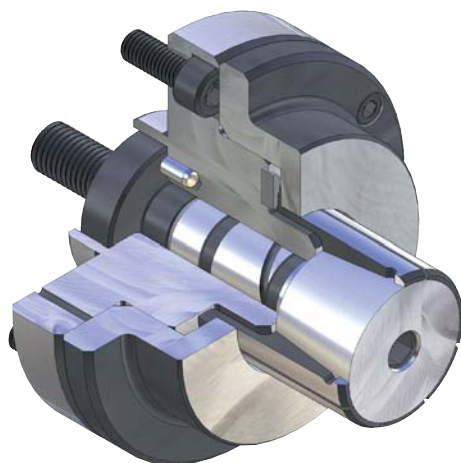
#### CONTENT

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.



Cartridge Mandrel

# KFR - force-actuated



## 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. Without axial tightening. Clamping sleeves optionally vulcanized. Convertible to MFR (required new intermediate piece).

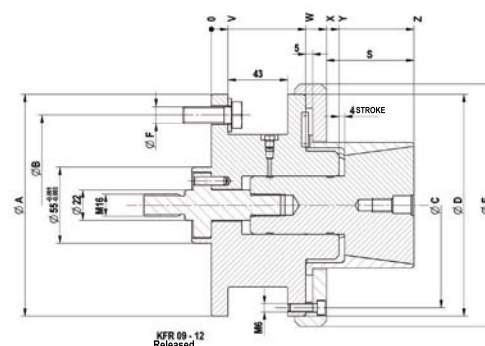
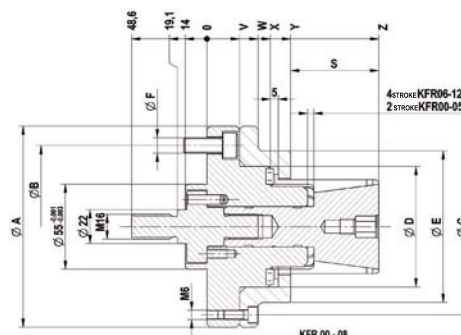
## CUSTOMER BENEFITS

- 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 prepared

KFR = force-actuated, flange, R-type



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 approx, kN							140	140	140	140	140	140	140
Min-Ø unclamped from 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
Min-Ø unclamped to mm	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, mm	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 mm	100	100	100	100	130	130	130	160	160	160	160	160	160
Pitch diameter B mm	75	75	75	75	105	105	105	130	130	130	130	130	130
Pitch diameter C mm	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



Cartridge Mandrel

# MFR - without axial tightening, manually actuated

## 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).

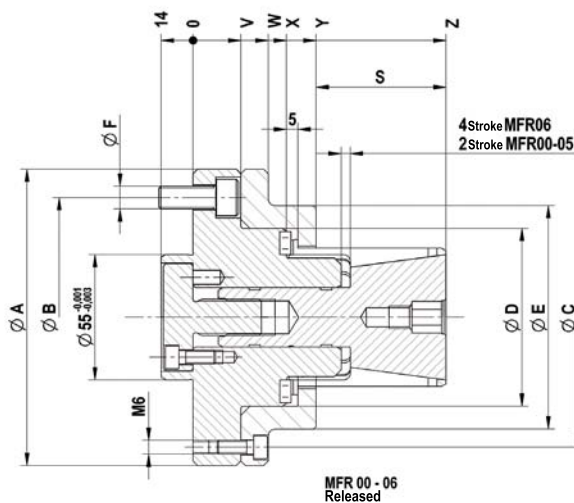
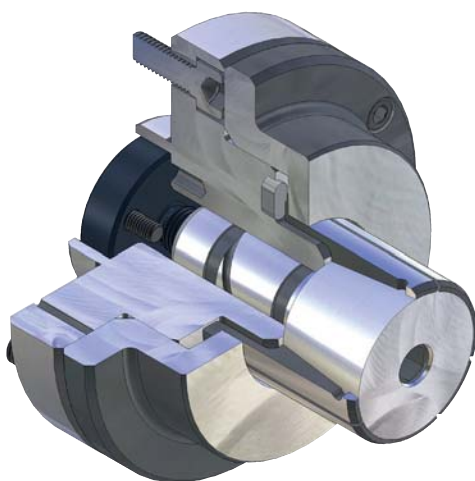
## CUSTOMER BENEFITS

- ⊕ 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 = manually actuated, flange, R-type



C18

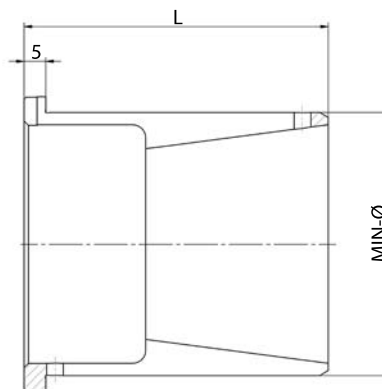
MFR cartridge mandrel, **hand-operated with flanged seat**, for internal clamping  
Consisting of basic body, clamping taper, intermediate piece

	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, Nm	4	5	40	55	60	75	85
Min-Ø unclamped from mm	14,2	19,7	25,2	35,2	40,2	50,2	60,7
Min-Ø unclamped to mm	19,7	25,2	35,2	40,2	50,2	60,7	70,7
Clamping-Ø max, mm	20,2	25,7	35,7	40,7	50,7	61,2	71,7
External-Ø A mm	100	100	100	100	130	130	130
Pitch diameter B mm	75	75	75	75	105	105	105
Pitch diameter C mm	85	85	85	85	114	114	114
Ø C mm							98
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



