



















1036 Industrial Park Dr., Victoria, Texas 77905 Phone: (36I) 572-4040 • Fax: (36I) 573-045I www.diamondfiberglass.com

## QUALITY ASSURANCE DATA BOOK

**Customer:** Process Systems & Components

Purchase Order: 190018-6259 / 6260 Serial Number: 8925-19-35668

> The following information is certified as built.





(361) 572-4040 www.diamondfiberglass.com

- Custom Engineered FRP Vessels
- Corrosion Service Specialists
   Corrosion Service Specialists
   FRP Storage Tanks
   FRP Process Vessels
   ASME RTP-1 Certified
   FRP Tank Installations



(281) 991-1211 www.diamondservices.com

- Non-Metallic Field Services

- Non-Metallic Field Services
   Dual Lam / FRP Piping
   FRP Pipe Installation
   FRP Tank Repair / Modification
   FRP Tank Inspections
   FRP Tank Relines
- Corrosion Coating Application

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- Inspection and Test Plan
- Post Cure
- Nozzle and Fitting Inspection
- Visual Laminate Inspection
- CERTIFICATE OF CONFORMANCE
- Hydrotest
- Barcol Non-RTP
- Loading Photos
- Minor TC INT BTM KNUCKLE
- Minor TC INT BTM FLAT
- Minor TC EXT BTM
- Minor TC DOME
- Minor TC SW

DIAMOND FIBERGLASS	IN	SPECTION	ON & TEST PL	.AN	
CUSTOMER: Process Systems & Components	DRAWIN	G NUM	BER:	35668	REV: 3
PO NUMBER: 190018-6259 / 6260	TANK TA	G NUM	BER:	F-435	
DFG ORDER: 8925	TANK SE	RIAL NU	JMBER:	8925-19-35668	
	•	HOLD	POINT CODES	i	
I INSPECTION R	DOCUME	NT REV	'IEW	N/A	NOT APPLICABLE
W CUSTOMER WITNESS H	HOLD			SD	SUPPORTING DOCUMENTATION
	•			SIGN OFF	AND DATE
ITP PLAN REQUIRMENTS	CODE		IAMOND BERGLASS	CUSTOMER QA	INSPECTOR NOTES
1.0 DOCUMENT REVIEW-PRE PRODUCTION					
1.1 REVIEW CURRENT PURCHASE ORDER	R	CS.	11-15-19		
1.2 REVIEW APPROVED DRAWINGS AND QA REQUIREMENTS	i H	CS	11-15-19		
2.0 IN PROCESS INSPECTION OF MAJOR COMPONENT	TS				
2.1 RESIN SYSTEM CONFORMS TO DRAWING	DR, I	CS	11-25-19		
2.2 LAMINATE QUALITY	I	CS	12-2-19		
2.3 PART CONFORMS TO SPECIFICATONS-DIMENSIONS	ı	ĊŠ	12-2-19		
3.0 INSPECTION OF ASSEMBLED TANK COMPONENTS	S				
3.1 HEIGHT, WIDTH AND ROUNDNESS INSPECTION	- 1	Ĉħ	12-9-19		
3.2 NOZZLE SIZE, DIMENSIONS AND ELEVATIONS	- 1	CS.	12-31-19	•	
3.3 VISUAL INSPECTION OF ALL SECONDARY LAY UPS	1	BC	12-26-19		
3.4 LIFT LUGS AND TIE DOWNS MEET SPECIFICATIONS	- 1	CS	12-31-19		
3.5 LADDERS AND HANDRAILS FIT UP WITH PICTURES	1	ČS.	NIA		
4.0 SPECIAL MEASURING & TESTING EQUIPMENT CA	LIBRATIONS	S			
4.1 ULTRA SONIC THICKNESS PROPERLY CALIBRATED	- 1	CS	weekly		
4.2 BARCOL HARDNESS METER PROPERLY CALIBRATED	I	CS.	weekh		
5.0 FUNTIONAL TESTING			/		
5.1 THICKNESS MEETS ENGINEERING SPECIFICATIONS	1	CS	12-2-19		
5.2 ACETONE SENSITIVITY TEST PERFORMED	- 1	CS	12-2-19		
5.3 BARCOL HARDNESS PERFORMED	1	CS	12-2-19		
5.4 POST CURE COMPLETED (IF REQUIRED)	- 1	BC	12-26-19		
5.5 HYDROSTATIC LEAK TEST COMPLETED (IF REQUIRED)	Н, І	BC	(2-27-19		
6.0 FINAL INSPECTION					
6.1 TANK EXTERIOR PROFESSIONALLY COATED	I	CS	12-31-19		
6.2 ALL NOZZLE LEVEL & STRADDLE TANK CENTERLINE	- 1	ĊS	12-31-19		
6.3 NO SHARP EDGES OR BARE FIBERGLASS (INT & EXT)	I	ひこ	12-26-19		
6.4 TANK INTERIOR CLEAN	- 1	BC	12.26-19		
6.5 ALL CUT OUTS TO BE RETAINED FOR 1 YEAR	I	Ü	12.23 19		
CUSTOMER INSPECTION	- 1	25	12.23-19		
6.6 NAMEPLATE & SPECIAL SIGNAGE CORRECT	1	CS	12-31-19		
7.0 SHIPPING					
7.1 SHIP LOOSE ITEMS MARKED WITH SERIAL NUMBER	I	15	NIÂ		
7.2 PROPER COVERS ON ALL NOZZLES & MANWAYS	ı	23	1-2-20		
7.3 QA FINAL RELEASE FOR SHIPMENT	Н	CS	1-2-20		
DIAMOND FIBERGLASS QA:		DATE:		2-Jan 30	
CUSTOMER QA:	_	DATE:			

