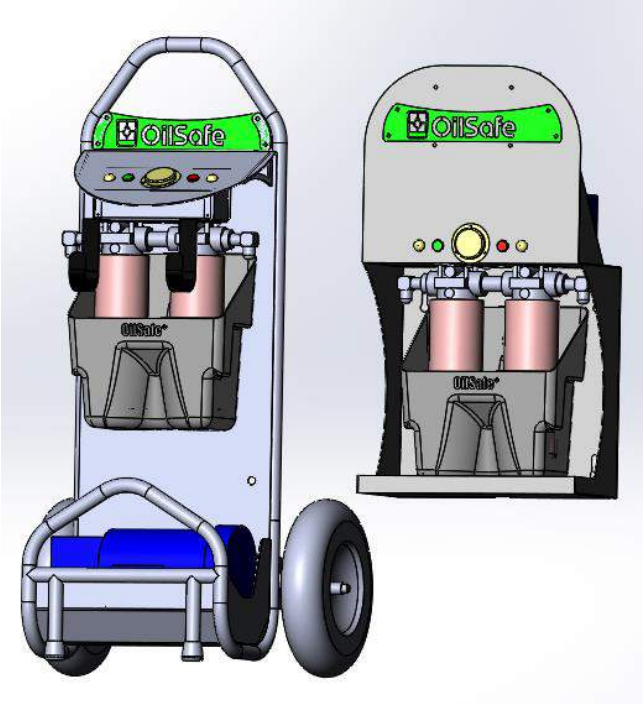
Filtration Units (Portable & Stationary)

Owner's Manual



IMPORTANT

- Please read this Owner's Manual carefully and thoroughly before operation.
- Please retain this owner's manual for future reference after reading it thoroughly.

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Explanation of Symbols Used

This manual contains some common symbols and indications to alert you to specific areas of importance.

WARNING

A situation that, if not avoided, could result in severe property damage, equipment damage, severe injury, or even death. FAILURE TO FOLLOW this warning will void your product warranty.

CAUTION!

A situation that, if not avoided, could result in property damage, equipment damage, or injury. FAILURE TO FOLLOW this caution will void your product warranty.

This text will be used before text that has been designated as important to the proper installation, operation, or maintenance of your system. FAILURE TO READ and understand this text may result in improper installation, operation, or maintenance procedures and may void your warranty.

Important

ALWAYS REFER TO THIS MANUAL OR CONSULT YOUR SUPPLIER FOR MORE INFORMATION.

- ALWAYS ensure that you wear appropriate Personal Protective Equipment ("PPE") when operating this system.
- ALWAYS ensure that all system hoses, filters and fittings are securely fastened and in good working condition.
- THE OIL DRUM MUST ALWAYS BE VENTED TO ATMOSPHERE (preferably utilizing a Desiccant Air Breather).

For ambient temperatures below 60°F (15°C) consult the manufacturer or your supplier for the supply of electric blanket heaters for oil barrels, pails and bulk tanks to ensure stability of lubricant viscosity, condition and system performance. Temperatures less than (<60°F / 15°C) can result in lubricant viscosity increasing above the rated ISO Code you specified at the time of order. Such adverse viscosity changes can cause higher system operating pressures than those set at the factory. System operating pressure should never exceed 150 PSI.

Introduction

Thank you for purchasing an OilSafe Filtration System. These systems were designed to filter and transfer oils, extending the life of lubricants. They are both manufactured in two configurations "Pro" and "Basic" as illustrated below.

