



UNIVERSAL SILENCER

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Installation, Operation and Maintenance Instructions for EN Series Engine Silencers

Description

The EN-series of engine exhaust silencers, consisting of the EN2, EN3, EN4 and EN5 product lines, is a reactive chamber design that is suitable for most reciprocating engine exhaust applications. It provides effective pulsation control and noise reduction for a wide range of operating conditions. The standard unit of this series is designed for applications where the temperature does not exceed 900 °F, and the pressure does not exceed 15 psig. There are no moving parts in the operation of the silencer units.

Receiving Inspection

- Upon receipt of the unit, check the nameplate against the packing list to verify the correct part numbers are received.
- Keep the shipping container to protect the unit until installation.
- Prior to unpacking check for shipping damage.
- Advise Universal Silencer of shipping damage within three days.

Storage

- Leave any cardboard boxing, plywood covering, crating, and/or plastic covering intact until ready to install.
- Be sure that all openings are closed so that no debris, vermin, rain, snow and/or ice can get into unit.
- Store unit on blocks, a minimum of 4" high, so that air can freely circulate around unit.
- Do not store unit in contact with the ground or in a wet or flooded area.
- Indoor ambient temperature storage is preferable, especially for a unit with internal absorptive material. If this is not possible, keep the unit covered and protected from the weather.

Inspection and maintenance

- Components are either complete weldments or permanently assembled having no replaceable parts.
- Spare parts are not required.
- Periodically inspect paint finish for damage or deterioration. **NOTE:** Minor localized damage, such as scratches, may be repaired using touch-up paint. Areas with extensive damage or deterioration may require spot blasting and recoating. Consult paint manufacturer's recommendations.
- Examine connecting flanges and support/anchor bolting at least annually. Retighten loose nuts as required.

- Clean unit prior to installation. Remove any minor corrosion and refinish per paint manufacturer's recommendations. If major corrosion has occurred such that the integrity of the unit is in question, contact Universal Silencer.

Mounting and alignment

- Insure that the necessary equipment to install the unit, including anchor and/or support bolts, flange bolts, and expansion joints, are available before beginning.
- Anchor and/or support bolting and grouting is not included with the unit.
- Place the unit on a level, structurally adequate surface.
- + **IMPORTANT:** The unit is not designed to serve as a support for any piping, additional mounting pads or additional loads on the inlet or outlet other than those stated in the Universal Silencer drawing or product bulletin.
- Align the unit with the engine and/or piping connections.
- Mount the unit securely to the foundation.
- To reduce the likelihood of vibration or thermal induced damage to the unit we recommend that you install a suitable expansion joint between the unit and the engine.
- Use thread lubricant on all bolted joints.
- Use all gaskets provided with the unit.
- If you replace or add bolts or gaskets, use the same size and material as the originals.
- Ensure that the unit is firmly mounted immediately prior to startup of the equipment, and again 24 hours after startup to verify that unit has not vibrated loose from the foundation or support.

Safety Issues

- **CAUTION** - All personnel working near high-temperature components during operation and cool down period should use care to prevent injury due to contact with high temperature surfaces.
- If performing any work internal to the silencer or adjacent components, ensure that all confined space requirements are met and that all tools and other materials are removed once work is completed.