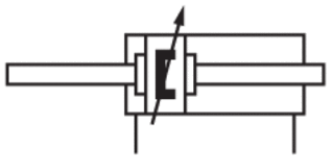
Tie rod cylinder ISO 15552, Series TRB - inch

- Ø 32-125 mm
- Ports 1/8 NPT 1/4 NPT 3/8 NPT 1/2 NPT
- double-acting
- with magnetic piston
- Cushioning pneumatically
- Piston rod External thread
- ATEX optional



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/m³
Pressure for determining piston forces	6.3 bar

Technical data

Piston Ø Piston rod thread Ports Piston rod Ø	32 mm 7/16-20 UNF 1/8 NPT 12 mm	40 mm 1/2-20 UNF 1/4 NPT 16 mm	50 mm 3/4-16 UNF 1/4 NPT 20 mm	63 mm 3/4-16 UNF 3/8 NPT 20 mm	80 mm 3/4-16 UNF 3/8 NPT 25 mm	100 mm 3/4-16 UNF 1/2 NPT 25 mm
Stroke 25.4	R480176773	R480176861	R480176949	R480177037	R480177118	R480177210
50.8	R480176779	R480176863	R480176951	R480177044	R480177133	R480177214
76.2	R480176785	R480176872	R480176961	R480177052	R480177135	R480177222
101.6	R480176792	R480176878	R480176967	R480177058	R480177149	R480177233
127	R480176804	R480176893	R480176976	R480177063	R480177157	R480177241
152.4	R480176809	R480176896	R480176988	R480177071	R480177160	R480177246
177.8	R480176814	R480176903	R480176996	R480177084	R480177167	R480177259
203.2	R480176827	R480176916	R480177001	R480177088	R480177180	R480177268
228.6	R480176837	R480176921	R480177012	R480177095	R480177187	R480177276
254	R480176839	R480176931	R480177014	R480177108	R480177190	R480177284
304.8	R480176851	R480176939	R480177028	R480177111	R480177204	R480177293

Piston Ø Piston rod thread Ports Piston rod Ø	125 mm 1-14 UNF 1/2 NPT 32 mm
Stroke 25.4	R480177297
50.8	R480177304
76.2	R480177311
101.6	R480177321
127	R480177332
152.4	R480177337
177.8	R480177348
203.2	R480177356
228.6	R480177364
254	R480177366
304.8	R480177381

Technical data

Piston Ø	32 mm	40 mm	50 mm
Retracting piston force	435 N	660 N	1035 N
Extracting piston force	435 N	660 N	1035 N
Cushioning length	16,5 mm	15 mm	17 mm
Cushioning energy	4,8 J	9 J	15 J
Weight 0 mm stroke	0,52 kg	0,82 kg	1,42 kg
Weight +10 mm stroke	0,033 kg	0,046 kg	0,061 kg
Working pressure min./max.	2 ... 10 bar	2 ... 10 bar	2 ... 10 bar
Tie-rods	Stainless steel	Stainless steel	Steel galvanized
Stroke max.	1600 mm	1900 mm	2100 mm

Piston Ø	63 mm	80 mm	100 mm
Retracting piston force	1765 N	2855 N	4635 N
Extracting piston force	1765 N	2855 N	4635 N
Cushioning length	16,5 mm	19,5 mm	19,5 mm
Cushioning energy	27 J	54 J	88 J
Weight 0 mm stroke	1,7 kg	2,67 kg	3,7 kg
Weight +10 mm stroke	0,077 kg	0,099 kg	0,104 kg
Working pressure min./max.	2 ... 10 bar	2 ... 10 bar	2 ... 10 bar
Tie-rods	Steel galvanized	Steel galvanized	Steel galvanized
Stroke max.	2500 mm	2800 mm	2800 mm

Piston Ø	125 mm
Retracting piston force	7220 N
Extracting piston force	7220 N
Cushioning length	22 mm
Cushioning energy	140 J
Weight 0 mm stroke	9 kg
Weight +10 mm stroke	0,26 kg
Working pressure min./max.	2 ... 10 bar
Tie-rods	Steel galvanized

