

Xyron 223

Manual Metal Arc Electrode For Machinable Welds On Heavy Section Cast Irons

DESCRIPTION The high nickel content of the core wire ensures a deposit which is easy to file, with a non-fragile transition zone, an absence of hard phases, and a coefficient of expansion similar to that of the base metal which minimizes internal stresses. Containing graphite stabilizing elements and deoxidized agents to optimize arc characteristics. This unique composition gives the 223 electrode a stable arc even at low welding currents.

Despite the low amperage, the transfer of metal in the form of fine droplets, is very fast. Furthermore, the coating composition gives this electrode a very high specific rate of fusion, i.e.. a high weight in grams of melted metal per ampere per second.

Product Details

- Exceptional high speed weldability, Reduced penetration in the base metal, with low dilution and virtually no oxide inclusions.
- Dense deposit provides high crack resistance, leak-proof joints with good machinability.

APPLICATIONS:

Heavy Section Cast Iron, Can Be Used On Grey Cast iron, SG Cast iron, malleable Cast iron

PROCEDURE FOR USE

Preparation: Ensure that all areas to be welded are free from contaminants, remove casting defects such as sand inclusions and blowholes and damaged or fatigued base material. For the repair of cracks prepare, by gouging suitable «U» or «V» type joint-design, depending on wall thickness, using ExoTrode.

Preheating: For small and intricate castings, preheating between 200°C-300°C may be necessary. For large and complicated sections, where pre-heating cannot be successfully applied (avoid local preheating) maintain the workpiece at ambient temperatures throughout the repair operation by allowing each weld bead to cool before commencing subsequent welds.

Welding technique: For non-preheated parts, select lowest possible amperage in order to minimize heat input and employ a balanced welding technique. Hold a near vertical electrode angle and maintain a short arc length, deposit stringer beads 3-4 cm in length followed by peening (do not peen thin section components). Maintain the workpiece temperature close to ambient temperature, allow each weld bead to completely cool prior to subsequent welds.

Ensure that each weld pass is completely free from slag, defects, etc. Preheated parts should be cooled at a slow, even rate, down to room temperature.

Procedure A

High amperage welding for massive parts, maximum welding speed.

Procedure B

Low amperage welding for parts which should not be overheated, minimum dilution. Recommended procedure for the majority of applications

TECHNICAL DATA

Tensile strength: 393 N/mm² (57000 in psi)

Typical hardness: 130-170HB

Current polarity: AC/DC (+)

	Procedure A	Procedure B
DIAMETER	AMPERAGE	AMPERAGE
2.5mm	70-90	50-60
3.2mm	100-120	80-90
4.0mm	130-140	90-140

Note: For optimum result use the lowest amperage practical