

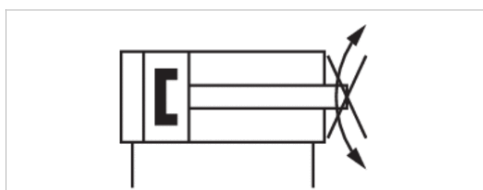
Compact cylinder, Series KPZ

- NFE 49004
- Ø 16-100 mm
- Ports M5 G 1/8
- double-acting
- with magnetic piston
- Cushioning elastic
- Piston rod non-rotating, with front plate, Optionally through
- Optionally heat-resistant



Standards

Compressed air connection	NFE 49004
Ambient temperature min./max.	Internal thread
Medium temperature min./max.	-20 ... 80 °C
Medium	-20 ... 80 °C
Max. particle size	Compressed air
Oil content of compressed air	50 µm
Pressure for determining piston forces	0 ... 5 mg/m³
	6.3 bar



Technical data

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Stroke 5	0822390600	0822391600	0822392600	0822393600	0822394600	0822395600	0822396600
10	0822390601	0822391601	0822392601	0822393601	0822394601	0822395601	0822396601
15	0822390602	0822391602	0822392602	0822393602	0822394602	0822395602	0822396602
20	0822390603	0822391603	0822392603	0822393603	0822394603	0822395603	0822396603
25	0822390604	0822391604	0822392604	0822393604	0822394604	0822395604	0822396604
30	0822390605	0822391605	0822392605	0822393605	0822394605	0822395605	0822396605
40	0822390606	0822391606	0822392606	0822393606	0822394606	0822395606	0822396606
50	0822390607	0822391607	0822392607	0822393607	0822394607	0822395607	0822396607
60	0822390608	0822391608	0822392608	0822393608	0822394608	0822395608	0822396608
80	-	-	-	0822393609	0822394609	0822395609	0822396609
100	-	-	-	0822393610	0822394610	0822395610	0822396610

Piston Ø	80 mm	100 mm
Stroke 5	0822397600	0822398600
10	0822397601	0822398601

Piston Ø	80 mm	100 mm
15	0822397602	0822398602
20	0822397603	0822398603
25	0822397604	0822398604
30	0822397605	0822398605
40	0822397606	0822398606
50	0822397607	0822398607
60	0822397608	0822398608
80	0822397609	0822398609
100	0822397610	0822398610

Technical data

Piston Ø	16 mm	20 mm
Retracting piston force	95 N	148 N
Extracting piston force	127 N	198 N
Impact energy	0,15 J	0,2 J
Working pressure min./max.	1 ... 10 bar	1 ... 10 bar
Sealing material	Nitrile butadiene rubber	Nitrile butadiene rubber
Stroke max.	300 mm	300 mm

Piston Ø	25 mm	32 mm	40 mm
Retracting piston force	260 N	435 N	720 N
Extracting piston force	309 N	507 N	792 N
Impact energy	0,3 J	0,5 J	0,7 J
Working pressure min./max.	1 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar
Sealing material	Nitrile butadiene rubber	Polyurethane	Polyurethane
Stroke max.	300 mm	300 mm	300 mm

Piston Ø	50 mm	63 mm	80 mm	100 mm
Retracting piston force	1110 N	1837 N	2969 N	4639 N
Extracting piston force	1237 N	1964 N	3167 N	4948 N
Impact energy	1 J	1,3 J	1,8 J	2,5 J
Working pressure min./max.	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar
Sealing material	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Stroke max.	300 mm	300 mm	300 mm	300 mm

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).

