



**PNEUMAX**



# SWING CLAMP CYLINDERS **SERIES RT**

RELIABILITY AND DURABILITY

## Series RT



The swing clamp cylinder has been developed to meet the need to clamp a workpiece by means of a clamping arm which when released would unclamp rotate 90 degrees in order to allow unrestricted access to the workpiece; the stroke of the swing movement is 21mm. They are supplied in two bore sizes Ø40 and Ø50 in magnetic or non magnetic versions. The swing clamp cylinder is available with standard clamping stroke lengths of 10, 20, 30 and 50mm with both right (R) or left (L) rotation. The following accessories are available:

- The clamp bracket can be re-positioned through 360 degree on the piston rod
- Rubber clamping tip
- Front and rear flange for fixing

#### Available sensors:

- SA series mounted directly in the groove
  - SR series mounted with adapter 1380.01.F
  - SQ and SU series mounted with adapter 1500.22F
- (for ordering codes and characteristics see sensors section in the general catalogue)

#### Construction characteristics

Seals	<b>N</b> Version: PUR piston rod seals, NBR piston seals <b>P</b> Version: PUR piston rod seals, PUR piston seals <b>V</b> Version: FPM piston rod seals, FPM piston seals
Piston	Aluminium
Piston rod	C43 chromed steel
End caps	Aluminium

#### Operational characteristics

Fluid	filtered and preferably lubricated air or not (if lubricated the lubrication must be continuous)
Min. working pressure (bar)	1
Max. pressure (bar)	10
Working temperature (°C)	-5 ... +70 <b>N</b> Version (magnetic or non magnetic piston) -30 ... +80 <b>P</b> Version (magnetic or non magnetic piston) -5 ... +80 <b>V</b> Version (magnetic piston) -5 ... +150 <b>V</b> Version (non magnetic piston)
Stroke of rotation movement R / L 90° (mm)	21
Standard linear clamping strokes (mm)	10, 20, 30, 50
Theoretical clamping force at 10 bar (N)	924 (Ø40) - 1610 (Ø50)

Please follow the suggestions below to ensure a long life for these cylinders:

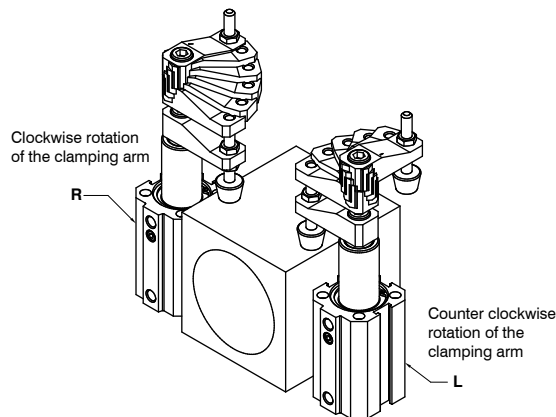
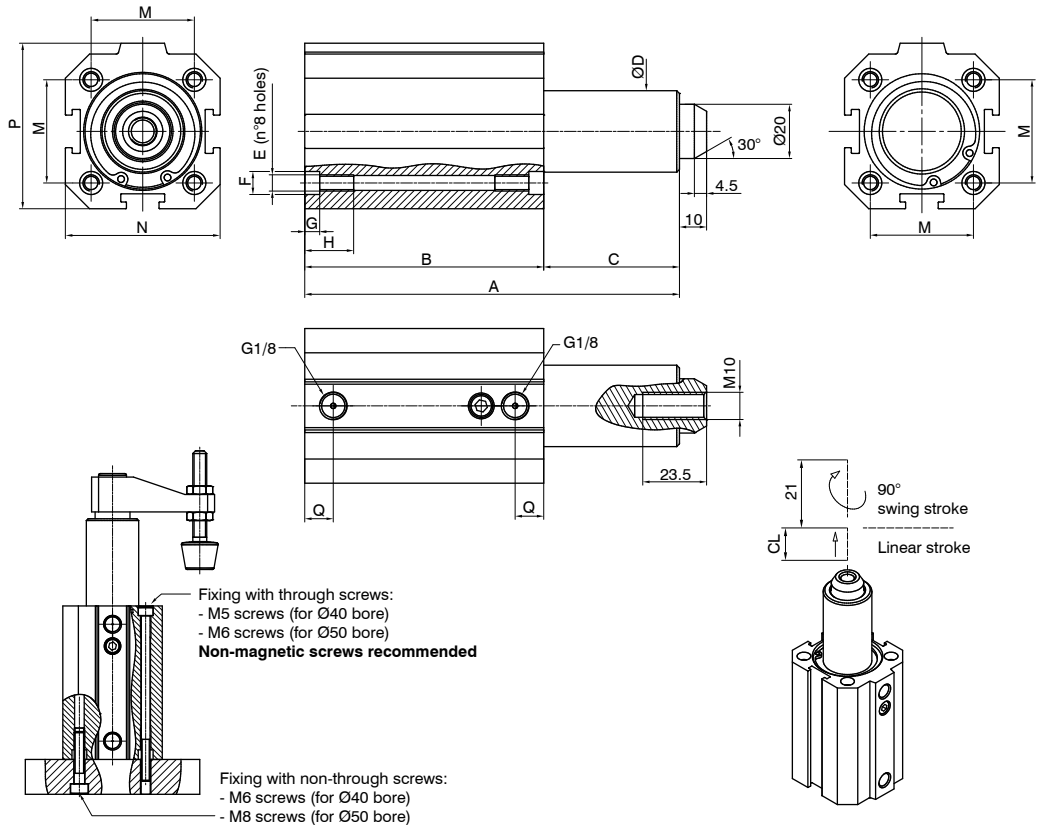
- Use of good air quality
- Observe the application advice carefully
- Operating pressure (see clamping pressure graph)
- Translation speed ≤ 50 mm/sec.



