YDAD Low Pressure Filters

SF Series **In-tank Suction Filters** 360 psi • up to 300 gpm



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, Fluoroelastomer, or Ethylene Propylene) 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 with low cracking pressure prevents pump • cavitation.

Hydraulic Symbol



Technical Details

Mounting Method 4 mounting holes - filter head				
Port Connection	Inlet Outlet			
110	SAE-12	SAE-12		
240	SAE-20	SAE-20		
330	SAE-20 2" NPT 2" NPT	2" NPT 2" NPT 2" SAE Flange, Code 61		
950	3 1/2" SAE Flange, Code 61	3 1/2" SAE Flange, Code 61		
1300	4" SAE Flange, Code 61	4" SAE Flange, Code 61		
Flow Direction	Inlet: Bottom	Outlet: Side		
Construc. Materials	Housing	Lid		
SF 110-330 SF 950-1300	Aluminum Ductile Iron	Aluminum Ductile iron		
Flow Capacity				
110 240 330 950 1300	5 gpm (20 lpm) 20 gpm (80 lpm) 40 gpm (150 lpm) 200 gpm (757 lpm) 300 gpm (1135 lpm))		
Housing Pressure Ra	ting			
Max. Oper. Press. Proof Pressure Fatigue Pressure	360 psi (25 bar) 540 psi (38 bar) 360 psi (25 bar) @ 7	700,000 cycles		
Burst Pressure	110 240 330 950-1300	1080 psi (75 bar) 1230 psi (85 bar) 1440 psi (100 bar) >1440 psi (100 bar)		
Element Collapse Pre	essure Rating			
W/HC P/HC	290 psid (20 bar) 145 psid (10 bar)			
Fluid Temp. Range	-22° to 250°F (-30°	to 121°C)		
Fluid Compatability Compatible with all pe	etroleum oils and syr	nthetic fluids rated		
Contact HYDAC for information on special housing and element constructions available for use with water glycols, oil/water emulsions, and HWBF.				
Indicator Trip Pressu	re			
$\Delta P = 3 \text{ psi} (0.2 \text{ bar}) -1$	0% (standard)			
Bypass Valve Cracking Pressure				

 $\Delta P = 3 \text{ psi} (0.2 \text{ bar}) + 10\% \text{ (standard)}$

Applications



Agricultural



Automotive



Construction

Gearboxes

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Model Code

	<u>SF</u>	<u>W/HC 30</u>	<u>30 W</u>	<u><u><u><u>4</u></u> 25</u></u>	UE	1.1	<u>s B0.2</u>
Filter Type SF = In-Tank Inlet Suction Filter							
Element Media W/HC = Wire Screen							
Size							
Operating Pressure W = suction operation							
Type of Connection $C = SAE 12$ (sizes 110) $E = SAE 20$ (sizes 240 - 330) $G = 2"$ NPT (size 330)	L = 2" NPT Inlet / SAE 32 Flang O = SAE 56 Flange (size 950) P = SAE 64 Flange (size 1300)	ge Outlet <i>(size</i>	330)				
Filtration Rating (micron) 25, 74, 149 = W/HC							
Type of Clogging Indicator (static) ——— A, UE, UF							
Type Number ————							
Modification Number (latest version always s	upplied) —————						
Outlet Port Configuration3=NPT (size 330)12=SAE Straight Thread Inlet/Out16=SAE Code 61 Flange (sizes 330)	et Connection (sizes 110 & 240 only) -1300)						
Seals							
(omit) = Nitrile (NBR) (standard) V = Fluoroelastomer (FPM) EPR = Ethylene Propylene (EPR)							
Cracking Pressure of Bypass Valve							
DU.Z = 3 DSIU (U.Z Dar) (standard)							

B0.2 = 5 psid (0.2 bar) (standard)

Replacement Element Model Code

		9	<u>0330</u>	RS	<u>25</u>	<u>W/</u>	HC	/
Size —								
0330, 0	660,	0950, 1300						
Filtration 25, 74,	Rati 149 =	ng (micron) ———— W/HC						
Element W/HC	Medi	a ————						
Supplem	entai	y Details ———						
(omit)	=	standard						
V	=	Fluoroelastomer (FPM)) seals					
Element I W/HC Supplem (omit)	Medi entar = =	a y Details standard Fluoroelastomer (FPM)) seals					

Clogging Indicator Model Code



(For additional details and options, see Clogging Indicators section.)

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INNOVATIVE FLUID POWER HYDAC 138

HYDAD Low Pressure Filters

Dimensions SF 110 / 240



Clearance required for element changeout 7.09" (180mm) (180mm) (143mm) (282mm) (282mm) (282mm) (152mm) INLET

SF 950 / 1300



Mounting Pattern



Size	øD1	øD5	øD6
110	3.15" (80mm)	3.94" (100mm)	0.26" (6.5mm)
240	4.17" (106mm)	5.32" (135mm)	0.30" (7.5mm)
330	5.31" (135mm)	6.9" (170mm)	0.35" (9mm)
950/1300	8.19" (208mm)	11.42" (290mm)	0.71" (18mm)

Size	SF 110	SF 240	SF 330	SF 950	SF 1300
Weight (lbs.)	2.0	3.7	7.5	86	94.8
Dimensione shows are far general information and overall envelope size only. Weights listed are without element					

Dimensions shown are for general information and overall envelope size only. Weights listed are without element. For complete dimensions please contact HYDAC to request a certified print.

139 **HYDAC** INNOVATIVE FLUID POWER

SF 330

Sizing Information

Total pressure loss through the filter is as follows:

Assembly ΔP = Housing ΔP + Element ΔP

Housing Curve:

Pressure loss through housing is as follows:

Housing ΔP = Housing Curve $\Delta P \times \frac{Actual Specific Gravity}{2.22}$ 0.86

Adjustments must be made for viscosity & specific gravity of the fluid to be used! (see sizing section on page 19)









Element K Factors

△P Elements = Elements (K) Flow Factor x Flow Rate (gpm) x (From Tables Below) x Actual Viscosity (SUS) x Actual Specific Gravity 141 SUS 0.86

Size	W/HC (Wire Screen) 25, 74, 149 μm
0110	0.0285
0240	0.0137
0330	0.0099
0950	0.0033
1300	0.0027

All Element K Factors in psi / gpm.

INNOVATIVE FLUID POWER (HYDAC) 140