

UNDERWATER EXHAUST HORIZONTAL



1. The Underwater Muffler is a WET marine exhaust muffler. It is designed for use in an exhaust system as appropriately recommended by ABYC (American Boat & Yacht Council) Standard P-1.
2. Hull penetration locations shall be selected by a Naval Architect.
3. Bypass line must exit the hull above the heeled waterline.
4. Refer to ABYC H-27 regarding hull penetrations below the heeled waterline.
5. The Underwater Muffler is designed for gas/water to flow in one direction only. Please note labels on muffler carefully.
6. There must be sufficient distance between the water injection point and placement of the Underwater Muffler to allow adequate cooling of the exhaust gases. The distance will be dependent on the manner of the water injection. Maximum operating temperature should not exceed 350° F (176° C). A typical well-designed system should run between 120-188° F (49-87° C).
7. An optional surge chamber may be used as protection against back flow of water up and into the exhaust manifold. Such designs are desirable and can help to reduce the risk of engine damage. See our catalog or website for the complete list of available surge chambers.
8. The Underwater Muffler should be installed in a level position or tipped slightly toward the outlet, with the body rotated so that the installation label is directly on top and the direction of the flow arrow points aft.

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WARNING – These are **GUIDELINES ONLY** and are **NO GUARANTEE** of a properly designed and installed exhaust system. Centek's products are used in a variety of systems and applications. Therefore, it is impossible for Centek to provide specific installation instructions for all possible configurations of exhaust systems that may be incorporated on a marine vessel by the vessel manufacturer.

IT IS THE RESPONSIBILITY OF THE BOAT MANUFACTURER TO PROPERLY DESIGN AND INSTALL AN EXHAUST SYSTEM APPROPRIATE FOR THE VESSEL IT MANUFACTURES.



Warning! Gasoline engines produce dangerous levels of carbon monoxide that will pass through this product as part of a properly designed and installed exhaust system. Per ABYC A-24 Standards, this product must be used in conjunction with working carbon monoxide detectors installed in the boat's living quarters.

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Installation Guidelines

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9. Making connections:

- A) Use approved marine exhaust hose for all connections. This will help isolate the muffler and other components from vibration. Do not connect other components to the muffler in a rigid fashion by using adhesives and/or FRP reinforcements.
- B) DO NOT coat hose or muffler with oil or grease – use water for lubrication.
- C) Use a minimum of two stainless steel hose clamps per end connection. Tighten clamps by hand with a screwdriver or small wrench. Do not use air wrenches.

10. Although the muffler itself is very light, the water content is significant in weight. Therefore, mufflers should be firmly supported and strapped at the major diameter of both end caps.

The Underwater Muffler is recommended for both gasoline and diesel propulsion and generator engines. It is designed to withstand many times the normal operating pressures. However, this does not mean that it can withstand the extreme instantaneous pressures associated with back-fire.

WARNING! Should a back-fire occur, an immediate and thorough inspection of the entire exhaust system is recommended.

Please call our support line if we may assist you in any way. (229) 228-7653



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