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**More than meets the eye.
With enormous strength from within.
Also eminently suitable for sensitive
and particularly thin-walled workpieces!**





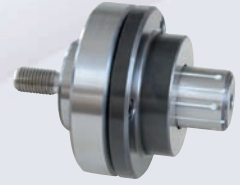
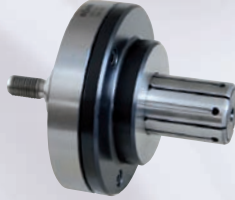
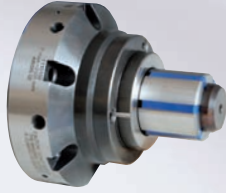
MANDRELS








Segment clamping mandrel ABSIS	7005
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Orientation guide

	ABSIS	KFS/MFS	MZS	KFR
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Application	Turning, grinding, cutting, toothcutting, balancing, etc.	Turning, grinding, cutting, toothcutting, balancing, etc.	Turning, grinding, measuring, toothcutting	Turning, grinding, cutting, toothcutting, balancing, etc.
Clamping	internal	internal	internal	internal
Actuation	 	 		 

Possible clamping surface:

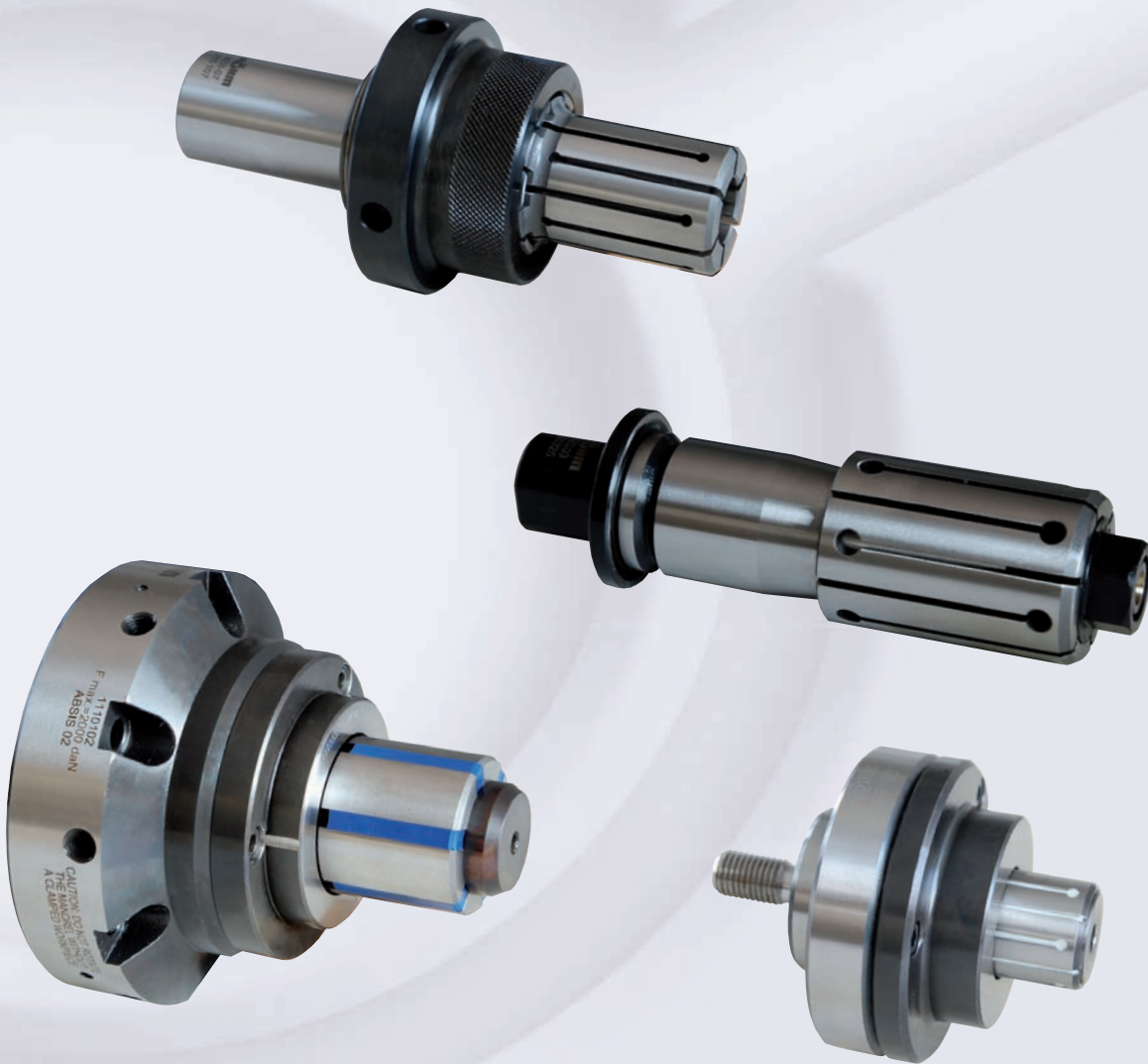
- s mootth (standard)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- coated	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- chechered	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- toothing (clamping in pitch circle)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- form clamping (e.g. hexagon)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Axial component	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Clamping Ø	20 - 106	15 - 140	15 - 140	14,5 - 131
Work-stop possible	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Prepared for air sensing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mount	cylindrical mount; combinable with intermediate adapter ISO 702-1 (DIN 55028)	cylindrical mount; combinable with intermediate adapter ISO 702-1 (DIN 55028)	between centers or cylindrical mount, can be caughted at the shaft	cylindrical mount; combinable with intermediate adapter ISO 702-1 (DIN 55028)
Features	high hardness at the clamping sleeve; therefore wear-resistant, long service life of the clamping sleeve	rigid clamping, for long workpieces, resp. great span length	rigid clamping, for long workpieces, resp. great span length	for short clamping lengths, suitable for defined or without axial component
Page	7005	7013	7026	7028 / 7032

We have already realised special solutions in all areas of clamping systems, which differ partialy relevant from the values gives ahead (e.g. clamping surfaces, clamping diameters or precisions). Apart from this standart clamping systems we offer a series of special systems such as HYKS, KFG, axial- and centering clamping systems or combinated clampings. Furthermore we are focused on exceptional special solutions. Please contact us!

Orientation guide

	AGILIS	KFB	MZB	MZE	
					
Application	Turning, grinding, cutting, toothcutting, balancing, etc.	Turning, grinding, cutting, toothcutting, balancing, etc.	Turning, grinding, measuring	Measuring, grinding, slight turning operations	
Clamping	internal	internal	internal	internal	
Actuation					
Possible clamping surface:					
- s mooth (standard)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
- coated	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
- cheched	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
- toothing (clamping in pitch circle)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
- form clamping (e.g. hexagon)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Axial component	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Clamping Ø	10 - 130	5,5 - 29	5,5 - 78,7	8 - 230	
Work-stop possible	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Prepared for air sensing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mount	cylindrical mount; combinable with intermediate adapter ISO 702-1 (DIN 55028)	cylindrical mount; combinable with intermediate adapter ISO 702-1 (DIN 55028)	between centers or cylindrical mount, can be caught at the shaft	cylindrical mount; combinable with intermediate adapter ISO 702-1 (DIN 55028)	
Features	rigid system with a high portable torque for jobs with small Ø, for short clamping lengths (power-operated), high hardness of the clamping sleeve (power-operated)	rigid system with a high portable torque for jobs with small Ø, for short clamping lengths (power-operated)	rigid system with a high portable torque for jobs with small Ø, for short clamping lengths (hand-operated)	cost-effective system for scaling jobs, high precision	
Page	7045	7051	7056	7062	
	<input checked="" type="checkbox"/> yes	<input type="checkbox"/> optional	<input type="checkbox"/> no	 hand operated	 power operated

Introduction

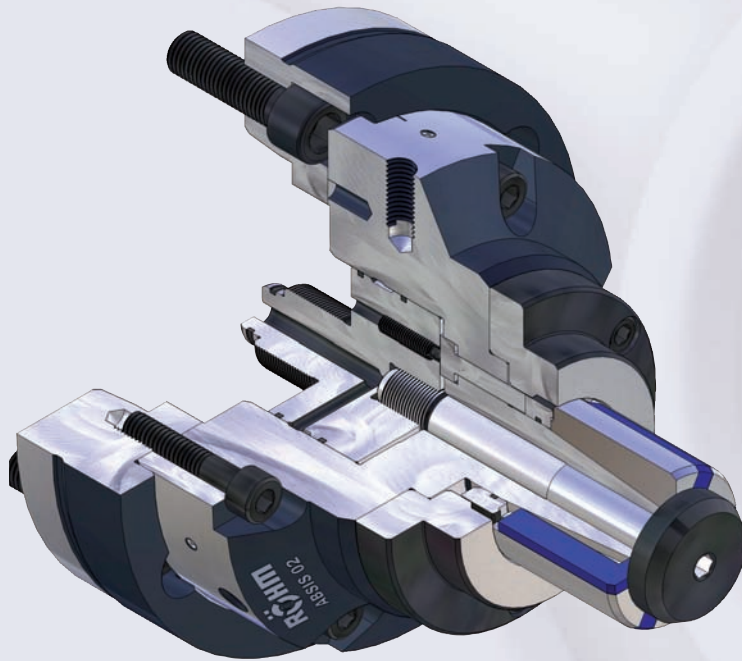


The modern production technology can abandon heavily the employment of clamping mandrels. In the fields of finishing, turning, grinding, tothing and control, cartridge mandrels take important jobs, which are linked with ambitious aims.

The different applications require a program with many variants, that reaches from hand- or power-operated versions with morse taper mount or adapter mount, to different clamping ranges and various features like repressive clamping or workpiece stop with or without blast air controll. Additionally vulcanized clamping sleeves, whose vulcanization protects against chips and dirt, are a part of it.

All products are available as special designs!
Please contact us!

Power-operated segment mandrel with flanged seat, for internal clamping



Application:

Turning, grinding, cutting, toothcutting, balancing, measuring.

Special features:

Compact, solid design for precise machining, steady clamping by axial draw-in. The draw-in of the work-pieces against the rigid work-stop takes place independently via the operation of the mandrels.

Vibrations damping by the rate of rubber, the segment sleeve is including.

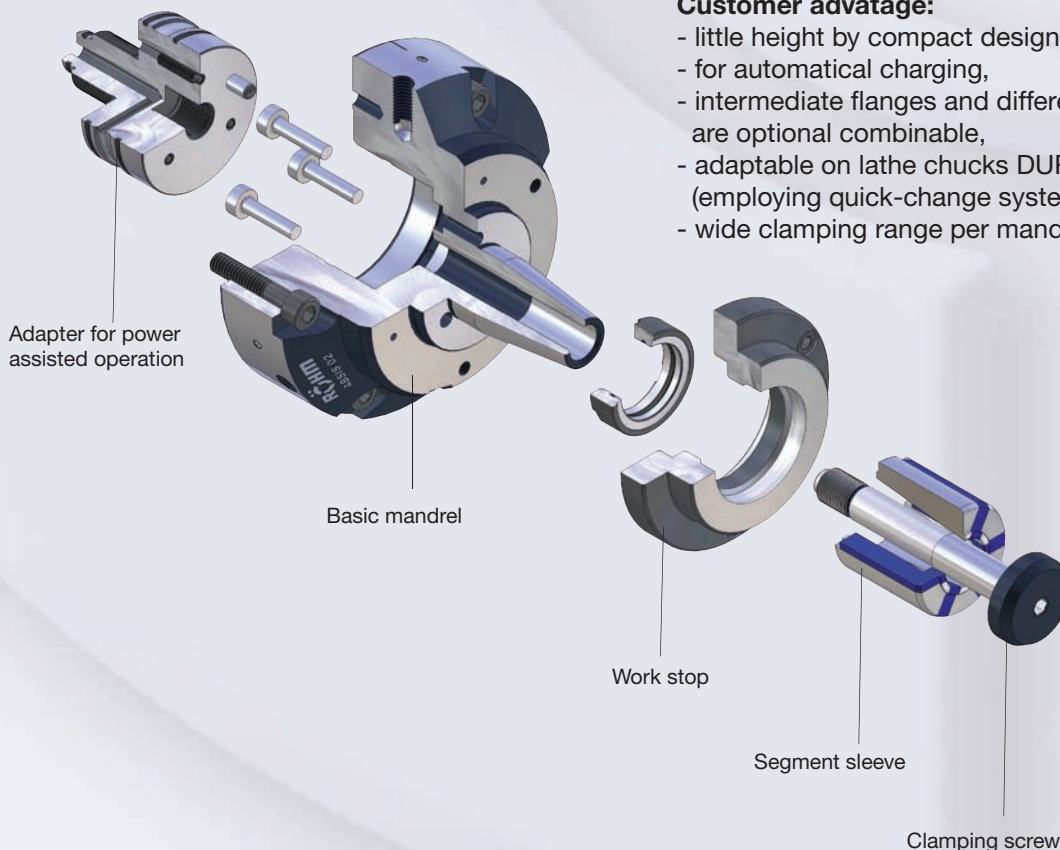
Prepared for air sensing.

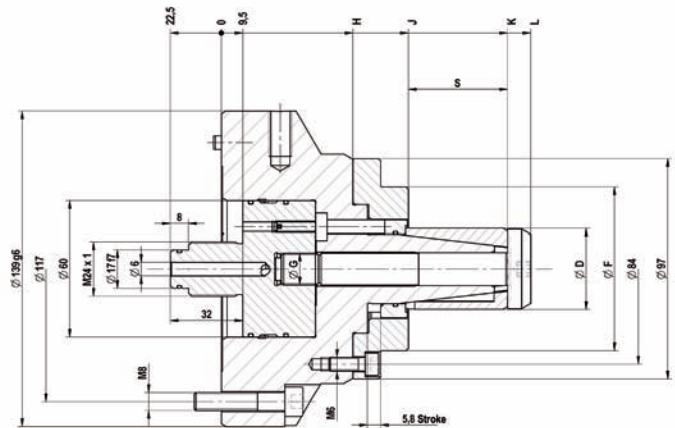
Technical features:

- high axial- and radial accuracy,
- high repeating accuracy,
- hardened low-wear construction,
- high accuracy by guiding the sleeves on the clamping mandrel,
- compatible with intermediate flange Type 269-90,
- integrated hand-operated lubrication,
- quick change of the clamping sleeves by the central tension screw,
- hardened (clamping-) segments (grade >60HRC).

Customer advantage:

- little height by compact design,
- for automatic charging,
- intermediate flanges and different mandrel sizes are optional combinable,
- adaptable on lathe chucks DURO-NC (employing quick-change systems),
- wide clamping range per mandrel size.



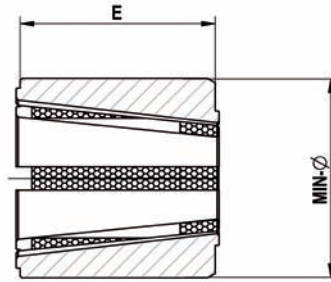
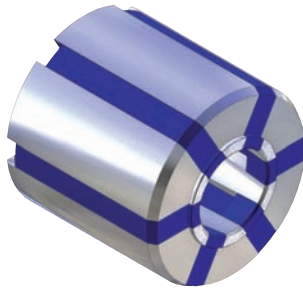


Tool group C 18

Type 269-00 **ABSIS** Segment clamping mandrel, **power-operated with flanged seat**; for internal clamping consists 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
D Min-Ø unclamped from	19,7	25,7	35,7	50,7	72,7
D Min-Ø unclamped to	27,7	38,7	54,7	81,7	105,7
Clamping-Ø max,	29	40	56	83	107
S	23	27	44	50	60
Ø F	58	58	72	90	120
Ø G	M6x0,75	M10x1	M14x1	M18x1	M20x1
H	55	55	58	58,5	60
J	75	75	82,5	84,5	86
K	98	102	126,3	134,5	146
L	103,5	108,5	136,5	146,5	160

Accessories ABSIS



Tool group C 18
Type 269-55 **Segment clamping sleeve** - standard design

	ABSIS 00	ABSIS 01	ABSIS 02	ABSIS 03	ABSIS 04
Expansion in Ø	1,2	1,2	1,2	1,2	1,2
Total length E	23	27	44	50	60
Min-Ø	19,7	25,7	35,7	50,7	72,7
Segment sleeve	1111400	1111409	1111423	1111443	1111475
Work stop	1110070	1110071	1110072	1110073	1110074
Min-Ø	20,7	26,7	36,7	51,7	73,7
Segment sleeve	1111401	1111410	1111424	1111444	1111476
Work stop	1110070	1110071	1110072	1110073	1110074
Min-Ø	21,7	27,7	37,7	52,7	74,7
Segment sleeve	1111402	1111411	1111425	1111445	1111477
Work stop	1110070	1110071	1110072	1123341	1123372
Min-Ø	22,7	28,7	38,7	53,7	75,7
Segment sleeve	1111403	1111412	1111426	1111446	1111478
Work stop	1110070	1110071	1110072	1123342	1123373
Min-Ø	23,7	29,7	39,7	54,7	76,7
Segment sleeve	1111404	1111413	1111427	1111447	1111479
Work stop	1110070	1110071	1110072	1123343	1123374
Min-Ø	24,7	30,7	40,7	55,7	77,7
Segment sleeve	1111405	1111414	1111428	1111448	1111480
Work stop	1110070	1110071	1110072	1123344	1123375
Min-Ø	25,7	31,7	41,7	56,7	78,7
Segment sleeve	1111406	1111415	1111429	1111449	1111481
Work stop	1110070	1110071	1110072	1123345	1173376
Min-Ø	26,7	32,7	42,7	57,7	79,7
Segment sleeve	1111407	1111416	1111430	1111450	1111482
Work stop	1123305	1110071	1123327	1123346	1123377
Min-Ø	27,7	33,7	43,7	58,7	80,7
Segment sleeve	1111408	1111417	1111431	1111451	1111483
Work stop	1123306	1123315	1123328	1123347	1123378
Min-Ø		34,7	44,7	59,7	81,7
Segment sleeve		1111418	1111432	1111452	1111484
Work stop		1123316	1123329	1123348	1123379
Min-Ø		35,7	45,7	60,7	82,7
Segment sleeve		1111419	1111433	1111453	1111485
Work stop		1123317	1123330	1123349	1123380
Min-Ø		36,7	46,7	61,7	83,7
Segment sleeve		1111420	1111434	1111454	1111486
Work stop		1123318	1123331	1123350	1123381
Min-Ø		37,7	47,7	62,7	84,7
Segment sleeve		1111421	1111435	1111455	1111487
Work stop		1123319	1123332	1123351	1123382
Min-Ø		38,7	48,7	63,7	85,7
Segment sleeve		1111422	1111436	1111456	1111488
Work stop		1123320	1123333	1123352	1123383
Min-Ø			49,7	64,7	86,7
Segment sleeve			1111437	1111457	1111489
Work stop			1123334	1123353	1123384
Min-Ø			50,7	65,7	87,7
Segment sleeve			1111438	1111458	1111490
Work stop			1123335	1123354	1123385
Min-Ø			51,7	66,7	88,7
Segment sleeve			1111439	1111459	1111491
Work stop			1123336	1123355	1123386

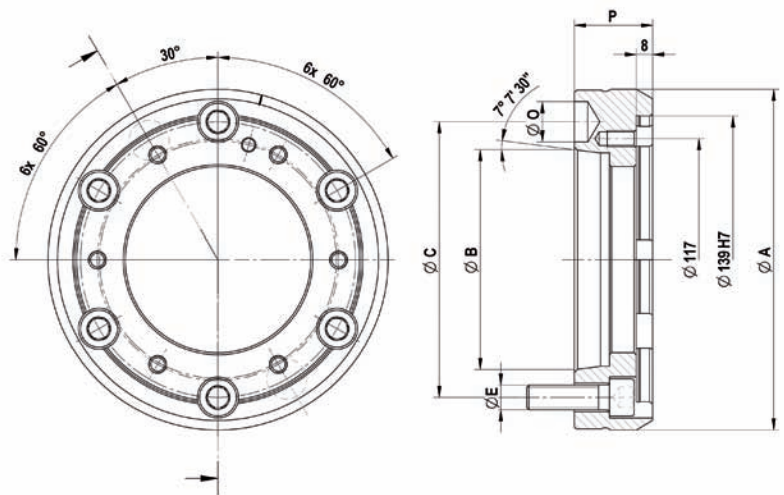
Accessories ABSIS

Tool group C 18

 Type 269-55 **Segment clamping sleeve** - standard design

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

Accessories ABSIS



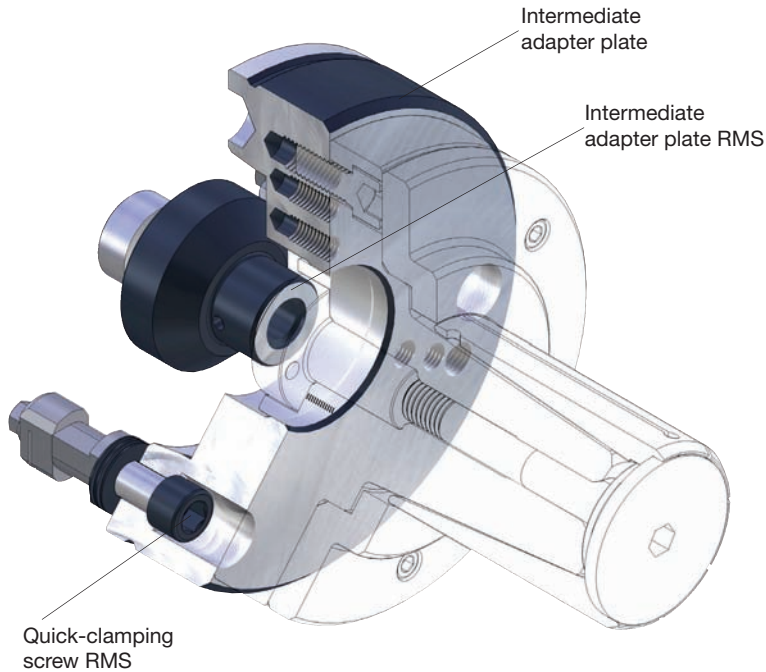
Tool group C 18

Type 269-90 Intermediate flange ISO 702-1 (DIN 55028)

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

Accessories ABSIS

Hand-operated quick-change system for clamping devices
Compatible for ABSIS (269-00) and AGILIS (296-00)



Application:

Hand-operated change of clamping devices with few time exposure.

Special features:

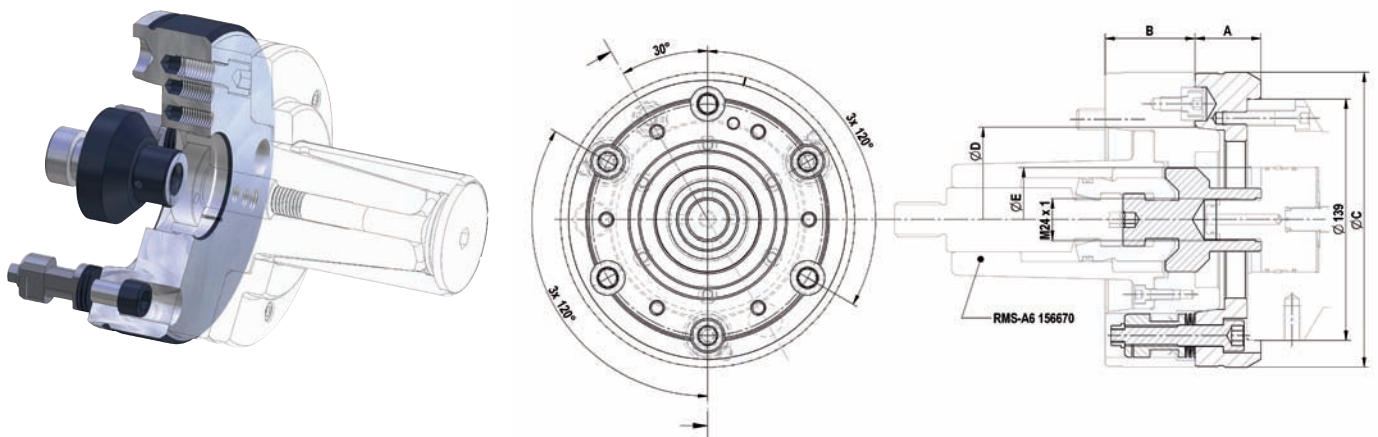
Hand-operated change of clamping devices in ca. 30 seconds, high change accuracy within 0,005mm, for central lubrication and/or air-sensing.

Technical features:

- quick-change system suitable for Tool carrier assy RMS (please see product group power chucks - cylinders)
- suitable for segment clamping mandrel ABSIS (269-00) and AGILIS (296-00),
- for central lubrication and/or air-sensing,
- corresponding to the german employer's liability insurance association in connection with the ROHM-safety clamping cylinders OVS and LVS, change precision 0,005mm.