Piston Ø	125 mm
Stroke max.	2750 mm

Technical information

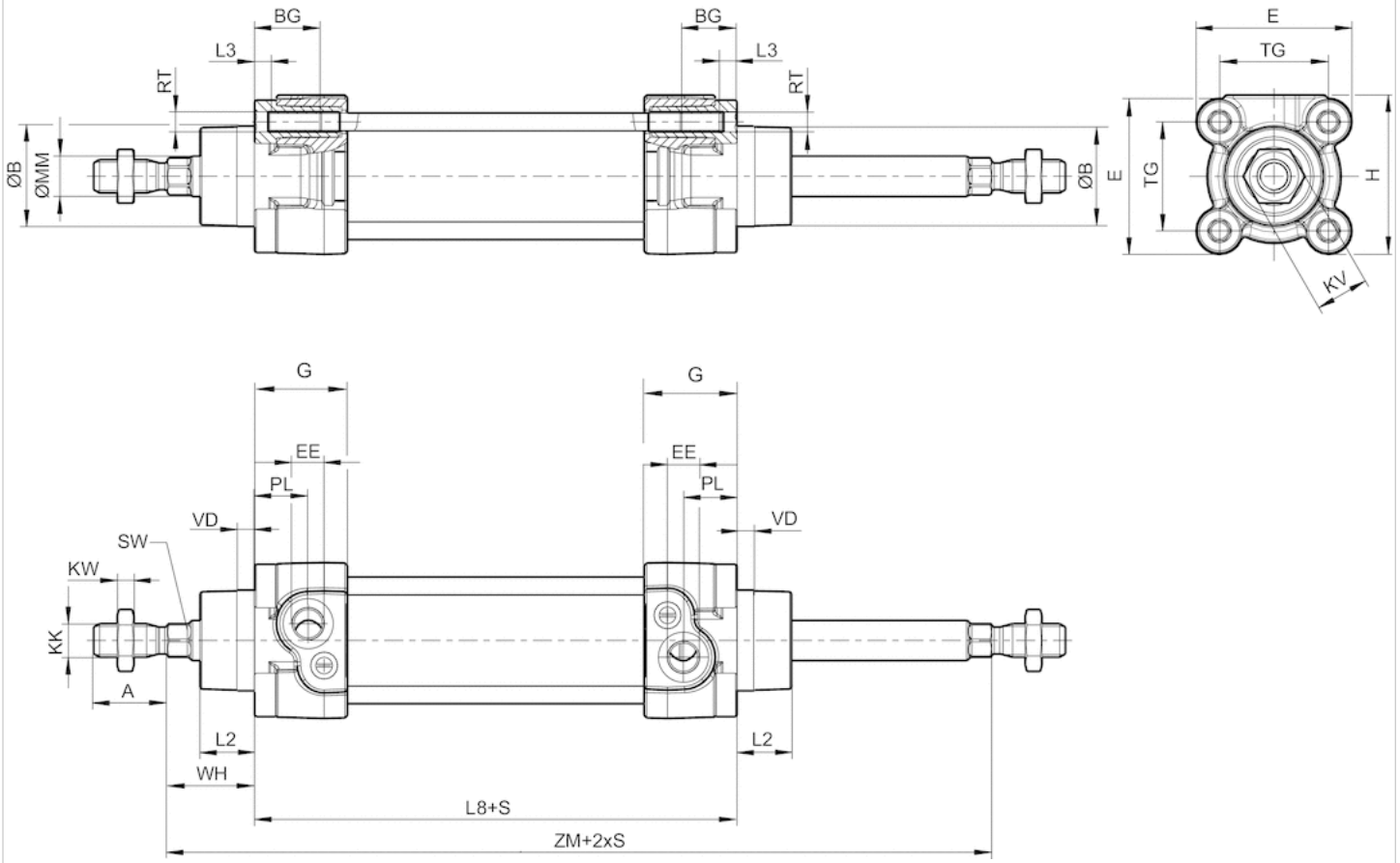
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Die-cast aluminum
End cover	Die-cast aluminum
Seal	Polyurethane
Nut for piston rod	Steel, galvanized
Scraper	Polyurethane
Tie-rods	Stainless steel Steel, galvanized
	See table for additional data on materials.