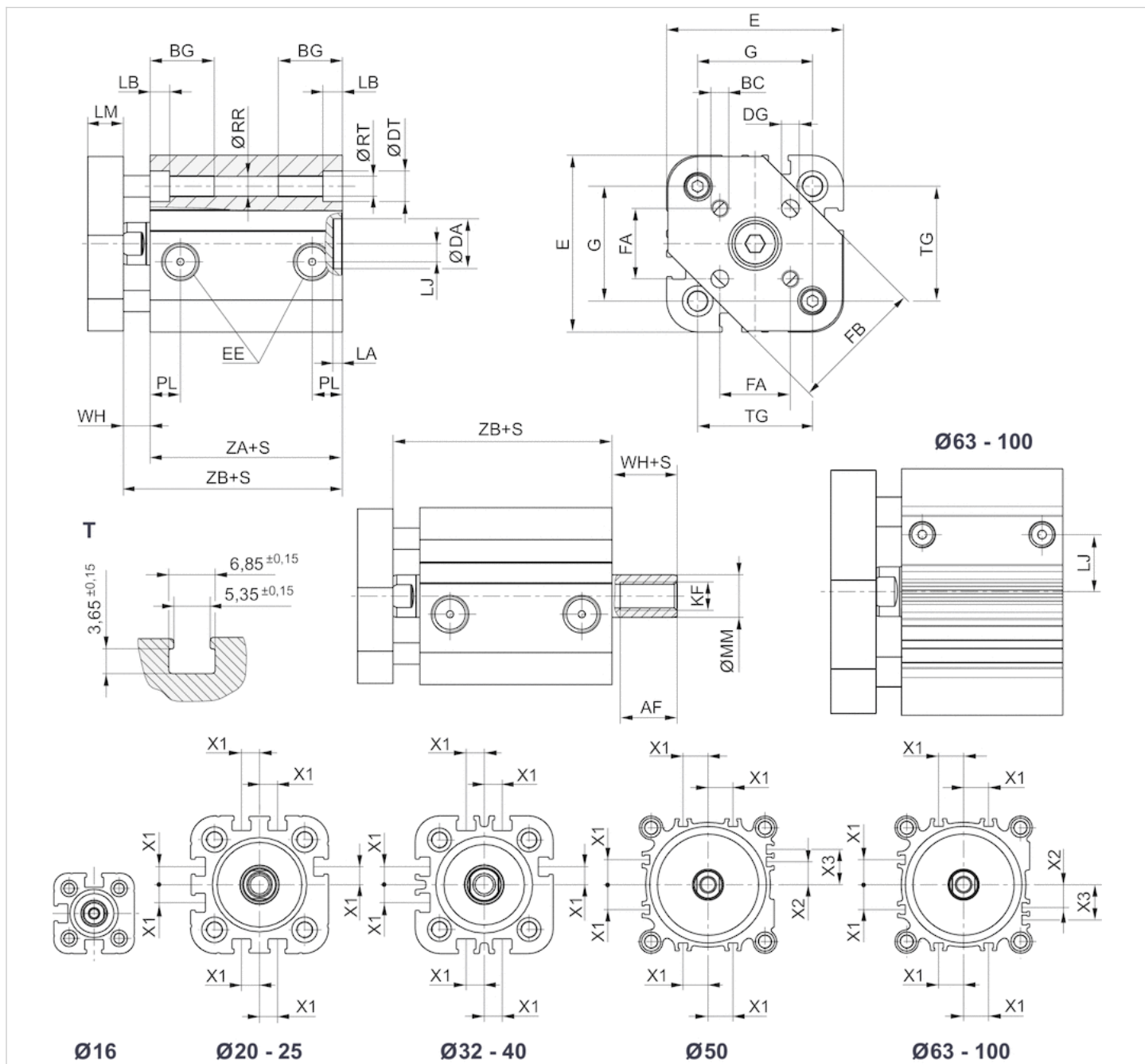
The material for heat-resistant scraper and seal variants (ambient temperature: -10 °C ... 120 °C) is fluorocautchouc. Further options can be generated in the Internet configurator.

