



Eaton Filtration, LLC

900 Fairmount Avenue, Elizabeth, NJ 07207
Phone: 908-787-1000 Fax: 908-351-7893
E-Mail: filtration@eaton.com
Web: www.filtration.eaton.com

**Installation, Operation &
Service Manual**

**Model 72 Simplex
Basket Strainer
3/8" to 8" Sizes**

Read all instructions before installation or operation of equipment. Failure to comply with these instructions could result in bodily injury or property damage.

Table of Contents

| | Page No. |
|--|----------|
| Introduction..... | 1 |
| Receiving, Handling & Inspection | 2 |
| Installation | 2 |
| Operation | 3 |
| Shut-Down..... | 3 |
| Basket Removal/Replacement | 3 |
| Basket Cleaning | 4 |
| Recommended Spare Parts | 4 |
| Exploded Parts Drawing | 4 |



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.filtration.eaton.com.com

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 solvent dampened cloth. Exercise care when using solvent.

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

Remove cover by turning T-bolt counterclockwise to release yoke, swing yoke clear of cover and remove cover. Check for and remove any foreign or loose materials that could be carried downstream when fluid is introduced into the strainer.

Replace strainer cover and yoke and tighten T-bolt. 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 under the inlet and outlet connections. DO NOT lift the strainer by the yoke screw located on the strainer cover.

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

Support the strainer in the line as follows:

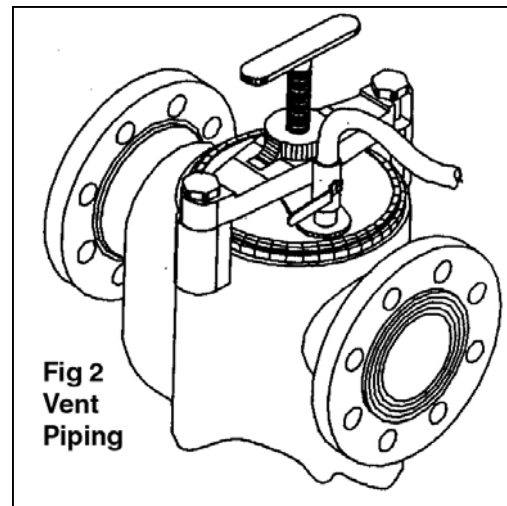
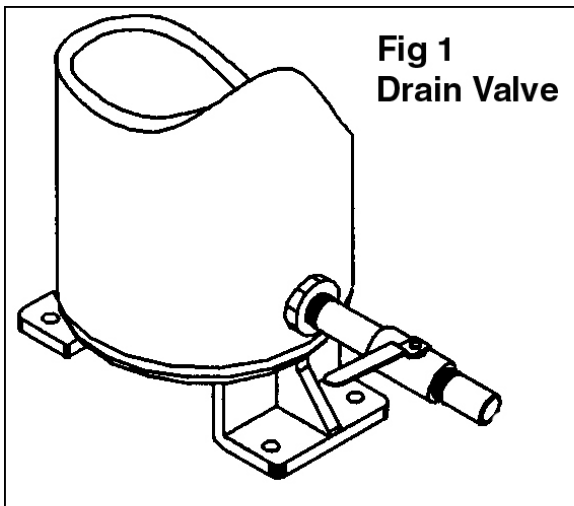
4" size or under:

Use pipe supports under the process piping near inlet and outlet connections. Use care to prevent bending and expansion forces from acting on the nozzles.

6" size or larger:

Support 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. Iron flanges must be flat face with full face gaskets.



Installation Cont.

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.

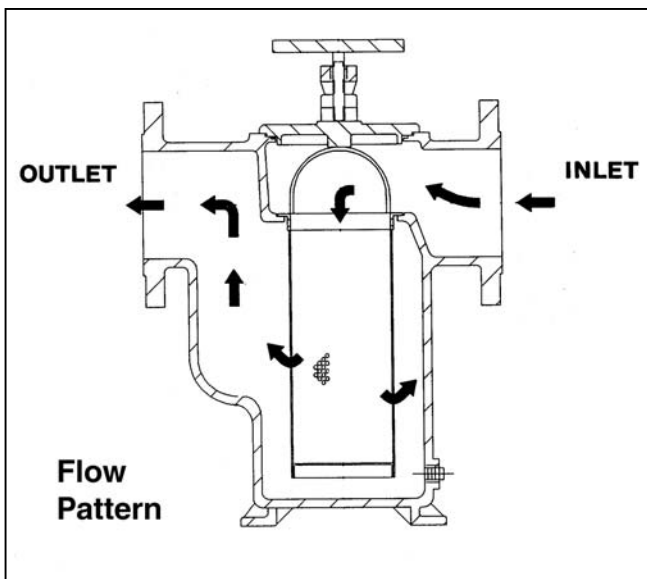
If strainer has threaded connections follow proper threaded specifications. If strainer has weld connection follow proper ANSI weld specifications.

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 Fig. 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.



Operation

Open vent, if strainer is so equipped (See Fig. 2), to expel air from the strainer.

Slowly introduce fluid to be strained by opening the outlet valve first, followed by opening the inlet valve.

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 (See Fig. 2) and/or drain valve (See Fig.1) 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.

When pressure is relieved, loosen T-bolt. Drain fluid through bottom drain to a level below the basket seat.

Swing yoke clear of cover and remove cover and dirty basket.

Basket Replacement

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

Inspect O-ring and seal surface: clean seat or replace cover O-ring as necessary. Always keep spare O-rings in stock.

Replace cover, swing the yoke over the cover and make full contact with the yoke stud. Tighten the center T-bolt. If strainer is on suction service, fill basket chamber from outside source before installing cover.

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

Invert basket and 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.

