High-Bay Capabilities

**Available Power** - In addition to various bench top instrumentation power supplies, the Center also has a 250 Volt 6,000 Amp dc power supply located in the main high bay. 4160 V available in the second story transformer vault, with 480 V available throughout the high-bay.

**Overhead Cranes** – Two 25 ton overhead cranes for main high-bay area, additional 25 ton overhead crane for machine shop, smaller 3 ton crane in auxiliary machine shop

**Autoclave** - A dedicated autoclave, manufactured by American Autoclave, is used to cure composite structures. The fully programmable autoclave is rated for 650° F and 250 psig and can process composite parts up to 7 ft in diameter and 11 ft long. The autoclave can process a range of materials including epoxies, cyanate esters, BMIs, some lower temperature polyimides, and thermoplastics.

**Oven** - 12 ft x 20 ft curing oven with programmable time/temperature profiles for curing wet wound and resin transfer molded (RTM) composite structures and adhesively bonded assemblies.

**Granite Slab** – available for precision assembly.

**Tie Downs** – Five machine tie-downs throughout the highbay

**Welding Shop** – 1200 sqft external shop used for prototype welding, equipped with an ESAB 2-axis oxy-acetylene table, along with both metal/inert gas (MIG) and tungsten/inert gas (TIG) welding machines.
High-Bay Capabilities

Assembly Presses – The primary hydraulic composite assembly press in the high-bay is 40 ft tall and is capable of generating forces in excess of 500 tons with room for 20 – 25’ parts and a 60” stroke, one smaller 200 ton H-press with 13 in stroke, one smaller 200 ton hydraulic four-column assembly press.

Additional Materials – Large capacity of chilled water, onsite hydrogen production and liquid nitrogen dewar.

Motoring Supplies – Two 400 hp motoring supplies.

Prototype Fabrication Equipment

Milling Machines
- Haas Model VF7 Machining Center
- Hurco CNC Model DM1
- 2 Bridgeport Series 12 hp 9” x 48” Table
- Giddings & Lewis 3” Horizontal Boring Mill
- 2 Bridgeport Series II 3 hp 11” x 60” Table
- Summit 350 3 hp 10” x 50” Table (2x)
- Summit 550 5 hp 11” x 52” Table (3x)

Drill Presses
- Summit Radial Arm 18” Column 6’ Arm
- 2 Miscellaneous Drill Presses

Grinders
- K.O Lee Surface Grinder
- 2hp Tool Post Grinders (2x)
- Hammond 8” Pedestal Grinder
- Rockwell Disc / Belt Sander

Saws
- Grob Vertical Band Saw 18” Throat
- WF Wells Horizontal Band Saw 16” Throat
- Tannewitz Band Saw 36” Throat
- Kalamazoo Horizontal Band Saw 6” x 12”

Lathes
- Victor 20” x 80”
- LeBlond 18” x 60”
- Sheldon 6” x 24”
- Ryazan 52” x 16”
- King Vertical Turret 62” Table 48” Height
- Victor 17” x 60”
- Sebastian 13” x 32”
- Lagun (American Turnmaster) 64” x 16’
- Hercules 32” x 80”

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