Dimensions

Dimensions



S = stroke

Dimensions in inches

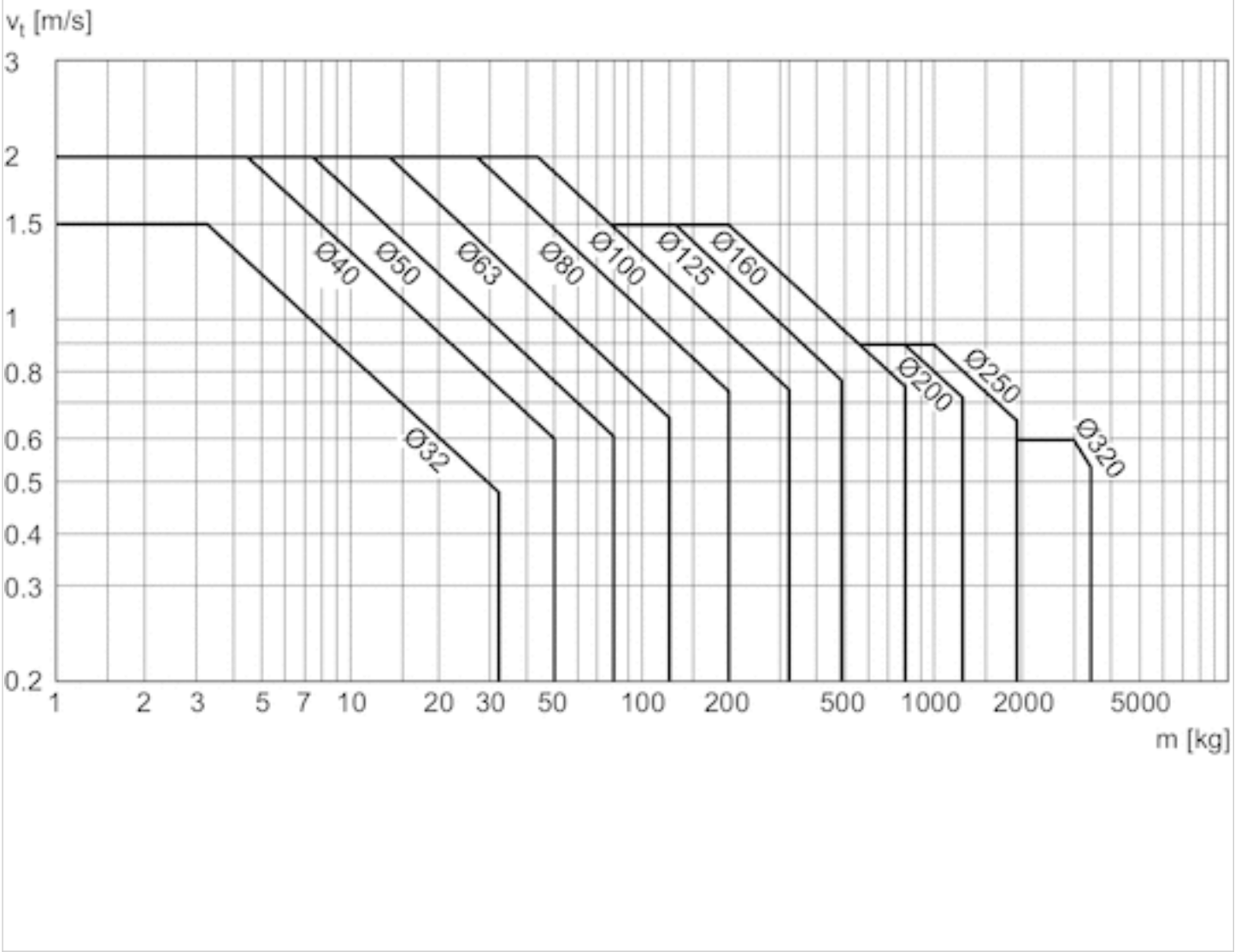
Ø [mm]	Ø [inch]	A -0,08	ØB d11	BG min.	E	EE	KK	G	H	KV	KW
32	1 1/4	0.87	1.18	0.63	1.83	1/8 NPT	7/16 - 20 UNF	1.09	1.87	0.63	0.2
40	1 1/2	0.94	1.38	0.63	2.09	1/4 NPT	1/2 - 20 UNF	1.31	2.09	0.71	0.24
50	2	1.26	1.57	0.63	2.56	1/4 NPT	3/4 - 16 UNF	1.22	2.56	0.94	0.31
63	2 1/2	1.26	1.77	0.63	2.95	3/8 NPT	3/4 - 16 UNF	1.22	2.95	0.94	0.31
80	3	1.57	1.77	0.67	3.74	3/8 NPT	3/4 - 16 UNF	1.51	3.74	1.18	0.39
100	4	1.57	2.17	0.67	4.53	1/2 NPT	3/4 - 16 UNF	1.51	4.53	1.18	0.39

