Read through the entire manual before proceeding with installation.

Any procedures presented in this guide are suggestions only, and it is the responsibility of the owner/operator to ensure that the installation is done only by trained, qualified individuals, and performed according to all applicable codes including, but not limited to, local codes for your municipality, city, county and state; this includes all electrical and mechanical work. All workers must be trained in the proper safety procedures and appropriate PPE and attire must be worn at all times.

It is recommended that the user ensure the entire exhaust system has been received undamaged, is properly designed, and laid out before installing parts. Ensure that the necessary equipment to install the unit are available before beginning. (Support brackets, gaskets, nuts and bolts, outlet elbows, expansion joints, etc…).

The unit is designed to support its own weight and not designed to serve as a support for any piping or additional loads on the inlet or outlet. Ensure the unit is mounted evenly and securely and must be mounted on structural supports.

For the final installation, do not support the unit by the flanges.

PRE-INSTALLATION

- Prior to unpacking, check all components for shipping damage.
- Verify the correct parts are received by comparing the nameplate with the packing list.
- Locate nameplate and note direction (if applicable).
- Keep shipping materials intact to protect the unit until installation is complete.
- Verify that the silencer and recommended gaskets are of proper size for the mating surface openings and ensure that all mating surfaces are clean and free of foreign material before installation.
- Observe all OSHA mandated regulations for the safe rigging of exhaust equipment.
- When cleaning the surfaces, do not use abrasive materials such as steel wool or wire brushes. Use only isopropyl alcohol and clean with soft rags. (Do not use chloride or halide-based cleaners.)
- Exhaust system components inside the enclosure may need to be covered with suitable insulation to protect personnel and reduce room temperature. Use only chloride and halide free insulation. (Removable Thermal Insulation Covers, aka Wrap, available from inExhaust™)
- Be sure to orient the unit in the proper manner for the indicated flow direction.
- If supplied, use all lifting lugs when hoisting the silencer into place, use all mounting feet when securing the silencer into its operating position. Ensure the unit is mounted evenly across the supports.
- To minimize turbulence and back-pressure, it is recommended that at least 5 tube diameters of straight pipe upstream of the silencer and 2.5 diameters downstream of the silencer be maintained.

INSTALLATION

- Align the unit with the engine and/or piping connections. Pre-loading flange connections due to misalignment will result in premature failure and will void the warranty.

Flanged Connections:

1. Flange faces must be parallel with each other and all mating surfaces must also be parallel.
2. Place the flange of the connector (floating flange, if applicable) over the exhaust outlet of the engine, with the gasket between the two facing surfaces and bolt holes properly mated, so that the axial lines of the connector and mating orifice are concentrically aligned.
3. Secure the flange over the mating face of the outlet using the appropriate grade bolts and nuts or an appropriate Nut-Bolt-Gasket (NBG) kit, to aid in maintaining joint tightness over time. Higher grade fasteners may loosen as the system settles, causing failure. Do not use spring lock washers, as operating temperatures and pressures will cause them to degrade or disintegrate. Apply high temperature anti-seize to bolts – Loctite® 34517 or equivalent is suggested (not included or supplied by inExhaust).
4. Secure the opposite flange of the connector to the mating face of the receiving system, with the gasket between the two facing surfaces and bolt holes properly mated. Use the same grade of fasteners as previously described, ensuring that the axial lines of the engine outlet, connector, and mating orifice remain concentrically aligned.

CONTINUED

Caution:

a) The installation must be pre-aligned so that bolts for all mating surfaces can drop into place with no force, offsetting, bending, twisting or other form of distortion.
b) Pre-loading flange connections due to misalignment will result in premature failure and will void the warranty.

Cuffed Connections:

1. Ensure the clamp is loosely attached to either the cuff or the exhaust piping prior to fitting the exhaust piping to the cuff.
2. Insert the exhaust piping securely into the cuffed portion of the connection, ensuring that the exhaust piping is uniformly bottomed out.
3. Position the clamp towards the edge of the cuff, allowing a minimum of 0.5" from the edge of the clamp to the edge of the pipe.
4. Torque the clamp bolts until tight. Re-check tightness prior to and after initial engine start and system commissioning.

- Install a suitable expansion joint (bellows or wye) between the silencer and the engine to reduce thermal growth damage to the unit and reduce some vibration transfer that could cause damage.
- Make sure all ports, openings, and connections are clear from obstruction.
- Ensure runs of exhaust piping are sloped away from the engine to prevent condensation and outside moisture from entering the engine. Drain traps should be installed at the lowest point in the line.

POST-INSTALLATION

- Review and ensure that all components of your exhaust system are properly installed and ready for operation.
- If there is any indication of leaks or damage, cease operation immediately and conduct a broader inspection to determine the cause and resolve.
- After the initial engine run and cool down, re-check all bolts for tightness and torque as required.
- Exhaust back-pressure must not exceed the allowable back-pressure specified by the engine manufacturer. Excessive exhaust back-pressure reduces engine power and engine life and may lead to high exhaust temperatures and smoke. Engine exhaust back-pressure should be estimated before the layout of the exhaust system is finalized and is recommended to be measured at the exhaust outlet under full–load operation, as needed.
- Verify that the type and amount of movement generated by the system are identical with movements the expansion joint is designed for.

MAINTENANCE

It is recommended that maintenance is performed monthly, or every 10 hours of operation, (whichever comes first).

Maintenance for a typical exhaust system installation will consist of physical and visual examination of the exhaust system for any sign of gas leakage, cracks, significant areas of damage or corrosion. Re-tighten any loose bolts if necessary.

Note: If there is any indication of leaks or damage, cease operation immediately and conduct a broader inspection to determine the cause and resolve.

Thank you for choosing inExhaust as your exhaust system components solution!
For any questions, please contact us at insales@inExhaust.com.

This guide is also available on our website: www.inExhaust.com