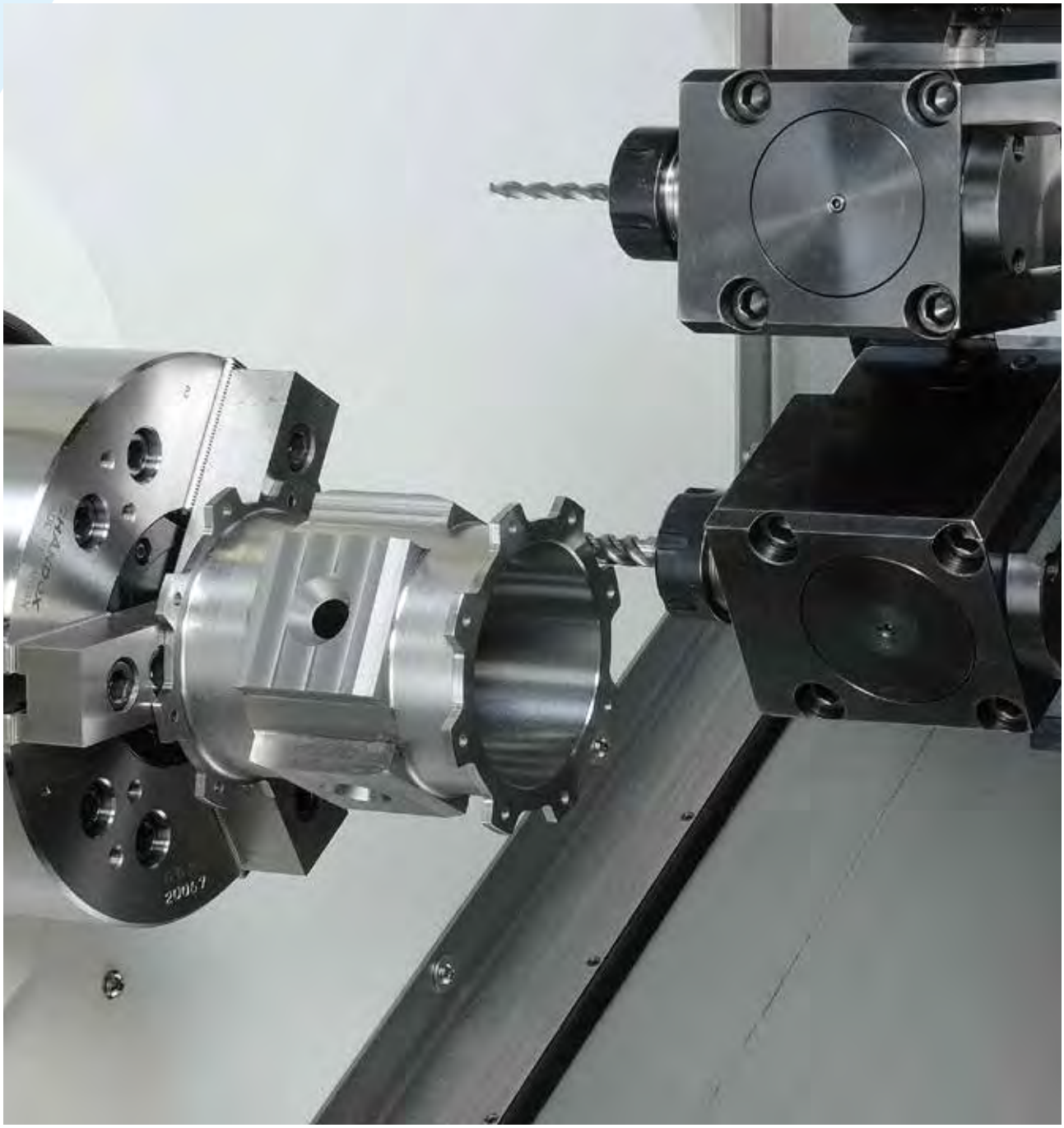


CNC Turning Center

YCM®

CNC Turning Center

GT

Ideal for Hard Material Machining

The GT Series includes a range of machines from 6" - 12" chucks, with rigid flat bed, 2-axis boxway construction and heavy-duty ballscrews, allowing high metal removal rates. Backed by a robust structure and high torque spindle, ensures machining stability in hard, or tough to machine materials.

TC

Ideal for General Machining (TC-16)

The TC-16 models are available with 6" & 8" chuck sizes, feature a 45˚ slant bed structure, linear guides, and are best suited for general purpose, high productivity, 2-axis machining.

Ideal for Heavy Duty Machining (TC-26, 36, 46, & 46M)

The TC-26 & 36 models are available with 10" & 12" chuck sizes and the TC-46/46M are available with 15" - 24" chuck sizes.

These heavy duty machines also feature a 45˚ slant bed design, robust box way construction, and powerful high torque geared-head spindle, making them ideal for heavy machining applications. With Z-axis travels from 700mm ~ 3,200mm 27.56" ~ 125.98" these machines offer spacious working area to machine large-sized workpieces, such as valves, shafts and hydraulic components for the aerospace, automotive, power generation, shipbuilding, construction, and oil/gas industries.

To meet high customer expectations, YCM offers a comprehensive range of CNC turning centers with a variety of chuck sizes, bed lengths, and optional performance features & functions. Our strategically designed MEEHANITE® cast iron structures provide high rigidity for heavy cutting, precision tolerances and fine surface finishes. These products meet the demanding requirements for multiple industries such as automotive, medical and job shop.

NTC

Configurable Design for Complex Machining

NTC models are available with 8" chuck size, feature a 30˚ slant bed structure with robust boxway construction. The NTC's highly modular design allows customers to choose from a variety of machine configurations of turret, tailstock, sub spindle and Y-axis that best fits their application to complete the most complex jobs in a single setup.

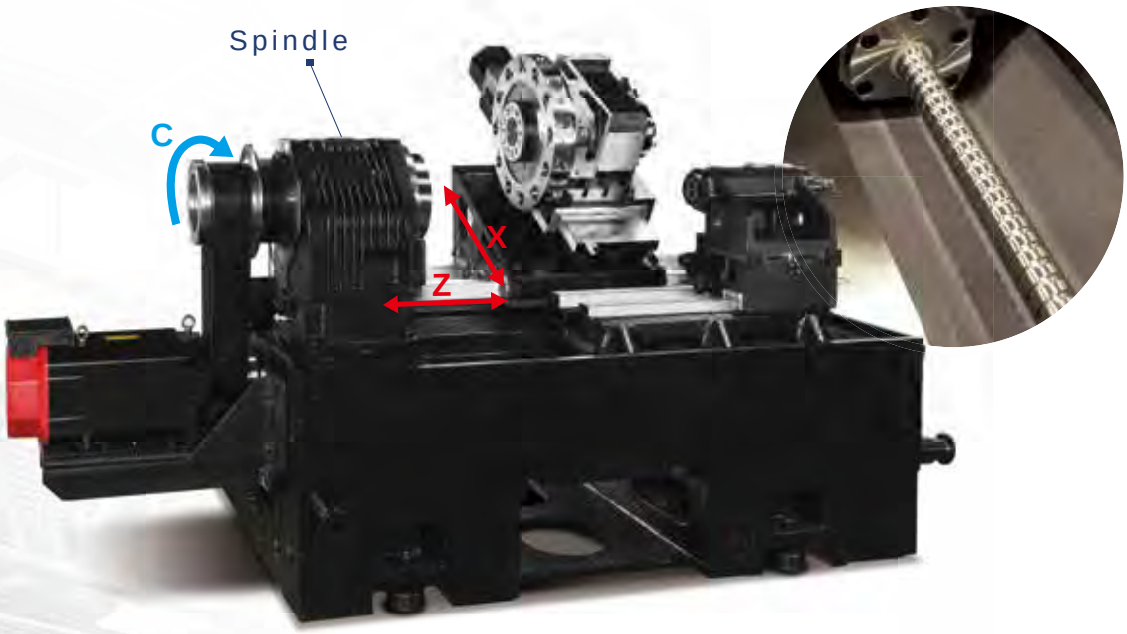
NT

High Productivity Design, Heavy Duty Structure

NT models are available with 10" chuck size, feature a robust 30˚ slant bed structure with boxway construction. With standard high productivity features like Y-axis, sub spindle, and C-axis, complex parts can be completed in a single setup maximizing production efficiency.

GT

Rigid Boxway
Turning Center



Strategically Designed Structure

The heavy-duty base design incorporates large boxways and all castings are made from high quality, durable MEEHANITE® cast-iron providing high rigidity and stability during heavy machining operations.

Model	Structure	Box Ways	Anti-distortion	Dampening Capacity
GT Series	Strengthened	Extra-large	Enhanced	Enhanced
Competitors	General	General	General	General

Thermally Stable Design

- Symmetrically designed headstock combined with effective spindle headstock exhaust fans provide superior ventilation throughout the spindle compartment, help to minimize thermal growth.
- The spindle motor is mounted to the left side of the machine base and is designed to exhaust the heat generated from spindle motor away from the machine structure.
- Isolated coolant tank minimizes the effect of coolant temperature fluctuation, reducing potential structural deformation.
- High-performance hydraulic piston pump provides high efficiency and low heat minimizing the thermal impact of hydraulic system.

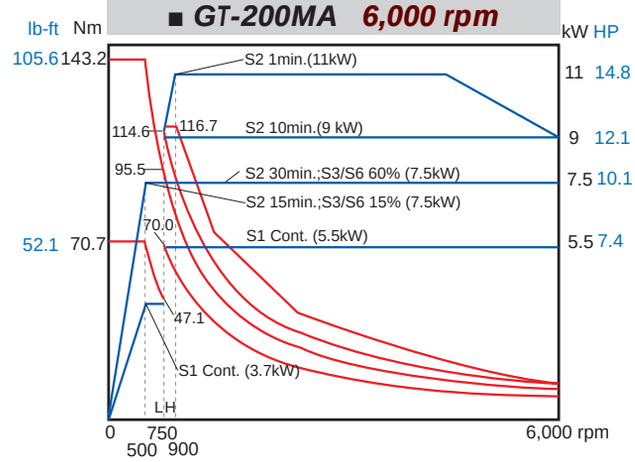
High Performance Spindle

- YCM cartridge-type spindles are designed utilizing robust dual-roller bearings that provide high stiffness, rigidity and durability.
- Built to high quality standards in our spindle head room, these spindles provide high performance machining capability and long service life.

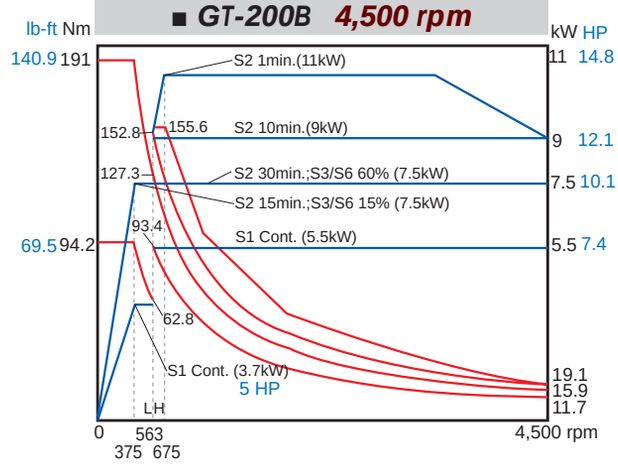
Spindle Power – Torque Diagram

Power: L Low, H High
Torque: L Low, H High

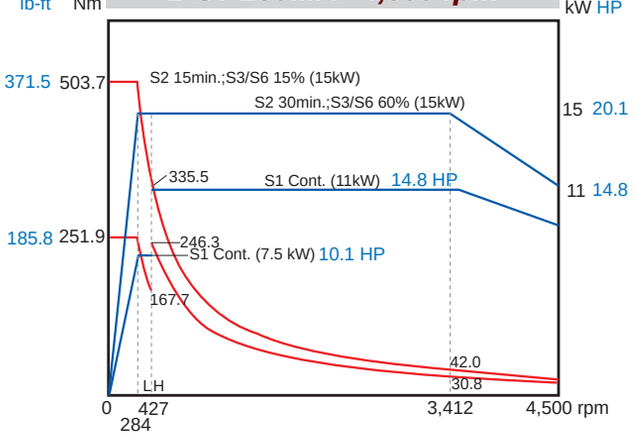
■ GT-200MA 6,000 rpm



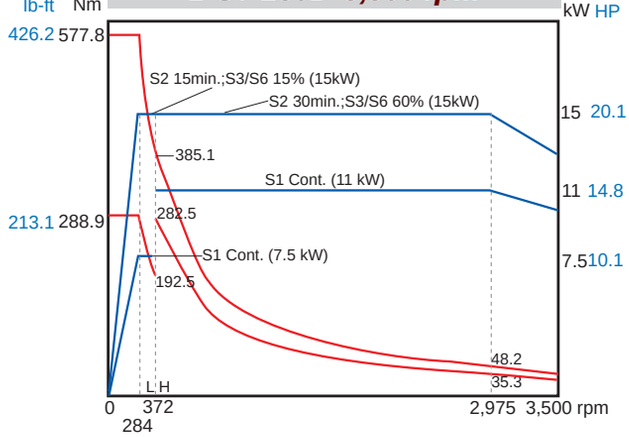
■ GT-200B 4,500 rpm



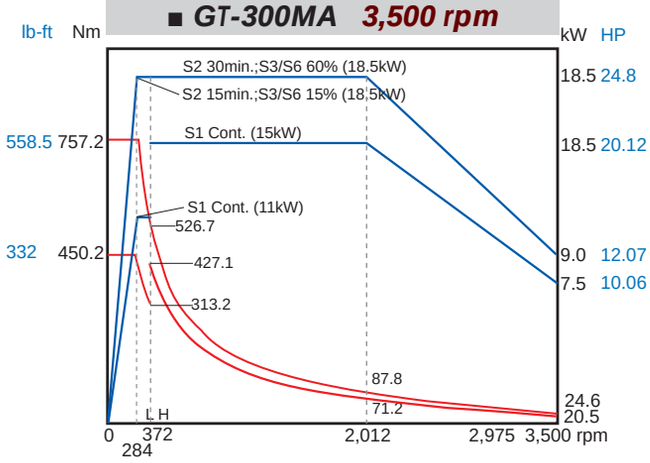
■ GT-250MA 4,500 rpm



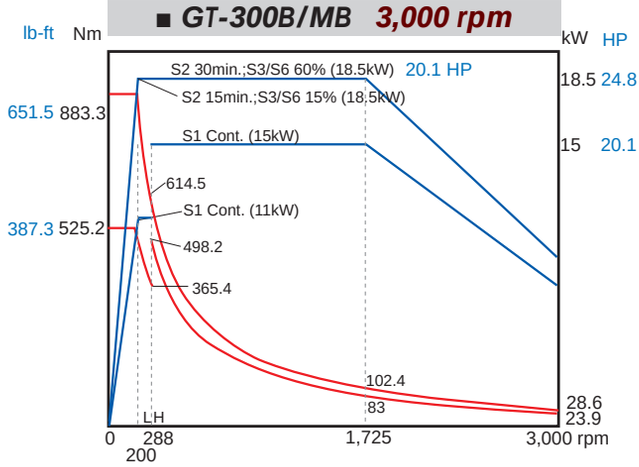
■ GT-250B 3,500 rpm



■ GT-300MA 3,500 rpm



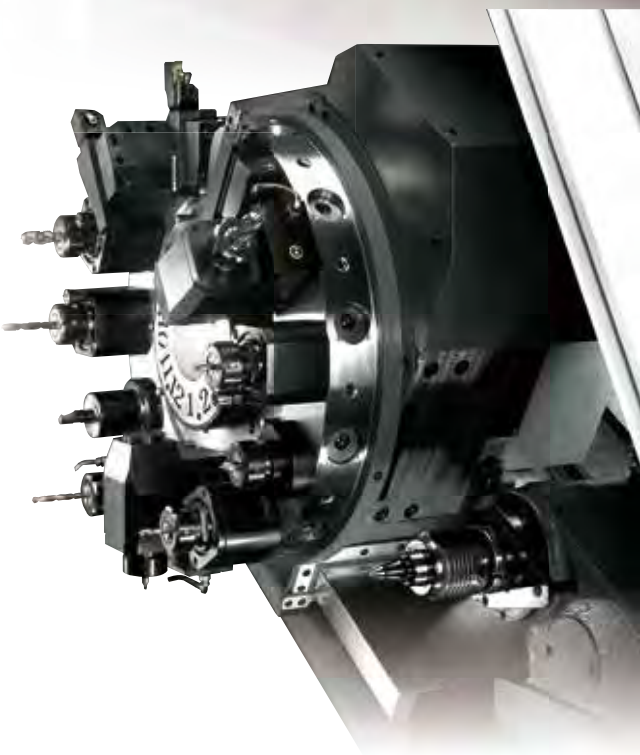
■ GT-300B/MB 3,000 rpm



VDI Turret Machining Capacity

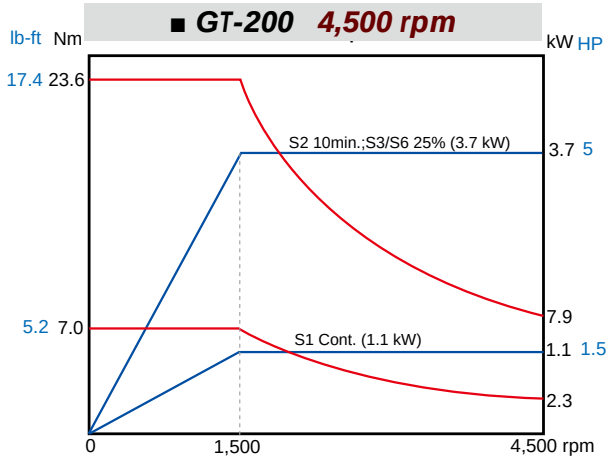
	GT-200MA	GT-250MA GT-300MA/LMB
Turning Tool Post	VDI 30 DIN69880	VDI 40 DIN69880
Milling Tool Post	VDI 30 DIN69880 DIN1809	VDI 40 DIN69880 DIN1809
Collet Type	ER25	ER32
Max. Milling Tool Dia.	ø16 mm ø0.63"	ø20 mm ø0.79"
Max. Drilling Tool Dia.	ø14 mm ø0.55"	ø20 mm ø0.79"
Max. Tapping Tool Dia.	M12 x 1.75P	M16 x 2P
End Milling Capacity	ø16 x 6 mm ø0.63 x 0.24"	ø20 x 10 mm ø0.79 x 0.39"
Rigid Tapping Capacity	M6 x 1P	M6 x 1P

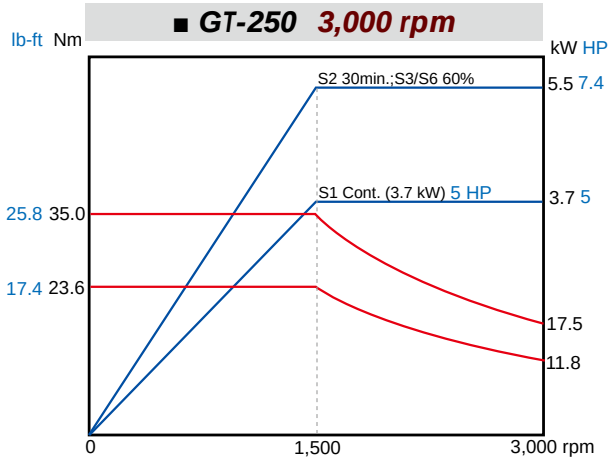
The table above shows the test results on the material S45C. The results are provided as example. They may not be obtained due to differences in cutting conditions and environmental conditions during measurement.

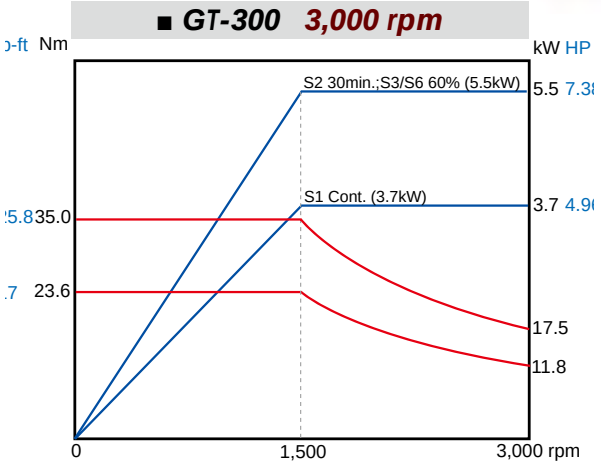


VDI Live Tool Motor Torque Chart

Power Torque







TC

Broad Range of
2-Axis Turning Centers

TC- 16LA / LB

Stable Base Structure

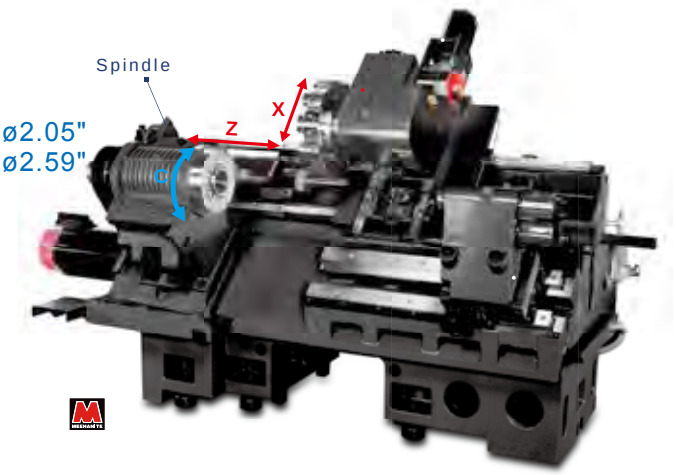
- One-piece 45˚ slant bed base is made of high quality MEEHANITE® cast iron that provides high stiffness and damping characteristics.
- This series offers the largest machining capacity in its class, with a max. turning diameter of ø260 mm ø10.24" and a max. turning length of 600 mm 23.62"

Fast, Reliable Turret

- Servo-driven turret with hydraulic clamping enables a faster tool change time.
- Large curvic coupling provides high stiffness, accurate positioning and repeatability accuracy.

