**CAPABILITIES:**

**(6) 5-AXIS CNC MILLING:**

**HAAS UMC-750 (6)**

* + **19.7” Table**
	+ **30” X-axis Travel**
	+ **20” Y-axis Travel**
	+ **20” Z-axis Travel**
	+ **12,000 RPM / 30HP Spindle**
	+ **1200 IPM Rapid Traverse**
	+ **40+1 ATC Carousel Tool Changer**
	+ **Dynamic Work Offsets**
	+ **Intuitive Probing System**
	+ ***5 of the 6 machines feature right angle head capability and 1,000 psi through spindle coolant***

**(8) VERTICAL CNC MILLING:**

**HAAS VF-3 (2)**

* + **48” x 18” Table**
	+ **40” X-axis Travel**
	+ **20” Y-axis Travel**
	+ **25” Z-axis Travel**
	+ **10,000 RPM / 30HP Spindle**
	+ **1000 IPM Rapid Traverse**
	+ **24 ATC Carousel Tool Changer**

**HAAS VF-3SS (1)**

**“Super Speed” with high speed machining, featuring right angle head capability and 1,000 psi through spindle coolant**

**HAAS VF-4 (1)**

* + **52” x 18.6” Table**
	+ **50” X-axis Travel**
	+ **20” Y-axis Travel**
	+ **25” Z-axis Travel**
	+ **10,000 RPM / 30HP Spindle**
	+ **1000 IPM Rapid Traverse**
	+ **30 ATC Carousel Tool Changer**

**HURCO VM-2 (1)**

* + **48” x 20” Table**
	+ **40” X-axis Travel**
	+ **20” Y-axis Travel**
	+ **25” Z-axis Travel**
	+ **8,000 RPM / 15HP Spindle**
	+ **600 IPM Rapid Traverse**
	+ **20 ATC Carousel Tool Changer**

**HURCO VM-1 (3)**

* + **30” x 14” Table**
	+ **26” X-axis Travel**
	+ **14” Y-axis Travel**
	+ **18” Z-axis Travel**
	+ **8,000 RPM / 15HP Spindle**
	+ **750 IPM Rapid Traverse**
	+ **16 ATC Carousel Tool Changer**

**ACRA AM-2V**

* + **49” x 9” Table**
	+ **33” X-axis Travel**
	+ **12” Y-axis Travel**
	+ **5” Z-axis Travel**
	+ **16” Manual Knee / 5” Manual Quill Z-axis Travel**
	+ **5,000 RPM / 3HP Spindle**

**CNC TURNING CENTER:**

**HAAS HL-2 (upgrading in Fall 2019)**

**QUALITY CONTROLS:**

**BROWN & SHARPE VALIDATOR CMM**

* + **48” x 84” table**
	+ **36” x 48” travel / bridge type**
	+ **Automatic and programmable**

**PROGRAMMING:**

* **Autodesk Fusion360 Ultimate (2 seats)**
	+ **5-axis programming and modeling package**
	+ **Drafting with GD&T**
	+ **Translation capability of nearly all major file types**
* **Autodesk Fusion360 Standard (1 seat)**
	+ **3-axis programming and modeling package**
	+ **Translation capability of nearly all major file types**
* **BobCAD-CAM**
	+ **3-axis programming and modeling**
	+ **Translation capability of nearly all major file types**

**SAWING:**

**8” hydraulic power band saw**

**6” Ridgid Horizontal band saw**

**Evolution cold saw / carbide chop saw**