

Short-stroke cylinder, Series SSI

- ISO 15524
- Ø 20-63 mm
- Ports M5 G 1/8 G 1/4
- double-acting
- with magnetic piston
- Cushioning elastic
- Piston rod non-rotating, with front plate



Standards	ISO 15524
Compressed air connection	Internal thread
Ambient temperature min./max.	-20 ... 80 °C
Medium temperature min./max.	-20 ... 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 Ports Piston rod Ø	20 mm M5 10 mm	25 mm M5 12 mm	32 mm G 1/8 16 mm	40 mm G 1/8 16 mm	50 mm G 1/4 20 mm	63 mm G 1/4 20 mm
Stroke 5	R480637940	R480637948	R480637956	R480637964	R480637972	R480637982
10	R480637941	R480637949	R480637957	R480637965	R480637973	R480637983
15	R480637942	R480637950	R480637958	R480637966	R480637974	R480637984
20	R480637943	R480637951	R480637959	R480637967	R480637975	R480637985
25	R480637944	R480637952	R480637960	R480637968	R480637976	R480637986
30	R480637945	R480637953	R480637961	R480637969	R480637977	R480637987
40	R480637946	R480637954	R480637962	R480637970	R480637978	R480637988
50	R480637947	R480637955	R480637963	R480637971	R480637979	R480637989
80	-	-	R480644584	R480644585	R480637980	R480637990
100	-	-	R480641813	R480644586	R480637981	R480637991

Technical data

Piston Ø	20 mm	25 mm
Retracting piston force	148 N	238 N
Extracting piston force	198 N	309 N
Impact energy	0,08 J	0,1 J
Weight 0 mm stroke	0,101 kg	0,14 kg
Weight +10 mm stroke	0,021 kg	0,028 kg
Working pressure min./max.	1 ... 10 bar	1 ... 10 bar
Material, front cover	Brass	Aluminum
Scraper material	Nitrile butadiene rubber	Nitrile butadiene rubber
Sealing material	Nitrile butadiene rubber	Nitrile butadiene rubber
Stroke max.	150 mm	150 mm

Piston Ø	32 mm	40 mm	50 mm	63 mm
Retracting piston force	380 N	665 N	1039 N	1766 N
Extracting piston force	507 N	792 N	1237 N	1964 N
Impact energy	0,16 J	0,24 J	0,32 J	0,38 J
Weight 0 mm stroke	0,216 kg	0,334 kg	0,547 kg	0,842 kg
Weight +10 mm stroke	0,039 kg	0,045 kg	0,07 kg	0,083 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
Scraper material	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Sealing material	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Stroke max.	150 mm	150 mm	150 mm	150 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.

