

Manual or power operated expanding mandrels

Adapter flanges



EM-A EM-AL

Hand or power operated
expanding mandrels \varnothing 14.7 - 129.7 mm

- Size 1 - 11
- Large expansibility 1 - 2 mm depending on size
- Flange mounting
- Very rigid design

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EM-B

Hand or power operated
expanding mandrels \varnothing 16.0 - 129.5 mm

- Size 0 - 4
- Large expansibility 0.5 - 1.5 mm depending on size
- Flange mounting
- Very rigid design

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EM-S

Power operated segment sleeve mandrels
 \varnothing 18 - 105 mm

- For turning grinding and milling
- Size 1 - 4
- Case hardened / wear resistant segment sleeves
- Large expansibility 0.8 - 1.2 mm depending on size
- Quick change for segment sleeves
- Very rigid design

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Adapter flanges EM-A, EM-B

ISO-A
for expanding mandrels

- mandrels EM-A and EM-B have cylindrical mounting
- adapters for ISO-A 702/1-DIN 55026 spindle noses

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Special expanding mandrels

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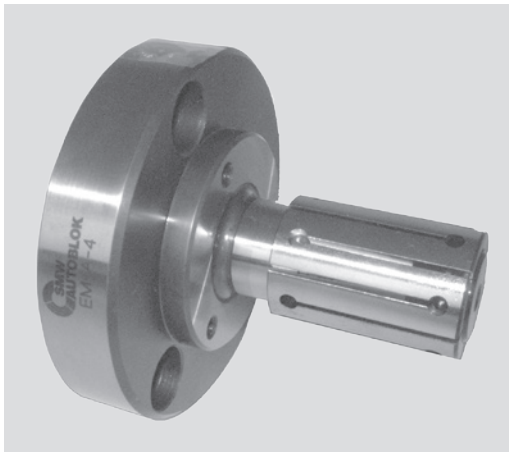


EM-A/ EM-AL

Expanding mandrel
Manual or power operated

Expanding mandrels Ø 14.7 - 129.7 mm

- size 1 - 11
- large expansibility
- EM-AL: body lengthened



Application/customer benefits

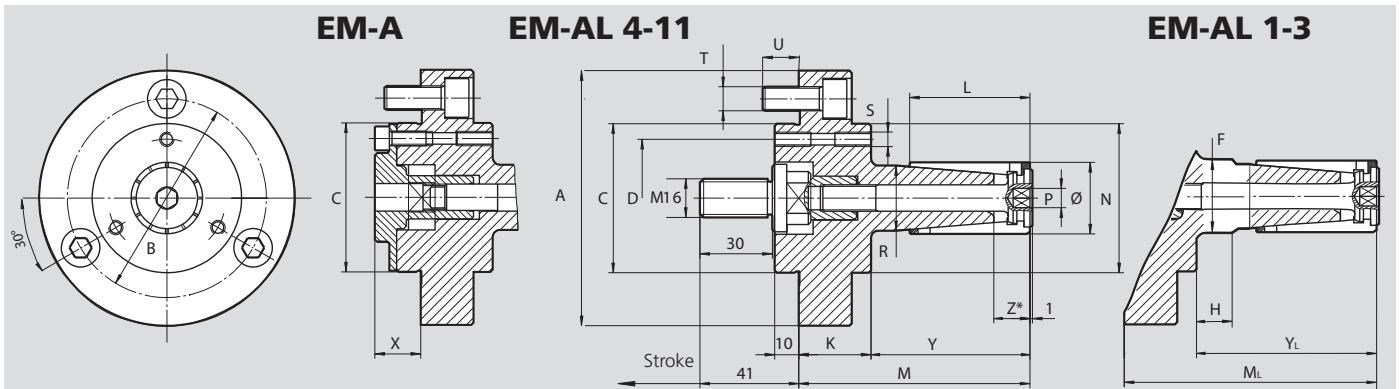
- For turning, milling, grinding and gear cutting operations
- High accuracy and torque transmission because of fixed arbor
- Axial pull down by axial movement of the clamping sleeve during actuation
- Quick set-up

Technical features

- Large expansibility 1-2 mm depending on size
- Hand or power operated
- Flange mounting
- Very rigid design
- Tapped holes at the front face to mount axial stops
- Clamping sleeves are also available in siliconized version
- EM-AL: clamping mandrel with extra long body

Standard equipment

Basic mandrel with draw bolt for power operation
Mounting bolts



Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type	EM-A-1 EM-AL-1	EM-A-2 EM-AL-2	EM-A-3 EM-AL-3	EM-A-4 EM-AL-4	EM-A-5 EM-AL-5	EM-A-6 EM-AL-6	EM-A-7 EM-AL-7	EM-A-8 EM-AL-8	EM-A-9 EM-AL-9	EM-A-10 EM-AL-10	EM-A-11 EM-AL-11
EM-A Id. No. (power operated)	68100110	68100210	68100310	68100410	68100510	68100610	68100710	68100810	68100910	68101010	68101110
EM-AL Id. No. (power operated)	68100111	68100211	68100311	68100411	68100511	68100611	68100711	68100811	68100911	68101011	68101111
A	106	106	106	106	106	106	130	130	130	130	130
B	82.6	82.6	82.6	82.6	82.6	82.6	104.8	104.8	104.8	104.8	104.8
C	g5 62	62	62	62	62	62	86	86	86	86	86
D	49	49	49	49	49	49	73	73	73	100	100
F	22	23	26	-	-	-	-	-	-	-	-
H	25	30	35	-	-	-	-	-	-	-	-
K	30	30	30	30	30	30	30	30	30	30	30
L	35	40	46	50	60	60	80	90	100	122	140
M	81	86	92	96	106	106	132	142	152	174	195
ML	106	116	127	136	146	146	182	188	222	248	275
N	62	62	62	62	62	62	86	86	86	-	-
Ø	mm 14.7-19.7	19.7-24.7	24.7-29.7	29.7-34.7	34.7-39.7	39.7-44.7	44.7-54.7	54.7-64.7	64.7-81.7	81.7-101.7	101.7-131.7
P	SW 4	4	6	8	8	8	8	10	10	10	10
R	h6 14	19	23	27	31.5	36	42	50	60	73	86
S	(3x120°) M6	M6	M6	M6	M6	M6	M6	M6	M6	M6	M6
T	(3x120°) M10	M10	M10	M10	M10	M10	M10	M10	M10	M10	M10
U	15	15	15	15	15	15	15	15	15	17	17
X	19	19	19	19	19	19	13	13	13	21	21
Y	51	56	62	66	76	76	102	112	122	144	165
YL	76	86	97	106	116	116	152	158	192	218	245
Z*	12.5	14.5	14.5	15	15.5	16	24	26	26.5	27.5	32
Manual kit EM-A	68110110	68110210	68110310	68110410	68110510	68110610	68110710	68110810	68110810	68111010	68111110
Manual kit EM-AL	68110111	68110211	68110311	68110411	68110511	68110611	68110711	68110811	68110811	68111011	68111111
Draw bolt power op. EM-A	68050110	68050210	68050310	68050410	68050510	68050610	68050710	68050710	68050710	68051010	68051110
Draw bolt power op. EM-AL	68050111	68050211	68050311	68050411	68050511	68050611	68050711	68050811	68050911	68051011	68051111

