Services & Capabilities

- <10/5 scratch/dig or 1 Ang
- Chips less than 1 micron
- Precision lapping up to 48"
- Dicing as small as .005" sq
- Thickness tol. +.1 micron
- Parallelism to .1 micron
- 1/20 Wave flatness

Precision Machining

- Low kerf wafering

Materials

- Fused Silica
- Aluminum Nitride
- Glass
- Quartz
- Pyrex
- 99.6% & 96% Alumina
- Sapphire
- Float Glass
- Lithium Niobate
- BK7
- B270
- 1737
- 7070
- UV&IR Materials
- Ceramics
- Filter Glass
- Metals
- Silicon
- Crystals
- Borosilicates
- PZT
- PLZT
- Soda Lime
- Ferrites
- GaP, GaAs, GaN
- PLUS MANY OTHER MATERIALS

Now Serving Silicon Valley
Flat Optics ● Dicing ● Wafers

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Ultra-Thin
Ultra-Flat
SuperPolish

Lapping
Polishing
Edge Polishing
Dicing
Grinding
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Wafering

EAST
63 Power Road
Westford, MA 01886
Tel: 978.692.1971 ■ FAX: 978.692.9549
east@valleydesign.com

WEST
151-D Harvey West Boulevard
Santa Cruz, CA 95060
Tel: 831.420.0595 ■ FAX: 831.420.0592
west@valleydesign.com

Sales & Customer Service
831.420.0595
sales@valleydesign.com

Materials

Fused Silica: 1”x 1” and 1” x 2” x .006” thick, polished b/s
Aluminum Nitride: 1” sq. and 2” sq. x .025” thick, polished b/s
96% Alumina: 1”sq.-4” sq. x .004” thick, fine lapped b/s
R-Plane Sapphire: 100 mm dia. X .5 mm thick, polished 1 side

Services & Capabilities

EDGE & ANGLE POLISHING
Optically polished flat edges and angled edges
Minimal edge chipping < 1 micron
Edge faces/lengths
Single side or opposing edges
LiN, SiO2, Si, LiTa03
Sapphire

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Parallelism to .1 micron
1/20 Wave flatness
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Low kerf wafering
Valley Design, offers increased capacity in advanced high-speed CNC dicing, cutting and sawing, enabling us to provide a complete spectrum of shapes and materials to suit any application.

**Precision Dicing Services** are provided by Valley Design from the R&D phase through to high volume production requirements. Our dicing saws are fully programmable and are equipped with microscope and video for precision alignment.

Over the past **25 years**, we have routinely processed customer or Valley supplied materials up to **8” (200 mm) diameter**, and even larger by special request. Valley dices not only standard types of materials, but will also develop dicing/cutting procedures for untried materials. We have worked with all types of Glass, Fused Silica, Crystals, Quartz, Aluminas, Silicon, Aluminum Nitride, Lithium Niobate, Ferrites and Ceramics, as well as delicate compound semiconductors such as GaN and InP.

Depending on the material, the dicing kerf may be as small as **20 microns**, and die size as small as **.005” (125 microns)**

We also have extensive experience in working with coated/patterned/circuited substrates and wafers, taking special care in protecting these surfaces.