Enabling the future of new technologies through precision lapping, polishing and state-of-the art processing of various materials for microelectronic, electro-optic, and semiconductor applications in geometries ranging from a few millimeters to several feet in dimension.
Our Company
Since 1975 Valley Design Corp. has been an industry leader in advanced materials processing as providers of precision lapping, polishing, dicing, grinding and other precision machining services. Valley can handle parts as small as 0.203mm (.008") up to 1219mm (48") in dimension, and also manufactures and stocks thousands of wafers, windows, discs, substrates and mirrors of various materials. Special capabilities include:

- Ultra-thin: < 25µm
- Ultra-flat: 1/10 wave
- Super Polishing: < 5 Angstroms
- Tight Tolerances: ± 0.5µm
- Parallelism to .25µm
- ITTV < 1µm

With nearly 35 years of experience, Valley operates over 25,000 square feet of manufacturing space on the East and West coasts, and performs all processing from prototypes to production in-house. To serve our European customers, Valley also has direct sales representation in Germany and France. The company offers advanced R&D lab metrology capabilities including WYKO optical interferometers, laser profilometers and a class 100 clean room. ISO 9001:2000 certified.

Services
- Precision lapping, polishing slicing and dicing
- OD / ID polishing
- Photomachining
- Ultrasonic hole drilling
- Optical Edge / Angle polishing
- Module, die and bonded wafer thinning / CMP
- Dicing as small as 0.203mm
- Large geometry lapping and polishing up to 1219mm

Materials
- Fused Silica and Quartz
- Optical Glasses of all types
- Aluminum Nitride, 96% and 99.6% Alumina ceramics
- Aluminum, Copper, Moly, Stainless Steel and Titanium polished mirrors and wafers
- Sapphire and Silicon
- Color filter glasses
- Polymides
- Ge, LiNbO3, LiF, InP, ZnSe, ZnS, PZT, SiC

Products
- Standard and custom sized substrates, windows, wafers, discs and flat optics of various materials
- Large geometry ceramics
- Shims, spacers and blocks
- Witness samples
- SEMI standard dummy wafers up to 450mm diameter
- Standard and custom color glass filters
- Wafer and vacuum chucks
- Lenses and filters
- Prisms and wedges

Applications
- Substrates, windows, wafers, discs and flat optics for microelectronics, electro optics
- Capacitors
- High power semiconductor products
- Thin film circuits
- Microfluidics
- Photonic and optical devices
- MEMS
- Nanotechnology

Industries
- Microelectronics and electro optics
- Optics and photonics
- Semiconductor
- Medical
- Aerospace
- Test and measurement
- Communications
- Defense
- Research and development

Customers
- Agilent Technologies
- AVX
- BAE
- Boeing
- Corning
- Dupont
- GE Research
- JDS Uniphase
- NASA
- Perkin Elmer
- Philips Medical
- Raytheon
- Sandia National Labs
- Tyco Electronics

See our online stock list at www.valleydesign.com/stockpage.htm