Cartridge Mandrel

# 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		100,7	110,7	120,7
Clamping sleeve	<b>1015500</b> ▲	<b>1015513</b> ▲	<b>1015526</b> ▲	<b>1015548</b> ▲	<b>1015560</b> ▲	<b>1015582</b> ▲	<b>1015605</b> ▲	<b>1015617</b> ▲	<b>1015629</b> ▲		<b>1015653</b> ▲	<b>1015665</b> ▲	<b>1015677</b> ▲
Work stop	893830	893836	893842	893852	893857	893867	893878	893888	893897		893917	893927	893937
Min-Ø mm	14,7	20,2	25,7	35,7	40,7	50,7	61,7	71,7	81,7	90,7	101,7	111,7	121,7
Clamping sleeve	<b>1015501</b> ▲	<b>1015514</b> ▲	<b>1015527</b> ▲	<b>1015549</b> ▲	<b>1015561</b> ▲	<b>1015583</b> ▲	<b>1015606</b> ▲	<b>1015618</b> ▲	<b>1015630</b> ▲	<b>1015641</b> ▲	<b>1015654</b> ▲	<b>1015666</b> ▲	<b>1015678</b> ▲
Work stop	893830	893836	893842	893852	893857	893867	893879	893889	893898	893907	893918	893928	893938
Min-Ø mm	15,2	20,7	26,2	36,2	41,2	51,2	62,7	72,7	82,7	91,7	102,7	112,7	122,7
Clamping sleeve	<b>1015502</b> ▲	<b>1015515</b> ▲	<b>1015528</b> ▲	<b>1015550</b> ▲	<b>1015562</b> ▲	<b>1015584</b> ▲	<b>1015607</b> ▲	<b>1015619</b> ▲	<b>1015631</b> ▲	<b>1015642</b> ▲	<b>1015655</b> ▲	<b>1015667</b> ▲	<b>1015679</b> ▲
Work stop	893830	893837	893842	893852	893857	893867	893880	893890	893899	893908	893919	893929	893939
Min-Ø mm	15,7	21,2	26,7	36,7	41,7	51,7	63,7	73,7	83,7	92,7	103,7	113,7	123,7
Clamping sleeve	<b>1015503</b> ▲	<b>1015516</b> ▲	<b>1015529</b> ▲	<b>1015551</b> ▲	<b>1015563</b> ▲	<b>1015585</b> ▲	<b>1015608</b> ▲	<b>1015620</b> ▲	<b>1015632</b> ▲	<b>1015643</b> ▲	<b>1015656</b> ▲	<b>1015668</b> ▲	<b>1015680</b> ▲
Work stop	893831	893837	893843	893853	893858	893868	893881	893891	893900	893909	893920	893930	893940
Min-Ø mm	16,2	21,7	27,2	37,2	42,2	52,2	64,7	74,7	84,7	93,7	104,7	114,7	124,7
Clamping sleeve	<b>1015504</b> ▲	<b>1015517</b> ▲	<b>1015530</b> ▲	<b>1015552</b> ▲	<b>1015564</b> ▲	<b>1015586</b> ▲	<b>1015609</b> ▲	<b>1015621</b> ▲	<b>1015633</b> ▲	<b>1015644</b> ▲	<b>1015657</b> ▲	<b>1015669</b> ▲	<b>1015681</b> ▲
Work stop	893831	893838	893843	893853	893858	893868	893882	893892	893901	893910	893921	893931	893941
Min-Ø mm	16,7	22,2	27,7	37,7	42,7	52,7	65,7	75,7	85,7	94,7	105,7	115,7	125,7
Clamping sleeve	<b>1015505</b> ▲	<b>1015518</b> ▲	<b>1015531</b> ▲	<b>1015553</b> ▲	<b>1015565</b> ▲	<b>1015587</b> ▲	<b>1015610</b> ▲	<b>1015622</b> ▲	<b>1015634</b> ▲	<b>1015645</b> ▲	<b>1015658</b> ▲	<b>1015670</b> ▲	<b>1015682</b> ▲
Work stop	893832	893838	893844	893854	893859	893869	893883	893893	893902	893911	893922	893932	893942
Min-Ø mm	17,2	22,7	28,2	38,2	43,2	53,2	66,7	76,7	86,7	95,7	106,7	116,7	126,7
Clamping sleeve	<b>1015506</b> ▲	<b>1015519</b> ▲	<b>1015532</b> ▲	<b>1015554</b> ▲	<b>1015566</b> ▲	<b>1015588</b> ▲	<b>1015611</b> ▲	<b>1015623</b> ▲	<b>1015635</b> ▲	<b>1015646</b> ▲	<b>1015659</b> ▲	<b>1015671</b> ▲	<b>1015683</b> ▲
Work stop	893832	893839	893844	893854	893859	893869	893884	893894	893903	893912	893923	893933	893943
Min-Ø mm	17,7	23,2	28,7	38,7	43,7	53,7	67,7	77,7	87,7	96,7	107,7	117,7	127,7
Clamping sleeve	<b>1015507</b> ▲	<b>1015520</b> ▲	<b>1015533</b> ▲	<b>1015555</b> ▲	<b>1015567</b> ▲	<b>1015589</b> ▲	<b>1015612</b> ▲	<b>1015624</b> ▲	<b>1015636</b> ▲	<b>1015647</b> ▲	<b>1015660</b> ▲	<b>1015672</b> ▲	<b>1015684</b> ▲
Work stop	893833	893839	893845 ▲	893855	893860	893870	893885	893895	893904	893913	893924	893934	893944
Min-Ø mm	18,2	23,7	29,2	39,2	44,2	54,2	68,7	78,7	88,7	97,7	108,7	118,7	128,7
Clamping sleeve	<b>1015508</b> ▲	<b>1015521</b> ▲	<b>1015534</b> ▲	<b>1015556</b> ▲	<b>1015568</b> ▲	<b>1015590</b> ▲	<b>1015613</b> ▲	<b>1015625</b> ▲	<b>1015637</b> ▲	<b>1015648</b> ▲	<b>1015661</b> ▲	<b>1015673</b> ▲	<b>1015685</b> ▲
Work stop	893833	893840	893845 ▲	893855	893860	893870	893886	893947	893905	893914	893925	893935	893945
Min-Ø mm	18,7	24,2	29,7	39,7	44,7	54,7	69,7	79,7	89,7	98,7	109,7	119,7	129,7
Clamping sleeve	<b>1015509</b> ▲	<b>1015522</b> ▲	<b>1015535</b> ▲	<b>1015557</b> ▲	<b>1015569</b> ▲	<b>1015591</b> ▲	<b>1015614</b> ▲	<b>1015626</b> ▲	<b>1015638</b> ▲	<b>1015649</b> ▲	<b>1015662</b> ▲	<b>1015674</b> ▲	<b>1015686</b> ▲
Work stop	893834	893840	893846	893856	893861	893871	893887	893896	893906	893915	893926	893936	893946
Min-Ø mm	19,2	24,7	30,2	40,2	45,2	55,2	70,7	80,7	90,7	99,7	110,7	120,7	130,7
Clamping sleeve	<b>1015510</b> ▲	<b>1015523</b> ▲	<b>1015536</b> ▲	<b>1015558</b> ▲	<b>1015570</b> ▲	<b>1015592</b> ▲	<b>1015615</b> ▲	<b>1015627</b> ▲	<b>1015639</b> ▲	<b>1015650</b> ▲	<b>1015663</b> ▲	<b>1015675</b> ▲	<b>1015687</b> ▲
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				100,7			
Clamping sleeve	<b>1015511</b> ▲	<b>1015524</b> ▲	<b>1015537</b> ▲		<b>1015571</b> ▲	<b>1015593</b> ▲				<b>1015651</b> ▲			
Work stop	893835	893841	893847		893862	893872				893916			
Min-Ø mm			31,2		46,2	56,2							
Clamping sleeve			<b>1015538</b> ▲		<b>1015572</b> ▲	<b>1015594</b> ▲							
Work stop			893847		893862	893872							
Min-Ø mm			31,7		46,7	56,7							
Clamping sleeve			<b>1015539</b> ▲		<b>1015573</b> ▲	<b>1015595</b> ▲							
Work stop			893848		893863	893873							

Different chucking Ø and profiled clamping sleeves on request

Accessories KFR / MFR





Cartridge Mandrel

## Accessories KFR / MFR

C 18

Clamping sleeve Type R - standard design, (not vulcanized)

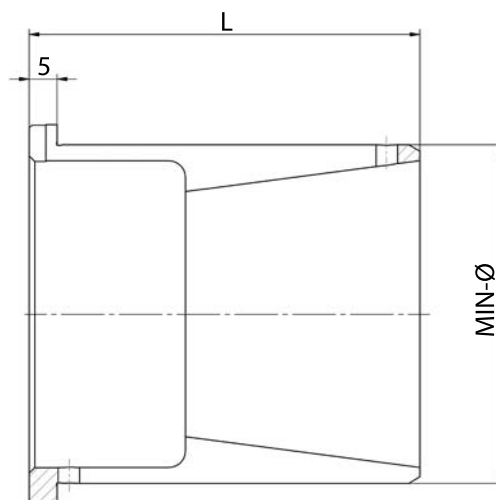
For size	00	01	02	03	04	05	06	07	08	09	10	11	12
Expansion in Ø mm	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length L	32	40	40	40	55	55	70	70	70	78	78	78	78
Min-Ø mm			32,2		47,2	57,2							
Clamping sleeve			<b>1015540</b> ▲		<b>1015574</b> ▲	<b>1015596</b> ▲							
Work stop			893848		893863	893873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

Different chucking Ø and profiled clamping sleeves on request



Cartridge Mandrel

# 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		100,7	110,7	120,7
Clamping sleeve	1015700	1015713	1015726	1015748	1015760	1015782	1015805 ▲	1015817 ▲	1015829 ▲		1015853 ▲	1015865 ▲	1015877 ▲
Work stop	893830	893836	893842	893852	893857	893867	893878	893888	893897		893917	893927	893937
Min-Ø mm	14,7	20,2	25,7	35,7	40,7	50,7	61,7	71,7	81,7	90,7	101,7	111,7	121,7
Clamping sleeve	1015701	1015714	1015727	1015749	1015761	1015783	1015806 ▲	1015818 ▲	1015830 ▲	1015841 ▲	1015854 ▲	1015866 ▲	1015878 ▲
Work stop	893830	893836	893842	893852	893857	893867	893879	893889	893898	893907	893918	893928	893938
Min-Ø mm	15,2	20,7	26,2	36,2	41,2	51,2	62,7	72,7	82,7	91,7	102,7	112,7	122,7
Clamping sleeve	1015702	1015715	1015728	1015750	1015762	1015784	1015807 ▲	1015819 ▲	1015831 ▲	1015842 ▲	1015855 ▲	1015867 ▲	1015879 ▲
Work stop	893830	893837	893842	893852	893857	893867	893880	893890	893899	893908	893919	893929	893939
Min-Ø mm	15,7	21,2	26,7	36,7	41,7	51,7	63,7	73,7	83,7	92,7	103,7	113,7	123,7
Clamping sleeve	1015703	1015716	1015729	1015751	1015763	1015785	1015808 ▲	1015820 ▲	1015832 ▲	1015843 ▲	1015856 ▲	1015868 ▲	1015880 ▲
Work stop	893831	893837	893843	893853	893858	893868	893881	893891	893900	893909	893920	893930	893940
Min-Ø mm	16,2	21,7	27,2	37,2	42,2	52,2	64,7	74,7	84,7	93,7	104,7	114,7	124,7
Clamping sleeve	1015704	1015717	1015730	1015752	1015764	1015786	1015809 ▲	1015821 ▲	1015833 ▲	1015844 ▲	1015857 ▲	1015869 ▲	1015881 ▲
Work stop	893831	893837	893843	893853	893858	893868	893882	893892	893901	893910	893921	893931	893941
Min-Ø mm	16,7	22,2	27,7	37,7	42,7	52,7	65,7	75,7	85,7	94,7	105,7	115,7	125,7
Clamping sleeve	1015705	1015718	1015731	1015753	1015765	1015787	1015810 ▲	1015822 ▲	1015834 ▲	1015845 ▲	1015858 ▲	1015870 ▲	1015882 ▲
Work stop	893832	893838	893844	893854	893859	893869	893883	893893	893902	893911	893922	893932	893942
Min-Ø mm	17,2	22,7	28,2	38,2	43,2	53,2	66,7	76,7	86,7	95,7	106,7	116,7	126,7
Clamping sleeve	1015706	1015719	1015732	1015754	1015766	1015788	1015811 ▲	1015823 ▲	1015835 ▲	1015846 ▲	1015859 ▲	1015871 ▲	1015883 ▲
Work stop	893832	893838	893844	893854	893859	893869	893884	893894	893903	893912	893923	893933	893943
Min-Ø mm	17,7	23,2	28,7	38,7	43,7	53,7	67,7	77,7	87,7	96,7	107,7	117,7	127,7
Clamping sleeve	1015707 ▲	1015720	1015733	1015755	1015767	1015789	1015812 ▲	1015824 ▲	1015836 ▲	1015847 ▲	1015860 ▲	1015872 ▲	1015884 ▲
Work stop	893833	893839	893845 ▲	893855	893860	893870	893885	893895	893904	893913	893924	893934	893944
Min-Ø mm	18,2	23,7	29,2	39,2	44,2	54,2	68,7	78,7	88,7	97,7	108,7	118,7	128,7
Clamping sleeve	1015708	1015721	1015734	1015756	1015768	1015790	1015813 ▲	1015825 ▲	1015837 ▲	1015848 ▲	1015861 ▲	1015873 ▲	1015885 ▲
Work stop	893833	893839	893845 ▲	893855	893860	893870	893886	893947	893905	893914	893925	893935	893945
Min-Ø mm	18,7	24,2	29,7	39,7	44,7	54,7	69,7	79,7	89,7	98,7	109,7	119,7	129,7
Clamping sleeve	1015709	1015722	1015735	1015757	1015769	1015791	1015814 ▲	1015826 ▲	1015838 ▲	1015849 ▲	1015862 ▲	1015874 ▲	1015886 ▲
Work stop	893834	893840	893846	893856	893861	893871	893887	893896	893906	893915	893926	893936	893946
Min-Ø mm	19,2	24,7	30,2	40,2	45,2	55,2	70,7	80,7	90,7	99,7	110,7	120,7	130,7
Clamping sleeve	1015710	1015723	1015736	1015758	1015770	1015792	1015815 ▲	1015827 ▲	1015839 ▲	1015850 ▲	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				100,7			
Clamping sleeve	1015711	1015724	1015737		1015771	1015793				1015851 ▲			
Work stop	893835	893841	893847		893862	893872				893916			
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							
Clamping sleeve			1015739		1015773	1015795							
Work stop			893848		893863	893873							

