

| SEMICONDUCTOR · STEP POLISHING

# ANT-PL 550

**Step Polishing Machine** · Precision finishing for stepped surfaces

Dedicated machine for polishing circular products with **stepped surfaces**. Capable of precision polishing **Si**, **SiO<sub>2</sub>**, and **SiC** semiconductor materials with **PC and NC SERVO controller**–based precision control of T-axis position and load.



**Ø 600**  
 MAX. WORK RANGE

**-45° ~ +30°**  
 T-AXIS SPINDLE TILT

**120 RPM**  
 TABLE ROTATION

## KEY FEATURES

- 01 Large-Diameter Step Polishing**  
 Supports stepped circular products up to Ø 600 mm.
- 02 T-Axis Tilt Range**  
 Spindle tilts -45° to +30° for precise position & load adjustment.
- 03 Stable High-Speed Rotation**  
 Work table rotates up to 120 RPM for uniform finish.
- 04 PC + NC SERVO Precision**  
 Coordinated controller maintains tight load and position tolerance.
- 05 Semiconductor-Grade Materials**  
 Polishes Si, SiO<sub>2</sub>, SiC — etch electrodes & consumables.

## COMPATIBLE MATERIALS

Si (Silicon)	SiC (Silicon Carbide)	SiO <sub>2</sub> (Quartz)
AlN	Alumina	Sapphire

## TECHNICAL SPECIFICATIONS — ANT-PL 550 · Standard specs · custom design available

CONTROL & DRIVE	
Control Shaft	Simultaneous 6-axis · Synchronous 5-axis · Macro Program · Machining time setting
Servo Motor	YASKAWA Σ7
MACHINE BODY	
GC300 Table	Metal Casting · Gross Weight 2,200 kg
AXIS MOTION RANGE	
X-Axis	550 mm (V = 500 mm/sec)
Y-Axis	390 mm (V = 500 mm/sec)
Z-Axis	250 mm (V = 200 mm/sec)
T-Axis (Spindle Tilt)	-45° ~ +30°
TOOL & SPINDLE	
Tool Press Force	Max 5 kgf (Tool Clamp) · Collet ER25 (Max Ø 16)
Tool Drive	AC Servo Motor 400W · 80ADA 750W
Z2 Cylinder Pressure	5 ~ 50 kg/cm <sup>2</sup> (LOADCELL 50 kg) · Load Sensing Display
Spindle RPM	Up to 4,500 (3,000 nominal) · YASKAWA Servo
Spindle Shaft	Ø 20 (C7004-P5)
Tool Change	Manual A.T.C (ISO20)
Work Table Rotation	Max 120 RPM
OPERATION & COMMUNICATION	
OP Panel	M21 · Color 12" TFT LCD
Controller	Mitsubishi P.L.C 6-Axis Controller
Communication	RS232C · USB Port
WORKPIECE & FOOTPRINT	
Max Work Area	Ø 500 mm
Workpiece Weight	60 ~ 80 kg
Equipment Dimensions (W × L × H)	1,300 × 2,100 × 2,000 mm

## ABOUT SAEHAN NANOTECH

### Precision machining equipment for hard & brittle materials — built in Korea, delivered worldwide

Korean manufacturer of precision machining equipment for hard & brittle materials, serving the **semiconductor, display, defense, rare earth permanent magnet, and battery** industries. Manufactured in **Changwon, Korea**, exported to **USA, China, Vietnam, and Malaysia**. Full lifecycle support — from independent R&D and custom design through installation, training, and after-sales service.

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TEL [+82 70-7791-7058](tel:+827077917058)

EMAIL [info@sae hannanotech.com](mailto:info@sae hannanotech.com)

WEB [en.sae hannanotech.com](http://en.sae hannanotech.com)