



金格科技股份有限公司
TOPKING TECHNOLOGY CO., LTD.

HYDROSTATIC CENTERLESS GRINDER

NC series

H-5020-NC
H-5025-NC



The H Series is built around static pressure technology, offering high precision, low wear, and long-term stability to ensure consistent processing quality. The wheel spindle, regulating wheel spindle, and feeding axis (lower slide rail) are supported by a static pressure oil film, allowing for contact-free operation. This prevents mechanical wear and maintains high precision even during extended use.

Its high rigidity and damping characteristics effectively reduce vibration, enhancing stability and surface quality during machining. The minimum feed rate is as low as 0.0005mm, ensuring excellent roundness, surface quality, and dimensional accuracy of the workpiece.

FEATURES

HYDROSTATIC SPINDLE AND SLIDE RAIL

- No abrasion between metal to metal, improving the service life of the machine.
- Extremely low metal friction. Low-temperature rise during processing, not easy to deform, improves processing stability and component accuracy.
- High-pressure oil film wraps around the spindle, suitable for high-speed rotation.
- High-precision application and constant rotation ensure rotation accuracy.

ACCUMULATOR FOR PROTECTION DEVICE

The special pressure accumulator design can make the hydrostatic oil return to the hydrostatic system of the main shaft when the pressure drops due to power failure. It can avoid the damage caused by the momentary loss of static pressure oil film caused by power failure when the spindle is running at high speed.

HYDROSTATIC GUIDEWAY CONSTRUCTION

- R.W. lower slider (infeed axis) is a hydrostatic guideway construction design. This provides various features such as extremely smooth and fast sliding movement, high precision feeding accuracy, and stable grinding accuracy.
- The lower feeding axis is driven by a servo motor cooperating with a harmonic reducer. The advantages are reducing backlash, increasing torque, improving grinding efficiency, and stabilizing precision grinding quality.

OIL COOLANT SYSTEM

The oil coolant system is equipped with an oil cooler to effectively maintain a constant oil temperature and prevent the spindle from affecting the machining accuracy due to changes in oil temperature.

SPECIFICATION

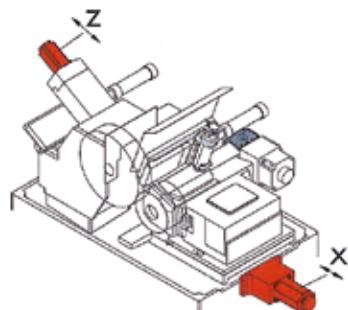
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	MODEL	H-5020-NC	H-5025-NC
CAPACITY	Standard Grinding Range (dia.)	Ø2 ~ Ø75 mm	
	Max. Infeed Length	250 mm	
	Auto. Infeed Min. Increment	0.0005 mm	
GRINDING WHEEL	Size (O.D. x width x I.D.)	Ø510x205xØ304.8(7A) mm	Ø510x255xØ304.8(7A) mm
	Linear Velocity	33 m/sec (45 m/sec)	
REGULATING WHEEL	Size (O.D. x width x I.D.)	Ø330x205xØ177.8(7A) mm	Ø330x255xØ177.8(7A) mm
	Speed	10 ~ 220 rpm	
	Tilt Angle	+5° ~ -3°	
	Swivel Angle	±5°	
HAND WHEEL GRADUATION	Upper Slide Feed	3.5 mm/rev. (0.05 mm/graduation)	
	Lower Slide Micro-Feed	0.1 mm/rev. (0.001 mm/graduation)	
	Trimming Device	2 mm/rev. (0.01 mm/graduation)	
DRIVE MOTORS	Grinding Wheel	11.25 kW (6P)	
	Regulating Wheel	5.0 kW (servo motor)	
	Lower Slide Feed Motor (X-axis)(NC one axis)	1.5 kW	
	Hydraulic Pump	0.18 kW	
	Coolant Pump	0.37 kW	
	Hydraulic Oil Chiller	1.0 kW	
TANK CAPACITIES	Hydraulic Oil Tank	90 L	
	Coolant Tank	160 L	
MACHINE	Dimension (L x W x H)	3810 x 1620 x 2160 mm	

*The mentioned specifications & dimensions are subject to change without notice.

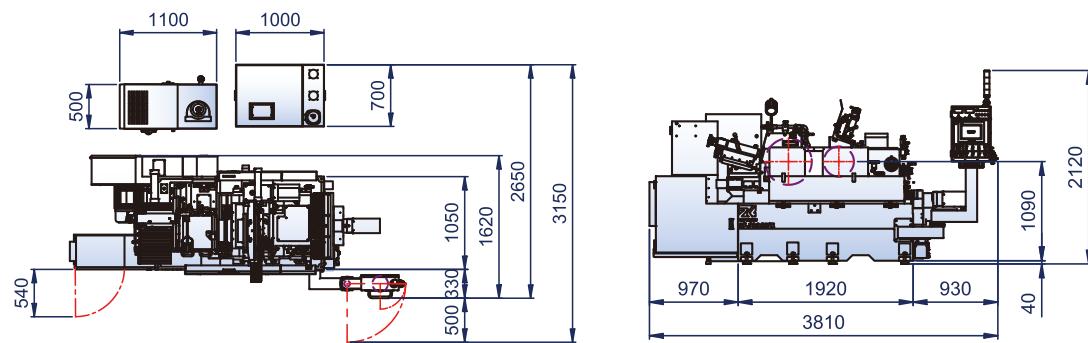
AXIAL COMBINATION

One axis : X-axis: R.W. lower slide auto. in-feed control
 Two axes: Z-axis: G.W. auto. dressing (Vertical) /
 X-axis: R.W. lower slide auto. in-feed



FLOOR SPACE :

(unit :mm)



STANDARD ACCESSORIES

- Grinding Wheel and Flange x 1 set
- Regulating Wheel and Flange x 1 set
- Infeed Work Rest and Carbide Blade x 1 set
- Thrufeed Work Rest and Carbide Blade x 1 set
- Diamond Tools (2 pcs/set) x 1 set
- Electric System x 1 set
- Hydraulic System (with an oil coolant and an accumulator) x 1 set
- Coolant System x 1 set
- Work Lamp x 1 set
- Tools (Leveling Pad) and Tool Box x 1 set

OPTIONAL ACCESSORIES

- Wheel Balancing Stand & Arbor
- Profile Grinding Attachment
- Grinding Wheel Ionization Dressing Device
- Hydraulic Work Ejector (Infeed Grinding)
- Manual Feeder For Infeed Grinding (Up and Down)
- Auto. Loading Attachment (Thrufeed Grinding)
- Automatic Feeder (Thrufeed Grinding)
- Auto. Unloading Attachment (Thrufeed Grinding)
- V Type Supporter for Long Bar Grinding
- Auto. Loading and Unloading Attachment (Infeed Grinding)
- Vibratory Feeder (Thrufeed Grinding)
- Fully Splash Guard
- Magnetic Coolant Separator
- Paper Filter
- Hydro cyclone Coolant Separator



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TOPKING TECHNOLOGY CO., LTD.

412037 台灣台中市大里區工業9路49號

No. 49, Gongye 9th Rd., Dali Dist., Taichung City 412037, Taiwan

T: 886-4-24932121 F: 886-4-24963131 E: topking@topking-tech.com

www.topking-tech.com



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