

Lapping Abrasive Machining Process

Accumet has developed several unique cutting, lapping, and polishing techniques to achieve extremely tight tolerances with repeatability and consistency from piece to piece.

Lapping is a process utilized to control the surface finish, thickness identity, parallelism as well as flatness of substrates. The process is different depending upon the type of material and the physical dimensions required.

Thickness tolerances as tight as .000025" and surface finishes ranging from five-micro inches to 60 micro-inches. Flatness is the other crucial benefit from lapping. Accumet is capable of holding tolerances as tight as 11.6 millionths and delivering substrates in R&D quantities as well as production quantities. Consistency and repeatability are what we've built our reputation on.

Specifications:

Material:	Virtually any type
Finish:	Controlled finishes from 5 micro-inches to 60 micro-inches
Thickness:	Min. 0.003" up to almost any desired thickness. Tolerance on thickness held as close as +/- 0.000025"
O.D. Lapping:	Cylindrical parts up to 3.00" long x 0.50" diameter.
Length & Width:	Flat components having up to and including a 20" diagonal measurement.
Flatness:	Can be held within the helium light band range (11.6 millionths of an inch equals 1 band.)
Parallelism:	Can be held within 0.000010" (ten millionths of an inch.)

Accumet offers a complete ultra-precision service for grinding, lapping, polishing, diamond sawing, laser machining, sizing a wide variety of metals (ferrous and non-ferrous), carbide, ceramic, sapphire and other materials for industrial and scientific applications, including telecommunications, semiconductors, communications, test & measurement, microelectronics, defense and security industries.

These parts can be made to specifications or blanks can be machined to any final size and surface finish. Our unique machining enables us to process rings, seals, and many other shapes to fine surface finishes and tolerances.

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