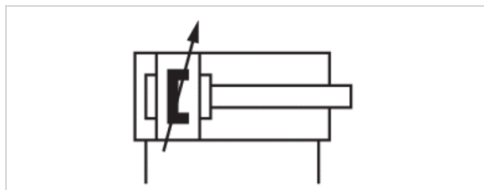


Tie rod cylinder ISO 6431, Series 167

- ISO 6431
- Ø 25-100 mm
- Ports G 1/8 G 1/4 G 3/8 G 1/2
- double-acting
- with magnetic piston
- Cushioning pneumatically adjustable
- Piston rod External thread



Standards	ISO 6431
Compressed air connection	Internal thread
Working pressure min./max.	2 ... 10 bar
Ambient temperature min./max.	-20 ... 75 °C
Medium temperature min./max.	-20 ... 75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Pressure for determining piston forces	6 bar



Technical data

Piston Ø Piston rod thread Ports	25 mm M10x1,25 G 1/8	32 mm M10x1,25 G 1/8	40 mm M12x1,25 G 1/4	50 mm M16x1,5 G 1/4	63 mm M16x1,5 G 3/8	80 mm M20x1,5 G 3/8
Stroke 25	1670202000	1670302000	1670402000	1670502000	1670602000	1670802000
50	1670205000	1670305000	1670405000	1670505000	1670605000	1670805000
80	1670208000	1670308000	1670408000	1670508000	1670608000	1670808000
100	1670210000	1670310000	1670410000	1670510000	1670610000	1670810000
125	1670212000	1670312000	1670412000	1670512000	1670612000	1670812000
160	1670216000	1670316000	1670416000	1670516000	1670616000	1670816000
200	1670220000	1670320000	1670420000	1670520000	1670620000	1670820000
250	1670225000	1670325000	1670425000	1670525000	1670625000	1670825000
320	-	-	-	1670532000	1670632000	1670832000
400	-	-	-	1670540000	1670640000	1670840000
500	-	-	-	1670550000	1670650000	1670850000

Piston Ø Piston rod thread Ports	100 mm M20x1,5 G 1/2
Stroke 25	1671002000

Piston Ø Piston rod thread Ports	100 mm M20x1,5 G 1/2
50	1671005000
80	1671008000
100	1671010000
125	1671012000
160	1671016000
200	1671020000
250	1671025000
320	1671032000
400	1671040000
500	1671050000

Technical data

Piston Ø	25 mm	32 mm	40 mm	50 mm	63 mm	80 mm	100 mm
Retracting piston force	230 N	420 N	640 N	990 N	1680 N	2720 N	4230 N
Extracting piston force	300 N	480 N	760 N	1180 N	1860 N	3000 N	4680 N
Cushioning length	11 mm	13,5 mm	15 mm	17 mm	16,5 mm	19,5 mm	19,5 mm
Cushioning energy	2,3 J	-	-	-	-	-	-
Weight 0 mm stroke	0,27 kg	0,45 kg	0,76 kg	1,1 kg	1,7 kg	2,5 kg	3,7 kg
Weight +10 mm stroke	0,018 kg	0,021 kg	0,032 kg	0,042 kg	0,054 kg	0,072 kg	0,1 kg
Stroke max.	1500 mm	1500 mm	1600 mm	1600 mm	1600 mm	1700 mm	1700 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).