Large Bar Capacity

- 6" chuck with hole through draw tube of ø52 mm ø2.05"
- 8" chuck with hole through draw tube of ø66 mm ø2.59"



Hydraulic System

- High efficiency plunger type hydraulic pump minimizes power loss and heat generation.

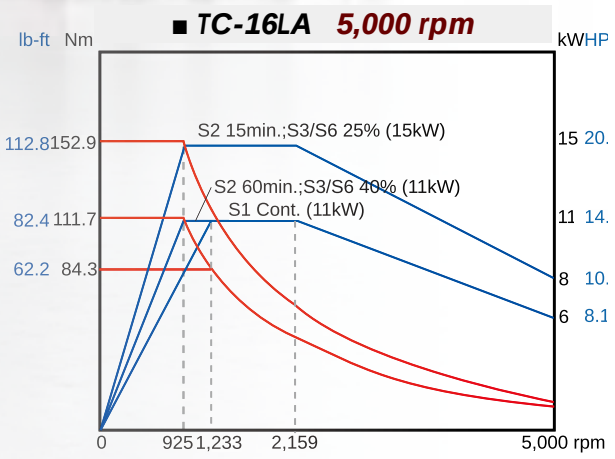
High Performance Spindle

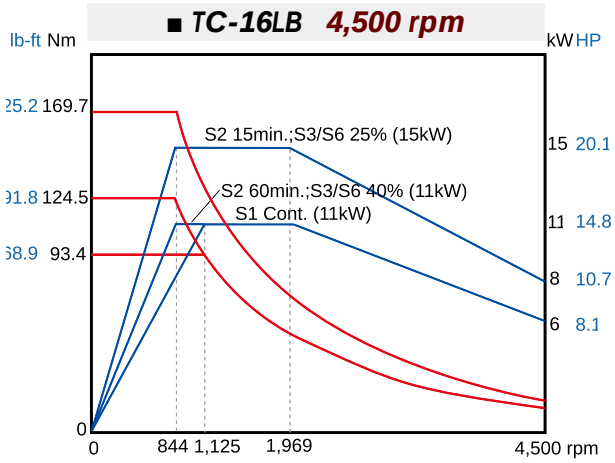
- YCM spindle features large diameter roller-type bearings and angular contact ball bearings, providing the best radial and axial rigidity during heavy machining.
- All YCM spindles are assembled in our temperature controlled spindle room to ensure high quality, reliability, and long spindle life.

Accurate and Stable Axes System

- The X/Z-axis are fitted with high precision linear guideways, fixed pre-tensioned direct drive ballscrews for fast, accurate machining in a thermally stable design.

Power Torque





TC- 26 / 36

Stable Boxway Design

- The large harden and ground boxways are made from high quality MEEHANITE® cast iron providing the utmost rigidity during heavy cutting operations.
- Turcite-B on X/Z-axis provides superior rigidity, low friction coefficient, reduced vibration, and superior damping characteristics without stick-slip, while still maintaining machining accuracy.
- Up to 15/20 m/min 591/787 ipm of rapid feedrate of X/Z-axis.

Robust Geared Head Spindle

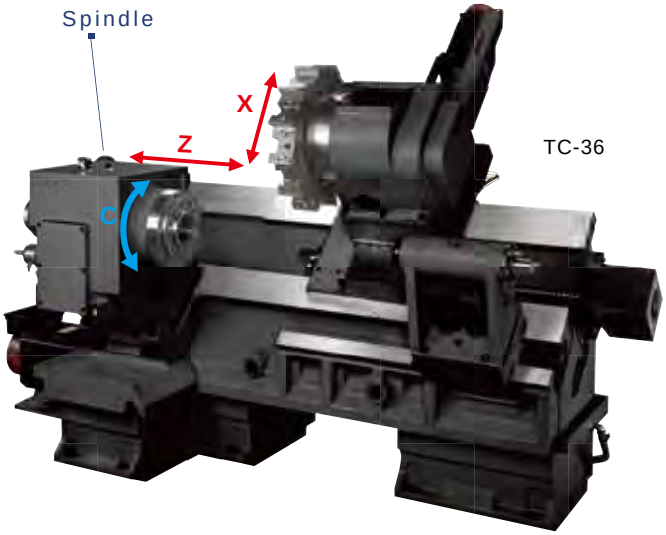
- The geared head spindle design incorporates angular contact ball bearings, double-row roller bearings, and powerful geared head transmission providing high rigidity and stability during machining.

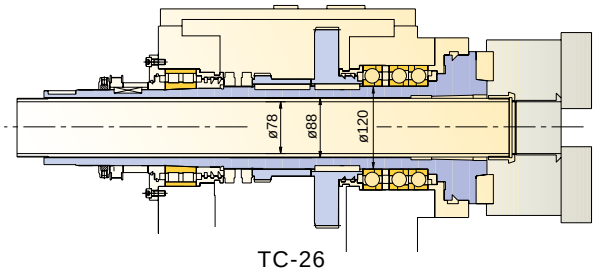
Programmable Tailstock

- "M" code commands, the quill stroke of the programmable tailstock. The tailstock body can be "hooked" to the carriage and be positioned along the Z-axis.
- Tailstock with live quill is standard.

Independent Coolant Tank

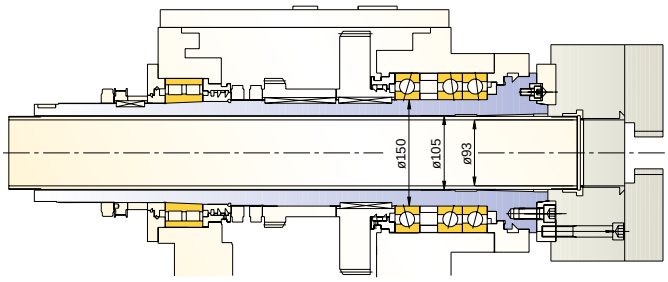
The ergonomic and easy to maintain coolant tank is separated from the machine, minimizing the influence of coolant temperatures providing a more thermally stable machine.





TC-26

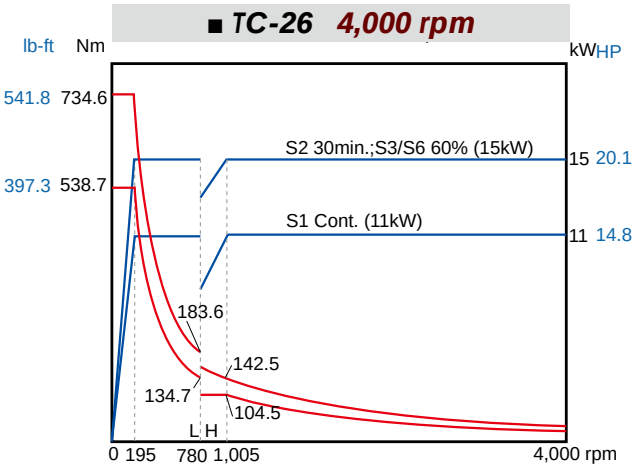
Bearing inner diameter: ø120 mm ø4.72"
Max. hole through spindle diameter: ø88 mm ø3.46"
Max. hole through draw tube diameter: ø78 mm ø3.07"



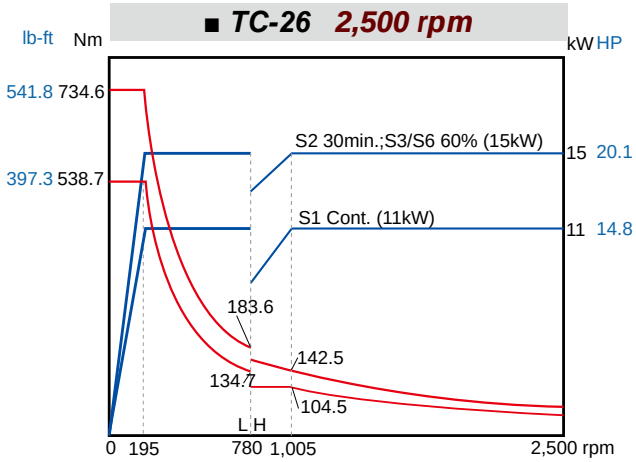
TC-36

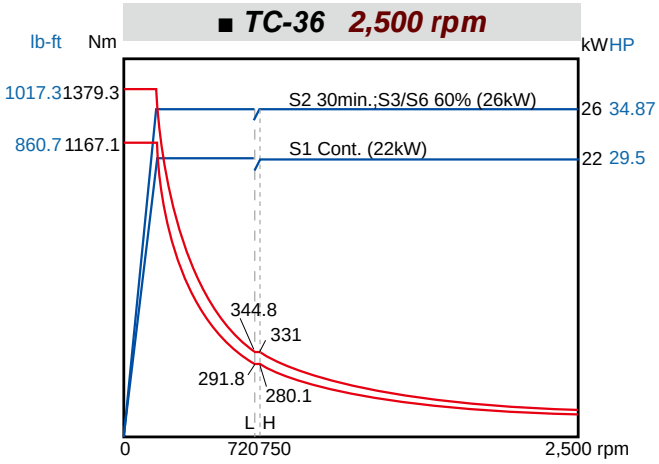
Bearing inner diameter: ø150 mm ø5.91"
Max. hole through spindle diameter: ø105 mm ø4.13"
Max. hole through draw tube diameter: ø93 mm ø3.66"

Power Torque



- The multi-speed geared head transmission features 74.5 kgf-m 539 lb-ft of max torque with spindle speeds up to 4,000 rpm. (TC-26)
- This powerful multi-speed geared head transmission produces a massive max torque of 140 kgf-m 1,013 lb-ft, with spindle speeds up to 2,500 rpm. (TC-36)

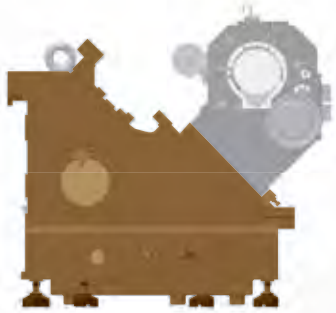




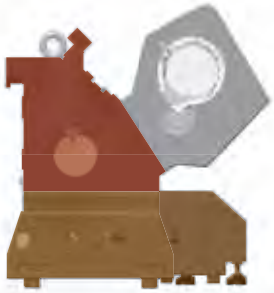
TC- 46 / 46M

Rigid Structure Design

- Unlike some competitive turning centers with multiple-pieces base structures, YCM features one-piece base structure made from high quality, durable MEEHANITE® cast iron.
- Designed with a wide span between the two Z-axis boxways provides exceptional rigidity and stability during machining.



YCM (One-piece design)



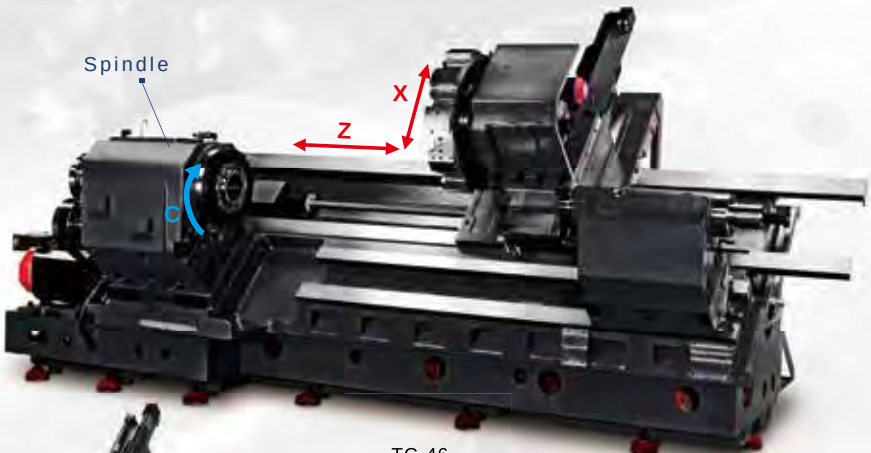
Others (Separate design)

Powerful Geared Head Spindle

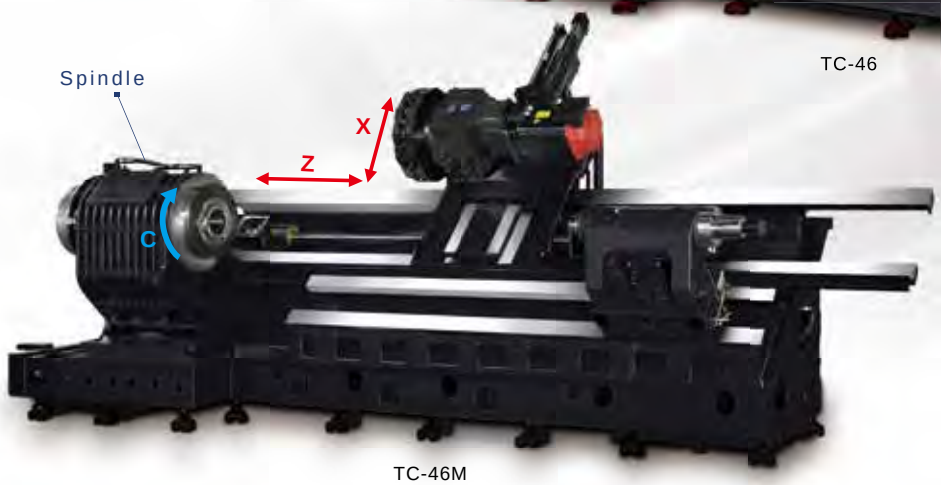
- Massive maximum torque with spindle speeds up to 2,000 rpm.
- Standard with A2-11 spindle nose and 15" chuck.
- Optional 18"/21"/24" chucks with A2-15 spindle nose, big bore, and 1,200 rpm are also available.
- Large-diameter, heavy duty bearings provide high rigidity in heavy duty machining operations.

Extra-large Front Bearings

- Large front bearings with ø180 mm ø7.09" ID enables large through hole capacity and ensures heavy duty cutting capability.
- Max. spindle through hole diameter: ø130 mm ø5.12"
- Max. hole through draw tube diameter: ø117 mm ø4.61"
- All TC spindles are precision ground, cartridge type and are assembled in our temperature controlled spindle room to ensure consistent assembly quality, high reliability, and long spindle life.



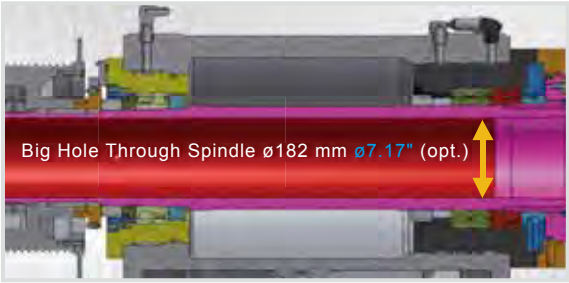
TC-46



TC-46M

Big Hole through Spindle (opt.)

- A2-15 spindle with ø182 mm ø7.17" bore, hole through draw tube ø165 mm ø6.5" with a wide range of chuck size from 18" to 24".
- Suitable for long workpiece that require deep boring and drilling operations.



Fully Programmable Tailstock

- The tailstock is fully M-Code programmable.
- Provides rigid, firm support for extra-long workpieces to maximize machining precision.
- The MT-5 fixed quill with live center is included as standard. Live quill with dead center is optional.
- Two types of steady rests, manual-fixed and hydraulic-fixed. (opt.)

Manual steady rest (opt.)
ø40 mm~ø250 mm
ø1.57"~ø9.8"
ø250 mm~ø460 mm
ø9.8"~ø18.1"

TC-46M /3200
Hydraulic steady rest (opt.)

TC-46M /3200
Hydraulic steady rests (opt.)

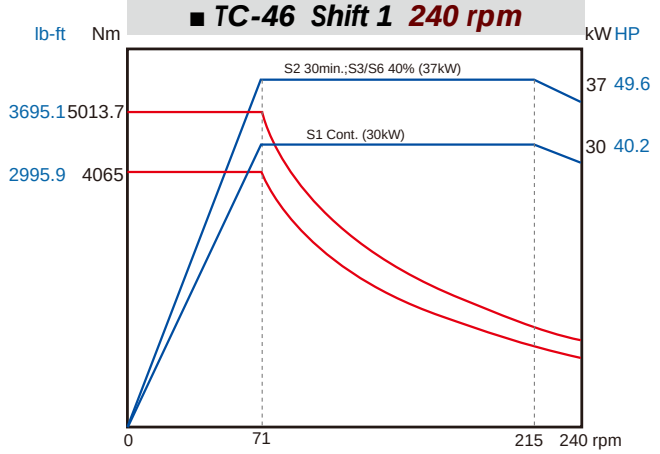
Efficient Chip Disposal System

- The 45 degree slant bed base design provides efficient chip removal and a spacious working area.
- Chip wash-down is supplied for optimal chip removal.
- Shower coolant, mounted from the roof helps to prevent chips from accumulating in the work area. (opt.)

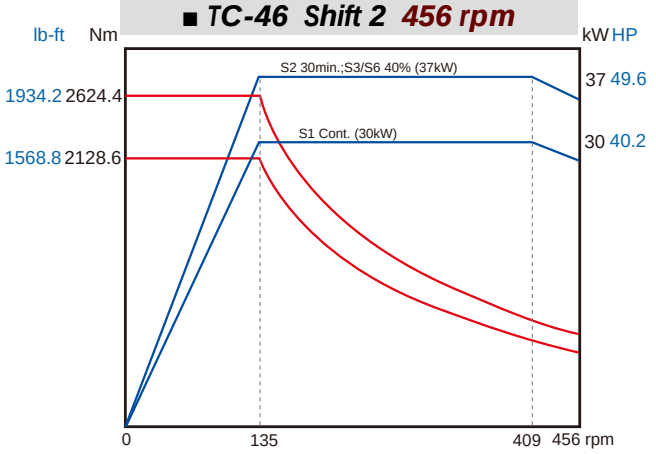
Spindle Power – Torque Diagram

Power Torque

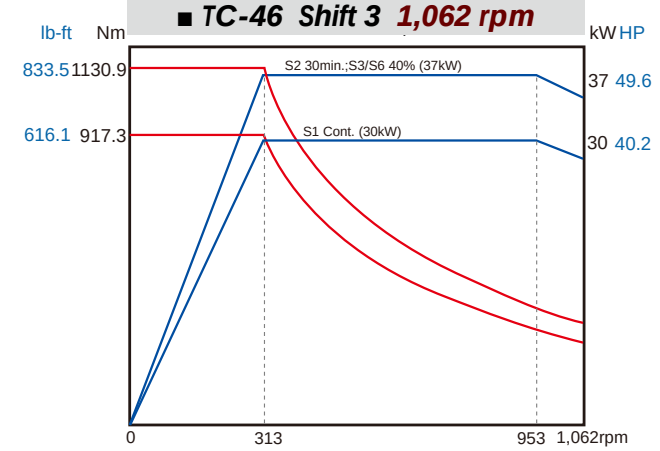
■ TC-46 Shift 1 240 rpm



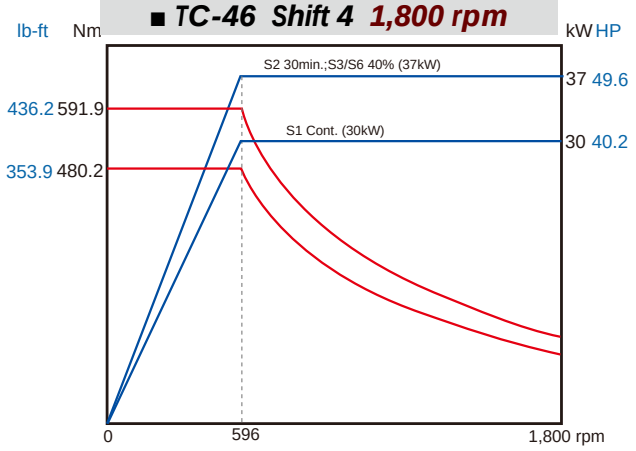
■ TC-46 Shift 2 456 rpm



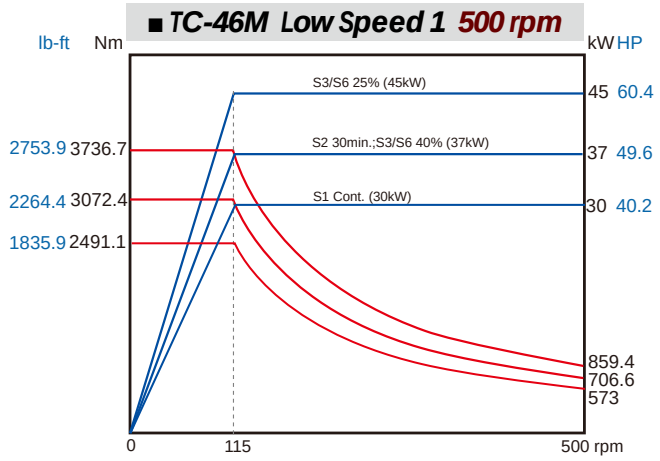
■ TC-46 Shift 3 1,062 rpm



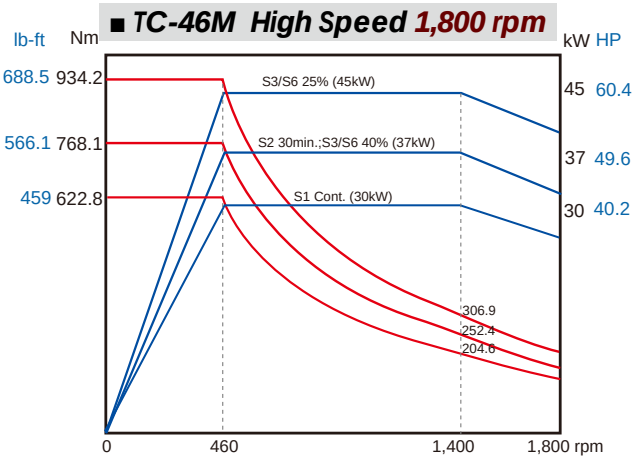
■ TC-46 Shift 4 1,800 rpm



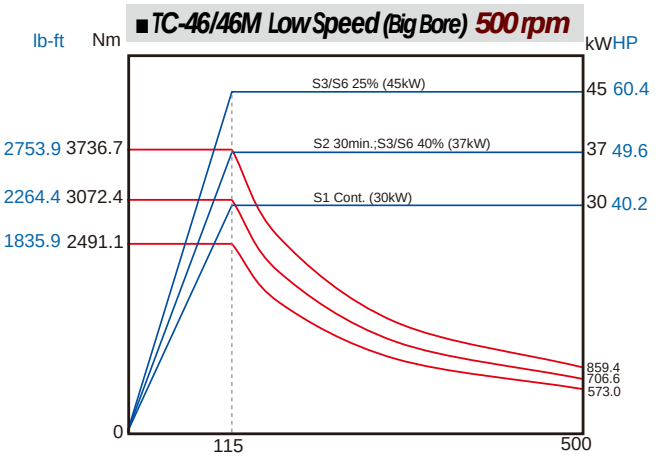
■ TC-46M Low Speed 1 500 rpm



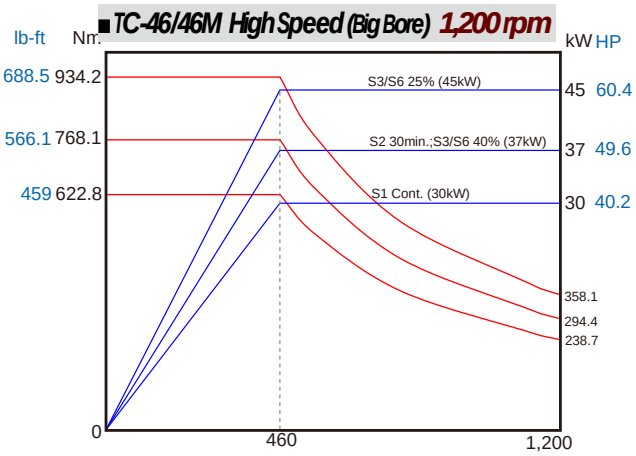
■ TC-46M High Speed 1,800 rpm



■ TC-46/46M Low Speed (Big Bore) 500 rpm



■ TC-46/46M High Speed (Big Bore) 1,200 rpm



Powerful Machining Capability (TC-46)

Powerful Machining Capability

The powerful 4 speed geared head and robust high torque spindle enhances productivity by allowing extreme heavy-duty cutting operations.

