

Short-stroke cylinder, Series KHZ

- Ø 16-100 mm
- Ports M5 G 1/8 G 1/4
- double-acting
- with magnetic piston
- Cushioning elastic
- Piston rod Internal thread
- Piston rod non-rotating



Compressed air connection	Internal thread
Ambient temperature min./max.	-25 ... 80 °C
Medium temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m ³
Pressure for determining piston forces	6.3 bar



Technical data

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Stroke 10	0822010811	0822010821	0822010831	0822010841	0822010851	0822010861	0822010871
15	0822010812	0822010822	0822010832	0822010842	0822010852	0822010862	0822010872
20	0822010813	0822010823	0822010833	0822010843	0822010853	0822010863	0822010873
25	0822010814	0822010824	0822010834	0822010844	0822010854	0822010864	0822010874
30	0822010815	0822010825	0822010835	0822010845	0822010855	0822010865	0822010875
40	0822010816	0822010826	0822010836	0822010846	0822010856	0822010866	0822010876
50	0822010817	0822010827	0822010837	0822010847	0822010857	0822010867	0822010877
80	-	-	-	0822010848	0822010858	0822010868	0822010878
100	-	-	-	0822010849	0822010859	0822010869	0822010879

Piston Ø	80 mm	100 mm
Stroke 10	0822010881	0822010891
15	-	-
20	-	-
25	0822010884	0822010894
30	-	-

Piston Ø	80 mm	100 mm
40	-	-
50	0822010887	0822010897
80	0822010888	0822010898
100	0822010889	0822010899

Technical data

Piston Ø	16 mm	20 mm	25 mm	32 mm
Retracting piston force	95 N	148 N	260 N	435 N
Extracting piston force	127 N	198 N	309 N	507 N
Impact energy	0,06 J	0,08 J	0,1 J	0,16 J
Weight 0 mm stroke	0,084 kg	0,092 kg	0,178 kg	0,195 kg
Weight +10 mm stroke	0,018 kg	0,024 kg	0,034 kg	0,05 kg
Working pressure min./max.	1 ... 10 bar	1 ... 10 bar	1 ... 10 bar	0,6 ... 10 bar
Material, front cover	Brass	Brass	Brass	Aluminum

Piston Ø	40 mm	50 mm	63 mm	80 mm
Retracting piston force	720 N	1110 N	1766 N	2857 N
Extracting piston force	792 N	1237 N	1964 N	3167 N
Impact energy	0,24 J	0,32 J	0,38 J	0,38 J
Weight 0 mm stroke	0,285 kg	0,388 kg	0,636 kg	1,22 kg
Weight +10 mm stroke	0,06 kg	0,086 kg	0,114 kg	0,167 kg
Working pressure min./max.	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar
Material, front cover	Aluminum	Aluminum	Aluminum	Aluminum

Piston Ø	100 mm
Retracting piston force	4639 N
Extracting piston force	4948 N
Impact energy	0,5 J
Weight 0 mm stroke	2,38 kg
Weight +10 mm stroke	0,242 kg
Working pressure min./max.	0,6 ... 10 bar
Material, front cover	Aluminum

Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

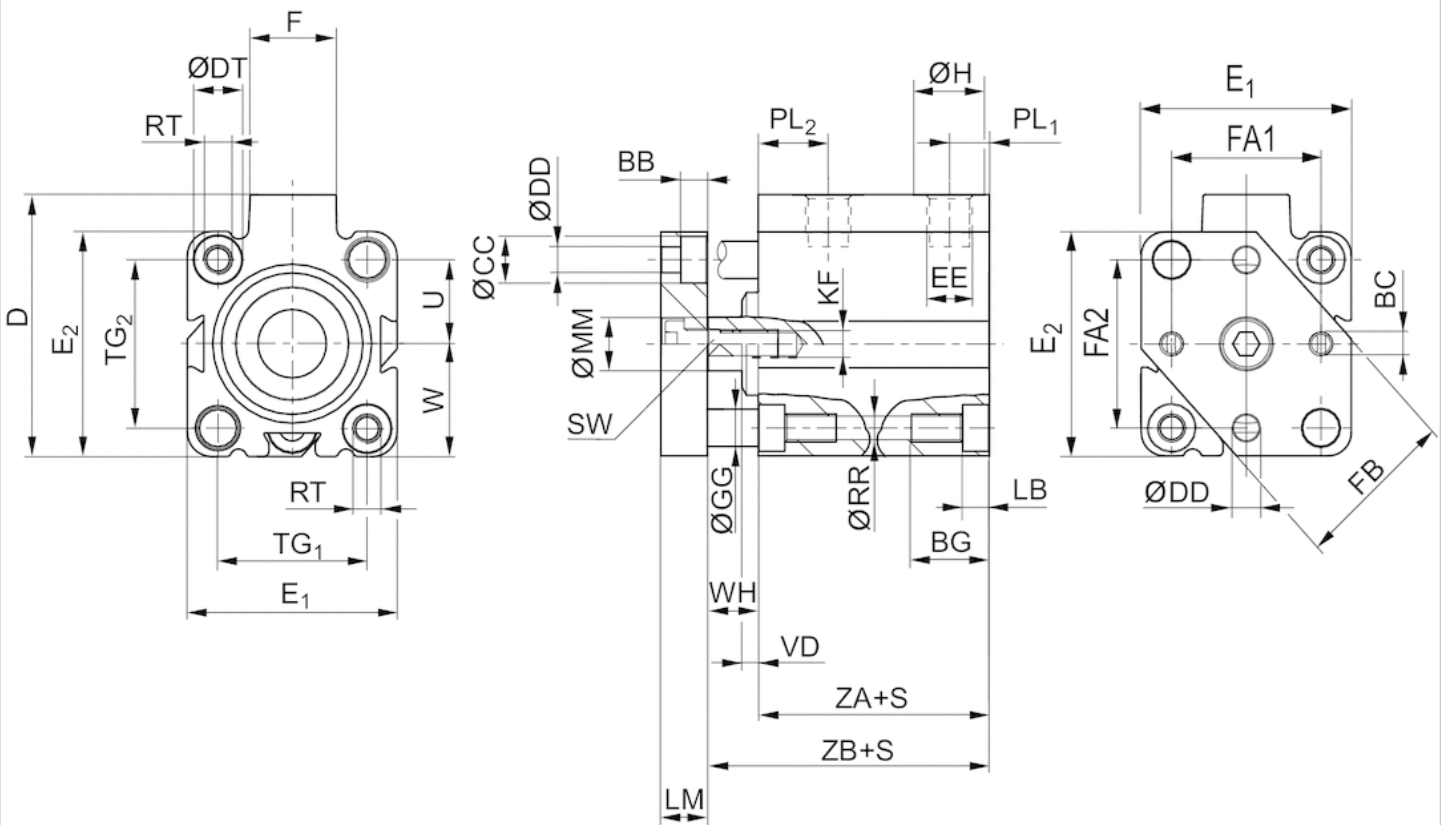
Other versions can be ordered from AVENTICS sales offices.