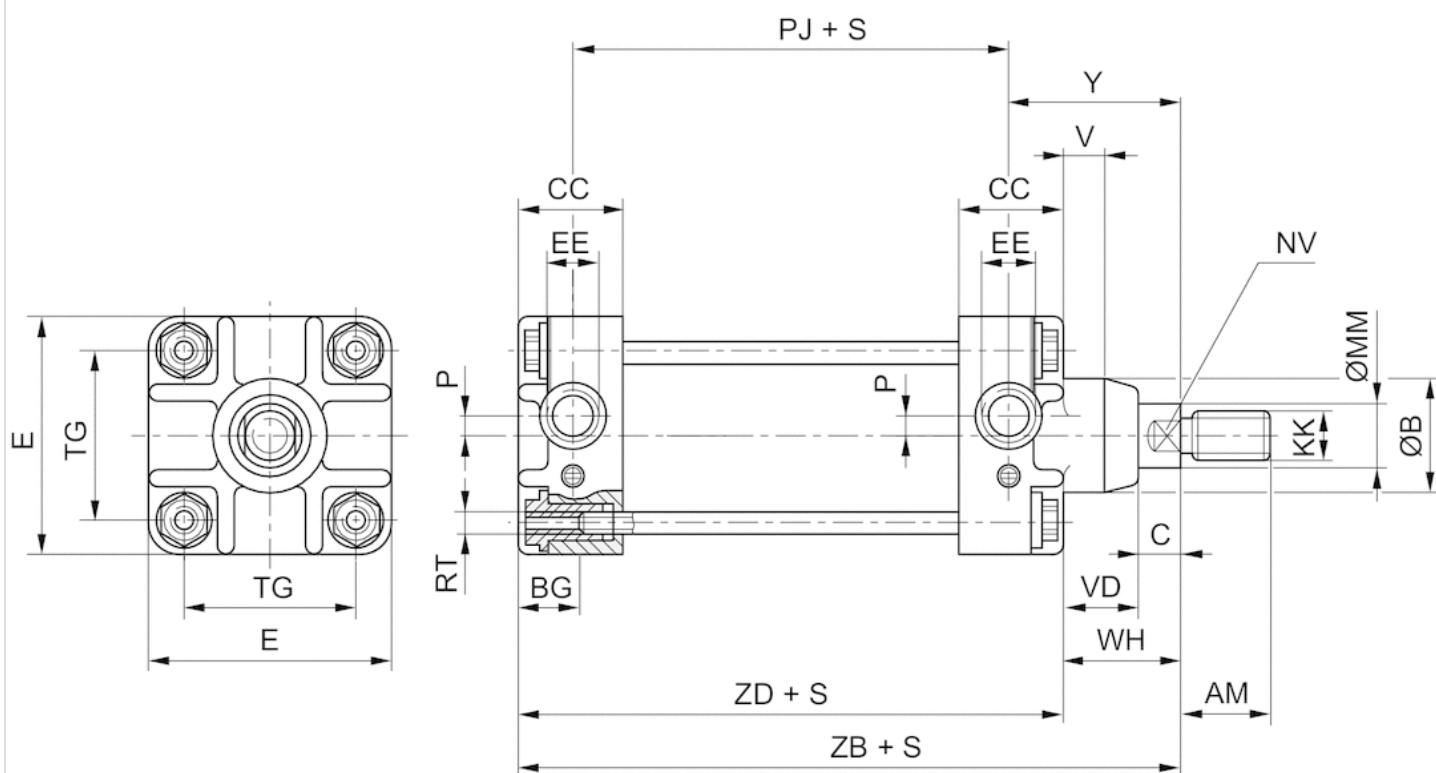
Ø25 mm is not according to ISO 6431

Technical information

Material	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel, chrome-plated
Front cover	Aluminum
End cover	Aluminum
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