Technical information

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

Dimensions

Dimensions



S = stroke

T = View for sensor groove without guide plate

Dimensions

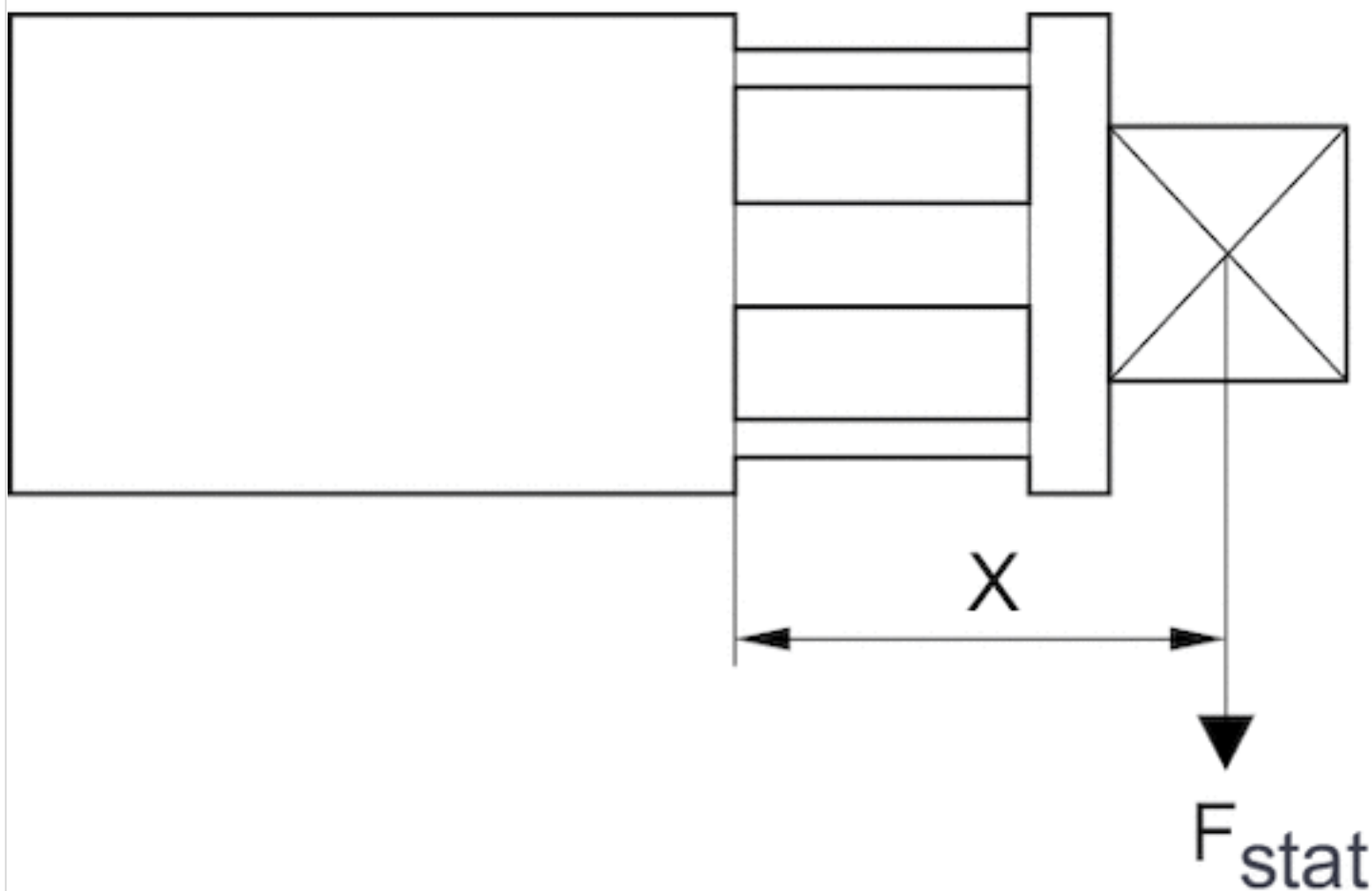
Piston Ø	AF min. Option: through piston rod	BC	BG min.	DA H11	DG H13	DT H13	E	EE
16 mm	10	M3	14.5	10	3	6	29.5	M5
20 mm	12 10: S3 mm 2)	M4	15.5	12	4	7.5	36	M5
25 mm	12 10: S3 mm 2)	M5	15.5	12	5	8	40	M5
32 mm	12	M5	18	14	5	8.6	50	G 1/8
40 mm	12	M5	18	14	5	9	58	G 1/8
50 mm	16 12: S4 mm 2)	M6	24	18	6	11	68	G 1/8
63 mm	16 12: S4 mm 2)	M6	24	18	6	11	80	G 1/8
80 mm	20 15: S3 mm 2)	M8	28	23	8	14	99	G 1/8
100 mm	26 21: S5 mm 2)	M10	27.5	28	10	15	120	G 1/8

Piston Ø	FA ±0,1	FB	G	KF	LA	LB	LJ	LM	MM f8	PL	Ø RR	RT	TG	WH	X1	X2
16 mm	9.9	20	19	M4	2.5	3.5	2.5	6	8	7.5	3.3	M4	18 ±0,4	4.5	–	–
20 mm	12	24	25	M6	2.5	4.5	4.5	8	10	7.5	4.2	M5	22 ±0,4	5	4.2	–
25 mm	15.6	30	27	M6	2.5	4.4	5	8	10	7.5	4.2	M5	26 ±0,4	5.5	4.5	–
32 mm	19.8	38	32	M8	2.5	5.5	5.1	10	12	8.5	5.1	M6	32 ±0,5	7	6.5	–
40 mm	23.3	44	42	M8	2.5	5.5	9.6	10	12	8.5	5.1	M6	42 ±0,5	7	11	–
50 mm	29.7	54	50	M10	2.5	2	8.5	12	16	8.5	6.7	M8	50 ±0,6	7.5	13	4
63 mm	35.4	62	62	M10	2.5	2	17.8	12	16	8.5	6.7	M8	62 ±0,7	8	18	12
80 mm	46	80	82	M12	3	1	22.9	14	20	8.3	8.5	M10	82 ±0,7	9.5	18	16.5
100 mm	56.6	100	103	M16	3	3.5	26.5	14	25	9.7	8.5	M10	103 ±0,7	10.5	20	20

Piston Ø	X3	ZA + Stroke	ZB + Stroke
16 mm	–	38	42,5 0/+1,4
20 mm	–	38	43 0/+1,4
25 mm	–	39	44,5 0/+1,4
32 mm	–	44	51 0/+1,6
40 mm	–	45	52 0/+1,6
50 mm	13	45.5	53 0/+1,6
63 mm	21	49	57 0/+2
80 mm	25.5	54.5	64 0/+2
100 mm	29	66.5	77 0/+2

