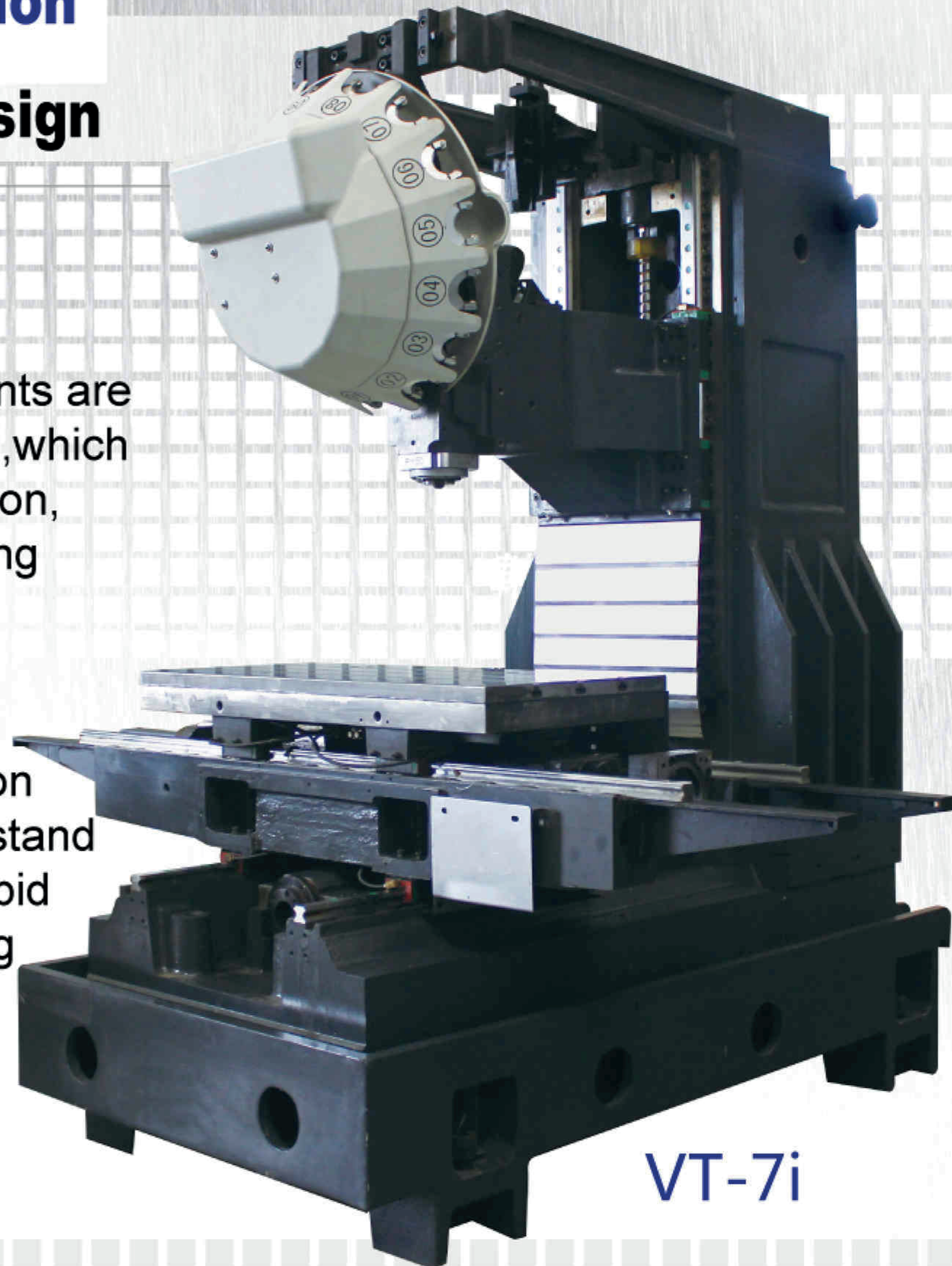


CNC TAPPING CENTER VT-7i

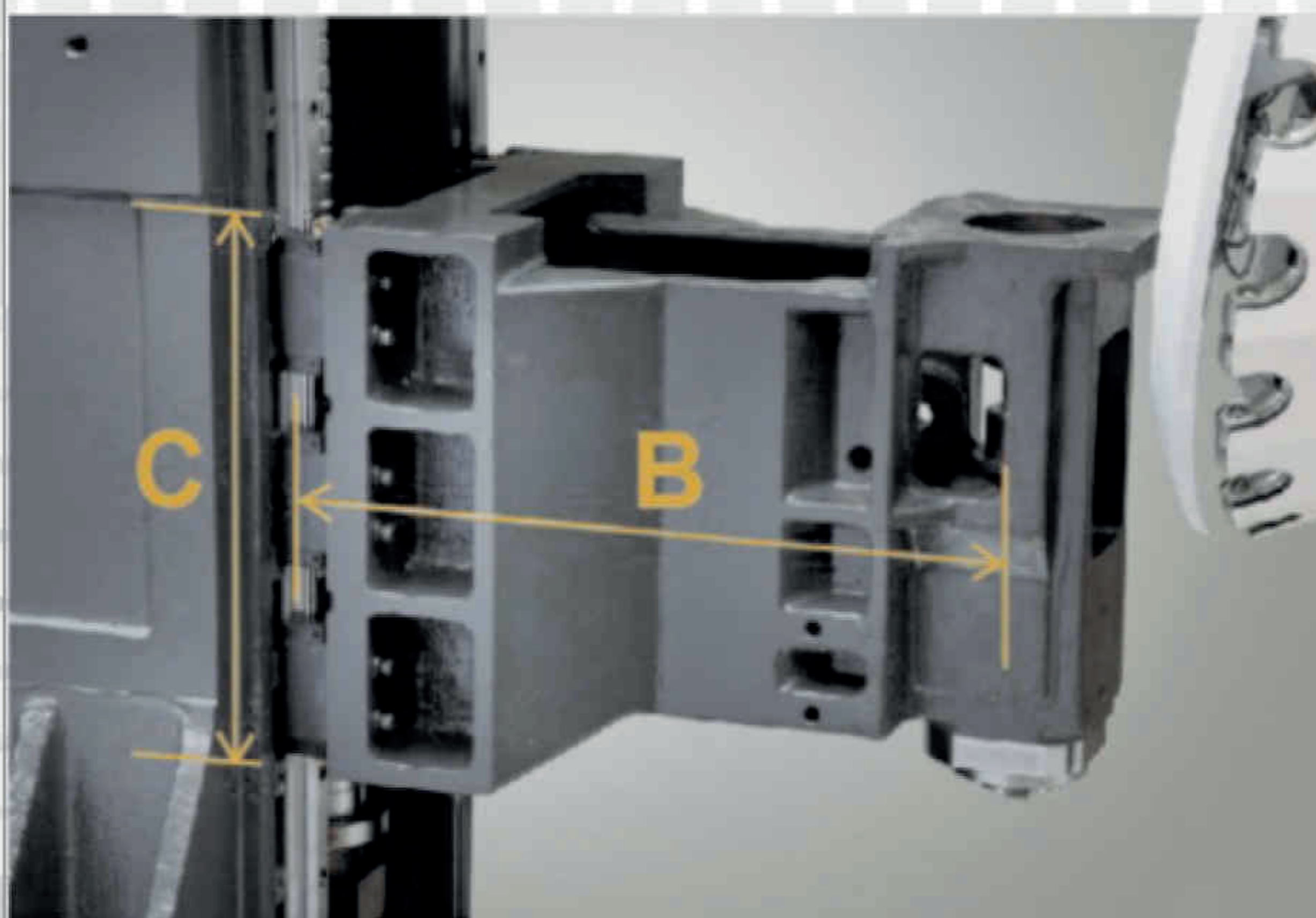


High-rigidity&High-precision Structural Design

- The major machine components are based on Meehanite cast iron, which is stable in material composition, ensuring machine's long-lasting structural quality.
- Linear guide way is adopted on all three axes in order to withstand heavy loading and tolerate rapid movement, as well as ensuring precise positioning.



