



MARELON® THRU-HULL/SEAVALVE INSTRUCTIONS

This marine seavalue is made of **MARELON®**, a glass reinforced nylon composite. It exceeds standards for marine use set by UL, American Boat and Yacht Council, American Bureau of Shipping, and Lloyd's Registry. It is a complete system including thru-hull fitting, valve body, and hose connector.

HULL OPENINGS: Prepare a clean round hole in the desired hull location and of the diameter for the chosen thru-hull fitting. See the diameter requirements below. For flush head thru-hull fittings only, make an external 45° chamfer 1/4" deep. If the recommended backing block is used, a uniform hole diameter must extend through the backing block.

1/2" and 3/4" Thru-Hull/Sea Valves = 1-1/8" Hole

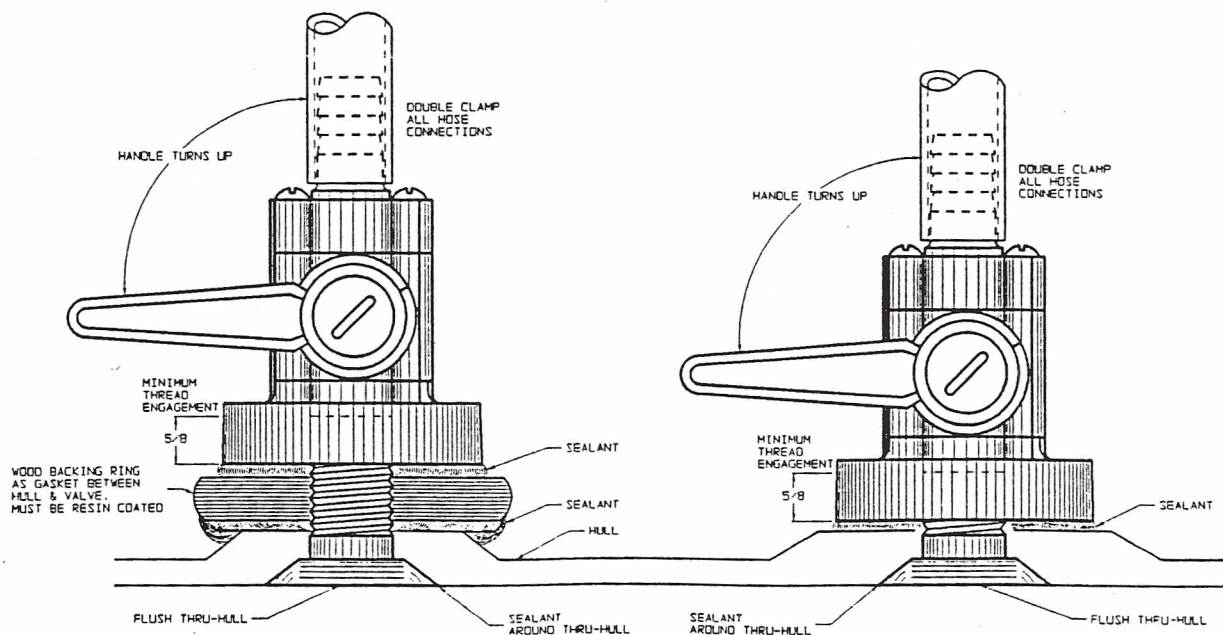
1" and 1-1/4" Thru-Hull/Sea Valves = 1-1/2" Hole

1-1/2" and 2" Thru-Hull/Sea Valves = 2-1/8" Hole

BACKING BLOCKS; A Backing block or an equivalent structure molded integrally into the resin/glass hull lay up is required for installations on all non-flat hull surfaces. This is also recommended procedure for flat surfaces as well. For wood backing blocks, white oak is a commonly used wood and there may be other suitable materials as well.

THRU-HULL FITTING LENGTH; The thru-hull fitting when fully installed should project beyond the internal hull/backing block surface no less than 1/2" and no more than 1-1/4". Engagement of five (5) full threads will generate the full loading strength of the thru-hull/sea valve assembly which is well in excess of the 500 pounds required by the A.B.Y.C. and U.L. standards.

BEDDING; The thru-hull fitting's external flange should be properly bedded when the fitting is inserted into the hull. The exposed male threads protruding from the inside of the hull should be applied with bedding material as well. The surface of the female threaded round king-nut portion of the valve, which interfaces with the hull surface, may well be bedded also but it is not an absolute requirement and the loading strength will not be impaired if it is not done. Bedding compounds such as 3M's #5200, Sikaflex or Boatlife are to be recommended as well as others that are equally suitable.



THREAD FORM; The thread form used on these thru-hull fittings are king-nuts is a non-tapered buttress type of thread design. The thread form has a higher load carrying capacity, particularly for polymeric materials. Warning, a standard pipe threaded thru-hull fitting will not make a satisfactory join with the king-nut on these valves. For a standard pipe threaded thru-hull fitting use our valves having female pipe thread outlets instead of a king-nut. A buttress thread design with the same amount of clearance as for a conventional pipe thread will give the impression of grater looseness. However, when the joint is taken up tight, there is a greater area of surface interface between threads with a buttress thread form.

KING-NUT INSTALLATION; The fully assembled valve or the round king-nut portion of a disassembled valve is threaded onto the bedding coated thru-hull fitting and tightened down by turning either the thru-hull fitting or the king-nut. A firm hand is sufficient, but if preferred the nut can be torqued to a maximum of 15 foot pounds.

If it is desired to additionally fasten the king-nut to the backing block with screw fasteners, there is provision for such but it is completely unnecessary. It can be seen on the backside of the king-nut that there are four (4) blind 1/4" holes. These may be drilled through to the front side before installation to allow for round headed screw fasteners.

VALVE ASSEMBLY; If the valve body has been disassembled from the king-nut or has been shipped to you in a disassembled condition, proceed to reassemble. Make sure that the white seal ring and a black O-ring are in place in the face of the valve body that interfaces with the king-nut. Orient the valve body in your choice of the four (4) possible positions and screw in the four (4) round headed valve body bolts to a strong hand tight condition. No bedding compound is to be used in this interface. If the valve configuration you are using has the 90 degrees angled hose barb inlet, you may also choose to orient the barb in any of the three (3) possible relations to the handle at this time.

VALVE CONNECTIONS; It is recommended that all hose barb connections be made using two (2) all stainless steel hose clamps. For 1/2" and 3/4" barbs, two (2) 3/8" wide hose clamps are recommended. For 1" and larger hose barbs, two (2) 1/2" wide hose clamps should be used. If the valve configuration you are using has a female pipe threaded inlet, you must exercise care in the installation of the pipe nipple. Use a Teflon pipe thread sealant. Be sure you are not cross threading by improper alignment and do not torque than 15 foot pounds.

MAINTENANCE; Forespar®'s MARELON® Thru-hull/Sea valves are corrosion free and provide great peace of mind in that regard. They are relatively maintenance free; lubrication is not required. All that is requires is to open and close them two or three times on an occasional basis. The frequency of this is determined by two (2) things. Whether the valves are routinely kept in an open or closed position, and the rate of sea growth fouling that occurs where you keep your boat. If the fouling is high and the valves are usually kept in the closed position, it may be necessary to operate the valves every couple of months to free the valve ball from growth. In the low growth/routinely open situation, once every six (6) months may be adequate.

All MARELON® valves of the integral thru-hull design have a removable plug in the handle. This plug is made to fit into the external end of the thru-hull fitting. If the occasion arises that you want to disassemble a valve while the boat is in the water, someone willing to go into the water can insert this plug into the thru-hull.