Technical information

Material	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Piston	Nitrile rubber
Front cover	Brass Aluminum
End cover	Aluminum
Scraper	Polyurethane

Dimensions

Dimensions



Dimensions

Piston Ø	Stroke	BB	BC	BG min.	ØCC	D	ØDD	ØDT H13	E1 JS15
						JS15			
16 mm	10	3.5	M3	12.4	6	33	3.5	6	28
16 mm	15 - 50	3.5	M3	17.5	6	33	3.5	6	28
20 mm	10	5	M4	13.6	7.5	37	4.5	7.5	32
20 mm	15 - 50	5	M4	13.6	7.5	37	4.5	7.5	32
25 mm	10 - 50	5	M4	13.6	8	47.5	4.5	8	37
32 mm	10 - 100	5.7	M5	16.7	10	56	5.5	10	45
40 mm	10 - 100	5.7	M5	16.7	10	62.5	5.5	10	54.5
50 mm	10 - 100	6.8	M6	19.8	11	73	6.5	11	66
63 mm	10 - 100	9	M6	25	14	88	9	15	80
80 mm	10/25/50 /80/100	9	M8	25	14	110	9	15	100
100 mm	10/25/50 /80/100	9	M8	30	14	132	9	17.5	124

Piston Ø	E2	EE	F	FB	ØGG	ØH	KF	LB +0,4	LM
	JS15				-0,005/-0,025				
16 mm	28	M5	11.5	20	4	8	M 5	3.4	6
16 mm	28	M5	11.5	20	4	8	M 5	8.5	6
20 mm	32	M5	11	25	5	8	M 5	4.6	8
20 mm	32	M5	11	25	5	8	M 5	4.6	8
25 mm	39	G 1/8	17.5	30	6	15	M 5	4.6	8
32 mm	48	G 1/8	18.5	35	8	15	M 6	5.7	10
40 mm	54.5	G 1/8	18.5	40	8	15	M 6	5.7	10
50 mm	66	G 1/8	18	50	10	15	M 8	6.8	12
63 mm	80	G 1/8	23	60	12	15	M 8	9	12
80 mm	100	G 1/4	27	75	12	19	M 10	9	15
100 mm	124	G 1/4	28	90	14	19	M 12	11	15