	OilSafe Stationary Basic	OilSafe Stationary Pro	OilSafe Portable Basic	OilSafe Portable Pro
Portable oil transfer cart			X	X
Colorized Nameplate or color feature to identify fluid type	X	X	X	X
1HP - totally enclosed fan cooled electric motor	X	X	X	X
Oil pump with integral relief valve	X	X	X	X
Upstream & Downstream oil sample ports	X	X	X	X
Powder coated finish on steel frame instead of paint	X	X	X	X
1200 RPM Electric Motor (less static charges & less oil shearing)	X	X	X	X
System operating pressure gauge	X	X	X	X
Full front panel for spill containment (1st layer of spill reduction)	X	X	X	X
Removable filter element spill containment (2nd layer)	X	X	X	X
Lower frame spill containment (3rd layer of spill reduction)	X	X	X	X
Medium Pressure non-bypassing filters (better oil filtration)	X	X	X	X
Beta 2000 filters 99.95% efficient (better oil filtration)	X	X	X	X
ID & OD filter seals (less oil bypass & better oil filtration)	X	X	X	X
Differential Visual filter indicators	X	X	X	X
Differential Electrical filter indicators & lights		X		X
24VDC Controls (safer on/off control)		X		X
Convenient & secure transfer hose storage			X	X
15" Heavy duty pneumatic wheels			X	X
Isolation front feet (reduce unit walking away and vibration)			X	X
Retractable 40Ft electric cord reel			X	X
8Ft clear-wire reinforced transfer hoses			X	X
Adjustable Overload protection (electrical protection)		X		X
Zero-Leak Flat Face quick disconnects				**X**
Error-proof quick disconnects (eliminate cross-contamination)				**X**

SYSTEM SETUP

Portable Filter Unit

- No major set-up or assembly is required.

Stationary Filter Unit

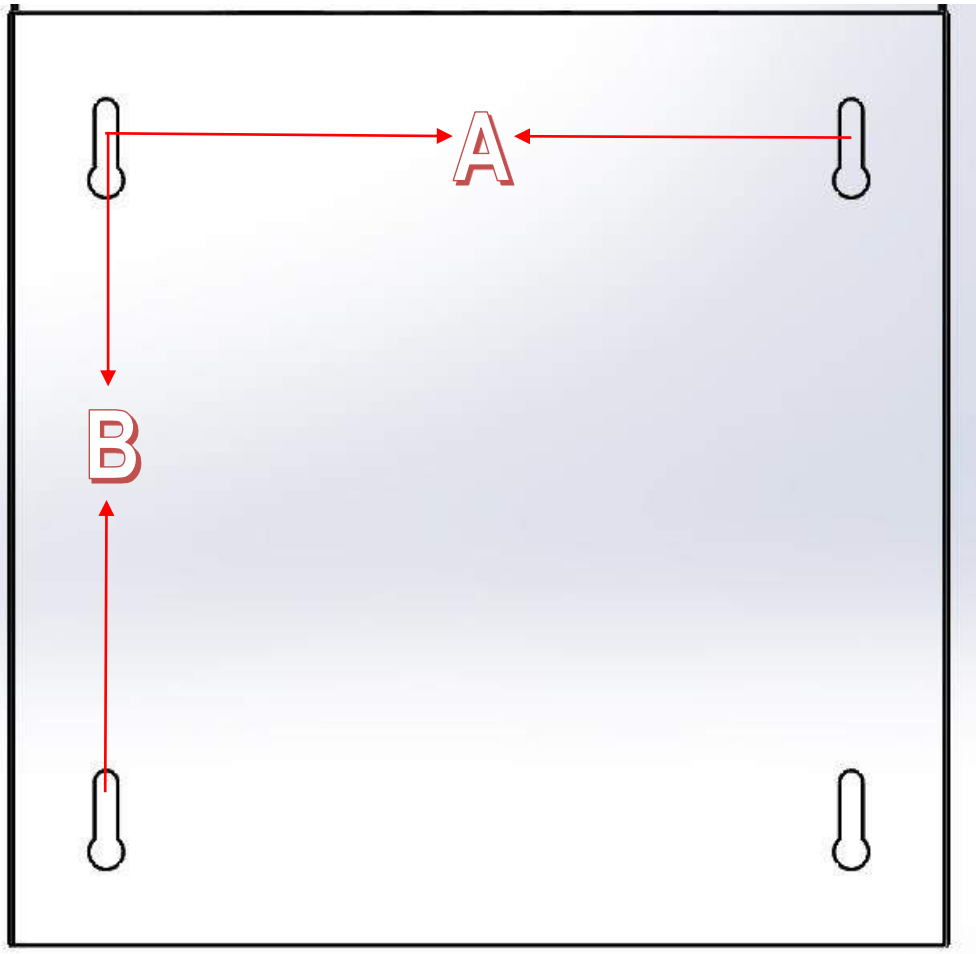
- Inlet and outlet hoses to unit are required. (If you would like 8ft premade hoses, please order part #????????)
- Holes for wall mounting are provided in aluminum frame.
- Basic Unit has a 3ft cord and electrical plug.
- Pro Unit requires 115VAC-15A service to be wired to the electrical control panel (electrical schematic can be located on page#??).

