

**STAYFLOW
STRAINERS**

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INSTALLATION, OPERATION & MAINTENANCE

DUPLEX BASKET STRAINER



1" ~ 4" SIZE UNITS

DIF~T

DCF~T

DSF~T

INSTALLATION, OPERATION & MAINTENANCE

**CAREFULLY READ ALL INSTRUCTIONS BEFORE INSTALLATION OR OPERATION OF
EQUIPMENT. ANY QUESTIONS REGARDING INSTRUCTIONS OR ACCESSORIES
SUPPLIED SHOULD BE DIRECTED TO THE MANUFACTURER.**

INTRODUCTION

A Duplex Strainer is installed in a pipeline to remove sediment and Debris from fluids. Fluid flow is not interrupted while the basket is removed for cleaning. These Strainers are designed for pressure or suction applications.

Straining is accomplished by directing the fluid through sized openings in the basket. Once sediments and debris is collected in the basket, fluid flow is directed to other basket for continuous operation prior to removing the debris filled basket for cleaning.

RECEIVING , HANDLING AND INSPECTION

Unpack and inspect strainer for damage that may have occurred during shipping. Any damage should be reported to the carrier immediately. Store the container in a dry, clean area until the strain-er is installed.

Remove strainer covers and inspect for any foreign matter that could be washed downstream when the strainer is put into service. The strainer has been packed with a preservative coating on the inside surfaces. This should be removed if there is a possibility of contamination of the piping system.

See **Disassembly Instructions for Service and Maintenance** in this manual.

Carefully check the pressure and temperature ratings on the strainer body or nameplate to be sure that they are correct for the intended application.

STORAGE

1. Store your strainer indoors in a clean, dry environment whenever possible.
2. Be sure that all protective wrappings, flange protectors, plugs, etc. are in place.
3. Outdoor Storage, if unavoidable, should be treated as follows:
 - A) Cover all openings and seal flange protectors with water-proof tape.
 - B) Protect the entire strainer with heavy polyethylene wrap and seal with waterproof tape.



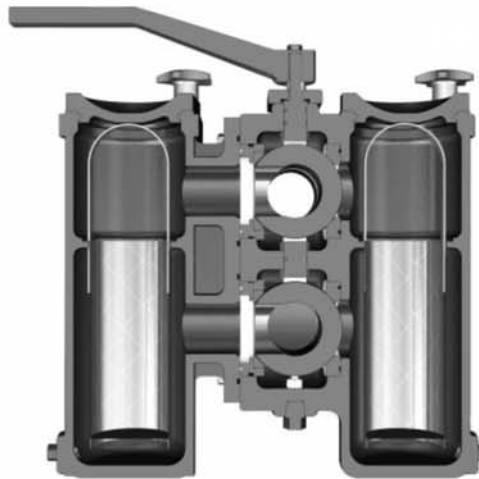
IN BOTH INDOOR AND OUTDOOR STORAGE
DO NOT STACK ANY OBJECT ON YOUR STRAINER

SEE ATTACHED DATASHEET FOR DIMENSIONS, BILL OF MATERIALS, AND DRAWINGS

INSTALLATION, OPERATION & MAINTENANCE

INSTALLATION

- 1). Place the strainer in the line so that the liquid enters the side marked INLET. DO NOT LIFT the strainer by the knobs or gear operator. Use slings around body or flanges for lifting. On sizes 3" or smaller, be sure there are pipe supports close to the inlet and outlet sides of the strainer.
- 2). Allow enough room above the strainer for easy basket removal. See **GEOMETRIC AND OPERATIONAL DATA**.
- 3). When connecting flanged strainers to the line, be sure that the flanges are the same: flat face to flat face or raised face to raised face. Flat face flanges require full-face gaskets. The specified face-to-face dimension of the strainer is an approximate one due to machining tolerances. Allow adjustment in prefabricated piping or request certified dimensions.
- 4). Check to see that flange gaskets are properly positioned before tightening bolts. Tighten bolts in sequence.
- 5). We recommend the installation of flexible hoses on the pet cocks on the basket covers if service temperatures greater than 120°F are expected.



START-UP INSTRUCTIONS

- 1). Turn handle to the center, directly over the INLET. Open pet cocks on both basket covers. SLOWLY fill the chambers with line fluid. Close pet cocks when fluid starts to flow from them.
- 2). Allow system to gradually reach normal operating pressure and temperature. Check carefully for leaks at this time. Be sure that all basket cover knobs and bolts are securely tightened. If there are any leaks, follow the procedures in this manual under **Disassembly Instructions For Service and Maintenance**.
- 3). Rotate handle until it is directly over one of the chambers. The handle is always over the chamber in service. DO NOT leave the handle in the center position or both baskets will become clogged, requiring the system to be shut down for cleaning. See **Changeover and Cleaning Instructions** in this manual for switching the flow from one to the other.

CHANGE OVER AND CLEANING INSTRUCTIONS

WARNING:



BEFORE ANY KIND OF SERVICING, BE SURE TO CHECK PRESSURE AND TEMPERATURE OF THE SYSTEM AND WHETHER THE FLUID IS CORROSIVE OR OTHERWISE DANGEROUS.

Bodily injury and property damage could result if appropriate protection and safety procedures are not used. Read the following instructions completely and carefully **BEFORE SERVICING**.

Keep these instructions for future reference. In the instructions below, it is important to keep in mind that the “dirty” chamber is the one in use NOW. The handle is always directly over the one in use. The “clean” chamber is the one that is not in use. See Figure 1.