Customer advantage:

Quick changing of different clamping devices with few time exposure, similar to the automatic or semiautomatic change-system of the clamping devices.



Tool group C18
 Type 299-90 **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	M8	M8
Ø F	139 H7	139 H7



► **ABSIS Segment clamping mandrel - nominal Ø38.43mm**

Application:

Tooth gear cutting, turning.

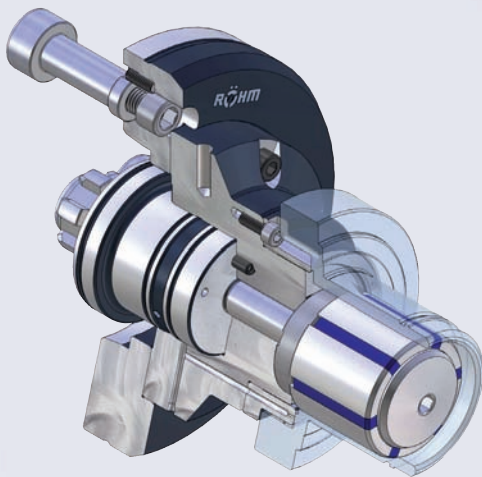
ABSIS clamping mandrel for clamping on a toothed gear cutting machine.

Centering takes place using the segment sleeve and clamping is undertaken using the pendulum bell.

Clamping mandrel with rapid exchange system on basic socket.

Customer advantage:

- Sturdy clamping due to axial traction
- Radial run-out accuracy of 0.01mm
- Ample tooling flexibility (cutting discharge)
- Designed for wet processing



► **ABSIS Segment clamping mandrel - nominal Ø60.5mm**

Application:

Turning.

ABSIS clamping mandrel for clamping on a turning machine.

Clamping mandrel with rapid exchange system on basic socket.

Fixed workpiece hard stop with air system control.

Clamping screw recessed in the segment sleeve to guarantee tooling flexibility.

Various clamping mandrel sizes with clamping diameter from 25mm to 105mm diameter (ABSIS sizes 00 to 04).

Customer advantage:

- Sturdy clamping due to axial traction
- Radial run-out accuracy of 0.01mm
- Simple exchange of the workpiece hard stop and clamping sleeves
- Ample tooling flexibility



► **ABSIS Segment clamping mandrel TK Ø88mm**

Application:

Turning.

ABSIS clamping mandrel for clamping in the tooth gear.

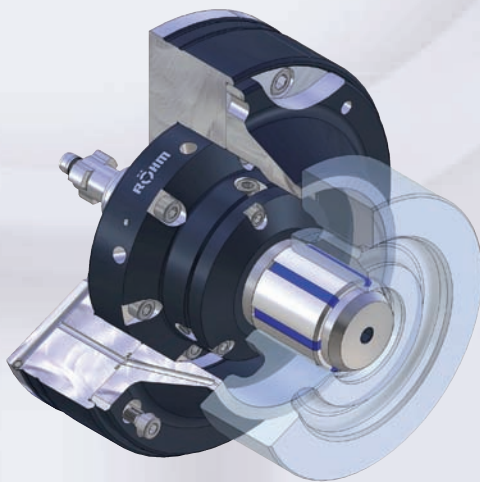
The toothed segment sleeve accurately clamps the workpiece in the flanks of the teeth.

The centering disc helps to load the workpiece.

Workpiece can be retracted using the connecting rod with air system control.

Customer advantage:

- Workpiece flexibility due to retractable hard stop
- Radial run-out accuracy of 0.01mm



► **ABSIS Segment clamping mandrel Ø55.33mm**

Application:

Turning a tooth gear blank.

Power operated ABSIS standard clamping mandrel with rapid exchange system.

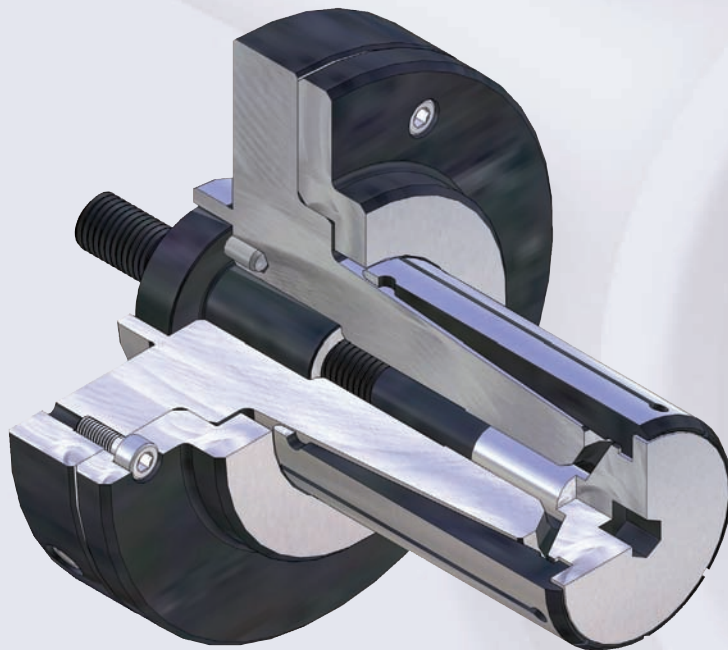
The hard stop diameter is far above the clamping diameter.

Workpiece hard stop with air system control fixed to the intermediate adapter plate.

Customer advantage:

- Sturdy clamping due to axial traction
- Radial run-out accuracy of 0.01mm
- Cost-efficient due to standard components

Power-operated cartridge mandrel with flanged seat, for internal clamping



Application:

Turning, grinding, cutting, toothcutting, balancing, measuring.

Special features:

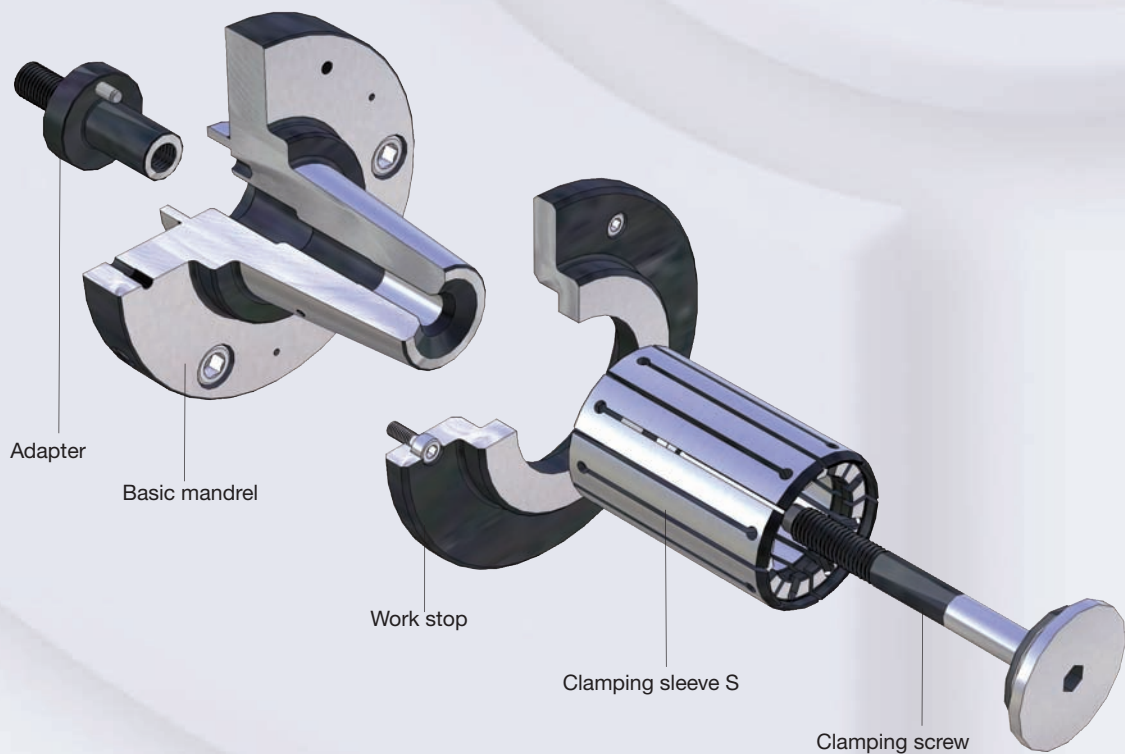
Compact design, steady clamping by axial draw-in. The draw-in of the work-pieces against the rigid work-stop takes place independently via the operation of the mandrels. Prepared for air sensing.

Technical features:

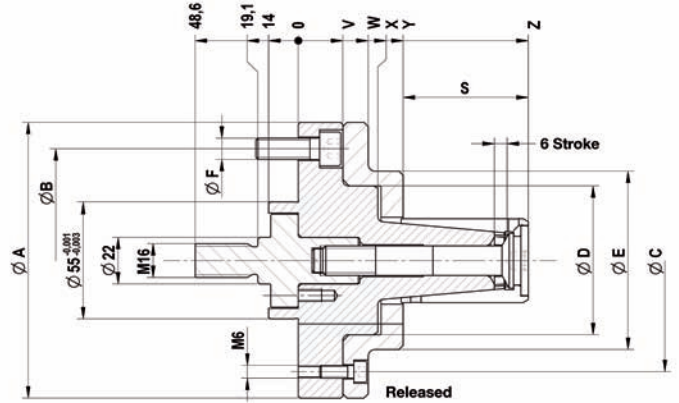
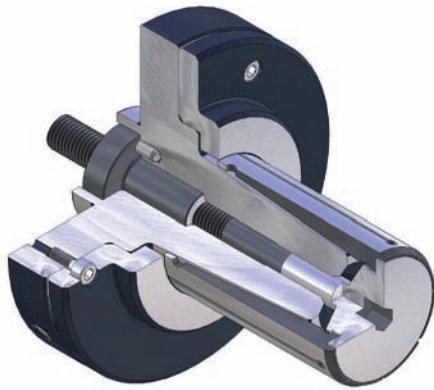
- power-operated or hand operated (optimal),
- high axial- and radial accuracy,
- high repeating accuracy,
- hardened low-wear construction,
- high accuracy by guiding the sleeves on the clamping mandrel,
- compatible with intermediate flange Type 255-9,
- integrated hand-operated lubrication,
- quick change of the clamping sleeves by the central tension screw.

Customer advantage:

- little weight and little height by compact design,
- for automatical charging,
- for short span length.



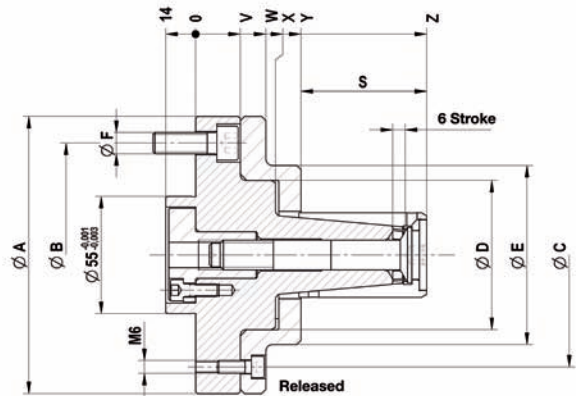
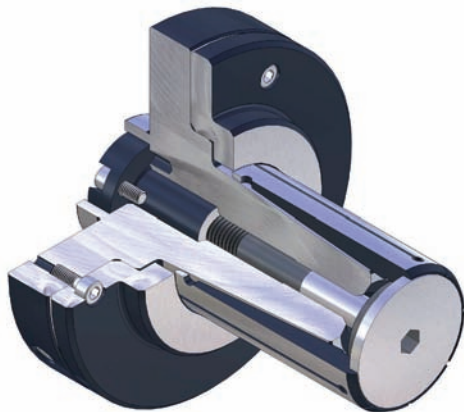
KFS/MFS



Tool group C18

Type 253-00 **KFS** cartridge mandrel; **power-operated with flanged seat**; for internal clamping; consists of basic mandrel and adapter

	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 E	54	54	60	60	60	84	84	84	103	160	160	160
Ø F	M10	M10	M10	M10	M10	M10	M10	M10	M12	M12	M12	M12
S	31,5	36	45	49	59	59	79	89	99	121	138,9	171
V	21	21	21	21	21	21	21	21	23	21	21	25
W	33	33	33	33	33	33	33	33	35	21	21	25
X	36	36	37	41	36,5	37,5	35,5	35,5	35			
Y	47,5	47,5	48	51,5	46	49,5	47	47	47	33	37	57
Z	79	83,5	93	100,5	105	108,5	126	136	146	154	176	228



Tool group C18

Type 253-01 **MFS** cartridge mandrel; **hand-operated with flanged seat**; for internal clamping; consists of basic mandrel and adapter

	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
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 E	54	54	60	60	60	84	84
Ø F	M10	M10	M10	M10	M10	M10	M10
S	31,5	36	45	49	59	59	79
V	21	21	21	21	21	21	21
W	33	33	33	33	33	33	33
X	36	36	37	41	36,5	37,5	35,5
Y	47,5	47,5	48	51,5	46	49,5	47
Z	79	83,5	93	100,5	105	108,5	126

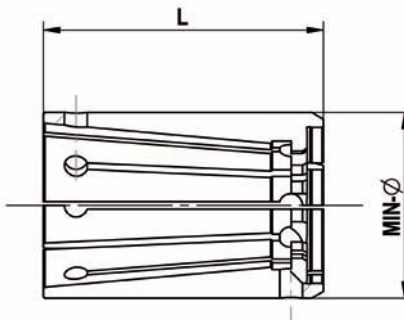
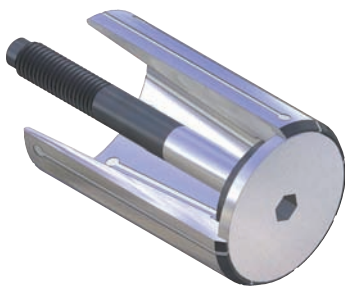
Accessories KFS/MFS

Tool group C18

Type 253-80 **Clamping set** KFS/MFS; (not vulcanized); consists of clamping sleeve and locking bolt

For size	00	01	02	03	04	05	06	07	08	09	10	11
Clamping sleeve	650029	650042	650055	650068	650081	650094	650106	650118	650131	650150	650171	650192
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998
Work stop	599966	599967	599968	599969	599970	599971	599878	599888	599898	599915	599934	599953
Montage mandrel clamping sets	724176	724177	724178	724179	724180	724181	724182	724183	724184	724185	724186	724187
Length	35	40	46	50	60	60	80	90	100	122	140	180
Min-Ø	19,7	24,7	29,7	34,7	39,7	44,7	54,7	64,7	74,7	91,7	110,7	129,7
Clamping set	1086321	1086332	1086343	1086354	1086365	1086376	1086387	1086398	1086409	1086427	1086447	1086467
Clamping sleeve	650030	650043	650056	650069	650082	650095	650107	650119	315390	315388	315389	315405
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998
Work stop	599966	599967	599968	599969	599970	599971	599879	599889	599899	599916	599935	599954
Montage mandrel clamping sets	724176	724177	724178	724179	724180	724181	724182	724183	724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									75,7	92,7	111,7	130,7
Clamping set									1086410	1086428	1086448	1086468
Clamping sleeve									650133	650152	650173	650194
Locking bolt									315477	315478	315479	599998
Work stop									599900	599917	599936	599955
Montage mandrel clamping sets									724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									76,7	93,7	112,7	131,7
Clamping set									1086411	1086429	1086449	1086469
Clamping sleeve									315393	315391	315392	315406
Locking bolt									315477	315478	315479	599998
Work stop									599901	599918	599937	599956
Montage mandrel clamping sets									724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									77,7	94,7	113,7	132,7
Clamping set									1086412	1086430	1086450	1086470
Clamping sleeve									650135	650154	650175	650196
Locking bolt									315477	315478	315479	599998
Work stop									599902	599919	599938	599957
Montage mandrel clamping sets									724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									78,7	95,7	114,7	133,7
Clamping set									1086413	1086431	1086451	1086471
Clamping sleeve									315396	315394	315395	315407
Locking bolt									315477	315478	315479	599998
Work stop									599903	599920	599939	599958
Montage mandrel clamping sets									724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									79,7	96,7	115,7	134,7
Clamping set									1086414	1086432	1086452	1086472
Clamping sleeve									650137	650156	650177	650198
Locking bolt									315477	315478	315479	599998
Work stop									599904	599921	599940	599959
Montage mandrel clamping sets									724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									80,7	97,7	116,7	135,7
Clamping set									1086415	1086433	1086453	1086473
Clamping sleeve									315399	315397	315398	315408
Locking bolt									315477	315478	315479	599998
Work stop									599905	599922	599941	599960
Montage mandrel clamping sets									724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									81,7	98,7	117,7	136,7
Clamping set									1086416	1086434	1086454	1086474
Clamping sleeve									650139	650158	650179	650200
Locking bolt									315477	315478	315479	599998
Work stop									599906	599923	599942	599961
Montage mandrel clamping sets									724184	724185	724186	724187
Length										122	140	180
Min-Ø										99,7	118,7	137,7
Clamping set										1086435	1086455	1086475
Clamping sleeve										315400	315401	315409
Locking bolt										315478	315479	599998
Work stop										599924	599943	599962
Montage mandrel clamping sets										724185	724186	724187
Length										122	140	180
Min-Ø										100,7	119,7	138,7
Clamping set										1086436	1086456	1086476
Clamping sleeve										650160	650181	650202
Locking bolt										315478	315479	599998
Work stop										599925	599944	599963
Montage mandrel clamping sets										724185	724186	724187
Length												180
Min-Ø												139,7
Clamping set												1086477
Clamping sleeve												315410
Locking bolt												599998
Work stop												599964
Montage mandrel clamping sets												724187

Accessories KFS/MFS



Tool group C18
Type 253-85 **Clamping set KFS/MFS; vulcanized**; consists of clamping sleeve and locking bolt

For size	00	01	02	03	04	05	06	07	08	09	10	11
Length	35	40	46	50	60	60	80	90	100	122	140	180
Min-Ø	14,7	19,7	24,7	29,7	34,7	39,7	44,7	54,7	64,7	81,7	100,7	119,7
Clamping set	1086511	1086522	1086533	1086544	1086555	1086566	1086577	1086588	1086599	1086617	1086637	1086657
Clamping sleeve vulcanized	315730	315731	315732	315733	315734	315735	315736	315737	315738	315739	315740	315702
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	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	724185	724186	724187
Length	35	40	46	50	60	60	80	90	100	122	140	180
Min-Ø	15,2	20,2	25,2	30,2	35,2	40,2	45,7	55,7	65,7	82,7	101,7	120,7
Clamping set	1086512	1086523	1086534	1086545	1086556	1086567	1086578	1086589	1086600	1086618	1086638	1086658
Clamping sleeve vulcanized	650211	650224	650239	650250	650263	650276	650288	651051	651063	651082	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	599907	599926	599945
Montage mandrel clamping sets	724176	724177	724178	724179	724180	724181	724182	724183	724184	724185	724186	724187
Length	35	40	46	50	60	60	80	90	100	122	140	180
Min-Ø	15,7	20,7	25,7	30,7	35,7	40,7	46,7	56,7	66,7	83,7	102,7	121,7
Clamping set	1086513	1086524	1086535	1086546	1086557	1086568	1086579	1086590	1086601	1086619	1086639	1086659
Clamping sleeve vulcanized	315741	315742	315743	315744	315745	315746	315747	315748	315749	315750	315751	315703
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	599907	599926	599946
Montage mandrel clamping sets	724176	724177	724178	724179	724180	724181	724182	724183	724184	724185	724186	724187
Length	35	40	46	50	60	60	80	90	100	122	140	180
Min-Ø	16,2	21,2	26,2	31,2	36,2	41,2	47,7	57,7	67,7	84,7	103,7	122,7
Clamping set	1086514	1086525	1086536	1086547	1086558	1086569	1086580	1086591	1086602	1086620	1086640	1086660
Clamping sleeve vulcanized	650213	650226	650239	650254	650265	650278	650290	651053	651063	651084	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	599909	599928	599947
Montage mandrel clamping sets	724176	724177	724178	724179	724180	724181	724182	724183	724184	724185	724186	724187
Length	35	40	46	50	60	60	80	90	100	122	140	180
Min-Ø	16,7	21,7	26,7	31,7	36,7	41,7	48,7	58,7	68,7	85,7	104,7	123,7
Clamping set	1086515	1086526	1086537	1086548	1086559	1086570	1086581	1086592	1086603	1086621	1086641	1086661
Clamping sleeve vulcanized	315752	315753	315754	315755	315756	315757	315758	315759	315760	315761	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	599910	599929	599948
Montage mandrel clamping sets	724176	724177	724178	724179	724180	724181	724182	724183	724184	724185	724186	724187
Length	35	40	46	50	60	60	80	90	100	122	140	180
Min-Ø	17,2	22,2	27,2	32,2	37,2	42,2	49,7	59,7	69,7	86,7	105,7	124,7
Clamping set	1086516	1086527	1086538	1086549	1086560	1086571	1086582	1086593	1086604	1086622	1086642	1086662
Clamping sleeve vulcanized	650215	650228	650241	650254	650267	650280	651769	651770	651771	651086	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	599911	599930	599949
Montage mandrel clamping sets	724176	724177	724178	724179	724180	724181	724182	724183	724184	724185	724186	724187
Length	35	40	46	50	60	60	80	90	100	122	140	180
Min-Ø	17,7	22,7	27,7	32,7	37,7	42,7	50,7	60,7	70,7	87,7	106,7	125,7
Clamping set	1086517	1086528	1086539	1086550	1086561	1086572	1086583	1086594	1086605	1086623	1086643	1086663
Clamping sleeve vulcanized	315763	315764	315765	315766	315767	315768	315780	315781	315782	315772	315773	315705
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	599912	599931	599950
Montage mandrel clamping sets	724176	724177	724178	724179	724180	724181	724182	724183	724184	724185	724186	724187
Length	35	40	46	50	60	60	80	90	100	122	140	180
Min-Ø	18,2	23,2	28,2	33,2	38,2	43,2	51,7	61,7	71,7	88,7	107,7	126,7
Clamping set	1086518	1086529	1086540	1086551	1086562	1086573	1086584	1086595	1086606	1086624	1086644	1086664
Clamping sleeve vulcanized	650217	650230	650243	650256	650269	650282	650294	651057	651069	651088	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	599913	599932	599951
Montage mandrel clamping sets	724176	724177	724178	724179	724180	724181	724182	724183	724184	724185	724186	724187
Length	35	40	46	50	60	60	80	90	100	122	140	180
Min-Ø	18,7	23,7	28,7	33,7	38,7	43,7	52,7	62,7	72,7	89,7	108,7	127,7
Clamping set	1086519	1086530	1086541	1086552	1086563	1086574	1086585	1086596	1086607	1086625	1086645	1086665
Clamping sleeve vulcanized	315774	315775	315776	315777	315778	315779	315785	315786	315787	315783	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	599914	599933	599952
Montage mandrel clamping sets	724176	724177	724178	724179	724180	724181	724182	724183	724184	724185	724186	724187
Length	35	40	46	50	60	60	80	90	100	122	140	180
Min-Ø	19,2	24,2	29,2	34,2	39,2	44,2	53,7	63,7	73,7	90,7	109,7	128,7
Clamping set	1086520	1086531	1086542	1086553	1086564	1086575	1086586	1086597	1086608	1086626	1086646	1086666

Accessories KFS/MFS

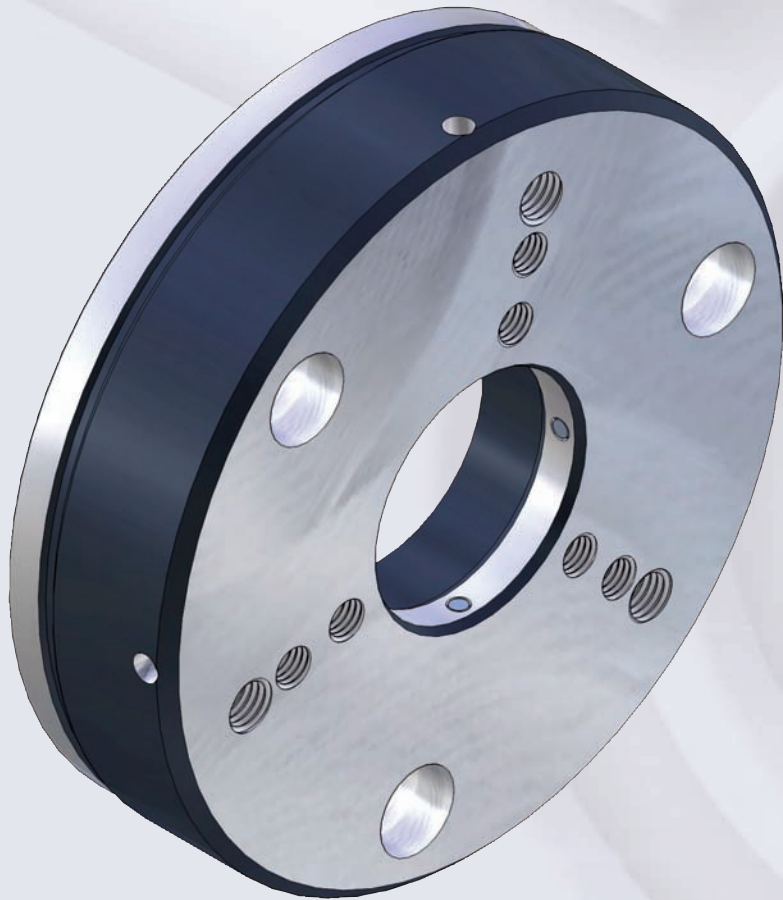
Tool group C18

Type 253-85 **Clamping set** KFS/MFS; **vulcanized**; consists of clamping sleeve and locking bolt