Diagrams

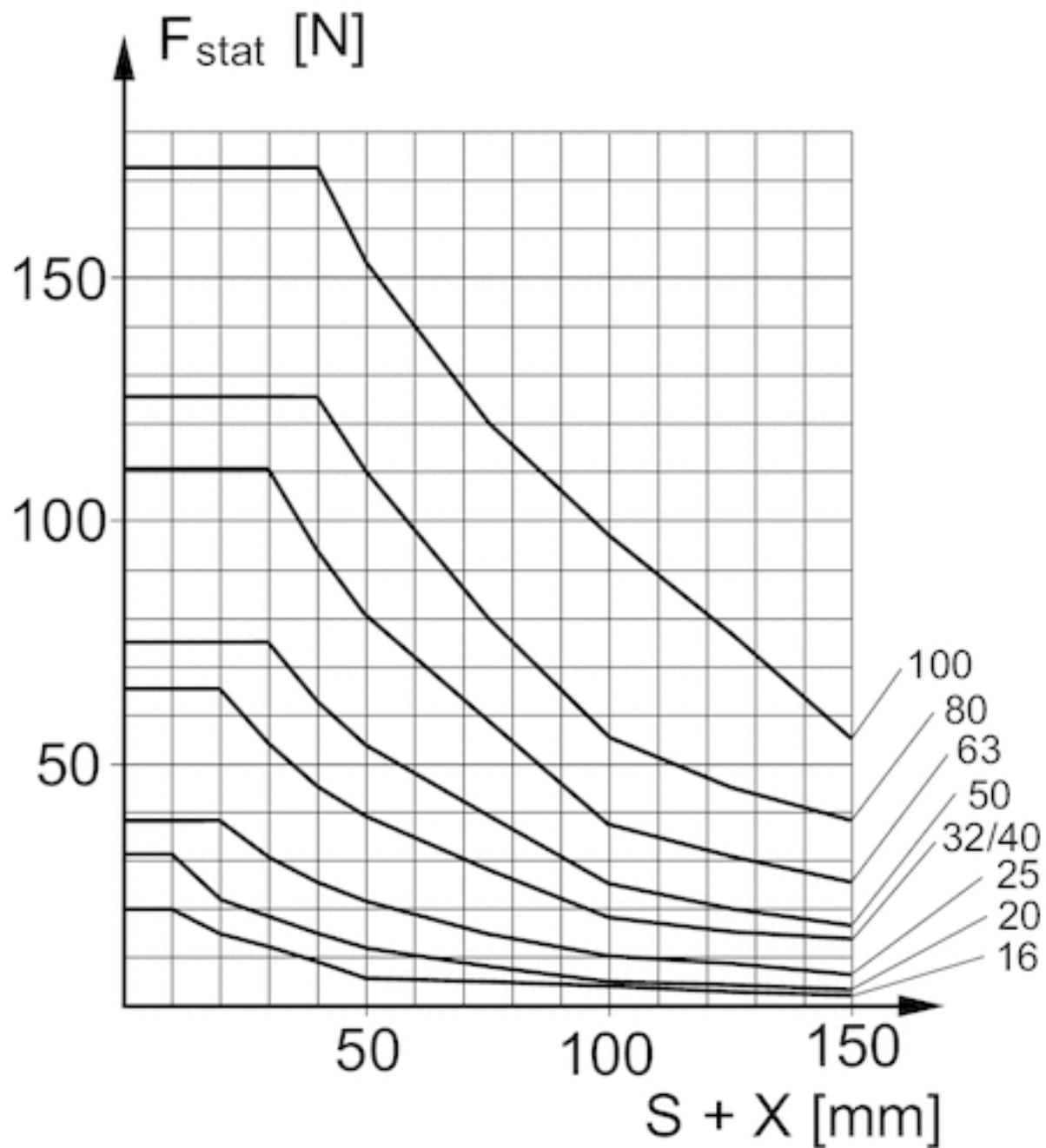
Maximum admissible lateral force, static