Different chucking Ø and profiled clamping sleeves on request

Accessories KFR / MFR



Cartridge Mandrel

## 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			32,2		47,2	57,2							
Clamping sleeve			<b>1015740</b>		<b>1015774</b>	<b>1015796</b>							
Work stop			893848		893863	893873							
Min-Ø mm			32,7		47,7	57,7							
Clamping sleeve			<b>1015741</b>		<b>1015775</b>	<b>1015797</b>							
Work stop			893849		893864	893874							
Min-Ø mm			33,2		48,2	58,2							
Clamping sleeve			<b>1015742</b>		<b>1015776</b>	<b>1015798</b>							
Work stop			893849		893864	893874							
Min-Ø mm			33,7		48,7	58,7							
Clamping sleeve			<b>1015743</b>		<b>1015777</b>	<b>1015799</b>							
Work stop			893850		893865	893875							
Min-Ø mm			34,2		49,2	59,2							
Clamping sleeve			<b>1015744</b>		<b>1015778</b>	<b>1015800</b>							
Work stop			893850		893865	893875							
Min-Ø mm			34,7		49,7	59,7							
Clamping sleeve			<b>1015745</b>		<b>1015779</b>	<b>1015801</b>							
Work stop			893851		893866	893876							
Min-Ø mm			35,2		50,2	60,2							
Clamping sleeve			<b>1015746</b>		<b>1015780</b>	<b>1015802</b>							
Work stop			893851		893866	893876							
Min-Ø mm						60,7							
Clamping sleeve						<b>1015803</b>							
Work stop						893877							

Different chucking Ø and profiled clamping sleeves on request



Cartridge Mandrel

## 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

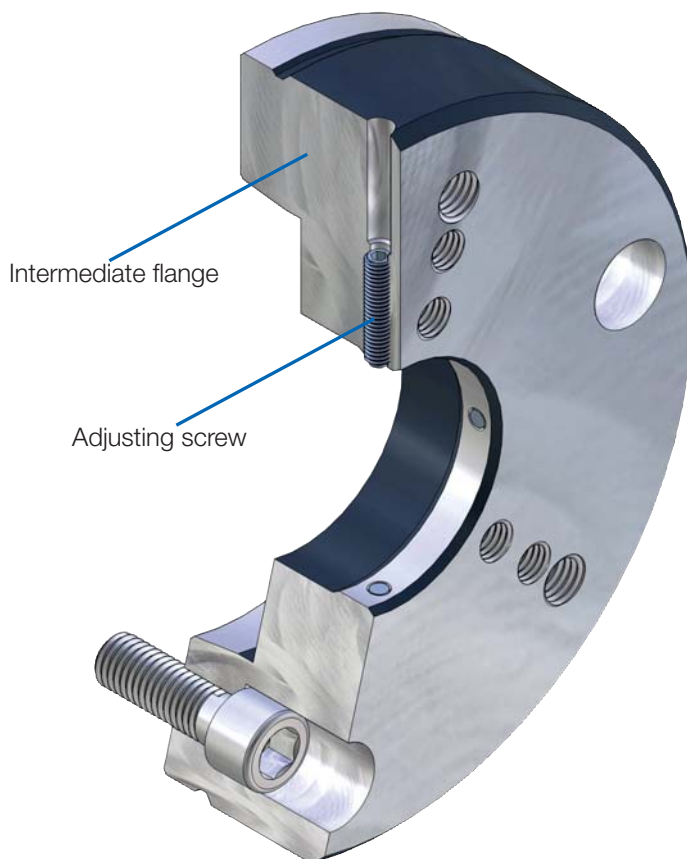
For KFR/MFR/KFR-SE/MFR-SE or KFS/MFS.

### 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).

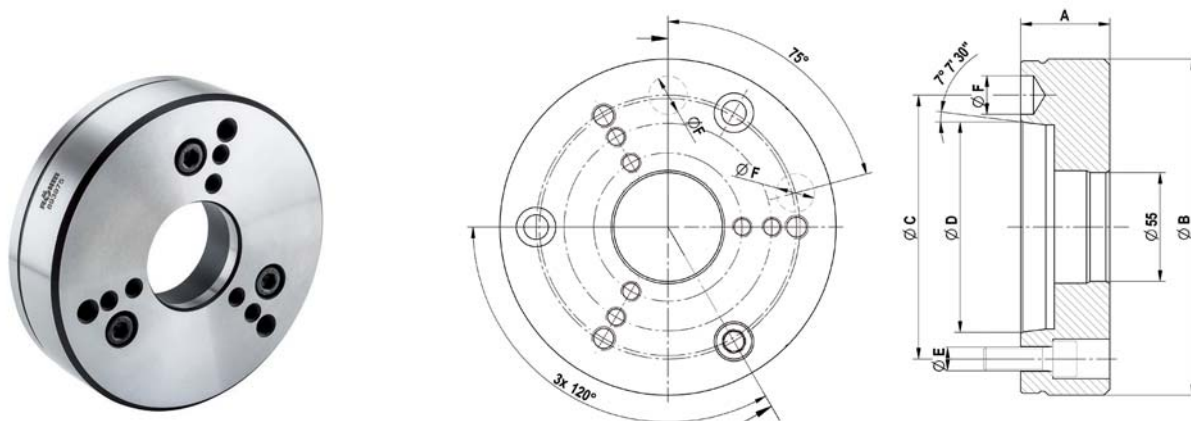


Intermediate flange  
KFR / MFR



Cartridge Mandrel

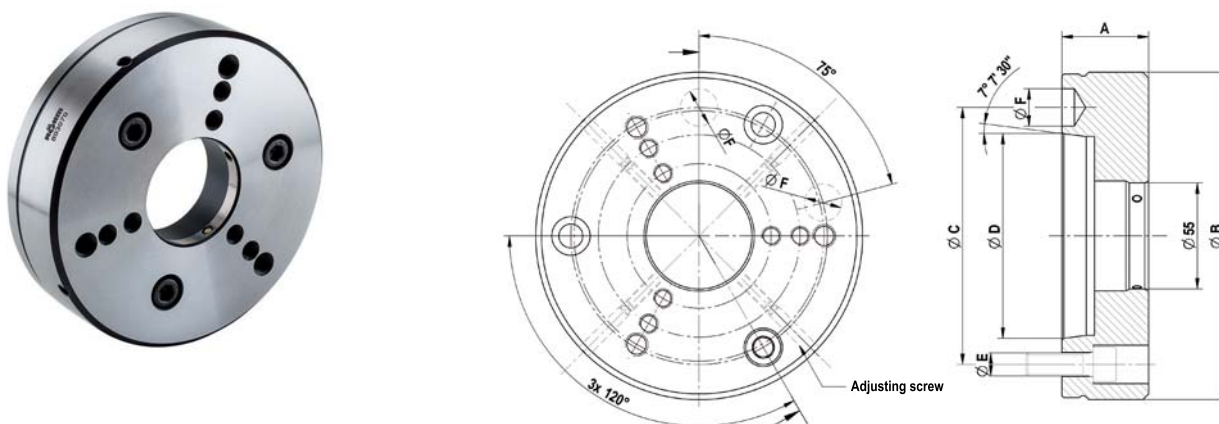
# Accessories KFR / MFR



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 mm	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A mm	45	45	50	50
Ø B mm	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 mm	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A mm	45	45	50
Ø B mm	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

