



## Equipment List

2/14/2023

Machine Type	Qty	Axis	RPM	Capacity (x,y,z)"	Tools	Notes
<b>5-AXIS MILLING</b>						
Matsuura MX-520 PC4	1	5	20,000	20D x 13H	90	4 pallet, Big Plus, 1000 PSI coolant through spindle, In-machine probing
Matsuura MX-330 PC10	1	5	12,000	13D x 12H	90	10 pallet, Big Plus, 1000 PSI coolant through spindle, In-machine probing
Haas UMC1000SS	1	5	15,000	40 x 25 x 25	50+1	8 Pallet, Big Plus, 1000 PSI coolant through spindle, In-machine probing
Haas UMC750SS	1	5	15,000	30 x 20 x 20	40+1	Hi speed machining, tool & spindle probe
Hurco VMX30U	1	5	12,000	30 x 20 x 20	40	1000 PSI coolant through spindle, tool & spindle probes
<b>4-AXIS HORIZONTAL MILLING</b>						
Kitamura HX500G	1	4	12,000	34 x 31 x 37	50	2 pallets, 50-Taper, 1000 PSI thru spindle coolant, tool & spindle probes
Matsuura H-Plus 300-PC15	1	4	15,000	21 x 20 x 20	240	15 pallet, Big Plus, 1000 PSI coolant through spindle, In-machine probing
DMG-Mori NHX-4000 w/RPSS	1	4	20,000	22 x 22 x 26	240	5 pallets, 1000 PSI thru spindle coolant, tool & spindle probes
DMG-Mori NHX-4000	1	4	20,000	22 x 22 x 26	240	2 pallets, 1000 PSI thru spindle coolant, tool & spindle probes
Mori Seiki NH4000DCG	3	4	14,000	22 x 22 x 25	80	2 pallets, 1000 PSI thru spindle coolant, tool & spindle probes
<b>3-AXIS VERTICAL MILLING</b>						
Mori Seiki Duracenter 5	5	3/4	12,000	30 x 20 x 18	20	HPCC-Nano MAPPS II high speed control
Haas GR-510	1	3	10,000	121 x 61 x 11	10	Large capacity gantry mill
Fanuc Robodrill T21iE	1	3/4	24,000	20 x 16 x 13	21	Ultra high speed machining and precision, 4th axis indexer and pallet shuttle
Mitsubishi M-V5Cn	1	3/4	12,000	40 x 20 x 18	20	spindle oil chiller, 1200IPM rapid
Haas VF-6 SS	1	3/4	15,000	64 x 32 x 30	50+1	4 axis indexer, 40 taper, 300 psi thru spindle coolant
Haas VF-5 SS	1	3/4	15,000	50 x 26 x 25	50+1	4 axis indexer, 40 taper
Haas VF-4 SS	1	3/4	15,000	50 x 20 x 25	50+1	4 axis indexer, 40 taper
Haas VF-3B SS	1	3/4/5	12,000	40 x 20 x 25	20	5 axis indexer, 40 taper
Haas VF-3B	1	3/4	10,000	40 x 20 x 25	20	4 axis indexer, 40 taper
Haas VF-2	1	3/4	10,000	30 x 16 x 20	20	40 taper
<b>TURNING CENTERS</b>						
				<b>Capacity (D x L)</b>		
Mori Seiki NZX2000/800SY	1	8	5,000	12.5 x 31.8	32	8 axis, Twin spindle/Twin turret, live tooling, LNS Bar feeder
DMG Mori NLX2500/700	1	6	4,000	14.4 x 49.4	12	6 axis, full sub spindle, 10k RPM live tooling, Bar feeder
Eurotech Elite B545 SL-Y	2	7	5,000	12.6 x 22.0	12	7 axis, full sub spindle, live tooling, LNS Bar feeder
Haas DS-30Y	1	6	3,400	15.0 x 32.5	12	6 axis, full sub spindle, live tooling, Bar feeder, 1,000 psi coolant
Nakamura Tome TMC-15M	1	4	4,500	8.0 x 9.8	12	Sub spindle, X&Z axis live tooling
<b>SUPPORT EQUIPMENT</b>						
<b>RL-80-1290 Laser Engraving/Cutting Machine</b> is a CO2 laser with a large 47.2" x 35.4" working envelope. It features a rotary indexer and is capable of high-speed cutting of nearly any organic materials such as plastic, rubber, ceramic and glass at speeds of 1400 IPM. It can also permanently mark metals at speeds over 2300 IPM and high accuracy of 1000 DPI.						
<b>Tykam Zetalase</b> optical fiber laser (20w) used for part marking.						
<b>Trotec FP300</b> optical fiber laser (30w) used for part marking.						
<b>Soco MC-360 NFA-DR</b> is a NC controlled auto feeding high speed saw for non-ferrous metals. It is capable of auto feeding to an accuracy of +/- .002.						
<b>Cosen C-260NC Programmable, Auto-Feed Horizontal Band Saw.</b> 10.2" x 10.2" capacity.						
<b>Gibson Automated Shot Peen</b> 12" x 44"						
<b>Manual Equipment</b> including 3 knee mills, 2 lathes, multiple drilling and tapping machines, forming machine, sanders, drill presses, non-ferrous metal cutting chop saws, hydraulic presses, vibratory tumblers						
<b>Assembly Equipment</b> including pneumatic Helicoil drivers, arbor presses, pneumatic stamping machines, arm style tapping heads, assembly benches, and a full array of assembly hand tools and equipment.						
<b>Paint Booth</b> - up to 10' x 10'. Warming oven for paint curing						
<b>Saws</b> - Multiple horizontal band saws up to 18", multiple vertical band saws up to 12"						
<b>QUALITY &amp; TESTING EQUIPMENT</b>						
<b>Zeiss Contura G2 1000 CMM</b> - with 47" x 39" x 24" (x, y, z) travel and a full 5 axis RDS and VAST scanning head for part probing. Calypso software						
<b>Zeiss Spectrum 700 CMM</b> - with 39" x 27" x 24" (x, y, z) travel and a full 5 axis Vast scanning head for part probing.						
<b>FARO Vantage Laser Tracker</b> - We can provide high accuracy, large volume measurement with the FARO Vantage laser tracking system. With 160m (525 ft.) spherical working volume and accuracy up to 0.015mm (0.0006 in.) this high-end laser tracking system is essential for our larger aerospace tooling projects.						
<b>Mitutoyo PH-3500 Profile Projector</b> with fiber-optic OptiEye auto edge sensing and Micropak 2 control.						
<b>SC Industries Optical Comparator</b> w/ Quadra Chek 2000						
<b>14" Deltronic Optical Comparator</b> Model DH14						
<b>4 - Brown &amp; Sharp TESA-Hite Height Gages</b> - up to 28" tall						
<b>Bausch &amp; Lomb Binocular Microscope</b> 7x - 40x with circular lighting						
<b>Granite Plates</b> - up to 72" x 48"						
<b>2 - Surface Profilometers</b>						
<b>Rockwell Hardness Tester</b>						
<b>Eddy Current Tester</b>						