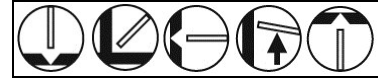


TM-1101K3-M



AWS A5.29: E111T1-K3 MJ H8

WELDING POSITIONS:



FEATURES:

- Easy slag removal
- Fast-freezing slag
- Low hydrogen weld deposit

BENEFITS:

- Reduces clean-up time, minimizes inclusions
- All position welding capability
- Minimizes potential for cracking

APPLICATIONS:

- High-strength low-alloy steels
- Offshore platforms
- Quench and tempered steel

SLAG SYSTEM: Fast-freezing, rutile type, flux-cored wire

SHIELDING GAS: 75% Argon (Ar)/25% Carbon Dioxide (CO₂), 35-50 cfh (14-24 l/min)

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

STANDARD DIAMETERS: 0.045" (1.2 mm), 0.052" (1.4 mm), 1/16" (1.6 mm)

RE-DRYING: Not recommended

STORAGE: Product should be stored in a dry, enclosed environment, and in its original intact packaging

TYPICAL WELD METAL CHEMISTRY* (Chem Pad):

Weld Metal Analysis	75% Ar/25% CO ₂	AWS Spec
Carbon (C)	0.06	0.15
Silicon (Si)	0.40	0.80
Sulphur (S)	0.01	0.030
Phosphorus (P)	0.008	0.030
Manganese (Mn)	1.60	0.75-2.25
Chromium (Cr)	0.05	0.15
Molybdenum (Mo)	0.30	0.25-0.65
Nickel (Ni)	1.90	1.25-2.60
Vanadium (V)	0.02	0.05

Note: AWS specification single values are maximums.

TYPICAL DIFFUSIBLE HYDROGEN*:

Hydrogen Equipment	75% Ar/25% CO ₂	AWS Spec
(GAS CHROMATOGRAPHY)	4.2 ml/100 g	8.0 ml/100 g Maximum

TYPICAL MECHANICAL PROPERTIES* (AS WELDED):

Mechanical Tests	75% Ar/25% CO ₂	AWS Spec
Tensile Strength	120,000 psi (827 MPa)	110,000-130,000 psi (760-900 MPa)
Yield Strength	112,000 psi (772 MPa)	98,000 psi (680 MPa) Minimum
Elongation % in 2" (50 mm)	21%	15% Minimum

TYPICAL CHARPY V-NOTCH IMPACT VALUES* (AS WELDED):

CVN Temperatures	75% Ar/25% CO ₂	AWS Spec
Avg. at -20°F (-29°C)	30 ft•lbs (41 Joules)	20 ft•lbs (27 Joules) Minimum

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Hobart Brothers Company expressly disclaims any liability incurred from any reliance thereon. Typical data are those obtained when welded and tested in accordance with AWS A5.29 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 Hobart Brothers Company.

TM-1101K3-M

Diameter		Weld Position	Amps	Volts	Wire-Feed Speed		Deposition Rate		Contact Tip to Work Distance	
Inches	(mm)				in/min	(m/min)	lbs/hr	(kg/hr)	Inches	(mm)
0.045	(1.2)	All Position	150	23	220	(6.5)	4.0	(1.8)	5/8	(16)
0.045	(1.2)	All Position	200	23	300	(8.0)	6.2	(2.8)	5/8	(16)
0.045	(1.2)	All Position	225	24	373	(9.3)	7.5	(3.4)	3/4	(19)
0.045	(1.2)	All Position	250	25	450	(11.0)	8.8	(4.0)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	275	26	520	(12.7)	9.5	(4.3)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	300	28	590	(15.0)	12.0	(5.4)	1	(25)
0.052	(1.4)	All Position	200	25	225	(5.7)	5.7	(2.6)	3/4	(19)
0.052	(1.4)	All Position	250	27	320	(8.1)	8.4	(3.8)	3/4	(19)
0.052	(1.4)	Flat & Horizontal	300	28	435	(11.0)	11.5	(5.2)	1	(25)
0.052	(1.4)	Flat & Horizontal	350	30	585	(14.9)	15.0	(6.8)	1	(25)
1/16	(1.6)	All Position	175	23	130	(3.3)	3.9	(1.8)	3/4	(19)
1/16	(1.6)	All Position	225	25	190	(4.8)	6.5	(2.9)	3/4	(19)
1/16	(1.6)	All Position	275	26	230	(5.8)	8.5	(3.9)	1	(25)
1/16	(1.6)	Flat & Horizontal	350	29	335	(8.5)	12.0	(5.4)	1	(25)
1/16	(1.6)	Flat & Horizontal	400	32	420	(10.7)	17.0	(7.7)	1	(25)

- **Maintaining a proper welding procedure - including pre-heat and interpass temperatures - may be critical depending on the type and thickness of steel being welded.**
- This information was determined by welding with 75% Argon (Ar)/25% Carbon Dioxide (CO₂) shielding gas with a flow rate between 35-50 cfm (14-24 l/min).
- **All positions include:** Flat, Horizontal, Vertical Up, and Overhead.

STANDARD DIAMETERS AND PACKAGES: For a complete list of diameters and packaging, please contact Hobart Brothers at (800) 424-1543, or (937) 332-5188 for International Customer Service.

Diameter		33-lb. (15kg) Spool
Inches	(mm)	
0.045	(1.2)	S282812-K29
0.052	(1.4)	S282815-K29
1/16	(1.6)	S282819-K29

CONFORMANCES AND APPROVALS:

- AWS A5.29, E111T1-K3 MJ H8
- AWS A5.29M, E761T1-K3 MJ H8
- ABS, E111T1-K3MJ H8

CAUTION:

Consumers should be thoroughly familiar with the safety precautions on the warning label posted in each shipment and in the American National Standard Z49.1, "Safety in Welding and Cutting," published by the American Welding Society, 550 NW LeJune Road, Miami, FL 33126; OSHA Safety and Health Standards 29 CFR 1910 is available from the U.S. Department of Labor, Washington, D.C. 20210

Material Safety Data Sheets on any Hobart Brothers Company product may be obtained from Hobart Customer Service or at www.hobartbrothers.com.

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

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Revision Date: 130116 (Replaces 111107)

