

Simplex Demand

Manufacturer: IDT Systems

Model: WBS Simplex

Voltage: Available in 115V and 115/208/230V

Phase: Single

Number of Pumps: 1

Float Tree(s) Required: One 2-Float Tree

Electrical Schematic Available at:

www.waterloo-biofilter.com → Products → Control Panels → Simplex Demand

Dosing Type: Demand

Typical Applications:

1. Dosing Biofilter (< 3000 L/d)
2. Dosing Small Beds

Operational Description

A Simplex Demand panel activates a single pump when the pump chamber fills up to a certain capacity, and sends out a volume which is a function of:

- Pump Chamber Diameter
- Tether Length of Float Switch

The 2-Float trees that are supplied by Waterloo Biofilter Systems is preset to operate properly with the WB5-24 pump chamber which is supplied with every demand dosed system. If other pump chambers are used, the float switch must be adjusted accordingly.

Typically, a Simplex Demand panel requires 2 float switches (2-float tree) for operation.

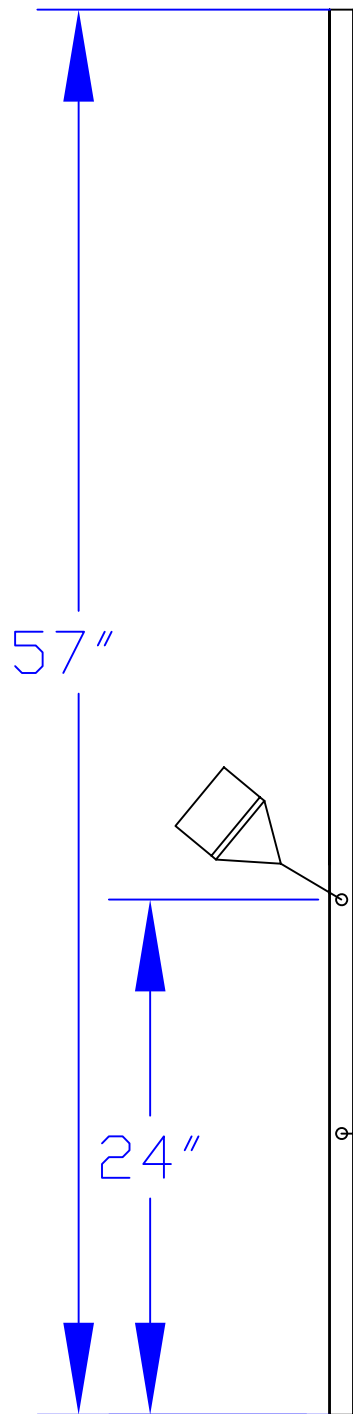
They include:

1. ***Start/Stop float – Super Single (Grey) - (Turns pump on/off)***
2. ***High Water Alarm float – Sensor (Black) - (Activates audible and visual alarms)***

The ***Start/Stop float*** turns the pump on/off. When this switch rises, the pump turns on. When this switch drops, the pump turns off. The ***Start/Stop float*** is preset and clamped to 16" from the bottom of the pump chamber.

The ***High Water Alarm float*** notifies the operator of a high water level in the tank.

When this switch rises for more than 2 seconds, it activates the audible and visual alarms. A high water level may result from a surge of influent. Continual alarms may imply an undersized system or a failed pump. The ***High Water Alarm float*** is not preset and should be clamped to $\frac{3}{4}$ the height of the pump chamber from the bottom of the chamber. This is a safety factor to provide time for the operator to investigate and react to the problem before outbreaks occur.



2. High Water Alarm

High Position (>2 seconds)
Turns ON audible and visual alarm

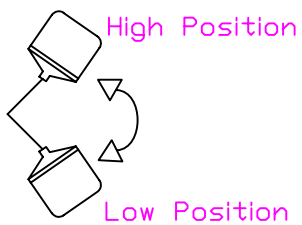
Low Position
Turns OFF audible and visual alarm

1. Start /Stop

High Position
Turns ON pump

Low Position
Turns OFF pump

Legend



Simplex Demand Float Tree