



**Wentworth  
Laboratories**

[www.wentworthlabs.com](http://www.wentworthlabs.com)



# PROBE STATION S200

## SEMI AUTOMATIC PROBE STATION

The Pegasus™ S200 Semi Automatic Probe Station is designed as a low cost, compact, flexible probing platform enabling rapid probing of wafers.

### PEGASUS™ S200 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.

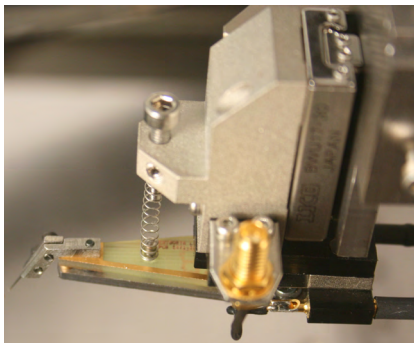
*Leader In ProbeAbility*

# 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™ S200 with Pegasus Probe™*



*Pegasus™ Controller*

## SPEED & FLEXABILITY

Pegasus™ S200 is specifically designed and highly recommended for the characterization of wafer sizes from 2" to 8", full or partial wafers. Pegasus™ S200 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™ S200 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

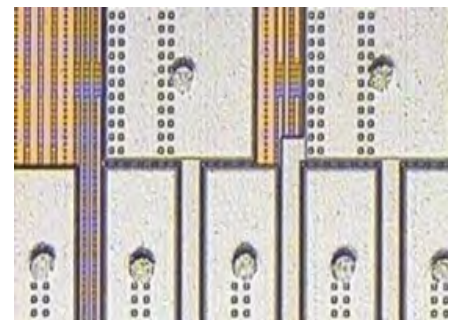
The Pegasus™ S200 probe station can accommodate various vacuum chuck designs for full and partial wafers, providing users the ability to electrically ground, float or bias the chuck.

## PEGASUS PROBE

Pegasus™ Probe is an integrated wafer edge and height sensor and is commonly used on the Pegasus™ S200. It combines both these functions into one compact unit and uses an open loop control system to automatically adjust the chuck Z height while probing - this is referred to as Active Wafer Profiling (AWR).

## ACTIVE WAFER PROFILING

The Pegasus™ S200 probe station supports Active Wafer Profiling which produces repeatable probe marks across 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™ S200 with intergrated keypad/joystick.

### EASY CONTROL

Wentworth's Pegasus™ S200 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™ S200 can be used in 'local' mode or 'remote' mode. This flexibility allows the prober to be easily integrated with industry standard testers and data acquisition software.

### VERSATILITY

The Wentworth Pegasus™ S200 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.



Pegasus™ S200 with ShieldMaster™

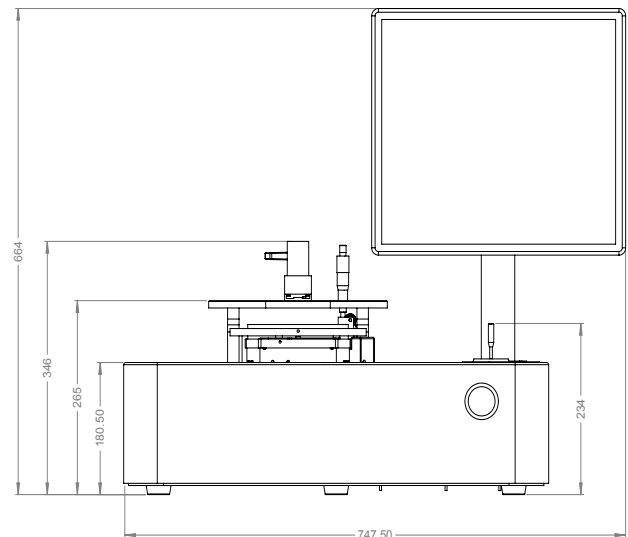
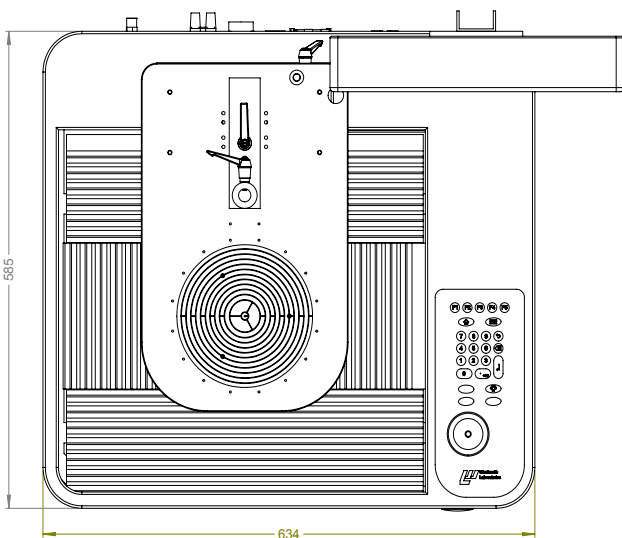
### ROBUST DESIGN

