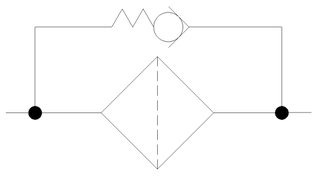
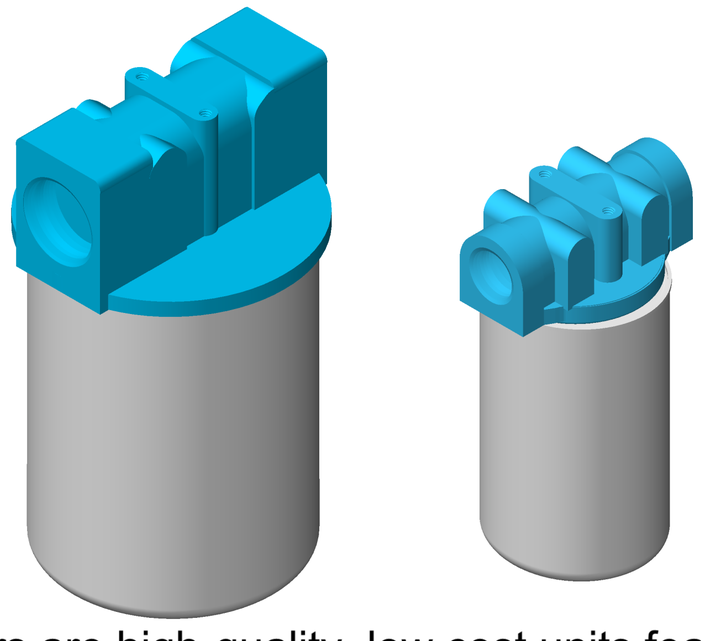
In-Line Type
Series F1/F2
Specification Sheet



Hydraulic Filters



The CROSS series F1 and F2 in-line type hydraulic oil filters are high-quality, low cost units featuring spin-on, throw away elements. The thru-type by-pass valve is available in 5 (F1 only), 15 or 25 psi for return line installations and 5 psi for suction line applications. A specially engineered seal permits usage up to 175 psi for F1 and 100 psi for F2.

GENERAL SPECIFICATIONS:

Rated flow	F1: 22 gpm (78 l/m)		F2: 40 gpm (227 l/m)
Filtering area	F1: 10 micron		349 sq. in. (2252 cm^2)
	25 micron		490 sq. in. (3161 cm^2)
	F2: 10 micron		892 sq. in. (5755 cm^2)
	25 micron		1075 sq. in. (6935 cm^2)
Rated pressure	F2: 100 PSI (6.9 bar)		F1: 175 PSI (12.1 bar)
Temperature range	20° F (-29° C) to + 300° F (149° C)		
Mounting	In-line and 2 threaded bosses		
Weight	F1: 2 lbs. (.9 Kg)		F2: 6 lbs. (2.7 Kg)

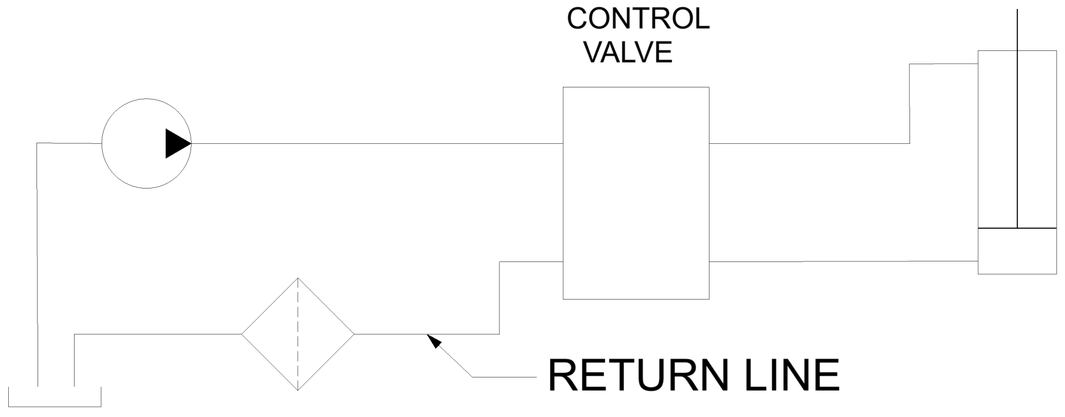
FEATURES:

