Crown FH-30
Gas Metal Arc Welding (GMAW) MIG Wire
Tool Steel

The Royal Line
CROWN ALLOYS COMPANY
30105 Stephenson Hwy., Madison Heights, MI 48071
(248) 588-3790  (800) 521-7878  www.crownalloys.com

Premium Chrome-Moly MIG Wire

Typical Applications
Crown FH-30 is a high strength, low alloy welding wire used for joining high strength steels, dies, forgings and castings of similar chemical composition and for build-up applications where moderate hardness is required. Crown FH-30 is commonly used to weld 4130 and 4140 steels when heat treatment or flame hardening is required.

Specifications
AWS/ASME SFA: N/A
Chrome-Moly 4130

* Tensile Strength (typical) 145,000 psi
* Yield Strength (typical) 130,000 psi
* Elongation in 2" (typical) 11%
* Hardness 42 – 46 Rockwell C

* The above mechanical properties can be obtained by heating the welded piece(s) to 1550°F. Quench in oil. Temper at 1050°F.

Hardness (as welded) 32 – 36 Rockwell C

Procedure
Prepare area to be welded by grinding out cracks and other defects. Remove all oxides and other contaminants. Preheat to 400°F - 450°F and maintain during welding. Use reverse polarity (DCEP). Deposit short stringer beads. Peen thoroughly. Cool in still air.

Short Circuit Transfer Welding
DC reverse polarity (DCEP) - Maintain a medium arc length - Use 75% Ar – 25% CO₂ shielding gas.

<table>
<thead>
<tr>
<th>Wire Diameter (inches)</th>
<th>Welding Current (amperage)</th>
<th>Arc Voltage (volts)</th>
<th>Wire Feed Speed (ipm)</th>
<th>Gas Flow (cfh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>.035</td>
<td>90 – 140</td>
<td>20 – 25</td>
<td>120 – 300</td>
<td>30 – 50</td>
</tr>
<tr>
<td>.045</td>
<td>120 – 170</td>
<td>21 – 27</td>
<td>160 – 350</td>
<td>30 – 50</td>
</tr>
</tbody>
</table>

Spray Transfer Welding
DC reverse polarity (DCEP) – Maintain a medium arc length - Use 98% Argon – 2% Oxygen shielding gas.

<table>
<thead>
<tr>
<th>Wire Diameter (inches)</th>
<th>Welding Current (amperage)</th>
<th>Arc Voltage (volts)</th>
<th>Wire Feed Speed (ipm)</th>
<th>Gas Flow (cfh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>.035</td>
<td>160 – 250</td>
<td>27 – 32</td>
<td>380 – 650</td>
<td>30 – 50</td>
</tr>
<tr>
<td>.045</td>
<td>180 – 270</td>
<td>28 – 34</td>
<td>300 – 500</td>
<td>30 – 50</td>
</tr>
</tbody>
</table>

Sizes and Part Numbers

<table>
<thead>
<tr>
<th>MIG Diameter</th>
<th>Part Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 lb (4&quot;) Spools</td>
</tr>
<tr>
<td>.035</td>
<td>TSFH/1F</td>
</tr>
<tr>
<td>.045</td>
<td>TSFH/1G</td>
</tr>
</tbody>
</table>
WELDING FUMES AND GASES CAN BE DANGEROUS TO YOUR HEALTH.

BEFORE USING THIS PRODUCT THE WELDER (END-USER) MUST READ AND UNDERSTAND THE COMPLETE PRODUCT WARNING LABEL AND THE NEW 16 SECTION SAFETY DATA SHEET (SDS).

THE SAFETY DATA SHEET (SDS) WHICH OUTLINES THE POTENTIAL HEALTH HAZARDS AND SAFETY INFORMATION RELATED TO THIS PRODUCT CAN BE DOWNLOADED FROM THE SDS PORTION OF THIS WEBSITE. IT IS ALSO AVAILABLE FROM YOUR EMPLOYER AND WELDING SUPPLY DISTRIBUTOR.

DO NOT PROCEED WITH USE OF THIS PRODUCT UNTIL YOU READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) AND PRODUCT WARNING STATEMENT.

BE SURE TO CONSULT THE LATEST VERSION OF THE SDS.

SEE THE PRODUCT WARNING LABEL AND SDS FOR COMPLETE WARNING INFORMATION.