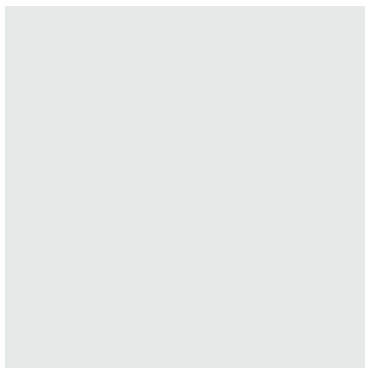


NT

Series

2000Y-2000SY

HIGH PERFORMANCE MILL-TURN MULTI-TASKING CENTER

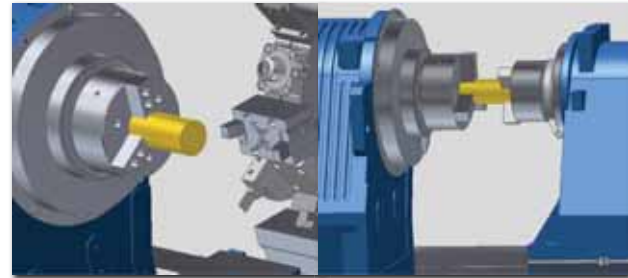


NT-2000SY

ADVANCED HIGH PERFORMANCE HIGH PRECISION MILL-TURN MULTI-TASKING CENTER

■ **Integrated Main and Sub Spindle Design**

The built-in spindle design alleviates vibration that is generated by traditional belt-driven spindle design. The NT-2000SY incorporates built-in spindle for both main and sub spindles.



■ Main Spindle

■ Hand Over

■ **High Rigidity High Precision Spindle Design**

Both main and sub spindles utilize a hybrid spindle design that combines high quality angular contact bearings and highly rigid roller type bearings to handle high precision turning and heavy duty machining.

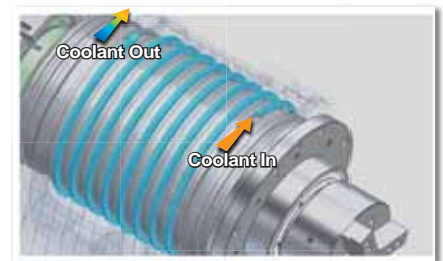


■ Sub Spindle

■ **High Efficiency Headstock Cooling Design**

The built-in spindle is continuously cooled through inverter type spindle cooling system at a constant temperature, which reduces thermal growth effect.

In addition, the hydraulic clamping cylinder is cooled through continuous heat removal, which greatly reduce thermal growth to assure turning and machining accuracy and stability.



■ High Efficiency Headstock Cooling Design

■ **Y-Axis Function**

The Y-axis capability provides true milling capabilities that cannot be achieved through traditional turning center.

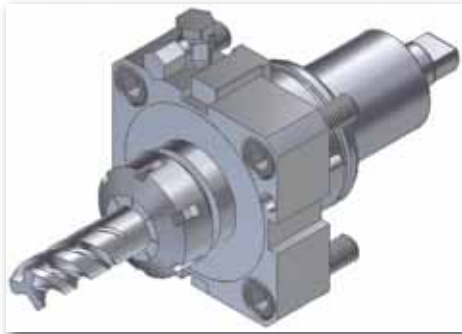
The NT-2000SY allows $\pm 50\text{mm}$ travel that is sufficient for most mill/turn applications.



■ Ultra Fast Radial Turret

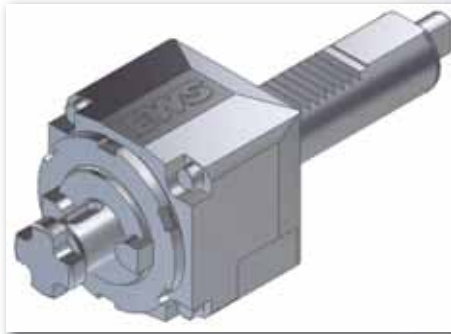
The radial type turret offers larger turning and milling capacity with less tool interference. The turret is servo-driven to achieve the fastest tool changing time from station to station.

Two types of tooling system are offered to the customer. BMT65 tooling system is secured with 4 bolts to maximize cutting rigidity, and VDI tooling system offers quick change capability.



BMT65

4 Bolts to Maximize Cutting Rigidity.

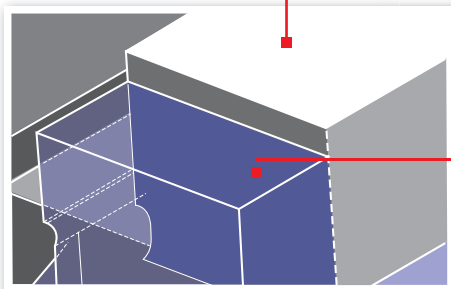


VDI40

Quick Change Capability.

