

AVENTICS Series TRB Tie rod cylinders (ISO 15552)

The AVENTICS Series TRB (ISO 15552) cylinders are among the most frequently implemented in industries where heavy duty cylinders are required, such as wood and aluminium, steel and automotive, heavy-duty machinery and mining to name just a few.

- Available in piston diameters from 32 mm to 125 mm
- Advanced pneumatic cushioning
- Additional elastic damping elements
- Wide range of scraper modules available
- With the modular system you can change the scraper on the cylinder at any time and considerably decrease service intervals
- Wide range of variants and accessories available in the configurator



Technical data

Industry	Industrial
Standards	ISO 15552
Piston Ø	50 mm
Stroke	250 mm
Ports	G 1/4
Functional principle	Double-acting
Cushioning	Pneumatic adjustable cushioning
Magnetic piston	With magnet
Environmental requirements	Industry standard
Piston rod thread - type	External thread
Piston rod thread	M16x1,5
Piston rod	non-rotating
Scraper	Standard Industry Scraper
Pressure for determining piston forces	6,3 bar
Retracting piston force	1035 N
Extracting piston force	1235 N
Min. ambient temperature	-20 °C
Max. ambient temperature	80 °C
Min. working pressure	1.5 bar

Max. working pressure	10 bar
Cushioning length	17 mm
Cushioning energy	15 J
Max. torque for torsion protection	2 Nm
Rotation angle tolerance (±)	1.4 °
Weight 0 mm stroke	1.14 kg
Weight +10 mm stroke	0.036 kg
Stroke max.	1500 mm
Medium	Compressed air
Min. medium temperature	-20 °C
Max. medium temperature	80 °C
Max. particle size	50 µm
Min. oil content of compressed air	0 mg/m ³
Max. oil content of compressed air	5 mg/m ³

Material

Piston rod	Stainless Steel
Scraper material	Polyurethane
Material tie-rod	Steel, chrome-plated
Seal material	Polyurethane
Material, front cover	Die-cast aluminum
Cylinder tube	Aluminum
End cover	Die-cast aluminum
Nut for piston rod	Steel, chrome-plated
Part No.	R481602042

Technical information

The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

The oil content of compressed air must remain constant during the life cycle.

Tie rod cylinder ISO 15552, Series TRB

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series TRB

2026-07-19



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Dimensions



S = stroke

Piston Ø	A -2	ØB d11	ØBA d11	BG min.	E	EE	G	H	KF	KK
32	22	30	30	16	46.5	G 1/8	27.75	47.5	M6	M10x1,25
40	24	35	35	16	53	G 1/4	33.25	53	M8	M12x1,25
50	32	40	40	16	65	G 1/4	31	65	M10	M16x1,5
63	32	45	45	16	75	G 3/8	38.25	75	M10	M16x1,5

Piston Ø	KV	KW	ØMM f8	PL	L2	L3 ±0,5	L8	RT	SW	TG
32	16	5	12	16	16.25	4.5	94±0,4	M6	10	32,5±0,5
40	18	6	16	20	18.25	4.5	105±0,7	M6	13	38±0,5
50	24	8	20	19	25	4.5	106±0,7	M8	16*	46,5±0,6
63	24	8	20	24	25	4.5	121±0,8	M8	16*	56,5±0,7

Piston Ø	VA -1	VD	WH	ZJ	MK	SW2
32	4	5	26±1,4	120	0.75	10
40	4	5	30±1,4	135	1.5	13
50	4	5	37±1,4	143	2	16
63	4	5	37±1,8	158	2	16

* not according to ISO 15552

Cushioning diagram



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