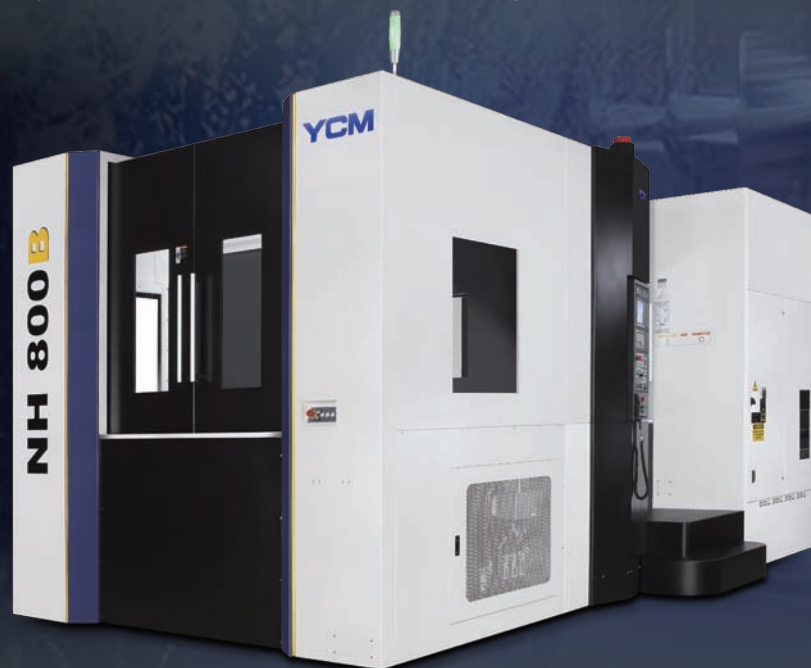


NH 800B

High Precision Horizontal Machining Center



NH 800B

Introducing the brand new NH 800B High Precision Horizontal Machining Center. The NH 800B incorporates the state-of-the-art dual drive technology along with the utmost rigid structural design to satisfy high accuracy applications. The machine can perform multi-face machining applications to reduce fixture clamping and machining time. The NH 800B is specially designed to meet high precision and high performance machining demands.

High Rigidity Structural Design

- One piece T-base foundation with rib construction for unprecedented rigidity
- Spindle headstock is made of one piece casting to ensure cutting rigidity and accuracy during long-period machining
- Stepped castings design on X-axis to increase the cutting rigidity
- Dual-wall column design for eliminating possible thermal deformation

Y-axis Dual Drive System

- Headstock is driven at the center of the gravity to minimize vibration. The dual-driven design restrains vibration and delivers high speed, high quality machining ability while increasing machine performance and tool life

High Performance Built-in Motorized Spindle

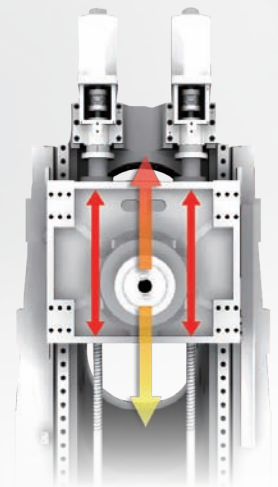
- Built-in motorized spindle reduces vibration during high-speed machining and ensures spindle life
- 10,000 rpm maximum spindle speed with 45 kW output delivers 623 Nm torque
- Micro oil-air lubrication for angular ceramic ball bearings prolongs spindle life
- Circulated oil jacket cooling system minimize thermal deformation, ensuring high accuracy
- Easy spindle unit replacement reduces maintenance time

