



*Precision Manufacturing for Mission Critical Applications*

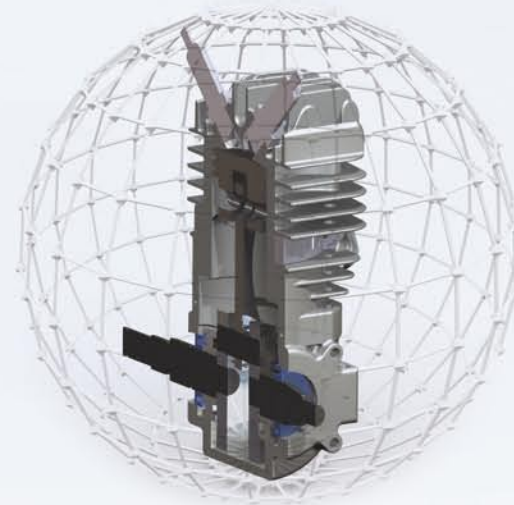


**OUTBACK**  
MANUFACTURING, INC

# OUTBACK

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If your project or product requires precision-machined components, Outback Manufacturing has the right solution. Outback supplies components for a wide variety of precision assemblies found in instrumentation, data gathering systems, robotics, unmanned air and land vehicles and their powerplants. Government and Commercial customers know they can rely on Outback Manufacturing for on-time and on-budget performance.



## *From Innovation to Production Perfection*

### *Design Services*

Outback's ability to design components that are quickly produceable in today's "right now" demanding world of precision manufacturing can give your company creative new solutions, or improvements to your existing parts.

We welcome all challenges.

### *Production Services*

Whether you need parts in Titanium, Stainless Steel, Aluminum, or non-metallic exotics, Outback can produce them in the quantities you need and at the rates your production schedule demands. Outback's "customer first" philosophy has earned us an outstanding reputation for precision and performance.

*For more information please visit*

**[www.outbackmfg.com](http://www.outbackmfg.com)**





*Precision Manufacturing for  
Mission Critical Applications*

*Call anytime: 541.330.1046*

## Two Makino A51 MMC2

Spindle utilization up to 95%



### Two Makino A51 MMC2

(X) 22.0" (Y) 22.0" (Z) 23.6"  
14,000 RPM High Power Spindle  
Rapid Traverse: 2,360 in/min  
Cutting Feedrate: 1,968 in/min  
Maximum Workpiece:  $\varnothing$ 24.8" x 35.4"  
Full 4th axis  
Maximum Payload: 880 lbs  
313 Tool Magazine

### Mori Seiki NH-5000 HMC

(X) 24.5 x (Y) 23.5 x (Z) 26.4  
Full 4th axis  
14000 rpm  
1000 psi thru spindle coolant  
60 tools  
30hp  
High speed machining option  
2 pallets

### Mori Seiki GV-503 VMC

(X) 24. x (Y) 20. x (Z) 20.  
12000 rpm  
2 pallets  
30 Tools  
1000 psi thru spindle coolant

### Fadal 4020

(X) 40 x (Y) 20 x (Z) 28  
10000 rpm  
21 tools  
Hi torque spindle  
Rigid Tapping  
( I ) SMW indexer

### Mori Seiki NZ 2000

Triple Turret  
320 mm Max Turning Diameter  
810 mm Max Turning Length  
Y-axis 100mm  
SMW bar feeder  
X-axis with live tools 12,000 rpm  
48 tools  
6,000 Spindle Speed

### Mori Seiki NL2500SY/700

10" chuck Main 4000 rpm 3.1" thru  
35 HP Main Spindle  
6" sub spindle 6000 rpm  
Y-axis 100mm  
C-axis with live tools 6000 rpm  
700mm between spindles

### Mori Seiki SL-250

10" chuck Main 3500 rpm 2.8" thru  
6" sub spindle 3500 rpm  
C-axis with live tools 3000rpm  
500mm between spindles

### Mori Seiki SL-253

10" chuck Main 3500 rpm 2.8" thru  
6" sub spindle 3500 rpm  
SMW bar feeder  
C-axis with live tools 3000rpm  
1000mm between spindles

### Vertex Measuring Center

Powerful Machine Vision System  
Programmable 12x Zoom Lens  
42 Channel Lighting System  
Renishaw touch probe  
Fast, Accurate Z Measurements with Vision



### Vertex 300s

XY Repeatability < 2.0  $\mu$ m  
Z Repeatability < 3.0  $\mu$ m

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## Advanced Capabilities

<http://www.outbackmfg.com/>



*Precision*

Y Axis Lathe



**Makino A51 HMC**



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### **Full Service Machining Facility**

Your project demands machined components with strict tolerances for quality, cost and time-to-market, Outback Manufacturing is the right solution. Our components are found in a wide range of precision instruments, including defense stealth drones. Government and commercial contractors know that we have the ability to make any product idea a reality.

### **Our Manufacturing Facilities**

With the some of the best equipment available we can manufacture your project on budget and on time. Our outstanding reputation throughout the industry makes us the ideal choice for your precision machining requirements in Aluminum, Stainless Steel or Titanium.

### **Advanced Technology**

The newest addition to our facilities line is the palletized machining center system, known as Makino MMC2 automation module. This is configured with two Makino a51 machines.

The MMC2 is a modular, automated material handling system that links Makino horizontal machining centers, pallet loaders and operators. A servo-controlled vehicle transports material to and from machines, with little, if any, operator intervention. Its modular flexibility permits future expansion as needed.

NZ2000 3t/3y

With 3 turrets and 2 spindles our NZ 2000 offers high-efficiency turning with outstanding milling. This multi-axis turning center is ideal for process integration of mass-production work pieces.



- Two Makino A51 MMC2**
- Mori Seiki NH-5000 HMC**
- Mori Seiki GV-503 VMC**
- Mori Seiki NZ 2000**
- Mori Seiki NL2500SY/700**
- Mori Seiki SL-250**
- Mori Seiki SL-253**
- Fadal 4020**
- Vertex Measuring Center**

**MAKINO**  
**MODULE MMC2**  
MAKINO MACHINING COMPLEX



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