■ Highly Rigid Hardened and Ground Box Type Guideway

The oversized box type guideways are treated through induction hardening process and precision ground to achieve optimal rigidity, accuracy and longevity.



NT-2000's Extra Large Box Type Guideway.

GT-250's Already Enhanced Oversized Box Type Guideway.

■ Slant-Bed Base Structure Design

The high damping MEEHANITE[®] casting base is constructed through FEM analysis to obtain optimal structural rigidity. The solid slant-bed design is reinforced through base connection, which reduces deformation and twisting of machine body.

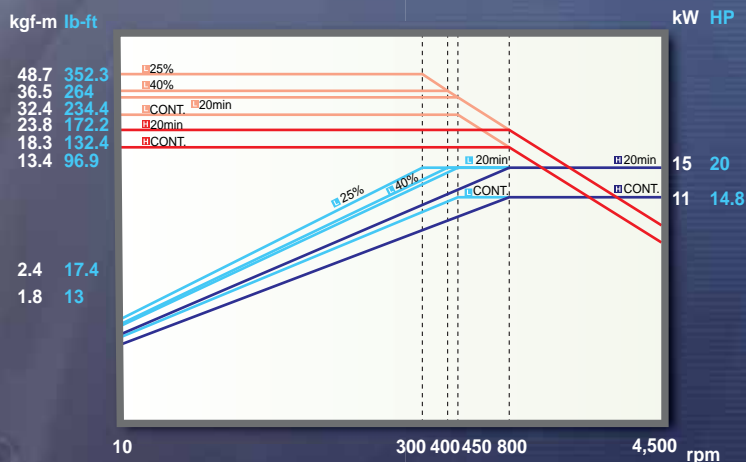


Spindle Motor Torque Chart

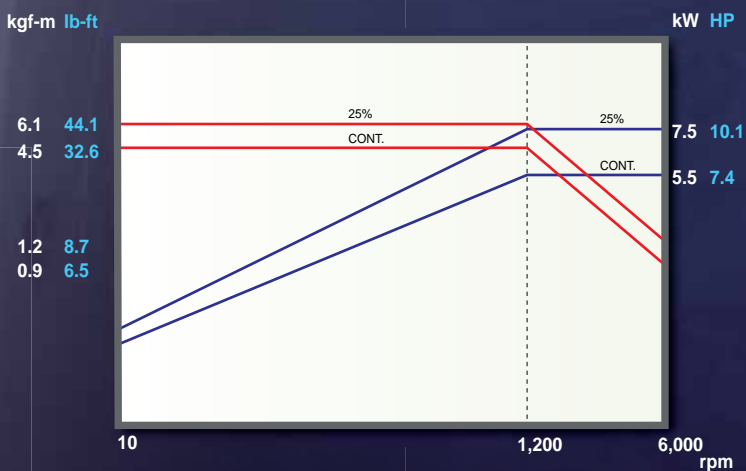
POWER L Low Speed
H High Speed

TORQUE L Low Speed
H High Speed

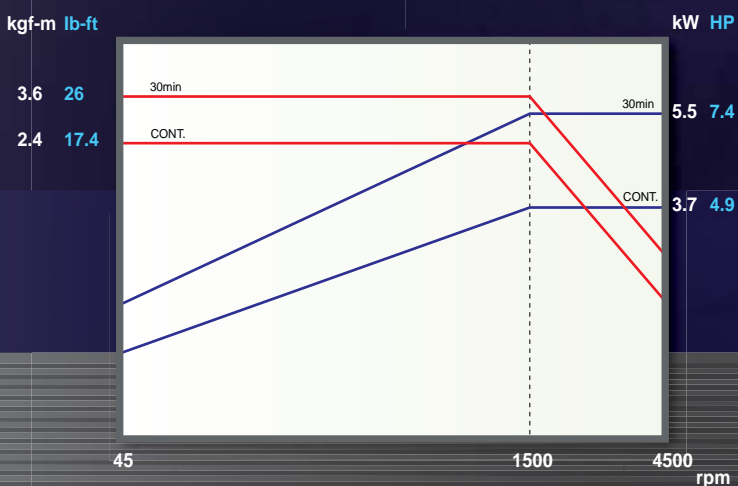
MAIN SPINDLE SPEED 4500rpm



SUB SPINDLE SPEED 6000rpm



LIVE TOOL SPEED 4500rpm



SPECIFICATIONS

MACHINING CAPACITY	NT-2000Y	NT-2000SY
Swing Over Bed	ø1000mm ø39.37"(ø700mm ø27.56" interference with cover)	
Swing Over Carriage	ø870mm ø34.25"(ø700mm ø27.56" interference with cover)	
Standard Turning diameter	ø265mm ø10.43"	
Max. Turning Diameter	ø350mm ø13.78"	
Max. Turning Length	515mm 20.28"	
MAIN SPINDLE		
Height From The Ground to Spindle	1160mm 45.67"	
Chuck Size	8"	
Spindle Nose	A2-6	
Spindle Inner Taper	1/20	
Spindle Front Bearing Inner Diameter	ø120mm ø4.73"	
Hole Through Spindle	ø77mm ø3.03"	
Hole Through Draw Bar	ø52mm(ø66mm) ø2.05"(ø2.06")	
Spindle Speed	4500rpm	
Max. Spindle Torque.	48.7kgf-m 352.25lb-ft	
C1-axis index Accuracy	0.001°	
SUB SPINDLE		
Chuck Size	—	6"
Spindle Nose	—	A2-5
Spindle Inner Taper	—	1/20
Spindle Front Bearing Inner Diameter	—	ø85mm ø3.35"
