

# Chemical Mechanical Polishing

CMP Polisher | Cleaner | Grinder



Slurry | Conditioner | Pad | Wafer

In technology we believe

# Rtec-instruments

## CMP Polishing

### About Us

Rtec-instruments has a team with over 40 years of experience in test instrumentation. We push ourselves to break new barriers in surface inspection world. Our quality control follows the most stringent internal testing procedures which are more exacting than the specified standards. Furthermore, Rtec-instruments also delivers first class service whether it concerns a metrology question, maintenance or repair. Thanks to our network of regional offices, you receive the expert help you need within a short time.

### Polishing

Chemical Mechanical Polishing (CMP) is a process that is used for the planarization of wafers, materials etc. Polishing takes advantages of the synergistic effect of both physical and chemical forces for polishing of wafers. This is done by applying a load force to the back of a sample while it rests on a pad. Both the pad and sample are then counter rotated while a slurry containing both abrasives and reactive chemicals is passed underneath.

### Rtec-instruments line

We offer a wide range of polishing products that includes bench top research polisher, advanced research and small scale production polisher, grinders, lappers, post cmp cleaners and consumables. Please contact us for more detailed information on any of products.

## *CMP Polisher*

RPo-8



- Manual wafer loading
- upto 200mm wafers
- Easy to interchange carrier head (6, 5, 4 inches etc.)
- Close loop down force control
- Max down force 150Kgf (or 0.049Mpa for 8inch wafer)
- Minimum foot print in this class
- Easy operation by TFT color touch panel
- Optional carrier for MEMS, low k material can applied extremely low down force control
- Recipes storage
- Sweeping in-situ and ex-situ conditioning

## ***Bench Top Polisher***



**RBPo-6**

- Bench top CMP R&D System.
- Insitu and exsitu conditioning
- Upto 6 inch sample
- Slurry and water lines using programmable pumps
- Insitu friction and pad wear options
- High rigidity and good down force control
- Foot print w870x d800x h870mm
- 170mm platen diameter
- Application - CMP, MEMS, consumable test

## ***Post CMP Cleaner***



**RCC-8**

- Upto 200mm wafer
- Includes scrub and spin stage.
- Various recipe with multi parameter control.
- Computer controlled programmable pumps
- Optional Mega-sonic
- Small foot print
- Easy operation by TFT color touch panel

## ***Consumables***



In addition to a good polisher, to achieve good planarization you also need various consumables. Consumables includes slurry, particles, pads, pad conditioners, cleaning brusher, cleaning solution, wafer etc.

Rtec-instruments provides a complete solution that includes both the tester and consumables. We also offer consulting on CMP and polishing process development using our highly experienced team of engineers and scientists.

### **Other Products**

In addition to above mentioned products Rtec-instruments also offers grinder, lapper, 300mm polisher, fully automatic cleaners.

**Please Contact us for  
more information**

# RPo-8 Specifications

## **Platen (Polishing Table)**

Platen diameter  $\phi$ 610mm, 24'  
Thickness 50 mm  
Water cooling circulation (option)  
Platen speed 10-100rpm  
Close loop speed control

## **Polishing Head (Carrier)**

Wafer Size  $\phi$ 8' Wafer  
Down force by air pressure  
Max down force 150kgf  
Head vertical travel 200 mm  
Head rpm 5 -100rpm  
Wafer support backing films  
Back side pressure attached  
Wafer rinse

## **Conditioning / Dressing**

Axis drive attached  
Dress axis rpm 10-150rpm  
Conditioner 4" diameter (sweeping )  
Water rinse  
Diamond wheel conditioner

## **Slurry Supply**

Slurry supply pump  
Control from PLC

## **Carrier Oscillation**

Oscillation width 50mm  
Oscillation (travel) speed 1 to 480(travel) mm/min  
Oscillation liner guide with ball screw

## **Control System**

Control PLC  
Panel color touch panel

## **Utilities**

Power 3 Phase 200V, 30A, 50Hz  
Air < 0.4MPa, Ave 15L/min Dry Air  
DI water max 30L/min, <0.2MPa  
Drain depending process  
Air exhaust  
Water for Vacuum pump

## **Options**

Carrier head for 6',4',2' wafers  
Water chiller temperature 10 to 40C  
Power 7140KJ  
Vacuum pump water seal Type (Dry pump type is also available.)  
Diamond conditioner  
Brush conditioner  
Machine dimension W1375 x D850 x H2200 mm  
Machine weight 2.5 ton

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