

AUTOPUMPS



4 INCH PUMPS

TOTAL FLUIDS PUMPING FOR LANDFILL,
REMEDICATION AND BROWNFIELD APPLICATIONS

The AP4+ Top Inlet Short, AP4+ Low Drawdown Top Inlet, AP4+ Bottom Inlet Short and AP4+ Low Drawdown Bottom Inlet AutoPump provide maximum capabilities and flow in a pump for 4" (100mm) diameter and larger wells and the need for an elevated inlet, such as pumping total fluids from wells contaminated with LNAPLs. Where there is the need to pump down to as low as 24" (62 cm) above the bottom, the AP4+ Low Drawdown Top Inlet AutoPump is recommended.

The AP4+ Bottom Inlet Short and the AP4+ Low Drawdown Bottom Inlet are suitable when there is the need to pump down to lower water levels. The AP4+ Low Drawdown Bottom Inlet AutoPump is also suitable where there is the need to pump down to as low as 11.5" (29 cm) above the bottom.

SECTOR

 Groundwater  Remediation  Landfill

APPLICATIONS

- Designed to handle difficult pumping challenges that other pumps can't, extreme temperature, viscous fluids, and frequent start / stop cycles
- Remediation pumping applications with well casings 4 inch (100mm) diameter and larger
- Landfill, remediation, and petrochemical sites
- Leachate, condensate, product only, and total fluids
- Compliance pumping

BENEFITS

- Based on the original automatic air-powered well pump, proven worldwide
- Competitive flow rates and pumping capabilities
- Patented, proven design for superior reliability and durability
- Handles solids, some solvents, hydrocarbons and corrosive conditions beyond the limits of electric pumps

FEATURES

- ATEX certified to Zone 0 
- Positive air displacement
- Top and bottom fill design
- Short and long bodies
- Pump from approximately 80 metres



TECHNICAL SPECIFICATIONS

PUMP OPERATION

- **Fill Cycle:** The fluid inlet check valve opens, allowing fluid to enter the pump. As the fluid level rises, air is expelled through the exhaust air valve and the internal float rises to the top of its stroke. In this upper position, the float triggers a lever assembly, which opens the air inlet and closes the air exhaust valve, which allows air to enter and pressurises the pump.
- **Discharge Cycle:** With the air inlet valve open, air pressure builds up within the pump body. This causes the fluid inlet check valve to close allowing the fluid to be displaced up and out of the fluid discharge check valve. As the fluid level falls, the float moves downward to the bottom of its stroke. In this lower position, the float triggers the lever assembly to close the air supply and open the air exhaust valve and a new cycle begins.

	SHORT AP4+ TOP	LOW DRAWDOWN AP4+ TOP	SHORT AP4+ BOTTOM	LOW DRAWDOWN AP4+ BOTTOM
Liquid inlet location	Top	Top	Bottom	Bottom (standard plug type check valve)
Outside diameter	3.6" (9.1 cm)	3.6" (9.1 cm)	3.6" (9.1 cm)	3.6" (9.1 cm)
Length overall (pump & fittings)	45" (110 cm)	45" (110 cm)	39.3" (100 cm)	27.5" (70 cm)
Length overall, with extended screen			44" (112 cm)	28" (71.1 cm)
Weight	15.8 lbs (7.2 kg)	9.8 lbs (4.4 kg)	13.7 lbs (6.2 kg)	11.7 lbs (5.3 kg)
Maximum flow rate	9 gpm (34 lpm)	6.4 gpm (24 lpm)	13 gpm (49 lpm)	7 gpm (26.5 lpm)
Pump volume / cycle	0.22 - 0.36 gal (.83 - 1.36L)	0.11 - 0.16 gal (.42 - .61L)	0.22 - 0.36 gal (.83 - 1.36L)	0.11 - 0.16 gal (.42 - .61L)
Minimum actuation level	41.6" (106 cm)	27.4" (70 cm)	26.7" (68 cm)	15.3" (39 cm) standard outlet
STANDARD PUMP				
Maximum depth	250 ft. (76 m)	250 ft. (76 m)	250 ft. (76 m)	250 ft. (76 m)
Air pressure range	5- 120 psi (0.4- 8.4 kg / cm ²)	5- 120 psi (0.4- 8.4 kg / cm ²)	5- 120 psi (0.4- 8.4 kg / cm ²)	5- 120 psi (0.4- 8.4 kg / cm ²)
Air usage	0.35- 1.5 scf / gal. (2.4- 11.3 litres of air / fluid litre)	0.31- 2.85 scf / gal (2.2- 21.5 litres of air / fluid litre)	0.4- 1.5 scf / gal. (1.5- 5.7 litres of air / fluid litre)	0.32- 2.86 scf / gal. (2.2- 21.5 litres of air / fluid litre)
HIGH PRESSURE PUMP				
Maximum depth	425 ft. (130 m)		425 ft. (130 m)	
Air pressure range	5- 200 psi (0.4- 14.1 kg / cm ²)		5- 200 psi (0.4- 14.1 kg / cm ²)	
Air usage	0.7 SpG (0.7 g / cm ³)	0.7 SpG (0.7 g / cm ³)	0.7 SpG (0.7 g / cm ³)	0.7 SpG (0.7 g / cm ³)

TECHNICAL SPECIFICATIONS CONTINUED

STANDARD CONSTRUCTION MATERIALS				
Pump body	Fibreglass or stainless steel	Fibreglass or stainless steel	Fibreglass or stainless steel	Fibreglass or stainless steel
Pump ends	Stainless steel, acetal, brass	Stainless steel, acetal, brass	Stainless steel, UHMWPE3, brass	Stainless steel, UHMWPE3, brass
Internal components	Stainless steel, viton, acetal, PVDF ³	Stainless steel, viton, acetal, PVDF ³	Stainless steel, viton, acetal, PVDF ³	Stainless steel, viton, acetal, PVDF ³
Tube and hose fittings	Brass or stainless steel	Brass or stainless steel	Brass or stainless steel	Brass or stainless steel
Fitting type	Barbs or quick connects	Barbs or quick connects	Barbs or quick connects	Barbs or quick connects
TUBE OPTIONS				
Tubing material	Nylon / MDPE	Nylon / MDPE	Nylon / MDPE	Nylon / MDPE
Sizes- liquid discharge	32 mm MPPE OD	32 mm MPPE OD	32 mm MPPE OD	32 mm MPPE OD
Pump air supply	10 mm OD Nylon	10 mm OD Nylon	10 mm OD Nylon	10 mm OD Nylon
Air exhaust	10 mm OD Nylon	10 mm OD Nylon	10 mm OD Nylon	10 mm OD Nylon
ATEX certification	 II 1 G c IIB T6 Ta = 1°C to +65 °C			