DESCRIPTION:
SFC-312 is a 29% Cr-9% Ni flux cored wire with higher ferrite content. Weld deposit contains high composition of Cr, give good wear, and scale resistance. Stable arc, excellent slag removal and bead appearance suits all positional welding. It is suitable for stainless steel and carbon steel joints, especially for those steels may be sensitive to cracking or with higher hardenability.

APPLICATIONS:
Used for welding medium and high carbon hardenable steels, of known or unknown specifications, for example tool steels, shafts, gear teeth, free-cutting steels, dissimilar alloy combinations, buffer layers, overlays, etc.

NOTE ON USAGE:
1. Clean up the base metal from contamination.
2. Use DC(+) for welding.
3. Use CO2 shielding gas, 99.8% CO2 gas with flow rate 20-25 l/min. to avoid N content increasing, which decreases the toughness,

WELDING POSITION:

TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%): (Shielding Gas: 100% CO2)
Weld Metal Analysis:
Carbon (C) 0.058
Chromium (Cr) 30.40
Nickel (Ni) 9.25
Manganese (Mn) 0.875
Silicon (Si) 0.518
Phosphorus (P) 0.021
Sulphur (S) 0.004

TYPICAL MECHANICAL PROPERTIES OF WELD METAL: (Shielding Gas: 100% CO2)
TS N/mm² 745
EL % 24

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>F. HF</td>
<td>V-UP. OH</td>
<td>F. HF</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>
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