For size	00	01	02	03	04	05	06	07	08	09	10	11
Clamping sleeve vulcanized	650219	650232	650245	650258	650271	650284	650296	651059	651071	651090	651111	651132
Locking bolt	315469	315470	315471	315472	315473	315474	315475	315476	315477	315478	315479	599998
Work stop	599966	599967	599968	599969	599970	599971	599878	599888	599898	599915	599934	599953
Montage mandrel clamping sets	724176	724177	724178	724179	724180	724181	724182	724183	724184	724185	724186	724187
Length	35	40	46	50	60	60	80	90	100	122	140	180
Min-Ø	19,7	24,7	29,7	34,7	39,7	44,7	54,7	64,7	74,7	91,7	110,7	129,7
Clamping set	1086521	1086532	1086543	1086554	1086565	1086576	1086587	1086598	1086609	1086627	1086647	1086667
Clamping sleeve vulcanized	650220	650233	650246	650259	650272	650285	650297	651060	315790	315788	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	599916	599935	599954
Montage mandrel clamping sets	724176	724177	724178	724179	724180	724181	724182	724183	724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									75,7	92,7	111,7	130,7
Clamping set									1086610	1086628	1086648	1086668
Clamping sleeve vulcanized									651073	651092	651113	651134
Locking bolt									315477	315478	315479	599998
Work stop									599900	599917	599936	599955
Montage mandrel clamping sets									724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									76,7	93,7	112,7	131,7
Clamping set									1086611	1086629	1086649	1086669
Clamping sleeve vulcanized									651074	651093	651114	651185
Locking bolt									315477	315478	315479	599998
Work stop									599901	599918	599937	599956
Montage mandrel clamping sets									724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									77,7	94,7	113,7	132,7
Clamping set									1086612	1086630	1086650	1086670
Clamping sleeve vulcanized									651075	651094	651115	651136
Locking bolt									315477	315478	315479	599998
Work stop									599902	599919	599938	599957
Montage mandrel clamping sets									724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									78,7	95,7	114,7	133,7
Clamping set									1086613	1086631	1086651	1086671
Clamping sleeve vulcanized									315796	315794	315795	315709
Locking bolt									315477	315478	315479	599998
Work stop									599903	599920	599939	599958
Montage mandrel clamping sets									724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									79,7	96,7	115,7	134,7
Clamping set									1086614	1086632	1086652	1086672
Clamping sleeve vulcanized									651077	651096	651117	651138
Locking bolt									315477	315478	315479	599998
Work stop									599904	599921	599940	599959
Montage mandrel clamping sets									724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									80,7	97,7	116,7	135,7
Clamping set									1086615	1086633	1086653	1086673
Clamping sleeve vulcanized									315799	315797	315798	315710
Locking bolt									315477	315478	315479	599998
Work stop									599905	599922	599941	599960
Montage mandrel clamping sets									724184	724185	724186	724187
Length									100	122	140	180
Min-Ø									81,7	98,7	117,7	136,7
Clamping set									1086616	1086634	1086654	1086674
Clamping sleeve vulcanized									651079	651098	651119	651140
Locking bolt									315477	315478	315479	599998
Work stop									599906	599923	599942	599961
Montage mandrel clamping sets									724184	724185	724186	724187
Length										122	140	180
Min-Ø										99,7	118,7	137,7
Clamping set										1086635	1086655	1086675
Clamping sleeve vulcanized										315800	315801	315711
Locking bolt										315478	315479	599998
Work stop										599924	599943	599962
Montage mandrel clamping sets										724185	724186	724187
Length										122	140	180
Min-Ø										100,7	119,7	138,7
Clamping set										1086636	1086656	1086676
Clamping sleeve vulcanized										651100	651121	651142
Locking bolt										315478	315479	599998
Work stop										599925	599944	599963
Montage mandrel clamping sets										724185	724186	724187
Length												180
Min-Ø												139,7
Clamping set												1086677
Clamping sleeve vulcanized												315712
Locking bolt												599998
Work stop												599964
Montage mandrel clamping sets												724187

Intermediate Adaptor Plates for KFS/MFS

For KFR (255-00) and KFS (253-00)



Application:

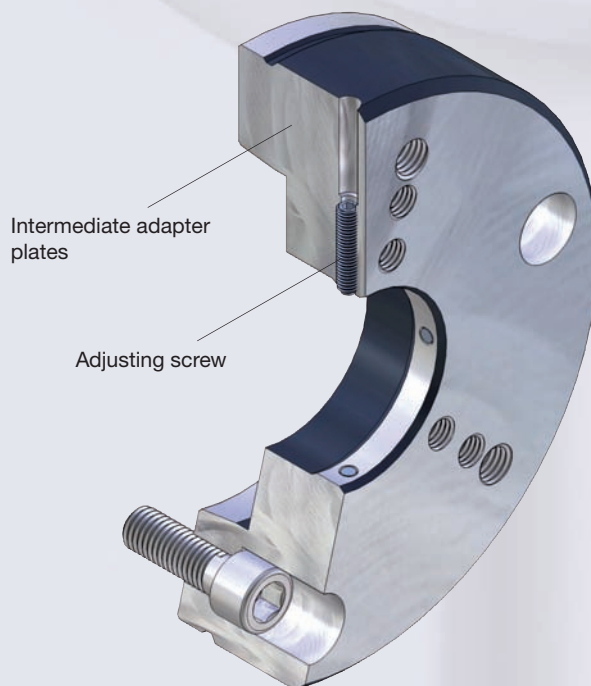
Adaption of cartridge mandrel KFR or KFS- on spindle nose DIN 55021/55022/55026 and 55027.

Special features:

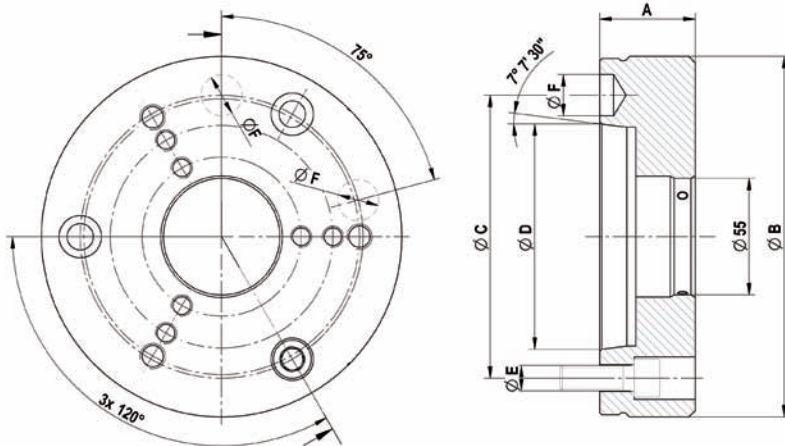
Adaption of cartridge mandrel KFR (255-00) and KFS (253-00) on spindle nose, with or without adjusting screws, with or without grommet of air-sensing. Design ISO 702-1 (DIN 55028-A) or ISO 702-3 (DIN 55028-C), in sizes Nr.5, Nr.6, Nr.8, Nr.11 or Nr.5, Nr.6, Nr.8 (A5, A6, A8, A11 or C5, C6, C8).

Customer advantage:

By changing the intermediate flange a cartridge mandrel can be entered on different machines.



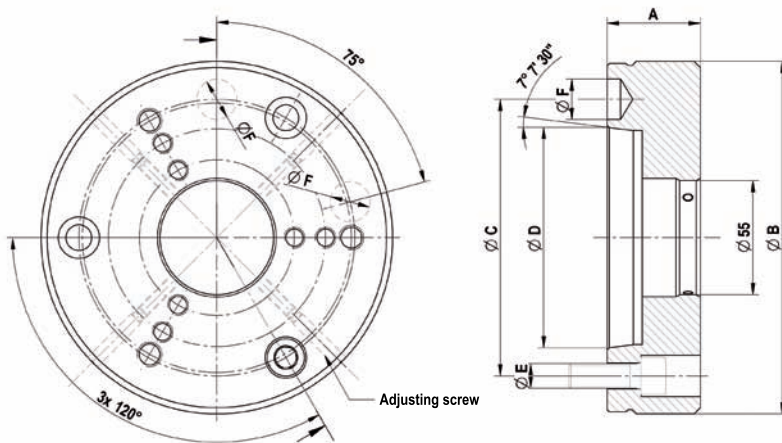
Accessories KFS/MFS



Tool group C 18

Type 255-91 **Intermediate adapter** 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	45	45	50	50
Ø B	165	170	220	282
Ø C	104,8	133,4	171,4	235
Ø D	82,563	106,375	139,719	196,869
Ø E	M10	M12	M16	M20
Ø F	16,3	19,45	24,2	29,4

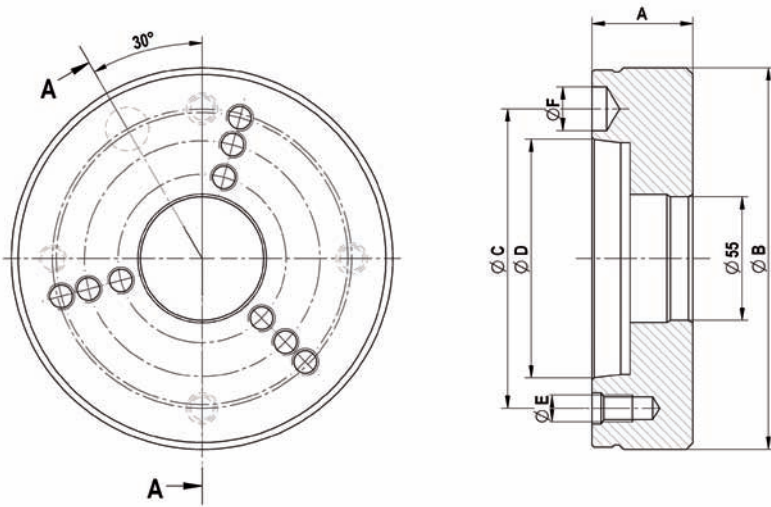


Tool group C 18

Type 255-92 **Intermediate adapter** ISO 702-1 (DIN 55026/55021) **with adjusting screw**

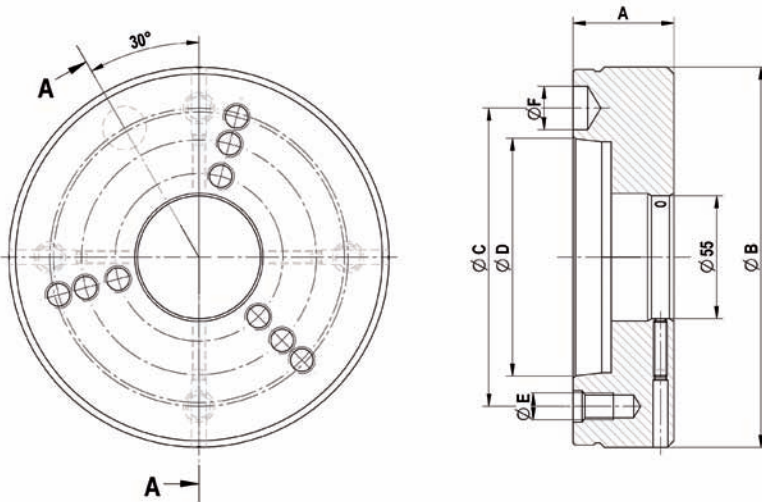
	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)
Intermediate flange	893979	893980	893981
Design	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A	45	45	50
Ø B	165	170	220
Ø C	104,8	133,4	171,4
Ø D	82,563	106,375	139,719
Ø E	M10	M12	M16
Ø F	16,3	19,45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

Accessories KFS/MFS



Tool group C 18
Type 255-93 **Intermediate adapter ISO 702-3 (DIN 55027/55022) without adjusting screws**

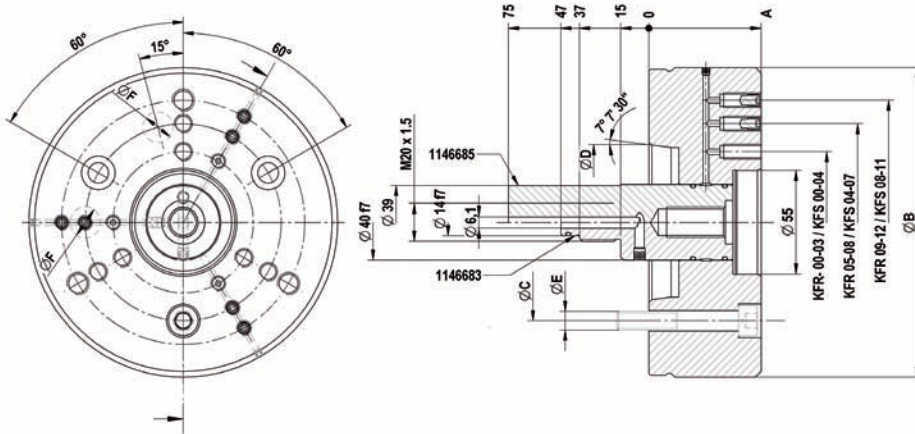
	Nr. 5 (C 05)	Nr. 6 (C 06)	Nr. 8 (C 08)
Intermediate flange	893982	893983	893984
Design	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A	45	45	50
Ø B	165	170	220
Ø C	104,8	133,4	171,4
Ø D	82,563	106,375	139,719
Ø E	M 10	M 12	M 16
Ø F	16,3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



Tool group C 18
Type 255-94 **Intermediate adapter 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	45	45	50
Ø B	165	170	220
Ø C	104,8	133,4	171,4
Ø D	82,563	106,375	139,719
Ø E	M 10	M 12	M 16
Ø F	16,3	19,45	24,2

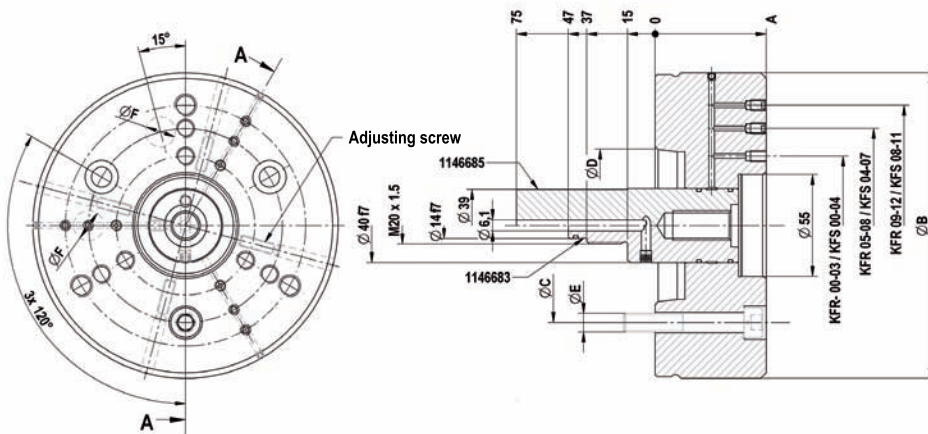
Accessories KFS/MFS



Tool group C18

Type 255-95 **Intermediate adapter ISO-702-1 (DIN 55026/55021) without adjusting screw**

	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)
Intermediate flange	1146680	1146681	1146682
Design	with air-sensing	with air-sensing	with air-sensing
Mount-Ø 55	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A	60	60	60
Ø B	165	170	220
Ø C	104,8	133,4	171,4
Ø D	82,563	106,375	139,719
Ø E	M10	M12	M16
Ø F	16,3	19,45	24,2
Draw piece for air-sensing	1146683	1146683	1146683
Raw draw piece for air-sensing	1146685	1146685	1146685

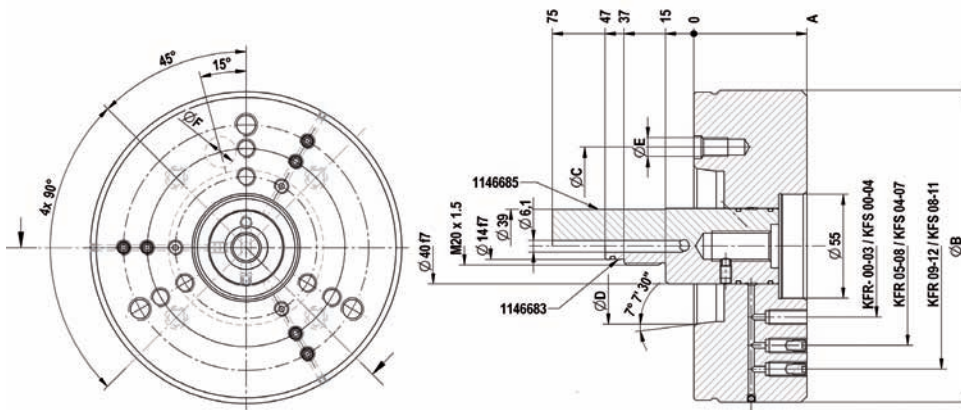


Tool group C18

Type 255-96 **Intermediate adapter ISO-702-1 (DIN 55026/55021) with adjusting screw**

	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)
Intermediate flange	1160023	1160024	1160025
Design	with air-sensing	with air-sensing	with air-sensing
Mount-Ø 55	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A	60	60	60
Ø B	165	170	220
Ø C	104,8	133,4	171,4
Ø D	82,563	106,375	139,719
Ø E	M10	M12	M16
Ø F	16,3	19,45	24,2
Draw piece for air-sensing	1146683	1146683	1146683
Raw draw piece for air-sensing	1146685	1146685	1146685

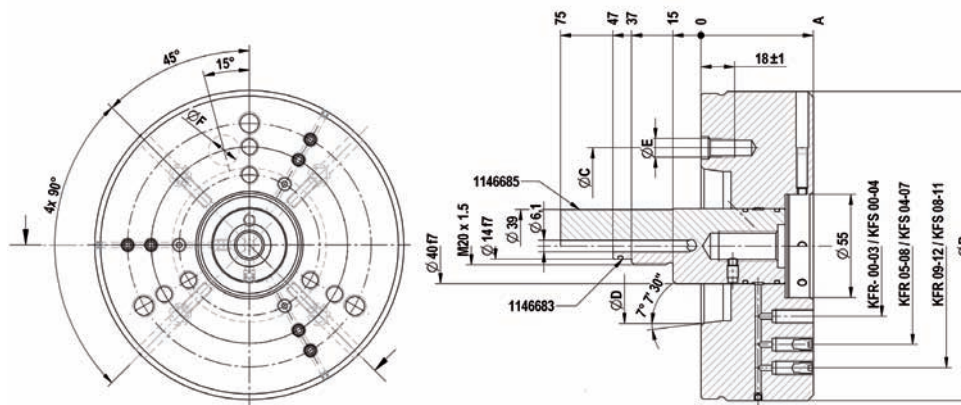
Accessories KFS/MFS



Tool group C18

Type 255-97 **Intermediate adapter ISO 702-3 (DIN 55027/55022) without adjusting screws**

	Nr. 5 (C 05)	Nr. 6 (C 06)	Nr. 8 (C 08)
Intermediate flange	1160030	1160031	1160032
Design	with air-sensing	with air-sensing	with air-sensing
Mount-Ø 55	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A	60	60	60
Ø B	165	170	220
Ø C	104,8	133,4	171,4
Ø D	82,563	106,375	139,719
Ø E	M10	M12	M16
Ø F	16,3	19,45	24,2
Draw piece for air-sensing	1146683	1146683	1146683
Raw draw piece for air-sensing	1146685	1146685	1146685



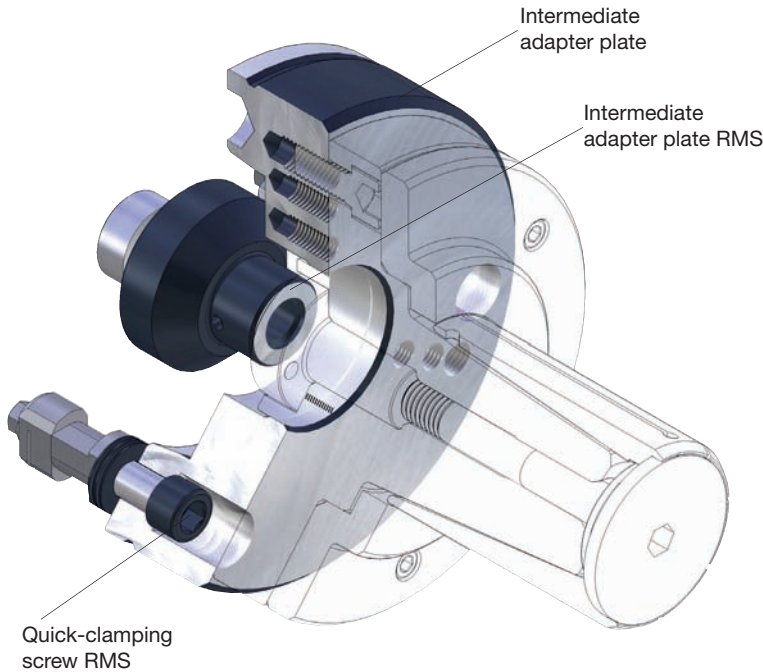
Tool group C18

Type 255-98 **Intermediate adapter ISO 702-3 (DIN 55027/55022) with adjusting screws**

	Nr. 5 (C 05)	Nr. 6 (C 06)	Nr. 8 (C 08)
Intermediate flange	1160033	1160034	1160035
Design	with air-sensing	with air-sensing	with air-sensing
Mount-Ø 55	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A	60	60	60
Ø B	165	170	220
Ø C	104,8	133,4	171,4
Ø D	82,563	106,375	139,719
Ø E	M10	M12	M16
Ø F	16,3	19,45	24,2
Draw piece for air-sensing	1146683	1146683	1146683
Raw draw piece for air-sensing	1146685	1146685	1146685

Accessories KFS/MFS

Hand-operated quick-change system for clamping devices
Compatible for KFR (255-00), KFS (253-00)



Application:

Hand-operated change of clamping devices with few time exposure.

Special features:

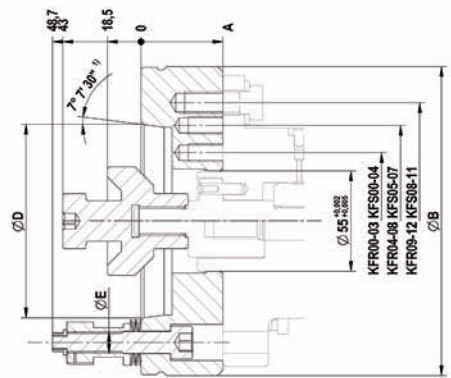
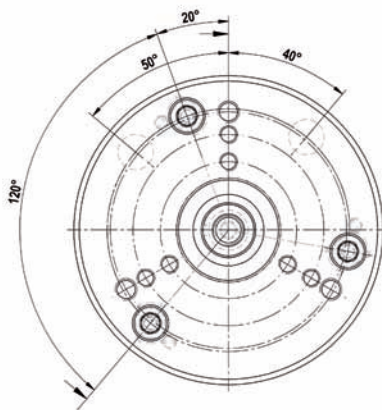
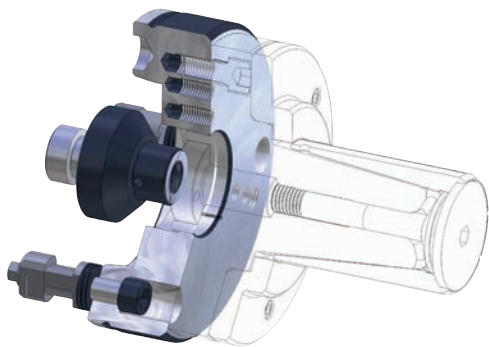
Hand-operated change of clamping devices in ca. 30 seconds, high change accuracy within 0,005mm, for central lubrication and/or air-sensing.

Technical features:

- quick-change system suitable for Tool carrier assy RMS (please see product group power chucks - cylinders)
- suitable for cartridge mandrel KFR (255-00), KFS (253-00)
- for central lubrication and/or air-sensing,
- corresponding to the german employer's liability insurance association in connection with the ROHM-safety clamping cylinders OVS and LVS, change precision 0,005mm.