* Clamping on area Z only is not allowed.

Technical data

Stroke	mm	6	6	6	6	6	12	12	12	12	12
Max. actuating force	kN	5	7	12	12	15	20	20	20	25	30
Max. transm. torque	Nm	15	35	75	100	120	150	200	250	320	500
Actuating cylinder (rec.)		SIN-S 70	SIN-S 70	SIN-S 85	SIN-S 85	SIN-S 85	SIN-S 100	SIN-S 100	SIN-S100	SIN-S-100	SIN-S 125

All dimensions in unclamped position



SMW-AUTOBLOK
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SMW-AUTOBLOK
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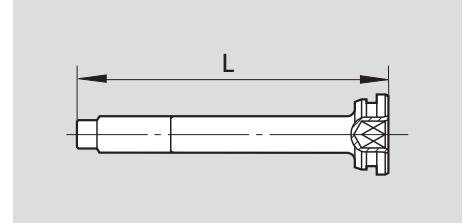
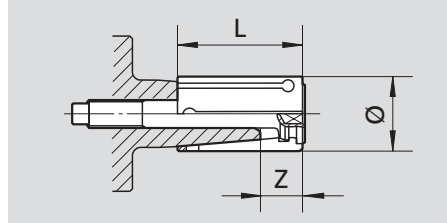
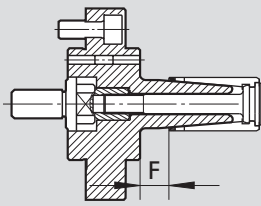
HÖD®

Expanding mandrels Ø 14.7 - 129.7 mm

EM-A/ EM-AL

- size 1 - 11
- large expansibility
- EM-AL: body lengthened

Expanding mandrel
Manual or power operated



Basic mandrel

Type	Id.No.	F
EM-A-1	68100110	16
EM-AL-1	68100111	41
EM-A-2	68100210	16
EM-AL-2	68100211	46
EM-A-3	68100310	16
EM-AL-3	68100311	51
EM-A-4	68100410	16
EM-AL-4	68100411	56
EM-A-5	68100510	16
EM-AL-5	68100511	56
EM-A-6	68100610	16
EM-AL-6	68100611	56
EM-A-7	68100710	22
EM-AL-7	68100711	72
EM-A-8	68100810	22
EM-AL-8	68100811	68
EM-A-9	68100910	22
EM-AL-9	68100911	92
EM-A-10	68101010	22
EM-AL-10	68101011	96
EM-A-11	68101110	25
EM-AL-11	68101111	105

Clamping sleeve cpl. with actuating screw

Id.No.	Ø	L	Expansibility	Z
68300147	14.7	35	1	12.5
68300157	15.7	35	1	12.5
68300167	16.7	35	1	12.5
68300177	17.7	35	1	12.5
68300187	18.7	35	1	12.5
68300197	19.7	40	1	14.5
68300207	20.7	40	1	14.5
68300217	21.7	40	1	14.5
68300227	22.7	40	1	14.5
68300237	23.7	40	1	14.5
68300247	24.7	46	1	14.5
68300257	25.7	46	1	14.5
68300267	26.7	46	1	14.5
68300277	27.7	46	1	14.5
68300287	28.7	46	1	14.5
68300297	29.7	50	1	15
68300307	30.7	50	1	15
68300317	31.7	50	1	15
68300327	32.7	50	1	15
68300337	33.7	50	1	15
68300347	34.7	60	1	15.5
68300357	35.7	60	1	15.5
68300367	36.7	60	1	15.5
68300377	37.7	60	1	15.5
68300387	38.7	60	1	15.5
68300397	39.7	60	1	16
68300407	40.7	60	1	16
68300417	41.7	60	1	16
68300427	42.7	60	1	16
68300437	43.7	60	1	16
68300447	44.7	80	2	24
68300467	46.7	80	2	24
68300487	48.7	80	2	24
68300497	49.7	80	2	24
68300507	50.7	80	2	24
68300527	52.7	80	2	24
68300547	54.7	90	2	26
68300567	56.7	90	2	26
68300587	58.7	90	2	26
68300597	59.7	90	2	26
68300607	60.7	90	2	26
68300627	62.7	90	2	26
68300647	64.7	100	2	26.5
68300667	66.7	100	2	26.5
68300687	68.7	100	2	26.5
68300697	69.7	100	2	26.5
68300707	70.7	100	2	26.5
68300727	72.7	100	2	26.5
68300747	74.7	100	2	26.5
68300767	76.7	100	2	26.5
68300787	78.7	100	2	26.5
68300807	80.7	100	2	26.5
68300817	81.7	122	2	27.5
68300837	83.7	122	2	27.5
68300857	85.7	122	2	27.5
68300877	87.7	122	2	27.5
68300897	89.7	122	2	27.5
68300917	91.7	122	2	27.5
68300937	93.7	122	2	27.5
68300957	95.7	122	2	27.5
68300977	97.7	122	2	27.5
68300997	99.7	122	2	27.5
68301017	101.7	140	2	32
68301037	103.7	140	2	32
68301057	105.7	140	2	32
68301077	107.7	140	2	32
68301097	109.7	140	2	32
68301117	111.7	140	2	32
68301137	113.7	140	2	32
68301157	115.7	140	2	32
68301177	117.7	140	2	32
68301197	119.7	140	2	32
68301217	121.7	140	2	32
68301237	123.7	140	2	32
68301257	125.7	140	2	32
68301277	127.7	140	2	32
68301297	129.7	140	2	32