Equipment Power Supply (Portable & Stationary Units)

- Electrical motor requires 110VAC/15AMP electrical service or if ordered for 208-230VAC electrical service, 208-230VAC/10AMP service is required.

WALL MOUNTING STATIONARY UNIT

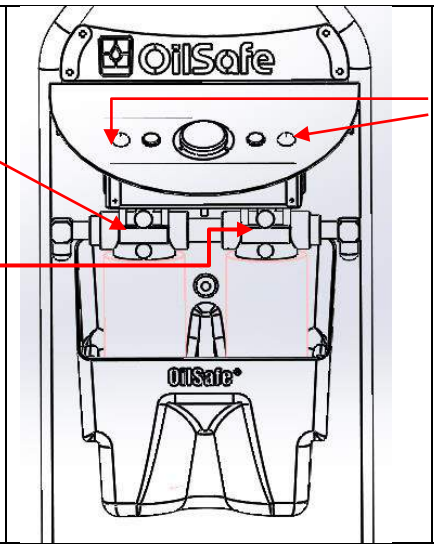
Mounting Holes provided are “A” = 16” (for 16” On-Center Studded Walls) x “B” = 14.5”.



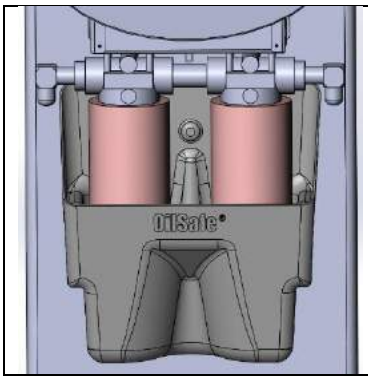
SERVICING FILTER ELEMENTS

OilSafe Filtration Systems have removable spill containment vessels, which make servicing the filter elements a safer and cleaner process.

BASIC UNITS
Differential Visual Indicators are provided on all Basic Units. These indicators measure upstream and downstream pressures providing incremental indication of actual pressure drop through each filter. Replace filter element(s) when indicator shows red. They will reset automatically when the filter element(s) are replaced.

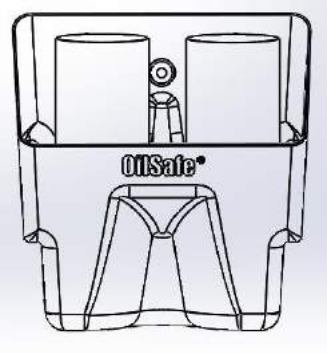


PRO UNITS
Have both Differential Visual Indicators and Electrical Indicators for each filter. This provides effective filter element monitoring. Each filter has a yellow indicator light on the control panel which will illuminate when the filter element requires servicing.
All indicators automatically reset when filter element(s) are replaced.



REMOVING FILTER ELEMENTS
MAKE SURE SYSTEM IS SHUT-OFF, UNPLUGGED AND SAFE FOR SERVICING.

