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INTRODUCTION

This manual contains information Regarding the Installation, Operation, and Maintenance of Acme Fluid Systems Strainers. To ensure an efficient and safe operation of Acme Fluid Systems Strainers, Please retain this manual in a location where it is readily available for reference. This Manual gives Brief Introduction and it's not meant to take the Place of a Site Engineer or Pipe Fitter.

For Additional Information, Please Visit Our Website: www.Strainersindia.com

GENERAL INFORMATION

Acme Fluid Systems Strainers is a device, which is installed in a pipeline in order to remove dirt and other unwanted debris from fluids by using perforated or Mesh lined Straining Elements.

The process of straining involves passing the fluid through sized openings in the Basket Screen. Usually, the size of Screen Opening should be slightly smaller than the Smallest Particle Size to be removed. If the Screen opening is too undersized it will lead to frequent cleaning and Higher Pressure Drop and, consequently if opening is Oversized, It will allow unwanted particles to flow and possibly damaging downstream equipments.

Prior to selection of Acme Fluid Systems Strainers, the following factors must be determined:

- Material of construction Compatibility of Strainer.
- Design Pressure Range and Temperature.
- End Connections of Strainers (Flanged End/Butt weld End/Screwed Ends)
- Operating Condition (Max. Pressure Drop Acceptable, Flow reversal, Throttling, etc)
- Fluid Characteristics (Liquid, Gas, Corrosive, Dirty, etc)
- Flow Rate and Viscosity of Fluid.
- Size of Debris to be removed.
- Space Availability for strainers.
- Requirement of additional items Like Differential pressure gauge/ switch, Valves at Drain and valves.

RECEIVING, UNPACKING AND INSPECTION

Acme Fluid Systems, Strainers are usually Shipped In wooden Boxes to prevent any Damage during Transit. If External Damage to Shipping Box is evident, please request that a representative of the shipping carrier be present before unpacking the product.

- Check the Packaging List against the Strainers received to verify the Size, material and Mesh Size is Correct.
- Visually inspect the Strainer for any signs of damage including scratches, loose parts, broken parts or any other physical damage that may have occurred during shipment. If damage is observed, immediately file a claim with the shipping carrier. Strainers that are damaged during transportation are the responsibility of the customer.
- Insure to check the rated Pressure and Temperature Rating on The Nameplate of Strainer is Not Less than the Maximum Pressure and Temperature of the Installation.
- While Lifting the Strainers, Take care to Avoid Damages to Flange faces and Body.
- Before installation, the Strainer's cover should be removed and inspected internally to remove any foreign or loose materials that could have been carried downstream when fluid is introduced into the strainer. Make sure the gasket is seated correctly before tightening the cover bolts.

INSTALLATION

Pre-Installation Procedure

- Remove any Protective flange Covers from Strainer.
- Check the Strainer Identification Tag for Material, and operating Temperature and Pressure to be Sure they are Correct for the Application.

WARNING! Personal Injury or Property Damage may result if the strainer is installed where service conditions could exceed the strainer ratings.

- Ensure that the pipeline's mating flanges are the same type as the Strainer being installed. Example: Raised face flange ends cannot be mated to flat face flange ends.
- Check the Flange bolts or Studs for proper Size, Threading and length.

Installation Procedure

- All strainers should be installed with the arrow on the strainer body pointing in the direction of flow.
- To provide for easier maintenance, the Strainer should be located where the drain plug can be removed. Additionally, ensure the drain or blow-off is located at the lowest position when installed. If installed in the vertical position, the Y side of the strainer must be pointing downward.
- Insure there is ample Space for easy and hassle free removal of Strainer element.
- 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.
- For installation of threaded strainers an appropriate sealant should be used on the threads.
- Pressure gauges near the strainer inlet and outlet are recommended. Cleaning frequency is determined by the pressure drop across the strainer.

OPERATION

Once Strainer has been Successfully Installed, Open the Air Vent (if Installed) to Remove the air from the Strainer. Start the system gradually, at start up as well as after shut down. This eliminates sudden shock to the strainer and other equipment in the line. This is extremely important for steam service.

MAINTENANCE

Acme Fluid Systems Strainers require little monitoring once they are properly installed. However, the Differential pressure across the strainer should be continuously monitored. To check if the Strainer element has to be cleaned or replaced. If the Strainer remains clogged and Differential pressure across the strainer is not monitored it can lead to breaking of strainer element.

Shut-Down

- Tightly close the valves at Inlet and Outlet of the strainer. Make Sure the Valves are Bubble Tight.
- Open the drain and vent valves to relieve the liquid pressure inside the strainer.
- Be sure the line depressurised and drained.
- Be sure of the pipeline media. Proper care should be taken for protection against toxic and/or flammable Liquids.

WARNING! Service on a Pressurized strainer can Cause serious injury and/or Damage to property

Screen Removal/Screen cleaning

- Follow the Shut Down procedure. When there is Zero Pound pressure in the strainer and fluid has been completely drained out.
- Remove the screen and clean. Do not permit screen to dry as it will become very difficult to remove debris after it has hardened.
- Avoid banging or hitting the screen to remove stubborn debris as it can damage the screen.
- For perforated screens, it is recommended to use high pressure water or air stream to clean the screen. This is not recommended for mesh or mesh lined Screens as this may cause the mesh to tear.
- Solvent may be required if service is fuel, oil, or chemicals. Follow manufacturers Instructions when using solvent to clean the screen.

Screen Replacement

- Place the new or Cleaned Screen on the Screen seat make Sure the Handle of The basket Screen is intact to Ensure proper seating and compression.
- Inspect O-ring and seal surface: It is recommended to replace with new sets of gaskets/O-rings after cleaning. Please keep extra sets of gaskets/o-rings in stock.
- Replace cover, Strong back the yoke over the cover and make full contact with the strainer cover.
- Follow start-up procedure.

RECOMMENDED SPARE PARTS

- Acme Replacement Basket.
- Acme Replacement O-ring/gasket.

When ordering spare parts, specify all details of the nameplate as well as the description and quantity of parts.

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