THAT Corporation

**Precision Wafer Grinding**

THAT Grinding Center

## FEATURES

- State-of-the-art wafer grinding
  - Strasbaugh 7AF
  - 2000 to 8000 grit wheels
- Total Thickness Variation (<1μ)
- Precision Measurement & Analysis
  - Wafer thickness to < 100 μm
  - Optical inspection via Nomarski microscope

## APPLICATIONS

- MEMS
- Bonded Wafers
- Dielectric Isolation
- Optical Devices
- Silicon Wafer Processing

## Description

THAT Corporation offers precision silicon wafer grinding at its state-of-the-art processing center. Originally developed to respond to THAT's internal requirements, and supervised by an experienced manufacturing engineer, the facility routinely grinds 4-inch silicon wafers to submicron TTVs. THAT's grinding center now has the capacity to respond to outside requests for development and production applications.

The facility includes full support for precision grinding, including both white and clean rooms with precise environmental controls and a high-capacity DI water system. After processing, wafers are cleaned via an RC-1 cleaning system and packed under class 100 conditions.

At our grinding center, THAT provides a wide range of services. We offer precision grinding of up to 8" wafers on our Strasbaugh 7AF grinder with temperature controlled spindle and process wafer. On 4" wafers, we routinely produce <1u TTV.

Through the use of our 8000-grit fine grinding wheel, we can frequently deliver acceptable surface finishes without the use of polishing.

No grinding center would be complete without precision measurement capability. Our MTI 200SA wafer thickness measurement system measures wafer TTV, bow, and warp to within 1/4 um. All data is logged in electronic form for later analysis. Visual inspection is provided by an Olympus VANOX microscope equipped with Nomarksi objectives. The Normarski objectives are particularly useful for examining details in surface topology.

Additional wafer processing services such as masking, oxidation, and diffusion are available through THAT's California semiconductor fab.

## EQUIPMENT

- Strasbaugh 7AF precision programmable grinder
- Temperature controlled spindle coolant
- Temperature controlled process wafer coolant
- RCA-1 cleaning station
- Semitool spin-rinse-driers
- MTI 200SA wafer thickness measurement system
- Nomarski inspection microscope

## FACILITIES

- 670 ft2 white room (grinding center)
- 675 ft2 class 10,000 clean room
- HEPA laminar flow hoods deliver class 100 particle containment
- DI water system (> 15 megohm-cm)
- Ambient temperature and humidity control

Where quality and tight tolerances are a must, turn to THAT Corporation for timely, expert service. To discuss your requirements, please call or write us at the address below.

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