- Full flow filteration
- Spin-on, throw away elements
- 10 or 25 micron filter elements
- Heads include 5 (F1 only) ,15 and 25 psi by-pass spring assemblies
- Pipe ports

AVAILABLE OPTIONS:

- Indicator (pressure) gauge

APPLICIATIONS (TYPICAL):



Hydraulic system preventive maintenance, with regular filter element changes, is essential to assure long life of the components and to prevent personal injury resulting from equipment malfunction. Spin-on filters should be changed after 50 hours of initial use and then every one hundred hours of use.

If the CROSS filter becomes clogged with contamination before changing, the internal by-pass valve opens at the pre-set pressure to prevent collapse of the element (return line). A filter must be sized to handle the maximum flow at its position in the system: i.e., a return line filter in a regenerative or accumulator system must be capable of handling the full flow being returned to the reservoir which is fequently in excess of the pump output capacity.

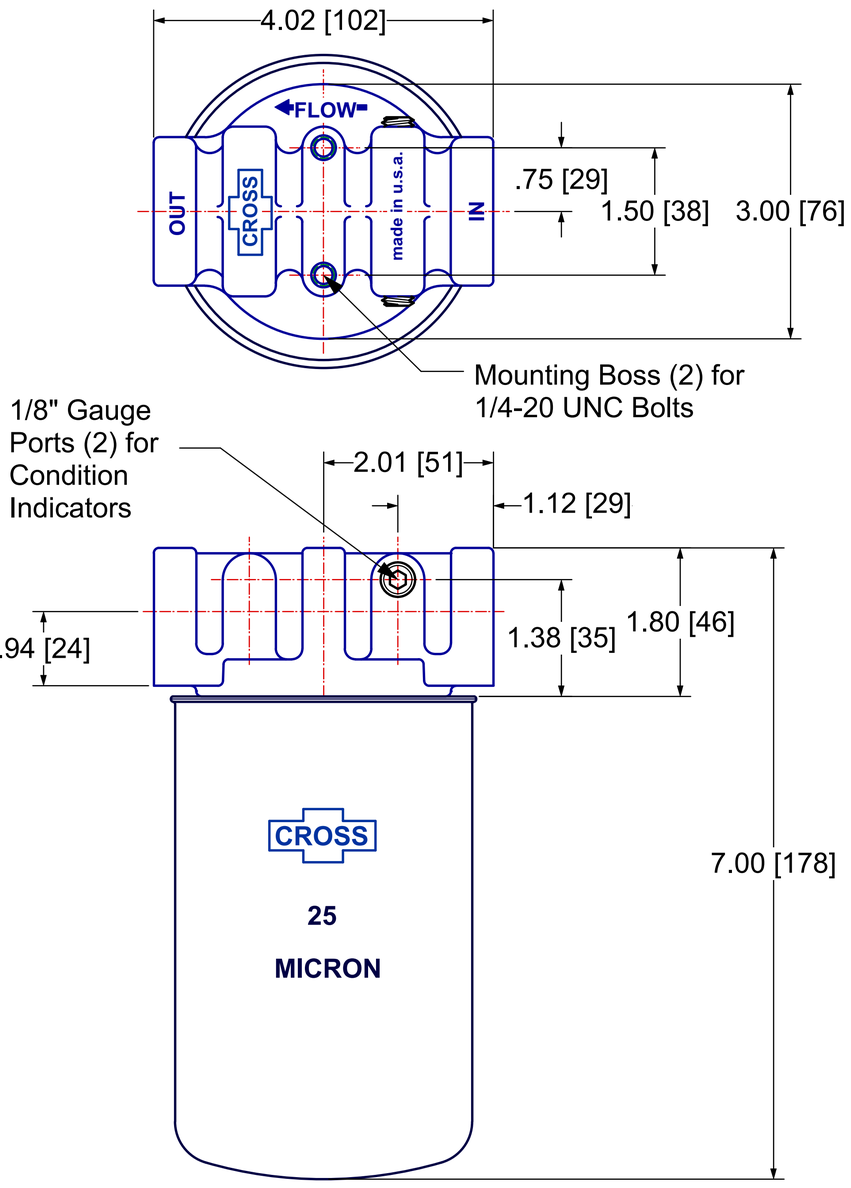
In-Line Type
Series F1/F2
Specification Sheet

