



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: 10/24/2022

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	77,700	84,100	
Current (amps)	300	230			58,000	67,200	77,300
WFS (ipm)	285	190			22	26	26
Travel Speed (ipm)	6.9	12.5			40	111	69
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	82,100	88,200	
Current (amps)	285	232			58,000	69,600	80,800
WFS (ipm)	285	185			22	29	25
Travel Speed (ipm)	6.5	12.5			40	93	82
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 - # G00030	AWS D1.8 Requirements	High Heat Input	Low Heat Input	
	75.5 kJ/in	28.5 kJ/in	Mechanical Properties		75.5 kJ/in	28.5 kJ/in	
			Test Reference #		PE4663	PE4664	
Voltage	28	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000	76,100	86,200	
Current (amps)	285	232			58,000	65,200	80,600
WFS (ipm)	285	185			22	32	27
Travel Speed (ipm)	6.5	12.5			40	114	50
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	G00030	HB6157	7.0 (ml/100g)
7 Day Exposure	G00030	HB6203	9.1 (ml/100g)

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James Owens, Quality Assurance Specialist



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: 10/21/2022

Certificate of Conformance

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

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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)	70,000	89,300	86,800
Current (amps)	450	290	Yield Strength (psi)	58,000	77,600	776200
WFS (ipm)	280	150	Elongation (%)	22	25	27
Travel Speed (ipm)	10.2	14.3	Average Charpy V-notch			
Stick Out	1"	1"	Impact Properties ft•lbs @	40	57	75
# of passes	7	17	+70 °F			
# 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)	70,000	87,700	95,400
Current (amps)	447	290	Yield Strength (psi)	58,000	73,400	87,200
WFS (ipm)	296	157	Elongation (%)	22	27	25
Travel Speed (ipm)	9.7	14.6	Average Charpy V-notch			
Stick Out	3/4"	1"	Impact Properties ft•lbs @	40	43	73
# of passes	7	17	+70 °F			
# 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- # G00114	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80.0 kJ/in	32.9 kJ/in	Mechanical Properties		80.0 kJ/in	32.9 kJ/in
			Test Reference #		PE4810	PE4811
Voltage	30.5	26	Tensile Strength (psi)	70,000	84,000	85,500
Current (amps)	447	301	Yield Strength (psi)	58,000	70,800	80,300
WFS (ipm)	296	157	Elongation (%)	22	25	26
Travel Speed (ipm)	9.7	14.3	Average Charpy V-notch			
Stick Out	1"	1"	Impact Properties ft•lbs @	40	57	70
# of passes	8	18	+70 °F			
# of layers	4	8				
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	G00114	HB6159	6.4 (ml/100g)
7 Day Exposure	G00114	HB6204	8.6 (ml/100g)

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James Owens, Quality Assurance Specialist



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: 10/21/2022

Certificate of Conformance

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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	78,800	87,200												
Current (amps)	450	300					58,000	65,500	79,600									
WFS (ipm)	180	108								22	30	25						
Travel Speed (ipm)	10.8	15.1											40	76	61			
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	81,800	90,600												
Current (amps)	435	299					58,000	68,300	85,200									
WFS (ipm)	180	108								22	29	27						
Travel Speed (ipm)	10.4	15.4											40	54	90			
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- # F027330928	AWS D1.8 Requirements	High Heat Input	Low Heat Input												
	80.3 kJ/in	31.6 kJ/in	Mechanical Properties		80.3 kJ/in	31.6 kJ/in												
			Test Reference #		PE4902	PE4825												
Voltage	31	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000	80,800	84,600												
Current (amps)	450	300					58,000	66,900	78,000									
WFS (ipm)	180	100								22	27	27						
Travel Speed (ipm)	10.4	14.8											40	63	75			
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																

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	F027330928	HB5397	7.7 (ml/100g)
7 Day Exposure	F027330928	HB6197	10.0 (ml/100g)

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