



TOOL & MANUFACTURING

5005 County Rd. 29 ♦ Auburn, IN 46706
o: 260.925.2128 w: www.rathburntool.com

CUSTOMER SOLUTIONS: #26

WE SAW OUR CUSTOMER'S NEED EVEN BEFORE THEY DID.

For a long time, we machined sand cast aluminum pistons for an off-road truck manufacturer. It was profitable business for us that highlighted our skill and quality. Unfortunately they had always struggled with quality issues related to porosity of the cast parts, which led to a very high foundry scrap rate. Over time, their volume decreased while the cost of castings increased.



WE ASKED IF WE COULD APPLY SOME INGENUITY.

Although it was a tightly toleranced part that required precision CNC turning, identification and special packaging, experience told us there had to be a better way. We went back to the basics and took a hard look at their design plans. Because we understood our customer's business, how to build the part and how it would be used, we were able to innovate with their engineers to develop and implement a plan that would produce the same part out of bar stock aluminum, building in better quality.

WE MADE IT EASIER FOR THEM TO BUY FEWER PARTS.

Being agile, putting ourselves in our customer's shoes, and applying decades worth of knowledge and skill enabled us to develop a plan that would eliminate foundry defects and also keep material and machining costs low. In the end, our customer was able to order smaller quantities without the foundry defects at the same price. That's what it means to partner with Rathburn.

Visit our plant in Auburn, Indiana and see for yourself how for 35+ years, we've used the latest technology while applying ingenuity and consistent quality standards to produce an experience our customers call "hard to believe".





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EQUIPMENT & FACILITIES

CNC TURNING CENTERS:

(1) Hyundai 2 Axis L280

- Maximum Turning Diameter: 16.14"
- Maximum Thru Spindle: 3"

(1) Takisawa TCN-2100G L3

- Diameter Thru Spindle: 2"
- Maximum Turning Diameter: 11.81"
- Box Slide Way X Z

(2) Takisawa TCN-2600L6

- Diameter Thru Spindle: 2.9"
- Maximum Turning Diameter: 16"
- Box Slide Way X Z

CNC MILLING CENTERS:

(4) Mazak 410A Nexus

- 4th Axis Head Index
- Axis Travel: x = 30" Y = 16" Z = 20"
- SMW 175 4th Axis Rotary Head

(3) Brother TC-S2D

- 4th Axis Head Index
- Axis Travel:
x = 19.7" Y = 15.7" Z = 11.8"
- Independent Full 4th Axis Rotary Head

(1) Brother TC-S2D

- Axis Travel:
x = 19.7" Y = 15.7" Z = 11.8"

OTHER TECHNOLOGY

ROBOTICS:

(4) Motoman NX100 Robots

CUSTOMIZED AUTOMATION:

(2) Multispindle Torque Machine

(2) Multispindle Drill & Tap with autoloader

(1) Takisawa TM-4000Y2

- Diameter thru Spindle: 3.7" (3.23" Max. Bar Capacity)
- Maximum Turning Diameter: 10"
- 12-Station Milling Turret, upper & lower
- High Rigid Box Type Slide Way
- LNS Sprint S3 Barfeeder

(1) Citizen Swiss Cincom L32 VIII

- 3 Station Modular Tooling Unit
- Live Face 3-front / 3-back
- Low Frequency Vibration
- CAV32-CAV32LE Cincom Magazine Barloader

(2) Amera Seiki TC-2L

- Diameter Thru Spindle: 2"
- Maximum Turning Diameter: 13"
- Programmable Tail Stock

(1) Brother S700X1

- Axis Travel:
X=27.5" Y=15.75" Z=11.8"

(1) Brother S500X1

- 4th Axis Head Index
- Axis Travel:
X=19.68" Y=15.75" Z=11.8"

(1) Mazak 640M VTC160B

- Axis Travel: X=44" Y=16" Z=22"

(1) Hyundai-Kia VX500 Vertical

- 4th Axis Head Index
- Axis Travel: x = 40" Y = 20" Z = 20"

(1) Autoloader sorting/ Weighting Machine with Auto Paint Marker

(1) Autoloader Laser Checker For Lathes

SAWING EQUIPMENT:

(2) Hy-Mech H12 Band Saw

- Capacity: 12" x 12" / 12" round

(1) Mazak Quick Turn 250 HP

- Diameter Thru Spindle: 3.15"
- Maximum Turning Diameter: 10"
- Maximum Swing: 17.3"
- Maximum Bar Diameter: 2-3/4" (3" w/ bore chuck)

(2) Takisawa TC-203J &

(2) Takisawa TC-203JG

- Diameter Thru Spindle: 2"
- Maximum Turning Diameter: 11.81"
- Box Slide Way X Z

(1) Citizen Swiss A32 VIII PL

- Maximum Turning Diameter: 1-1/4"
- C332 barloader

(1) Fadal VMC 2216FX

- 4th Axis Head Index
- Axis Travel: X=30" Y=16" Z=20"
- 8,000 RPM 22 HP

(1) Kent KVR-2418

- Axis Travel:
X=24.01" Y=18.11" Z=18.89"
- Spindle Taper

(4) Kitamura 3XD

- 12000 RPM Spindle Speed
- Axis Travel: X=30" Y=30" Z=20"

METROLOGY:

(1) Mitutoyo B-231 Manual CMM

(1) Hexagon Global S Green 710.7 DCC CMM