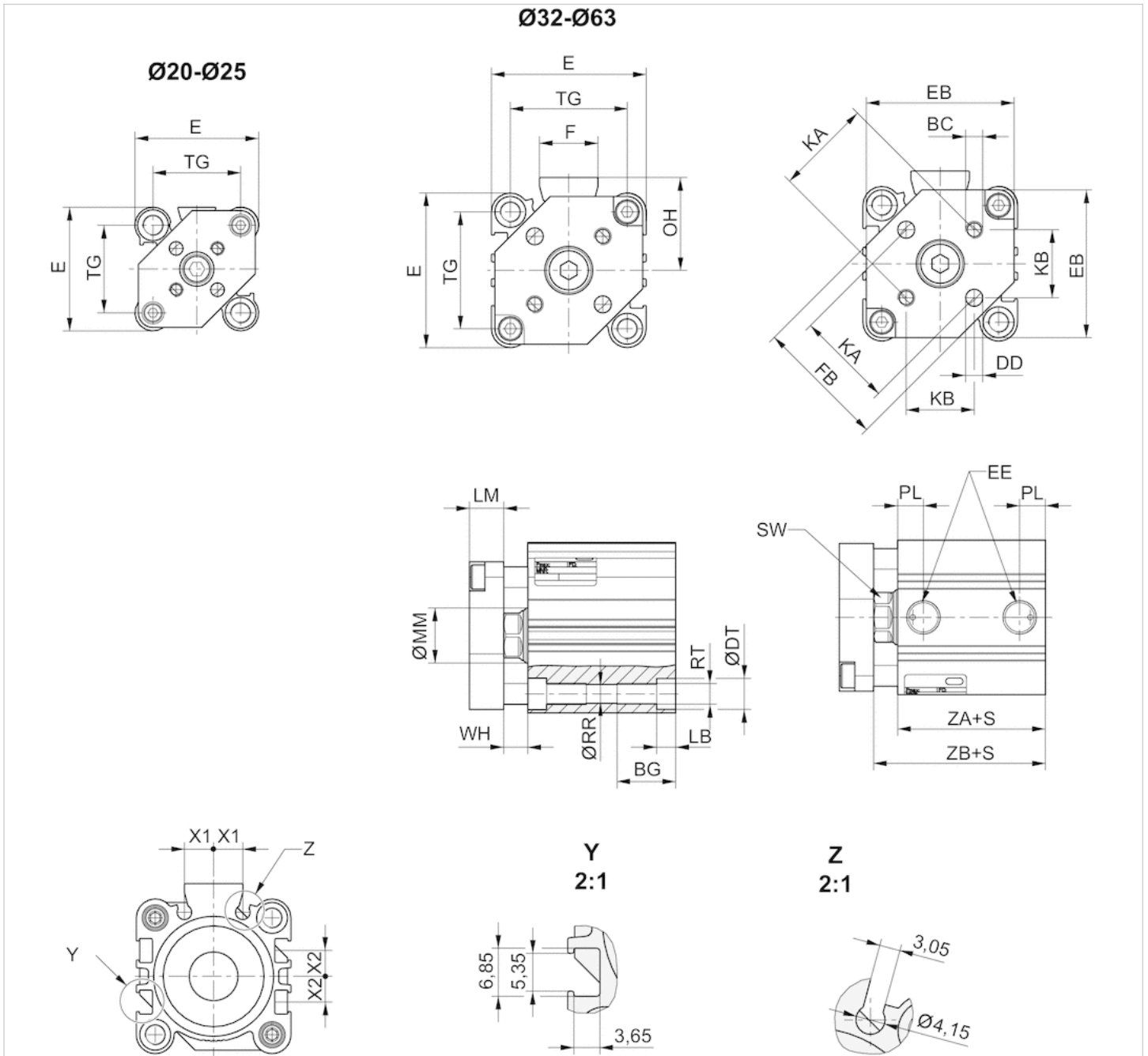
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Brass Aluminum
End cover	Aluminum
Seal	Nitrile butadiene rubber Polyurethane
Front plate	Aluminum
Guide rod	Stainless steel
Scraper	Nitrile butadiene rubber Polyurethane
	See table for additional data on materials.

