Chemical highly accurate Mechanical Planarizer

ChaMP
Combining the technological expertise built up by Accretech in precision measuring equipment and semiconductor manufacturing equipment, we now offer the ChaMP Series, the CMP systems compatible with 300 mm wafers, with process performance required by design rules for 90 nm and 65 nm devices, and able to keep up with the most advanced volume-production fabs.

**Air-float Head “Sylphide”**

- Reference polishing is made possible via an air cushion that provides uniform pressure distribution.
- Wafer pressure is applied by an airbag independent of ring pressure, providing excellent low-pressure controllability and stability.
- Zone control is available.

**Edge Exclusion of 1 mm!**

**Wafer Pressure Controllability & Repeatability**

- Water Pressure = 3 psi
- Platen Speed = 90 rpm
- Head Speed = 90 rpm
- Pad: 1000, Solo Pad
- Water: PETEOS Blanket
For Mass Production Processes Supporting 65 nm to 45 nm

Cleaning technology for Low-k materials

- Makes possible watermark-free drying with high levels of cleanliness for even highly hydrophobic Low-k materials.

Path towards improved production efficiency and reduced costs

- Longer retainer lifespan
- Longer pad lifespan
- Elimination of dummy wafers
- Decrease in slurry
- Decrease in chemicals/Recycling
- Decrease use of utilities
- Decrease in dummy wafers

Existing technology/Features
- Realization of high performance polishing characteristics: Optimal construction/configuration - platen/head
- High precision end-point detection: Automatic chamber cleaning - e-Dialog
- High-efficiency EFM: Simple head maintenance, reduced maintenance time, high reproducibility

We will continue to move forward with development, making highly productive and low cost CMP processes a reality.

Optical End-Point Detection System

- ILD Process Spectrum Signal (Patterned Wafer)

Light source
Monochromator
Optical fibers
Platen
Easy maintenance of heads: Replacement of polishing head is unnecessary and the maintenance is finished in one minute.

Our unique head design allows you to renew membranes and rings very quickly and safely.

Slide the snap ring cover up with both hands. Spread the snap ring with your thumb. And the retaining ring drops off. The retaining ring is now removed.

Standard Model
ChAMP-232
For 200mm or 150mm or 100mm wafers

ChAMP-332
For 300mm wafers

- Supports all types of application with a 3 platen, 2 head configuration.
- All machines supporting 300 mm/ 200 mm/ 150 mm wafers are equipped with similarly conceived polishing heads and EPD system.