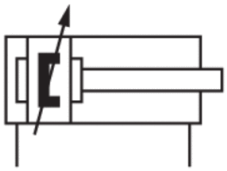
Profile cylinder ISO 15552, Series PRA - inch

- 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
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	R480176154	R480176238	R480176328	R480176417	R480176506	R480176593
50.8	R480176162	R480176251	R480176334	R480176427	R480176510	R480176601
76.2	R480176169	R480176257	R480176345	R480176437	R480176523	R480176609
101.6	R480176174	R480176263	R480176354	R480176441	R480176526	R480176614
127	R480176187	R480176275	R480176363	R480176452	R480176534	R480176626
152.4	R480176190	R480176280	R480176370	R480176459	R480176546	R480176633
177.8	R480176201	R480176293	R480176377	R480176464	R480176554	R480176641
203.2	R480176209	R480176298	R480176383	R480176472	R480176561	R480176646
228.6	R480176218	R480176304	R480176395	R480176480	R480176567	R480176660
254	R480176228	R480176316	R480176400	R480176490	R480176581	R480176665
304.8	R480176232	R480176321	R480176412	R480176500	R480176585	R480176676

Piston Ø Piston rod thread Ports Piston rod Ø	125 mm 1-14 UNF 1/2 NPT 32 mm
Stroke 25.4	R480176685
50.8	R480176689
76.2	R480176694
101.6	R480176707
127	R480176712
152.4	R480176721
177.8	R480176729
203.2	R480176736
228.6	R480176746
254	R480176754
304.8	R480176761

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	0,5 kg	0,65 kg	1,06 kg	1,42 kg
Weight +10 mm stroke	0,022 kg	0,032 kg	0,047 kg	0,054 kg
Working pressure min./max.	2 ... 10 bar	2 ... 10 bar	2 ... 10 bar	2 ... 10 bar
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	2,37 kg	3,51 kg	6,72 kg
Weight +10 mm stroke	0,085 kg	0,1 kg	0,15 kg
Working pressure min./max.	2 ... 10 bar	2 ... 10 bar	2 ... 10 bar
Stroke max.	2800 mm	2800 mm	2750 mm

Technical information

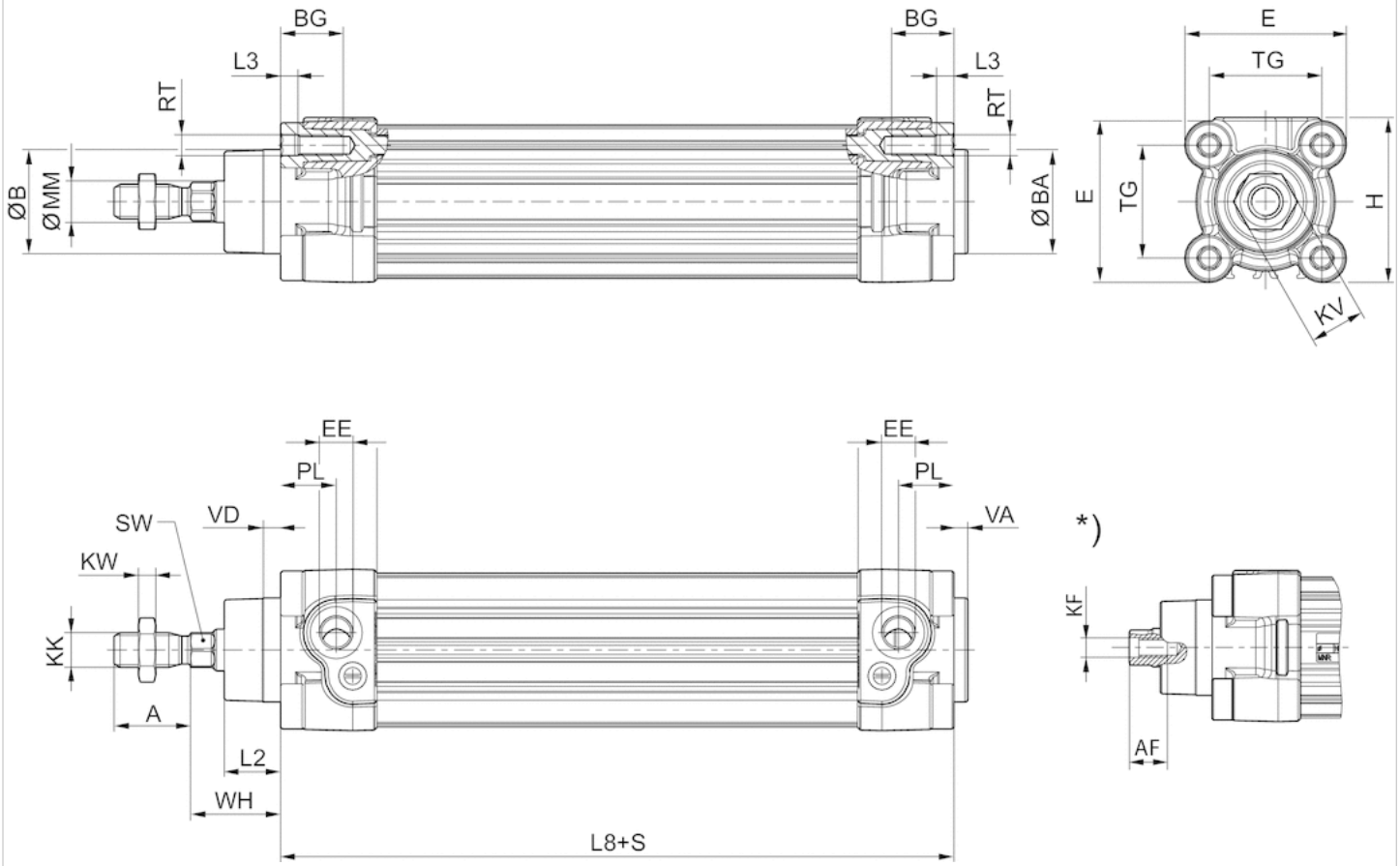
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document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

