

HAGAN Design and Machine Inc.
8 Forbes Road
Newmarket, NH 03857

EDM Department

Wire EDM Machines:		
1	AGIE Progress 3	4 Axis Wire EDM Machine 19.7 X 13.77 X 16.5 (X, Y, and Z travels), Up to 30 Degree Taper. .003" Diameter to .014" Diameter Wire
4	AGIE Agiecut 120	4 Axis Wire EDM Machines 7.9 X 11.8 X 10.0 (X, Y, and Z travels), Up to 30 Degree Taper. .003" Diameter to .014" Diameter Wire
1	AGIE Agiecut 120	4 Axis Wire EDM Machines 7.9 X 11.8 X 10.0 (X, Y, and Z travels), Up to 30 Degree Taper .003" Diameter to .014" Diameter Wire. Modified Extended Work Zone to accommodate larger parts.

SINKER EDM Machines:		
2	Chmer 1065	4 Axis CNC Conventional EDM Machine 39.4 X 23.8 X 19.7 (X, Y, and Z travels), 150 Amp Power Supply, System 3R Macro Chuck, C Axis, 6 Position Tool Changer. Max Work piece 83 X 49 X 34, Max Work piece Weight 14500 lbs.
2	Chmer 655	4 Axis CNC Conventional EDM Machine 23.6 X 19.7 X 19.7 (X, Y, and Z travels), 150 Amp Power Supply, System 3R Macro Chuck, C Axis. Max Work piece 56 X 39 X 21, Max Work piece Weight 7700 lbs.
1	Charmilles Roboform 44	4 Axis CNC Conventional EDM Machine 19.7 x 13.8 X 13.8 (X, Y, and Z travels), 128 Amp Power Supply, System 3R Macro Chuck, C Axis, 6 Position Tool Changer. Max Work piece 42 X 27 X 16, Max Work piece Weight 1100 lbs.
1	Charmilles Roboform 41	4 Axis CNC Conventional EDM Machine 19.7 x 15.7 X 17.7 (X, Y, and Z travels), 64 Amp Power Supply, System 3R Combi Chuck, C Axis, 24 Position Tool Changer. Max Work piece 47 X 32 X 16, Max Work piece Weight 1100 lbs.
1	Charmilles Roboform 50	4 Axis CNC Conventional EDM Machine 19.7 x 15.7 X 17.7 (X, Y, and Z travels), 64 Amp Power Supply, System 3R Macro Chuck, C Axis, 24 Position Tool Changer. Max Work piece 47 X 32 X 16 Max Work piece Weight 1100 lbs.
2	Charmilles Roboform 40	4 Axis CNC Conventional EDM Machine 19.7 X 15.7 X 17.7 (X, Y, and Z travels), 64 Amp Power Supply, System 3R Macro Chuck, C Axis, Max Work piece 47 X 31 X 16, Max Work piece Weight 1100 lbs.
2	Hansvedt CS-1	Conventional EDM Machine with 201E Power Supply. System 3R Macro Chuck. 8 X 6 X 8 (X, Y, and Z travels)

Small Hole EDM Drill:		
1	Chmer CM-H32	Hole Diameter Range .012" - .120". 13.8 X 9.8 X 13.8 (X, Y, and Z travels) Z Axis Backslide 7.9" (15.7" Max Part Height)

CNC Machining Department

CNC Vertical Milling Machines:			
2	Supermax XV1020A CNC Vertical Machining Center 20 X 40 X 21 (X, Y, and Z travels) 10,000 RPM Cat 40 Spindle 24 Position Tool Changer, Renishaw Tool Setter, 10 inch programmable 4th Axis.	2	ARES SEIKI R-450S CNC High Speed Vertical Machining Center 17.7 X 11.8 X 11.8 (X, Y, and Z travels) 12,000 RPM Spindle, 12 Position Tool Changer Renishaw Tool Setter
1	KIRA KV-3MC CNC Vertical Machining Center 18 X 15 X 18 (X, Y, and Z travels) 10,000 RPM Spindle 16 Position Tool Changer	1	Matsuura RA-I CNC Vertical Machining Center 20 X 15 X 18 (X, Y, and Z travels) 8,000 RPM Spindle, 16 Position Tool Changer Twin Pallet

Tool Room			
3	Bridgeport Series I, 2hp Milling Machine	1	Monarch Engine Lathe 16.5" Diameter Swing X 54" Between Centers
1	Kalamazoo 14" Horizontal Band Saw	1	Hardinge HC Chucker
1	Wilton Vertical 14" Band saw		

Grinding Department			
1	Okamoto ACC 16-24DX Automatic Surface Grinder (16 X 24 Travels)	1	Gallmeyer & Livingston Automatic Surface Grinder (8 X 24 Travels)
1	Okamoto EC 6-18 Manual Surface Grinder with DRO (6X 18 Travels)	1	Reid Surface Grinder Automatic Surface Grinder (6 X 20 Travels)
		1	Harig Surface Manual Surface Grinder (6 X 12 Travels)

Inspection Department			
1	2006 Brown & Sharpe 09.15.08 Global Performance CMM 35.4 X 59 X 31.4 (X,Y, and Z) Travels PC-Dmis Software Renishaw PH10MQ Motorized Probe Head	1	12" Brown & Sharpe Height Master
		3	12" Starrett Digi-Check Height Master
		1	18" Starrett Digi-Check Height Master
Micrometers up to 6", Various Ball, Pin, Anvil, Tube, and Depth Micrometers, Verniers up to 36", Various Indicators (.001mm and .00005" Increments), Deltronics .0001" Pin Sets, Gage Pins from .011 to 1.000, Height Gages up to 24", Sine Plates, V Blocks, Threaded Gages, and many others.			

Engineering	Other CAD/CAM Formats
MasterCam X6 3D Milling and Solids SolidWorks 2013 Opticam, 4 Axis Wire EDM CAM	IGES, STEP, PDF PRO-Engineer Unigraphics AutoCAD (DXF or Dwg)

HAGAN Design and Machine, Inc. occupies a 24,000 square foot, temperature controlled facility.