

## VENT SILENCER

Vent Silencers are a combination of absorptive and reactive type silencers used to reduce the noise produced by the expansion of steam or gas from the elevated pressure level to the atmospheric pressure level. This noise can be generated due to controls flow by converting pressure energy into kinetic energy. Most of the energy is converted to heat through viscous friction by intense turbulence and shock formation. Some of the kinetic energy is transferred to the pipe wall as vibration, and a portion of this is radiated as noise. The primary noise generating mechanism is the jet of gas formed between the valve and its seat. Each vent silencer is designed to attenuate the high as well as low frequency noise level to the optimum sound level criteria at a given space from the silencer. The overall vent silencer dimensions are directly proportional to the flow rate of the particular as and desired noise reduction. The most important design aspect of the vent silencer is the inlet diffuser (Reactive section). The diffuser is effective in distributing the flow evenly through all of the acoustic panels (Absorptive section) where the sound energy is absorbed.



Vent Silencer

### Data Required to Select Vent Silencers

- Application (Vent, Blow down, Relief Valve etc.)
- Fluid Composition (Steam, Gas, Air)
- Venting Flow rate Upstream Temperature and Pressure (Before the valve)
- Downstream pressure and temperature of valve, if known (After the valve)
- Line size between valve, silencer & connection type.
- Silencer connecting line size.
- Allowable pressure drop

### Application

- Vent silencers find wide applications in High pressure vents
- Drum safety valve vents
- Safety relief valve outlets
- Start-up vents
- Steam blowing operation etc.

## COMPRESSOR/ BLOWER NOISE CONTROL

PMT TECH can provide you the best solution for compressor / blower noise control. Our vast experience help us to provide you the competent solution for compressor/ blower noise control solutions for the following areas :

- Suction silencer in compressor suction line
- Discharge silencer in the discharge line
- Blow-off silencer in the bypass line
- Acoustic enclosure for drive

## DISCHARGE SILENCER

The discharge silencer is used to reduce the discharge noise of the Compressor / blower when air or any other medium is discharges to the process. It is generally offered in circular or rectangular shape construction and is enclosed in a durable steel casing with a dished end. The straight flow path of the fluid through annular acoustic cylinder ensures minimum pressure drop. The silencer casing, inlet and outlet nozzle will be designed as per ASME Sec VIII Div 1.



Discharge Silencer

## SUCTION SILENCER

The suction silencer is used to reduce the suction noise of the Compressor / blower when air or any other medium is enters into the Compressor / blower. It is generally offered in circular or rectangular shape construction and is enclosed in a durable steel casing with a dished end or transition cone. The straight flow path of the fluid through annular acoustic cylinder ensures minimum pressure drop

## BLOW-OFF SILENCER

A blow-off silencer is similar in construction as that of a vent silencer. It is installed in the compressor by-pass line discharge. The air / gas enter through the diffuser and escapes through the weather cowl or outlet pipe.



Suction Silencer



Blow - off Silencer

## ACOUSTIC ENCLOSURES

In industrial environments, reverberation and reflected noise from machinery can easily exceed statutory limits and cause a serious health risk to production staff. Acoustic enclosures from PMT TECH reduce noise pollution from noisy plant and machinery without reducing the efficiency or cleanliness of the plant during normal operations.

Industrial Acoustic Enclosures that is a bolted structure comprising modular structural frames made out of m. S. Angles and prefabricated high performance acoustic panels. These acoustically and mechanically designed enclosures can easily be assembled and dismantled with the help of quick releasing clamps. Available in diverse thicknesses with desired level of noise control, these enclosures are extensively demanded in global market.

### Features

- Accessibility For Production & Maintenance
- Access Doors For Controls, Personnel or Equipment
- Proper Ventilation to Prevent Heat Build-Up
- Viewing or Observation Windows
- Power Supply to Equipment/Receptacles
- Lighting Requirements – Standard/Explosion-Proof



Acoustic Enclosures

## FAN NOISE CONTROL

### FAN INTAKE SILENCER

The Fan Intake silencer is used to reduce the suction noise of the fan. It is an absorptive type silencer and is very effective for high frequency noise attenuation. Generally, these are supplied in rectangular shape. The internal of fan silencer is constructed with series of rectangular baffles with aerodynamic design to offer minimum pressure drop and effective noise reduction. The material selection depends on process condition, environment and customer requirement.



Fan Noise Control