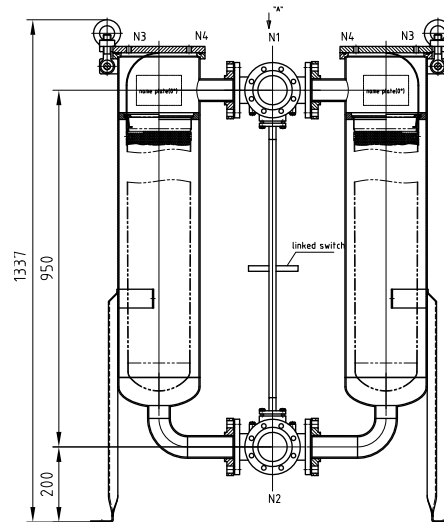


Operation Manual for Duplex Filter



INTRODUCTION

The Universal duplex Filter is designed for easy installation in pipelines to remove sediment and debris from fluids. Fluid flows uninterrupted with third way valve to switch from operating unit to standby unit when filter bag is filled with debris.

Once debris is collected in the bag and reaching its 2 bars differential pressure, the fluid flow can be directed by manually switch over by valves to the other filter for continuous operation. At this time the operator can remove the filter bag from vessel and replace with a new bag for standby.

RECEIVING, INSPECTION AND INSTALLATION

1. Before installation, please ensure that you check cover O-ring for possible damage and replace if required. Position the Filter in the pipeline so that the fluid enters the inlet connection
2. For flange connection Filter – it is important to have the same type of flange faces connection and flange gasket are in place for proper connection.
3. For threaded connection, use standard piping practice to ensure proper connection.
4. It is important to install two pressure gauges, one near the Filter inlet and another at outlet, or differential pressure gauge to determine differential pressure across the Filter for switch over and allow the operator to clean the debris from the basket.
5. Check the name plate to ensure rated pressure and temperature is not less than the Maximum pressure and temperature of the installation.

6. Verify the basket and bag supplied are of the correct size, remove the basket to see there is any foreign or loose material inside the Filter that could be carried down stream when fluid is introduced, remove these materials before start up.
7. Close the cover and all O ring is to be seated properly before tightening the cover, ready for start up.

START UP

1. To protect the operator when draining or venting, the fluid must be piped to a safe area and operator should wear proper protective equipment likes goggles, gloves, clothing etc..) consistent with the process fluid for Filter operation.
2. Open cover vent valves before slowly open the upstream valve to allow the process liquid to flow in to Filter and close the vent valve when air is expelled.
3. Close the two valves that isolate the off-line Filter.
4. Now the Filter is in operation, when the differential pressure reach 2 Bar, (indicate that the bag of the on-line Filter housing is now debris-laden and need to remove for cleaning) operator now need to slowly switch over the third way ball valve with the connecting handle to channel the flow to another filter, so to allow the filter contained with dirt to be remove for replacing filter bag and process are continuous with no interruption
5. To remove the bag, operator has to open the vent valve, open the cover to remove the bag. It is important that operator follows safety regulation.
6. Inspect the basket and filter bag before you close the cover of the Filter, replace the basket if it is damaged, it is advised to keep two restrainer baskets and O ring for spare and maintenance.

RECOMMENDED SPARE PARTS

O ring should be replaced every month to ensure properly sealing with leakage during operation.