



Strainer Brochure & Operation Manual



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DESIGNED & ENGINEERED FOR COMMERCIAL SYSTEMS

Rugged fiberglass housing will not corrode

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The Purpose and Benefit of a Strainer

Strainers are normally mounted preceding a pump to prevent large particles from entering the pump impeller. Typically, the maximum sphere size allowed in a pump is 0.25 inches (0.64 cm). Some larger pumps may allow somewhat larger particles.

Mer-Made strainers limit particles measuring 0.1875 inches (0.48 cm) and larger. Consult the pump manufacturer's literature to determine the maximum sphere size determined by the pump model number.

Strainer Design

The strainer in your pool mechanical room should be given the same selection criteria as your filter; long runs between cleaning to minimize operator maintenance time and low-pressure losses throughout the operating cycle to minimize power consumption.

Clear acrylic lid allows inspection of baskets without shutting down.

A further consideration in strainer function is the strainer's influence on pump cavitation because of a heavily loaded basket.

Mer-Made Strainer Styles

Mer-Made Filter offers several styles of strainers to fit a variety of filtration needs. We offer replacement fiberglass reinforced plastic strainers for several popular pump manufacturers. Strainers include strainers for several popular pump manufacturers. Strainers include FO series, "T" Style series, M-series, S-series and LP series.

Basket Strainer Features and Benefits

Fiberglass construction eliminates rusting common to metal strainers. The clear lid allows the operator to check the basket condition and system flow without shutting down.

“FO” Full Outlet Style

The basket chamber for the Mer-Made FO Series has a large open area to allow water flow through the basket, minimizing pressure loss and maximizing time between cleaning. The FO Series is recommended for applications that have heavy debris loading.

The outlet area of the basket chamber shall be a minimum of four times the area of the inlet pipe. This results in a very low-pressure drop across the strainer and rises to the point where cleaning is required. (Photo example: Front of brochure)

“T” Style

T-Style strainers offer a lower cost alternative for services that have light debris loads and require infrequent cleaning. In a “T” style strainer, the outlet chamber of the basket is typically equal to the inlet pipe area. (more information on page 8)



Other Manufacturer’s Strainers

Mer-Made offers replacement strainers for several popular pump manufacturers including: (more information on page 9)

1. “S” Series strainer- replacement of Sta-Rite series C & D

PKG 98 for D Series



PKG 184 for CSP Series



2. “M” Series strainer – replacement for Marlow, D10X & C10X

3. Purex and Hayward also available



Engineered for Commercial Systems

Strainer housings are fiberglass reinforced plastic constructions. FRP and stainless-steel components assure that wetter part will not rust.

Features Include

- Quick opening latches
- See thru lids
- 316 Stainless Steel V-wire baskets



Strainer Specification

Strainer housing shall be constructed completely of corrosion resistant materials. The body shall be all fiberglass reinforced plastic construction incorporating a 0.100" thick corrosion liner on all interior surfaces and flange faces. The liner shall be constructed with one layer of resin-rich C-veil followed by two layers of 1-1/2 oz. chopped strand mat, impregnated with Isophthalic polyester resin.

Highlights

- The inlet and outlet connections shall be flanged.
- Flange faces shall be drilled to ANSI B16.5 standard for 150 LB. drilling patterns.
- Stainless steel toggle bolts built into top of strainer body.
- Three toggle bolts are fixed while one swings away.
- Plastic hand knobs clamp cover tightly in place.
- The lid shall be manufactured from clear acrylic to allow an unobstructed visual inspection of the basket.
- Acrylic lid is grooved to allow it to swing open after dropping one toggle bolt.
- Lid is sealed with an ethylene propylene o-ring.
- 316 stainless steel wedge-wore basket is standard with 3/16 – inch square openings and 62% open area.
- 14" and larger strainers have FRP lid with 8" diameter acrylic viewpoint.
- PVC drain plug.

Strainer outlet may be reduced to required pump suction size by use of a full concentric or eccentric reducing section. See product literature at www.mermade.com for available size reductions and dimensions.

Custom Strainers Fabricated to your Specifications

Customer strainers may be fabricated to meet specific dimensional or corrosion needs. Materials of construction may be customized for more aggressive industrial applications. Custom baskets are also available. Baskets are available in stainless steel, hastelloy, monel, titanium and other exotic alloys. Baskets can be fabricated with a variety of slot openings.

Note” Stainless steel is not recommended for sea water services. Please contact our office at 803-793-4265 for material recommendations.



Strainer Installation

Install strainer housing with the direction of the flow through the unit matching the direction of the flow arrow.

