



# MANDRELS COLLET CHUCKS

2015/2016

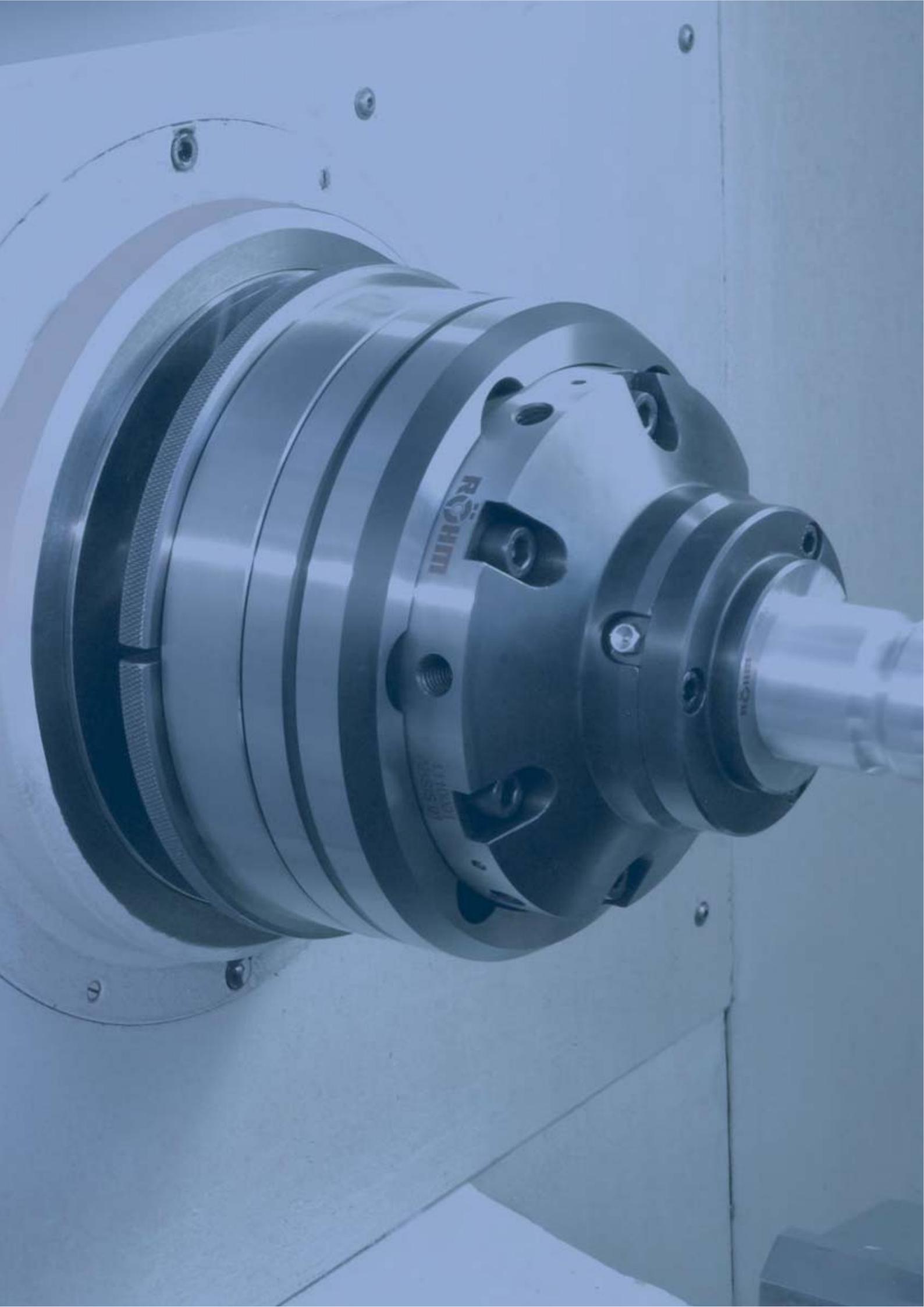
**RÖHM**  
driven by technology

# We work for customers who have a weakness for our strengths.

Companies intent on making a difference are obliged to develop constantly as well as deploy their strengths to the benefit of customers. At RÖHM, we have set ourselves high targets and are doing our very best to achieve them. This is why we support our customers all over the world by means of the six performance indicators so typical of RÖHM:

A faint, stylized graphic of a globe or network structure is visible in the background, composed of light blue lines forming a grid and curved shapes.

- Dynamism
- Variety
- Security
- Partnership
- Globality
- Innovation



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# Orientation guide



TYPE	KFS/MFS	KFR/MFR	KFB	MZB	MZE	ABYSIS	AGILIS	KFR-SE
Cartridge mandrel					Segment clamping mandrel			
Feature	Stable clamping, suitable for long workpieces or long clamping lengths	Suitable for short clamping lengths with or without a defined axial component	Stable system with high torque transmission for working with small Ø, for short clamping lengths	Stable system with high torque transmission for working with small Ø, for short clamping lengths	Cost-effective system for measuring tasks, high accuracy	High degree of hardness of the clamping sleeve, thereby wear resistant, long service life of the clamping sleeve	Stable system with high torque transmission for working with small Ø, for short clamping lengths, high degree of hardness of the clamping sleeve	Suitable for short clamping lengths with or without a defined axial component
Application	Turning, grinding, milling, gear cutting, balancing, measuring	Turning, grinding, gear cutting, balancing, measuring	Turning, grinding, milling, gear cutting, balancing, measuring	Turning, grinding, measuring	Measuring, grinding	Turning, grinding, milling, gear cutting, balancing, measuring	Turning, grinding, milling, gear cutting, balancing, measuring	Turning, grinding, milling, gear cutting, balancing, measuring
Clamping	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal
Actuation								
Clamping surface	Smooth (optionally coated, serrated, toothed, for shape clamping)					Smooth	Smooth (optionally coated, serrated, toothed, for shape clamping)	
Axial component								
Clamping range mm	15 - 140	14,5 - 131	5,5 - 29	5,5 - 78,7	8 - 230	20 - 106	10 - 130	14,5 - 131
Workpiece stop possible								
Preparation for air sensing								
Take-up	Cylindrical take-up mount combined with Intermediate flange ISO 702-1 (DIN 55028)			Between points or cylindrical take-ups, driving at the shaft possible		Cylindrical take-up mount combined with Intermediate flange ISO 702-1 (DIN 55028)		
Page	7006 / 7007	7016 / 7018	7027	7030	7033	7042	7047	7052

yes

optional

hand operated

power operated

# Orientation guide

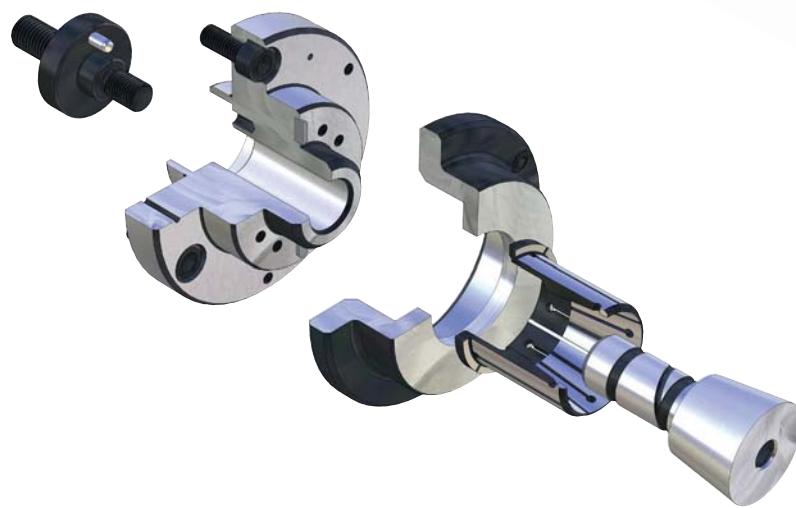


TYPE	CAPTIS-D	CAPTIS-A	CAPTIS-AF	CAPTIS-MS	ABYSIS-C	KZF	KZF-S
Collet chucks							
Feature	Full through-hole, with centering edge, draw-down	Restricted through-hole, optional fixed workpiece stop, draw-down	Restricted through-hole, fixed workpiece stop, stationary collet: without draw-down	Stationary, 3-sided clamped, manually operated	Stable system, for take-up into CAPTIS clamping system, with draw-down	Bayonet quick lock with protection against torsion	Bayonet quick lock, draw-down, actuation by clamping mandrel
Application	Turning, grinding, milling, gear cutting, balancing, measuring	Turning, grinding, milling, gear cutting, balancing, measuring	Turning, grinding, milling, gear cutting, balancing, measuring	Stationary turning, grinding, milling, drilling, measuring	Turning, grinding, milling, gear cutting, balancing, measuring	Turning, grinding, milling, measuring	Turning, grinding, milling, gear cutting
Clamping	External	External	External	External	Internal	External	External
Actuation							
Clamping surface	Longitudinal and cross grooves, cross grooves, smooth, shaped hexagon, square, special contour				Smooth (optionally coated, serrated, toothed, for shape clamping)	Smooth, hexagon, square	Optionally smooth, toothed, coated, serrated
Axial component							
Clamping range mm	4 - 120	4 - 120	4 - 120	4 - 120	20 - 106	2 - 80	30 - 180
Workpiece stop possible							
Preparation for air sensing							
Take-up	Cylindrical take-up			Cylindrical mound, recording on the machine table, mounting via fastening thread	Take-up in CAPTIS clamp system	Cylindrical centering pick-up, short taper mount	Cylindrical take-up
Page	7062	7063	7064	7068	7069	7071	7072

We have already implemented special solutions in all clamping system areas, some of which differ significantly from the values indicated above (for example, clamping surfaces, clamping diameter or precision). Besides these standard clamping systems, we offer a number of special systems, such as HYKS, KFG, centering and face clamping systems or combination clamps. Even unusual special solutions are a part of our focus.



## HIGH AXIAL RUN-OUT PRECISION; CONCENTRICITY AND REPEATABILITY



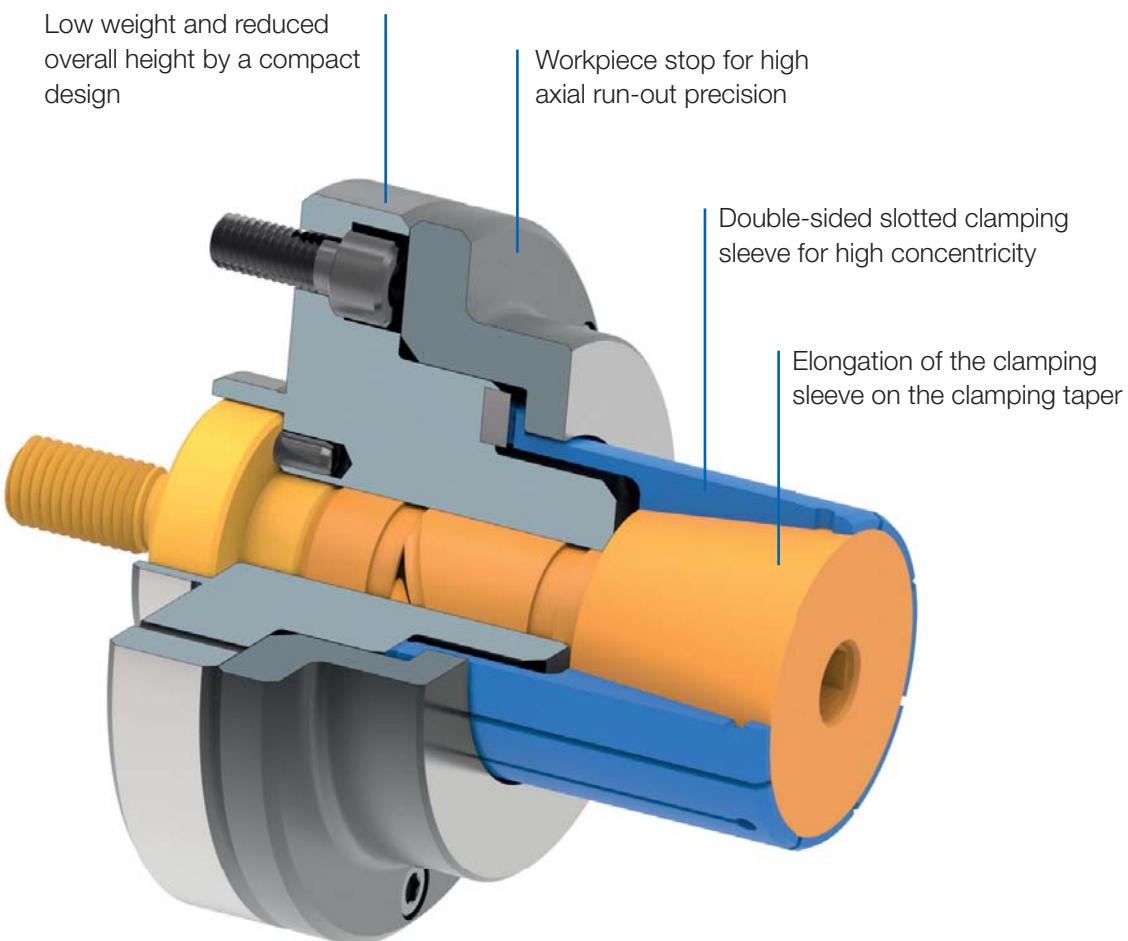
Custom-fit interaction of the individual components enables the highest degree of axial run-out precision, concentricity and repeatability.

# CARTRIDGE MANDRELS

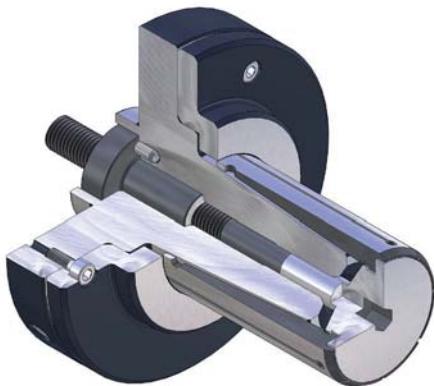
The various application areas of the cartridge mandrels require a varied programme which ranges from manual or power-operated versions to versions with and without axial tension. The centric and comprehensive internal clamping of cartridge mandrels are particularly impressive for very small clamping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



# KFS



## 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

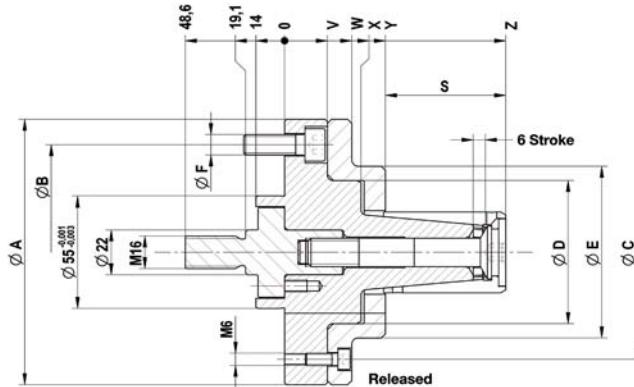
Force-actuated, Clamping sleeves optionally vulcanized.  
Convertible to MFS (required new intermediate piece).