FORM REV 120517

DIAMOND FIBERGLASS		ı	POST CURE REP	ORT	
CUSTOMER: Process Systems PO NUMBER: 190018-6259 / 6		DRAWING I		35668 F-435	REV: 3
DFG ORDER: 8925			L NUMBER:	8925-19-35668	
		•			
POST CURE TEMPERATURE:	180° F			<u></u>	
TEST DURATION:	4 hrs				
CUSTOMER WITNESS:			V	NO	
START DATE:	212-Dec-19			<u></u>	
START TIME:	7:15 AM.				
END TIME:	11:15 A.M.			<u> </u>	
INSPECTED BY:	Brian Cody			<u> </u>	
SIGNATURE:				<u></u>	
COMMENTS:					

DIAMOND FIBERGLAS	55	NOZZLE	E AND FITTING INSPECTION	N	
CUSTOMER:	Process Systems & Components		DRAWING NUMBER:	35668	REV:3
PO NUMBER:	190018-6259 / 6260		TANK TAG NUMBER:	F-435	
DFG ORDER:	8925		TANK SERIAL NUMBER:	8925-19-35668	

NAA DI	GUSSET	SIZE	DESCRIPTION	ORIENTATION	DESIGN	ACTUAL	DESIGN	ACTUAL	PRESSURE	ACCE	PTED
MARK	GUSSET	SIZE	DESCRIPTION	ORIENTATION	<b>ELEVATION</b>	<b>ELEVATION</b>	PROJECTION	PROJECTION	RATING	YES	NO
Α	^	2"	FF FLG 150#	75	1'	11	6''	5	50PSI		
В	^	1''	FF FLG 150#	120	10''	10"	6''	6	50PSI	$\Box$	
С	۸	1''	FF FLG 150#	120	10'	10	6''	6	50PSI	$\overline{\mathbb{Q}}$	
D	۸	2''	FF FLG 150#	270	DRAIN	<b>✓</b>	6''	6	50PSI		
F	۸	2''	FF FLG 150# W/ EXT PIPE	315	3'6"-CL	36-6	6''	آ ک	50PSI	U/	
Н	۸	3''	FF FLG 150#	45	3'6"-CL	3'6" CL	6''	6'	50PSI		
J	۸	4''	FF FLG 150#	90	11 1/2''	3/811	6''	Ğil	50PSI	$\nabla$	
K		6''	FF FLG 150# W/ GN	CL		CL	6''	6	50PSI	Z.	
L	۸	4''	FF FLG 150#	90	10'	10'	6''	6	50PSI	√	
MW		24''	STD SIDE ENTRY	180	4'	۲'	6''	Ĝ		Ħ	
NP			REF010 PAPER	180	6'6''	( b "					
TD			REF055 316SS	45,135,225,315	1/2''	✓,					
LL			REF056 316SS	45,135,225,315		$\checkmark$				17/	
POST C	URE:										
HYDRO	TEST:										

WORK CREW: INSPECTOR'S COMMENTS:

