Norman
8100 Series
Tank Top Filters
34 gpm Return Line
15 gpm Suction

NORMAN FILTER COMPANY, L.L.C.
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Norman Tank Top Filters

Fluid Conditioners

Norman Tank Top filters are used to condition a wide variety of fluids. Whether your application is hydraulic, chemical processing or industrial clarification, Norman filters will remove particulate and water contaminants from your system to keep it running longer. Filters increase the life of pumps, valves, regulators and other components in your system, with paybacks of longer system life, reduced down-time and improved productivity. Norman offers the broadest filter line in the industry. This wide variety of sizes, materials, filtration media and optional accessories, all available from stock, allows you to select the model with the best price/ performance value for your application.

Housings

Norman Tank Top filter housings are made of either aluminum or steel and are rated up to 500 psi maximum operating pressure. These housings come in four basic sizes, with flow rates up to 300 gpm return line and 100 gpm suction line (with 100 ssu oil). Port sizes range from 1/2" to 3" NPT, 1/2" to 1-1/2" SAE or 4 bolt flange. All pressure ratings are static, for applications calling for pulsating or pressure spikes, consult factory.

Elements

The replacement element is the heart of the filter. Norman offers four media types in a variety of micron ratings. Our water absorbing media is designed to remove water from your hydraulic or lube oils.

Cellulose: Resin-impregnated cellulose media has low cost and disposable convenience. Being a depth type filter, it has moderate dirt holding capacity for extended filter life. Available in 3, 10 and 25 micron efficiency ratings and various flow through options. All Norman cellulose elements are bonded with epoxy for excellent fluid compatibility.

Glass Fiber: Multi-layer glass fiber elements use aerospace technology to produce high efficiency silt-control filtration. Available in 3 and 10 micron with a beta efficiency rating of 75. Glass fiber elements are all epoxy bonded and can withstand temperatures ranging from - 65° F to 250° F.

Stainless Steel Wire Mesh: Available in four mesh sizes, 30,60,100 and 200 with optional magnetic inserts (100 mesh is standard). Wire mesh elements are all epoxy bonded and can withstand temperatures ranging from - 65° F to 250° F.

Water Absorbing: The water absorbing media functions as both a particulate and water removal filter. This filter media is available in 3 and 10 micron.

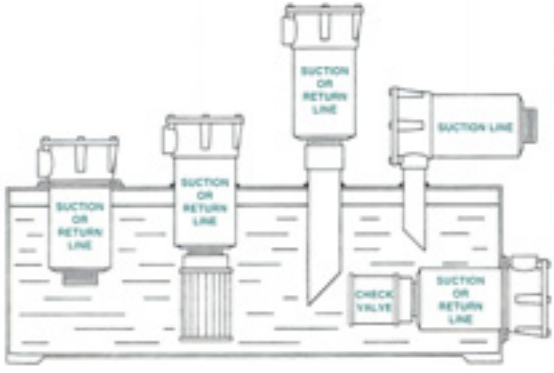
Optional Accessories: Norman Tank top filters have a number of optional accessories in stock to modify our standard housings to meet your specific application requirements:

Bypass Relief Valve: Internal valve relieves pressure during flow surges or cold start-up.

Gauge Ports: Allows operator to view gauge to determine the appropriate time for filter change-out.

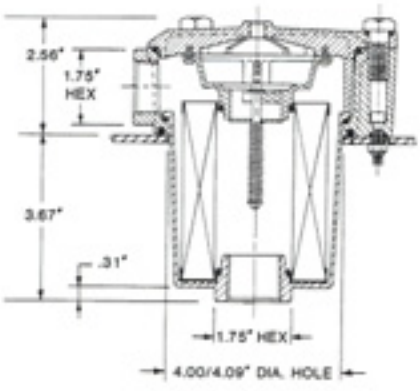
Bottom Port Options: Six sizes of bottom ports are available; 1-1/2 to 3" npt male pipe, 1-1/2" extended pipe, 1 to 1-1/4" npt female.

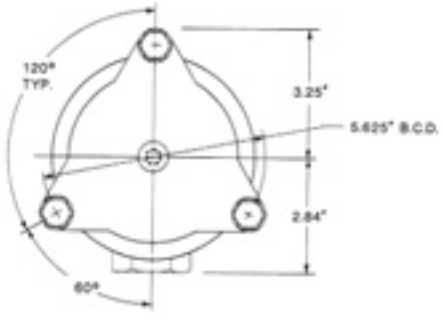
TYPICAL INSTALLATIONS



8100 SIZE

34 gpm Return / 15 gpm Suction





SPECIFICATIONS

Rated Flow:
34 GPM Return Line
15 GPM Suction Line

Housing Material:
Die Cast Aluminum Head + Body

Pressure Rating:
100 psi max operating
Warning: 80 PSI ▲ P max. without by-pass valve.

Temperature:
-65° F. to 250° F.

Options:
Relief Valve Setting: 0,3,5,15,25 psi
Gauge Port

Total Assembly Weight:
3.5 pounds

How To Order: 81 - XX - XX - X

Code	Inlet & Outlet Ports
08P	1/2" NPTF
08S	3/4" UN (SAE-8)
12P	3/4" NPTF
12S	1 1/16" 12 UN (SAE-12)
16P	1" NPTF
16S	1 5/16" 12 UN (SAE-16)

Code	By-Pass Valve Setting
00	No-By-Pass
03	3 PSI
05	5 PSI
15	15 PSI
25	25 PSI

Code	Gauge Port Location
0	No Port Required
1	1/8" NPTF gauge port in cover

ELEMENT SELECTION

Application	Part Number	Filtration Rating (Nominal)	Average Beta	Filter Media Area	Dirt Holding Capacity	Media Type
Return Line Filter Elements (Outside To Inside Flow)	81A-10R	10 Micron	4.0	405 sq. in.	8.5 Grams	Cellulose
	81M-10R	B 10 = 75	7.5	405 sq. in.	24.3 Grams	Synthetic
	81A-25R	25 Micron	1.5	405 sq. in.	16.3 Grams	Cellulose
	81G-75R	75 Micron	7.5	58 sq. in.	3.19 Grams	200 Mesh SS
	81G-141R	141 Micron	7.5	58 sq. in.	3.77 Grams	100 Mesh SS
Suction Line Filter Elements (Inside To Outside Flow Through Element)	81A-10S	10 Micron	4.0	405 sq. in.	8.5 Grams	Cellulose
	81A-25S	25 Micron	1.5	405 sq. in.	16.3 Grams	Cellulose
	81G-75S	75 Micron	7.5	58 sq. in.	3.19 Grams	200 Mesh SS
	81G-141S	141 Micron	7.5	58 sq. in.	3.77 Grams	100 Mesh SS
	81G-280S	280 Micron	7.5	58 sq. in.	4.06 Grams	60 Mesh SS
	81G-560S	560 Micron	7.5	58 sq. in.	4.35 Grams	30 Mesh SS
	81M-10S	B 10 = 75	7.5	405 sq. in.	24.3 Grams	Synthetic