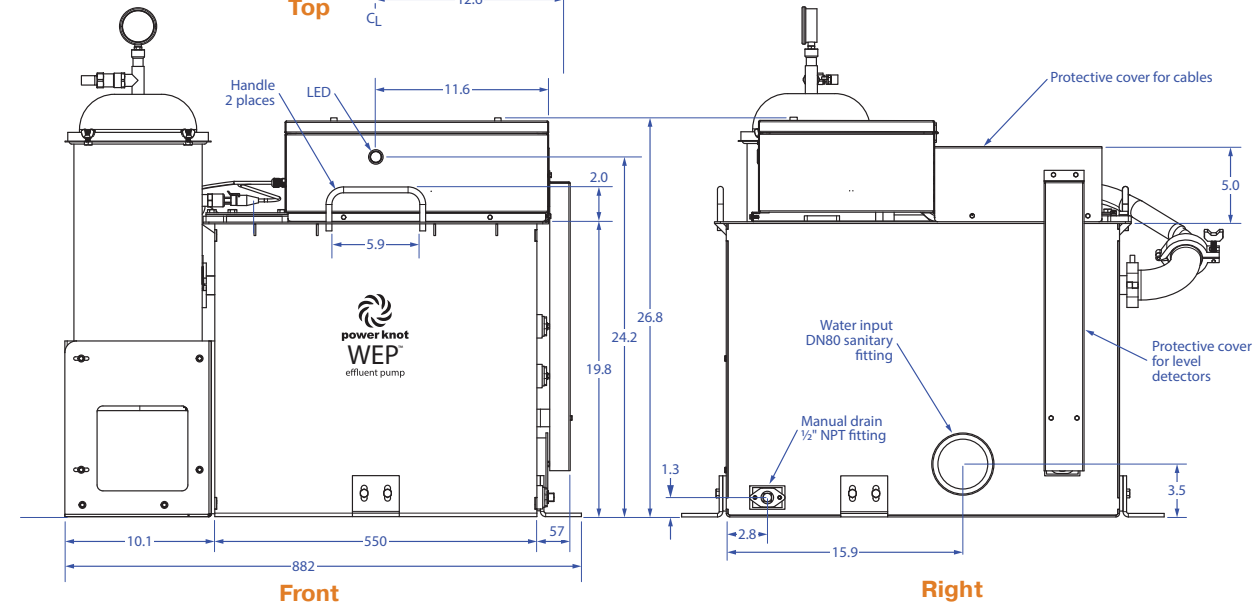
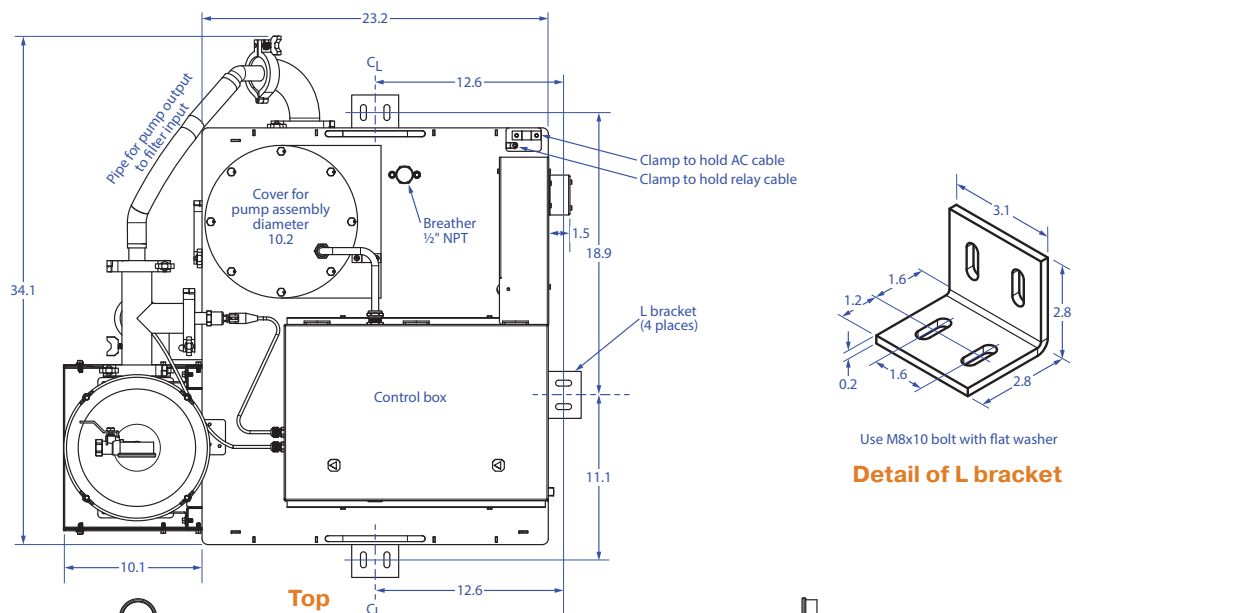
