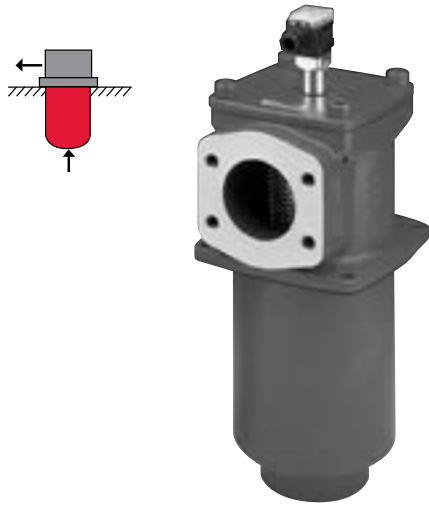


SPECIAL ORDER FILTERS - LOW PRESSURE

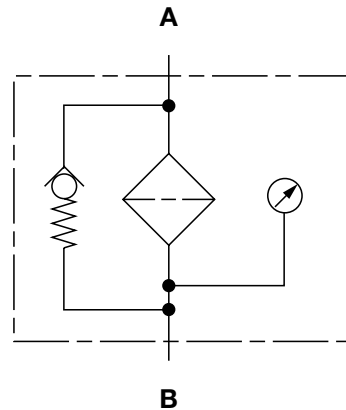
SF Series

In-tank Suction Filters

360 psi • up to 200 gpm



Hydraulic Symbol



Features

- Non-welded housing design reduces stress concentrations and prevents fatigue failure.
- Inlet/Outlet port options include NPT port or SAE 4-bolt flange to allow easy installation without costly adapters.
- O-ring seals are used to provide positive, reliable sealing. Choice of O-ring materials (nitrile rubber, fluorocarbon elastomer, or ethylene propylene rubber) provides compatibility with oil/water emulsions, high water base fluids, and synthetic fluids.
- Bolt-on lid requires minimal clearance for removal.
- A mechanically actuated, electrical, electrical / visual (lamp), or vacuum gauge bypass indicator can be installed.
- Bypass valve, located in element end cap, with low cracking pressure prevents pump cavitation.

Technical Specifications

Mounting Method	4 mounting holes - filter head	
Port Connection	Inlet	Outlet
110	3/4" SAE-12 3/4" BSPP 3/4" SAE-12	3/4" SAE-12 3/4" BSPP 3/4" NPT
240	1 1/4" SAE-20 1 1/4" BSPP 1 1/4" SAE-20	1 1/4" SAE-20 1 1-4" BSPPP 1 1/4" NPT
330	2" NPT 2" BSPP 2" NPT 2" NPT	2" SAE-32 2" BSPP 2" SAE CODE 61 1 1/4" SAE-20
950	3 1/2" SAE Code 61	3 1/2" SAE Code 61
1300	4" SAE Code 61	4" SAE Code 61
Flow Direction	Inlet: Bottom	Outlet: Side
Construc. Materials	Housing	Lid
SF 110-330	Aluminum	Aluminum
SF 950-1300	Ductile Iron	Ductile iron
Flow Capacity		
110	5 gpm (20 lpm)	
240	15 gpm (57 lpm)	
330	30 gpm (114 lpm)	
950	175 gpm (662 lpm)	
1300	200 gpm (757 lpm)	
Housing Pressure Rating		
Max. allowable working pressure	360 psi (25 bar)	
Fatigue Pressure	360 psi (25 bar) @ 700,000 cycles	
Burst Pressure	110	1080 psi (75 bar)
	240	1230 psi (85 bar)
	330	1440 psi (100 bar)
	950-1300	>1440 psi (100 bar)
Element Collapse Pressure Rating		
W/HC	290 psid (20 bar)	
Fluid Temp. Range	14°F to 212°F (-10°C to 100°C)	
	Consult HYDAC for applications operating below 14°F (-10°C)	
Fluid Compatibility		
	Compatible with all hydrocarbon based, synthetic, water glycol, oil/water emulsion, and high water based fluids when the appropriate seals are selected	
Indicator Trip Pressure		
	$\Delta P = 3 \text{ psi (0.2 bar) } -10\%$ (standard)	
Bypass Valve Cracking Pressure		
	$\Delta P = 3 \text{ psi (0.2 bar) } +10\%$ (standard - sizes 60, 950, 1300)	
	$\Delta P = 4.4 \text{ psi (0.3 bar) } +10\%$ (standard - sizes 110,160,240,330)	

