

PRODUCT

DATA SHEET



Bending
Cutting
Welding
Marking

2025-2026

HIGHTECH INDUSTRY GROUP

BUILD . TO LEAD .

HT R3

CNC ROUTER ENGRAVING MACHINE

E-SERIES



Sturdy Structure
Industrial-grade welded steel base for high stability; precision-machined XY-axis guide rails for durability and accuracy.

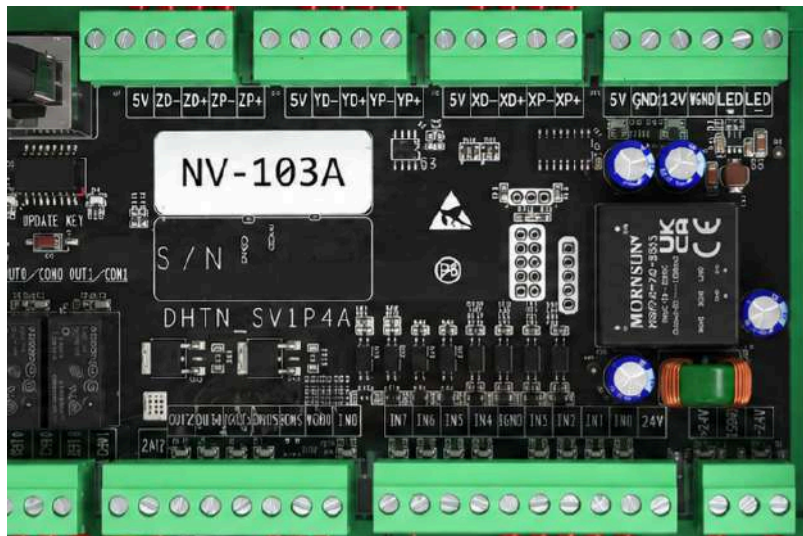
High-Speed Drive System, High-Torque Spindle, 3.2 kW water-cooled spindle ensures precision even at high speeds.

Durable Worktable, Aluminum T-slot design, maintenance-free, compatible with all materials.

3.2 KW WATER-COOLED SPINDLE

FOR UNMATCHED PRECISION, THE MACHINE FEATURES A 3.2 KW WATER-COOLED SPINDLE DESIGNED FOR HIGH TORQUE.

THIS ROBUST SYSTEM GUARANTEES ACCURATE CUTTING PERFORMANCE AND MAINTAINS PART INTEGRITY EVEN AT TOP SPEEDS.



NV103A CONTROL BOARD

ENGINEERED FOR PROFESSIONALS, OUR SYSTEM ENSURES STABILITY WITH ITS INDUSTRIAL-GRADE HARDWARE AND CARD-BASED CONTROLLER.

THE MULTI-WINDOW INTERFACE AND EXCEPTIONAL COMPATIBILITY WITH POPULAR CAD/CAM TOOLS STREAMLINE YOUR ENTIRE DESIGN-TO-PRODUCTION PROCESS.

PARTS

450A DRIVER SYSTEM

EXPERIENCE EXCEPTIONAL PERFORMANCE POWERED BY THE SYNERGY OF A LEADSHINE HIGH-SPEED XYZ-AXIS DRIVE SYSTEM AND A 450A DRIVER.

THIS ROBUST SETUP PROVIDES THE HIGH TORQUE AND STABILITY NEEDED FOR OUTSTANDING PRECISION, FASTER SPEEDS, AND A SIGNIFICANTLY EXTENDED MACHINE SERVICE LIFE.





FREQUENCY SYSTEM

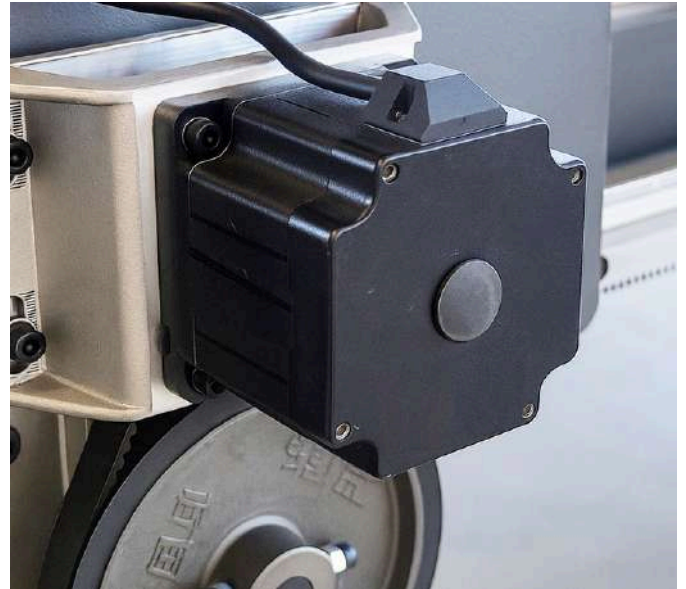
EXPERIENCE UNWAVERING STABILITY. A MILITARY-GRADE FILTERING SYSTEM SHIELDS OUR 3.0 KW FREQUENCY CONVERTER.

