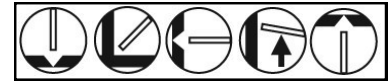


FabCO[®] Element[™] 71T1M



AWS A5.20: E71T-1M H8, E71T-9M H8, E71T-12M H8

WELDING POSITIONS:



FEATURES:

- Enhanced out of positional capability
- Low spatter and fume
- Extremely low manganese emissions
- Enhanced slag release

BENEFITS:

- Increased operator appeal
- Improved operator comfort and productivity
- Assists with conformance to environmental regulations
- Reduced clean-up time and risk of inclusions

APPLICATIONS:

- Shipbuilding
- Heavy equipment
- Structural steel
- General fabrication

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

SHIELDING GAS: 75% Argon (Ar)/25% Carbon Dioxide (CO₂) 35-50 cfh (14-24 l/min)

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 PROPERTIES* (Chem Pad):

Weld Metal Analysis	75% Ar/25% CO ₂	AWS Spec
Carbon (C)	0.052	0.120
Manganese (Mn)	0.210	1.600
Silicon (Si)	0.408	0.900
Sulphur (S)	0.012	0.030
Phosphorus (P)	0.011	0.030
Nickel (Ni)	0.454	0.500

Note: AWS specification single values are maximums.

TYPICAL DIFFUSIBLE HYDROGEN*:

Hydrogen Equipment	75% Ar/25% CO ₂	AWS Spec
(GAS CHROMATOGRAPHY)	6.0 ml/100 g	8.0 ml/100 g Maximum

TYPICAL MECHANICAL PROPERTIES* [Aged 48 Hrs. @ 220°F (104°C)]:

Mechanical Tests	75% Ar/25% CO ₂	AWS Spec
Tensile Strength	73,000 psi (503 MPa)	70,000-90,000 psi (490-620 MPa)
Yield Strength	62,000 psi (427 MPa)	58,000 psi (390 MPa) Minimum
Elongation % in 2" (50 mm)	29.0%	22.0% Minimum

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

CVN Temperatures	75% Ar/25% CO ₂	AWS Spec
Avg. at 0°F (-20°C)	84 ft•lbs (114 Joules)	20 ft•lbs (27 Joules) Minimum
Avg. at -20°F (-30°C)	65 ft•lbs (88 Joules)	20 ft•lbs (27 Joules) Minimum

*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 AWS A5.20 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.

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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 Positions	180	22	260	(6.6)	5.4	(2.4)	3/4	(19)
0.045	(1.2)	All Positions	230	24	380	(9.7)	7.9	(3.6)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	260	26	475	(12.1)	9.9	(4.5)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	305	27	590	(15.0)	12.2	(5.6)	3/4	(19)
0.052	(1.4)	All Positions	170	23	190	(4.8)	5.4	(2.4)	3/4	(19)
0.052	(1.4)	All Positions	250	25	275	(7.0)	7.8	(3.5)	3/4	(19)
0.052	(1.4)	Flat & Horizontal	270	26	320	(8.1)	8.5	(3.9)	3/4	(19)
0.052	(1.4)	Flat & Horizontal	350	29	570	(14.5)	14.5	(6.6)	1	(25)
1/16	(1.6)	All Positions	225	22	160	(4.1)	6.0	(2.7)	3/4	(19)
1/16	(1.6)	All Positions	275	24	225	(5.7)	8.5	(3.8)	1	(25)
1/16	(1.6)	Flat & Horizontal	290	25	240	(6.1)	9.0	(4.1)	1	(25)
1/16	(1.6)	Flat & Horizontal	405	29	400	(10.2)	15.0	(6.8)	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 75% Ar/25% CO₂ shielding gas with a flow rate between 35-50 cfh (14-24 l/min).
- **All positions include:** Flat, Horizontal, Vertical Up, and Overhead.

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		33-lb. (15kg) 12" (305mm) Fiber Spool
Inches	(mm)	
0.045	(1.2)	S294112-029
0.052	(1.4)	S294115-029
1/16	(1.6)	S294119-029

CONFORMANCES AND APPROVALS:

- **AWS A5.20**, E71T-1M H8, E71T-9M H8, E71T-12M H8
- **AWS A5.20M**, E491T-1M H8, E491T-9M H8, E491T-12M H8
- **ASME SFA 5.20**, E71T-1M H8, E71T-9M H8, E71T-12M H8
- **ABS**, 75% Ar/25% CO₂, 2YSA H10
- **CWB**, 75-85% Ar/Balance CO₂, E491T1-(M20, M21) A3-CS2-H8 [1.2mm - 1.6mm]

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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Revision Date: 210414 (Replaces 190716)

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