Customer advantage:

Quick changing of different clamping devices with few time exposure, similar to the automatic or semiautomatic change-system of the clamping devices.



RMS-Quick-change system
KFS KFR KFR-SE

Tool group C18
Type 299-90 **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	M12	M16
Ø F	55 (+0,003/+0,001)	55 (+0,003/+0,001)



► **Cartridge mandrel KFS clamping Ø22,65mm**

Application:

Turning.

Special version of the clamping mandrel due to the tooling flexibility required.

Clamping takes place in the root of the toothed gear using diagonally slotted clamping sleeves.

Tilting in the toothed gear is prevented by the diagonal slots.

Customer advantage:

- Optimum clamping of the toothed workpiece
- High radial and axial run-out accuracy of 0.02mm



► **Cartridge mandrel KFS clamping Ø27.8mm**

Application:

Turning.

Clamping takes place using hexagon clamping sleeves with axial traction through the pull rod against a hard stop.

The workpiece hard stop is designed to be loaded with the workpiece on both sides.

Customer advantage:

- Clamping special shapes is possible
- Radial run-out accuracy of 0.05mm



► **Cartridge mandrel KFS clamping Ø34.3mm**

Application:

Turning/cutting.

Power-operated sleeve clamping mandrel with axial traction and hard stop.

Clamping sleeve contoured to cut the workpieces.

Customer advantage:

- Cost-efficient production of small parts
- Radial run-out accuracy of 0.01mm

Hand-operated by cartridge mandrel with center hole, for internal clamping



Application:

Turning, grinding, cutting, toothcutting, measuring.

Special features:

Compact design, steady clamping by axial draw-in. The draw-in of the work-pieces against the rigid work-stop takes place independently via the operation of the mandrels.

Technical features:

- hand-operated,
- high axial- and radial accuracy,
- high repeating accuracy,
- hardened low-wear construction,
- high accuracy by guiding the sleeves on the clamping mandrel,
- quick change of the clamping sleeves by the central tension screw.

Customer advantage:

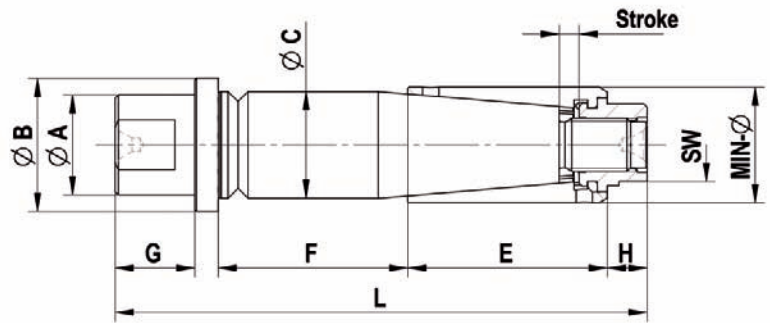
Little weight and little height by compact design, for automatical charging and for short span length.



Basic mandrel

Clamping sleeve S

Clamping nut



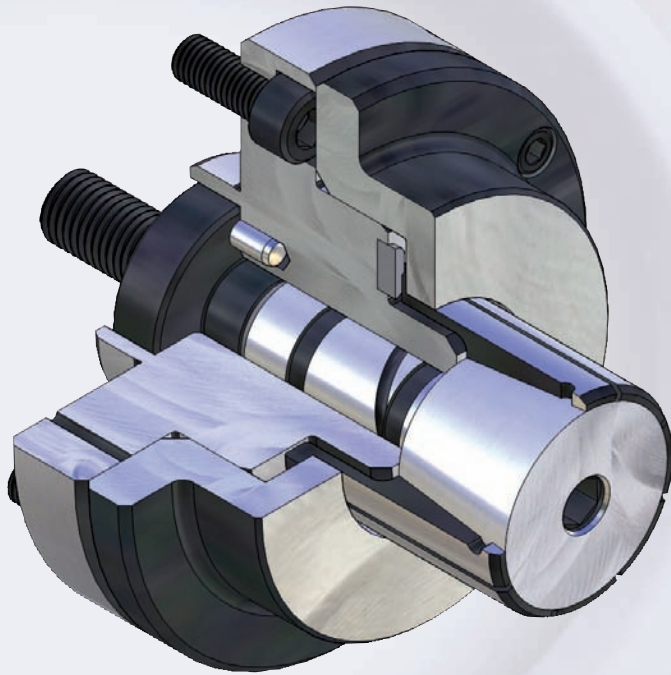
Tool group A18

Type 259-00 **MZS** Cartridge mandrel with workstop ring; **hand-operated with centre hole**; for internal clamping

	MZS 00	MZS 01	MZS 02	MZS 03	MZS 04	MZS 05	MZS 06	MZS 07	MZS 08	MZS 09	MZS 10
Cartridge Mandrel	1130432	1130433	1130434	1130435	1130436	1130437	1130438	1130439	1130440	1130441	1130442
Basic mandrel	590322	590323	590324	590325	590326	590327	590328	590329	590330	590331	590332
Nut	315422	315423	315424	315425	315426	315427	315428	315429	315430	315431	315432
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
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
Clamping-Ø max,	20,7	25,7	30,7	35,7	40,7	45,7	56,7	66,7	83,7	102,7	121,7
Stroke	6	6,5	6	6	6	6	12	12	12	12	8,5
Ø A	13	18	20	20	30	30	35	35	55	55	70
Ø B	20	28	32	36	40	45	54	64	74	91	106
Ø Cg6	15	20	24	28	32	37	42	52	62	75	90
Key-width SW	11	11	17	17	22	22	27	27	36	36	41
E	35	40	46	50	60	60	80	90	100	122	140
F	38	33	46	42	57	57	72	62	119	97	107
G	10	10	20	20	24	24	24	24	24	24	24
H	8	8	9	9	12	12	15	15	18	18	20
L	95	95	125	125	160	160	200	200	270	270	300

KFR/MFR

Power-operated segment mandrel with flanged seat, for internal clamping



Application:

Turning, grinding, cutting, toothcutting, balancing, measuring.

Special features:

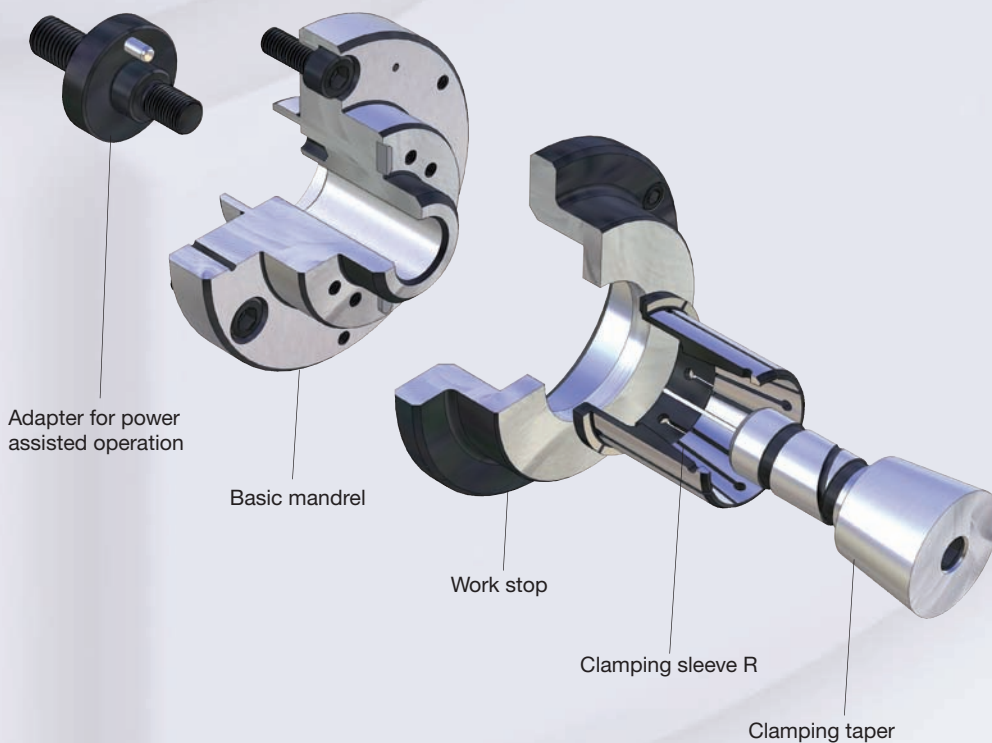
Compact, solid design for precise machining, without axial tightening respectively optional with defined axial tightening (e.g. 0,5mm); as a result there's no deformation of the workpiece. The draw-in of the work-pieces against the rigid work-stop takes place independently via the operation of the mandrels. Prepared for air- sensing.

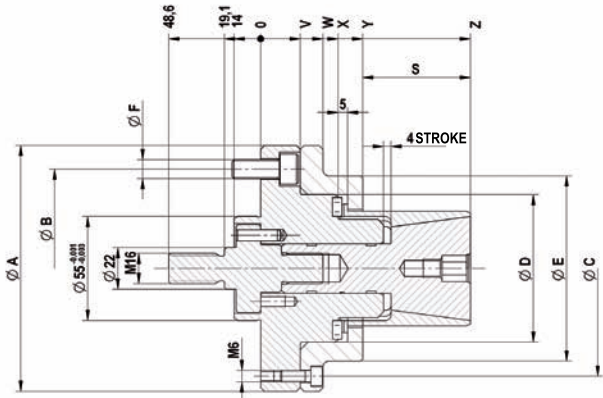
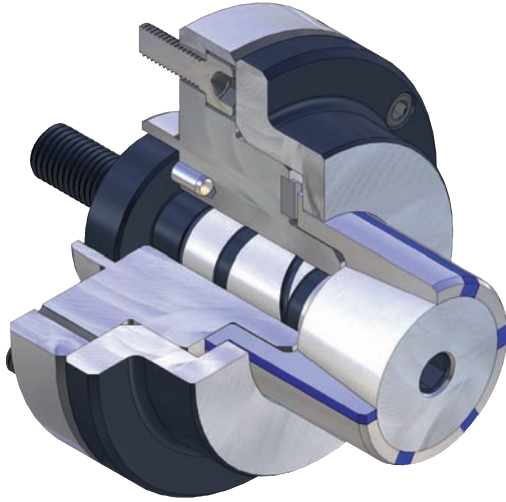
Technical features:

- power-operated or hand operated (optional),
- high axial- and radial accuracy,
- high repeating accuracy,
- hardened low-wear construction,
- compatible with intermediate flange Type 255-9,
- integrated hand-operated lubrication.

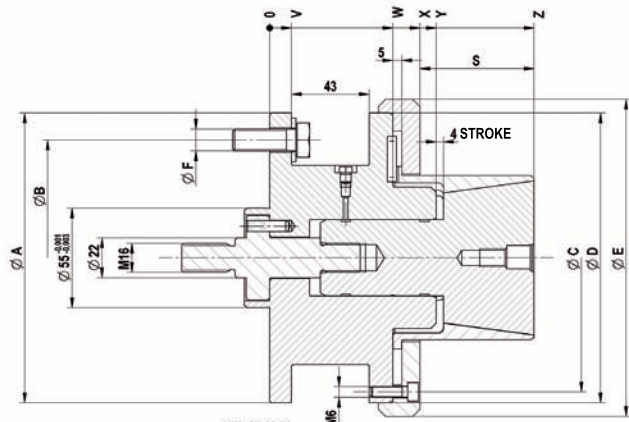
Customer advantage:

- little weight and little height by compact design,
- for automatical charging,
- for short span length.





KFR-SE 00-08
Released

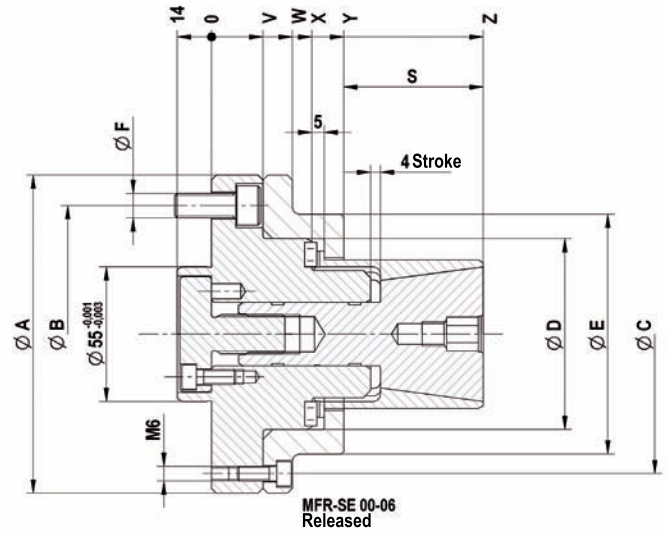
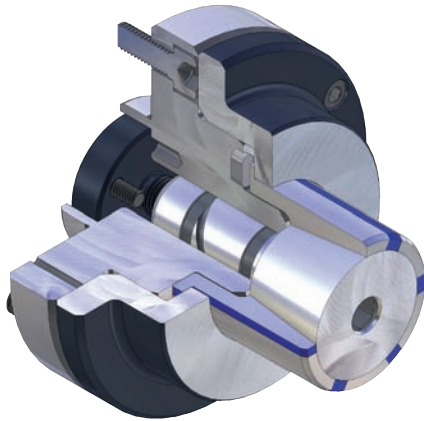


KFR-SE 09-12
Released

Tool group C18

Type 255-04 **KFR** segment clamping mandrel, **power-operated with flanged seat**; for internal clamping consists of base bolt, clamping taper, adapter, 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
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	105	130	130	130	130	130	130
Pitch diameter C	85	85	85	85	114	114	114	145	145	148	148	148	148
Ø D	50	50	50	50	78	78	78	100	100	160	160	160	160
Ø E	70	70	70	70	98	98	98	130	130	175	175	175	175
Ø F	M10	M10	M10	M10	M10	M10	M10	M12	M12	M12	M12	M12	M12
S	21	27	27	27	42	42	57	55	55	63	63	63	63
V	21	21	21	21	21	21	21	32	32	12	12	12	12
W	33	33	33	33	33	33	33	50	50	68	68	68	68
X	39	39	39	39	41	41	41	58	58	83	83	83	83
Y	50	52	52	52	54	54	54	73	73	92	92	92	92
Z	71	79	79	79	96	96	111	128	128	146	146	146	146

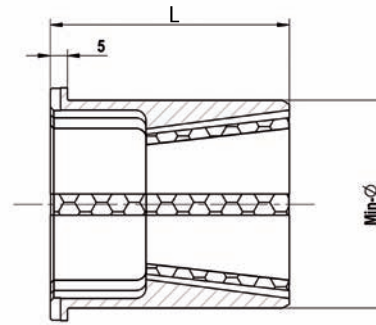
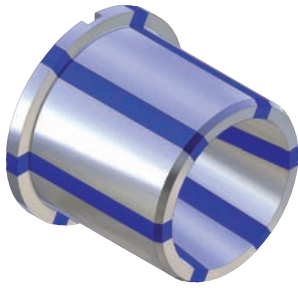


Tool group C18

Type 255-05 **MFR** segment clamping mandrel, **hand-operated with flanged seat**; for internal clamping consists of base bolt, clamping taper, adapter

	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
Min-Ø unclamped from	14,7	19,7	24,7	35,7	40,7	50,7	60,7
Min-Ø unclamped to	19,7	24,7	35,7	40,7	50,7	60,7	70,7
Clamping-Ø max,	20,7	25,7	36,7	41,7	51,7	61,7	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	50	50	50	50	78	78	78
Ø E	70	70	70	70	98	98	98
S	21	27	27	27	42	42	57
V	21	21	21	21	21	21	21
W	33	33	33	33	33	33	33
X	39	39	39	39	41	41	41
Y	50	52	52	52	54	54	54
Z	71	79	79	79	96	96	111

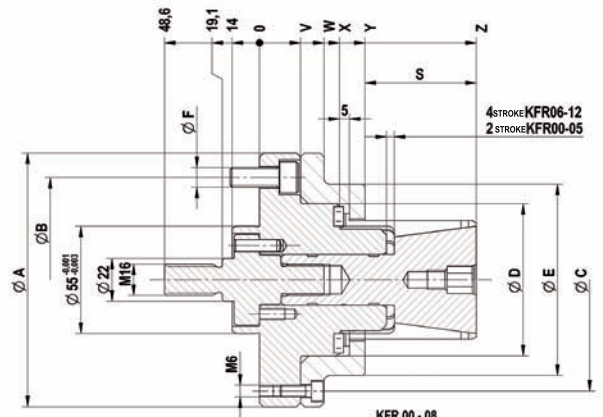
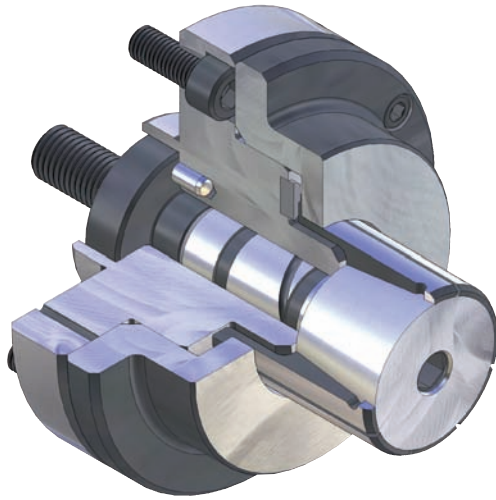
Accessories KFR/MFR



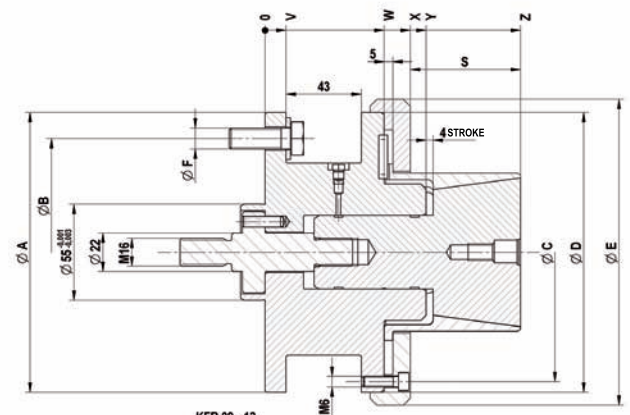
Tool group C18
Type 255-54 **Segment sleeve** KFR/MFR

For size	00	01	02	03	04	05	06	07	08	09	10	11	12
Expansion in Ø	1	1	1	1	1	1	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	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
Stop	893830	893836	893842	893852	893857	893867	893878	893888	893897	893907	893917	893927	893937
Min-Ø	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
Stop	893831	893837	893842	893853	893858	893868	893879	893889	893898	893908	893918	893928	893938
Min-Ø	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
Stop	893832	893838	893843	893854	893859	893869	893880	893890	893899	893909	893919	893929	893939
Min-Ø	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
Stop	893833	893839	893844	893855	893860	893870	893881	893891	893900	893910	893920	893930	893940
Min-Ø	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
Stop	893834	893840	893845	893856	893861	893871	893882	893892	893901	893911	893921	893931	893941
Min-Ø	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
Stop	893835	893841	893846	893856	893862	893872	893883	893893	893902	893912	893922	893932	893942
Min-Ø			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
Stop			893847		893863	893873	893884	893894	893903	893913	893923	893933	893943
Min-Ø			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
Stop			893848		893864	893874	893885	893895	893904	893914	893924	893934	893944
Min-Ø			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
Stop			893849		893865	893875	893886	893947	893905	893915	893925	893935	893945
Min-Ø			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
Stop			893850		893866	893876	893887	893896	893906	893916	893926	893936	893946
Min-Ø			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
Stop			893851		893867	893877	893887	893896	893906	893916	893926	893936	893946
Min-Ø			35,7										
Segment sleeve			1171023										
Stop			893852										

KFR - without axial tightening



KFR 00 - 08
Released



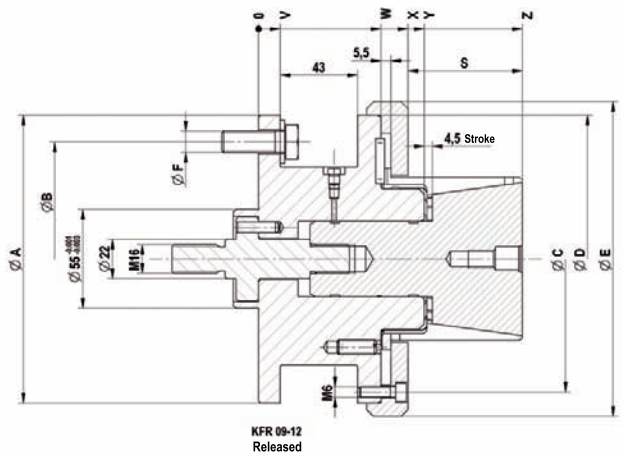
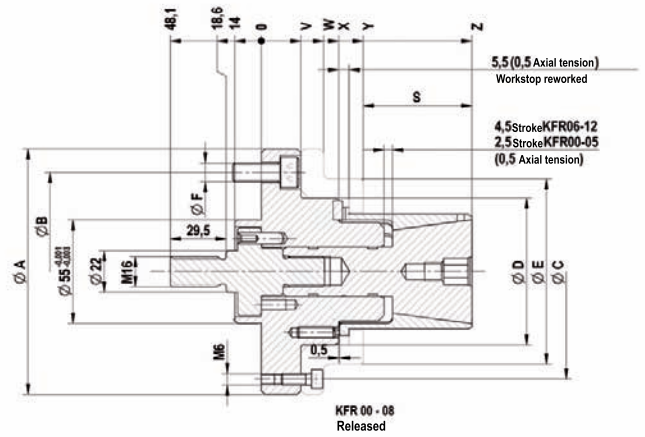
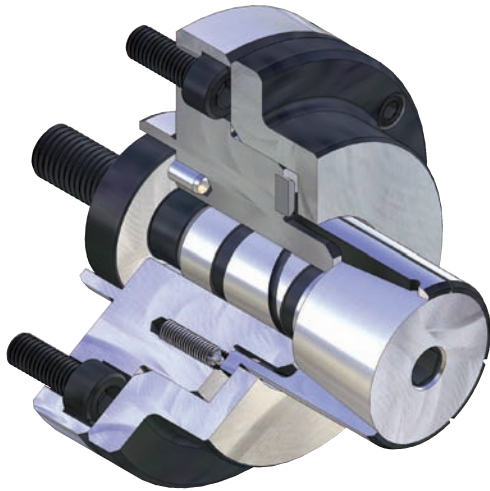
KFR 09 - 12
Released

Tool group C18

Type 255-00 KFR cartridge mandrel, **power-operated with flanged seat**; for internal clamping consists of base bolt, clamping taper, adapter, nut

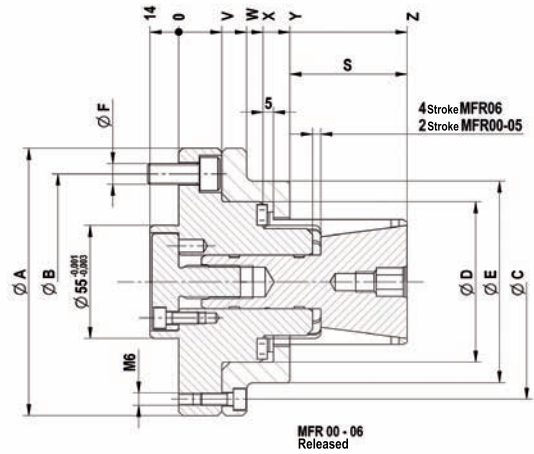
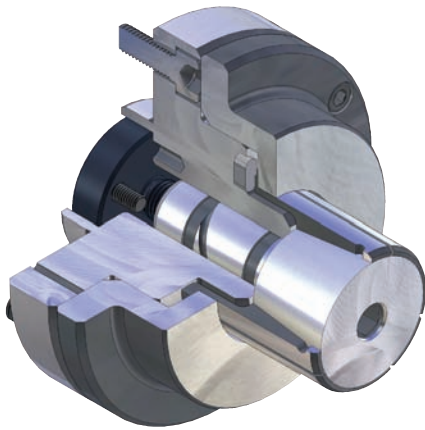
	KFR 00	KFR 01	KFR 02	KFR 03	KFR 04	KFR 05	KFR 06	KFR 07	KFR 08	KFR 09	KFR 10	KFR 11	KFR 12
Cartridge Mandrel	893960	893961	893962	893963	893964	893965	893966	893967	893968	893969	893970	893971	893972
Base bolt	893800	893801	893802	893803	893804	893805	893806	893807	893807	893809	893809	893809	893809
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
Min-Ø unclamped from	14,2	19,7	25,2	35,2	40,2	50,2	60,7	70,7	80,7	90,7	100,7	110,7	120,7
Min-Ø unclamped to	19,7	25,2	35,2	40,2	50,2	60,7	70,7	80,7	90,7	100,7	110,7	120,7	130,7
Clamping-Ø max,	20,2	25,7	35,72	40,7	61,2	61,2	71,7	81,7	91,7	101,7	111,7	121,7	131,7
External-Ø A	100	100	100	100	130	130	130	160	160	160	160	160	160
Pitch diameter B	75	75	75	75	105	105	105	130	130	130	130	130	130
Pitch diameter C	85	85	85	85	114	114	114	145	145	148	148	148	148
Ø D	50	50	50	50	78	78	78	100	100	160	160	160	160
Ø E	70	70	70	70	98	98	98	130	130	175	175	175	175
Ø F	M10	M10	M10	M10	M10	M10	M10	M12	M12	M12	M12	M12	M12
S	21	27	27	27	42	42	57	55	55	63	63	63	63
V	21	21	21	21	21	21	21	32	32	12	12	12	12
W	33	33	33	33	33	33	33	50	50	68	68	68	68
X	39	39	39	39	41	41	41	58	58	83	83	83	83
Y	50	52	52	52	54	54	54	73	73	92	92	92	92
Z	71	79	79	79	96	96	111	128	128	146	146	146	146

