It’s not only what we do, but how we do it

We’re 21st century artisans - utilizing the latest technology and old-world craftsmanship.

Since 1958, Boston Centerless has been known as the proven and trusted leader in the manufacturing and distribution of precision bar materials. Today, we not only remain the best precision bar supplier in the world, but we have expanded our capabilities and service offering to bring a whole new level of value to our customers.

Our bar materials are used to manufacture products worldwide such as medical implants, fuel injection seat guides and aerospace valves. For close tolerance machining applications, you can depend on the knowledge and expertise that Boston Centerless has cultivated for six decades.

We handle every type of pre-machining service and supply chain logistics to ensure that materials are delivered directly to the customer ready for production. Just receive your material and press GO. It’s that simple!

With AccuRod® you get the most precise bar material on the market today. AccuRod reduces variation in CNC Swiss machining operations through unsurpassed consistency of diameter tolerance, roundness and straightness. With just one call you get it all:

- Material selection – metals and plastics
- Centerless grinding
- Heat treating
- Straightening
- Chamfering
- Laser marking
- Material Validation Center (Mechanical and chemical testing)
- Customized inventory management programs
- Supply chain management of bars, flats and shapes
- National distribution centers (MA, OH and MN)

Flexibility with our Tolling Services allows you to mix and match only the services you need.

No matter what you choose, you receive the benefits of Skilled Material® from Boston Centerless. Skilled Material optimizes your internal process through tighter tolerance bar. It will help you attain the most efficient manufacturing results while reducing your manufacturing costs.

Our PinGage Division manufactures ultra-precise gages to verify precise measurements.

Boston Centerless is driven to see our customers prosper, offering a host of services to help you grow your business more quickly and efficiently. Our SwissAssist™ team supports customers with CNC Swiss programming and training to further optimize or drive cost out of their CNC Swiss operations. We also offer assistance with Lean Manufacturing through our years of expertise and customer benchmarking - Boston Centerless is a recipient of the Northeast Shingo Prize Silver Medal for Excellence in Manufacturing.

Call us and discover why Boston Centerless has earned a reputation as the industry leader that provides unrivaled quality and world-class service.

ISO 9001 Certified | AS9100 Certified | ISO 13485 Certified | Nadcap Accredited | ASNT Level III Certified
AccuRod®

Precision Ground Bar

AccuRod supplies precision ground bar materials for close tolerance machining applications. With over 30 thru-feed centerless grinders, we are well equipped to provide quick turnaround. Our extensive product mix allows our customers to consolidate their raw material purchases with a single source supplier – reducing in-house warehousing of materials while increasing cash flow. We can design a program to meet your inventory and production requirements.

Boston Centerless sources material that has superior machinability characteristics from only the highest quality mills and apply our grinding expertise which results in superior straightness and consistent dimensional tolerances. We also offer grinding services for customer supplied material.

Customer Benefits
- Lights-out manufacturing
- Consistently higher quality finished components
- Less scrap / rework
- Improved material yields
- Less machine downtime
- Results: Material and labor cost savings

Capabilities and Services
- Diameters from .008” to 3”
- Tolerances to .000040”
- Roundness to .000020”
- Finishes to 2 Ra
- Straightening
- Heat-treating
- Bar end chamfering
- Saw cutting
- Laser marking
- VMI programs

Materials
- Alloy and Carbon Steel
- Aluminum
- Medical Alloys
- Plastics
- Red Metals
- Special Alloys
- Stainless Steels
- Titanium

Other Forms Supplied
Boston Centerless can also procure and manage your inventory for:
- Precision Flats
- Precision Wire
- Precision Tube

Certifications:
ISO 9001, AS9100, ISO 13485
Nadcap Accredited
ASNT NDT Level III

Boston Centerless
Precise in everything we do.
Material Validation

UT/Eddy Current/XRF Analyzer/Laser Marking

In order to gain the ability to verify and certify the identity and integrity of each and every precision bar product manufactured by Boston Centerless, we have invested in equipment that tests for internal defects, surface defects, alloy verification and laser marking of the bar with customer-provided identifiers. Each of these capabilities can be provided in any combination based on the requirements of the customer.