Dimensions

Dimensions



S = stroke
*) For cylinders with optional piston road with internal thread

Dimensions

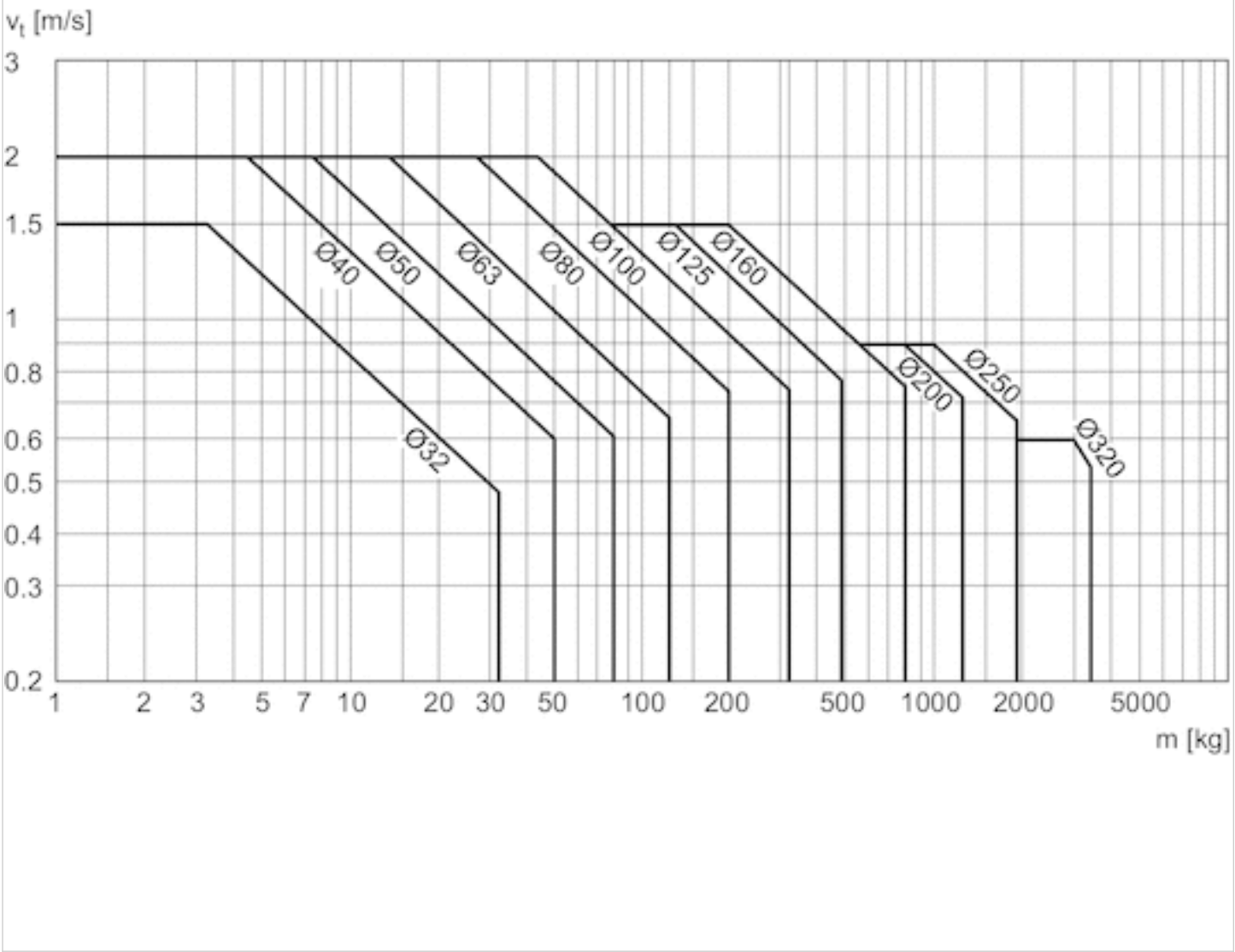
Piston Ø	A -2	ØB d11	ØBA d11	BG min.	E	EE inch	EE	H	KK inch	KK
32 mm	22	30	30	16	46.5	1/8 NPT	G 1/8	47.5	7/16 - 20 UNF	M10x1,25
40 mm	24	35	35	16	53	1/4 NPT	G 1/4	53	1/2 - 20 UNF	M12x1,25
50 mm	32	40	40	16	65	1/4 NPT	G 1/4	65	3/4 - 16 UNF	M16x1,5
63 mm	32	45	45	16	75	3/8 NPT	G 3/8	75	3/4 - 16 UNF	M16x1,5
80 mm	40	45	45	17	95	3/8 NPT	G 3/8	95	3/4 - 16 UNF	M20x1,5