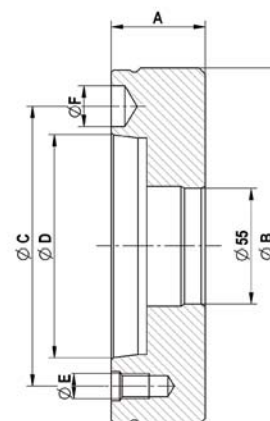
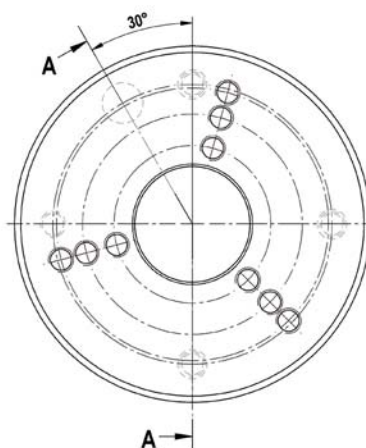
Accessories KFR / MFR





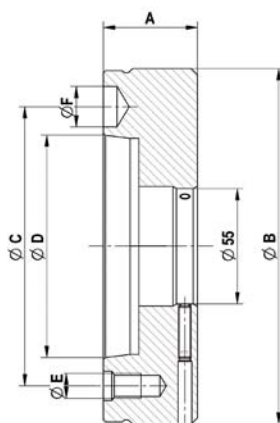
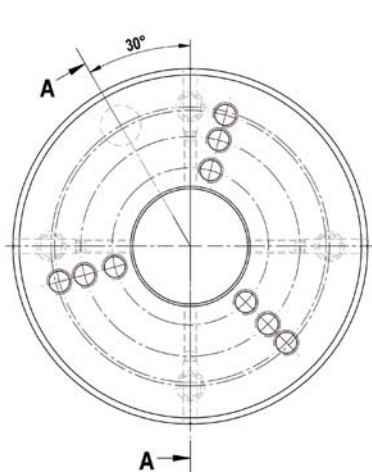
Cartridge Mandrel

# 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 mm	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A mm	45	45	50
Ø B mm	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 mm	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A mm	45	45	50
Ø B mm	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





Cartridge Mandrel

# KFS - with axial tightening, force-actuated

## 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).

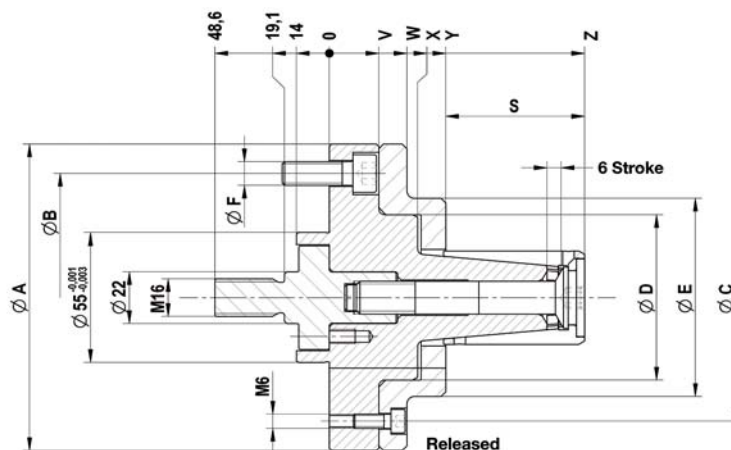
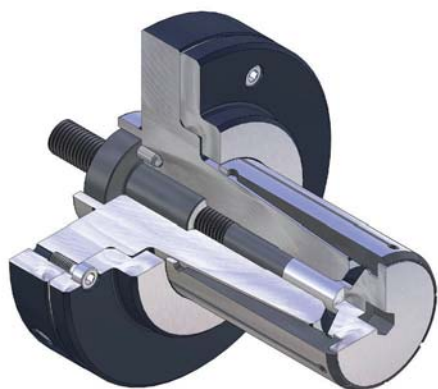
## CUSTOMER BENEFITS

- ☉ 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
- ☉ High flexibility thanks to modular system
- ☉ Fast change of clamping sleeves thanks to central clamping screw

## TECHNICAL FEATURES

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

KFS = force-actuated, flange, S-type



C18

KFS cartridge mandrel, power-operated with flanged seat, for internal clamping  
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 mm	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 mm	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, mm	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 mm	100	100	100	100	100	130	130	130	160	160	160	160
Pitch diameter B mm	75	75	75	75	75	105	105	105	130	130	130	130
Pitch diameter C mm	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

Cartridge Mandrel KFS



Cartridge Mandrel

# MFS - with axial tightening, manually actuated

## 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 (required new intermediate piece).

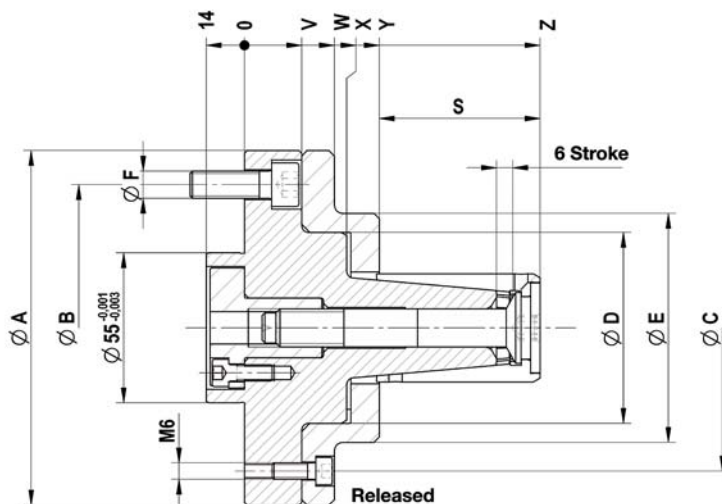
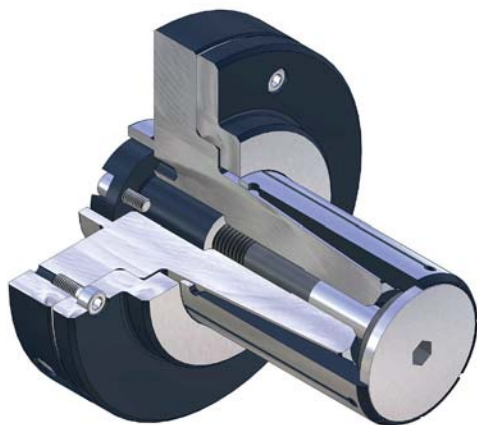
## CUSTOMER BENEFITS

- ⊕ 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
- ⊕ High flexibility thanks to modular system
- ⊕ Fast change of clamping sleeves thanks to central clamping screw

## TECHNICAL FEATURES

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

MFS = manually actuated, flange, S-type



C18  
MFS cartridge mandrel, **hand-operated with flanged seat**, for internal clamping  
Consisting of basic mandrel and intermediate piece

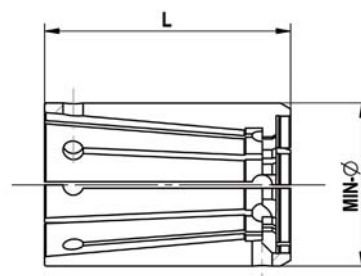
	MFS 00	MFS 01	MFS 02	MFS 03	MFS 04	MFS 05	MFS 06
Cartridge Mandrel	1082800	1082801	1082802	1082803	1082804	1082805	1082806
Basic mandrel	599820	599821	599822	599823	599824	599825	599826
Adapter hand-operated	599985	599986	599987	599988	599989	599990	599991
Md max, Nm	7	12	20	22	30	35	45
Min-Ø unclamped from mm	14,7	19,7	24,7	29,7	34,7	39,7	44,7
Min-Ø unclamped to mm	19,7	24,7	29,7	34,7	39,7	44,7	54,7
Clamping-Ø max, mm	20,7	25,7	30,7	35,7	40,7	45,7	55,7
External-Ø A mm	100	100	100	100	100	130	130
Pitch diameter B mm	75	75	75	75	75	105	105
Pitch diameter C mm	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





Cartridge Mandrel

# Accessories KFS / MFS



C18  
Clamping set KFS / MFS (not vulcanized), consisting of clamping sleeve and clamping screw

