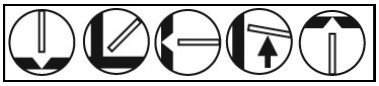
FabCO® XL-525

AWS A5. 20: E71T-1MJ H8, E71T-9MJ H8, E71T-12MJ H8
EN ISO 17632-A T42 4 P M21 2 H10

WELDING POSITIONS:



FEATURES:	BENEFITS:
• Excellent weld metal toughness, even at low temperatures	• Helps minimize the risk of cracking in demanding and critical applications
• Low fume generation rates	• Increases puddle visibility and operator appeal, helps improve the working environment
• Excellent arc characteristics and fast-freezing slag	• Provides excellent operator appeal, puddle control, and weld contour when welding in all positions
• Very low splatter	• Reduces clean-up time, helps improve productivity
• "H8" low-hydrogen weld deposit	• Helps minimize risk of hydrogen-induced cracking

APPLICATIONS:

- Single or multi-pass welding
- Structural and bridge fabrication
- Heavy equipment
- Non-alloyed and fine grain steel
- Ship and barge construction
- General fabrication
- Pressure vessels

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

SHIELDING GAS: 75-85% Argon (Ar)/ Balance Carbon Dioxide (CO_2), 35-50 cfh (17-24 l/min)

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

STANDARD DIAMETERS: 0.035" (0.9 mm), 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 (%)	75% Ar/25% CO_2	80% Ar/20% CO_2	AWS Spec
Carbon (C)	0.04	0.04	0.12
Manganese (Mn)	1.01	1.01	1.60
Silicon (Si)	0.27	0.30	0.90
Phosphorus (P)	0.010	0.007	0.030
Sulphur (S)	0.006	0.004	0.030
Nickel (Ni)	0.32	0.34	0.50

Note: AWS specification single values are maximums.

TYPICAL DIFFUSIBLE HYDROGEN*:

Hydrogen Equipment	75% Ar/25% CO_2	80% Ar/20% CO_2	AWS Spec
(GAS CHROMATOGRAPHY)	3.0 ml/100 g	3.6 ml/100 g	8.0 ml/100 g Maximum

TYPICAL MECHANICAL PROPERTIES* (As Welded):

Mechanical Tests	75% Ar/25% CO_2	80% Ar/20% CO_2	AWS Spec
Tensile Strength	80,000 psi (552 MPa)	81,000 psi (558 MPa)	70,000-90,000 psi (520-620 MPa)
Yield Strength	73,000 psi (503 MPa)	75,000 psi (517 MPa)	58,000 psi (400 MPa) Minimum
Elongation % in 2" (50 mm)	29%	28%	22% Minimum

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

CVN Temperatures	75% Ar/25% CO_2	80% Ar/20% CO_2	AWS Spec
Avg. at 0°F (-20°C)	100 ft•lbs (136 Joules)	120 ft•lbs (163 Joules)	20 ft•lbs (27 Joules) Minimum
Avg. at -20°F (-30°C)	85 ft•lbs (115 Joules)	—	20 ft•lbs (27 Joules) Minimum
Avg. at -40°F (-40°C)	70 ft•lbs (95 Joules)	75 ft•lbs (102 Joules)	20 ft•lbs (27 Joules) Minimum "J" Requirement

*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 the 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 Company.

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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)
0.035	(0.9)	All Position	125	23	265	(6.7)	3.3	(1.5)	1/2	(13)
0.035	(0.9)	All Position	175	26	455	(11.6)	5.9	(2.7)	1/2	(13)
0.035	(0.9)	All Position	200	27	540	(13.7)	6.8	(3.1)	1/2	(13)
0.035	(0.9)	Flat & Horizontal	225	28	640	(16.3)	8.3	(3.8)	1/2	(13)
0.035	(0.9)	Flat & Horizontal	250	29	780	(19.8)	10.2	(4.6)	1/2	(13)
0.045	(1.2)	All Position	100	24	220	(5.6)	4.4	(2.0)	5/8	(16)
0.045	(1.2)	All Position	200	25	370	(9.4)	7.6	(3.4)	3/4	(19)
0.045	(1.2)	All Position	210	25	430	(10.9)	9.0	(4.1)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	250	27	530	(13.5)	10.9	(4.9)	3/4	(19)
0.052	(1.4)	All Position	175	23	160	(4.1)	4.2	(1.9)	3/4	(19)
0.052	(1.4)	All Position	200	26	225	(5.7)	6.1	(2.8)	3/4	(19)
0.052	(1.4)	All Position	250	28	320	(8.1)	8.7	(3.9)	3/4	(19)
0.052	(1.4)	Flat & Horizontal	325	29	435	(11.0)	11.9	(5.4)	3/4	(19)
0.052	(1.4)	Flat & Horizontal	400	35	585	(14.9)	16.0	(7.3)	3/4	(19)
1/16	(1.6)	All Position	250	24	180	(4.6)	6.6	(3.0)	3/4	(19)
1/16	(1.6)	All Position	275	25	210	(5.3)	7.9	(3.6)	3/4	(19)
1/16	(1.6)	Flat & Horizontal	350	27	290	(7.4)	11.0	(5.0)	3/4	(19)
1/16	(1.6)	Flat & Horizontal	400	28	410	(10.4)	15.8	(7.2)	3/4	(19)
1/16	(1.6)	Flat & Horizontal	475	29	530	(13.5)	20.3	(9.2)	3/4	(19)

- **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:** This information was determined by welding using 75% Argon (Ar)/25% Carbon Dioxide (CO_2) shielding gas with a flow rate between 35-50 cfh (17-24 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 Inches	(mm)	33-lb. (15kg) Spool	60-lb. (27.2kg) Coil	600-lb. (272.2kg) S-Pak
0.035	(0.9)	S283208-029	—	—
0.045	(1.2)	S283212-029	—	S283212-056
0.052	(1.4)	S283215-029	—	—
1/16	(1.6)	S283219-029	S283219-002	—

CONFORMANCES AND APPROVALS:
- **AWS A5.20,** E71T-1MJ H8, E71T-9MJ H8, E71T-12MJ H8
- **AWS A5.20M,** E491T-1MJ H8, E491T-9MJ H8, E491T-12MJ H8
- **ASME SFA 5.20,** E71T-1MJ H8, E71T-9MJ H8, E71T-12MJ H8
- **ABS,** 75% Ar/25% CO_2, 3YSA
- **ABS,** 80% Ar/20% CO_2, 3YSA (Guaranteed 34J CVN toughness @ -40°C)
- **Bureau Veritas,** 80% Ar/20% CO_2, S3YM
- **CWB,** 75-85% Ar/Balance CO_2, E491T-12MJ-H4, (0.9 mm – 1.6 mm diameters)
- **DNV-GL,** 75-80% Ar/Balance CO_2, III Y40MS
- **EN ISO 17632-A**: T 42 4 P M21 2 H10
- **Lloyd's Register,** 80% Ar/20% CO_2, 3YS H15
- **AWS D1.8 Conformance,** 75% Ar/25% CO_2, (0.052" 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

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 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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HOBART FILLER METALS