Piston Ø	A -2	ØB d11	ØBA d11	BG min.	E	EE inch	EE	H	KK inch	KK
100 mm	40	55	55	17	115	1/2 NPT	G 1/2	115	3/4 - 16 UNF	M20x1,5
125 mm	54	60	60	20	140	1/2 NPT	G 1/2	140	1 - 14 UNF	M27x2

Piston Ø	KV	KW	ØMM f8	PL	L2	L3 ±0,5	L8	RT	SW	TG	VA -1	VD	WH
32 mm	16	5	12	16	16.25	4.5	94±0,4	M6	10	32,5±0,5	4	5	26±1,4
40 mm	18	6	16	20	18.25	4.5	105±0,7	M6	13	38±0,5	4	5	30±1,4
50 mm	24	8	20	19	25	4.5	106±0,7	M8	17	46,5±0,6	4	5	37±1,4
63 mm	24	8	20	24	25	4.5	121±0,8	M8	17	56,5±0,7	4	5	37±1,8
80 mm	30	10	25	23.5	33	0	128±0,8	M10	22	72±0,7	4	5	46±1,8
100 mm	30	10	25	25	36	0	138±1	M10	22	89±0,7	4	5	51±1,8
125 mm	41	13.5	32	33	45	0	160±1	M12	27	110±1,1	6	7	65±2,2

