

AWS A5. 20: E70T-5MJ H4 EN 17632-A: T 46 6 B M 3 H5

WELDING POSITIONS:

Features:	BENEFITS:	
 Seamless flux-cored electrode Low hydrogen weld deposit Good impact toughness 	 Very low moisture reabsorption aft Minimizes risk of hydrogen-induce Minimizes risk of cracking in critica 	d cracking
APPLICATIONS:		

- · Non-alloyed and fine grain steel
- Heavy fabrication

- Single or multi-pass welding ٠ Heavy equipment
- Equipment repairs and modifications
- SLAG SYSTEM: Slow-freezing, basic-type, flux-cored wire

SHIELDING GAS: 75-82% Argon (Ar)/Balance Carbon Dioxide (CO2), 35-50 cfh (17-24 l/min)

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

Standard Diameters: 0.045" (1.2 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 (%)	80% Ar/20% CO ₂	AWS Spec
Carbon (C)	0.10	0.12
Manganese (Mn)	1.24	1.75
Silicon (Si)	0.25	0.90
Phosphorus (P)	0.014	0.030
Sulphur (S)	0.012	0.030
Nickel (Ni)	0.032	0.50
Copper (Cu)	0.12	0.35

Note: AWS specification single values are maximums. **TYPICAL DIFFUSIBLE HYDROGEN*:**

Hydrogen Equipment	80% Ar/20% CO ₂	AWS Spec
(Gas Chromatography)	2.5 ml/100 g	4.0 ml/100 g Maximum

TYPICAL MECHANICAL PROPERTIES* (As Welded):

Mechanical Tests	80% Ar/20% CO ₂	AWS Spec
Tensile Strength	83,000 psi (572 MPa)	70,000-95,000 psi (490-670 MPa)
Yield Strength	70,400 psi (485 MPa)	58,000 psi (390 MPa) Minimum
Elongation % in 2" (50 mm)	28%	22% Minimum

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

CVN Temperatures	80% Ar/20% CO ₂	AWS Spec
Avg. at -20°F (-30°C)	94 ft•lbs (127 Joules)	20 ft•lbs (27 Joules) Minimum
Avg. at -40°F (-40°C)	75 ft•lbs (101 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.

MEGAFIL[®] 731 B

Diam Inches	eter (mm)	Weld Position	Amps	Volts		e-Feed beed (m/min)		osition ate (kg/hr)	Contac Work D Inches	t Tip to istance (mm)
0.045 0.045 0.045	(1.2) (1.2) (1.2)	Flat & Horizontal Flat & Horizontal Flat & Horizontal	175 200 225	24 26 27	226 278 327	(5.7) (7.1) (8.3)	5.0 6.1 7.2	(2.2) (2.8) (3.3)	5/8 3/4 3/4	(16) (19) (19)
1/16 1/16 1/16 1/16 1/16	(1.6) (1.6) (1.6) (1.6) (1.6)	Flat & Horizontal Flat & Horizontal Flat & Horizontal Flat & Horizontal Flat & Horizontal Flat & Horizontal	250 275 300 350 400	26.5 27 27.5 28 29	172 204 235 298 361	(4.4) (5.2) (6.0) (7.6) (9.2)	6.7 8.0 9.2 11.7 14.2	(3.1) (3.6) (4.2) (5.3) (6.4)	3/4 1 1 1 1	(19) (25) (25) (25) (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.

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)		35-lb. (15.9kg) Spool
0.045	(1.2)	73115B
1/16	(1.6)	73133B

CONFORMANCES AND APPROVALS:

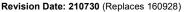
- AWS A5.20, E70T-5MJ H4
- AWS A5.20M, E490T-5MJ H4
- ASME SFA 5.20, E70T-5MJ H4
- DNV-GL, 82% Ar/18% CO2, IV Y40MS (H5)
- EN 17632-A: T 46 6 B M 3 H5
- Lloyd's Register, 82% Ar/18% CO2 5Y46S H5
- ABS, 82% Ar/18% CO2, 4YSA, 4Y400SA H5

TECHNICAL QUESTIONS? For technical support of **Hobart MEGAFIL products, visit** <u>www.HobartBrothers.com/MEGAFIL</u> OR contact the Applications Engineering department by phone toll-free at 1-800-532-2618 or by e-mail at <u>Applications.Engineering@HobartBrothers.com</u> **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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[•] See Above: This information was determined by welding using 75% Argon (Ar)/25% Carbon Dioxide (CO₂) shielding gas with a flow rate between 35-50 cfh (17-24 l/min).