Actuating screw

Id.No.	L
68030110	76.5
68030210	81
68030310	87.5
68030410	93
68030510	103
68030610	103
68030710	117
68030810	127
68030910	137
68031010	165
68031110	183



EM-B

Expanding mandrel
Manual or power operated

Expanding mandrels Ø 16 - 129.5 mm

- size 0 - 4
- large expansibility



Application/customer benefits

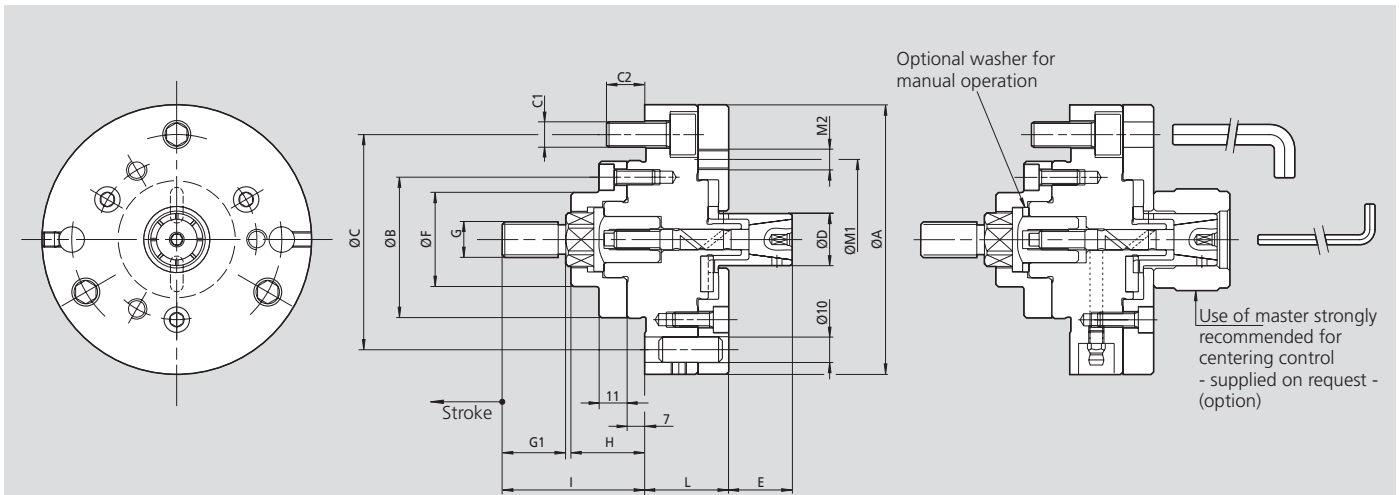
- For turning, milling, grinding and gear cutting operations
- High flexibility by means of modular system
- High torque transmission and concentricity
- No axial movement of clamping sleeve during operation
- Clamping of very short workpieces on the front section of the sleeve possible

Technical features

- Large expansibility up to 1.5 mm in diameter
- Hand or power operated
- Flange mounting
- Very rigid design
- Tapped holes at the front face to mount axial stops
- Clamping sleeves are also available in siliconized version

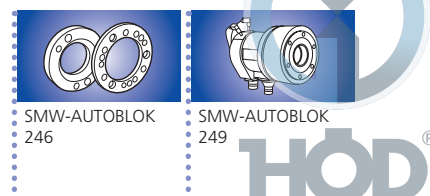
Standard equipment

Basic mandrel with draw bolt for power operation
Mounting bolts



Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type		EM-B 0	EM-B 1	EM-B 2	EM-B 3	EM-B 4
A	mm	106	106	106	125	180
B g5	mm	62	62	62	62	86
C	mm	82.6	82.6	82.6	82.6	133.4
C1	mm	3 x M10	3 x M10	3 x M10	3 x M10	3 x M12
C2	mm	16	16	16	16	15
D	mm	see tables	see tables	see tables	see tables	see tables
E	mm	23	28	43	58	85
F	mm	37	37	37	37	55
G	mm	M16	M16	M16	M16	M16
G1	mm	25	25	25	25	25
H	mm	29	29	29	29	36
I	mm	56	56	56	56	62
L	mm	35	37	37	37	50
M1	mm	63	68	85	104	162
M2	mm	3 x M8	3 x M8	3 x M8	6 x M8	6 x M8
N	mm	M8	M10	M14	M14	M18
Axial stroke	mm	2.5	2.5	2.5	5	6.5
Sleeve expansion on Ø	mm	0.5	0.5	0.5	1	1.5
Clamping range Ø	mm	16-25.5	20-40.5	35-60.5	55-81	80-131
Max. axial force	kN	7	12	20	20	25
Recommended actuating cylinders	CSN	150	200	200	200	250
	SIN-S	70	70	85	85	100