For size	00	01	02	03	04	05	06	07	08	09	10	11
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
Min-Ø mm	14,7	19,7	24,7	29,7	34,7	39,7	44,7	54,7	64,7		100,7	119,7
Clamping set	<b>1086311</b>	<b>1086322</b>	<b>1086333</b>	<b>1086344</b>	<b>1086355</b>	<b>1086366</b>	<b>1086377</b>	<b>1086388</b>	<b>1086399</b>		<b>1086437 ▲</b>	<b>1086457 ▲</b>
Clamping sleeve	315330	315331	315332	315333	315334	315335	315336	315337	315338		315340 ▲	315302 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477		315479	599998 ▲
Work stop	599840	599845	599850	599855	599860	599865	599870	599875	599880 ▲	599885 ▲	599890 ▲	599895 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲		724186 ▲	724187 ▲
Min-Ø mm	15,2	20,2	25,2	30,2	35,2	40,2	45,7	55,7	65,7	81,7	101,7	120,7
Clamping set	<b>1086312</b>	<b>1086323</b>	<b>1086334</b>	<b>1086345</b>	<b>1086356</b>	<b>1086367</b>	<b>1086378</b>	<b>1086389</b>	<b>1086400 ▲</b>	<b>1086417 ▲</b>	<b>1086438 ▲</b>	<b>1086458 ▲</b>
Clamping sleeve	650021	650034	650047	650060	650073	650086	650098	650110	650123 ▲	315339	650163 ▲	650184 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599841	599846	599851	599856	599861	599866	599870	599880 ▲	599890 ▲	599895 ▲	599926 ▲	599945 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	15,7	20,7	25,7	30,7	35,7	40,7	46,7	56,7	66,7	82,7	102,7	121,7
Clamping set	<b>1086313</b>	<b>1086324</b>	<b>1086335</b>	<b>1086346</b>	<b>1086357</b>	<b>1086368</b>	<b>1086379</b>	<b>1086390 ▲</b>	<b>1086401 ▲</b>	<b>1086418 ▲</b>	<b>1086439 ▲</b>	<b>1086459 ▲</b>
Clamping sleeve	315341	315342	315343	315344	315345	315346	315347	315348 ▲	315349 ▲	650142 ▲	315351 ▲	315303 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599841	599846	599851	599856	599861	599866	599871	599881 ▲	599891 ▲	599907 ▲	599927 ▲	599946 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	16,2	21,2	26,2	31,2	36,2	41,2	47,7	57,7	67,7	83,7	103,7	122,7
Clamping set	<b>1086314</b>	<b>1086325</b>	<b>1086336</b>	<b>1086347</b>	<b>1086358</b>	<b>1086369</b>	<b>1086380</b>	<b>1086391 ▲</b>	<b>1086402 ▲</b>	<b>1086419 ▲</b>	<b>1086440 ▲</b>	<b>1086460 ▲</b>
Clamping sleeve	650023	650036	650049	650062	650075	650088	650100	650112	650125 ▲	315350	650165 ▲	650186 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599842	599847	599852	599857	599862	599867	599872	599882 ▲	599892 ▲	599908 ▲	599928 ▲	599947 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	16,7	21,7	26,7	31,7	36,7	41,7	48,7	58,7	68,7	84,7	104,7	123,7
Clamping set	<b>1086315</b>	<b>1086326</b>	<b>1086337</b>	<b>1086348</b>	<b>1086359</b>	<b>1086370</b>	<b>1086381</b>	<b>1086392</b>	<b>1086403</b>	<b>1086420 ▲</b>	<b>1086441 ▲</b>	<b>1086461 ▲</b>
Clamping sleeve	315352	315353	315354	315355	315356	315357	315358	315359	315360 ▲	650144 ▲	315362 ▲	315304 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599842	599847	599852	599857	599862	599867	599873	599883 ▲	599893 ▲	599909 ▲	599929 ▲	599948 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	17,2	22,2	27,2	32,2	37,2	42,2	49,7	59,7	69,7	85,7	105,7	124,7
Clamping set	<b>1086316</b>	<b>1086327</b>	<b>1086338</b>	<b>1086349</b>	<b>1086360</b>	<b>1086371</b>	<b>1086382</b>	<b>1086393</b>	<b>1086404</b>	<b>1086421 ▲</b>	<b>1086442 ▲</b>	<b>1086462 ▲</b>
Clamping sleeve	650025	650038	650051	650064	650077	650090	650103	650116	650129 ▲	315371	650167 ▲	650188 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599843	599848	599853	599858	599863	599868	599874	599884 ▲	599894 ▲	599910 ▲	599930 ▲	599949 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	17,7	22,7	27,7	32,7	37,7	42,7	50,7	60,7	70,7	86,7	106,7	125,7
Clamping set	<b>1086317</b>	<b>1086328</b>	<b>1086339</b>	<b>1086350</b>	<b>1086361</b>	<b>1086372</b>	<b>1086383</b>	<b>1086394</b>	<b>1086405</b>	<b>1086422 ▲</b>	<b>1086443 ▲</b>	<b>1086463 ▲</b>
Clamping sleeve	315363	315364	315365	315366	315367	315368	315380	315381 ▲	315382	650146 ▲	315373 ▲	315403 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599843	599848	599853	599858	599863	599868	599875	599885 ▲	599895 ▲	599911 ▲	599931 ▲	599950 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	18,2	23,2	28,2	33,2	38,2	43,2	51,7	61,7	71,7	87,7	107,7	126,7
Clamping set	<b>1086318</b>	<b>1086329</b>	<b>1086340</b>	<b>1086351</b>	<b>1086362</b>	<b>1086373</b>	<b>1086384</b>	<b>1086395</b>	<b>1086406</b>	<b>1086423 ▲</b>	<b>1086444 ▲</b>	<b>1086464 ▲</b>
Clamping sleeve	650027	650040	650053	650066	650079	650092	650104	650116	650129 ▲	315372	650169 ▲	650190 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599844	599849	599854	599859	599864	599869	599876	599886 ▲	599896 ▲	599912 ▲	599932 ▲	599951 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	18,7	23,7	28,7	33,7	38,7	43,7	52,7	62,7	72,7	88,7	108,7	127,7
Clamping set	<b>1086319</b>	<b>1086330</b>	<b>1086341</b>	<b>1086352</b>	<b>1086363</b>	<b>1086374</b>	<b>1086385</b>	<b>1086396</b>	<b>1086407</b>	<b>1086424</b>	<b>1086445</b>	<b>1086465</b>
Clamping sleeve	315374	315375	315376	315377	315378	315379	315385	315386	315387 ▲	650148	315384 ▲	315404 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599844	599849	599854	599859	599864	599869	599877	599887 ▲	599897 ▲	599913 ▲	599933 ▲	599952 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	19,2	24,2	29,2	34,2	39,2	44,2	53,7	63,7	73,7	89,7	109,7	128,7
Clamping set	<b>1086320</b>	<b>1086331</b>	<b>1086342</b>	<b>1086353</b>	<b>1086364</b>	<b>1086375</b>	<b>1086386</b>	<b>1086397</b>	<b>1086408</b>	<b>1086425</b>	<b>1086446</b>	<b>1086466</b>
Clamping sleeve	650029	650042	650055	650068	650081	650094	650106	650118	650131	315383	650171	650192 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599844	599849	599854	599859	599864	599869	599878	599888 ▲	599898 ▲	599914 ▲	599934 ▲	599953 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲

Accessories KFS/MFS





Cartridge Mandrel

# Accessories KFS / MFS

C18

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

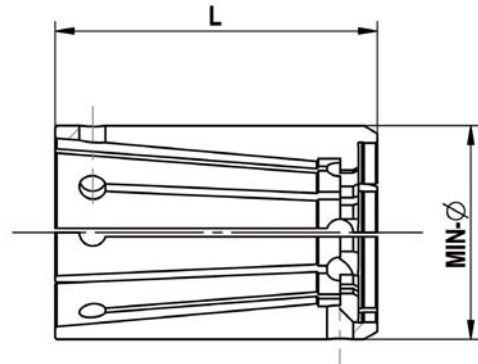
For size	00	01	02	03	04	05	06	07	08	09	10	11
Expansion in Ø mm	1	1	1	1	1	1	1	1	1	1	1	1
Length L mm	35	40	46	50	60	60	80	90	100	122	140	180
Min-Ø mm	19,7	24,7	29,7	34,7	39,7	44,7	54,7	64,7	74,7	90,7	110,7	129,7
Clamping set	<b>1086321</b>	<b>1086332</b>	<b>1086343</b>	<b>1086354</b>	<b>1086365</b>	<b>1086376</b>	<b>1086387</b>	<b>1086398 ▲</b>	<b>1086409</b>	<b>1086426</b>	<b>1086447 ▲</b>	<b>1086467 ▲</b>
Clamping sleeve	650030	650043	650056	650069	650082	650095	650107	650119 ▲	315390	650150	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 ▲	599915 ▲	599935 ▲	599954 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									75,7	91,7	111,7	130,7
Clamping set									<b>1086410 ▲</b>	<b>1086427 ▲</b>	<b>1086448 ▲</b>	<b>1086468 ▲</b>
Clamping sleeve									650133	315388 ▲	650173 ▲	650194 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599900 ▲	599916 ▲	599936 ▲	599955 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									76,7	92,7	112,7	131,7
Clamping set									<b>1086411 ▲</b>	<b>1086428 ▲</b>	<b>1086449 ▲</b>	<b>1086469 ▲</b>
Clamping sleeve									315393 ▲	650152 ▲	315392 ▲	315406 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599901 ▲	599917 ▲	599937 ▲	599956 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									77,7	93,7	113,7	132,7
Clamping set									<b>1086412 ▲</b>	<b>1086429 ▲</b>	<b>1086450 ▲</b>	<b>1086470 ▲</b>
Clamping sleeve									650135 ▲	315391 ▲	650175 ▲	650196 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599902 ▲	599918 ▲	599938 ▲	599957 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									78,7	94,7	114,7	133,7
Clamping set									<b>1086413 ▲</b>	<b>1086430 ▲</b>	<b>1086451 ▲</b>	<b>1086471 ▲</b>
Clamping sleeve									315396 ▲	650154 ▲	315395 ▲	315407 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599903 ▲	599919 ▲	599939 ▲	599958 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									79,7	95,7	115,7	134,7
Clamping set									<b>1086414</b>	<b>1086431 ▲</b>	<b>1086452 ▲</b>	<b>1086472 ▲</b>
Clamping sleeve									650137	315394 ▲	650177 ▲	650198 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599904 ▲	599920 ▲	599940 ▲	599959 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									80,7	96,7	116,7	135,7
Clamping set									<b>1086415 ▲</b>	<b>1086432 ▲</b>	<b>1086453 ▲</b>	<b>1086473 ▲</b>
Clamping sleeve									315399 ▲	650156 ▲	315398 ▲	315408 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599905 ▲	599921 ▲	599941 ▲	599960 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									81,7	97,7	117,7	136,7
Clamping set									<b>1086416 ▲</b>	<b>1086433 ▲</b>	<b>1086454 ▲</b>	<b>1086474 ▲</b>
Clamping sleeve									650139 ▲	315397 ▲	650179 ▲	650200 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599906 ▲	599922 ▲	599942 ▲	599961 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm										98,7	118,7	137,7
Clamping set										<b>1086434 ▲</b>	<b>1086455 ▲</b>	<b>1086475 ▲</b>
Clamping sleeve										650158 ▲	315401 ▲	315409 ▲
Locking bolt										315478	315479	599998 ▲
Work stop										599923 ▲	599943 ▲	599962 ▲
Montage mandrel clamping sets										724185 ▲	724186 ▲	724187 ▲
Min-Ø mm										99,7	119,7	138,7
Clamping set										<b>1086435 ▲</b>	<b>1086456 ▲</b>	<b>1086476 ▲</b>
Clamping sleeve										315400 ▲	650181 ▲	650202 ▲
Locking bolt										315478	315479	599998 ▲
Work stop										599924 ▲	599944 ▲	599963 ▲
Montage mandrel clamping sets										724185 ▲	724186 ▲	724187 ▲
Min-Ø mm										100,7		139,7
Clamping set										<b>1086436 ▲</b>		<b>1086477 ▲</b>
Clamping sleeve										650160 ▲		315410 ▲
Locking bolt										315478		599998 ▲
Work stop										599925 ▲		599964 ▲
Montage mandrel clamping sets										724185 ▲		724187 ▲

