BLOWDOWN SEPARATOR/SILENCER

MUELLER MODEL OVSS

The Mueller Model OVSS Blowdown Separator Silencer removes 99% of the entrained lubricating fluids and condensation 8 microns and larger from high pressure gas discharging to the atmosphere while also reducing the resulting vent noise to the specified level. Field proven for decades, the rugged, versatile OVSS can even be configured as a trailer mounted mobile unit.

SEPARATOR DESIGN

The OVSS separator section is designed to hold line pressure. The unit employs multiple individual centrifugal separating elements manifolded together to form a single unitized blowdown system. All manifold circumferential welds are 100% X-ray’d and graded to UW-51. All welds are completed in accordance with ASME Section IX procedures and performed by qualified welders in our own facilities. All units are hydro tested to 1.5 times maximum operating pressure and registered for 4 hours with a chart recorder.

As gas enters the OVSS, it encounters the manifolded separating element section. The separating element consists of stationary blades arranged in a tangential pattern. Gas and entrained fluids impinge on the separating element developing centrifugal forces which direct liquid particles to the shell wall. These liquid particles wipe around the shell, creating a sheeting action, then become trapped in a pocket drain and, due to gravity, flow into the sump for collection. Prior to entering the silencer section, the air or gas stream passes through a vortex breaker preventing re-entrainment of the liquid.

WARRANTY

Mueller Environmental Designs guarantees to meet separation, pressure drop and noise control criteria, warranties against poor workmanship, material defects, and failure due to improper equipment selection.
SILENCER SECTION

The silencer baffle assembly is comprised of 4” thick parallel baffles on 8” centers. The baffles are 18 gauge galvanized, perforated carbon steel with a 10 gauge CS frame, and are supported from the sides. The frame’s 24” vertical compartments support the acoustic fill material preventing any settling due to vibration and flow turbulence. The 4 pound fiberglass acoustic fill is compressed 5% and wrapped in a fiberglass pillow. The acoustic fill insulation has a flame spread classification 15 and smoke developed rating of 0 per ASTM E84. The acoustic baffle side panels are 40% open 1/8” hole on 3/16” staggered centers 16 gauge galvanized with solid border for welding attachment to frame.

REQUIRED PROPOSAL DATA

Because all Mueller equipment is engineered and built for each specific installation, the following information is required for proposals involving OVSS Separator/Silencers:

- Application-vent or blow down
- Service-intermittent or continuous
- Type of Gas or Steam
- Flow Rate, Blow down time and volume
- Upstream pressure and temperature
- Valve type and size
- Silenced Noise Criteria

OVSS ADVANTAGES

- Superior separation efficiency: removes 99% of entrained fluids
- Can be configured as a trailer mounted portable unit
- Conveniently combines separation and noise abatement in one unit
- Extensively field proven in all conditions
- Engineered for low maintenance and built for durability

COMPLETE PACKAGE SOLUTIONS

We can provide complete system packages including compatible Mueller equipment, as well as ancillary items such as controls, platforms, skids, ladders, etc.