

Technical information

PRESSURE TANKS

AIR CUSHION PRESSURE TANKS

TECHNICAL DATA

Max operating pressure PN: 10 bar at 20°C

Max operating temperature: 50°C

Type of fluid: water

Type	Pressure tank lt.	A	B	C	D
mini	25 ÷ 500	210	66	G ½	G ½
midi	500 ÷ 2000	286	108	G ½	G ¾
maxi	2000 ÷ 4000	406	108	G ½	G ¾



$$V_m = \frac{Q_p}{4 \times Z} \times \frac{1}{1 - \frac{(P_{\min} - 2)}{P_{\max}}}$$

where:

V_m = Total volume of the air cushion pressure tank in m³

Q_p = Average flow rate of the pump in m³/h

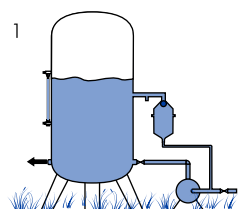
$P_{\max}$ = Maximum calibration pressure (mca)

$P_{\min}$ = Minimum calibration pressure (mca)

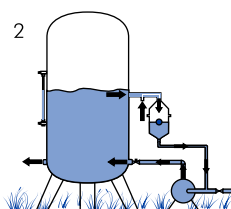
Z = Maximum number of start-ups permitted by the motor in one hour

Average calibration pressure [bar]	Pressure tank capacity in litres									
	100	200	300	500	700	1000	1500	2000	2500	3000
2.5	MINI				MIDI				MAXI	
3.5	MINI			MIDI				MAXI		
4.5	MINI		MIDI					MAXI		
5.5	MINI		MIDI				MAXI			
6.5	MINI	MIDI				MAXI				
7.5	MINI	MIDI				MAXI				

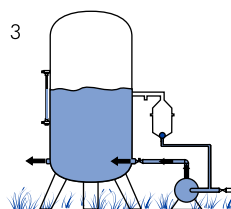
HOW THE SUPPLY UNIT IS USED



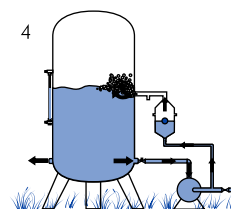
The electric pump is stationary. The air supply unit is full of water



When the electric pump starts up, it creates a vacuum that allows the intake of the supply unit water, extracting more from the pressure tank. As it passes through the Venturi nozzle, it takes in the air from the valve



The water is gradually drained from the supply unit, which fills with air; the ball sits on the bottom of the unit, shutting off the connection hole to the electric pump. The supply unit is now full of air



When the electric pump stops, the principle of communicating vessels means the supply unit air, which is lighter, moves to the upper part of the pressure tank