Dimensions

Dimensions



S = stroke

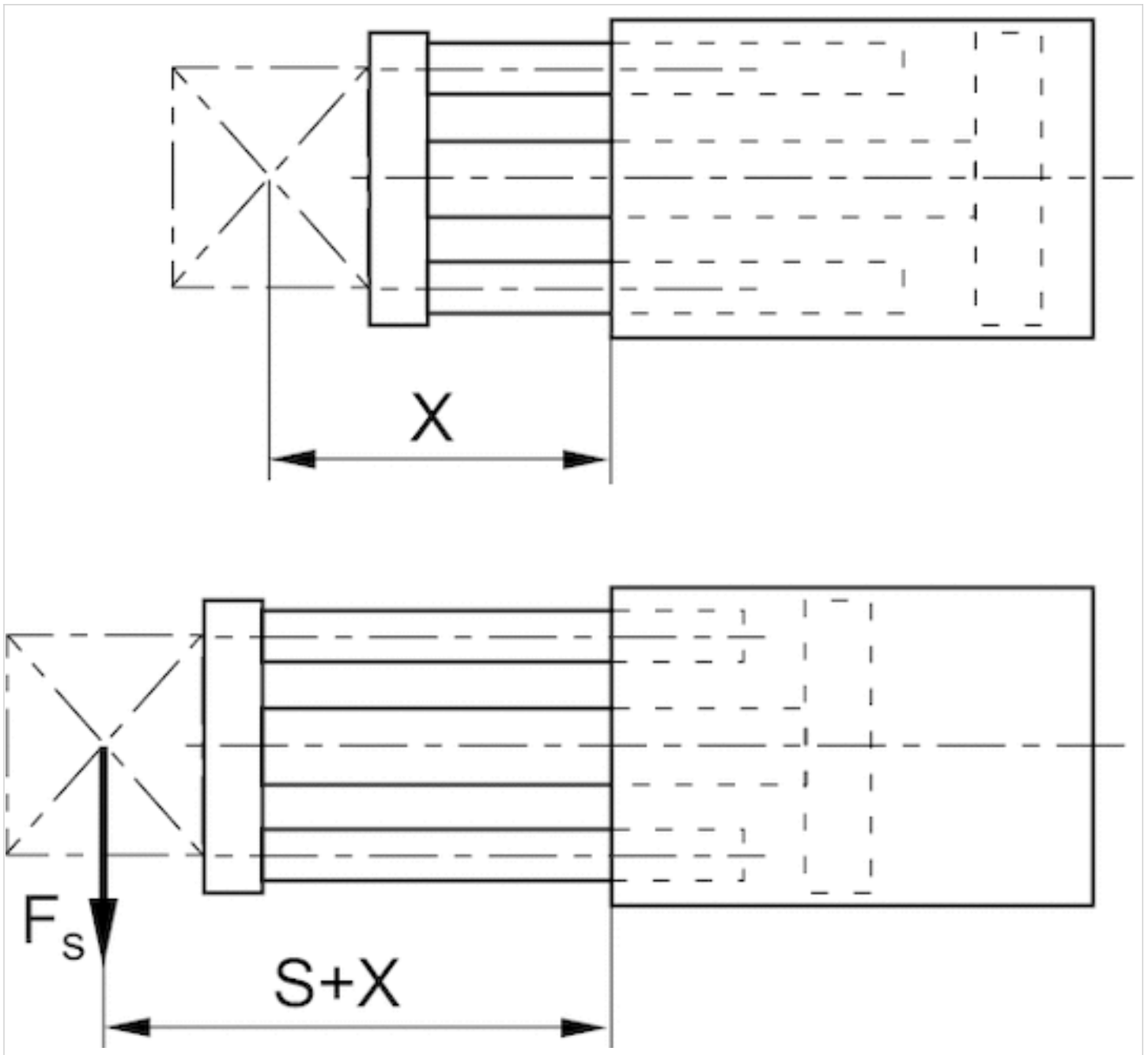
Dimensions

Piston Ø	BC	BG	ØDD H13	ØDT	E	EB	EE	F	FB	KA	KB	LB max.	LM	ØMM f8
20 mm	M4	16	4	9	36	34	M5	-	26	17 ±0,1	12 ±0,1	5.5	8	10
25 mm	M5	16	5	9	40	38	M5	-	30	22 ±0,1	15,6 ±0,1	5.5	8	12
32 mm	M5	16	5	9	45	43	G 1/8	17	38	28 ±0,2	19,8 ±0,2	5.5	10	16
40 mm	M5	16	5	9	52	50	G 1/8	17	46	33 ±0,2	23,3 ±0,2	5.5	10	16
50 mm	M6	20	6	11	64	62	G 1/4	21	58	42 ±0,2	29,7 ±0,2	8	12	20
63 mm	M6	25	6	14	77	74	G 1/4	21	69	50 ±0,2	35,4 ±0,2	10.5	12	20

Piston Ø	OH	PL	ØRR	RT	SW	TG	WH	X1	X2	ZA±0,2	ZB±2
20 mm	-	5.5	5.55	M6	8	25,5 ±0,3	4,5 ±1,5	5.7	4.3	29.5	34
25 mm	-	5.5	5.55	M6	10	28 ±0,3	5 ±1,5	6	5	32.5	37.5
32 mm	27	7.5	5.55	M6	13	34 ±0,3	7 ±2	8.5	7.5	33	40
40 mm	31	7.5	5.55	M6	13	40 ±0,3	7 ±2	10.8	11	39.5	46.5
50 mm	39	10.5	7.4	M8	17	50 ±0,5	8 ±2	14	13	40.5	48.5
63 mm	45.5	10.5	9.3	M10	17	60 ±0,5	8 ±2	17	17	46	54

