



- Quality Is Our Nature
- In Search of Excellence
- LEADWELL Leads the Industry in Taiwan, in the World

LEADWELL
LEADWELL CNC MACHINES MFG., CORP.



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※ All performance are based on 220V/3PH/60HZ. Specification are subject to change without notice.

LTC Series

**CNC TURNING CENTER
LTC-30i/35/50/60/65 series**

CNC TURNING CENTER

Innovative Design Productivity and Profitability



TRAVEL	LTC-30i	LTC-30iL	LTC-30iXL
X axis	275+20mm	275+20mm	275+20mm
Z axis	1050mm	1550mm	2050mm
Chuck Size	12	12	12
Bar Capacity	103mm	103mm	103mm

TRAVEL	LTC-35C/CL/CXL/CXXL/CLV	LTC-35M/LM/XLM/XXLM/LVM	LTC-35Y/LY/XLY/XXLY/LVY
X axis	300+20mm	344+10mm VDI60 290+20mm BMT75	215+25mm
Z axis	1100/1600/2100/3100/4100mm		
Chuck Size	15		
Bar Capacity	115mm		

CNC TURNING CENTER

MORE POWERFUL

- Powerful main spindle 30-50HP
- Rigid 45° slanted cast iron base

INCREASED CAPACITY

- 12(on LTC-30i)/15(on LTC-35)/18(on LTC-50/65)/21(on LTC-60) inch chuck standard
- Φ 103(on LTC-30i)/115(on LTC-35)/117mm(on LTC-50/60/65) bar capacity standard

FASTER/MORE PRODUCTIVE

- Fast rapid rates X axis: 15m/min, Z axis: 20 m/min
- Spindle speed 1500-2500 rpm
- C axis and VDI 50/60 & BMT 75/85 live tooling version available

ERGONOMIC CONSIDERATIONS

- Easy to use membrane touch-pad control station
- Easy moving operator door
- No chip or coolant leaks
- Parts catcher available

Precision Rigid Spindle



- Air jet around spindle nose
- Wide bearing spacing for high rigidity
- Special heat treatment for crucial components
- Highly accurate draw tube mechanism
- Precision Labyrinth seal
- Large diameter quill for high rigidity
- Optimum spacing of front bearings to spindle nose for highest rigidity



TRAVEL	LTC-50C/CL/CXL/CXXL	LTC-50M/LM/XLM/XXLM	LTC-50Y/LY/XLY/XXLY
X axis	400+25mm	437+18mm VDI60 430+25mm BMT75	240+10mm
Z axis	1100/2100/3100/4100mm		
Chuck Size	18		
Bar Capacity	117mm		

TRAVEL	LTC-60CXL/CXXL	LTC-60XLM/XXLM	LTC-60XLY/XXLY
X axis	400+28mm	437+18mm VDI60 430+25mm BMT75	320+10mm
Z axis	5000/6000mm		
Chuck Size	21		
Bar Capacity	117mm		

TRAVEL	LTC-65C/CL/CXL/CXXL	LTC-65CLV/CXLV
X axis	500+30mm	400+28mm
Z axis	1000/2000/3000/4000mm	5000/6000mm
Chuck Size	15/18	21
Bar Capacity	117mm	

CNC TURNING CENTER

LEADWELL APPLIES ADVANCED CONCEPTS TO CREATE PERFECTION IN STRUCTURAL DESIGN.

- LEADWELL uses only top quality well-ribbed castings.
- Finite Element Analysis (FEA) is used on each new casting to determine the size and location of all internal ribs ensuring high torsional stiffness and minimum vibration.
- The cast iron base, saddle, headstock, slide and tailstock are ruggedly constructed for superior stability and machining accuracy.

EXTRA WIDE SPAN FOR INCREASED STABILITY

- The LTC series utilizes oversized box ways for high horse power machining. The extremely rigid body base frame with box ways provides outstanding stability for precision turning.

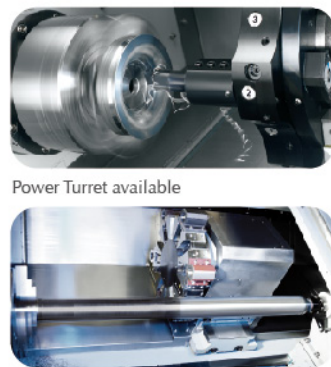
45° MASSIVE SLANT BED

Easy Chip Disposal

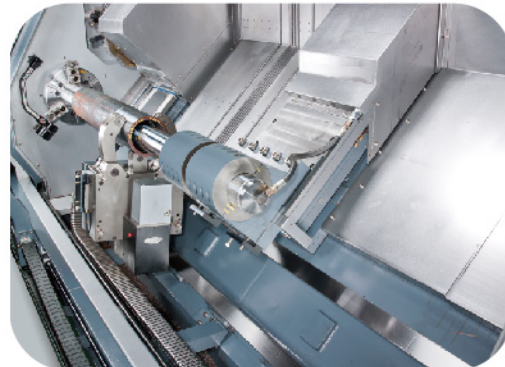
- The 45° degree slant bed design allows chips to fall directly into the chip tank, avoiding accumulation inside the machine.
- The chip tank employs large wheels, making it easy to move for chip removal and cleaning.
- Chain-type chip conveyor (optional) available on all models.



