

Stainless Steel Thompson Strainer



FEATURES:

FLUSH PARTICLES FROM STRAINER, VIA 1 1/2" FLUSH PORT

GREATER SCREEN SURFACE AREA, REDUCES MAINTENANCE

LESS THAN 1 PSI PRESSURE LOSS, MINIMIZING SYSTEM OPERATING COSTS

SIMPLE DESIGN, NO MOVING PARTS

SPACE SAVING PROFILE TO FIT TIGHT SPACES

HIGH QUALITY STAINLESS STEEL CONSTRUCTION

Miller-Leaman's Thompson Strainer is a unique, yet brilliantly simple product, used in a variety of applications to remove particles from cooling water and other liquids.

Available in Type 304 and 316 stainless steel, the patented design features a large conical screen element with substantially more screen surface area compared to traditional strainers on the market.

A variety of screen options are available, ranging from large perforated hole-openings down to 250-mesh (approx. 50-micron).

The strainers are also available with optional instrumentation packages. This includes a Pressure Differential Alarm package (PDA) and Automatic Timer Flush package (ATF-EA-1.5).



PDA

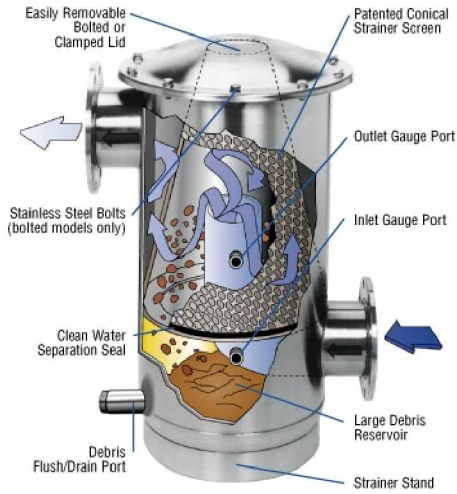


ATF-EA-1.5

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Stainless Steel Thompson Strainer



As water enters the bottom of the strainer housing and flows upward, heavier debris and particulate is accelerated downward, away from the conical screen, into the sizeable reservoir at the base of the strainer. The particulate is then flushed from the reservoir, under pressure, via the 1 1/2" flush port, without interrupting the downstream flow. The lid enclosure of the strainer is easily removed if the internal screen requires manual cleaning.

Due to the non-torturous flow path through the strainer, in combination with the generous amount of screen surface area on the conical screens, all models operate with less than a 1 PSI pressure drop at maximum flow (when clean).

Model Number	Max. Flow (GPM) ***	Screen Surface Area	Inlet/Outlet Style	Flush Port Connection Size	Lid Type	Max Pressure Rating (PSI) **
MLS-02-XXX	100-GPM	122 sq. in.	2" Male NPT	1 1/2" Male NPT	Clamp	125-PSI
MLS-03-XXX	200-GPM	200 sq. in.	3" Male NPT	1 1/2" Male NPT	Clamp	125-PSI
MLS-04C-XXX*	350-GPM	367 sq. in.	4" Flanged	1 1/2" Male NPT	Clamp	125-PSI
MLS-04B-XXX*	350-GPM	367 sq. in.	4" Flanged	1 1/2" Male NPT	Bolted	150-PSI
MLS-06-XXX	750-GPM	745 sq. in.	6" Flanged	1 1/2" Male NPT	Bolted	150-PSI
MLS-08-XXX	1,300-GPM	1,559 sq. in.	8" Flanged	1 1/2" Male NPT	Bolted	150-PSI
MLS-10-XXX	2,000-GPM	2,434 sq. in.	10" Flanged	1 1/2" Male NPT	Bolted	150-PSI

“XXX” (in above part numbers) = Mesh or Perforated size of screen (for example MLS-03-100 = 3” Thompson Strainer with 100-mesh screen)

Screen Mesh Options: 16, 20, 30, 40, 50, 60, 80, 100, 120, 150, 200, 24x110†, 30x150†, 40x200†, 50x250†

† Heavy Duty Dutch-weave screens (heavier wire gauge, lower open area %)

* MLS-04C = Band Clamp model; MLS-04B = Bolted Lid model

** High pressure models available.

*** Maximum flow is dependent on solids loading and mesh/perforated size. No minimum flow requirement.

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Helix HD/HS Series

Miller-Leaman's injection-molded plastic Helix Series filters are available with a polypropylene disc media (*Helix HD Series*) or a stainless steel screen (*Helix HS Series*). Both series offer substantially more surface area compared to traditional filters. Helix HD/HS 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, which allows for heavier particles to be spun down to the base of the filter to be flushed via the 3/4" flush port. 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 disc/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. An optional automatic flush valve kit is available.



