Specially Formulated High-Alloy Electrode For Welding Dissimilar, Unknown And Problem Steels

EutecTrobe ® 680

• Repairs to most high alloy steel components
• Maximum repair reliability
• Extended part service life
• Reduced inventory carrying costs
• Improved capital & equipment management
DESCRIPTION:
Many carbon steel, and most high alloy steels, are typically heat-treated to maximize their mechanical properties. And with the wide range of application uses for these steel grades from industry-to-industry, the need to use a “universal” repair alloy is often the only practical solution for critical, timely repairs. The answer: Eutectrode 680! A time and tested universal electrode for ALL critical Maintenance & Repair applications.

Eutectrode 680 has a unique formula that enhances all-position weldability while maintaining superior crack-resistance even when diluted. Mechanical properties are at the high-end which guarantees an excellent in-service Maximum Safety Margin (MSM).

TYPICAL APPLICATIONS:
The combined application range is broad: From jigs, molds, dies, leaf springs, high-strength repairs to earthmoving, mining, and constructional equipment...chassis, undercarriage repairs, composite die fabrications, manganese steel components.

TECHNICAL DATA:
Recommended Polarity: DCEP (+) or AC (~)
Typical Tensile Strength: 120,000 psi
Typical Yield Strength: 79,000 psi
Typical Elongation (1=5d) min.: 25%
Hardness as-deposited (Rb): 90
Maximum Temperature: 800°F steady-state

Recommended Amperages

<table>
<thead>
<tr>
<th>Diameters</th>
<th>3/32</th>
<th>1/8</th>
<th>5/32</th>
<th>3/16</th>
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</thead>
<tbody>
<tr>
<td>Amperage</td>
<td>55-70</td>
<td>75-95</td>
<td>90-115</td>
<td>135-190</td>
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Note: for optimum results use the lowest amperage practical

WELDING PROCEDURE:
Preparation: Clean weld area of scale and/or oxide. Angle prepping normally involves close-butts and infrequently bevel preparations. If needed, a 60° bevel is acceptable. Preheat and inter-pass temperatures will depend on the grade of steel, if known. Unknown grades should be nominally preheated within a 400-500°F range. For steels of known composition check the preheat/Inter-pass reference in the Reference Section.

Technique: A short, non-contact technique is recommended for both fillet and butt-welding. Use a slightly longer arc-length for bead-on-plate welding. Deposit stringer beads or 2x to 3x weave beads. Do not weave more than three times the electrode diameter otherwise slag interference will be encountered.

Post-welding: Parts which have been preheated should be wrapped or covered with heat-retardant material to slow cool parts...critical for Tools & Dies.