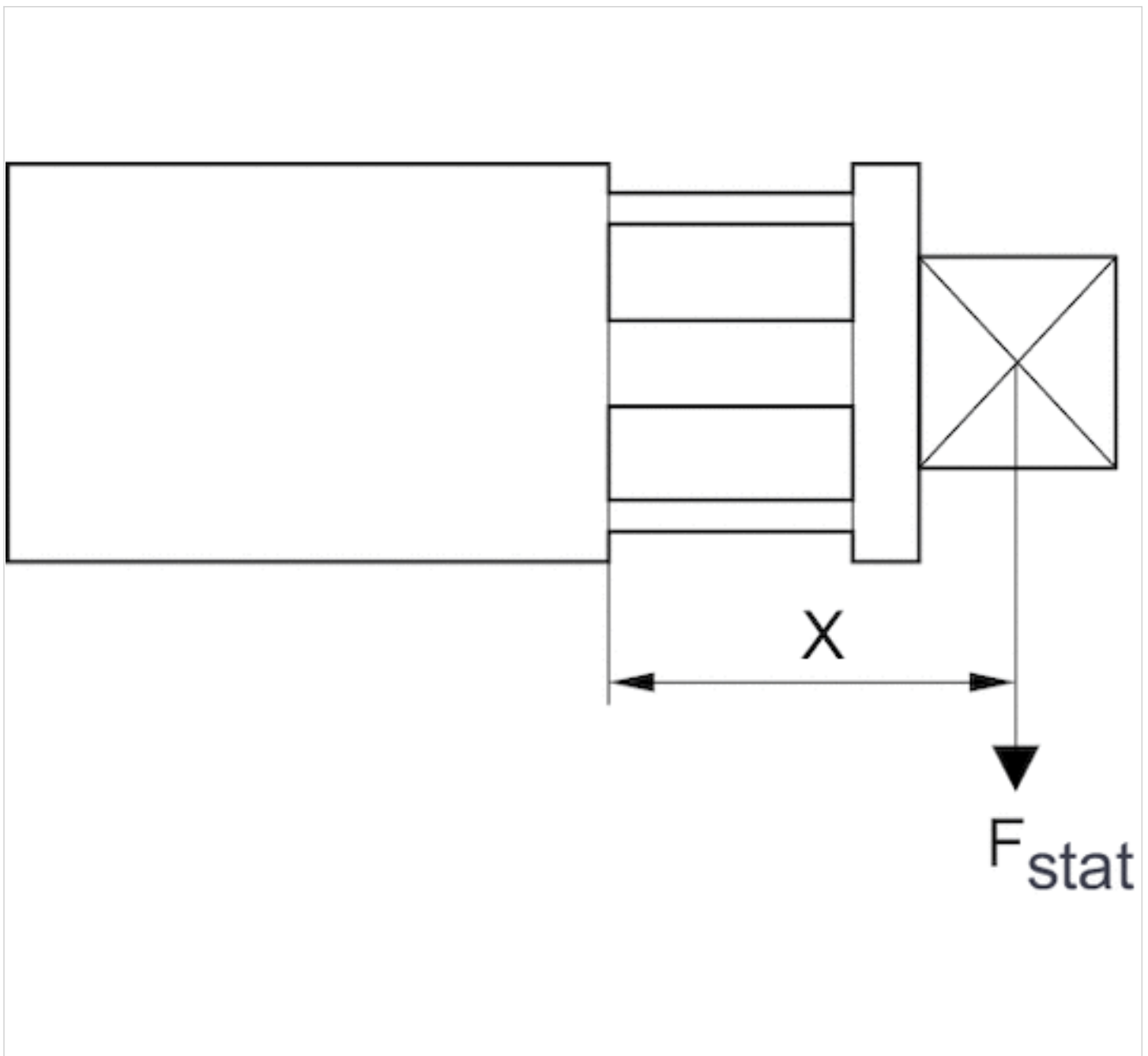
Piston Ø	ØMM	PL1	PL2	ØRR	RT	SW	TG1	TG2	U	VD
	f8					-0,3				-1
16 mm	8	6.5	11.3	3.3	M4	7	20 ±0,2	20 ±0,2	10	-
16 mm	8	6.5	11.3	3.3	M4	7	20 ±0,2	20 ±0,2	10	-
20 mm	10	6.5	10	4.2	M5	8	22 ±0,2	22 ±0,2	11	-
20 mm	10	6.5	10	4.2	M5	8	22 ±0,2	22 ±0,2	11	-
25 mm	10	9.5	11.5	4.2	M5	8	26 ±0,25	28 ±0,25	14	3.5
32 mm	12	8.5	15	5.05	M6	10	32 ±0,25	36 ±0,25	18	3.5
40 mm	12	10	13.5	5.05	M6	10	40 ±0,25	40 ±0,25	20	4.5
50 mm	16	10	14	6.8	M8	13	50 ±0,25	50 ±0,25	25	6
63 mm	16	11.5	14	8.5	M10	13	62 ±0,25	62 ±0,25	31	6.5
80 mm	20	12	15.5	8.5	M10	17	82 ±0,3	82 ±0,3	41	8.5
100 mm	25	12	18.5	10.2	M12	22	103 ±0,3	103 ±0,3	51.5	7

Piston Ø	W	WH	FA1	FA2	ZA	ZB
			±0,1	±0,1	±0,2	±0,8
16 mm	14 ±0,2	4.5	20	20	32	36.5
16 mm	14 ±0,2	4.5	20	20	38	42.5
20 mm	16 ±0,2	4.5	22	22	32	36.5
20 mm	16 ±0,2	4.5	22	22	38	42.5

Piston Ø	W	WH	FA1 ±0,1	FA2 ±0,1	ZA ±0,2	ZB ±0,8
25 mm	19,5 ±0,2	9.5	26	28	39	48.5
32 mm	24 ±0,2	11	32	36	39.5	50.5
40 mm	27,3 ±0,2	13.5	40	40	39.5	53
50 mm	33 ±0,2	13.5	50	50	39.5	53
63 mm	40 ±0,2	15.5	62	62	42	57.5
80 mm	50 ±0,3	18	82	82	46	64
100 mm	62 ±0,3	20	103	103	56	76