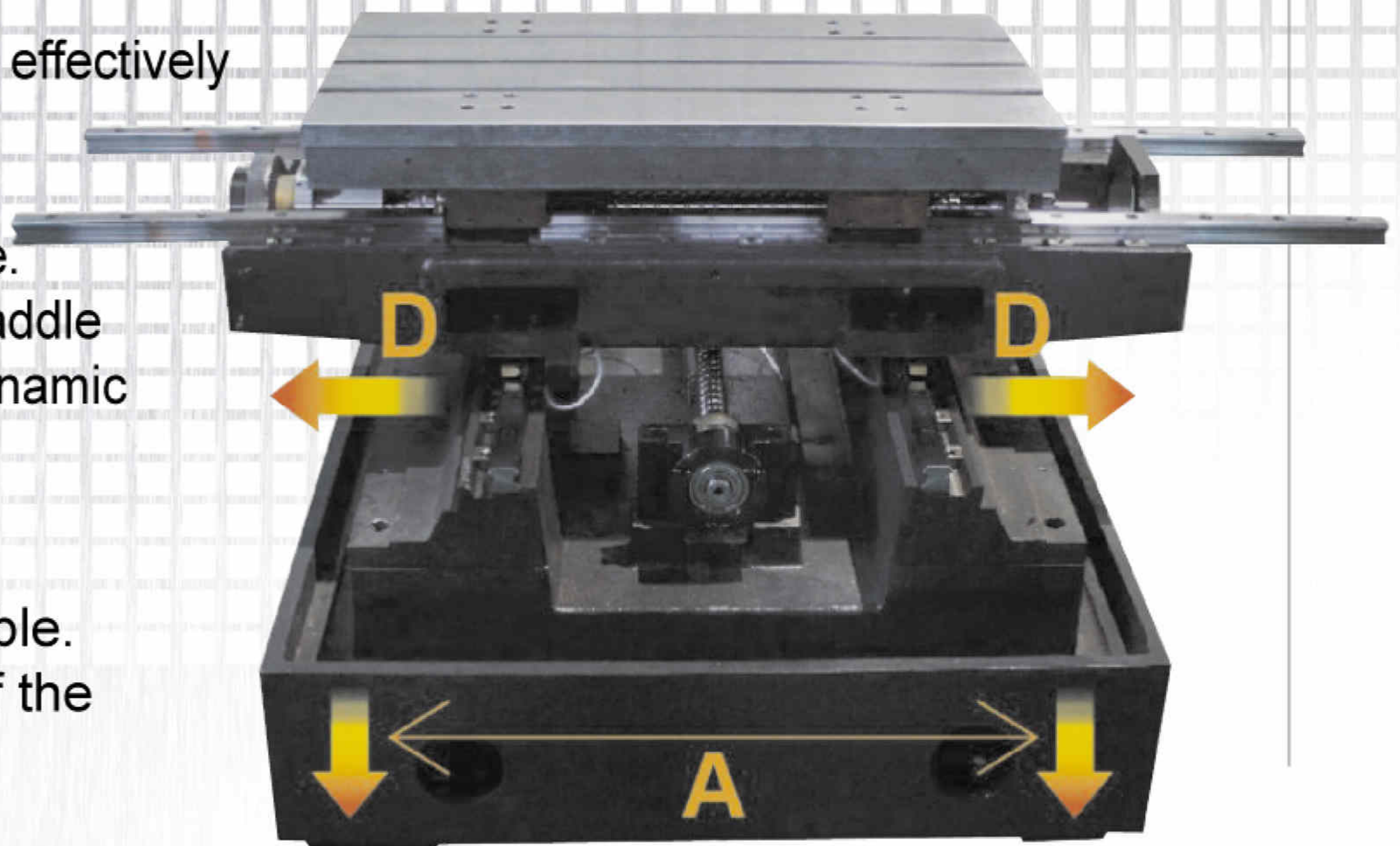
VT-7i



- Optimized design of contacting ratio between Spindle head and column(A:B) provides spindle Head & Spindle rigidity in heavy cutting load, as well as ensures geometric precision of spindle.

Structural Design of Base Large-span Base Design

- The large-span base effectively supports and evenly disperses the load force from the saddle. Short cantilever of saddle ensures excellent dynamic precision.
- Heavy-duty worktable. Effective support of the machining load.



IDD-The Optimal Heat Isolation Design Isolated Direct Drive System

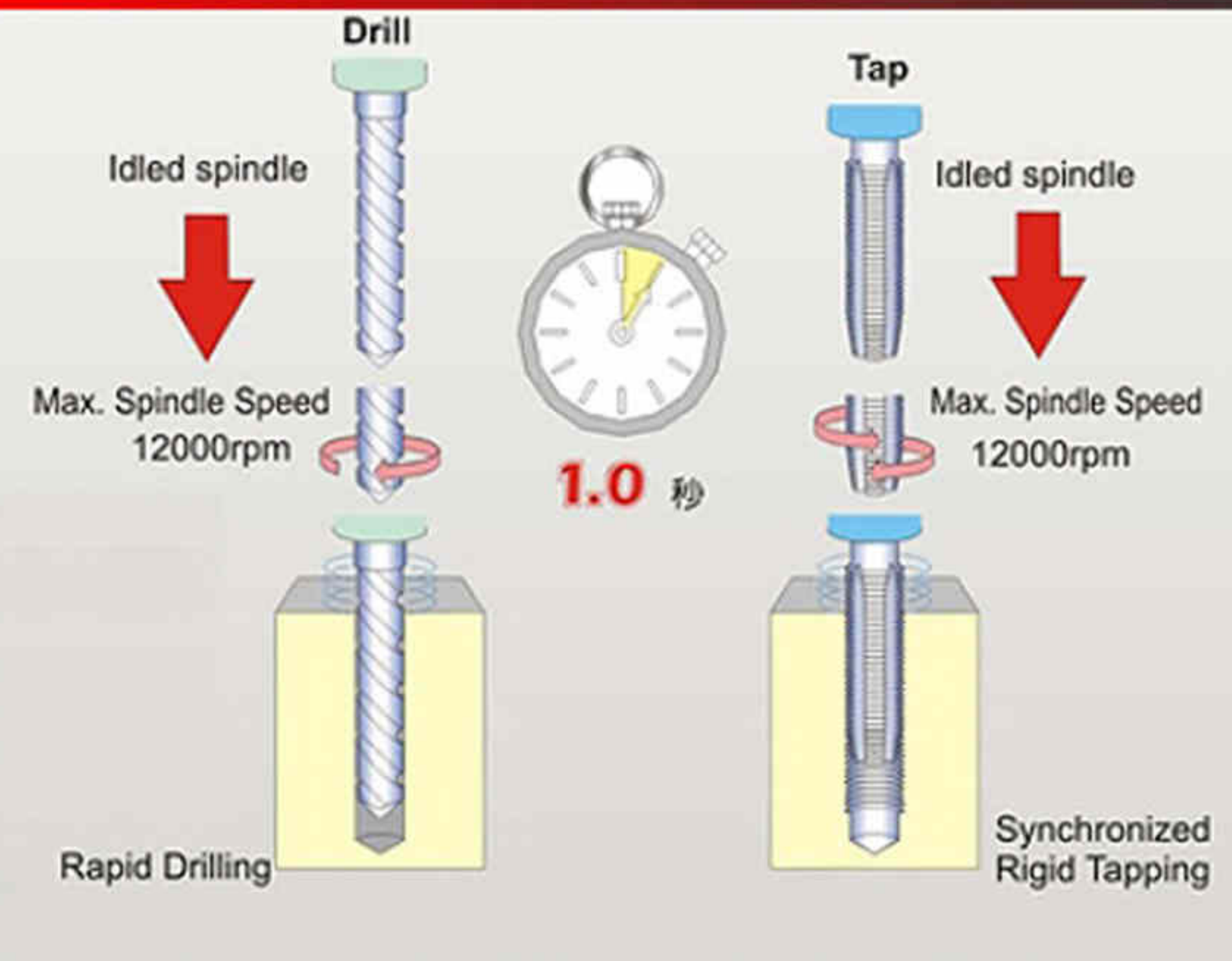
- The spindle operates without thermal effect from main motor. Thermal displacement is reduced, thus, the spindle precision and lifespan is guaranteed.
- The spindle is directly coupled to the motor. No noise, backlash, or vibration problems.
- The transmission efficiency is extended from integration of direct coupling. The high quality rigid tapping can be achieved through rotation detection of the motor directly.