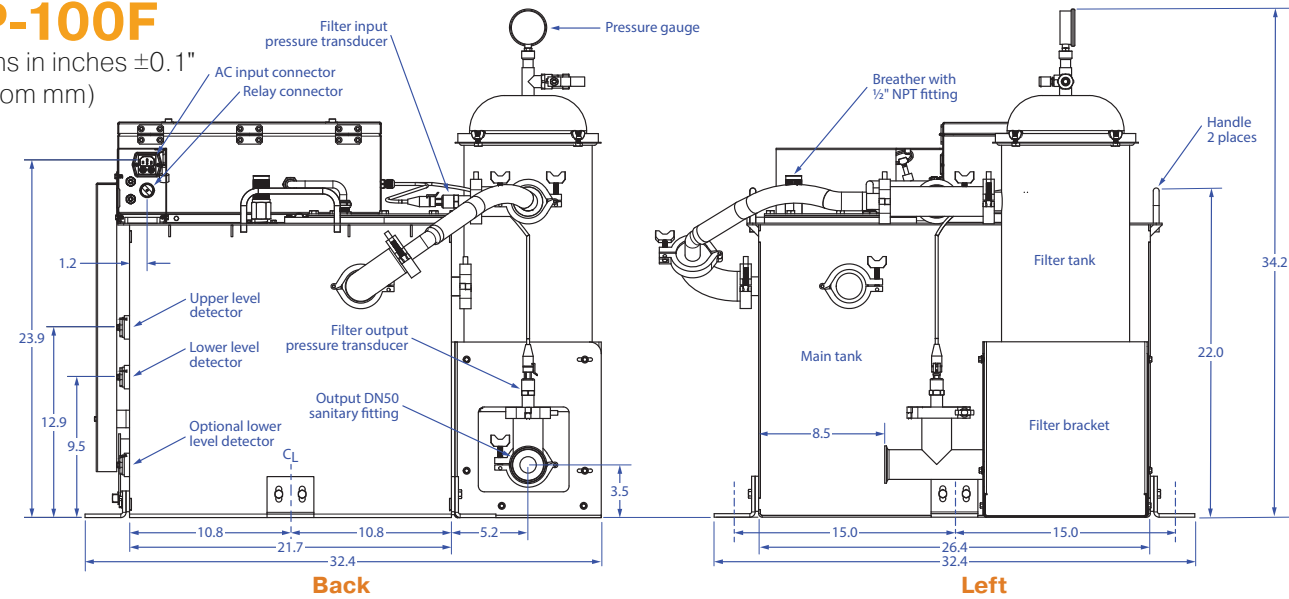