F_{stat} = static lateral force

X = distance between force application point and cylinder cover

Maximum admissible lateral force, static

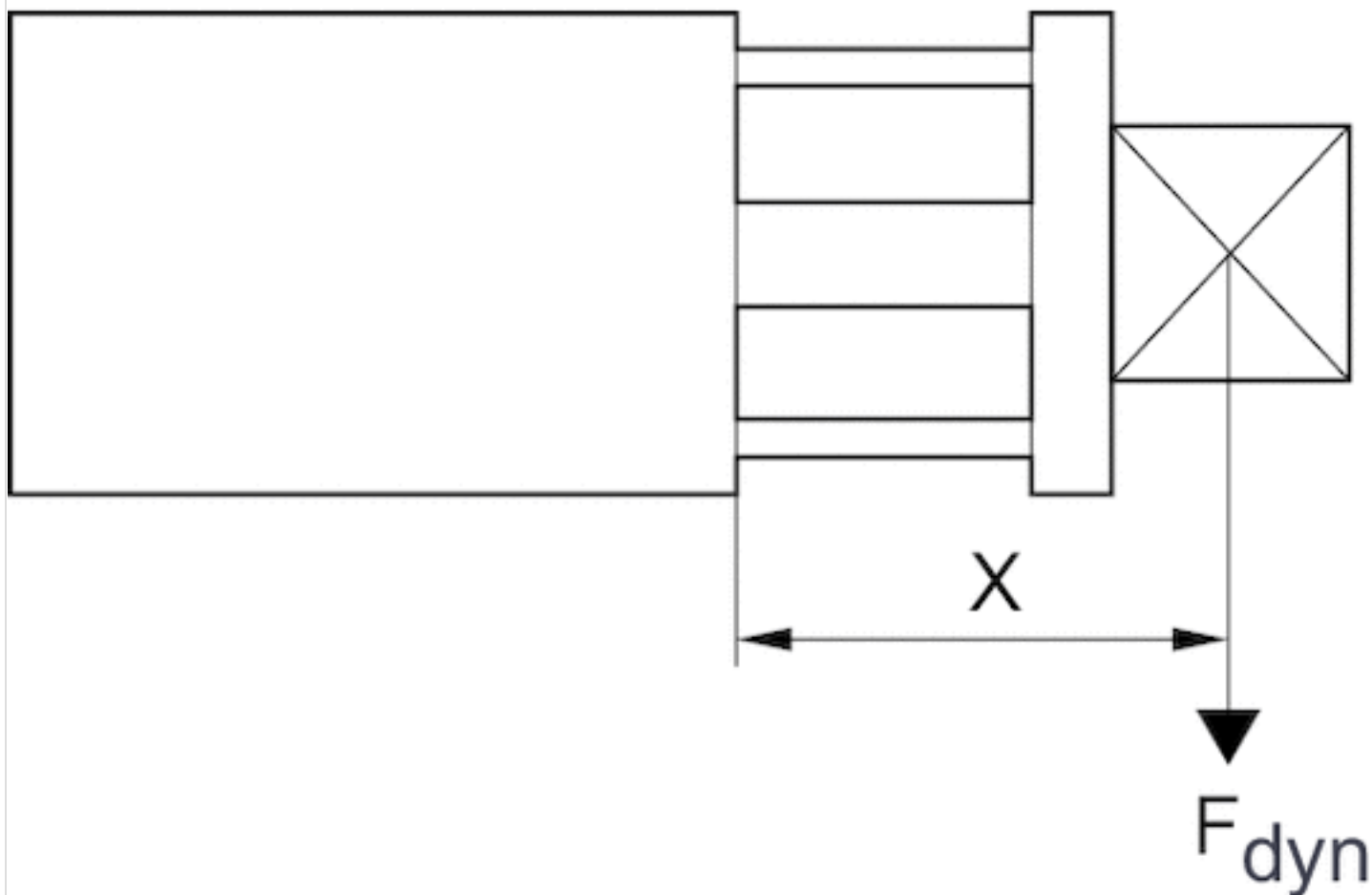