High-performance Spindle Unit



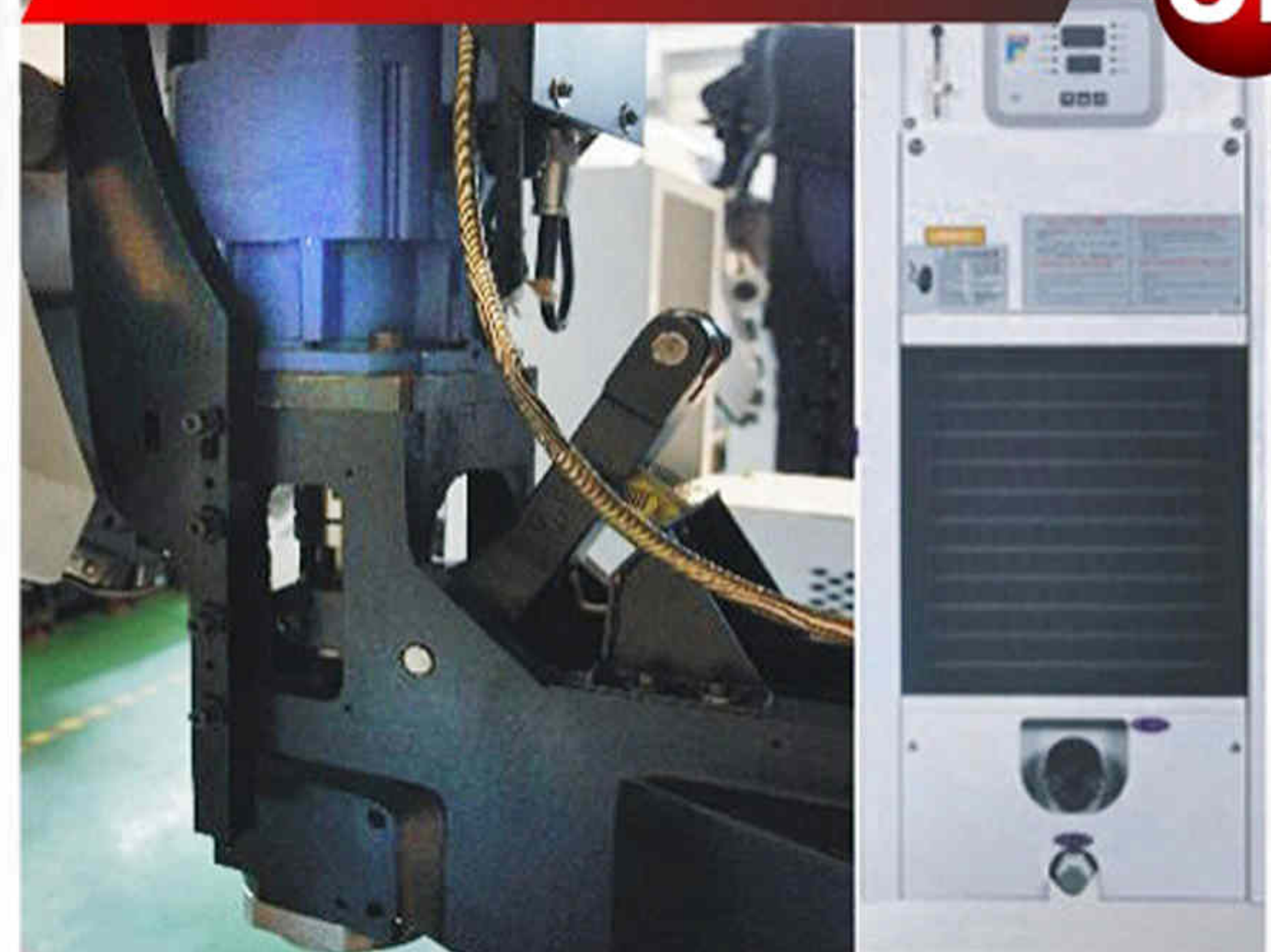
Low-Inertia Spindle Motor Characteristics (Mitsubishi)