Accessories KFS/MFS



Cartridge Mandrel

# Accessories KFS / MFS



C18

Clamping set KFS / MFS vulcanized, consisting of clamping sleeve and clamping screw

For size	00	01	02	03	04	05	06	07	08	09	10	11
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
Min-Ø mm	14,7	19,7	24,7	29,7	34,7	39,7	44,7	54,7	64,7		100,7	119,7
Clamping set	<b>1086511</b>	<b>1086522</b>	<b>1086533</b>	<b>1086544</b>	<b>1086555</b>	<b>1086566</b>	<b>1086577</b>	<b>1086588</b>	<b>1086599</b> ▲		<b>1086637</b> ▲	<b>1086657</b> ▲
Clamping sleeve vulcanized	315730 ▲	315731 ▲	315732 ▲	315733	315734	315735	315736	315737	315738 ▲		315740 ▲	315702 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477		315479	599998 ▲
Work stop	599840	599845	599850	599855	599860	599865	599992	599993 ▲	599994 ▲		599996 ▲	599997 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲		724186 ▲	724187 ▲
Min-Ø mm	15,2	20,2	25,2	30,2	35,2	40,2	45,7	55,7	65,7	81,7	101,7	120,7
Clamping set	<b>1086512</b>	<b>1086523</b>	<b>1086534</b>	<b>1086545</b>	<b>1086556</b>	<b>1086567</b>	<b>1086578</b>	<b>1086589</b>	<b>1086600</b> ▲	<b>1086617</b> ▲	<b>1086638</b> ▲	<b>1086658</b> ▲
Clamping sleeve vulcanized	650211	650224	650237	650250	650263	650276	650288	651051	651063 ▲	315739 ▲	651103 ▲	651124 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599841	599846	599851	599856	599861	599866	599870	599880 ▲	599890 ▲	599995 ▲	599926 ▲	599945 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	15,7	20,7	25,7	30,7	35,7	40,7	46,7	56,7	66,7	82,7	102,7	121,7
Clamping set	<b>1086513</b>	<b>1086524</b>	<b>1086535</b>	<b>1086546</b>	<b>1086557</b>	<b>1086568</b>	<b>1086579</b>	<b>1086590</b> ▲	<b>1086601</b> ▲	<b>1086618</b> ▲	<b>1086639</b> ▲	<b>1086659</b> ▲
Clamping sleeve vulcanized	315741 ▲	315742 ▲	315743	315744	315745	315746	315747	315748 ▲	315749 ▲	651082 ▲	315751 ▲	315703 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599841	599846	599851	599856	599861	599866	599871	599881 ▲	599891 ▲	599907 ▲	599927 ▲	599946 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	16,2	21,2	26,2	31,2	36,2	41,2	47,7	57,7	67,7	83,7	103,7	122,7
Clamping set	<b>1086514</b>	<b>1086525</b>	<b>1086536</b>	<b>1086547</b>	<b>1086558</b>	<b>1086569</b>	<b>1086580</b>	<b>1086591</b> ▲	<b>1086602</b> ▲	<b>1086619</b> ▲	<b>1086640</b> ▲	<b>1086660</b> ▲
Clamping sleeve vulcanized	650213	650226	650239	650252	650265	650278	650290	651053 ▲	651065 ▲	315750 ▲	651105 ▲	651126 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599842	599847	599852	599857	599862	599867	599872	599882 ▲	599892 ▲	599908 ▲	599928 ▲	599947 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	16,7	21,7	26,7	31,7	36,7	41,7	48,7	58,7	68,7	84,7	104,7	123,7
Clamping set	<b>1086515</b>	<b>1086526</b>	<b>1086537</b>	<b>1086548</b>	<b>1086559</b>	<b>1086570</b>	<b>1086581</b>	<b>1086592</b> ▲	<b>1086603</b> ▲	<b>1086620</b> ▲	<b>1086641</b> ▲	<b>1086661</b> ▲
Clamping sleeve vulcanized	315752	315753	315754	315755	315756	315757	315758	315759 ▲	315760 ▲	651084 ▲	315762 ▲	315704 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599842	599847	599852	599857	599862	599867	599873	599883 ▲	599893 ▲	599909 ▲	599929 ▲	599948 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	17,2	22,2	27,2	32,2	37,2	42,2	49,7	59,7	69,7	85,7	105,7	124,7
Clamping set	<b>1086516</b>	<b>1086527</b>	<b>1086538</b>	<b>1086549</b>	<b>1086560</b>	<b>1086571</b>	<b>1086582</b>	<b>1086593</b> ▲	<b>1086604</b> ▲	<b>1086621</b> ▲	<b>1086642</b> ▲	<b>1086662</b> ▲
Clamping sleeve vulcanized	650215	650228	650241	650254	650267	650280	315769	315770	315771 ▲	315772 ▲	651107 ▲	651128 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599843	599848	599853	599858	599863	599868	599874	599884 ▲	599894 ▲	599910 ▲	599930 ▲	599949 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	17,7	22,7	27,7	32,7	37,7	42,7	50,7	60,7	70,7	86,7	106,7	125,7
Clamping set	<b>1086517</b>	<b>1086528</b>	<b>1086539</b>	<b>1086550</b>	<b>1086561</b>	<b>1086572</b>	<b>1086583</b>	<b>1086594</b> ▲	<b>1086605</b> ▲	<b>1086622</b> ▲	<b>1086643</b> ▲	<b>1086663</b> ▲
Clamping sleeve vulcanized	315763	315764	315765	315766	315767	315768	315780	315781 ▲	315782 ▲	651086 ▲	315773 ▲	315705 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599844	599849	599854	599859	599864	599869	599875	599885 ▲	599895 ▲	599911 ▲	599931 ▲	599950 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	18,2	23,2	28,2	33,2	38,2	43,2	51,7	61,7	71,7	87,7	107,7	126,7
Clamping set	<b>1086518</b>	<b>1086529</b>	<b>1086540</b>	<b>1086551</b>	<b>1086562</b>	<b>1086573</b>	<b>1086584</b>	<b>1086595</b>	<b>1086606</b> ▲	<b>1086623</b> ▲	<b>1086644</b> ▲	<b>1086664</b> ▲
Clamping sleeve vulcanized	650217	650230 ▲	650243	650256 ▲	650269	650282	650294	651057	651069 ▲	315772 ▲	651109 ▲	651130 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599844	599849	599854	599859	599864	599869	599876	599886 ▲	599896 ▲	599912 ▲	599932 ▲	599951 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	18,7	23,7	28,7	33,7	38,7	43,7	52,7	62,7	72,7	88,7	108,7	127,7
Clamping set	<b>1086519</b>	<b>1086530</b>	<b>1086541</b>	<b>1086552</b>	<b>1086563</b>	<b>1086574</b>	<b>1086585</b>	<b>1086596</b>	<b>1086607</b> ▲	<b>1086624</b> ▲	<b>1086645</b> ▲	<b>1086665</b> ▲
Clamping sleeve vulcanized	315774	315775	315776	315777	315778	315779	315785	315786	315787 ▲	651088 ▲	315784 ▲	315706 ▲
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998 ▲
Work stop	599844	599849	599854	599859	599864	599869	599877	599887 ▲	599897 ▲	599913 ▲	599933 ▲	599952 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm	19,2	24,2	29,2	34,2	39,2	44,2	53,7	63,7	73,7	89,7	109,7	128,7
Clamping set	<b>1086520</b>	<b>1086531</b>	<b>1086542</b>	<b>1086553</b>	<b>1086564</b>	<b>1086575</b>	<b>1086586</b>	<b>1086597</b> ▲	<b>1086608</b> ▲	<b>1086625</b> ▲	<b>1086646</b> ▲	<b>1086666</b> ▲
Clamping sleeve vulcanized	650219 ▲	650232	650245	650258	650271 ▲	650284 ▲	650296	651059 ▲	651071 ▲	315783 ▲	651111 ▲	651132 ▲