Applications



Agricultural



Industrial



Construction



Gearboxes



Automotive



Steel / Heavy Industry

SPECIAL ORDER FILTERS - LOW PRESSURE

Model Code

SF W 330 W G 25 UE 1 . X / 3

Filter Type _____
SF = In-Tank Inlet Suction Filter

Element Media _____
W = Wire Mesh

Size _____
110, 240, 330, 950, 1300

Operating Pressure _____
W = suction operation

Type of Outlet Connection _____
C = 3/4" Threaded SAE 12 (sizes 110)] NPT available O = 3.5" SAE 56 Code 61 Flange (size 950)
E = 1-1/4" Threaded SAE 20 (sizes 240) w/Adapter P = 4.0" SAE 64 Code 61 Flange (size 1300)
G = 2" Threaded SAE 32 (size 330)

Filtration Rating (micron) _____
75, 125 = W

Type of Clogging Indicator (static) _____
A, UE, UF

Type Number _____

Modification Number (latest version always supplied) _____

Outlet Port Configuration _____
3 = NPT (size 110, 240, 330) (sizes 110, 240 with adapters)
12 = SAE Straight Thread Inlet/Outlet Connection (sizes 110, 240, 330)
16 = SAE Code 61 Flange (sizes 330-1300)

Seals _____
(omit) = Nitrile rubber (NBR) (standard)
V = Fluorocarbon elastomer (FKM)
EPR = Ethylene propylene rubber (EPR)

Bypass Valve _____
(omit) = 3 psid (0.2 bar) (standard sizes 60, 950, 1300)
(omit) = 4.4 psid (0.3 bar) (standard sizes 110, 160, 240, 330)
KB = No Bypass

Supplementary Details _____
SO263 = Modification of elements for Skydrol or HYJET phosphate ester fluids
SFREE = Element specially designed to minimize electrostatic charge generation

Replacement Element Model Code

0330 RS 25 W / V

Size _____
0110, 0240, 0330, 0950, 1300

Filtration Rating (micron) _____
75, 125 = W

Element Media _____
W

Seals _____
(omit) = standard
V = Fluorocarbon elastomer (FKM)
EPR = Ethylene propylene rubber (EPR)

Bypass Valve _____
(omit) = 3 psid (0.2 bar) sizes 60, 950, 1300
(omit) = 4.4 psid (0.3 bar) sizes 110, 160, 240, 330
KB = No Bypass

Supplementary Details _____
SO263 = (same as above) SFREE = (same as above)

Clogging Indicator Model Code

VR 2 UE . X /

Indicator Prefix _____
VR = Return Filters

Trip Pressure _____
0.2 = 3 psid (0.2 bar)

Type of Indicator _____
A = No indicator, plugged port
UE = Vacuum gauge
UF = Vacuum switch