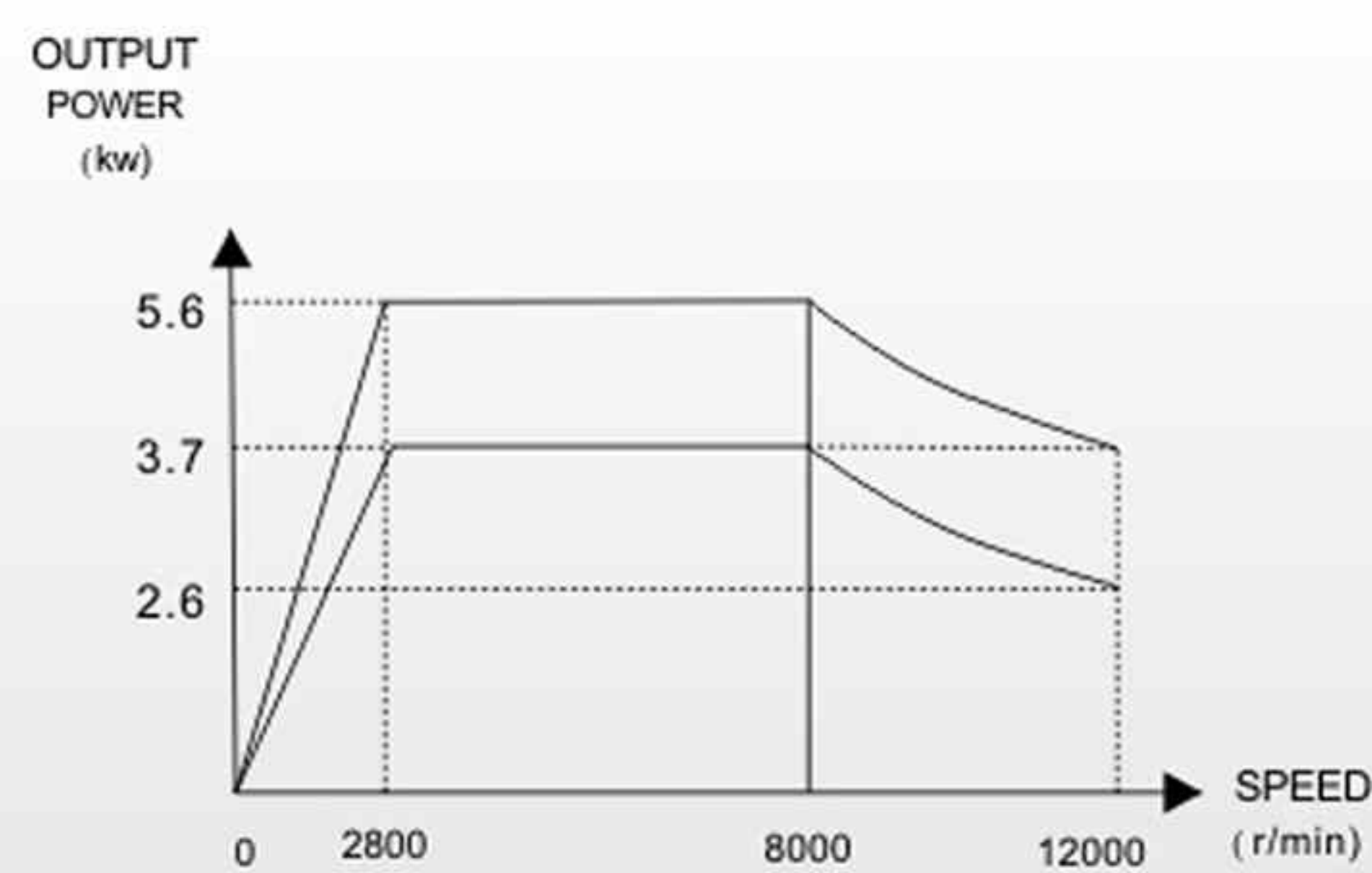
Spindle Direct Drive System



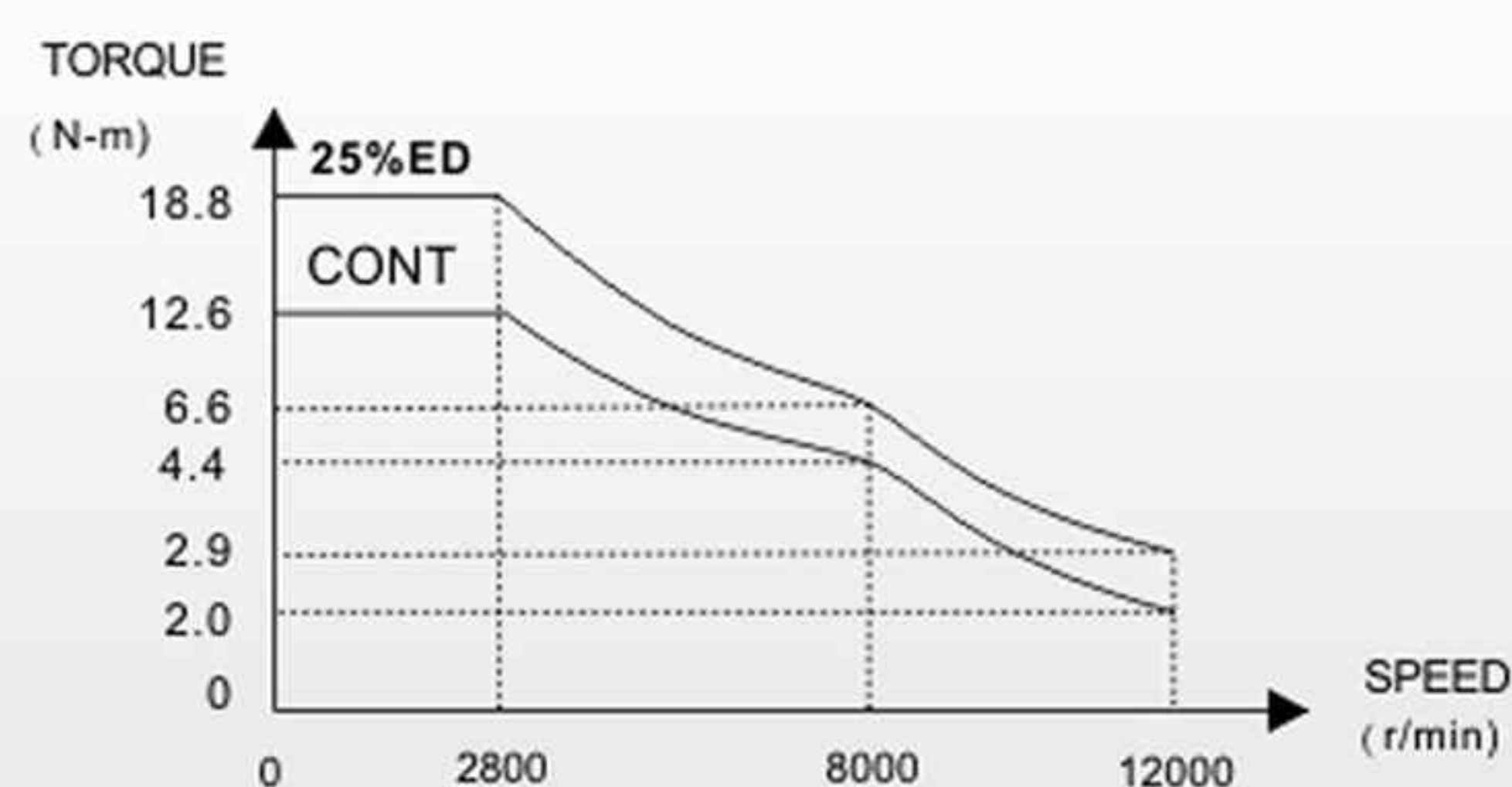
Spindle Coolant System



12000 RPM Spindle Power and Torque

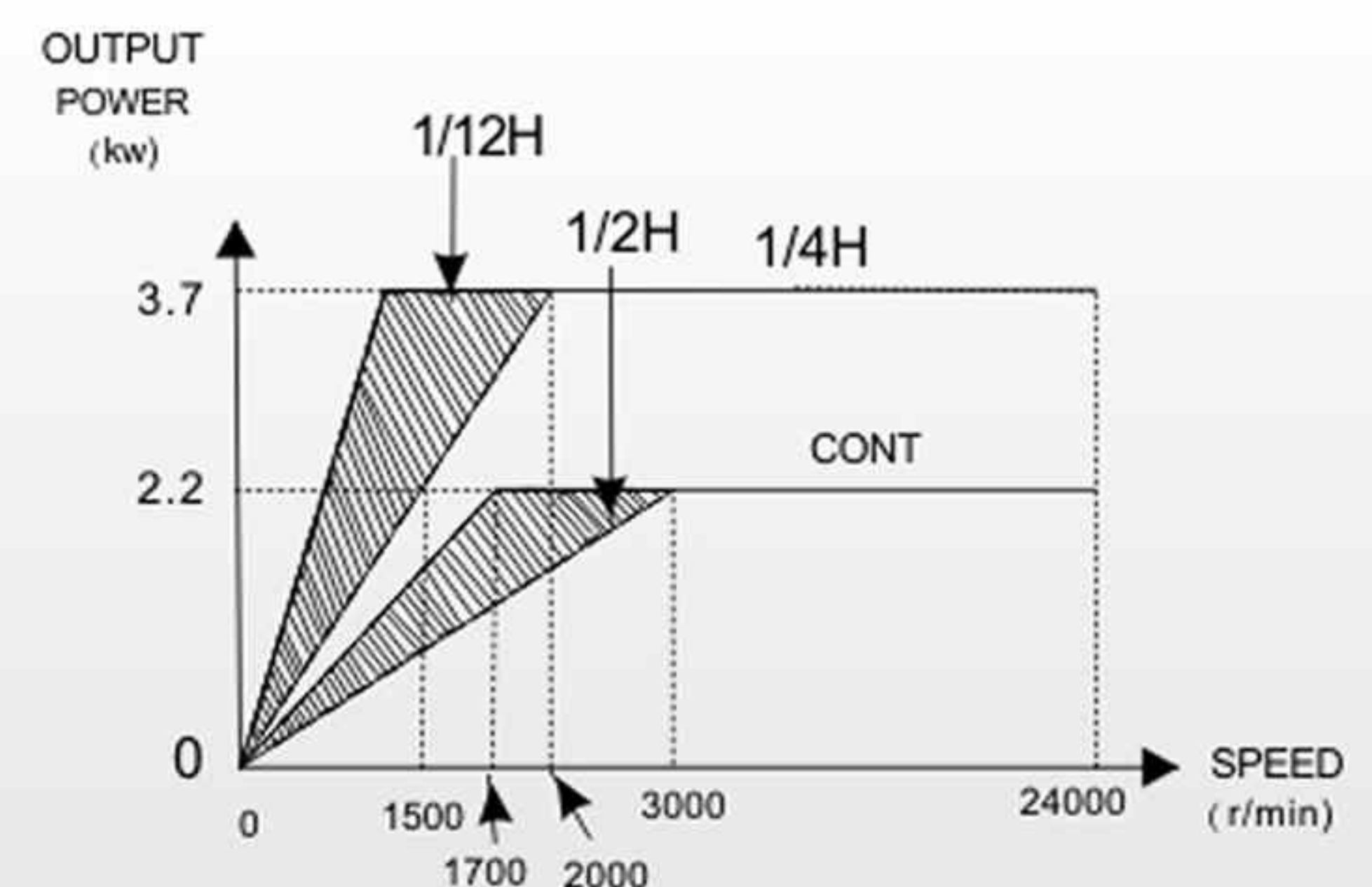


OUTPUT POWER - SPEED CHARACTERISTIC NORMAL

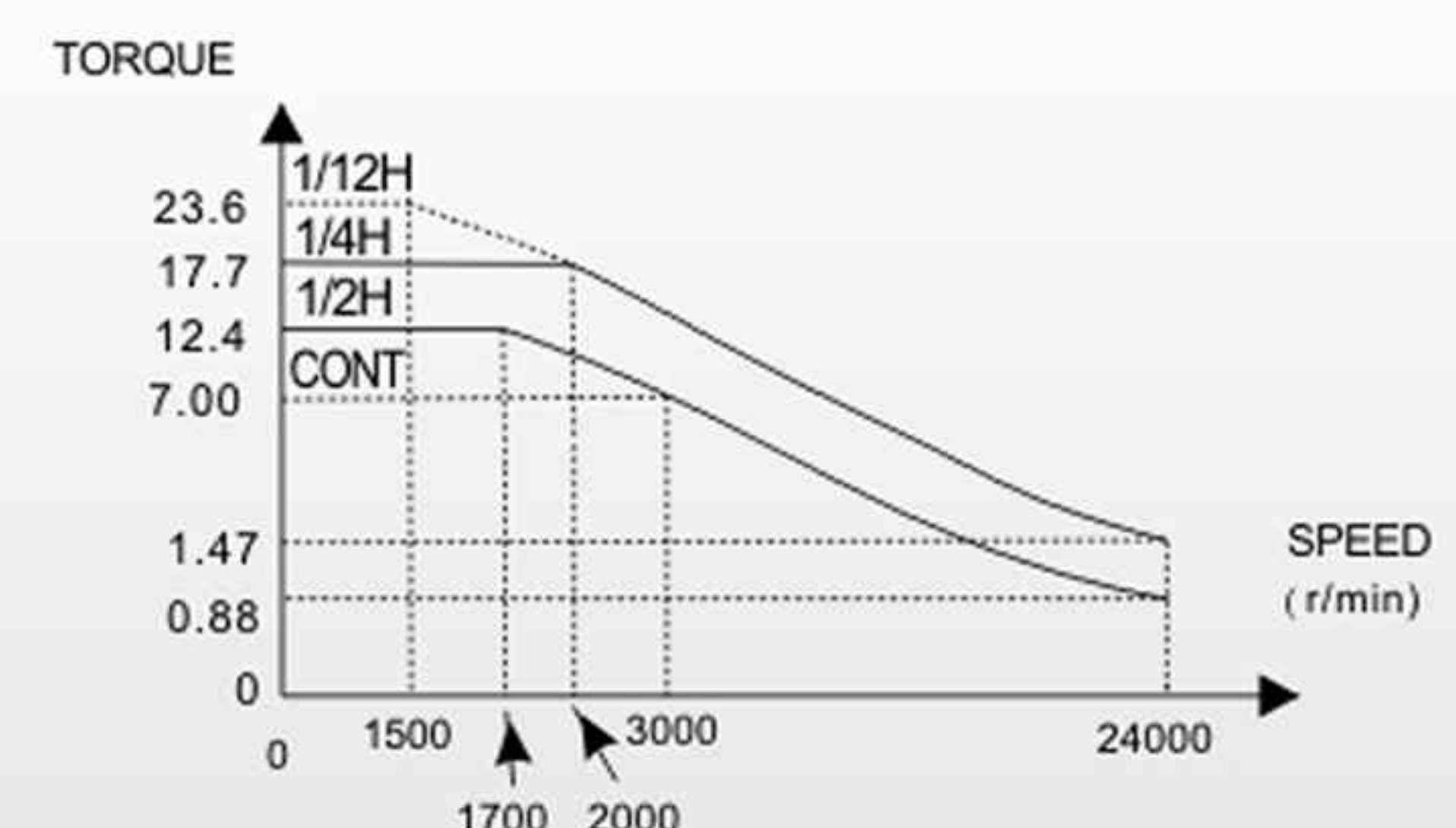