Swing clamp cylinder

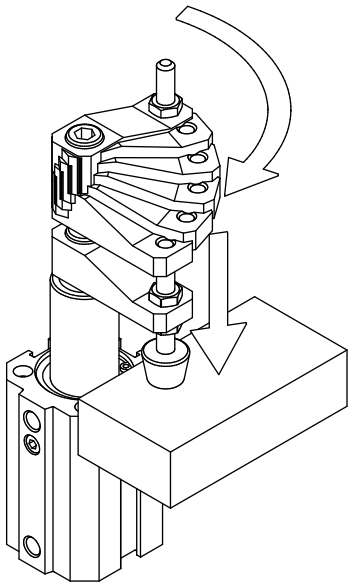
Coding: RTA $\emptyset$ V $\emptyset$ R090G $\emptyset$

$\emptyset$	BORE
	<b>040</b> = $\emptyset$ 40 <b>050</b> = $\emptyset$ 50
V	VERSION
	<b>M</b> = magnetic piston <b>N</b> = non magnetic piston
C	LINEAR CLEARANCE STROKE
	<b>010</b> = 10 mm
	<b>020</b> = 20 mm
	<b>030</b> = 30 mm <b>050</b> = 50 mm
R	INPUT ROTATION OF THE ROD
	<b>R</b> = Right (clockwise rotation) <b>L</b> = Left (counter clockwise rotation)
G	SEALS
	<b>N</b> = NBR
	<b>P</b> = PUR <b>V</b> = FPM

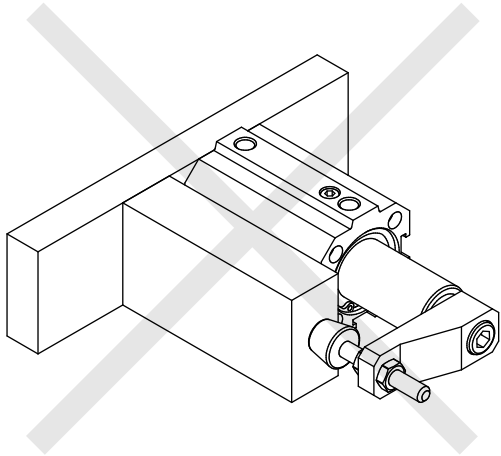


The direction of rotation is defined by the looking at the cylinder from the rod side when it retracts.