KFR - with axial tightening



Tool group C18
Type 255-01 **KFR** cartridge mandrel, **power-operated with flanged seat**; for internal clamping consists of base bolt, clamping taper, adapter, nut

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

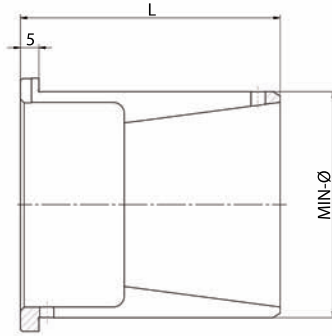
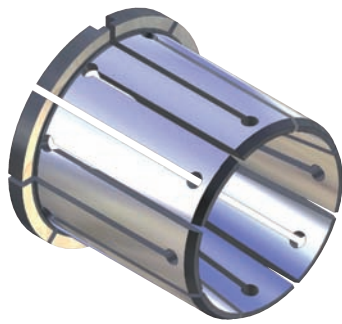


Tool group C18

Type 255-02 **MFR** cartridge mandrel; **hand-operated with flanged seat**; for internal clamping consists of base bolt, clamping taper, adapter

	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
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	50	50	50	50	78	78	78
Ø E	70	70	70	70	98	98	98
Ø F	M10	M10	M10	M10	M10	M10	M10
S	21	27	27	27	42	42	57
V	21	21	21	21	21	21	21
W	33	33	33	33	33	33	33
X	39	39	39	39	41	41	41
Y	50	52	52	52	54	54	54
Z	71	79	79	79	96	96	111

Accessories KFR/MFR



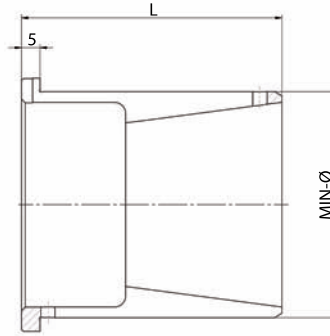
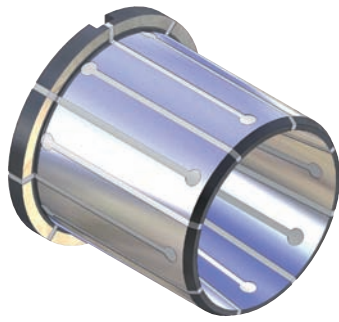
Tool group C 18

Type 255-50 **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	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length	32	40	40	40	55	55	70	70	70	78	78	78	78
Min-Ø	14,2	19,7	25,2	35,2	40,2	50,2	60,7	70,7	80,7	90,7	100,7	110,7	120,7
Clamping sleeve	1015500	1015513	1015526	1015548	1015560	1015582	1015605	1015617	1015629	1015641	1015653	1015665	1015677
Work stop	893830	893836	893842	893852	893857	893867	893878	893888	893897	893907	893917	893927	893937
Min-Ø	14,7	20,2	25,7	35,7	40,7	50,7	61,7	71,7	81,7	91,7	101,7	111,7	121,7
Clamping sleeve	1015501	1015514	1015527	1015549	1015561	1015583	1015606	1015618	1015630	1015642	1015654	1015666	1015678
Work stop	893830	893836	893842	893852	893857	893867	893879	893889	893898	893908	893918	893928	893938
Min-Ø	15,2	20,7	26,2	36,2	41,2	51,2	62,7	72,7	82,7	92,7	102,7	112,7	122,7
Clamping sleeve	1015502	1015515	1015528	1015550	1015562	1015584	1015607	1015619	1015631	1015643	1015655	1015667	1015679
Work stop	893830	893837	893842	893852	893857	893867	893880	893890	893899	893909	893919	893929	893939
Min-Ø	15,7	21,2	26,7	36,7	41,7	51,7	63,7	73,7	83,7	93,7	103,7	113,7	123,7
Clamping sleeve	1015503	1015516	1015529	1015551	1015563	1015585	1015608	1015620	1015632	1015644	1015656	1015668	1015680
Work stop	893831	893837	893843	893853	893858	893868	893881	893891	893900	893910	893920	893930	893940
Min-Ø	16,2	21,7	27,2	37,2	42,2	52,2	64,7	74,7	84,7	94,7	104,7	114,7	124,7
Clamping sleeve	1015504	1015517	1015530	1015552	1015564	1015586	1015609	1015621	1015633	1015645	1015657	1015669	1015681
Work stop	893831	893838	893843	893853	893858	893868	893882	893892	893901	893911	893921	893931	893941
Min-Ø	16,7	22,2	27,7	37,7	42,7	52,7	65,7	75,7	85,7	95,7	105,7	115,7	125,7
Clamping sleeve	1015505	1015518	1015531	1015553	1015565	1015587	1015610	1015622	1015634	1015646	1015658	1015670	1015682
Work stop	893832	893838	893844	893854	893859	893869	893883	893893	893902	893912	893922	893932	893942
Min-Ø	17,2	22,7	28,2	38,2	43,2	53,2	66,7	76,7	86,7	96,7	106,7	116,7	126,7
Clamping sleeve	1015506	1015519	1015532	1015554	1015566	1015588	1015611	1015623	1015635	1015647	1015659	1015671	1015683
Work stop	893832	893839	893844	893854	893859	893869	893884	893894	893903	893913	893923	893933	893943
Min-Ø	17,7	23,2	28,7	38,7	43,7	53,7	67,7	77,7	87,7	97,7	107,7	117,7	127,7
Clamping sleeve	1015507	1015520	1015533	1015555	1015567	1015589	1015612	1015624	1015636	1015648	1015660	1015672	1015684
Work stop	893833	893839	893845	893855	893860	893870	893885	893895	893904	893914	893924	893934	893944
Min-Ø	18,2	23,7	29,2	39,2	44,2	54,2	68,7	78,7	88,7	98,7	108,7	118,7	128,7
Clamping sleeve	1015508	1015521	1015534	1015556	1015568	1015590	1015613	1015625	1015637	1015649	1015661	1015673	1015685
Work stop	893833	893840	893845	893855	893860	893870	893886	893947	893905	893915	893925	893935	893945
Min-Ø	18,7	24,2	29,7	39,7	44,7	54,7	69,7	79,7	89,7	99,7	109,7	119,7	129,7
Clamping sleeve	1015509	1015522	1015535	1015557	1015569	1015591	1015614	1015626	1015638	1015650	1015662	1015674	1015686
Work stop	893834	893840	893846	893856	893861	893871	893887	893896	893906	893916	893926	893936	893946
Min-Ø	19,2	24,7	30,2	40,2	45,2	55,2	70,7	80,7	90,7	100,7	110,7	120,7	130,7
Clamping sleeve	1015510	1015523	1015536	1015558	1015570	1015592	1015615	1015627	1015639	1015651	1015663	1015675	1015687
Work stop	893834	893841	893846	893856	893861	893871	893887	893896	893906	893916	893926	893936	893946
Min-Ø	19,7	25,2	30,7	40,7	45,7	55,7							
Clamping sleeve	1015511	1015524	1015537		1015571	1015593							
Work stop	893835	893841	893847		893862	893872							
Min-Ø			31,2		46,2	56,2							
Clamping sleeve			1015538		1015572	1015594							
Work stop			893847		893862	893872							
Min-Ø			31,7		46,7	56,7							
Clamping sleeve			1015539		1015573	1015595							
Work stop			893848		893863	893873							
Min-Ø			32,2		47,2	57,2							
Clamping sleeve			1015540		1015574	1015596							
Work stop			893848		893863	893873							
Min-Ø			32,7		47,7	57,7							
Clamping sleeve			1015541		1015575	1015597							
Work stop			893849		893864	893874							
Min-Ø			33,2		48,2	58,2							
Clamping sleeve			1015542		1015576	1015598							
Work stop			893849		893864	893874							
Min-Ø			33,7		48,7	58,7							
Clamping sleeve			1015543		1015577	1015599							
Work stop			893850		893865	893875							
Min-Ø			34,2		49,2	59,2							
Clamping sleeve			1015544		1015578	1015600							
Work stop			893850		893865	893875							
Min-Ø			34,7		49,7	59,7							
Clamping sleeve			1015545		1015579	1015601							
Work stop			893851		893866	893876							
Min-Ø			35,2		50,2	60,2							
Clamping sleeve			1015546		1015580	1015602							
Work stop			893851		893866	893876							
Min-Ø						60,7							
Clamping sleeve						1015603							
Work stop						893877							

Different chucking Ø and profiled clamping sleeves on request

Accessories KFR/MFR



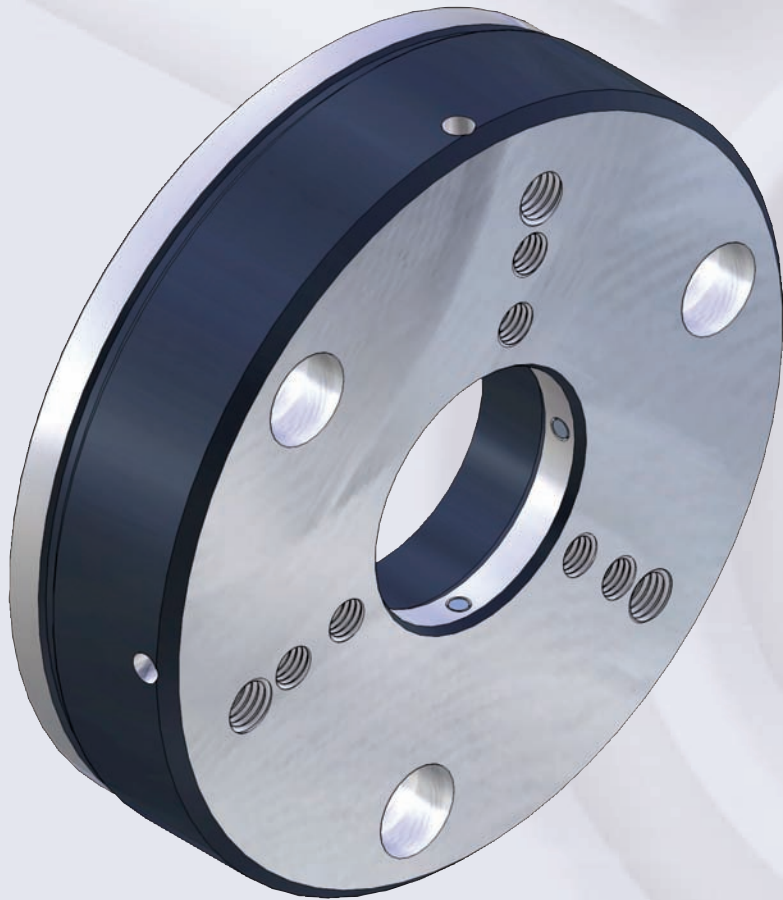
Tool group C 18
Type 255-55 Clamping sleeve Type R - vulcanized

For size	00	01	02	03	04	05	06	07	08	09	10	11	12
Expansion in Ø	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length	32	40	40	40	55	55	70	70	70	78	78	78	78
Min-Ø	14,2	19,7	25,2	35,2	40,2	50,2	60,7	70,7	80,7	100,7	100,7	110,7	120,7
Clamping sleeve	1015700	1015713	1015726	1015748	1015760	1015782	1015805	1015817	1015829	1015851	1015853	1015865	1015877
Work stop	893830	893836	893842	893852	893857	893867	893878	893888	893897	893916	893917	893927	893937
Min-Ø	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	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	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	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	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	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	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	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	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	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	19,7	25,2	30,7		40,7	50,7							
Clamping sleeve	1015711	1015724	1015737		1015771	1015793							
Work stop	893835	893841	893847		893862	893872							
Min-Ø			31,2		46,2	56,2							
Clamping sleeve			1015738		1015772	1015794							
Work stop			893847		893862	893872							
Min-Ø			31,7		46,7	56,7							
Clamping sleeve			1015739		1015773	1015795							
Work stop			893848		893863	893873							
Min-Ø			32,2		47,2	57,2							
Clamping sleeve			1015740		1015774	1015796							
Work stop			893848		893863	893873							
Min-Ø			32,7		47,7	57,7							
Clamping sleeve			1015741		1015775	1015797							
Work stop			893849		893864	893874							
Min-Ø			33,2		48,2	58,2							
Clamping sleeve			1015742		1015776	1015798							
Work stop			893849		893864	893874							
Min-Ø			33,7		48,7	58,7							
Clamping sleeve			1015743		1015777	1015799							
Work stop			893850		893865	893875							
Min-Ø			34,2		49,2	59,2							
Clamping sleeve			1015744		1015778	1015800							
Work stop			893850		893865	893875							
Min-Ø			34,7		49,7	59,7							
Clamping sleeve			1015745		1015779	1015801							
Work stop			893851		893866	893876							
Min-Ø			35,2		50,2	60,2							
Clamping sleeve			1015746		1015780	1015802							
Work stop			893851		893866	893876							
Min-Ø						60,7							
Clamping sleeve						1015803							
Work stop						893877							

Different chucking Ø and profiled clamping sleeves on request

Intermediate Adaptor Plates for KFR/MFR

For KFR (255-00) and KFS (253-00)



Application:

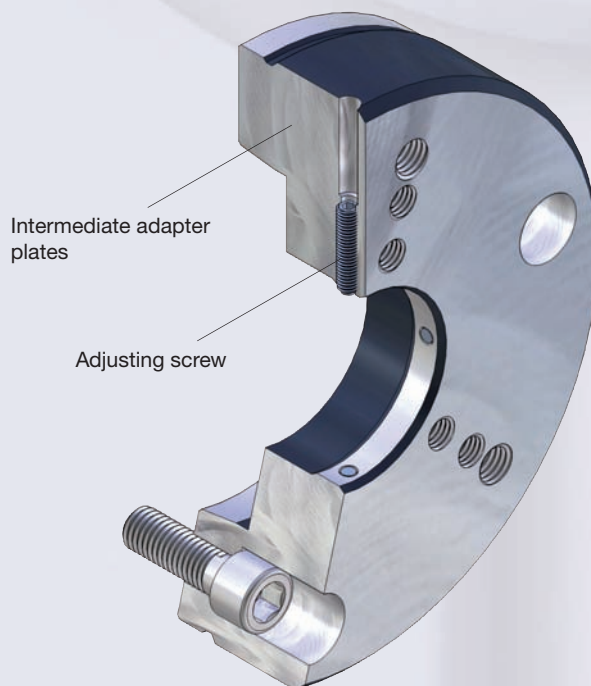
Adaption of cartridge mandrel KFR or KFS- on spindle nose DIN 55021/55022/55026 and 55027.

Special features:

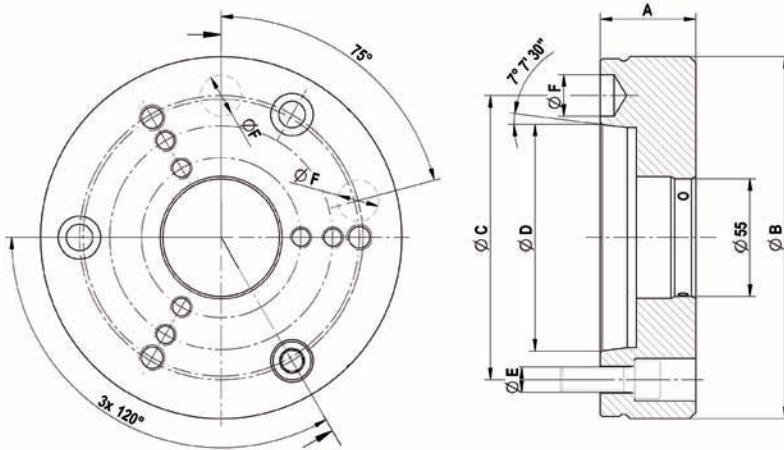
Adaption of cartridge mandrel KFR (255-00) and KFS (253-00) on spindle nose, with or without adjusting screws, with or without grommet of air-sensing. Design ISO 702-1 (DIN 55028-A) or ISO 702-3 (DIN 55028-C), in sizes Nr.5, Nr.6, Nr.8, Nr.11 or Nr.5, Nr.6, Nr.8 (A5, A6, A8, A11 or C5, C6, C8).

Customer advantage:

By changing the intermediate flange a cartridge mandrel can be entered on different machines.

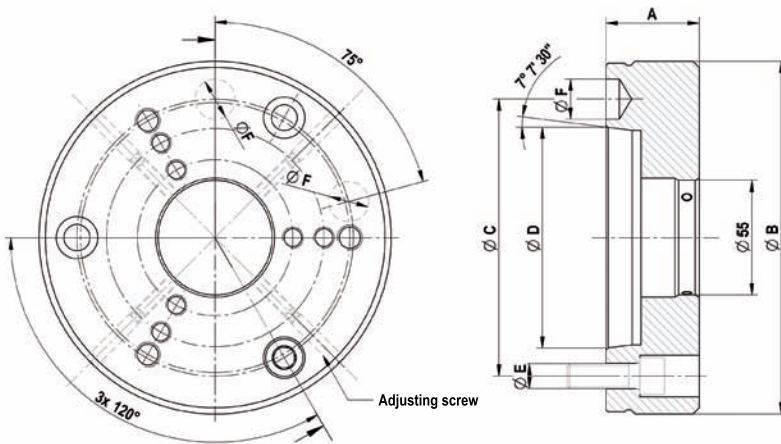


Accessories KFR/MFR



Tool group C 18
Type 255-91 **Intermediate adapter** ISO 702-1 (DIN 55026/55021); **without adjusting screws**

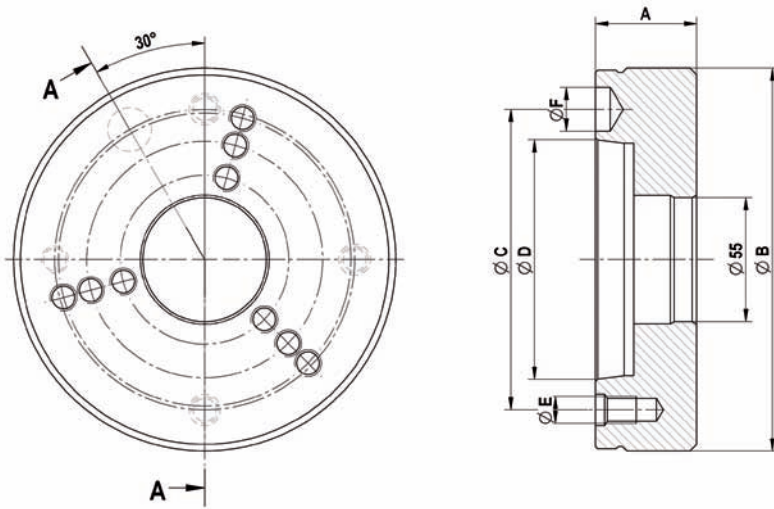
	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)	Nr. 11 (A 11)
Intermediate flange	893975	893976	893977	893978
Design	without air-sensing	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A	45	45	50	50
Ø B	165	170	220	282
Ø C	104,8	133,4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



Tool group C 18
Type 255-92 **Intermediate adapter** ISO 702-1 (DIN 55026/55021) **with adjusting screw**

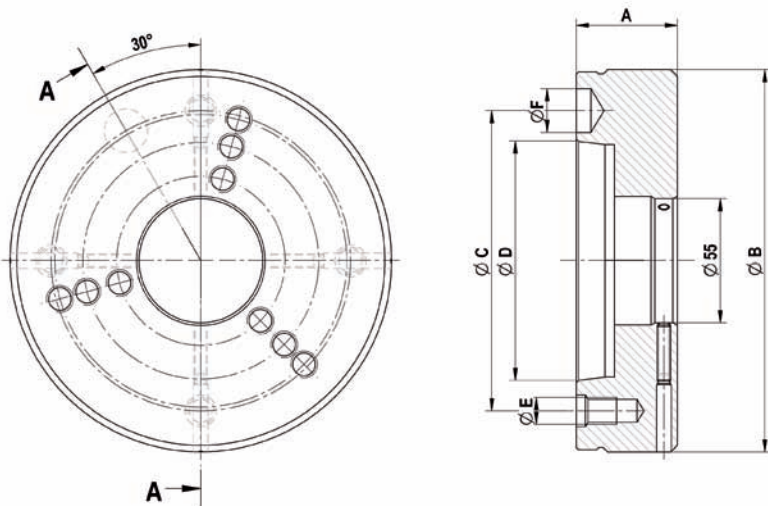
	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)
Intermediate flange	893979	893980	893981
Design	without air-sensing	without air-sensing	without air-sensing
Mount-Ø 55	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A	45	45	50
Ø B	165	170	220
Ø C	104,8	133,4	171,4
Ø D	82,563	106,375	139,719
Ø E	M10	M12	M16
Ø F	16,3	19,45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

Accessories KFR/MFR



Tool group C 18
Type 255-93 **Intermediate adapter ISO 702-3 (DIN 55027/55022); without adjusting screws**

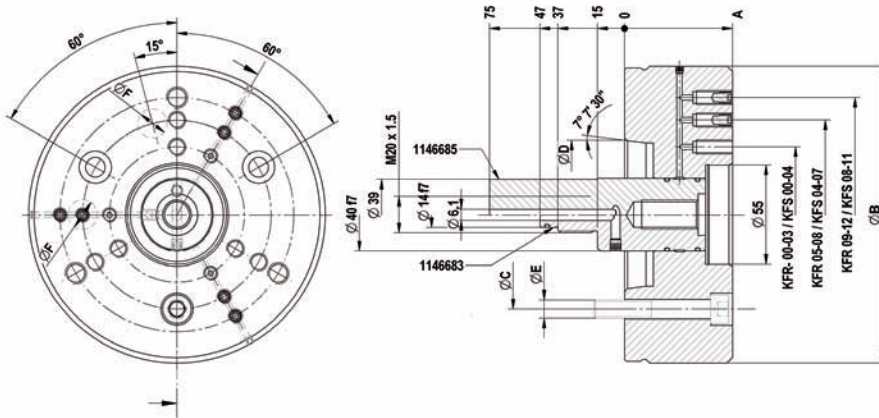
	Nr. 5 (C 05)	Nr. 6 (C 06)	Nr. 8 (C 08)
Intermediate flange	893982	893983	893984
Design	without air-sensing	without air-sensing	without air-sensing
Mount- \varnothing 55	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A	45	45	50
\varnothing B	165	170	220
\varnothing C	104,8	133,4	171,4
\varnothing D	82,563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



Tool group C 18
Type 255-94 **Intermediate adapter 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- \varnothing 55	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A	45	45	50
\varnothing B	165	170	220
\varnothing C	104,8	133,4	171,4
\varnothing D	82,563	106,375	139,719
\varnothing E	M 10	M 12	M 16
\varnothing F	16,3	19,45	24,2

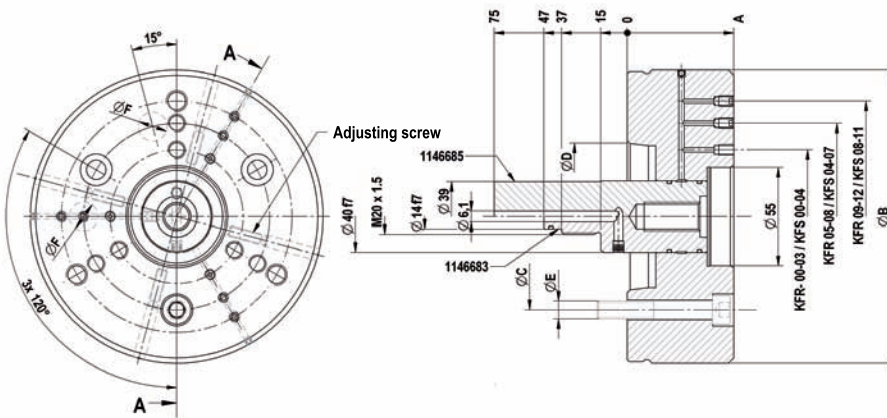
Accessories KFR/MFR



Tool group C18

Type 255-95 **Intermediate adapter** ISO-702-1 (DIN 55026/55021); **without adjusting screw**

