



# Compact Filter Unit

Flow rate up to 5 gpm / 18.9 lpm

CFUL (low viscosity) Ideal for hydraulic fluids up to ISO VG100.

CFUH (high viscosity) Ideal for lube & hydraulic fluids up to ISO VG460.

Filter new fluids during transfer and top-off, or bulk oil before use.

Flush fluids already in service with high efficiency elements in addition to existing filtration.

Remove particulate and water.

## Materials of Construction

Assembly Frame: Painted Steel & Aluminum  
 Filter Assembly: Aluminum head, Steel canister,  
 Element bypass valve, Differential pressure indicator  
 Hoses: Reinforced synthetic + steel wands

## 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, specified synthetics (phosphate ester)

## Fluid Compatibility

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

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## Weight

CFU\_ electric: 45 Lbs / 20.5 Kg  
 CFU\_ pneumatic (P): 42 Lbs / 19 Kg  
 CFU\_ pneumatic (B): 30 Lbs / 13 Kg

## Pneumatic Option Air Consumption

P option air motor: ~15 cfm / 24.5 m³/h  
 B option bladder pump: ~7 cfm / 11.9 m³/h  
 Air consumption values are estimated maximums and will vary with regulator setting.

## Electric Motor Specifications

TEFC or ODP, 56C frame  
 1/4 -1/2 HP, 1750 RPM, thermal overload reset

## Recommended Maximum Oil Viscosity

CFUH05: ISOVG460 (75F/24C minimum)  
 CFUH1: ISOVG460 (80F/26C minimum)  
 CFUH2: ISOVG460 (100F/40C minimum)  
 CFUL05: ISOVG100 (60F/15C minimum)  
 CFUL1: ISOVG100 (68F/20C minimum)  
 CFUL2: ISOVG100 (75F/24C minimum)

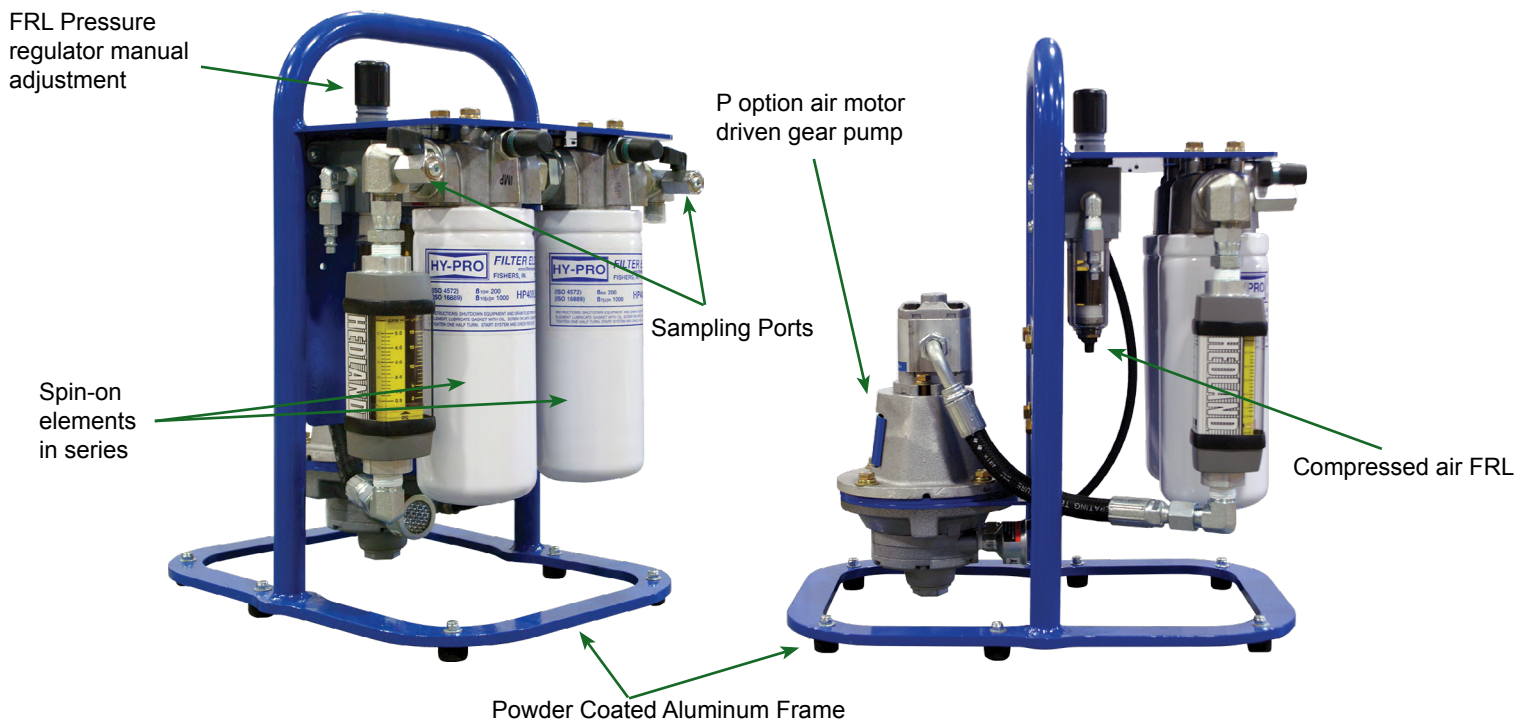
\*High viscosity oils (ie ISO320-460) may require positive head pressure to ensure proper flow into the CFUH. Contact factory for guidance on high viscosity fluids to be treated at cold ambient temperatures for assistance with suction line pressure loss & element differential pressure.