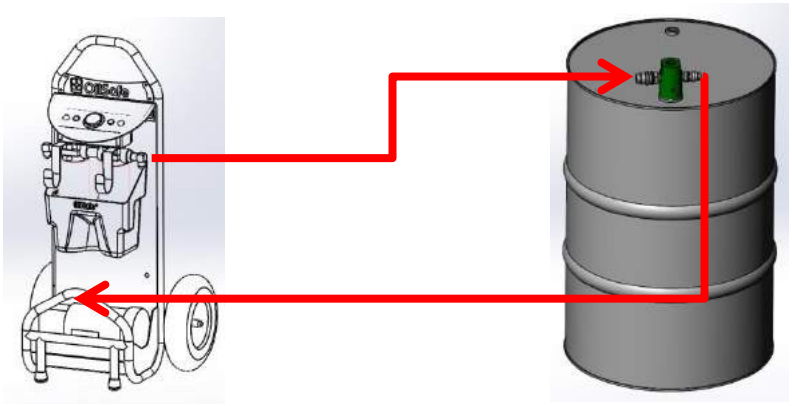
Loosen filter elements by turning them counter-clockwise. When they detach from the threads on the filter heads, let them rest in the OilSafe containment vessel as residual oil is encapsulated and contained. This provides safer and cleaner filter element servicing. It also provides a safer way to convey used filter elements to the used oil collection area.



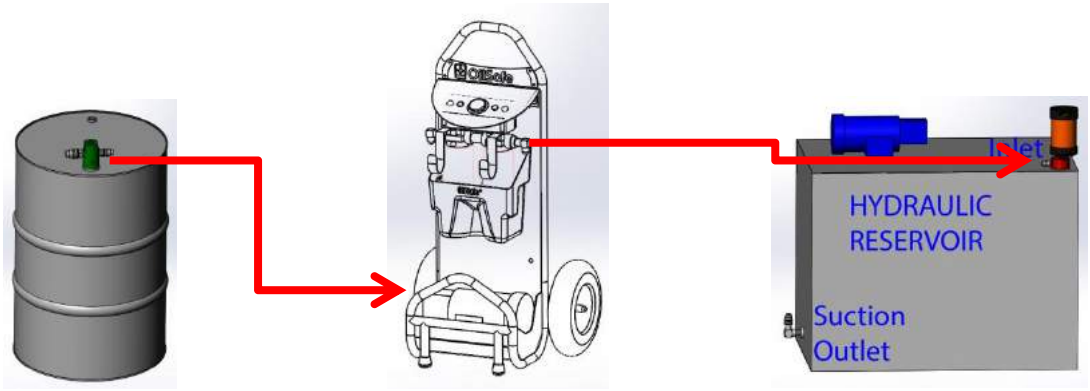
REPLACING FILTER ELEMENTS
After disposing of used filter elements, replace them with new ones (A selection chart of elements available can be located on page#??). Place the new filter(s) in the spill containment vessel, then hang the vessel onto the filtration system. Next lubricate the 2 O-rings already installed on the filter element. Lastly, reinstall the filter(s) onto the threads of the filter head by rotating the elements clockwise until it bottoms out and stops turning.

EXAMPLES OF PORTABLE UNIT USE

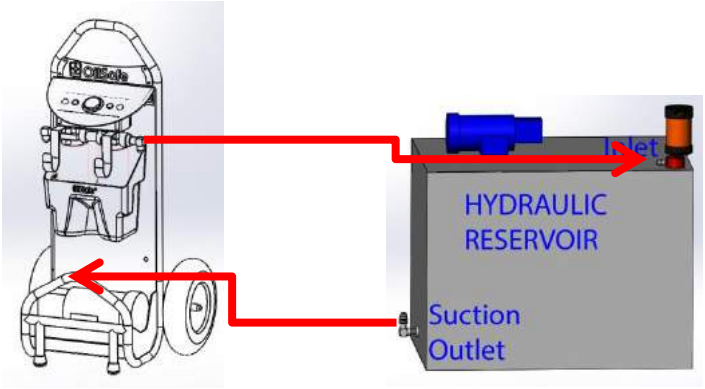
Portable Off-Line Filtration: Where oil is circulated in kidney loop arrangement to filter oils while they remain in a drum, tote, container or in equipment.



Fluid Transfer: To transfer filtered oil into equipment.