GUARANTEEING SMOOTH, UNINTERRUPTED OPERATION AND PROTECTING YOUR MACHINE'S PERFORMANCE AND PRECISION.

MOTOR SYSTEM

THE HIGH-PERFORMANCE MOTORS ON THE XYZ AXES ARE CENTRAL TO THIS CAPABILITY.

THESE MOTORS DELIVER HIGH TORQUE, EXCEPTIONAL SPEED, AND REMARKABLE STABILITY, ENSURING LONG-TERM ACCURACY AND ENHANCING THE MACHINE'S OPERATIONAL LIFESPAN.



PARTS



GEAR RACKS

EXPERIENCE REMARKABLY SMOOTH HIGH-SPEED PERFORMANCE.

THIS IS ACHIEVED BY PRECISION GEAR RACKS (MODULE 1.25, GROUND ON THREE SIDES) DRIVING ALL THREE AXES, WHICH ELIMINATE VIBRATION FOR STABLE OPERATION.



AUTOMATIC LUBRICATION

SAY GOODBYE TO MANUAL GREASING.

THE PROGRAMMABLE AUTOMATIC LUBRICATION SYSTEM OILS THE RAILS AT SET TIMES, ENSURING BUTTERY-SMOOTH MOTION AND PROTECTING YOUR MACHINE, ALL WHILE SAVING YOU VALUABLE TIME AND RESOURCES.

PARTS

SQUARE LINEAR GUIDES

FOR PRECISE MOVEMENT, THE X AND Y AXES USE 2.0 SQUARE LINEAR GUIDES.

WHILE THE Z-AXIS IS EQUIPPED WITH A TBI BALL SCREW FROM TAIWAN, ENSURING HIGHLY ACCURATE CUTTING.



LEVELING FOOT

ENSURE STABLE OPERATION AND PROTECT YOUR MACHINE.

THE ADJUSTABLE BASES ON ALL SUPPORT LEGS ALLOW FOR PERFECT LEVELING ON ANY FLOOR, WHILE THE BUILT-IN RUBBER PADS PROVIDE RELIABLE PROTECTION AGAINST STATIC ELECTRICITY.

Technical Parameters

Model	HT-R3 E
Working Bed Size	1300*2500/1500*3000
Feeding Height	200mm
Packing Size	3530*2210*1720mm/3650*2250*1860
Packing Weight	780KG/1200KG
Working Voltage	Single Phase AC 220V 50Hz / 110V 60Hz
Input G Code Format	.nc, .tap, .gcode, .cnc, .txt
Driver	Leadshine Micro-step Drive
Cabinet	Inside Electrical Control Cabinet
Spindle	3.2 kW Water-Cooled Spindle
Guide	2.0 Square Linear Guides
Control System	NV-103A control system+Wireless Controller
Frequency System	YELTDA brand 4 kW Frequency Converter
Motor System	Leadshine Micro-stepping Motor
Gear Racks	Precision (Module 1.25, Ground on three sides)
Lubrication System	Automatic Lubrication System Oils
Working Table	T-Slot Table
Applicable Material	PVC, Wood, MDF, Acrylic, Polycarbonate, ACP Aluminum



PVC



ACP



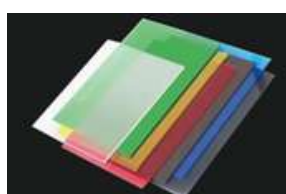
MDF

ACRYLIC

POLYCARBONATE

WOOD

ALUMINUM



ABOUT US

BUILD . TO LEAD .



Based in Weifang, Shandong, our modern manufacturing base covers over 12,000 m² and integrates research, development, production, and testing in one facility – ensuring stability, efficiency, and quality at every stage.

Hightech provides professional installation, training, and lifetime technical support. Our responsive service team and spare-parts centers ensure fast solutions and long-term reliability for every customer.



Equipped with advanced CNC machining centers, laser cutting systems, precision welding equipment, and intelligent assembly lines, Hightech continuously upgrades its technology to meet global industrial standards.



Driven by passion and professionalism, our international team of engineers, designers, and sales specialists works together to deliver innovative machines and trusted partnerships worldwide under the Hightech brand.





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