



Drilling Machine, Routing Machine

6IC series

High-precision drilling and routing machines featuring six-axis independent correction with an advanced vision system on each axis.

Delivers exceptional accuracy with multilayer PCB fabrication and back drilling processes. The lineup also includes routing machines optimized for precise counterbore and cavity machining.



Via Mechanics, Ltd.

6IC series

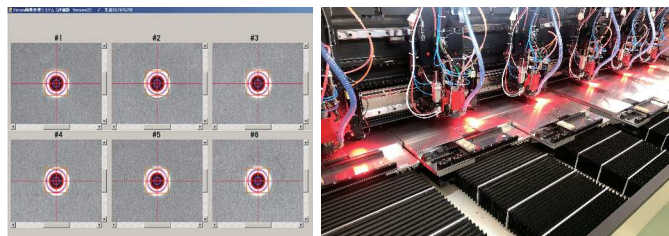
High-precision drilling and routing machines featuring six-axis independent correction with an advanced vision system on each axis.

Supports high-precision, high-volume production of multilayer PCBs and back drilling applications, further, precision counterbore and cavity machining

□ Vision System

Each of the six axes is equipped with a dedicated vision camera, enabling independent positioning, scaling, and rotation correcting for each station according to the specific workpiece.

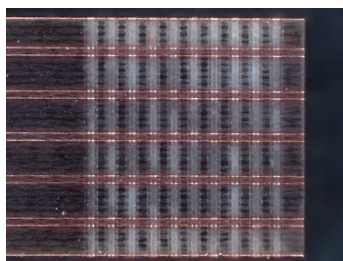
Moreover, the newly developed vision system ensures highly reliable detection of alignment mark centers.



Features of the Drilling Machine

□ High-Torque High-Speed Spindle

- New 300,000 rpm High-Torque Spindle "V300A"
- Boosted large-diameter drilling speed range torque by 180% (compared to our previous model), allowing for a wide variety of applications, from PKG substrates to multilayer boards.
- Also supports small-diameter drilling in thicker, high-layer multilayer boards.



Example: Cross section of t4.0 mm, $\Phi 0.2$ mm drilling

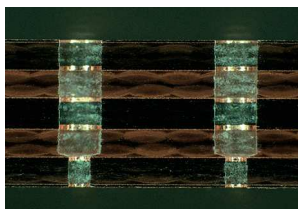
□ High-Precision Blind Hole Function

Incorporates a %BH function that compensates for board thickness by mapping the top surface of the table.

□ High-Precision Back Drill Function

Combines inner-layer detection with the new vision system for highly accurate positioning, enabling precise back drilling.

Back drill depth: L5 layer
Through hole: $\Phi 0.2$ mm
Back drill: $\Phi 0.4$ mm

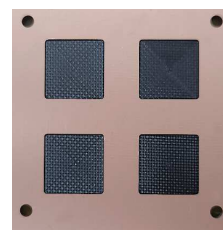


Features of the Routing Machine

□ Supplied with Advanced Counterbore Functions with touch/scale process

Supporting high-precision counterbore processing and next-generation embedded component substrates with precision cavity machining.

Cavity dimensions: 10mm $\times$ 10mm, Depth: 0.2mm



□ A variety of options are available, including vacuum adsorption tables, QIC systems, and more.

Primary specifications

Models	ND-6IC2528	NR-6IC2528
Classification	Drilling Machine	Routing Machine
Max Drilling area	635 $\times$ 735mm	635 $\times$ 725mm
Spindle	V200A : 200,000min ⁻¹ V300A : 300,000min ⁻¹	AST : 60,000min ⁻¹ HR08A : 80,000min ⁻¹
Drill Diameter	$\Phi 0.1 \sim \Phi 6.35$ mm ($\sim \Phi 5$: V300A)	$\Phi 0.3 \sim \Phi 6.35$ mm
Number of ADC	300kinds $\Phi 3.175$ shank	200kinds $\Phi 3.175$ shank
Z-Axis feed rate	0.101 $\sim$ 12.7m/min	0.101 $\sim$ 10.0m/min
XY positioning accuracy	± 0.004 mm	± 0.005 mm
Machining Accuracy	± 0.015 mm	± 0.050 mm
CNC	MARK-55N	

Please note that the contents of this catalog are subject to change without prior notice.



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