1. Open pet cock on clean chamber
2. Admit liquid slowly into the clean chamber by turning the diverter handle to the hallway position over the inlet
3. When liquid flows from the pet cock, close the pet cock.
4. Examine clean chamber for leaks. If none, proceed with step 6.
5. If leakage occurs, turn diverter handle back to its position over the dirty chamber. Vent and drain the clean chamber, remove the cover, correct the cause of leakage, replace cover and repeat steps 1 through 4.
6. Slowly shift flow to the clean chamber by slowly rotating the diverter handle over the clean chamber. If there is no leakage, proceed to step 7. If there is leakage, repeat step 5.
7. Open pet cock slowly on the dirty chamber.
8. Open drain plug on dirty chamber and allow liquid to drain while removing the cover
9. When liquid level is below the top of the strainer basket, close the drain plug.
10. Remove the strainer basket and allow the liquid to drip into the strainer body.
11. Clean the basket and examine for damage. Repair or replace as necessary.
12. Reinstall basket
13. Examine cover o-ring. Replace if damaged.
14. Reinstall and secure cover.
15. Shift diverter handle back toward the center position.
16. When liquid flows from pet cock, close pet cock.
17. Examine for leaks. If leakage is evident, go to step 5. If there is no evidence of leakage, shift diverter handle back to its position over the clean basket. The newly cleaned basket is now ready for the next changeover when needed.

DISASSEMBLY INSTRUCTIONS FOR SERVICE AND MAINTENANCE.

WARNING:



BEFORE ANY KIND OF SERVICING, BE SURE TO CHECK PRESSURE AND TEMPERATURE OF THE SYSTEM AND WHETHER THE FLUID IS CORROSIVE OR OTHERWISE DANGEROUS.

Bodily injury and property damage could result if appropriate protection and safety procedures are not used. Read the following instructions completely and carefully **BEFORE SERVICING.**

Keep these instructions for future reference. This strainer can remain in the line while being serviced. If desired, it may also be removed from the line servicing. Care should be taken when removing the basket housing 3" and larger units. Slings should be used to remove the basket housings on these larger units. **DO NOT LIFT** the strainer or the basket housing by the knobs .

1. Shut down flow on both sides of the strainer.
2. Turn diverter handle toward the center position or turn gear operator to position "1 AND 2". Open pet cocks on both chambers to bleed pressure.
3. Open drain plugs and drain both chambers.
4. Remove the knobs from the basket covers and remove the covers. Pull the strainer baskets from the basket housings.
5. Turn diverter handle toward the main basket housing (Basket #1).
6. Loosen nuts holding the basket housing to the main housing and carefully pull basket housing from the main housing. (Use a sling, if needed, to insure that the basket housing does not drop.)
7. Slide both balls from the main housing by pulling them directly out from the housing.
8. Remove the PTFE seals from both the main housing and the basket housing.
9. If only the seats are to be replaced, skip to Step 16.
10. Remove the lower stem from the main housing by pressing it down from the top into the lower ball area.
11. Remove handle or gear operator from the main housing.
12. Remove the upper stem from the main housing by pressing it down from the top into the upper ball area.

Figure 1

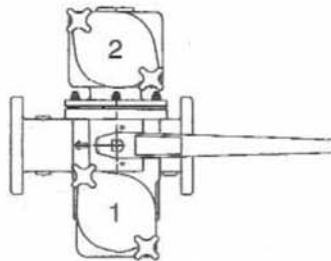
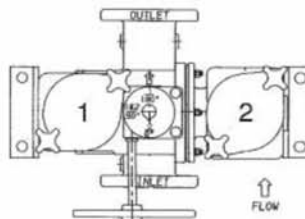


Figure 2



ASSEMBLY INSTRUCTIONS

13. Inspect all o-rings on the upper and lower stems and, if worn, replace them.
14. Slide thrust washer on the upper stem. Lightly grease the o-rings on the upper stem. Insert the upper stem into the main housing from the upper ball area by pushing up through the top hole. Insure that the rounded portion of the stem faces toward the basket in the main housing.
15. Lightly grease the o-ring on the lower stem. Insert the lower stem into the main housing from the lower ball area by pushing up through the center hole. Insure that the flats on both the upper and lower stems are in line and parallel with each other.
16. Inspect the counter bores for the PTFE seats in the main housing to insure that they are clean. Push the PTFE seats into the counter bore making sure that they are flat and parallel to the counter bore.
17. Slide the ball into the upper chamber keeping the solid side of the ball facing the basket in the main housing.
18. Slide the ball into the lower chamber keeping the solid side of the ball facing the basket in the main housing.
19. Inspect the main housing o-rings in the counter bore of the ball chambers and replace if worn.
20. Inspect the counter bores for the PTFE seats in the basket housing to insure that they are clean. Push the PTFE seats into the counter-bore making sure that they are flat and parallel to the counter bore.
21. Verify that the balls are installed correctly and slide the basket housing on to studs in the main housing. Install lock washers and nuts and tighten the nuts in the proper sequence.
22. Reinstall handle or gear operator on the main housing.
23. Inspect the o-rings on the baskets and replace if worn. Insert the baskets in the counter bore in the basket chambers.
24. Inspect the o-ring in the covers and replace if worn. Assemble the covers on the basket housings and tighten down with the knobs.
25. Reinstall the drain plugs in both basket housings.

MAINTENANCE

- 1). Inspect baskets at each cleaning for Holes /Damages. Repair/replace as required.
- 2). Inspect body cover seats and Gaskets. Clean seats and Gaskets as required.

SPARE PARTS:

- 1). Spare Basket: 01 Nos.
- 2). Spare O-Ring Kit: 2 Set.

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ASSEMBLY DRAWING