Modification Number _____

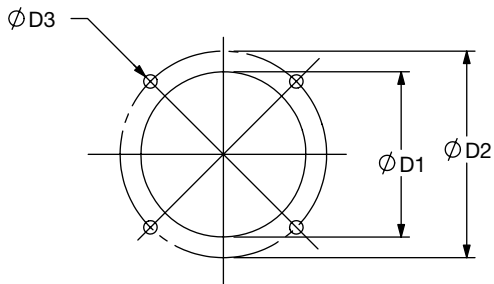
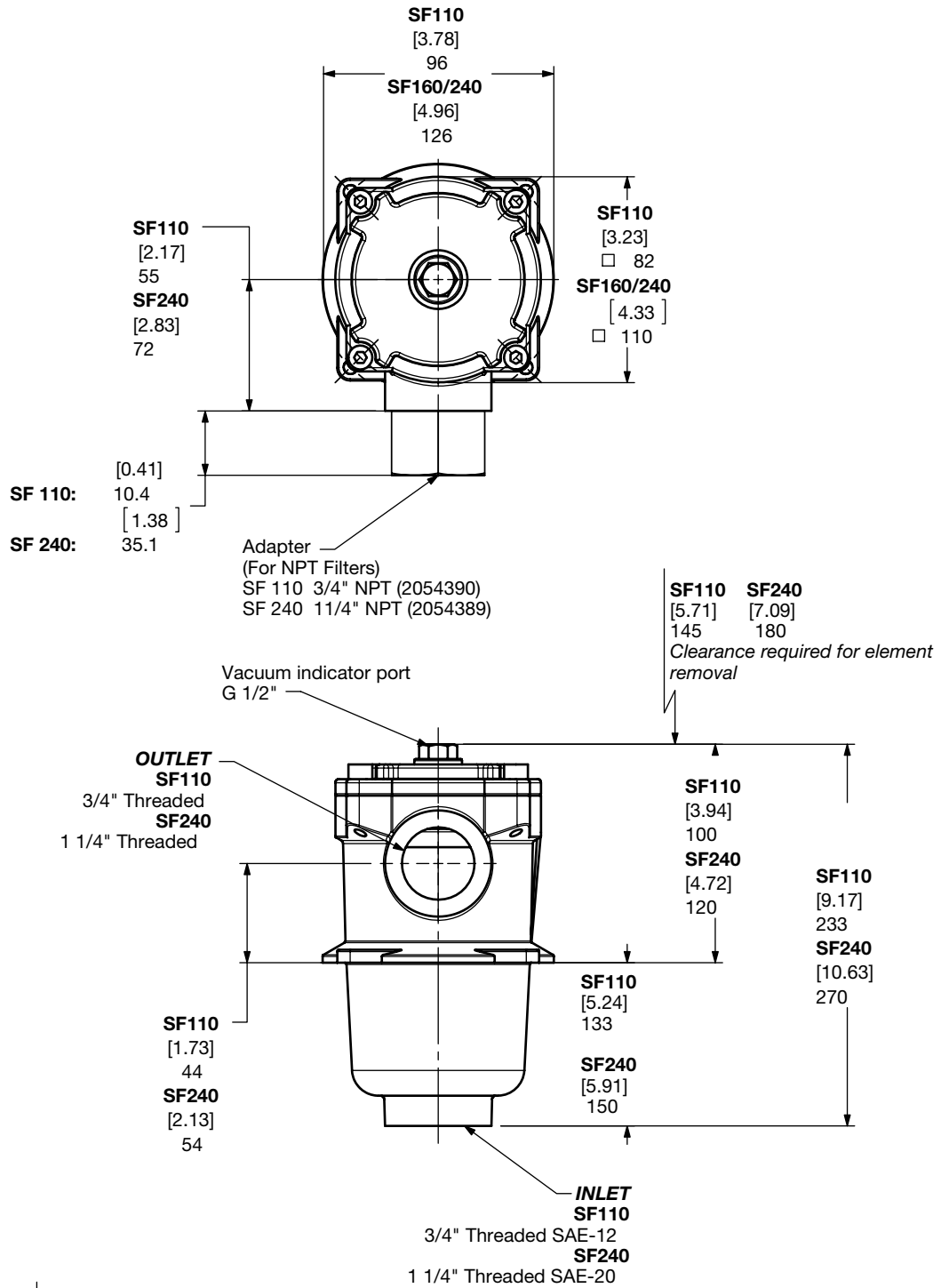
Supplementary Details _____
Seals _____
(omit) = Nitrile rubber (NBR) (standard)
V = Fluorocarbon elastomer (FKM)
EPR = Ethylene propylene rubber (EPR)

(For additional details and options, see Section H - Clogging Indicators.)

Model Codes Containing RED are non-stock items — Minimum quantities may apply — Contact HYDAC for information and availability

