



# 410NiMo AC-DC

**AWS E410NiMo-16**

Replaces 020520

160-M, INDEX: 040518

## DESCRIPTION:

Providing better as-welded toughness than 410 AC-DC, **410NiMo AC-DC** is widely used for welding ASTM CA6NM castings, as well as 410, 410S and 405 base metals. It has a smooth running arc that results in a uniform bead that is flat to slightly convex.

Note: Actual certs are included in every master carton of stainless stick electrodes at no charge.

## Features

- Spray-like arc transfer
- Electrode does not overheat
- Directional arc
- Easy strike and re-strike
- All-position
- Easy slag release
- Extremely high moisture resistance

## Benefits

- Low spatter and less clean-up
- Less stub loss, cost-effective
- Metal goes where directed
- Easy to use, less chance of starting defects
- Welds extremely well in flat, horizontal, vertical (up) and overhead positions
- Less chance of slag inclusions
- Extends shelf-life of product in open environments

## TYPICAL WELD METAL PROPERTIES\* (CHEM PAD):

Weld Metal Analysis		AWS Spec
Carbon (C)	0.02	0.06 max
Chromium (Cr)	12.48	11.0 -12.5
Nickel (Ni)	4.30	4.0 - 5.0
Molybdenum (Mo)	0.55	0.40 - 0.70
Manganese (Mn)	0.68	1.0 max
Silicon (Si)	0.35	0.90 max
Phosphorus (P)	0.015	0.04 max
Sulphur (S)	0.015	0.03 max
Copper (Cu)	0.05	0.75 max

## TYPICAL MECHANICAL PROPERTIES\* (AS WELDED):

		AWS Spec
Tensile Strength	134,000 psi (925 MPa)	80,000 psi
Yield Strength	123,000 psi (849 MPa)	not required
Elongation % in 2"	18%	35%
DeLong Ferrite Number Range	2-6	not required
Schaeffler Number Range	2-6	not required
WRC Number Range (1992)	2-6	not required

## CONFORMANCES AND APPROVALS:

- AWS Spec A5.4, Class E410NiMo-16 • ASME SFA5.4

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## 410NiMo AC-DC

### RECOMMENDED WELDING PROCEDURES:

<b>GENERAL:</b>	DCEP (electrode positive, work negative) or AC
<b>ARC LENGTH:</b>	Short (less than half the diameter of the electrode)
<b>FLAT &amp; HORIZONTAL:</b>	Angle electrode 10-15° from 90°
<b>VERTICAL-UP:</b>	Use weaving techniques. Reduced amperage compared to flat position setting
<b>OVERHEAD:</b>	Use slight weaving motion within the puddle
<b>STORAGE:</b>	AC-DC electrodes have a high degree of moisture resistance; however, for critical applications, the electrodes should be held at 225°F after opening.
<b>RECONDITIONING:</b>	If exposed to atmosphere for extended periods, recondition at 500°F for 1 hour

### RECOMMENDED OPERATING PARAMETERS:

Diameter		Type of Power	FLAT & HORIZONTAL		
Inches	mm		Minimum Amps	Optimum Amps	Maximum Amps
1/8	3.2	DCEP or AC	55	105	120
5/32	4.0	DCEP or AC	65	140	170
3/16	4.8	DCEP or AC	160	170	205

### AVAILABLE DIAMETERS AND PACKAGES:

Diameter		Length		10-lb. Can
Inches	mm	Inches	mm	
1/8	3.2	14	355	S487644-033
5/32	4.0	14	355	S487651-033
3/16	4.8	14	355	S487658-033