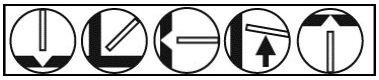
HOBALLOY®8018C2

AWS E8018-C2 H4

WELDING POSITIONS:



FEATURES:

- Low hydrogen, less than 4 ml/100 g
- Excellent arc characteristics
- Low spatter level
- Quick and easy slag removal
- Low moisture reabsorption
- Low smoke level

BENEFITS:

- Resistant to hydrogen-induced cracking
- Stable, easy to control arc
- Improves weld bead appearance, higher deposition
- Reduces clean-up time
- Prevents starting porosity
- Welder safety and comfort

APPLICATIONS:

- Shipbuilding
- Piping
- Storage tanks

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

RECOMMENDED WELDING TECHNIQUES:

GENERAL:	Electrode positive, work negative (DCEP)
ARC LENGTH:	Very short arc (less than half the diameter of the electrode)
FLAT:	Angle electrode 10°-15° from 90°
VERTICAL-UP:	Use weaving techniques
VERTICAL-DOWN:	Not recommended
OVERHEAD:	Use slight weaving motion within the puddle

STORAGE: After opening, store in holding oven (250°F to 300°F) until used to ensure low hydrogen weld deposit.

RECONDITIONING If electrode has been exposed to the atmosphere for an extended period of time, place in 250°F oven and Slowly increase temperature to 600°F; bake at 600°F for one (1) hour.

TYPICAL WELD METAL PROPERTIES* (Chem Pad):

Weld Metal Analysis (%)		AWS Spec
Carbon (C)	0.04	0.12 max
Manganese (Mn)	0.90	1.25 max
Phosphorus (P)	0.01	0.03 max
Sulphur (S)	0.01	0.03 max
Silicon (Si)	0.42	0.80 max
Nickel (Ni)	3.62	3.00 - 3.75

TYPICAL MECHANICAL PROPERTIES* (SR):

	Stress Relieved 1 hour at 1125°F	AWS Spec (minimum)
Tensile Strength	94,000 psi (647 MPa)	80,000 psi (550 MPa)
Yield Strength	83,000 psi (572 MPa)	67,000 psi (460 MPa)
Elongation % in 2”	29%	19%

TYPICAL CHARPY V-NOTCH IMPACT VALUES* (SR):

	Stress Relieved 1 hour at 1125°F	AWS Spec (min)
Avg. at -100°F (-73°C)	92 ft•lbs (125 Joules)	20 ft•lbs (27Joules)

TYPICAL DIFFUSIBLE HYDROGEN:

Hydrogen Equipment		AWS Spec
(GAS CHROMATOGRAPHY)	3.0 ml/100 g	—

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Diameter Inches	Diameter mm	Type of Power	Minimum Amps	Optimum* Amps	Maximum Amps
3/32	3.0	DCEP	70	100	110
1/8	3.2	DCEP	90	135	160
5/32	4.0	DCEP	130	170	220
1/4	6.4	DCEP	300	350	400

*For out of position welding, reduce amperages shown by 15%.

TYPICAL DEPOSITION DATA (at optimum):

Diameter Inches	Diameter mm	Type of Power	Amps	Deposition Rate lbs/hr
3/32	3.0	DCEP	100	2.47
1/8	3.2	DCEP	135	2.87
5/32	4.0	DCEP	170	3.84
1/4	6.4	DCEP	350	8.20

- **Maintaining a proper welding procedure - including pre-heat and interpass temperatures - may be critical depending on the type and thickness of steel being welded.**

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	Diameter mm	Length Inches	Length mm	10-lb Can	50-lb Can
3/32	2.4	14	355	—	S125232-035
1/8	3.2	14	355	S125244-033	S125244-035
5/32	4.0	14	355	S125251-033	S125251-035
1/4	6.4	18	457	—	S125281-035

CONFORMANCES AND APPROVALS:

- **AWS A5.5,** E8018-C2 H4
- **ASME SFA 5.5,** F-4, A-10, E8018-C2 H4
- **ABS**

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

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.

Revision Date: 160418 (Replaces 131001)
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HOBART FILLER METALS