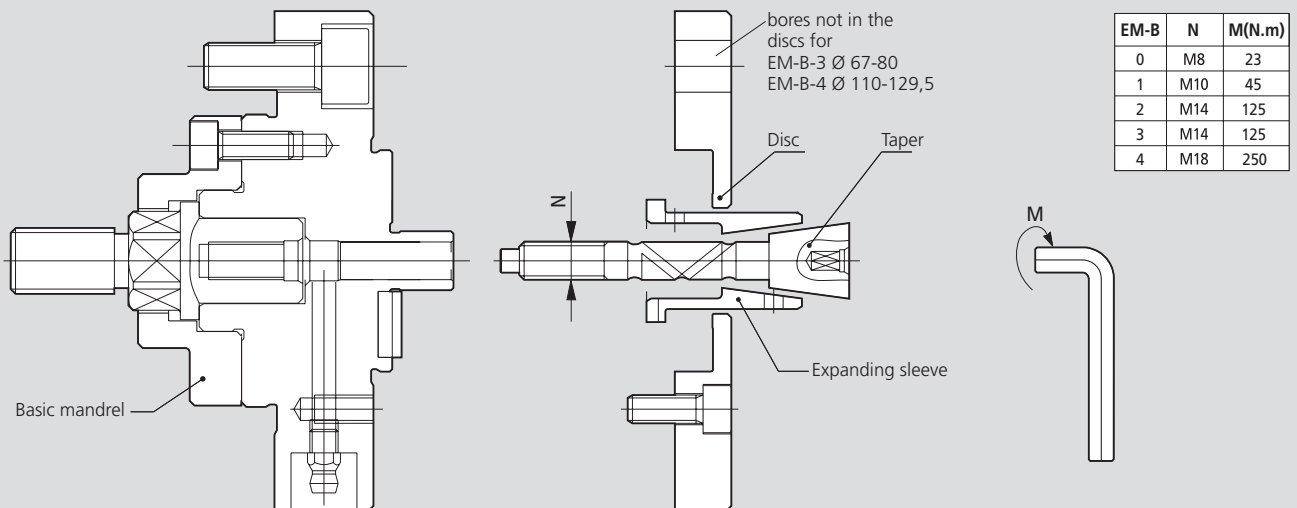


Expanding mandrels \emptyset 16 - 129.5 mm

- size 0 - 4
- large expansibility

EM-B

Expanding mandrel
Manual or power operated



EM-B	N	M(N.m)
0	M8	23
1	M10	45
2	M14	125
3	M14	125
4	M18	250

Subject to technical changes.
For more detailed information please ask for customer drawing.

EM-B-0				EM-B-1				EM-B-2				EM-B-3				EM-B-4							
Basic mandrel				Basic mandrel				Basic mandrel				Basic mandrel				Basic mandrel							
Expanding sleeve				Expanding sleeve				Expanding sleeve				Expanding sleeve				Expanding sleeve							
Ø D16-Ø D25				Ø D20-Ø D40				Ø D35-Ø D60				Ø D55-Ø D80				Ø D80-Ø D129.5							
Taper 68020120				Taper 68021120				Taper 68022120				Taper 68023120				Taper 68024120							
Disc 68040121	68040221	68040321		Disc 68041121	68041221	68041321		Disc 68042121	68042221			Disc 68043121	68043221			Disc 68044121	68044221						
D16	68200160			D20	68210200			D35	68220350			D55	68230550			D80	68240800						
D16.5	68200165			D20.5	68210205			D35.5	68220355			D56	68230560			D81.5	68240815						
D17	68200170			D21	68210210			D36	68220360			D57	68230570			D83	68240830						
D17.5		68200175		D21.5		68210215		D36.5	68220365			D58		68230580		D84.5	68240845						
D18		68200180		D22		68210220		D37	68220370			D59		68230590		D86							
D18.5		68200185		D22.5		68210225		D37.5		68220375		D60		68230600		D87.5							
D19			68200190	D23		68210230		D38		68220380		Taper 68023220				D89							
D19.5			68200195	D23.5		68210235		D38.5		68220385		Disc 68043321	68043421	68043521		D90.5							
D20			68200200	D24			68210240	D39		68220390		D61	68230610			Taper 68024220							
Taper 68020220				D24.5			68210245	D39.5		68220395		D62	68230620			Disc 68044321	68044421						
Disc 68040421	68040521	68040621		D25			68210250	D40		68220400		D63	68230630			D92	68240920						
D20.5	68200205			Taper 68021220				Taper 68022220				D64			D93.5	68240935							
D21	68200210			Disc 68041421	68041521	68041621		D40.5	68220405			D65				D95	68240950						
D21.5	68200215			D25.5	68210255			D41	68220410			D66				D96.5	68240965						
D22		68200220		D26	68210260			D41.5	68220415			D67		68230670		D98	68240980						
D22.5		68200225		D26.5	68210265			D42	68220420			D68		68230680		D99.5	68240995						
D23		68200230		D27	68210270			D42.5	68220425			D69		68230690		D101	68241010						
D23.5			68200235	D27.5	68210275			D43	68220430			D70		68230700		D102.5	68241025						
D24			68200240	D28	68210280			D43.5		68220435		Taper 68023320				Taper 68024320							
D24.5			68200245	D28.5		68210285		D44		68220440		Disc 68043621	68043721	68043821		D104	68241040						
D25			68200250	D29		68210290		D44.5		68220445		D71	68230710			D105.5	68241055						
Taper 68021320				D29.5		68210295		D45		68220450		D72	68230720			D107	68241070						
Disc 68041721	68041821			D30		68210300		D45.5		68220455		D73	68230730			D108.5	68241085						
D35.5	68210355			D30.5		68210305		D46		68220460		D74		68230740		D110							
D36	68210360			D31		68210310		D46.5				D75		68230750		D111.5	68241100						
D36.5	68210365			D31.5			68210315	D47				D76		68230760		D113	68241130						
D37	68210370			D32			68210320	D47.5				D77			68230770	D114.5	68241145						
D37.5	68210375			D32.5			68210325	D48				D78			68230780	Taper 68024420							
D38	68210380			D33			68210330	D48.5				D79			68230790	Disc 68044721	68044821						
Taper 68022320				D33.5			68210335	D49				D80			68230800	D116	68241160						
Disc 68042621	68042721	68042821		D34			68210340	D49.5							D117.5	68241175							
D50.5	68220505			D34.5			68210345	D50							D119	68241190							
D51	68220510			D35			68210350	Taper 68022520		D55.5					D120.5	68241205							
D51.5	68220515			D38.5				D53		68220530					D122								
D52	68220520			D39				D53.5		68220535					D123.5	68241235							
D52.5	68220525			D39.5				D54		68220540					D125	68241250							
D53	68220530			D40				D54.5		68220545					D126.5	68241265							

Ordering example:

Component ID = \emptyset 30
 Basic mandrel EM-B-1
 Expanding sleeve AD = \emptyset 30
 Taper
 Disc

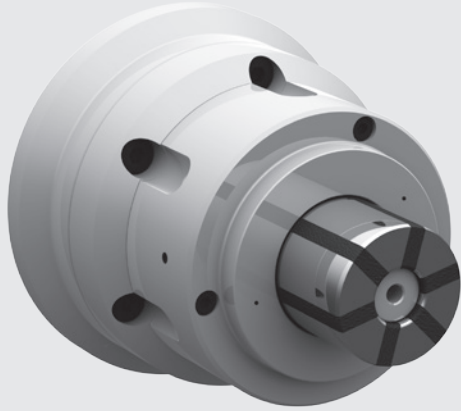
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 Id. No. 68210300
 Id. No. 68021220
 Id. No. 68041521

EM-S

Segment sleeve mandrel
power operated

Segment sleeve mandrel \varnothing 18 - 105 mm

- Size 1 - 4
- Large expansibility



Application/ customer benefits

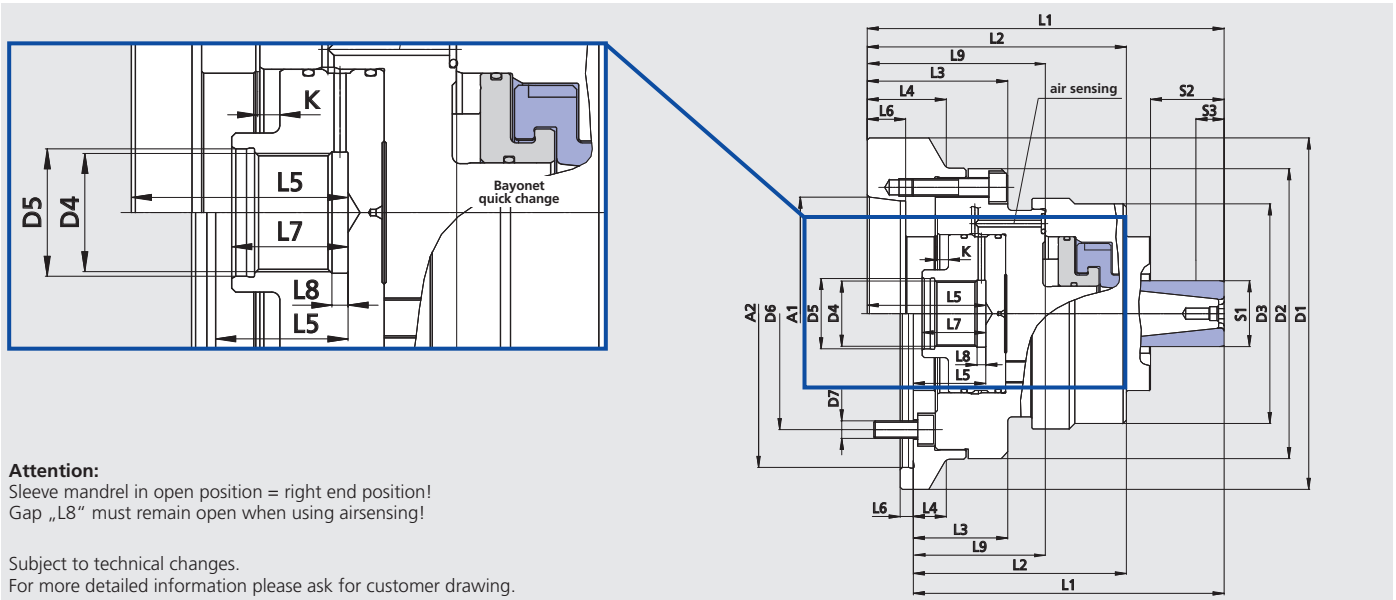
- Ideal for volume production and hard turning / grinding with wear resistant, case hardened and vulcanised clamping sleeves
- Highest accuracy and high torque transmission by means of fixed mandrel body
- Axial pull down by the axial clamping movement of the clamping sleeve = best face run out
- Clamping sleeve quick change for short setup times
- Preparation for air sensing

Technical details

- Large expansibility 0.8-1.2 mm depending on the size (The clamping sleeves have a max. radial expansibility in diameter of ± 0.4 mm or ± 0.6 mm from the nominal diameter.)
- Power operated
- Rigid design with flange mounting
- Tapped holes in the face for axial stops

Standard equipment

Base mandrel with mounting bolts



Attention:
Sleeve mandrel in open position = right end position!
Gap „L8“ must remain open when using airsensing!

Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type	EM-S-1			EM-S-2			EM-S-3					EM-S-4				
Mounting	A5	A6	Z140	A5	A6	Z140	A5	A6	A08	Z140	Z170	A5	A6	A8	Z140	Z170
Id. No.	202734	202735	205082	202737	202738	205085	202740	202741	203132	205086	205134	203384	203385	203427	205088	205089
Short taper mounting DIN 55026	A1	A5	A6	-	A5	A6	-	A5	A6	A8	-	-	A5	A6	A8	-
Center mounting	A2 H5	-	-	140	-	-	140	-	-	-	140	170	-	-	-	140
	D1	132	160	150	132	160	150	132	160	202	150	180	157	157	202	157
	D2	132	132	132	132	132	132	132	132	132	132	132	157	157	157	157
	D3	82	82	82	100	100	100	114	114	114	114	114	143	143	143	143
	D4	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5
	D5 H7	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
	D6	104.8	133.4	104.8	104.8	133.4	104.8	104.8	133.4	171.4	104.8	133.4	104.8	133.4	171.4	104.8
	D7	4 x M10	4 x M12	3 x M10	4 x M10	4 x M12	3 x M10	4 x M10	4 x M12	4 x M16	3 x M10	6 x M12	4 x M10	4 x M12	4 x M16	3 x M10
	L1	138.5	138.5	123.5	162.5	147.5	177.5	177.5	179.5	162.5	162.5	193	191	195	193	191
	L2	113.5	113.5	98.5	118	118	103	123	123	126	108	108	132.5	130.5	134.5	132.5
	L3	61	61	46	64	64	49	75	75	77	60	60	80	78	82	80
	L4	-	36	15	-	36	15	-	36	47	15	30	-	-	47	-
	L5	53	53	38	54	54	39	50	50	52	35	35	54	52	56	54
	L6	16.5	17.5	6	16.5	17.5	6	16.5	17.5	20	6	6	19	17.5	20	5
	L7	30	30	30	29	29	29	25	25	25	25	25	29	29	29	29
Gap	L8	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5
	L9	79	79	64	81	81	66	75	75	77	60	60	80	78	82	80