## 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



C18

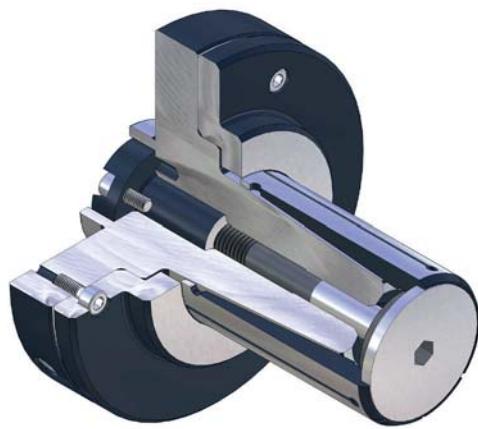
### KFS cartridge mandrel

Consisting of basic mandrel and intermediate piece

	KFS 00	KFS 01	KFS 02	KFS 03	KFS 04	KFS 05	KFS 06	KFS 07	KFS 08	KFS 09	KFS 10	KFS 11
Cartridge Mandrel	599800	599801	599802	599803	599804	599805	599806	599807	599808	599809	599810	599811
Basic mandrel	599820	599821	599822	599823	599824	599825	599826	599827	599828	599829	599830	599831
Adapter power operated	599833	599834	599980	599981	599982	599983	599984	599984	599984	315456	315456	315456
F max, in kN	7	9	12	12	15	15	20	20	25	25	25	25
Min-Ø unclamped from	14,7	19,7	24,7	29,7	34,7	39,7	44,7	54,7	64,7	81,7	100,7	119,7
Min-Ø unclamped to	19,7	24,7	29,7	34,7	39,7	44,7	54,7	64,7	81,7	100,7	119,7	139,7
Clamping-Ø max,	20,7	25,7	30,7	35,7	40,7	45,7	55,7	65,7	82,7	101,7	120,7	140,7
External-Ø A	100	100	100	100	100	130	130	130	160	160	160	160
Pitch diameter B	75	75	75	75	75	105	105	105	130	130	130	130
Pitch diameter C	75	75	75	75	75	105	105	105	130	130	130	149
Ø D mm	40	40	46	46	46	70	70	70	83	91	87	107
Ø E mm	54	54	60	60	60	84	84	84	103	160	160	160
Ø F mm	M10	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: 3,7-4,7-6,4-6,4-8,0-7,9-10,5-10,5-13,5-13,5-13,0

# MFS



## APPLICATION

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

## TYPE

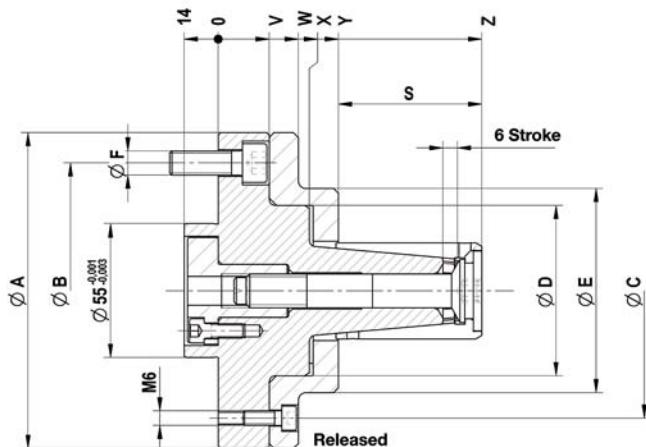
Manually actuated. Clamping sleeves optionally vulcanized.  
Convertible to KFS (new adapter required).

## CUSTOMER BENEFITS

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

## TECHNICAL FEATURES

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



C18

### MFS cartridge mandrel

Consisting of basic mandrel and intermediate piece

	MFS 00	MFS 01	MFS 02	MFS 03	MFS 04	MFS 05	MFS 06
Cartridge Mandrel	1082800	1082801	1082802	1082803	1082804	1082805	1082806
Basic mandrel	599820	599821	599822	599823	599824	599825	599826
Adapter hand-operated	599985	599986	599987	599988	599989	599990	599991
Md max, kN	7	12	20	22	30	35	45
Min-Ø unclamped from	14,7	19,7	24,7	29,7	34,7	39,7	44,7
Min-Ø unclamped to	19,7	24,7	29,7	34,7	39,7	44,7	54,7
Clamping-Ø max,	20,7	25,7	30,7	35,7	40,7	45,7	55,7
External-Ø A	100	100	100	100	100	130	130
Pitch diameter B	75	75	75	75	75	105	105
Pitch diameter C	75	75	75	75	75	105	105
Ø D mm	40	40	46	46	46	70	70
Ø E mm	54	54	60	60	60	84	84
Ø F mm	M10						
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









# 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

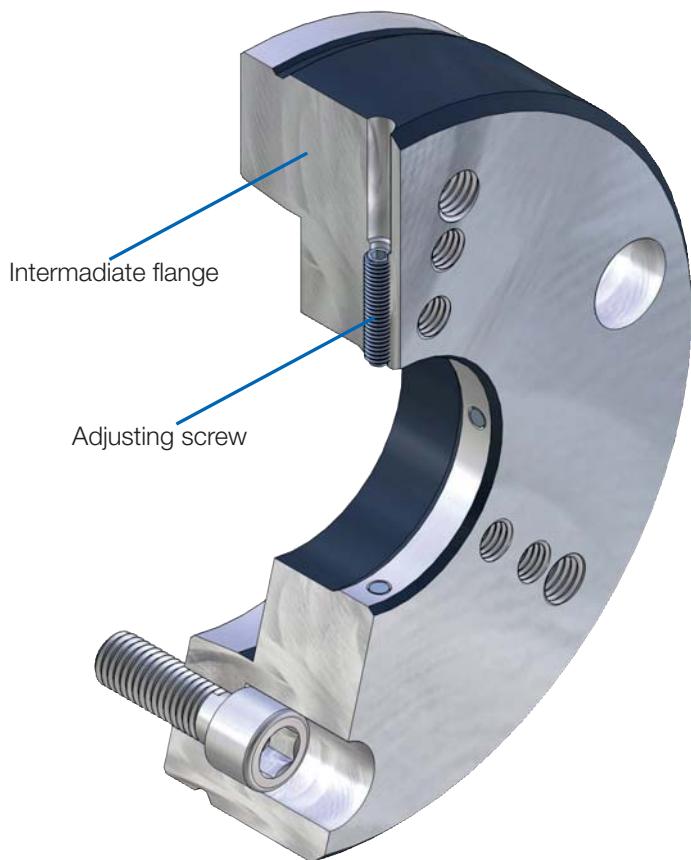
For KFR/MFR/KFR-SE/MFR-SE or KFS/MFS.

## CUSTOMER BENEFITS

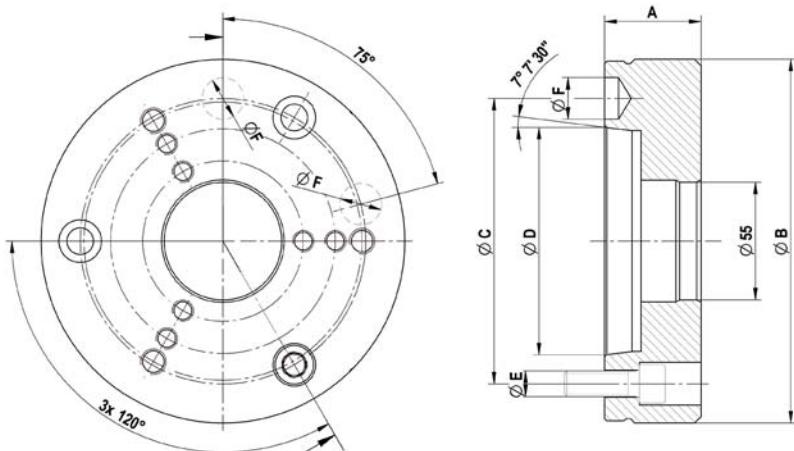
- ⊕ By replacement of the intermediate flange, one cartridge mandrel can be used on different machines

## 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).



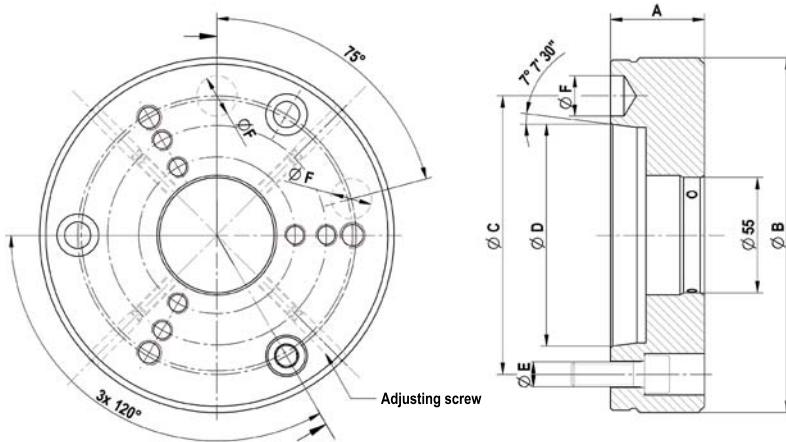
# Accessories KFS / MFS



C 18

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

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

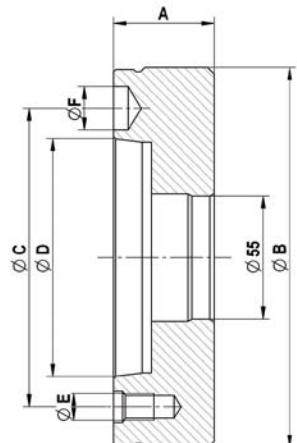
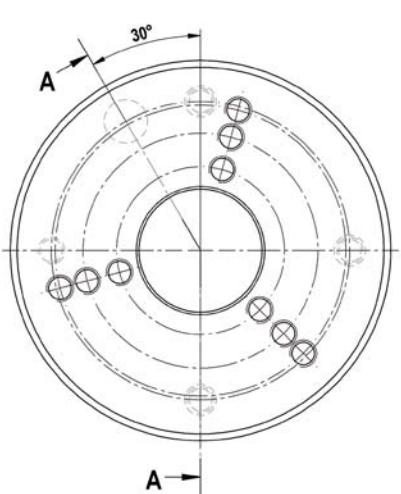


C 18

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

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

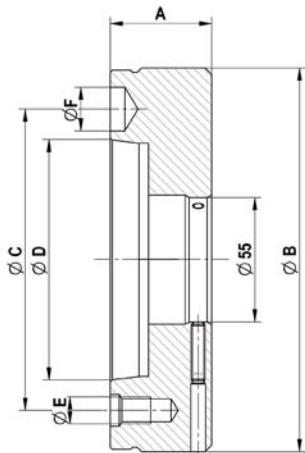
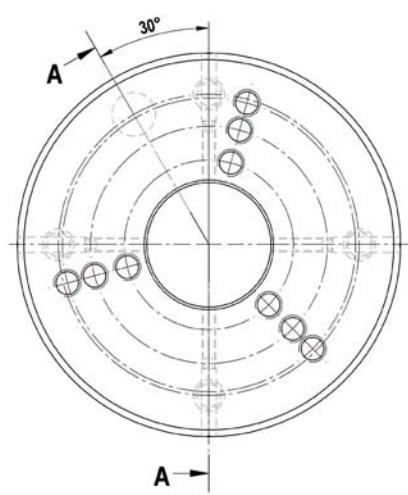
# Accessories KFS / MFS



C 18

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

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

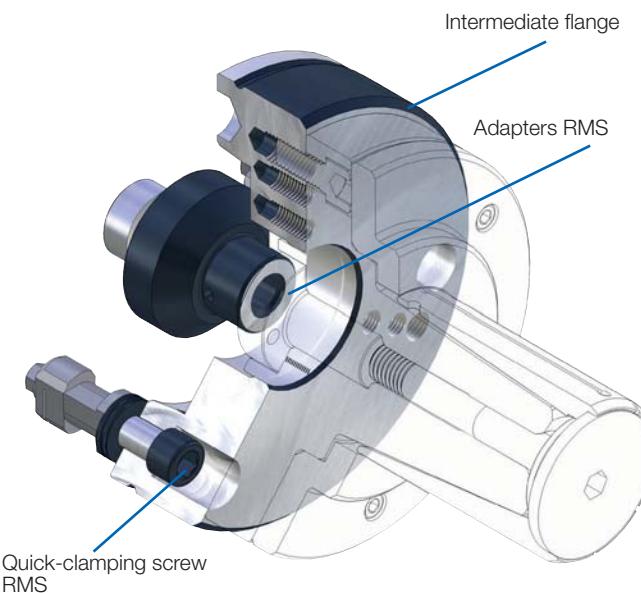


C 18

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

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

# Accessories KFS / MFS



## APPLICATION

For manual clamping devices exchange in a minimum of time.

## TYPE

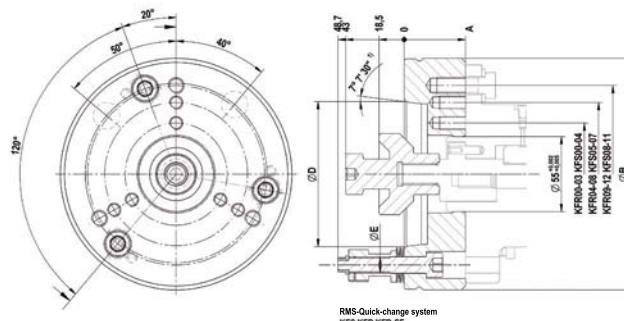
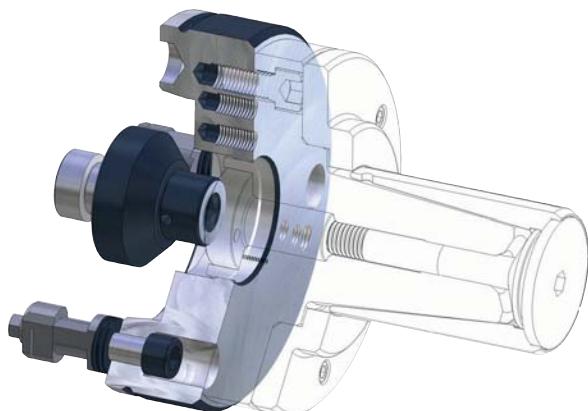
Manual quick-change system for clamping devices. Fits KFR/MFR or KFS/MFS. Central lubrication and / or air sensing control possible.