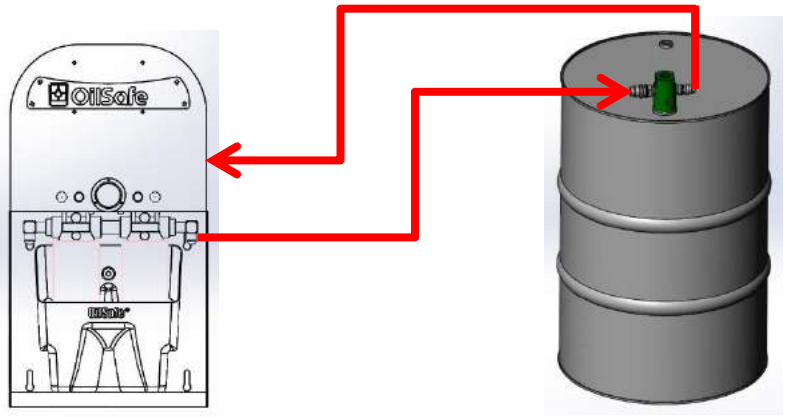


Dedicated Off-Line Filtration



EXAMPLES OF STATIONARY UNIT USE

Stationary Off-Line Filtration: Where oil is circulated in kidney loop arrangement to filter oils while they remain in a drum, tote, container or in equipment.



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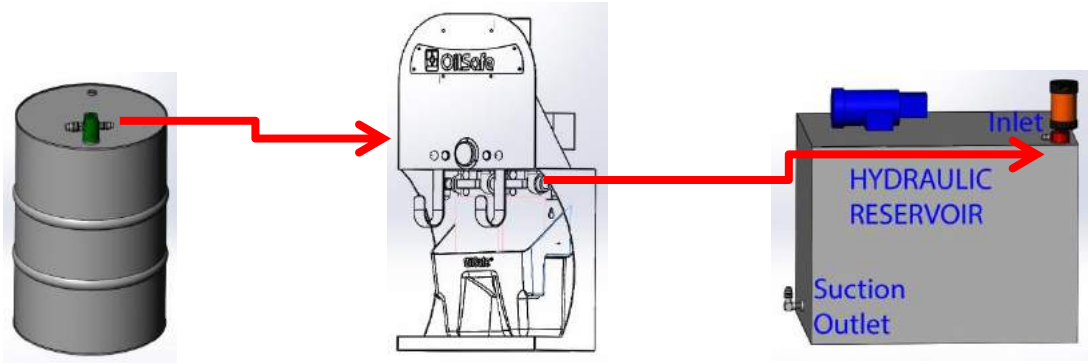
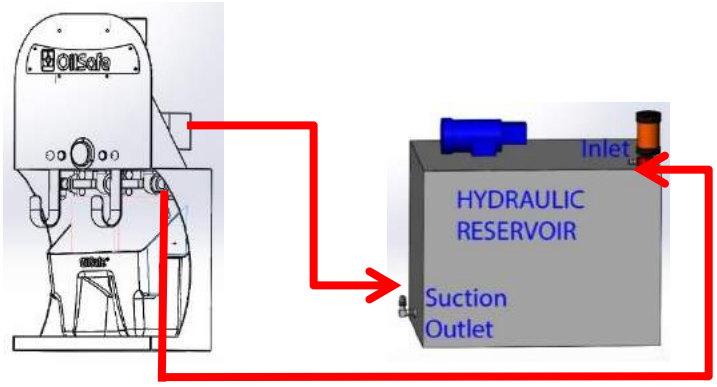


