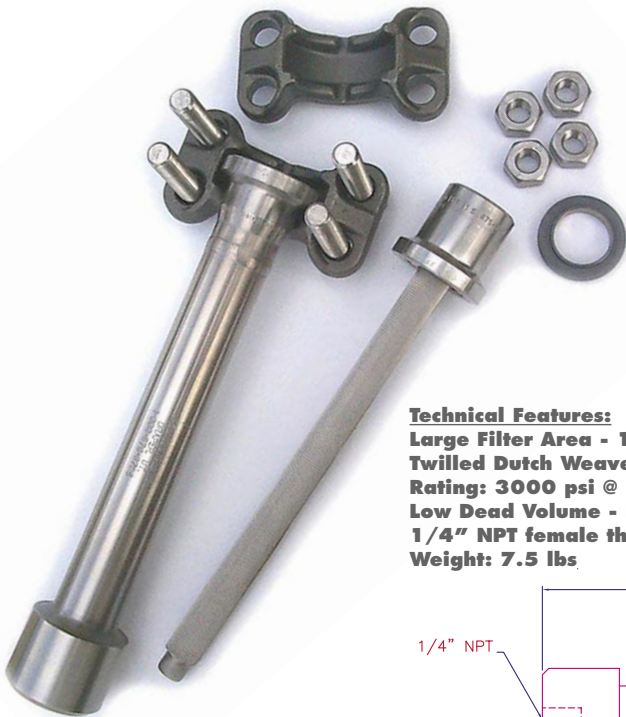
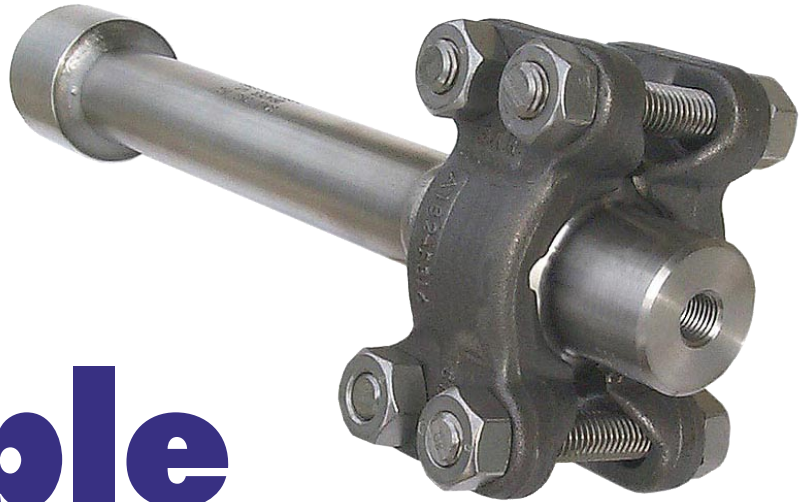


**Solutions**  
Incorporated

# Boiler Sample Debris Strainer

## Solve Sample Line Plugging Problems



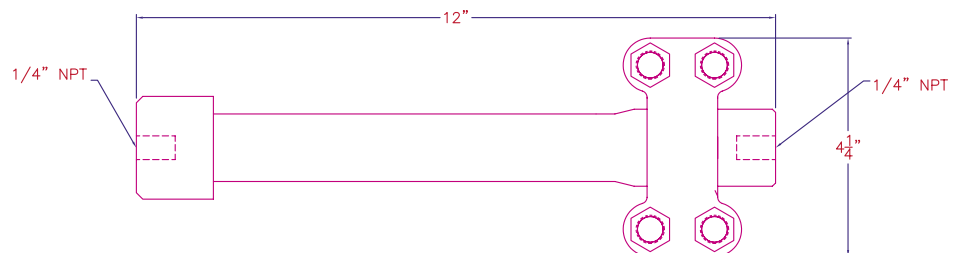
Solutions' unique **Sample Debris Strainer** is designed to protect expensive sampling equipment from pluggage due to suspended particles in sample streams, such as boiler drum water, main steam and reheat steam. The filter retains only those particles larger than 80 micron, which are the culprits responsible for most pluggage problems. The special twilled Dutch weave filter cloth retains particles on the outside surface of the filter element; smaller particles, which may affect the analysis (colloidal or suspended iron), pass through. Solutions' SDS-15-SS is easy to install and disassemble, and the element rinses clean with water.

