

## Waterra Inertial Pumps

# SP1 suction pump

Portable light weight pump for use where water level is within suction depth

### Applications

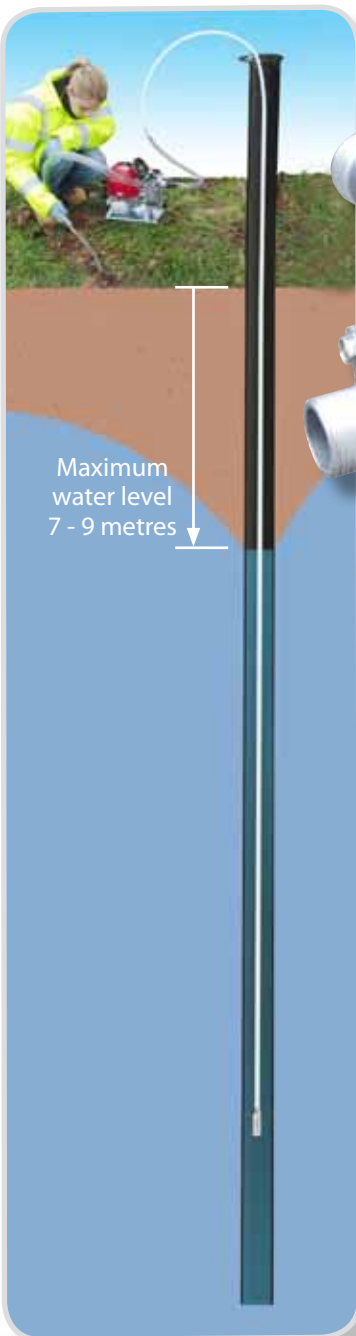
- Purging and sampling groundwater from boreholes where water levels are within suction depth.

### Benefits

- One person operation
- Portable

### Design features

- Lightweight (6 kg)
- Ultra-small 4 stroke engine
- Tubing adapters for use with HF and STD Waterra inertial pumps



**CE**  
Approved



**Above:** SP1 suction pump in use with STD inertial pump.

**Left:** SP1 suction pump in use with HF inertial pump.

# Waterra Inertial Pumps

## SP1 suction pump

The Waterra SP1 suction pump is powered by a 25cc Honda 4-stroke petrol engine and weighs a mere 6.1 kg. It is ideal for purging and sampling from boreholes, where water level is within suction depth.

### Connecting to Standard Inertial Pump

- use a STD tubing adaptor kit consisting of:
- STX-1 PVC tubing - 2metre (connects the STD inertial tube to the SP1 pump)
  - SP/01 Nylon hose adaptor (to connect the STX tubing to the SP1 pump)
  - SP/06 Jubilee clips, 22 to 25mm (x2)
  - Instruction sheet

### Connecting to High Flow Inertial Pump

For connecting to High Flow Inertial Pump tubing, use either a black reinforced suction hose (SP1/HF-1) or High Flow suction / extension tubing (HFX-1).

A length of 25mm discharge hose is attached to the SP1 pump using metal 25mm discharge hose clips (SP/03). Hose clips are available as spares, though several are supplied with the SP1 pump.

### Priming and borehole purging

After connecting the Waterra tubing from the borehole to the SP1 suction pump, the suction pump is primed by manually operating the inertial pump. This draws water from the borehole and fills the sump casing of the suction pump. Once the sump casing overflows, the suction pump can then be started and the borehole purged.

### Sampling

To sample, disconnect the Waterra tubing from the extension tubing or suction hose. Manually operate the Waterra inertial pump to obtain a sample. To maintain sample integrity and to prevent cross-contamination by contact with suction hose and pump parts, samples should not normally be taken from the discharge of the suction pump.

**NOTE:** Borehole and inertial pump tubing can be any depth as long as water level remains within suction limit. If the water level exceeds suction depth (approximately 7 - 9 metres) in the borehole, the SP1 pump will not pump water.

## Ordering information

Order code	Description
SP1	SP1 suction pump with spark arrestor
SP1/STDKIT	SP1 Waterra STD tubing connector kit
SP1/HF-1	High flow black discharge hose
STX-1	Standard suction tubing
HFX-1	High Flow suction tubing

Additional accessories and components are available separately - see website.

Discharge hose  
**SP1/HF-1**

Waterra tubing  
connector kit  
**SP1/STDKIT**

Suction tubing  
**STX-1** for use with STD inertial pump tubing  
**HFX-1** for use with HF inertial pump tubing

Standard (STD) or HighFlow (HF)  
Waterra inertial pump tubing

Borehole

*Above: The SP1 suction pump showing connection to STD & HF Waterra inertial pump tubing.*

## Technical specification

Length	12.8 in (325 mm)
Width	8.7 in (220 mm)
Height	11.8 in (300 mm)
Dry weight	13.4 lbs (6.1 kg)
Engine type	25cc 4-stroke OHC single cylinder
Suction and discharge port dia.	1 in (25 mm)
Total head (max)	118 feet (36 metres)
Pumping rate (max)	140 litres per minute

### Further information

For further information regarding the use of Inertial Pumps, please refer to the following data sheets which can be downloaded from our website:

**PR07 Inertial pump tubing and valves**

**PR08 Powered inertial pumping - PowerPack PP1**

**PR10 Inertial pumping applications**