SPECIAL ORDER FILTERS - LOW PRESSURE

Dimensions SF 110 / 240



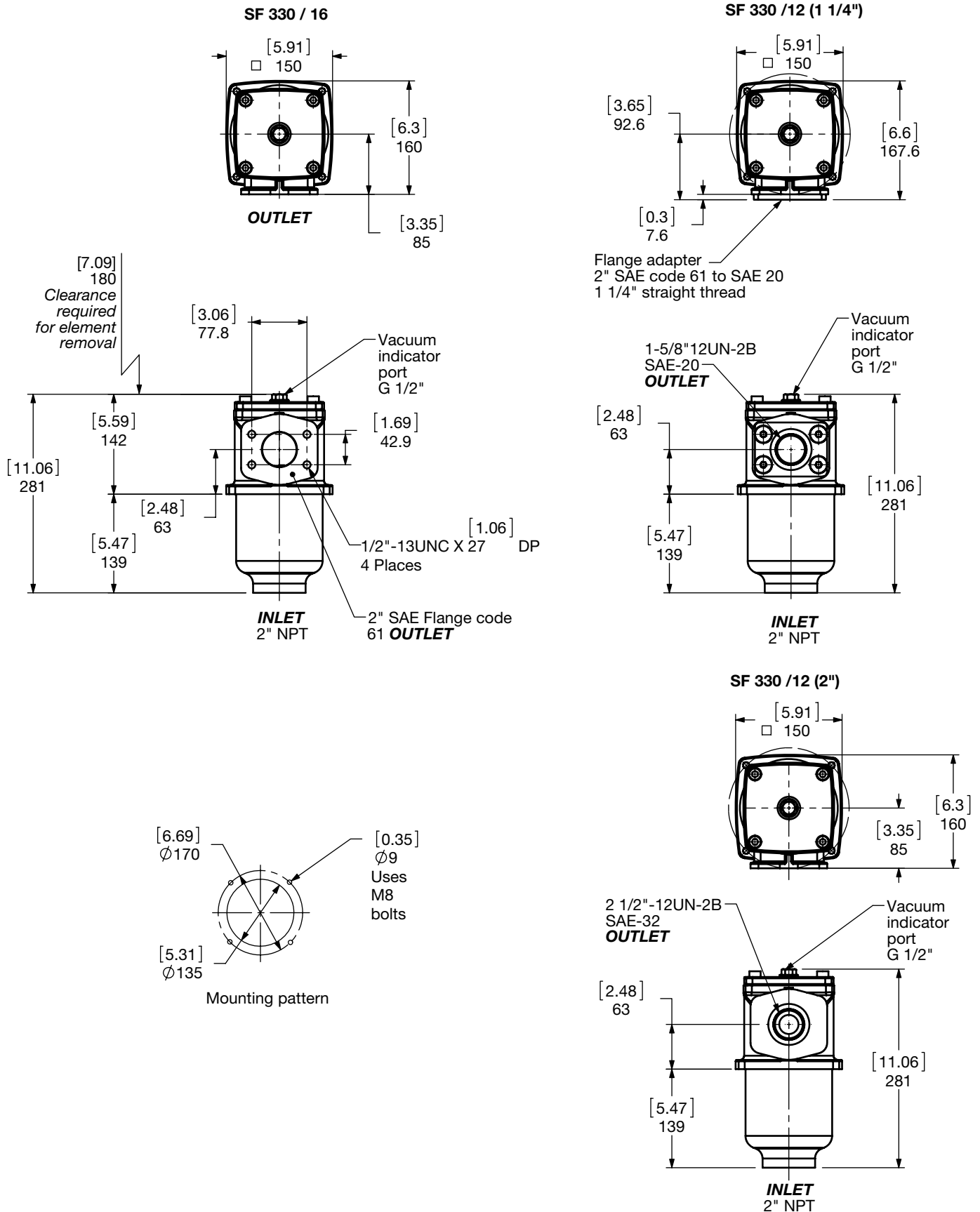
Size	øD1	øD2	øD3	USES BOLTS
110	[3.15"] 80mm	[3.94"] 100mm	[0.26"] 6.5mm	M5
240	[4.17"] 106mm	[5.32"] 135mm	[0.30"] 7.5mm	M6

Size	SF 110	SF 240
Weight (lbs.)	2.5	5.0

Dimensions shown are [inches] millimeters for general information and overall envelope size only. Weights listed include element.
For complete dimensions please contact HYDAC to request a certified print.