1. Hydraulic Turret+120mm(O.D.) anti-vibration tool holder
2. Z1 axis travel: 1800mm; Z2 axis travel:2550mm
3. FRU-B4 Programmable hydraulic steady rest
4. MT-5 Programmable tailstock
5. Rolling control panel +4mm door width



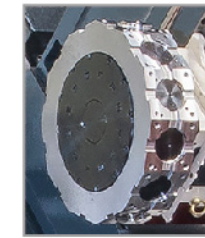
Power Turret available
Max. turning diameter 600mm



- 1.15" chuck +tool setter
- 2.Spindle speed: 2000rpm
- 3.Bar capacity: 115mm
- 4.Anti-vibration tool holder+ 10 bar high pressure pump + CTS

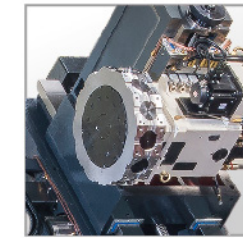


CNC TURNING CENTER



RIGID POWER TURRET

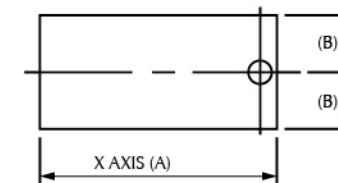
Available for Non Live Turret and Live Turret + Y axis



Orthogonal Y axis Explanation
Y axis is orthogonal placed on the X axis to ensure the full range of travel and to maximize the machining purposes.

Orthogonal Y axis

No dead area within it's travel

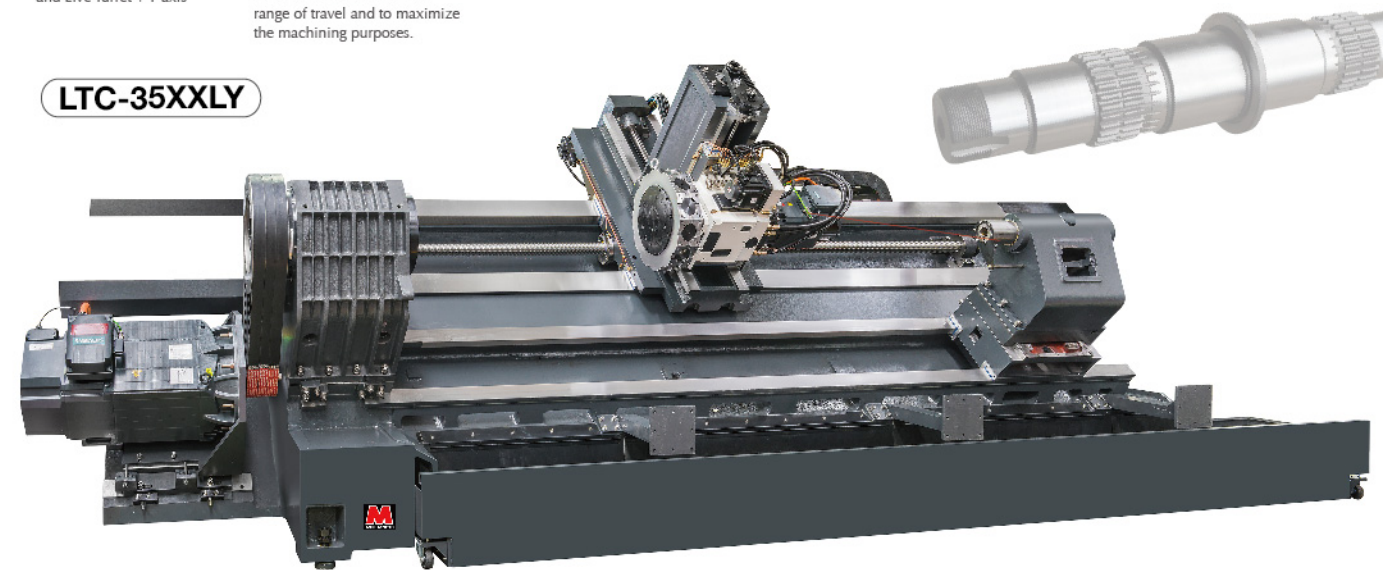


Virtual Y axis

There will be dead area within it's travel, and requires complex programs.

	LTC-35 SERIES	LTC-50/60 SERIES	LTC-65 SERIES
A	225	260/330	455
B	50	100/100	100

LTC-35XXLY



HEADSTOCK

- The headstock is a thermally symmetric design with heat dissipating fins for effectively increasing heat dissipation effect. This design prevents thermal distortion during long machining cycles.

SUB-SPINDLE

- The sub-spindle replaces the standard tailstock on turning centers. A position Czi sensor is attached to the sub-spindle so the sub-spindle can then be synchronized with the main spindle. Special software allows the work piece to be transferred from the main spindle to the sub-spindle at any speed for secondary machining operations. This eliminates the need for operator intervention.
- Allow machining on both ends of workpiece.

