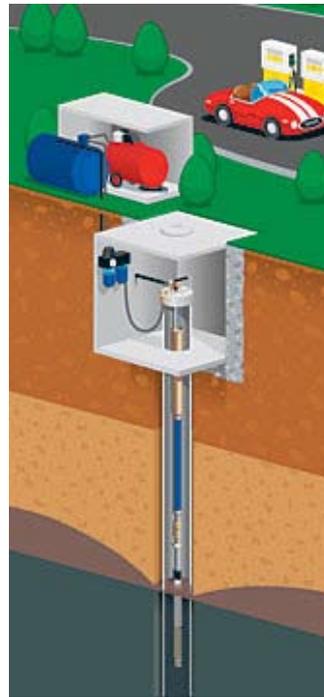
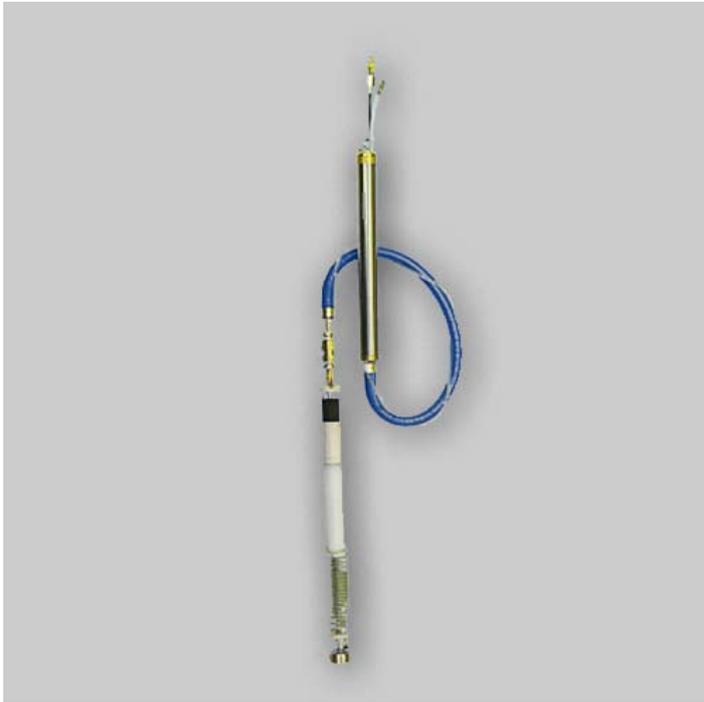


PRODUCT CODE: TR-51640

FAP Plus™ ZW Remediation Pump



Groundwater remediation pump with “Zero Water” pneumatic logic and AccuPos™ indicator.

BENEFITS

- Suitable for LNAPL recovery in wells with significant water-table fluctuation.
- Ideal for LNAPL recovery in 2” wells or greater;
- Long 90cm tracking range (with skimmer assembly)

APPLICATIONS

For LNAPL recovery in 2-inch and larger-diameter wells and up to 200-ft depths. Recovers light-end hydrocarbons with SSU values of 80 or lower.

DESCRIPTION

The F.A.P. Plus ZW is the first true pneumatic zero-water, product-only recovery system. It is versatile enough to recover a wide range of products, from gasolines, diesel fuels and hydraulic fluids, to more viscous products like #6 heating oils, all without the worry of ever recovering water. The F.A.P. Plus ZW, an upgraded version of the F.A.P. Plus, incorporates both the ZW (Zero Water) feature and the Precise Positioning System (PPS). The Zero Water pneumatic logic stops and starts the F.A.P. Plus ZW automatically, depending on the position of the skimmer inlet.

This prevents water from being recovered. Additionally, the Precise Positioning System (PPS) will locate the product/water interface accurately so the pump is installed at the proper level.

F.A.P. Plus™ ZW Pump (TR-51640) - consists of a flexible, special inner bladder and a flexible Buna-N® hose which forms the outer pump body. The pump operates by alternately inflating and deflating the annular space between the inner bladder and the outer hose. When compressed air is applied, the inner bladder collapses, propelling the fluid to the surface. When the air is exhausted, the inner bladder rebounds to its original shape, thereby causing a suction which pulls fluid into the pump. The pump is capable of producing a suction of 17 inches of mercury, enough to recover viscous product and operate in deep wells up to 200 feet.

Precise Positioning System (PPS)

The Precise Positioning System includes a surface-mounted pressure gauge to conveniently identify the product/water interface (PWI). When the F.A.P. Plus ZW is lowered into the well, the surface mounted gauge will show a drop in pressure indicating that the PWI has been reached. The system is then raised to accommodate expected water table fluctuations and the pump will begin to cycle product to the surface. If the PPS shows no air pressure, it indicates that the Zero Water function is activated: the water table has risen high enough to turn the pump off. When the water level recedes and the pneumatic Zero Water switch is turned back on, the pump will cycle again and the PPS gauge will show an increase in air pressure.

ZW (Zero Water) feature

The intelligent logic incorporated in the F.A.P. Plus ZW will start or stop the pump based on the skimmer inlet position. When the water table rise exceeds the standard travel allotted by the skimmer, the float will activate a pneumatic switch, shutting the air supply off and stopping pump operation. When the water table recedes and the skimmer inlet is at the proper product/water interface, the pneumatic switch is released, allowing the pump to re-start automatically. This feature ensures that only product is recovered. The F.A.P. Plus ZW pump will then lift recovered product to the surface and discharge the pumped product to a storage tank that can be fitted with an optional Tank-Full Shut-Off unit.

Maintenance:

Biofouling may occur because the hydro-phobic element is positioned at the air/product interface. If fouling occurs, the element can be cleaned using a soft brush or replaced by unthreading the bypass element and installing a new hydrophobic element.

SPECIFICATIONS

Size	1.75 in OD x 63 in L (44.5 mm x 1600 mm)
Weight	6 lb (2.7 kg)
Air Requirements	0.85 cfm @ 100 psig 24 dm ³ @ 690 kPa
Operating Pressure Range	50 to 100 psig (345 to 689 kPa)
Pumping Capacity	15 to 20 gph @ 10 ft TDH (56 to 76 L/h @ 3 m TDH) 10 to 15 gph @ 100 ft TDH (38 to 57 L/h @ 30 m TD), Based on gasoline through 3/8 in (9.5 mm) ID discharge line.
Maximum Fluid Viscosity	Less than 1000 SSU (0.22 Stoke); roughly equivalent to SAE 20 oil
Discharge Pressure	2/3 of air supply pressure
Materials	Flexible Buna-N® (outer bladder). Tygon® Special (Inner bladder) and brass.
Air Supply to Pump	1/4 in (6 mm) OD polyethylene tubing (down-hole)
Fluid Discharge	3/8 in (9.5 mm) ID Buna-N® hose (down-hole)

