

Composites Facility Capabilities



Approvals; Company		
Approvals; Regulatory	Afnor Afnor	AS9100 Rev.D ISO9001:2015
Additive Manufacture	3D Printer	Fortus 450MC with carbon capability
Assembly	Complex IPC620/ mechanical assembly Bonding (Heat cured & room temperature)	
Autoclaves	Autoclave 1	2.1m Diameter x 15.2m Long. 250°C and 7 Bar Maximum
	Autoclave 2	2.5m Diameter x 4.2m Long. 250°C and 7 Bar Maximum
	Autoclave 3	750mm Diameter x 700mm. 205°C and 8 Bar Maximum
Clean Rooms	Clean Room (2 off)	
Inspection	NDT - Woodpecker	
	NDT Scanning	C Scan unit is a wheel Probe 2 3 x A Scan units
	3D Scan	16.6m ³
	Faro Arm	3m Arm
	Wentzel Coordinate Measuring Machine (CMM)	750mm x 750mm
	Sokkia Total Measurement System	Optical measuring system
	Olympus portable ultrasonic thickness measurement	
Testing	Instron Universal Test Instrument	Up to 50KN
	DMA & DSC Equipment	Tg Analysis
	High Temperature Oven	Resin Content Analysis

Machining	5 axis CNC	
	Digital Lathe 1	5m x 860mm Diameter Harrison 700mm x 400mm
	Digital Lathe 2	Digital Milling Machine
	Milling	
	Sheet Bender	Boschert metal bender and cutter
Materials	Carbon/Glass Fabrics Kevlar/Dyneema/Innegra Fabrics Hybrid Metallic and Composite materials	
Ovens	Ovens (5 off)	Maximum size
Simulation	Draping CATIA CPD	
Surface Treatments	Spraybake Paint facility Spray Booth	
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	Ovens (4 off)	
	Shot Blasting 1	900mm x 750mm
	Shot Blasting 2	1400mm x 1500mm
Techniques	Pre-preg Lay Up	Epoxy, Phenolic Laminates, Cyanate Ester
	Resin Infusion	Structures up to 5m x 6.5m Long. Up to 3000kg structure.
	Resin Transfer Molding (RTM)	TBD, Ciject machine, VARTM
	Filament Winding	4 Axis CNC 7m Long x 850mm Diameter. 4m x 12m Infra-red bed.
	Wet Lay-Up	Phenolic, Polyester, Epoxy
	Glass/Carbon Roving Pultrusion	
	CNC Ply Routing	
	Laser Ply Placement	3 Laser projectors
	Cloth Cutting Machine	Zund AlphaCAM CNC . 3.0m X 1.5m. Environmentally controlled room.
	Heatcon Portable Curing	