

VR – Process 25a Revision History

Date / Time	Rev	Author	Description
8/26/2017	A	FS	Original Version
10/2/2017	B	FS	Process image added.
02/28/2020	C	AA	Switched the current process to glue both ABS sheets before gluing HDPE

Approvals

Rev	Approval	Customer	Engineering	Mechanical	Software	Mfg	OPS	QA	Test	Sales	Support	Corp
A	DT											
	Initial		FS									
C			AA									

1.0 Process Description

Description	Apply Glue to both 1/16" and 1/8" ABS
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VR Part Number	VR1
Customer Part Number	355467-01
Configuration	Standard
Model	SRA-16(20x69]
Process Number	VR102601-25

Process Standard	
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2. Setup

2.1 Technician

Tech #	Certification Required	Skill	Process	Safety
1	No	Adhesive applicator	Yes	Yes

2.2 Tools




2.2.1 Calibrated Tools

Number	Tool	Description	Rev	Specification	Calibration Requirements	Image

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2.2.2 Non-Calibrated Tools


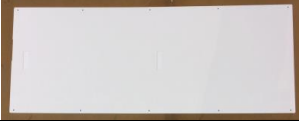
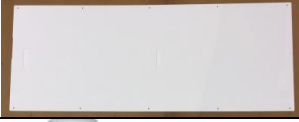

Number	Tool	Description	Rev	Specification	Requirements	Image
1	Compressor Output Pressure Gauge	Pressure gauge used to control pressure inside air agitated pressure tank and spray gun	1	Pressure controlled at 90PSI	Check pressure every time production starts	
2	Spray gun pressure valve.	Pressure gauge used to control pressure going to the spray gun	1	Pressure controlled at 70PSI	Check pressure every time production starts	
3	Air Agitated Pressure Tank	5 Gallon Pressure Pot, Steel Teflon Coated, 29 x 18 x 16 (51-504)	1	Adhesive pressure controlled at 30PSI	Check pressure every time production starts.	

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4	Teflon Coated Spray Gun	Spray gun used to add adhesive to FR4 and HDPE	1	Adhesive Gun Spray Fluid Flow Measurement	Adhesive Gun Spray Fluid Flow Measurement (4oz/min or 2.5g/ft²) (Pressurize fluid source only; pull trigger, flow material into measuring device for 60 seconds , increase or decrease fluid source pressure to obtain desired fluid flow)	
5	Adhesive Gun Spray Air Compressor	Air compressor for adhesive application	1	Min 5HP and 17CFM	Check if compressor is on (Switch pointing up) and that the pressure inside the tank is higher than 150PSI.	
6	Hose Set	Hose set for adhesive and air application	1	Set 25', 16 CFM, 5/16" air and 3/8" fluid. AFS-1142	Hoses need to be attached to the agitator tank.	

2.3 Materials

#	VR Part Number	Mfg Part #	Manuf	Description	Qty	Requires Serial #	Size	Tolerance	COC Req	Lot Req	Incoming QA Req	Image
1	VR102656	3M - 4693	3M	High performance 3M Adhesive	1	N	See BOM	N/A	Y	Y	N	
2	VR102684	See BOM	See BOM	1/16” ABS Bottom Side	1	N	See Drawing	See Drawing	Y	Y	Y	
3	VR102683	See BOM	See BOM	1/8” ABS Top Side	1	N	See Drawing	See Drawing	Y	Y	Y	
4	VR102694	3125	Pure Tronics	Isopropyl Alcohol	1	N	N/A	N/A	N	N	N	

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5	VR102695	02120 0- 21429		3M Scotch Weld No.2 Solvent	1	N	N/A	N/A	N	N	N	
6	VR102696	S- 13631 BLU	Uline	Heavy-Duty Wipers or Micro Fiber Towels	1	N	N/A	N/A	N	N	N	

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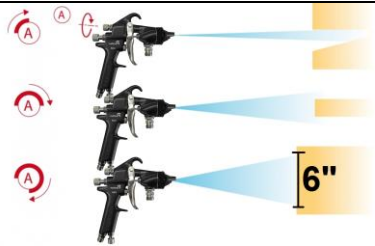
2.4 References

Number	VR Doc Number	Rev	Description	Manuf	Description

2.5 Safety

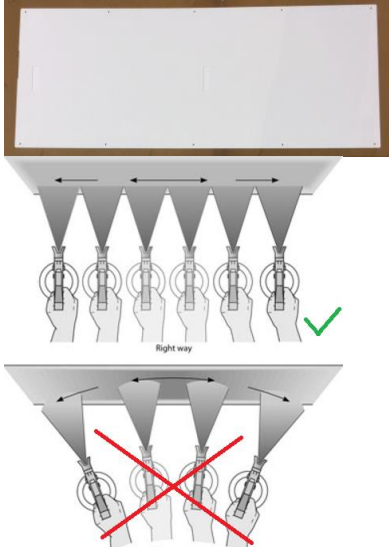
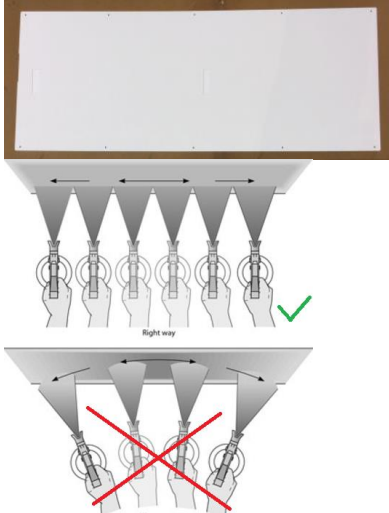
Number	Type	Description	Reference
1	Ventilation	Area needs to be well ventilated where adhesive is to be applied	Refer to MSDS
2	Dust Masks or Respirators	Use of respirator while applying adhesive is obligatory	Refer to MSDS

3.0 Procedure

Step	Tech	Tool	Material	Tasks description	Reference Drawing	Image
1	1		M-2, M-3, M-4, M-5, M-6	Surface Preparation (Surfaces must be dry and free of dust, dirt, grease, oil, mold release materials or other contaminants. For best results, temperature of adhesive should be at least 65°F (18°C).		
2				Check and adjust adhesive spray pattern to 6 inches wide.		

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3	1	NC-2	M-1, M-2	Apply even coat of adhesive to the back of the 1/16" bottom ABS panel, starting from the mux board side and making your way up, left to right with 50% overlap between, covering the area where the panel surfaces will be in contact with the HDPE		
4	1	NC-2	M-1, M-2	Apply even coat of adhesive to the back of the 1/8" Top ABS panel, starting from the mux board side and making your way up, left to right with 50% overlap between, covering the area where the panel surfaces will be in contact with the HDPE		
5	1		M-1, M-2	Let the glue dry for 3 minutes on 1/16" ABS and 5 minutes on 1/8" ABS before applying them to HDPE. This dry time is for the solvent to evaporate.		

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4.0 Process Recording

Step	Tasks description	Reference Drawing / Image
1		

4.0 Non-Compliance

#	Non-Compliance	Disposition	Reference Drawing / Image