General Description

S.I. Model No SI-1050 Sediment Removal Separators (SRS) are recommended for both Sediment and Air removal in Hydronic Systems. It is designed and constructed in accordance with ASME codes on all models. It is an efficient Separator utilizing Centrifugal Action to remove system sediment or waste through an automated purge system or by hand operated Ball Valve.

Temperature & Pressure Rating

- Maximum Operating Temperature: 350°F
- Maximum Operating Pressure: 125 psig

Application

Cooling Towers systems, processes and Hydronic - Heating & Cooling systems.

S.I. (SI-1050) Series Sediment Removal Separators (SRS) are manufactured as per latest advance technology and designed for the use for water Filtration in many Industrial applications and general services.

Where To Install S.I. SRS

S.I. Separators are installed after the pump and before the rest of the equipment. The S.I. Separator traps the system sediment in its bottom purge chamber. The purge chamber does not offer resistance to system flow, even when it is full of sediment. The Separator has a constant pressure drop, unlike a Strainer which reduces flow as it gets dirty. The purge chamber is emptied periodically to waste through an automated purge system / by hand operated Ball Valve.

Benefits Of Using S.I. SRS:

- Increases System Efficiency
- Extends Life of System Components
- Protects Pump Seals
- Reduces System Energy Usage

Comparing Separator With Strainer

Removal efficiency of a Strainer may be less than a Separator. S.I. Separators are more efficient than manual Strainers as they remove 45 micron particles. Manual Strainers screen size allows much large particles to pass than a Separator. This allows larger particles to remain in the system that a Separator would have removed.

Cleaning a ‘Y’ Strainer or Pot Strainer is manual. S.I. Separators can be automated so there is no manual labour involved.

Pressure Drop varies drastically for Strainers. Strainers increase in pressure drop as they become loaded with particles removed from the system. Pressure drop through a Separator remain constant.

Cleaning of ‘Y’ Strainer or Pot Strainer requires shutting down system. Separators do not have to be taken offline to remove the solids.

Unlike strainer screen, if a separator gets filled with sediment it continues to allow full flow instead of reducing or stopping flow.
Installation Instruction

1. It is recommended that the SRS be installed in the system main so that full system flow is directed through the SRS. This permits fast elimination of Sediment and solids that may damage pump seals or other system components.

2. The SRS needs to be mounted at sufficient height from the floor to allow flow down piping to be attached and taking out of strainer at the time of maintenance services.

3. The SRS should be located near a drain to facilitate the removal of collected sediment.

Operating Instructions

The SRS Separates sediment from the system by Centrifugal Force. Heavier than water sediment particles are thrown against the inner circle of the SRS and move down the walls to the sump in the bottom of the SRS. Collected sediment must be periodically blown down from 1" size Ball Valve connected on the sump at the bottom of SRS.

Service Instructions

The SRS must be inspected periodically for signs of corrosions, if corrosions exceeds .050" the SRS must be replaced.

Purge valves / Ball valves and associated equipment may require service.

Figure Below shows a typical installation with some of the optional equipment that can be utilized with SRS.