WEP-100F

Dimensions in inches ±0.1"
(derived from mm)



WEP-100F™

Effluent Pump with Filter

About

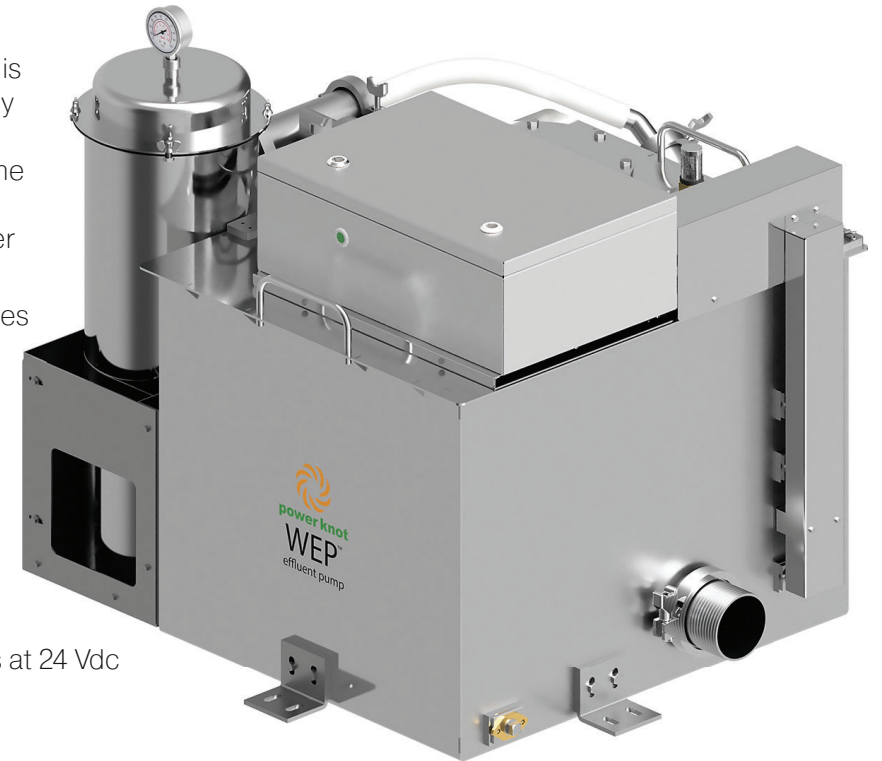
The WEP-100F effluent pump with filter is used to pump water that might be fed by gravity to a higher level or extended by some distance with a horizontal pipe. The water is forced through a filter that can reduce the BOD and TSS of waste water prior to being discharged.

This system allows you to install machines that generate waste water in places where there may not be a grade level drain or where there may be a need to trap particles to meet regulations.

Designed, developed, and manufactured by Power Knot in Silicon Valley, California.

Features

- High reliability BLDC pump operates at 24 Vdc for enhanced safety
- System operation is fully automatic
- Integrated electronic control
- Level detectors work with submersible solids to prevent clogging
- Pump is turned on only when required
- Quiet operation and minimal operating costs
- 3 color LED indicates operational status
- Sanitary fittings for input and output enable easy installation with standard plumbing connections
- Supplied with 200 µm and 400 µm filter bags
- Can accept a high flow rate of waste water and can accept an inrush of 75 litre (20 gallon) of waste water in under a second
- Input waste water can be as low as 50 mm (1.9") above the ground
- Tank is directly vented or can be easily piped to the outside
- Internal shut off valve prevents any possibility of overflow
- Relay contacts indicate an alarm to an external system there is no power, tank full, or a fault
- Waterproof construction ensures easy cleaning
- Pump is easily accessed for service or replacement



- Simple integration with Power Knot LFC and LCD biodigesters
- Supplied brackets permit bolting or welding to floor
- Manual drain allows emptying the tank for decommissioning
- Constructed of stainless steel with an expected life of 15 to 25 years

Benefits

- Eliminates the need for a grade level drain or a drain near the source of the waste water
- Can be situated in kitchens and work areas
- Cleans waste water prior to discharge to ensure compliance with most regulations
- Discharged water can be used for irrigation¹
- Requires no configuration
- User is alerted when filter bags are full to minimize downtime
- Maintenance is accomplished by existing staff
- Universal ac power input ensures compatibility to operate globally
- Three year warranty²

¹ Depending on the waste water input
² Warranty is subject to terms and conditions.