Thermally Stable Spindle

The powerful spindle includes an oil-cooling system that greatly minimizing the heat generated by the geared head spindle during machining operations.

Fast and Reliable Servo Turret (TC-46)

Equipped with Large Servo Turret

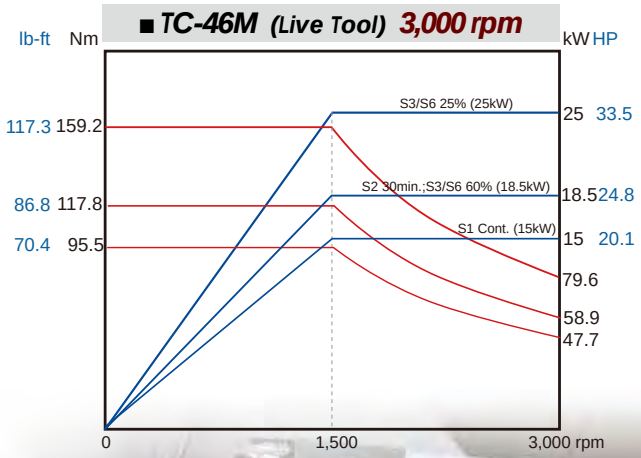
- Robust 10-station, block type, servo driven turret with fast 0.9 sec. rotation time boosts efficiency and productivity.
- Optional 12-station, block type, servo driven turret.
- Optional BMT 85 12-station live tooling turret is available for heavy milling operations.

Large Diameter Curvic Coupling

The large diameter 3-piece curvic coupling is designed to provide superior turret clamp force during heavy cutting operations and ensure long-term accuracy.

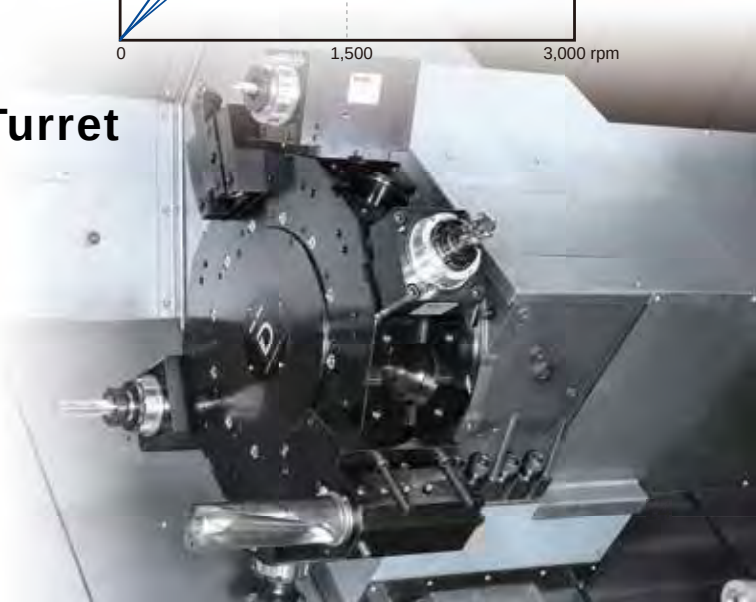
Ultimate Machining Solution (TC-46M)

- 2 speed geared head spindle with max. torque of 380 kgf-m 2,748.59 lb-ft is driven by a powerful 30/37 kW 40/50 HP spindle motor.
- The high torque spindle incorporates an oil-cooling system to ensure thermal stability
- C-axis spindle encoder provides accurate 0.001 degree positioning.



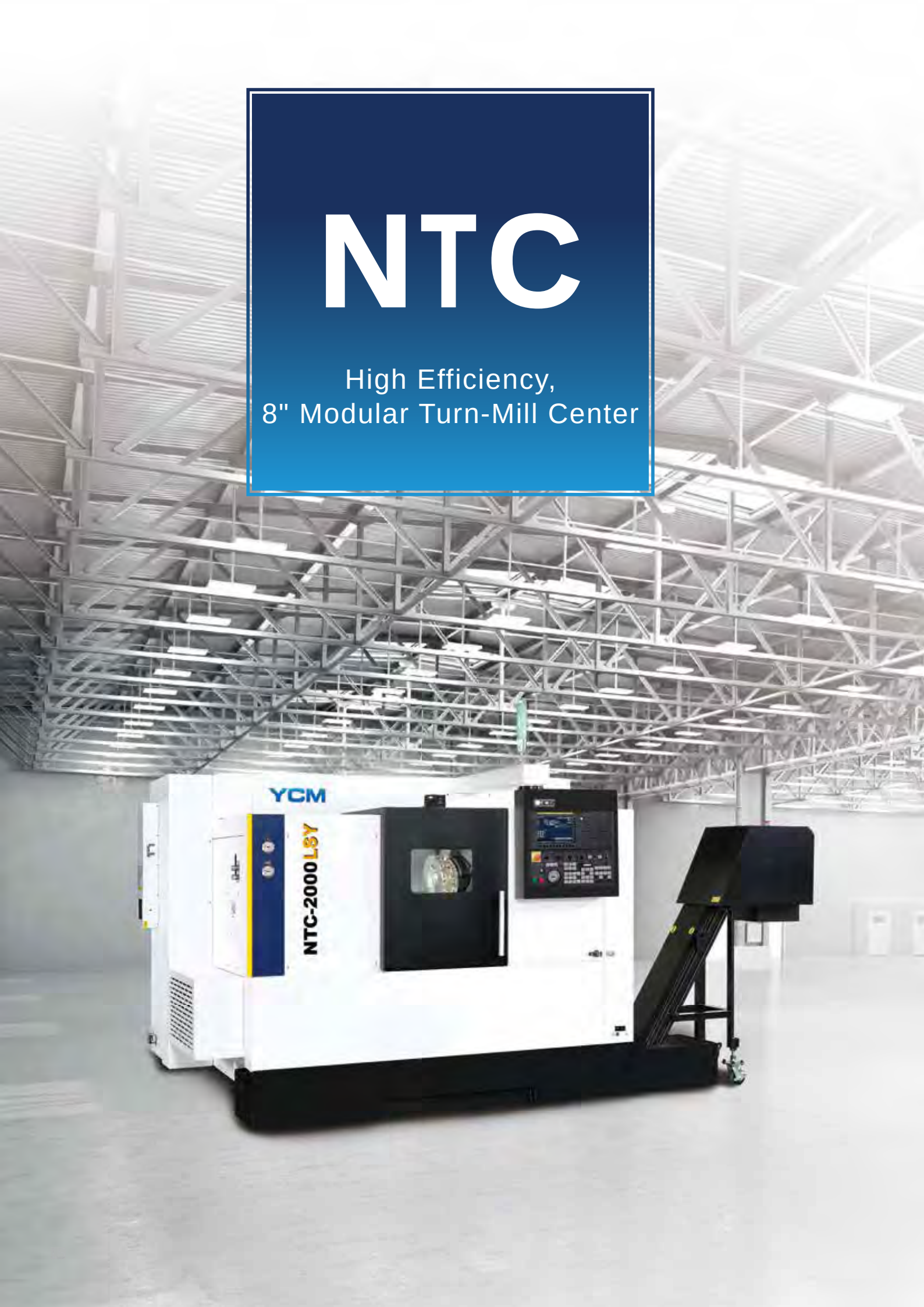
Fast, Reliable Servo Driven Turret (TC-46M)

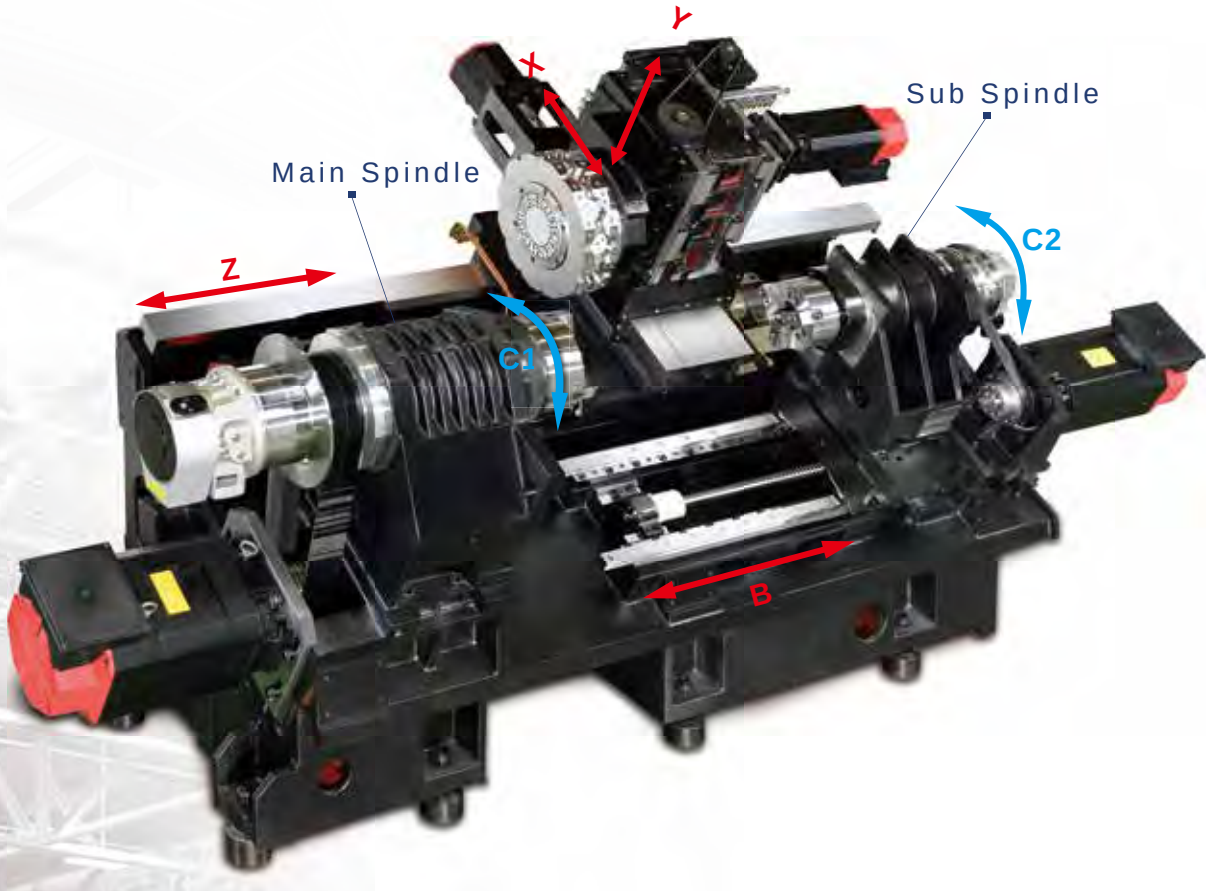
- 12 station BMT 85 live tool turret is driven by a powerful servo motor. Live tooling power is an impressive 15/18.5/22 kW 20/25/30 HP with a maximum rotary tool speed of 3,000 rpm.
- Robust 3-piece curvic coupling provides superior clamp force, enabling excellent performance on heavy-duty milling and turning operations.



NTC

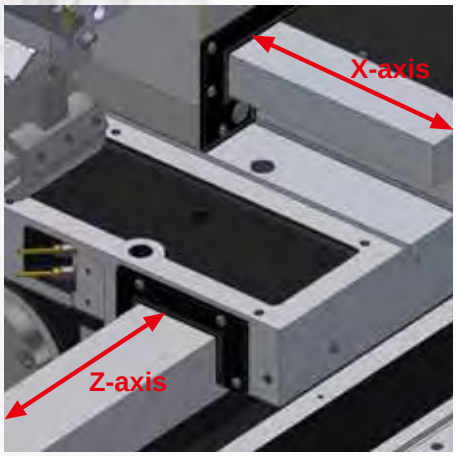
High Efficiency,
8" Modular Turn-Mill Center

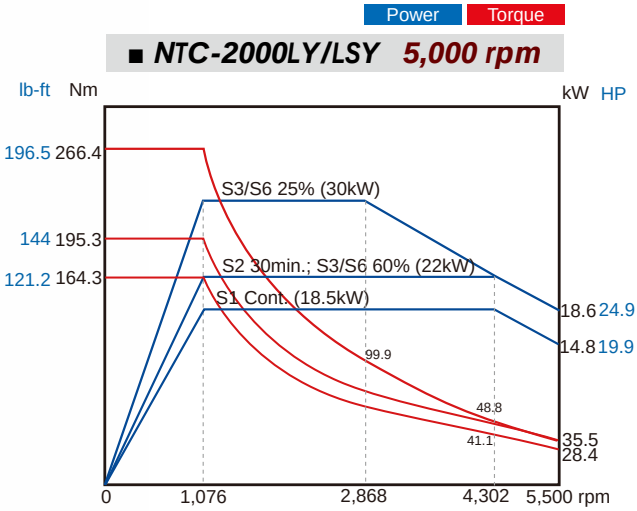




Robust One-Piece Base Structure

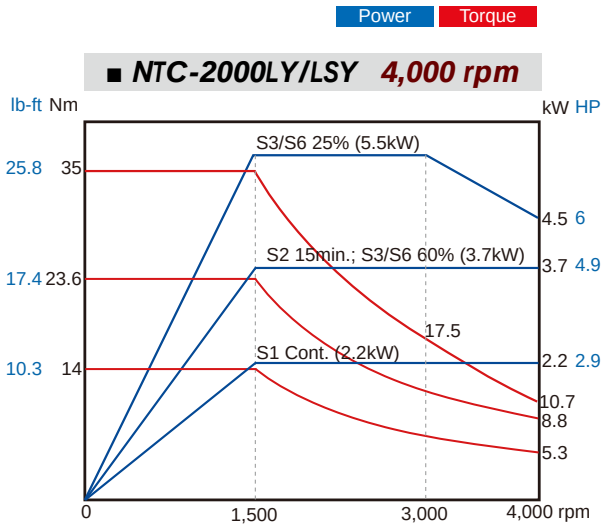
- One-piece 30° slant bed design made from high quality MEEHANITE® cast-iron.
- Turcite-B on X/Z-axis provides superior rigidity, low friction coefficient, reduced vibration, and superior damping characteristics without stick-slip, while still maintaining machining accuracy.





Integrated Sub Spindle and Y-axis for Complete Part Machining

- The orthogonal Y-axis design allows complex off center milling, drilling, and tapping in a single setup eliminating the need for a secondary milling operations.
- The combination of sub spindle and Y-axis allows the complete machining of prismatic parts in a single setup improving efficiency and accuracy due to less part handling and completing the part in one setup, compared to using multiple machines.



Flexible Manufacturing Solution

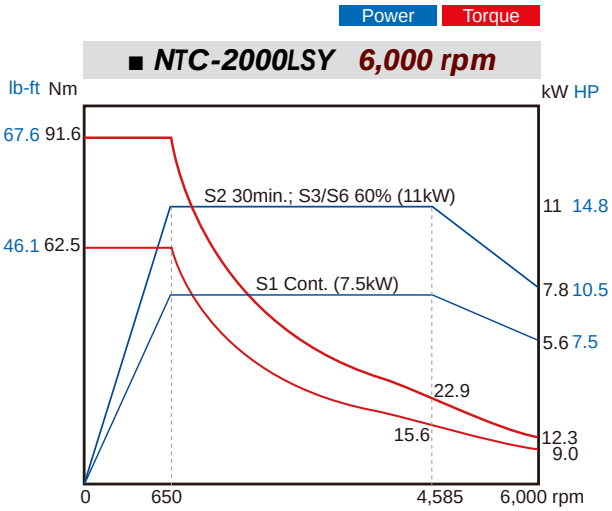
- Optional sub spindle with 6" chuck, or 2 different types of optional tailstocks are available depending on the customers production requirements. Choose either a fully programmable hydraulic tailstock, or servo-driven tailstock.
- Manually positioned tailstock with programmable quill is the standard configuration.