Disc Model Number	Screen Model Number	Model Type	Inlet/Outlet Size & Type	Filter Surface Area (sq. in.)	Flush Port Connection Size	Max Flow (GPM) †	Max Pressure Rating (PSI)
HD-2NA*	HS-2NA**	Regular	2"/NPT	186	3/4"	100-GPM	125-PSI
HD-2SA*	HS-2SA**	Super	2"/NPT	263	3/4"	100-GPM	125-PSI
HD-3NA*	HS-3NA**	Regular	3"/NPT	263	3/4"	200-GPM	125-PSI
HD-2NW*	HS-2NW**	Regular	2"/Victaulic	186	3/4"	100-GPM	125-PSI
HD-2SW*	HS-2SW**	Super	2"/Victaulic	263	3/4"	100-GPM	125-PSI
HD-3NW*	HS-3NW**	Regular	3"/Victaulic	263	3/4"	200-GPM	125-PSI

† Models with 50 micron discs are rated for max flow of 50 GPM.

* Disc Micron Options: 50, 100, 130, & 200. Please specify disc size when ordering.

** Screen Mesh Options: 16, 20, 30, 40, 50, 60, 80, 100, 120, 150, 200, 24x110‡, 30x150‡, 40x200‡, 50x250‡ (‡ = Heavy Duty Dutch-weave screens - heavier wire gauge, lower open area %)

*** Disc cartridges for the 2" Regular models and 2" Super models, vary in size. The cartridge for the 2" Regular model is 15.5" in height; the cartridge for the 2" Super model is 20.5" in height. This means that the 2" Super model has 40% more surface area compared to the Regular 2" model.

Self-Cleaning Turbo-Disc Filter System

Miller-Leaman's Turbo-Disc Filter sets the standard for reliable, high-efficiency automatic filtration. Utilizing a stack of precision molded, grooved polypropylene discs as the filter media, the filter is designed to be a state-of-the-art alternative to sand filters. Systems require substantially less backwash water compared to traditional sand filters and can be custom configured to meet the specific requirements of the customer. Turbo-Disc Filter systems are available for full-stream, side-stream, and slip-stream configurations.

As dirty water enters the inlet of each filter pod (housing), a centrifugal action occurs, spinning heavier particles away from the disc media to minimize the backwash frequency. Then, the dirty water passes through the disc stack from the outside – in. In filtration mode, the discs are compressed tightly together. Contaminants collect on the outside of the discs and throughout the depth of the discs, while filtered water exits the filter.

When the filter system requires cleaning, each filter pod is sequentially backwashed, using filtered water from the outlet manifold. As each cartridge is backwashed, the disc cap hydraulically lifts, decompressing the disc stack. A uniform, high-pressure backwash is applied from the inside – out, centrifugally spinning and spraying the discs clean. Purge water exits through the 2" flush manifold. When the backwash cycle is complete, the discs are recompressed and normal filtration mode is resumed.



70 GPM Turbo-Disc Filter Air-Assist System



200 GPM 2-Pod Skid System

Complete Systems Include:

- Automatic Filters / Disc Cartridges
- Stainless Steel Inlet / Outlet Manifolds
- Automatic Backwash Valves / Solenoids
- Automatic Backwash Controller
- Stainless Steel Frame and Skid Assembly
- Pump & Motor Starter
- Outlet Control Valve (on particular models)
- Air-Override Feature
- Single-Point Electrical Connection

Optional Features:

- Isolation Valves
- Pump Pre-Strainer
- Air Compressor (if compressed air is unavailable)

Flow Rates for a Per Filter Pod*:

Multiple pods are manifolded for higher flow rates.

- 2" Filter Housing – 70 GPM
- 3" Filter Housing – 100 GPM

* Maximum flow rates vary greatly depending on water quality and solids' loading.

Micron Options Available*:

- 50-micron; **BLUE** color (≈ 250-mesh)
- 100-micron; **ORANGE** color (≈ 150-mesh)
- 130-micron; **RED** color (≈ 120-mesh)
- 200-micron; **GREEN** color (≈ 80-mesh)

* Caking effect across disc media increases micron efficiency.

Pressure Rating:

- Maxim Pressure Rating is 125 PSI

Temperature Rating:

- Maximum Temperature Rating is 140° F

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