Wentworth Laboratories

www.wentworthlabs.com





PROBESTATION

S300

SEMI AUTOMATIC PROBE STATION

The Pegasus[™] S300 Semi Automatic Probe Station is designed as a low cost, compact flexible probing platform enabling rapid probing of wafers up to 300mm.

PEGASUS™ S300 FEATURES

High Speed XY motion for high throughput and flexible speed control.

Precision engineering for reliable and repeatable sub-micron probing.

Adaptable for industry standard testers.

Accurate advanced controller software

Customizable product enhancing hardware and software options.

Easy Maintenance using sophisticated system diagnostics .

Wide range of product enhancing accessories.

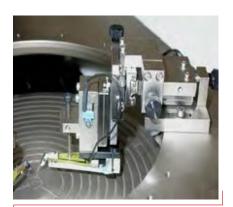
Robust mechanical design.

ACCURATE, COST EFFECTIVE PROBING WITH PEGASUS™



RAPID PROBING WITH TUNEABLE SPEEDS AND PRODUCT ENHANCING ACCESSORIES ALLOW FOR FAST PROBING AND INCREASED THROUGH-PUT.

PEGASUS PROBE, HEIGHT DETECTION AND VARIABLE CONTACT FORCE ADJUSTMENT MAKES IT EASY TO OBTAIN THE DESIRED PROBE MARK



Pegasus™ S300 with Pegasus Probe™



Pegasus™ Controller

SPEED & FLEXABILITY

Pegasus™ S300 is specifically designed and highly recommended for the characterization of wafer sizes from 2" to 12", full or partial wafers. Pegasus™ S300 offers rapid probing, with tunable speeds for specific applications.

All stages are controlled by the Pegasus™ Controller consisting of the drive electronics, joystick, keypad and optional Windows user interface.

Interfacing is made easy with TTL, GPIB (IEEE488.2) and RS232 ports located on the back panel.

USER FRIENDLY

Wentworth's Pegasus™ S300 offers an Intuitive Menu-Driven Operation Interface with keypad and integrated or separate joystick.

User Interface includes:

- > Programmable Device Parameters.
- > Local Device File Storage.
- > Menu Driven User Interface.
- > Intelligent Theta Alignment.

CHUCK SOLUTIONS

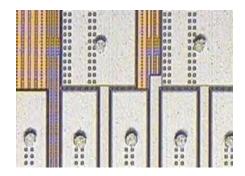
The Pegasus[™] S300 probe station can accomodate various vacuum chuck designs for full and partial wafers, providing users the ability to electrically ground, float or bias the chuck.

PEGASUS PROBE

Pegasus™ Probe is an integrated wafer edge and height sensor and is commonly used on the Pegasus™ S300. It combines both these functions into one compact unit and uses a open loop control system to automatically adjust the chuck Z height while probing - this is reffered to as Active Wafer Profiling (AWR).

ACTIVE WAFER PROFILING

The Pegasus™ S300 probe station supports Active Wafer Profiling which produces repeatable probe marks accross the full wafer - an important advantage when probing for Known Good Die (KGD). Variable contact force adjustment makes it easy to obtain the desired probe mark and throughput.



Over-travel is applied from the point where the sensor has detected the surface. Parameters can be easily configured by user.

Same principle applies for probe cards using an edge sensor(s).



Pegasus™ S300 Platen with Pegasus™ Probes (Probe Card Holder also available)



Pegasus™ S300

EASY CONTROL

Wentworth's Pegasus™ S300 is designed with the operator in mind. Ergonomic design and controls make the S200 platform one of the easiest prober platforms on the market to use. Quick start up and simple menu's allow users to be probing in minutes.

The Wentworth Pegasus™ S300 can be used in 'local' mode or 'remote' mode. This flexability allows the prober to be easily integrated with industry standard testers and data acquisition software.

VERSATILITY

The Wentworth Pegasus™ S300 can be configured for a variety of applications at affordable cost. Wentworth's many years of experience serving the electronics industry allows even the most challenging application to be managed within standard lead times and budget's.

ROBUST DESIGN

Combining stainless steel and aluminium in it's construction the Pegasus™ S300 prober is extremely stable platform for sub micron probing and precision applications such as Laser cutting.

Lightweight chucks and drive mechanics allow extremely fast probing with no loss of accuracy.

THERMAL CHARACTERIZATION

Wentworth offer performance thermal chuck solutions for device testing from -40oC to +300oC. Wentworth's propriety Heating and Cooling management system is an integral part of ShieldMaster™, a localised light and/or safety enclosure.





PEGASUS™ S300 SEMI-AUTOMATIC **PROBE STATION**

Chuck Stage

X-Y Stage

High precision ball-screws and stepper motors	
Travel	310x310mm
Resolution	1.25 µm
Repeatability	± 4.0 μm
Accuracy	± 7.0 μm
Planarity	8 µm
Maximum speed	100mm/sec
Z Stage	
Precision ball-screws and stepper motors	
Travel	11mm
Resolution	1 µm
Repeatability	± 1.0 μm
Theta Stage	
Travel	± 8.0°
Resolution	0.0001°
Probe Platform	
Drive type	Manual
Z Travel	11.5mm
Material	Nickel Plated Steel
Graphical User Interface	
Windows 7, 8.1 and 10	
Communication Interfaces	
PC	TTL, RS232, GPIB (IEEE488.2), ETHERNET
Utilities	
Power	100-240 VAC 50/60 Hz auto select 600VA
Vacuum	0.5cfm @20" Hg (min)
Compressed air	4 bar min
Dimensions (WxDxH)	
Prober (excludes optics)	888x900x830mm 35x35.4x32.6"
Controller	450x480x180mm 17.5x19.5x7"
Weight	
Prober	100 kg
Controller	13 kg

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