## Hazardous Environment Options

Select pneumatic powered unit (B or P power Option) or explosion proof NEC Article 501, Class 1, Div 1, Grp C & D optional. Call for IEC, Atex or other requirements.



## CFUL (low viscosity) PNEUMATIC P OPTION AIR MOTOR



## CFUH (high viscosity) ELECTRIC MOTOR POWERED OPTION



### 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 improvement 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	-	-	-

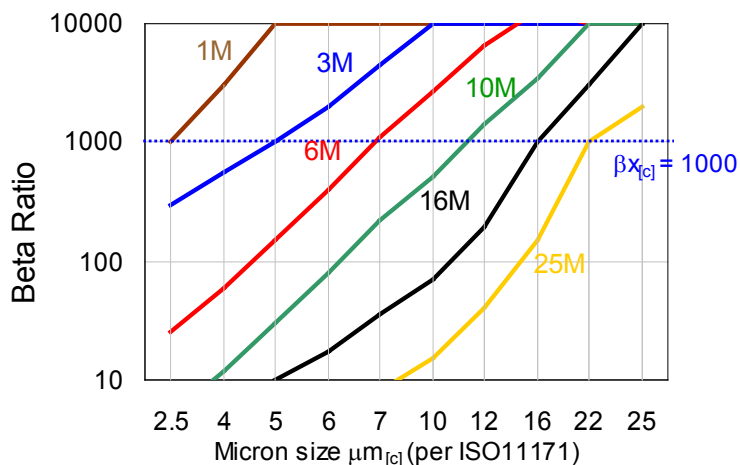
### The Right Element Combination

Figure 2 illustrates some possible combinations to use on the CFUL series low viscosity unit. When water removal is desired use the 25A media code as a pre-filter. A finer media can be used on the main filter (second) to capture smaller particulate and reduce the ISO code. When conditioning a tote or flushing a fluid already in use the 1M media code will yield the quickest result on particulate.

Figure 2

Current Condition	Pre-Filter	Main-Filter
ISO 25/24/22 (New oil) with High water content	HP409L9-25AB $\beta_{22}[c] = 1000$ + water removal	HP409L9-3MB $\beta_{5}[c] = 1000$
ISO 25/24/22 (New oil)	HP409L9-12MB $\beta_{12}[c] = 1000$	HP409L9-1MB $\beta_{2.5}[c] = 1000$
ISO 21/19/16	HP409L9-3MB $\beta_{5}[c] = 1000$	HP409L9-1MB $\beta_{2.5}[c] = 1000$

### Glass Media Code Filtration Efficiency (Beta Ratio) vs Micron



Media Code	Media Description
A	G8 Dualglass high performance media combined with water removal scrim. $\beta_{x}[c] = 1000$ ( $\beta_x = 200$ )
M	G8 Dualglass our latest generation of DFE rated, high performance glass media for all hydraulic & lubrication fluids. $\beta_{x}[c] = 1000$ ( $\beta_x = 200$ )
W	Stainless steel wire mesh media $\beta_{x}[c] = 2$ ( $\beta_x = 2$ ) nominally rated

