

# ACCUMET

## Precision Processing of Advanced Materials

— Laser Processes

— Ceramic Processes

— Machining Services

— Technical Services





## LASER PROCESSING

Accumet's full-service materials processing solutions includes planar [laser cutting](#), [rotary laser cutting](#), [laser drilling](#), [laser welding](#), laser hermetic sealing, [laser ablation](#), and [laser marking/etching/engraving](#). Accumet has a skilled team of expert laser machinists and over 20 advanced laser systems. We support customers who are new to laser machining, transitioning from mechanical methods, or innovating with cutting-edge solutions.



### Laser Cutting

Our various [laser cutting](#) machines can rapidly and accurately cut a wide range of materials with incredible accuracy and with minimal fixturing and retooling.

We offer many of the same services as traditional CNC milling, water-jet cutting, plasma cutting, or electron beam cutting shops, but with much greater precision, speed, and flexibility. Laser cutting can be performed on a wide range of sheet and material thicknesses, and the extremely small kerf width of the laser enables the tightest tolerances.



### Laser Welding & Hermetic Sealing

Laser energy can be used to create extremely precise and consistent welding seams for a variety of weld types, including butt, lap, and fillet joints using conduction welding, laser spot welding, and deep penetration welding. [Laser welding](#) typically doesn't require additional material or flux, and can be used to create hermetic seals with appropriate materials.



### Rotary Laser Cutting and Marking

Accumet is tooled up and ready to conduct [laser rotary cutting](#) and marking/etching of tubes of all sizes and material types. Our process is ultra-clean and delivers debris-free results.

**We handle an extensive range of materials for a wide variety of applications such as:**

- Hybrid electronic package parts
- Production jigs and fixtures
- Mechanical masks and templates
- Medical implants
- Surgical tools
- Aircraft and aerospace components
- Printed Circuit Boards (PCBs)
- Thin-film and thick-film substrates
- Fine metal screens and filters
- Ceramic packages
- Electronic enclosures



# LAPPING, POLISHING & MACHINING

Accumet has been providing [lapping](#) and [polishing](#) services for the most demanding applications for over half a century. Accumet expert technicians are able to offer an array of lapping, polishing, and machining services for pre-processing and post processing of most types of materials.



## Lapping

[Lapping](#) controls material surface, thickness, flatness (camber), and parallelism. This is especially important for microelectronic, aerospace, medical, and industrial applications that require large batches of near identical substrates and parts. The lapping process can be controlled within micron-level tolerances to precise customer requirements.

### Experience:

- Microelectronic ceramic substrates
- Thin-film and thick-film substrates
- Metal parts with flat surfaces
- Medical Components



## Polishing

[Polishing](#) is a step beyond lapping that helps to refine the surface finish of a material. As some applications are limited by the surface condition of engineering materials (i.e. microelectronics), polishing can be used to precisely control finish and thickness for applications from ceramic substrates to optical glass and metals.

### Experience:

- Low to high power RF/Microwave devices
- High-power DC devices
- Low-loss DC/RF/Microwave devices
- Optics



## CNC Machining and Diamond Cutting/Scribing

With 3-axis CNC machining, Accumet produces complex components with high accuracy and repeatability. Additional processes such as high-precision diamond cutting, scribing, dicing, and chamfering/debeveling can be performed on virtually all ceramic materials, as well as a variety of exotic engineering materials.

### Experience:

- 3-axis CNC milling, drilling, and tapping
- Substrate and wafer dicing
- Ceramic beveling



Medical and Bioscience



Green Energy



Device Manufacturing



Aerospace and Defense

**We we help our customers build better products accross a wide range of industries**



## TECHNICAL SERVICES

As a full service advanced materials processing manufacturer and precision laser service provider, Accumet is prepared to [assist you](#) with choosing the right materials, components, and manufacturing process for your project needs.



### Process Consulting

When you are looking for [support for a new application](#), product development or advanced machining support it is best to rely on experts who have “been there and done that” to guide you through the process. It is important to find a production team that has investigated and solved many complex lapping, polishing and welding problems in a variety of substrates, materials and welding processes.



### Manufacturability Assessments

Accumet offers comprehensive engineering expertise to [enhance your product designs](#) and materials quality, accelerate product development and enhance manufacturing processes. We can review your project prior to production to evaluate the efficiency, quality, and risk of a manufacturing process.



### Machine Vision Inspection

At Accumet, [precision](#) isn't just a goal—it's a promise we've upheld for over 50 years. As a trusted leader in manufacturing, we've consistently embraced cutting-edge technology to meet the ever-tightening tolerances of today's advanced designs.



**We source, stock, process, and validate the most advanced medical device and microelectronics materials:**

- [Ceramic Substrates](#)
- [Frozen Epoxy Pre-forms](#)
- [Adhesives & Tapes](#)
- [Metals](#)
- [Metal Foils](#)
- [Plastics](#)
- [Rubber](#)
- [Microwave Absorbers](#)

**ACCUMET.COM**

for design guidelines and technical briefs, and to request application support and pricing.



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