#### Technical Features:

**Large Filter Area - 15 sq. inches standard**  
**Twilled Dutch Weave material resists "blinding"**  
**Rating: 3000 psi @ 1000° F**  
**Low Dead Volume - Less than 100 cc's**  
**1/4" NPT female threaded ends**  
**Weight: 7.5 lbs**

#### Materials

**Body: All Stainless**  
**Internals: All Stainless**  
**Seal: Re-Usable & Replaceable**  
**Clamp: 4-Bolt Stainless Steel**



#### Part Numbers & Description

**SDS-15-SS Stainless Steel Filter & Wetted Parts; 15 sq. in.; Stainless Steel Clamp & Bolts**

**>> Note: Larger Filter Area (Longer Lengths) Available by Special Order <<**

Solutions Inc. 1174 E. Bear Hollow Circle, Draper, UT 84020  
Tel: 801-576-8796 Email: webbyoman@gmail.com



## Installation and Care of Solutions Sample Debris Strainer (SDS)

### Installation

The SDS can be installed in any orientation. Inlet and outlet ports are 1/4" NPT connections. Flow direction is identified by an arrow engraved on the body of the strainer. Please check the clamp bolt tightness prior to installation. Torque bolts to 17 ft-lbs.

Male adapters (Swagelok SS-4-TA-1-4 or equivalent) are recommended if you are going to be using elbows on the inlet or outlet, so that the elbow can be oriented in any direction to accommodate your piping layout.

Leave 12" disassembly room on the outlet to remove the strainer element. Also, connect the sample tubing so that the outlet can be disconnected and swung out of the way, allowing the clamp to be disassembled and the strainer element removed.

If you disassemble the strainer take care not to ding or damage the inside surfaces in the seal areas. These areas are highly polished to allow the seal ring to seat properly. Also, do not drop or ding the seal ring. It is soft and can be damaged easily.

The SDS can be ordered with an integral blowoff port (specify SDS-15-SS-BP). We recommend a heavy blowoff valve engineered for high pressure blowdown service to be installed on the blowoff port (specify Mogas 050-RSVP) for applications above 500 psi. Alternately, a four-valve blowback arrangement can be installed to allow the strainer to be backflushed without having to disassemble it. A piping sketch is included.

### Maintenance

Cleaning the element can usually be accomplished by rinsing with water and perhaps a soft brushing. It can also be cleaned in 5% HCL.

#### Replacement Parts:

<u>P/N</u>	<u>Description</u>
SA001	Strainer element. 80 micron, 1/4" NPT male
SA002	Strainer Body, engraved, 316 SS
59524D	Cap, 316 SS, 1/4" NPT Female
51270N	Seal
50163WB	Clamp Assy including 2 halves, bolts and nuts

Stud Bolt Nut Tightening Torque: 17 ft-lbs.

