

NTC Series

High Efficiency CNC Turning Center

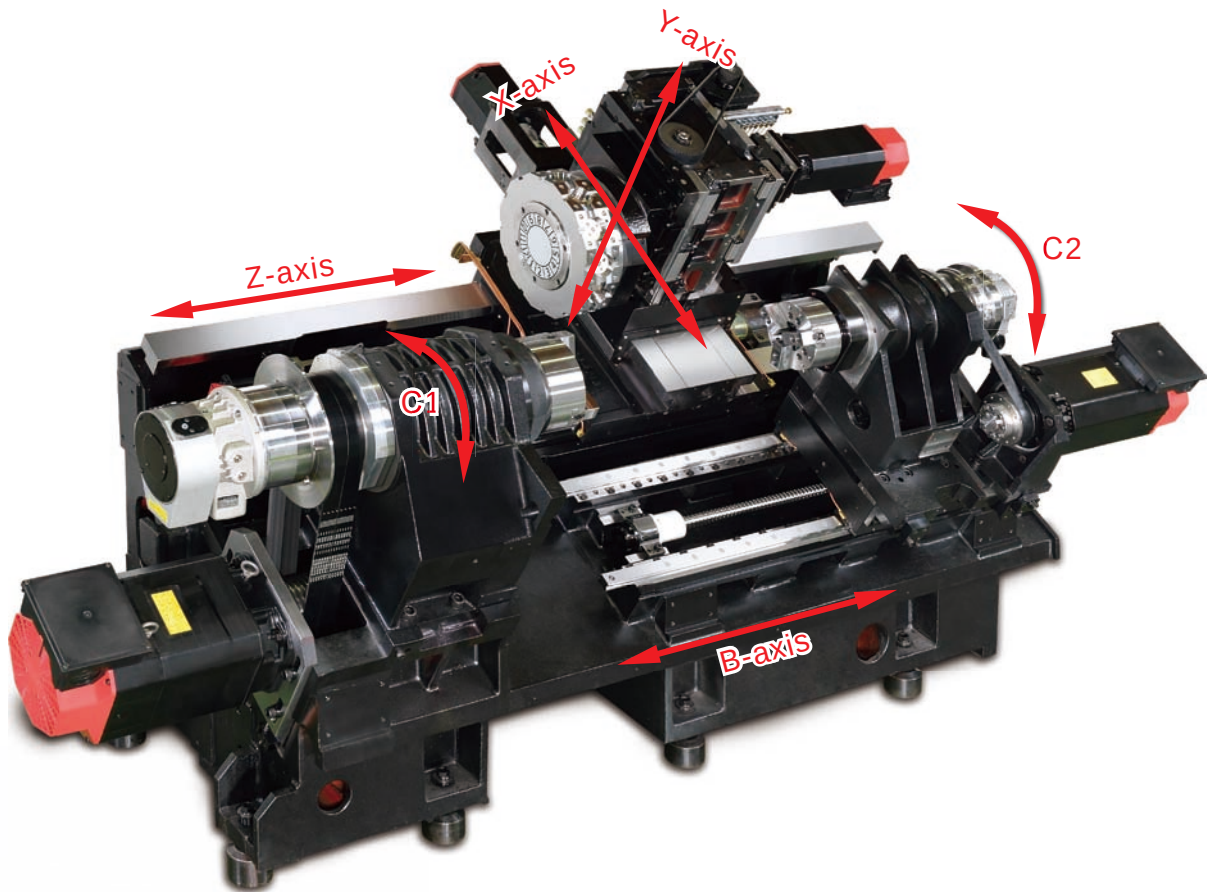


NTC Series

High Efficiency CNC Turning Center

Design of utmost performance modular, NTC series provides the best solution in diverse complex machining. To meet various demands from customers, Y-axis and sub-spindle are flexible to be chosen. We also offer different types of turrets and tailstock for increasing production efficiency. Featuring multiple valuable functionality, NTC series is suitable for applications in IT electronics, automotive and machinery parts.





Superb Base Structure

- 30° One-piece Slanted Bed Design : Extends the space for chips removal.
- Cross type ribs inside the base design provides the best rigidity. Durable Meehanite casting is adopted to simulate the structural deformation of the body under various conditions, integrated with YCM hand scrapping skills for box guideways, which ensures the best accuracy and lifetime. (Figure 1)
- X/Z-axis boxway design with wear-resistant pad strengthens rigidity and damping capacity for reducing vibration. (Figure 2)

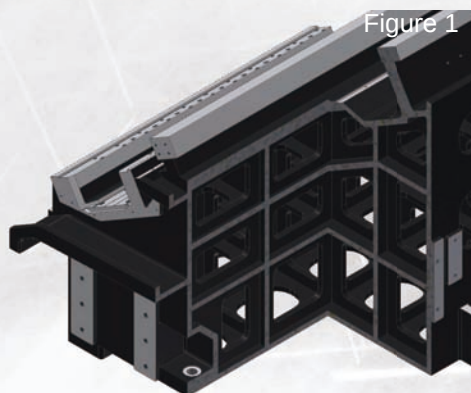


Figure 1

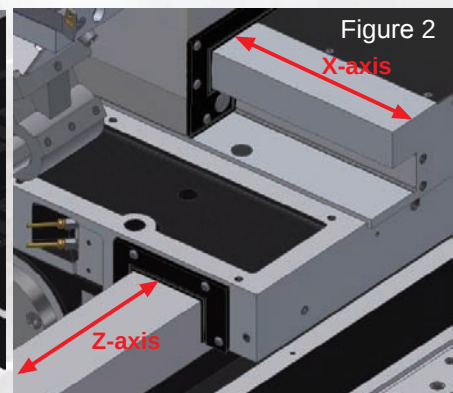


Figure 2

High Precision Spindle

- Hole through draw bar for bars of Ø65mm (8") & Ø51mm (6")
- The spindle is equipped with position encoder to detect speed and correct position. (Figure 1)
- With milling function spindle, the indexing accuracy is up to 0.001° . (Figure 2)

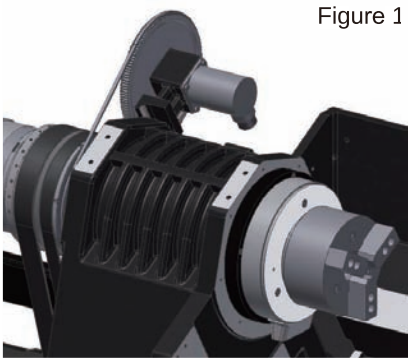


Figure 1

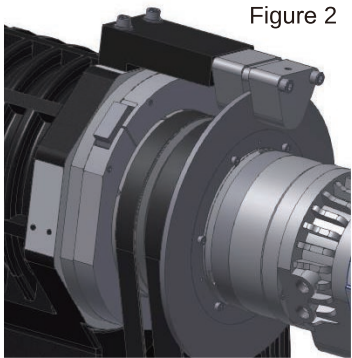
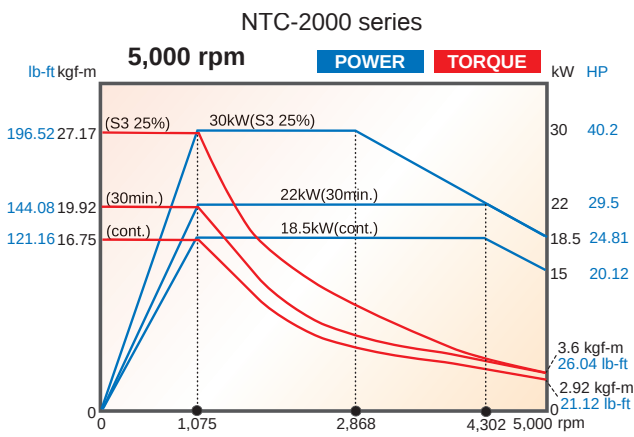
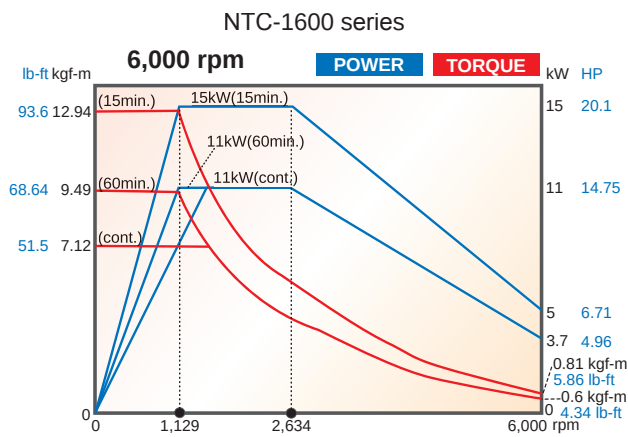
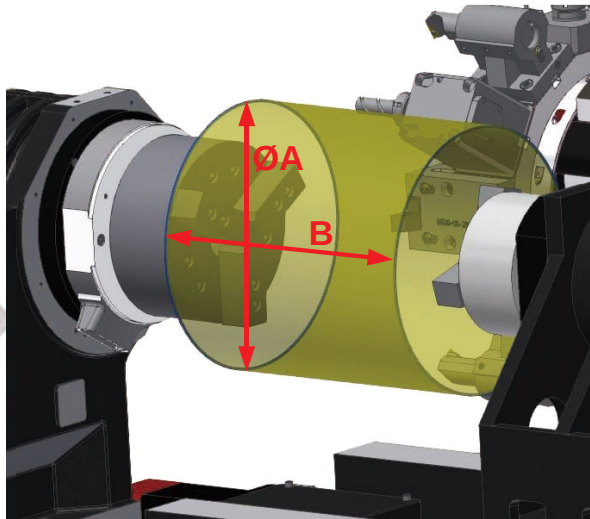
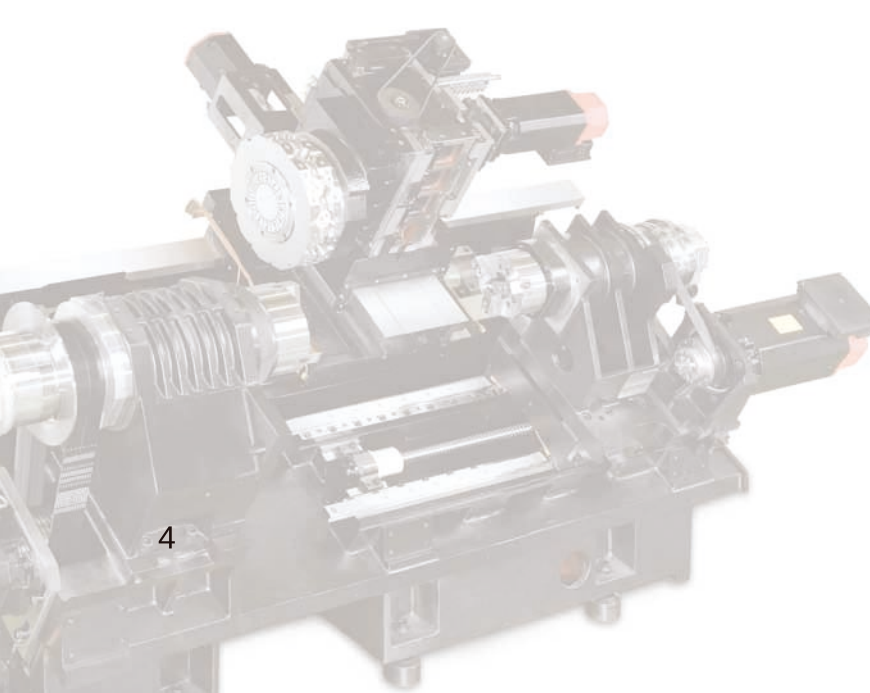


Figure 2

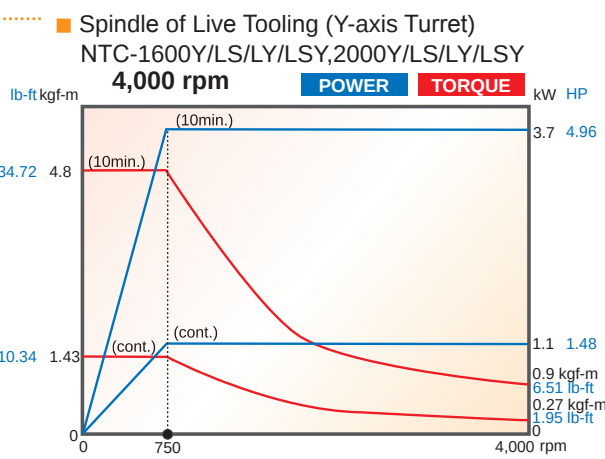
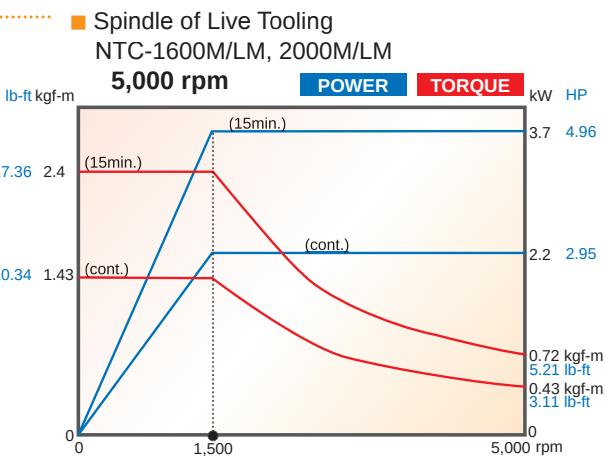
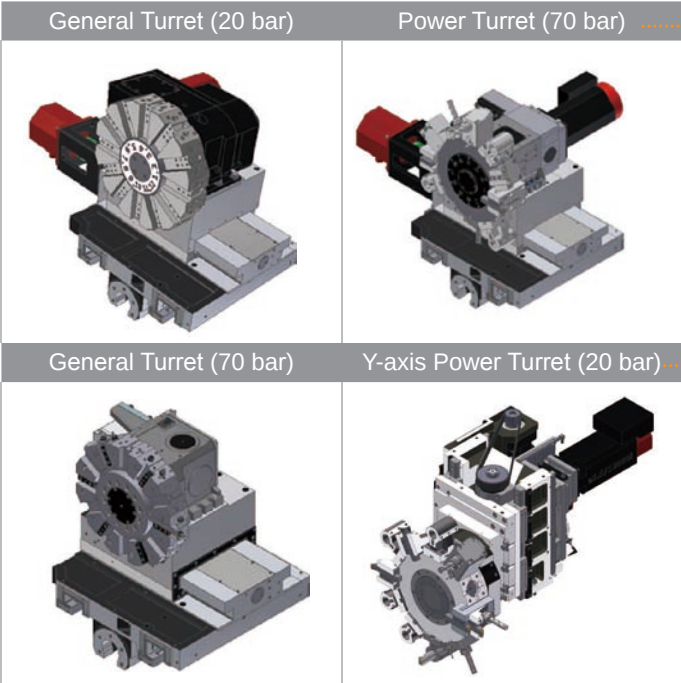


Machining Capacity

Model	NTC-1600				NTC-2000			
	Short/ Long(L)	M/LM	Y/LY	LS/LSY	Short/ Long(L)	M/LM	Y/LY	LS/LSY
Function	Standard	Power Turret	Y-axis Turret	Sub Spindle/ Y-axis + Sub Spindle	Standard	Power Turret	Y-axis Turret	Sub Spindle/ Y-axis + Sub Spindle
Chuck Size	6"				8"			
Max. Turning Diameter (ØA)	Ø320 mm Ø12.6"		Ø320 mm Ø12.6"	Ø310 mm Ø12.2"	Ø320 mm Ø12.6"		Ø320 mm Ø12.6"	Ø310 mm Ø12.2"
Max. Turning Length (B)	320/650 mm 12.6"/25.59"	320/650 mm 12.6"/25.59"	240/570 mm 9.45"/22.44"	570 mm 22.44"	320/650 mm 12.6"/25.59"	320/650 mm 12.6"/25.59"	240/570 mm 9.45"/22.44"	570 mm 22.44"



Multiple Choices for Turret

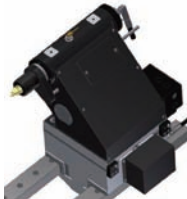


High Performance Y-axis Complex Machining

Integrated Y-axis function with live tooling turret for X, Y, Z feeding, which is best for complex machining. The orthogonal Y-axis is designed for maintaining machining accuracy.

Modularized Design for Tailstock and Sub Spindle

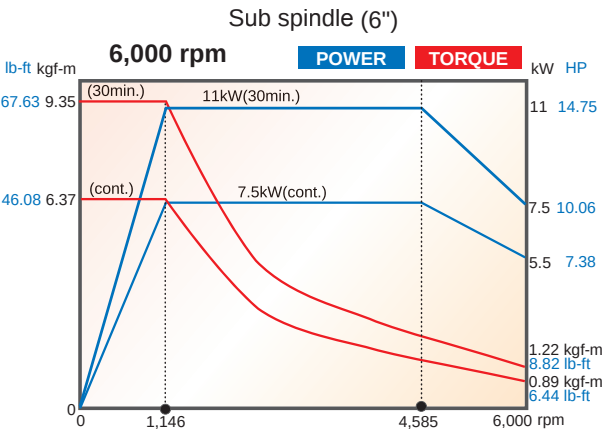
Except for standard manual tailstock, programmable tailstock and servo tailstock are available.

Model	NTC-1600/M/Y/L/LM/LY , NTC-2000/M/Y/L/LM/LY		
	Manual (std.)	Programmable (opt.)	Servo (opt.)
Tailstock Type			
Tailstock Driven	Saddle traction (Manual Lock)	Saddle traction (Hydraulic Clamping)	Servo motor
Quill Stroke	100mm 3.94"	100mm 3.94"	0mm 0"
Quill Taper	MT-4		
Center	Fixed type		

Sub Spindle



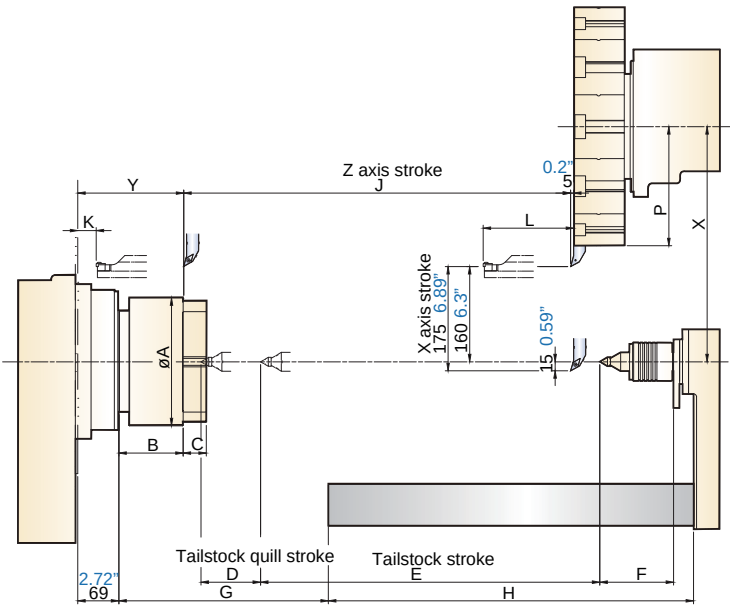
Sub spindle C-axis angle encoder and brake



WORKING CAPACITY

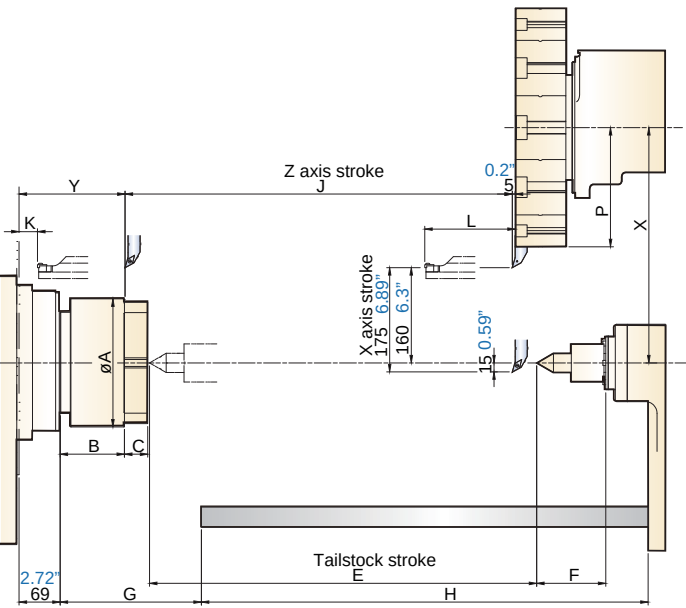
Unit: mm inch

General Turret + Manual / Programmable Tailstock



	NTC-1600		NTC-2000	
	2-axis	L	2-axis	L
A	170 6.69"		215 8.46"	
B	96 3.78"		108 4.25"	
C	38 1.50"		39 1.54"	
D	100 3.94"		100 3.94"	
E	240 9.45"	570 22.44"	240 9.45"	570 22.44"
F	124 4.88"	124 4.88"	124 4.88"	124 4.88"
G	352 13.86"	352 13.86"	352 13.86"	352 13.86"
H	266.5 10.49"	596.5 23.48"	278.5 10.96"	608.5 23.96"
Y	166 6.54"	166 6.54"	178 7.01"	178 7.01"
J	320 12.60"	650 25.59"	320 12.60"	650 25.59"
K	19 0.75"		31 1.22"	
L	152 5.98"		152 5.98"	
P	200 7.87"		200 7.87"	
X	395 15.55"		395 15.55"	

General Turret + Servo Tailstock

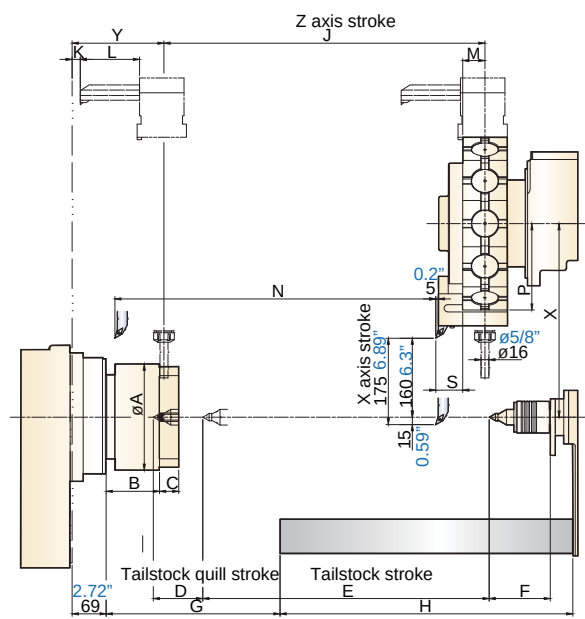


	NTC-1600		NTC-2000	
	2-axis	L	2-axis	L
A	170 6.69"		215 8.46"	
B	96 3.78"		108 4.25"	
C	38 1.50"		39 1.54"	
E	320 12.60"	650 25.59"	320 12.60"	650 25.59"
F	116 4.57"	116 4.57"	116 4.57"	116 4.57"
G	237 9.33"	237 9.33"	237 9.33"	237 9.33"
H	407 16.02"	737 29.02"	420 16.54"	750 29.53"
Y	166 6.54"	166 6.54"	178 7.01"	178 7.01"
J	320 12.60"	650 25.59"	320 12.60"	650 25.59"
K	19 0.75"		31 1.22"	
L	152 5.98"		152 5.98"	
P	200 7.87"		200 7.87"	
X	395 15.55"		395 15.55"	

WORKING CAPACITY

Unit: mm [inch](#)

■ Power Turret + Manual / Programmable Tailstock

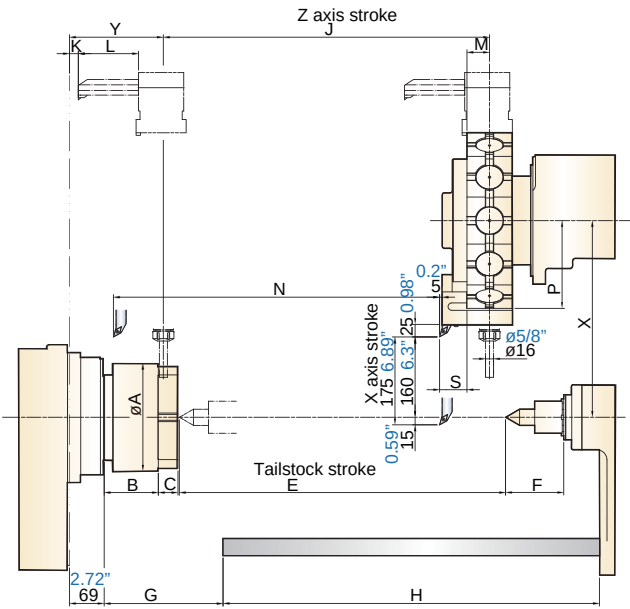


	NTC-1600				NTC-2000			
	M	Y	LM	LY	M	Y	LM	LY
A	170 6.69"				215 8.46"			
B	96 3.78"				108 4.25"			
C	38 1.50"				39 1.54"			
D	100 3.94"				100 3.94"			
E	240 9.45"		570 22.44"		240 9.45"		570 22.44"	
F	124 4.88"		124 4.88"		124 4.88"		124 4.88"	
G	352 13.86"		352 13.86"		352 13.86"		352 13.86"	
H	256 10.08"	333 13.11"	586 23.07"	663 26.10"	268 10.55"	345 13.58"	598 23.54"	675 26.57"
Y	175 6.89"		175 6.89"		187 7.36"		187 7.36"	
J	320 12.60"	240 9.45"	650 25.59"	570 22.44"	320 12.60"	240 9.45"	650 25.59"	570 22.44"
K	10.5 0.41"		10.5 0.41"		17.5 0.69"		17.5 0.69"	
L	115 4.53"		115 4.53"		120 4.72"		120 4.72"	
M	45 1.77"	45.5 1.79"	45 1.77"	45.5 1.79"	45 1.77"	45.5 1.79"	45 1.77"	45.5 1.79"
N	320 12.60"	240 9.45"	650 25.59"	570 22.44"	320 12.60"	240 9.45"	650 25.59"	570 22.44"
P	175 6.89"	170 6.69"	175 6.89"	170 6.69"	175 6.89"	170 6.69"	175 6.89"	170 6.69"
X	392 15.43"	387 15.24"	392 15.43"	387 15.24"	392 15.43"	387 15.24"	392 15.43"	387 15.24"
S	54.5 2.15"	54 2.13"	54.5 2.15"	54 2.13"	54.5 2.15"	54 2.13"	54.5 2.15"	54 2.13"

WORKING CAPACITY

Unit: mm inch

■ Power Turret + Servo Tailstock



	NTC-1600				NTC-2000			
	M	Y	LM	LY	M	Y	LM	LY
A	170 6.69"				215 8.46"			
B	96 3.78"				108 4.25"			
C	38 1.50"				39 1.54"			
E	320 12.60"		650 25.59"		320 12.60"		650 25.59"	
F	116 4.57"		116 4.57"		116 4.57"		116 4.57"	
G	237 9.33"		237 9.33"		237 9.33"		237 9.33"	
H	407 16.02"		737 29.02"		420 16.54"		750 29.53"	
Y	175 6.89"		175 6.89"		187 7.36"		187 7.36"	
J	320 12.60"	240 9.45"	650 25.59"	570 22.44"	320 12.60"	240 9.45"	650 25.59"	570 22.44"
K	10.5 0.41"		10.5 0.41"		17.5 0.69"		17.5 0.69"	
L	115 4.53"		115 4.53"		120 4.72"		120 4.72"	
M	45 1.77"	45.5 1.79"	45 1.77"	45.5 1.79"	45 1.77"	45.5 1.79"	45 1.77"	45.5 1.79"
N	320 12.60"	240 9.45"	650 25.59"	570 22.44"	320 12.60"	240 9.45"	650 25.59"	570 22.44"
P	175 6.89"	170 6.69"	175 6.89"	170 6.69"	175 6.89"	170 6.69"	175 6.89"	170 6.69"
X	392 15.43"	387 15.24"	392 15.43"	387 15.24"	392 15.43"	387 15.24"	392 15.43"	387 15.24"
S	54.5 2.15"	54 2.13"	54.5 2.15"	54 2.13"	54.5 2.15"	54 2.13"	54.5 2.15"	54 2.13"

■ Power Turret + Sub Spindle

Technical drawing of the 650 Series 3-Axis Bridge Type Machine, showing dimensions and component labels.

Z axis stroke: 5.55" (141)

X axis stroke: 0.2" (5)

B axis stroke: 650 25.59" (653 25.71")

Other dimensions: 2.72" (69), 169(6"), 5/8", 1/16", 1/2", 1/4", 1/8", 1/16", 1/32", 1/64", 1/128", 1/256", 1/512", 1/1024", 1/2048", 1/4096", 1/8192", 1/16384", 1/32768", 1/65536", 1/131072", 1/262144", 1/524288", 1/1048576", 1/2097152", 1/4194304", 1/8388608", 1/16777216", 1/33554432", 1/67108864", 1/134217728", 1/268435456", 1/536870912", 1/1073741824", 1/2147483648", 1/4294967296", 1/8589934592", 1/17179869184", 1/34359738368", 1/68719476736", 1/137438953472", 1/274877906944", 1/549755813888", 1/1099511627776", 1/2199023255552", 1/4398046511104", 1/8796093022208", 1/17592186044416", 1/35184372088832", 1/70368744177664", 1/140737488355328", 1/281474976710656", 1/562949953421312", 1/1125899906842624", 1/2251799813685248", 1/4503599627370496", 1/9007199254740992", 1/18014398509481984", 1/36028797018963968", 1/72057594037927936", 1/144115188075855872", 1/288230376151711744", 1/576460752303423488", 1/1152921504606846976", 1/2305843009213693952", 1/4611686018427387904", 1/9223372036854775808", 1/18446744073709551616", 1/36893488147419103232", 1/73786976294838206464", 1/147573952589676412928", 1/295147905179352825856", 1/590295810358705651712", 1/1180591620717411303424", 1/2361183241434822606848", 1/4722366482869645213696", 1/9444732965739290427392", 1/18889465931478580854784", 1/37778931862957161709568", 1/75557863725914323419136", 1/151115727451828646838272", 1/302231454903657293676544", 1/604462909807314587353088", 1/1208925819614629174706176", 1/2417851639229258349412352", 1/4835703278458516698824704", 1/9671406556917033397649408", 1/19342813113834066795298816", 1/38685626227668133590597632", 1/77371252455336267181195264", 1/154742504910672534362390528", 1/309485009821345068724781056", 1/618970019642690137449562112", 1/1237940039285380274899124224", 1/2475880078570760549798248448", 1/4951760157141521099596496896", 1/9903520314283042199192993792", 1/19807040628566084398385987584", 1/39614081257132168796771975168", 1/79228162514264337593543950336", 1/158456325028528675187087900672", 1/316912650057057350374175801344", 1/633825300114114700748351602688", 1/1267650600228229401496703205376", 1/2535301200456458802993406410752", 1/5070602400912917605986812821504", 1/10141204801825835211973625643008", 1/20282409603651670423947251286016", 1/40564819207303340847894502572032", 1/81129638414606681695789005144064", 1/162259276829213363391578010288128", 1/324518553658426726783156020576256", 1/649037107316853453566312041152512", 1/1298074214633706907132624082305024", 1/2596148429267413814265248164610048", 1/5192296858534827628530496329220096", 1/10384593717069655257060992658440192", 1/20769187434139310514121985316880384", 1/41538374868278621028243970633760768", 1/83076749736557242056487941267521536", 1/166153499473114484112975882535043072", 1/332306998946228968225951765070086144", 1/664613997892457936451903530140172288", 1/1329227995784915872903807060280344576", 1/2658455991569831745807614120560689152", 1/5316911983139663491615228241121378304", 1/10633823966279326983230456482242756608", 1/21267647932558653966460912964485513216", 1/42535295865117307932921825928971026432", 1/85070591730234615865843651857942052864", 1/170141183460469231731687303715884105728", 1/340282366920938463463374607431768211456", 1/680564733841876926926749214863536422912", 1/1361129467683753853853498429727072845824", 1/2722258935367507707706996859454145691648", 1/5444517870735015415413993718908291383296", 1/10889035741470030830827987437816582766592", 1/21778071482940061661655974875633165533184", 1/43556142965880123323311949751266331066368", 1/87112285931760246646623899502532662132736", 1/174224571863520493293247799005065324265472", 1/348449143727040986586495598010130648530944", 1/696898287454081973172991196020261297061888", 1/1393796574908163946345982392040522594123776", 1/2787593149816327892691964784081045188247552", 1/5575186299632655785383929568162090376495104", 1/11150372599265311570767859136324180752990208", 1/22300745198530623141535718272648361505980416", 1/44601490397061246283071436545296723011960832", 1/89202980794122492566142873090593446023921664", 1/1784059615882449851322857

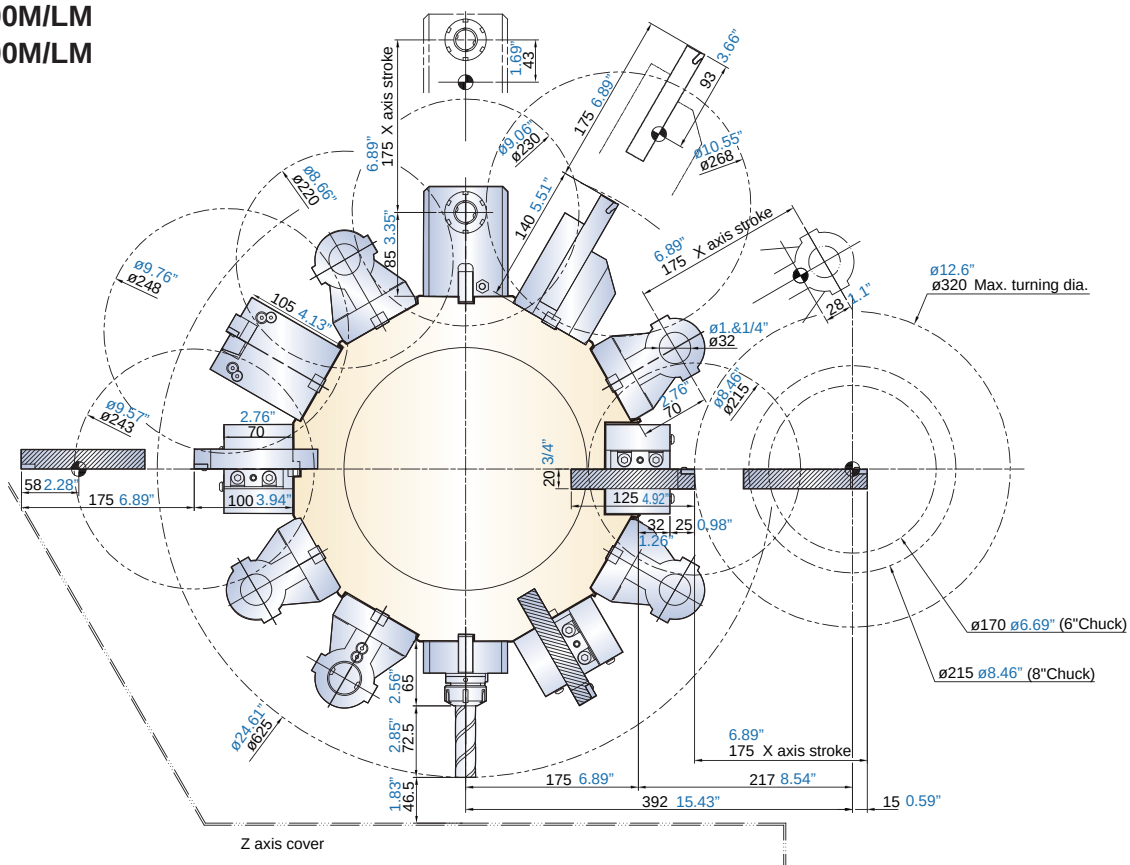
	NTC-1600		NTC-2000	
	LS	LSY	LS	LSY
A	170	6.69"	215	8.46"
B	96	3.78"	108	4.25"
C	38	1.50"	39	1.54"
Y	175	6.89"	187	7.36"
J	570	22.44"	570	22.44"
K	10.5	0.41"	17.5	0.69"
L	115	4.53"	120	4.72"
M	45	1.77"	45.5	1.79"
N	570	22.44"	570	22.44"
P	175	6.89"	170	6.69"
X	392	15.43"	387	15.24"
S	54.5	2.12"	54	2.15"
T	175	6.89"	160	6.30"
U	25	0.98"	30	1.18"
V	160	6.30"	155	6.10"
W	15	0.59"	5	0.20"

Turret
NTC-1600/L
NTC-2000/L

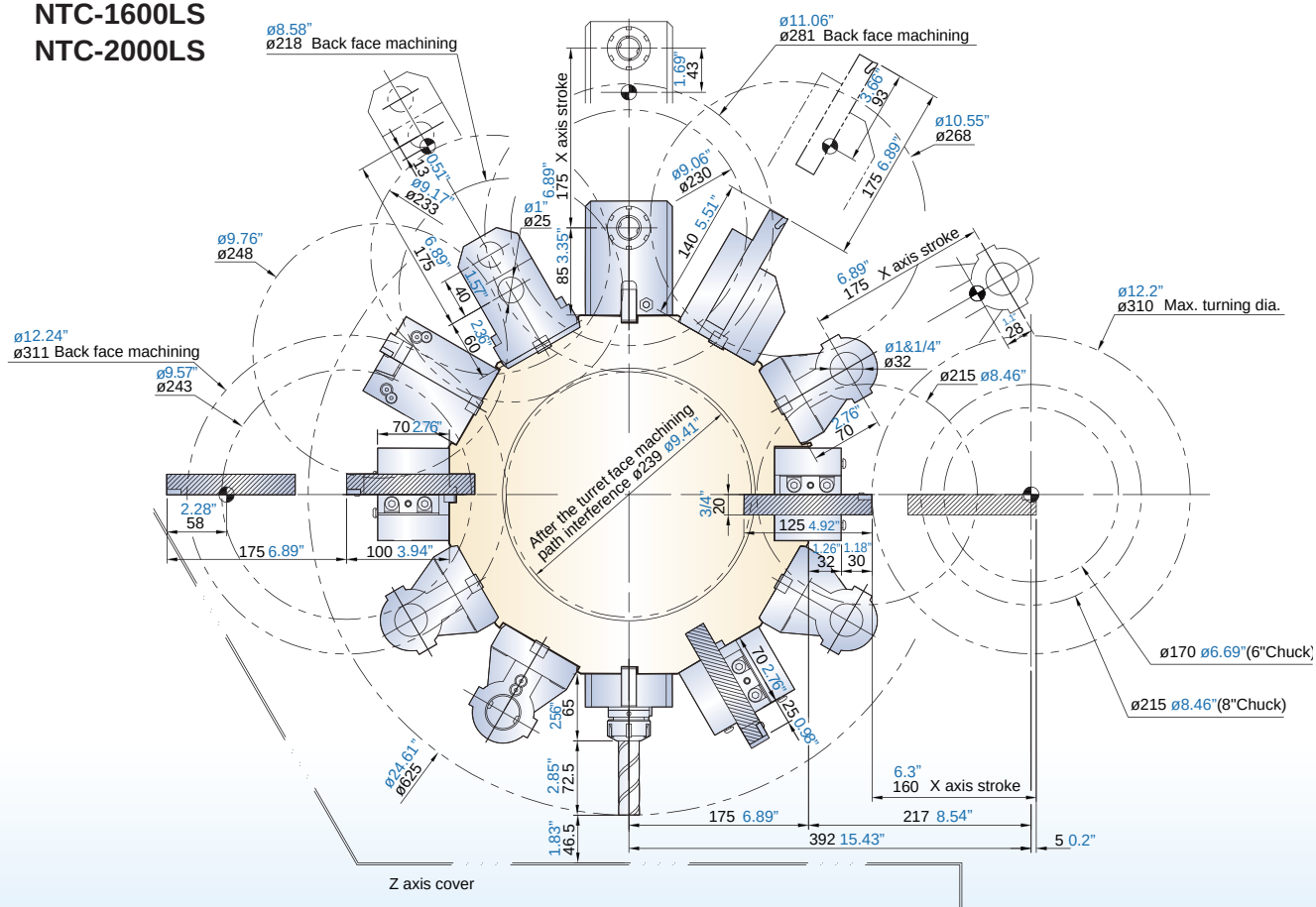
[illegible]

Unit: mm **inch**

NTC-1600M/LM
NTC-2000M/LM

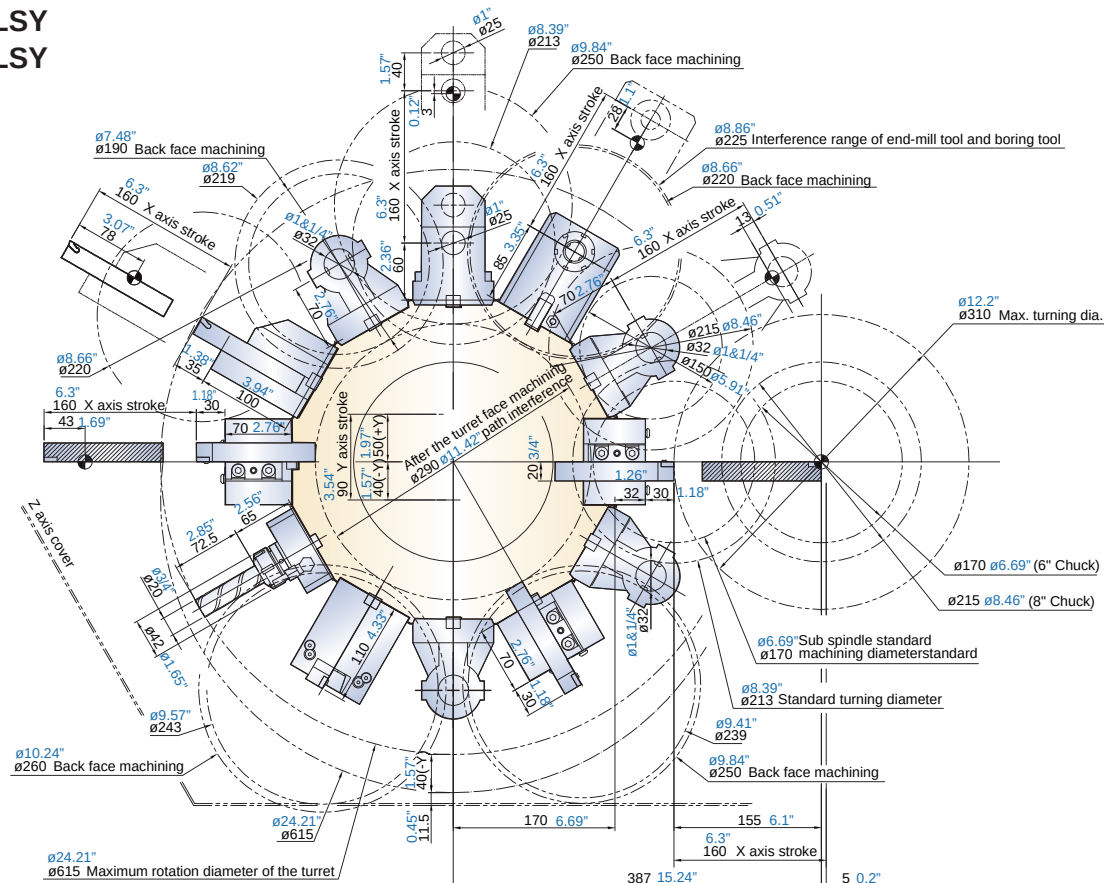


NTC-1600LS
NTC-2000LS

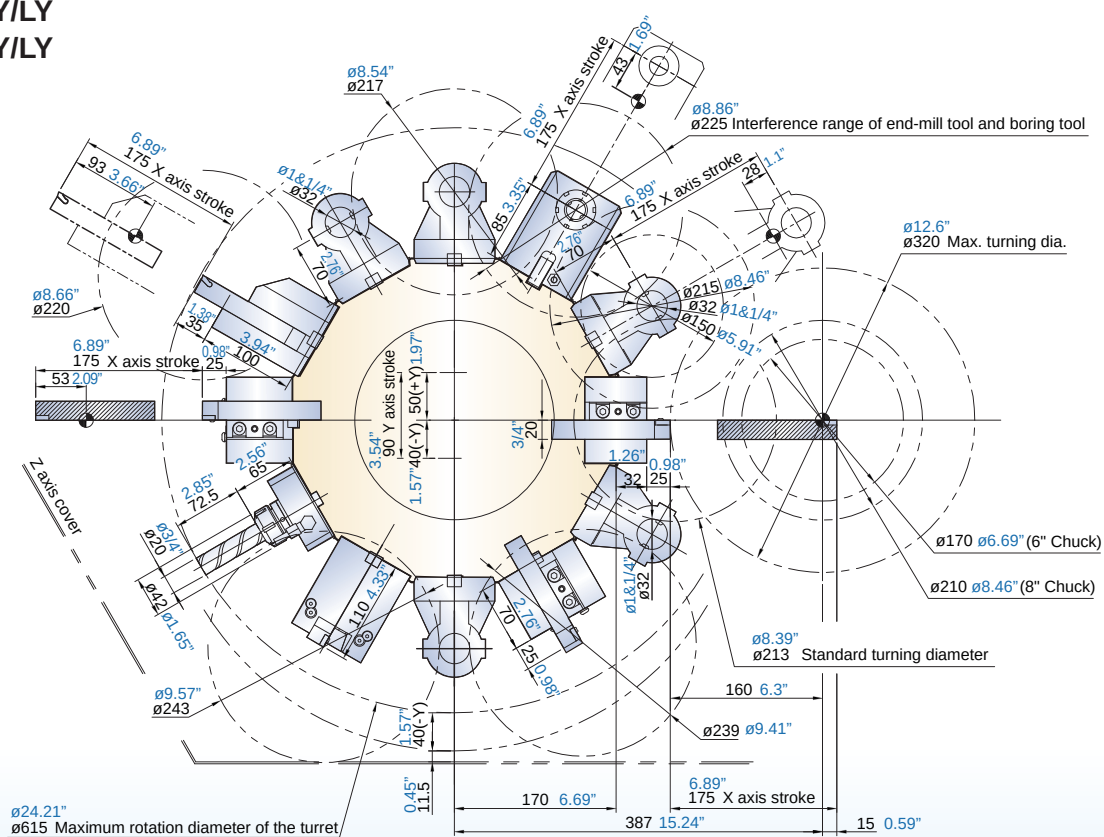


Unit: mm **inch**

NTC-1600LSY
NTC-2000LSY



NTC-1600Y/LY
NTC-2000Y/LY

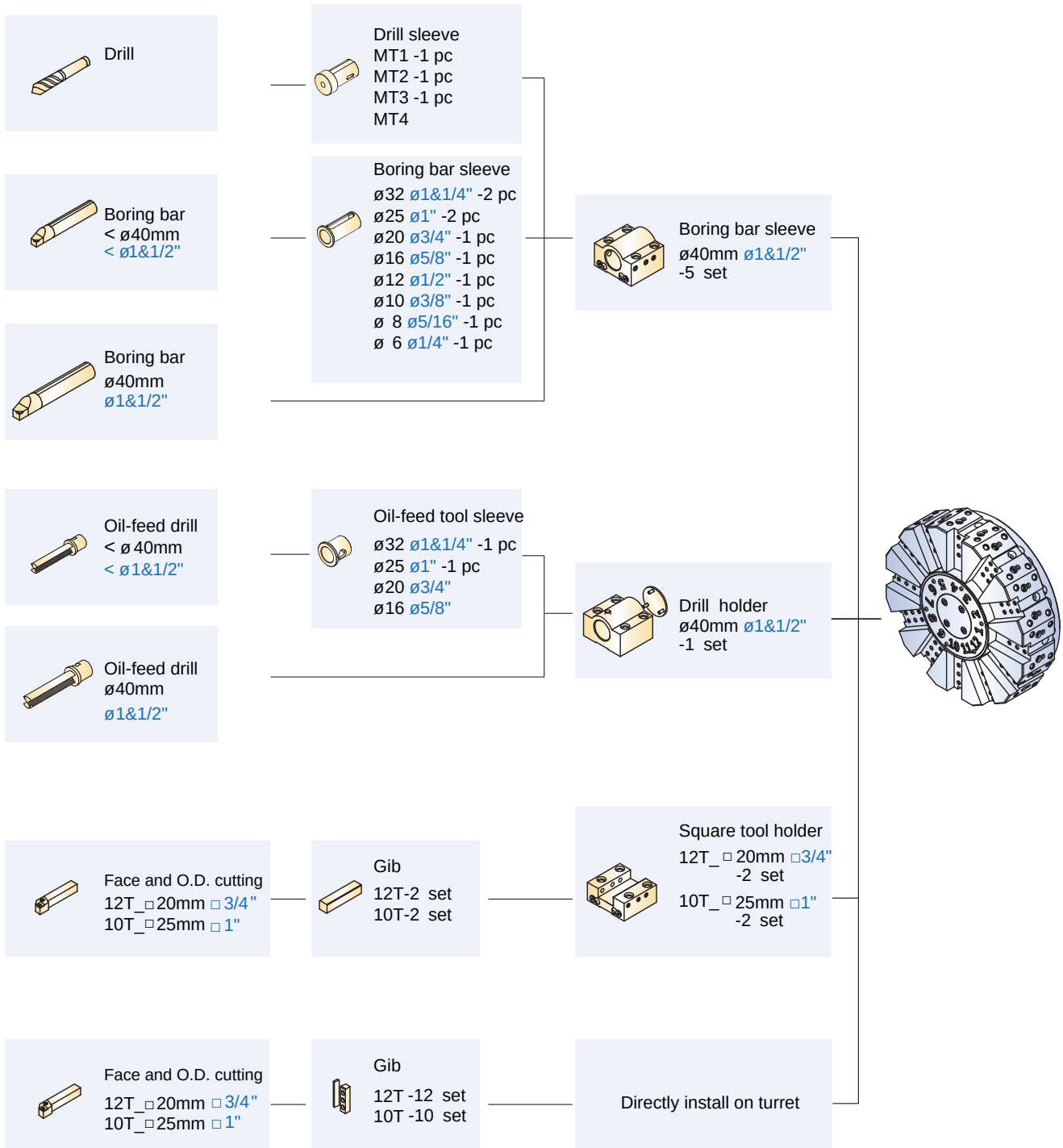


TOOLING CHART

Unit: mm *inch*

General Turret

Marked with numbers are standard units



TOOLING CHART

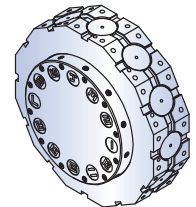
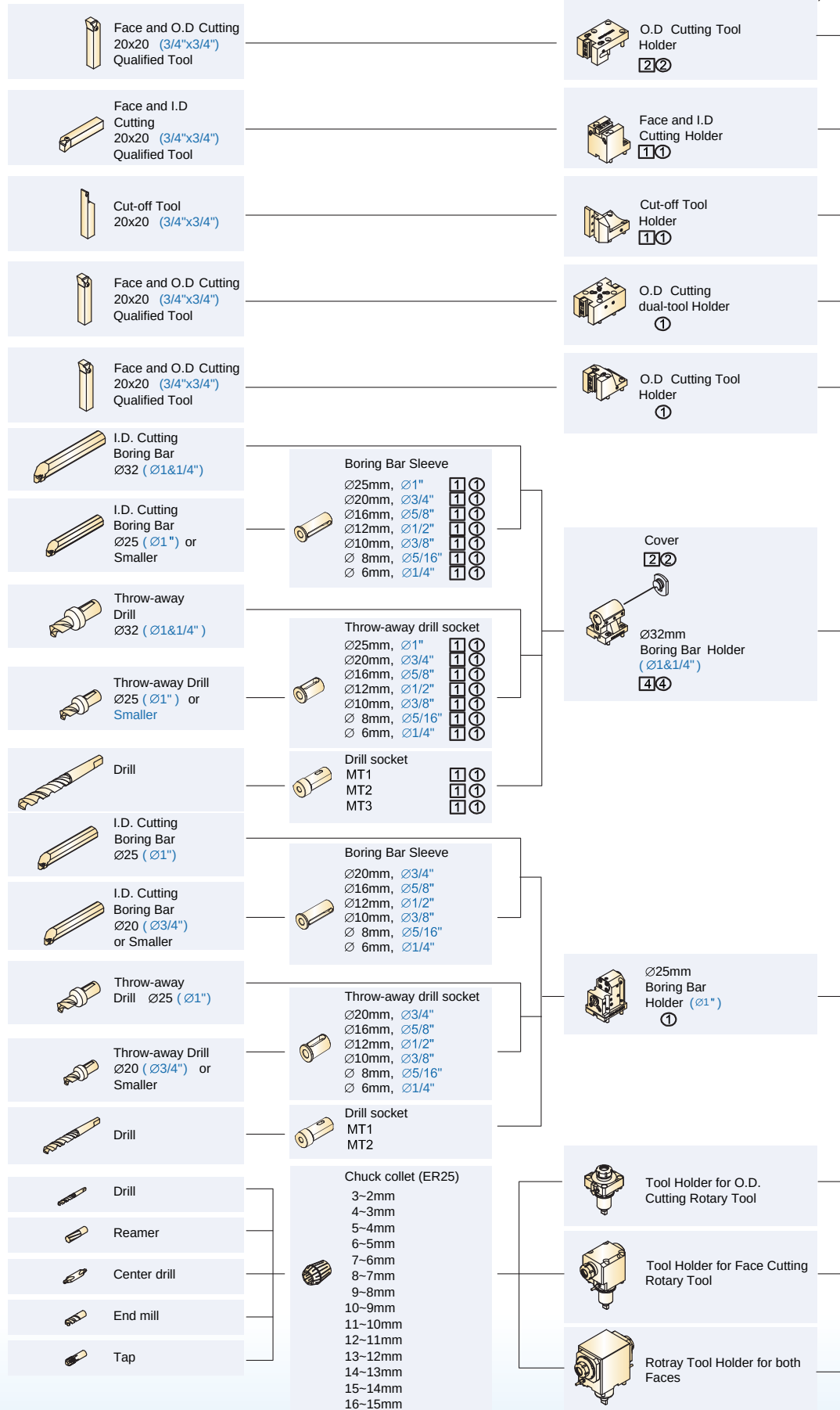
Unit: mm **inch**

BMT55

Marked with numbers are standard units

□ NTC-1600/2000M,LM,Y,LY

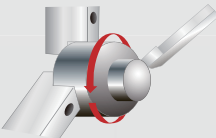
○ NTC-1600/2000LS,LSY

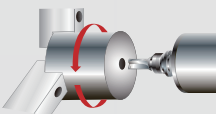


CUTTING CAPACITY

NTC-1600

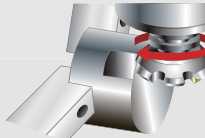
Turning : 6,000 rpm (max.)

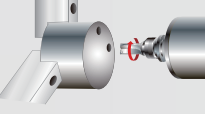
OD-TURNING	S45C Steel
Material Removal Rate	
415	
cc/min.	
Workpiece Diameter	ø48 mm
Spindle Speed	1,125 rpm
Feedrate	675 mm/min.
Cutting Speed	170 m/min.
Depth of Cut	4.5 mm

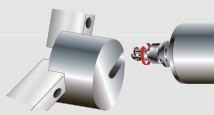
U-DRILL	S45C Steel
Cutter Diameter	
ø49	
mm	
Tool	ø49 mm
Spindle Speed	1,125 rpm
Feedrate	169 mm/min.
Cutting Speed	173 m/min.

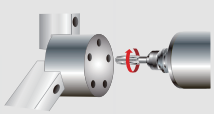
NTC-1600LM

Milling : 5,000 rpm (max.)

FACE MILL	S45C Steel
Depth of Cut	
1	
mm	
Tool	ø63 mm x 5T
Spindle Speed	1,500 rpm
Feedrate	1,500 mm/min.
Cutting Speed	296 m/min.

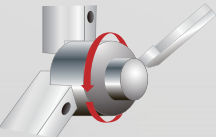
DRILL	S45C Steel
Cutter Diameter	
ø16	
mm	
Spindle Speed	500 rpm
Feedrate	80 mm/min.
Cutting Speed	25 m/min.
Depth of Cut	24 mm

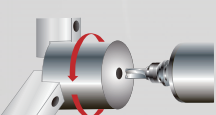
END MILL	S45C Steel
Depth of Cut	
2	
mm	
Tool	ø16 mm x 4T
Spindle Speed	1,500 rpm
Feedrate	600 mm/min.
Cutting Speed	75 m/min.

TAP	S45C Steel
Tapping	
M10	
Tool	M10 x 1.5P
Spindle Speed	160 rpm
Feedrate	240 mm/min.
Cutting Speed	5 m/min.

NTC-2000LY

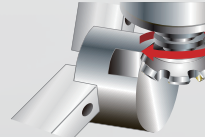
Turning : 5,000 rpm (max.)

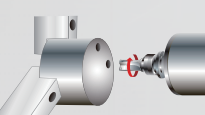
OD-TURNING	S45C Steel
Material Removal Rate	
470	
cc/min.	
Workpiece Diameter	ø62 mm
Spindle Speed	1,075 rpm
Feedrate	645 mm/min.
Cutting Speed	209 m/min.
Depth of Cut	4 mm

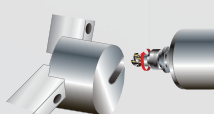
U-DRILL	S45C Steel
Cutter Diameter	
ø40	
mm	
Tool	ø40 mm
Spindle Speed	1,075 rpm
Feedrate	161 mm/min.
Cutting Speed	135 m/min.

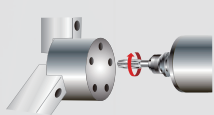
NTC-2000LY

Milling : 4,000 rpm (max.)

FACE MILL	S45C Steel
Depth of Cut	
1	
mm	
Tool	ø63 mm x 5T
Spindle Speed	750 rpm
Feedrate	750 mm/min.
Cutting Speed	148 m/min.

DRILL	S45C Steel
Cutter Diameter	
ø16	
mm	
Spindle Speed	500 rpm
Feedrate	100 mm/min.
Cutting Speed	25 m/min.
Depth of Cut	24 mm

END MILL	S45C Steel
Depth of Cut	
7	
mm	
Tool	ø16 mm x 2T
Spindle Speed	750 rpm
Feedrate	150 mm/min.
Cutting Speed	38 m/min.

TAP	S45C Steel
Tapping	
M16	
Tool	M16 x 2P
Spindle Speed	100 rpm
Feedrate	200 mm/min.
Cutting Speed	5 m/min.

Internal cutting test data are just for reference. This is tested for the max. machining capability of the machine, but not for the optimum tool life conditions.

Y-AXIS BENIFITS

NTC-2000L

Turning : 5,000 rpm (max.)

OD-TURNING S45C Steel	
Material Removal Rate	532 cc/min.
Workpiece Diameter	ø48 mm
Spindle Speed	1,121 rpm
Feedrate	672 mm/min.
Cutting Speed	169 m/min.
Depth of Cut	6 mm

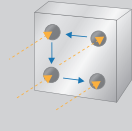
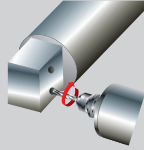
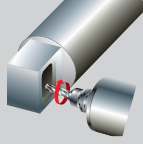
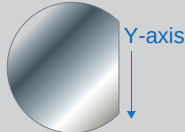
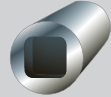
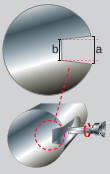
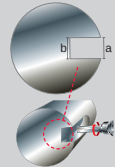
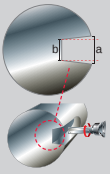
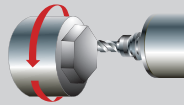
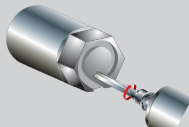
U-DRILL S45C Steel	
Cutter Diameter	ø49 mm
Tool	ø49 mm
Spindle Speed	1,121 rpm
Feedrate	224 mm/min.
Cutting Speed	173 m/min.

NTC-2000LSY

Sub Turning : 6,000 rpm (max.)

OD-TURNING S45C Steel	
Material Removal Rate	267 cc/min.
Workpiece Diameter	ø87 mm
Spindle Speed	1,146 rpm
Feedrate	401 mm/min.
Cutting Speed	315 m/min.
Depth of Cut	2.5 mm

U-DRILL S45C Steel	
Cutter Diameter	ø40 mm
Tool	ø40 mm
Spindle Speed	1,146 rpm
Feedrate	172 mm/min.
Cutting Speed	144 m/min.

	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 	Rough Surface 
Grooving Machining	High Accuracy 	
Polar Interpolation	Fast 	Slow 
Circular Interpolation	Fast 	Slow 

SPECIFICATIONS

	NTC-1600				
	Short / Long(L)	M / LM	LS	Y / LY	LSY
MACHINING CAPACITY					
Chuck Size	6"				
Swing Over Bed	ø710 mm ø27.95"				
Swing Over Carriage	ø545 mm ø21.46"				
Max. Turning Diameter	ø320 mm ø12.6"		ø310 mm ø12.2"	ø320 mm ø12.6"	ø310 mm ø12.2"
Max. Turning Length	320 / 650 mm 12.6" / 25.59"	320 / 650 mm 12.6" / 25.59"	570 mm 22.44"	240 / 570 mm 9.45" / 22.44"	570 mm 22.44"
Distance between End Face of the Spindle	585 / 915 mm 23.03" / 36.02"	585 / 915 mm 23.03" / 36.02"	926 mm 36.46"	585 / 915 mm 23.03" / 36.02"	926 mm 36.46"
Height from the Ground to Spindle	1,060 mm 41.73"				
MAIN SPINDLE					
Spindle Nose	A2-5				
Spindle Inner Taper	0°				
Front Bearing Inner Diameter	ø100 mm ø3.94"				
Hole Through Spindle	ø62 mm ø2.44"				
Hole Through Draw Bar	ø52 mm ø2.05"				
Spindle Speed	6,000 rpm				
Max.Spindle Torque	13 kgf-m 94 lbf-ft				
C1-axis Index Accuracy	-	0.001°			
SUB SPINDLE					
Spindle Nose	-	-	A2-5	-	A2-5
Spindle Inner Taper	-	-	0°	-	0°
Front Bearing Inner Diameter	-	-	ø90 mm ø3.54"	-	ø90 mm ø3.54"
Hole Through Spindle	-	-	ø55 mm ø2.17"	-	ø55 mm ø2.17"
Hole Through Draw Bar	-	-	ø45 mm ø1.77"	-	ø45 mm ø1.77"
Spindle Speed	-	-	6,000 rpm	-	6,000 rpm
Max.Spindle Torque	-	-	9.35 kgf-m 67.63 lbf-ft	-	9.35 kgf-m 67.63 lbf-ft
C1-axis Index Accuracy	-	-	0.001°	-	0.001°
TRAVEL					
X-axis Travel	175(160+15) mm 6.89"(6.3"+0.59")				160(155+5) mm 6.3"(6.1"+0.2")
Z-axis Travel	320 / 650 mm 12.6" / 25.59"	320 / 650 mm 12.6" / 25.59"	570 mm 22.44"	240 / 570 mm 9.45" / 22.44"	570 mm 22.44"
Y-axis Travel	-	-	-	90 (+50 / -40) mm 3.54"(+1.97" / -1.57")	
B-axis Travel	320 / 650 mm ^(*) 12.6" / 25.59" ^(*)	320 / 650 mm ^(*) 12.6" / 25.59" ^(*)	650 mm 25.59"	320 / 650 mm ^(*) 12.6" / 25.59" ^(*)	650 mm 25.59"
FEEDRATE					
X-axis Rapid Feedrate	30 m/min. 1181 ipm				
Z-axis Rapid Feedrate	36 m/min. 1417 ipm				
Y-axis Rapid Feedrate	-	-	-	10 m/min. 394 ipm	
B-axis Rapid Feedrate	20 m/min. ^(*) 787 ipm ^(*)		20 m/min. 787 ipm	20 m/min. ^(*) 787 ipm ^(*)	20 m/min. 787 ipm
Cutting Feedrate (X,Y,Z,B)	1~10,000 mm/min. 0.04~394 ipm				
MOTOR					
Main Spindle Motor	11 / 15 kW 15 / 20 HP				
Sub Spindle Motor	-	-	7.5 / 11 kW 10 / 15 HP	-	7.5 / 11 kW 10 / 15 HP
TURRET					
Turret Type	Servo Turret	BMT55			
Number of Tools	12T				
Shank Height for Square Tool	□20 mm □3/4"				
Shank Dia. for Boring Bar	ø40 mm ø1&1/2"	ø32 mm ø1&1/4"			
Live Tool Motor Speed	-	100~5,000 rpm		100~4,000 rpm	
Live Tool Motor Torque	-	2.4 kgf-m 17.36 lbf-ft		4.8 kgf-m 34.72 lbf-ft	
TAILSTOCK					
Guide Type	Steel Guide / Linear Guide ^(*)		-	Steel Guide / Linear Guide ^(*)	-
Moving Type	Manual / Programmable / Servo ^(*)		-	Manual / Programmable / Servo ^(*)	-
Quill Diameter	ø75 / ø75 / ø90 mm ^(*) ø2.95" / ø2.95" / ø3.54" ^(*)		-	ø75 / ø75 / ø90 mm ^(*) ø2.95" / ø2.95" / ø3.54" ^(*)	-
Quill Taper	MT-4		-	MT-4	-
Quill Stroke	100 / 100 / 0 mm ^(*) 3.94" / 3.94" / 0" ^(*)		-	100 / 100 / 0 mm ^(*) 3.94" / 3.94" / 0" ^(*)	-
Stroke	240 / 570 mm 9.45" / 22.44"	240 / 570 mm 9.45" / 22.44"	-	240 / 570 mm 9.45" / 22.44"	-
GENERAL					
Power Consumption	32(40) kVA	35(40) kVA	50(65) kVA	37(40) kVA	52(65) kVA
Machine Weight	4,200 / 4,600 kg 9,259 / 10,141 lb	4,320 / 4,720 kg 9,524 / 10,406 lb	5,580 kg 12,302 lb	4,720 / 5,120 kg 10,406 / 11,288 lb	5,880 kg 12,963 lb

Remark(*)1 :The dimension or data of the servo tail stock. The servo tail stock is an option.

Note: 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. The data for Power Consumption (Transformer) is standard, and different spindle motor may vary from those stated here. If you have any questions about other CNC controllers, please contact YCM sales representative.

SPECIFICATIONS

	NTC-2000				
	Short / Long(L)	M / LM	LS	Y / LY	LSY
MACHINING CAPACITY					
Chuck Size	8"				
Swing Over Bed	ø710 mm ø27.95"				
Swing Over Carriage	ø545 mm ø21.46"				
Max. Turning Diameter	ø320 mm ø12.6"		ø310 mm ø12.2"	ø320 mm ø12.6"	ø310 mm ø12.2"
Max. Turning Length	320 / 650 mm 12.6" / 25.59"	320 / 650 mm 12.6" / 25.59"	570 mm 22.44"	240 / 570 mm 9.45" / 22.44"	570 mm 22.44"
Distance between End Face of the Spindle	585 / 915 mm 23.03" / 36.02"	585 / 915 mm 23.03" / 36.02"	926 mm 36.46"	585 / 915 mm 23.03" / 36.02"	926 mm 36.46"
Height from the Ground to Spindle	1,060 mm 41.73"				
MAIN SPINDLE					
Spindle Nose	A2-6				
Spindle Inner Taper	0°				
Front Bearing Inner Diameter	ø110 mm ø4.33"				
Hole Through Spindle	ø80 mm ø3.15"				
Hole Through Draw Bar	ø66 mm ø2.6"				
Spindle Speed	5,000 rpm				
Max.Spindle Torque	27 kgf-m 195.29 lbf-ft				
C1-axis Index Accuracy	-	0.001°			
SUB SPINDLE					
Spindle Nose	-	-	A2-5	-	A2-5
Spindle Inner Taper	-	-	0°	-	0°
Front Bearing Inner Diameter	-	-	ø90 mm ø3.54"	-	ø90 mm ø3.54"
Hole Through Spindle	-	-	ø55 mm ø2.17"	-	ø55 mm ø2.17"
Hole Through Draw Bar	-	-	ø45 mm ø1.77"	-	ø45 mm ø1.77"
Spindle Speed	-	-	6,000 rpm	-	6,000 rpm
Max.Spindle Torque	-	-	9.35 kgf-m 67.63 lbf-ft	-	9.35 kgf-m 67.63 lbf-ft
C1-axis Index Accuracy	-	-	0.001°	-	0.001°
TRAVEL					
X-axis Travel	175(160+15) mm 6.89"(6.3"+0.59")				160(155+5) mm 6.3"(6.1"+0.2")
Z-axis Travel	320 / 650 mm 12.6" / 25.59"	320 / 650 mm 12.6" / 25.59"	570 mm 22.44"	240 / 570 mm 9.45" / 22.44"	570 mm 22.44"
Y-axis Travel	-	-	-	90 (+50 / -40) mm 3.54"(+1.97" / -1.57")	
B-axis Travel	320 / 650 mm ^(*) 12.6" / 25.59" ^(*)	320 / 650 mm ^(*) 12.6" / 25.59" ^(*)	650 mm 25.59"	320 / 650 mm ^(*) 12.6" / 25.59" ^(*)	650 mm 25.59"
FEEDRATE					
X-axis Rapid Feedrate	30 m/min. 1181 ipm				
Z-axis Rapid Feedrate	36 m/min. 1417 ipm				
Y-axis Rapid Feedrate	-	-	-	10 m/min. 394 ipm	
B-axis Rapid Feedrate	20 m/min. ^(*) 787 ipm ^(*)		20 m/min. 787 ipm	20 m/min. ^(*) 787 ipm ^(*)	20 m/min. 787 ipm
Cutting Feedrate (X,Y,Z,B)	1~10,000 mm/min. 0.04~394 ipm				
MOTOR					
Main Spindle Motor	18.5 / 22 / 30 kW 25 / 30 / 40 HP				
Sub Spindle Motor	-	-	7.5 /11 kW 10 / 15 HP	-	7.5 / 11 kW 10 / 15 HP
TURRET					
Turret Type	Servo Turret	BMT55			
Number of Tools	12T				
Shank Height for Square Tool	□ 20 mm □ 3/4"				
Shank Dia. for Boring Bar	ø40 mm ø1&1/2"	ø32 mm ø1&1/4"			
Live Tool Motor Speed	-	100~5,000 rpm		100~4,000 rpm	
Live Tool Motor Torque	-	2.4 kgf-m 17.36 lbf-ft		4.8 kgf-m 34.72 lbf-ft	
TAILSTOCK					
Guide Type	Steel Guide / Linear Guide ^(*)		-	Steel Guide / Linear Guide ^(*)	-
Moving Type	Manual / Programmable/Servo ^(*)		-	Manual / Programmable/ Servo ^(*)	-
Quill Diameter	ø75 / ø75 / ø90 mm ^(*) ø2.95" / ø2.95" / ø3.54" ^(*)		-	ø75 / ø75 / ø90 mm ^(*) ø2.95" / ø2.95" / ø3.54" ^(*)	-
Quill Taper	MT-4		-	MT-4	-
Quill Stroke	100 / 100 / 0 mm ^(*) 3.94" / 3.94" / 0" ^(*)		-	100 / 100 / 0 mm ^(*) 3.94" / 3.94" / 0" ^(*)	-
Stroke	240 / 570 mm 9.45" / 22.44"	240 / 570 mm 9.45" / 22.44"	-	240 / 570 mm 9.45" / 22.44"	-
GENERAL					
Power Consumption	43(45) kVA	46(65) kVA	61(65) kVA	50(65) kVA	63(65) kVA
Machine Weight	4,500 / 4,900 kg 9,921 / 10,803 lb	4,620 / 5,020 kg 10,185 / 11,067 lb	5,880 kg 12,963 lb	5,020 / 5,420 kg 11,067 / 11,949 lb	6,180 kg 13,624 lb

Remark(*1) :The dimension or data of the servo tail stock. The servo tail stock is an option.

Note: 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. The data for Power Consumption (Transformer) is standard, and different spindle motor may vary from those stated here. If you have any questions about other CNC controllers, please contact YCM sales representative.

ACCESSORIES

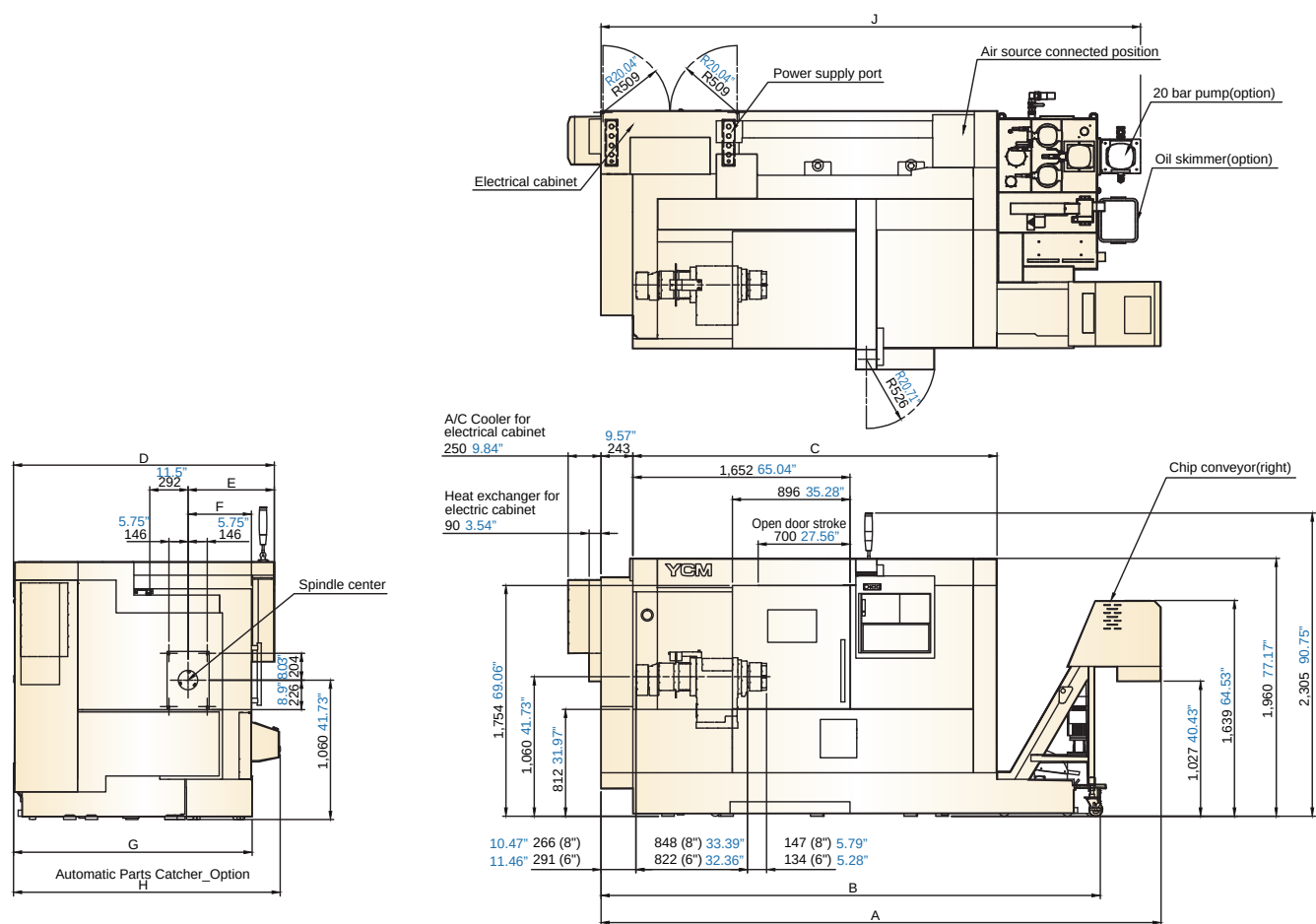
● Standard ○ Option – N/A

		NTC-1600/2000							
		2-axis	M	Y	L	LM	LS	LY	LSY
Tool Kit		●	●	●	●	●	●	●	●
Work Lamp		●	●	●	●	●	●	●	●
Pilot Lamp		●	●	●	●	●	●	●	●
Automatic Door		○	○	○	○	○	○	○	○
Safety Door		●	●	●	●	●	●	●	●
Hydraulic System		●	●	●	●	●	●	●	●
Turret	Standard Turret (20bar)	●	–	–	●	–	–	–	–
	Standard Turret (70bar)	○	–	–	○	–	–	–	–
	Power Turret BMT55_12T (70bar)	–	●	–	–	●	●	–	–
	Power Turret BMT55_12T (20bar) (Y-axis)	–	–	●	–	–	–	●	●
Tool Holder	Non-Power Tool Holder	●	●	●	●	●	●	●	●
	Power Milling Tool Holder	–	○	○	–	○	○	○	○
Through Hole Rotating Hydraulic Cylinder		●	●	●	●	●	●	●	●
Collet Chuck		○	○	○	○	○	○	○	○
Hydraulic Chuck & Hard Jaws and Soft Jaws		●	●	●	●	●	●	●	●
Soft Jaws, Hard Jaws (Optional accessories)		○	○	○	○	○	○	○	○
Soft Jaw Former		○	○	○	○	○	○	○	○
Chuck Switch Pedal	Main spindle	●	●	●	●	●	●	●	●
	Sub spindle	–	–	–	–	–	●	–	●
	Tail Stock	○	○	○	○	○	–	○	–
Sub Spindle		–	–	–	–	–	●	–	●
Tailstock (MT-4)	Stationary Quill	●	●	●	●	●	–	●	–
	Programmable	○	○	○	○	○	–	○	–
	Manual	●	●	●	●	●	–	●	–
	Servo	○	○	○	○	○	–	○	–
Parts Catcher System	Main Spindle	○	○	○	○	○	–	○	–
	Sub Spindle	–	–	–	–	–	○	–	○
Parts Pusher System (Sub-Spindle)		–	–	–	–	–	○	–	○
Axial Safe Clutch		○	○	○	○	○	○	○	○
Parts Conveyor		○	○	○	○	○	○	○	○
Full Chip Enclosure		●	●	●	●	●	●	●	●
Leveling Blocks and Bolts		●	●	●	●	●	●	●	●
Foundation Bolts		○	○	○	○	○	○	○	○
Air Gun		●	●	●	●	●	●	●	●
Cutting Air Blast		○	○	○	○	○	●	○	●
Coolant Equipment System		●	●	●	●	●	●	●	●
Coolant Pump	Standard	●	●	●	●	●	●	●	●
	High Flow	○	○	○	○	○	○	○	○
Coolant Gun		○	○	○	○	○	○	○	○
Oil Skimmer		○	○	○	○	○	○	○	○
Paper Filter		○	○	○	○	○	○	○	○
Oil Mist Collector		○	○	○	○	○	○	○	○
Central Lubrication System (Volume Type)		●	●	●	●	●	●	●	●
Chip Conveyor	Right Side	●	●	●	●	●	●	●	●
	Rear Side	○	○	○	○	○	○	○	○
Electrical Cabinet	Heat Exchanger	●	●	●	●	●	●	●	●
	A/C Cooler	○	○	○	○	○	○	○	○
Tool Length Measurement	Main Spindle Automatic (HPMA)	○	○	○	○	○	○	○	○
	Main Spindle_Manual (HPRA)	○	○	○	○	○	○	○	○
	Sub Spindle_Manual	–	–	–	–	–	○	–	○
Bar Feeder & Software		○	○	○	○	○	○	○	○
Control System	FANUC TXP-100FA	●	●	–	●	●	–	–	–
	FANUC TXP-200FA	○	○	●	○	○	●	●	●

Note: 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.

Dimensions

Unit: mm inch



	NTC		
	1600 / M / Y 2000 / M / Y	1600L / LM / LY 2000L / LM / LY	1600LS / LSY 2000LS / LSY
A	3,981 156.73"	4,261 167.76"	4,261 167.76"
B	3,518 138.5"	3,798 149.53"	3,798 149.53"
C	2,492 98.11"	2,772 109.13"	2,772 109.13"
D	1,919 75.55"	1,919 75.55"	1,989 78.31"
E	591 23.27"	591 23.27"	661 26.02"
F	412 16.22"	412 16.22"	482 18.98"
G	1,740 68.5"	1,740 68.5"	1,810 71.26"
H	1,922 75.67"	1,922 75.67"	1,992 78.43"
J	3,824 150.55"	4,104 161.57"	4,104 161.57"

VMC

Vertical Machining Center

FP Series High Precision High Performance Die Mold Vertical Machining Center
FP66A, FP100A, NFP66A

NXV Series High Performance Vertical Machining Center
NXV560A, NXV560A-APC, NXV1020A/AM, NXV1380A, NXV1680A/B

TV Series Heavy Duty Vertical Machining Center
TV116B, TV146B, TV158B, TV188B, TV2110B, TV2610B

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

NMV Series High Performance High Rigidity Vertical Machining Center
NMV76A, NMV106A

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

NFX Series High Performance 5-axis Vertical Machining Center
NFX380A

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

TCV Series High Performance Traveling Column Vertical Machining Center
TCV2000A, TCV3000A, TCV4500B, TCV2300A-4A, TCV3000A-4A/5AF/5AX

DCV Series Advanced Double Column Vertical Machining Center
DCV2012A/B, DCV3016B-6035B, DCV2018A-4018A-5AX, DCV4030B-6023B-5AX, DCV4030B-5AF

NDC Series High Performance Double Column Vertical Machining Center
NDC2016B-4016B, NDC3022B-6027B, NDC2018B-4018B-AHC, NDC3022B-6027B-AHC

HMC

Horizontal Machining Center

H Series High Production Horizontal Machining Center
H2612B

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

CNC LATHES

CNC Turning Center

NT Series High Performance Mill/Turn Center
NT-2000Y/SY, NT-2500Y/SY, NT-2000SY2

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

NTC Series High Efficiency CNC Turning Center
NTC-1600M/Y/L/LM/LS/LY/LSY, NTC-2000M/Y/L/LM/LS/LY/LSY

Integrated Operation Control System **iOPERATION**

Spindle Thermal Compensation System **STC PLUS**

Remote Monitoring System **i-Direct**

Automation Solutions

INTEGRATION
AND SOLUTIONS



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



201805-E03-3000