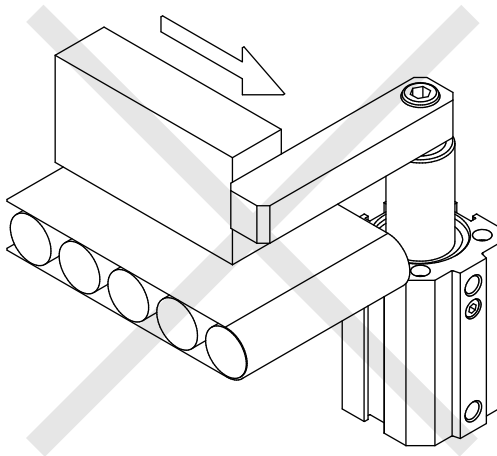
Bore	CL	A	B	C	$\emptyset D$	E	$\emptyset F$	G	H	M	N	P	Q	R	Weight (g)
40	10	138	88	50	30	M6	8.5	5.5	18	38	57	61	10.5	5.3	885
	20	158	98	60											982
	30	178	108	70											1080
	50	218	128	90											1274
50	10	138	88	50	39	M8	10.5	6.5	22	46.5	67	71	11	7	1004
	20	158	98	60											1114
	30	178	108	70											1225
	50	218	128	90											1447



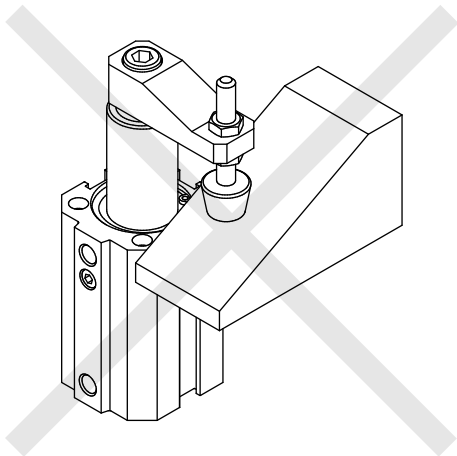
Clamping in linear stroke phase



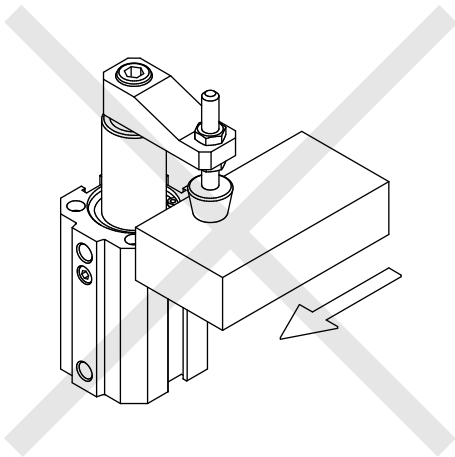
Don't use the cylinder in a horizontal position



