

# earth safe

Fuel Systems for Critical Power



## Duplex Filter Polisher M320 Triplex Filter Polisher M330

High Flow Filtration Polisher Units  
with Integral Network Controls  
and Remote Pumps

BACnet, Modbus, Metasys N2,  
or Lon Communications



### General Description

EarthSafe Duplex and Triplex Filter Polishers are high flow units designed for use with remote submersible pumps. Duplex Filter is rated at 50 GPM (200 LPM) and the Triplex Filter is rated at 75 GPM (300 LPM).

Filtration Polisher Units include both particulate and coalescing elements for dirt and water removal. The relatively large vessel size allows for substantial dirt and water accumulation to maximize maintenance intervals. The filter polishers are mounted on an integral containment base with simple access for filter change when required. The filter units are monitored for differential pressure and water accumulation.

The Filter Polishers include an OmniPlex 800 Control Panel, or optionally the unit may be controlled by a C900 CentraPlex Master control module. Single or dual pump motor starters are included to safely operate remote submersible pump units.

The OmniPlex Controller provides Filtration / Polisher operation and monitoring with HOA switches and an emergency stop. The OmniPlex screen provides a summary of operating parameters and allows selection of special operating modes. The Controller networks with other system controllers using Ethernet, and directly to Building Management Systems with an option of BACnet, Modbus, Metasys N2, or Lon protocols.

Operating Modes:

The system is programmable for common operating modes:

- Continuous Operation
- Weekly Timed Start and Operating Duration
- Manual Start and Operating Duration
- Weekly Timed Start and Gallons to Process (with optional meter)
- Manual Start and Gallons to Process (with optional meter)

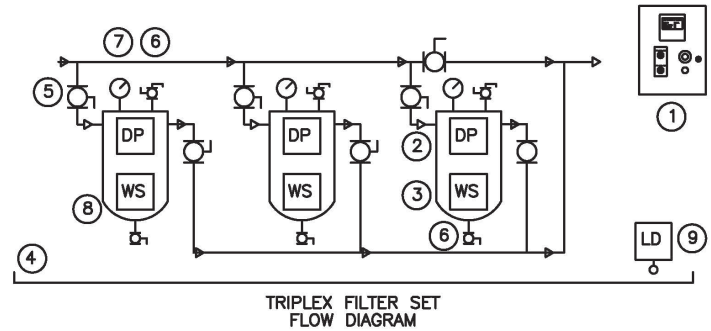
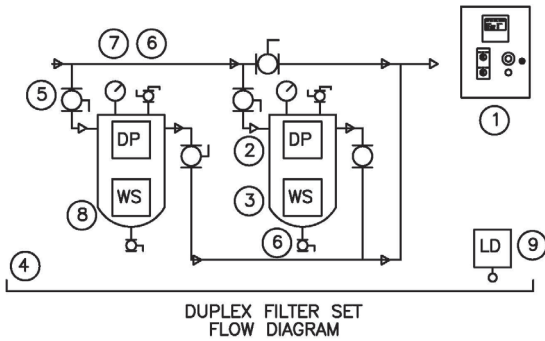
Ordering Information

**M3X0.MM** Filtration Polisher

X=2 Duplex Filter Polisher  
X=3 Triplex Filter Polisher

MM=01 1 Micron Filter / Separator  
MM=05 5 Micron Filter / Separator  
MM=10 10 Micron Filter / Separator  
MM=25 25 Micron Filter / Separator

M320 Duplex and M330 Triplex Filtration / Polisher	
Dimensions	M320 Duplex 30" L x 18" W x 60" H (760x460x1520) M330 Triplex 42" L x 18" W x 60" H (1060x460x1520)
Flow Capacity (GPM)	M320 Duplex 30 GPM (120LPM) M330 Triplex 45 GPM (180LPM)
Pressure Rating	150 PSI (1000 kPa)
Pump Type	Remote Submersible
Motor	M320 Duplex 0.33 HP (0.25 KW) M330 Triplex 0.75 HP (0.55 KW)  208 VAC, 3 Phase, 50-60 Hz
Filter Unit	Micron Rating Options 25 – 10 – 5 – 1 Coalescing and Particulate
Accessories	Inlet and Outlet Gauges Differential Pressure Sensor Filter Water Sensors Leak Sensor Water Drain Valve
Construction	Welded Steel Construction Integral Containment Basin 7 Gallon Industrial Enamel Finish Color RAL7035 Light Gray Optional Weatherproof Enclosure
Inlet / Outlet Connections	1.50" MNPT (38) Optional: Butt Weld, Socket Weld, or Flange
Controls	C820 OmniPlex Controller or C900 CentraPlex Master Controller
Motor Disconnect / Drives	C233 Single Standard Service C234 Dual Standard Service C235 SingleVFD Drive
Optional Equipment	01 Weatherproof Enclosure 02 Less OmniPlex Controller (CentraPlex System Control) 03 Add Electronic Meter 04 Dual Tank Service 05 Multi-Tank Service



MARK	QTY	DESCRIPTION
1	1	OMNIPLEX CONTROL PANEL
2	2	FILTER DP SENSOR
3	2	FILTER WATER SENSOR
4	1	FILTER CONTAINMENT
5	5	BALL VALVE
6	4	VALVE - FILTER DRAIN - VENT
7	2	GAUGE - FILTER
8	2	FILTER VESSEL CARTRIDGES
9	1	LEAK SENSOR

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## Duplex / Triplex Filter

The control panel operates remote submersible or suction pumps on a programmable timed cycle to circulate fuel from the storage tank through the filter and returning to the storage tank. The unit can be operated with a tank selection system to provide filtration for multiple tank units.

The programmable timer allows setting of the start time / date, the ON cycle time, and the OFF cycle time for the AUTO mode. The programmable timer allows setting of the cycle duration for the MAN mode, to start the pump upon manual initiation and stop it after the defined cycle.

The control panel monitors the filter units for high differential pressure indicating a need for filter change, and water accumulation. The leak sensor is also monitored and disables the unit from operation in MAN or AUTO mode.

The display indicates: (a) normal or alarm condition, (b) cycle active status, (c) time to start / stop cycle, (d) alarm indication for differential pressure, water accumulation, or leak, (e) pump status. A common alarm output relay and a serial data interface are provided for BMS integration