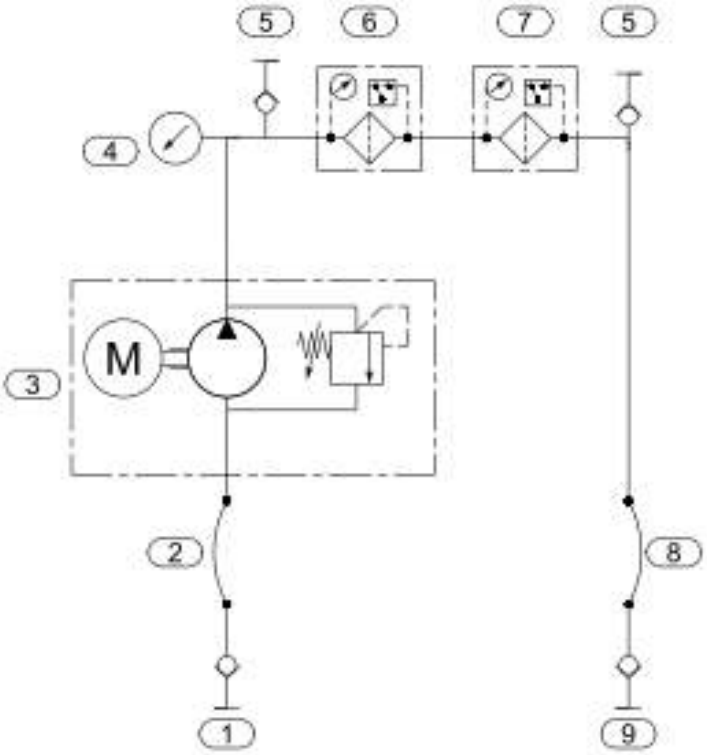
Dedicated Off-Line Filtration



(Stationary Unit shown with optional Hose Holder)

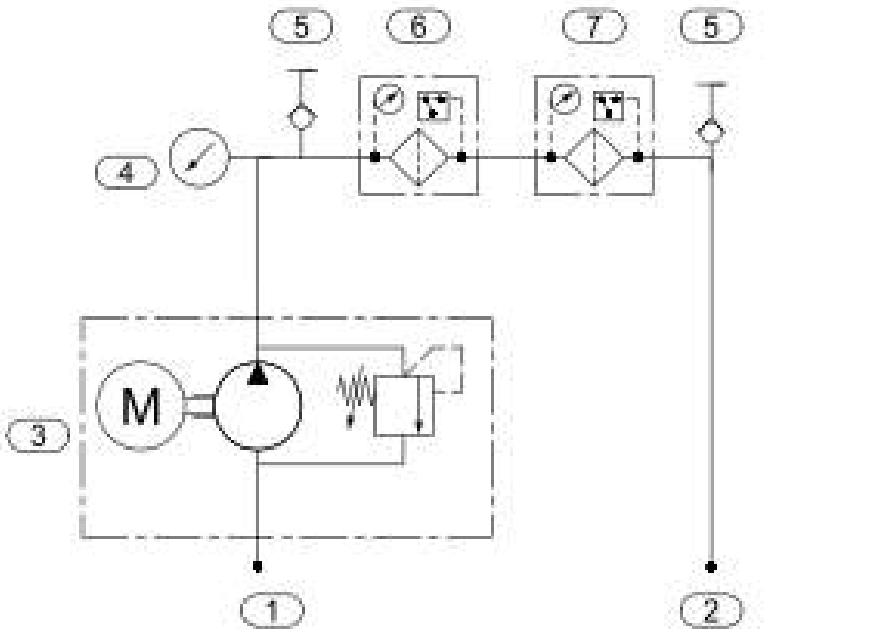
Plumbing Schematic

Portable Filtration Unit
Plumbing Schematic



1	3/4" Female Quick Disconnect
2	8Ft x 3/4" Suction Hose
3	1HP-1200RPM-5GPM Pump-150PSI
4	Pressure Gauge
5	Up & Downstream Sample Ports
6	Upstream Filter with Indicator
7	Downstream Filter with Indicator
8	8Ft x 3/4" Discharge Hose
9	1/2" Female Discharge Quick Disconnect

