

ND-6MA2126/6QA2126

High-Speed, High-Precision Microvia Drilling Machine

High-end machine model equipped with the fastest spindle in the industry that achieves the ultra-high-speed, high-precision drilling of microvia.



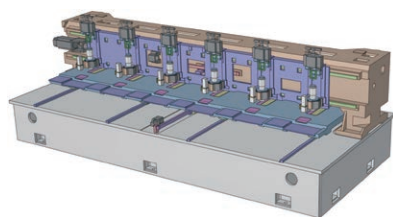
ND-6MA2126/6QA2126

High-Speed, High-Precision
Microvia Drilling Machine

High-end machine model that meets the demands of drilling high-performance substrates such as HDI and semiconductor package substrates.

□ High-rigidity structure that makes ultra-high-speed drilling possible

In order to enable ultra-high-speed, high-precision processing, the mechanical framework of this machine was given an uncompromised high-rigidity structure. Its servo control system and software were renewed to enable further improvements in productivity, operability and efficiency.



□ Equipped with an ultra-high-speed spindle (350krpm)—the fastest in the world—providing a competitive advantage in the field of microvia drilling

Features a lineup of UH35Z developed with original technology with the industry's fastest speed at 350krpm.

These ultra-high-speed spindles achieve high efficiency in drilling microvia.

The design, development, manufacturing and repair of the spindles all in-house ensures high reliability.

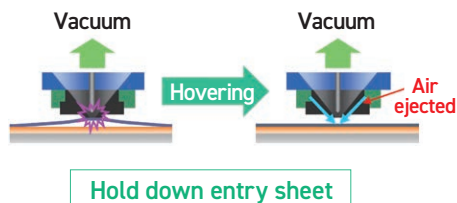
The sales performance of Via Mechanics' ultra-high-speed spindles are top-class in the industry.



□ Hovering drill function

The hovering drill function minimizes the stroke of the Z-axis to the limit.

A structure that directly drives the spindle up and down with an air-guided Z bush and linear motor greatly contributes to cycle time reduction.



□ Equipped standard with online operation rate monitoring system

This machine accommodates an integrated control system for a more enhanced level of productivity. Using an online operation rate monitoring system that provides data on operation rates in real time, the ND-6MA2126/6QA2126 realizes the centralized control of operation status that also covers previous drilling machine models, thereby contributing to productivity.



□ Vision system function (Optional)

The ND-6MA2126/ND-6QA2126 can be equipped with a "Vision System" CCD camera system that enables the drilling of common corrections across all of the stations for the XYθ axes.

□ High-precision blind hole drilling function (Optional)

Touch blind hole drilling function that uses electrical touch sensing technology at the tip of the tool.

Depth accuracy $\pm 15\mu\text{m}$ (Via Mechanics criteria)

Primary specifications

Models	ND-6MA2126	ND-6QA2126
Max. Drilling area	538×670mm (21×26inch)	
Spindle	H930Z ($\Phi 3.175\text{mm}$ drill shank) 20k~300krpm	UH35Z ($\Phi 2\text{mm}$ drill shank) 30k~350krpm
Drill Diameter	$\Phi 0.05\text{--}3.2\text{mm}$ ~4.0mm (Via Mechanics criteria)	
Number of ADC	250kinds; 250tools/station	300kinds; 1,050tools/station
Z axis feed rate	0.101 ~ 12.7m/min	
XY positioning accuracy	$\pm 0.004\text{mm}$	
Drilling accuracy	$\pm 0.015\text{mm}$ (Via Mechanics criteria)	
CNC	MARK-55N	



Via Mechanics, Ltd.

Headquarters: 9-32 Tamura-cho, Atsugi-shi, Kanagawa Prefecture, 243-0016 Japan

Tel. +81-46-203-9687 Fax. +81-46-203-9690

<https://www.viamechanics.com>