High Capacity Machining Space

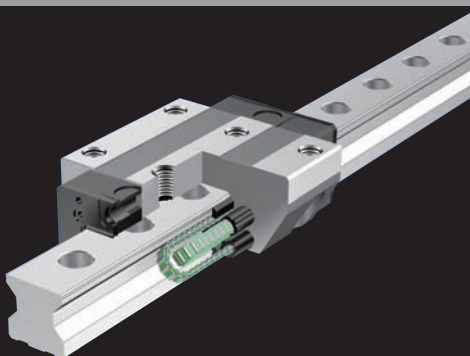
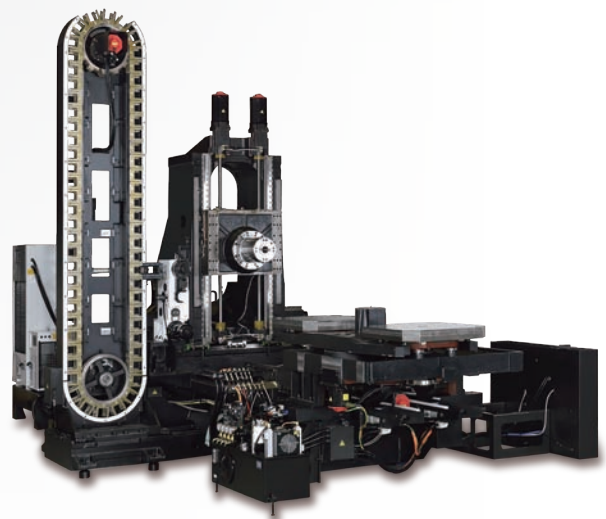
- $\varnothing 1,300$ mm x 1,300 mm largest working envelope within its rank
- 2,000 kg maximum loading capacity on each pallet

High Rigidity Roller Guideways

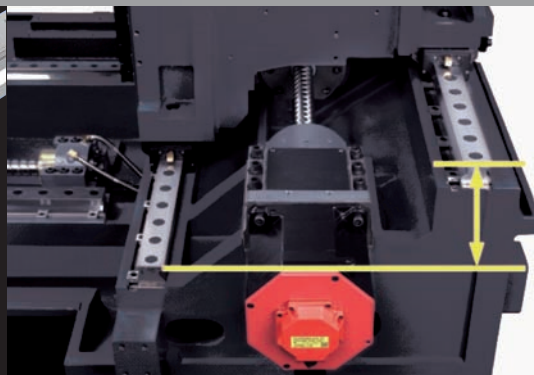
- Oversize roller guideways increase rigidity and precision
- High dynamic AC servo driven pre-tensioned ball screws, delivering control qualities
- 50 m/min. rapid feedrate increase machining efficiency



■ Dual Drive Y-axis



■ High rigidity roller guideways



■ Stepped casting design on X-axis with large span



■ Discharging air jet pallet indexing system

High Precision B-axis Rotary Table

- Disc brake with damped clamping system
- High precision in-house pallet indexing system
- Discharging air jet pallet indexing system

Automatic Pallet Change

- 20-second pallet change
- Servo motor driven
- Simple structural design, fast reliable movement and easy maintenance

Reliable Automatic Tool Change

- Servo motor driven tool magazine shortens tool search time
- Short tool change arm with low moment of inertia design
- Servo motor and backlash free reducer driven tool magazine
- Hydraulic tool unclamping magazine

Central Chip Disposal System

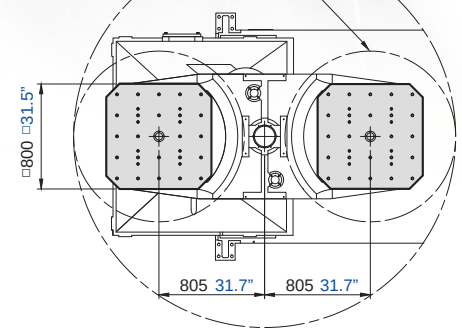
- Chip removal design assures the chips to drop directly to the conveyor
- Dual chip augers are utilized for efficient chip removal
- Heavy duty coolant pump



■ 8 spindle coolant nozzles with spindle air blast

Max. Workpiece Rotary Diameter $\varnothing 2,910$ $\varnothing 114.6"$

Max. Workpiece Diameter $\varnothing 1,300$ $\varnothing 51.2"$



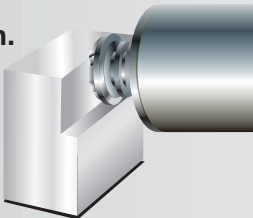
Cutting Capacity

FACE MILL **S45C Steel**

Material Removal Rate

1,004 cc/min.

Tool $\varnothing 125$ mm x 8T
Spindle Speed 675 rpm
Feedrate 3,240 mm/min.
Width of Cut 100 mm
Depth of Cut 3.1 mm

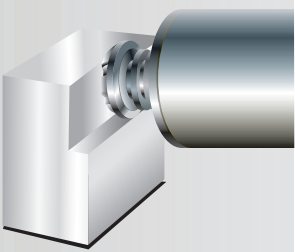


FACE MILL **S45C Steel**

Depth of Cut

8 mm

Tool $\varnothing 160$ mm x 10T
Spindle Speed 500 rpm
Feedrate 300 mm/min.
Width of Cut 125 mm