SPECIAL ORDER FILTERS - LOW PRESSURE

Dimensions SF 330

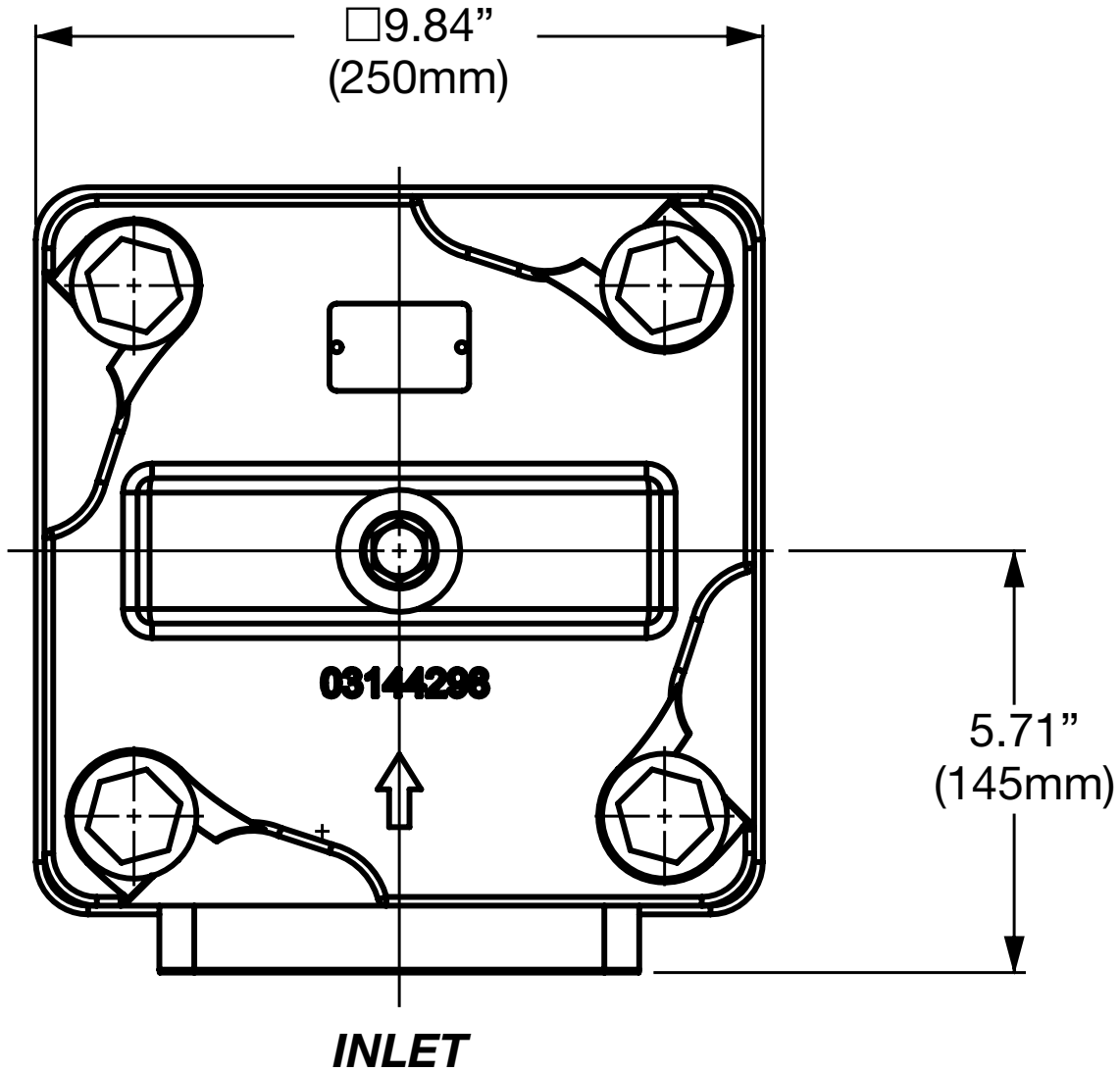


Size	SF 330
Weight (lbs.)	9.1

Dimensions shown are [inches] millimeters for general information and overall envelope size only. Weights listed include element. For complete dimensions please contact HYDAC to request a certified print.

SPECIAL ORDER FILTERS - LOW PRESSURE

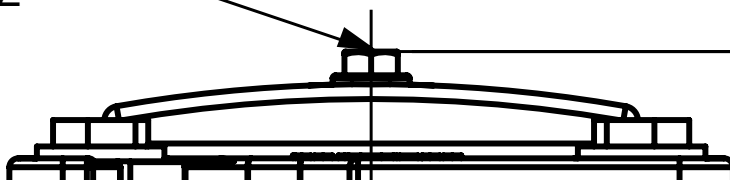
Dimensions
SF 950-1300



*Clearance required
for element removal*

Size	SF950	SF1300
Clearance	13.78" (350mm)	18.11" (460mm)

Indicator Port
G 1/2



Size	SF 950	SF 1300
Weight (lbs.)	90	100

Dimensions shown are [inches] millimeters for general information and overall envelope size only. Weights listed include element. For complete dimensions please contact HYDAC to request a certified print.