Ultrasonic Testing (UT)
- Size Range: Round bar from approximately .200” diameter to a maximum of .750” diameter
- AMS-STD-2154 Class A, Class AA UT test standards
- Detects internal defects to within approximately 1mm of the surface
- Automated re-direct of rejected bars to a separate collection bed
- Defective bars marked at the site of the defect

Eddy Current Testing
- Detects surface defects in bar products
- Adheres to ASTM E309, 571, E426, 576 (OD Solid Bar) test standards
- Defective bars re-directed and marked at site of defect

XRF Alloy Verification Analyzer
- X-Ray analysis to detect non-conforming chemistry
- Pass/fail test for alloy verification
- Automatic identification and capture of rejected bars

Laser Line Marking
- Diameter Range: .090” dia. to 3” dia.
- Standard Font Height: 1mm to 1.5mm. Custom fonts available.
- Laser marking typically applied to the drop-end of the bar
  - Can be used as Lot Retain Sample for material traceability
Skilled Material®
Improves your CNC Swiss Operations

CNC Swiss machining is one of the fastest growing sectors in the machining world today. Although technology and capabilities continue to advance, two major issues remain constant:

• The lack of skilled labor needed to keep these machines running
• Continued market pressure to reduce costs

To address these challenges, Boston Centerless has introduced a concept called Skilled Material. Skilled Material allows you to more than offset premium material cost by dramatically reducing the need for skilled machine operators to handle variations in material, while maximizing machine uptime and through-put. Skilled Material bar enables lights-out operations and ultimately lowers the total cost of your CNC Swiss Operation.

Skilled Material incorporates the following elements:
• Raw material selection – only using mills and suppliers offering the best, most consistent quality
• Ultra precision / variation reduction - understanding how specific diameter, straightness and roundness tolerances can dramatically affect CNC Swiss screw machining operations
• Material integrity and traceability throughout the process
• Years of experience and partnerships within the CNC Swiss machining industry to truly understand Swiss operations
• Supply chain management
• And most importantly: getting the right material to customers when promised

Certifications:
ISO 9001, AS9100, ISO 13485
Nadcap Accredited
ASNT NDT Level III

The Shingo Prize
For Operational Excellence

Boston Centerless
Precise in everything we do.
781.994.5000 | 800.343.4111
781.994.5001 fax
info@bostoncenterless.com
www.bostoncenterless.com
Distribution Services

Supply Chain Management

Boston Centerless works with customers to design inventory management programs to support their production needs while reducing inventory costs. With a variety of programs to choose from, we will determine the most effective one to accommodate your business. In addition to round bar, Boston Centerless also offers supply chain management programs for precision flats, precision wire, precision tube and cannulated bar.

Our strategically located distribution centers can stock inventory for your specific requirements and material will be available for rapid shipment to your facility.

Vendor Managed Inventory (VMI) Programs

- Kanban and JIT
- Blanket Order Release
- Hold-for-Release
- Dock to Stock

National Distribution Centers

- Woburn, MA
- Cleveland, OH
- Minneapolis, MN

Certifications:
ISO 9001, AS9100, ISO 13485
Nadcap Accredited
ASNT NDT Level III

781.994.5000 | 800.343.4111
781.994.5001 fax
info@bostoncenterless.com
www.bostoncenterless.com
GrindAll
Complete Grinding & Technical Services

GrindAll provides complete grinding services for bar material and round components supplied by the customer. Our centerless grinders handle pre-machine to finish grind operations, using the thru-feed, in feed or profile method.

Consider GrindAll as an extension of the services that you can provide. We partner with contract manufacturers and material suppliers to augment their in-house capabilities, enabling them to increase the value they can offer to their customers. Many customers outsource their grinding operations to GrindAll because they have the utmost confidence that we will provide unmatched quality and reliability.

Capabilities
• Thru-feed centerless grinding
• In-feed centerless grinding
• Material testing & validation
• Straightening
• Heat-treating

Materials we can grind
• Alloy and Carbon Steel
• Aluminum
• Medical Alloys
• Plastics
• Laser marking
• Saw cutting
• Bar end chamfering
• Lapping
• Red Metals
• Special Alloys
• Stainless Steels
• Titanium

Certifications:
ISO 9001, AS9100, ISO 13485
Nadcap Accredited
ASNT NDT Level III
PinGage offers quality gage products to assist you with your measurement requirements. Manufactured in-house, PinGage plug gages enable you to validate the most precise measurements with confidence. Fast delivery times and exceptional quality distinguish PinGage from the competition. All of our gages are traceable to NIST.