Accessories KFS/MFS



Cartridge Mandrel

# Accessories KFS / MFS

C18

Clamping set KFS / MFS vulcanized, consisting of clamping sleeve and clamping screw

For size	00	01	02	03	04	05	06	07	08	09	10	11
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 ▲	599914 ▲	599934 ▲	599953 ▲
Montage mandrel clamping sets	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	90,7	110,7	129,7
Clamping set	<b>1086521</b>	<b>1086532</b>	<b>1086543</b>	<b>1086554</b>	<b>1086565</b>	<b>1086576</b>	<b>1086587</b>	<b>1086598 ▲</b>	<b>1086609 ▲</b>	<b>1086626 ▲</b>	<b>1086647 ▲</b>	<b>1086667 ▲</b>
Clamping sleeve vulcanized	650220	650233	650246 ▲	650259 ▲	650272	650285	650297	651060 ▲	315790 ▲	651090 ▲	315789 ▲	315707 ▲
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 ▲	599915 ▲	599935 ▲	599954 ▲
Montage mandrel clamping sets	724176 ▲	724177 ▲	724178 ▲	724179 ▲	724180 ▲	724181 ▲	724182 ▲	724183 ▲	724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									75,7	91,7	111,7	130,7
Clamping set									<b>1086610</b>	<b>1086627 ▲</b>	<b>1086648 ▲</b>	<b>1086668 ▲</b>
Clamping sleeve vulcanized									651073	315788 ▲	651113 ▲	651134 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599900 ▲	599916 ▲	599936 ▲	599955 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									76,7	92,7	112,7	131,7
Clamping set									<b>1086611 ▲</b>	<b>1086628 ▲</b>	<b>1086649 ▲</b>	<b>1086669 ▲</b>
Clamping sleeve vulcanized									651074 ▲	651092 ▲	651114 ▲	651135 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599901 ▲	599917 ▲	599937 ▲	599956 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									77,7	93,7	113,7	132,7
Clamping set									<b>1086612 ▲</b>	<b>1086629 ▲</b>	<b>1086650 ▲</b>	<b>1086670 ▲</b>
Clamping sleeve vulcanized									651075 ▲	651093 ▲	651115 ▲	651136 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599902 ▲	599918 ▲	599938 ▲	599957 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									78,7	94,7	114,7	133,7
Clamping set									<b>1086613 ▲</b>	<b>1086630 ▲</b>	<b>1086651 ▲</b>	<b>1086671 ▲</b>
Clamping sleeve vulcanized									315796 ▲	651094 ▲	651795 ▲	315709 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599903 ▲	599919 ▲	599939 ▲	599958 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									79,7	95,7	115,7	134,7
Clamping set									<b>1086614 ▲</b>	<b>1086631 ▲</b>	<b>1086652 ▲</b>	<b>1086672 ▲</b>
Clamping sleeve vulcanized									651077 ▲	315794 ▲	651117 ▲	651138 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599904 ▲	599920 ▲	599940 ▲	599959 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									80,7	96,7	116,7	135,7
Clamping set									<b>1086615 ▲</b>	<b>1086632 ▲</b>	<b>1086653 ▲</b>	<b>1086673 ▲</b>
Clamping sleeve vulcanized									315799 ▲	651096 ▲	315798 ▲	315710 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599905 ▲	599921 ▲	599941 ▲	599960 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm									81,7	97,7	117,7	136,7
Clamping set									<b>1086616 ▲</b>	<b>1086633 ▲</b>	<b>1086654 ▲</b>	<b>1086674 ▲</b>
Clamping sleeve vulcanized									651079 ▲	315797 ▲	651119 ▲	651140 ▲
Locking bolt									315477	315478	315479	599998 ▲
Work stop									599906 ▲	599922 ▲	599942 ▲	599961 ▲
Montage mandrel clamping sets									724184 ▲	724185 ▲	724186 ▲	724187 ▲
Min-Ø mm										98,7	118,7	137,7
Clamping set										<b>1086634 ▲</b>	<b>1086655 ▲</b>	<b>1086675 ▲</b>
Clamping sleeve vulcanized										651098 ▲	315801 ▲	315711 ▲
Locking bolt										315478	315479	599998 ▲
Work stop										599923 ▲	599943 ▲	599962 ▲
Montage mandrel clamping sets										724185 ▲	724186 ▲	724187 ▲
Min-Ø mm										99,7	119,7	138,7
Clamping set										<b>1086635 ▲</b>	<b>1086656 ▲</b>	<b>1086676 ▲</b>
Clamping sleeve vulcanized										315800 ▲	651121 ▲	651142 ▲
Locking bolt										315478	315479	599998 ▲
Work stop										599924 ▲	599944 ▲	599963 ▲
Montage mandrel clamping sets										724185 ▲	724186 ▲	724187 ▲
Min-Ø mm										100,7		139,7
Clamping set										<b>1086636 ▲</b>		<b>1086677 ▲</b>
Clamping sleeve vulcanized										651100 ▲		315712 ▲
Locking bolt										315478		599998 ▲
Work stop										599925 ▲		599964 ▲
Montage mandrel clamping sets										724185 ▲		724187 ▲

Accessories KFS/MFS



Cartridge Mandrel

## Intermediate flange KFS / MFS



### 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

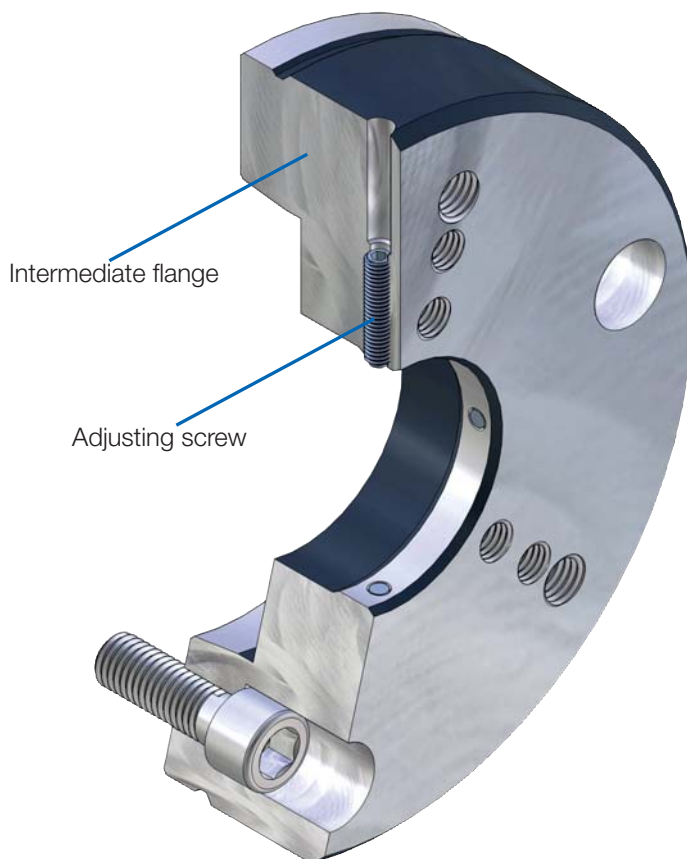
For KFR/MFR/KFR-SE/MFR-SE or KFS/MFS.

### CUSTOMER BENEFITS

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

### TECHNICAL FEATURES

Adaptation of 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).