HIGH PRESSURE SAMPLE > 500 PSI

NOTES

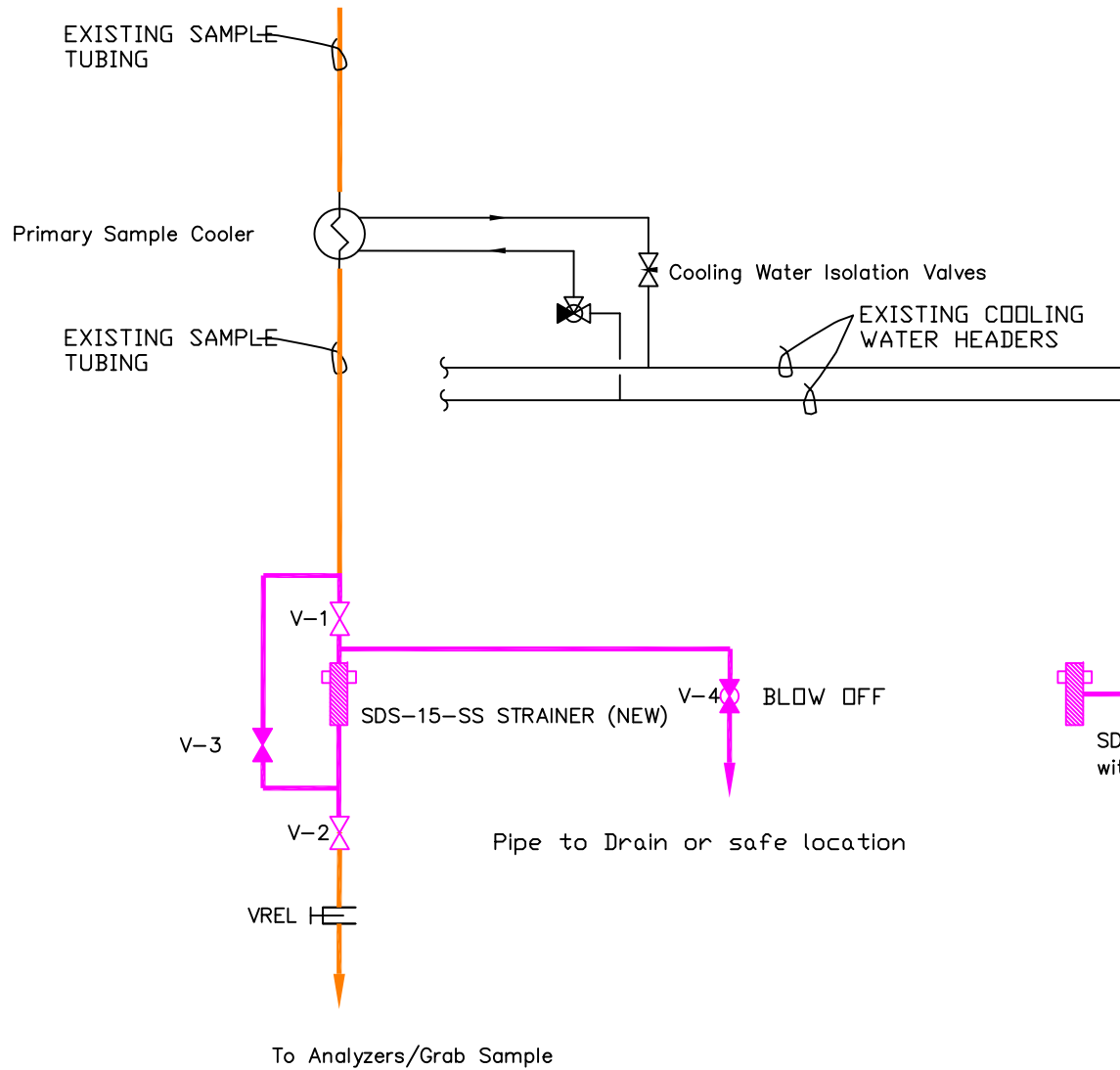
SDS-15-SS can be installed upstream or downstream of 1st sample cooler.

Pipe blowoff to drain or safe location

Recommended SDS blowoff valve is Mogas 050-RSVP-1500-UKF (V-4) Swagelok SS3NBS4-G or equal (V-1 thru V-3)

To Blow back the strainer:  
Close V1 & V-2, Open V-3, then V-4  
Blow for 5-20 seconds or until strainer is clean  
Reverse to put back in service

ALTERNATELY  
For SDS strainers with integral blowoff port, connect v-4 directly to blowoff connection  
Valves V-1, V-2 and V3 are not needed



DATE	DATE	SDS-15-SS	
ENG	DRW	DES	DRW
DR	DRW	CH	CHECKED
SDS-01			
REV. 01			
Solutions Inc.			
1174 E Bear Hollow Circle Draper, UT 84020 801-276-796 webbyoman@gmail.com			
SCALE/SCALE		SHEET SHEET	

No.	DATE	REVISION	ADDED	INTEGRAL	BLOWOFF	INFO,	UPDATE	NOTES
			01	12-14-08				
			DRAWING No.	REFERENCE	DRAWINGS			
			DRAWING No.	REFERENCE	DRAWINGS			
			APP	DRW				
			CHK	DRW				
			BY	DRW				