Diagrams

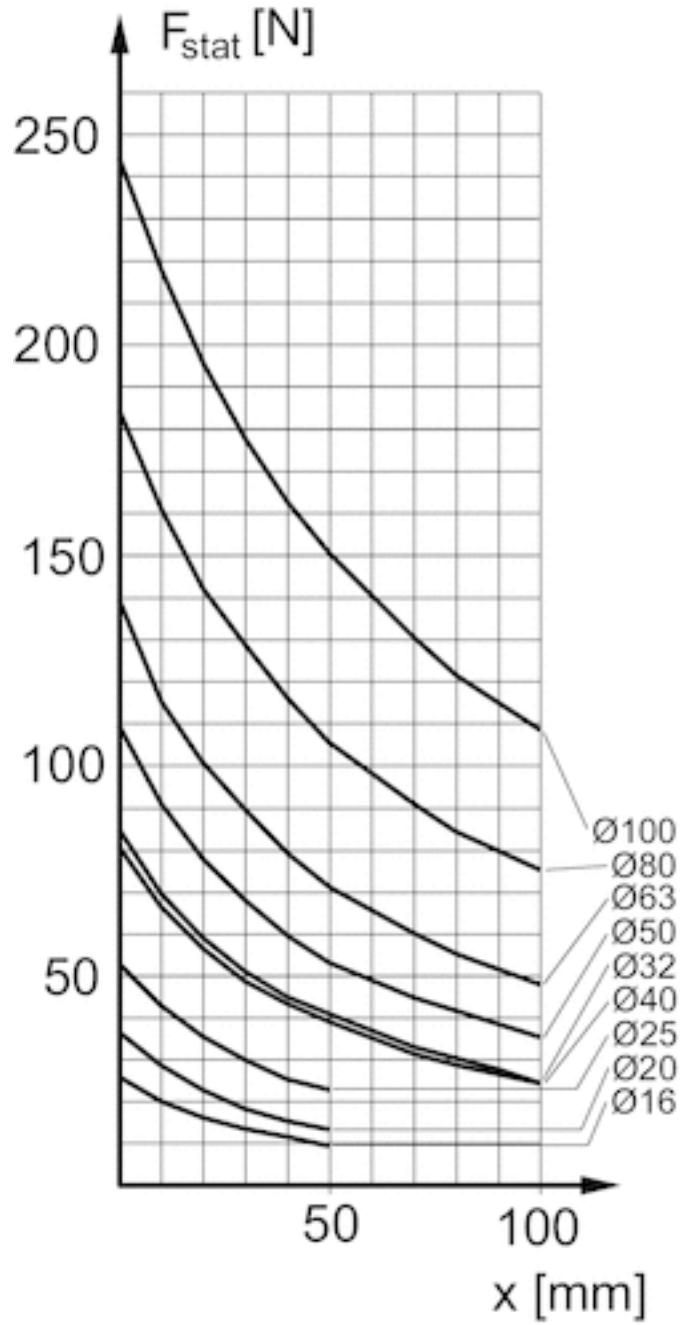
Maximum admissible lateral force, static



F_{stat} = static lateral force

X = distance between force application point and cylinder cover

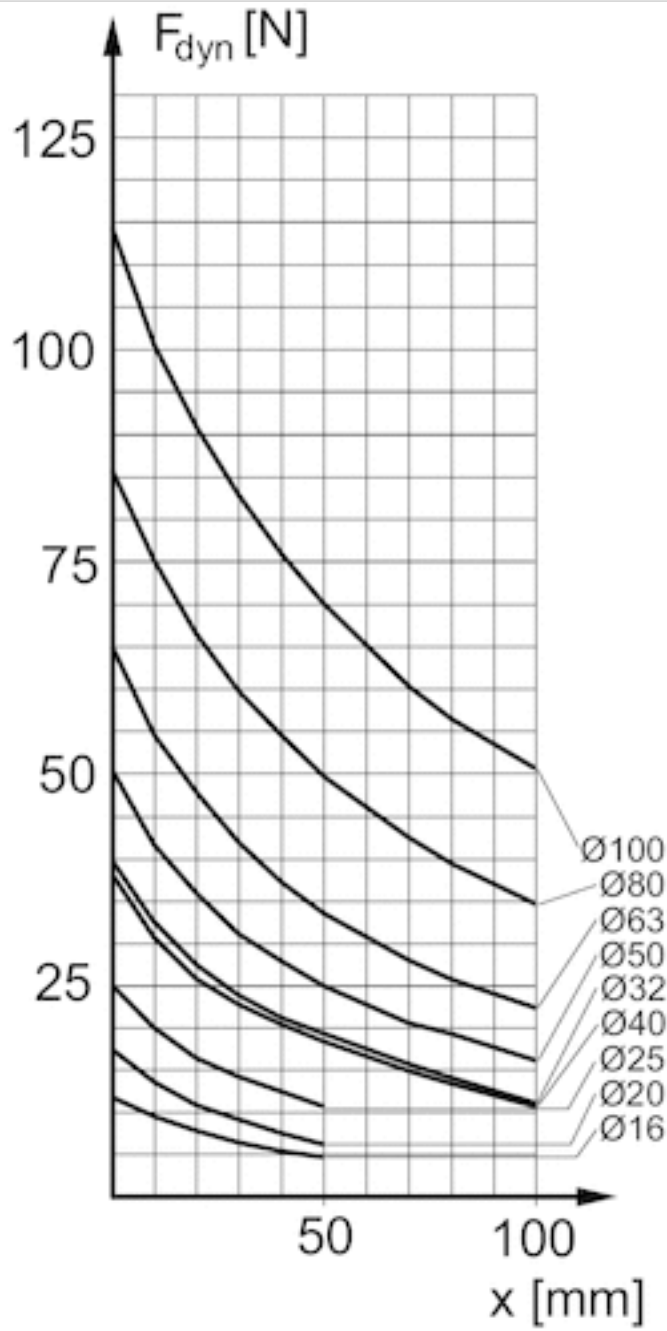
Maximum admissible lateral force, static



