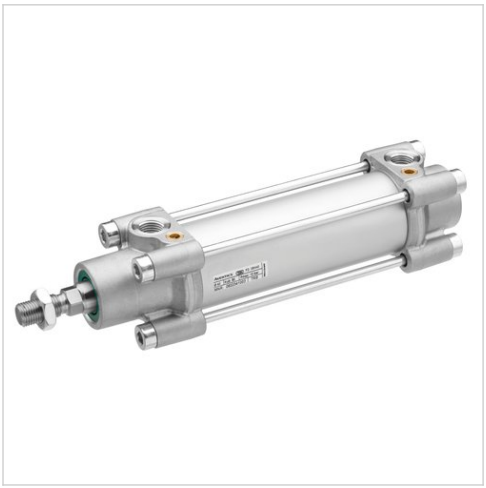
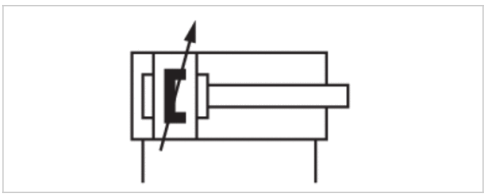
Tie rod cylinder ISO 15552, Series TRB - inch

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





Compressed air connection	Internal thread
Working pressure min./max.	2 ... 10 bar
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	R480176766	R480176858	R480176946	R480177032	R480177121	R480177211
50.8	R480176776	R480176865	R480176953	R480177040	R480177128	R480177219
76.2	R480176789	R480176875	R480176960	R480177047	R480177139	R480177225
101.6	R480176795	R480176882	R480176969	R480177054	R480177143	R480177237
127	R480176802	R480176891	R480176979	R480177067	R480177155	R480177238
152.4	R480176813	R480176900	R480176982	R480177077	R480177164	R480177247
177.8	R480176817	R480176907	R480176997	R480177078	R480177166	R480177258
203.2	R480176823	R480176913	R480176998	R480177090	R480177176	R480177266
228.6	R480176834	R480176923	R480177007	R480177099	R480177182	R480177272
254	R480176844	R480176932	R480177017	R480177102	R480177195	R480177278
304.8	R480176852	R480176941	R480177023	R480177114	R480177205	R480177290

Piston Ø Piston rod thread Ports Piston rod Ø	125 mm 1-14 UNF 1/2 NPT 32 mm
Stroke 25.4	R480177299
50.8	R480177307
76.2	R480177316
101.6	R480177323
127	R480177328
152.4	R480177334
177.8	R480177346
203.2	R480177357
228.6	R480177360
254	R480177367
304.8	R480177377

Technical data

Piston Ø	32 mm	40 mm	50 mm	63 mm
Retracting piston force	435 N	660 N	1035 N	1765 N
Extracting piston force	505 N	790 N	1235 N	1960 N
Cushioning length	16,5 mm	19 mm	17 mm	16,5 mm
Cushioning energy	4,8 J	9 J	15 J	27 J
Weight 0 mm stroke	0,46 kg	0,67 kg	1,14 kg	1,4 kg
Weight +10 mm stroke	0,024 kg	0,03 kg	0,036 kg	0,052 kg
Tie-rods	Stainless steel	Stainless steel	Steel galvanized	Steel galvanized
Stroke max.	1600 mm	1900 mm	2100 mm	2500 mm

Piston Ø	80 mm	100 mm	125 mm
Retracting piston force	2855 N	4635 N	7220 N
Extracting piston force	3165 N	4945 N	7725 N
Cushioning length	19,5 mm	19,5 mm	22 mm
Cushioning energy	54 J	88 J	140 J
Weight 0 mm stroke	2,12 kg	3,16 kg	6,92 kg
Weight +10 mm stroke	0,06 kg	0,065 kg	0,21 kg
Tie-rods	Steel galvanized	Steel galvanized	Steel galvanized
Stroke max.	2800 mm	2800 mm	2750 mm