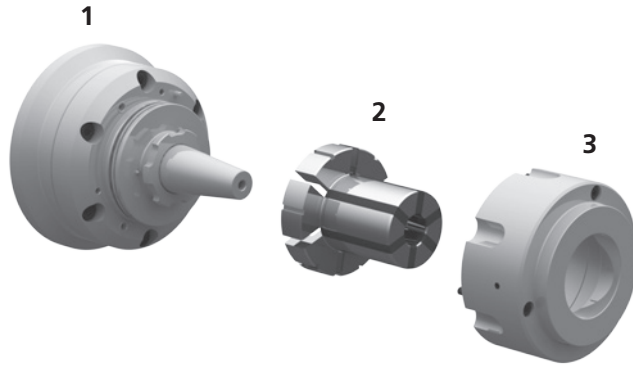
Technical data

		EM-S-1				EM-S-2				EM-S-3					EM-S-4					
Clamping range	S1	18-23	23-35	18-23	23-35	18-23	23-35	30-55	30-55	30-55	45-80	45-80	45-80	45-80	45-80	70-105	70-105	70-105	70-105	70-105
max. clamping length	S2	17.5	23	17.5	23	17.5	23	41.5	41.5	41.5	51.5	51.5	51.5	51.5	51.5	57.5	57.5	57.5	57.5	57.5
min. clamping length	S3	7		7		7		8	8	8	8	8	8	8	8	8	8	8	8	8
Axial stroke	K	4		4		4		6	6	6	6	6	6	6	6	6	6	6	6	6
Expansibility in dia.		0.8		0.8		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
max. actuating force	kN	15		15		15	20	20	20	25	25	25	25	25	25	35	35	35	35	35
max. speed	r.p.m.	5000		5000		5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
max. transmittable torque	Nm	50-90				105-190				195-350					395-595					
rec. actuating cylinders		SIN-S 70				SIN-S 85				SIN-S 85					SIN-S 85					

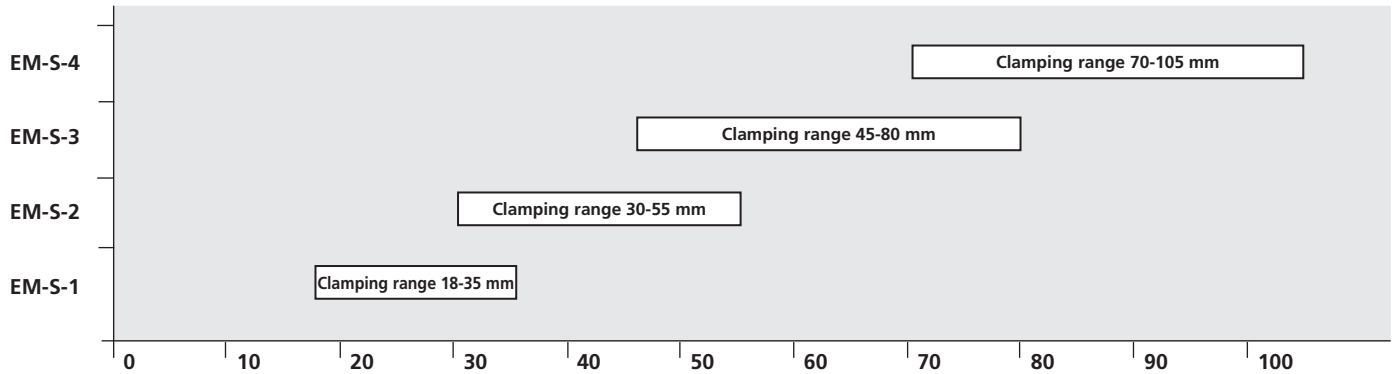
- Size 1 - 4
- Large expansibility

Technical design

1. Basic body EM-S with spindle adapter
2. Segment sleeve mandrel (case hardened + vulcanized) with bayonet quick change.
Clamping sleeves size EM-S-1 with three segments, clamping sleeves from size EM-S-2 on with six segments for better gripping force distribution.
3. Workstop



Overview clamping ranges



Clamping sleeves

EM-S-1*

Ø	18	19	20	21	22	23	24	25	26	27	28	29	30
Id. No.	204716	203026	203027	203028	203029	203030	203031	203032	203033	203034	203035	203036	203037
Ø	31	32	33	34	35								
Id. No.	203038	203039	203040	203041	203042								

EM-S-2**

Ø	30	31	32	33	34	35	36	37	38	39	40	41	42
Id. No.	203043	203044	203045	203046	203047	203048	203049	203050	203051	203052	203053	203054	203055
Ø	43	44	45	46	47	48	49	50	51	52	53	54	55
Id. No.	203056	203057	203058	203059	203060	203061	203062	203063	203064	203065	203066	203067	203068

EM-S-3**

Ø	45	46	47	48	49	50	51	52	53	54	55	56	57
Id. No.	203069	203070	203071	203072	203073	203074	203075	203076	203077	203078	203079	203080	203081
Ø	58	59	60	61	62	63	64	65	66	67	68	69	70
Id. No.	203082	203083	203084	203085	203086	203087	203088	203089	203090	203091	203092	203093	203094
Ø	71	72	73	74	75	76	77	78	79	80			
Id. No.	203095	203096	203097	203098	203099	203100	203101	203102	203103	203104			

EM-S-4**

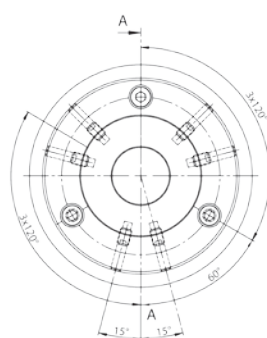
Ø	70	71	72	73	74	75	76	77	78	79	80	81	82
Id. No.	203434	203435	203436	203437	203438	203439	203440	203441	203442	203443	203444	203445	203446
Ø	83	84	85	86	87	88	89	90	91	92	93	94	95
Id. No.	203447	203448	203449	203450	203451	203452	203453	203454	203455	203456	203457	203458	203459
Ø	96	97	98	99	100	101	102	103	104	105			
Id. No.	203460	203461	203462	203463	203464	203465	203466	203467	203468	203469			

* The clamping sleeves have a max. radial expansibility in diameter of ± 0.4 mm from the nominal diameter.