F_{stat} = static lateral force

X = distance between force application point and cylinder cover

S = stroke

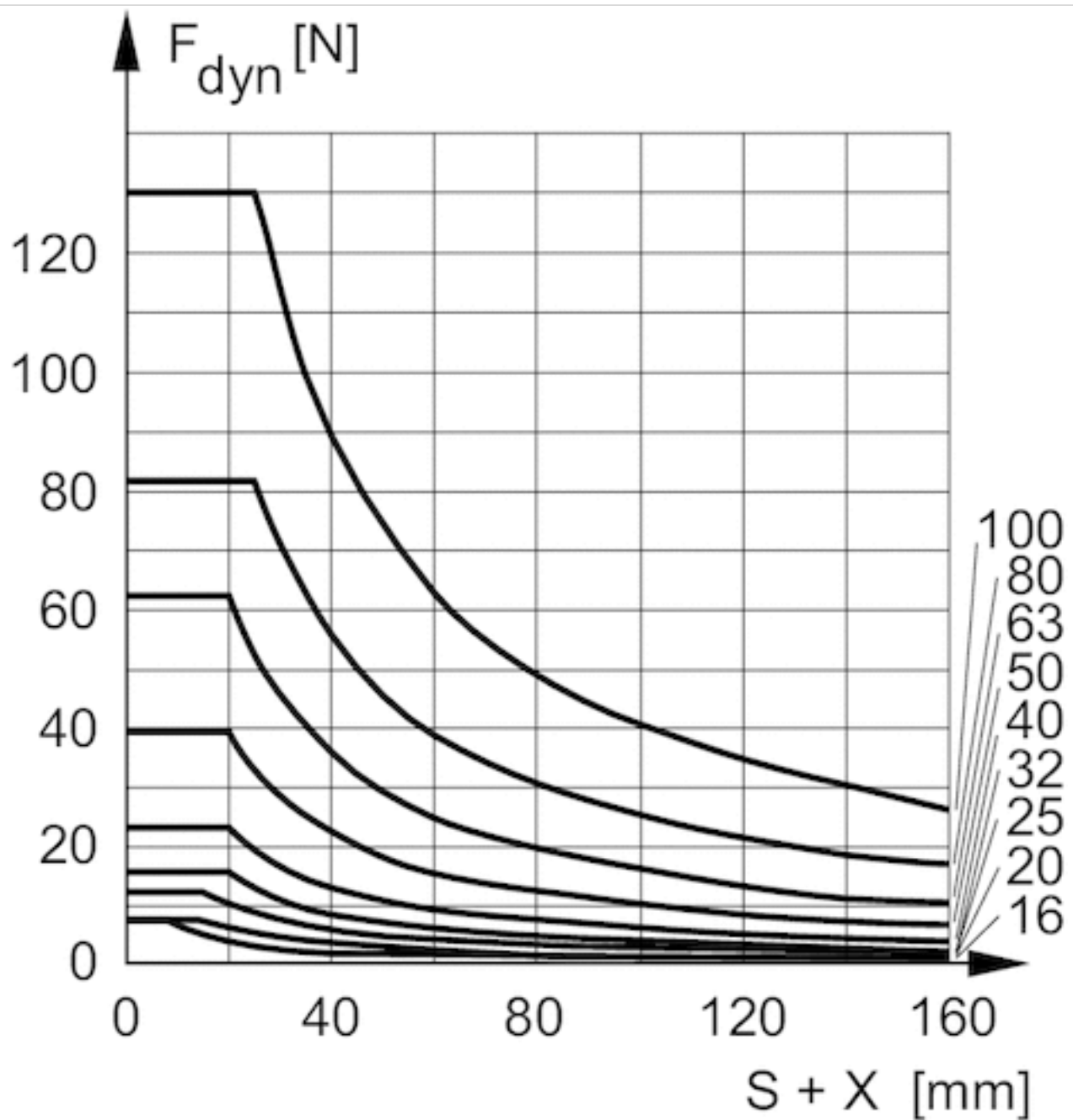
Maximum admissible lateral force, dynamic



