



Product: FabCO TR-70
Diameter: 1/16"
Shielding Gas: C1 (100% CO2)
Current/Polarity: DCEP
Classification: E70T-1C H8, E70T-9C H8
Specification: AWS A5.20/A5.20M:2005
Test Completed: 10/18/2019

Certificate of Conformance

For AWS D1.8/D1.8M, Seismic Supplement

This is to certify that the product named is of the same classification, manufacturing process, and material requirements as the material, which was used for the test which was concluded on the date shown, the results of which are shown below. All test required by the code or specifications were performed at that time and the material tested met all requirements. The product was manufactured and supplied by the Quality System Program of Hobart Brothers, which meets the requirements of ISO 9001:2015, ANSI/AWS A5.01, and other specification and Military requirements, as applicable.

Test Settings	High Heat Input	Low Heat Input	Lot- # C000251805321	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	73.0 kJ/in	28.7 kJ/in	Mechanical Properties		73.0 kJ/in	28.7 kJ/in
			Test Reference #		PD8116	PD8115
Voltage	28	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	77,700 67,200 26 111	84,100 77,300 26 69
Current (amps)	300	230				
WFS (ipm)	285	190				
Travel Speed (ipm)	6.9	12.5				
Stick Out	3/4"	3/4"				
# of passes	8	19				
# of layers	4	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # Z025131224322	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	73.7 kJ/in	29.0 kJ/in	Mechanical Properties		73.7 kJ/in	29.0 kJ/in
			Test Reference #		PD2350	PD2349
Voltage	28	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	82,100 69,600 29 93	88,200 80,800 25 82
Current (amps)	285	232				
WFS (ipm)	285	185				
Travel Speed (ipm)	6.5	12.5				
Stick Out	1"	1"				
# of passes	8	19				
# of layers	4	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # V022810909391	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	82.6 kJ/in	30.1 kJ/in	Mechanical Properties		82.6 kJ/in	30.1 kJ/in
			Test Reference #		PC1809	PC1850
Voltage	28	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	79,700 66,200 28 68	92,100 86,100 25 41
Current (amps)	305	235				
WFS (ipm)	298	185				
Travel Speed (ipm)	6.2	12.2				
Stick Out	3/4"	3/4"				
# of passes	8	19				
# of layers	4	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Diffusible Hydrogen - Tested in accordance with AWS A5.20/A5.20M, Clause 16 & Extended Exposure - in accordance with AWS D1.8/D1.8M

Condition	Lot - #	Test Reference #	Average (ml/100g)
As Received	C000251805321	HB3074	4.2 (ml/100g)
7 Day Exposure	C000251805321	HB3172	9.9 (ml/100g)

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David A. Thomas, Quality Assurance Representative



Product: FabCO TR-70
Diameter: 3/32"
Shielding Gas: C1 (100% CO2)
Current/Polarity: DCEP
Classification: E70T-1C H8, E70T-9C H8
Specification: AWS A5.20/A5.20M:2005
Test Completed: 10/18/2019

Certificate of Conformance
For AWS D1.8/D1.8M, Seismic Supplement

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Test Settings	High Heat Input	Low Heat Input	Lot- # C003051514302	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80.0 kJ/in	30.9 kJ/in	Mechanical Properties		80.0 kJ/in	30.9 kJ/in
			Test Reference #		PD8169	PD8170
Voltage	32	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	78,800 65,500 30 76	87,200 79,600 25 61
Current (amps)	450	300				
WFS (ipm)	180	108				
Travel Speed (ipm)	10.8	15.1				
Stick Out	1"	1"				
# of passes	8	17				
# of layers	5	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # Z003331507301	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80.3 kJ/in	30.3 kJ/in	Mechanical Properties		80.3 kJ/in	30.3 kJ/in
			Test Reference #		PD2352	PD2348
Voltage	32	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	81,800 68,300 29 54	90,600 85,200 27 90
Current (amps)	435	299				
WFS (ipm)	180	108				
Travel Speed (ipm)	10.4	15.4				
Stick Out	1"	1"				
# of passes	7	17				
# of layers	4	8				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # V036151916041	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80.4 kJ/in	32.0 kJ/in	Mechanical Properties		80.4 kJ/in	32.0 kJ/in
			Test Reference #		PC1409	PC1408
Voltage	32	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	83,400 71,000 27 84	89,300 81,000 26 81
Current (amps)	450	300				
WFS (ipm)	175	105				
Travel Speed (ipm)	10.84	14.67				
Stick Out	1"	1"				
# of passes	10	18				
# of layers	5	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Diffusible Hydrogen - Tested in accordance with AWS A5.20/A5.20M, Clause 16
& Extended Exposure - in accordance with AWS D1.8/D1.8M

Condition	Lot - #	Test Reference #	Average (ml/100g)
As Received	C003051514302	HB3330	4.6 (ml/100g)
7 Day Exposure	C003051514302	HB3415	5.2 (ml/100g)

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David A. Thomas, Quality Assurance Representative



Product: FabCO TR-70
Diameter: 5/64"
Shielding Gas: C1 (100% CO2)
Current/Polarity: DCEP
Classification: E70T-1C H8, E70T-9C H8
Specification: AWS A5.20/A5.20M:2005
Test Completed: 10/18/2019

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Test Settings	High Heat Input	Low Heat Input	Lot- # B024530813303	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80.7 kJ/in	31.6 kJ/in	Mechanical Properties		80.7 kJ/in	31.6 kJ/in
			Test Reference #		PD8119	PD8121
Voltage	30.5	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	89,300 77,600 25 57	86,800 776200 27 75
Current (amps)	450	290				
WFS (ipm)	280	150				
Travel Speed (ipm)	10.2	14.3				
Stick Out	1"	1"				
# of passes	7	17				
# of layers	4	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # Z028041021391	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	84.3 kJ/in	31.0 kJ/in	Mechanical Properties		84.3 kJ/in	31.0 kJ/in
			Test Reference #		PD2419	PD2417
Voltage	30.5	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	87,700 73,400 27 43	95,400 87,200 25 73
Current (amps)	447	290				
WFS (ipm)	296	157				
Travel Speed (ipm)	9.7	14.6				
Stick Out	3/4"	1"				
# of passes	7	17				
# of layers	4	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # V036080802301	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	84.2 kJ/in	29.0 kJ/in	Mechanical Properties		84.2 kJ/in	29.0 kJ/in
			Test Reference #		PC1487	PC1488
Voltage	30	25.5	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	88,400 75,000 27 82	89,000 81,800 26 85
Current (amps)	450	300				
WFS (ipm)	270	150				
Travel Speed (ipm)	9.64	15.85				
Stick Out	1"	1"				
# of passes	8	17				
# of layers	4	6				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Diffusible Hydrogen - Tested in accordance with AWS A5.20/A5.20M, Clause 16 & Extended Exposure - in accordance with AWS D1.8/D1.8M

Condition	Lot - #	Test Reference #	Average (ml/100g)
As Received	B024530813303	HB3329	5.3 (ml/100g)
7 Day Exposure	B024530813303	HB3414	6.2 (ml/100g)

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