Hydraulic Filters

FOR USE WITH PETROLEUM BASE FLUIDS

DIMENSIONAL DATA: in inches and [millimeters]

F1



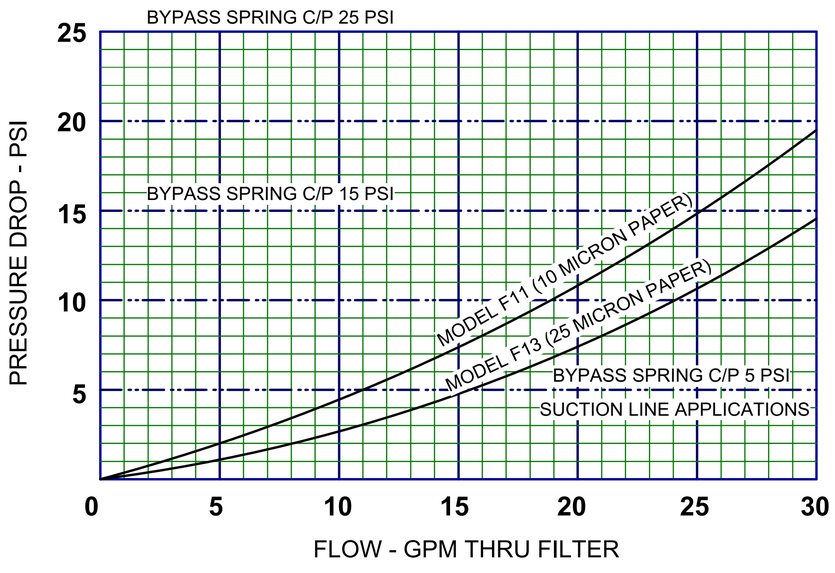
ELEMENT THREAD REFERENCE
1-12 UNF-2B

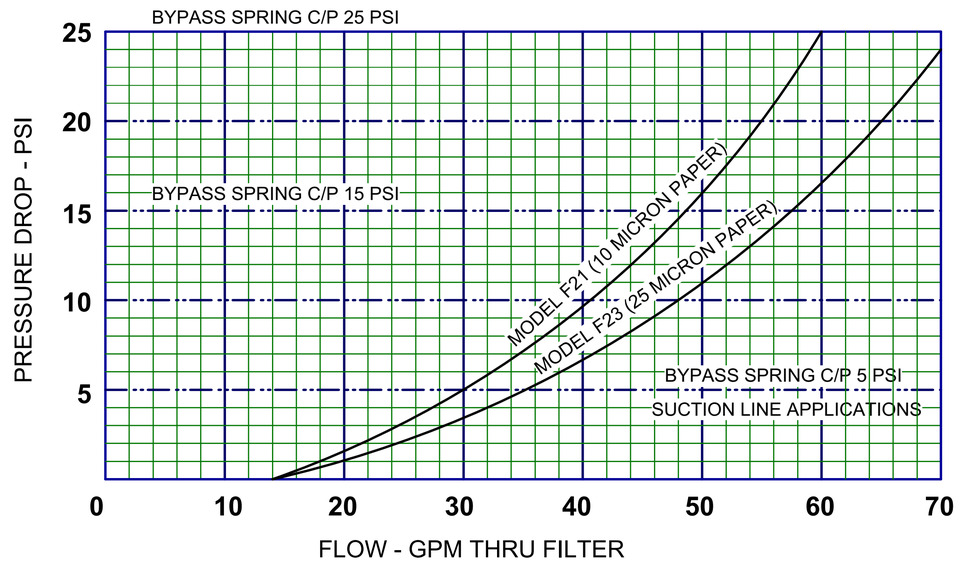
PRESSURE GAGE
1/8" NPT Thread

F2

ELEMENT THREAD REFERENCE
1 1/2-12 UNF-2B

PERFORMANCE DATA: (Typical) Pressure Drop --- 120 SUS Oil Viscosity at 120° F





ORDERING INFORMATION:

INDICATOR (1)	MODEL NUMBER	FILTRATION	BY-PASS PRESSURE	PORT SIZE and TYPE F1	PORT SIZE and TYPE F2
G	**F1** (22 GPM) **F2** (40 GPM)	**1** 10 Micron **3** 25 Micron	**A.** 5 PSI (F1) **B.** 15 PSI **C.** 25 PSI	**A.** 3/4" NPTF	**A.** 1 1/4" NPTF
G	F1	1	B		A

EXAMPLE: GF11BA is a model F1 filter with an indicator, 10 micron element. 15 psi by-pass spring and 3/4" NPFT ports.

(1) Omit indicator prefix if indicator is not desired.

(2) By-Pass Pressure 5 PSI option only available for F1 Series.

REPLACEMENT ELEMENTS:

	10 Micron	25 Micron
F1	**1A9021**	**1A9023**
F2	**1A9251**	**1A9253**

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FEBRUARY 2023

CMI-202302-FILSP2

Hydraulic Filters

FILTER INSTALLATION INSTRUCTIONS:

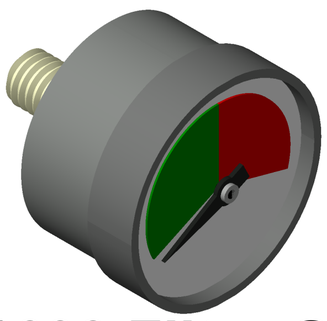
1. Tighten gage port plug in head assembly. 1/8" NPTF thread should be torqued 5 to 7 foot pounds. Use liquid pipe sealant only - NO TEFLON TAPE.

2. NOTE: Filter Element has not been tightened at the factory. Apply film of oil to seal and hand turn until element seal contacts filter head. After contact, tighten only 1/4 turn. Start system and check for leaks.

3. For best results, mount filter assembly in vertical position with filter cartridge DOWN. Allow one inch (for F1) or one and a half inch (for F2) clearance below filter for easy replacement of filter cartridge.

4. Connect filter assembly in line for oil to flow in direction of arrow on filter head.

5. Filter assembly installed as either "Return-Line" (located between control valve and reservoir) or "Suction-Line" (loctated between reservoir and pump inlet). 5 PSI head assembly is required for suction line applications. Springs are color coded to indicate by-pass pressures:
   5 psi - yellow (F1 Only); 15 psi - red; 25 psi - green

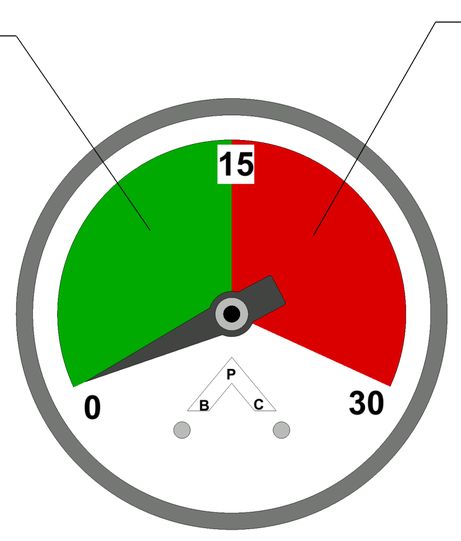


INSTALLATION for FILTER ASSEMBLY with CONDITION INDICATOR

1A1699 Filter Gage:

1. The 1A1699 filter gage has a 0-30 psi range and fits the 1/8" NPTF gage ports on the CROSS filter heads. 0-15 psi is indicated by green area on the gage. This is the standard by-pass spring range in a return line filter. The red area from 15-30 psi indicates that the filter would be by-passing unfiltered oil. (The gage is not recommended for suction line applications.)

2. Indicator should register "0" with system not flowing. Failure to register "0" may indicate indicator is damaged or defective.



System Maintenance: Oil must be filtered to a minimum of 25 microns. Filters should be changed regularly --- spin-on types after 50 hours of initial use and then after every two hundred fifty hours of use. Use of a condition indicator is recommended.

Consult your tractor or implement owner's manual for filtration and changing recommendations for internal systems.