Technical information

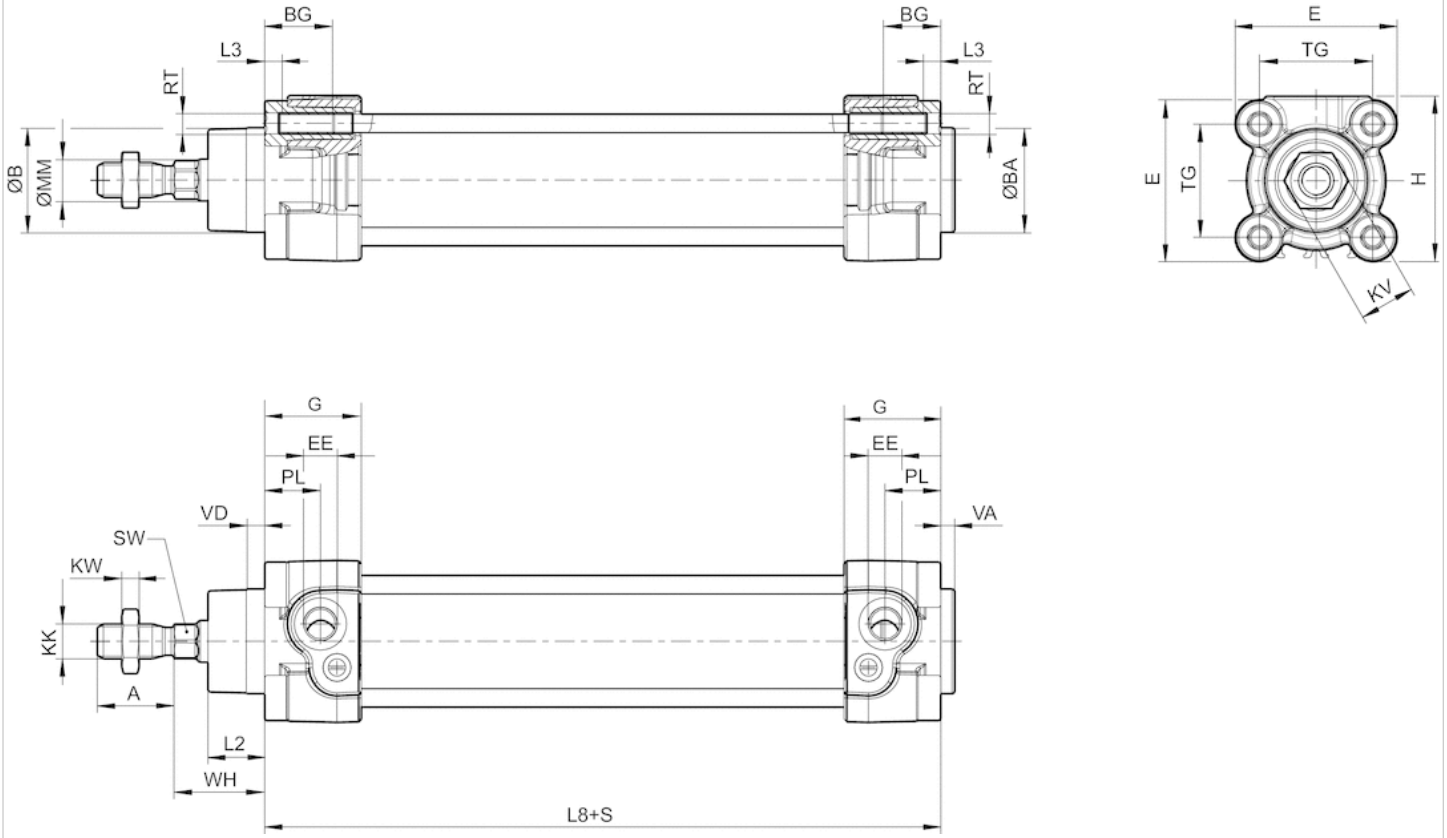
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document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