Model	NTC-2000LY		
Tailstock			
Tailstock Types	Manual Positioning Hydraulic Quill (std.)	Tow-Along Positioning Hydraulic Quill (opt.)	Servo Positioning Servo Hold (opt.)
Quill Stroke	100 mm 3.94"	100 mm 3.94"	-
Quill Taper	MT-4		
Center	Fixed type		

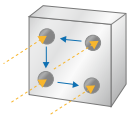
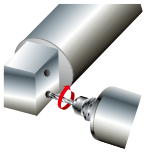
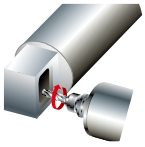
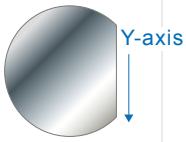
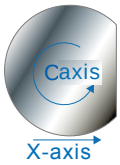
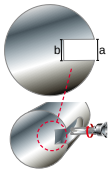
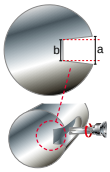
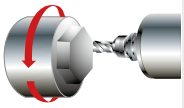
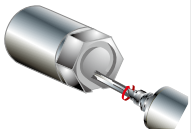
Sub Spindle with 6" Chuck for NTC-2000LSY

Max. sub spindle speed: 6,000 rpm
Max. sub spindle power: 7.5/11 kW 10.06/14.75 HP

Magnetic encoder and brake on C-axis



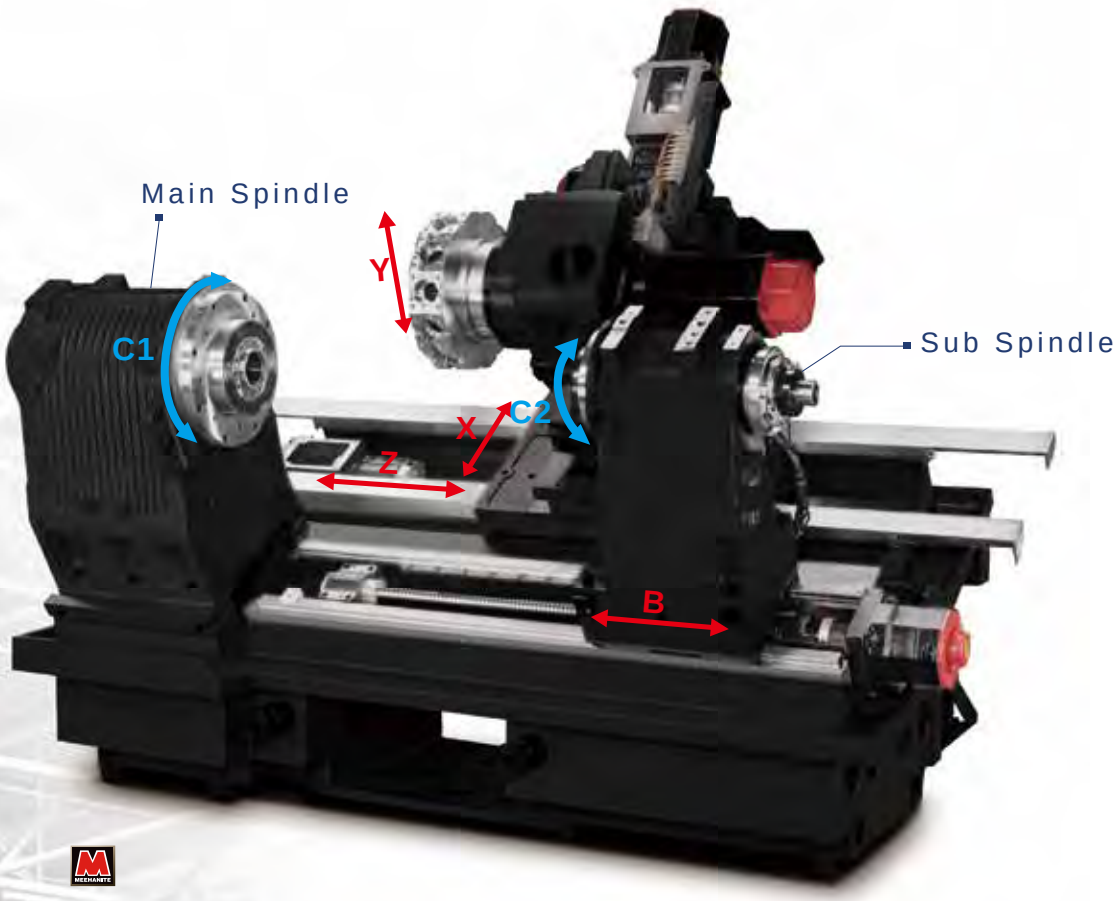
Efficient Combination of Y & C-axis

	Y & C-axis	C-axis
End Face Drilling	○ Fast 	○ Slow 
Off-center Drilling	○ 	X
Off-center Side Grooving	○ 	X
Large Face Milling	○ Fast  \	○ Slow  \
Contouring	○ Finish Surface Without Pin Points 	X Rough Surface
Keyway Machining	○ High Accuracy 	○ 
X & C-axis Polar Interpolation	○ Fast 	○ Slow
X & Y-axis Circular Interpolation	○ Fast 	○ Slow

NTC series

NT

High Efficiency,
10" Turn-Mill Center



Reinforced Base Structure

- One-piece 30° slant bed design made from high quality MEEHANITE® cast-iron.
- The rigid structure is designed with high dampening characteristics to reduce the effects of vibration and minimize thermal deformation.
- The robust box ways are heat treated through an induction hardening process and precision ground to achieve optimal rigidity, accuracy and long service life.
- Designed with a wide span between the two Z-axis boxways provides exceptional rigidity and stability during machining.

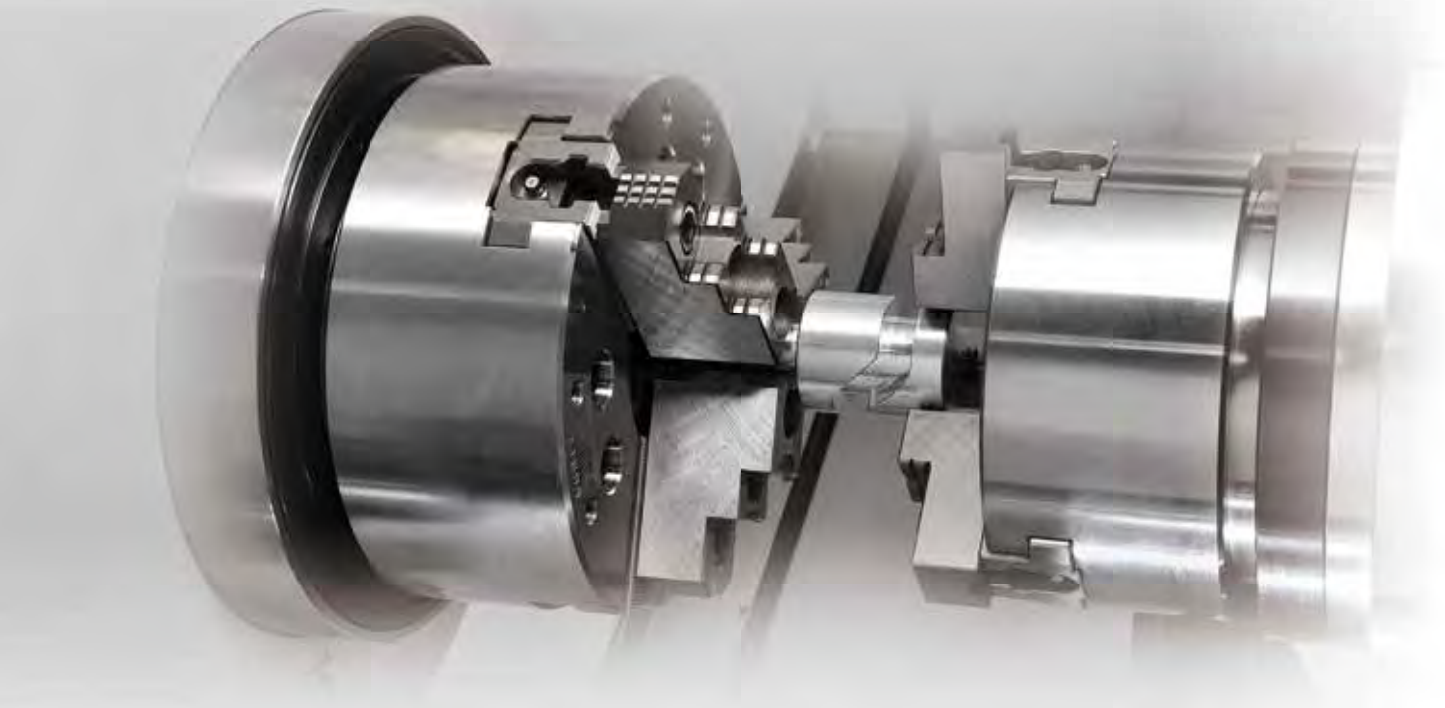
High Speed Servo Turret

- Turret index and rotation is controlled by servo motor, enabling reliable and fast tool index times.

Single-setup Efficiency

- Packed with sub spindle, Y-axis and live tool turret, these turn-mill features allow complex finished parts machining in just one setup, while also improving efficiency and accuracy.
- X/Y/Z/B-axis are equipped with direct drive motors to enable high-accuracy positioning and repeatability.

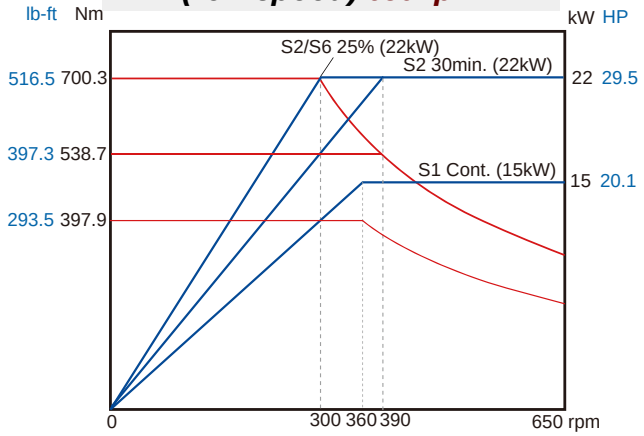
YCM Manufactured Built-in-type Motorized Spindle



Spindle Power – Torque Diagram

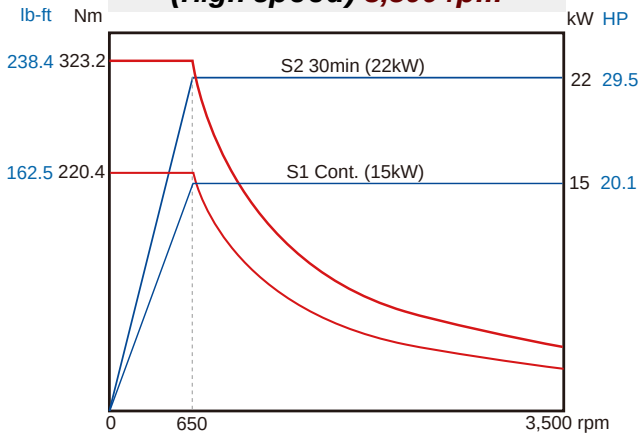
Power Torque

■ NT-2500SY Main Spindle (Low Speed) 650 rpm

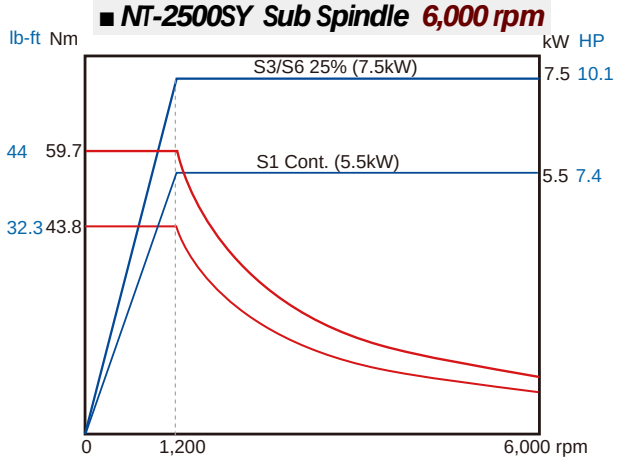


- Built-in spindles are more accurate and responsive compared to analog spindle drives, motors and belts. The motor is more reliable and requires minimal maintenance, since it is liquid cooled, brushless, permanently sealed and lubricated.
- The spindle chiller circulates oil around the spindle and controls the temperature minimizing thermal deformation.
- The spindle utilizes large diameter bearings that improves rigidity and cutting capability.
- C-axis index: 0.001°.

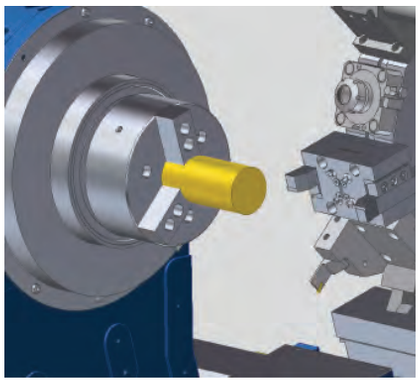
■ NT-2500SY Main Spindle (Hign Speed) 3,500 rpm



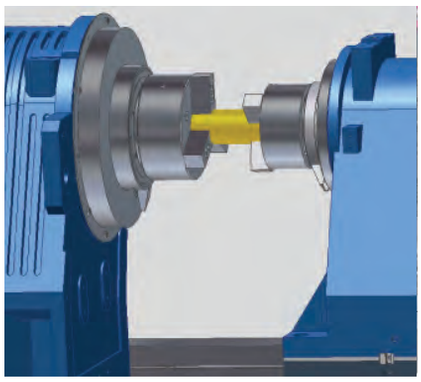
■ NT-2500SY Sub Spindle 6,000 rpm



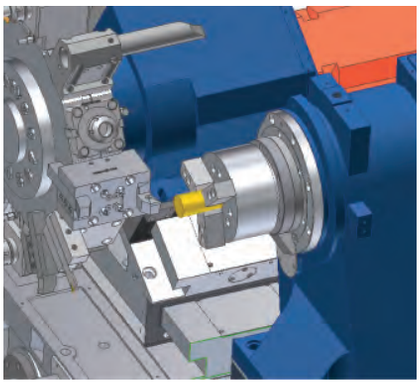
Continuous Machining Capability



Main Spindle



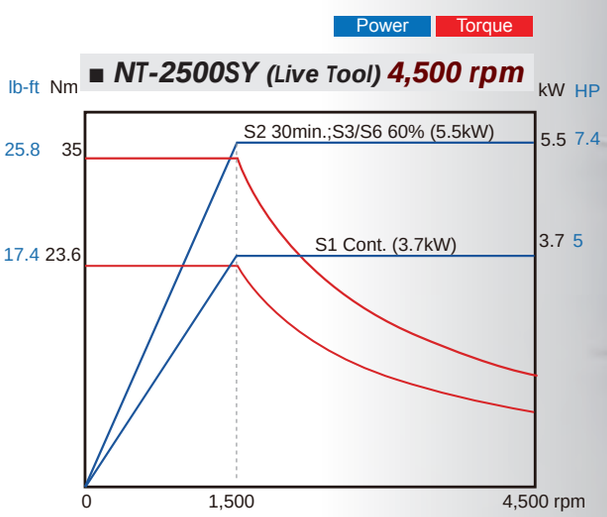
Transfer, or cut-off and transfer from main to sub spindle

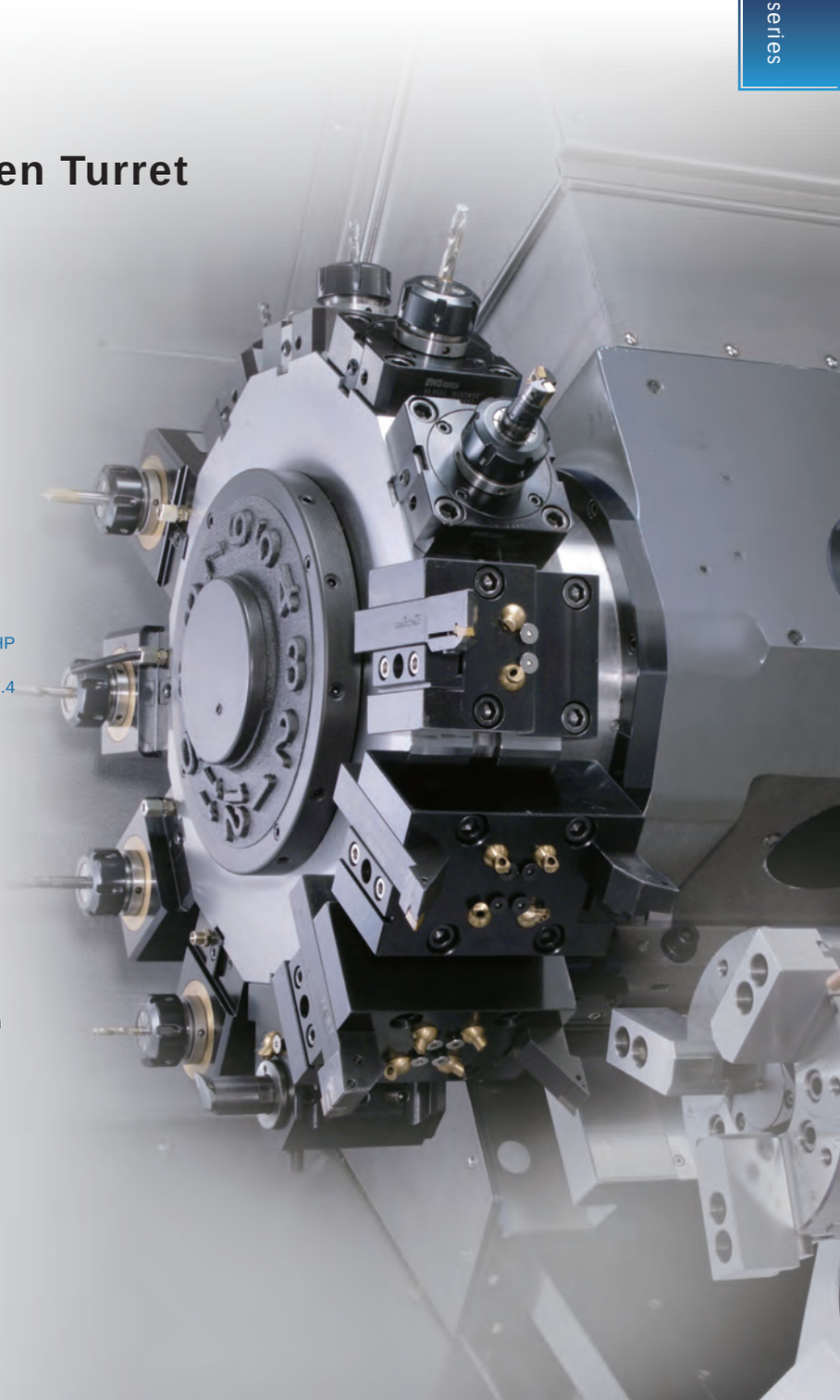


Sub Spindle

High Speed Servo Driven Turret

- BMT65 live tooling turret with 12 stations minimizes interference as the part is turned and milled.
- The servo driven turret is designed with large diameter curvic coupling and hydraulic clamping system that provides high clamping force, along with precise turret positioning and repeatability accuracy.





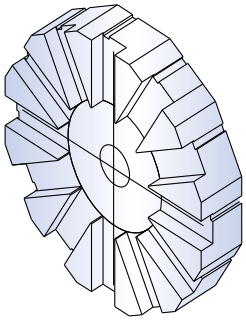
- Max. live tool power: 5.5 kW 7.38 HP
- Index time: 0.18 sec.

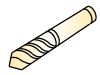
TOOLING CHART

GT

Unit: mm inch
● Standard
○ Optional

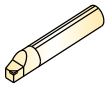
GT-200B





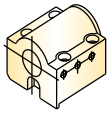
Drill

Drill Socket
- ●MT1-1PC
- ●MT2-1PC
- ●MT3-1PC
- ○MT4

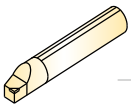


Boring Tool
<ø40 <ø1&1/2"

Boring Bar Sleeve
- ●ø32 ø1 & 1/4" - 2 PC
- ●ø25 ø1" - 2 PC
- ●ø20 ø3/4" - 1 PC
- ●ø16 ø5/8" - 1 PC
- ●ø12 ø1/2" - 1 PC
- ●ø10 ø3/8" - 1 PC
- ●ø8 ø5/16" - 1 PC
- ●ø6 ø1/4" - 1 PC



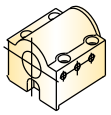
Boring Bar Holder
- ●ø40mm
  ø1 & 1/2" - 5 SET



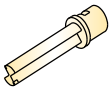
Boring Tool
ø40 ø1&1/2"

Oil-feed Drill
<ø40 <ø1&1/2"

Oil-feed Tool Sleeve
- ●ø32 ø1 & 1/4" - 2 PC
- ●ø25 ø1" - 1 PC
- ○ø20 ø3/4"
- ○ø16 ø5/8"



Drill Holder
- ●ø40mm
  ø1 & 1/2" - 1 SET

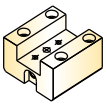


Oil-feed Drill
ø40 ø1&1/2"

I.D. and
Face Tooling

12T- □20 3/4"
10T- □25 1"

Tool Clamping Pad
- ●12T- 2 PC
- ●10T- 2 PC



Square Tool
Holder

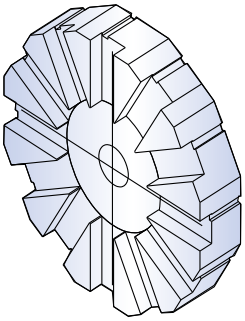
- ●12T- □20 3/4" - 2 SET
- ●10T- □25 1" - 2 SET

O.D. and
Face Tooling
12T- □20 3/4"
10T- □25 1"

Gib
- ●12T- □20 3/4" - 12 SET
- ●10T- □25 1" - 10 SET

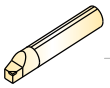
Unit: mm inch
● Standard
○ Optional

GT-250B



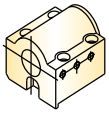
Drill

Drill Socket
●MT1- 1PC
●MT2- 1PC
●MT3- 1PC
○MT4

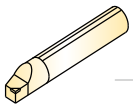


Boring Tool
<ø40 <ø1&1/2"

Boring Bar Sleeve
●ø32 ø1 & 1/4" - 2 PC
●ø25 ø1" - 2 PC
●ø20 ø3/4" - 1 PC
●ø16 ø5/8" - 1 PC
●ø12 ø1/2" - 1 PC
●ø10 ø3/8" - 1 PC
●ø8 ø5/16" - 1 PC
●ø6 ø1/4" - 1 PC



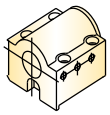
Boring Bar Holder
●ø40 ø1&1/2"
- 5 SET



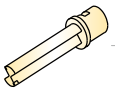
Boring Tool
ø40 ø1&1/2"

Oil-feed Drill
ø40 <ø1&1/2"

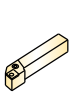
Oil-feed Tool Sleeve
●ø32 ø1 & 1/4" - 1 PC
●ø25 ø1" - 1 PC
○ø20 ø3/4"
○ø16 ø5/8"



Drill Holder
●ø40 ø1&1/2"
- 1 SET

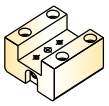


Oil-feed Drill
ø40 ø1&1/2"



I.D. and Face Tooling
□25 1"

Gib
●□25 1" - 2 SET



Square Tool Holder
●□25 1" - 2 SET

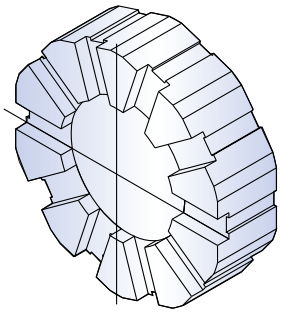
O.D. and Face Tooling
□25 1"

Gib
●□25 1" - 12 SET

TOOLING CHART

Unit: mm inch
● Standard
○ Optional

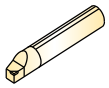
GT-300B/LA



Drill

Drill Socket

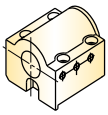
○MT2
●MT3-1 PC
●MT4-1 PC



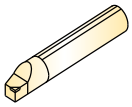
Boring Tool
ø50 <ø2"