F_{dyn} = dynamic lateral force

X = distance between force application point and cylinder cover

Maximum admissible lateral force, dynamic

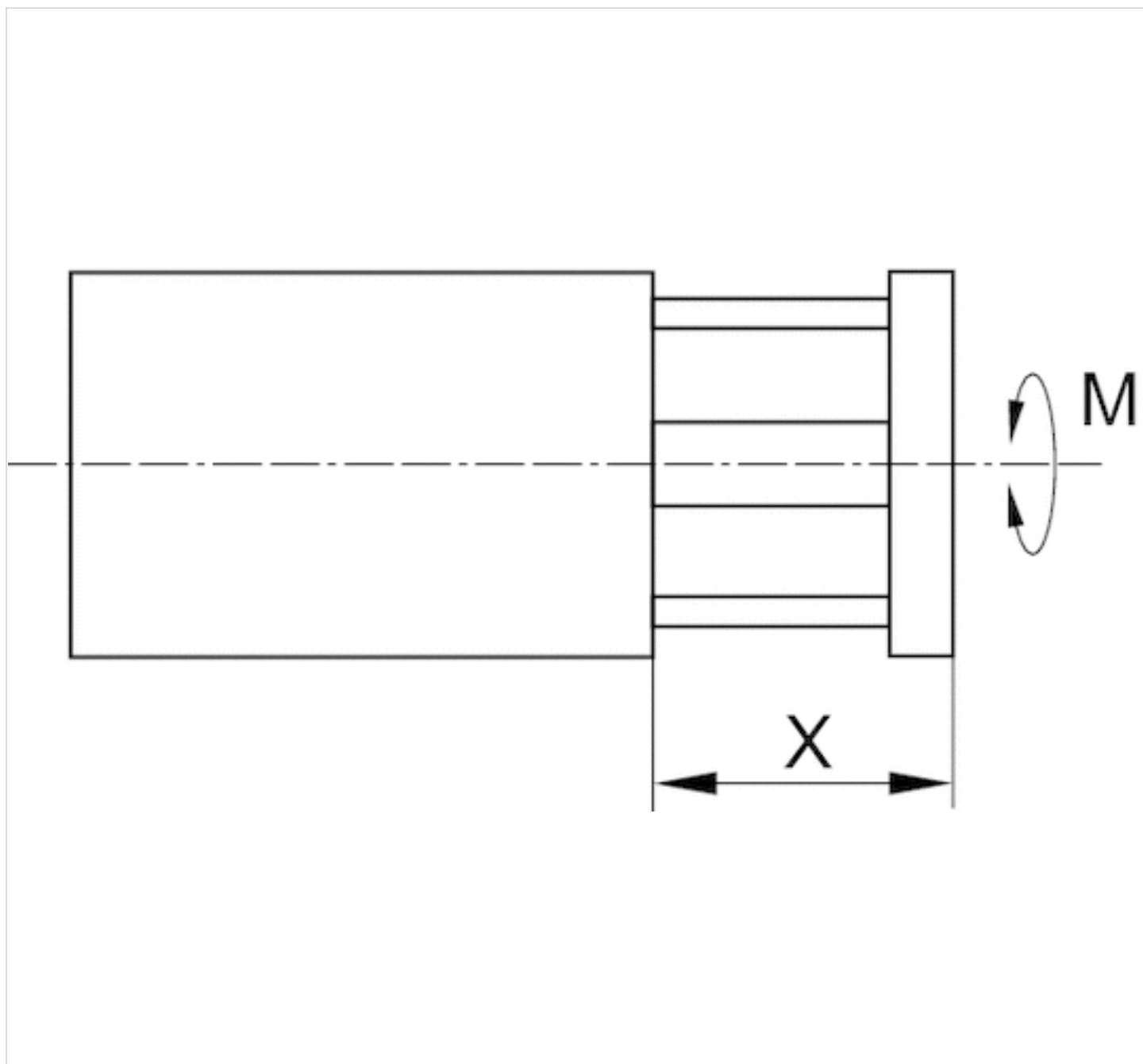


F_{dyn} = dynamic lateral force

X = distance between force application point and cylinder cover

S = stroke

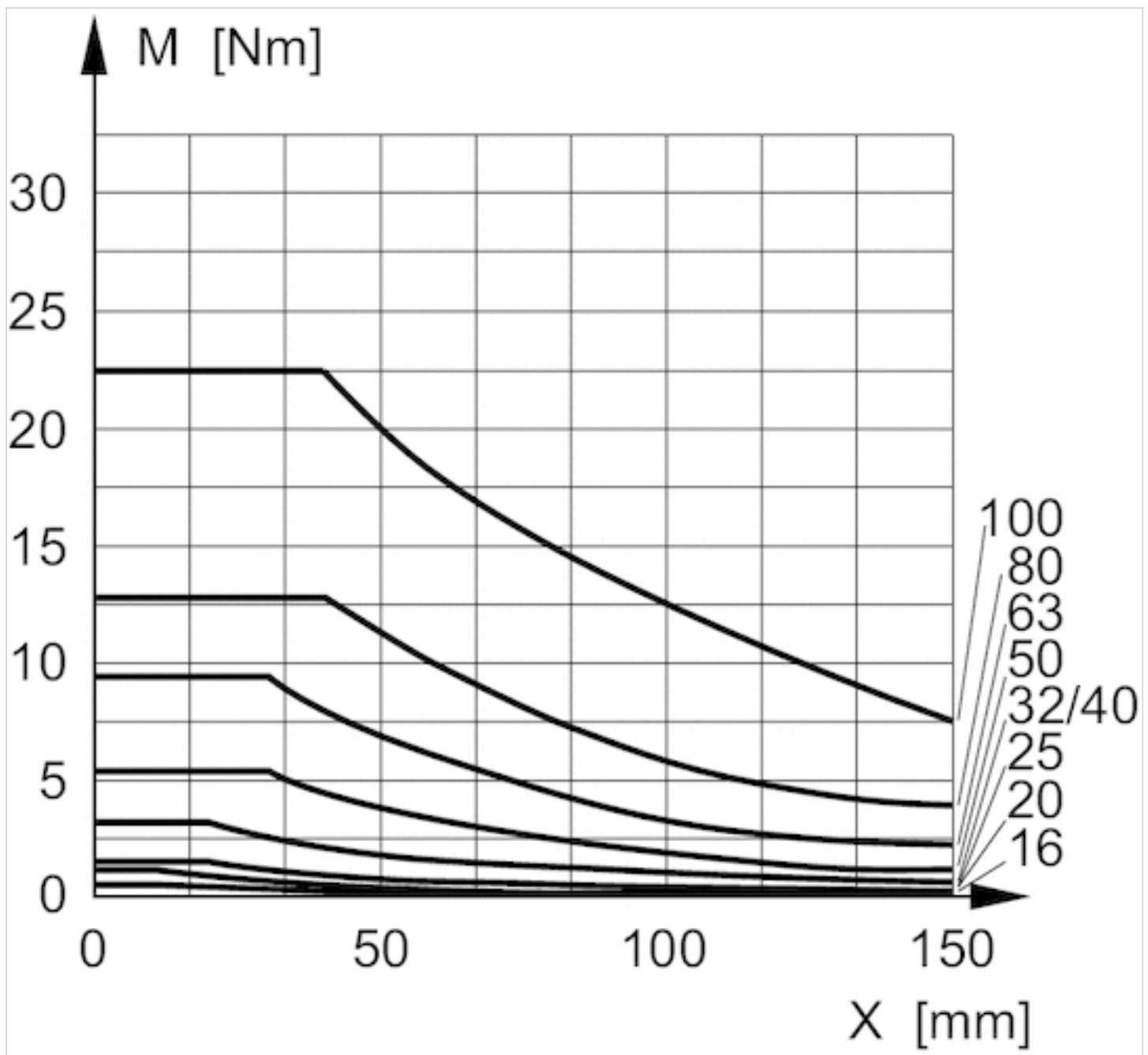
Max. permissible torque



M = max. permissible torque

