

ELV AUTO-VALVE SERIES

Simplex Pump System

Liberty Pumps®

A Family and Employee Owned Company

OilTector®

1/2 hp, 3/4 hp, 6/10 hp

Simplex pump system detects oil and water – allowing for diversion of oil to a separate tank via automatic electronic valves.

For use in elevator pits, vaults, and other areas requiring the control of oil discharge from sump water.

Features

- Pumps available in 1/2 hp, 3/4 hp, and 6/10 hp
- Flow rates to 95 GPM and heads to 65' (depending on model)
- 1-phase and 3-phase models available
- Complete system ships with control panel, remote alarm, level sensor, solenoid valves, junction box with disconnect, 2 reducer couplings, check valves and pump. (Systems with oil holding tank also available!)
- OilTector® control features advanced touch screen display and programming
- Remote alarm can be mounted up to 2,500' from panel
- Preset level sensor for easy installation
- Advanced system monitors/verifies the amount of fluid pumped and that it was pumped to the correct location
- Controls are available with optional BACnet Gateway for integration with building automation and control systems. Please contact Liberty Pumps for more information



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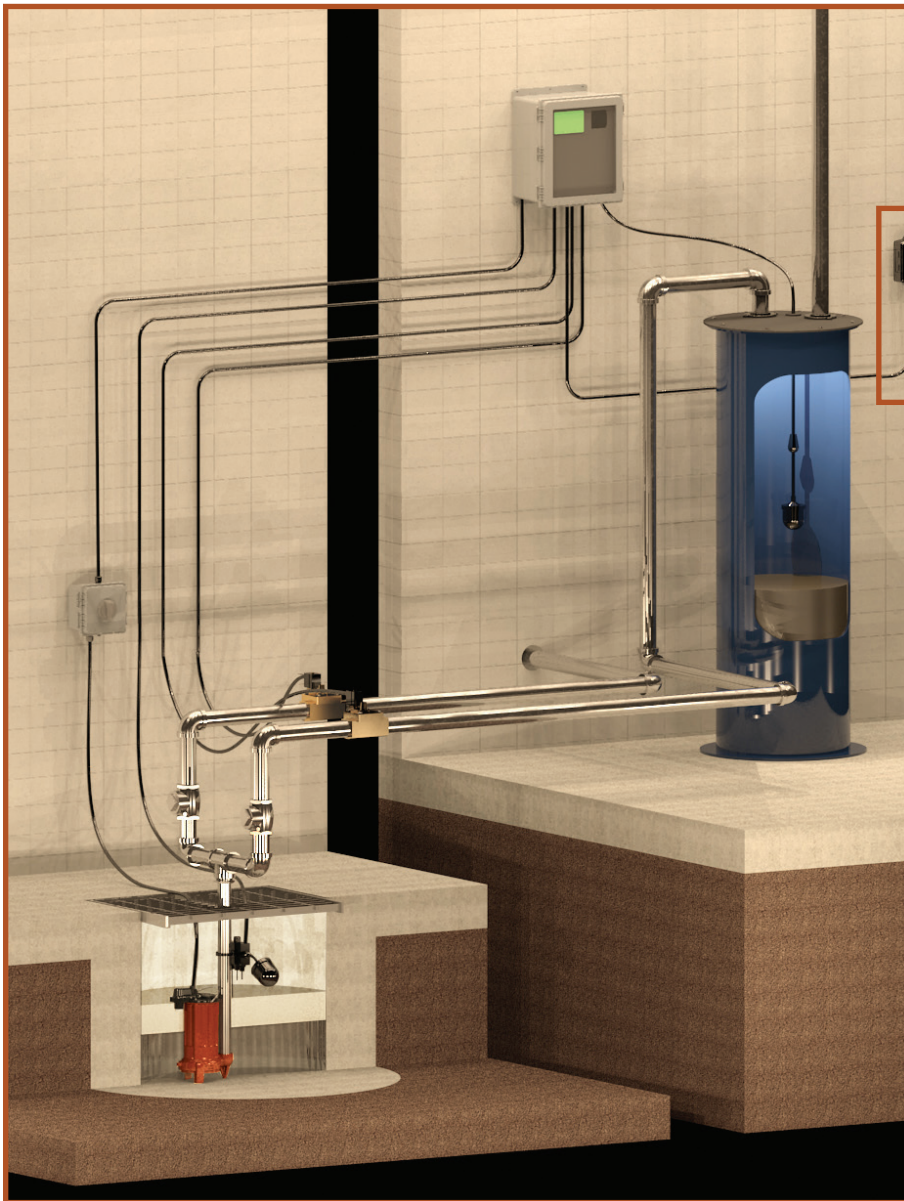
OilTector®

Features and Operation

The OilTector® ELV auto-valve system pairs an advanced controller with solenoid valves to control and eliminate unwanted water from elevator sumps, garages, vaults, and other areas where the discharge of oil to the environment is prohibited. The system features a heavy-duty Liberty Pumps submersible pump with oil resistant components.

The OilTector® controller incorporates a programmable touch screen with a see-through door display, allowing

maintenance personnel to easily view real-time system performance. A pre-set level sensor and float switch send level signals from the pit to the controller. When water collects in the sump pit and contacts both the lowest and the middle probe, the water solenoid valve opens and the pump will discharge the water until the level is below the lowest probe. If the water level increases to the highest probe, the high water alarm will sound signifying a high inflow condition or faulty pump.



Alarm located up to 2,500' from panel

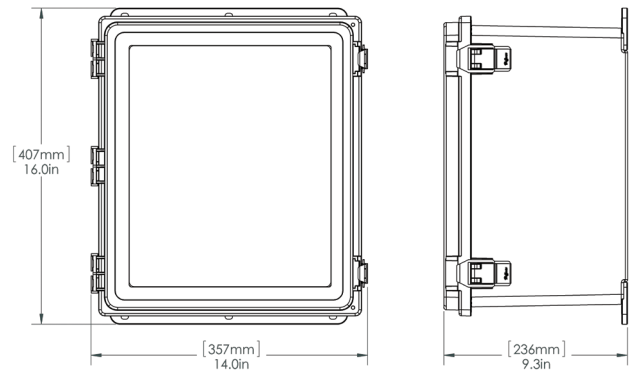
In the event of an oil leak, the spilled oil will collect in the sump and float on the surface of the water. Once the layer is thick enough to trip the high oil float, the pump will eliminate the oil and water in the sump. The water will be pumped to the drain and then the oil will be routed to the waste oil storage tank preventing unwanted contamination.

The OilTector® controller additionally provides a means for manual pump and valve operation, dry contacts for alarm conditions, and data logging to document all operational activity.

Simplex Control Panel Features

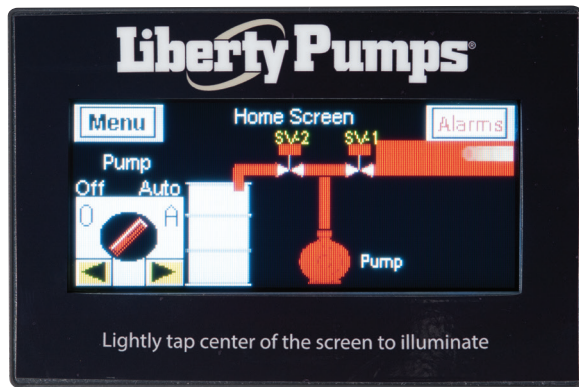
- Easy-to-use touch screen programming with adjustable display brightness
- Clear cover panel with locking hasp
- Logic in the panel monitors how much water and/or oil is pumped and verifies that it is pumped to correct location
- The Simplex program is designed to run one pump with two solenoid valve controls. Valves open and close depending on input from the OilTector® pre-programmed sensor. An oil storage display is time-based using the pump's GPM rating and dimensions of the holding tank as input by the user
- Data logging allows export of events to Excel® spreadsheet for expanded analysis and documentation
- Controls are available with optional BACnet Gateway for integration with building automation and control systems. Please contact Liberty Pumps for more information

Control Panel Dimensional Data



Control Panel Specifications

- Control input 120V, 60 Hz (1-Phase only)
- Pump input 120/230V 1-phase or 230/460V 3-phase, 60 Hz
- NEMA 4X panel enclosure rating
- Maximum pump amps is 15A for 1-phase and 4-6.3A for 3-phase
- Pump OFF/Auto switch
- Pump elapsed time meter
- Pump run counter
- Pump OFF/delay time: adjusts pumps run-time when oil is detected
- Pump status light GREEN=ON, RED=STOP
- Oil storage level indicator
- Display alarm banners for:
 - Fail • High Water • Oil Alarm • Power Fail
- Solenoid valve status indicator GREEN=Open, RED=CLOSED
- Preset level sensor with 25' of cord
- Remote mount alarm (indoor) can be mounted up to 2,500' from panel
- Float switch for oil level sensing in storage tank included with control system



Data Event Log Records

- Pump ETM
- Pump ETM Minutes
- Maintenance Clock
- Pump Run Count
- Pump Cycle Time
- HOA Status
- Amp Status
- Oil Status
- Valve 1/ Valve 2 Status
- Previous Count Cycle Time

ELV Auto-Valve Series



[2] 2" FNPT Bronze Solenoid Valves included



Junction Box with Pump Disconnect NEMA 4X

Complete System

Complete system includes pumps, control panel, level sensor, junction box with disconnect, check valves, reducer couplings, and remote alarm (no holding tank)

MODELS	HP	VOLTS	PHASE	HOLDING TANK	WEIGHT IN LBS
ELV280-VS	1/2	115	1	No	90
ELV280HV-VS	1/2	230	1	No	90
ELV290-VS	3/4	115	1	No	90
ELV290HV-VS	3/4	230	1	No	90
ELVFL63-VS	6/10	230	3	No	122

Complete systems as above with 59 gallon oil holding tank

ELV280-VST	1/2	115	1	Yes	155
ELV280HV-VST	1/2	230	1	Yes	155
ELV290-VST	3/4	115	1	Yes	155
ELV290HV-VST	3/4	230	1	Yes	155
ELVFL63-VST	6/10	230	3	Yes	187

Oil Tank included with these systems

OilTector® Control System Only (No pumps or tank)

MODELS	VOLTS	PHASE	MAX AMPS	PANEL STYLE	STYLE	WEIGHT IN LBS
OTC-120/230-VS	120/230	1	15	NEMA 4X	Touch Screen	61
OTC-230-3-VS	230	3	4-6.3	NEMA 4X	Touch Screen	61

Above OTC control systems include control panel, remote alarm, level sensor, and junction box with disconnect. Controls are available with optional BACnet Gateway for integration with building automation and control systems. Please contact Liberty Pumps for more information.

Oil Waste Holding Tank
18" X 54"
59 Gallons

Other sizes available
consult factory



Performance Curve