FORM REV 120517

CUSTOMER: Process Systems & Co	mponents	DRAWING NUMBER:	35668	REV: 3
O NUMBER: 190018-6259 / 6260		TANK TAG NUMBER:	F-435	
DFG ORDER: 8925		TANK SERIAL NUMBER:	8925-19-35668	
	I		la to to	l
	Inspection Point Laminate quality	Accepted w/Condition	Rejected	Inspector's Comments
LAT BOTTOM INSPECTION	Part conforms to specs.	<i>y</i>		
	Laminate quality	V		
OME TOP INSPECTION	Part conforms to specs.	V		
IDEWALL INSPECTION	Laminate quality	✓		
IDEWALL INSPECTION	Part conforms to specs.	✓		
ANK INTERIOR FINAL INSPECTION	Strip overlays	V		
ANN INTERIOR FINAL INSPECTION	Nozzle overlays	V		
	Nozzle bolt holes straddle C/L	V ,		
	Acetone sensitivity			
	Cut edges sealed	V		
	Interior clean	✓		
	Overall liner quality	/		
	Barcols within limits	~		
	Clip size is correct	NA		
	Clip overlays	NIA		
	Winder mounting holes sealed	NIA		
	Siphons	N)A		
	Downcomers	NIA		
	Header piping	NA		
	Grating	Na		
	Vortex breaker	NA		
	Internal Ring (width, thickness, & elevation)	NA		
ANK EXTERIOR FINAL INSPECTION	Height & width accurate	✓		
	Tie downs clean	✓		
	Lift lugs clean	✓		
	Nozzles scraped & cleaned	✓		
	Gussets properly ground	V		
	Bolt holes drilled & sealed	<i>J</i>		
	Bolt hole size & orientation	<b>√</b>		
	Cut edges sealed	✓		
	Surface coat quality	V		
	All covers installed	✓		
	Verified NP Information	<i>y</i>		
	Cut Outs Preserved			
	Signage/Calibration Strip	NIA		
	Other:			
	1	1		1

FORM REV 120517



### **CERTIFICATE OF CONFORMANCE**

February 28, 2020

Process Systems & Components 190018-6259 / 6260

To Whom It May Concern:

This letter is provided to certify that Diamond Fiberglass has designed and fabricated the fiberglass equipment on the referenced purchase order in full accordance with the below noted documents.

• POTASSIUM CHLORIDE TANK - Diamond Fiberglass Drawing: IND8925, Rev. 3

Should you have any questions or require any additional information, please contact me at (361) 572-4040 or via e-mail at csierra@diamondfiberglass.com.

Sincerely,

#### DIAMOND FIBERGLASS

Chad Sierra Quality Assurance Inspector

DIAMOND FIBERGLASS		HYDROTEST / PRESS	URE REPORT		
CUSTOMER: Process Systems	& Components	DRAWING NUMBER:	35668	REV:	3
PO NUMBER: 190018-6259 / 6	260	TANK TAG NUMBER:	F-435		
DFG ORDER: 8925		TANK SERIAL NUMBER:	8925-19-35668		
		PROCEDU	<u>RE</u>		
"A WATER FILLED HYDROTEST S	HALL PER PERFORM	ED ON ALL VESSELS WITH (	GREATER THAN 0.5 PSIG (13.8	5 IN WC) SHALL BE TESTED TO 110%	-
120% OF DESIGN PRESSURE. VE					
DESIGN PRESSURE SHALL BE FIL	LED TO THE MAXIM	UM LIQUID LEVEL WITH WA	ATER, REGARDLESS OF THE SE	RVICE SPECIFIC GRAVITY."	
"VESSELS LINDER 6"" W.C. EXTE	RNAI PRESSIIRE ARE	F EXEMPT FROM VACIIIM	TEST ALL VESSELS GREATER	THAN 6"" W.C. EXTERNAL PRESSURE	
SHALL BE EVACUATED TO THE D			TEST. ALL VESSEES GREATER	W.C. EXTERNAL PRESSURE	
SEE 6-960.C FOR MORE INFORM					
	FOR 2 HR MINIMUM	1 WITHOUT A LEAK. IF THE	PRESSURE TEST GENERATES	UPWARD FORCE, ALL ANCHOR BOLTS	;
SHALL BE SECURED.					
VESSEL DESIGN PRESSURE:	Almasoneric				
VESSEL TEST PRESSURE MIN:	-				
	Atmospheric				
VESSEL TEST PRESSURE MAX:	Almanheric				
TEST DESCRIPTION:	<b>A</b> 1				
	<u>Almospheric</u>				
			<u></u>		
TEST DURATION:	2hrs				
CUSTOMER WITNESS:		YES	NO		
FILL DATE:			<u> </u>		
THE DATE.	27-Dec-19				
EMPTY DATE:	27-DeL-19				
INSPECTED BY:	- 01				
	Brian Cody		<u></u>		
	-				
FILL TIME:	9:40 A.M.				
EMPTY TIME:	31 115 4 4				
	11:40 A.M.				
CICNATURE.					
SIGNATURE:	B-05				
		<i>p</i> 1.			
COMMENTS:	No leaks at time.	at inspection.			