	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)
Intermediate flange	1146680	1146681	1146682
Design	with air-sensing	with air-sensing	with air-sensing
Mount-Ø 55	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A	60	60	60
Ø B	165	170	220
Ø C	104,8	133,4	171,4
Ø D	82,563	106,375	139,719
Ø E	M10	M12	M16
Ø F	16,3	19,45	24,2
Draw piece for air-sensing	1146683	1146683	1146683
Raw draw piece for air-sensing	1146685	1146685	1146685

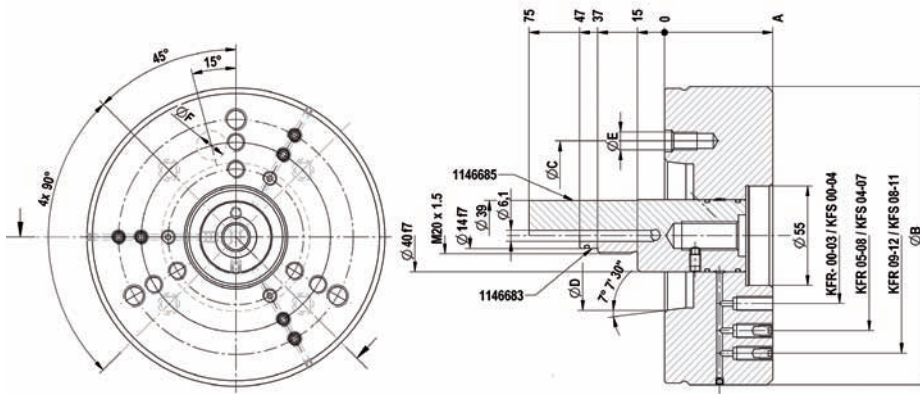


Tool group C18

Type 255-96 **Intermediate adapter** ISO-702-1 (DIN 55026/55021); **with adjusting screw**

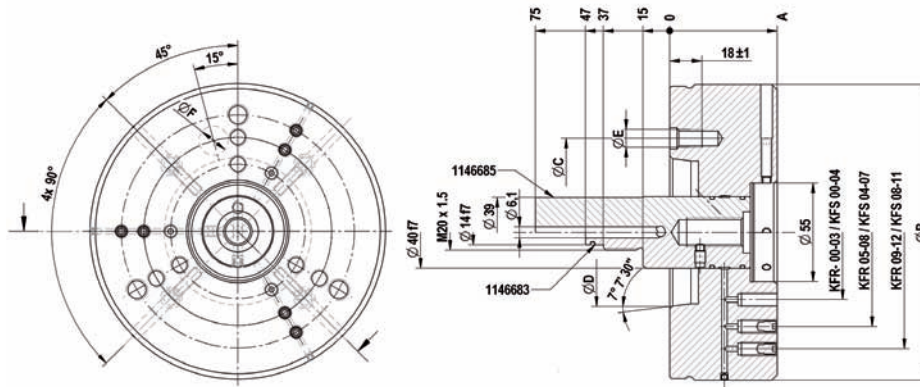
	Nr. 5 (A 05)	Nr. 6 (A 06)	Nr. 8 (A 08)
Intermediate flange	1160023	1160024	1160025
Design	with air-sensing	with air-sensing	with air-sensing
Mount-Ø 55	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A	60	60	60
Ø B	165	170	220
Ø C	104,8	133,4	171,4
Ø D	82,563	106,375	139,719
Ø E	M10	M12	M16
Ø F	16,3	19,45	24,2
Draw piece for air-sensing	1146683	1146683	1146683
Raw draw piece for air-sensing	1146685	1146685	1146685

Accessories KFR/MFR



Tool group C18
Type 255-97 Intermediate adapter ISO 702-3 (DIN 55027/55022); without adjusting screws

	Nr. 5 (C 05)	Nr. 6 (C 06)	Nr. 8 (C 08)
Intermediate flange	1160030	1160031	1160032
Design	with air-sensing	with air-sensing	with air-sensing
Mount-Ø 55	+0,003/+0,001	+0,003/+0,001	+0,003/+0,001
A	60	60	60
Ø B	165	170	220
Ø C	104,8	133,4	171,4
Ø D	82,563	106,375	139,719
Ø E	M10	M12	M16
Ø F	16,3	19,45	24,2
Draw piece for air-sensing	1146683	1146683	1146683
Raw draw piece for air-sensing	1146685	1146685	1146685

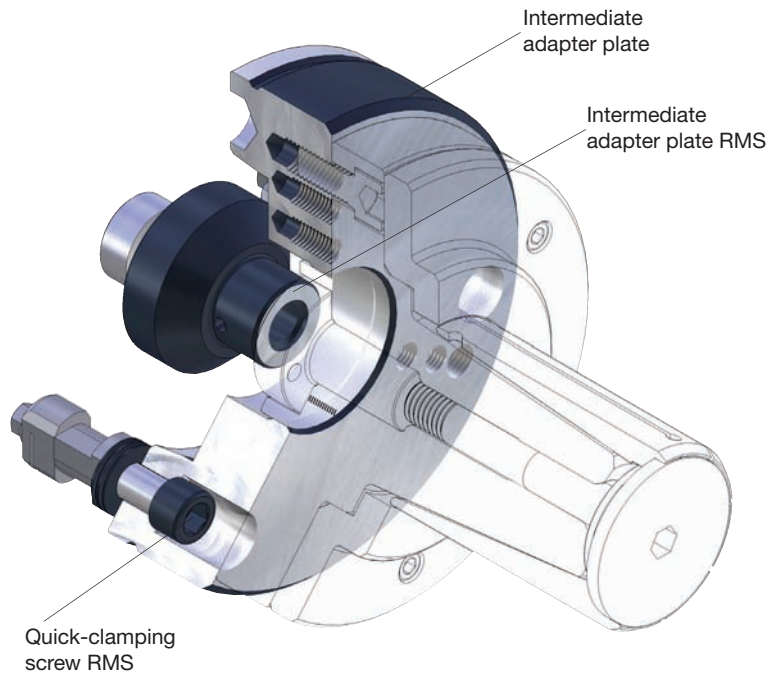


Tool group C18
Type 255-98 Intermediate adapter ISO 702-3 (DIN 55027/55022); with adjusting screws

	Nr. 5 (C 05)	Nr. 6 (C 06)	Nr. 8 (C 08)
Intermediate flange	1160033	1160034	1160035
Design	with air-sensing	with air-sensing	with air-sensing
Mount-Ø 55	+0,05/+0,04	+0,05/+0,04	+0,05/+0,04
A	60	60	60
Ø B	165	170	220
Ø C	104,8	133,4	171,4
Ø D	82,563	106,375	139,719
Ø E	M10	M12	M16
Ø F	16,3	19,45	24,2
Draw piece for air-sensing	1146683	1146683	1146683
Raw draw piece for air-sensing	1146685	1146685	1146685

Accessories KFR / MFR

Hand-operated quick-change system for clamping devices
 Compatible for KFR (255-00), KFS (253-00)



Application:

Hand-operated change of clamping devices with few time exponsure.

Special features:

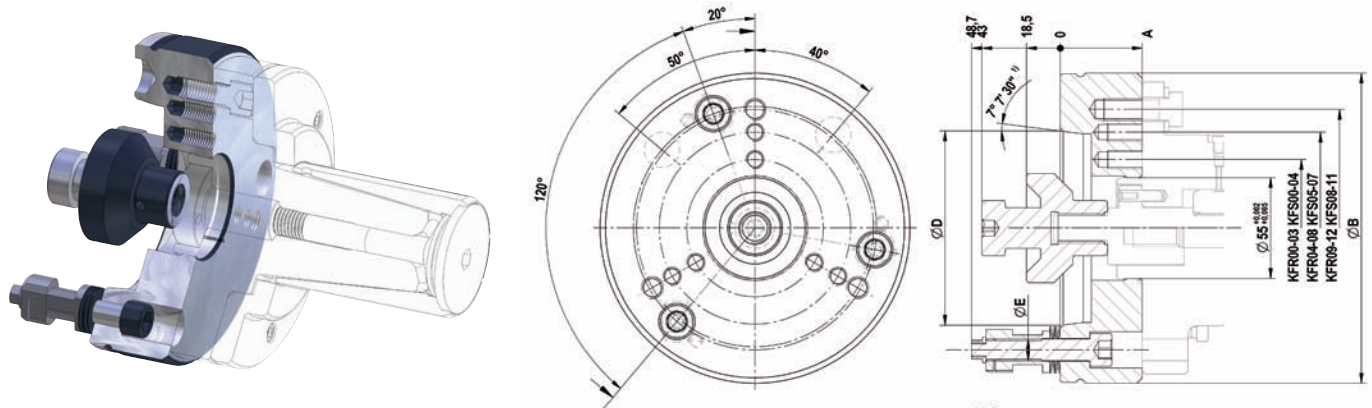
Hand-operated change of clamping devices in ca. 30 seconds, high change accuracy within 0,005mm, for central lubrication and/or air-sensing.

Technical features:

- quick-change system suitable for Tool carrier assy RMS (please see product group power chucks - cylinders)
- suitable for cartridge mandrel KFR (255-00), KFS (253-00)
- for central lubrication and/or air-sensing,
- corresponding to the german employer's liability insurance association in connection with the ROHM-safety clamping cylinders OVS and LVS, change precision 0,005mm.

Customer advantage:

Quick changing of different clamping devices with few time exponsure, similar to the automatic or semiautomatic change-system of the clamping devices.



RMS-Quick-change system
 KFS KFR KFR-SE

Tool group C18
 Type 299-90 **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	M12	M16
Ø F	55 (+0,003/+0,001)	55 (+0,003/+0,001)

KFR/MFR



► **Cartridge mandrel KFR clamping Ø45mm**

Application:

Turning a pressed part.

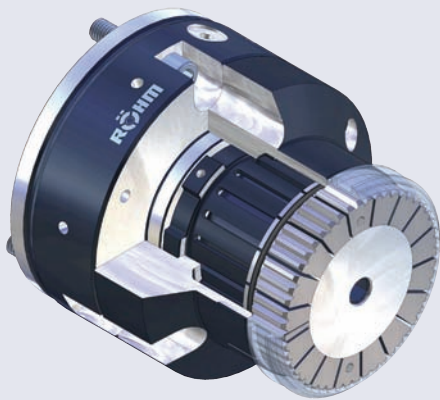
Power-assisted operation of the cartridge mandrel using the pull rod.

The clamping mandrel is designed for different workpieces.

Hard stop with damping ring, air system control and ejector.

Customer advantage:

- Easy retrofitting to other clamping diameters by changing the clamping sleeve and/or hard stop
- Radial run-out accuracy of 0.01 mm



► **Cartridge mandrel KFR clamping ØTK-Ø90mm**

Application:

Turning.

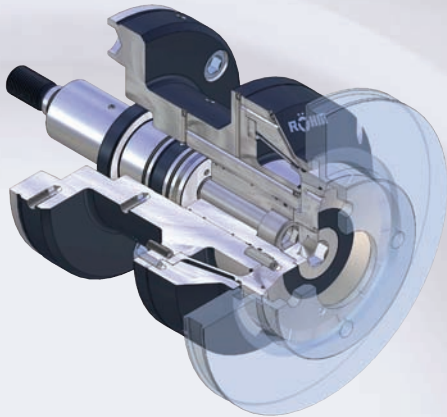
Power-operated cartridge mandrel with toothed clamping sleeve to clamp in the tooth flanks.

Collet with rapid exchange system.

Customer advantage:

- Radial run-out accuracy for tooth gearing
- Radial run-out accuracy of 0.03mm

KFR/MFR



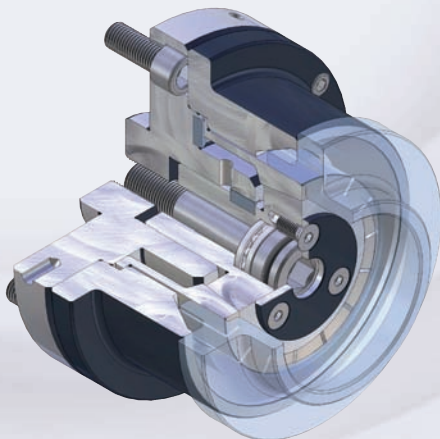
► **Cartridge mandrel KFR clamping Ø136mm**

Application:

- Turning brake discs.
- Power-assisted operation of the clamping sleeve using the pull rod.
- Sealed to protect against chips.
- Hard stop with air system control.

Customer advantage:

- Sturdy design of the clamping mandrel
- Radial run-out accuracy of 0.02mm



► **Cartridge mandrel MFR clamping Ø88mm**

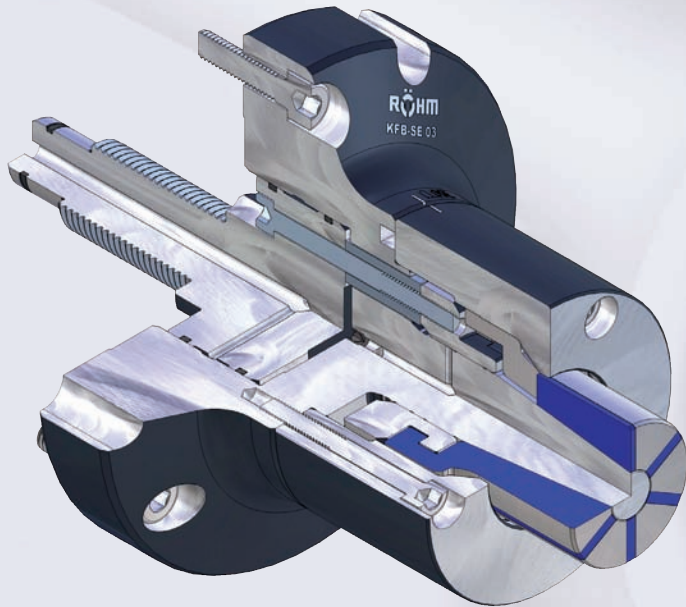
Application:

- Milling/drilling for stationary use on clamping devices.
- Special version of manually-operated cartridge mandrel.
- Operation takes place using the hexagon socket.

Customer advantage:

- Simple operation due to the light bearings
- Radial run-out accuracy of 0.015mm

Power-operated cartridge mandrel with flanged seat, for internal clamping



Application:

Turning, milling, grinding, drilling, measuring.

Special features:

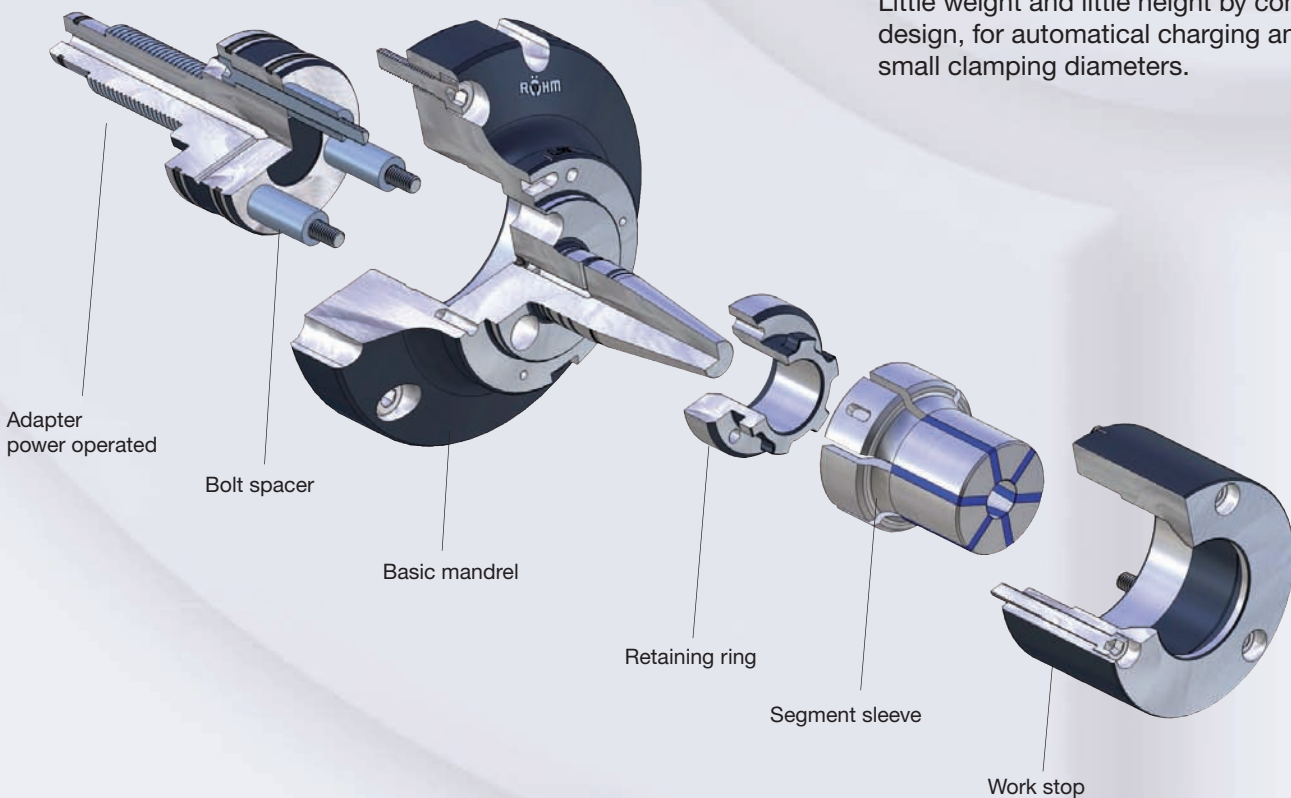
For a very small clamping diameter from Ø10mm, steady clamping by axial draw-in. The draw-in of the work-pieces against the rigid work-stop takes place independently via the operation of the mandrels. Quick change of the taper sleeves possible. For short span length.

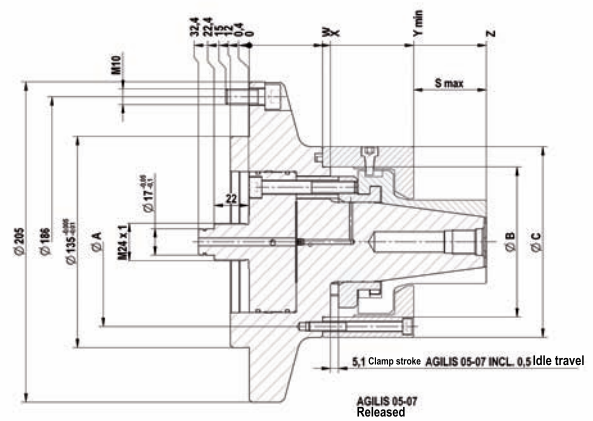
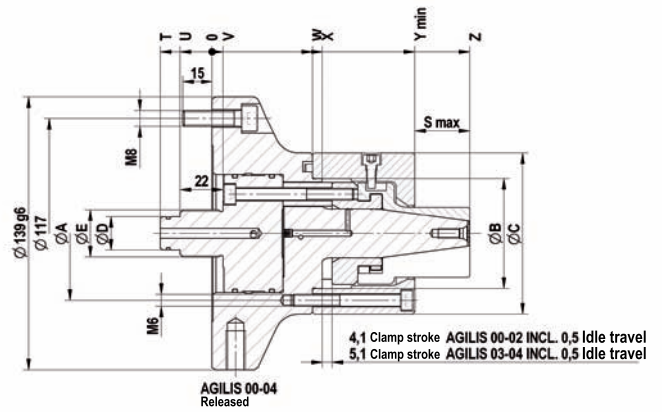
Technical features:

- high accuracy up to a maximal concentricity tolerance of 0,01mm,
- power- operated,
- high clamping-accuracy for repetitions,
- hardened (clamping-) segments (grade >60HRC),
- hardened guides,
- precise guide of the clamping sleeve on the clamping mandrel,
- compatible intermediate flanges Type 269-90 resp. 267-20.

Customer advantage:

Little weight and little height by compact design, for automatical charging and for small clamping diameters.



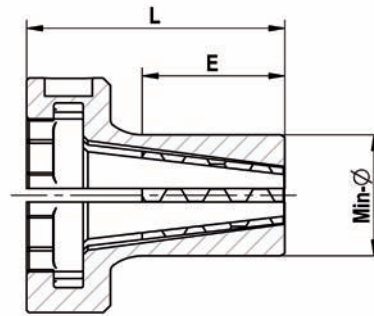
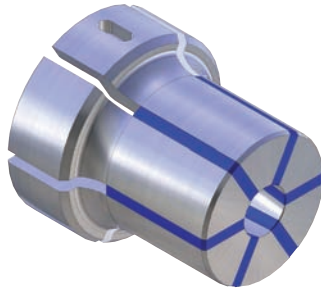


Tool group C 18

Type 296-00 **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
Adapters RMS KK6	1180070	1180070	1180072	1180073	1180074	-	-	-
Adapters RMS KK8	1180330	1180330	1180332	1180333	1180334	-	-	-
F max, in kN	75	10	20	25	30	35	40	50
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	68	68	82	82	101	122	140	169
Ø D	12	12	17	17	17	-	-	-
Ø E	M 16	M 16	M 24x1	M 24x1	M 24x1	-	-	-
S max,	16,8	18,8	23,8	28,1	42,1	46,1	57,1	67,1
T	27,7	27,7	25,4	26,4	26,4	-	-	-
U	177	177	15,4	16,4	16,4	-	-	-
V	4,3	4,3	6,6	5,6	5,6	-	-	-
W	41,5	41,5	52	51	52	47	49	49
X	46,5	46,5	57,2	56	57	52	54	54
Y min,	80	80	103	103	108	105	109	109
Z	96,8	98,8	126,8	131,1	150,1	151,1	166,1	176,1

Accessories AGILIS



Tool group C18
Type 296-55 **Segment clamping sleeves AGILIS**

	AGILIS 00	AGILIS 01	AGILIS 02	AGILIS 03	AGILIS 04	AGILIS 05	AGILIS 06	AGILIS 07
Expansion in Ø	0,6	0,6	0,6	1,2	1,2	1,2	1,2	1,2
Total length	38	40	52,5	57	76	82	95	105
Min-Ø	9,7	13,7	18,7	26,7	36,7	53,7	71,7	94,7
Segment sleeve	1180100	1180120	1180140	1180170	1180190	1180220	1180250	1180290
Work stop	1180400	1180420	1180440	1180470	1180490	1180520	1180550	1180590
Min-Ø	10,2	14,2	19,2	27,7	37,7	54,7	72,7	95,7
Segment sleeve	1180101	1180121	1180141	1180171	1180191	1180221	1180251	1180291
Work stop	1180401	1180421	1180441	1180471	1180491	1180521	1180551	1180591
Min-Ø	10,7	14,7	19,7	28,7	38,7	55,7	73,7	96,7
Segment sleeve	1180102	1180122	1180142	1180172	1180192	1180222	1180252	1180292
Work stop	1180402	1180422	1180442	1180472	1180492	1180522	1180552	1180592
Min-Ø	11,2	15,2	20,2	29,7	39,7	56,7	74,7	97,7
Segment sleeve	1180103	1180123	1180143	1180173	1180193	1180223	1180253	1180293
Work stop	1180403	1180423	1180443	1180473	1180493	1180523	1180553	1180593
Min-Ø	11,7	15,7	20,7	30,7	40,7	57,7	75,7	98,7
Segment sleeve	1180104	1180124	1180144	1180174	1180194	1180224	1180254	1180294
Work stop	1180404	1180424	1180444	1180474	1180494	1180524	1180554	1180594
Min-Ø	12,2	16,2	21,2	31,7	41,7	58,7	76,7	99,7
Segment sleeve	1180105	1180125	1180145	1180175	1180195	1180225	1180255	1180295
Work stop	1180405	1180425	1180445	1180475	1180495	1180525	1180555	1180595
Min-Ø	12,7	16,7	21,7	32,7	42,7	59,7	77,7	100,7
Segment sleeve	1180106	1180126	1180146	1180176	1180196	1180226	1180256	1180296
Work stop	1180406	1180426	1180446	1180476	1180496	1180526	1180556	1180596
Min-Ø	13,2	17,2	22,2	33,7	43,7	60,7	78,7	101,7
Segment sleeve	1180107	1180127	1180147	1180177	1180197	1180227	1180257	1180297
Work stop	1180407	1180427	1180447	1180477	1180497	1180527	1180557	1180597
Min-Ø	13,7	17,7	22,7	34,7	44,7	61,7	79,7	102,7
Segment sleeve	1180108	1180128	1180148	1180178	1180198	1180228	1180258	1180298
Work stop	1180408	1180428	1180448	1180478	1180498	1180528	1180558	1180598
Min-Ø	14,2	18,2	23,2	35,7	45,7	62,7	80,7	103,7
Segment sleeve	1180109	1180129	1180149	1180179	1180199	1180229	1180259	1180299
Work stop	1180409	1180429	1180449	1180479	1180499	1180529	1180559	1180599
Min-Ø	14,7	18,7	23,7	36,7	46,7	63,7	81,7	104,7
Segment sleeve	1180110	1180130	1180150	1180180	1180200	1180230	1180260	1180300
Work stop	1180410	1180430	1180450	1180480	1180500	1180530	1180560	1180600
Min-Ø	15,2	19,2	24,2	37,7	47,7	64,7	82,7	105,7
Segment sleeve	1180111	1180131	1180151	1180181	1180201	1180231	1180261	1180301
Work stop	1180411	1180431	1180451	1180481	1180501	1180531	1180561	1180601
Min-Ø	15,7	19,7	24,7	38,7	48,7	65,7	83,7	106,7
Segment sleeve	1180112	1180132	1180152	1180182	1180202	1180232	1180262	1180302
Work stop	1180412	1180432	1180452	1180482	1180502	1180532	1180562	1180602
Min-Ø		20,2	25,2	39,7	49,7	66,7	84,7	107,7
Segment sleeve		1180133	1180153	1180183	1180203	1180233	1180263	1180303
Work stop		1180433	1180453	1180483	1180503	1180533	1180563	1180603
Min-Ø		20,7	25,7	40,7	50,7	67,7	85,7	108,7
Segment sleeve		1180134	1180154	1180184	1180204	1180234	1180264	1180304
Work stop		1180434	1180454	1180484	1180504	1180534	1180564	1180604
Min-Ø		21,2	26,2	41,7	51,7	68,7	86,7	109,7
Segment sleeve		1180135	1180155	1180185	1180205	1180235	1180265	1180305
Work stop		1180435	1180455	1180485	1180505	1180535	1180565	1180605
Min-Ø		21,7	26,7	42,7	52,7	69,7	87,7	110,7
Segment sleeve		1180136	1180156	1180186	1180206	1180236	1180266	1180306
Work stop		1180436	1180456	1180486	1180506	1180536	1180566	1180606