## CUSTOMER BENEFITS

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

## TECHNICAL FEATURES

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



C18

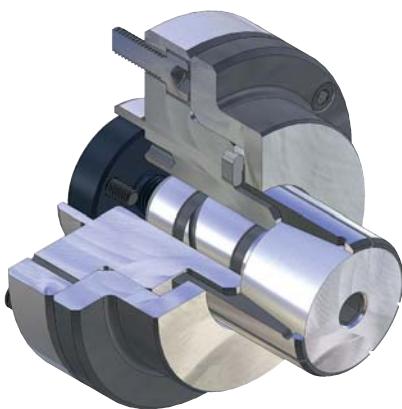
RMS quick-change system, hand-operated for clamping devices

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





# MFR - without axial tightening



## APPLICATION

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

## TYPE

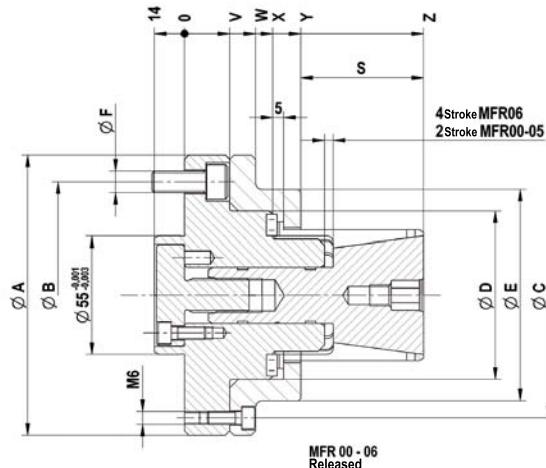
Manually actuated.  
Optional vulcanized clamping sleeves/segment sleeves (segment clamping mandrel KFR-SE).

## CUSTOMER BENEFITS

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

## TECHNICAL FEATURES

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



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



# Accessories KFR / MFR

C 18

Clamping sleeve Type R - standard design (not vulcanized)

For size	00	01	02	03	04	05	06	07	08	09	10	11	12
Expansion in Ø mm	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length L	32	40	40	40	55	55	70	70	70	78	78	78	78
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						
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



# Accessories KFR / MFR

C 18

Clamping sleeve Type R - vulcanized

For size	00	01	02	03	04	05	06	07	08	09	10	11	12
Expansion in Ø mm	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length L	32	40	40	40	55	55	70	70	70	78	78	78	78
Clamping sleeve			<b>1015739</b>		<b>1015773</b>	<b>1015795</b>							
Work stop			893848		893863	893873							
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

# 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

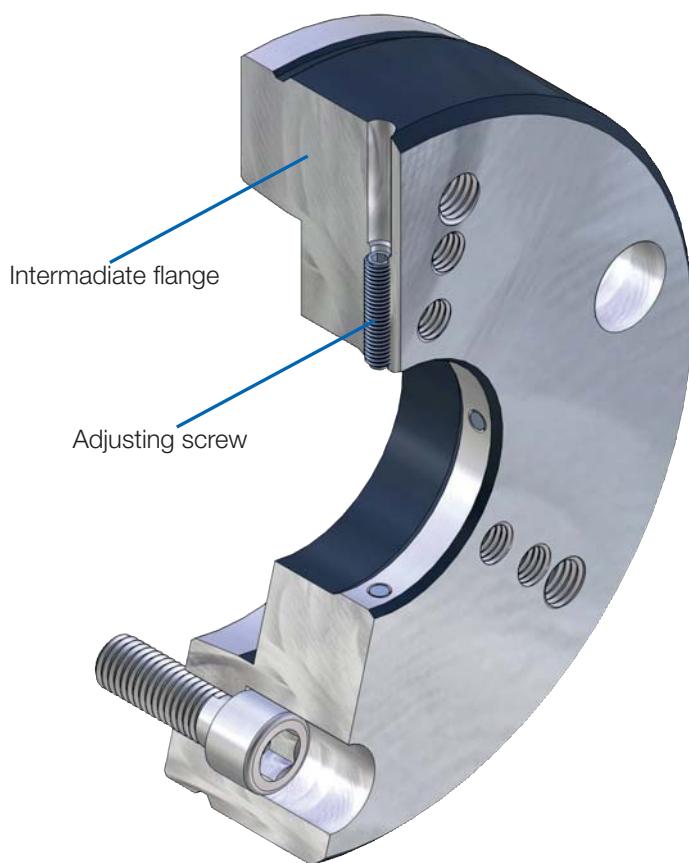
For KFR/MFR/KFR-SE/MFR-SE or KFS/MFS.

## CUSTOMER BENEFITS

- ② By replacement of the Intermediate flange, one cartridge mandrel can be used on different machines

## TECHNICAL FEATURES

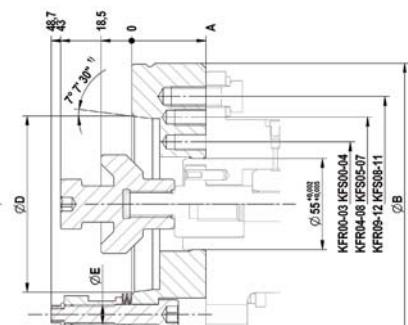
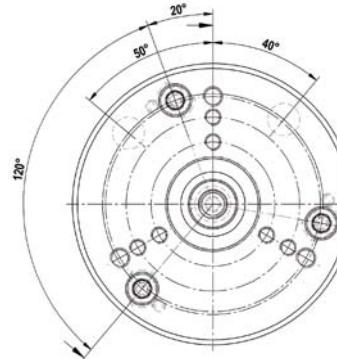
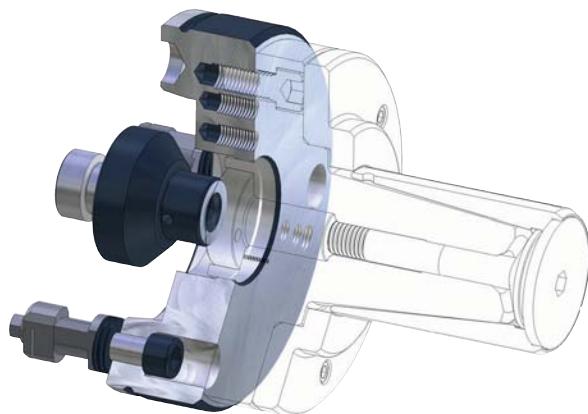
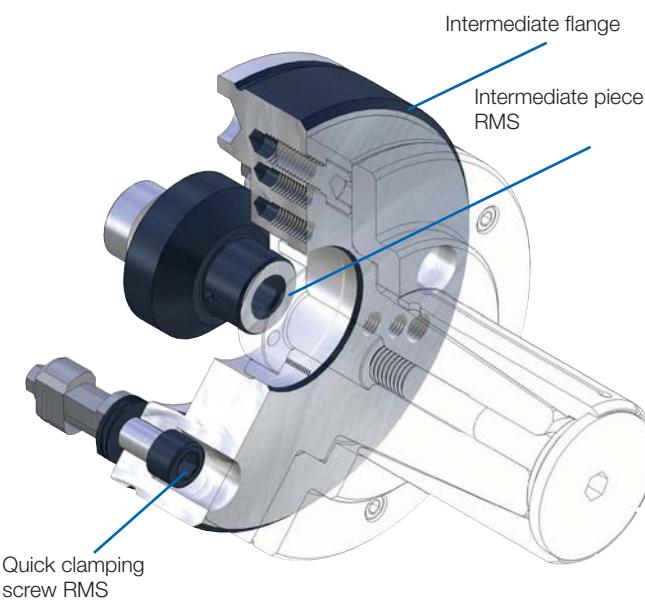
Adaptation of mandrel KFR / MFR / KFR-SE / MFR SE or KFS / MFS on spindle head, with or without adjustment, with or without operation of air-conditioning control. Execution according to ISO 702-1 (DIN 55028-A) or ISO 702-3 (DIN 55028-C), in size no. 5, no. 6, no. 8, no. 11 or no. 5, no. 6. Nr. 8 (A5,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







# Accessories KFR / MFR



C18

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

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













# MZE



## APPLICATION

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

## TYPE

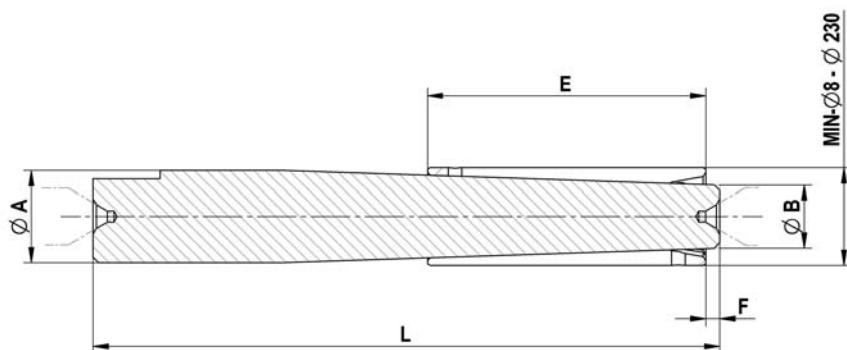
Manually actuated.  
Available as clamping mandrel assortment for various clamping diameters.  
Clamping sleeve separately available.

## CUSTOMER BENEFITS

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

## TECHNICAL FEATURES

- Hardened, low-wear design

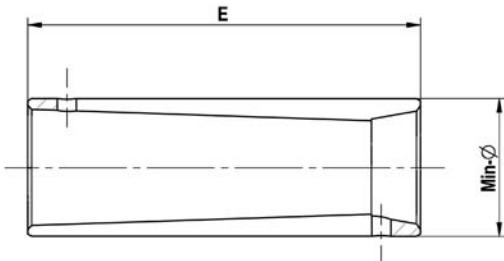


C18

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

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

# Accessories MZE



C 18

Clamping sleeve Type E - for basic mandrel MZE

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

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

# Product ranges MZE cartridge mandrel



## Product ranges in wooden box size 1 – ID 315093

### CONTENT

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



## Product range in wooden box size 2 – ID 315094

### CONTENT

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

# Special solutions KFS



## Cartridge mandrel KFS clamping-Ø 22,65 mm

### APPLICATION

Turning

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

### CUSTOMER BENEFITS

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



## Cartridge mandrel KFS clamping-Ø SW 27,8 mm

### APPLICATION

Turning

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

### CUSTOMER BENEFITS

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



## Cartridge mandrel KFS clamping-Ø 34,3 mm

### APPLICATION

Turning / Cutting

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

### CUSTOMER BENEFITS

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

# Special solutions KFR / MFR



## Cartridge mandrel KFR clamping-Ø 45 mm

### APPLICATION

Turning of a pressed part

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

### CUSTOMER BENEFITS

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



## Cartridge mandrel KFR clamping-Ø TK-Ø 90 mm

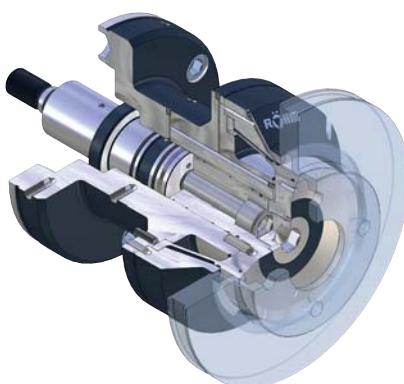
### APPLICATION

Turning

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

### CUSTOMER BENEFITS

- ⌚ Concentricity for toothting
- ⌚ Concentricity of 0.03 mm



## Cartridge mandrel KFR clamping-Ø 136 mm

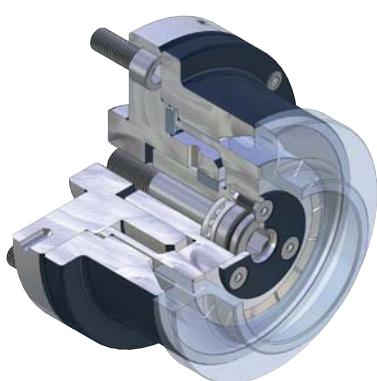
### APPLICATION

Turning of brake discs

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

### CUSTOMER BENEFITS

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



## Cartridge mandrel MFR clamping-Ø 88 mm

### APPLICATION

Milling / drilling for stationary use on clamping devices.