Plumbing Schematic

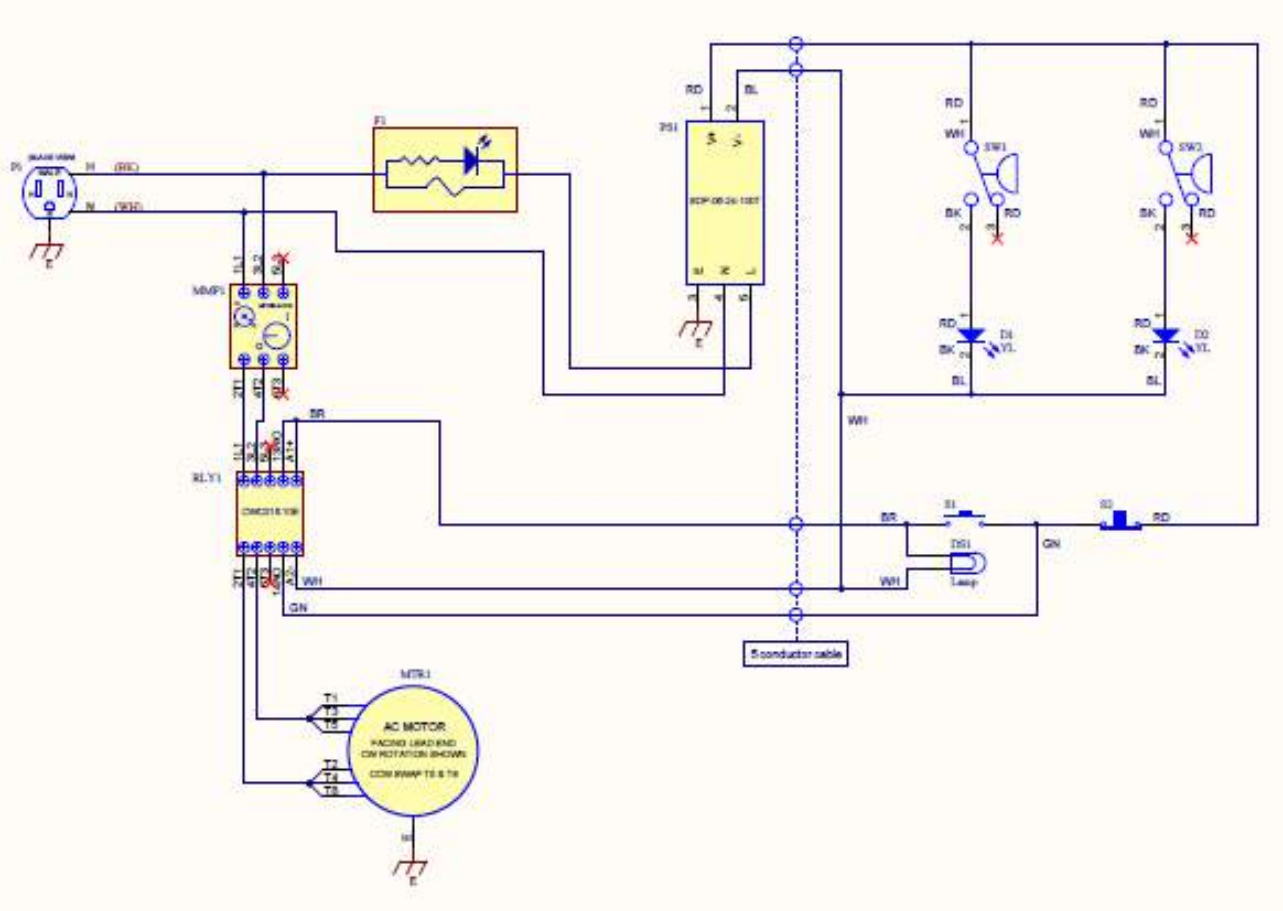


1	3/4" Male JIC Inlet Connection
2	3/4" Male JIC Outlet Connection
3	1HP-1200RPM-5GPM Pump-150PSI
4	Pressure Gauge
5	Up & Downstream Sample Ports
6	Upstream Filter with Indicator
7	Downstream Filter with Indicator

Electrical Schematic ("Pro"-Portable & Stationary Units)

DANGER

NEVER SERVICE ELECTRICAL SYSTEM OR ACCESS ANY WIRE, SWITCH OR COMPONENT WHILE SYSTEM IS PLUGGED IN. SHOCK OR ELECTROCUTION MAY occur. ALWAYS CONTACT AN AUTHORIZED ELECTRICTIAN FOR ALL ELECTRICAL SERVICE REQUIREMENTS.



OIL VISCOSITY & COMPATIBILITY

VISCOSITY

Maximum oil viscosity is 3000SUS. See chart below for flow rate corrections based on oil viscosity at ambient temperature of 70ºF.