S = stroke

Dimensions in inches

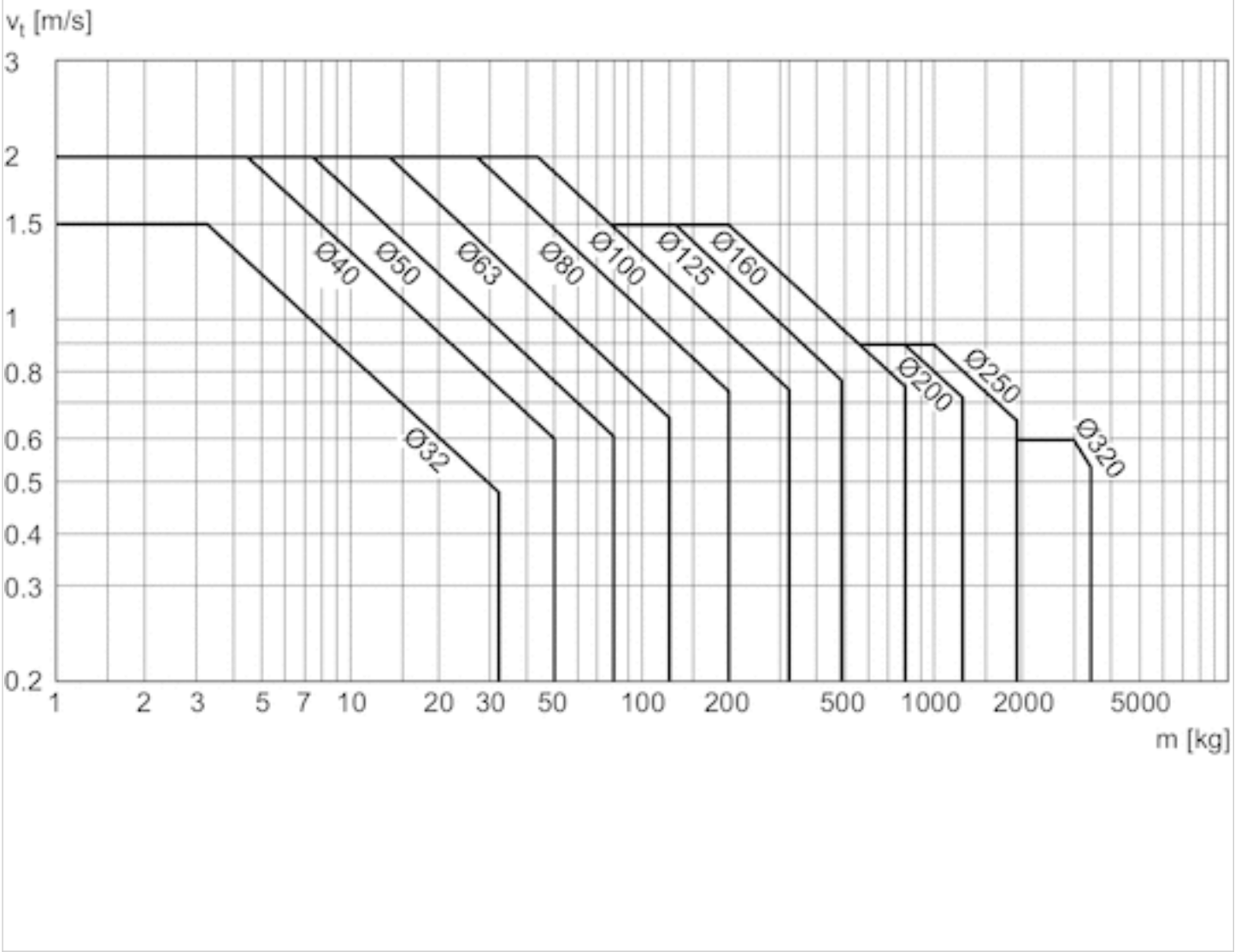
Ø [mm]	Ø [inch]	A -0,08	ØB d11	ØBA d11	BG min.	E	EE	KK	G	H
32	1 1/4	0.87	1.18	1.18	0.63	1.83	1/8 NPT	7/16 - 20 UNF	1.09	1.87
40	1 1/2	0.94	1.38	1.38	0.63	2.09	1/4 NPT	1/2 - 20 UNF	1.31	2.09
50	2	1.26	1.57	1.57	0.63	2.56	1/4 NPT	3/4 - 16 UNF	1.22	2.56
63	2 1/2	1.26	1.77	1.77	0.63	2.95	3/8 NPT	3/4 - 16 UNF	1.51	2.95
80	3	1.57	1.77	1.77	0.67	3.74	3/8 NPT	3/4 - 16 UNF	1.51	3.74
100	4	1.57	2.17	2.17	0.67	4.53	1/2 NPT	3/4 - 16 UNF	1.66	4.53

Ø [mm]	Ø [inch]	A -0,08	ØB d11	ØBA d11	BG min.	E	EE	KK	G	H
125	5	2.13	2.36	2.36	0.79	5.51	1/2 NPT	1 - 14 UNF	2.12	5.51

KV	KW	ØMM f8	PL	L2	L3 ±0,02	L8	RT	SW	TG	VA -0,04	VD	WH
0.63	0.2	0.47	0.63	0.64	0.18	3.7±0.02	M6	0.39	1.28±0.02	0.16	0.2	1.02±0.06
0.71	0.24	0.63	0.79	0.72	0.18	4.13±0.03	M6	0.51	1.5±0.02	0.16	0.2	1.18±0.06
0.94	0.31	0.79	0.75	0.98	0.18	4.17±0.03	M8	0.67	1.83±0.02	0.16	0.2	1.46±0.06
0.94	0.31	0.79	0.94	0.98	0.18	4.76±0.03	M8	0.67	2.22±0.03	0.16	0.2	1.46±0.07
1.18	0.39	0.98	0.93	1.3	0	5.04±0.03	M10	0.87	2.83±0.03	0.16	0.2	1.81±0.07
1.18	0.39	0.98	0.98	1.42	0	5.43±0.04	M10	0.87	3.5±0.03	0.16	0.2	2.01±0.07
1.61	0.53	1.26	1.3	1.77	0	6.3±0.04	M12	1.06	4.33±0.04	0.24	0.28	2.56±0.09

