

VAREC BIOGAS 231 Series GAS/ FOAM SEPARATOR

The 231 Series Gas/Foam Separator is designed for use in piping systems to remove foam typically caused by agitation from the digester discharge gas.

Introduction

The Varec Biogas 231 Series Gas/Foam Separator is designed for use in piping systems to remove foam typically 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 Gas/Foam Separator is typically installed in the gas piping as it exits the digester.

Construction

The main vessel is welded 316L stainless steel construction and is available in either 2 foot or 3 foot diameter vessels.

The inlet and outlet gas connections are ANSI 150 FF flanges. The size is determined by the actual pipe size of the digester gas line. The water inlet connection is a 3/4" NPT connection. Drain connections are 4", ANSI 150lb flat face flanges.

The unit is equipped with a NEMA 7 level switch for high and low water level alarms. High level alarm is connected to a NEMA 7 solenoid valve located on the water supply line. A flow indicator is provided in the water drain piping for visual indication of flow.

The water spray manifold is stainless steel pipe and fittings, welded at all joints. Maximum working pressure is 1 psig (27.7" WC). Consult factory for special dimensional requirements.

Operation

Entrained foam and solids are removed from the gas as it flows through the device. This is accomplished by subjecting the gas/foam mixture to a direct spray of water inside the chamber. The gas must then rise 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. A visual flow indicator is provided in the drain line to confirm water flow.

Liquid level switches allow for high and low-level alarms to be connected to the plant system. At low water condition, source power is routed through the low-level switch to terminals for plant connection of a low water alarm. If for any reason the water level in the tank rises above the high water float switch, source power is routed to terminals for plant connection of a high water alarm and the spray water solenoid valve is de-energized which stops the water flow into the unit.



Design Features

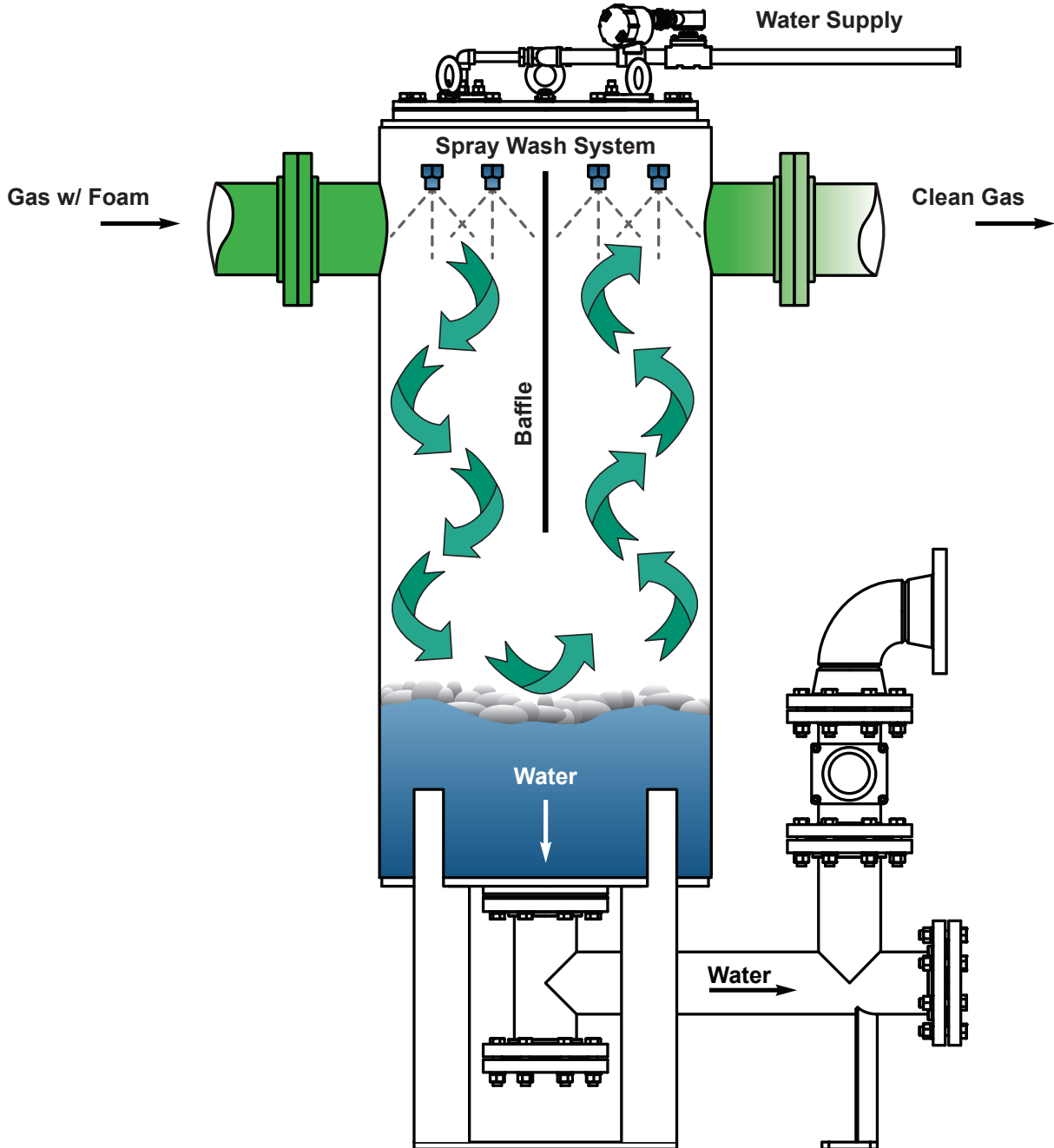
- All Stainless Steel Construction
- Continuous Spray Wash System
- Removes Foam and Particulates
- Alarms for High and Low Water Levels
- Large Reservoir with Baffle
- Visual Drain Flow Indicator

Schematic Drawing

Approximate Shipping Weights

24" Diameter Vessel - 1800 lbs. (816 kg)

36" Diameter Vessel - 2200 lbs. (998 kg)



Ordering Information

Please consult factory or your authorized sales representative for ordering information