


# SPP2 Active

## Total fluid pumps

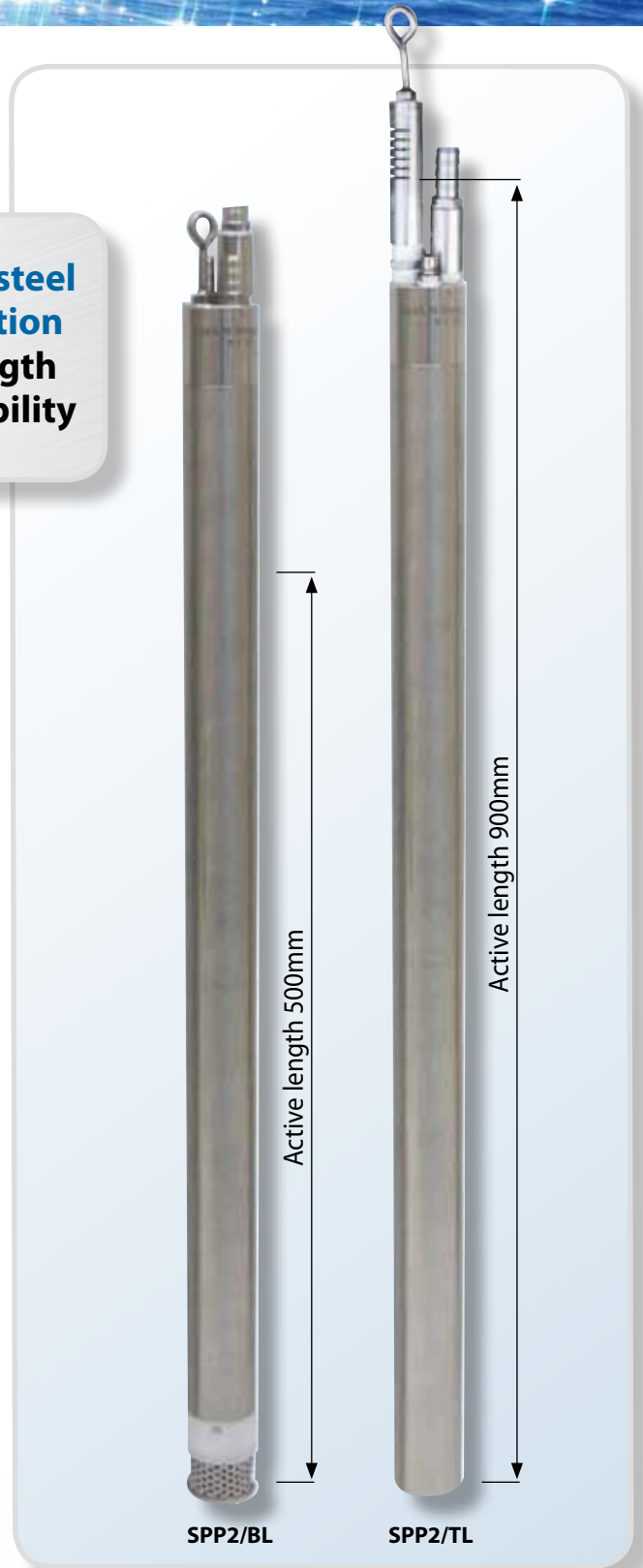
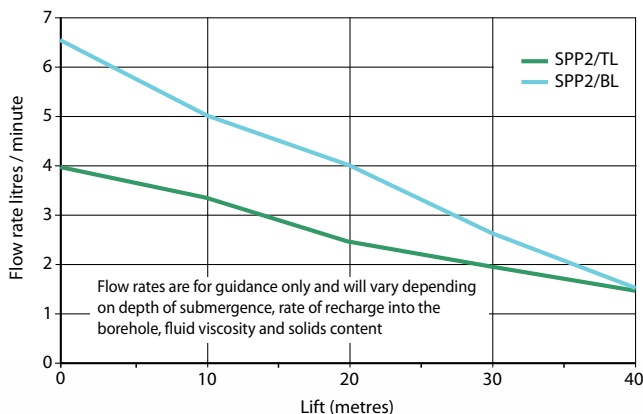
For automatic pumping and removal of leachate and contaminated groundwater from boreholes of 50mm or larger in diameter.