Sizing Information

Total pressure loss through the filter is as follows:

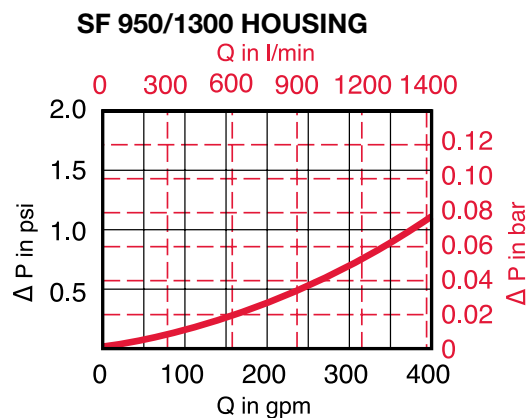
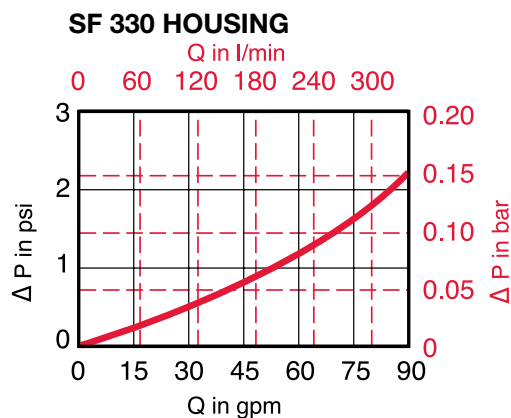
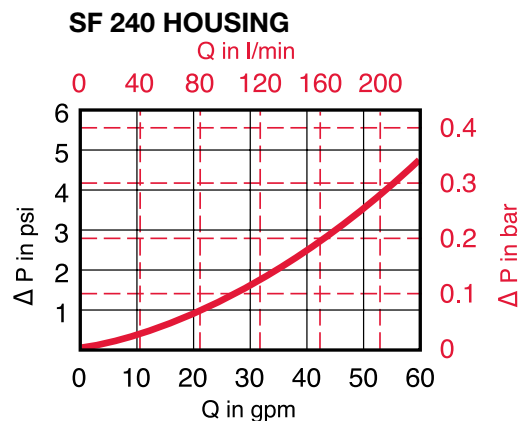
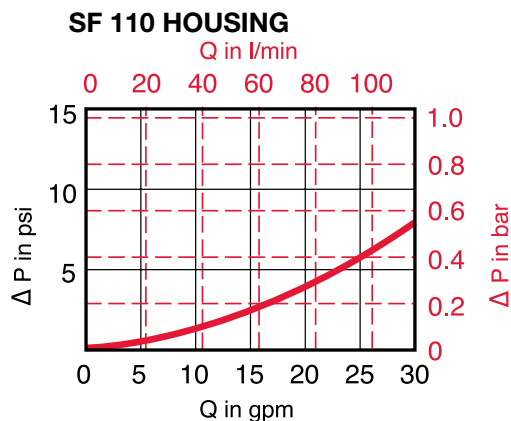
$$\text{Assembly } \Delta P = \text{Housing } \Delta P + \text{Element } \Delta P$$

Housing Curve:

Pressure loss through housing is as follows:

$$\text{Housing } \Delta P = \text{Housing Curve } \Delta P \times \frac{\text{Actual Specific Gravity}}{0.86}$$

Adjustments must be made for viscosity & specific gravity of the fluid to be used! (see "Sizing HYDAC Filter Assemblies" in Section B - Overview)



Element K Factors

$$\Delta P \text{ Elements} = \text{Elements (K) Flow Factor} \times \text{Flow Rate (gpm)} \times \frac{\text{Actual Viscosity (SUS)}}{141 \text{ SUS}} \times \frac{\text{Actual Specific Gravity}}{0.86}$$

(From Tables Below)

WIRESCREEN	...RS...W/HC	
SIZE	74 μm	125 μm
0110 RS XXX W/HC	0.029	0.014
0240 RS XXX W/HC	0.014	0.007
0330 RS XXX W/HC	0.010	0.005
0950 RS XXX W/HC	0.003	0.002
1300 RS XXX W/HC	0.003	0.002

All Element K Factors in psi / gpm.