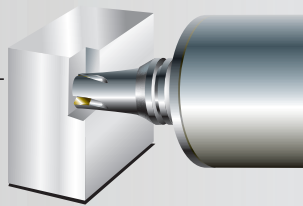


END MILL **S45C Steel**

Depth of Cut

25 mm

Tool $\varnothing 63$ mm x 4T
Spindle Speed 750 rpm
Feedrate 300 mm/min.
Width of Cut 63 mm

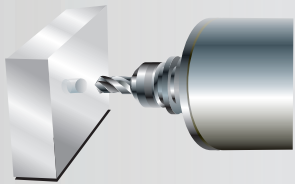


U-DRILL **S45C Steel**

Drilling (Max.)

$\varnothing 65$ mm

Tool $\varnothing 65$ mm x 1T
Spindle Speed 800 rpm
Feedrate 80 mm/min.
Depth of Cut 60 mm

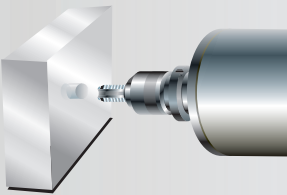


TAP **S45C Steel**

Tapping (Max.)

M48

Tool M48 x 5P
Spindle Speed 34 rpm
Feedrate 170 mm/min.
Depth of Cut 40 mm

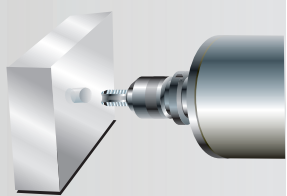


RIGID TAP **A6061 Aluminum**

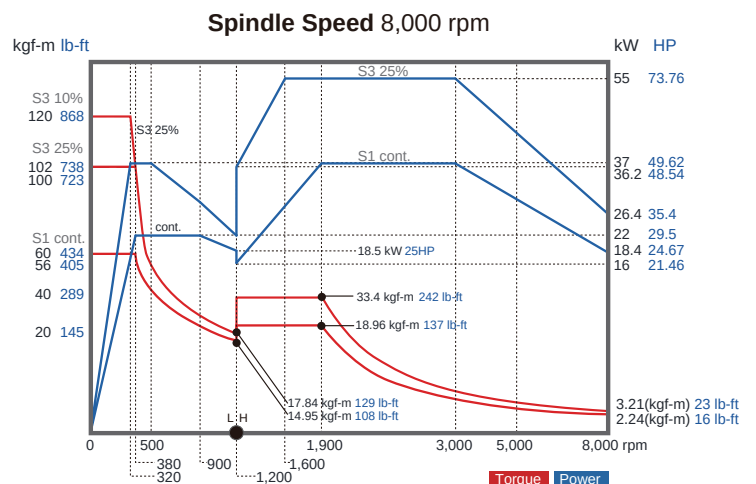
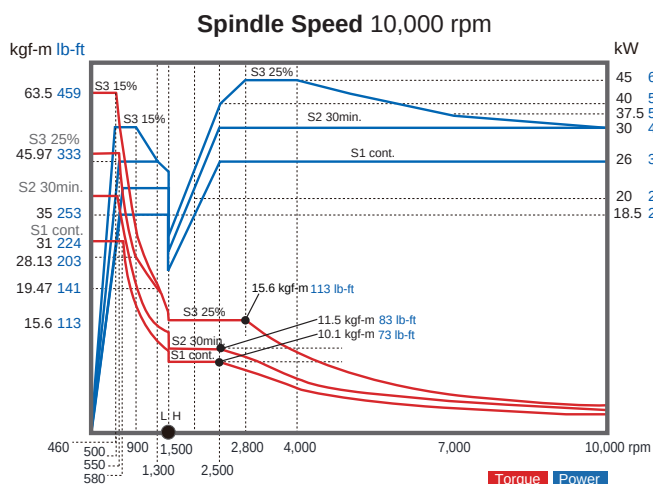
Tapping (Min.)