Hole Through Spindle	—	ø43mm ø1.69"
Hole Through Draw Bar	—	ø33mm ø1.30"
Spindle Speed	—	6000rpm
Max. Spindle Torque.	—	6kgf-m 43.4lb-ft
C2-axis index Accuracy	—	0.001°
BOX WAY		
X Axis(Width)	280mm 11.02"	
Z Axis(Width)	430mm 16.93"	
Y Axis(Width)	280mm 11.02"	
B Axis(Width)	265mm 10.43"	
Bed/X/Y Saddle Slant Angle	30°/0°/30°	
MAIN TRAVEL		
X Axis Travel	260mm 10.24"	
Z Axis Travel	580mm 22.83"	
Y Axis Travel	100(±50)mm 3.94"(±1.97")	
B Axis Travel	600mm 23.62"	
MOTOR		
Main Spindle1 Motor	11/15kW 14.8/20HP	
Sub Spindle Motor	-	5.5/7.5kW 7.4/10.1HP
Axis Motor(X/Z/Y/B)	3/3/1.8kW 4/4/2.4HP	3/3/1.8/1.8 4/4/2.4/2.4HP
Turret Motor	1.2kW 1.6HP	1.2 1.6HP
Live Tool Motor	5.5 7.4HP	5.5 7.4HP

TURRET	NT-2000Y	NT-2000SY
Type	Radial Turret(Servo Motor Drive,Hydraulic Clamp)	
Tool Magazine Capacity	12T	
Tool Standard	BMT65/VDI40	
Standard Tool	Shank Height for Square Tool □25(□1")	
Tool	Shank Dia. for Boring Bar. ø40mm ø1&1/2", ø32mm ø1&1/4" Double boring holder	
Max. Diameter When Turret Rotation	ø686 ø27.01"	
Max. Live Tool Rotation Speed	4500rpm	
The Torque For Live Tool Spindle Tool	3.6kgf-m 26.04lb-ft	
FEED		
Axis Rapid Feed Rate(X/Z/Y)	20/24/10m/min 787.4/944.9/393.7ipm	
Axis Rapid Feed Rate(B)	7m/min 275.6ipm	20m/min 787.4ipm
TAIL STOCK		
Tail Stock Quill Diameter	ø90 ø3.54"	-
Tail Stock	Dead Center	MT-4
Quill Taper	Live Center	MT-3(OPT)
GENERAL		
Power Consumption(Transformer)	45kVA	45kVA
Machine Weight	6800kg	7000kg
Floor Space	3411x2140x2260mm 134.29"x84.25"x88.98"	
Note: The manufacturer reserves the right to modify the design, specifications, mechanisms,...etc. to improve the performance of the machine without notice. All the specifications shown above are just for reference.		