TORQUE - SPEED CHARACTERISTIC NORMAL

24000 RPM Spindle Power and Torque



OUTPUT POWER - SPEED CHARACTERISTIC NORMAL



TORQUE - SPEED CHARACTERISTIC NORMAL

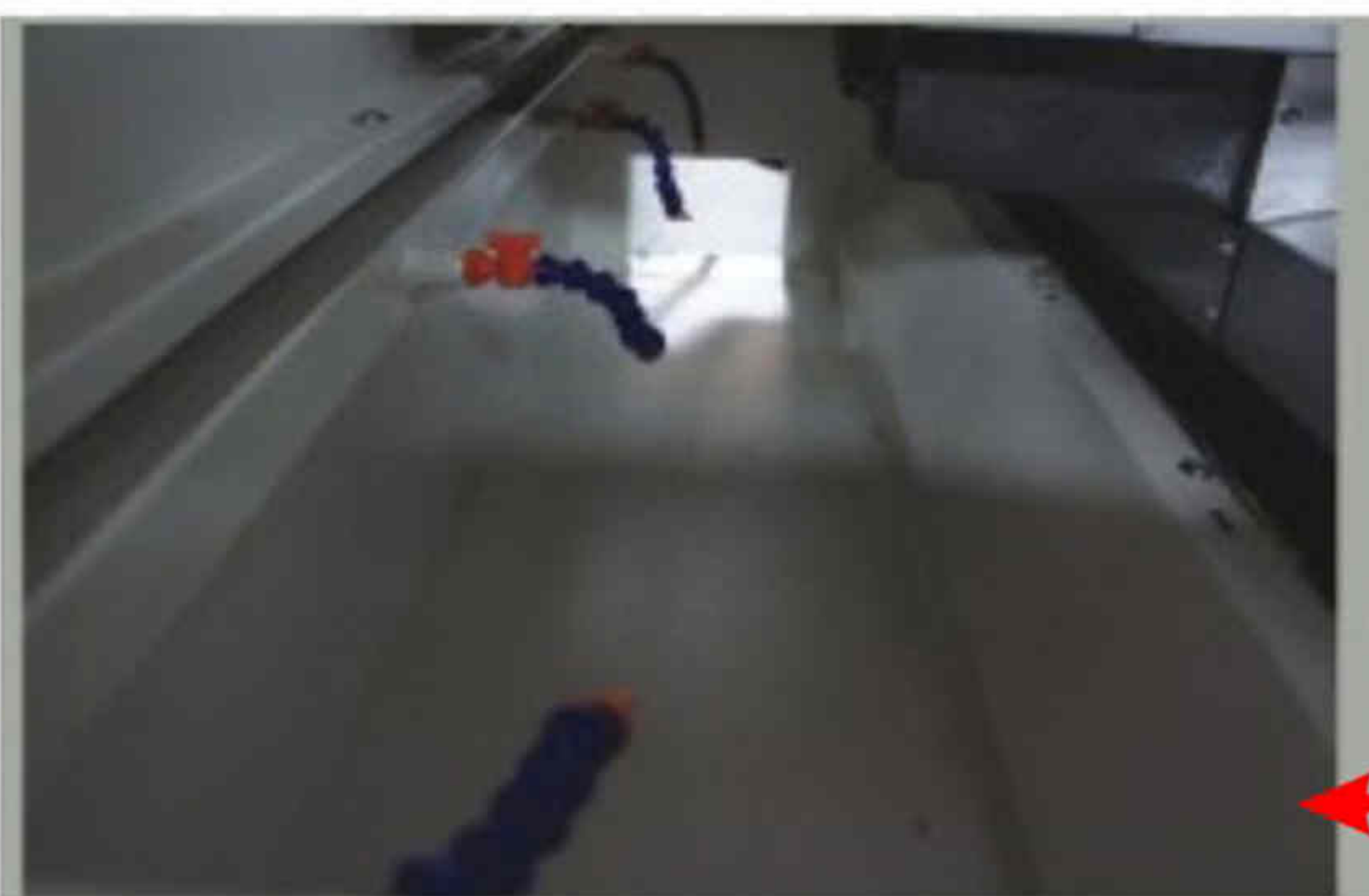
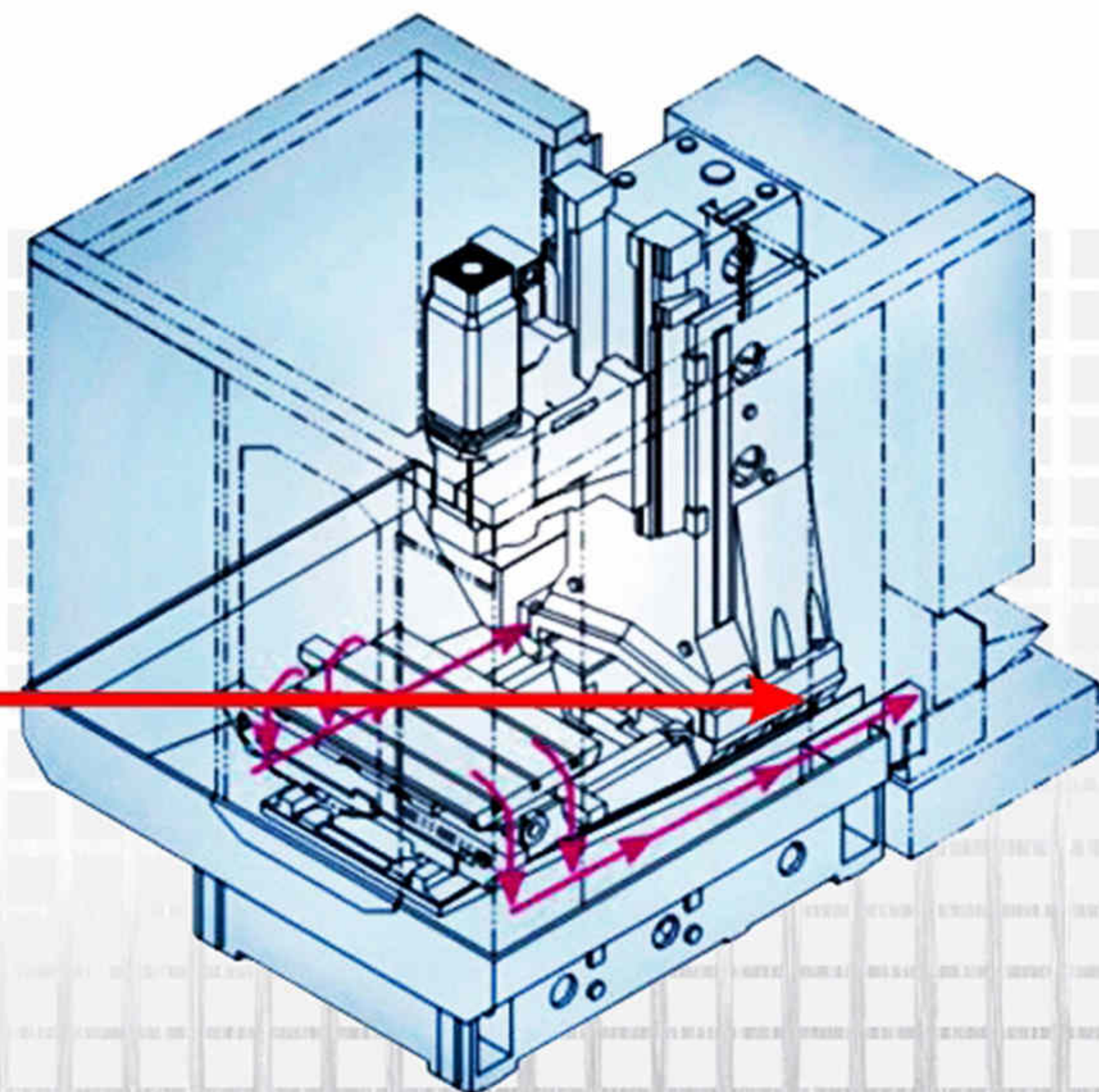
High-speed High-precision Drive System