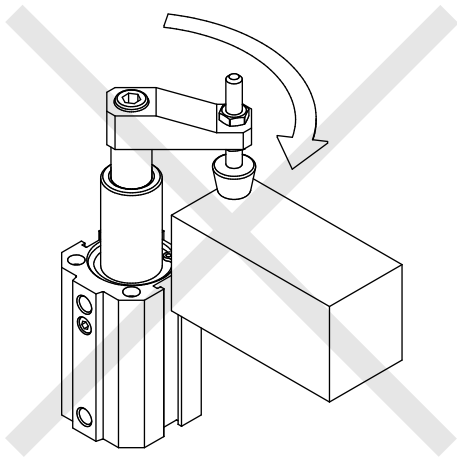
Don't stress the cylinder radially



Don't clamp on an inclined surface

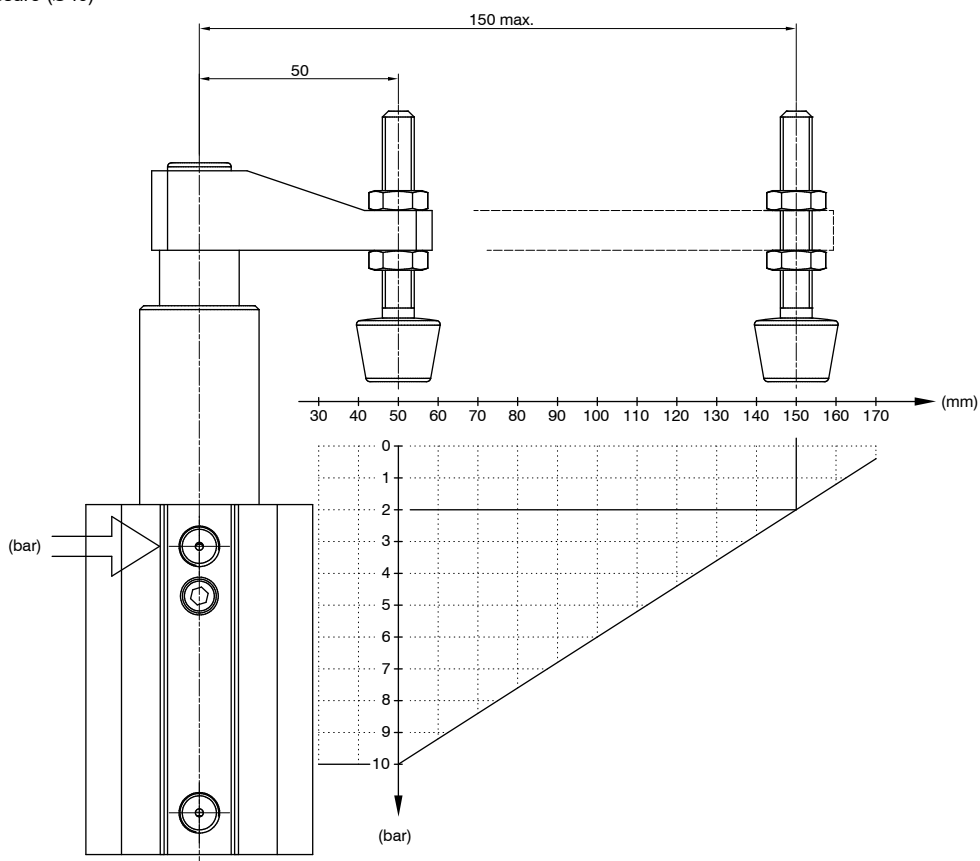


Don't clamp moving components

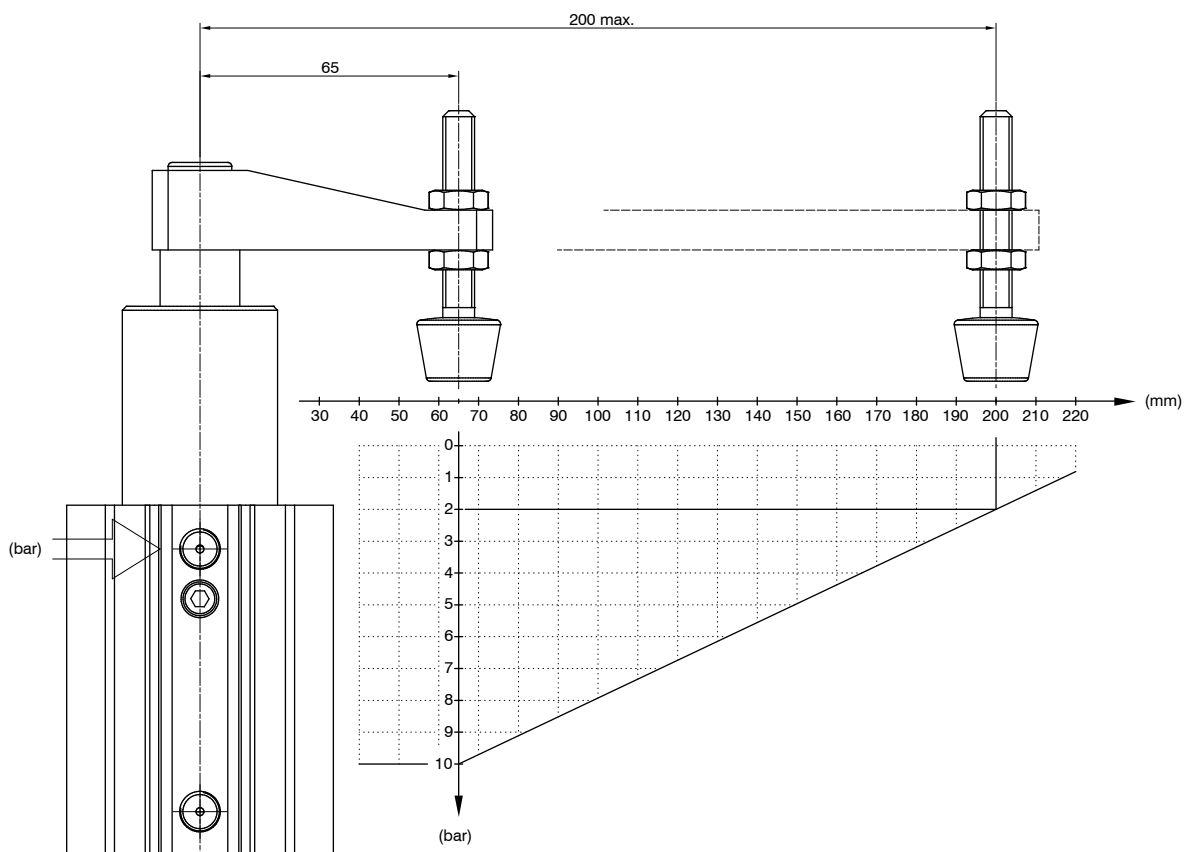


Don't clamp during the rotating movement

Clamping pressure (Ø40)



Clamping pressure (Ø50)

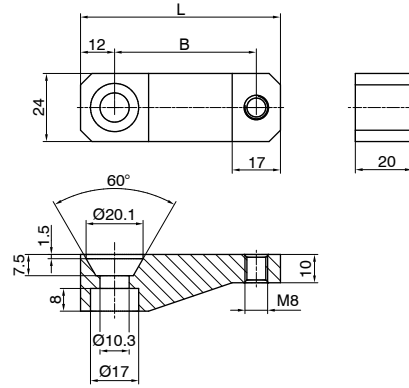


**Bracket**

Coding: RTØ.01

BORE	
Ø 040 = Ø40	
Ø 050 = Ø50	

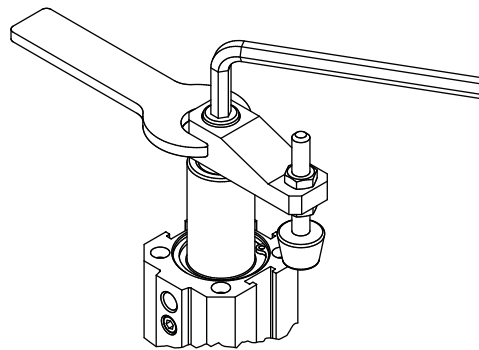
Zinc coated Steel  
Includes:  
n° 1 screw M10x20



Bore	L	B	Weight (g)
40	70.5	50	168
50	85.5	65	211

**Bracket mounting**

To avoid damaging the rotation system, act as shown on the drawing below; hold the bracket with a 24mm spanner when tightening the 8mm hexagonal socket screw to a maximum torque of 30 ... 40 Nm