**Stainless steel construction for strength and durability**

### Features

- ATEX certified  II 1 G EEx kp IIB T3
- Max 60m depth / 40m head lift
- Top and bottom loading options
- Automatic air-supply shut off
- Stainless steel body
- Reliable and durable
- Low maintenance
- 3 year limited warranty

### Approximate flow rates (L/min)



# SPP2 Total fluid pumps

These high quality, low maintenance stainless steel fluid pumps are manufactured in Europe. They are versatile and easy to use within new or existing fluid extraction systems.

**SPP2/BL** The **standard bottom loader** enables pumping from narrow diameter boreholes. Pumping rates are up to 6.5 l/min (0.4 m<sup>3</sup>/hr) combined with the ability to maintain a minimum water depth of 500 mm.

**SPP2/TL** The **standard top loader** provides a screened intake positioned above the top of the pump. The position of the screen controls the minimum water level at around 900 mm. The pump can operate at up to 4 l/min (0.2 m<sup>3</sup>/hr)

## How it works

When first placed in a borehole, water will fill the pump as it is submerged. The float will rise to the top of the cylinder. When connected to an air supply the pump will initially empty by pushing water through the discharge line and the float will fall to the position shown in Fig 1. The pump then cycles as follows:-

Fig 1: As the pump empties the float sinks to the bottom of the pump cylinder and hits a lever. This triggers the valve mechanism and simultaneously shuts off the air supply inlet and opens the air exhaust vent. Once the air starts to vent, the hydrostatic pressure of water will push open the valve in the water inlet allowing the pump to fill. Air will continue to vent as water enters and the float rises in the cylinder.

Fig 2: When the float reaches the top of the pump cylinder, it hits a lever which triggers the valve mechanism. This simultaneously closes the air exhaust valve and opens the air supply inlet valve. The incoming pressure of air then closes the valve in the water inlet and forces water into the discharge tube.

Fig 3: As the water is discharged, the float sinks until it reaches the lower lever arm. At this point the cycle is repeated (Fig 1).

## Technical specifications

Product code	SPP2/TL	SPP2/BL
OD (mm)	45	45
Overall length (mm)	940	860
Active pump length (mm)	900	500
Weight (kg)	3	3
Max flow rate (l/min)	4	6.5
Air volume per cycle (litres)	0.3	0.3
Max air consumption (m <sup>3</sup> /hr)	1	0.6
Max pumping depth (m)	60	60
Max air pressure (psi/bar)	87/6	87/6
Air inlet tubing ID (mm)	8	8
Air exhaust tubing ID (mm)	10	10
Discharge line tubing ID (mm)	13	13

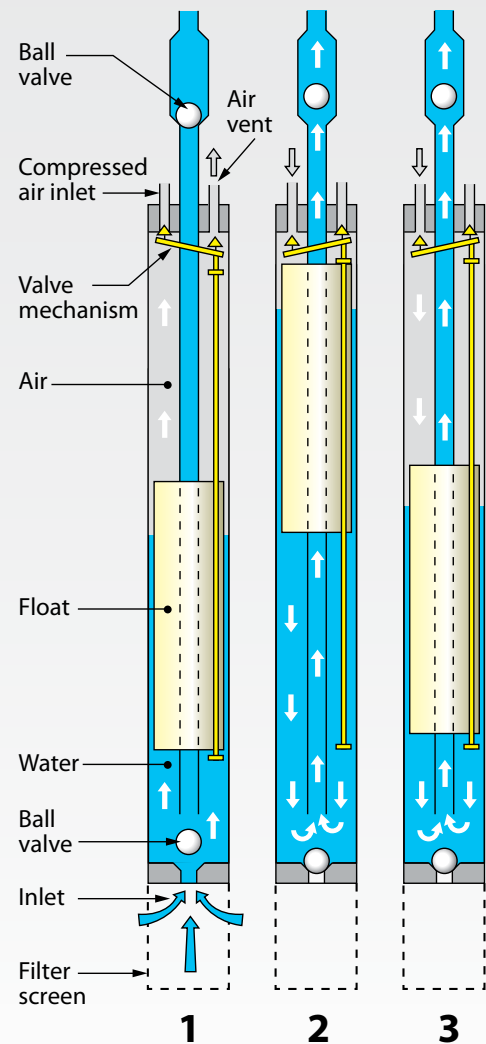


Diagram illustrates the operation of a bottom loading pump. Top loading pumps use the same mode of operation, but water enters from the top of the pump.