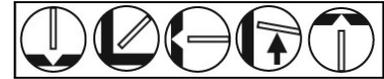


# HOBALLOY® 11018M



AWS 11018-M H4R

WELDING POSITIONS:



**FEATURES:**

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

**BENEFITS:**

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

**APPLICATIONS:**

- Reinforcing steel
- High-tensile steels

**TYPE OF CURRENT:** Direct Current Electrode Positive (DCEP) or AC

**STANDARD DIAMETERS:** 3/32" (2.4 mm), 1/8" (3.2 mm), 5/32" (4.0 mm), 3/16" (4.8 mm)

**RE-DRYING:** If exposed to atmosphere for extended periods, the electrode should be reconditioned for one (1) hour at 600°F.

**STORAGE:** After opening, store in holding oven (250°F to 300°F) until used.

**TYPICAL WELD METAL PROPERTIES\* (Chem Pad):**

Weld Metal Analysis (%)		AWS Spec
Carbon (C)	0.04	0.10 Maximum
Manganese (Mn)	1.57	1.30 - 1.80
Phosphorus (P)	0.015	0.03 Maximum
Sulphur (S)	0.010	0.03 Maximum
Silicon (Si)	0.34	0.60 Maximum
Chromium (Cr)	0.19	0.40 Maximum
Vanadium (V)	0.010	0.05 Maximum
Nickel (Ni)	1.99	1.25 - 2.50
Molybdenum (Mo)	0.29	0.25 - 0.50

**TYPICAL MECHANICAL PROPERTIES\* (As Welded):**

Mechanical Tests		AWS Spec
Tensile Strength	116,000 psi (799 MPa)	110,000 psi (760 MPa) Minimum
Yield Strength	107,000 psi (736 MPa)	98,000 - 110,000 psi (680-700 MPa)
Elongation % in 2" (50 mm)	22%	20%

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

		AWS Spec
Avg. at -60°F (-51°C)	56 ft •lbs (76 Joules)	20 ft •lbs (27 Joules)

**TYPICAL DIFFUSIBLE HYDROGEN\*:**

Hydrogen Equipment	
(GAS CHROMATOGRAPHY)	2.0 ml/100g

\*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 A5.5 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.

# HOBALLOY® 11018M

Diameter		Type of Power	Minimum Amps	Optimum* Amps	Maximum Amps
Inches	mm				
3/32	2.4	DCEP or AC	75	90	115
1/8	3.2	DCEP or AC	90	135	160
5/32	4.0	DCEP or AC	130	170	220
3/16	4.8	DCEP or AC	200	250	300

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

## TYPICAL DEPOSITION RATES (at Optimum):

Diameter		Type of Power	Amperage	Deposition Rate Lbs/Hr.
Inches	mm			
3/32	2.4	DCEP	90	2.0
1/8	3.2	DCEP	135	2.5
5/32	4.0	DCEP	170	3.9
3/16	4.8	DCEP	250	5.1

- **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		Length		10# Cans	50# Cans
Inches	mm	Inches	mm		
3/32	2.4	14"	355	S126032-033	S126032-035
1/8	3.2	14"	355	S126044-033	S126044-035
5/32	4.0	14"	355	S126051-033	S126051-035
3/16	4.8	14"	355	S126058-033	S126058-035

## CONFORMANCES AND APPROVALS:

- **AWS A5.5**, E11018M H4R
- **ASME SFA 5.5**, F-4, A-12, E11018M H4R
- **ABS**, AWS A5.5, E11018M H4R
- **DNV-GL 5 Y69 H5** (1/8" diameter)

**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](mailto: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](http://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](http://www.hobartbrothers.com).

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

Hobart and Hoballoy are registered trademarks of Hobart Brothers LLC, Troy, Ohio.

**Revision Date: 200918** (Replaces 200910)  
**613-M, INDEX**