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

### CUSTOMER BENEFITS

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

# Special solutions KFB



## Cartridge mandrel KFB clamping-Ø 42 mm

### APPLICATION

Turning

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

### CUSTOMER BENEFITS

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



## Cartridge mandrel KFB clamping-Ø 114 mm

### APPLICATION

Turning

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

### CUSTOMER BENEFITS

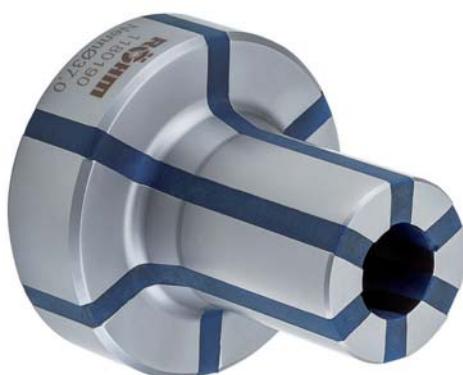
- ⌚ Simple handling
- ⌚ Stable clamping using axial pull
- ⌚ Concentricity of 0.01 mm



# Notes



## INNOVATIVE VULCANISATE IN THE SEGMENT CLAMPING SLEEVE



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



Video ABSIS



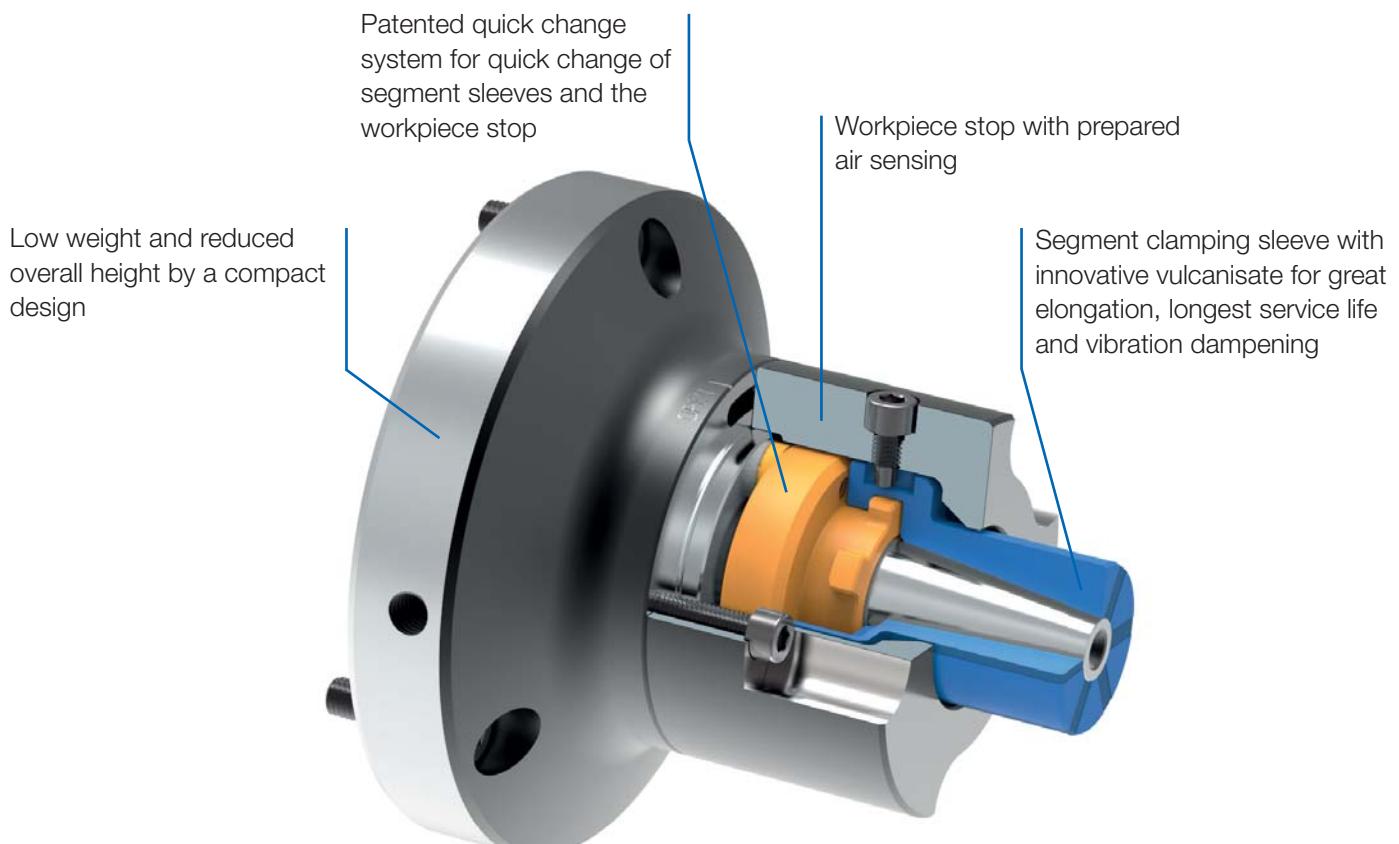
Video AGILIS

# 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 vulcanise of the clamping sleeves
- ⌚ Fast replacement of the clamping mandrel thanks to the patented bayonet quick change system

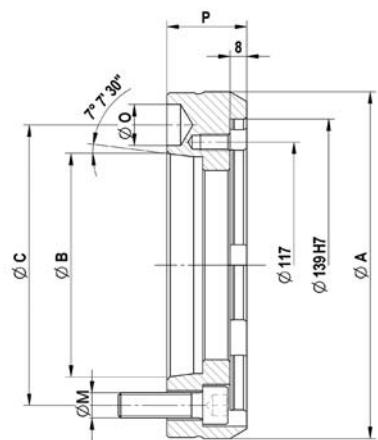
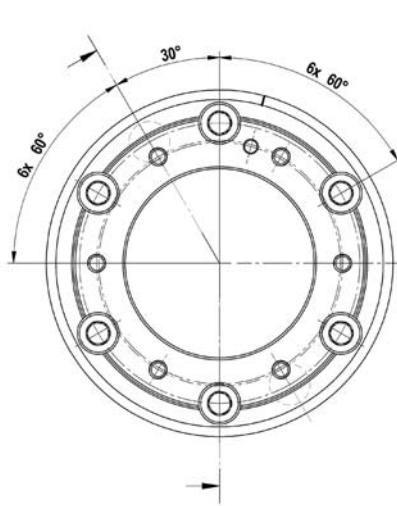








# Accessories ABSIS

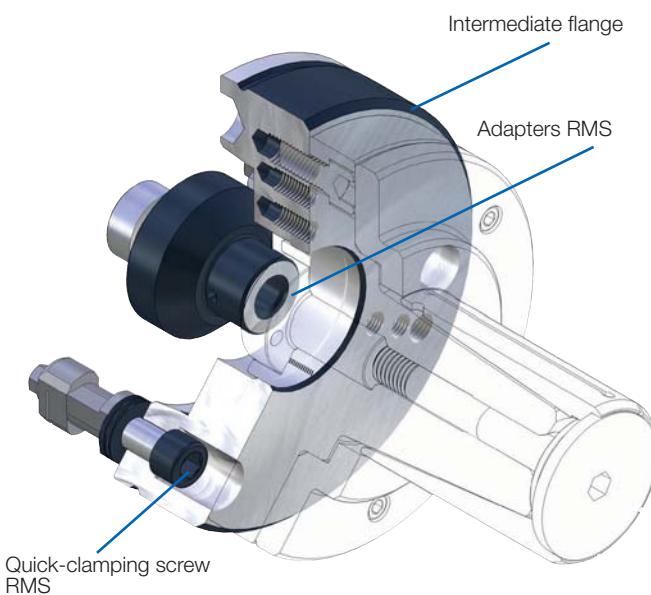


## C 18

**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

# Accessories ABSIS



## APPLICATION

For manual clamping devices exchange in a minimum of time.

## TYPE

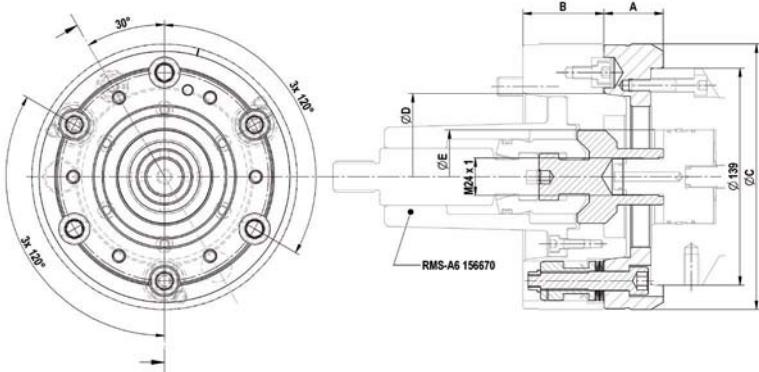
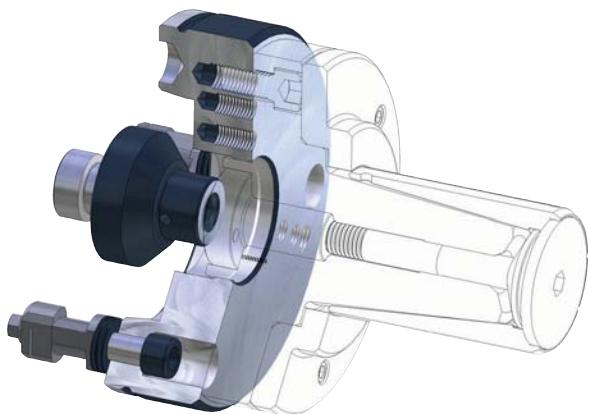
Manual quick-change system for clamping devices. Fits ABSIS (269-00), AGILIS (296-00). Central lubrication and / or air sensing control possible.

## 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 RÖHM 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

# AGILIS



## 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

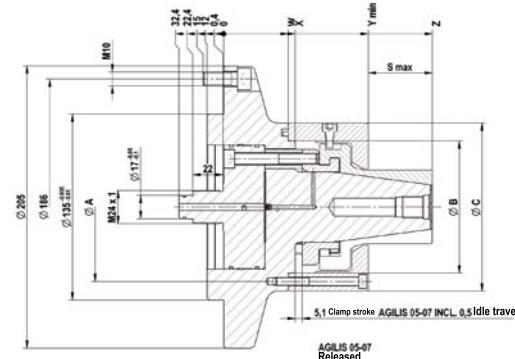
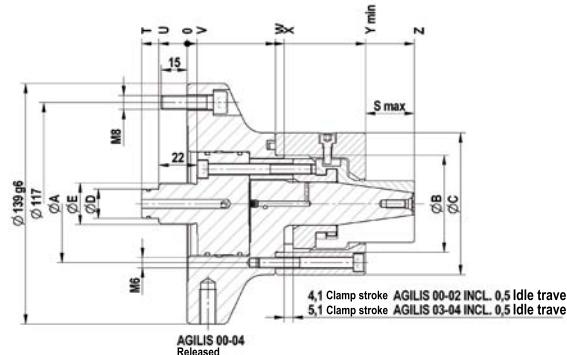
Force-actuated.

## CUSTOMER BENEFITS

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

## TECHNICAL FEATURES

- Manual lubrication
- Air sensing prepared



C 18

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

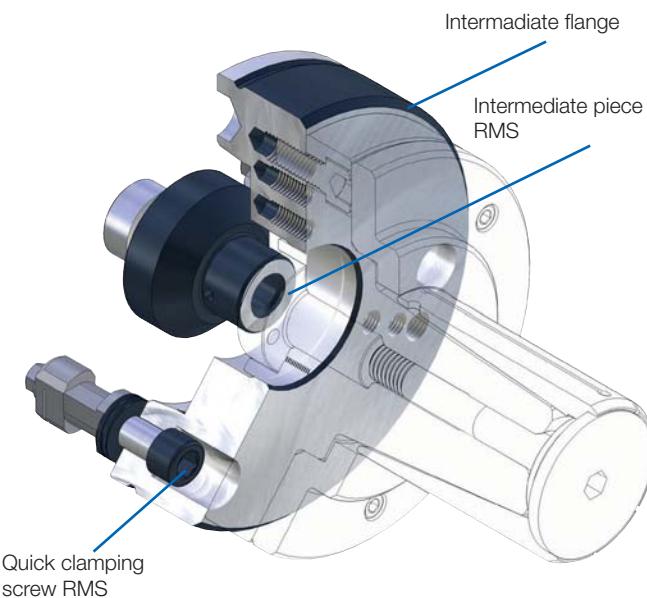
	AGILIS 00	AGILIS 01	AGILIS 02	AGILIS 03	AGILIS 04	AGILIS 05	AGILIS 06	AGILIS 07
Segment clamping mandrel	1180000	1180001	1180002	1180003	1180004	1180005 ▲	1180006 ▲	1180007 ▲
Basic mandrel	1180010	1180011	1180012	1180013	1180014	1180015	1180016	1180017
Adapter power operated	1180030	1180030	1180032	1180032	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	9,7	13,7	18,7	26,7	36,7	53,7	71,7	94,7
Min-Ø unclamped to	15,7	24,7	34,7	44,7	64,7	84,7	104,7	129,7
Pitch diameter A	54	54	69	69	88	108	127	152
Guide diameter B	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,	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







# Accessories AGILIS



## APPLICATION

For manual clamping devices exchange in a minimum of time.

## TYPE

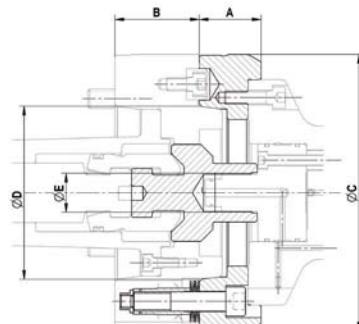
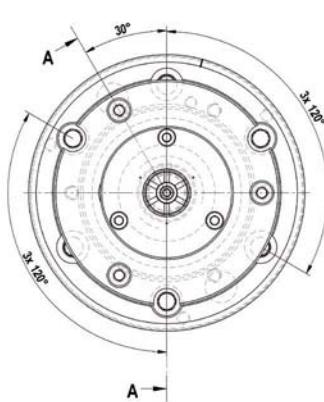
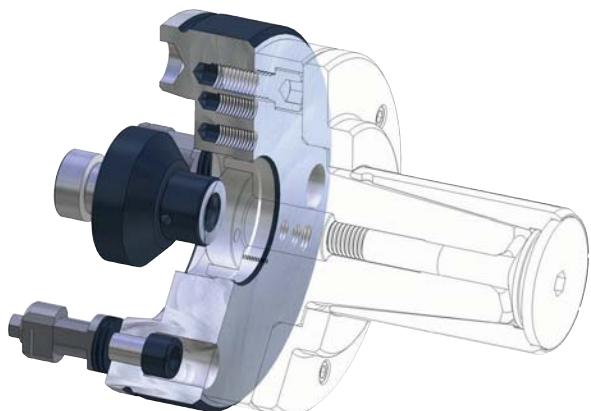
Manual quick-change system for clamping devices. Fits ABSIS (269-00), AGILIS (296-00). Central lubrication and / or air sensing control possible.

## 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 RÖHM 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
<b>RMS - complete (flange incl. quick-clamping screw)</b>	<b>1180340 ▲</b>	<b>1180342 ▲</b>
Adapters RMS	look Type 296-00 AGILIS	look Type 296-00 AGILIS
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

# KFR-SE



## APPLICATION

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

## TYPE

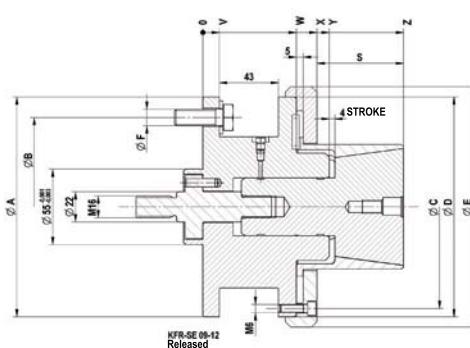
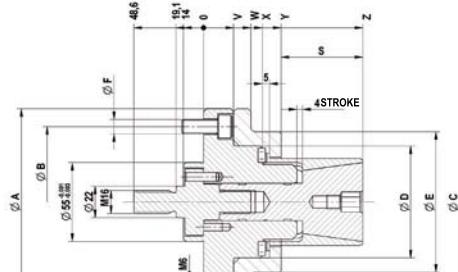
Force-actuated. Ideal for short clamping lengths / workpieces.