Shut –Down Periods

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

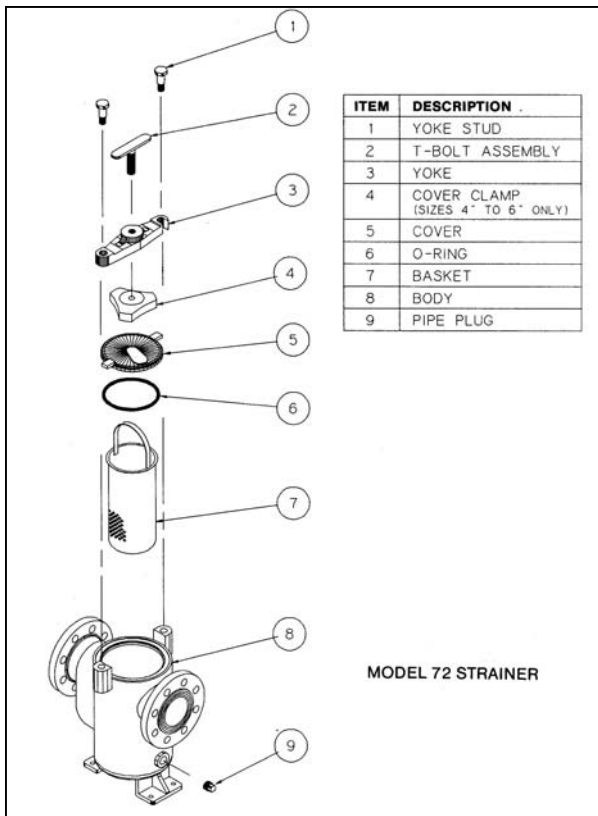
Recommended Spare Parts

- 1 Eaton Replacement Basket
- 1 Eaton Replacement O-Ring

When ordering spare parts specify all nameplate data 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.



More From Eaton Filtration

Pipeline Strainers

Eaton provides the most complete range of standard cast pipeline strainers for coarse filtration available from any manufacturer. These include Simplex, Duplex and Y Type Strainers, in Iron, Bronze, Carbon and Stainless Steel. For ultra-pure applications, strainers of all plastic construction are available. Cast Pipeline Strainers range in size from 1/2" to 36" and larger.

When a cast strainer won't meet the applications requirements because of size, weight or design Eaton offers standard fabricated strainers to meet exact customer requirements. without any trade-offs. When a standard design fabricated strainer will not meet an application's requirements Eaton's design team can work with customers to create a unique one that will.

Eaton also offers Automatic Self-Cleaning strainers. These are motorized strainers designed for the continuous removal of entrained solids from liquids in pipeline systems. The strainer operates un-attended and the system flow never has to be shut down for strainer element cleaning. These strainers are available in both cast and fabricated types.

Find out more on the web at:
www.Filtration.Eaton.com

Gas/Liquid Separators

Eaton's Gas/Liquid Separators have been the "Industry Standard" for over 100 years. Nobody knows more about gas/liquid separation than us.

Eaton Gas/Liquid Separators are used to remove 99% of damage causing moisture and particulate matter from air, gas and steam pipelines. They protect valuable system components like air compressors and turbines from damage.

Eaton has a wide selection with hundreds of different Gas/Liquid Separators. When a standard model isn't right for an application, Eaton Engineers can work with customers to create a custom fabricated model that fits the application requirements exactly.

Find out more on the web at:
www.Filtration.Eaton.com

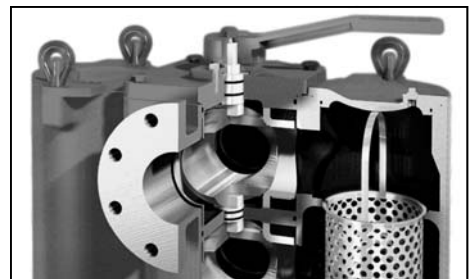
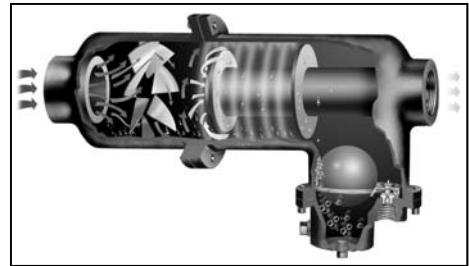
Filtration Systems

With Eaton Filter Housings you have your choice of high grade investment cast construction or engineered fabricated construction in stainless steel or carbon steel. Or, for extremely corrosive or ultra-pure services, you can choose all-plastic construction. You can be sure Eaton Filter Housings will meet specifications because they are all made to ISO 9001:2000 Standards. Eaton has representatives in over 40 countries, experienced professionals to provide the filtration help you need, when and where you need it.

Choosing the correct filter bag is critical to the success of you application. Don't trust anything less than a filter bag from Eaton. They're made under ISO 9001:2000 Standards to ensure

the consistent, reliable performance that you demand. Eaton Filter Bags fit all Eaton Filter Housings and the housings of most other manufacturers as well.

Find out more on the web at:
www.Filtration.Eaton.com



Eaton Filtration warrants its products against defective material and workmanship only. Eaton assumes no responsibility for damage or injury resulting from improper installation, abuse, or misapplication of any product. Eaton assumes no responsibility for damage or injury resulting from chemical incompatibility between its products and the process fluids to which they are subjected. The end user should always test to determine application suitability. Contact your Eaton Representative for complete warranty information.

Eaton Filtration, LLC

900 Fairmount Avenue, Elizabeth, NJ 07207 Tel: 908-787-1000 Fax: 908 351 7893

E-Mail: filtration@eaton.com Web: www.filtration.eaton.com

©Copyright 2005 Eaton Filtration, All rights reserved.