

FRP BASKET STRAINER

Operation & Maintenance Instructions



Mer-Made Filter

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DESIGNED & ENGINEERED FOR COMMERCIAL SYSTEMS

Rugged fiberglass housing will not corrode

Table of Contents

The Purpose and Benefit of a Strainer	3
Strainer Design	3
Mer-Made Strainer Styles	3
“FO” Full Outlet Style	3
"T" Style.....	4
Other Manufactures Strainers.....	4
Engineered for Commercial Systems.....	4
Features.....	5
Highlights.....	5
Custom Strainers.....	6
Strainer Installation.....	6
Recommended Bolt Torque.....	7
Strainer Operation.....	7
Important Safety and Handling Instructions.....	8
Spare Parts.....	9-10
Contact Mer-Made.....	11

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 your 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. A further consideration in

strainer function is the strainer's serious influence on pump cavitation as a result of a heavily loaded basket.

Mer-Made Strainer Styles

Mer-Made Filter offer several styles of strainers to fit a variety of filtration needs. We offer replacement fiberglass reinforced plastic strainers for several popular pump manufacturers.

“FO” Full Outlet Style

The basket chamber of 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 very low pressure losses initially and much greater debris loading before the pressure drop across the strainer rises to the point where cleaning is required. For photo, see front of brochure.



“T” Style

T-Style strainers offer a lower cost alternative for services that have light debris load and require infrequent cleaning. In a “T” style strainer, the outlet chamber of the basket is typically equals the inlet pipe area.

Other Manufacturer’s Strainers

Mer-Made offers replacement strainers for several popular pump manufacturers, including:

- Sta-Rite, PKG 184 and PKG 98
- Marlow, D10X and C10X
- Purex and Hayward also available

Engineered for Commercial Systems

Strainer housings are fiberglass reinforced plastic construction. FRP and stainless steel components assure that wetted parts will not rust.

Features Include:

- Quick Opening Latches
- See thru Lid
- 316 Stainless Steel V-Wire Basket

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-wire basket is standard with 3/16-inch square openings and 62% open area.
- 14" and larger strainers have FRP lid with 8" diameter acrylic viewport.
- 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 for available size reductions and dimensions.](#)

Custom Strainers Fabricated to your Specifications

Custom 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 SERVICE. PLEASE CONTACT OUR OFFICE FOR MATERIAL RECOMMENDATION.

Strainer Installation

Install strainer housing with the direction of the flow through the unit mating 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 0.125" (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.

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 in 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.

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

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 in spite of the leak. The pump will form 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.

Strainer Operation

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 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 of the basket. This stream of water should

dislodge the bulk of debris. Make sure the o-ring is properly seated and the 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.

Spare Parts

Mer-Made FO or T Style Basket Strainers

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 angled 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.

Mer-Made Replacement Basket Strainers

For Other Pump Manufacturers

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

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.

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