



308/308H Sterling®

AWS E308-17 & 308H-17

Replaces 020903

150-A, INDEX: 060123

DESCRIPTION:

308/308H Sterling can be used for welding all austenitic stainless steels. It has excellent out-of-position characteristics along with high moisture-resistance and easy slag removal. Consisting of a fully alloyed core wire with rutile coating, 308/308H Sterling can be used as an intermediate layer prior to the deposition of hard-facing materials, as well as for applications where service conditions are not severe.

Note: Actual certs are included in every master carton of stainless stick electrodes at no charge.

Features	Benefits
<ul style="list-style-type: none"> • Directional arc • Easy strike and re-strike • Limited all-position 	<ul style="list-style-type: none"> • Metal goes where directed • Easy to use, less chance of starting defects • Welds extremely well in flat, horizontal, and limited capability in vertical (up) and overhead positions
<ul style="list-style-type: none"> • Self-detaching slag • Spray arc transfer • Extremely high moisture resistance 	<ul style="list-style-type: none"> • Less chance of slag inclusions • Low spatter and less clean-up • Extends shelf life of product in open environments

TYPICAL WELD METAL PROPERTIES* (CHEM PAD):

Weld Metal Analysis		E308-17	AWS Spec	E308H-17
Carbon (C)	0.060	0.08 max		0.04 to 0.08
Manganese (Mn)	1.140	0.5 to 2.5		0.5 to 2.5
Phosphorus (P)	0.012	0.04 max		0.04 max
Sulphur (S)	0.013	0.03 max		0.03 max
Silicon (Si)	0.440	0.90 max		0.90 max
Copper (Cu)	0.100	0.75 max		0.75 max
Chromium (Cr)	19.980	18.0 to 21.0		18.0 to 21.0
Nickel (Ni)	9.780	9.0 to 11.0		9.0 to 11.0
Molybdenum (Mo)	0.100	0.75 max		0.75 max

TYPICAL MECHANICAL PROPERTIES* (AS WELDED):

		E308-17	AWS Spec	E308H-17
Tensile Strength	86,000 psi (593 MPa)	80,000 psi		80,000 psi
Yield Strength	65,000 psi (449 MPa)	not required		not required
Elongation % in 2"	45%	35%		35%
DeLong Ferrite Number Range	4-10	not required		not required
Schaeffler Number Range	4-10	not required		not required
WRC Number Range (1992)	4-10	not required		not required

CONFORMANCES AND APPROVALS:

- AWS Spec A5.4, Class E308-17 & E308H-17 • ASME SFA5.4

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and McKay expressly disclaims any liability incurred from any reliance thereon. Typical data are obtained when welded and tested in accordance with AWS A5.4 specification. Other tests and procedures may produce different results. No data is to be construed as a recommendation for any welding condition or technique not controlled by McKay.



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RECOMMENDED WELDING PROCEDURES:

- GENERAL:** DCEP (electrode positive, work negative) or AC
- ARC LENGTH:** Short (less than half the diameter of the electrode)
- FLAT & HORIZONTAL:** Angle electrode 10-15° from 90°
- VERTICAL-UP:** Use weaving techniques. Reduced amperage compared to flat position setting
- OVERHEAD:** Use slight weaving motion within the puddle
- STORAGE:** Sterling electrodes have a high degree of moisture resistance; however, for critical applications, the electrodes should be held at 225° F after opening.
- RECONDITIONING:** If exposed to atmosphere for extended periods, recondition at 500° F for 1 hour

RECOMMENDED OPERATING PARAMETERS:

FLAT & HORIZONTAL

Diameter		Type of Power	Minimum Amps	Optimum Amps	Maximum Amps
Inches	mm				
3/32	2.4	DCEP or AC	45	65	80
1/8	3.2	DCEP or AC	55	105	120
5/32	4.0	DCEP or AC	65	140	170
3/16	4.8	DCEP or AC	160	170	205

AVAILABLE DIAMETERS AND PACKAGES:

Diameter		Length		6-lb. Can	10-lb. Can
Inches	mm	Inches	mm		
3/32	2.4	10	254	S493830-032	—
1/8	3.2	14	355	—	S493844-033
5/32	4.0	14	355	—	S493851-033
3/16	4.8	14	355	—	S493858-033

Material Safety Data Sheets on any McKay product may be obtained from McKay Customer Service.

Because McKay is constantly improving products, McKay reserves the right to change design and/or specifications without notice.

Sterling is a registered trademark of Hobart Brothers Company, Troy, Ohio.