253 MA
Flux-Cored Wire

ALLOY DESCRIPTION AND APPLICATION;
Flux Cored 253 is gas-shielded austenitic stainless steel filler metal designed to produce weld deposits that exhibit outstanding oxidation resistance at extreme temperatures. Used for welding of high temperature stainless alloys to itself and to carbon steels found in applications such as petrochemical, burner nozzles, power boilers, refineries, furnace fans, dampers, muffles, heat recuperator systems and steam superheater tube hangers.

TYPICAL FCAW WELDING PROCEDURES; DCEP

<table>
<thead>
<tr>
<th>Wire Diameter</th>
<th>Wire Speed (ipm)</th>
<th>Amps</th>
<th>Volts</th>
<th>Electrical Stickout</th>
<th>CO₂ (cfh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.045</td>
<td>200-375</td>
<td>100-250</td>
<td>24-32</td>
<td>3/4-1”</td>
<td>35-50</td>
</tr>
<tr>
<td>1/16”</td>
<td>155-315</td>
<td>150-350</td>
<td>24-32</td>
<td>3/4-1 1/4”</td>
<td>35-50</td>
</tr>
</tbody>
</table>

Procedures may vary with change in position, base metals, filler metals, equipment and other changes. No preheat or postheat typically needed – base metal may require controlled heat. 75% Ar – 25% CO₂ may also be used.

TYPICAL METAL CHEMISTRY (%) AND WELD METAL PROPERTIES;

<table>
<thead>
<tr>
<th></th>
<th>U.S. ALLOY 253FC-G</th>
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</thead>
<tbody>
<tr>
<td>Chromium (Cr)</td>
<td>23.00</td>
</tr>
<tr>
<td>Nickel (Ni)</td>
<td>11.75</td>
</tr>
<tr>
<td>Manganese (Mn)</td>
<td>1.0</td>
</tr>
<tr>
<td>Silicon (Si)</td>
<td>0.50</td>
</tr>
<tr>
<td>Molybdenum (Mo)</td>
<td>1.00</td>
</tr>
<tr>
<td>Carbon (C)</td>
<td>0.09</td>
</tr>
</tbody>
</table>

Tensile Strength (psi) 90,000
Yield Strength (psi) 60,000 min.
Elongation in 2’’ 35 %
Reduction of area 35 %
Micro Additions of rare earth elements

AVAILABLE SIZES: TSF 253FC-G = Spools of .045
Other sizes available – please inquire

SPECIFICATIONS: INTERNAL

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Fax (281)313-6332

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