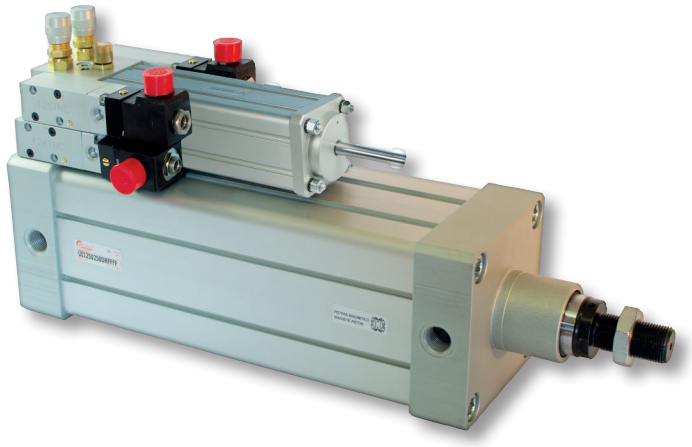
Pneumo-hydraulic cylinders with mounting dimensions according to ISO 15552 standards Series UI

Bores Ø : 50 - 63 - 80 - 100 - 125 mm.

SERIES UI



- Pneumatic cylinder with dimensions according to ISO 15552 standards
- Adjustment of the sliding speed and stop of the piston rod
- SKIP and STOP valves 2/2 or 2/2 with regulator Solenoid or pneumatic actuated, NC/NO
- Available the option of level sensor on the oil tank
- End stroke hydraulic cushionings (not adjustable)
- Caps in aluminium alloy neuter anodized
- Profiled tube in anodized aluminium, internally gauged
- Piston rod in steel E355, grounded and hard chromium plated
- Piston in aluminium with magnetic ring
- “T” grooves for sensors, on the side
- Sensors and mounting accessories

TECHNICAL FEATURES

Construction	Caps fixed on profiled tube by bolts, hydraulic cushioning integrated
Function	Double acting
Standard materials	Caps in aluminium alloy neuter anodized, piston rod in steel E355 grounded and hard chromium plated, profiled tube in anodized aluminium, internally gauged, piston in aluminium, seals in NBR - PU.
Note about the materials	According to Directive REACH (1907/2006/CE and s.a.s.)
Bores	Ø 50, 63, 80, 100, 125 mm
Standard strokes at stock	50, 100, 150, 200, 250, 300, 350, 400, 500 mm
Standard strokes available on request	50 ÷ 1100 mm
Special strokes	To be agreed with the Commercial Department
Working temperature	0 ÷ 50°C (-10°C with dry air in order to avoid ice formation)
Working pressure	2 ÷ 8 bar
Operating pressure of the valves	3,5 ÷ 8 bar
Fluid of the pneumatic circuit	Filtered air, without lubrication, according to ISO 8573-1:2010 [7:4:4]
Fluid of the hydraulic circuit	Hydraulic oil ISO 46
Speed	See the theoretical diagram of the speeds (page 2.1.05.5)

TECHNICAL DATA

Bore Ø (mm)	**50**	**63**	**80**	**100**	**125**
Ports	1/4”	3/8”	3/8”	1/2”	1/2”
Piston rod Ø (mm)	25	30	30	40	45
Thread of the piston rod	M16 x 1,5	M16 x 1,5	M20 x 1,5	M20 x 1,5	M27 x 2
Theoretical push force at 6 bar (N)	1110	1750	2895	4592	7242
Theoretical pull force at 6 bar (N)	884	1446	2592	3958	6409
Air consumption at 6 bar in push (Nl/cm)	0,130	0,204	0,338	0,536	0,845
Air consumption at 6 bar in pull (Nl/cm)	0,103	0,169	0,302	0,462	0,748
Theoretical speed at 6 bar in push (mm/sec)	530	560	650	250	220
Theoretical speed at 6 bar in pull (mm/sec)	160	170	215	150	175

THEORETICAL DIAGRAM OF THE FORCES AND OF THE AIR CONSUMPTIONS