Ø [mm]	Ø [inch]	A -0,08	ØB d11	BG min.	E	EE	KK	G	H	KV	KW
125	5	2.13	2.36	0.79	5.51	1/2 NPT	1 - 14 UNF	1.66	5.51	1.61	0.53

ØMM f8	PL	L2	L3 ±0,02	L8	RT	SW	TG	VD	WH	ZM
0.47	0.63	0.64	0.18	3.7±0.02	M6	0.39	1.28±0.02	0.2	26±1.4	5.75+0.12/0.06
0.63	0.79	0.72	0.18	4.13±0.03	M6	0.51	1.5±0.02	0.2	30±1.4	6.5+0.12/0.06
0.79	0.75	0.98	0.18	4.17±0.03	M8	0.67	1.83±0.02	0.2	37±1.4	7.09+0.12/0.06
0.79	0.94	0.98	0.18	4.76±0.03	M8	0.67	2.22±0.03	0.2	37±1.8	7.68+0.12/0.06
0.98	0.93	1.3	0	5.04±0.03	M10	0.87	2.83±0.03	0.2	46±1.8	8.66+0.12/0.06
0.98	0.98	1.42	0	5.43±0.04	M10	0.87	3.5±0.03	0.2	51±1.8	9.45+0.08/0.08
1.26	1.3	1.77	0	6.3±0.04	M12	1.06	4.33±0.04	0.28	65±2.2	11.42+0.08/0.08

