# Filtration Solutions, Inc.

Technology Innovation and System Solutions

# WRS – 12 Membrane Filtration System

## The Right Technology for Wastewater Treatment and Coolant Recycling

### *Reduces Waste Volume by >90%*

The WRS filtration system, based on advanced membrane technology, is designed to treat oily wastewater, recycle machine coolant and industrial process fluids. The system produces clean water that is typically suitable for reuse or discharge, while concentrating organic and inorganic contaminants down to less than 10% of the original waste volume. For coolant recycling application, the system removes suspended solids, emulsified and free tramp oils, and bacteria while maintaining properties of the recovered coolants for maximum savings.

### *Pays for Itself in Weeks!*

The WRS System's ability to reduce waste volumes by more than 90% yields an equivalent savings in the volume of waste being hauled or processed in-house with expensive chemical treatment. Typical payback can be achieved in less than 6 months, and with the System's low annual operating costs, users can achieve meaningful savings from the very first day of operation.

### *The Hydrophilic Membrane Difference*

The WRS System's proprietary membrane will not pass, adsorb or be physically changed by "free" or emulsified oils. Where other membrane materials readily foul in the presence of oils, FSI's membrane filters will continue to perform consistently month after month through all of your process fluctuations.

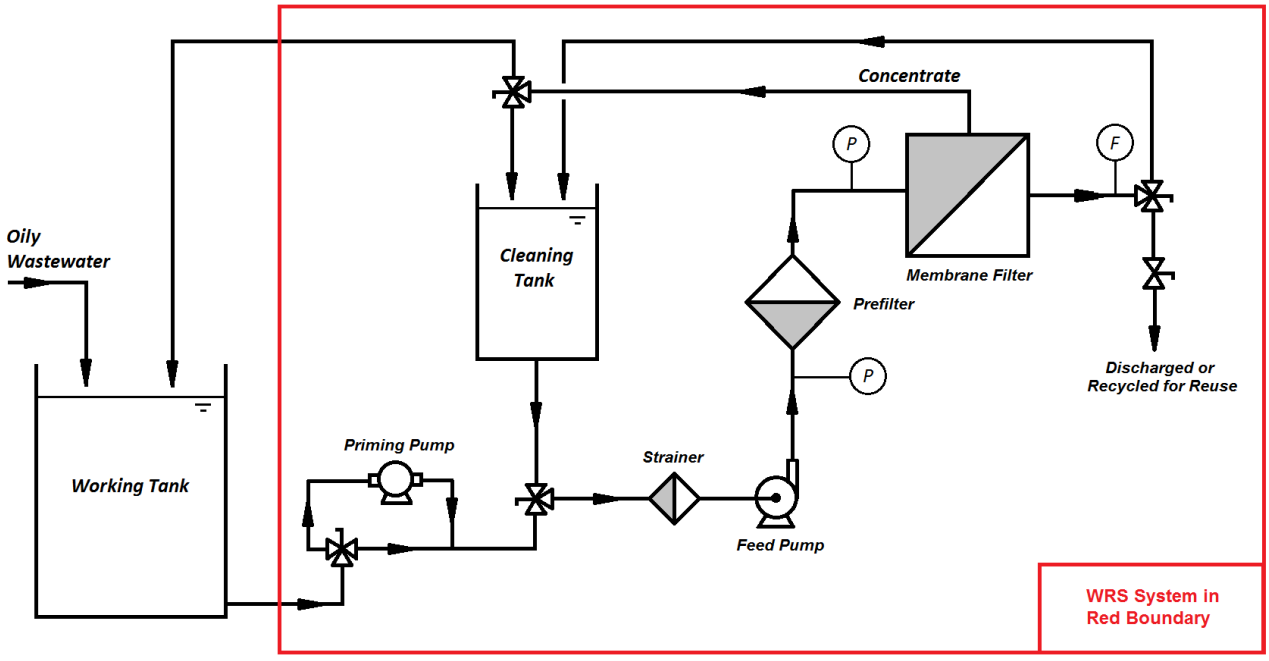
### *Easy to Install and Maintain*

WRS Systems are ready to use as delivered and can typically be operated from a standard 120V or 240V wall outlet. Since all WRS filter cartridges are designed to resist fouling, periodically cleaning with a simple detergent is all that is necessary to maintain optimal performance. Options for fully automated systems are available for unattended operation.

# WRS – 12 System Specifications

| Major System Components: | Operating Parameters: | |
|---|---|---|
| Stainless Steel Mobile Frame | Permeate Rate (Average) | 12 gph |
| Feed In-line Bronze Y-Strainer (20 Mesh) | Maximum Pressure | 60 psi |
| On-board Prefilter (10/50 Micron) | Maximum Temperature | 125°F |
| Industrial Grade Circulation Pump | Feed Pressure | 20-35 psi |
| On-board Priming Pump | Feed Flow | 6 - 8 gpm |
| Back Pressure Control Valve | pH Range | 3-11 |
| Pressure Gauge for Feed Monitoring | Electrical Supply | 120 V; 15 Amp |
| Flow Meter with Output Control Valve | Electrical Enclosure | NEMA 4/12 |
| On-board Wash Tank | Dimensions (W x D x H) | 30" x 18" x 48" |
| 3-way Valves for Process & Wash Cycle Control | Dry Weight | 125 Lb |
| GFCI Circuit Breaker | Motor Horsepower | 1/2 Hp |
| Hydrophilic Fouling-resistant Membrane Filter | Hoses and Seals | Buna-N/EPDM |
| Membrane Part Number: | Options: | |
| HP-3516 (Hollow Fiber) or | Manual and Automated Working Tanks | |
| SHP-2540 (Spiral-wound) | Transfer Pumps for Sumps and Tanks | |

## WRS System Flow Diagram





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