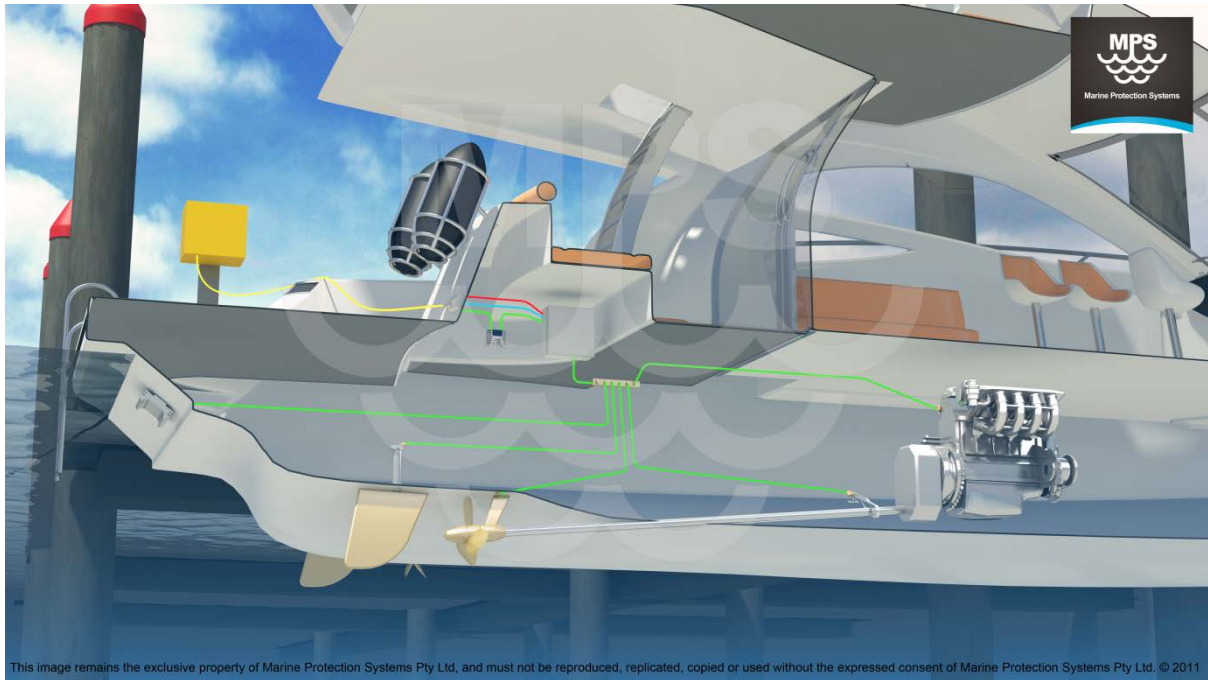




TIPS FOR BONDING YOUR VESSEL

Cathodic Protection Bonding Systems provide for an electrical connection to carry low voltage galvanic current, simply wiring all the vessels below water metals together. The differing potentials (or voltage generated in water) are equalized. The integrity of the bonding system and the components used in the bonding system are very important to ensure that there are no deficiencies in the system.



There are many different compositions of wires and lugs used by Marine electricians. Some of these materials are not effective for use in a bonding system and as such the galvanic current is not carried. Additionally if there is a break in the bonding system such as a faulty connection or damaged wire it can also leave the vessel inadequately protected.

Some simple measures to consider when constructing a bonding system:

- Tinned copper cable (fine strand) is required for the bonding wires. Depending on the distance between connections and the metallic fitting connection, a 6mm² to 10mm² should be adequate.
- The eyelets for the bonding wire ends must be fabricated from electrical quality copper and then electro-tinned.
- High quality stainless steel 316 busbar.
- Through hull fittings should be matched to gate valves, for example a stainless steel 316 through hull fitting should have a stainless steel 316 gate valves. The use of dissimilar metals (for example a stainless steel through hull fitting with a bronze gate valve) promotes galvanic activity.

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