



WASHINGTON ALLOY'S Quality Management System is Certified to ISO 9001:2008  
Cert # 05-R0925

# 308L Welding Wire and Rod



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### ALLOY DESCRIPTION AND APPLICATION;

308L is a austenitic stainless steel used to weld base metal of similar composition types such as AISI 201(17-4 Mn), 202(18-5 Mn), 205, 301(17-7), 302(18-8), 304(19-9), 305(18-10), 308(20-10) also the low carbon grades. The low carbon reduces carbide precipitation (Tri-mix gas = 90%He+7.5%Ar+2.5%CO<sub>2</sub>)

### TYPICAL GMAW WELDING PROCEDURES; DCEP Short Circuit

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electrical Stick-out	Tri-mix (cfh)
0.023	180-400	30-85	14-19	3/8-1/2"	20-25
0.030	150-350	45-125	15-20	3/8-1/2"	20-25
0.035	120-330	60-150	16-22	3/8-1/2"	20-30
0.045	100-280	90-210	17-22	3/8-1/2"	25-30
<i>Spray</i> 0.030	280-600	160-220	24-28	3/8-1/2"	<sup>(1)</sup> 25-35
0.035	250-470	170-295	23-29	1/2-3/4"	<sup>(1)</sup> 25-35
0.045	200-385	195-360	24-30	1/2-3/4"	<sup>(1)</sup> 30-35
1/16"	110-200	210-380	25-31	1/2-3/4"	<sup>(1)</sup> 35-40

<sup>(1)</sup> 98%Ar  
2%O<sub>2</sub>

### TYPICAL GTAW WELDING PROCEDURES; DCEN with EWTh-2 truncated conical tip

Filler Wire Size	Tungsten	Amps	Volts	Gas Cup Size	Argon (cfh)	Base thickness
1/16"	1/16"	80-150	12	3/8"	20	1/16-1/8"
3/32"	3/32"	150-250	12	3/8"	20	1/8- 3/16"
1/8"	1/8"	200-375	12	1/2"	25	1/4-1/2"

Procedures may vary with change in position, base metals, filler metals, equipment and other changes.

### TYPICAL WIRE CHEMISTRY (%) & WELD METAL PROPERTIES

Carbon	0.01	Tensile Strength (psi)	86,500
Manganese	1.77	Yield Strength (psi)	59,000
Silicon	0.37	Elongation	35 %
Molybdenum	0.03		
Nickel	9.64	Phosphorus	0.021
Chromium	19.75	Sulfur	0.003
Copper	0.04	Nitrogen	0.019

**AVAILABLE SIZES:** TS 308L = Spools of 023, 030, 035, 045, 1/16, 5/64, 3/32, 1/8, 3/16

TT 308L = Cut lengths of 023, 030, 035, 045, 1/16, 5/64, 3/32, 1/8, 5/32, 3/16

Other sizes available – please inquire

**SPECIFICATIONS;** ANSI/AWS A5.9 ER308L  
ASME SFA 5.9 ER308L

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