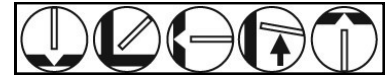


FabCO[®] 91K2-M



AWS A5.29: E91T1-K2M J H4

WELDING POSITIONS:



FEATURES:

- Fast freezing slag
- Low smoke levels
- Low spatter level and easy slag removal
- Stable arc transfer
- Excellent impact toughness

BENEFITS:

- Produces flat weld contours when welding out of position
- Helps increase operator appeal and improve the working environment
- Reduces clean-up time and minimizes risk of inclusion
- Helps to consistently produce welds of good quality and appearance
- Minimizes risk of cracking in critical applications

APPLICATIONS:

- Single or multi-pass welding
- Onshore pipeline
- Offshore
- Heavy equipment
- Shipbuilding
- Structural fabrication

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

SHIELDING GAS: 75-80% Argon (Ar)/Balance Carbon Dioxide (CO₂), 35-50 cfh (17-24 l/min)

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

STANDARD DIAMETERS: 0.045" (1.2 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 (%)	80% Ar/20% CO ₂	AWS Spec
Carbon (C)	0.06	0.15
Manganese (Mn)	1.65	0.50-1.75
Silicon (Si)	0.27	0.80
Phosphorus (P)	0.007	0.030
Sulphur (S)	0.009	0.030
Nickel (Ni)	1.90	1.00-2.00
Chromium (Cr)	0.11	0.15
Molybdenum (Mo)	0.06	0.35
Boron (B)	0.0003	Not specified

Note: AWS specification single values are maximums.

TYPICAL MECHANICAL PROPERTIES* (As Welded):

Mechanical Tests	80% Ar/20% CO ₂	AWS Spec
Tensile Strength	101,000 psi (696 MPa)	90,000-110,000 psi (620-760 MPa)
Yield Strength	93,000 psi (641 MPa)	78,000 psi (540 MPa) Minimum
Elongation % in 2" (50 mm)	22%	17%

TYPICAL CHARPY V-NOTCH IMPACT VALUES* (As Welded):

CVN Temperatures	80% Ar/20% CO ₂	AWS Spec
Avg. at 0°F (-20°C)	115 ft•lbs (154 Joules)	20 ft•lbs (27 Joules) Minimum
Avg. at -20°F (-30°C)	95 ft•lbs (127 Joules)	20 ft•lbs (27 Joules) Minimum
Avg. at -40°F (-40°C)	86 ft•lbs (115 Joules)	Not specified
Avg. at -76°F (-60°C)	70 ft•lbs (93 Joules)	Not specified

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

FabCO[®] 91K2-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	280	(7.1)	4.7	(2.1)	5/8	(16)
0.045	(1.2)	All Position	190	24	375	(9.5)	6.8	(3.1)	5/8	(16)
0.045	(1.2)	All Position	225	25	455	(11.6)	7.9	(3.6)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	275	28	590	(15.0)	10.5	(4.8)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	300	33	675	(17.1)	11.4	(5.2)	3/4	(19)

- **Maintaining a proper welding procedure - including pre-heat and interpass temperatures - may be critical depending on the type and thickness of steel being welded.**
- All position includes the following: Flat, Horizontal, Vertical Up, and Overhead.
- **See Above:** This information was determined by welding using 75% Argon (Ar)/25% Carbon Dioxide (CO₂) shielding gas with a flow rate between 35-50 cfh (17-24 l/min).

STANDARD DIAMETERS AND PACKAGES: For a complete list of diameters and packaging, please contact Hobart Brothers at (900) 424-1543 or (937) 332-5188 for International Customer Service.

Diameter		33-lb. (15kg) Vacuum Packed Spool
Inches	(mm)	
0.045	(1.2)	S289212-053

CONFORMANCES AND APPROVALS:

- AWS A5.29, E91T1-K2MJ H4
- AWS A5.29M, E621T1-K2MJ
- ASME SFA 5.29, E91T1-K2MJ H4

TECHNICAL QUESTIONS? For technical support of Hobart Filler Metals products, contact the Applications Engineering department by phone toll-free at 1-800-532-2618 or by e-mail at Applications.Engineering@hobartbrothers.com

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, 8669 NW 36th St., Miami, FL 33166 (can also be downloaded online at www.aws.org); OSHA Safety and Health Standards 29 CFR 1910 is available from the U.S. Department of Labor, Washington, D.C. 20210

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

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

FabCO is a registered trademark of Hobart Brothers LLC, Troy, Ohio.

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