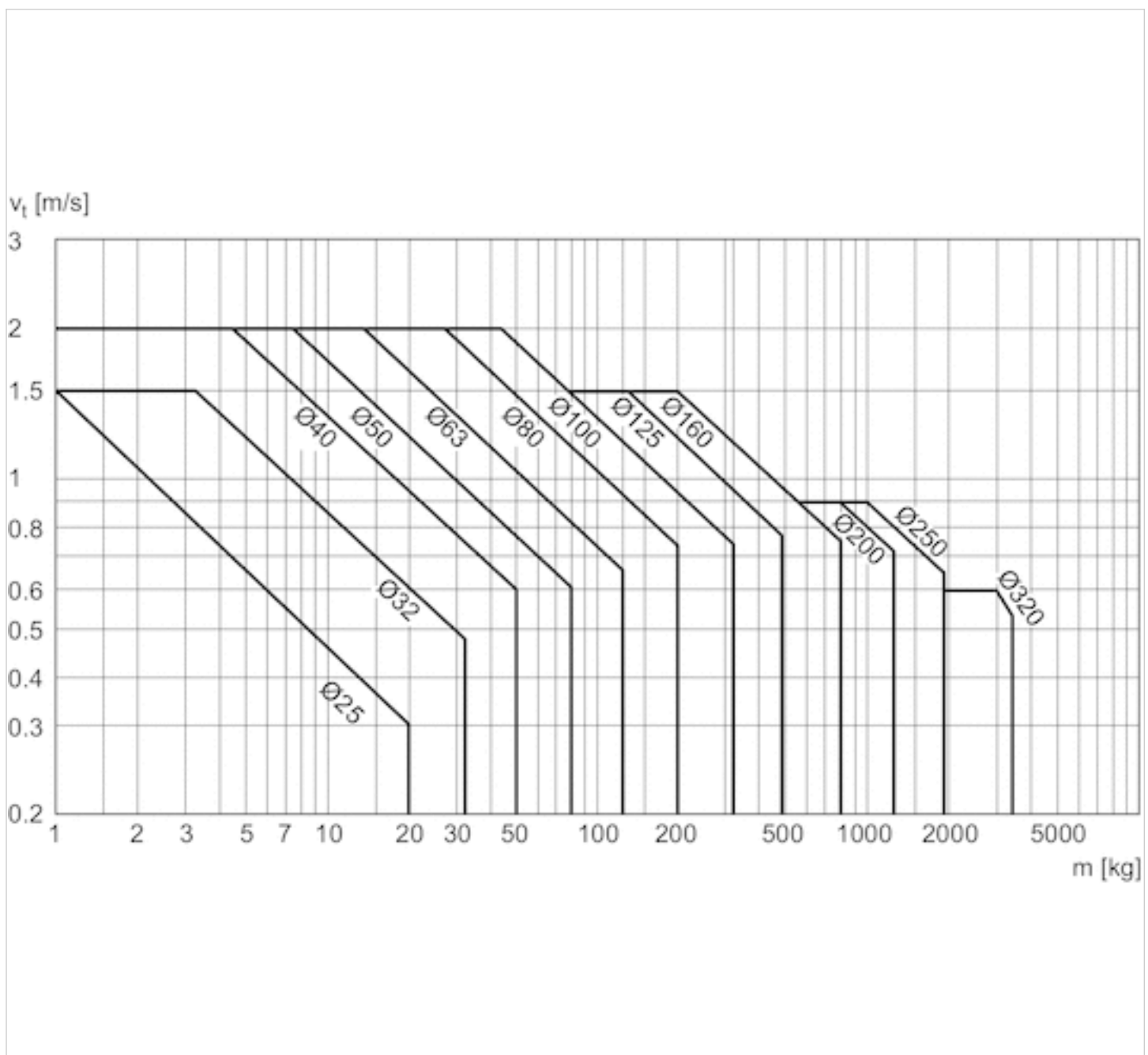
Dimensions

Piston Ø	AM	Ø B h12	BG	C	CC	E	EE	KK	Ø MM	NV	P	PJ	RT	TG	V	VD	WH	Y
25 mm	22	23	12	8	20,0	40	G 1/8	M10x1,25	12	10	–	58	M5	27	–	16	24	31
32 mm	22	25	12	10	27,5	47	G 1/8	M10x1,25	12	10	4	65	M5	32	5	16	26	41
40 mm	24	35	15	13	30,0	56	G 1/4	M12x1,25	16	13	4	69	M6	40	5	20	33	48
50 mm	32	40	15	15	30,0	63	G 1/4	M16x1,5	20	17	4	72	M6	46	6	23	38	54
63 mm	32	40	19	14	34,0	81	G 3/8	M16x1,5	20	17	6	79	M8	59	6	27	41	58
80 mm	40	48	19	16	36,0	95	G 3/8	M20x1,5	25	22	9	86	M8	73	8	32	48	67
100 mm	40	55	23	16	40,0	115	G 1/2	M20x1,5	25	22	12	100	M10	90	8	37	53	70

Piston Ø	ZB	ZD	stroke tolerance
25 mm	98 ±1,2	74	+2/-1
32 mm	120 ±1,2	94	+2/-0
40 mm	132 ±1,2	99	+2/-0
50 mm	142 ±1,2	104	+2/-0
63 mm	154 ±1,4	113	+2,5/-0
80 mm	172 ±1,4	124	+2,5/-0
100 mm	187 ±1,4	134	+2,5/-0