- 3-axis direct drive motor fully eliminates backlash, achieves high-precision and provides stability during high-speed transmission.
- High-speed, high-precision linear guide way on all 3 axes ensures high acceleration and enhanced working efficiency and productivity.
- High-speed High-precision Linear Guide Way
- Linear guide ways with zero backlash ensures consistent cutting surface on curve or slope cutting.
- Ideal for high speed travel and the drive power requirement can be minimized significantly.
- By using rolling contact instead of sliding contact, linear guide way reduces friction loss, reacts, and increases positioning accuracy.
- Load capacity is high on multiple directions, Multiple contact points are maintained when machining, cutting rigidity can be ensured.
- It is easy to assembly and interchange for lubrication system.
- Long lifespan can be achieved as a result of extreme low friction loss in the linear guide way.

Ball-type Linear Guide Way



Optimal Chip Removal Flow



Optimal Chip Removal Angle

Automatic Lubrication System

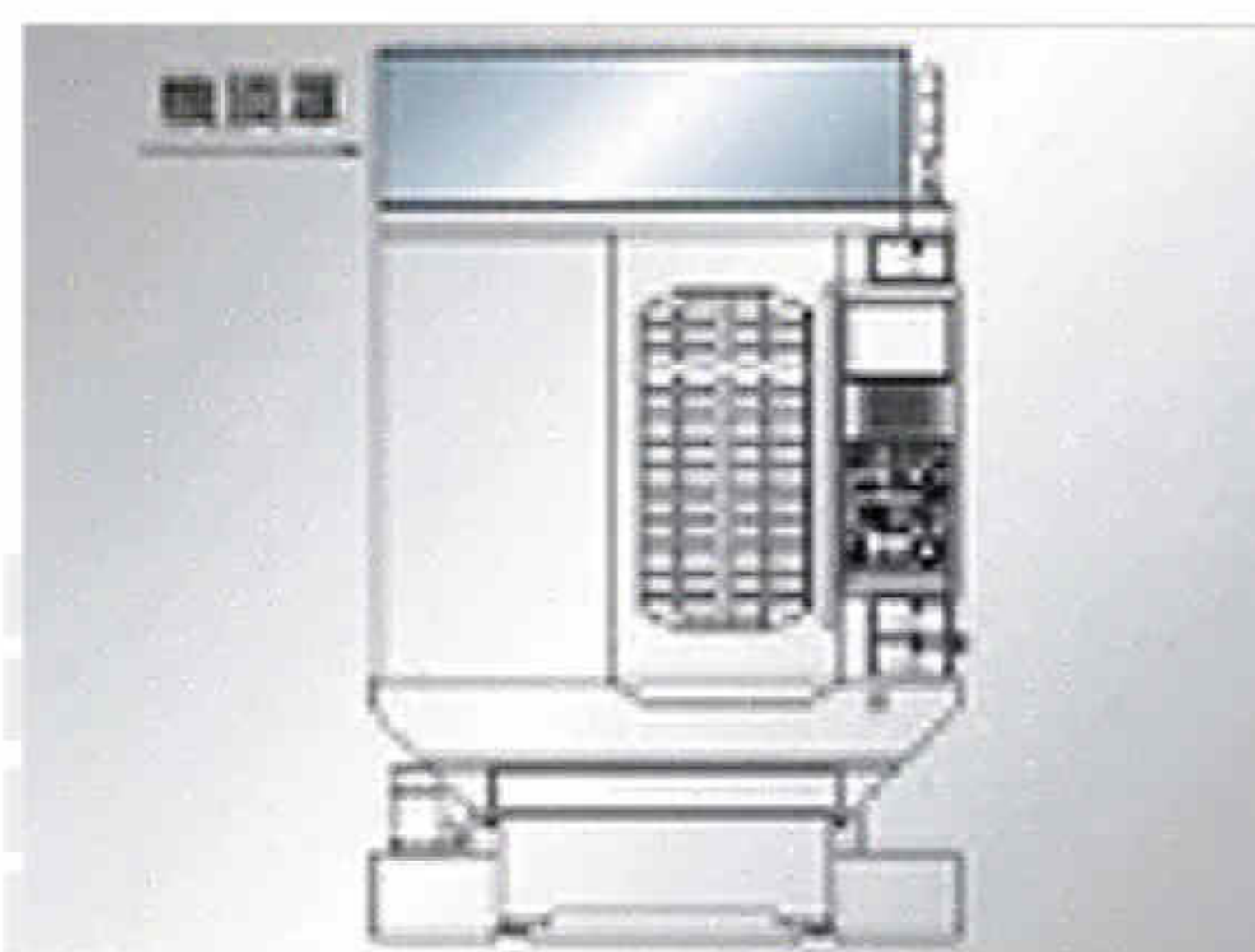


Pneumatic System



Optional Accessories

Top Protection Hood



4-Axis



Workpiece Measurement System



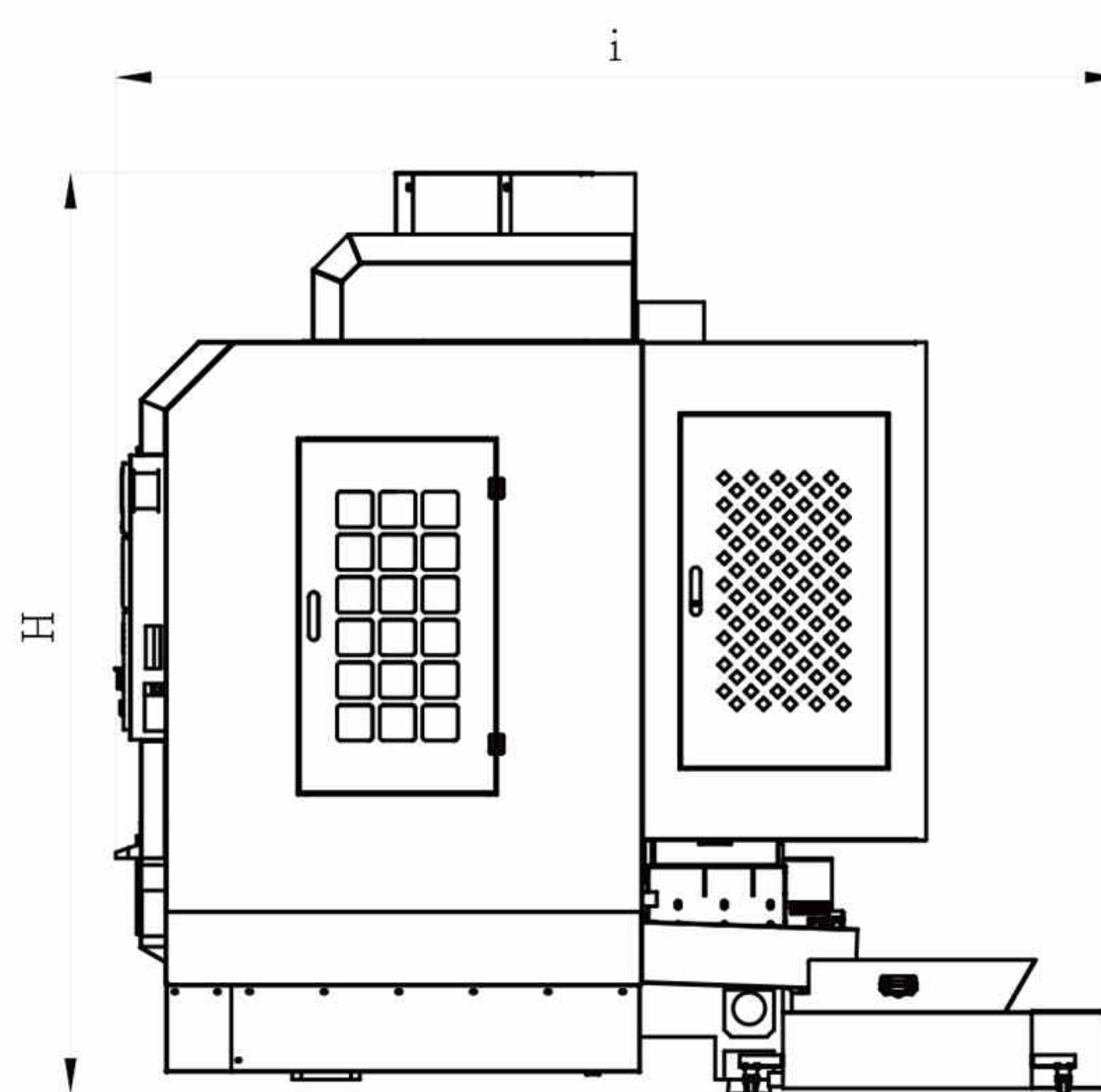
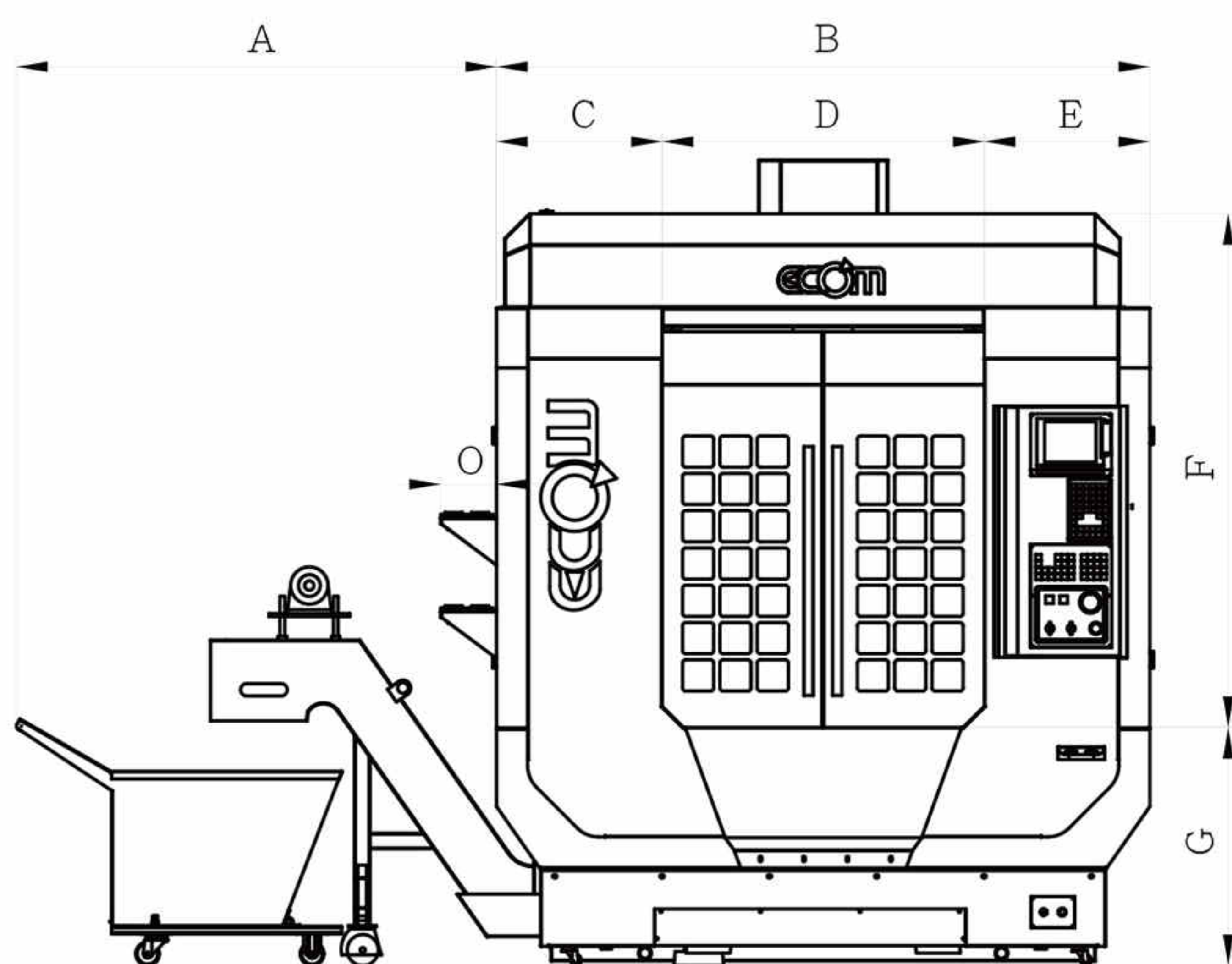
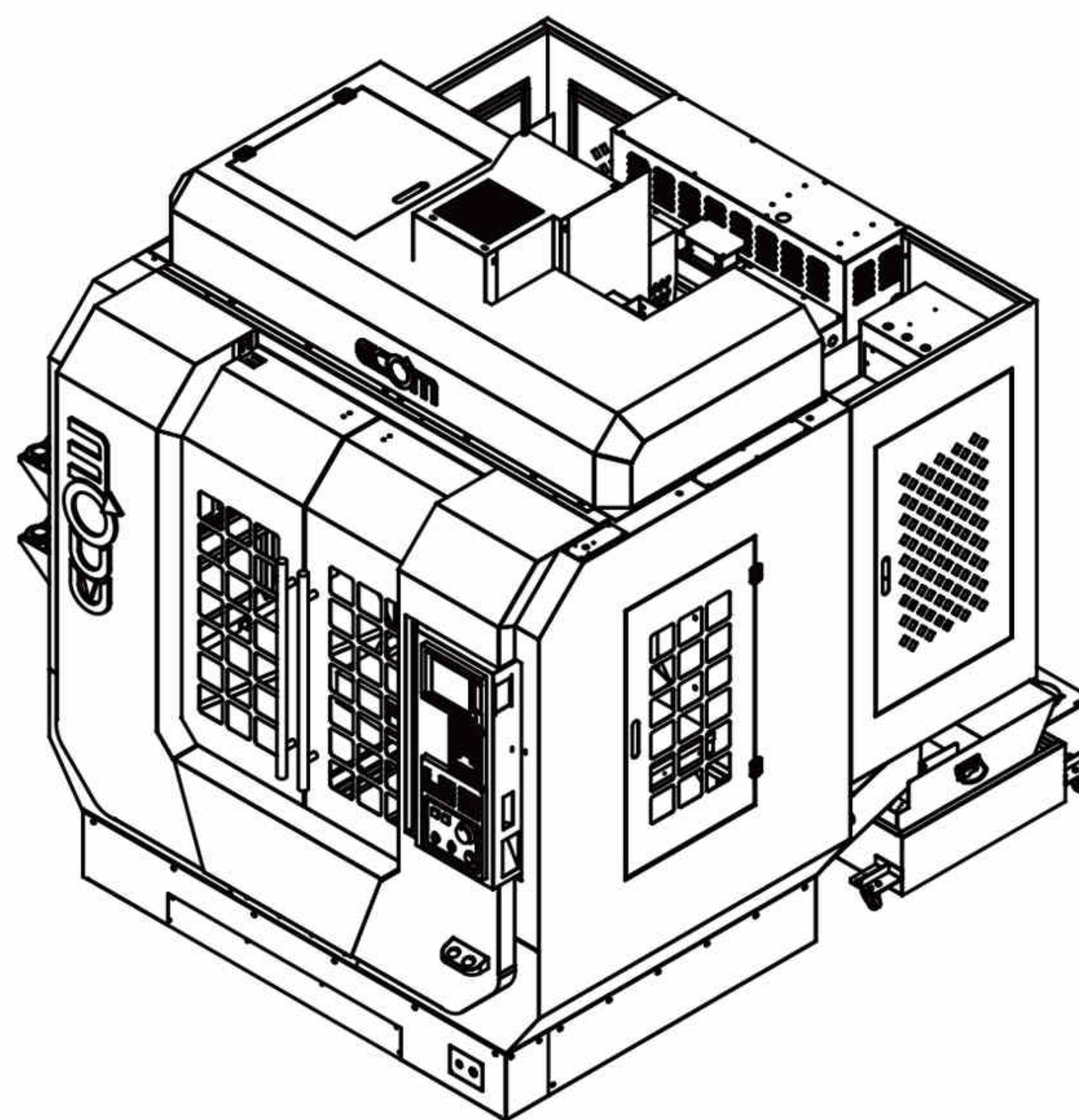
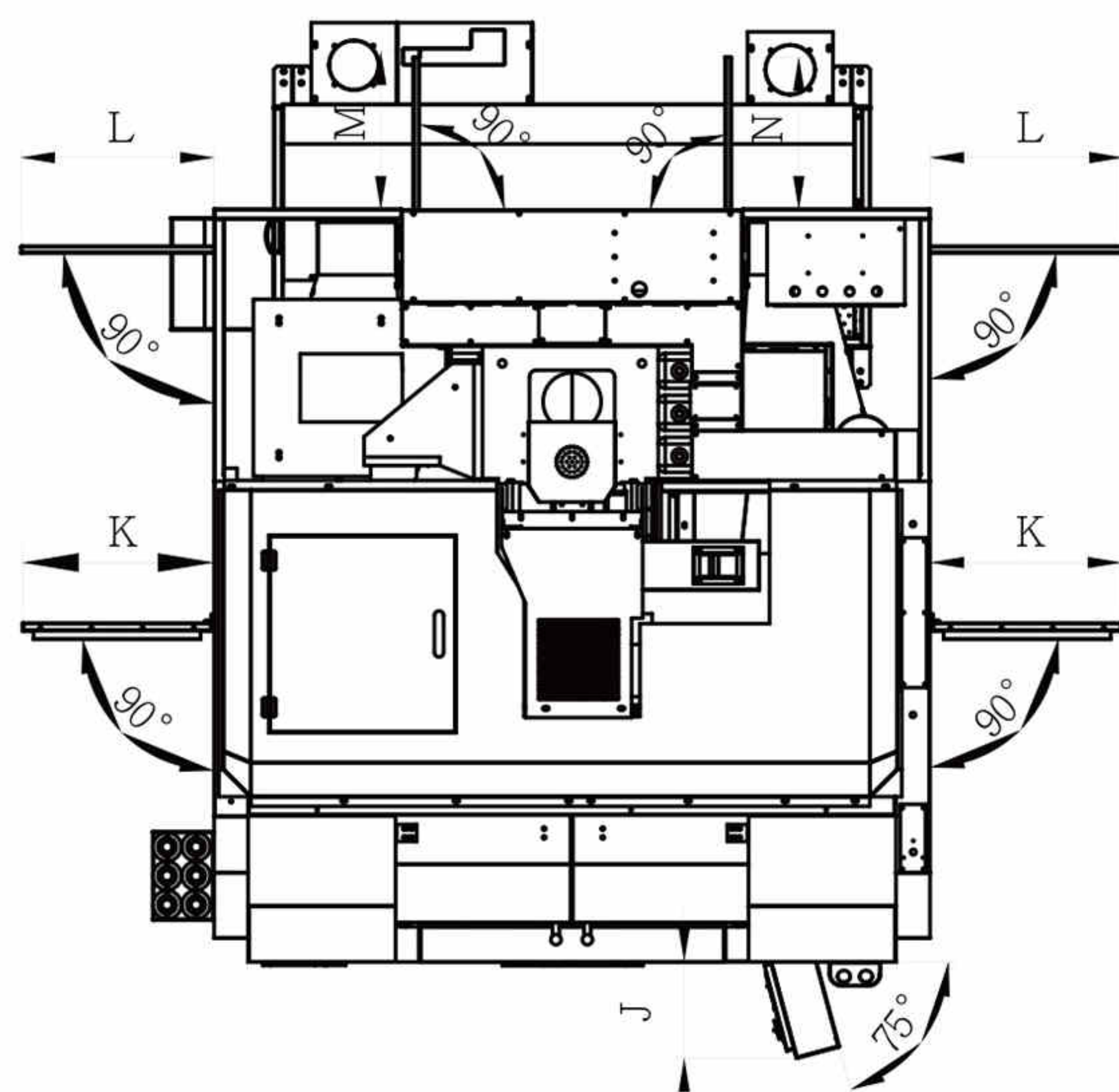
Top length Measuring System