Combining stainless steel and aluminium in it's construction the Pegasus™ S200FA 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™ S200 SEMI-AUTOMATIC PROBE STATION

<b>Chuck Stage</b>	
X-Y Stage	
High precision ball-screws and stepper motors	
Travel	210x210mm
Resolution	1.25 µm
Repeatability	± 4.0 µm
Accuracy	± 7.0 µm
Planarity	8 µm
Maximum speed	100mm/sec
<b>Z Stage</b>	
Precision ball-screws and stepper motors	
Travel	11mm
Resolution	1 µm
Repeatability	± 1.0 µm
<b>Theta Stage</b>	
Travel	± 8.0°
Resolution	0.0001°
<b>Probe Platform</b>	
Drive type	Manual
Z Travel	11.5mm
Material	Nickel Plated Steel
<b>Graphical User Interface</b>	
Windows 7, 8.1 and 10	
<b>Communication Interfaces</b>	
PC	TTL, RS232, GPIB (IEEE488.2), ETHERNET
<b>Utilities</b>	
Power	100-240 VAC 50/60 Hz auto select 600VA
Vacuum	0.5cfm @20" Hg (min)
Compressed air	4 bar min
<b>Dimensions (WxDxH)</b>	
Prober (excludes optics)	572x700x300mm 33x32x34"
Controller	450x480x180mm 17.5x19.5x7"
<b>Shielding</b>	
Light	> 120 db
EMI	> 20 db 0.05-0.5 Ghz, 30 db 0.5-30 Ghz
<b>Weight</b>	
Prober	45 kg
Controller	13 kg

### UNITED KINGDOM / EUROPE

**Wentworth Laboratories Ltd**  
1 Gosforth Close  
Sandy, Bedfordshire  
SG19 1RB  
England

**Tel:** +44 1767 68 1221  
**Fax:** +44 1767 69 1951  
**Email:**  
CustomerServicesUK@  
wentworthlabs.com

### UNITED STATES

**Wentworth Laboratories Ltd**  
1087 Federal Road,  
Unit 4, Brookfield,  
Connecticut 06804  
**Tel:** 203 775 0448  
**Fax:** 203 740 7636  
**Email:**  
CustomerServiceDeptCT@  
wentworthlabs.com

### BELGIUM / NETHERLANDS CN Rood

Z.1 Reasearchpark 40  
1731 Zellik, Belgium  
**Tel:** +32 (0) 2 467 03 50  
**Email:**  
sbuelens@cnrood.com

### FRANCE, ITALY, MOROCCO & MALTA Sti

4 Rue des Beaumonts  
94120 Fontenay-sous-bois  
Paris  
France  
**Tel:** +33 (0)1 43 94 00 99  
**Email:** info@stifrance.  
com

### POLAND

**Testpol Sp. z.o.o**  
ul.Klecinska 125, 54-413  
Wroclaw, Poland  
**Tel:** +48 71 783 63 60  
**Email:** testpol@testpol.  
com.pl

### ISRAEL

**DANEL Technologies Ltd**  
58, Amal Street  
Kirat Ari Petach Tikva,  
Israel  
**Tel:** +972 (0) 3 927 1888  
1666  
**Email:** sales@danel.co.il

### INDIA

**Electronic Enterprises PVT Ltd**  
No 12 1st Floor 3rd Main  
Road, Shivnagar, West of  
Chord Road, Bangalore  
560010, India  
**Tel:** +91 080 338 0451  
**Email:**  
eehyd@hotmail.com

### CHINA

**Quatek Inc.**  
Unit 2112, 21F Yong  
Sheng Towers,  
2025 West Zhong Shan  
Road  
Shanghai, P.R.C (P.C.  
200235)  
**Tel:** +86-21-6481-3366  
**Email:**  
sales@quatek.com.cn

### TAIWAN

**Quatek Co. Ltd**  
4/F, 308, Sec. 1 Nei Hu  
Road, Nei Hu, Taipei  
11493, Taiwan, R.O.C.  
**Tel:** 886 2 2797 3357  
**Fax:** 886 2 2797 3957

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