



**FILTER VAC** INTERNATIONAL INC.

## **EXTENDER** OIL CONDITIONER

**EXTEND THE LIFE OF YOUR OIL AND YOUR MACHINERY**

Most oil filtration equipment that is originally installed to protect industrial equipment & transformers cannot remove contamination adequately to maximize the long life potential of the equipment.

### **The Filtervac Solution - The EXTENDER Off-Line Oil Conditioning System**

The Extender is designed for continuous or portable use and utilizes several control features that allow for unattended use. Oil reservoirs are continuously kept clean and dry and ensure that oil specifications that are outlined by Original Equipment Manufacturers (O.E.M.) are met or surpassed. The Extender Oil Conditioner utilizes the following features:

- Removal of particulate & carbon smaller than 3, 6, 14, 20 & 37 microns absolute with the use high quality pleated filters.
- Standard flow rates at 3, 10, 30 & 50 USGPM
- Water removal filters available
- Optional Heaters
- Standard System includes Single Filter Vessel. For additional filtration, Filtervac offers a design that utilizes a second optional Filter Vessel.
- Self-contained & skid mounted system
- Viton seals for high degree of fluid compatibility
- Optional portability kit that includes castors & hoses



3 USGPM Fuller's Earth & Trap Filter Model

The **Extender Oil Conditioner** can effectively remove particulate & water in the following applications:

GAS TURBINES  
TURBINE SPEED CONTROL SYSTEMS  
COMPRESSOR & SEAL OIL SYSTEMS  
SMALL BOILER FEED PUMP TURBINES  
GAS & DIESEL ENGINES  
COAL PULVERIZERS & GEAR BOXES

PAPER MACHINES  
FORCED DRAFT FANS  
INDUCED DRAFT FANS  
FLUID DRIVES  
TRANSFORMERS  
TAP CHANGERS

# DETAILED STANDARD SYSTEM DESCRIPTION:

- #1 CONTAINMENT SKID:** The Extender is conveniently skid mounted with provisions for lifting the unit by forklift to allow for easy installation. The skid design includes a 2" spill containment lip to ensure maximum environmental protection. The skid dimensions vary depending on the capacity of the system but the standard dimension is approximately: Length= 44" or 53", Width = 34" & Height = 50" depending on the capacity of the system.
- #2 INLET CONNECTIONS:** An isolating full port ball valve is utilized at the inlet location and the connection size varies depending on the system's flow capacity.
- #3 SUCTION STRAINER:** A cleanable "Y" type strainer(40 Mesh Rated) is provided to protect the pump. A vacuum gauge is located downstream of the pump to help determine when the strainer is required to be cleaned.
- #4 PUMP & MOTOR:** A Positive Displacement Gear Pump with a pumping capacity of either 3, 10, 30 or 50 USGPM is utilized. Construction of pump will be all iron construction, carbon bushing, single mechanical Buna-N seal and plain head. The pump is driven by a TEFC electric motor. Optional Wash Down or Explosion Proof Motor is available upon request.
- #5 SAMPLE PORT(Qty 2):** Two(2) sample ports are provided & equipped with a ball valve and pig tail for ease in taking oil samples. Oil samples taken from first port indicate the oil cleanliness in the dirty oil tank & the second port provides oil cleanliness after processing.
- #6 FILTER HOUSING(S):**
- Filtervac offers several levels of filtration combinations which suit most kind of applications and requirements.
- Single Stage Filtration:** Filtervac provides one(1) filter housing that is designed to accept one(1) 6" X 36" filter element. The Filter Housing can utilize a pleated particulate removing filter element(various micron ratings available) or it can utilize a water adsorptive filter.
- Dual Stage Filtration: (Option D)** Filtervac provides two(2) filter housings piped in series and each housing is designed to accept one(1) 6" X 36" filter element. With the use of two(2) filter housings the operator can utilize different combinations of filtration levels.
- Fullers Earth & Trap Filtration(Option FE)** Filtervac provides two(2) filter housings piped in series.
- Filter #1: This vessel(c/w six cartridges) is designed to accept six(6) Filtervac 6" X 18" Fullers Earth cartridges. These Fullers Earth Cartridges are constructed with an outer perforated jacket, a centre core & a flat gasket design. The filter housing is equipped with a davit arm to provide easy filter removal.
- Filter #2: Filtervac provides one(1) filter housing that is designed to accept one(1) 6" X 36" filter element. The purpose of this housings is to remove particles from the oil and also to capture any Fuller's Earth particles that may have been emitted from the Fuller's Earth Cartridges.
- #7 DIFFERENTIAL PRESSURE GAUGES** Differential pressure gauge(s) c/w drag pointer is mounted on all filter housings to indicate when the filter elements need to be changed.
- #8 OUTLET CONNECTION:** An isolating full port ball valve is utilized at the inlet location and the connection size varies depending on the system's flow capacity.
- #9 CONTROL PANEL:** NEMA 12 rated control panel that contains the on/off switch and 460VAC, 3phase, 60Hz electrical connection. Differential pressure switches are provided for both filter housings and a illuminated light(Dirty Filter Alarm) on the panel will signal when the filters are to be changed. The advanced monitoring controls also provides automatic shutdown of system when maximum differential pressure is reached and a reset button is provided.
- #11 FLOW INDICATOR:** A flow indicator upstream of inlet pump is designed to send a signal to the control panel when low flow conditions is present & should the low flow condition continue for a prolonged time period, the system would safely shut down. A Kaydon Flow Indicator complete with electrical switch is offered to protect the pump under low flow conditions. When low flow indication is encountered, a signal is sent to the control panel which then safely shuts down the system and a local & remote alarm will be triggered.