**Thread Measuring Wires**
Available Sizes:
- 60 Degree English: 2 pitch to 120 pitch
- 60 Degree Metric: .2mm pitch to 10.0mm pitch
- 29 Degree Acme: 1 pitch to 20 pitch
Thread wire holders and sets available upon request

**Gear Measuring Wires**
Available Sizes:
- Sizes: 2 pitch to 200 pitch
- Series: 1.92”, 1.728”, 1.68”, 1.44”

**Cylindrical Plug Gages**
Specifications:
- Classes: X, XX, XXX and specials
- Custom lengths available upon request
Available Sizes: .0040” to 1.010”

**Optical Flats**
Specifications:
- Flatness Grades: .000004”, .000002”, .000001”
- Surface: Single surface and double surface
Available Sizes:
- Diameters: 1” thru 6”, 8”, 10” and 12”
- Custom sizes available upon request

**Lapping Services**
PinGage provides cylindrical lapping services for customer supplied material or components. The lapping process makes it possible to attain super-precise tolerances and smoother, high polished finishes.

**Calibration and Inspection**
We also offer calibration and inspection services on your existing products. Our calibration lab can accommodate your calibration needs with quick turnaround.
CNC Swiss Machine Support

CNC Swiss Machining is the fastest growing segment in today's machine tool market. The downside to this growth is the lack of skilled machine operators in the marketplace. SwissAssist can help bridge this gap by offering PartMaker SwissCam training (Citizen recommended cam software), as well as CNC Swiss Machine training - bringing your employees up to speed faster.

Partmaker CAD/CAM Training
PartMaker training is offered at your facility using your machines and prints in a "real" working environment. We can provide start-up training or build upon the foundation from prior training.

CNC Swiss Machine Training
A CNC Swiss machine works only as well as the operators and programmers who run it. To enable maximum productivity, SwissAssist provides detailed instruction from the basic principles to the most challenging Aerospace and Medical applications such as thread whirling, helical milling and polar milling to name a few. We offer guidance in:

- Set-up
- Machine controls
- LNS bar feed setting
- Proper installation of collets & guide bushings
- Program loading & unloading
- Program first run, adjustments & off-sets
- Tool selection & touch-off
- G&M codes
- High pressure coolant

Technical Advances
Our goal is to keep your company current in an ever-changing industry. We provide assistance with the latest software, tools, machines, and materials as well as cutting fluids. We also offer support with maintaining the workability of your programs and machines.

Current Class Offering (contact us for a syllabus & pricing)
- Entry Level Operator - 1 Day
- Intermediate - Level B Operator - 1 Day
- Intermediate - Level A Operator - 1 Day
- Advanced Operator and Setup - 1 Day
- Advanced Programming - 1 Day
- Technical Services - Daily Rate
- G&M Codes - Module 1 and 2
### Stainless

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### Medical Alloys

| 4750 | 426 | AERMET 100 | ALLOY 42 | ALLOY 49 | ALUMEL | CHROMEL | HASTELLOY | HAYNES ALLOY 242 | HYMU 80 | INCOLOY® | INCONEL® | INVAR 36 | KOVAR | L605 | MARAGING | MOLYBDENUM | MONEL® | MP35N | NICKEL (All Grades) | NICKEL SILVER | NITINOL | RENE 41 | SILICON IRON | SILVER | STELLITE | TUNGSTEN | ULTIMET | WASPALOY |

### Special Alloys

| Ti 6Al-4V | Ti 6Al-4V-ELI | Ti 6Al-7Nb | Ti CP-1, 2, 3, 4 |

### Tool Steel

| A2 | A6 | D2 | D3 | H13 | L6 | M2 | M7 | M50 | O1 | O6 | S2 | S7 | W1 |

### Aluminum

| A1060 | A1117 | 52100 | ETD-150 | NITRALLOY 135 |

### Titanium

| Ti 6Al-4V | Ti 6Al-4V-ELI | Ti 6Al-7Nb |

### Carbon


### Heat Treated Rod

| 1006, CASE HDN | 1117, CASE HDN | 52100, Rc 58-62 | M2/M7, Rc 60-64 | TOOL STEEL |

### Copper Alloys

| BRASS | BRONZE | COPPER | BERYLLIUM CU | CHROMIUM CU | TELLURIUM CU |

### Plastic

| ACRYLIC | DELRIN | KEL-F | NYLON | PEEK | POLYPROPYLENE | POLYSULFONE | PTFE | TEFLOM | TORLON | TURCITE | ULTEM 1000 | VESPEL |

### Precision Bar Materials

- Diameters .008” to 3.0”
- Tolerances to .000040”
- Straightening
- Heat Treating
- Chamfering
- Roundness to .000020”
- Finishes to 2 Ra
- Cut Lengths
- Laser Marking
- Custom Packaging

### Call Center

Call 800.343.4111  www.bostoncenterless.com

ISO 9001/AS9100 Certified
ISO 13485 Certified
info@bostoncenterless.com
t: 781.994.5000  f: 781.994.5001

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