

Atom Arc 9018

Atom Arc 9018 electrodes are used for attachment welds on T-1, HY-80 and HY-90 steels and other high tensile, quenched and tempered steels.

Specifications	
Classifications	ASME SFA 5.5 : E9018M H4R AWS A5.5 : E9018M H4R
Approvals	ABS : 3Y400(H5) CWB : E6218-M(E9018-M) LR : 3Ym(H15) MIL : MIL-9018-M QPL : 22200/1
Industry	Bridge Construction Ship/Barge Building Mobile Equipment Industrial and General Fabrication Railcars Civil Construction

Approvals are based on factory location. Please contact ESAB for more information.

Welding Current	AC, DC+
Diffusible Hydrogen	< 4.0 ml/100g
Alloy Type	Low alloyed (1.6% Ni - 0.3% Mo)

Typical Tensile Properties			
Condition	Yield Strength	Tensile Strength	Elongation
As Welded	580 MPa (84 ksi)	655 MPa (95 ksi)	28 %
Stress Relieved 24 hour(s) 593 °C (1099 °F)	470 MPa (68 ksi)	635 MPa (92 ksi)	27 %

Typical Charpy V-Notch Properties		
Condition	Testing Temperature	Impact Value
As Welded	-50 °C (-58 °F)	81 J (60 ft-lb)
Stress Relieved	-50 °C (-58 °F)	92 J (68 ft-lb)

Typical Weld Metal Analysis %						
C	Mn	Si	S	P	Ni	Mo
0.043	1.00	0.26	0.01	0.012	1.60	0.29

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)