

Atom Arc 8018-B8

Atom Arc 8018-B8 is designed to weld 9% Cr - 1% Mo creep resisting steels such as ASTM A213-T9 and A335-P9. These steels are used in pressure vessels and piping for high temperature service.

Specifications	
Classifications	ASME SFA 5.5 : E8018-B8H4R AWS A5.5 : E8018-B8H4R
Industry	Power Generation Pipeline Ship/Barge Building

Welding Current	AC, DC+
Diffusible Hydrogen	< 4.0 ml/100g
Alloy Type	Low alloyed (9% Cr - 1% Mo)

Typical Tensile Properties			
Condition	Yield Strength	Tensile Strength	Elongation
Stress Relieved 1 hour(s) 740 °C (1364 °F)	545 MPa (79 ksi)	676 MPa (98 ksi)	22 %

Typical Charpy V-Notch Properties		
Condition	Testing Temperature	Impact Value
Stress Relieved	-20 °C (-4 °F)	61 J (45 ft-lb)

Typical Weld Metal Analysis %							
C	Mn	Si	S	P	Cr	Mo	X-bar
0.07	0.80	0.30	0.01	0.01	8.60	1.00	<15

Deposition Data					
Diameter	Current	Voltage	Deposition Efficiency (%)	Burn-off Time /Electrode	Deposition Rate @ 90% I max
2.4 x 356.0 mm (3/32 x 14.0 in.)	70-110 A	23.2 V	69.01 %	60 sec	0.92 kg/h (2.0 lbs/h)
3.2 x 356.0 mm (1/8 x 14.0 in.)	90-160 A	23.9 V	72.23 %	70 sec	1.36 kg/h (3.0 lbs/h)
4.0 x 356.0 mm (5/32 x 14.0 in.)	130-220 A	24.3 V	72.06 %	75 sec	1.89 kg/h (4.2 lbs/h)
4.8 x 356.0 mm (3/16 x 14.0 in.)	200-300 A	24.3 V	71.04 %	74 sec	2.53 kg/h (5.6 lbs/h)