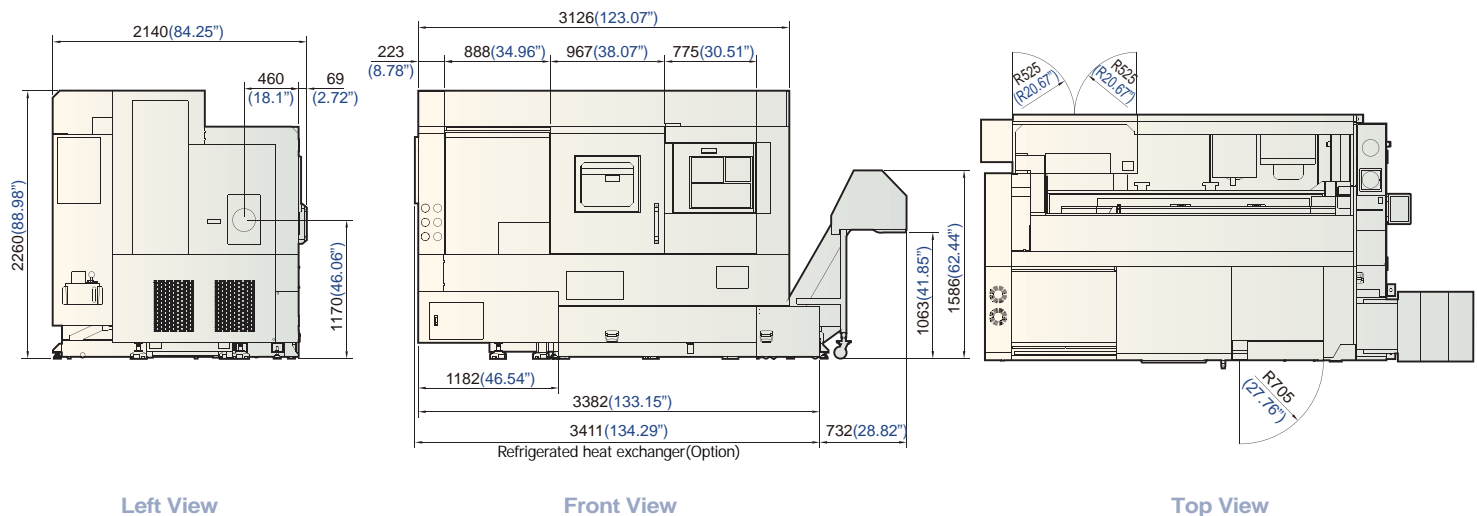
STANDARD ACCESSORIES

- Tool Kit
- Work Lamp
- Pilot Lamp
- Hydraulic System
- Chuck Air Blast
- Air Gun
- Coolant Equipment System
- Tail Stock Fixed Quill(MT4 Center)(NT-2000Y)
- Main Spindle:8"/Sub Spindle:6"(NT-2000SY)
- Hydraulic Hollow Chuck
- Leveling Blocks and Bolts
- Complete Chip Enclosure
- Chuck Switch Pedal
- Heat Exchanger for Electrical Cabinet
- Mechanical, Electrical and Operating Manuals
- CNC Controller:FANUC 18iTB
- Central Lubrication System
- Hard Jaws and Soft Jaws 1set
- Chip Conveyor(Right Side)
- X/Z Axis Feeder Safety Clutch
- Tool Holder Attachments

OPTIONAL ACCESSORIES

- Automatic Door
- Safety Door
- Collet Chuck
- Foundation Screw Bolt
- Oil Mist Collector
- Soft Jaws, Hard Jaws
- Oil Skimmer
- Paper Filter
- Soft Jaw Forming Ring
- Tail Stock Pedal
- Coolant Gun
- Parts Catcher System
- Work Length Setter
- Heavy Duty Coolant Pump(MTH2-60)
- Tail Stock Live Quill(MT3 Center)(NT-2000Y)
- Main Spindle Auto Tool Length Measurement System(RENISHAW)
- Sub Spindle Manual Tool Length Measurement System(RENISHAW)
- Bar Feeder or Only Software
- A.C Cooler for Electrical Cabinet
- Chip Conveyor(Rear Side)
- Milling Tool Attachments

DIMENSIONS UNIT: mm (in)



VMC

Vertical Machining Center

FP Series High Precision, High Performance Die Mold Vertical Machining Center
FP55A, FP66A, FP100A



FV Series High Speed, High Performance Vertical Machining Center
FV56T, FV56A, FV85A, FV102A, FV125A



XV Series Best Selling High Performance Vertical Machining Center
XV560A, XV1020A, XV1250A

TV Series Heavy Duty Vertical Machining Center
TV116B, TV146A/B, TV158B, TV188B, TV2110B, TV2610B



MV Series Maximum Versatility Vertical Machining Center
MV66A, MV76A, MV86A, MV106A, MV138B, MV168A/B

WV Series High Rigidity Vertical Machining Center
WV108A, WV108B



FX Series 5-Axis Heavy Duty Vertical Machining Center
FX350A

NSV Series Ultra High Performance Vertical Machining Center
NSV66A, NSV85A, NSV102A



NDV Series High Precision Die Mold Vertical Machining Center
NDV85A, NDV102A

NFV Series High Performance Vertical Machining Center
NFV85A, NFV102A

DCV Series Advanced Double Column Vertical Machining Center
DCV2012B, DCV2016B, DCV3016B, DCV4016B

HMC

Horizontal Machining Center

H Series Horizontal Machining Center
H500A, H500B, H630B, H800B, H2612B



CNC LATHES

CNC Turning Center

NT Series High Performance Mill-Turn Multi-Tasking Center
NT-2000SY



GT Series High Performance Geo Turning Centers
GT-200A/B/MA, GT-250A/B/MA, GT-300A/B/MA/LB, GT-380A/B/LA/LB

TC Series Turning Centers
TC-26, TC-26L, TC-36, TC-36W



INTEGRATION AND SOLUTIONS

Integrated Operation Control System

Automation Solutions



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