



FSL Filter Unit

Flow rate up to 22 gpm (82 lpm)

Dedicated filtration skids for gearbox and side-loop reservoir conditioning.

Ideal for high viscosity lube and hydraulic oils (ISOVG22~ISOVG460)

Filter new fluids during transfer and replenishment (top-off)

Remove particulate and water contamination.

Large element yields extended life.

See Coal Mill Success Brochure for Gearbox & Oil Cost Benefit Analysis

Materials of Construction

Assembly Frame: Painted Steel
 Drip Pan: Painted Steel
 Filter Assembly: Epoxy coated steel
 25 or 50 psid bypass available
 True differential pressure indicator

Operating Temperature

Nitrile (Buna)	-40°F to 150°F
	-40°C to 66°C
Fluorocarbon (Viton)*	-15°F to 200°F
	-26°C to 93°C

*High temperature / phosphate ester design

Fluid Compatibility

Petroleum and mineral based fluids (standard).
 For polyol ester, phosphate ester, and other specified synthetics use Viton seal option or contact factory.

Weight

FSL1 (36 length): 260 Lbs (117 kg) approximate
 FSL2 (36 length): 273 Lbs (124 kg) approximate
 FSL3 (36 length): 292 Lbs (133 kg) approximate

Explosion Proof Option

Class 1, Div 2, Group C/D explosion optional.

Electrical Service

115VAC 60Hz 1P standard
 (see options table for other selections)

Electric Motor Specifications

TEFC or ODP, 56C frame
 FSL1: 1 HP, 115VAC, 60Hz, 1P, 1750 RPM
 FSL2: 1 HP, 115VAC, 60Hz, 1P, 1750 RPM
 1 HP, 230VAC, 60Hz, 1P, 1750 RPM
 or 440VAC, 60Hz, 3P, 1750 RPM
 FSL3: 3HP, 230VAC, 60Hz, 1P, 1750 RPM
 or 440VAC, 60Hz, 3P, 1750 RPM

Recommended Viscosity Range*

FSL1*: 28 SSU ~ 6000 SSU, 6 cSt ~ 1200 cSt
 FSL2*: 28 SSU ~ 5000 SSU, 6 cSt ~ 1000 cSt
 FSL3*: 28 SSU ~ 3000 SSU, 6 cSt ~ 600 cSt

*Please check maximum viscosity of oil in coldest condition and normal operating condition for sizing and selection. Do not rely solely on ISO VG viscosity rating of the fluid.

Maximum Acceptable Suction Condition

Maximum operating pressure Loss 6 psi, 12 Hg.

Pump Specifications

Gear pump
 Internal relief full flow @ 100 psi standard.



Cleaner Fluid, Greater Reliability

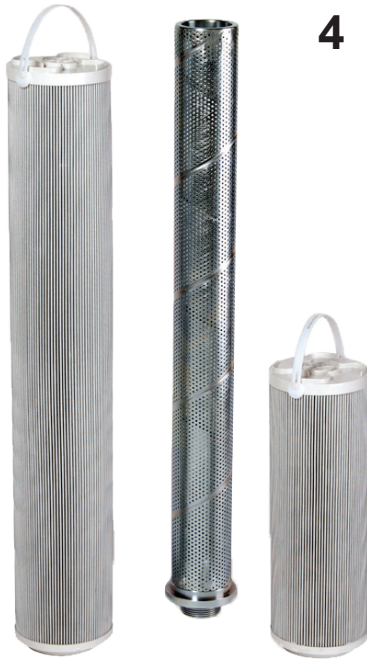
When establishing a target ISO cleanliness code first identify the most sensitive component. New oil added should be cleaner than the target ISO code for the system.

Figure 1 details the improvements in component life as the ISO cleanliness is improved for roller contact bearings. Improving and stabilizing fluid cleanliness codes can increase hydraulic component and bearing life exponentially.

Lab and field tests prove time and again that Hy-Pro filters deliver lower ISO cleanliness codes, and do it with greater consistency.

Figure 1

Current ISO Code	Target ISO Code	Target ISO Code	Target ISO Code	Target ISO Code
Start	2 X Life	3 X Life	4 X Life	5 X Life
28/26/23	25/22/19	22/20/17	20/18/15	19/17/14
27/25/22	23/21/18	21/19/16	19/17/14	18/16/13
26/24/21	22/20/17	20/18/15	19/17/14	17/15/12
25/23/20	21/19/16	19/17/14	17/15/12	16/14/11
25/22/19	20/18/15	18/16/13	16/14/11	15/13/10
23/21/18	19/17/14	17/15/12	15/13/10	14/12/9
22/20/17	18/16/13	16/14/11	15/13/10	13/11/8
21/19/16	17/15/12	15/13/10	13/11/8	-
20/18/15	16/14/11	14/12/9	-	-
19/17/14	15/13/10	13/11/8	-	-
18/16/13	14/12/9	-	-	-



Coreless Filter Element Technology

Hy-Pro coreless elements are featured in the FSL series (see figure 4). The elements are oversized to yield extended element life and handle a wide variety of high viscosity oils. Hy-Pro coreless elements utilize wire mesh pleat support which ensures that the pleats won't collapse or lose integrity.



True Differential Pressure Gauges & Switches

Differential pressure gauges with green to red display ensures proper monitoring of filter element condition. DIN connector switch can be added to any pressure gauge (see figure 5).

Cost of Contamination Control - The Tip of the Iceberg

Filtration as a visible cost is less than 3% of the total costs associated with contamination and contamination related failures. Poorly managed fluid contamination can result in the following costly situations:

- **Lost Production (Downtime)**
- **Component Repair, Replacement**
- **Higher Maintenance Labor Costs**
- **Unreliable Machine Performance**
- **Reduced Fluid Life**
- **Wasted Time and Energy**



FILTRATION