Diagrams

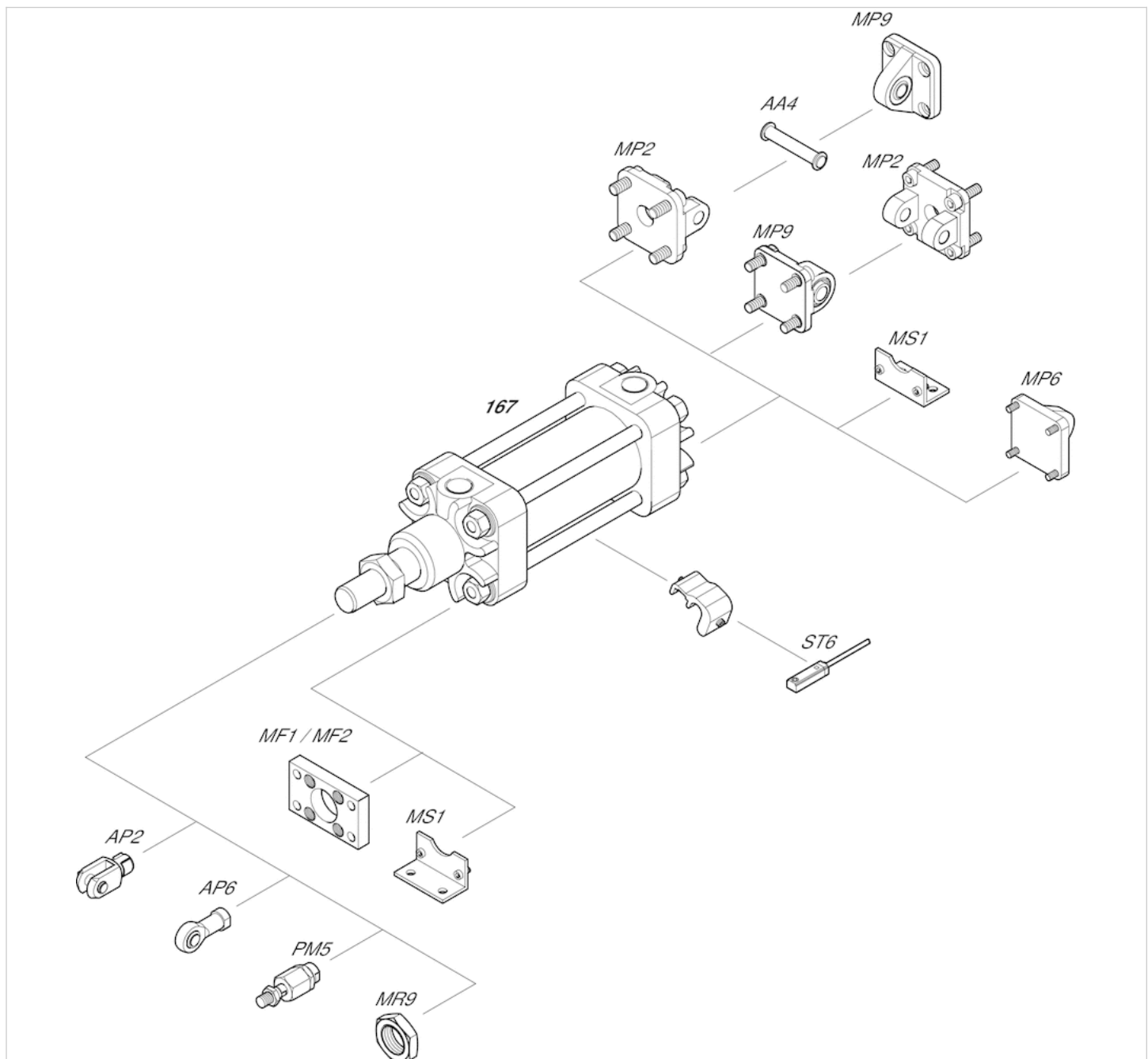
cushioning diagram



V = velocity [m/s]
m = mass

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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