Diagrams

Maximum admissible lateral force, dynamic

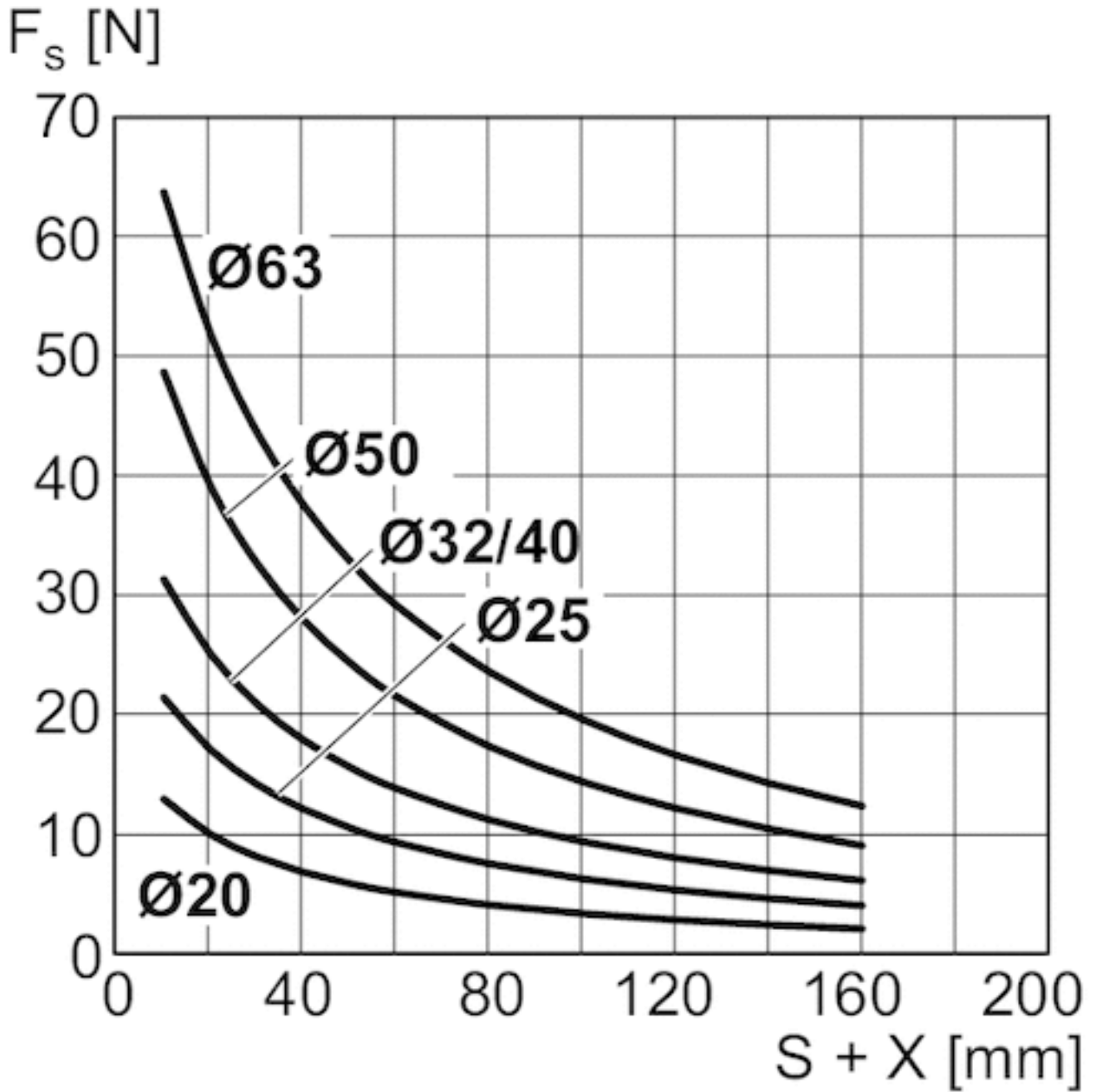


X = distance between force application point and cylinder cover

F_s = lateral force