Diagrams

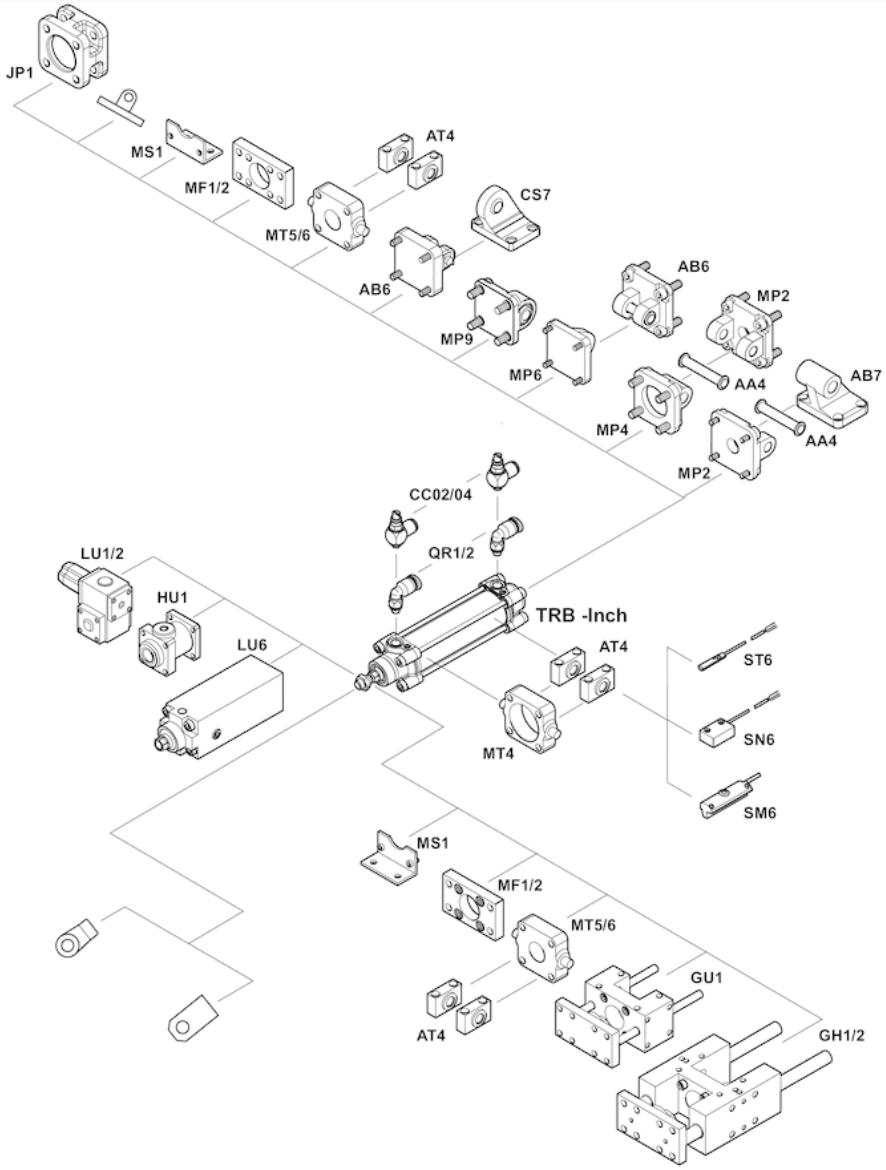
Cushioning diagram



v = Piston velocity [m/s]
m = Cushionable mass [kg]

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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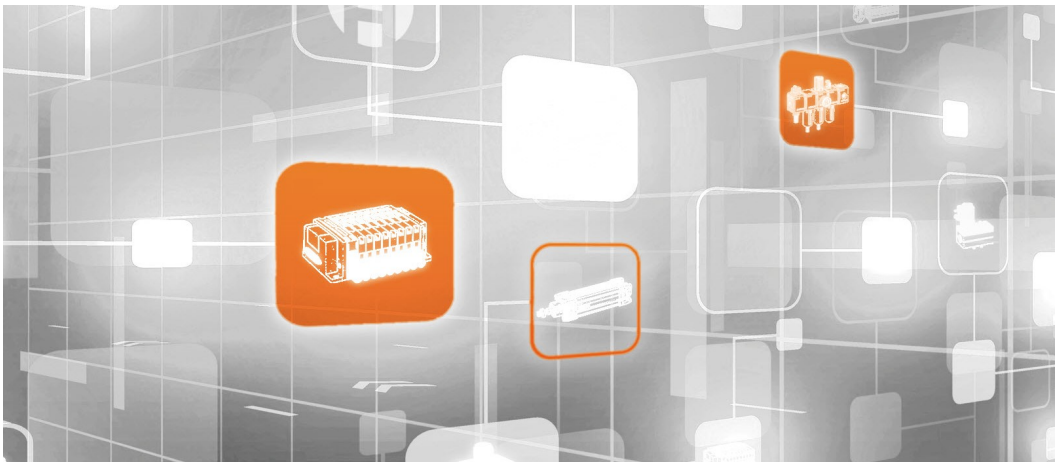

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