M1.2

Tool M1.2 x 0.25P
Spindle Speed 1,200 rpm
Feedrate 300 mm/min.
Depth of Cut 2.5 mm



Power Chart



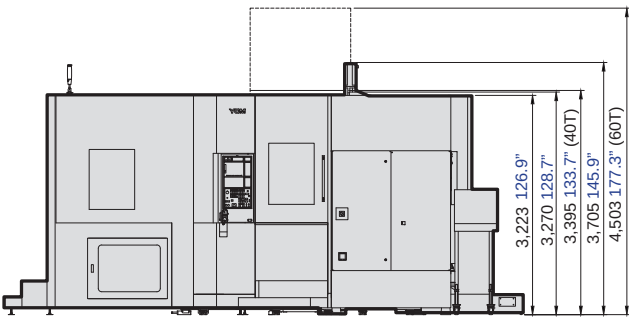
Specifications

NH 800B	
SPINDLE	
Spindle Speed (opt.)	10,000 rpm (8,000 rpm)
Spindle Power (opt.)	30 / 45 kW (37 / 55 kW) 40 / 60HP (50 / 74HP)
Spindle Torque (opt.)	63 kgf-m (122kgf-m) 455.7 lb-ft (882.4 lb-ft)
Spindle Taper	BBT50
TRAVEL	
X-axis Travel	1,300 mm 51.18"
Y-axis Travel	1,100 mm 43.31"
Z-axis Travel	1,100 mm 43.31"
Distance Between Spindle Center and Table Top	100~1,200 mm 3.94"~47.24"
Distance Between Spindle Nose and Table Center	170~1,270 mm 6.69"~50"
TABLE	
Pallet Size	800 mm x 800 mm 31.5" x 31.5"
Max. Load on Table	2,000 kg 4,409 lb
Pallet Surface Continguration	M16 x 24 mm x 160 mm M16 x 0.94" x 6.3"
Pallet Top Height (From The Floor)	1,400 mm 55.12"
Pallet Index (opt.)	1° (0.001°)
Pallet Change Time	20 sec.
FEEDRATE	
Rapid Feedrate X/Y/Z	50 / 50 / 50 m/min. 1,969 / 1,969 / 1,969 ipm
Cutting Feedrate	1~25,000 mm/min. 0.04~984 ipm
ACCURACY	
ISO 10791-4 YCM*	
Axial Travel	Full Length
Positioning (X/Y/Z) A	0.042 / 0.032 / 0.032 mm 0.0017" / 0.0013" / 0.0013" 0.014 / 0.014 / 0.014 mm 0.0005" / 0.0005" / 0.0005"
Repeatability (X/Y/Z) R	0.020 / 0.018 / 0.018 mm 0.0008" / 0.0007" / 0.0007" 0.01 / 0.01 / 0.01 mm 0.0004" / 0.0004" / 0.0004"
ATC	
Tool Magazine Capacity (opt.)	40T (60T / 120T)
Max. Tool Weight	15 / 25 kg 33 / 55 lb
Max. Tool Dimensions (W/O Adjacent Tools)	ø125 mm x 600 mm ø4.92" x 23.62" (ø250 mm x 600 mm ø9.84" x 23.62")
GENERAL	
Pneumatic Pressure	5.5 kg/cm² 78.2psi
Power Consumption (Transformer) / (opt.)	86 kVA (100 kVA) / opt. : 105 kVA(120 kVA)
Machine Weight (opt.)	26,000 kg 57,320 lb (26,500 kg 58,422 lb / 28,500 kg 62,831 lb)

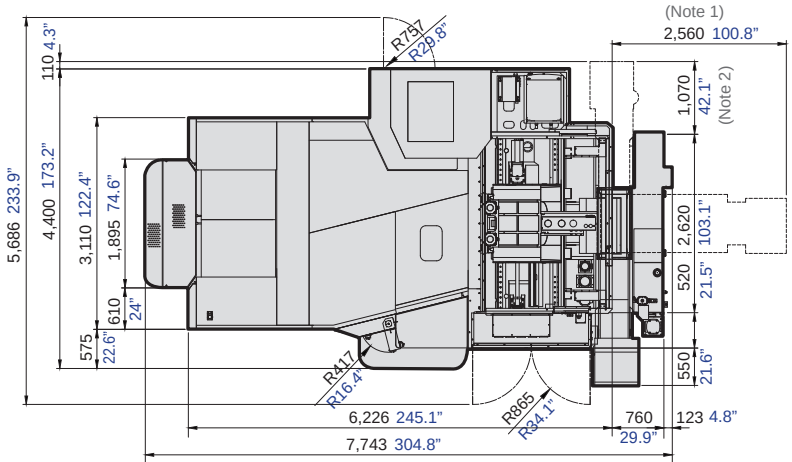
*All values shown above are measured for the machine in good foundation and air-conditioned environments.
Note: The manufacturer reserves the right to modify the design, specifications, mechanisms,etc., to improve the performance of the machine without notice. All the specifications shown above are just for reference.