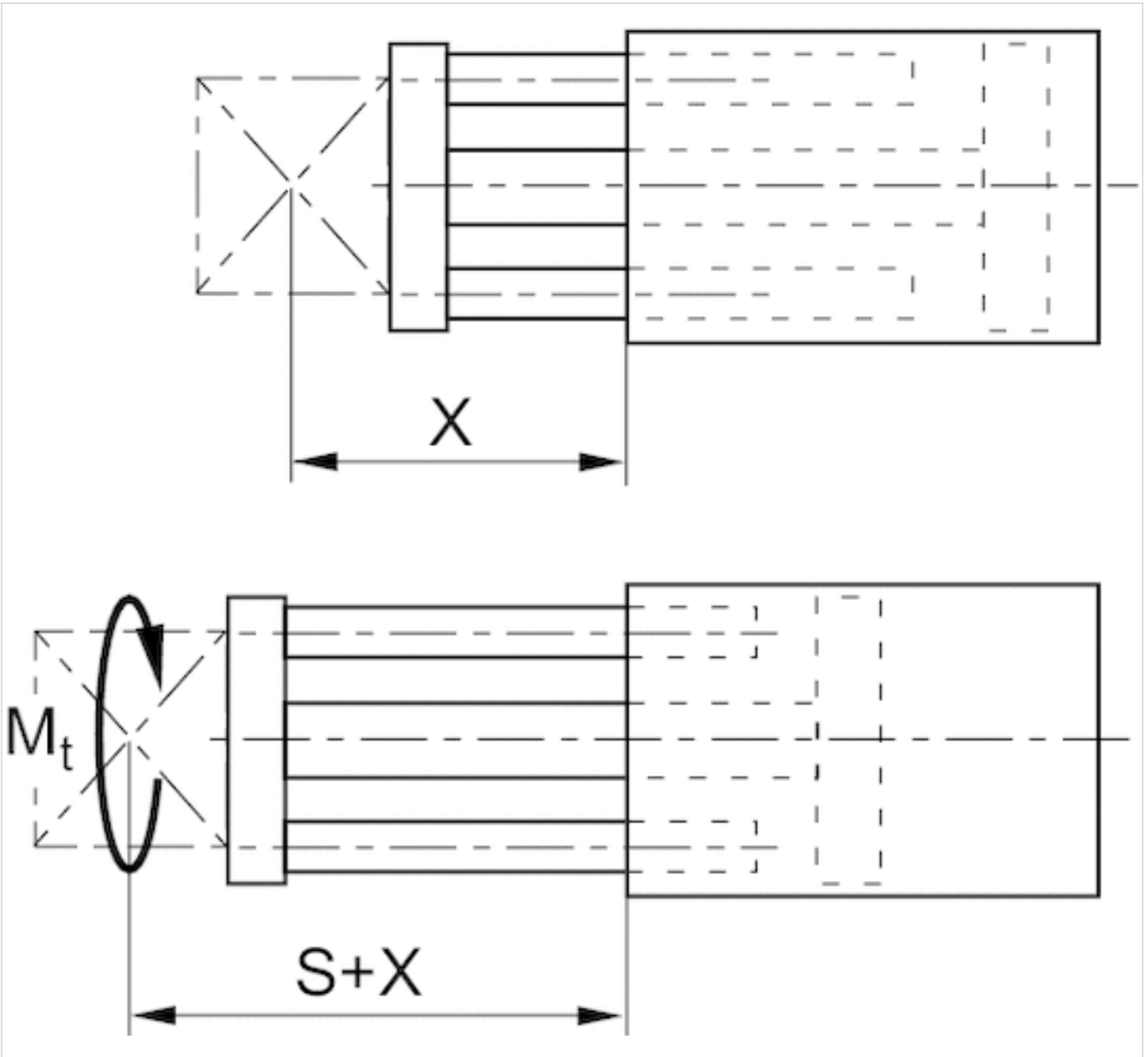
S = stroke

Maximum admissible lateral force, dynamic



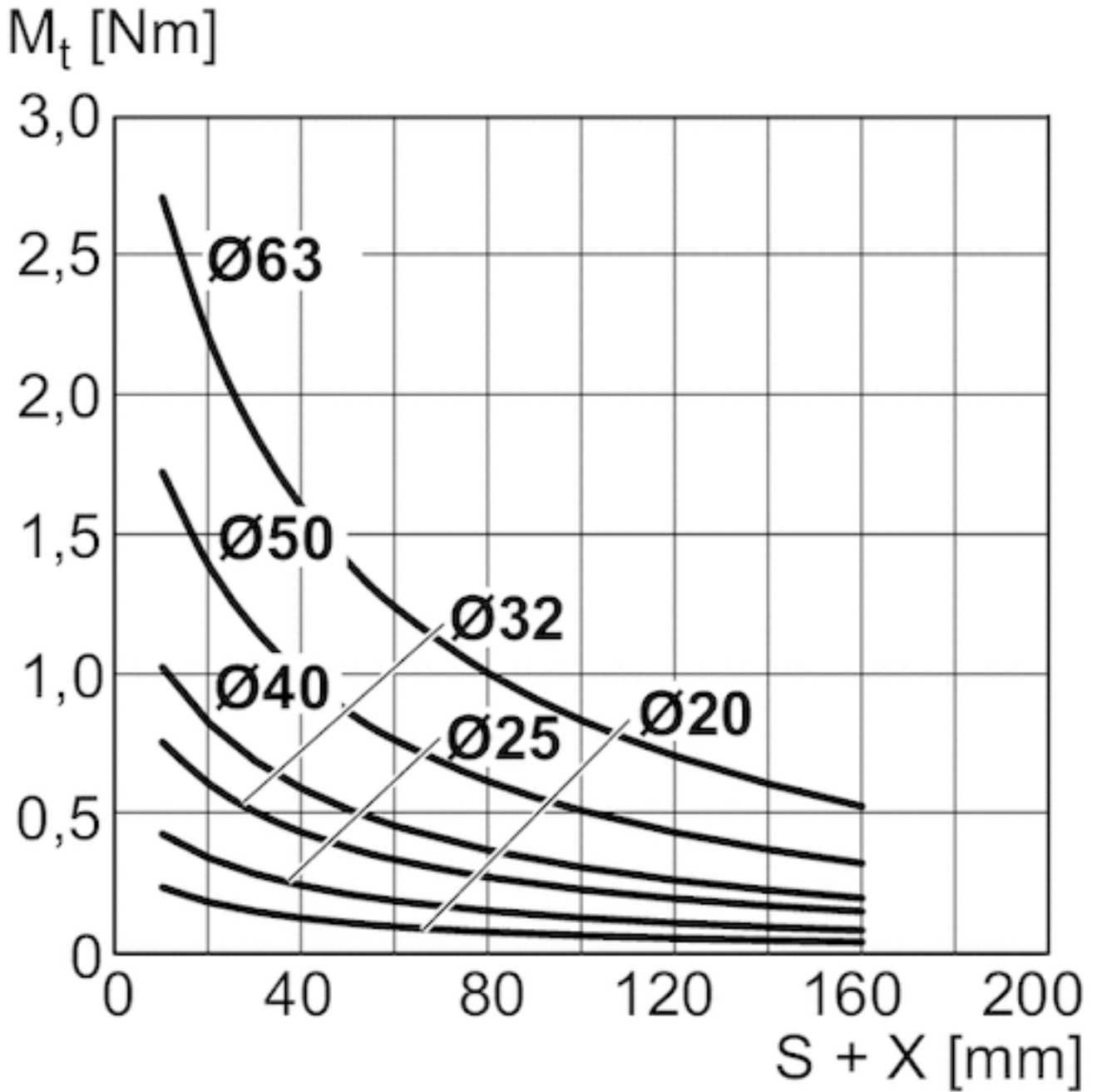
X = distance between force application point and cylinder cover
 FS = lateral force
 S = stroke

Max. permissible torque, Dynamic



X = distance between force application point and cylinder cover
 M = max. permissible torque
 S = stroke

