

- Continuous Wash Spray System
- Removes Foam and Particles
- Large Reservoir with Baffle
- All Stainless Steel Construction (Option)
- Visual Drain Flow Indicator (Option)
- Alarms for High and Low Water Level (Option)
- Water Solenoid Valves (Option)

The Shand & Jurs Model 97180 Foam Separator

The S&J Model 97180 Foam Separator is designed for use in piping systems to remove foam caused by agitation from the digester discharge gas. The foam must be dispersed and collected in order to protect downstream equipment from corrosion or clogging. The Foam Separator is typically installed in the digester gas piping.

Foam is removed from the gas as it flows through the separator by subjecting the gas/foam mixture to a direct spray of water inside the separator. The gas then rises vertically past an internal baffle in order to flow from the tank. Foam and solids are heavier than gas, and the combination of the large vertical rise the gas has to travel, and the continuous spray of water will knock the foam

out of the gas and direct it to the bottom of the chamber. The foam is removed via a drain connection. An optional visual flow indicator is provided in the drain line to confirm water flow.

Liquid level switches allow high and low level alarms to be used. At low water condition, source power is routed through the low-level switch to a low water alarm. Once the water level rises above the low-level switch, power is routed to the water solenoid valve energizing it open. If for any reason, the water level rises above the high level switch, power is then routed to a high level alarm. At this high level condition, the knock-down water solenoid valve is de-energized closed which stops the water flow.

Applications

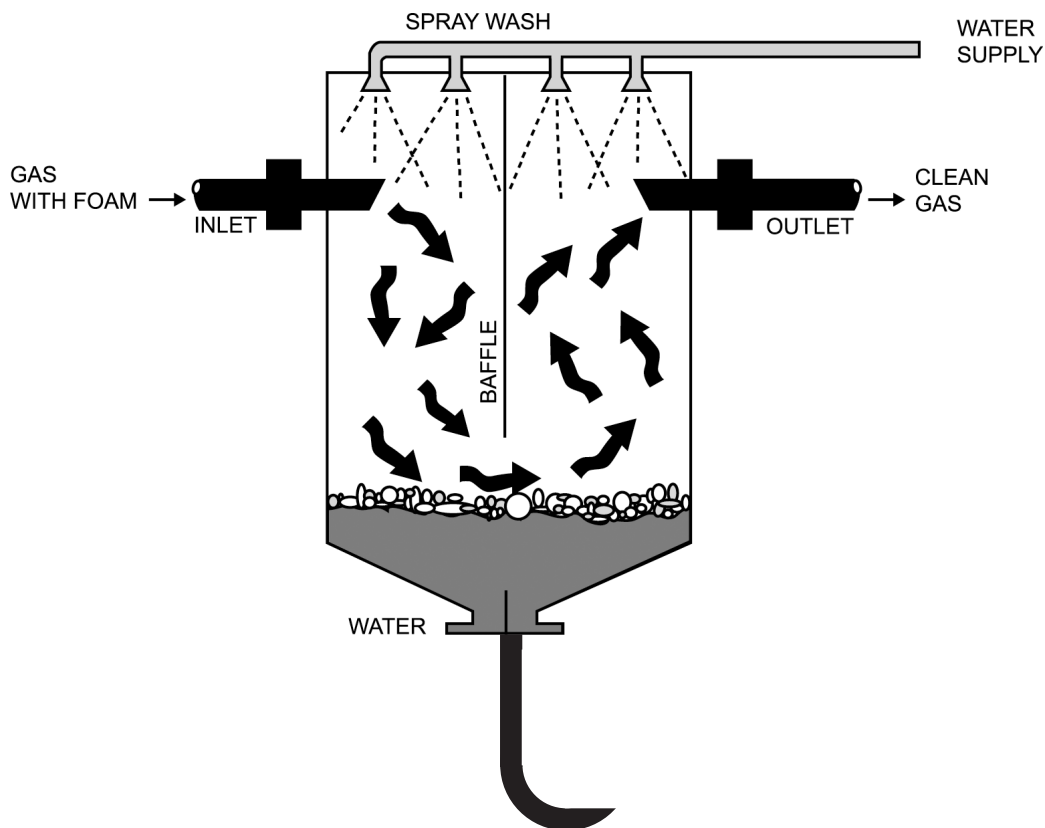
- Anaerobic digester gas train**
- Fermentation off gas piping systems**
- Low pressure vent lines**

