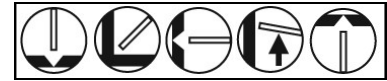


# FabCO<sup>®</sup> Hornet



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

**WELDING POSITIONS:**



**FEATURES:**

- Superior penetration profiles
- Easy slag removal and low spatter levels
- Good impact strength at low temperatures
- Low fume generation rate

**BENEFITS:**

- Promotes high-quality welds
- Reduces clean-up time, minimizes risk of inclusions
- Resists cracking in severe applications
- Increases operator appeal, improves the working environment

**APPLICATIONS:**

- General fabrication
- Single and multi-pass welding
- Structural fabrication
- Pipe weldments
- Non-alloyed and fine grain steels
- Pressure and storage vessels

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

**SHIELDING GAS:** 100% Carbon Dioxide (CO<sub>2</sub>), 75-80% Argon (Ar)/Balance Carbon Dioxide (CO<sub>2</sub>), 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 (%)	100% CO <sub>2</sub>	75% Ar/25% CO <sub>2</sub>	AWS Spec
Carbon (C)	0.030	0.02	0.12
Manganese (Mn)	1.29	1.52	1.75
Silicon (Si)	0.30	0.40	0.90
Sulphur (S)	0.005	0.004	0.03
Phosphorus (P)	0.011	0.008	0.03

**Note:** AWS specification single values are maximums.

**TYPICAL DIFFUSIBLE HYDROGEN\*:**

Hydrogen Equipment	100% CO <sub>2</sub>	75% Ar/25% CO <sub>2</sub>	AWS Spec
(GAS CHROMATOGRAPHY)	6.3 ml/100g	7.5 ml/100g	8.0 ml/100g Maximum

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

Mechanical Tests	100% CO <sub>2</sub>	75% Ar/25% CO <sub>2</sub>	AWS Spec
Tensile Strength	86,000 psi (593 MPa)	93,000 psi (642 MPa)	70,000 - 95,000 psi (490-670 MPa)
Yield Strength	81,000 psi (558 MPa)	87,000 psi (600 MPa)	58,000 psi (390 MPa) Minimum
Elongation % in 2" (50 mm)	29%	26%	22% Minimum

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

CVN Temperatures	100% CO <sub>2</sub>	75% Ar/25% CO <sub>2</sub>	AWS Spec
Avg. at 0°F (-20°C)	93 ft•lbs (126 Joules)	80 ft•lbs (108 Joules)	20 ft•lbs (27 Joules) Minimum
Avg. at -20°F (-30°C)	52 ft•lbs (71 Joules)	75 ft•lbs (102 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 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 LLC.

# FabCO<sup>®</sup> Hornet

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 Position	170	23	260	(6.6)	4.4	(2.0)	5/8	(16)
0.045	(1.2)	All Position	185	24	310	(7.9)	6.1	(2.7)	5/8	(16)
0.045	(1.2)	All Position	200	25	340	(7.7)	6.2	(2.8)	5/8	(16)
0.045	(1.2)	All Position	220	25	383	(9.7)	7.5	(3.4)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	260	27	500	(12.7)	8.9	(4.0)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	300	29	590	(15.0)	12.3	(5.6)	3/4	(19)
1/16	(1.6)	All Position	215	24	160	(4.1)	5.6	(2.5)	1	(25)
1/16	(1.6)	All Position	245	25	189	(4.8)	6.5	(3.0)	1	(25)
1/16	(1.6)	All Position	275	26	225	(5.7)	7.8	(3.5)	1	(25)
1/16	(1.6)	Flat & Horizontal	280	27	237	(6.0)	9.3	(4.2)	1	(25)
1/16	(1.6)	Flat & Horizontal	360	28	328	(8.4)	12.0	(5.4)	1	(25)
1/16	(1.6)	Flat & Horizontal	400	30	430	(10.9)	16.5	(7.5)	1	(25)
1/16	(1.6)	Flat & Horizontal	425	31	500	(12.7)	19.0	(8.6)	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:** This information was determined by welding using 100% CO<sub>2</sub> shielding gas with a flow rate between 35-50 cfh (17-24 l/min). When welding using 75% Ar/25% CO<sub>2</sub> shielding gas, reduce voltage by 1 volt.
- **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)	44-lb. (20.0kg)	60-lb. (27.2kg)
Inches	(mm)	Spool	Spool	Coil
0.045	(1.2)	S246212-029	S246212-044	—
1/16	(1.6)	S246219-029	—	S246219-002

#### CONFORMANCES AND APPROVALS:

- **AWS A5.20**, E71T-1C H8, E71T-1M H8, E71T-9C H8, E71T-9M H8,
- **AWS A5.20M**, E491T-1C H8, E491T-1M H8, E491T-9C H8, E491T-9M H8
- **ASME SFA 5.20**, E71T-1C H8, E71T-1M H8, E71T-9C H8, E71T-9M H8
- **ABS**, 100% CO<sub>2</sub>, 3YSA H10, 80% Ar/20%CO<sub>2</sub>, 3YSA H10
- **CWB**, 100% CO<sub>2</sub>, E491T1-C1A3-CS1-H8 (E491T-9-H8)
- **CWB**, 75-80% Ar/CO<sub>2</sub> Balance, E491T1-M21A3-CS1-H8 (E491T-9M-H8)
- **AWS D1.8 Conformance**, 100% CO<sub>2</sub> & 75% Ar/25% CO<sub>2</sub> [0.045" (1.2 mm) & 1/16" (1.6 mm) diameter electrodes]

**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.

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Revision Date: 190315 (Replaces 181031)

636-ZZ5, INDEX

