



Overview

7018 is the most efficient general-purpose, iron powder, low hydrogen electrode used for welding carbon steels, free-machining steels and low alloy steels with minimum yield strength of 50,000 PSI. 7018 has a very good deposition rate, providing a quiet, steady arc with low spatter and medium penetration. Weld deposits are of X-ray quality with easy slag removal, exceptional mechanical properties, and a smooth, uniform bead appearance. 7018 has excellent operator appeal and may be used in any position with AC or DC (reverse polarity). 7018 electrodes are used for many ASTM specifications. More specific applications would include process piping, cold rolled steels such as those found in heavy machinery fabrications, fired and unfired pressure vessels, shop and field welding of bridges and structural steels, cast steels, shipbuilding, and just about any medium carbon, low alloy steel where the welds are subject to X-ray inspection.

Features/Benefits

- All-position electrode
- Tough, yet fully machinable deposit
- Moisture-resistant coating
- Easy slag release
- Excellent for pipe and fitting filler passes

Applications

- Tanks
- Pipes
- Structural steels
- Agricultural equipment
- Truck bodies and frames
- Channels and tubes
- Shaft build-up
- Carbon steel plate and angle iron

Method of Application

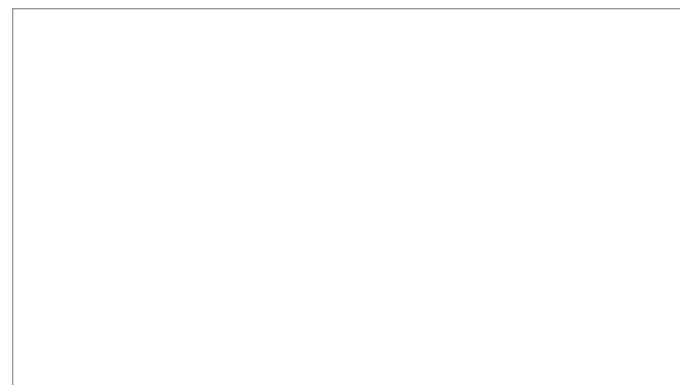
AC/DC arc welding machine

Identification

Printed electrode

Directions for Use

Set machine to AC or DC reverse polarity. DC reverse is the preferred polarity. Hold a short arc and weld using stringer beads or a slight weave, dragging with 10% – 15% from 90°. A slight oscillating motion is recommended for vertical-up welding. Remove slag between each pass. Procedures may vary with change in position, base metals, filler metals, equipment and other changes.





Typical Welding Procedures

DCEP and AC

Diameter	Amps (Flat)	Diameter	Amps
1/16"	35 – 65	5/32"	130 – 200
5/64"	45 – 70	3/16"	200 – 240
3/32"	60 – 100	7/32"	210 – 270
1/8"	90 – 150	1/4"	250 – 340

Technical Specifications

ANSI/AWS A5.1: E7018
 ASME SFA 5.1: E7018

Typical Weld Metal Properties

AWS values are minimum

	AWS Spec.	Weld Metal
Tensile Strength (PSI)	70,000	86,000
Yield Strength (PSI)	58,000	72,000
Elongation	22%	31%
Charpy V-notch at -20°F	20 ft./lbs. per min.	65 ft./lbs.