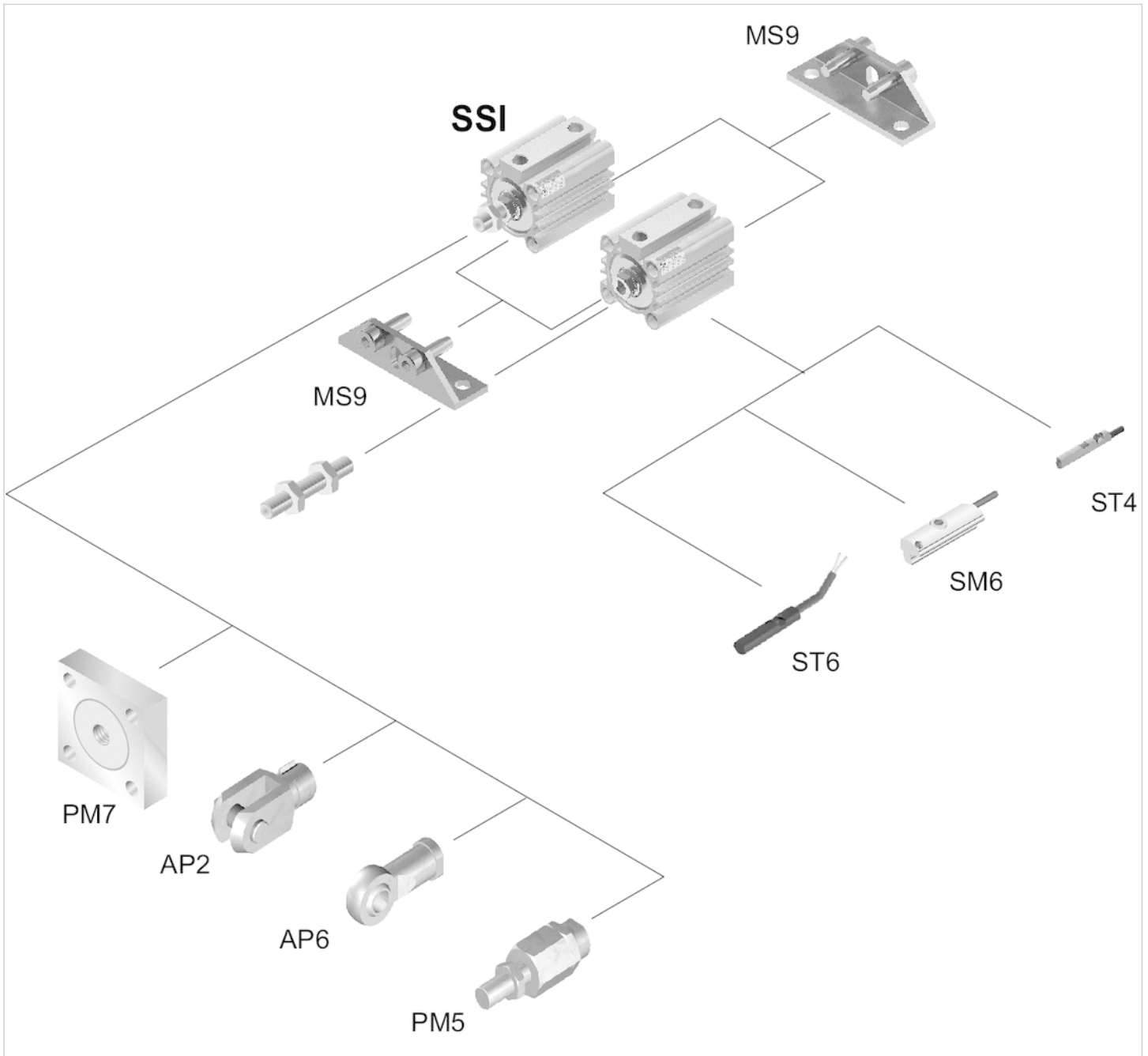
Max. permissible torque, Dynamic



X = distance between force application point and cylinder cover
 M = max. permissible torque
 S = stroke

Accessories overview

Overview drawing



Use our Internet configurator to order variants with an external thread.

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.

Efficient pneumatic solutions, our program: cylinders and drives, valves and valve systems, air supply management



Visit us: [Emerson.com/Aventics](https://www.emerson.com/Aventics)

Your local contact: [Emerson.com/contactus](https://www.emerson.com/contactus)



Emerson.com



[Facebook.com/EmersonAutomationSolutions](https://www.facebook.com/EmersonAutomationSolutions)



[LinkedIn.com/company/Emerson-Automation-Solutions](https://www.linkedin.com/company/Emerson-Automation-Solutions)



[Twitter.com/EMR_Automation](https://twitter.com/EMR_Automation)

An example configuration is depicted on the title page. The delivered product may thus vary from that in the illustration. Subject to change. This Document, as well as the data, specifications and other information set forth in it, are the exclusive property of AVENTICS GmbH. It may not be reproduced or given to third parties without its consent. Only use the AVENTICS products shown in industrial applications. Read the product documentation completely and carefully before using the product. Observe the applicable regulations and laws of the respective country. When integrating the product into applications, note the system manufacturer's specifications for safe use of the product. The data specified only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgement and verification. It must be remembered that the products are subject to a natural process of wear and aging.

The Emerson logo is a trademark and service mark of Emerson Electric Co. Brand logotype are registered trademarks of one of the Emerson family of companies. All other marks are the property of their respective owners. © 2020 Emerson Electric Co. All rights reserved.
2020-12



CONSIDER IT SOLVED™