Boring Bar Sleeve

●ø40 ø1&1/2" - 2 PC
●ø32 ø1 & 1/4" - 2 PC
●ø25 ø1" - 1 PC
●ø20 ø3/4" - 1 PC
●ø16 ø5/8" - 1 PC
●ø12 ø1/2" - 1 PC
●ø10 ø3/8" - 1 PC
●ø8 ø5/16" - 1 PC



Boring Bar Holder
●ø50 ø2" - 5 SET

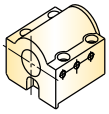


Boring Tool
ø50 <ø2"

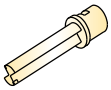
Oil-feed Drill
ø50 <ø2"

Boring Bar Sleeve

●ø40 ø1&1/2" - 1 PC
●ø32 ø1 & 1/4" - 1 PC
●ø25 ø1" - 1 PC
●ø20 ø3/4"
●ø16 ø5/8"



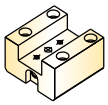
Drill Holder
●ø50 ø2" - 1 SET



Oil-feed Drill
ø50 ø2"

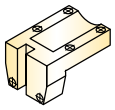
I.D. and Face Tooling
10T- □25 1"
8T- □32 1&1/4"

Gib
●10T-2 SET
● 8T-2 SET



Square Tool Holder
●10T- □25 1" - 2 SET
● 8T- □32 1&1/4" - 2 SET

Cutting/Grooving Tool
10T- □25 1"
8T- □32 1&1/4"



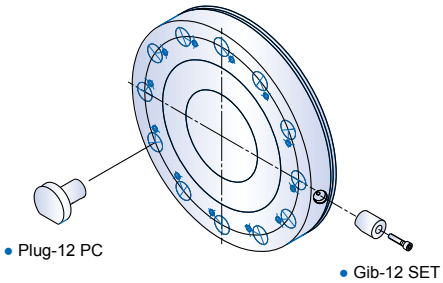
Cutting/Grooving Tool Holder
●10T- □25 1" - 1 SET
● 8T- □32 1&1/4" - 1 SET

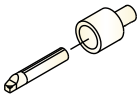
O.D. and Face Tooling
10T- □25 1"
8T- □32 1&1/4"

Gib
●10T-10 SET
● 8T- 8 SET

Unit: mm inch
● Standard
○ Optional

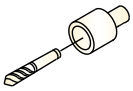
GT-200MA





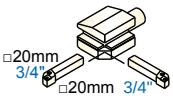
ø30mm or
Less boring bar
○E2 30x 8 5/16"
○E2 30x10 3/8"
○E2 30x12 1/2"
○E2 30x16 5/8"
○E2 30x20 3/4"
○E2 30x25 1"
○E2 30x32 1&1/4"

Boring Holder



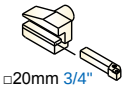
Drill
○F30- MT1
○F30- MT2
○F30- MT3

Drill Holder



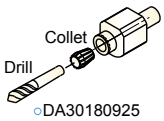
○CB3- 30x20 3/4"

O.D. & End
Tool Holder



□20mm 3/4"
○B3- 30x20 3/4"

O.D.
Tool Holder

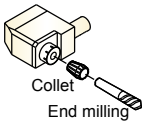


○DA30180925

Axis Milling
Tool Holder

○3-2mm
○4-3mm
○5-4mm
○6-5mm
○7-6mm
○8-7mm
○9-8mm
○10-9mm
○11-10mm
○12-11mm
○13-12mm
○14-13mm
○15-14mm
○16-15mm

Collet



○BR3018092569

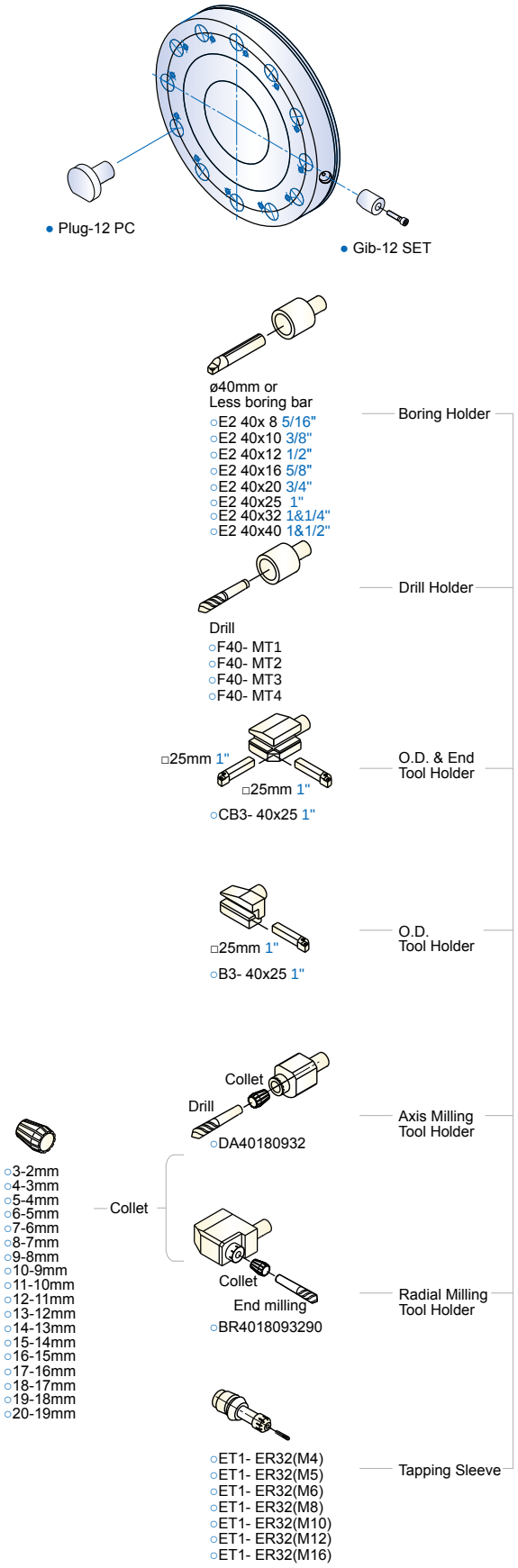
Radial Milling
Tool Holder

○ET1- ER25(M1)
○ET1- ER25(M2)
○ET1- ER25(M3)
○ET1- ER25(M4)
○ET1- ER25(M5)
○ET1- ER25(M6)
○ET1- ER25(M8)
○ET1- ER25(M10)
○ET1- ER25(M12)

Tapping Sleeve

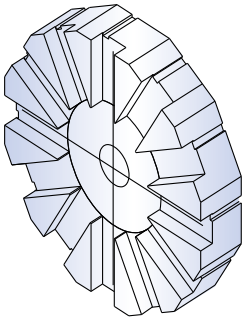
Unit: mm inch
● Standard
○ Optional

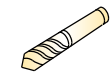
GT-250MA, 300MA/LMB



Unit: mm inch
● Standard
○ Optional

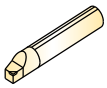
TC-16LA/LB





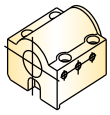
Drill

Drill Socket
- ●MT1-1PC
- ●MT2-1PC
- ●MT3-1PC
- ○MT4

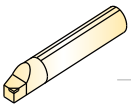


Boring Tool
<ø40 <ø1&1/2"

Boring Bar Sleeve
- ●ø32 ø1 & 1/4" - 2 PC
- ●ø25 ø1" - 2 PC
- ●ø20 ø3/4" - 1 PC
- ●ø16 ø5/8" - 1 PC
- ●ø12 ø1/2" - 1 PC
- ●ø10 ø3/8" - 1 PC
- ●ø8 ø5/16" - 1 PC
- ●ø6 ø1/4" - 1 PC



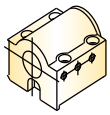
Boring Bar Holder
- ●ø40mm
  ø1 & 1/2" - 5 SET



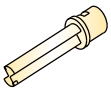
Boring Tool
ø40 ø1&1/2"

Oil-feed Drill
<ø40 <ø1&1/2"

Oil-feed Tool Sleeve
- ●ø32 ø1 & 1/4" - 2 PC
- ●ø25 ø1" - 1 PC
- ○ø20 ø3/4"
- ○ø16 ø5/8"



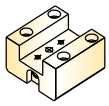
Drill Holder
- ●ø40mm
  ø1 & 1/2" - 1 SET



Oil-feed Drill
ø40 ø1&1/2"

I.D. and
Face Tooling
12T- □20 3/4"
10T- □25 1"

Tool Clamping Pad
- ●12T- 2 PC
- ●10T- 2 PC



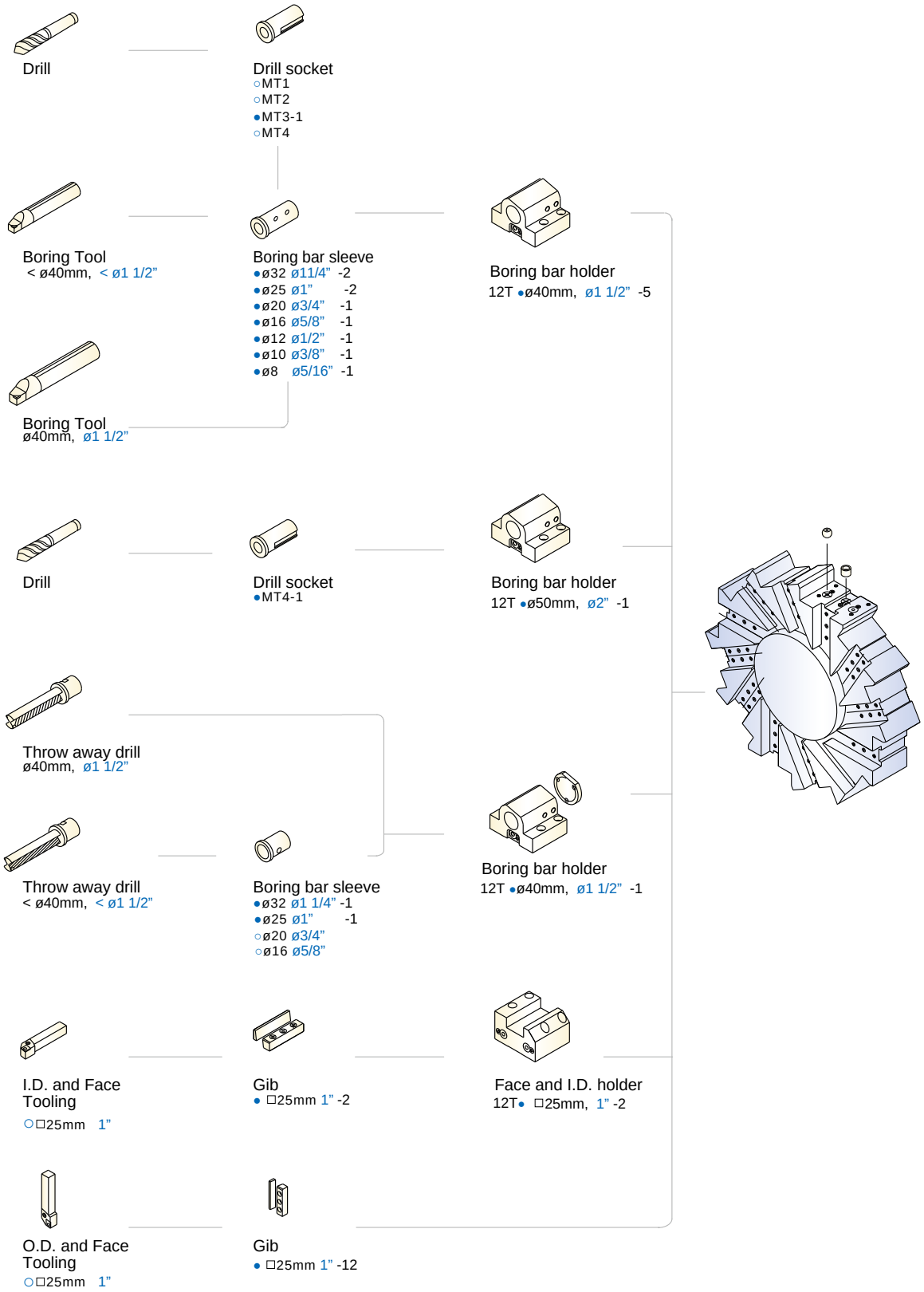
Square Tool Holder
- ●12T- □20 3/4" - 2 SET
- ●10T- □25 1" - 2 SET

O.D. and
Face Tooling
12T- □20 3/4"
10T- □25 1"

Gib
- ●12T- □20 3/4" - 12 SET
- ●10T- □25 1" - 10 SET

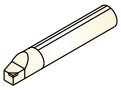
Unit: mm inch
● Standard
○ Optional

TC-26/36



Unit: mm inch
● Standard
○ Optional

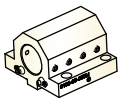
TC-46



Boring Bar
ø60mm ø2&1/2"

Boring Bar Sleeve
●ø50 ø2" -2PC
●ø40 ø1&1/2" -2PC
●ø32 ø1&1/4" -2PC
●ø25 ø1" -1PC
●ø20 ø3/4" -1PC
●ø16 ø5/8" -1PC
○ø12 ø1/2"
○ø10 ø3/8"
○ø8 ø5/16"

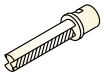
Boring Bar
< ø50mm ø2"



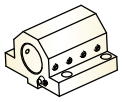
Boring Bar Holder
●ø60 ø2&1/2" -5SET

Drill Socket
○ MT1
○ MT2
○ MT3
● MT4 -1PC
○ MT5

Drill

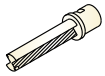


Throw-Away Drill
ø60mm ø2&1/2"



Drill Holder
●ø60 ø2&1/2" -1SET

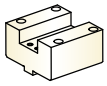
Throw-Away Drill Socket
●ø50 ø2" -1PC
●ø40 ø1&1/2" -2PC
●ø32 ø1&1/4" -2PC
○ø25 ø1"
○ø20 ø3/4"
○ø16 ø5/8"



Throw-Away Drill
< ø50mm ø2"

Face and O.D.Cutting
□32mm □1&1/4"

Gib
●□32 □1&1/4" -2SET



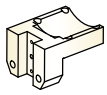
Square Toll Holder
●□32 □1&1/4" -2SET

Face and O.D.Cutting
□32mm □1&1/4"

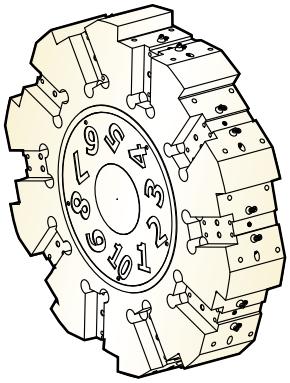
Gib
●□32 □1&1/4" -10SET

Cutting Off Tool
□32mm □1&1/4"

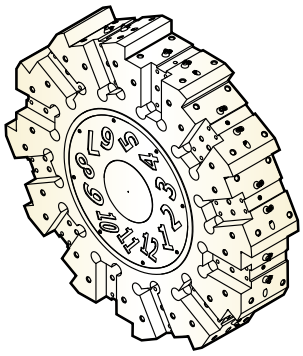
Gib
●□32□1&1/4" -1SET



Cutting/Grooving Toll Holder
●□32 □1&1/4" -1SET



10T

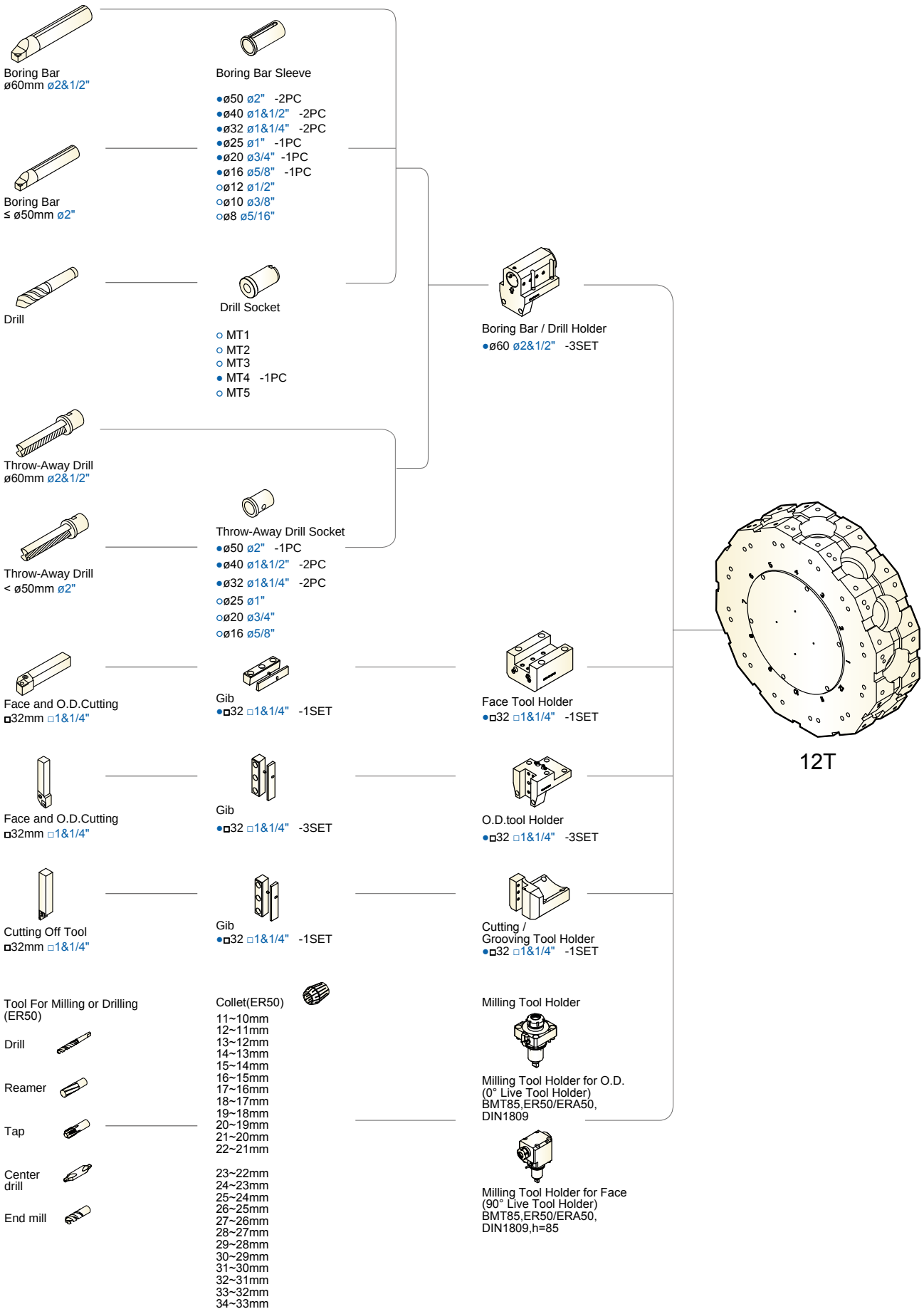


12T

TOOLING CHART

Unit: mm inch
● Standard
○ Optional

TC-46M



NTC

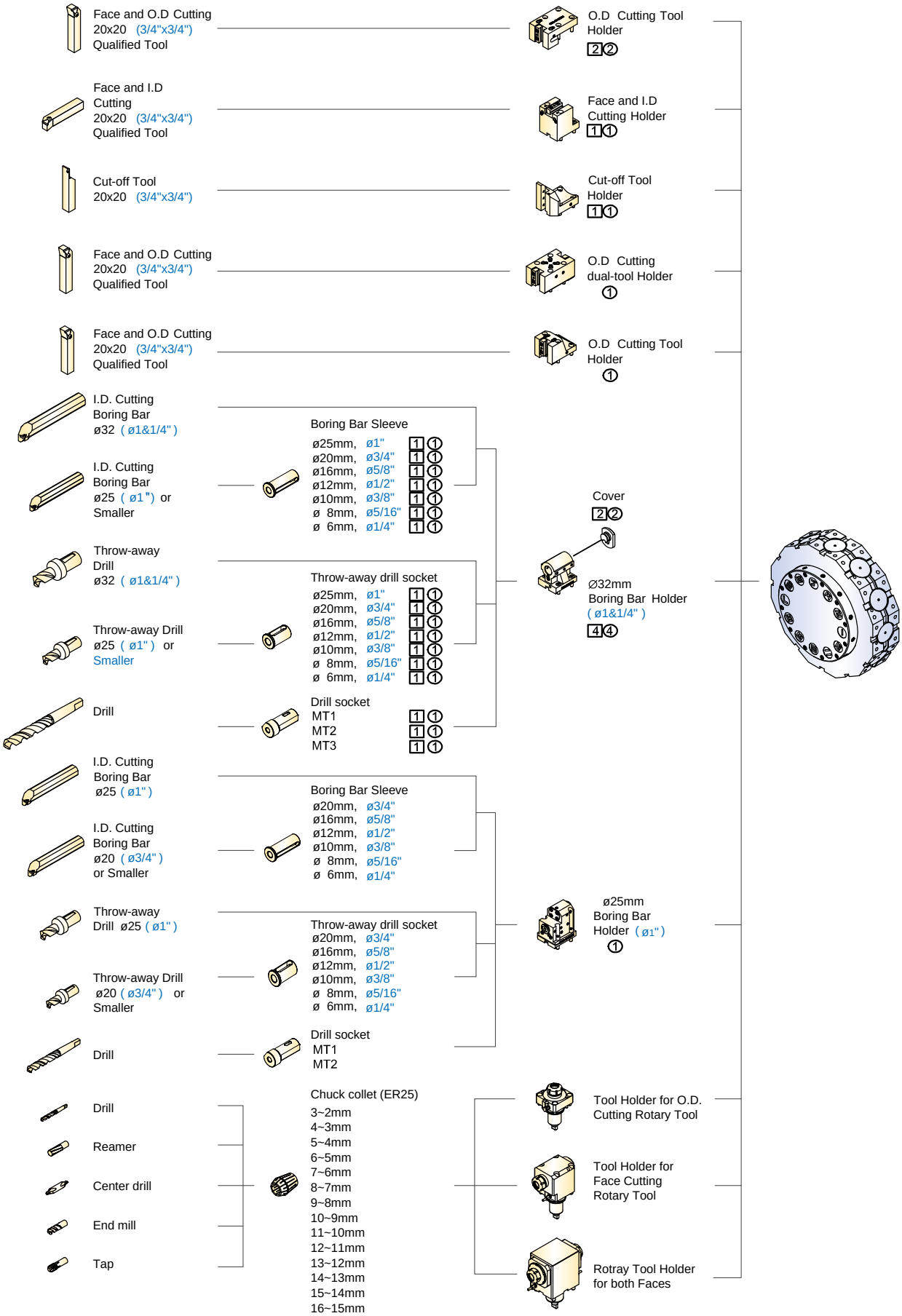
Unit: mm inch

Std. Accessories Qty.

☐ NTC-2000LY

○ NTC-2000LSY

NTC-2000LY/LSY



TOOLING CHART

Unit: mm inch
☐ Std. Accessories Qty.

NT-2500SY

Face and O.D Cutting
25 x 25mm 1" x 1" Qualified Tool

Face and O.D Cutting
25 x 25mm 1" x 1" Qualified Tool

Face and I.D Cutting
25 x 25mm 1" x 1" Qualified Tool

Cut-off Tool
25 x 25mm 1" x 1"

ø40mm ø1&1/2"
I.D. Cutting Boring Bar

I.D. Cutting
ø32mm ø1&1/4"or
Smaller Boring Bar

ø32mm	2
ø25mm	2
ø20mm	1
ø16mm	1
ø12mm	1
ø10mm	1
ø 8mm	1
ø 6mm	1
ø12mm	
ø10mm	
ø 8mm	
ø 6mm	

Boring Bar Sleeve
ø40mm ø1&1/2"

Boring Bar Sleeve
ø40mm ø1&1/2"

Throw-away Drill
ø40mm ø1&1/2"

ø32mm ø1&1/4" or
Smaller Throw-away Drill

ø32mm	1
ø25mm	1
ø20mm	
ø16mm	

Throw-away drill socket
ø40mm ø1&1/2"

Throw-away Drill

MT1	1
MT2	1
MT3	1
MT4	

Drill cocket
ø40mm ø1&1/2"

I.D. Cutting
Boring Bar
ø32mm ø1&1/4"

ø25mm ø1" or Smalle
I.D. Cutting Boring Bar

ø25mm	
ø20mm	
ø16mm	1
ø12mm	1
ø10mm	1
ø8mm	1
ø6mm	
ø16mm	
ø12mm	
ø10mm	
ø8mm	1
ø6mm	1

Boring Bar Sleeve
ø32mm ø1&1/4"

Boring Bar Sleeve
ø32mm ø1&1/4"

ø25mm ø1" or Smalle
I.D. Cutting Boring Bar

ø25mm	1
ø20mm	1
ø16mm	1
ø12mm	1
ø10mm	1
ø8mm	
ø6mm	
ø16mm	
ø12mm	
ø10mm	
ø8mm	1
ø6mm	1

Boring Bar Sleeve
ø32mm ø1&1/4"

Boring Bar Sleeve
ø32mm ø1&1/4"

Throw-away Drill
ø32mm ø1&1/4

ø25mm ø1" or Smalle
Throw-away Drill

ø25mm	1
ø20mm	1
ø16mm	

Throw-away drill socket
ø32mm ø1&1/4"

Drill

MT1	1
MT2	1
MT3	

Drill cocket
ø32mm ø1&1/4"

Drill
Reamer
Center drill
End mill
Tap

3~2mm
4~3mm
5~4mm
6~5mm
7~6mm
8~7mm
9~8mm
10~9mm
11~10mm
12~11mm
13~12mm
14~13mm
15~14mm
16~15mm
17~16mm
18~17mm
19~18mm
20~19mm

Chuck collet
(ER32)

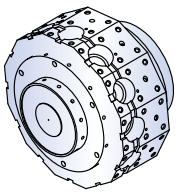
O.D Cutting Holder
1

O.D Cutting
Dual-tool Holder
2

Face and I.D
Cutting H older
2

Cut-off Tool
Holder
1

Boring Bar H older
3 ø40mm ø1&1/2"



Boring Bar Holder
ø32mm ø1&1/4"
3

Tool holder for O.D. cutting rotary tool
(Max. ø20mm ø3/4" , 5,000rpm)

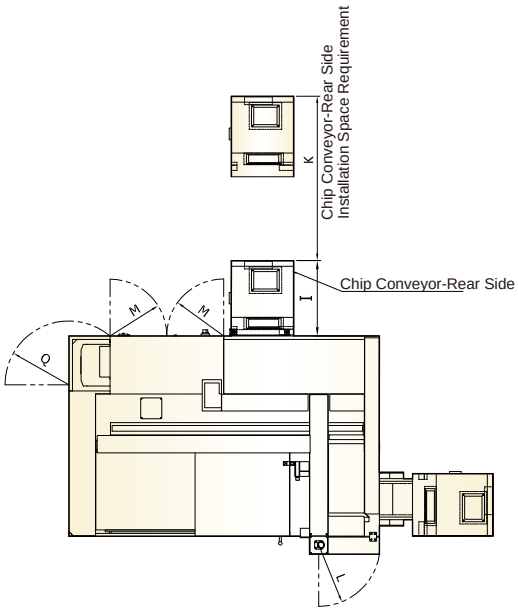
Tool holder for face cutting rotary tool
(Max. ø20mm ø3/4", 5,000rpm)

Rotray tool holder for both faces
(Max. ø20mm ø3/4", 5,000rpm)

GT

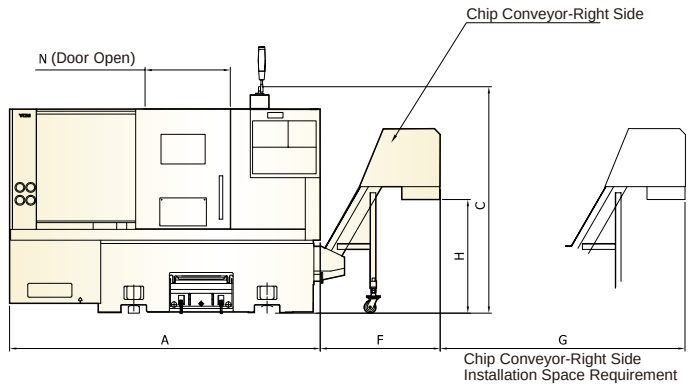
Unit: mm inch

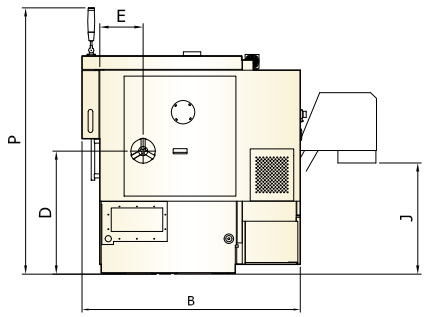
GT-200B/MA, 250B/MA, 300B/MA

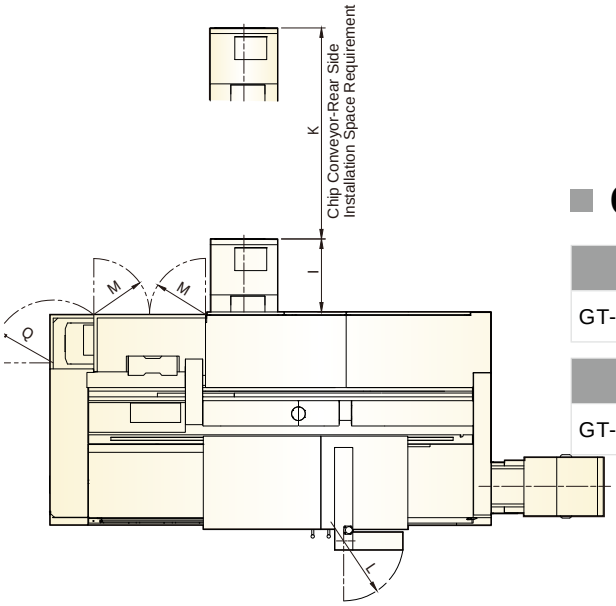


	A	B	C	D	E	F	G	H
GT-200B/MA	2,225 87.6"	1,805 71.06"	1,825 71.85"	1,020 40.16"	333 13.11"	1,048 41.26"	1,350 53.15"	974 38.35"
GT-250B/MA	B: 2,750 108.27" MA: 2,680 105.51"	1,885 74.21"	1,955 76.97"	1,060 41.73"	375 14.76"	1,035 40.75"	1,630 64.17"	980 38.58"
GT-300B/MA	3,230 127.17"	2,081 81.93"	2,015 79.33"	1,062 41.81"	416 16.38"	1,200 47.24"	1,950 76.77"	973 38.31"

	I	J	K	L	M	N	P	Q
GT-200B/MA	610 24.02"	954 37.56"	1,630 64.17"	540 21.26"	410 16.14"	580 22.83"	2,250 88.58"	-
GT-250B/MA	652 25.67"	960 37.8"	1,150 45.28"	530 20.87"	490 19.29"	735 28.94"	2,300 90.55"	550 21.65"
GT-300B/MA	638 25.12"	959 37.76"	1,850 72.83"	575 22.64"	490 19.29"	875 34.45"	2,427 95.55"	-



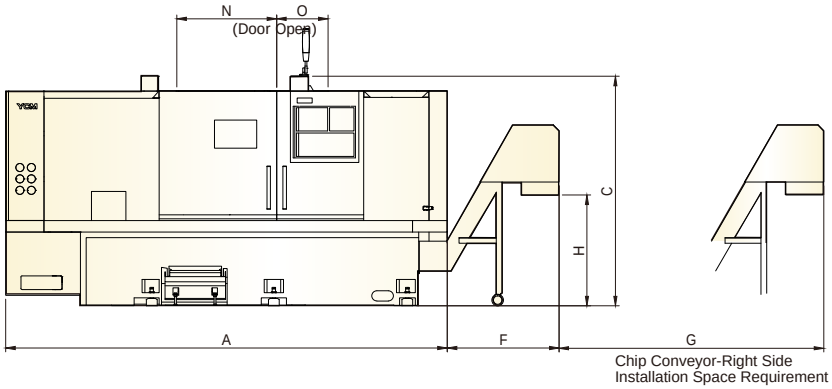


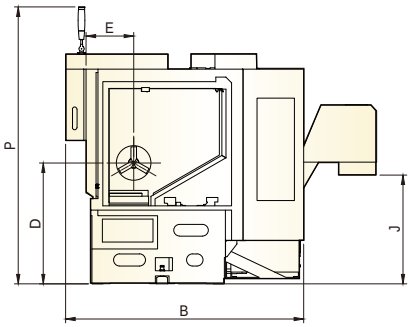


GT-300LMB

	A	B	C	D	E	F	G	H	I
GT-300LMB	3,870 121.54"	2,047 80.59"	2,015 79.33"	1,062 41.81"	416 16.38"	978 38.5"	2,320 91.34"	973 38.31"	638 25.12"

	J	K	L	M	N	O	P	Q
GT-300LMB	959 37.76"	1,850 72.83"	575 22.64"	490 19.29"	875 34.45"	450 17.72"	2,427 95.55"	-



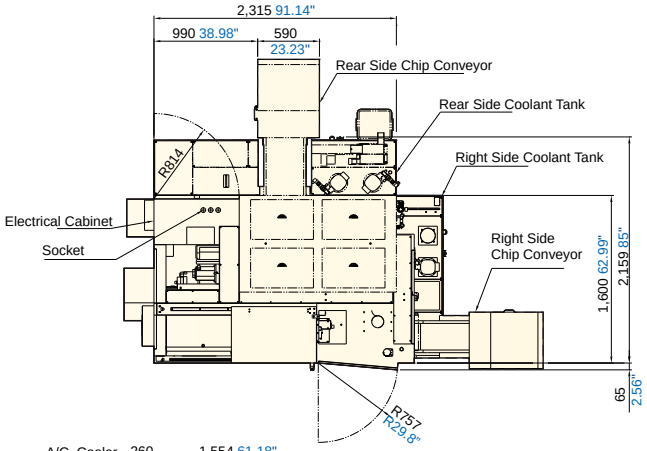


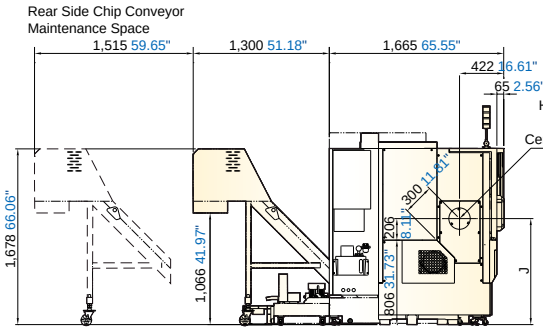
Unit: mm inch

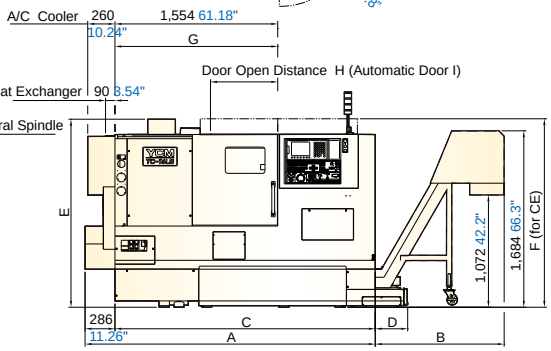
TC-16LA/LB

		A	B	C	D	E
TC-16 LA/LB	Right Side Chip Conveyor	2,771 109.09''	1,230 48.43''	2,485 97.83''	310 12.20''	1,795 70.67''
	Rear Side Chip Conveyor	2,811 110.67''	-	2,525 99.41''	-	1,827 71.93''

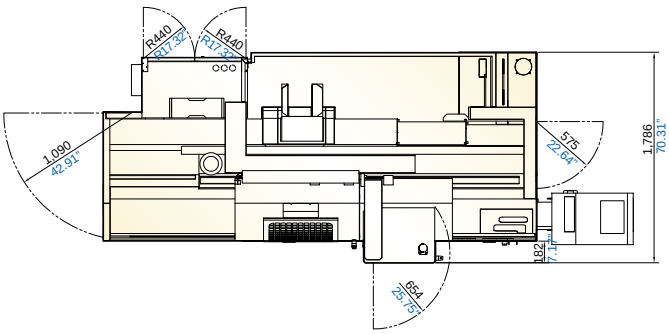
		F	G	H	I	J
TC-16 LA/LB	Right Side Chip Conveyor	1,799 70.83''	1,554 61.18''	642 25.28''	620 23.70''	980 38.58''
	Rear Side Chip Conveyor	1,831 72.09''	1,554 61.18''	642 25.28''	620 23.70''	1,020 40.16''

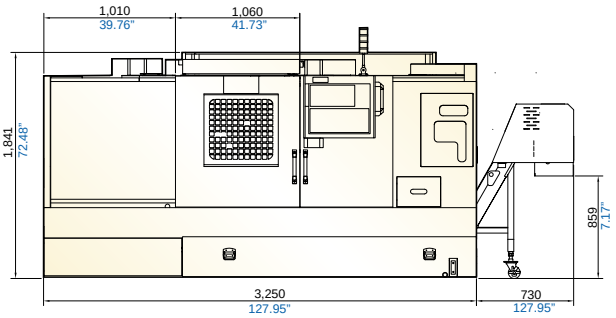


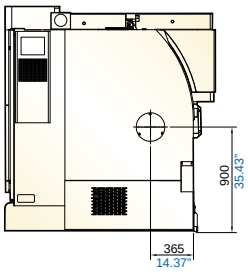




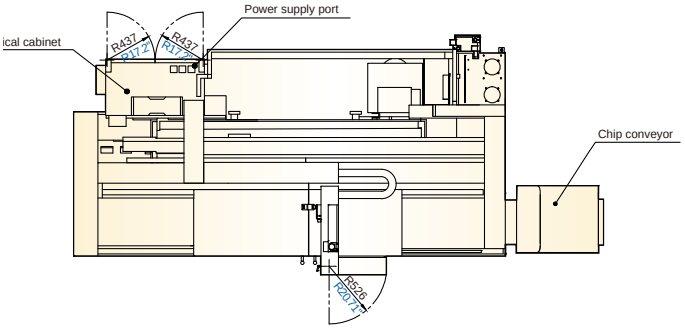
TC-26

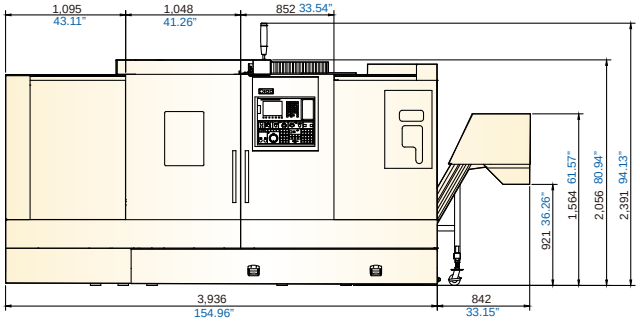


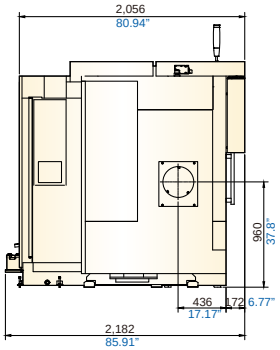




TC-36







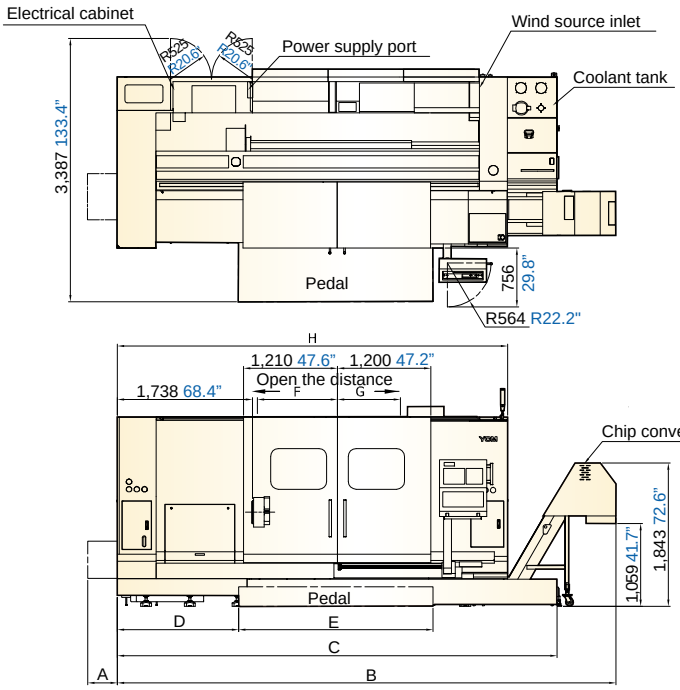
Unit: mm inch

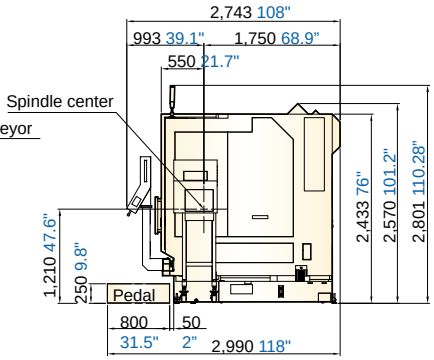
TC-46/1000 /1650 /2300

	A	B	C	D
TC-46 /1000	-	5,677 223.5"	5,066 199.45"	1,560 61.42"
TC-46 /1650	-	6,327 249.09"	5,716 225.04"	1,560 61.42"
TC-46 /2300	-	7,381 290.59"	6,636 261.26"	1,562 61.5"

	E	F	G	H
TC-46 /1000	2,500 98.43"	838 32.99"	535 21.06"	4,370 172.5"
TC-46 /1650	2,500 98.43"	1,030 40.55"	810 31.89"	5,020 197.64"
TC-46 /2300	3,750 147.64"	1,030 40.55"	1,432 56.38"	5,935 233.66"

TC-46(M) / 1000 / 1650 / 2300





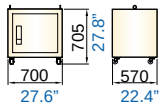
TC-46/3200, 46M/3200

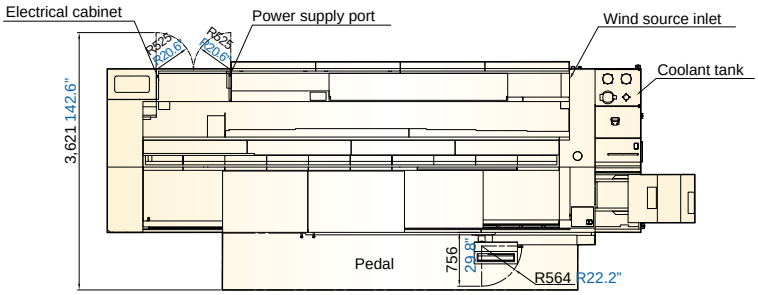
	A	B	C	D
TC-46 /3200	-	8,265 325.39"	7,565 297.83"	1,618 63.7"
TC-46M /3200	380 14.96"			

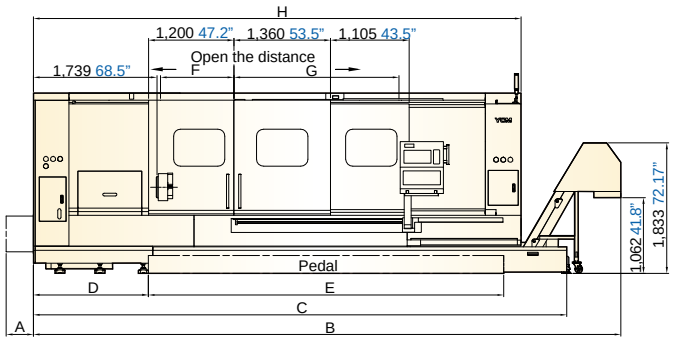
	E	F	G	H
TC-46 /3200	5,000 196.85	1,010 39.76"	2,305 90.75"	6,860 270.08"
TC-46M /3200				

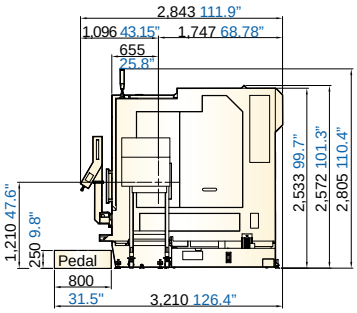
Machine dimensions of TC-46/46M. Big Bore are identical with TC-46M of above list.

Power transformer









DIMENSIONS

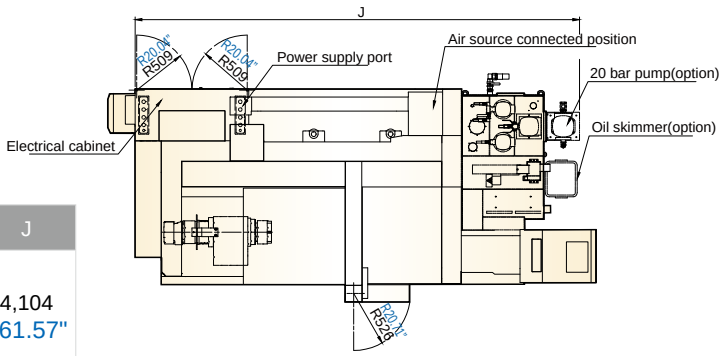
Unit: mm inch

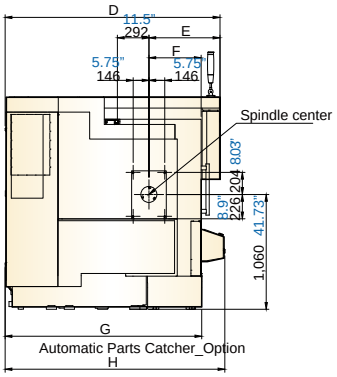
NTC

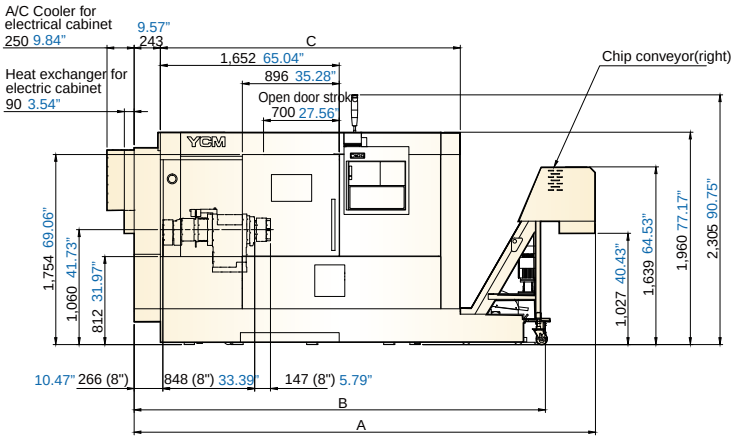
NTC-2000LY/LSY

	A	B	C	D
NTC-2000LY	4,261 167.76"	3,800 149.61"	2,770 109.06"	1,919 75.55"
NTC-2000LSY				1,989 78.31"

	E	F	G	H	J
NTC-2000LY	591 23.27"	412 16.22"	1,745 68.7"	1,918 75.51"	4,104 161.57"
NTC-2000LSY	661 26.02"	482 18.98"	1,814 71.42"	1,988 78.27"	

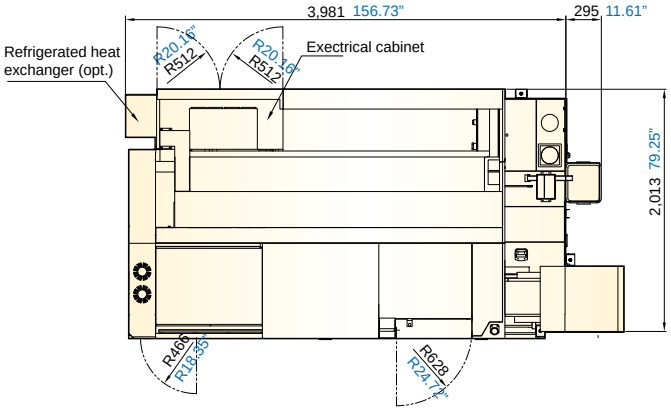


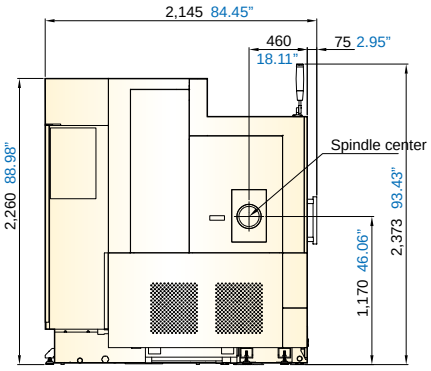


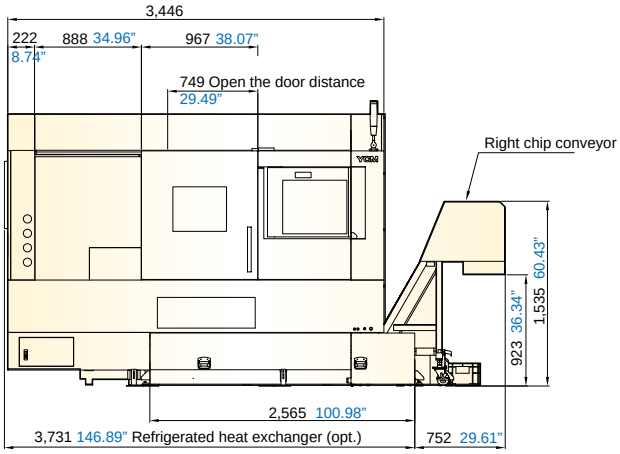


NT

NT-2500SY







SPECIFICATIONS

GT

ITEMS			GT			
			200MA	200B	250MA	250B
MACHINING CAPACITY						
Swing Over Bed	mm	inch	ø500 ø19.69"	ø500 ø19.69"	ø550 ø21.65"	ø550 ø21.65"
Swing Over Carriage	mm	inch	ø330 ø12.99"	ø330 ø12.99"	ø420 ø16.54"	ø420 ø16.54"
Max. Turing Diameter	mm	inch	ø230 ø9.06"	ø260 (ø200*) ø10.24" (ø7.87" *)	ø270 ø10.63"	ø350 (ø270*1) ø13.78"(ø10.63" *1)
Max. Turning Length	mm	inch	370 ø14.57"	345 (325*) 13.58" (12.8" *)	560 22.05"	515 (530*1) 20.28" (20.87" *1)
SPINDLE						
Chuck Size			6"	8"	8"	10"
Spindle Nose			A2-5	A2-6	A2-6	A2-8
Spindle Front Bearing Inner Diameter	mm	inch	ø90 ø3.54"	ø100 ø3.94"	ø110 ø4.33"	ø130 ø5.12"
Hole Through Spindle	mm	inch	ø56 ø2.2"	ø62 ø2.44"	ø62 (ø77*2) ø2.44"(ø3.03" *2)	ø88 ø3.46"
Hole Through Draw Tube	mm	inch	ø45 ø1.77"	ø52 ø2.05"	ø52 (ø66*2) ø2.05" (ø2.6"*2)	ø75 ø2.95"
Spindle Speed	rpm		6,000	4,500	4,500	3,500
Max. Spindle Torque	Nm	lb-ft	143.2 105.62	191 140.87	503.7 371.51	577.8 426.16
C-axis Speed			50	-	50	-
C-axis Index	deg		0.001°	-	0.001°	-
MOTOR						
Main Spindle Motor	kW	HP	(L) 3.7 / 7.5 (H) 5.5 / 11 (L) 5 / 10 (H) 7 / 15 (L) cont. / 15min. (H) cont. / 30min. / 15min. / 1min.		(L) 7.5 / 15 (H) 11 / 15 (L) 10 / 20 (H) 15 / 20 (L) cont. / 15min. (H) cont. / 30min.	
Axial Motor (X/Z) (cont.)	kW	HP	2.5 / 3 3.35 / 4.02	2.5 / 3 3.35 / 4.02	2.5 / 2.5 3.35 / 3.35	2.5 / 2.5 3.35 / 3.35
Turret Motor (cont.)	kW	HP	1.2 1.6	1.2 1.6	1.2 1.6	1.2 1.6
Live Tool Motor	kW	HP	1.1 / 3.7 1.48 / 4.96 (cont. / 30min.)	-	3.7 / 5.5 4.96 / 7.38 (cont. / 30min.)	-
Live Tool Motor Speed	rpm		4,500	-	3,000	-
TRAVEL						
X-axis Travel	mm	inch	177 6.97"	150 (170*) 5.91" (6.69" *)	230 9.06"	195 (230*1) 7.68" (9.06" *1)
Z-axis Travel	mm	inch	370 14.57"	345 (325*) 13.58" (12.8" *)	560 22.05"	515 (530*1) 20.28" (20.87" *1)
Rapid Feedrate (X/Z)	m/min	ipm	24 / 30 945 / 1,181	24 / 30 945 / 1,181	20 / 24 787 / 945	20 / 24 787 / 945
Cutting Feedrate (X/Z)	mm/min	ipm	1~10,000 0.04~394			
TURRET						
Turret Type			Servo Motor Drive (Hydraulic Clamp)			
Tool Stations: Std. Tool	T		-	10 (12)	-	10 (12)
Tool Stations: VDI	T		12*	12*	12*1	12*1
Tool Type: Shank Height for Square Tool	mm	inch	□20 □3/4"	□25 □1"	□25 □1"	□25 □1"
Tool Type: Shank Diameter for Boring Bar	mm	inch	ø32 ø1&1/4"	ø40 ø1&1/2"	ø40 ø1&1/2"	ø40 ø1&1/2"
TAILSTOCK						
Tailstock Quill Diameter	mm	inch	ø75 ø2.95"	ø75 ø2.95"	ø100 ø3.94"	ø100 ø3.94"
Tailstock Quill Taper: Stationary Center (std.)			MT-4	MT-4	MT-5	MT-5
Tailstock Quill Taper: Live Center (opt.)			-	-	MT-4	MT-4
Tailstock Quill Travel	mm	inch	100 3.94"	100 3.94"	100 3.94"	100 3.94"
Tailstock Stroke	mm	inch	260 10.24"	260 10.24"	440 17.32"	415 (400*1) 16.34" (15.75" *1)
HYDRAULIC SYSTEM						
Pressure	kgf/cm^2	psi	45 640			
Flow Rate	L/min	gpm	50Hz : 31 8.19 60Hz : 37 9.78			
COOLANT						
Tank Capacity	L	gal	100 26.42	100 26.42	130 34.35	130 34.35
Pump Motor	kW	HP	0.55 0.74			
GENERAL						
Machine Weight	kg	lb	4,260 9,392	4,210 9,281	6,000 13,228	6,200 13,669

Above specifications may vary depending on the machine and the surrounding environment.
The manufacturer reserves the right to modify the design, specifications, mechanisms, etc., to improve the performance of the machine without notice.
The test data provided in this catalog is performed under specific test procedures and environmental conditions.
Remark*: stands for VDI30 type. Remark*1: stands for VDI40 type. Remark*2: stands for big bore type.

GT

ITEMS			GT		
			300MA	300B	300LMB
MACHINING CAPACITY					
Swing Over Bed		mm inch	ø600 ø23.62"		
Swing Over Carriage		mm inch	ø450 ø17.72"		
Max. Turing Diameter		mm inch	ø360 ø14.17"	ø440(ø360*1) ø17.32"(ø14.17" *1)	ø360 ø14.17"
Max. Turning Length		mm inch	742 29.21"	700(730 *1) 27.56"(28.74" *1)	1,233 48.43"
SPINDLE					
Chuck Size			10"	12"	12"
Spindle Nose			A2-8	A2-8	A2-8
Spindle Front Bearing Inner Diameter		mm inch	ø130 ø5.12"	ø160 ø6.3"	ø160 ø6.3"
Hole Through Spindle		mm inch	ø88 ø3.46"	ø105 ø4.13"	ø105 ø4.13
Hole Through Draw Tube		mm inch	ø75 ø2.95"	ø91 ø3.58"	ø91 ø3.58"
Spindle Speed		rpm	3,500	3,000	3,000
Max. Spindle Torque		Nm lb-ft	757.2 558.48	883.3 651.49	883.3 651.49
C-axis Speed		rpm	50	-	50
C-axis Index		deg	0.001°	-	0.001°
MOTOR					
Spindle Motor		kW HP	(L) 11 / 18.5 (H) 15 / 18.5 (L) 15 / 25 (H) 20 / 25 (L) cont. / 15min. (H) cont. / 30min.		
Axial Motor (X/Z) (cont.)		kW HP	2.5 / 2.5 3.35 / 3.35	2.5 / 2.5 3.35 / 3.35	2.5 / 3 3.35 / 4.02
Turret Motor (cont.)		kW HP	1.2 1.6	1.2 1.6	1.2 1.6
Live Tool Motor		kW HP	3.7 / 5.5 4.96 / 7.38 (cont. / 30min.)	-	3.7 / 5.5 4.96 / 7.38 (cont. / 30min.)
Live Tool Motor Speed		rpm	3,000	-	3,000
TRAVEL					
X-axis Travel		mm inch	275 10.83"	245 (275*) 9.65" (10.83" *)	275 10.83"
Z-axis Travel		mm inch	742 29.21"	700 (730*) 27.56" (28.74" *)	1,283 50.51"
Rapid Feedrate (X/Z)		m/min ipm	20 / 24 787 / 945		
Cutting Feedrate (X/Z)		mm/min ipm	1~10,000 0.04~394		
TURRET					
Turret Type			Servo Motor Drive (Hydraulic Clamp)		
Tool Stations	Std. Tool	T	-	8 (10)	–
	VDI	T	12*1	12*1	12*1
Tool Type	Shank Height for Square Tool	mm inch	□25 □1"	□32 (□25*1) □1&1/4" (□1" *)	□25 □1"
	Shank Diameter for Boring Bar	mm inch	ø40 ø1&1/2"	ø50(ø40*1) ø2" (ø1&1/2" *)	ø40 ø1&1/2"
TAILSTOCK					
Tailstock Quill Diameter		mm inch	ø100 ø3.94"		
Tailstock Quill Taper	Stationary Center (std.)		MT-5		
	Live Center (opt.)		MT-4		
Tailstock Quill Travel		mm inch	100 ø3.94"		
Tailstock Stroke		mm inch	605 23.82"	605 23.82"	1,155 45.47"
HYDRAULIC SYSTEM					
Pressure		kgf/cm^2 psi	45 640		
Flow Rate		L/min gpm	50Hz : 31 8.19 60Hz : 37 9.78		
COOLANT					
Tank Capacity		L gal	150 39.63		
Pump Motor		kW HP	0.55 0.74		
GENERAL					
Machine Weight		kg lb	6,950 15,322	6,950 15,322	7,850 17,306

Above specifications may vary depending on the machine and the surrounding environment.
The manufacturer reserves the right to modify the design, specifications, mechanisms, etc., to improve the performance of the machine without notice. The test data provided in this catalog is performed under specific test procedures and environmental conditions.
Remark*: stands for VDI30 type. Remark*1: stands for VDI40 type. Remark*2: stands for big bore type.

TC

ITEMS			TC			
			16LA	16LB	26	36
MACHINING CAPACITY						
Swing Over Bed	mm	inch	ø550 ø21.65"	ø550 ø21.65"	ø500 ø19.69"	ø690 ø27.17"
Swing Over Carriage	mm	inch	ø320 ø12.60"	ø320 ø12.60"	ø350 ø13.78"	ø510 ø20.08"
Max. Turing Diameter	mm	inch	ø260 (ø200*) ø10.24"(ø7.87")	ø260 (ø200*) ø10.24"(ø7.87")	ø470 ø18.50"	ø590 ø23.23"
Max. Turning Length	mm	inch	600 (575*) 23.62"(22.64"*)	600 (575*) 23.62"(22.64"*)	647 (638) 25.47"(25.12")	1,189 46.81"
SPINDLE						
Chuck Size			6"	8"	10" (12")	12"
Spindle Nose			A2-5	A2-6	A2-8	A2-8
Spindle Front Bearing Inner Diameter	mm	inch	ø100 ø3.94"	ø110 ø4.33"	ø120 ø4.72"	ø150 ø5.91"
Hole Through Spindle	mm	inch	ø62 ø2.44"	ø77 ø3.03"	ø88 ø3.46"	ø105 ø4.13"
Hole Through Draw Tube	mm	inch	ø52 ø2.05"	ø66 ø2.60"	ø78 ø3.07"	ø93 ø3.66"
Spindle Speed	rpm		5,000	4,500	4,000 (2,500 ; 2-speed Gear Box)	2,500 ; 2-speed Gear Box
Max. Spindle Torque	Nm	lb-ft	152.9 112.69	169.7 125.21	734 541.4	1379.3 1017.2
C-axis Speed	rpm		-	-	-	-
C-axis Index	deg		-	-	-	-
MOTOR						
Main Spindle Motor	kW	HP	11 / 15 14.75 / 20.12 (cont. / 15min.)	11 / 15 14.75 / 20.12 (cont. / 15min.)	11 / 15 14.75 / 20.12 (cont. / 30min.)	22 / 26 30 / 35 (cont. / 30min.)
Axial Motor (X/Z) (cont.)	kW	HP	1.8 / 1.8 2.41 / 2.41	1.8 / 1.8 2.41 / 2.41	2.5 / 2.5 3.35 / 3.35	2.5 / 2.5 3.35 / 3.35
Turret Motor (cont.)	kW	HP	1.2 1.61	1.2 1.61	-	-
Live Tool Motor	kW	HP	-	-	-	-
Live Tool Motor Speed	rpm		-	-	-	-
TRAVEL						
X-axis Travel	mm	inch	150 (170*) 5.91" (6.69"*)	150 (170*) 5.91" (6.69"*)	250 9.84"	310 12.20"
Z-axis Travel	mm	inch	600 (575*) 23.62" (22.64"*)	600 (575*) 23.62" (22.64"*)	700 27.56"	1,250 49.21"
Rapid Feedrate (X/Z)	m/min	ipm	24 / 30 944.88 / 1181.10	24 / 30 944.88 / 1181.10	15 / 20 91 / 787	15 / 20 91 / 787
Cutting Feedrate (X/Z)	mm/min	ipm	1~10,000 0.04~393.70	1~10,000 0.04~393.70	1~5,000 0.04~197	1~5,000 0.04~197
TURRET						
Turret Type			Servo Motor Drive (Hydraulic Clamp)	Servo Motor Drive (Hydraulic Clamp)	Hydraulic Turret (Hydraulic Clamp)	Hydraulic Turret (Hydraulic Clamp)
Tool Stations: Std. Tool	T		12 (10)	10 (12)	12 (10 / 8)	12 (10 / 8)
Tool Stations: VDI	T		12*	12*	-	-
Tool Stations: BMT	T		-	-	-	-
Tool Type: Shank Height for Square Tool	mm	inch	□20 (□25) □3/4"(□1")	□25 (□20) □1"(□3/4")	□25 (□32) 1" (□1&1/4")	□25 (□32) 1" (□1&1/4")
Tool Type: Shank Diameter for Boring Bar	mm	inch	ø40 (ø32*) ø1&1/2" (ø1&1/4"*1)	ø40 (ø32*) ø1&1/2" (ø1&1/4"*1)	ø40 / ø50 ø1&1/2" / ø2"	ø40 / ø50 ø1&1/2" / ø2"
TAILSTOCK						
Tailstock Quill Diameter	mm	inch	ø75 ø2.95"	ø75 ø2.95"	ø100 ø3.94"	ø100 ø3.94"
Tailstock Quill Taper: Stationary Center (std.)			MT-4	MT-4	MT-5	-
Tailstock Quill Taper: Live Center (opt.)			–	–	MT-4	MT-4 (standrad)
Tailstock Quill Travel	mm	inch	100 3.94"	100 3.94"	120 4.72"	120 4.72"
Tailstock Stroke	mm	inch	500 19.69"	500 19.69"	530 20.87"	1,080 42.52"
HYDRAULIC SYSTEM						
Pressure	kgf/cm^2	psi	45 640.04	45 640.04	70 995.6	70 995.6
Flow Rate	L/min	gpm	50Hz : 22.5 5.94 60Hz : 27.5 7.27	50Hz : 22.5 5.94 60Hz : 27.5 7.27	50Hz : 31 8.19 60Hz : 37 9.77	50Hz : 31 8.19 60Hz : 37 9.77
COOLANT						
Tank Capacity	L	gal	165 43.59	165 43.59	140 36.98	200 52.84
Pump Motor	kW	HP	0.75 1.01	0.75 1.01	0.55 0.74	0.55 0.74
GENERAL						
Machine Weight	kg	lb	3,700 8,157	3,700 8,157	4,400 9,700	7,000 15,432

Above specifications may vary depending on the machine and the surrounding environment.
The manufacturer reserves the right to modify the design, specifications, mechanisms, etc., to improve the performance of the machine without notice.
The test data provided in this catalog is performed under specific test procedures and environmental conditions.
Remark*: stands for VDI30 type.

TC

ITEMS			TC				
			46/1000	46/1650	46/2300	46/3200	46M/3200
MACHINING CAPACITY							
Swing Over Bed	mm	inch	ø850 ø33.5"				
Swing Over Carriage	mm	inch	ø720 ø28.4"				
Max. Turing Diameter	mm	inch	ø750 ø29.5"	ø750 ø29.5"	ø750 ø29.5"	ø750 ø29.5"	ø730 ø28.7"
Max. Turning Length	mm	inch	1,000 39.4"	1,650 65"	2,300 90.6"	3,200 126"	3,111 122.5"
MAIN SPINDLE							
Chuck Size			Standard: 15" (18"/ 21") Big Bore (opt.)*1: 18" (21"/ 24")				
Spindle Nose			Standard: A2-11 Big Bore (opt.)*1: A2-15				
Spindle Front Bearing Inner Diameter	mm	inch	Standard: ø180 ø7.1" Big Bore (opt.)*1: ø240 ø9.45"				
Hole Through Spindle	mm	inch	Standard: ø130 ø5.1" Big Bore (opt.)*1: ø182 ø7.17"				
Hole Through Draw Tube	mm	inch	Standard: ø117 ø4.6" Big Bore (opt.)*1: ø165				
Spindle Speed	rpm		Standard: 1,800 rpm (15") , 1,600 rpm (18") , 1,200 rpm (21") Big Bore (opt.)*1: 1,200 rpm				
Max. Spindle Torque	Nm	lb-ft	5013.7 3,697.92				3736.7 2,756.05
C-axis Speed	rpm		-	-	-	-	50
C-axis Index	deg		-	-	-	-	0.001°
MOTOR							
Main Spindle Motor	kW	HP	30 / 37 40.2 / 49.6 (cont. / 30min.)				
Axial Motor (X/Z) (cont.)	kW	HP	4 / 7 5.4 / 9.4				
Turret Motor (cont.)	kW	HP	1.8 2.4	1.8 2.4	1.8 2.4	1.8 2.4	4.8 6.44
Live Tool Motor	kW	HP	-	-	-	-	15 / 18.5 / 25 20 / 25 / 33.5 (cont. / 30min. /15min.)
Live Tool Motor Speed	rpm		-	-	-	-	3,000
TRAVEL							
X-axis Travel	mm	inch	405 15.94"	405 15.94"	405 15.94"	405 15.94"	415 16.34"
Z-axis Travel	mm	inch	1,000 39.4"	1,650 65"	2,300 90.6"	3,200 126"	3,200 126"
Rapid Feedrate (X/Z)	m/min	ipm	16 / 18 629.9 / 708.7	16 / 18 629.9 / 708.7	16 / 15 629.9 / 472.4	16 / 12 629.9 / 472.4	16 / 12 629.9 / 472.4
Cutting Feedrate (X/Z)	mm/min	ipm	1~10,000 0.04~393.7				
TURRET							
Turret Type			Servo Motor Drive (Hydraulic Clamp)	Servo Motor Drive (Hydraulic Clamp)	Servo Motor Drive (Hydraulic Clamp)	Servo Motor Drive (Hydraulic Clamp)	Radial Multitasking Turret (Servo Rotating / Hydraulic Clamp)
Tool Stations: Std. Tool	T		10 (12)	10 (12)	10 (12)	10 (12)	12
Tool Stations: VDI	T		-	-	-	-	-
Tool Stations: BMT	T		-	-	-	-	12 (BMT 85)
Tool Type: Shank Height for Square Tool	mm	inch	□32 (□1&1/4")				
Tool Type: Shank Diameter for Boring Bar	mm	inch	ø60 (ø2&1/2")				
TAILSTOCK							
Tailstock Quill Diameter	mm	inch	ø150 ø5.9"				
Tailstock Quill Taper: Stationary Center (std.)			MT-5				
Tailstock Quill Taper: Live Center (opt.)			MT-5				
Tailstock Quill Travel	mm	inch	150 5.9"				
Tailstock Stroke	mm	inch	825 32.5"	1,475 58.1"	2,125 83.7"	3,025 119.1"	3,015 118.7"
HYDRAULIC SYSTEM							
Pressure	kgf/cm²	psi	50 711.15				
Flow Rate	L/min	gpm	50Hz : 32 8.45 60Hz : 38.5 10.17				
COOLANT							
Tank Capacity	L	gal	465 122.85	540 142.67	700 184.94	1060 280.05	1060 280.05
Pump Motor	kW	HP	1.51 2.02 (MTH4-40/4)				
GENERAL							
Machine Weight	kg	lb	12,500 27,558	13,500 29,762	14,300 31,526	15,500 34,171	15,500 34,171

Above specifications may vary depending on the machine and the surrounding environment.
The manufacturer reserves the right to modify the design, specifications, mechanisms, etc., to improve the performance of the machine without notice.
The test data provided in this catalog is performed under specific test procedures and environmental conditions.
Remark*1: TC-46 Big bore series: Head drive structure is identical with TC-46M, plugged with 2 speed gear box.
Remark*2: Max. chuck size is up to 24": standard size: 15"; big bore: 18". Please refer to the travel diagram.

NTC / NT

ITEMS			NTC 2000LY	NTC 2000LSY	NT 2500SY
MACHINING CAPACITY					
Swing Over Bed	mm	inch	ø710 ø27.95"		ø1,000 ø39.37" (ø700 ø27.56" interference with cover)
Swing Over Carriage	mm	inch	ø545 ø21.46"		ø870 ø34.25" (ø700 ø27.56" interference with cover)
Max. Turing Diameter	mm	inch	ø320 ø12.6"	ø310 ø12.2"	ø350 ø13.78"
Max. Turning Length	mm	inch	570 22.44"	570 22.44"	686 27"
MAIN SPINDLE					
Chuck Size			8"		10"
Spindle Nose			A2-6		A2-8
Spindle Front Bearing Inner Diameter	mm	inch	ø110 ø4.33"		ø140 ø5.51"
Hole Through Spindle	mm	inch	ø80 ø3.15"		ø91 ø3.58"
Hole Through Draw Tube	mm	inch	ø66 ø2.6"		ø75 (ø80) ø2.95"(ø3.15")
Spindle Speed	rpm		5,000		3,500
Max. Spindle Torque	Nm	lb-ft	266.4 196.49		700.3 516.51
C-axis Speed	rpm		50		50
C-axis Index	deg		0.001°		0.001°
SUB SPINDLE					
Chuck Size			-	6"	6"
Spindle Nose			-	A2-5	A2-5
Spindle Front Bearing Inner Diameter	mm	inch	-	ø90 ø3.54"	ø85 ø3.35"
Hole Through Spindle	mm	inch	-	ø55 ø2.17"	ø43 ø1.69"
Hole Through Draw Tube	mm	inch	-	ø45 ø1.77"	ø33 ø1.30"
Spindle Speed	rpm		-	6,000	6,000
Max. Spindle Torque	Nm	lb-ft	-	91.6 67.56	59.7 43.03
C-axis Speed	rpm		-	50	50
C-axis Index	deg		-	0.001°	0.001°
MOTOR					
Main Spindle Motor	kW	HP	18.5 / 22 / 30 25 / 30 / 40 (cont. / 30min. / S3 25%)	18.5 / 22 / 30 25 / 30 / 40 (cont. / 30min. / S3 25%)	15 / 22 20 / 29.5 (cont. / 30min.)
Sub Spindle Motor	kW	HP	-	7.5 / 11 10 / 15 (cont. / 30min.)	5.5 / 7.5 7.4 / 10.1 (cont. / S3 25%)
Axial Motor (X/Z/Y/B) (cont.)	kW	HP	3 / 3 / 2.5 / 2.7 4 / 4 / 3.4 / 3.6		4 / 4 / 3 / 3 5.4 / 5.4 / 4 / 4
Turret Motor (cont.)	kW	HP	2.5 3.4		1.2 1.6
Live Tool Motor	kW	HP	1.1 / 3.7 1.5 / 5 (cont. / 10min.)		3.7 / 5.5 5 / 7.4 (cont. / 15min.)
Live Tool Motor Speed	rpm		100~4,000		4,500
TRAVEL					
X-axis Travel	mm	inch	175 6.89"	160 6.3"	260 10.24"
Z-axis Travel	mm	inch	570 22.44"	570 22.44"	780 30.71"
Y-axis Travel	mm	inch	90 (+50 / -40) 3.54"(+1.97" / -1.57")	90 (+50 / -40) 3.54"(+1.97" / -1.57")	100 (±50) 3.94"(±1.97")
B-axis Travel	mm	inch	570 / 650*1 22.44" / 25.59"	650 25.59"	770 30.31"
Rapid Feedrate (X/Z/Y/B)	m/min	ipm	30 / 36 / 10 / 20 1,181 / 1,417 / 394 / 787		20 / 24 / 10 / 20 787 / 945 / 394 / 787.4
Cutting Feedrate (X/Z/Y/B)	mm/min	ipm	1~10,000 0.04~394		1~10000 0.4~394
TURRET					
Turret Type			Radial Multitasking Turret (Servo Rotating / Hydraulic Clamp)		Radial Multitasking Turret (Servo Rotating / Hydraulic Clamp)
Tool Stations BMT	T		12 (BMT55)		12 (BMT65)
Tool Type: Shank Height for Square Tool	mm	inch	□20 □3/4"		□25 □1"
Tool Type: Shank Diameter for Boring Bar	mm	inch	ø32 ø1&1/4"		ø40 / ø32 ø1&1/2" / ø1&1/4" (double boring holder)
TAILSTOCK					
Tailstock Quill Diameter	mm	inch	ø75 / ø75 / ø90*1 ø2.95" / ø2.95" / ø3.54"*1	-	-
Tailstock Quill Taper: Stationary Center (std.)			MT-4	-	-
Tailstock Quill Travel	mm	inch	100 / 100 / 0*1 3.94" / 3.94" / 0"*1	-	-
Tailstock Stroke	mm	inch	570 22.44"	-	-
HYDRAULIC SYSTEM					
Pressure	kgf/cm^2	psi	45 640		70 955.61
Flow Rate	L/min	gpm	50Hz : 31 8.19 60Hz : 37 9.78		50Hz : 21 5.55 60Hz : 25 6.61
COOLANT					
Tank Capacity	L	gal	270 71.33	350 92.47	420 110.96
Pump Motor	kW	HP	0.75 1.01	0.75 1.01	1.15 2.02
GENERAL					
Machine Weight	kg	lb	5,420 11,949	6,180 13,624	7,450 16,424

Above specifications may vary depending on the machine and the surrounding environment.
The manufacturer reserves the right to modify the design, specifications, mechanisms, etc., to improve the performance of the machine without notice.
The test data provided in this catalog is performed under specific test procedures and environmental conditions.
Remark*1: The dimension or data of the servo tail stock. The servo tail stock is an option.

ACCESSORIES

GT

● : Standard ○ : Optional –: Not applicable

ITEMS				GT				
			200MA	200B	250MA	250B	300B	300MA/ LMB
Turret	Std. Tool	8T	–	–	–	–	●	–
		10T	–	●	–	●	○	–
		12T	–	○	–	○	–	–
	VDI	12T	● VDI30	○ VDI30	● VDI40	○ VDI40	○ VDI40	● VDI40
Chuck & Jaw	Hard Jaws and Soft Jaws 1 set	Standard	●	●	●	●	●	●
		Big Bore	–	–	○	–	–	–
	Chuck Switch Pedal	Spindle	●	●	●	●	●	●
Tailstock	Tailstock	Manual Tailstock	●	●	●	●	●	●
		Programmable Tailstock	–	–	○	○	○	○
	Tailstock Pedal		○	○	○	○	○	○
Coolant System	Coolant Pump*1	3.2 bar	●	●	●	●	●	●
		4.5 bar	○	○	○	○	○	○
		14.1 bar	–	–	○	○	○	○
Chip Removal System	Chip Conveyor	Right Side / Rear Side	● / ○	● / ○	● / ○	● / ○	● / ○	● / ○
	Air Gun		●	●	●	●	●	●
	Coolant Gun		○	○	○	○	○	○
Electrical System	Electrical Cabinet	Heat Exchanger	●	●	●	●	●	●
		A/C. Cooler	○	○	○	○	○	○
Auxiliary System	Air Blast		○	○	○	○	○	○
	Automatic Lubrication	Piston Type	●	●	●	●	●	●
	Hydraulic System		●	●	●	●	●	●
	Oil Mist Collector		○	○	○	○	○	○
Peripherals	Oil Skimmer		○	○	○	○	○	○
	Auto Tool Length Measurement System	RENISHAW HPMA	○	○	○	○	○	○
	Bar Feeder		○	○	○	○	–	–
	Parts Catcher		○	○	○	○	–	–
	Part Conveyor		○	○	○	○	–	–
Others	Complete Chip Enclosure		●	●	●	●	●	●
	Foundation Bolts		○	○	○	○	○	○
	Leveling Blocks & Screws		●	●	●	●	●	●
	Safety Clutch	X-Axis	○	○	○	○	○	○
		Z-Axis	○	○	○	○	○	○
	Steady Rest	Manual	–	–	–	–	○	○
		Hydraulic	–	–	○	○	○	○
CNC Control	FANUC	TXP-200FB+	●	●	●	●	●	●

The specifications and information are subject to change without prior notice. For more details, please contact YCM sales representative.
Remark*1: The above specifications are the coolant pump at the flow rate of 40L /min with the electric power of 60Hz. The results may be different if the electric power changes to 50Hz. For more details, please contact YCM sales representative.

TC

● : Standard ○ : Optional ★ : Special –: Not applicable

ITEMS			TC			
			16LA	16LB	26	36
Spindle	Spindle Cooling System		–	–	–	–
Turret	Std. Tool	8T	–	–	○	○
		10T	○	●	○	○
		12T	●	○	●	●
	VDI	10T	–	–	–	–
		12T	○ VDI30	○ VDI30	–	–
Chuck & Jaw	Hard Jaws and Soft Jaws 1 set	Standard	●	●	●	●
	Chuck Switch Pedal	Spindle	●	●	●	●
Tailstock	Tailstock	Manual Tailstock	●	●	–	–
		Programmable Tailstock	–	–	●	●
	Tailstock Pedal		○	○	○	○
Coolant System	Coolant Pump*1	3.2 bar	–	–	●	–
		4.5 bar	–	–	○	–
		14.1 bar	○	○	★	○
		3.7 bar	●	●	–	●
Chip Removal System	Chip Conveyor	Right Side / Rear Side	● / ○	● / ○	●	●
	Air Gun		●	●	●	●
	Coolant Gun		○	○	○	○
Electrical System	Electrical Cabinet	Heat Exchanger	●	●	●	●
		A/C. Cooler	○	○	○	○
Auxiliary System	Air Blast		○	○	○	○
	Automatic Lubrication	Piston Type	●	●	●	●
	Hydraulic System		●	●	●	●
	Oil Mist Collector		○	○	○	○
Peripherals	Oil Skimmer		○	○	○	○
	Auto Tool Length Measurement System	RENISHAW HPMA	○	○	○	○
	Bar Feeder		○	○	○	–
	Parts Catcher		○	○	○	–
	Part Conveyor		○	○	○	–
Others	Complete Chip Enclosure		●	●	●	●
	Foundation Bolts		○	○	○	○
	Leveling Blocks & Screws		●	●	●	●
	Safety Clutch	X-Axis	–	–	○	○
		Z-Axis	–	–	●	●
	Steady Rest	Manual	–	–	○	○
		Hydraulic	–	–	○	○
CNC Control	FANUC	TXP-200FB+	●	●	●	●

The specifications and information are subject to change without prior notice. For more details, please contact YCM sales representative.
Remark*1: The above specifications are the coolant pump at the flow rate of 40L /min with the electric power of 60Hz. The results may be different if the electric power changes to 50Hz. For more details, please contact YCM sales representative.

TC

● : Standard ○ : Optional – : Not applicable

ITEMS			TC				
			46/ 1000	46/ 1650	46/ 2300	46/ 3200	46M/ 3200
Spindle	Spindle Cooling System		●	●	●	●	●
Turret	Std. Tool	10T	●	●	●	●	–
		12T	○	○	○	○	–
	BMT 85	12T	–	–	–	–	●
Chuck & Jaw	Hard Jaws and Soft Jaws 1 set	Standard 15"/18"/21"	●/○/○	●/○/○	●/○/○	●/○/○	●/○/○
		Big Bore*2 18"/21"/24"	●/○/○	●/○/○	●/○/○	●/○/○	●/○/○
	Chuck Switch Pedal	Spindle	●	●	●	●	●
Tailstock	Tailstock	Programmable Tailstock	●	●	●	●	●
	Tailstock Pedal		○	○	○	○	○
Coolant System	Coolant Pump*1	4.6 bar	●	●	●	●	●
		14.1 bar	○	○	○	○	○
		18.5 bar	○	○	○	○	○
Chip Removal System	Chip Conveyor	Right Side	●	●	●	●	●
	Air Gun		●	●	●	●	●
	Coolant Gun		○	○	○	○	○
Electrical System	Electrical Cabinet	Heat Exchanger	●	●	●	●	●
		A/C. Cooler	○	○	○	○	○
Auxiliary System	Air Blast		○	○	○	○	○
	Automatic Lubrication	Piston Type	●	●	●	●	●
	Hydraulic System		●	●	●	●	●
	Oil Mist Collector	1 set	○	○	–	–	–
		2 sets	–	○	○	○	○
Peripherals	Oil Skimmer		○	○	○	○	○
	Auto Tool Length Measurement System	RENISHAW HPMA	○	○	○	○	○
Others	Complete Chip Enclosure		●	●	●	●	●
	Foundation Bolts		○	○	○	○	○
	Leveling Blocks & Screws		●	●	●	●	●
	Safety Clutch	X-Axis	○	○	○	○	○
		Z-Axis	○	○	○	○	○
	Steady Rest	Manual*3	○	○	○	○	○
		Hydraulic	○	○	○	○	○
CNC Control	FANUC	TXP-200FB+	●	●	●	●	●

The specifications and information are subject to change without prior notice. For more details, please contact YCM sales representative.
Remark*1: The above specifications are the coolant pump at the flow rate of 40L /min with the electric power of 60Hz. The results may be different if the electric power changes to 50Hz. For more details, please contact YCM sales representative.
Remark*2: TC-46 Big bore series: Head drive structure is identical with TC-46M, plugged with 2 speed gear box.
Remark*3: Wide selection of manual steady rest available: ø40~250 and ø250~460 mm.

NTC

● : Standard ○ : Optional –: Not applicable

NT

ITEMS			NTC 2000LY	NTC 2000LSY	NT -2500SY
Spindle	Sub Spindle		–	●	●
Turret	BMT55	12T	●	●	–
	BMT65	12T	–	–	●
Chuck & Jaw	Hard Jaws and Soft Jaws 1 set	Standard	●	●	●
	Chuck Switch Pedal	Spindle	●	●	●
		Sub spindle	–	●	●
Tailstock	Tailstock	Stationary Quill	●	–	–
		Programmable	○	–	–
		Manual	●	–	–
		Servo	○	–	–
	Tailstock Pedal		○	–	–
Coolant System	Coolant Pump*1	5.4 bar	–	–	●
		6.5 bar	–	–	○
		14.1 bar	○	○	○
		3.7 bar	●	●	–
Chip Removal System	Chip Conveyor	Right Side / Rear Side	● / ○	● / ○	● / ○
	Air Gun		●	●	●
	Coolant Gun		○	○	○
Electrical System	Electrical Cabinet	Heat Exchanger	●	●	●
		A/C. Cooler	○	○	○
Auxiliary System	Air Blast	Spindle	○	●	●
		Sub spindle	–	●	●
	Automatic Lubrication	Piston Type	●	●	●
	Hydraulic System		●	●	●
	Oil Mist Collector		○	○	○
Peripherals	Oil Skimmer		○	○	○
	Auto Tool Length Measurement System	RENISHAW HPMA	○	○	○
	Bar Feeder		○	○	○
	Parts Catcher	Spindle	○	–	○
		Sub spindle	–	○	○
	Parts Pusher		–	○	○
	Part Conveyor		○	○	○
Others	Complete Chip Enclosure		●	●	●
	Foundation Bolts		○	○	○
	Leveling Blocks & Screws		●	●	●
	Safety Clutch	X、Z-Axis	○	○	●
		Y-Axis	–	–	○
		B-Axis	○	○	○
CNC Control	FANUC	TXP-200FB+	●	●	TXP-200FB
		TXP-300FB+	○	○	–

The specifications and information are subject to change without prior notice. For more details, please contact YCM sales representative.
Remark*1: The above specifications are the coolant pump at the flow rate of 40L /min with the electric power of 60Hz. The results may be different if the electric power changes to 50Hz. For more details, please contact YCM sales representative.

YEONG CHIN **MACHINERY INDUSTRIES CO., LTD.**

No. 888, Sec. 1, Homu Road, Shengang District, Taichung 42953, Taiwan

Tel : +886-4-2562-3211 ■ **Fax: +886-4-2562-6479**

Web Page: www.YCMCNC.com ■ Email: sales@YCMCNC.com

202210-E02-1000