Diagrams

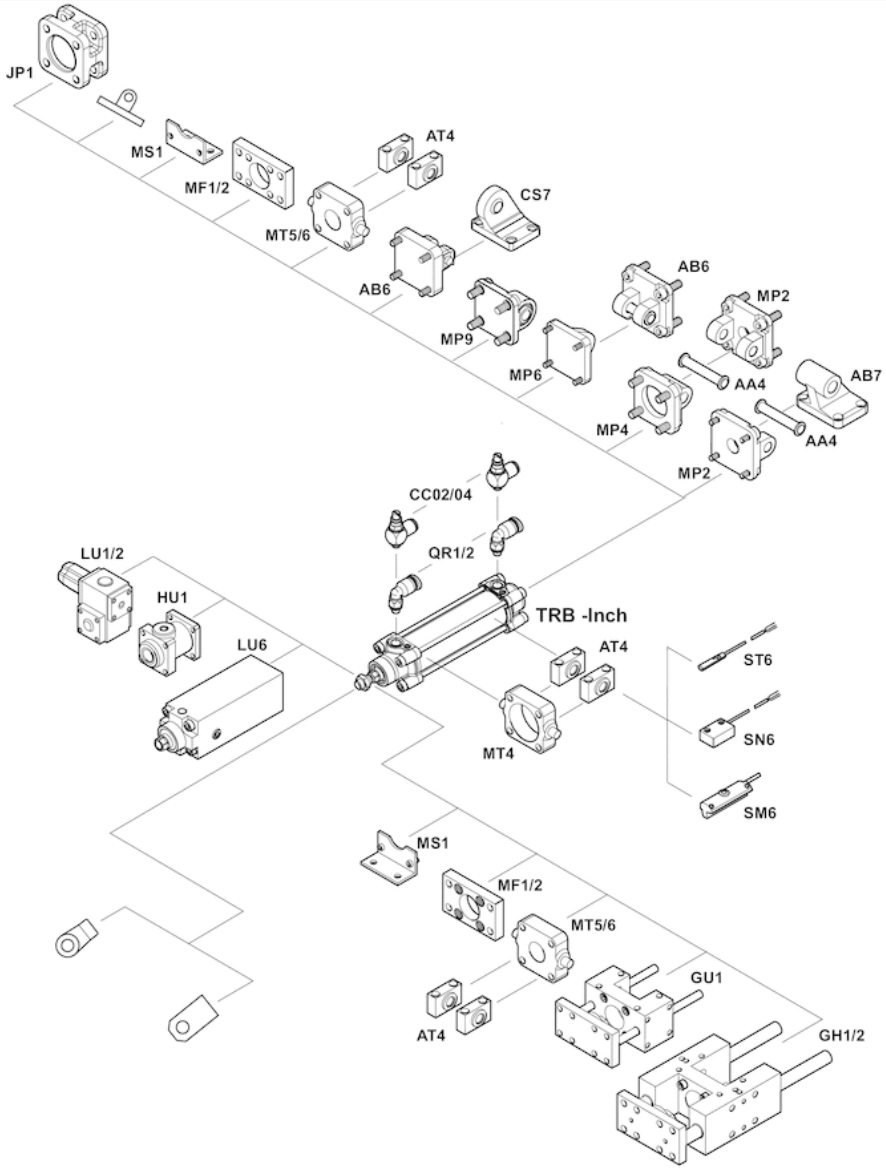
Cushioning diagram



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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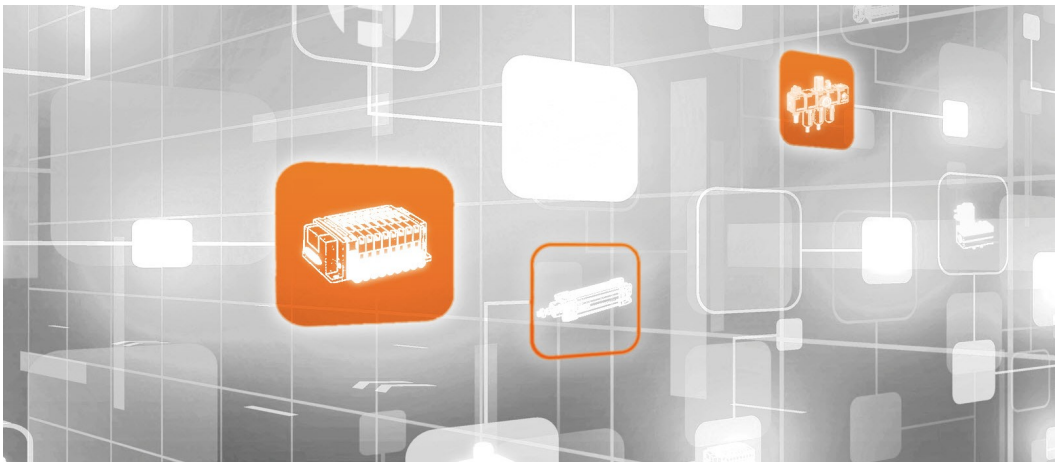

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