X = distance between force application point and cylinder cover

Max. permissible torque

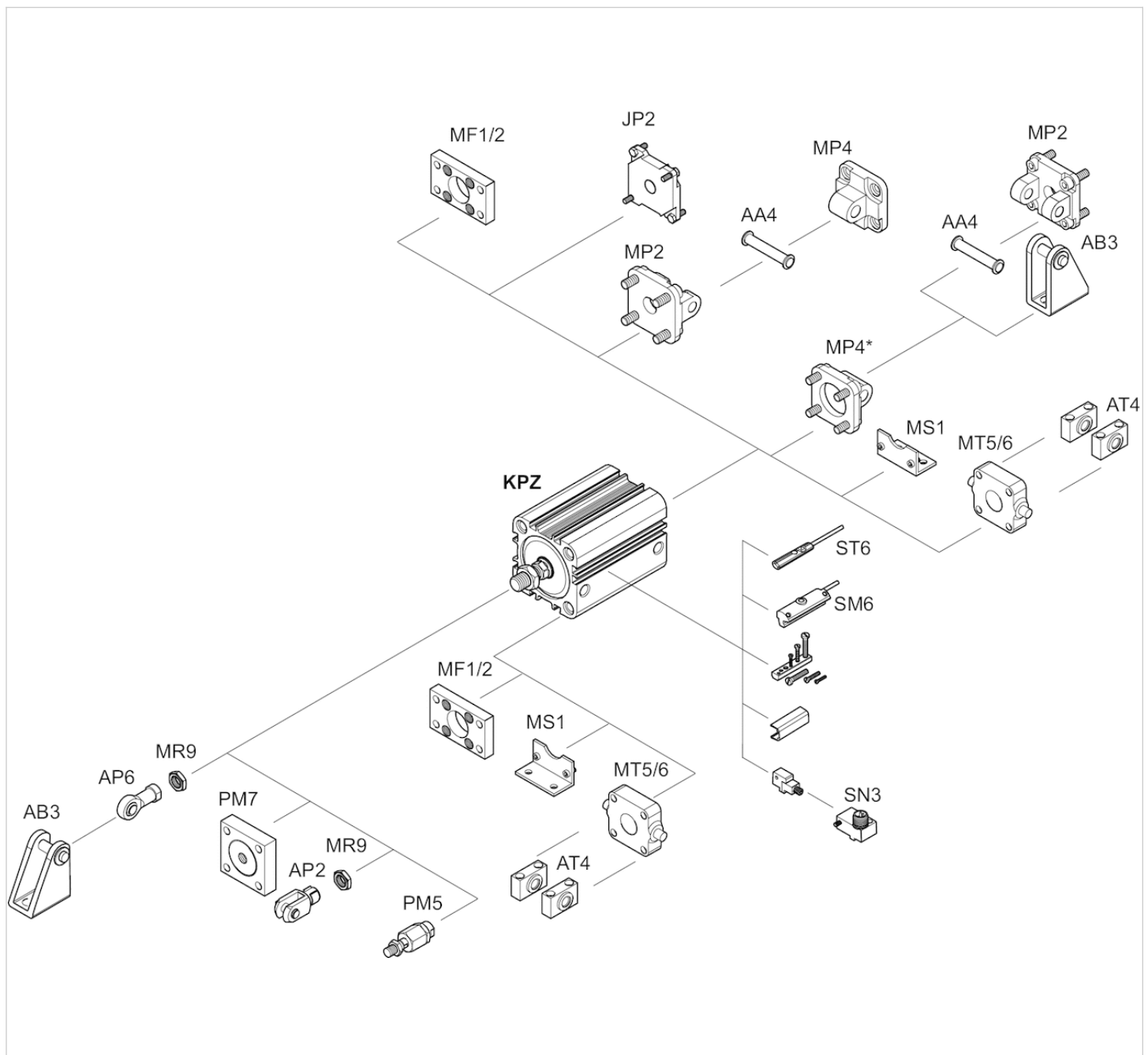


M = max. permissible torque

X = spacing between torque contact surface and cylinder cover

Accessories overview

Overview drawing



* Available for installation on KPZ for cylinder diameters 16 - 25 mm

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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