Safety Switch



Mechanical Dimensions



MODELS	Unit	A	B	C	D	E	F	G	H	i	J	K	L	M	N	O
VT-7i	mm	1550	2100	535	1030	535	1650	765	2590	2825	280	560	565	465	450	180

Specifications

Travel			
X - Axis Travel	mm	700	
Y - Axis Travel	mm	450	
Z - Axis Travel	mm	330	
Spindle Nose To Table	mm	110-440	
Spindle Center To Z - Rail	mm	500	
Table			
Table Size	mm	900 X 420	
T - Slot	mm	3*14*100	
Maximum Table Load	kg	300kg	
Spindle			
Spindle Taper		BT-30	
Type Of Driving		直結式 (Direct Type)	
Spindle RPM	rpm	50-12000 rpm	
Feed Rate			
X. Y Axis Rapid Feed Rate	m/mim	48	
Z Axis Rapid Feed Rate	m/mim	48	
X. Y. Z Max.Cutting Feed Rate	m	10m/min	
Automatic tool changer			
Tool Capacity/Change Time(T-T)		16T (1.4sec)	
Max. Tool Diameter*Length		Φ80*200mm	
Max. Tool Weight	kg	3.0 kg	
Motors		Fanuc	Mitsubishi
Spindle Motor	kw	3.7kw/5.5kw	3.7kw/5.5kw
X. Y Axis Servo Motor	kw	2.2kw	1.5kw
Z Axis Servo Motor	kw	3.0kw BS	3.0kw BS
Machine Accuracy			
Positioning Accuracy (JIS)	mm	± 0.005mm / 300mm	
Repeat Poitioning Accuracy (JIS)	mm	± 0.003mm	
Others			
Approximate Weight	kg	4500	
Floor Space Measurement(L*W*H)	mm	2100*2800*2330	

★ SPECIFICATIONS SUBJECT TO CHANGED WITHOUT PRIOR NOTICE. THANKS!

Standard Accessories

Mitsubishi M80B Controller
 BT30-16T
 Direct Type 12000rpm
 Spindle coolant System
 Air blast through spindle
 Rigit tapping
 RS232 interface
 CF card interface
 Work lamp
 Alarm lamp
 Auto power off
 Auto lubrication system
 Cutting coolant unit
 High pressure water & air gun
 Manual pulse generator
 Flushing device
 Full splash guard
 Heat exchanger for control cabinet
 Leveling bolts and blocks
 Tool box
 Operation manual

Optional Accessories

Fanuc 0i-MFα (5)
 Mitsubishi M80A Controller
 Direct Type (20000rpm)
 ATC-BT 30 - 21T
 Servo type ATC-BT30-16T/21T
 Around spindle cutting coolant system
 Coolant through spindle
 column raised:100mm/200mm
 Tool length measurement system
 Disk type oil-water separator
 Oil mist collector
 4th Axis (Φ125/170/210mm)
 Auto door
 CE standard

Products



Horizontal Machining Center

Vertical Machining Center

Vertical Tapping Center

Vertical Machining Center

Double-Column
Machining Center

ECOM
東剛精機