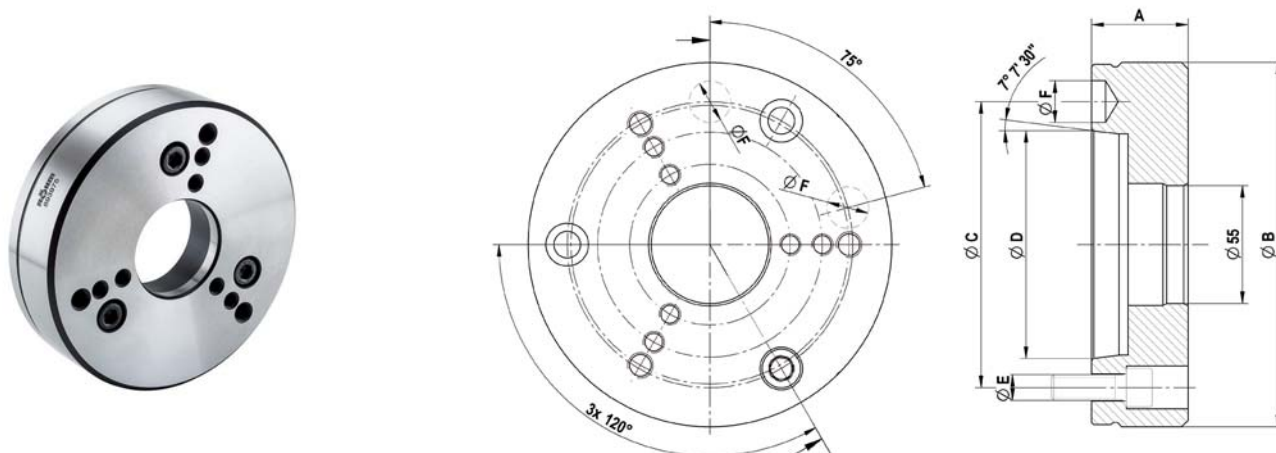


Intermediate flange  
KFS / MFS



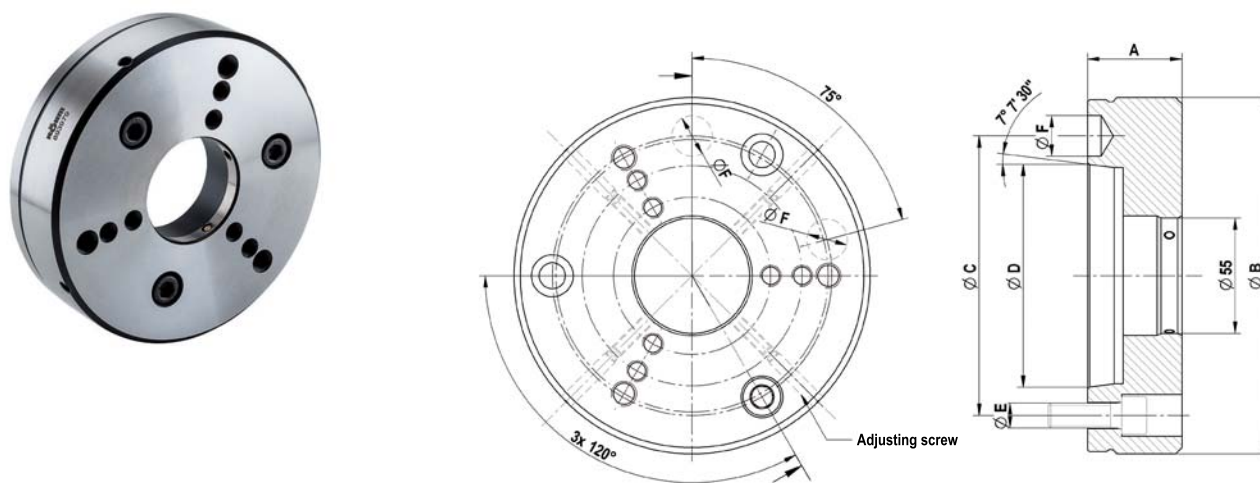
Cartridge Mandrel

# 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 mm	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A mm	45	45	50	50
Ø B mm	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 mm	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A mm	45	45	50
Ø B mm	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

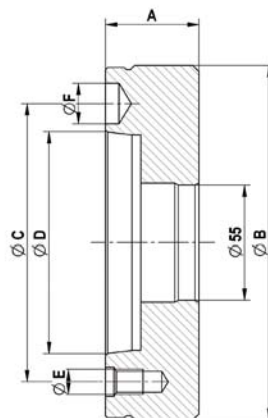
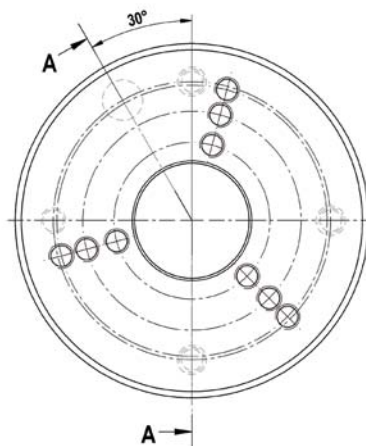
▲ on request





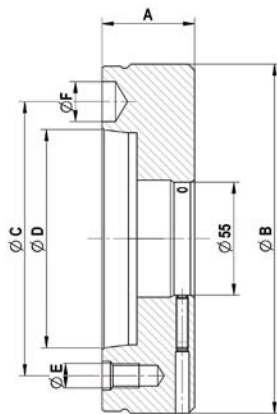
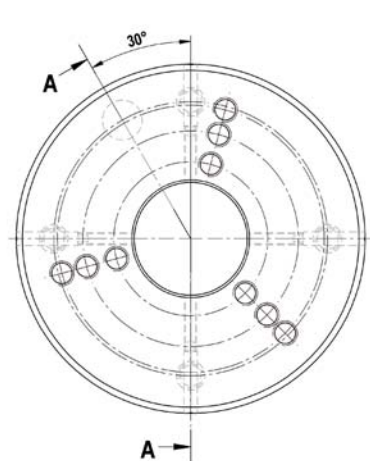
Cartridge Mandrel

# 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 mm	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A mm	45	45	50
Ø B mm	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

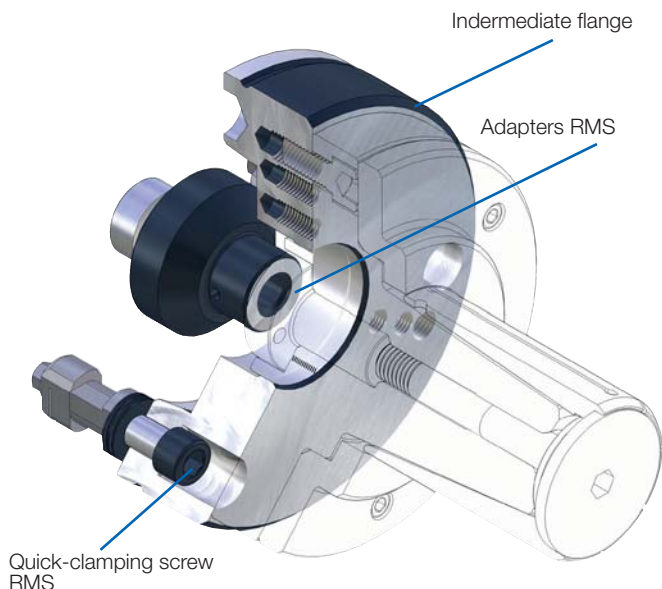
	Nr. 5 (C 05)	Nr. 6 (C 06)	Nr. 8 (C 08)
Intermediate flange	893985 ▲	893986 ▲	893987
Design	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55 mm	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A mm	45	45	50
Ø B mm	165	170	220
Ø C mm	104,8	133,4	171,4
Ø D mm	82,563	106,375	139,719
Ø E	M 10	M 12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

Accessories KFS/MFS



Cartridge Mandrel

# Accessories KFS / MFS



### APPLICATION

For manual clamping device exchange in a minimum of time.

### TYPE

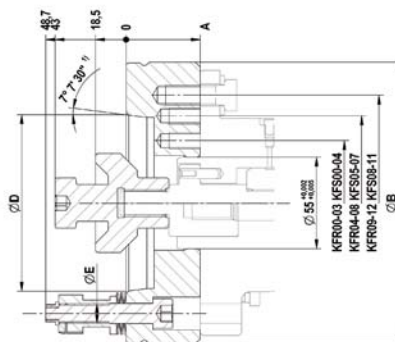
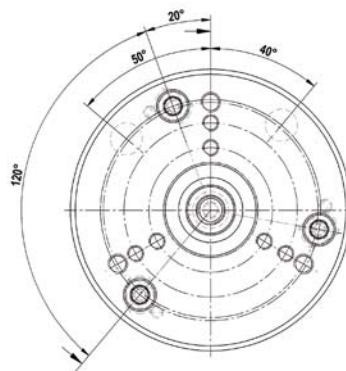
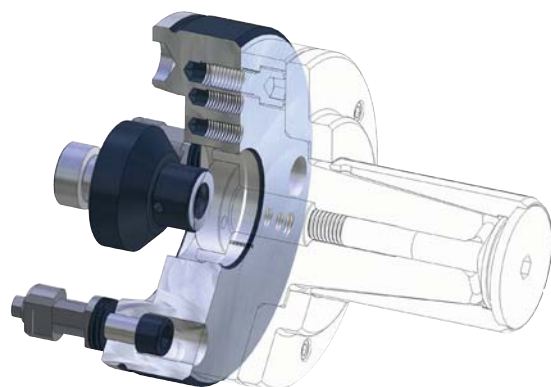
Manual quick-change system for clamping devices.  
Fits for KFR/MFR or KFS/MFS.  
Central lubrication and/or air sensing control possible.

### 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 RÖHM safety clamping cylinder OVS and LVS



RMS-SCHNELLWECHSELSYSTEM  
KFS KFR KFR-SE

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 mm	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)