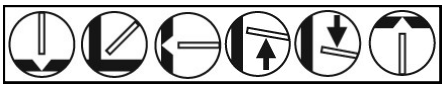
FabCOR® Edge™ D2

AWS A5.28: E90C-D2 H4

WELDING POSITIONS:



FEATURES:

- Smooth arc characteristics
- Virtually no silicon deposits at weld bead toe lines
- Excellent gap bridging capabilities
- Higher deposition rates than solid wire

BENEFITS:

- Assists consistently producing welds of good and uniform appearance and quality
- Reduces clean-up time, helps minimize risk of inclusion
- Minimizes burn-through, helps minimize part rejection
- Helps to increase travel speeds and productivity, excellent for robotic and mechanized welding

APPLICATIONS:

- High-strength low-alloy steels
- Single or multiple-pass welding
- Pressure vessels
- Automated and mechanized applications

WIRE TYPE: Gas-shielded, metal-powder, metal-cored wire

SHIELDING GAS: 95-98% Argon (Ar)/Balance Oxygen (O_2), 75-95% Argon (Ar)/Balance Carbon Dioxide (CO_2)

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 (%)	98% Ar/2% O_2	90% Ar/10% CO_2	AWS Spec
Carbon (C)	0.05	0.05	0.12
Manganese (Mn)	1.50	1.45	1.00-1.90
Silicon (Si)	0.50	0.45	0.90
Phosphorus (P)	0.009	0.009	0.025
Sulphur (S)	0.012	0.012	0.03
Copper (Cu)	0.05	0.05	0.50
Molybdenum (Mo)	0.50	0.45	0.40-0.60

Note: AWS specification single values are maximums.

TYPICAL MECHANICAL PROPERTIES* (As Welded):

Mechanical Tests	98% Ar/2% O_2	90% Ar/10% CO_2	AWS Spec
Tensile Strength	98,000 psi (676 MPa)	107,000 psi (740 MPa)	90,000 psi (620 MPa) Minimum
Yield Strength	90,000 psi (621 MPa)	95,000 psi (655 MPa)	78,000 psi (540 MPa) Minimum
Elongation % in 2” (50 mm)	25%	22%	17% Minimum

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

CVN Temperatures	98% Ar/2% O_2	90% Ar/10% CO_2	AWS Spec
CVN @-20°F (-30°C)	55 ft•lbs (75 Joules)	45 ft•lbs (61 Joules)	20 ft•lbs (27 Joules) Minimum

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Diameter Inches	(mm)	Weld Position	Amps	Volts	Wire Feed Speed in/min	(m/min)	Deposition Rate lbs/hr	(kg/hr)	Contact Tip to Work Distance Inches	(mm)
0.045	(1.2)	Flat & Horizontal	200	25	210	(5.3)	5.5	(2.5)	5/8	(16)
0.045	(1.2)	Flat & Horizontal	250	26	300	(7.6)	8.0	(3.6)	5/8	(16)
0.045	(1.2)	Flat & Horizontal	300	27	430	(10.9)	11.7	(5.3)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	350	28	570	(14.5)	15.5	(7.0)	3/4	(19)
0.052	(1.4)	Flat & Horizontal	250	26	245	(6.2)	8.1	(3.7)	3/4	(19)
0.052	(1.4)	Flat & Horizontal	300	27	375	(9.5)	12.6	(5.7)	1	(25)
0.052	(1.4)	Flat & Horizontal	350	28	485	(12.3)	16.6	(7.5)	1	(25)
0.052	(1.4)	Flat & Horizontal	400	29	580	(14.7)	20.0	(9.1)	1	(25)
1/16	(1.6)	Flat & Horizontal	300	26	215	(5.5)	10.4	(4.7)	1	(25)
1/16	(1.6)	Flat & Horizontal	350	27	265	(6.7)	13.0	(5.9)	1	(25)
1/16	(1.6)	Flat & Horizontal	400	28	335	(8.5)	16.5	(7.5)	1	(25)
1/16	(1.6)	Flat & Horizontal	450	29	399	(10.1)	19.7	(8.9)	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.**
- **Pulse waveforms are designed with nominal operating points that may result in average voltage and current values that differ from the above table. Generally, pulse processes can be expected to produce lower heat inputs than a standard CV process.**
- **For out of position welding, short circuit or pulsed spray transfer mode must be used.**
- **See Above:** This information was determined by welding using 98% Argon (Ar)/2% Oxygen (O_2) shielding gas with a flow rate between 35-50 cfh (17-24 l/min). When welding using 75-95% Argon (Ar)/25-5% Carbon Dioxide (CO_2) shielding gases, increase voltage by approximately 1-2 volts.

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 Inches	(mm)	50-lb. (22.7kg) Spool	500-lb. (227kg) X-Pak	1000-lb. (453.6kg) X-Pak
Net Pallet Weight		**1600-lb. (726kg)**	**2000-lb. (907kg)**	**1000-lb. (453.6kg)**
0.045	(1.2)	S289612-027	S289612-050	—
0.052	(1.4)	S289615-027	S289615-050	—
1/16	(1.6)	S289619-027	—	S289619-058

CONFORMANCES AND APPROVALS:

- **AWS A5.28,** E90C-D2 H4
- **AWS A5.28M,** E62C-D2 H4
- **ASME SFA 5.28,** E90C-D2 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.

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