Construction:

The S&J 97180 main vessel is welded Stainless Steel construction. Standard inlet and outlet gas connections are 10-inch, 150 lb ANSI raised face flanges. Water inlet connection is a pipe slip weld union. Water outlet connections are 4-inch, 150 lb ANSI raised face flanges. Other sizes/connections available.

The Foam Separator can be equipped with a NEMA 7 level switch for high and low water level alarms. High level alarms can be connected to a NEMA 7 solenoid valve located on the water supply line. An optional flow indicator is available in the water drain piping for visual indication of flow. And an optional observation port is available to monitor foam conditions.

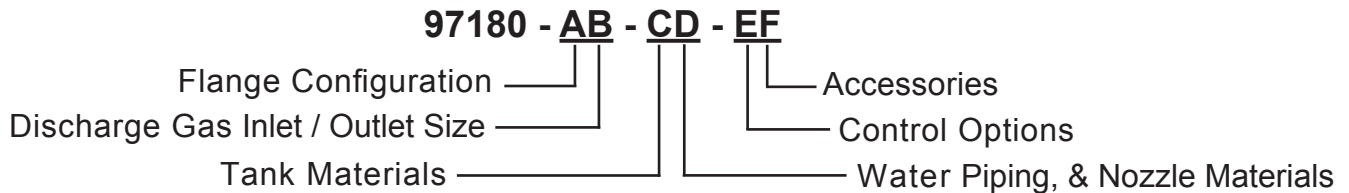
Maximum working pressure is 1 psig (27" WC).



All designs subject to change. Certified dimensions and specifications available upon request

MODEL NUMBER SELECTION:

The model number will consist of a base number 97180 followed by a dash and two numbers which define Flange Configuration and Size. The second set of numbers define Materials of Construction. The third set of numbers define Control options and accessories.



ORDERING INFORMATION:

Specify:

1. Gas Connection Flange Size and Configuration
2. Tank Materials
3. Water Piping Material
4. Control Options
5. Accessories

TABLE I (A) - FLANGE CONNECTION

OPTION #	FLANGE DESCRIPTION
0	ANSI 150 lb FF
1	ANSI 150 lb RF
2	DIN PN 10 FF
3	DIN PN 10 RF

TABLE II (B) - FLANGE SIZE

OPTION #	FLANGE SIZE
0	10"
1	12"
2	2"
3	3"
4	4"
6	6"
8	8"

TABLE III (C) - TANK MATERIAL

OPTION #	DESCRIPTION
0	STEEL
1	316 SS (STD)
2	316L SS
3	304 SS

TABLE IV (D) - WATER PIPING & NOZZLE MATERIAL

OPTION #	DESCRIPTION
0	316 SS

*Other materials available on request.

TABLE VI (E) - CONTROL OPTION

OPTION #	DESCRIPTION
0	NO ALARM OR SOLENOID
1	ALARM, HI/LOW
2	ALARM, HI/LOW, NEMA 7
3	ALARM, HI/LOW, W/SOLENOID
4	ALARM, HI/LOW, W/SOLENOID, NEMA 7

TABLE VII (F) - ACCESSORY OPTIONS

OPTION #	DESCRIPTION
0	NONE
1	VISUAL DRAIN FLOW INDICATOR
2	VISUAL WATER LEVEL INDICATOR
3	VISUAL WATER FLOW INDICATOR
4	OBSERVATION PORT

Note: NEMA 7 Equipment for use in NEC Class I, Division II, Group D Environment.