The strainer should mate to full faced flanges. We do not recommend bolting to raised face flanges unless an appropriate spacer ring is used.

Use the recommended bolt torque listed in the table below to install flanges mating to the inlet and outlet connections. We recommend the use of full-faced gaskets with a minimum thickness of 1.125” (0.32 cm). Gaskets should have a Shore A or Shore A2 hardness rating of 40 to 70.

Recommended Bolt Torque

Inlet / Outlet Pipe Diameter	Torque
2” to 6”	25 ft. lbs.
8” to 10”	25 – 40 ft. lbs.
14” to 16”	25 – 55 ft. lbs.

Proper Strainer Construction & Operation

Prior to start-up of the strainer, remove the protective paper from the acrylic lid. Inspect the inside of the strainer to make sure the basket is in the strainer and oriented properly. Current baskets are angled. The 'low' side of the basket should be facing the inlet and the 'high' side of the basket should be toward the outlet. The strainer housing has a square bar installed to the interior which mates to a notch in the basket lip to assure proper orientation during installation and to prevent the basket from turning in service



o-ring

Make sure the O-ring is properly seated in the groove. Install the acrylic lid and hand-tighten the knobs to secure.



Knob

Cleaning Procedures

As water enters the chamber, you may notice some leakage from the lid. Visually check to assure the O-ring is seated properly in the groove. If the o-ring is secure, start the pump despite of the leak. The pump will form a suction on the strainer lid and eliminate the leak. After starting the pump, hand-tighten the knobs again. The strainer should stay sealed on subsequent shut-downs.

Visually inspect the basket daily, or more frequently based on debris loading. Remove for cleaning when more that half of the basket area is plugged with debris or when the pressure drop across the strainer is more than 5 PSI.

Remove the basket and clean with a pressurized stream of water aimed at the outside basket. His stream of water should dislodge the bulk debris. Make sure the O-ring is properly seated and the inside groove is clean. Reinstall lid and hand-tighten the knobs.

Important Safety and Handling Instructions

- Handle acrylic lid with care. Do not drop or strike lid.
- Ensure lid is securely in place, the o-ring is properly seated, and the knobs are tight before opening the valves to the strainer.
- Always make sure the valve to strainer is closed before removing lid.
- Inspect lid, o-ring, and hand knobs at each cleaning.
- **Never** use a lid, o-ring, or knob that is damaged.
- Do not use open flame around strainer. The fiberglass housing is flammable.
- Do not use 'fast-acting' valves before a strainer. They can cause the strainer to fail.
- Do not use a wrench to tighten hand knobs.
- Use not use an abrasive cleaner on the acrylic lid.
- Lid removal – Unscrew all knobs a minimum of ½". It is not necessary to remove knobs. Swing down the toggle bolts. Lift the lid to break the o-ring seal. Swing the lid to the side.
- Lid replacement – When closing lid make sure the o-ring is properly seated. Lift lid slightly and swing into place making sure not to drag the lid over the o-ring. This may cause the o-ring to be pulled out of its groove and become pinched.
- Do not attempt to drill and tap or modify the acrylic lid in anyway. Modifications may cause the lid to fail

Mer-Made FO or T Style Baskets

Inlet Size	Basket Diameter	Lid Diameter or O-Ring	Hand Knob
4"	4-7/8"	9-1/4" Acrylic	Universal
6"	6-7/8"	11-1/4" Acrylic	Universal
8"	8-7/8"	13-1/4" Acrylic	Universal
10"	10-7/8"	15-1/4" Acrylic	Universal
12"	12-3/4"	17-1/4" Acrylic	Universal
14", 16", 18", 20"	18-1/2"	23-1/2" FRP	Universal

- Current FO and T series strainers are blue in color and use angles baskets. Older strainers are gray in color and use flat top baskets.
 - To order a replacement lid, specify outside diameter of acrylic lid.
 - To order replacement O-ring, specify outside diameter of acrylic lid.

For Other Pump Manufactures
S-Series & Marlow Series

Inlet Size	Basket Diameter	Lid or O-Ring	Hand Knob
Sta-Rite PKG 184	6-7/8"	11-1/4" Acrylic	Universal
Sta-Rite PKG 98	4-7/8"	9-1/4" Acrylic	Universal
Marlow C10X	6-7/8"	11-1/4"	Universal
Marlow D10X	8-7/8"	13-1/4"	Universal



To order new equipment or replacement parts:

Call us at (803) 793-4265

Send order by fax to (803) 793-4332

Send an e-mail to irp@mermade

Visit our website: www.mermade.com

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