# FabCO® Triple 8



AWS A5.20: E71T-1CJ H8, E71T-9CJ H8

AWS A5.29: E81T1-GC H8

### **WELDING POSITIONS:**



#### **FEATURES:**

## • Fast-freezing slag

- Performance optimized for 100% carbon dioxide shielding gas
- · Good slag removal
- · "H8" low-hydrogen weld deposit
- Excellent impact toughness at low-temperatures
- Provides good puddle control and bead profile when welding out-of-position
- Improves operator appeal and provides optimal mechanical properties
- Reduces clean-up time and minimizes risk of inclusions
- Helps minimize the risk of hydrogen-induced cracking
- Helps minimize the risk of cracking in critical applications

#### **APPLICATIONS:**

- Single or multi-pass welding
- General fabrication
- Heavy equipment Offshore

- Structural and bridge fabrication
- Railcar
- Shipbuilding

**BENEFITS:** 

• Pressure and storage vessels

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

SHIELDING GAS: 100% 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), 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 (%)	100% CO <sub>2</sub>	AWS A5.20	AWS A5.29
Carbon (C)	0.02	0.12	Not Specified
Manganese (Mn)	1.14	1.75	0.50 Minimum <sup>‡</sup>
Silicon (Si)	0.49	0.90	1.00
Phosphorus (P)	0.009	0.030	0.030
Sulphur (S)	0.008	0.030	0.030
Nickel (Ni)	0.017	0.50	0.50 Minimum <sup>‡</sup>
Chromium (Cr)	0.033	0.20	0.30 Minimum <sup>‡</sup>
Molybdenum (Mo)	0.006	0.30	0.20 Minimum <sup>‡</sup>
Vanadium (V)	0.022	0.08	0.10 Minimum <sup>‡</sup>

Note: AWS specification single values are maximums.

## **TYPICAL DIFFUSIBLE HYDROGEN\*:**

Hydrogen Equipment	100% CO <sub>2</sub>	AWS Spec
(GAS CHROMATOGRAPHY)	4.0 ml/100 g	8.0 ml/100 g Maximum

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

Mechanical Tests	100% CO <sub>2</sub>	AWS A5.20	AWS A5.29
Tensile Strength	80,000 psi (552 MPa)	70,000-95,000 psi (480-660 MPa)	80,000-100,000 psi (552-690 MPa)
Yield Strength	73,000 psi (503 MPa)	58,000 psi (400 MPa) Minimum	68,000 psi (469 MPa) Minimum
Elongation % in 2" (50 mm)	27%	24% Minimum	19% Minimum

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

CVN Temperatures	100% CO <sub>2</sub>	AWS A5.20	AWS A5.29
Avg. at 0°F (-20°C)	95 ft•lbs (129 Joules)	20 ft•lbs (27 Joules) Minimum	Not Specified
Avg. at -20°F (-30°C)	75 ft•lbs (102 Joules)	20 ft•lbs (27 Joules) Minimum	Not Specified
Avg. at -40°F (-40°C)	65 ft•lbs (88 Joules)	20 ft•lbs (27 Joules) Minimum "J" Requirement	Not Specified

<sup>\*</sup>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.

<sup>\*</sup>Note: Aws A5.29/A5.29M requires at least one (but not all) of the elements to meet the minimum composition values.

# FabCO® Triple 8

					Wire-Feed		Depo	sition	Conta	ct Tip to				
Dia	meter	Weld			Speed		Speed		Speed		Ra	ate	Work	Distance .
Inches	(mm)	Position	Amps	Volts	in/min	(m/min)	lbs/hr	(kg/hr)	Inches	(mm)				
0.045	(1.2)	All Position	100	23	140	(3.6)	2.7	(1.2)	1/2	(13)				
0.045	(1.2)	All Position	150	24	215	(5.5)	4.2	(1.9)	5/8	(16)				
0.045	(1.2)	All Position	200	26	310	(7.9)	6.2	(2.8)	3/4	(19)				
0.045	(1.2)	Flat & Horizontal	250	29	445	(11.3)	8.9	(4.1)	3/4	(19)				
0.045	(1.2)	Flat & Horizontal	300	31	600	(15.2)	12.3	(5.6)	3/4	(19)				
0.052	(1.4)	All Position	125	22	150	(3.8)	3.7	(1.7)	5/8	(16)				
0.052	(1.4)	All Position	175	23	190	(4.8)	4.0	(1.8)	5/8	(16)				
0.052	(1.4)	All Position	200	26	250	(6.4)	5.8	(2.6)	3/4	(19)				
0.052	(1.4)	All Position	250	27	345	(8.8)	8.2	(3.7)	3/4	(19)				
0.052	(1.4)	Flat & Horizontal	300	29	450	(11.4)	10.8	(4.9)	3/4	(19)				
0.052	(1.4)	Flat & Horizontal	350	33	580	(14.7)	14.4	(6.5)	3/4	(19)				
1/16	(1.6)	All Position	150	23	120	(3.0)	4.0	(1.8)	5/8	(16)				
1/16	(1.6)	All Position	175	24	165	(4.2)	5.8	(2.6)	3/4	(19)				
1/16	(1.6)	All Position	225	26	235	(6.0)	7.9	(3.6)	3/4	(19)				
1/16	(1.6)	All Position	275	27	245	(6.2)	8.6	(3.9)	1	(25)				
1/16	(1.6)	Flat & Horizontal	300	28	295	(7.5)	10.5	(4.8)	1	(25)				
1/16	(1.6)	Flat & Horizontal	360	29	365	(9.3)	13.3	(6.0)	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).
- 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.

Diam Inches	eter (mm)	33-lb. (15kg) Spool	60-lb. (27.2kg) Coil	400-lb. (181.4kg) X-Pak	600-lb. (272.2kg) X-Pak
0.045	(1.2)	S288812-K29	_	_	1
0.052	(1.4)	S288815-K29	_	S288815-K64	
1/16	(1.6)	S288819-K29	S288819-K02	ı	S288819-K56

#### **CONFORMANCES AND APPROVALS:**

- AWS A5.20, E71T-1CJ H8, E71T-9CJ H8
- AWS A5.20M, E491T-1CJ H8, E491T-9CJ H8
- ASME SFA 5.20, E71T-1CJ H8, E71T-9CJ H8
- AWS A5.29, E81T1-GC H8
- AWS A5.29M, E551T1-GC H8
- **ASME SFA 5.29,** E81T1-GC H8
- ABS, 100% CO<sub>2</sub>, 4YSA H5
- CWB, 100% CO<sub>2</sub>, E491T1-C1A3-CS1-H8 (E491T-9-H8)

**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 <a href="Applications.Engineering@hobartbrothers.com">Applications.Engineering@hobartbrothers.com</a>

#### 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

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.

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

Revision Date: 220114 (Replaces 210416)

