



**MED MODEL BDSS**



**Mueller  
Environmental  
Designs, Inc.**



**Air Filtration  
Evaporative Cooling  
Noise Control  
Mist Elimination  
Turnkey Projects**



# MED Model BDS



## APPLICATION

The model BDSS's Primary function is to remove entrained liquids from high pressure gas or steam discharging to atmosphere. In addition to this function, the equipment will reduce the noise associated with venting of high pressure steam or gas to atmosphere.

## PRINCIPLE OF OPERATION

Steam or gas enters the vent separator through the diffuser going to atmospheric pressure. The diffuser is comprised of a cylindrical, perforated, and capped tube. Downstream of the diffuser is the separating element, where the gas or steam impinge, developing centrifugal forces, throwing liquid particles to the shell wall. The separating element consists of stationary blades arranged in a tangential pattern. Liquid particles wipe around the shell, creating a sheeting action, becoming trapped in drain pockets. Then due to gravity, the separated liquid flows into the sump area for collection. The gas stream then free of entrained liquid, enters the absorptive acoustic section or exits the unit.

## OPTIONS

- Sight Glass
- Dump Valves
- Liquid Level Controls
- Take-Apart-Designs
- Removable Internals
- Larger Sump Areas
- Stainless Steel Construction
- Special Exterior and Interior Finishes

## FEATURES

- High Separating Efficiency
- Broad Operating Range
- Self Cleaning
- No Moving Parts
- Low Maintenance Requirements
- Simple Installation
- Pressures to 1200 PSIG

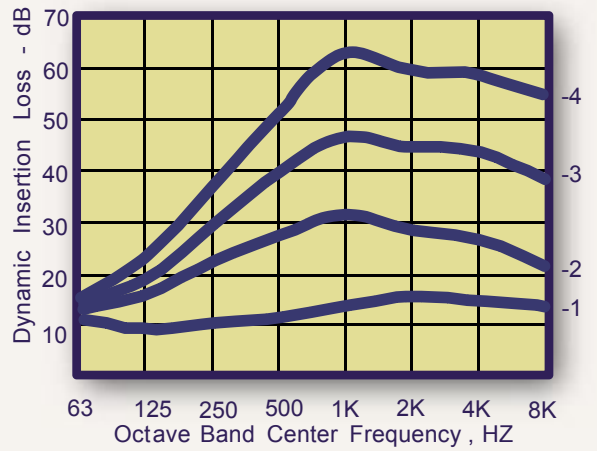
## SELECTION

Proper sizing procedure for this application requires the following information:

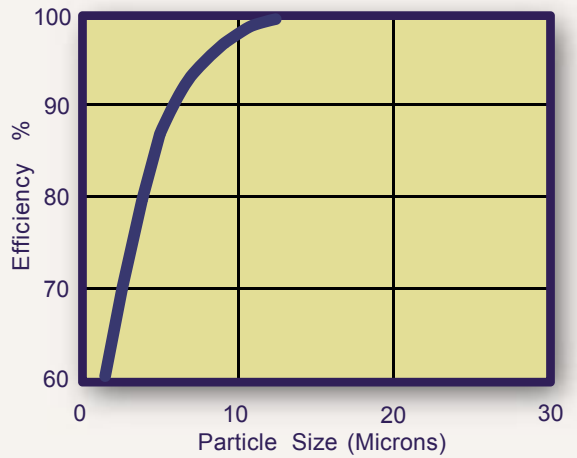
- Type of Gas or Steam
- Flow Rate, Blowdown Time and Volume
- Upstream Pressure and Temperature
- Valve Type and Size
- Noise Criteria

# PERFORMANCE

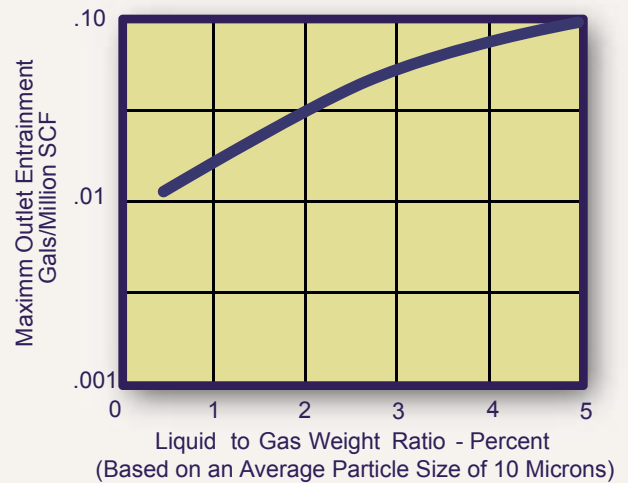
Typical Attenuation Curves



Typical Efficiency, Particle Size



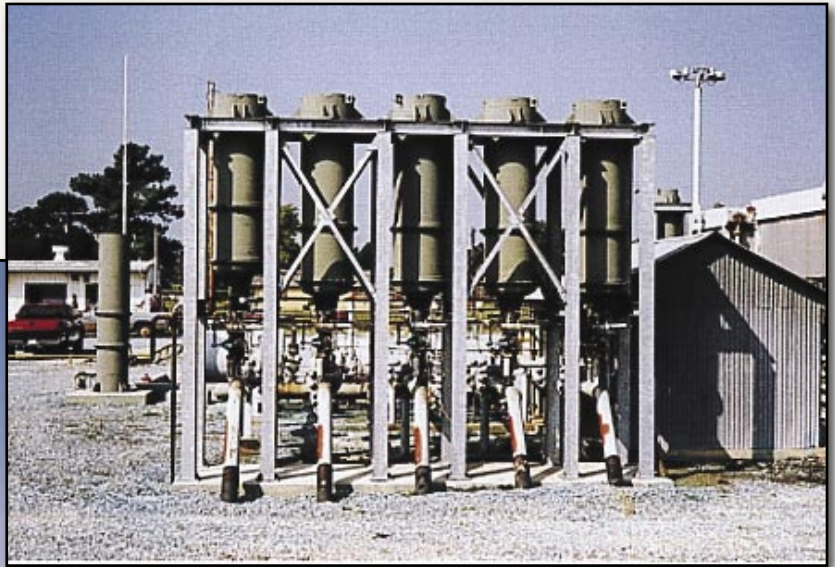
Typical Efficiency, Liquid Entrainment



The above curve indicates an overall separation efficiency of 99.0% (based on a maximum liquid load of 5% to the separation element). As the liquid to gas weight ratio decreases, the overall separation efficiency increases.

# WARRANTY

Mueller Environmental Designs, Inc. Guarantees to meet separation and noise control criteria, warranties against poor workmanship, material defects and failure due to improper equipment selection.



*MED 24 BDSS-3*



*MED 36 BDSS-3*



*MED 144 BDSS-1*

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