

Installation, Operation & Maintenance Manual Model 73 Simplex Basket Strainer, Sizes 10-18"

Read all the following information and instructions prior to installing and operating the equipment. Failure to comply with these instructions could result in bodily injury or property damage.





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INTRODUCTION

A simplex strainer is a device installed in a pipeline to remove dirt and other unwanted debris from fluids. Straining is accomplished by directing the fluid through sized openings in a basket. Simplex strainers are installed where fluid flow can be interrupted while the basket is removed for cleaning. Simplex strainers are designed to withstand the rated pressure of the piping system.

For additional information regarding Simplex Basket Strainers visit our website at www.eaton.com/filtration



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RECEIVING, HANDLING, AND INSPECTION

Inspect strainer after unpacking for damage incurred during transit. Report any damage to the carrier immediately. If the strainer is not to be installed immediately, store indoors in a clean, dry environment.

Remove preservative with a solvent dampened cloth. Exercise care when using solvent.

Check to be sure the rated pressure and temperature on the strainer is not less than the maximum pressure and temperature of the installation. The rated pressure is the maximum pressure, including shock, at which the strainer may be operated.

Open the cover by loosening each fold-down lug. Check for and remove any foreign or loose materials that could be carried downstream when fluid is introduced into the strainer.

Close the cover and tighten the hold-down lugs. The basket is held in place by pressure of the cover on the basket handle. If the basket is loose, spring the handle to a higher position to insure greater compression when the cover is seated.

INSTALLATION

Position the strainer in the line so that the fluid enters the connection marked "inlet."



CAUTION: Lift strainers with slings around the cover and under the inlet and outlet connections. DO NOT lift the strainer by the hardware located on the strainer cover.

Be sure sufficient headroom is provided for easy removal of cover and basket.

It is suggested to support the strainer on concrete or steel pads.

Connect the strainer to the line. Use same type flange faces. For example: **Do not** bolt raised face flanges to iron flat face flanges. Flat faced iron flanges must be bolted to flat face flanges with full face gaskets.

Each model 73 Basket Strainer is shipped completely assembled and ready for installation. Please note the correct location of the "INLET" in order that the unit is properly aligned prior to bolting up in the field.

Check that the cover hardware is tight to assure a proper seal will be maintained during the operation of the unit.

Cast strainers are subject to face-to-face variations due to shrinkage and machining tolerances.

Prefabricated piping systems must allow adjustment at the strainer connection.

Be sure flange gaskets are in place and fasteners are tight.

It is recommended that the drain plug be removed and drain valve be installed at the bottom of the basket chamber as shown in Figure 1.



CAUTION: A vent is required when fluids other than water and with temperatures in excess of 120° F are to be handled by the strainer. The vent must be piped to a safe discharge point to protect

the operator. (See Fig.2). Wear protective clothing, which includes gloves, vests, and goggles when handling dangerous fluids.

Pressure gauges near the strainer inlet and outlet are recommended. Cleaning frequency is determined by the pressure drop across the strainer.



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OPERATION

Open vent, if strainer is so equipped to expel air from the strainer. Slowly introduce fluid to be strained by opening the outlet valve first, followed by opening the inlet valve.

During operation, once proper installation has been accomplished, the units require special monitoring. The pressure differential across the basket must be observed periodically to determine when the basket has become sufficiently loaded with solids to warrant the cleaning of the basket.

The maximum acceptable pressure differential across the basket should be determined and preset prior to operation to assure trouble free operation



CAUTION: Start system GRADUALLY. This eliminates sudden shock to the strainer and other equipment in the line.

Close the vent when air is expelled and fluid begins to flow.

SHUT-DOWN

Tightly close valves on the inlet and outlet connections or the strainer. Open vent and/or drain valve slowly if the strainer is so equipped to relieve liquid pressure in the strainer.



CAUTION: DO NOT loosen cover while there is liquid or air flow from the vent.

BASKET REMOVAL

Follow shut-down procedure.

Should it be necessary to open the cover of the strainer, to remove or replace the basket, care must be taken to assure that the pressure inside the unit has been reduced to atmospheric.

Each hold-down lug on the cover should be loosened slightly to assure that the line pressure has been reduced.

BASKET REPLACEMENT

When placing the basket into the straining unit, care must be taken to assure that the basket is properly seated.

Place new or clean basket squarely into the basket seat. Be sure basket handle is sufficiently high to be compressed by strainer cover.

Before closing the cover, the machined surface which will contact the O-ring must be thoroughly wiped clean to minimize scoring on the O-ring.

The O-ring itself should be inspected also to assure that proper sealing will be accomplished. Once closed the hold-down lugs should be tightened in such a manner as to assure that the cover and O-ring rest squarely on the seating surface. Follow start-up procedure.

BASKET CLEANING

When to Clean

Clean basket when there is a 5 psi increase in pressure loss across the strainer.



CAUTION: To prevent damage to basket, DO NOT permit strainer pressure differential between inlet and outlet connections to exceed 20 psi.

How to Clean

Wash out debris by directing a stream of air or water against the basket exterior. Use solvent if strained fluid is fuel or a chemical. Follow manufacturer's instruction when using a solvent to clean the basket.



NOTE: Do not allow basket contents to dry as this will make cleaning most difficult.

Inspect basket at each cleaning for **holes** or tears and replace as required.



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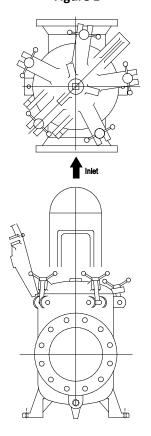
SHUT-DOWN PERIODS

During shut-down periods drain the fluid and clean the basket

RECOMMENDED SPARE PARTS

- 1 Eaton Replacement Basket
- 1 Eaton Replacement 0-Rings

Figure 1



When ordering spare parts, specify all nameplate data and/or any raised lettering on the strainer body as well as the description and quantity of parts.

Always use genuine Eaton replacement parts for guaranteed fit and performance.

Visit our web site, www.filtration.eaton.com for information about the hundreds of different types of Eaton Simplex Basket Strainers

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Europe/Africa/Middle East

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