



Miller Leaman's Helix Screen filter models are available in three different sizes: 2", 2" Super and 3". The filters can be installed in any orientation; however, it is preferable to install them in the inverted position (3/4" flush port at bottom). This helps the filtration system work at its optimum. As water enters the filter housing, a high velocity centrifugal action occurs, spiraling heavier particles (sediment, scale, etc.) away from the screen cartridge, down to the base of the filter. These accumulated particles are then flushed from the filter via the 3/4" flush port connection at the base of the filter (valve not included).

THE BODY

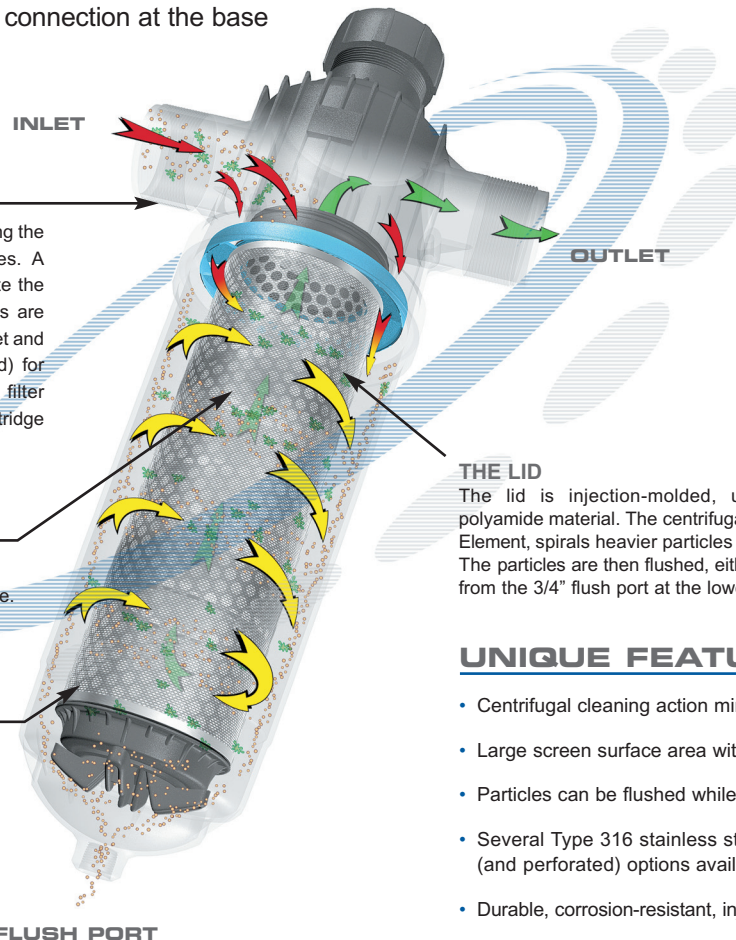
The body contains one inlet and two outlets, allowing the filter to be installed at either 90 or 180-degrees. A threaded cap is supplied with the filter to terminate the outlet port not being used. Inlet/outlet connections are available in NPT or Victaulic. The body contains inlet and outlet pressure gauge ports (gauges not included) for monitoring the pressure differential across the filter screen which determines when the screen cartridge needs to be removed for maintenance.

THE CLOSURE

Manufactured in Type 316 stainless steel, the quick-release clamp assembly is strong and reliable. No tools are necessary to remove the clamp and filter cover when maintenance is required.

THE SCREEN

Available with a variety of stainless steel screen sizes from coarse perforated material to a fine mesh. The two-dimensional screen filter is ideally suited for removal of hard, non-organic particles such as sand. Standard screen material is Type 316.



THE LID

The lid is injection-molded, using an incredibly strong polyamide material. The centrifugal action, created by the Helix Element, spirals heavier particles down to the base of the filter. The particles are then flushed, either manually or automatically, from the 3/4" flush port at the lowest point in the lid.

UNIQUE FEATURES

- Centrifugal cleaning action minimizes maintenance
- Large screen surface area with maximum open area
- Particles can be flushed while filter is in operation
- Several Type 316 stainless steel mesh (and perforated) options available
- Durable, corrosion-resistant, injection molded housing
- Easily removable, quick clamp lid assembly
- Pressure gauge ports molded into housing

HOW IT WORKS

1. Dirty water enters the filter housing through the inlet connection.
2. As dirty water passes through the Helix-Element, the water starts to spin at high velocity. This centrifugal action spins the particles away from the screen, minimizing manual cleaning frequency.
3. As particles are spun down to the base of the filter, they are flushed via the 3/4" female threaded flush port connection.
4. The dirty water passes from the outside to the inside of the stainless steel screen. The screen captures the remaining light and fibrous contaminants from the water.
5. After passing through the screen, the filtered water flows upward and exits the filter through one of the outlets. The outlet not being used is terminated with a threaded cap.





HS SERIES

TECHNICAL DATA

Flow Rates for a Single Filter Housing

- 2"/100 GPM Max.*
- 2" Super/100 GPM Max.*
- 3"/200 GPM Max.*

Multiple pods are manifolded for higher flow rates

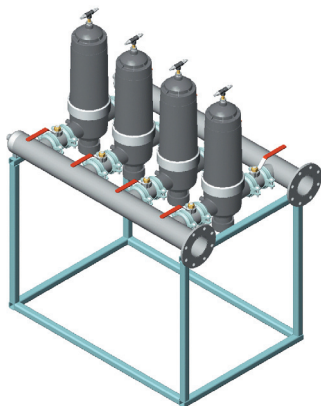
* Maximum flow rates should be derated for high solids loading, particularly for finer mesh sizes.