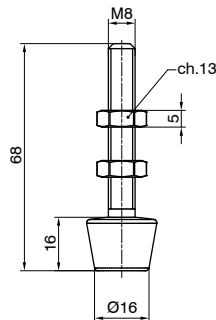
**Rubber clamping tip**

Coding: RT040.02

Zinc coated Steel  
Neoprene 85 Shore A tip



Weight 33 g

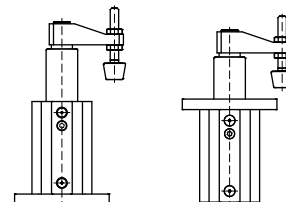
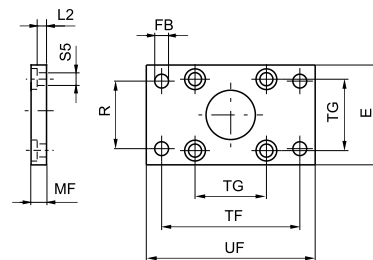


**Steel front and rear flange (MF1 - MF2)**

Coding: 1380.Ø.03F

BORE	
40 = Ø 40	
50 = Ø 50	

Plate which allows anchorage of the cylinder at a right angle to the plane. It is made of zincplated extruded steel.



Bore	E	FB (H 13)	MF (JS 14)	R (JS 14)	TF (JS 14)	TG	UF	L2	S5	Weight (g)
40	52	9	10	36	72	38	90	5	6,6	250
50	65	9	12	45	90	46,5	110	6,5	9	480



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