## CUSTOMER BENEFITS

- ⊕ Short setup and non-productive times thanks to great expansion of 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



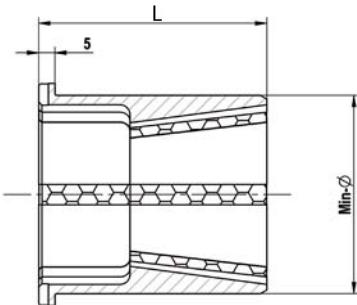
C18

**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	20	56	83	104	114	140	140	140	140	140	140	140	140
Min-Ø unclamped from	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	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,	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	100	100	100	100	130	130	130	160	160	160	160	160	160
Pitch diameter B	75	75	75	75	105	105	130	130	130	130	130	130	130
Pitch diameter C	85	85	85	85	114	114	114	145	145	148	148	148	148
Ø D mm	50	50	50	50	78	78	78	100	100	160	160	160	160
Ø E mm	70	70	70	70	98	98	98	130	130	175	175	175	175
Ø F mm	M10	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



# 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	<b>1171000</b>	<b>1171006</b>	<b>1171012</b>	<b>1171024</b>	<b>1171030</b>	<b>1171041</b>	<b>1171052</b>	<b>1171063</b>	<b>1171074</b>	<b>1171085</b>	<b>1171096</b>	<b>1171107</b>	<b>1171118</b>
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	<b>1171001</b>	<b>1171007</b>	<b>1171013</b>	<b>1171025</b>	<b>1171031</b>	<b>1171042</b>	<b>1171053</b>	<b>1171064</b>	<b>1171075</b>	<b>1171086</b>	<b>1171097</b>	<b>1171108</b>	<b>1171119</b>
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	<b>1171002</b>	<b>1171008</b>	<b>1171014</b>	<b>1171026</b>	<b>1171032</b>	<b>1171043</b>	<b>1171054</b>	<b>1171065</b>	<b>1171076</b>	<b>1171087</b>	<b>1171098</b>	<b>1171109</b>	<b>1171120</b>
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	<b>1171003</b>	<b>1171009</b>	<b>1171015</b>	<b>1171027</b>	<b>1171033</b>	<b>1171044</b>	<b>1171055</b>	<b>1171066</b>	<b>1171077</b>	<b>1171088</b>	<b>1171099</b>	<b>1171110</b>	<b>1171121</b>
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	<b>1171004</b>	<b>1171010</b>	<b>1171016</b>	<b>1171028</b>	<b>1171034</b>	<b>1171045</b>	<b>1171056</b>	<b>1171067</b>	<b>1171078</b>	<b>1171089</b>	<b>1171100</b>	<b>1171111</b>	<b>1171122</b>
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	<b>1171005</b>	<b>1171011</b>	<b>1171017</b>	<b>1171029</b>	<b>1171035</b>	<b>1171046</b>	<b>1171057</b>	<b>1171068</b>	<b>1171079</b>	<b>1171090</b>	<b>1171101</b>	<b>1171112</b>	<b>1171123</b>
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				<b>1171018</b>	<b>1171036</b>	<b>1171047</b>	<b>1171058</b>	<b>1171069</b>	<b>1171080</b>	<b>1171091</b>	<b>1171102</b>	<b>1171113</b>	<b>1171124</b>
Work stop				893847	893863	893873	893884	893894	893903	893913	893923	893933	893943
Min-Ø mm				<b>31,7</b>	<b>47,7</b>	<b>57,7</b>	<b>67,7</b>	<b>77,7</b>	<b>87,7</b>	<b>97,7</b>	<b>107,7</b>	<b>117,7</b>	<b>127,7</b>
Segment sleeve				<b>1171019</b>	<b>1171037</b>	<b>1171048</b>	<b>1171059</b>	<b>1171070</b>	<b>1171081</b>	<b>1171092</b>	<b>1171103</b>	<b>1171114</b>	<b>1171125</b>
Work stop				893848	893864	893874	893885	893895	893904	893914	893924	893934	893944
Min-Ø mm				<b>32,7</b>	<b>48,7</b>	<b>58,7</b>	<b>68,7</b>	<b>78,7</b>	<b>88,7</b>	<b>98,7</b>	<b>108,7</b>	<b>118,7</b>	<b>128,7</b>
Segment sleeve				<b>1171020</b>	<b>1171038</b>	<b>1171049</b>	<b>1171060</b>	<b>1171071</b>	<b>1171082</b>	<b>1171093</b>	<b>1171104</b>	<b>1171115</b>	<b>1171126</b>
Work stop				893849	893865	893875	893886	893947	893905	893915	893925	893935	893945
Min-Ø mm				<b>33,7</b>	<b>49,7</b>	<b>59,7</b>	<b>69,7</b>	<b>79,7</b>	<b>89,7</b>	<b>99,7</b>	<b>109,7</b>	<b>119,7</b>	<b>129,7</b>
Segment sleeve				<b>1171021</b>	<b>1171039</b>	<b>1171050</b>	<b>1171061</b>	<b>1171072</b>	<b>1171083</b>	<b>1171094</b>	<b>1171105</b>	<b>1171116</b>	<b>1171127</b>
Work stop				893850	893866	893876	893887	893896	893906	893916	893926	893936	893946
Min-Ø mm				<b>34,7</b>	<b>50,7</b>	<b>60,7</b>	<b>70,7</b>	<b>80,7</b>	<b>90,7</b>	<b>100,7</b>	<b>110,7</b>	<b>120,7</b>	<b>130,7</b>
Segment sleeve				<b>1171022</b>	<b>1171040</b>	<b>1171051</b>	<b>1171062</b>	<b>1171073</b>	<b>1171084</b>	<b>1171095</b>	<b>1171106</b>	<b>1171117</b>	<b>1171128</b>
Work stop				893851	893867	893877	893887	893896	893906	893916	893926	893936	893946
Min-Ø mm				<b>35,7</b>	<b>1171023</b>								
Segment sleeve					893852								
Work stop													

# 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

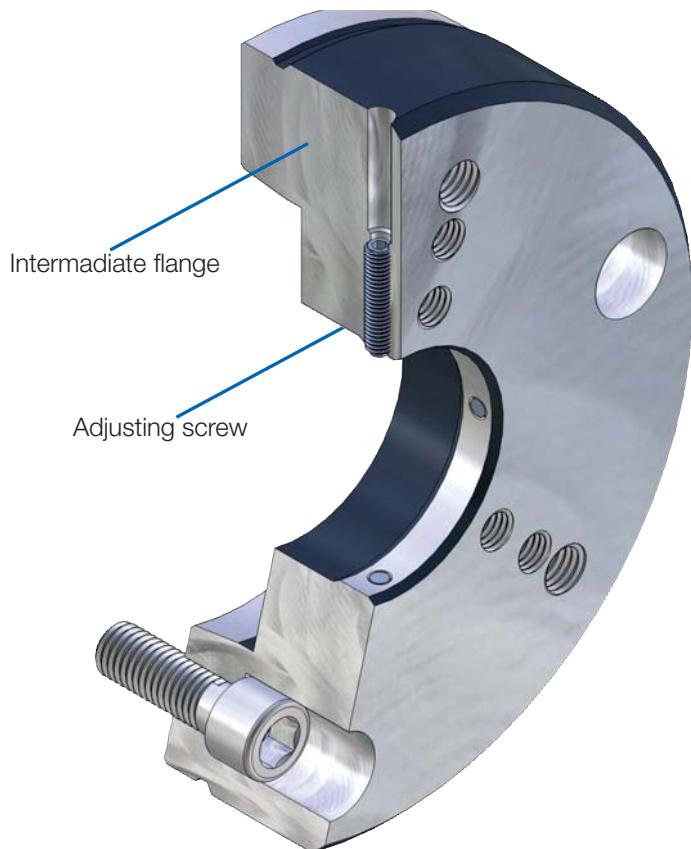
For KFR/MFR/KFR-SE/MFR-SE or KFS/MFS.

## CUSTOMER BENEFITS

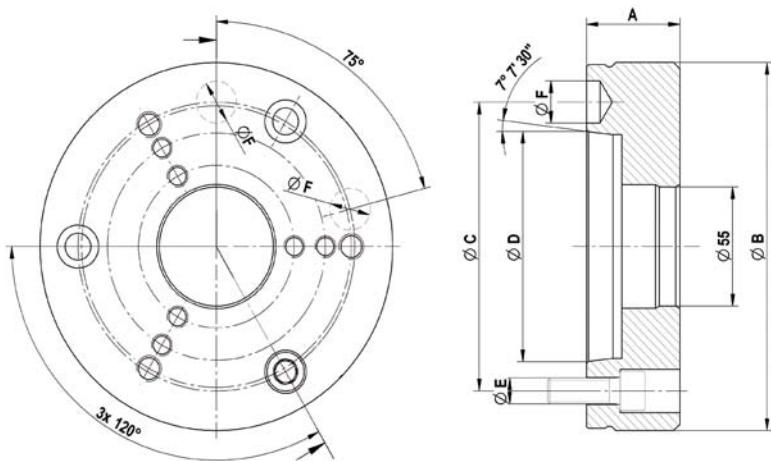
- ④ By replacement of the Intermediate flange, one cartridge mandrel can be used on different machines

## TECHNICAL FEATURES

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



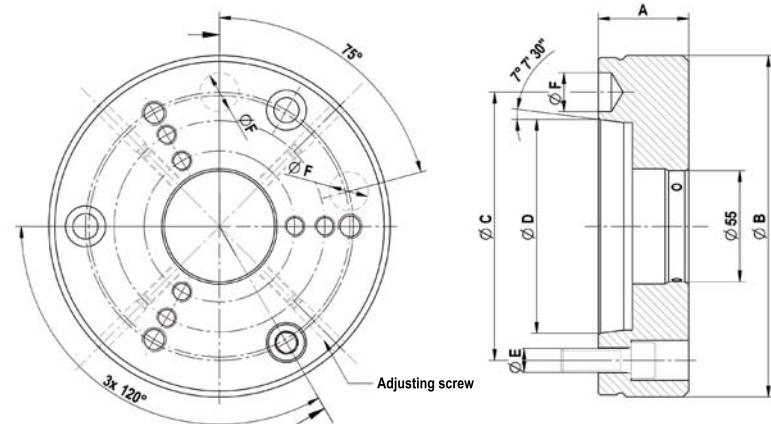
# Accessories KFR-SE / MFR-SE



C 18

Intermediate flange ISO 702-1 (DIN 55026/55021) without adjusting screw

	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

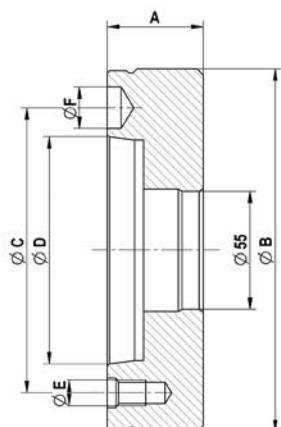
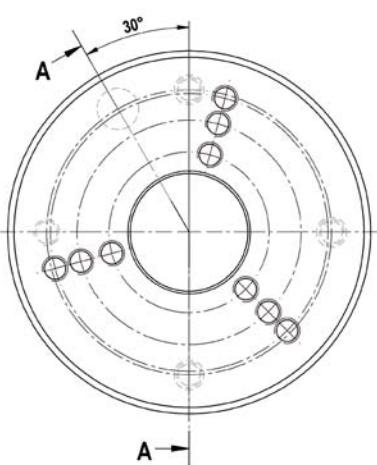


C 18

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

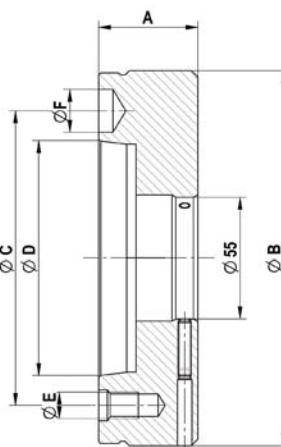
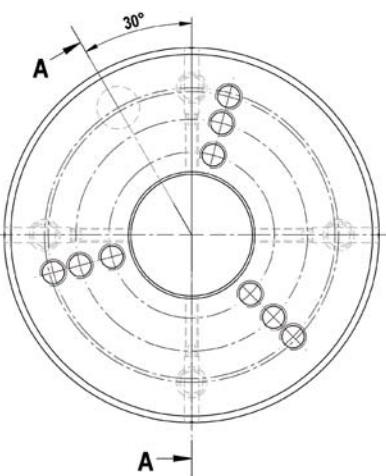
# Accessories KFR-SE / MFR-SE



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

# Special solutions ABSIS



## ABYSIS Segment clamping mandrel - nominal 38,43 mm

### APPLICATION

Cutting, Turning

ABYSIS clamping mandrel for clamping on a toothing machine. The centering is done by the segment clamping sleeve; the clamping by the pendulum bell. Clamping mandrel with quick change system on the basic take-up.

### CUSTOMER BENEFITS

- ⌚ Stable clamping using axial pull
- ⌚ Concentricity of 0.01 mm
- ⌚ A lot of freedom of the tool (milling coasting)
- ⌚ Designed for wet machining



## ABYSIS Segment clamping mandrel - nominal 60,5 mm

### APPLICATION

Turning

ABYSIS clamping mandrel for clamping on a lathe. Clamping mandrel with quick change system on the basic take-up. Fixed workpiece stop with air sensing. Clamping screw sunk in the segment clamping sleeve to ensure the freedom of the tool. Different clamping mandrel sizes of clamping diameters 25 mm to diameter 105 mm (ABYSIS size 00 to size 04).

### CUSTOMER BENEFITS

- ⌚ Stable clamping using axial pull
- ⌚ Concentricity of 0.01 mm
- ⌚ Simple changing of the workpiece stop as well as the clamping sleeves
- ⌚ A lot of freedom of the tool

# Special solutions ABSIS



## ABYSIS Segment clamping mandrel TK-Ø 88 mm

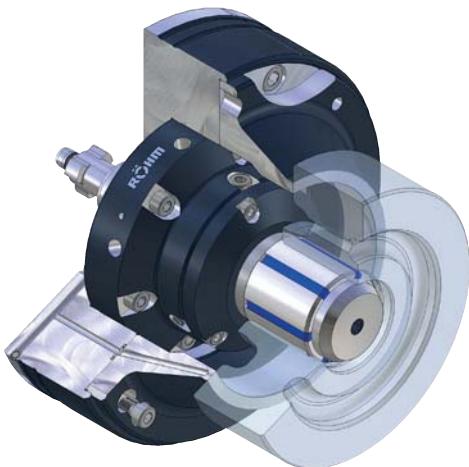
### APPLICATION

Turning

ABYSIS clamping mandrel for clamp in the toothings. The toothed segment clamping sleeve clamps the workpiece exactly in the tooth flanks. The centering disc helps during loading of the workpiece. Workpiece stop can be pulled back using draw bar with air sensing.

