

**RT** | Telescopic cylinders

**ORIGINAL**

UNIVER Original design and technology

**INDUSTRIALIZED**

Industrialized components and advanced technology

**REDUCED DIMENSIONS**

**60%** less than standard cylinders

**NON-ROTATING**

Anti-rotation octagonal tube standard supplied



**RT2**

2 stages  $\varnothing 25 \div 63$  mm

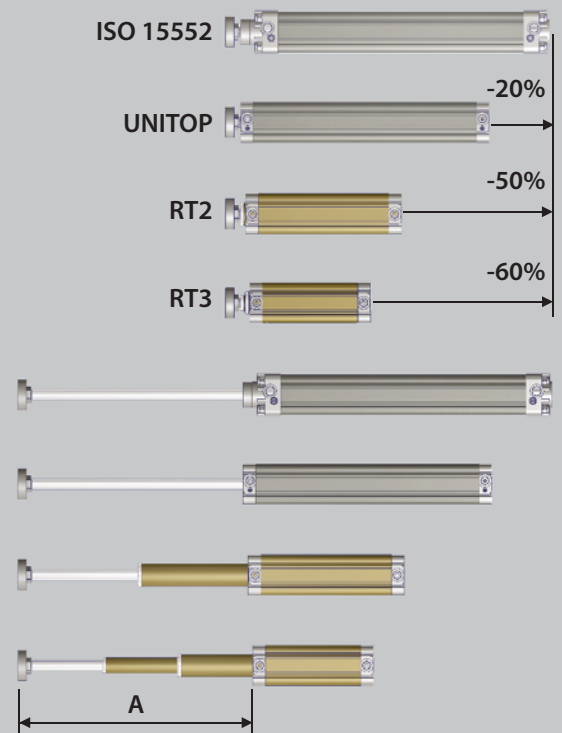


**RT3**

3 stages  $\varnothing 40 \div 63$  mm



**Comparison of overall dimensions stroke 300 mm (A)**



**CHARACTERISTICS**

Ambient temperature	-20 ÷ +80 °C
Fluid	filtered air, with or without lubrication
Working pressure	1,5 ÷ 10 bar
End-caps	die-cast aluminium
Barrel	internally/externally anodized aluminium
Piston	aluminium
Guide slide	acetalic resin
Piston rod	non-rotating, chromium-plated steel, with flange (female piston rod) stainless steel upon request
Piston seals	nitrile rubber
Guide bush for piston rod	acetalic resin
Shock absorber seals	nitrile rubber
Magnet	standard supplied (stage 1)

Telescopic cylinders work under optimal conditions when the load is in axial position, i.e. when the cylinder is placed vertically, working either upward or downward. They can obviously work also horizontally and cantilevered, but in this case it is needed to:

- Reduce the maximum stroke by 50% compared to nominal maximum strokes
- Request cylinders with slide units
- Support the radial load by means of other devices such as carriages, slides or sliding guides


**CODIFICATION KEY**

R	T	2	2	0	0	3	2	0	6	0	0	
1	2	3	4	5	6	7						

1 Series	2 Rod	3 Stages	4 Type
RT = Ø 25÷63 mm - 2/3 Stage Telescopic pneumatic cylinders (with non-rotating piston rod and elastic shock absorber seals)	1 = Stainless steel piston rod 2 = Chromium-plated steel piston rod	2 = 2 stages 3 = 3 stages	0 = D. A. Female piston rod with flange 3 = D. A. Male piston rod  D.A. = Double acting

5 Bore (mm)	6 Stroke (mm)	7 Option
<b>2 stages</b> 025 = Ø25    040 = Ø40 032 = Ø32    050 = Ø50 040 = Ø40    063 = Ø63 050 = Ø50 063 = Ø63	<b>2 stages</b> 0100 - 0120 - 0160 - 0180 - 0200 - 0300 - 0400 0500 - 0600 - 0700 - 0800 - 0900 - 1000 - 1100 - 1200 Max stroke: 0300 (Ø25)    0900 (Ø50) 0400 (Ø32)    1200 (Ø63) 0600 (Ø40)	I = Without flange (only for female piston rod) L = Freely rotating piston rod M = With telescopic magnetic shaft (stage 2-3) except for Ø 25, only for female piston rod
	<b>3 stages</b> 0150 - 0180 - 0210 - 0240 - 0270 - 0300 - 0360 - 0450 0600 - 0750 - 0900 - 1000 - 1100 - 1200 Max stroke: 1200 (Ø40) 1500 (Ø50) 1800 (Ø63)	

Nominal tolerance on stroke (mm) and maximum applicable torque (Nm) for non-rotating piston rod

Ø	Tolerances		Applicable torque	
	mm		Nm	
	2 stages	3 stages	2 stages	3 stages
25	+2/0	+4/0	0,5	-
32	+3,2/0	+4/0	0,8	-
40	+3,2/0	+4/0	1	0,5
50	+3,2/0	+4/0	2	0,8
63	+3,2/0	+4/0	3	1

Theoretical forces at 6 bar (N) (2 stages)

Ø	Available surface		Working pressure	
	mm <sup>2</sup>		bar	
	thrust	traction	thrust	traction
25	201	111	123	65
32	314	201	192	123
40	490	377	300	231
50	804	603	492	369
63	1256	1055	769	649

Theoretical forces at 6 bar (N) (3 stages)

Ø	Available surface		Working pressure	
	mm <sup>2</sup>		bar	
	thrust	traction	thrust	traction
40	201	111	123	65
50	314	201	192	123
63	490	377	300	231

**FIXING ELEMENTS AND ACCESSORIES**

Ø	Female hinge with pin	Counter hinge 90° (CETOP)	Male articulated hinge	Rear male hinge	Front / rear flange	Angle bracket	DF sensor and DHF covering strip	Cable clamping for DF sensor
25								
32	-	-	-	RPF-11025	RTF-12025	RTF-13025	DF DHF-0020100	DF-001
40	KF-10032A	KF-19032	KF-11032S	KF-11032	KF-12032	KF-13032		
50	KF-10040A	KF-19040	KF-11040S	KF-11040	KF-12040	KF-13040		
63	KF-10050A	KF-19050	KF-11050S	KF-11050	KF-12050	KF-13050		
63	KF-10063A	KF-19063	KF-11063S	KF-11063	KF-12063	KF-13063		