WEP-100F

Description

Tank volume

143 litre (38 gallon) maximum

Construction

All stainless steel (chassis, control box, mounting brackets, and handle)

Operating environment

Indoors or outdoors

Operating temperature

-5°C to 40°C (23°F to 104°F)

Operating altitude

1000 m (3300 ft)

Ingress protection

IP54 – splash proof and dust proof

Operating lifetime

Expected to be 15 to 25 years

Moving and positioning

Machine is moved in place using the two handles

Machine can be bolted or welded to the floor using the four supplied L brackets

Floor surface flatness

±1 mm (±0.05") maximum

Weight when empty

75 kg (165 lb)

Maximum weight when full

225 kg (496 lb)

Relay output

2 pin female SD13

Relay is normally closed to indicate to host system that it is ok to send water

Relay is open to indicate that host system should stop sending water when:

- there is no power to the WEP-100F pump
- tank has more than 117 litre (31 gallon)
- computer system has detected a fault

Water particle size

3 mm (0.1") maximum

Water temperature

4°C to 50°C (39°F to 122°F)

Filter bag

Machine is supplied with 200 µm and 400 µm bags. Can be switched to 750 µm or 1 mm as required.

Pump flow rate

The flow rate is dependent on many factors including the type of waste, the size and routing of the output pipe, and the mesh size of the filter bag as approximately shown by the red lines in the figure below.

The WEP-100F effluent pump can pump water as high as 14 m (46 ft). This assumes the output pipe is 20 mm (¾") diameter and has no bends.

With no output pressure the flow rate can be as high as 5 m³/h (22 gpm), but this is usually not practical.

A horizontal pipe run of 10 m (33 ft) is equivalent to a head of approximately 4 m (13 ft).

The graph below and the comments above are for guidance only and subject to change without notice.

Breather

The breather is a ½" NPT fitting that allows air to egress when the tank is filling and to ingress when the tank is emptying.

The breather is fitted with a mesh filter and can be plumbed by the user elsewhere if desired.

LED

22 mm 3-colors

Beeper

Audible beeper to indicate error

AC supply

Universal ac input: 100 V to 260 V, 47 Hz to 63 Hz
Single phase + PE
External circuit breaker: 12 A

Inlet socket: IEC 60320-1 C14, with two 6.3 A, 5x20 mm fuses

AC power cord

Ordered separately to suit destination ac power source. Length: 180 cm (6')

Outlet must be accessible by operator and have a safety disconnect

Maximum power

460 W

Energy per day

2 kWh (typical)

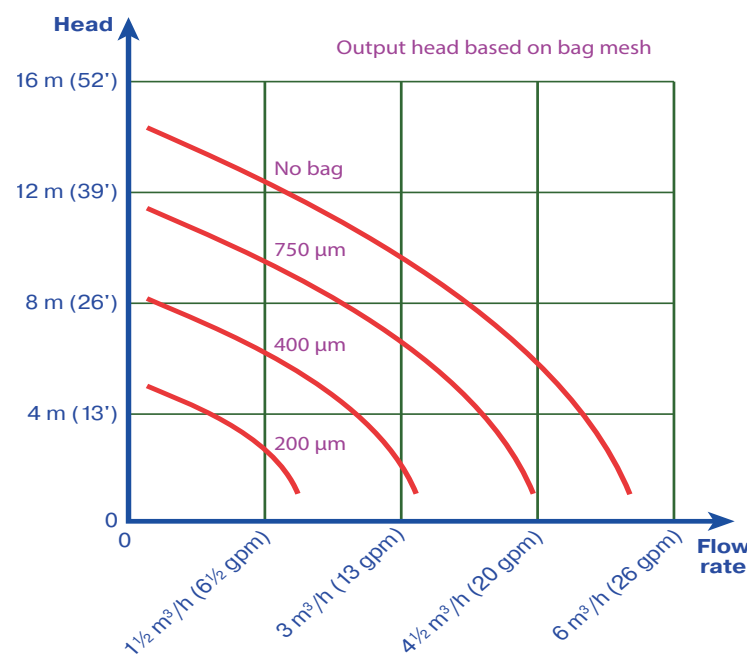
11 kWh (maximum)

Warranty

One year on pump; three years on all other parts

EU directives

Low Voltage Directive: 2014 / 35 / EU
EMC Directive: 2014 / 30 / EU
RoHS Directive: 2011 / 65 / EC
WEEE Directive: 2012 / 19 / EC



WEP-100F

Dimensions in mm ±2 mm

