



# Akribis-air

## Intelligent Sample Preparation System

Akribis-air is a new edition to our range of lapping and polishing machines. This highly automated stand alone system delivers the ultimate in processing innovations, enabling you to achieve the highest level of processing results in the minimum of time.



The fully integrated Akribis-air lapping and polishing system achieves superior quality results through intelligent automation features. This includes;

- **Plate flatness control,**
- **Automated jig set up,**
- **Dynamic load control,**
- **Increased control parameters,**
- **Real time data collection and feedback,**
- **Metered abrasive feed supply,**
- **Auto wash feature**

The single station system has a 400mm plate, and a speed of 100rpm. When working with the dynamic load control of Logitech's new intelligent jigs the system offers fast, reliable and highly accurate results across a wide range of applications. Logitech's, air driven, intelligent jigs are available for 100mm and 150mm wafer processing.

Typical applications include:

- Silicon - Integrated Circuits, Solar and Waveguides,
- III-V & II-VI thinning and polishing,
- Sapphire - LEDs,
- Silicon Carbide - Optics, LEDs and Power Electronics,
- Gallium Nitride - Optical Devices, Lasers, RF High Frequency,
- Optical polishing i.e. infra red, fibre optic and laser rods.

The Akribis-air is chemically resistant to standard chemicals used in CMP applications, including sodium hypochlorite (Na OCL). The auto-wash feature in the system increases user safety when working with hazardous semiconductor material and standard CMP.

#### Effortless Operator Set Up and Control

The level of automation offered by Akribis-air substantially reduces user input, variability, set-up and clean up operations. The integration of an advanced software system provides a user friendly and highly controlled platform for;

- Auto-plate flatness, plate speed and direction
- Continuous feedback on wafer thickness
- Multi stage recipe and parameter control
- Automatic wafer end point thickness control
- Controlling slurry delivery

#### Dynamic Load Control

Logitech has developed a highly advanced precision jig for the Akribis-air system. The free rotating intelligent jig delivers the ultimate in sample preparation due to increased load capacity and accuracy of control. The jig load can be accurately set to meet the needs of the application, in the range of 0.5kg - 12kg for 100mm jig and 0.5kg - 21.6kg for 150mm jig.

The use of air pressure allows the maximum sample load to be increased, using the load mass of the full jig assembly. The load is controlled through the software interface and can be varied during the process to meet the needs of the most demanding application.

#### Real Time Data

The bluetooth jig micrometer gauge provides real time feedback to the software system, which can be exported for further analysis using standard analytical software packages. This highly valuable feature enables the operator to obtain accurate removal profiles during processing.

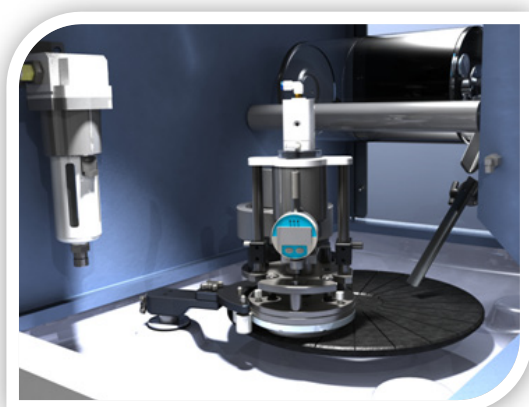


### Metered Abrasive Feed Supply

The addition of a software controlled metered abrasive feed supply minimises slurry waste and provides consistent and accurate slurry volumes, resulting in repeatable process results from wafer to wafer.

### Auto-wash Feature

The fully integrated drip tray and automated wash system ensures a clean working environment is maintained. This new feature significantly reduces clean up and maintenance time and maximises the efficiency of the system. In addition the auto-wash feature improves user safety when working with hazardous semiconductor materials and chemicals used in CMP processing.



### Technical Specifications:

|                   |                            |
|-------------------|----------------------------|
| Sample size (Max) | <b>1AJ41: 100mm</b>        |
|                   | <b>1AJ42: 150mm</b>        |
| Jig Load Range    | <b>1AJ41 : 0.5 - 12kg</b>  |
|                   | <b>1AJ42: 0.5 - 21.6kg</b> |
| Power Supply      | <b>220/240V, 50/60HZ</b>   |
|                   | <b>110V, 50/60Hz</b>       |
| RCBO Rating       | <b>16A</b>                 |
| Plate Speed       | <b>100rpm</b>              |
| Height            | <b>1844mm</b>              |
| Width             | <b>1003mm</b>              |
| Depth             | <b>702mm</b>               |
| Weight (approx)   | <b>450kg</b>               |

### Accessories & Consumables

A comprehensive range of accessories and consumable products are available to support this system. We recommend these tried and tested products for optimum processing results and system performance. A small selection can be found below, for a more comprehensive listing please go to [www.logitech.uk.com](http://www.logitech.uk.com)

#### Accessories

- 100mm and 150mm Air Driven Jigs
- Cast Iron Lapping Plate (Grooved and UnGrooved)
- Glass Lapping Plate (Grooved and UnGrooved)
- Stainless Steel Polishing Plate Base
- Sample Measurement Equipment

#### Consumables

- Range of Polishing Cloths and Pads
- Abrasive Powders
- Polishing Fluids and Suspensions



Certificate No. FM12025

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