### CUSTOMER BENEFITS

- ⌚ Freedom of tool by stop that can be pulled back
- ⌚ Concentricity of 0.01 mm



## ABYSIS Segment clamping mandrel Ø 55,33 mm

### APPLICATION

Turning of a gear wheel blank

Force-actuated ABSIS standard clamping mandrel with quick change system. The stop diameter is far beyond the clamping diameter. Workpiece stop with air sensing attached on the intermediate flange.

### CUSTOMER BENEFITS

- ⌚ Stable clamping using axial pull
- ⌚ Concentricity of 0.01 mm
- ⌚ Low-cost thanks to standard components



## FAST CHANGING WITHIN THE MODULAR SYSTEM



As a consistent modular system, it is possible to combine the individual components such as CAPTIS collet chuck, CAPTIS collet and ABSIS-C clamping mandrel depending on use.

### Collet replacing

Fast and easy collet replacement in 15 seconds reduces the set-up times.



### Changing collets and clamping mandrel

Innovative and patent-pending quick changing function for fast conversion from outer to inner clamping in less than one minute.

# COLLET CHUCKS

The new and modular CAPTIS clamping system is impressive in both rotary applications in lathes and in stationary use in drilling, milling and machining centres and measuring machines. The conversion from outer to inner clamping can be done in less than 1 minute with the innovative and patent-pending quick changing function. The encompassing clamping enables precise concentricity and repeatability of 0.005 mm without deforming the workpiece.

## ADVANTAGES AT A GLANCE

- ⊕ Highest flexibility due to modular construction
- ⊕ Precise concentricity and repeatability of 0.005 mm
- ⊕ Compact and weight-reduced construction for a larger work area



Video CAPTIS-D



Video CAPTIS-MS

## CAPTIS-D, CAPTIS-A, CAPTIS-AF

- ⊕ Modular construction for highest flexibility
- ⊕ Compact construction for more work space
- ⊕ Many combination and conversion possibilities



## ABYSIS-C CLAMPING MANDREL

- ⊕ Innovative and patent-pending quick changing function to convert from outer to inner clamping in less than one minute
- ⊕ Stable and precise clamping by axial tension against the workpiece stop

## CAPTIS-MS

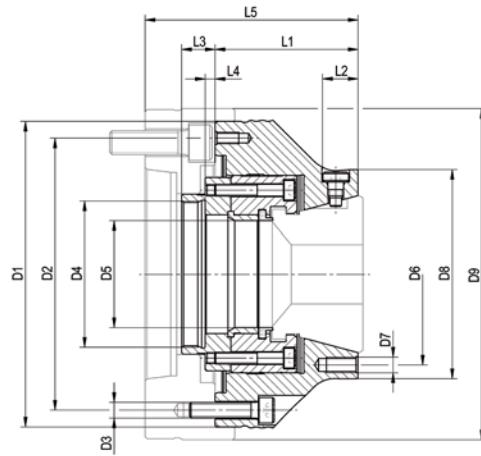
- ⊕ Simple handling: a turn of the wrench by a maximum of 180° is enough to clamp the collet or the clamping mandrel
- ⊕ Can be clamped from three sides; can be optionally fitted with a workpiece stop



## CAPTIS COLLET CHUCKS

- ⊕ Replaceable rubber segments made of innovative rubber mixture for the longest service life
- ⊕ Clamping range of ± 0,5 mm
- ⊕ Hardened and ground steel segments for high resistance to wear

# CAPTIS-D


 C 15  
**CAPTIS-D collet chuck - with axial pull**

Size	32	42	52	65	80	100	120
Collet chucks	1283101	1283102	1283103	1283104	1283105 ▲	1283106 ▲	1283107 ▲
D1 mm	137	137	155	155	215	215	250
D2 mm	100	118	138	138	190	190	215
D3	6x M8	6x M8	6x M8	6x M8	6x M12	6x M12	6x M12
D4 mm	M54x1,5	M54x1,5	M74x1,5	M74x1,5	M94x1,5	M120x1,5	M132x1,5
D5 mm	34	44	54	68	82	102	122
D6 mm	70	92	92	110	132	190	225
D7	3x M8	3x M8	3x M8	3x M8	3x M10	3x M12	3x M12
D8 mm	84	106	106	122	152	215	250
L1 mm	70,5	69	72,5	78	85	102	102
L2 mm	18	18	18	26	19	-	-
L3 mm	17	17	17	17	20	20	20
L4 min	1,5	1,5	1,5	1,5	-0,5	-0,5	-0,5
L4 max	7,5	7,5	7,5	7,5	5,5	5,5	5,5
Total stroke mm	6	6	6	6	6	6	6
Maximum draw bar pull kN	25	35	40	45	50	65	70
Total clamping force kN	60	70	80	90	100	130	140
Speed max, min <sup>-1</sup>	8000	7000	6500	6000	5500	5000	4000
Chucking capacity mm	4-32	4-42	4-52	4-65	5-80	42-100	62-120
Clamping device manual	1283285	1283286	1283287	1283288	-	-	-
Clamping device air operated	431955 ▲	6898 ▲	436285 ▲	6898 ▲	1124 ▲	6352 ▲	6901 ▲
Conversion kit to CAPTIS-A	1283256	1283257	1283258	1283259	1283260	1283261	1283262
Turning fixture for soft collets	1316901 ▲	1316902 ▲	1316903 ▲	1316904 ▲	1316905 ▲	1316906 ▲	1316907 ▲

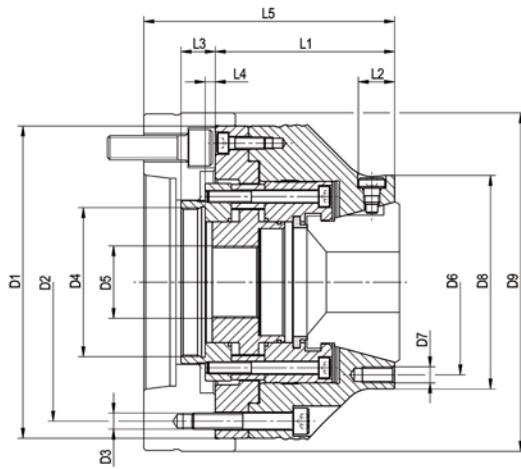
Intermediate flange ISO 702-1 (DIN 55028)

Size	32-A5 /42-A5	32-A6 /42-A6	52-A5 /65-A5	52-A6 /65-A6	52-A8 /65-A8	80-A6 /100-A6	80-A8 /100-A8	120-A8 /120-A11
Intermediate flange	1283194	1283195	1283198	1283199	1283200	1283203 ▲	1283204 ▲	1283207 ▲ / 1283209 ▲
D9	150	165	168	168	210	230	230	270
L5	105   103,5	106   104,5	108,5   114	108   113,5	114,5   120	132   149	125   142	157   142

Intermediate flange cylindrical centre mount

Size	32-Z140	42-Z140	52-Z140	65-Z140	52-Z170	65-Z170	80-Z170	100-Z170	80-Z220	100-Z220	120-Z220
Intermediate flange	1283196		1283201		1283202		1283205 ▲		1283206 ▲		1283208 ▲
D9	150		168		180		230		230		270
L5	90	88,5	100	105,5	95	100,5	132	149	125	142	157

# CAPTIS-A



C 15

CAPTIS-A collet chuck - with axial tension against workpiece stop

Size	32	42	52	65	80	100	120
Collet chucks	1283108	1283109	1283110	1283111	1283112 ▲	1283113 ▲	1283114 ▲
D1 mm	137	137	155	155	215	215	250
D2 mm	100	118	138	138	190	190	225
D3	6x M8	6x M8	6x M8	6x M8	6x M12	6x M12	6x M12
D4 mm	M54x1,5	M54x1,5	M74x1,5	M74x1,5	M94x1,5	M120x1,5	M132x1,5
D 5 mm	M22x1,5	M30x1,5	M36x1,5	M50x1,5	M55x1,5	M85x1,5	M105x1,5
D 6 mm	70	92	92	110	132	190	225
D7	3x M8	3x M8	3x M8	3x M8	3x M10	3x M12	3x M12
D8 mm	84	106	106	122	152	215	250
L1 mm	84	82,5	89	94,5	103	122	122
L2 mm	18	18	18	26	19	-	-
L3 mm	17	17	17	17	20	20	20
L4 min mm	1,5	1,5	1,5	1,5	-0,5	-0,5	-0,5
L4 max mm	7,5	7,5	7,5	7,5	5,5	5,5	5,5
Total stroke mm	6	6	6	6	6	6	6
Maximum draw bar pull kN	25	35	40	45	50	65	70
Total clamping force kN	60	70	80	90	100	130	140
Speed max. min <sup>1</sup>	8000	7000	6500	6000	5500	5000	4000
Chuckung capacity mm	4-32	4-42	4-52	4-65	5-80	42-100	62-120
Clamping device manual	1283285	1283286	1283287	1283288	-	-	-
Clamping device air operated	431955 ▲	6898 ▲	436285 ▲	6898 ▲	1124 ▲	6352 ▲	6901 ▲
Conversion kit to CAPTIS-A	1283249	1283250	1283251	1283252	1283253	1283254	1283255
Turning fixture for soft collets	1316901 ▲	1316902 ▲	1316903 ▲	1316904 ▲	1316905 ▲	1316906 ▲	1316907 ▲

Intermediate flange ISO 702-1 (DIN 55028)

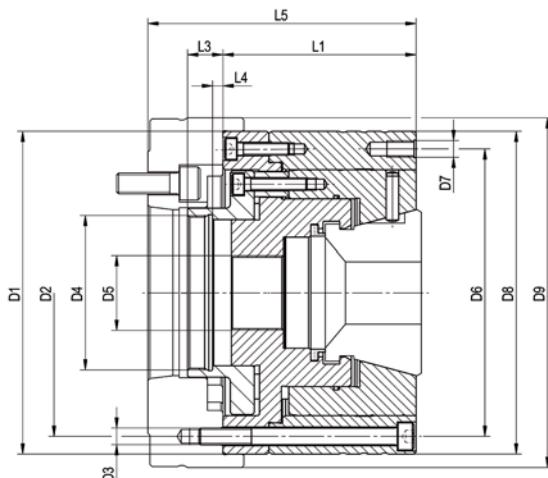
Size	32-A5 /42-A5	32-A6	42-A6	52-A5	65-A5	52-A6	65-A6	52-A8	65-A8	80-A6	100-A6	80-A8	100-A8	120-A8	120-A11
Intermediate flange	1283194	1283195	1283198	1283199	1283200	1283203 ▲	1283204 ▲	1283207 ▲	1283209 ▲						
D9	150	165	168	168	210	230	230	270	280						
L5	118,5	117	119,5	118	125	130,5	124,5	130	131	136,5	150	169	143	162	177

Intermediate flange cylindrical centre mount

Size	32-Z140	42-Z140	52-Z140	65-Z140	52-Z170	65-Z170	80-Z170	100-Z170	80-Z220	100-Z220	120-Z220
Intermediate flange	1283196		1283201		1283202		1283205		1283206 ▲		1283208 ▲
D9	150		168		180		230		230		270
L5	103,5	102	116,5	122	111,5	117	150	169	143	162	177

▲ on request

# CAPTIS-AF



C 15  
CAPTIS-AF collet chuck - axially stationary collect chuck, no axial tension against internal workpiece stop

Size	32	42	52	65	80	100	120
Collet chucks	1285001	1285002	1285003	1285004	1285005 ▲	1285006 ▲	1285007 ▲
D1 mm	137	137	155	155	215	215	250
D2 mm	120	120	138	138	190	190	225
D3	6x M8	6x M8	6x M8	6x M8	6x M12	6x M12	6x M12
D4 mm	M48x1,5	M54x1,5	M74x1,5	M74x1,5	M120x1,5	M120x1,5	M132x1,5
D5 mm	M22x1,5	M30x1,5	M36x1,5	M50x1,5	M65x1,5	M85x1,5	M105x1,5
D 6 mm	94	120	138	138	190	190	225
D7	3x M6	3x M8					
D8 mm	105	137	155	155	215	215	250
L1 mm	80,5	81	92,5	92,5	102	102	122
L2 mm	34,7	-	-	-	-	-	-
L3 mm	15,5	16	17	17	18,5	18,5	18,5
L4 min mm	-4	-2,5	2,5	2,5	-1	-1	-1
L4 max mm	2	3,5	8,5	8,5	5	5	5
Total stroke mm	6	6	6	6	6	6	6
Maximum draw bar pull kN	25	35	40	45	50	65	70
Total clamping force kN	60	70	80	90	100	130	140
Speed max. min-1	8000	7000	6500	6000	5500	5000	4000
Chucking capacity mm	4-32	4-42	4-52	4-65	5-80	42-100	62-120
Clamping device manual	1283285	1283286	1283287	1283288	-	-	-
Clamping device air operated	431955 ▲	6898 ▲	436285 ▲	6898 ▲	1124 ▲	6352 ▲	6901 ▲
Turning fixture for soft collets	1316901 ▲	1316902 ▲	1316903 ▲	1316904 ▲	1316905 ▲	1316906 ▲	1316907 ▲

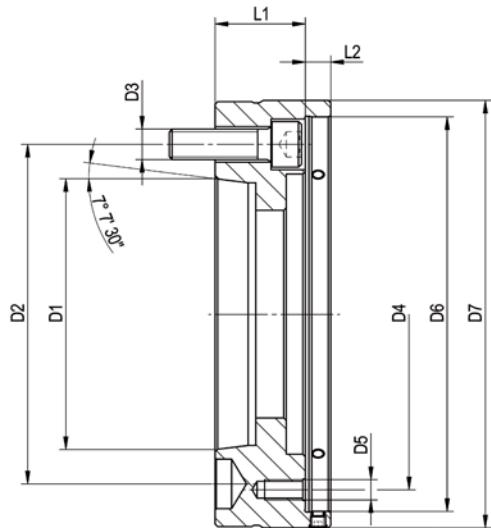
Intermediate flange ISO 702-1 (DIN 55028)

Size	32-A5	/42-A5	32-A6	42-A6	52-A5	65-A5	52-A6	65-A6	52-A8	65-A8	80-A6	100-A6	80-A8	100-A8	120-A8	120-A11	
Intermediate flange	1283194		1283195		1283198		1283199		1283200		1283203 ▲		1283204 ▲		1283207 ▲		1283209 ▲
D9	150		165		168		168		210		230		230		270		280
L5	115	115,5	116	116,5	128,5	128,5	128	128	134,5	134,5	149	149	142	142	177		162