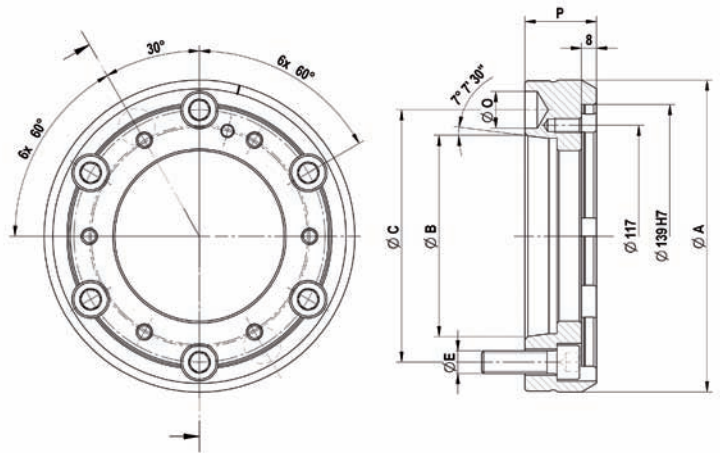
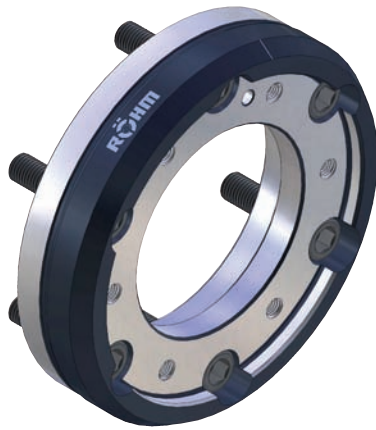
Accessories AGILIS

Tool group C18

 Type 296-55 **Segment clamping sleeves AGILIS**

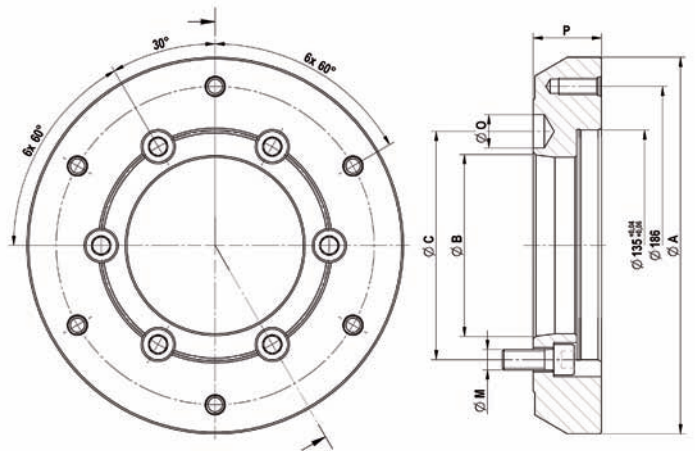
	AGILIS 00	AGILIS 01	AGILIS 02	AGILIS 03	AGILIS 04	AGILIS 05	AGILIS 06	AGILIS 07
Expansion in Ø	0,6	0,6	0,6	1,2	1,2	1,2	1,2	1,2
Total length	38	40	52,5	57	76	82	95	105
Min-Ø		22,2	27,2	43,7	53,7	70,7	88,7	111,7
Segment sleeve		1180137	1180157	1180187	1180207	1180237	1180267	1180307
Work stop		1180437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

Accessories AGILIS



Tool group C 18
Type 269-90 **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	165	170	220	282
Ø B	82,563	106,375	139,719	196,869
Ø C	104,8	133,4	171,4	235
Ø M	M10	M12	M16	M20
Ø O	16,3	19,45	24,2	29,4
P	36	38	45	45

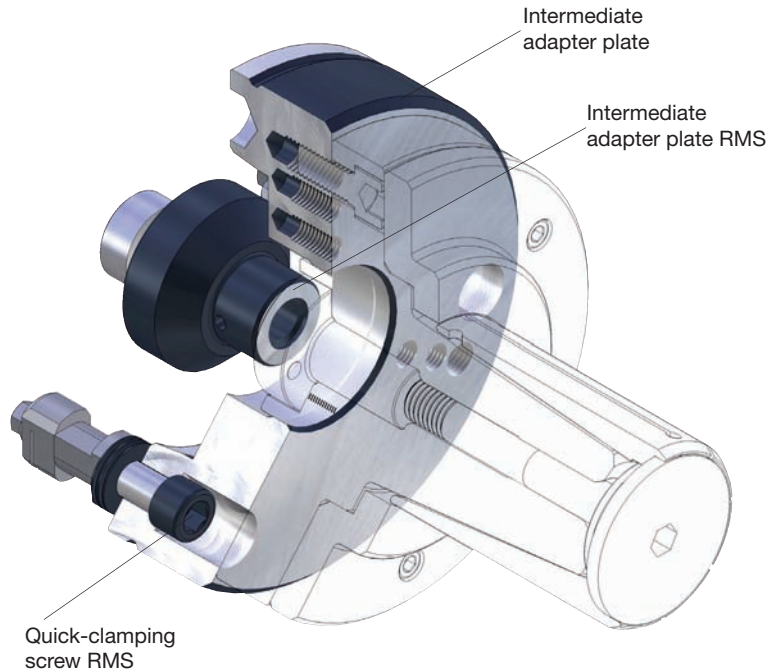


Tool group C 18
Type 267-20 **Intermediate flange** ISO 702-1 (DIN 55028); For size 05-07

	A 05	A 06	A 08
Intermediate flange	1072115	1072117	1072119
For	AGILIS 05-07	AGILIS 05-07	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	186	186	186
Ø O	16,3	19,45	24,2
Thread-Ø M	M10	M12	M16
Total length flange P	40	40	40

Accessories AGILIS

Hand-operated quick-change system for clamping devices
Compatible for ABSIS (269-00) and AGILIS (296-00)



Application:

Hand-operated change of clamping devices with few time exposure.

Special features:

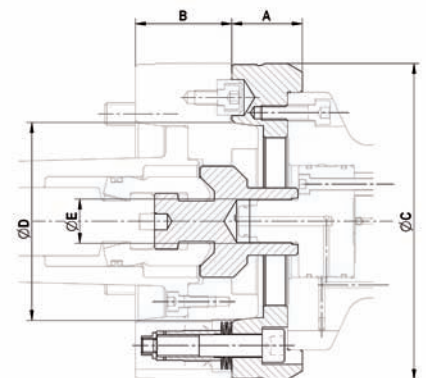
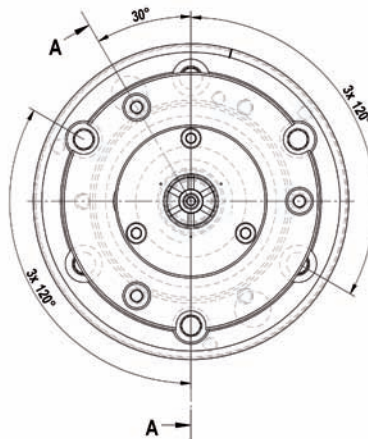
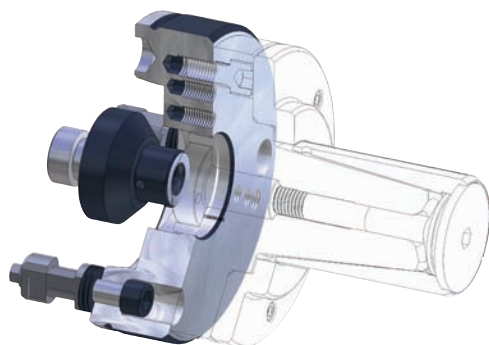
Hand-operated change of clamping devices in ca. 30 seconds, high change accuracy within 0,005mm, for central lubrication and/or air-sensing.

Technical features:

- quick-change system suitable for Tool carrier assy RMS (please see product group power chucks - cylinders)
- suitable for segment clamping mandrel ABSIS (269-00) and AGILIS (296-00),
- for central lubrication and/or air-sensing,
- corresponding to the german employer's liability insurance association in connection with the ROHM-safety clamping cylinders OVS and LVS, change precision 0,005mm.

Customer advantage:

Quick changing of different clamping devices with few time exposure, similar to the automatic or semiautomatic change-system of the clamping devices.

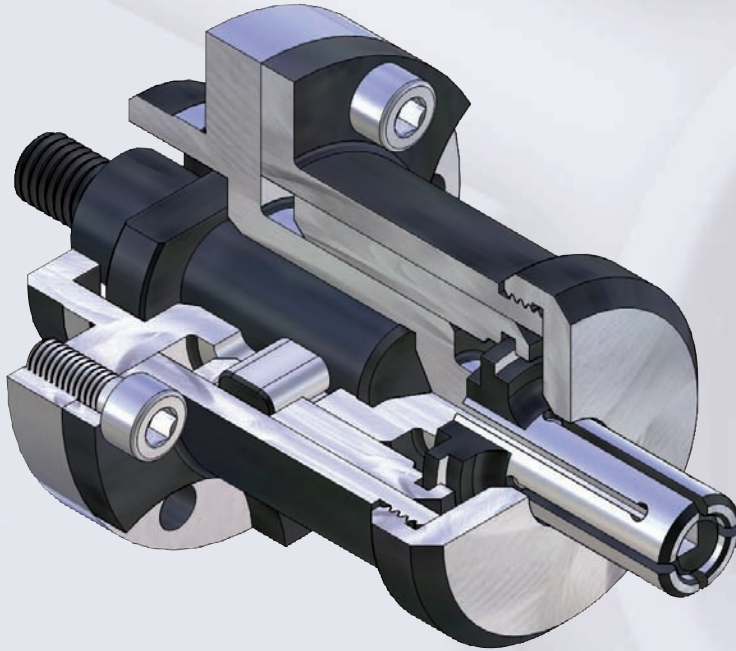


Tool group C18
Type 299-90 RMS quick-change system; hand-operated for clamping devices

	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	see Type 296-0 0 AGILIS	see Type 296-0 0 AGILIS
A	38	45
Ø B	170	215
Ø C	133,4	171,4
Ø D	106,375	139,719
Ø E	M12	M16
Ø F	139 H7	139 H7

compatible intermediate pieces RMS KK6 and RMS KK8 you can find in the table of the segment clamping sleeve AGILIS Type 296-00

Power-operated cartridge mandrel with flanged seat, for internal clamping



Application:

Turning, grinding, measuring, cutting.

Special features:

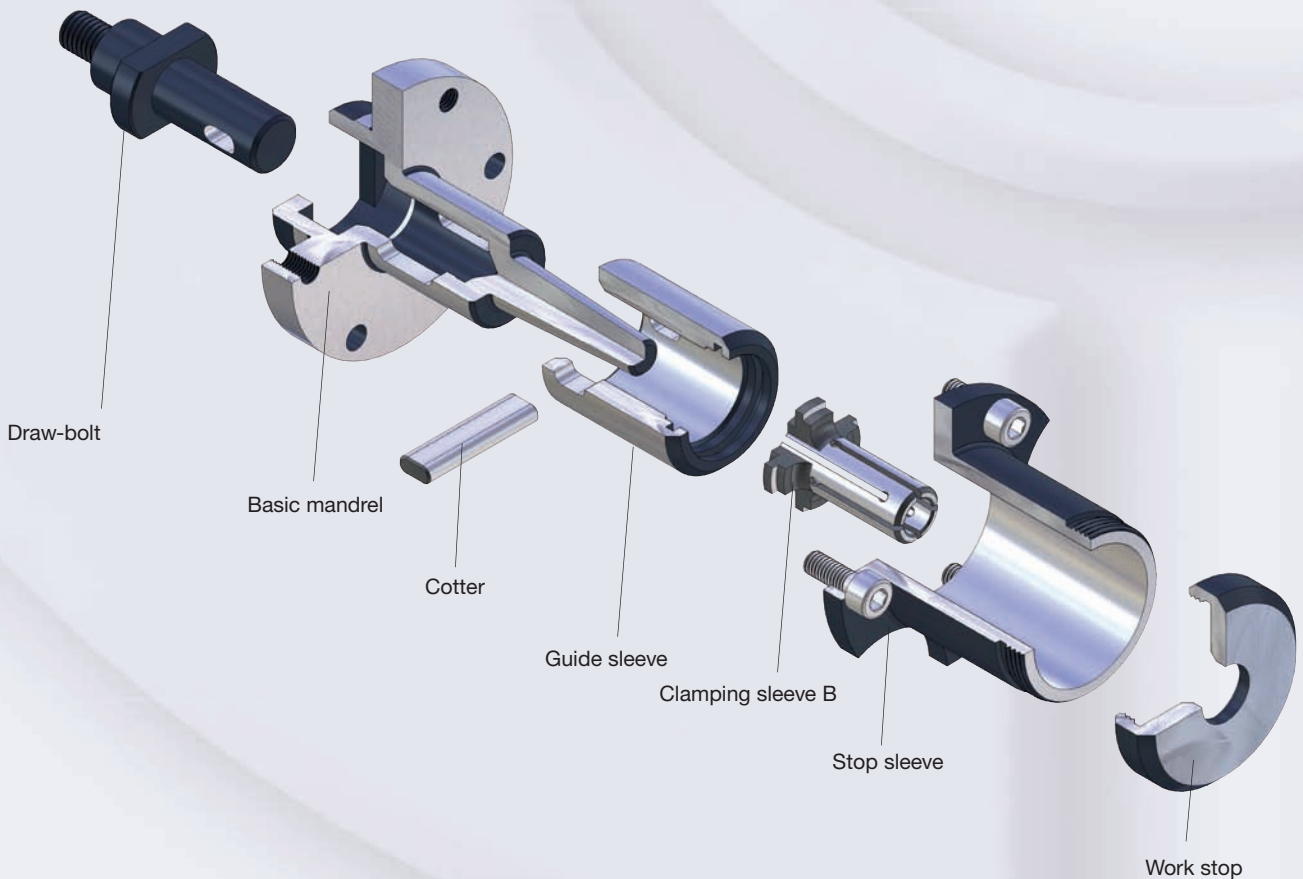
For a very small clamping diameter from Ø5,5mm, steady clamping by axial draw-in. The draw-in of the work-pieces against the rigid work-stop takes place independently via the operation of the mandrels. Quick change of the taper sleeves possible, for short span length.

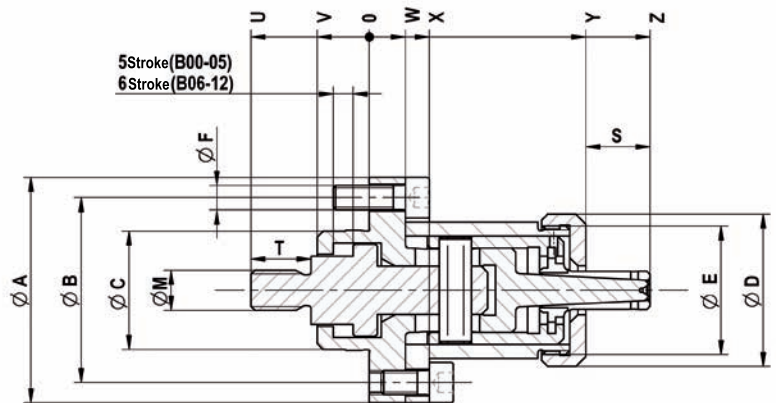
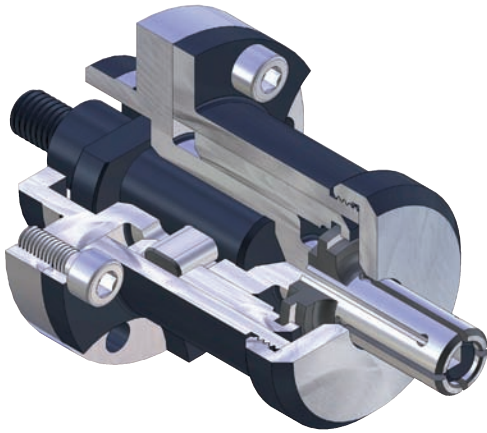
Technical features:

- high accuracy up to a maximal concentricity tolerance of 0,01mm,
- power-operated,
- high clamping-accuracy for repetitions,
- rigid clamping,
- hardened guides,
- precise guide of the clamping sleeve on the clamping mandrel.

Customer advantage:

Little weight and little height by compact design, for automatical chargin. For small clamping diameters.

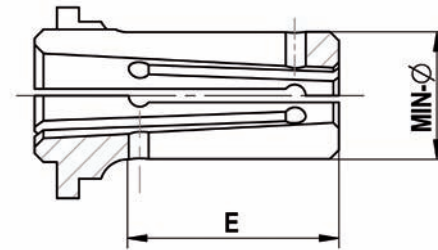
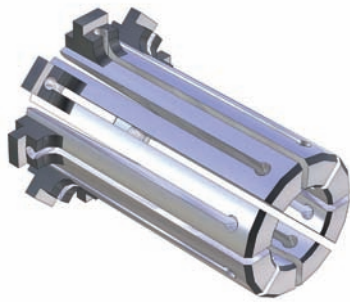




Tool group C18
 Type 247-10 **KFB** Cartridge mandrel; **power-operated with flanged seat**; for internal clamping
 consists of basic mandrel, stop sleeve, guide sleeve, cotter, draw bolt

	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	2	3	4	5,5	6,5	7,5	20	22
Min-Ø unclamped from	5,5	7,5	9,5	12	14,5	19,5	24,7	29,7
Min-Ø unclamped to	7	9	11,5	14,5	19	24,5	28,7	33,7
Clamping-Ø max,	7,5	9,5	12	15	19,5	25	29,7	34,7
External-Ø A	45	50	56	60	72	76	82	95
Pitch diameter B	36	39	46	50	60	64	70	80
Ø Ch6	25	25	30	30	40	40	40	60
Ø D	24	31	38	40	52	54	60	66
Ø E	M22x1,5	M27x1,5	M32x1,5	M36x1,5	M45x1,5	M48x1,5	M56x1,5	M60x1,5
Ø F	M5	M6	M6	M6	M6	M6	M6	M8
Stroke G	5	5	5	5	5	5	6	6
Ø M	M8	M8	M10	M10	M10	M12	M12	M12
S	9	13	15	20,5	24	30	36	40
T	14	14	15	15	15	18	18	18
U	27	27,5	29,5	29,5	30,5	33,5	33,5	36,5
V	11,5	12	13	13	14	14	14	17
W	7,5	8	9	9	10	10	10	12,5
X	12,5	13	15	15	16	16	16	18,5
Y	42	46	45	58	66	67	71	74
Z	51,5	58,5	70	78,5	90	97	107	114

Accessories KFB

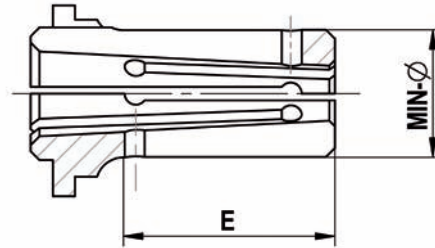
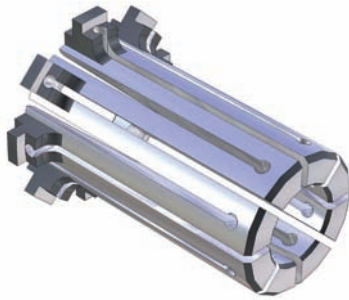


Tool group C 18

Type 241-50 **Clamping sleeve** Type B - **Standard design**; (not vulcanized)

For size	KFB 00	KFB 01	KFB 02	KFB 03	KFB 04	KFB 05	KFB 06	KFB 07
Expansion in Ø	0,5	0,5	0,5	0,5	0,5	0,5	1	1
Total length	11,5	15	19	20,5	28,5	34	40	43,5
Min-Ø	5,5	7,5	10	12	14,5	19,5	24,7	29,7
Clamping sleeve	315139	315140	315154	315142	315143	315144	315145	315146
Work stop	323420	323423	323427	323430	323435	323444	323452	323459
Min-Ø	6	8	10,5	12,5	15	20	25,7	30,7
Clamping sleeve	315152	315153	315167	315155	315156	315157	315158	315159
Work stop	323421	323424	323428	323431	323436	323445	323453	323460
Min-Ø	6,5	8,5	11	13	15,5	20,5	26,7	31,7
Clamping sleeve	315165	315166	315180	315168	315169	315170	315171	315172
Work stop	323422	323425	323429	323432	323437	323446	323454	323540
Min-Ø	7	9	11,5	13,5	16	21	27,7	32,7
Clamping sleeve	315178	315179	315191	315181	315182	315183	315184	315185
Work stop	323487	323488	323489	323433	323438	323447	323455	323541
Min-Ø			9,5	14	16,5	21,5	28,7	33,7
Clamping sleeve			315141	315192	315193	315194	315195	315196
Work stop			323426	323434	323439	323448	323493	323494
Min-Ø				14,5	17	22		
Clamping sleeve				315202	315203	315204		
Work stop				323490	323440	323449		
Min-Ø					17,5	22,5		
Clamping sleeve					315209	315210		
Work stop					323441	323450		
Min-Ø					18	23		
Clamping sleeve					315215	315216		
Work stop					323442	323456		
Min-Ø					18,5	23,5		
Clamping sleeve					315221	315222		
Work stop					323443	323457		
Min-Ø					19	24		
Clamping sleeve					315227	315228		
Work stop					323491	323458		
Min-Ø						24,5		
Clamping sleeve						315233		
Work stop						323492		

Accessories KFB



Tool group C 18

 Type 241-55 **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	0,5	0,5	0,5	0,5	0,5	0,5	1	1
Total length	11,5	15	19	20,5	28,5	34	40	43,5
Min-Ø	5,5	7,5	10	12	14,5	19,5	24,7	29,7
Clamping sleeve	323739	323740	323754	323742	323743	323744	323745	323746
Work stop	323420	323423	323427	323430	323435	323444	323452	323459
Min-Ø	6	8	10,5	12,5	15	20	25,7	30,7
Clamping sleeve	323752	323753	323767	323755	323756	323757	323758	323759
Work stop	323421	323424	323428	323431	323436	323445	323453	323460
Min-Ø	6,5	8,5	11	13	15,5	20,5	26,7	31,7
Clamping sleeve	323765	323766	323780	323768	323769	323770	323771	323772
Work stop	323422	323425	323429	323432	323437	323446	323454	323540
Min-Ø	7	9	11,5	13,5	16	21	27,7	32,7
Clamping sleeve	323778	323779	323791	323781	323782	323783	323784	323785
Work stop	323487	323488	323489	323433	323438	323447	323455	323541
Min-Ø			9,5	14	16,5	21,5	28,7	33,7
Clamping sleeve			323741	323792	323793	323794	323795	323796
Work stop			323426	323434	323439	323448	323493	323494
Min-Ø				14,5	17	22		
Clamping sleeve				323802	323803	323804		
Work stop				323490	323440	323449		
Min-Ø					17,5	22,5		
Clamping sleeve					323809	323810		
Work stop					323441	323450		
Min-Ø					18	23		
Clamping sleeve					323815	323816		
Work stop					323442	323456		
Min-Ø					18,5	23,5		
Clamping sleeve					323821	323822		
Work stop					323443	323457		
Min-Ø					19	24		
Clamping sleeve					323827	323828		
Work stop					323491	323458		
Min-Ø						24,5		
Clamping sleeve						323833		
Work stop						323492		

Different chucking Ø and profiled clamping sleeves can be supplied on request



► **Cartridge mandrel KFB clamping Ø42mm**

Application:

Turning.