POST CURE: HYDROTEST: WORK CREW:

DIAMONE FIBERGLA		BAF	RCOL NON-RTP	REPORT		
OMER:	Process Syste	ms & Co DRAWII	NG NUMBE 356	68	REV:	3
UMBER:	190018-6259	/ 6260 TANK T	AG NUMBE F-43	35		
ORDER:	8925	TANK S	ERIAL NUN 892	5-19-35668		
Barcol:	30					
PART DESC	RIPTION:	PART DESC	CRIPTION:	PART DESCRI	PTION:	
10' BTM		10' DOME	E	10'8" SW 1/4	1	
DESIGN BARCOL	ACTUAL BARCOL	DESIGN BARCOL		DESIGN BARCOL	ACTUAL BARCOL	
30	33	30	32	30	35	
30	34	30	31	30	35	
30	35	30	32	30	34	
30	<u>3</u> 3	30	34	30	36	
30	33	30	33	30	34	
AVG BARC	OL	AVG BARO	COL	AVG BARCOL		
ACETONE S	SENSITIVITY	ACETONE	SENSITIVITY	ACETONE SEN	ISITIVITY	
PASS	FAIL	PASS	) FAIL	PASS	FAIL	
PART DESC		PART DESC		PART DESCRI		
10'8" SW :	2/4 ACTUAL	10'8" SW		10'8" SW 4/4	I ACTUAL I	
BARCOL	BARCOL	BARCOL		BARCOL	BARCOL	
30	34	30	35	30	33	
30	36	30	36	30	36	
30	33	30	35	30	35	
30	34	30	. 37	30	35	
30	34	30	34	30	36	
AVG BARC		AVG BARO		AVG BARCOL		
ACETONE S			SENSITIVITY	ACETONE SEN		
(PASS	FAIL	PASS	FAIL	ØASS∕	FAIL	
PART DESC	RIPTION:	PART DESC	CRIPTION:	PART DESCRI	PTION:	
DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	
BARCOL	BARCOL	BARCOL		BARCOL	BARCOL	
30		30		30		
30		30	+	30		
30		30		30		
30		30	+	30		
				I	1	
30		30		30		

PASS

FAIL

PASS

FAIL

PASS

FAIL

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### LOADING PHOTOS





8925



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USTOMER: Process Systems & Components	DRAWING NUMBER: 35668	REV: 3
O NUMBER: 190018-6259 / 6260	TANK TAG NUMBER: F-435	
FG ORDER: 8925	TANK SERIAL NUMBER: 8925-19-35668	
ART DESCRIPTION: INT BTM KNUCKLE	<u> </u>	
	ENSURE THE POINTS ARE WELL DISTRIBUTED AND NOT IN CORD ALL SIX MEASUREMENTS. THIS IS CALLED THE AVERA	
T DESIGN THICKNESS 0.46	IN	
MEASUREMENTS		
SPOT 1 0.442 SPOT 2 0.441 SPOT 3 0.458 SPOT 4 0.460 SPOT 5 0.454 SPOT 6 0.449	% DES 96% 96% 100% 100% 99% 98%	
AVERAGE SPOT THICKNESS 0.45	98%	
AVERAGE SPOT THICKNESS THICKEST PART <= 120% THINNEST THINNEST PART >= 90% DESIGN  OK  OK	104% 96%	
AVERAGE OF SIX <= 125% DESIGN  AVERAGE OF SIX >= 95% DESIGN  OK	98% 98%	

	NUMBER:	35668	REV:	3
STOMER: Process Systems & Components DRAWING NUMBER: 190018-6259 / 626( TANK TAG		F-435		
•	AL NUMBER:	8925-19-35668		
RT DESCRIPTION: INT BTM FLAT		<u> </u>		
KE SIX SPOT READINGS IN AROUND THE PART. ENSURE THE PINT THAT STRADDLES AN OVERLAID PIECE. RECORD ALL SIX N				
DESIGN THICKNESS 0.3 IN				
MEASUREMENTS				
SPOT 1       0.344       115%         SPOT 2       0.315       105%         SPOT 3       0.296       99%         SPOT 4       0.310       103%         SPOT 5       0.324       108%         SPOT 6       0.322       107%				
AVERAGE SPOT THICKNESS 0.32 106%				
AVERAGE SPOT THICKNESS RESULTS           HICKEST PART <= 120% THINNEST				
/ERAGE OF SIX <= 125% DESIGN				