Intermediate flange cylindrical centre mount

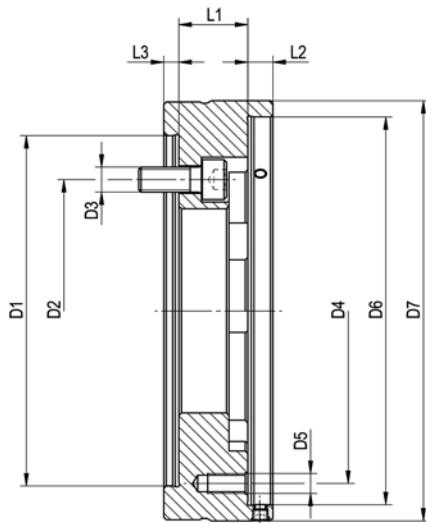
Size	32-Z140	42-Z140	52-Z140	65-Z140	52-Z170	65-Z170	80-Z170	100-Z170	80-Z220	100-Z220	120-Z220
Intermediate flange	1283196		1283201		1283202		1283205 ▲		1283206 ▲		1283208 ▲
D9	150		168		180		230		230		270
L5	100	100,5	120	120	115	115	149	149	142	142	177

# CAPTIS intermediate flange



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

Size	32/42-A5	32/42-A6	52/65-A5	52/65-A6	52/65-A8	80/100-A6	80/100-A8	120-A8	120-A11
Intermediate flange	1283194	1283195	1283198	1283199	1283200	1283203 ▲	1283204 ▲	1283207	1283209
D1 mm	82,563	106,375	82,563	106,375	139,719	106,375	139,719	139,719	196,869
D2 mm	104,8	133,4	104,8	133,4	171,4	133,4	171,4	171,4	235
D3	6x M10	3x M12	6x M10	3x M12	3x M16	6x M12	3x M16	6x M16	3x M20
D4 mm	100/120	100/120	138	138	138	190	190	225	225
D5	6x M8	6x M12	6x M12	6x M12	6x M12				
D6	137	137	155	155	155	215	215	250	250
D7 mm	150	165	168	168	210	230	230	270	280
L1 mm	34,5	35,5	36	35,5	42	47	40	55	40
L2 mm	10	10	10	10	10	10	10	12	12

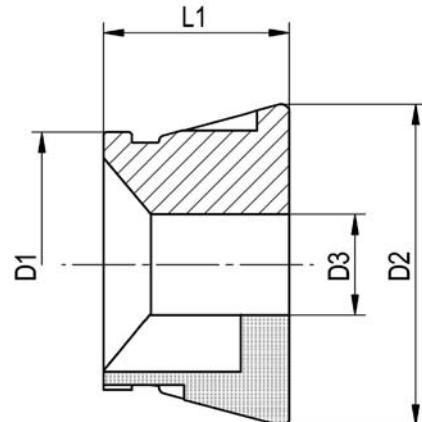


Intermediate flange cylindrical centre mount with adjusting screw

Size	32/42-Z140	52/65-Z140	52/65-Z170	80/100-Z170	80/100-Z220	120-Z220
Intermediate flange	1283196	1283201	1283202	1283205 ▲	1283206 ▲	1283208
D1 mm	140	140	170	170	220	220
D2 mm	104,8	104,8	133,4	133,4	171,4	171,4
D3	6x M10	6x M10	6x M12	6x M12	6x M16	6x M16
D4 mm	100/120	138	138	190	190	225
D5	6x M8	6x M8	6x M8	6x M12	6x M12	6x M12
D6	137	155	155	215	215	250
D7 mm	150	168	180	230	230	270
L1 mm	19,5	27,5	22,5	47	40	55
L2 mm	10	10	10	10	10	12
L3 mm	6	6	6	6	6	6

▲ on request

# CAPTIS collet chucks



(G): Smooth

(LQ): Longitudinal and transverse grooves

(Q): Transverse grooves

(W): Soft

from 4-7 mm smooth

from 8-10 mm with trans. grooves  
caused by production

\* Please specify clamping diameters D3 in the order, valid for collet chucks type LQ + Q

## Clamping of unmachined parts with extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
32	46,2	57,7	47	X				8-32mm			1	CAPTIS-32-47-RLQ / D3*
32	46,2	57,7	47		X				7-27mm		1	CAPTIS-32-47-SQ / D3*
32	46,2	57,7	47		X					7-22mm	1	CAPTIS-32-47-VQ / D3*

## Clamping of unmachined parts without extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
32	46,2	57,7	44			X		4-32mm			1	CAPTIS-32-44-RG / D3*
32	46,2	57,7	44				X	5,15,20mm			1	CAPTIS-32-44-WG / D3*

## Clamping of unmachined parts with extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
42	54	79,5	47	X				8-42mm			0,5	CAPTIS-42-47-RLQ / D3*
42	54	79,5	47		X				7-36mm		1	CAPTIS-42-47-SQ / D3*
42	54	79,5	47		X					7-30mm	1	CAPTIS-42-47-VQ / D3*

## Clamping of machined parts without extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
42	54	79,5	42			X		4-42mm			0,5	CAPTIS-42-42-RG / D3*
42	54	79,5	42				X	8,15,30mm			0,5	CAPTIS-42-42-WG / D3*

## Clamping of unmachined parts with extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
52	65,7	79,5	46	X				8-52mm			0,5	CAPTIS-52-46-RLQ / D3*
52	65,7	79,5	46		X				7-45mm		1	CAPTIS-52-46-SQ / D3*
52	65,7	79,5	46		X					8-36mm	1	CAPTIS-52-46-VQ / D3*

## Clamping of machined parts without extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
52	65,7	79,5	46			X		4-52mm			0,5	CAPTIS-52-46-RG / D3*
52	65,7	79,5	46				X	8,15,30mm			0,5	CAPTIS-52-46-WG / D3*



# CAPTIS collet chucks

(G): Smooth

(LQ): Longitudinal and transverse grooves

(Q): Transverse grooves

(W): Soft

from 4-7 mm smooth

from 8-10 mm with trans. grooves caused by production

\* Please specify clamping diameters D3 in the order, valid for collet chucks type LQ + Q

## Clamping of unmachined parts with extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
65	80	99,5	58	X				8-65mm			0,5	CAPTIS-65-58-RLQ / D3*
65	80	99,5	58		X				7-56mm		1	CAPTIS-65-58-SQ / D3*
65	80	99,5	58		X					7-46mm	1	CAPTIS-65-58-VQ / D3*

## Clamping of machined parts without extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
65	80	99,5	53			X		8-65mm			0,5	CAPTIS-65-53-RG / D3*
65	80	99,5	53				X	8,20,40mm			0,5	CAPTIS-65-53-WG / D3*

## Clamping of unmachined parts with extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
80	94,5	114,5	53	X				8-80mm			1	CAPTIS-80-53-RLQ / D3*
80	94,5	114,5	53		X				7-68mm		1	CAPTIS-80-53-SQ / D3*
80	94,5	114,5	53		X				8-42mm	1		CAPTIS-80-53-VQ / D3*

## Clamping of machined parts without extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
80	94,5	114,5	53			X		5-80mm			1	CAPTIS-80-53-RG / D3*
80	94,5	114,5	53				X	20,30,40, 60mm			1	CAPTIS-80-53-WG / D3*

## Clamping of unmachined parts with extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
100	121	144,5	59	X				42-100mm			1	CAPTIS-100-59-RLQ / D3*
100	121	144,5	59		X				50-86mm		1	CAPTIS-100-59-SQ / D3*
100	121	144,5	59		X				50-70mm	1		CAPTIS-100-59-VQ / D3*

## Clamping of machined parts without extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
100	121	144,5	59			X		42-100mm			1	CAPTIS-100-59-RG / D3*
100	121	144,5	59				X	30,45,65, 90mm			1	CAPTIS-100-59-WG / D3*

## Clamping of unmachined parts with extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
120	141,8	180	61	X				62-120mm			1	CAPTIS-120-61-RLQ / D3*
120	141,8	180	61		X				50-104mm		1	CAPTIS-120-61-SQ / D3*
120	141,8	180	61		X				50-85mm	1		CAPTIS-120-61-VQ / D3*

## Clamping of machined parts without extension

Size	D1	D2	L1	LQ	Q	G	W	Round	Hexagon	Square	Raising	Order No.
120	141,8	180	61			X		62-120mm			1	CAPTIS-120-61-RG / D3*
120	141,8	180	61				X	65,90,110mm			1	CAPTIS-120-61-WG / D3*

# CAPTIS-MS



## APPLICATION

Manual/stationary external clamping of round workpieces, as well as square and hexagon profiles. Turning, milling, grinding operations as well as for measuring. Ideal for 5-sided machining.

## TYPE

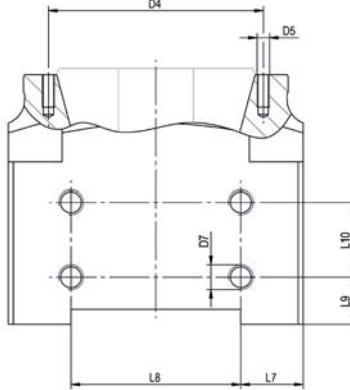
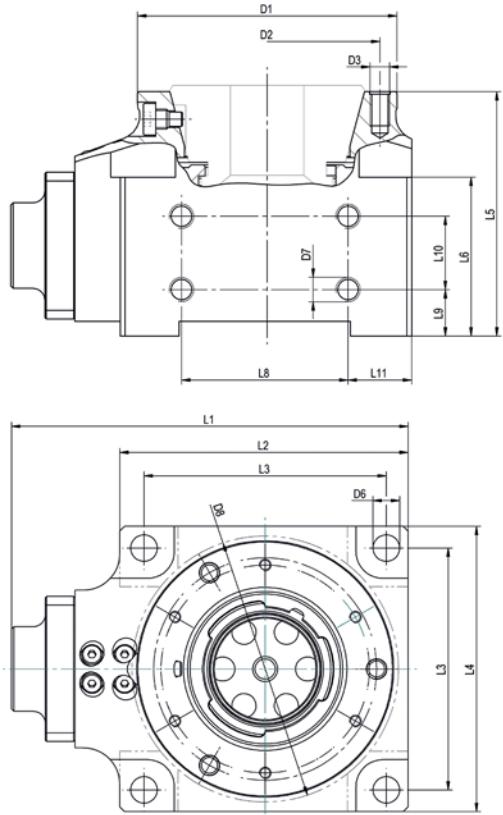
Manually actuated.  
With axial tension against workpiece stop (as an option).

## CUSTOMER BENEFITS

- ⊕ Maximum flexibility thanks to modular design and versatile combination and retrofitting options
- ⊕ Low weight and low height thanks to compact design for more work area in the machine
- ⊕ Short setup and non-productive times thanks to fast collet chuck change as well as great expansion of the collet chucks
- ⊕ Maximum clamping stroke/expansion by 180° rotation of the actuation key
- ⊕ Prepared for internal workpiece stop and front stop
- ⊕ Sturdy clamping of the workpiece thanks to axial tension against the workpiece stop
- ⊕ Sensitive manual clamping with actuation key

## TECHNICAL FEATURES

- Collet chucks with exchangeable and oil-resistant vulcanized rubber



C 15  
CAPTIS-MS stationary power chuck

Size	32	42	52	65
Stationary power chucks	1284189	1284190	1284191	1284192
D1 mm	84	106	106	122
D2 mm	70	92	92	110
D3	M8	M8	M8	M8
D4 mm	66	86	86	107
D5	M5	M5	M5	M5
D6	11	11	11	11
L1 mm	145	162	162	176
L2 mm	105	117,5	117,5	130
L3 mm	80	100	100	112
L4 mm	100	118	118	130
L5	100	100	100	104
L6 mm	65	65	65	57

# ABSIS-C



## 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-MS.  
Ideal for clamping in through-holes.

## TYPE

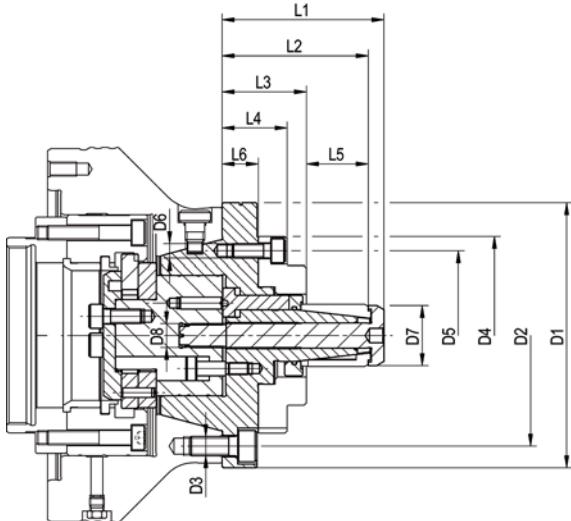
Manual with adaptation to CAPTIS-MS.  
Force-actuation with adaptation to CAPTIS-D, CAPTIS-A.

## 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

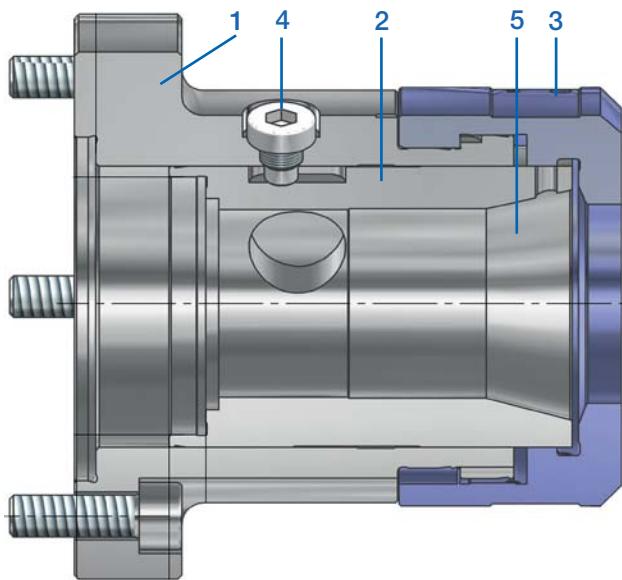


C 15

**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	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	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											
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											
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

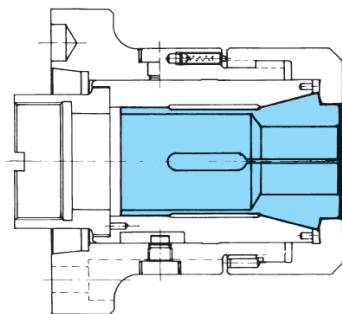
KZF

**1. Body**

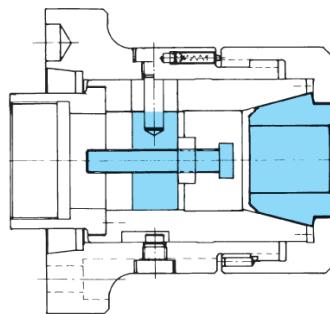
**2.** Thrust sleeve for steel collets and segment collets. By replacing the thrust sleeve, duo-segment collets can be used

**3. Union nut with bayonet lock****4. Protection against torsion for thrust sleeve**

- Adapter fitting must be ordered separately. Suitable for existing draw tube, glue into thrust sleeve
- Special accessories; are not part of the scope of delivery. The workpiece stop can only be used for segment collets. Order separately: Cap screw or stud bolt with locknut acc. to DIN 55027.

