Double-acting pneumatic CYLINDERS

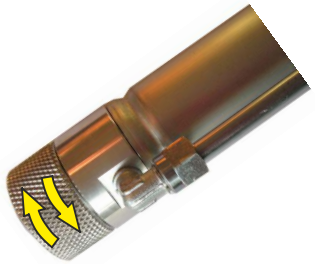
Technical File
T 05010 A

Ø 32 - 40 - 50 - 63 - 80

Description - General information

Double-acting cylinder powered by pneumatic energy (compressed air or CO^2 cartridges). Equipped with automatic locking which can be released manually by rotation of the collar at either end.
Designed to carry out tasks of thrust and traction, this cylinder is particularly suitable for operating Natural Smoke and Heat Exhaust Ventilators (SHEVs) such as roof apertures, facade windows, vents etc..., which require an open / close command.

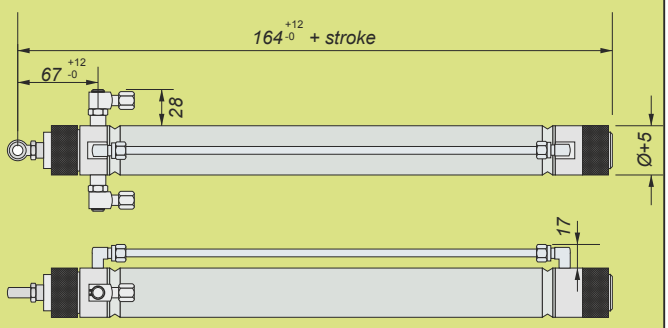
UPPER END POWER SUPPLY



To **PULL OUT** the piston rod manually, turn the collar towards the right or the left while simultaneously PULLING ON the piston rod.

To **PUSH IN** the piston rod manually, turn the collar towards the right or the left while simultaneously PUSHING ON the piston rod.

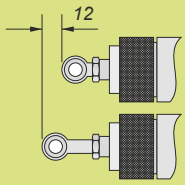
Dimensions



THEORETICAL LIFTING FORCE
in daN or kg *(take into account about 15% loss through friction)*

PRESSURE in bar	Cylinder Ø32	Cylinder Ø40	Cylinder Ø50	Cylinder Ø63	Cylinder Ø80
25	200	314	490	779	1250
20	160	250	392	623	1000
15	120	188	294	467	750
10	80	125	196	311	500
6	48	75	118	187	300

Adjustable head screw



Material . . . . . : Aluminium, steel, neoprene.
Diameter of piston . . . . . : Ø 32, 40, 50, 63 and 80.
Piston rod . . . . . : Ø 12 to 20 mm in stainless steel.
Energy . . . . . : CO^2 or compressed air (dry and free from oil) filtered at 40 µ.
. . . . . *Pressure* : Recommended operating pressure = 6 to 20 bar.
. . . . . Maximum static operating pressure = 60 bar.
Strokes . . . . . : From 100 to 1200 mm, in increments of 100 mm.
Mounting of cylinders . . . : Through swivel screw fittings (Ø12) used for power supply.
Eyebolt . . . . . : Ø8, adjusted by 12mm screw.
Precautions . . . . . : Stock and install away from bad weather conditions.

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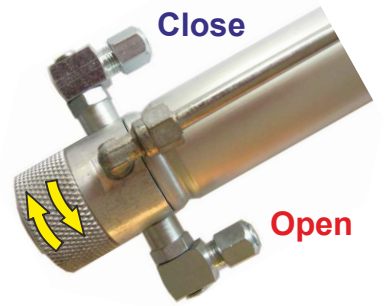
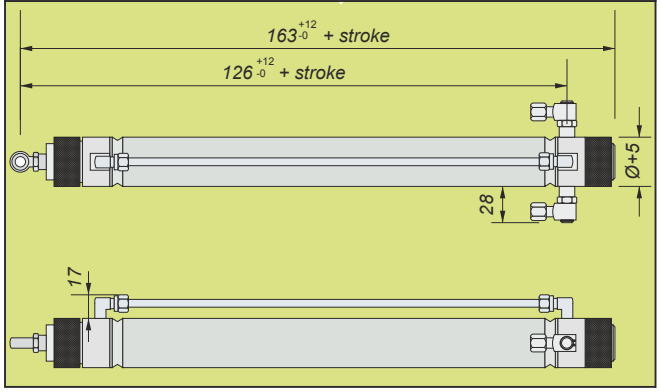
LOWER END POWER SUPPLY



To **PULL OUT** the piston rod manually, turn the collar towards the right or the left while simultaneously PULLING ON the piston rod.

To **PUSH IN** the piston rod manually, turn the collar towards the right or the left while simultaneously PUSHING ON the piston rod.

Dimensions



Opening volume of cylinders (in litres)

Ø \ Stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
32	0.09	0.16	0.25	0.31	0.41	0.47	0.57	0.63	0.72	0.82	0.88	0.97
40	0.13	0.25	0.38	0.50	0.63	0.75	0.88	1.01	1.13	1.26	1.38	1.51
50	0.19	0.40	0.60	0.79	0.97	1.19	1.38	1.57	1.76	1.98	2.17	2.36
63	0.31	0.63	0.94	1.26	1.57	1.88	2.17	2.48	2.80	3.11	3.42	3.74
80	0.50	1.01	1.51	2.01	2.51	3.02	3.52	4.02	4.52	5.03	5.53	6.03

VOLUME IN THE PIPELINES

Networks must comply with current norms, and in particular with norm NF S 61-932.

Ø 6 x 0,7 = 1,661 litres for 100 m

Ø 6 x 0,5= 1,962 litres for 100 m

Ø 5 x 0,37 = 1,424 litres for 100 m

VOLUME LEVELS OF THE CO^2 CARTRIDGES in litres

PRESSURE in bar	15 g	25 g	60 g	100 g	150 g	200 g	300 g	500 g	750 g
	WITHOUT PLUNGER TUBE				*WITH PLUNGER TUBE*				
25	0.17	0.29	0.70	1.16	2.28	3.04	4.55	7.59	11.38
22	0.21	0.35	0.83	1.38	2.72	3.63	5.45	9.07	13.60
20	0.24	0.40	0.95	1.59	3.12	4.15	6.24	10.39	14.55
18	0.28	0.46	1.10	1.83	3.59	4.79	7.18	11.96	17.95
15	0.33	0.56	1.34	2.23	4.38	5.84	8.76	14.59	21.89
12	0.43	0.71	1.70	2.83	5.56	7.41	11.12	18.53	27.79
10	0.52	0.86	2.06	3.43	6.74	8.99	13.48	22.47	33.70
8	0.65	1.10	2.60	4.33	8.51	11.34	17.01	28.35	42.53

Based on the volume of the cylinder or cylinders chosen in the table above ...

... the table opposite gives the volume of CO^2 obtained in a network according to the chosen pressure. (off piping)

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