



HI-ALLOY 400

ULTRA MACHINABLE ALLOY FOR CAST IRON WELDING

DESCRIPTION: Hi-Alloy 400 is an all position electrode, with a non-conductive flux, developed to produce dense porosity free deposits on all weldable grades of cast iron. It is ideal for use on thin cast irons and castings contaminated by grease, oil, and dirt. This extraordinary product is also useful for the repair of most heat cycled castings. The high nickel content provides for the ultimate in machinability and the flexibility to join dissimilar metals such as stainless, nickel alloys, and carbon steels.

TYPICAL APPLICATIONS: Repair of cast iron manifolds, engine blocks, pump housings, and thin wall castings, also useful for, cladding, filling holes, and build-up. The non conductive flux allows for welding in tight areas and down in holes where most electrodes would side arc and cause damage to surrounding parts.

PROCEDURES: Remove cracked or worn metal with Hi-Alloy Metal Mover or by grinding. On heavy sections, oil or chemical contaminated base metals, preheat to 500° F, weld with the electrode at a steep angle and use the lowest amperage setting which allows for a short stable arc and good wetting. On thin sections the maximum weld bead should not exceed 1 to 1½" to minimize heat input. Use the skip welding technique on intricate castings, chip off slag when possible between passes, peen all welds with the ball end of a ball peen hammer to distribute stresses, and allow the finished part to cool slowly in still air.

SIZES AVAILABLE: 3/32 1/8 5/32

AMPERAGE RANGES: 70 - 90 80 - 120 130 - 160

POLARITY: DC Reverse, DC Straight, or AC

TENSILE STRENGTH: Up to 50,000 psi

HARDNESS: Rockwell B 82 - 84