

# SC-90

Type : Semi-Metal

## Conformances

AWS A5.36M/ ASME SFA5.36M E620T1-C1A0-G  
(AWS A5.29/ ASME SFA5.29 E90T1-GC)  
JIS Z3313 T62 2 T1-0 C A- H10  
EN ISO 17632-A-T 50 2 R C1 3

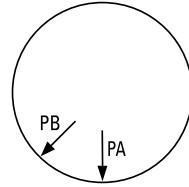
## Applications

- Structural fabrication and automotive
- General fabrication
- High tensile steel (HSB 600)

## Features

- High speed single welding in flat and horizontal positions

## Welding Position



## Current

DC +

## Shielding Gas

100% CO<sub>2</sub>

## Diameter / Packaging

Diameter mm (in)	Spool			Pac		
	5kg (11lbs)	15kg (33lbs)	20kg (44lbs)	100kg (221lbs)	250kg (551lbs)	300kg (661lbs)
1.2 (0.045)	✓	✓		✓	✓	✓
1.4 (0.052)	✓	✓		✓	✓	✓
1.6 (1/16)	✓	✓		✓	✓	✓

### Typical Chemical Composition of All-Weld Metal (%)

C	Si	Mn	P	S	Ni	Mo
0.08	0.55	1.75	0.014	0.014	0.35	0.12

### Typical Mechanical Properties of All-Weld Metal

YS MPa(lbs/in <sup>2</sup> )	TS MPa(lbs/in <sup>2</sup> )	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft.-lbs)
600 (87,100)	660 (95,800)	22.5	-20 (-4)	60 (44)

### Typical Welding Parameters

Diameter, Polarity Shielding Gas	CTWD mm (in)	Wire Feed Speed m/min (in/min)	Amp. (A)	Volt. (V)	Deposition Rate kg/hr (lb/hr)	Efficiency (%)
<b>1.2mm (0.045 in) DC+</b>						
100% CO <sub>2</sub>	20-25 (51/64~1)	10.4 (410)	200	26	3.5 (7.7)	85-87
		12.7 (500)	250	30	4.7 (10.4)	87-89
		15.3 (600)	300	33	6.3 (13.9)	91-93
<b>1.4mm (0.052 in) DC+</b>						
100% CO <sub>2</sub>	20-25 (51/64~1)	12.0 (470)	300	31	5.6 (12.3)	90-92
		12.5 (490)	320	32	6.1 (13.4)	91-93
		13.3 (520)	350	36	6.7 (14.8)	91-93
<b>1.6mm (1/16 in) DC+</b>						
100% CO <sub>2</sub>	20-25 (51/64~1)	7.6 (300)	300	33	4.9 (10.8)	87-89
		8.9 (350)	350	36	5.5 (12.1)	90-91
		10.2 (400)	400	38	6.3 (13.9)	90-91

SMAW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX