

Atom Arc T



Atom Arc T was developed for welding T-1 steel in all applications. Mechanical properties of the welded joints equal or exceed the properties of the base steel in either the as welded or stress relieved condition, thus giving 100% design joint efficiency. In addition, Atom Arc T electrodes are suitable for many other applications, particularly where high-strength welds with excellent low temperature impact properties are required.

Classifications	AWS A5.5 : E11018M H4R ASME SFA 5.5
Approvals	ABS AWS A5.5: E11018-M CWB CSA W48 E7618-M-H4 QPL-22200/1 MIL-11018-M
Industry	Bridge Construction Civil Construction Industrial and General Fabrication Mobile Equipment Railcars Ship/Barge Building

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

Welding Current	AC or DC+
Coating Type	Low-hydrogen iron powder

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
As Welded	-18 °C (0 °F)	75 J (55 ft-lb)
As Welded	-40 °C (-40 °F)	65 J (48 ft-lb)
As Welded	-51 °C (-60 °F)	60 J (44 ft-lb)
Stress Relieved 1hr 552°C (1025°F)	-18 °C (0 °F)	68 J (50 ft-lb)
Stress Relieved 1hr 552°C (1025°F)	-40 °C (-40 °F)	57 J (42 ft-lb)
Stress Relieved 1hr 552°C (1025°F)	-51 °C (-60 °F)	34 J (25 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	V	Cu
0.048	1.46	0.28	0.01	0.01	1.83	0.23	0.35	0.010	0.072

Typical Weld Metal Analysis %

Nb
0.004

Deposition Data

Diameter	Optimal Amps	Current	Deposition Rate	Deposition Efficiency %
3.2 mm (1/8 in.)	120 A	90-160 A	1.2 kg/h (2.6 lb/h)	71.6 %
3.2 mm (1/8 in.)	140 A	90-160 A	1.2 kg/h (2.7 lb/h)	70.9 %
4.8 mm (3/16 in.)	200 A	200-300 A	2.2 kg/h (4.9 lb/h)	76.4 %
4.8 mm (3/16 in.)	250 A	200-300 A	2.4 kg/h (5.4 lb/h)	74.6 %
2.4 mm (3/32 in.)	90 A	70-100 A	0.8 kg/h (1.7 lb/h)	66.3 %
4.0 mm (5/32 in.)	140 A	130-220 A	1.1 kg/h (3.1 lb/h)	75 %
4.0 mm (5/32 in.)	170 A	130-220 A	1.7 kg/h (3.8 lb/h)	73.5 %
5.6 mm (7/32 in.)	250 A	250-350 A	2.9 kg/h (6.5 lb/h)	75 %



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Deposition Data				
Diameter	Optimal Amps	Current	Deposition Rate	Deposition Efficiency %
5.6 mm (7/32 in.)	300 A	250-350 A	3.3 kg/h (7.2 lb/h)	74 %