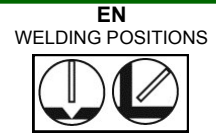
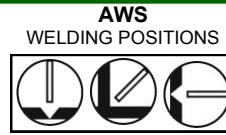




AWS A5.18: E70C-6M H4
EN 17632-A: T46 4 M M 3 H5



FEATURES:

BENEFITS:

- Advanced feedability
- Superior arc starting
- Excellent wetting characteristics
- Minimal silicon deposits
- Superb manufacturing consistency
- High deposition rates

- Suitable for high wire feed speeds, increases consumable life
- Improves welding performance and consistency
- Produces smooth weld beads with uniform fusion
- Reduces clean-up time, increases productivity
- Provides repeatable welding performance and properties, suitable for automation
- Increases productivity as compared to solid wire

APPLICATIONS:

- Single and multi-pass welding
- Non-alloyed and fine grain steels
- High-production applications
- Robotic and automatic welding

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

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

SHIELDING GAS: 75-95% Argon (Ar)/Balance Carbon Dioxide (CO₂), 35-50 cfh (14-24 l/min)

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

TYPICAL WELD METAL CHEMISTRY* (Chem Pad):

	75% Ar/25% CO ₂	90% Ar/10% CO ₂	AWS Spec
Carbon (C)	0.04	0.04	0.12
Manganese (Mn)	1.30	1.38	1.75
Silicon (Si)	0.62	0.63	0.90
Phosphorus (P)	0.008	0.010	0.03
Sulphur (S)	0.022	0.023	0.03

Note: AWS specification single values are maximums.

TYPICAL DIFFUSIBLE HYDROGEN*:

Hydrogen Equipment	75% Ar/25% CO ₂	90% Ar/10% CO ₂	AWS Spec
(GAS CHROMATOGRAPHY)	2.2 ml/100g	1.35 ml/100g	4.0 ml/100g Maximum

TYPICAL MECHANICAL PROPERTIES* (As Welded):

Mechanical Tests	75% Ar/25% CO ₂	90% Ar/10% CO ₂	AWS Spec
Tensile Strength	71,000 psi (545 MPa)	85,000 psi (586 MPa)	70,000 psi (480 MPa) Minimum
Yield Strength	67,000 psi (463 MPa)	73,000 psi (503 MPa)	58,000 psi (400 MPa) Minimum
Elongation in 2" (50 mm)	24%	27%	22% Minimum

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

CVN Temperatures	75% Ar/25% CO ₂	90% Ar/10% CO ₂	AWS Spec
CVN @-20°F (-30°C)	46 ft•lbs (62 Joules)	40 ft•lbs (54 Joules)	20 ft•lbs (27 Joules) Minimum
CVN @-40°F (-40°C)	42 ft•lbs (57 Joules)	38 ft•lbs (52 Joules)	Not Specified

*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 A5.18 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.



Diameter Inches (mm)	Weld Position	Amps	Volts	Wire Feed Speed		Deposition Rate		Contact Tip to Work Distance	
				(in/min)	(m/min)	(lbs/hr)	(kg/hr)	Inches	(mm)
0.045 (1.2)	Flat & Horizontal	200	25	225	(5.7)	6.0	(2.7)	5/8	(16)
0.045 (1.2)	Flat & Horizontal	250	27	300	(7.6)	8.1	(3.7)	5/8	(16)
0.045 (1.2)	Flat & Horizontal	300	28	435	(11.1)	12.0	(5.4)	3/4	(19)
0.045 (1.2)	Flat & Horizontal	350	30	570	(14.5)	16.0	(7.2)	3/4	(19)
0.052 (1.4)	Flat & Horizontal	250	26	215	(5.5)	7.7	(3.5)	3/4	(19)
0.052 (1.4)	Flat & Horizontal	300	30	325	(8.3)	11.9	(5.4)	1	(25)
0.052 (1.4)	Flat & Horizontal	350	32	425	(10.8)	15.9	(7.2)	1	(25)
0.052 (1.4)	Flat & Horizontal	400	34	515	(13.1)	19.2	(8.7)	1	(25)
1/16 (1.6)	Flat & Horizontal	250	28	145	(3.7)	6.6	(3.0)	3/4	(19)
1/16 (1.6)	Flat & Horizontal	300	30	210	(6.3)	10.0	(4.5)	1	(25)
1/16 (1.6)	Flat & Horizontal	350	31	260	(6.6)	12.5	(5.7)	1	(25)
1/16 (1.6)	Flat & Horizontal	400	33	320	(8.1)	15.6	(7.1)	1	(25)
1/16 (1.6)	Flat & Horizontal	450	34	390	(9.9)	19.2	(8.7)	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.**
- **See Above:** The information above was determined by welding using 90% Ar/10% CO₂ shielding gas with a flow rate between 35-50 cfh (14-24 l/min). For the 75-80% Ar/ Balance CO₂ shielding gas requirements of AWS A5.18/A5.18M increase listed voltages by 1-3 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)	33-lb. (15 kg) Spool with Vapor Corrosion Inhibitor	44-lb. (20 kg) Spool with Vapor Corrosion Inhibitor	750-lb. (340 kg) X-Pak with Vapor Corrosion Inhibitor
0.045 (1.2)	S278112-K49	—	S278112-K79
0.052 (1.4)	S278115-K49	—	S278115-K79
1/16 (1.6)	—	S278119-K44	—

CONFORMANCES AND APPROVALS:

- **AWS A5.18**, E70C-6M H4
- **AWS A5.18M**, E48C-6M H4
- **ASME SFA 5.18**, E70C-6M H4
- **CWB**, 75-95%Ar/Balance CO₂, E492C-6M-H4
- **EN 17632-A**: T46 4 M M 3 H5
- **CE Marked** per CPD 89/106/EEC (1.2 mm & 1.4 mm diameter electrodes)

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: 130513 (Replaces 130507)