ISO VISCOSITY	32	46	68	100	220	320	460	680
Pump Flow Rate (GPM)	5	4.5	4.5	4	4	3	3	2.5

- Oil temperature will affect output flow performance of pump and actual flow rate

COMPATIBILITY

All of the metals and seals used in construction are suitable with general purpose lubricants. If you plan to filter speciality lubricants or have compatibility concerns, please see list of materials below or contact your Distributor:

Frame (Portable)	Steel w/powdercoat finish
Frame (Stationary)	Aluminum w/powdercoat finish
Electric Motor TEFC	Steel with paint finish
Gear Pump for Electric Motor	Aluminum w/Buna Seals
Ball Valves	Brass Body (Buna/Teflon seals)
Gauge	Steel Case Brass connector
Hoses	Nitrile, rubber, pvc
Adapters	Steel w/zinc finish
Oil Sample Ports	Steel with zinc finish Buna seals
ISO B Quick Disconnects	Steel Body (Buna/Teflon seals)
Flat Face Quick Disconnects	Anodized Aluminum Body Buna/Teflon)
Spill Containment Vessel	HDPE

QUICK DISCONNECTS

- *OilSafe Portable Filtration Systems incorporate female quick disconnects on hose ends, requiring male/mating halves to be placed onto equipment, drums and reservoirs.*
- *Standard systems use ¾" female quick disconnects on suction hose and ½" on discharge hose.*
- *Pro Versions use Flat Face Style Quick Disconnects, Basic Versions use ISO B Style.*

Flat Face Style (Colorized & Leak-Free)
As the name implies, flat face style quick disconnects use specially designed valves that nearly eliminate residual leaks while mating. Ours are annodized in different colors, to help identify fluid type and have mechanical features that eliminate cross-contamination, each QD only mates with matching color.

	½" Male Half Part#	¾" Male Half Part#
Red	#M8RED	#M12RED
Blue	#M8BLUE	#M12BLUE
Gray	#M8GRAY	#M12GRAY
Yellow	#M8YELLOW	#M12YELLOW
Beige	#M8BEIGE	#M12BEIGE
Dark Green	#M8DRKGREEN	#M12DRKGREEN
Mid Green	#M8MIDGREEN	#M12MIDGREEN
Purple	#M8PURPLE	#M12PURPLE
Orange	#M8ORANGE	#M12ORANGE
Black	#M8BLACK	#M12BLACK

ISO B Poppet Style
This type of quick disconnect is inexpensive, simple and widely available. They are not leak-free connection types and they will not prohibit improper use (cross-contamination).

½" Male Half # ¾" Male Half #

Replacement Parts

Oil filters are medium pressure Spin-on type. Filter heads have differential indicators for filter element indicators. Basic filtration systems have differential visual indicators, Pro filtration systems have diferential visual and electrical filter indicators. Each filter element has installation instructions printed on them. For any additional information, please contact your OilSafe representative.

Part#	Description
#469961	4 Micron Absolute β2000 – 99.95% Efficient Filter Element x 14.25” Long
#469963	7 Micron Absolute β2000 – 99.95% Efficient Filter Element x 14.25” Long
#469965	25 Micron Absolute β2000 – 99.95% Efficient Filter Element x 14.25” Long
#469968	Water Removal & 25 Micron Filter Element x 14.25” Long
#??????	8ft Hose Set (Suction & Return Hose) (does not include quick disconnects)
#??????	1HP-1200RPM Electric Motor
#??????	5GPM gear pump
#??????	Diaphragm Pump (used on pneumatic systems)
#172026	Spill Containment Vessel

Customer Serivice and Warranty Issues

For any customer serivice, ordering requests or warranty issues, please contact your authorized supplier or Whitmore.

You may contact Whitmore as follows:

Whitmore
930 Whitmore Drive
Rockwall, Texas 75087

1-800-699-6318
972-771-1000
Fax: 972-722-2108

General/Sales Information: sales@oilsafe.com
Customer Support: techservice@oilsafe.com

Notes: