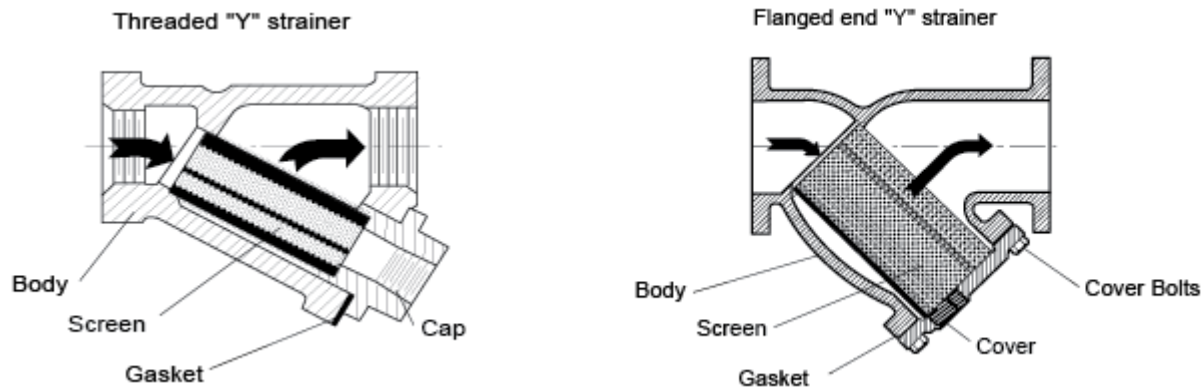


INTRODUCTION

This instruction manual includes installation and maintenance information for FNW Y-type strainers. Y-Strainers are used in a various water, oil and gas pipeline systems to filter and purify medium. Y-Strainers only remove insoluble floating impurities.

Straining for the pipeline flow is accomplished via a perforated or mesh line screen. In general, the size of the screen perforation should be slightly smaller than the smallest debris particle to be removed. If the screen perforation is undersized, the screen may require excessive cleaning. Consequently, if the screen perforation is oversized, unwanted debris may be permitted to flow through the pipeline, possibly damaging downstream equipment.



CAUTION

ATTENTION: Prior to selection of a FNW strainer, the following factors must be determined:

1. Material construction requirements.
2. Working pressure/temperature requirements.
3. Pipeline service media type (liquid, gas, abrasive, corrosive, dirty etc.).
4. Debris size to be removed.
5. Operating conditions/requirements.
6. Pipeline media flow rate and viscosity.
7. Space availability for installation.
8. Wear protective equipment and take appropriate precautions to safeguard against injury caused by the discharge of trapped fluids.
9. DO NOT open the PLUG with pressure to the strainer. Doing so may cause harm to personnel or equipment.
10. Use only FNW recommended spare parts for maintenance.
11. To ensure safety and to maintain warranty, never modify the valve in any way without prior approval from FNW.

STORAGE

ATTENTION: If the strainers are not destined for immediate use, the following precautions should be taken:

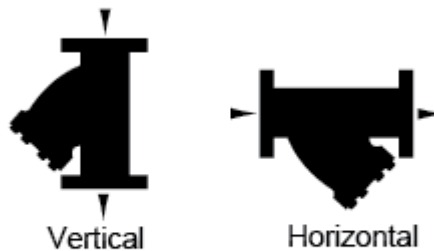
1. Strainers should be stored in dry area. Storing or stacking of products in open air is not permitted.
2. The ends should be protected with protectors.
3. If strainers are being stored for a long time period, they should be inspected periodically and any dirt on the strainers should be cleared off.
4. Rustproof oil on external machining faces should be replaced periodically to prevent rusting.

INSTALLATION

WARNING: To avoid personal injury to yourself, fellow workers, or damage to property from release of process fluid, before installation:

- a. Ensure Working conditions (pressure/temperature) are within the specific capacity of the product being installed.
- b. Make sure the strainer is compatible with the media flowing in the pipeline.
- c. Visually inspect the Y Strainer for any sign of damage including scratches, loose parts etc.
- a. Ensure the location selected for the strainer has enough clearance space to allow for easy access to the strainer cleanout plug.
- d. Install the strainer so that the cleanout plug of the Y Strainer is vertically down.

Mounting Positions



The cover of the "Y" side should face down

- e. Periodically open the cleanout plug to drain accumulated waste material from the strainer.
 - DO NOT open the PLUG with pressure to the strainer. Doing so may cause harm to personnel or equipment.
 - f. Unscrew the cleanout PLUG from the cap. When fluid runs clean, tighten the plug back into the strainer cap.
1. Strainer Screen Replacement:
 - o Threaded Body: Hold the body of the strainer with a pipe wrench while unscrewing the hex head cap from the body.
 - o Flanged Body: Unbolt the cap from the body.
 - o Remove the screen and clean or replace with new screen.
 - o Re-place the screen and gasket/O-ring in position on the cap for ease of installation.
 - o Threaded Body: Hold the body with a pipe wrench while installing the cap.
 - o Flanged Body: Re-bolt the cap to the body.
- NOTE: Securely tighten the cap into the body.

WARRANTY

1. LIMITED WARRANTY: Subject to the limitations expressed herein, Seller warrants that products manufactured by Seller shall be free from defects in design, material and workmanship under normal use for a period of one (1) year from installation but in no case shall the warranty period extend longer than eighteen months from the date of sale. This warranty is void for any damage caused by misuse, abuse, neglect, acts of God, or improper installation. For the purpose of this section, "Normal Use" means in strict accordance with the installation, operation and maintenance manual. The warranty for all other products is provided by the original equipment manufacturer.

2. REMEDIES: Seller shall repair or replace, at its option, any non-conforming or otherwise defective product, upon receipt of notice from Buyer during the Manufacturer's warranty period at no additional charge. SELLER HEREBY DISCLAIMS ALL OTHER EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS OR FITNESS FOR A

PARTICULAR PURPOSE.

- 3. LIMITATION OF LIABILITY:** UNDER NO CIRCUMSTANCES SHALL EITHER PARTY BE LIABLE TO THE OTHER FOR INCIDENTAL, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY KIND. BUYER HEREBY ACKNOWLEDGES AND AGREES THAT UNDER NO CIRCUMSTANCES, AND IN NO EVENT, SHALL SELLER'S LIABILITY, IF ANY, EXCEED THE NET SALES PRICE OF THE DEFECTIVE PRODUCT(S) PURCHASED DURING THE PREVIOUS CONTRACT YEAR.
- 4. LABOR ALLOWANCE:** Seller makes NO ADDITIONAL ALLOWANCE FOR THE LABOR OR EXPENSE OF REPAIRING OR REPLACING DEFECTIVE PRODUCTS OR WORKMANSHIP OR DAMAGE RESULTING FROM THE SAME.
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