**5. Protection against torsion for collet**

Hollow clamping with steel collet  
DIN 6343



Clamping with segment pliers and  
workpiece stop

# KZF



## APPLICATION

External clamping of round workpieces, as well as square and hexagon profiles. Turning, milling, grinding operations as well as for measuring. Ideal for bars and pipe machining on the main spindle. For using standardized DIN collet chucks or segment collet chucks.

## TYPE

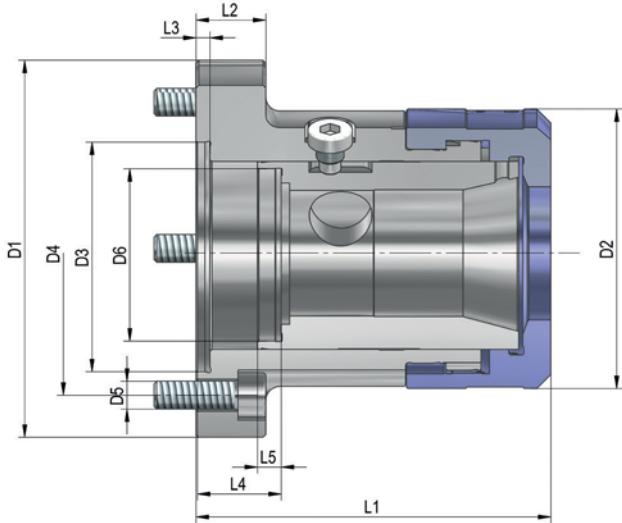
Force-actuated.  
Internal workpiece stop optional in conjunction with segment collet.

## CUSTOMER BENEFITS

- ⊕ Light weight and reduced height thanks to compact design
- ⊕ Short setup times thanks to quick change of collet chuck
- ⊕ High flexibility thanks to modular system
- ⊕ Quick retrofitting to other workpieces by changing the collect chuck
- ⊕ Axially stationary collect chuck, no axial tension against internal workpiece stop

## TECHNICAL FEATURES

- Hardened, low-wear design
- Either DIN steel or segment collet chucks



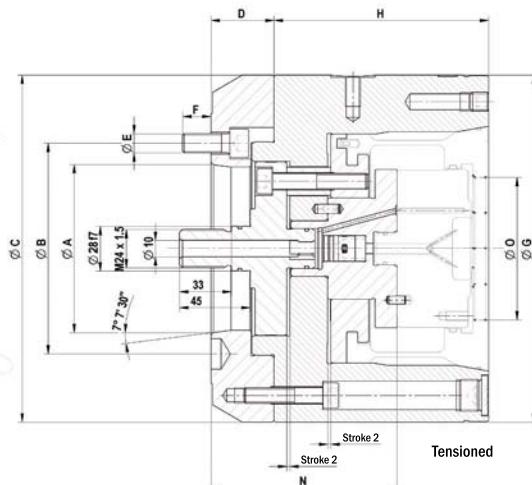
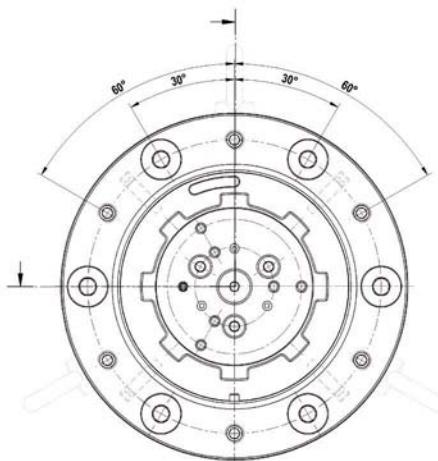
C 15

**Power-operated collet chuck KZF, with quick-acting bayonet catch, without collet**  
Cylindrical center mount / short taper mount - draw tube adapter available on request

Item no.	439989	439990	439991	439992	439993	439994	439995	439996	439997	439998
Size	40	40	40	40	60	60	60	60	80	80
Mount	Z-140	Z-88	KK 5	KK 6	Z-115	Z-170	KK 6	KK 8	Z-130	KK 8
D1	160	135	170	170	157	190	210	210	187	210
D2	100	100	100	100	122	122	122	122	150	150
D3	140	88	82,563	106,375	115	170	106,375	139,719	130	139,719
D4	104,8	115	104,8	133,4	136	133,4	133,4	171,4	166	171,4
D5	4xM10	6xM8	4xM10	4xM12	8xM8	6xM12	4xM12	4xM16	8xM8	4xM16
D6	M66x1,5	M66x1,5	M66x1,5	M66x1,5	M88x1,5	M88x1,5	M88x1,5	M88x1,5	M88x1,5	M114x1,5
L1	116	116	127	128	132	132	144	146	156	170
L2	25	25	25	25	25	25	25	25	30	30
L3	5	5	16	18	5	5	18	22	5	22
L4 min	16	16	32	33	16	16	33	35	17	36
L4 max	8,5	8,5	24,5	25,5	8,5	8,5	25,5	27,5	9,5	28,5
L5	8,5	8,5	8,5	8,5	8,5	8,5	8,5	8,5	12,5	12,5
Total stroke mm	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5
Maximum draw bar pull kN	25	25	25	25	30	30	30	30	35	35
Total clamping force kN	50	50	50	50	60	60	60	60	70	70
Adm. speed min-1	8000	8000	8000	8000	5000	5000	5000	5000	4000	4000
Chucking capacity mm	2-42	2-42	2-42	2-42	4-60	4-60	4-60	4-60	20-80	20-80
Moment of inertia J kgm <sup>2</sup>	0,029	0,029	0,029	0,029	0,038	0,038	0,038	0,038	0,108	0,108
Weight without collet kg	7,1	5,3	7,5	7,5	9,2	9,2	10,2	14	17,5	18

Anti-rotation device optionally available Id.-Nr. 701331

# KZF-S



## APPLICATION

External clamping of round workpieces with smooth or toothed outer geometry for turning, milling, grinding and measuring operations.  
Optimal on the clamping device/clamping adapted to the workpiece/machining process. Ideal for short clamping lengths.

## TYPE

Force-actuated.

## CUSTOMER BENEFITS

- ⌚ Sturdy clamping of the workpiece thanks to axial tension against the workpiece stop
- ⌚ Quick change of collet chuck by bayonet lock
- ⌚ High concentricity, axial run-out and repeatability
- ⌚ High flexibility thanks to modular system

## TECHNICAL FEATURES

- Manual lubrication/low-maintenance
- Prepared for internal media feed-through, e.g. air and coolant
- Prepared for internal workpiece stop
- Collet chucks can be individually adapted to the workpiece
- Sealing against chips

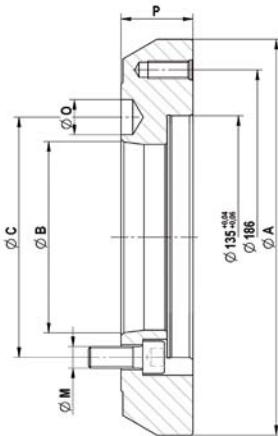
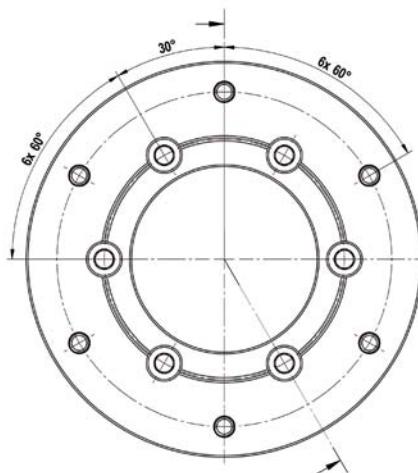
C 18

Power operated collet chuck KZF-S, for external clamping

	KZF 80	KZF 120	KZF 180
Body collet	1117832 ▲	1117830 ▲	1125403 ▲
Base bolt	1117833	1072101	1125404
Draw piece	1117837	1117827	1125408
Fastening plate	1117835	1072105	1125406
Bolt spacer	1117836	1072103	1072103
Ground stop for reverse valve cartridge	1117839	1072113	1125410
Ground stop for ermeto pipe	1117841	1117824	1125412
Reverse valve cartridge 1 Bar	756641	863134	863134
Reverse valve cartridge 3 Bar	843866	889894	889894
A	82,563	106,37	139,719
B	104,8	133,4	171,4
C/G	170	220	258
D	35	40	45
E	M10	M12	M16
F Max, in daN	30	40	40
H	125	136	136
N	103	118	123
O	30-80	60-120	100-180
Speed max, min-1	6000	5000	3500
Stroke mm	4	4	4
Clamping dia, min,	30	60	100
Clamping dia, max,	80	120	180
Expansion in Ø mm	1,4	1,4	1,4
Ø G	170	220	285
H mm	125	136	136

Info: kzf@roehm.biz

# Accessories KZF-S



C 18

Intermediate flange ISO 702-1 (DIN 55028)

	A 05	Nr. 5 (A5)	A 05	Nr. 6 (A6)	A 06	A 08	Nr. 8 (A8)	A 08
Intermediate flange	1117843 ▲	1072115	1117845 ▲	1072117	1125416 ▲	1117847 ▲	1072119	1125418 ▲
For	KZF-S 80	KZF-S 80/AGILIS 05-07	KZF-S 81	KZF-S 120/AGILIS 05-07	KZF-S 180	KZF-S 82	KZF-S 120/AGILIS 05-07	KZF-S 180
Short-taper-Ø B	82,563	82,563	106,375	106,375	106,375	139,719	139,719	139,719
Short-taper pitch circle Ø C	104,8	104,8	133,4	133,4	133,4	171,4	171,4	171,4
Flange outer-Ø A	170	220	170	220	285	210	220	285
Ø D	105	135	105	135	200	105	135	200
Ø F mm	143	186	143	186	250	143	186	250
Ø O mm	16,3	16,3	19,45	19,45	19,45	24,2	24,2	24,2
Thread-Ø M	M10	M10	M12	M12	M12	M16	M16	M16
Total length flange P	35	40	35	40	45	35	40	45

# Special solutions KFG



## Sliding clamping mandrel KFG clamping-Ø 30 mm

### APPLICATION

Turning of a differential housing

Clamping of a differential housing in two clamping planes. Diameter difference between the clamping planes are compensated. The workpiece stop is equipped with an air sensing. The entire clamping mandrel is sealed with purge air.

### CUSTOMER BENEFITS

- ⌚ Two compensating clamping planes
- ⌚ Concentricity of 0.02 mm



## Sliding clamping mandrel KFG clamping-Ø 155 mm / clamping-Ø 161 mm

### APPLICATION

Drilling of two workpieces with different diameters

Clamping of two clamping planes that are very close together. Clamping of both clamping planes is done using springs. Pneumatic unclamping via a cylinder in the basic take-up. Compact, space-saving construction. Drain boreholes for coolant.

### CUSTOMER BENEFITS

- ⌚ Overall height less than 200 mm
- ⌚ Concentricity of 0.03 mm



## Sliding clamping mandrel KFG clamping range from 98-113 mm

### APPLICATION

Turning of clamping cylinder liners, raw part

Left clamping plane force-actuated by draw bar. Right clamping plane spring-actuated; to compensate for workpiece tolerances. Stop can be pulled back. Different workpiece diameters can be clamped by changing the top jaws.

### CUSTOMER BENEFITS

- ⌚ Large clamping range elongation of 7 mm
- ⌚ Large torque transmission from corrugation of the top jaws

# Special solutions KFG



**Sliding clamping mandrel KFG with intermediate sleeves  
Ø 104-120 mm**

#### APPLICATION

Turning of clamping cylinder liners, final machining

Left clamping plane force-actuated by draw bar; right clamping plane force-actuated by tailstock. Stop can be pulled by with air sensing. Different workpiece diameters can be clamped by changing the intermediate sleeve.

#### CUSTOMER BENEFITS

- ⌚ Intermediate sleeve can be changed
- ⌚ High concentricity of 0.015 mm



**Sliding clamping mandrel KFG clamping-Ø 39 mm /  
clamping-Ø 40 mm**

#### APPLICATION

Turning

The clamping in clamping zone 1 is done by the draw bar with serrated jaws for high torque transmission. Clamping zone 2 is actuated by springs and is equipped with an intermediate sleeve.

#### CUSTOMER BENEFITS

- ⌚ Intermediate sleeve protects the workpiece surface
- ⌚ Concentricity of 0.01 mm

# Special solution HYKS



**Hydraulically actuated clamping mandrel for internal and external clamping**

## APPLICATION

Grinding, turning, milling, measuring

The hydraulic medium is put under pressure by a piston or by system pressure. The elongation can be up to 0.3 % (up to 1 % for special materials) of the diameter of the extension sleeve. Clamping directly by extension sleeve or indirectly by a slotted intermediate sleeve.

## CUSTOMER BENEFITS

- ④ Cylindrical and round elongation over the entire clamping range for a maximum concentricity tolerance of 0.003 mm
- ④ Very high clamping force in the clamping zone
- ④ Optimum damping, extremely quiet machining and significantly higher service life of the tool due to precisely fitted clamping sleeve

## TECHNICAL FEATURES

Force-actuated or manual actuation. Wear-resistant surface. The clamping systems can be put under pressure by hydraulic or pneumatic cylinders, by the machine hydraulics directly or even manually by using a screw. Different stops (optional): fixed, withdrawable, external, oscillating, etc.

# Special solutions



## Special mandrels

### APPLICATION

Grinding, milling

Basic take-up with different replaceable head for clamping of pistons. Face clamping using internal draw piece. Position orientation using centering forks. An insertion securing device prevents incorrect loading. The actuation is done using OVS70 RÖHM clamping cylinders. The entire external contour can be machined.

### CUSTOMER BENEFITS

- ④ Clamping head with quick change system
- ④ Concentricity of 0.005 mm



## Clamping fixture

### APPLICATION

Milling, drilling

Clamping device with three basic units. Pneumatically release clamping via spring force. Two basic units equipped with KFR clamping mandrels. A basic unit equipped with a power chuck.

### CUSTOMER BENEFITS

- ④ Basic units can be equipped with different clamping systems

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