DESCRIPTION:
SFC-410NM is a flux cored wire for welding with pure CO2 shielding gas to produce the weld metal of 410 martensitic stainless steel with Ni and Mo. It performs with smooth arc transfer, low spatter level, fine ripple, easy control of weld pool, good heat and corrosion resistance. It is especially designed for the wear-needed component.

APPLICATIONS:
The weld metal contains nickel to eliminate ferrite microstructure as ferrite has a deleterious effect on mechanical property. It is generally used for welding of ASTM CA6NM castings, materials, with similar composition, and turbines of hydro plant.

NOTE ON USAGE:
1. Use DC (+) polarity.
2. Weld with pure CO2 shielding gas and suitable gas flow is 20~25 l/min.
3. Proper preheat and interpass temperatures between 150~250°C shall be kept for massive workpieces, heavy cylinders and highly stressed workpieces to prevent weld cracks.

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%): (Shielding Gas: 100% CO2)
Weld Metal Analysis:
Carbon (C) 0.038
Chromium (Cr) 11.85
Nickel (Ni) 3.81
Manganese (Mn) 0.42
Molybdenum (Mo) 0.82
Silicon (Si) 0.38
Phosphorus (P) 0.023
Sulphur (S)

TYPICAL HARDNESS OF WELD METAL:

<table>
<thead>
<tr>
<th>Layer</th>
<th>1st layer</th>
<th>2nd layer</th>
<th>3rd layer</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRC</td>
<td>39</td>
<td>41</td>
<td>43</td>
</tr>
</tbody>
</table>

APPROVALS:

SUGGESTED WELDING PARAMETERS (DC <->)

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Diameter (mm)</th>
<th>1.2mm</th>
<th>1.6mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F, HF</td>
<td>V-UP, OH</td>
</tr>
<tr>
<td>Welding Position</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage (Volt)</td>
<td>23 ~ 33</td>
<td>25 ~ 30</td>
<td>27 ~ 32</td>
</tr>
<tr>
<td>Current (Amp)</td>
<td>130 ~ 220</td>
<td>120 ~ 200</td>
<td>200 ~ 300</td>
</tr>
</tbody>
</table>