CUSTOMER: Process Systems & Components	DRAWING NUMBER: 35668	REV: 3
O NUMBER: 190018-6259 / 6260	TANK TAG NUMBER: F-435	
DFG ORDER: 8925	TANK SERIAL NUMBER: 8925-19-35668	
ART DESCRIPTION: EXT BTM	•	
OINT THAT STRADDLES AN OVERLAID PIECE. RECO	NSURE THE POINTS ARE WELL DISTRIBUTED AND NOT I RD ALL SIX MEASUREMENTS. THIS IS CALLED THE AVE	
DESIGN THICKNESS 0.26	] IN	
MEASUREMENTS		
SPOT 1       0.419         SPOT 2       0.458         SPOT 3       0.452         SPOT 4       0.432         SPOT 5       0.435         SPOT 6       0.426	% DES 161% 176% 174% 166% 167% 164%	
AVERAGE SPOT THICKNESS 0.44	168%	
AVERAGE SPOT THICKNESS R THICKEST PART <= 120% THINNEST THINNEST PART >= 90% DESIGN OK	109% 161%	
AVERAGE OF SIX <= 125% DESIGN  AVERAGE OF SIX >= 95% DESIGN  OK	168% 168%	

USTOMER: Process Systems & Component	S DRAWING NUMBER:	35668	REV:	3
O NUMBER: 190018-6259 / 6260	· · · · ·	F-435		
FG ORDER: 8925	TANK SERIAL NUMBER:	8925-19-35668		
ART DESCRIPTION: DOME	<u> </u>	•		
AKE SIX SPOT READINGS IN AROUND THE PAI OINT THAT STRADDLES AN OVERLAID PIECE.				
T DESIGN THICKNESS 0.31	IN			
MEASUREMENTS				
222	% DES			
SPOT 1 0.313 SPOT 2 0.337				
SPOT 2 0.337 SPOT 3 0.357				
SPOT 4 0.340				
SPOT 5 0.325				
SPOT 6 0.360	116%			
AVERAGE SPOT THICKNESS 0.34	109%			
AVERAGE SPOT THICKNE	ec decili te			
THICKEST PART <= 120% THINNEST OK	115%			
THINNEST PART >= 90% DESIGN  OK	101%			
AVERAGE OF SIX <= 125% DESIGN OK	109%			
AVERAGE OF SIX >= 95% DESIGN OK	109%			

nents DRAWING NUMBER: TANK TAG NUMBER:	35668	REV: 3
TANK TAG NUMBER:		ILLV. J
TABLE CERTAL AUTRARER	F-435	
TANK SERIAL NUMBER:	8925-19-35668	
Т		
0.62 IN		
% DES		
127%		
. <mark>761</mark> 123%		
<mark>).750</mark> 121%		
147%		
0.81 130%		
OK 121%		
NCR 130%		
<b>OK</b> 130%		
	T 0.62 IN  ** DES 0.787 127% 0.761 123% 0.750 121% 0.811 131% 0.910 147%  ** O.81 130%  ** CNESS RESULTS OK 121% 0 121% 0 121% 0 121% 0 121% 0 121% 0 121% 0 121% 0 121%	% DES 0.787 127% 0.761 123% 0.750 121% 0.819 132% 0.811 131% 0.910 147%   KNESS RESULTS NCR 121% 0K 121%  NCR 121%

FIBERGLASS		
USTOMER: Process Systems & Componen		REV: 3
O NUMBER: 190018-6259 / 6260	TANK TAG NUMBER: F-435	
PFG ORDER: 8925	TANK SERIAL NUMBER: 8925-19-35	668
ART DESCRIPTION: SW 18-10'6		
	RT. ENSURE THE POINTS ARE WELL DISTRIBUTED AND NO RECORD ALL SIX MEASUREMENTS. THIS IS CALLED THE A	
т		
DESIGN THICKNESS 0.26	S IN	
MEASUREMENTS		
	% DES	
SPOT 1 0.31		
SPOT 2 0.32		
SPOT 4 0.30		
SPOT 4 0.29 SPOT 5 0.28		
SPOT 6 0.32		
5. 5. 5 <u>C.S.</u>	12070	
AVERAGE SPOT THICKNESS 0.31	118%	
	<del></del>	
AVERAGE SPOT THICKNE	SS RESULTS	
THICKEST PART <= 120% THINNEST OK		
THINNEST PART >= 90% DESIGN OK	110%	
AVERAGE OF SIX <= 125% DESIGN OK		
AVERAGE OF SIX >= 95% DESIGN OK	118%	