

EMERGENCY POWER FUEL SYSTEMS

PowerPlex M300

Compact Filtration / Polisher
with Integral OmniPlex Network Controller

BACnet, Modbus, Metasys N2, or LON Communications



General Description

The PowerPlex Filtration / Polisher is designed to circulate and clean fuel stored diesel fuel at critical facilities. Filtration / Polishing has become an important aspect of emergency power reliability: (a) critical facilities store increasing amounts of fuel onsite to assure continuity of operation and this fuel has low turnover in operation, (b) as diesel fuel ages, particulates form which can increase the wear on generator engine parts, (c) fuel storage tanks accumulate water through vapor condensation and this water can encourage bacterial growth, and (d) newer diesel engines with improved emissions technology require higher purity fuel to prolong engine life.

The M300 Filtration / Polisher has an innovative compact design has a minimal footprint for Filtration / Polishing of tanks from 500 to 50,000 gallon capacity

The mechanical design is based on Viking pumps and Racor filters and is complete with strainers, check valves, ball, valves, pressure / vacuum gauges, relief valves. The unit is mounted on an integral containment with leak detection monitoring.

The Filtration / Polisher includes a motor starter panel, or optional VFD drive, with disconnect switch.

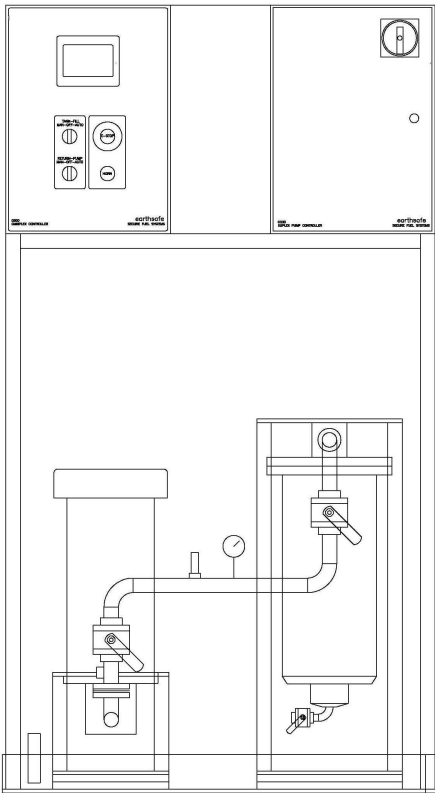
The OmniPlex Controller provides Filtration / Polisher operation and monitoring with HOA switches and an emergency stop. The OmniPlex screen provides a summary of operating parameters and allows selection of special operating modes. The Controller networks with other system controllers using Ethernet,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

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Ordering Information

M300.05.XX.MM 05 GPM Filter Polisher
M300.10.XX.MM 10 GPM Filter Polisher
M300.15.XX.MM 15 GPM Filter Polisher
M300.20.XX.MM 20 GPM Filter Polisher
M300.30.XX.MM 30 GPM Filter Polisher

XX=11 120 VAC – 1 PH
 XX=21 208 VAC – 1 PH
 XX=23 240 VAC – 3 PH
 XX=43 480 VAC – 3 PH

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

PowerPlex M300 Filtration / Polisher

Dimensions	30" L x 18" W x 60" H										
Flow Capacity (GPM)	5 – 10 – 15 – 20										
Pump Type	Viking Iron Body Pump										
Motor	Close Coupled TEFC Motor 120-240 VAC Single Phase, or 480-240 VAC Three Phase										
Horsepower	<table border="1"> <thead> <tr> <th>GPM</th> <th>HP@50 PSI Standard</th> </tr> </thead> <tbody> <tr> <td>05</td> <td>0.50</td> </tr> <tr> <td>10</td> <td>0.50</td> </tr> <tr> <td>15</td> <td>0.75</td> </tr> <tr> <td>20</td> <td>1.00</td> </tr> </tbody> </table>	GPM	HP@50 PSI Standard	05	0.50	10	0.50	15	0.75	20	1.00
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Filter Unit	Racor FBO-14										
Accessories	SS Flex Connectors Inlet Strainers Outlet Check Valve Leak Sensor Inlet Suction Gauges Outlet Pressure Gauges Motor Disconnect Switches										
Construction	Welded Steel Construction Containment Basin (7 GAL) Industrial Enamel Finish Color RAL 7035 (Light Gray) Option: Weatherproof Enclosure										
Inlet / Outlet Connections	1.00" MNPT (5-30 GPM) Optional: Plain End for Weld										
Controls	C820 OmniPlex Module										
Motor Disconnect / Drives	C233 Single Standard Service C235 SingleVFD Drive										
Optional Equipment	01 Weatherproof Enclosure 02 Less OmniPlex Controller CentraPlex System Control) 03 X-Proof Motors and Disconnects 04 Add Electronic Meter 05 Dual Tank Service 06 Multi-Tank Service										

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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)

Selecting a Flow Rate:

Tank Size (Gallons)	Turnover per Week with 5 GPM Continuous Run	Turnover Cycle Time (Hours)			
		5 GPM	10 GPM	15 GPM	20 GPM
5,000	10	16	8	6	4
10,000	5	33	16	12	8
20,000	2	66	33	24	16
30,000	1	100	50	38	25
40,000	1	128	64	48	32