

Mild & Low Alloy Steel Welding Parameters

Typical Welding Parameters of Mild Steel & Low Alloy SMAW (Electrodes)				
Diameter of Rod		Voltage (V)	Amperage (A)	
Inches	Millimeters		Flat	Vertical & Overhead
3/32	2.4	21 – 25	65 – 80	65 – 75
1/8	3.2	21 – 25	90 – 110	80 – 95
5/32	4.0	21 – 26	135 – 160	120 – 140
3/16	4.8	22 – 26	160 – 210	140 – 160

Typical Welding Parameters of Mild & Low Alloy TIG, MIG and SAW					
Process	Diameter of Wire		Voltage (V)	Amperage (A)	Shielding Gas
	Inches	Millimeters			
TIG (GTAW)	.035	0.9	10 – 12	50 – 70	100% Argon
	.045	1.14	10 – 12	70 – 100	
	1/16	1.6	12 – 15	100 – 125	
	3/32	2.4	15 – 20	125 – 175	
	1/8	3.2	15 – 20	175 – 250	
MIG (GMAW) Spray Transfer	.035	0.9	28 – 32	165 – 200	98% Argon + 2% Oxygen or 75% Argon + 25% CO ²
	.045	1.14	30 – 34	180 – 220	
	1/16	1.6	30 – 34	230 – 260	
MIG (GMAW) Short Circuiting Transfer	.035	0.9	22 – 25	100 – 140	100% CO ²
	.045	1.14	23 – 26	120 – 150	75% Argon + 25% CO ²