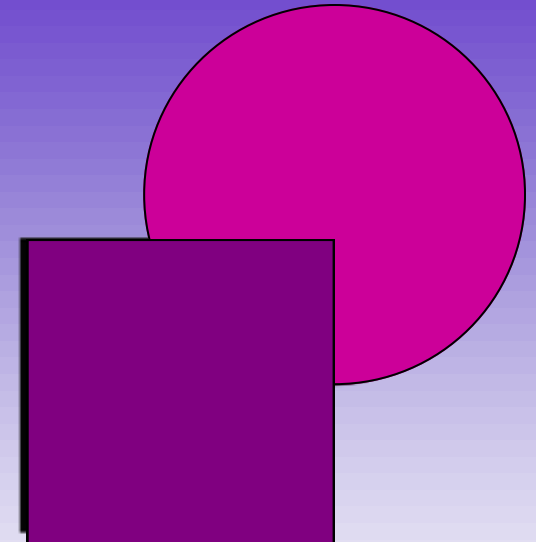




valley
design
corp.



Valley Design Corp.
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World of Precision
and Innovation

Our Company

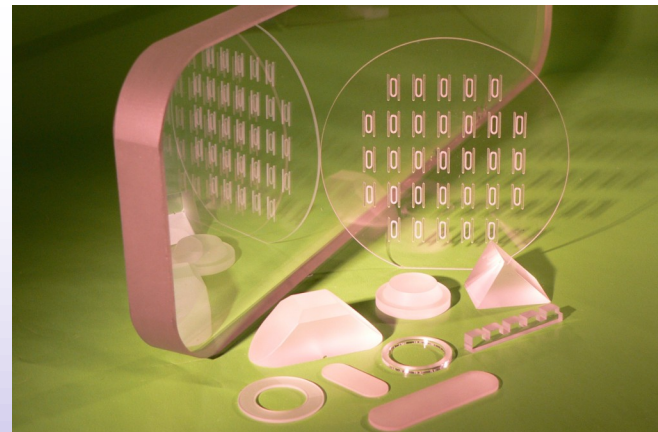
Valley Design was founded in 1975, and over the past four decades has become a recognized world leader in advanced materials processing. From wafers and substrates to complex components, Valley offers one-stop shopping for precision lapping, polishing, dicing, CNC micromachining and other machining services. We can fabricate intricate shapes and features in your material or ours ranging from Fused Silica and Quartz to Optical Glass of all types, 96% - 99.8% Alumina, Aluminum Nitride, Macor, Silicon Carbide, metals and more.

Special Capabilities:

- Ultra-thin: 10 μ m
- Ultra-flat: 1/10 wave
- Super Polishing: 1 Angstrom / 10/5 scratch/dig
- Tight Tolerances: \pm 0.5 μ m
- TTV: < 0.5 μ m

Parts from as small as 0.127mm square up to 48" diameter are handled by Valley Design. We process materials to ultra-thin thicknesses, some as thin as 10 μ m. We work with micron level tolerances, difficult surface finish, parallelism and flatness specifications, and provide some of the quickest lead times in the industry. Many raw materials and thousands of finished wafers and substrates are in stock from our extensive inventory.

Make Valley Design your one-stop shop for wafers and substrates, components and optics requiring precision lapping and polishing, dicing, complex CNC machining, and any other precision machining requirements you may have. Come to Valley Design's World of Precision and Innovation.



Why Valley Design?

- Over 40 years of experience in precision lapping, polishing, dicing and machining of all materials
- One stop shop for CNC micromachining and shaping, lapping, polishing, dicing, AR coatings
- Excellent reputation for precision, innovation, quality and customer service
- Flexibility to work with our customers from prototypes and R&D to full production
- Wide variety of equipment to process all materials from soft PEEK to hard Sapphire
- Large in stock inventory of materials including Fused Silica, Glass, Ceramics, Sapphire and more
- Comprehensive process, fixturing, equipment and tooling knowledge
- Advanced R&D and metrology capabilities
- Highly experienced and skilled process technicians—100's of years of collective experience
- 30,000 square feet manufacturing facilities—ISO 9001:2015 certified, ITAR registered
- Worldwide customer base with direct sales representation in Germany, France and Scandinavia

Products / Applications

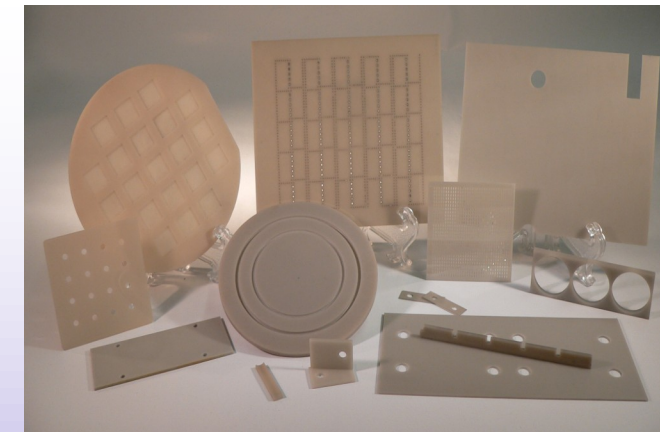
- Standard and custom sized substrates, wafers, discs, windows, and flat optics of all types of materials, many from stock
- Precision shims, spacers, sub-mounts, washers and rings. Can be sequentially spaced to < 1/4 micron, flat to 1/10 wave, lapped or polished
- Large geometry ceramics up to 450mm diameter
- SEMI standard dummy wafers up to 450mm diameter
- Standard and custom color glass filters
- Wafer and vacuum chucks
- Flat lenses, filters and etalons
- Polished and optically coated Aluminum mirrors
- Prisms and wedges
- Substrates for capacitors and thin film circuits
- Large wind tunnels, slides and plates
- Components for microfluidics
- Photonic and optical devices
- Semiconductor, Medical, Aerospace, Research

Materials Processed

- Fused Silica and Fused Quartz
- Single Crystal Quartz
- Optical Glass of all types
- Aluminum Nitride
- 96% - 99.8% Alumina
- Silicon Carbide—CVD
- Macor
- Sapphire—A plane, C plane, R plane
- Silicon
- Aluminum and Stainless Steel
- Copper and Titanium
- Molybdenum
- Germanium
- Ferrites
- Color Filter Glasses
- PEEK and Teflon
- Lithium Fluoride
- Many other exotic materials

Many materials in stock:

www.valleydesign.com/stockpage.htm



Precision Machining Services

- Single and Double Side Lapping and Polishing: Over 100 machines from 12" up to 64" for small to large geometry lapping and polishing to process parts from 0.127mm square up to 48" diameter
- Production Dicing: Over 15 Programmable DISCO and K&S dicing saws
- 4 Axis Haas CNC Micromachining: Complex shapes and features include through-holes and pockets, corner chamfers and radii, steps, slots, edge chamfers, precision shims and spacers
- Backgrinding: DISCO backgrinders
- Ultrasonic Hole Drilling
- Optical Edge / Angle Polishing
- OD / ID Polishing
- Wafering and Slicing
- Module, Die and Bonded Wafer Thinning