



Composites Capability

Lay up

Automated Ply Profiling: CNC controlled conveyor cutting bed. 3.5m, 1.8m (Cutting area)

Clean Area

Room 1: 6800 ft² 631 m²

Positive pressure controlled.

Temperature/Humidity controlled.

Particle count monitored.

Room 2: 4800 ft² 446 m²

Positive pressure controlled.

Temperature/Humidity controlled.

Particle count monitored.

All above clean room parameters are continuously monitored and recorded.

Wet lay-up area: 700 ft² 65 m²

Curing

Autoclave 1: 6.0m x 2.5m

Cure up to 230 °C

Pressure 100 PSI

Autoclave 2: 7.5m x 2.3m

Cure up to 200 °C

Pressure 145 PSI

Oven: 2.97m x 2.99m x 2.5m

Cure up to 200 °C

Materials

Dry or pre-preg forms of: Glass fibre

Carbon fibre:

Unidirectional tape

Woven fabric



	Kevlar fabrics
	Hybrids
	Alumesh
Resins:	Epoxy
	Phenolic
	Bismaleimide
	Polyester
	Film adhesives
Cores:	Honeycombs:
	Nomex
	Aluminium
Foams:	Rohacell
	PVC
	Polyurethane
Cold Storage:	Long term storage of pre-preg materials with temperature records
Bonded storage:	For control of details and materials
Tooling:	Metallic
	Composite
	Wooden
	To match part manufacture requirements
<u>Post cure</u>	
Trim/Finishing Area:	1200 ft ² 111 m ²
	Equipped with various hand machinery and surface preparation equipment.
Clean Assembly Area	Environmentally controlled for Temperature and Humidity

Machining

CMS ARES 4826

5 Axis, twin shuttle table, carbon shielded router.

(x = 4.8m; y = 2.6m; z = 1.2m)

CNC 3 axis router 3m x 1.25m

Metal-to-metal bonding

Redux 775 bonding:

Skin to skin structural applications

Skin to stringer applications

Structural Bonding:

Skin to skin,

Skin to honeycomb

Aircraft primary structure

Hysol bonding:

Airframe structure

Nacelle bonding:

Use of reticulating film adhesives for acoustic application

Sheet detail:

Produced in house (see next section)

Paint and Coatings:

Paint line: spray-bake system (components up to 11m)

Epoxide primer

Stoving finish

Bond primer

Textured finish

Spray paint (air drying system)

Sheet Detail Fabrication Capability

Rubber Press: 500mm, 700mm, 450T.

Age treatment oven 600mm, 600mm, 6m long; 120°C to 200°C approved to BEAP 9006 and BS2M54.

CNC LVD Brake Press 2.5m long, 100 ton.

2 fly presses .

Guillotines: 2m, 2.5mm thick and 2.5m, 4mm thick.

Light Angle Rolls.



Testing and Inspection:

Conductivity testing (composite and metallic)

Tensile testing (composite and metallic)

Hardness testing (composite and metallic)

Composite testing (50kN Instron)

ILSS, Flexural, Climbing Drum, Compression, Tensile etc

Non Destructive Testing

“A” Scan pulse echo testing

“A” Scan through transmission testing

Bond-test inspection

Automated tap test

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