Pressure Rating

All units rated to 125 PSI

Temperature Rating

All units rated to 140° F



Please contact your distributor about modular capabilities.

Inlet/Outlet Configurations

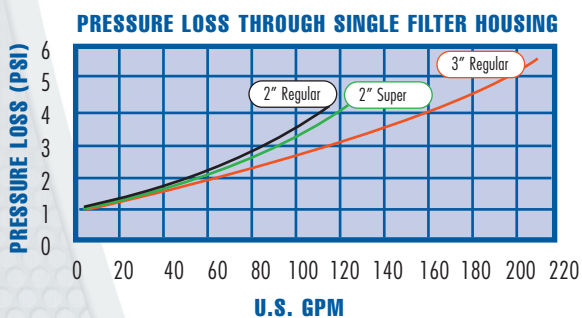
2" and 3" models available with NPT and/or Victaulic inlet/outlet connections
In-line and 90 degree configurations standard
(Filter is supplied with a cap for outlet port not being used)

Construction Materials

Housing: Polyamide
Screen: Stainless Steel (Type 316)
Gaskets: EPDM
Filter Pod Clamp: Stainless Steel (Type 316)

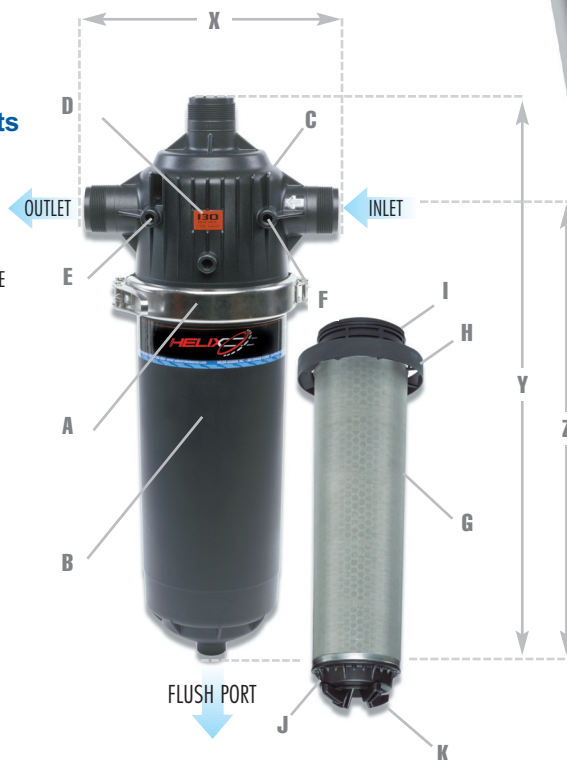
Screen Sizes Available

16, 30, 40, 50, 60, 80, 100, 120, 150, 200
1/4" perforated, 1/8" perforated, 5/64" perforated,
1/16" perforated (Other sizes available by special order)



Filter Components

- A. BAND-CLAMP ASSEMBLY
- B. REMOVABLE FILTER LID
- C. FILTER BODY
- D. MESH/MICRON DATA PLATE
- E. OUTLET GAUGE PORT (GAUGE NOT INCLUDED)
- F. INLET GAUGE PORT (GAUGE NOT INCLUDED)
- G. FILTER SCREEN CARTRIDGE
- H. HELIX-ELEMENT
- I. O-RING SEAL
- J. CARTRIDGE COVER PLATE
- K. THREADED WING BOLT
- X. SEE TABLE BELOW
- Y. SEE TABLE BELOW
- Z. SEE TABLE BELOW



MODEL NUMBER	MODEL TYPE	INLET/OUTLET SIZE & TYPE	FILTER SURFACE AREA (SQ. IN.)	FLUSH PORT CONNECTION SIZE	MAXIMUM FLOW (GPM)	MAXIMUM PRESSURE RATING (PSI)	X	Y (SEE DIAGRAM ABOVE)	Z
HS -2NA*	Regular	2"/NPT	186	3/4"	100	125 PSI	12 1/8"	24 1/8"	18"
HS -2SA*	Super	2"/NPT	263	3/4"	100	125 PSI	12 1/8"	28 3/4"	22 15/16"
HS -3NA*	Regular	3"/NPT	263	3/4"	200	125 PSI	13 1/4"	30"	22 15/16"
HS -2NW*	Regular	2"/Victaulic	186	3/4"	100	125 PSI	12 1/8"	24 1/8"	18"
HS -2SW*	Super	2"/Victaulic	263	3/4"	100	125 PSI	12 1/8"	28 3/4"	22 15/16"
HS -3NW*	Regular	3"/Victaulic	263	3/4"	200	125 PSI	13 1/4"	30"	22 15/16"

* Please specify screen size when ordering. Example: HS-2NA - 100 = 2" NPT filter with 100 - mesh screen.

** Screen cartridges for 2" regular models (HS-2NA and HS-2NW) and 2" super models (HS-2SA and HS-2SW) vary in size. The cartridge for the 2" regular models is 15.5" in height; The cartridge for the 2" super models is 20.5" in height. This means that the 2" super models have approximately 40% more surface area for filtration (186 sq. inches vs. 263 sq. inches).