Table & Dimensions

Unit: mm inch



*Note 1: Minimum Distance for Chip Conveyor Installation.
*Note 2: Not available with 120T tool magazine.



STANDARD ACCESSORIES

- Full Chip Enclosure
- Spindle Air Blast
- Guideway Cover
- Sealed Electrical Cabinet
- Heat Exchanger for Electrical Cabinet
- Central Lubrication System
- Coolant Equipment System
- Coolant Equipment System (With Coolant Shower)
- Spindle Cooling System
- Chip Auger
- Cutting Air Blast
- Spindle Air Seal
- Spindle Air Blast
- Oil Skimmer
- Safety Door
- Pilot Lamp
- Work Lamp
- Leveling Blocks and Bolts
- Tool Kit
- Mechanical, Electrical & Operating Manuals
- Chip Conveyor

OPTIONAL ACCESSORIES

- Coolant Through Spindle System (20 Bar)
- Optical Scale
- Optical Scale on B Axis
- Oil-mist Collector
- A/C. Cooler for Electrical Cabinet
- 4th Axis Rotary Table (0.001°)
- Workpiece Measurement System
- Auto Tool Length Measurement System
- Laser Tool Length Measurement System
- 60T / 120T Tool Magazine
- Tool Shank
- Pull stud
- Auxiliary Table

VMC

Vertical Machining Center

FP Series High Precision High Performance Die Mold Vertical Machining Center
/ High Precision Graphite Vertical Machining Center
FP55LX, FP66A, FP100A / FP66G

NXV Series High Performance Vertical Machining Center
NXV560A, NXV1020A/AM, NXV1680A

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

NTV Series High Efficiency T-base Vertical Machining Center
NTV158A/B

NMV Series High Performance High Rigidity Vertical Machining Center
NMV106A

WV Series Ultra Wide High Performance Vertical Machining Center
WV108A/B

FX Series High Performance 5-axis Vertical Machining Center
FX380A

NSV Series Ultra High Performance Vertical Machining Center
NSV66A, NSV85A, NSV102A, NSV156A

NDV Series High Precision Die Mold Vertical Machining Center
NDV66A, NDV85A, NDV102A

TCV Series High Performance Traveling Column Vertical Machining Center
TCV2000A, TCV3000A, TCV3000A-5AF, TCV3000A-5AX

DCV Series Advanced Double Column Vertical Machining Center
DCV2012A/B, DCV3016B, DCV4016B, DCV3021B, DCV4021B, DCV5021B, DCV6021B, DCV3025B, DCV4025B, DCV5025B,
DCV4030B, DCV5030B, DCV6030B, DCV4035B, DCV5035B, DCV6035B, DCV4030B-5AX, DCV5030B-5AX, DCV6030B-5AX, DCV4030B-5AF

NDC Series High Performance Double Column Vertical Machining Center
NDC2016B, NDC3016B, NDC4016B

HMC

Horizontal Machining Center

H Series High Production Horizontal Machining Center
H500A/B, H630B, H800B, H2612B

NH Series High Speed High Precision Horizontal Machining Center
NH450A, NH630B, NH800B

HBM

Horizontal Boring Milling Machining Center

BMP Series High Accuracy Heavy Duty Boring Machine
BMP1416B

CNC LATHES

CNC Turning Center

NT Series High Performance Mill-axis Mill/Turn Center
NT-2000Y/SY, NT-2500Y/SY

GT Series High Performance Geo Turning Center
GT-200A/B/MA, GT-250A/B/MA/MB, GT-300A/B/LA/LB/MA/MB/LMA/LMB, GT-380A/B/LA/LB

TC Series High Performance High Precision CNC Lathe
TC-16A/B/LA/LB/MA/MB/LMA/LMB, TC-26, TC-26L, TC-36, TC-36W, TC-46, TC-46M

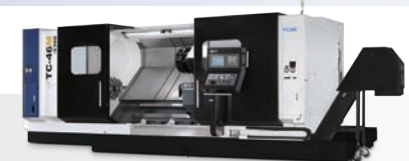
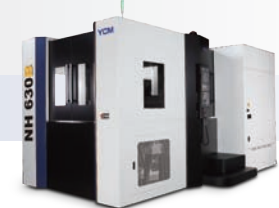
INTEGRATION AND SOLUTIONS

Integrated Operation Control System **iOPERATION**

Spindle Thermal Compensation System **STCPLUS**

Remote Monitoring System **iDirect**

Automation Solutions



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