The workpiece is clamped with axial traction against the hard stop.

Clamping mandrel hermetically sealed against penetration of dirt and coolant.

The hard stop and clamping sleeve can be exchanged together using the rapid exchange system.

Customer advantage:

- Quick modification on various workpieces using the rapid exchange system
- Radial run-out accuracy of 0.015mm



► **Cartridge mandrel KFB clamping Ø114mm**

Application:

Turning.

Clamping takes place using the connecting rod with axial traction against hard stop.

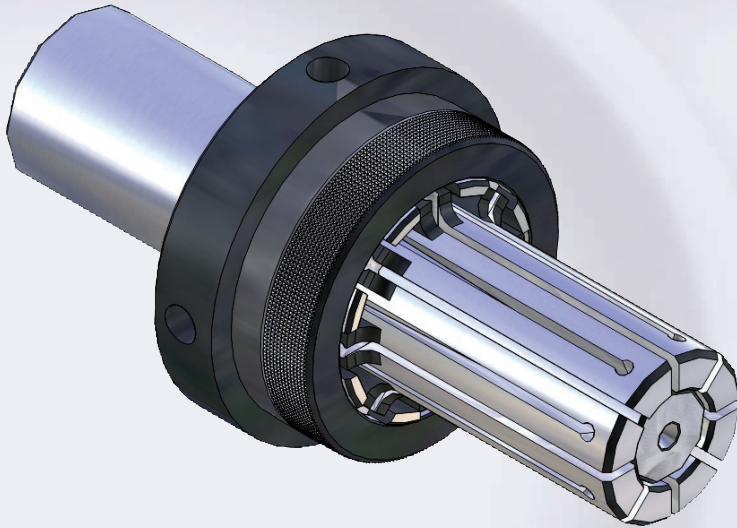
Idle strokes enable easier stroke control in the clamping cylinder.

The workpiece hard stop can be rapidly exchanged using the bayonet system.

Customer advantage:

- Easy to handle
- Sturdy clamping due to axial traction
- Radial run-out accuracy of 0.01mm

Hand-operated by cartridge mandrel with center hole, for internal clamping



Application:

Turning, grinding, measuring.

Special features:

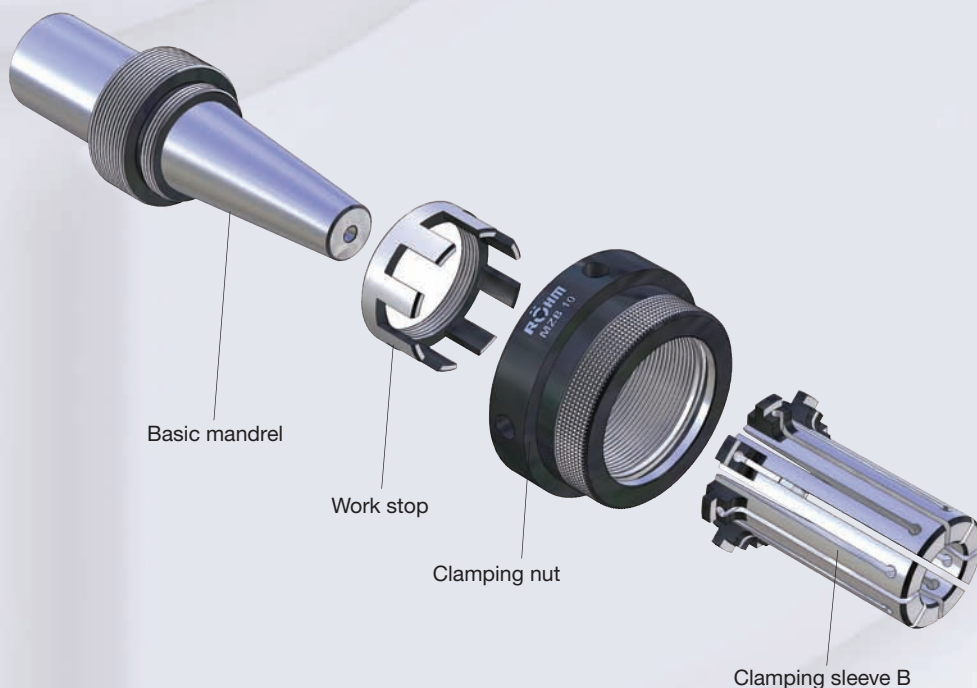
For a very small clamping diameter from Ø5,5mm, steady clamping by axial draw-in. The draw-in of the work-pieces against the rigid work-stop takes place independently via the operation of the mandrels. Quick change of the taper sleeves possible, for short span length.

Technical features:

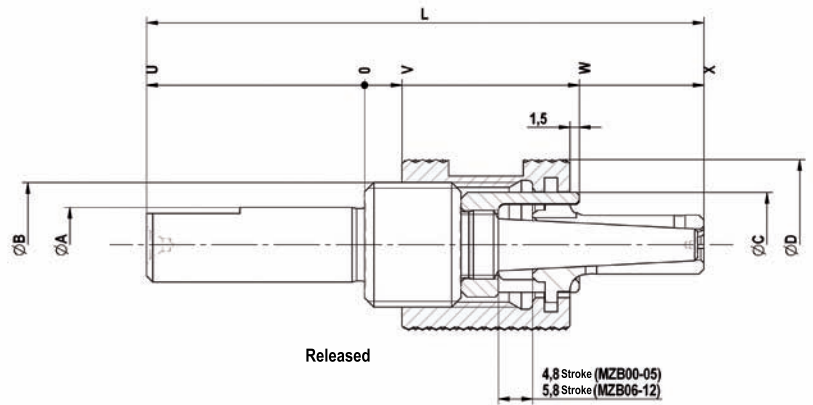
- high axial- and radial accuracy,
- high repeating accuracy,
- hardened low-wear construction,
- high accuracy by guiding the sleeves on the clamping mandrel,
- hand-operated.

Customer advantage:

Little weight and little height by compact design, for small clamping diameters and for short span length.



MZB

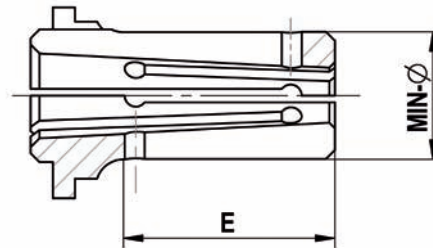
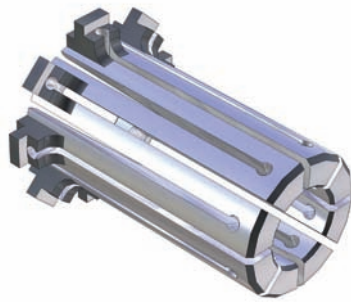


Tool group C18

Type 241-00 **MZB** Cartridge Mandrel; **hand-operated with centre hole**; for internal clamping

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

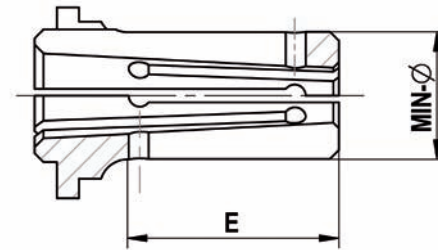
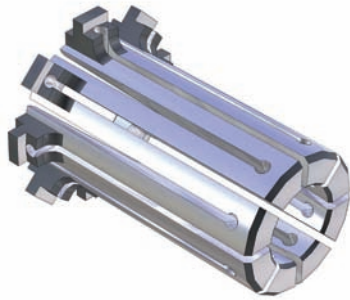
Accessories MZB



Tool group C 18
Type 241-50 **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	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length	11,5	15	19	20,5	28,5	34	40	43,5	50	55,5	74	82,5	93,5
Min-Ø	5,5	7,5	10	12	14,5	19,5	24,7	29,7	34,7	39,7	44,7	54,7	64,7
Clamping sleeve	315139	315140	315154	315142	315143	315144	315145	315146	315147	315148	315149	315150	315151
Work stop	315126	315127	315128	315129	315130	315131	315132	315133	315134	315135	315136	315137	315138
Min-Ø	6	8	10,5	12,5	15	20	25,7	30,7	35,7	40,7	45,7	55,7	65,7
Clamping sleeve	315152	315153	315167	315155	315156	315157	315158	315159	315160	315161	315162	315163	315164
Work stop	315126	315127	315128	315129	315130	315131	315132	315133	315134	315135	315136	315137	315138
Min-Ø	6,5	8,5	11	13	15,5	20,5	26,7	31,7	36,7	41,7	46,7	56,7	66,7
Clamping sleeve	315165	315166	315180	315168	315169	315170	315171	315172	315173	315174	315175	315176	315177
Work stop	315126	315127	315128	315129	315130	315131	315132	315133	315134	315135	315136	315137	315138
Min-Ø	7	9	11,5	13,5	16	21	27,7	32,7	37,7	42,7	47,7	57,7	67,7
Clamping sleeve	315178	315179	315191	315181	315182	315183	315184	315185	315186	315187	315188	315189	315190
Work stop	315126	315127	315128	315129	315130	315131	315132	315133	315134	315135	315136	315137	315138
Min-Ø			9,5	14	16,5	21,5	28,7	33,7	38,7	43,7	48,7	58,7	68,7
Clamping sleeve			315141	315192	315193	315194	315195	315196	315197	315198	315199	315200	315201
Work stop			315128	315129	315130	315131	315132	315133	315134	315135	315136	315137	315138
Min-Ø				14,5	17	22					49,7	59,7	69,7
Clamping sleeve				315202	315203	315204					315205	315206	315207
Work stop				315129	315130	315131					315136	315137	315138
Min-Ø					17,5	22,5					50,7	60,7	70,7
Clamping sleeve					315209	315210					315211	315212	315213
Work stop					315130	315131					315136	315137	315138
Min-Ø					18	23					51,7	61,7	71,7
Clamping sleeve					315215	315216					315217	315218	315219
Work stop					315130	315131					315136	315137	315138
Min-Ø					18,5	23,5					52,7	62,7	72,7
Clamping sleeve					315221	315222					315223	315224	315225
Work stop					315130	315131					315136	315137	315138
Min-Ø					19	24					53,7	63,7	73,7
Clamping sleeve					315227	315228					315229	315230	315231
Work stop					315130	315131					315136	315137	315138
Min-Ø						24,5							74,7
Clamping sleeve						315233							315208
Work stop						315131							315138
Min-Ø													75,7
Clamping sleeve													315214
Work stop													315138
Min-Ø													76,7
Clamping sleeve													315220
Work stop													315138
Min-Ø													77,7
Clamping sleeve													315226
Work stop													315138
Min-Ø													78,7
Clamping sleeve													315232
Work stop													315138

Accessories MZB



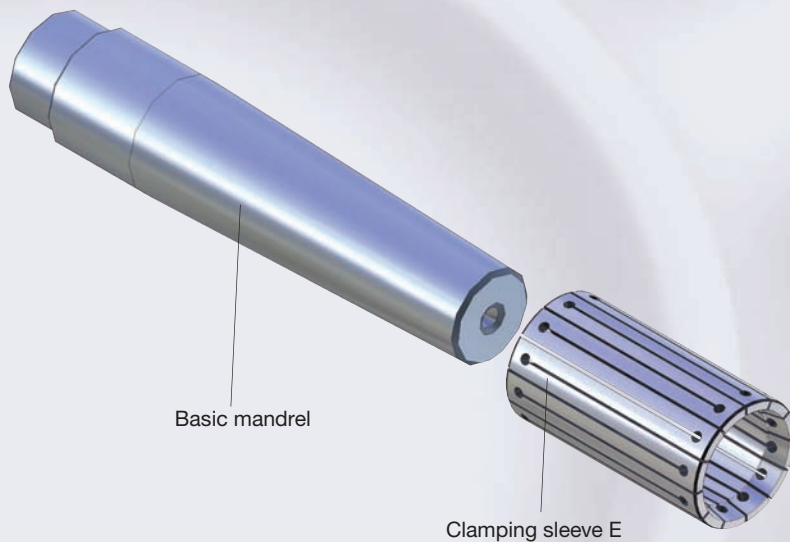
Tool group C 18

Type 241-55 **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	0,5	0,5	0,5	0,5	0,5	0,5	1	1	1	1	1	1	1
Total length	11,5	15	19	20,5	28,5	34	40	43,5	50	55,5	74	82,5	93,5
Min-Ø	5,5	7,5	10	12	14,5	19,5	24,7	29,7	34,7	39,7	44,7	54,7	64,7
Clamping sleeve	323739	323740	323754	323742	323743	323744	323745	323746	323747	323748	323749	323750	323751
Work stop	315126	315127	315128	315129	315130	315131	315132	315133	315134	315135	315136	315137	315138
Min-Ø	6	8	10,5	12,5	15	20	25,7	30,7	35,7	40,7	45,7	55,7	65,7
Clamping sleeve	323752	323753	323767	323755	323756	323757	323758	323759	323760	323761	323762	323763	323764
Work stop	315126	315127	315128	315129	315130	315131	315132	315133	315134	315135	315136	315137	315138
Min-Ø	6,5	8,5	11	13	15,5	20,5	26,7	31,7	36,7	41,7	46,7	56,7	66,7
Clamping sleeve	323765	323766	323780	323768	323769	323770	323771	323772	323773	323774	323775	323776	323777
Work stop	315126	315127	315128	315129	315130	315131	315132	315133	315134	315135	315136	315137	315138
Min-Ø	7	9	11,5	13,5	16	21	27,7	32,7	37,7	42,7	47,7	57,7	67,7
Clamping sleeve	323778	323779	323791	323781	323782	323783	323784	323785	323786	323787	323788	323789	323790
Work stop	315126	315127	315128	315129	315130	315131	315132	315133	315134	315135	315136	315137	315138
Min-Ø			9,5	14	16,5	21,5	28,7	33,7	38,7	43,7	48,7	58,7	68,7
Clamping sleeve			323741	323792	323793	323794	323795	323796	323797	323798	323799	323800	323801
Work stop			315128	315129	315130	315131	315132	315133	315134	315135	315136	315137	315138
Min-Ø				14,5	17	22					49,7	59,7	69,7
Clamping sleeve				323802	323803	323804					323805	323806	323807
Work stop				315129	315130	315131					315136	315137	315138
Min-Ø					17,5	22,5					50,7	60,7	70,7
Clamping sleeve					323809	323810					323811	323812	323813
Work stop					315130	315131					315136	315137	315138
Min-Ø					18	23					51,7	61,7	71,7
Clamping sleeve					323815	323816					323817	323818	323819
Work stop					315130	315131					315136	315137	315138
Min-Ø					18,5	23,5					52,7	62,7	72,7
Clamping sleeve					323821	323822					323823	323824	323825
Work stop					315130	315131					315136	315137	315138
Min-Ø					19	24					53,7	63,7	73,7
Clamping sleeve					323827	323828					323829	323830	323831
Work stop					315130	315131					315136	315137	315138
Min-Ø						24,5							74,7
Clamping sleeve						323833							323808
Work stop						315131							315138
Min-Ø													75,7
Clamping sleeve													323814
Work stop													315138
Min-Ø													76,7
Clamping sleeve													323820
Work stop													315138
Min-Ø													77,7
Clamping sleeve													323826
Work stop													315138
Min-Ø													78,7
Clamping sleeve													323832
Work stop													315138

Different chucking Ø and profiled clamping sleeves can be supplied on request

Hand-operated by cartridge mandrel with center hole, for internal clamping



Application:

Grinding, easy turning operations, measuring.

Special features:

Cost-effective system, clamping mandrel assortment available, specially suitable for measuring.

Technical features:

- high axial- and radial accuracy,
- high repeating accuracy,
- hardened low-wear construction,
- high accuracy by guiding the sleeves on the clamping mandrel,
- quick change of the clamping sleeves,
- hand-operated.

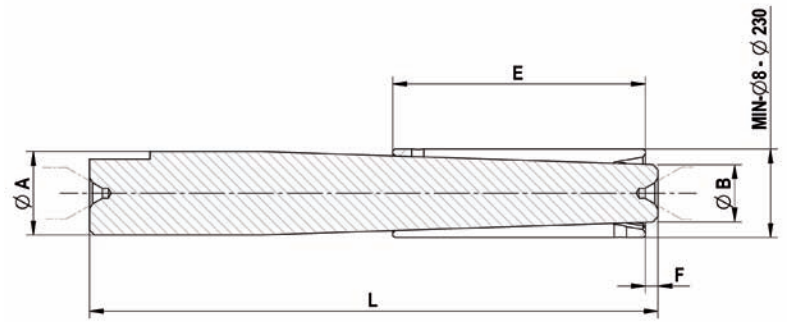
Customer advantage:

- little weight by compact design,
- cost-effective system for measuring,
- clamping mandrel assortment available.



Being prepared for various jobs: We offer you complete clamping mandrel-sets in wooden boxes.

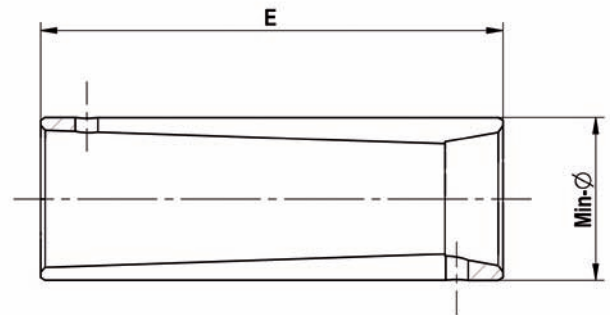
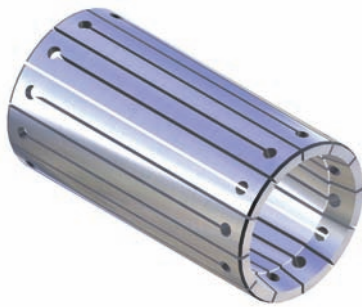
MZE



Tool group C18
 Type 240-10 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



Tool group C 18

Type 240-50 **Clamping sleeve 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	1,5	1,5	2	2	2	2	2	3	3	5	5	5	5	5	5	5
Total length	40	45	60	70	70	80	80	100	100	125	135	150	150	170	180	200
Min-Ø	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	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					18	21	24	28	38	50	60	72	85	115	145	195
Clamping sleeve					315048	315049	315050	315051	315052	315053	315054	315055	315044	315057	315058	315059
Min-Ø								30	40	52	62	75	90	120	150	200
Clamping sleeve								315060	315061	315062	315063	315064	315056	315066	315067	315068
Min-Ø								32	42	54	65	78	95	125	155	205
Clamping sleeve								315069	315070	315071	315072	315073	315065	315075	315076	315077
Min-Ø								34	44			80		130	160	210
Clamping sleeve								315078	315079			315080		315081	315082	315083
Min-Ø														135	165	215
Clamping sleeve														315084	315085	315086
Min-Ø															170	220
Clamping sleeve															315087	315088
Min-Ø															175	225
Clamping sleeve															315089	315090
Min-Ø															180	230
Clamping sleeve															315091	315092

Different chucking Ø and profiled clamping sleeves and vulcanization can be supplied on request



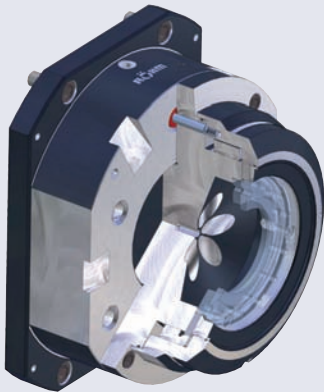
▶ **Sliding clamping mandrel KFG clamping Ø30mm**

Application:

Turning a differential housing.
Clamping a differential housing in two clamping planes. Diameter differences between the clamping planes are balanced out.
The workpiece hard stop is equipped with an air system control. The full clamping mandrel is sealed with sealing air.

Customer advantage:

- Two balanced out clamping planes
- Radial run-out accuracy of 0.02mm



▶ **Sliding clamping mandrel KFG clamping Ø155mm/Ø161mm**

Application:

Drilling two workpieces with different diameters.
Clamping two clamping planes which are close together. The clamping of both clamping planes takes place using the springs.
Slackening is undertaken pneumatically using a cylinder in the basic socket.
Compact space-saving construction.
Drainage drill holes for coolant.

Customer advantage:

- Construction height below 200mm
- Radial run-out accuracy of 0.03mm



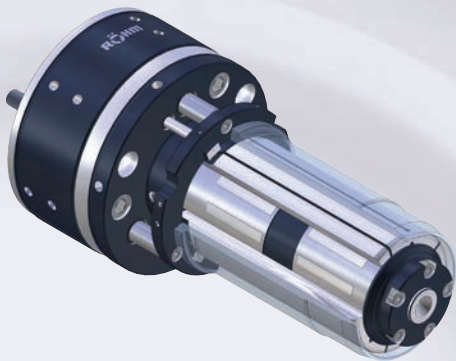
▶ **Sliding clamping mandrel KFG clamping range from 98-113mm**

Application:

Turning cylinder bushes - blanks.
Power-assisted operation of the left clamping plane using the pull rod.
The right clamping plane is spring operated to balance out workpiece tolerances.
Retractable hard stop.
Different workpiece diameters can be clamped by changing the exchangeable jaws.

Customer advantage:

- Large clamping range elongation of 7mm
- Large transfer of torque due to the ribbed exchangeable jaws



► **Sliding clamping mandrel KFG with intermediate sleeves Ø104-120mm**

Application:

Turning cylinder bushes - finishing.

Power-assisted operation of the left clamping plane using the pull rod.

Power-assisted operation of the right clamping plane using the tailstock.

Retractable hard stop with the air system control.

Different workpiece diameters can be clamped by changing the intermediate sleeve.

Customer advantage:

- Intermediate sleeves can be exchanged
- High radial run-out accuracy of 0.015mm



► **Sliding clamping mandrel KFG clamping Ø39/Ø40**

Application:

Turning.

Clamping in clamping zone 1 takes place using the ribbed jaws for high torque transfer.

Clamping zone 2 is spring operated and is equipped with an intermediate sleeve.

Customer advantage:

- The intermediate sleeve protects the surface of the workpiece
- Radial run-out accuracy of 0.01mm

Power-operated mandrel for internal or external clamping



Application:

Turning, milling, grinding, measuring.

Special features:

The hydraulic fluid is pressurized by a piston. The sleeve can be expanded to max. 0,3% (with special material up to 1%) of its diameter. Chucking either directly with expanding sleeve or indirectly, using a cylindrical intermediate sleeve with slots on both sides.

Technical features:

- the steel membrane permits accurate cylindrical and round expansions to within 0,003 mm over the full chucking range,
- power- or hand operated,
- very high clamping force in the clamping range,
- wear resistant surface,
- the snug fit of the expanding sleeve in the hole of the work piece causes an optimal damping, minimizes noise and substantially increases tool life during machining,
- the expanding systems may be used for rotating or stationary work and can be operated by means of hydraulic or air cylinders, directly by the hydraulic system of the machine or even manually by means of screw,
- different work stops (optional): solid, retractable, external, oscillating, etc.

Customer advantage:

Less clamping devices because of larger clamping range; smaller set-up time; flexible; suitable for clamping unfinished parts.

Special mandrel / Clamping fixture



► Special mandrels

Application:

Grinding and cutting.

Basic socket with various exchange chucks for clamping pistons.

Axial clamping using an internal traction piece.

Positional orientation using centering forks.

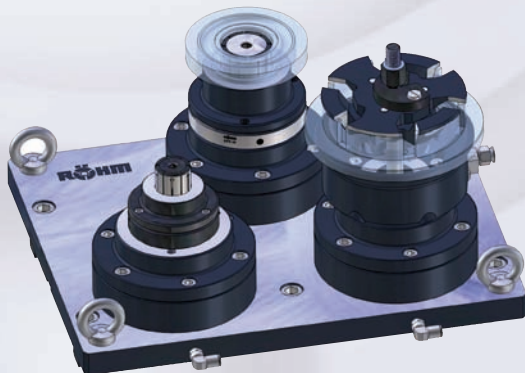
Insertion protection prevents incorrect loading.

Operation takes place using the RÖHM clamping cylinder OVS70.

Complete external contour can be processed.

Customer advantage:

- Clamping chuck with rapid exchange system
- Radial run-out accuracy of 0.005mm



► Clamping fixture

Application:

Cutting and drilling.

Clamping fixture with three basic units.

Clamping using spring force and slackening is pneumatic.

Two basic units equipped with KFR clamping mandrels.

One basic unit equipped with an axial chuck.

Customer advantage:

- Basic units can be equipped with various clamping systems.