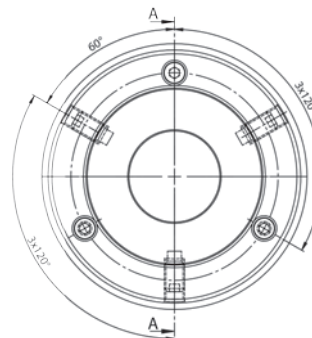
** The clamping sleeves have a max. radial expansibility in diameter of ± 0.6 mm from the nominal diameter.

Soft work stop blank

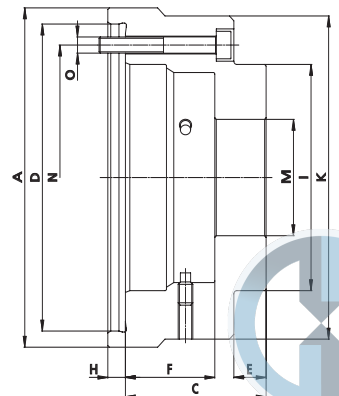
Type	EM-S-1	EM-S-2	EM-S-3	EM-S-4
Id. No.	203106	203107	203108	203433
A	93	105	113	142
C	47	59	75	82.5
D	80	95	88	115
E	12.5	22	27	30
F	27.5	30.5	40.5	45
H	6	6	-	-
I	50	70	88	116
K	82	100	114	143
M	19	31	46	71
N	66	82	100	128
O	M5	M5	M5	M5



EM-S-1



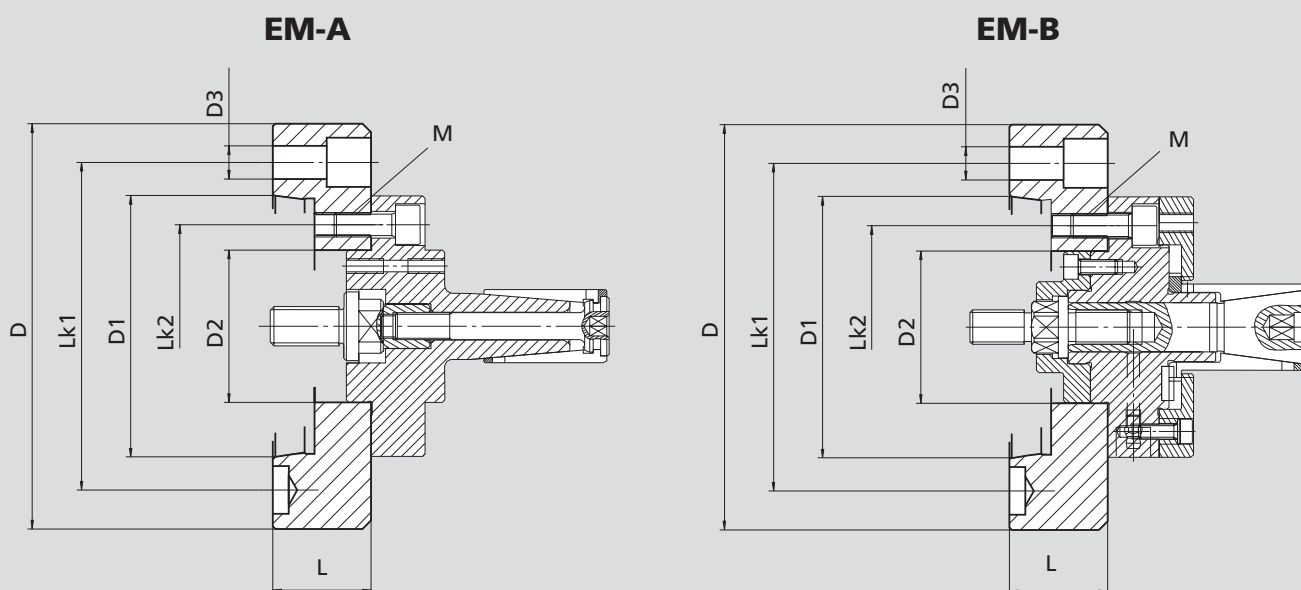
EM-S-2 / EM-S-3 / EM-S-4



Adapters

ISO-A for expanding mandrels

- mandrels EM-A and EM-B have cylindrical mounting
- adapters for DIN 55026/ISO-A 702/1 spindle noses



Subject to technical changes.
For more detailed information please ask for customer drawing.

Technical data

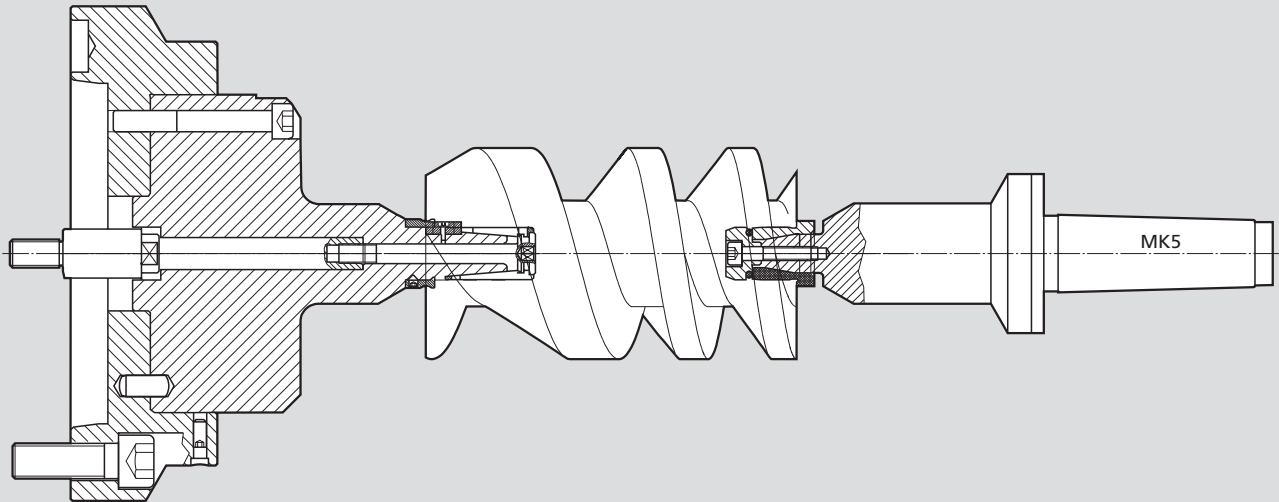
Adapter flange Id. No.		Spindle nose ISO	D	D1	D2	D3	LK1	LK2	L	M
24150100	mm	A5	127	82.563	62 ^{H6}	12	104.8	82.6	40	3 x M10
24150400	mm	A5	135	82.563	86 ^{H6}	12	104.8	104.8	40	3 x M10
24160100	mm	A6	165	106.375	62 ^{H6}	13.5	133.4	82.6	40	3 x M10
24160400	mm	A6	165	106.375	86 ^{H6}	13.5	133.4	104.8	40	3 x M10
24180100	mm	A8	210	139.719	62 ^{H6}	17	171.4	82.6	40	3 x M10
24180400	mm	A8	210	139.719	86 ^{H6}	17	171.4	104.8	40	3 x M10

Appropriate adapter flanges	EM-A	EM-B
24150100 ISO-A5		
24160100 ISO-A6	1 - 2 - 3 - 4 - 5 - 6	0 - 1 - 2 - 3
24180100 ISO-A8		
24150400 ISO-A5		
24160400 ISO-A6	7 - 8 - 9 - 10 - 11	4
24180400 ISO-A8		

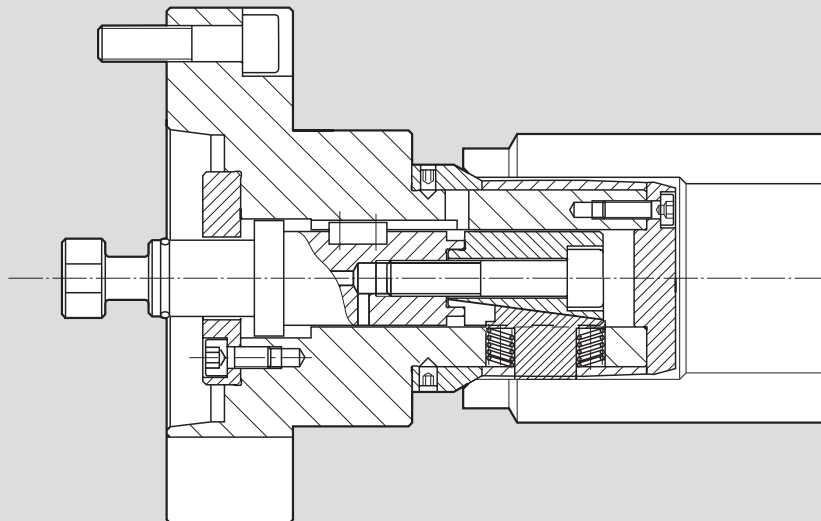
Besides our standard range, we offer special solutions for your applications

Special mandrels

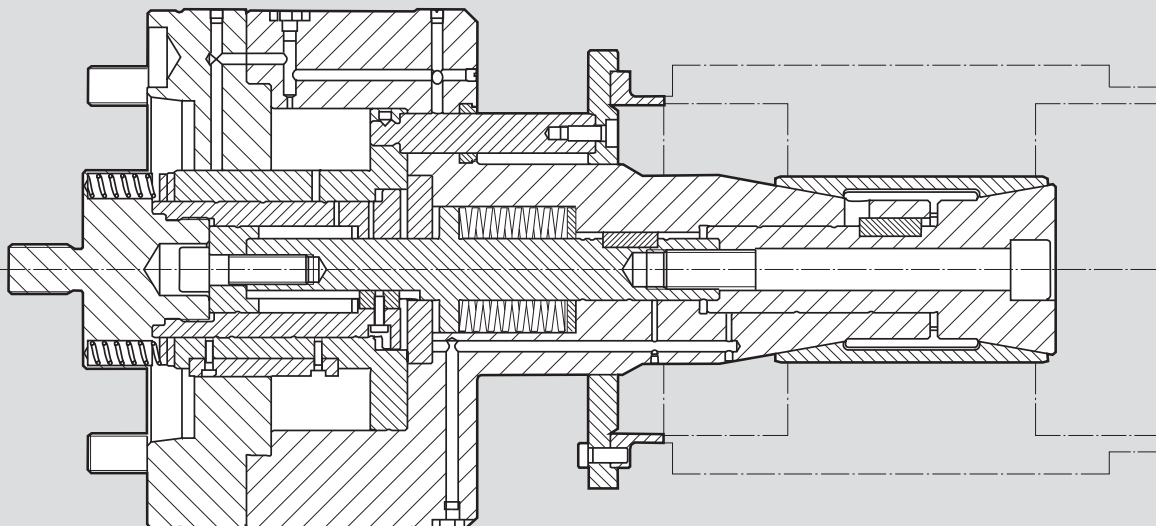
Example: Special expanding mandrel, sleeve design, on spindle and tailstock side for screw rotors

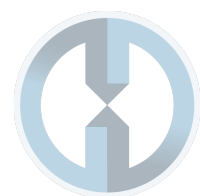


Example: Special mandrel segment design for tubes



Example: Special expanding mandrel, double taper design with retractable stop, for clamping of stators





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