Diagrams

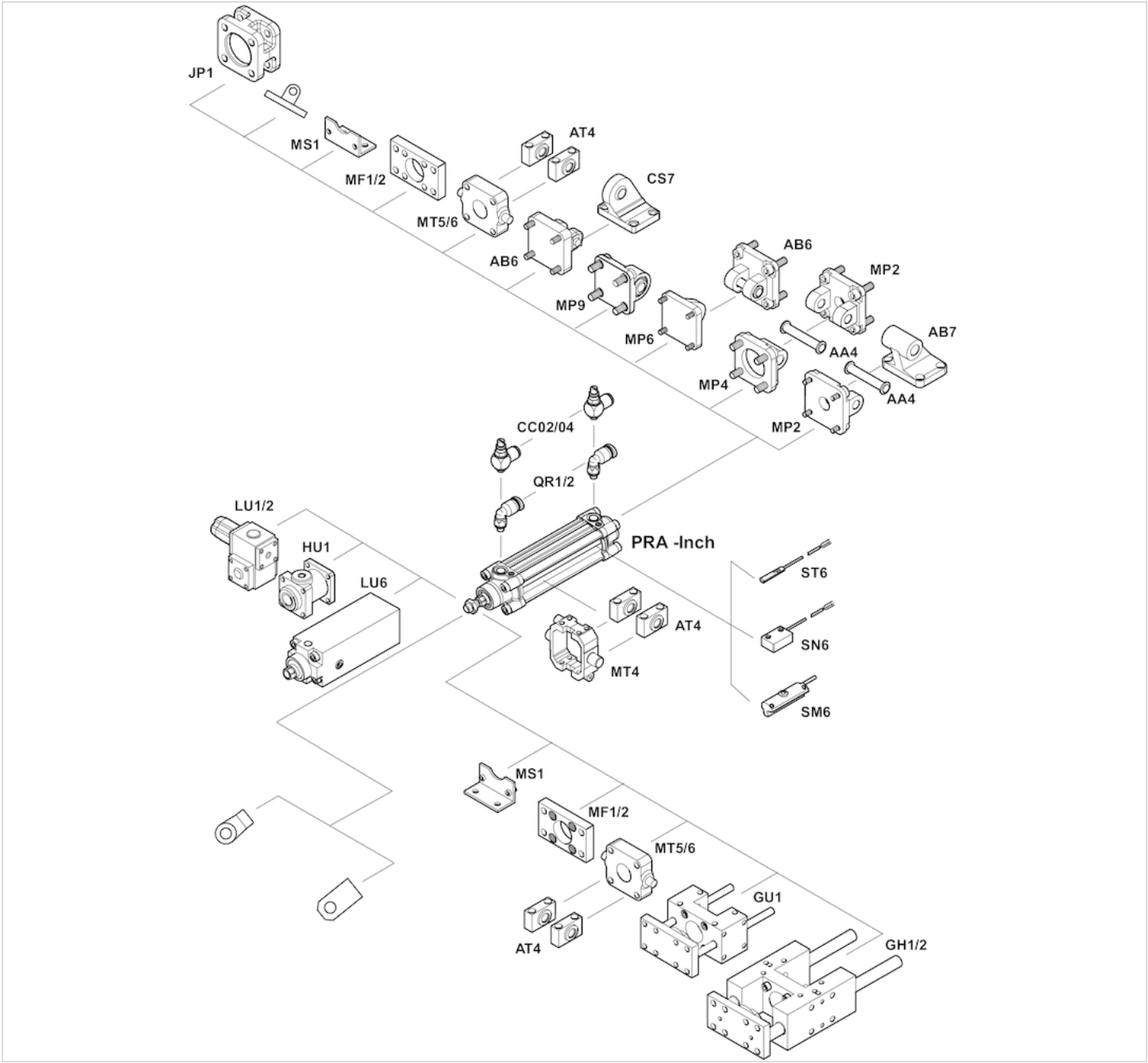
Cushioning diagram



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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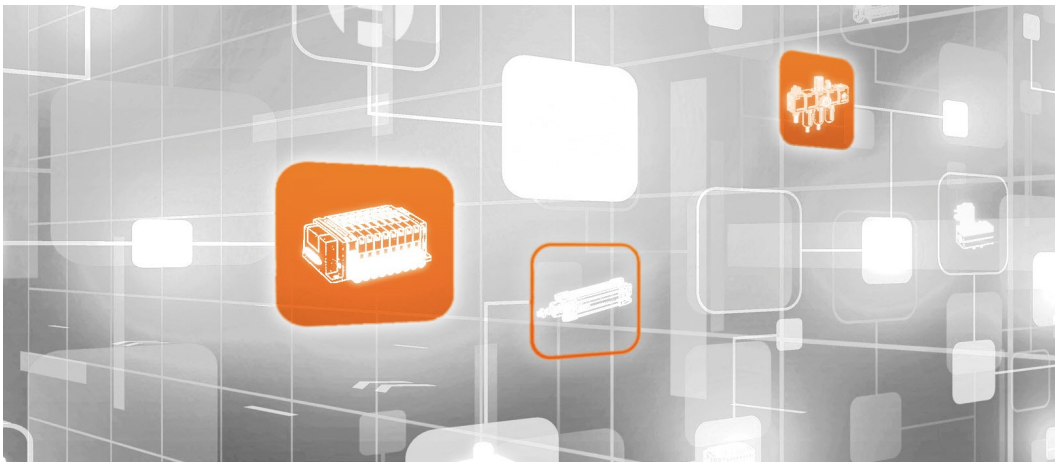

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