# **FILTER VAC INTERNATIONAL INC.**

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## **MINI FILTERVAC EXTENDER OIL CONDITIONING SYSTEMS**



**MODEL NO.: EXTEND-115-FS-S/O-5-ISO320  
RATED FOR USE ON ISO 320 OIL**

### **SINGLE STAGE FILTRATION/SPIN ON TYPE FLOW RATE: 3 & 5 USGPM**

- Positive Displacement Gear Pumps are utilized and are closed coupled to standard ½ HP Rated TEFC Motors. Each Pump comes complete with an internal relief valve.
- Operating Voltage is 115V/1PH/60HZ. Compact start/stop module(NEMA IV rated; Overload Protection included) is provided.
- Single Stage Filtration is achieved with the use of a High Capacity/High Efficiency Spin On Filter Assembly. Spin On Filter's c/w a variety of absolute micron ratings(3, 5, 10 & 20).
- Filter Assembly comes complete with an internal by-pass valve set at 43 PSI. Filter's Differential Pressure is monitored with a colour coded differential pressure gauge.



**Model No.: EXT-P-573-3GPM-H/4KW-3WBV  
RATED FOR USE ON ISO 680 OIL  
SYSTEM INCLUDES PORTABILITY KIT(OPTION P) &  
HEATER INSTALLATION(OPTION H/4KW)**

### **SINGLE STAGE FILTRATION/CARTRIDGE TYPE FLOW RATE: 3 & 5 USGPM**

- Positive Displacement Gear Pumps are utilized and are closed coupled to standard ¾ HP Rated TEFC Motors. Pump comes complete with an internal relief valve.
- Operating Voltage available in 575V/3PH/60HZ, 460V/3PH/60HZ, 380V/3PH/50HZ & 115V/1PH/60HZ(Not available with Option H).
- Control Panel provided with switches & lights.
- Optional use of Electric Heater(OPTION H; 4KW or 8KW) Rated is available
- Single Stage Filtration is achieved with the use of a Filter Vessel that houses a 6"(OD) X18"(L) Pleated High Efficiency Filter Cartridge. Filter Cartridges are provided in a variety of absolute micron ratings(1, 3, 6, 10, 20 & 37).
- Filter Assembly comes complete with an internal by-pass valve set at 40 PSI. Filter's Differential Pressure is monitored with a differential pressure gauge/switch.