F_{stat} = static lateral force

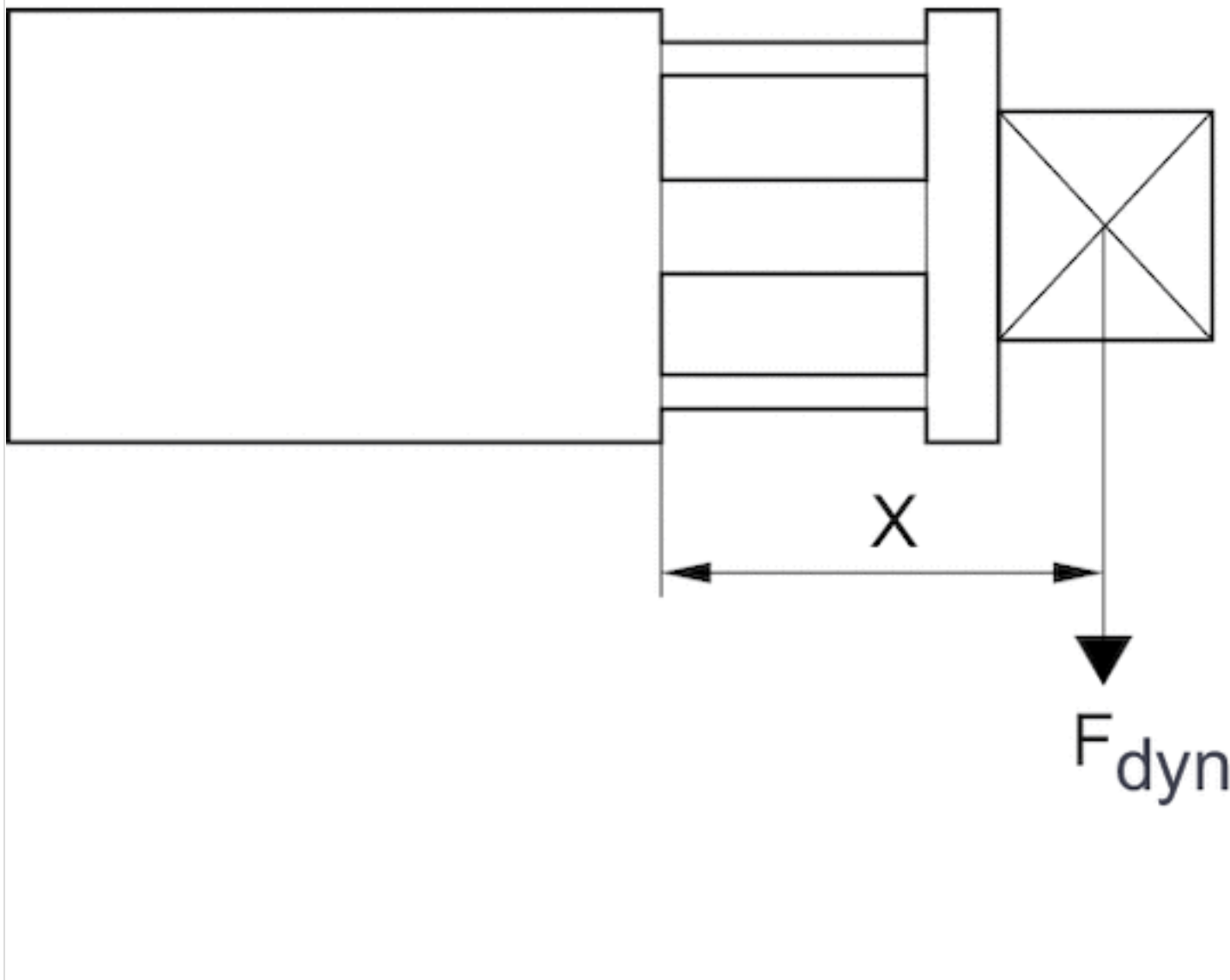
x = distance between force application point and cylinder cover

Maximum admissible lateral force, dynamic



F_{dyn} = dynamic lateral force
 x = distance between force application point and cylinder cover

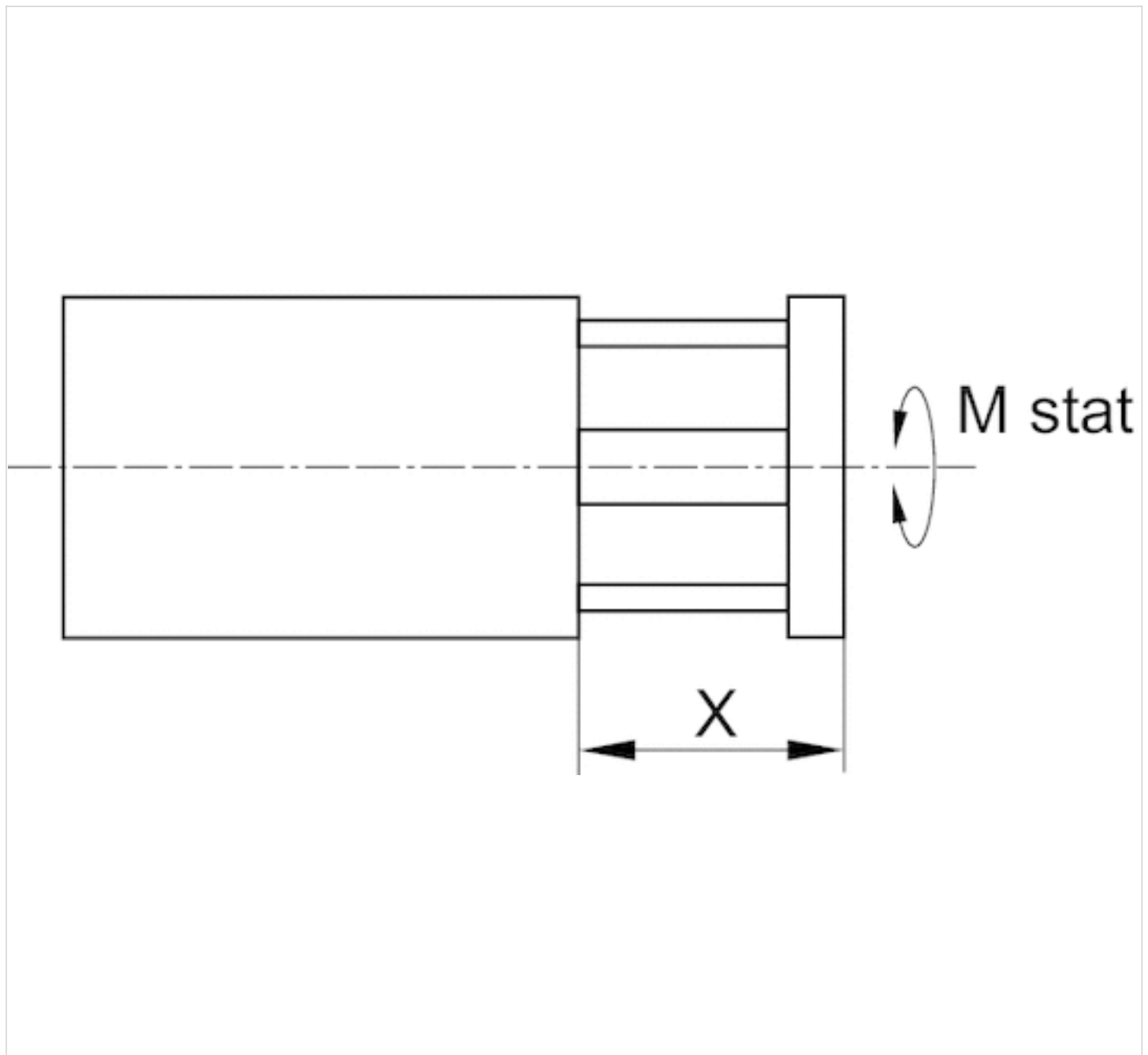
Maximum admissible lateral force, dynamic



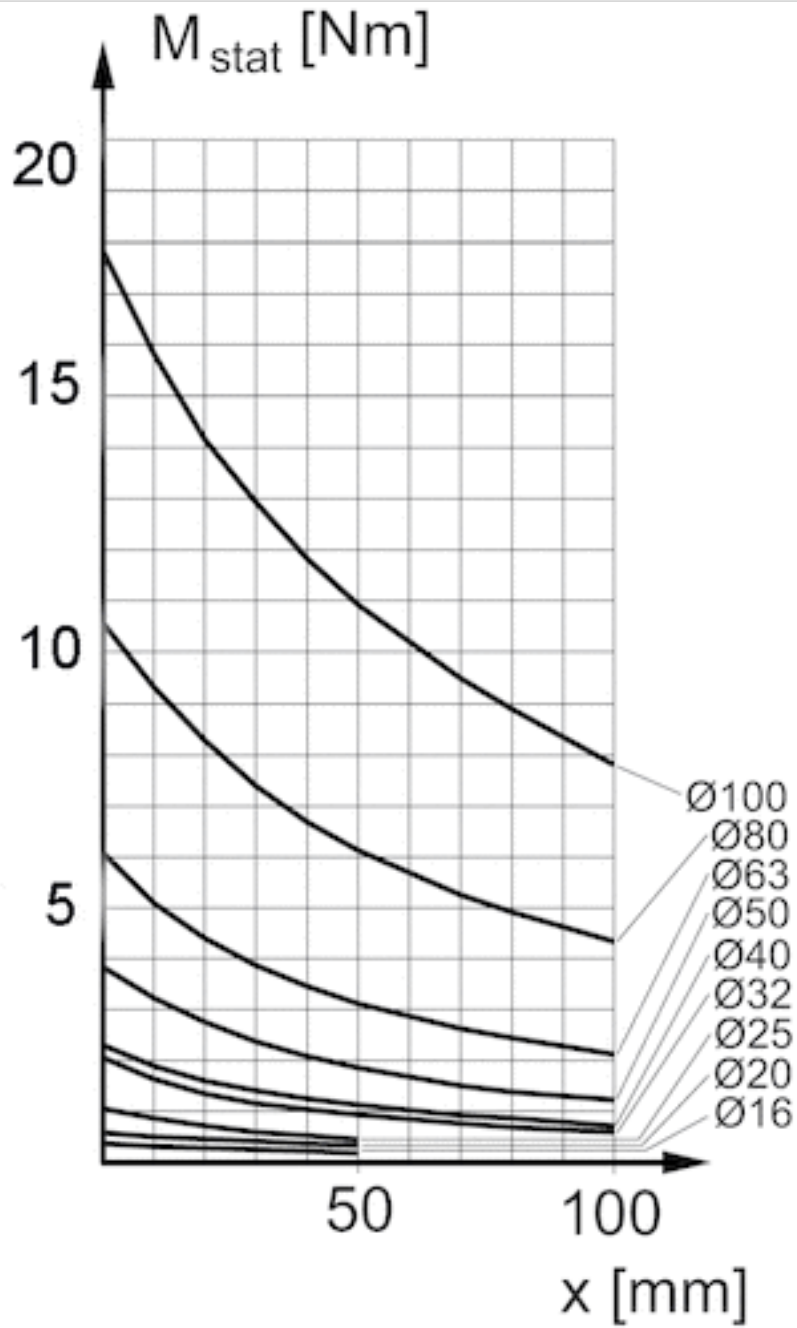
F_{dyn} = dynamic lateral force

X = distance between force application point and cylinder cover

Max. permissible torque, static

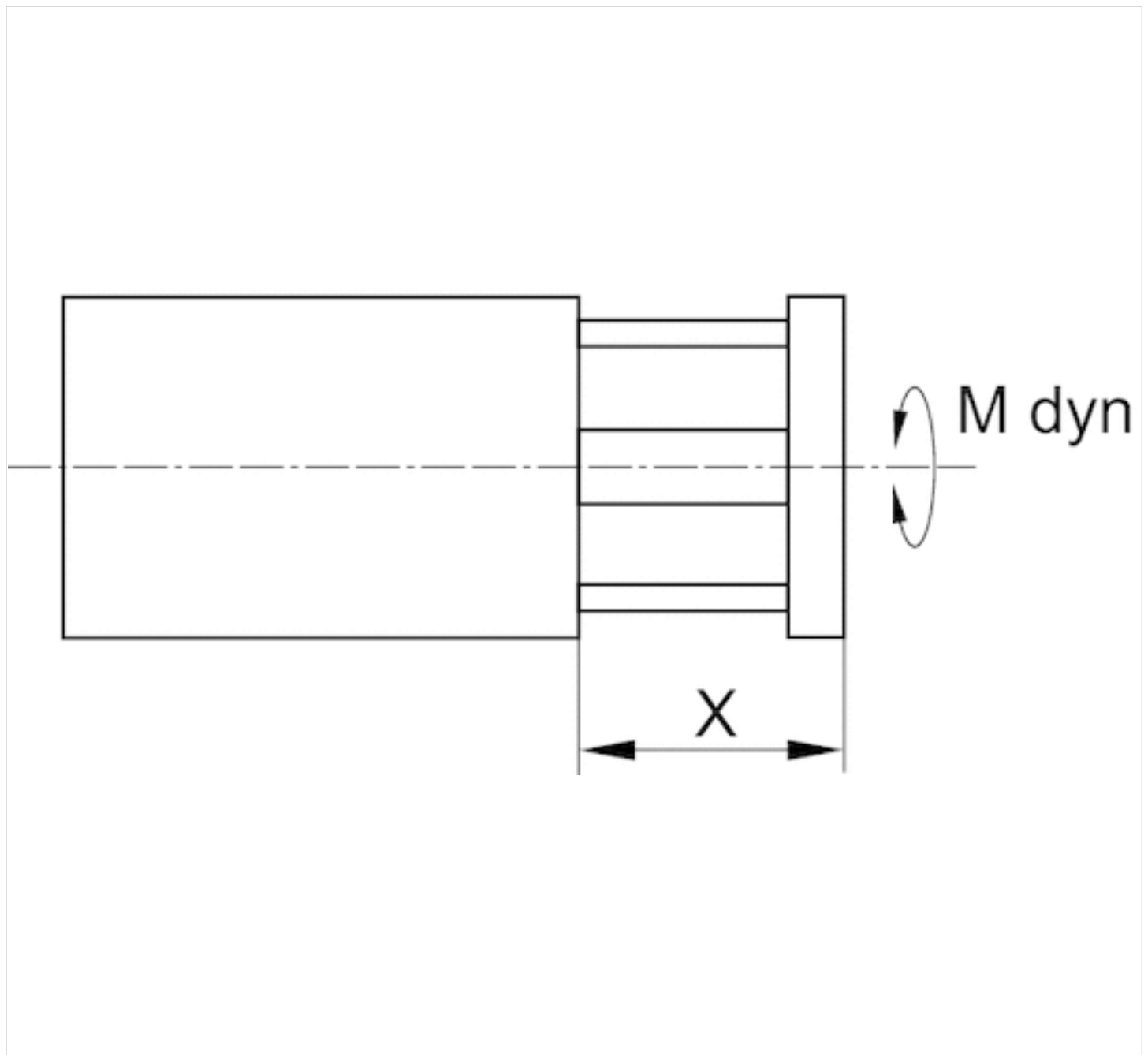


Max. permissible torque, static

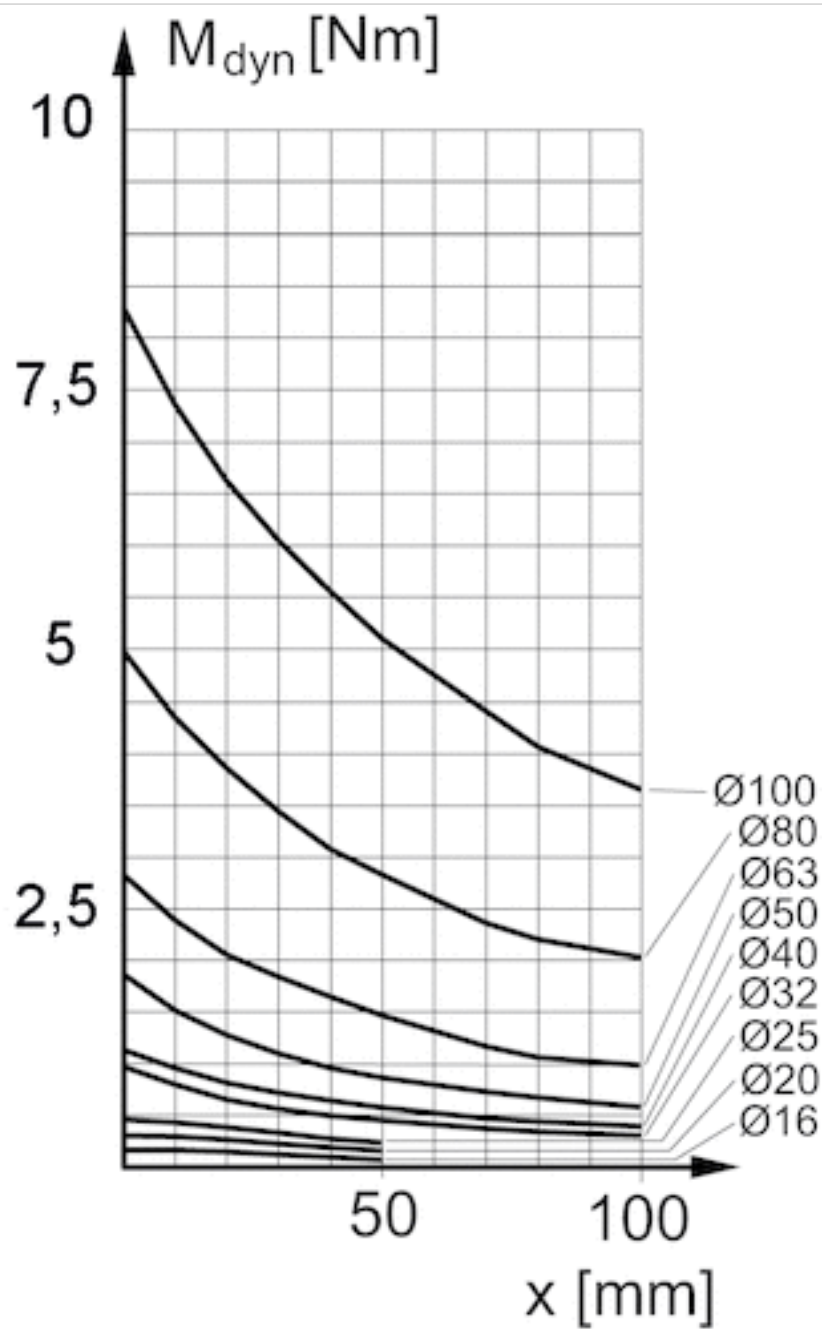


X = distance between force application point and cylinder cover

Max. permissible torque, dynamic



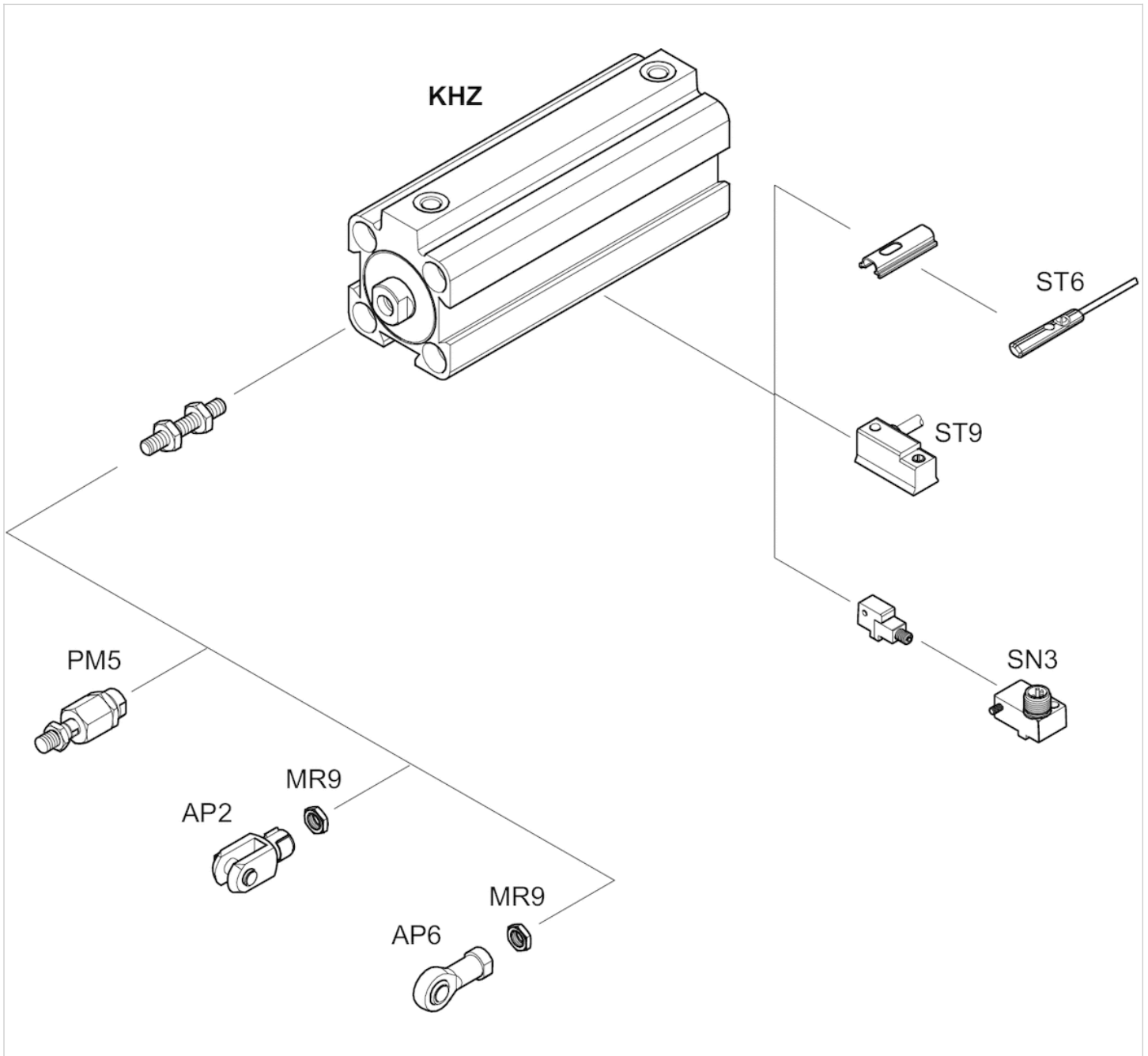
M = max. permissible torque, dynamic



X = distance between force application point and cylinder cover

Accessories overview

Overview drawing



NOTE:

This overview drawing is only for orientation to indicate where the various accessory parts can be fastened to the cylinder. The illustration has been simplified for this purpose. It is thus not possible to derive the dimensions from this overview.

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