C-Axis option

By synchronizing the optional C Axis with the live tooling, machining of cylindrical cams and other complex work pieces becomes easy, saving time and money for each part.

The headstock spindle becomes a fully programmable servo axis with the C-Axis option.

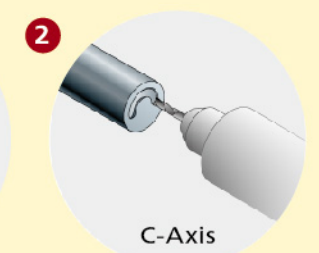
- C Axis index resolution: 0.001 degrees
- Max. C-axis speed: 40 rpm
- Switching between normal turning & synchronization with live tooling takes less than 1 second.

LIVE TOOL TURRET

- Each tool can become a rotating tool for both milling and drilling operations.
- Tools can be either radially or axially oriented.



Z-C-Axis



C-Axis



X-C-Axis

FEA REPORT(Finite Element Analysis)

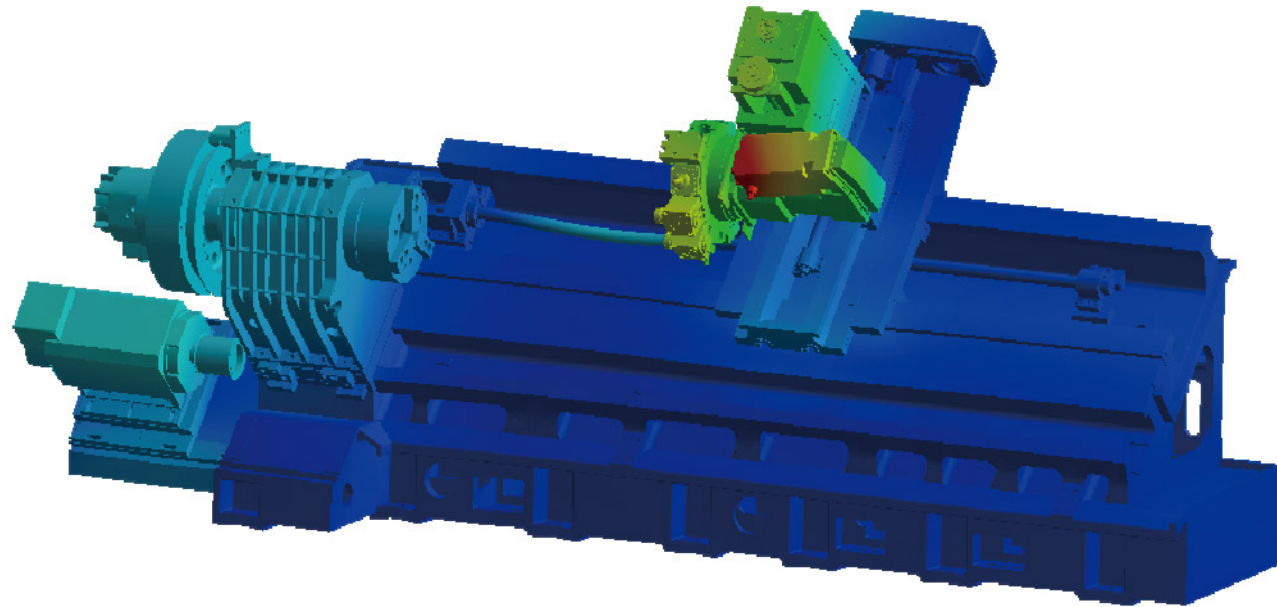
Optimum

- Section areas
- Moments of inertia
- Torsional constant
- Plate thickness
- Bending stiffness
- Transverse shear
- Vibration reduce

LTC-35XLY

With FEA you can

1. Predict and improve product performance and reliability.
2. Reduce physical prototyping and testing .
3. Evaluate different designs and materials .
4. Optimize designs.



CUTTING CAPACITY

LTC-35XXM2

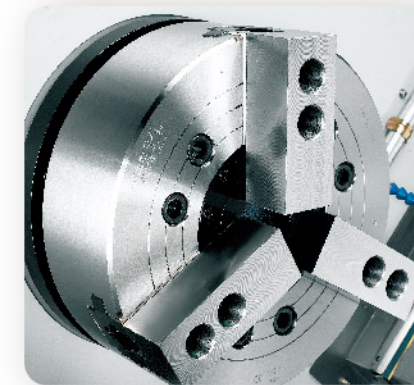
O.D. Cutting	
Cutting Speed	225m/min
Spindle Speed	663rpm
Feed Rate	0.4mm/rev
Depth of Cut	7mm
Removal Rate	670c.c/min

Drilling	
Tool Size	50mm
Spindle Speed	1000rpm
Feed Rate	0.18mm/rev
Depth of Cut	40mm

Groove Cutting	
Cutting Speed	140m/min
Spindle Speed	428rpm
Feed Rate	0.15mm/rev
Depth of Cut	5mm

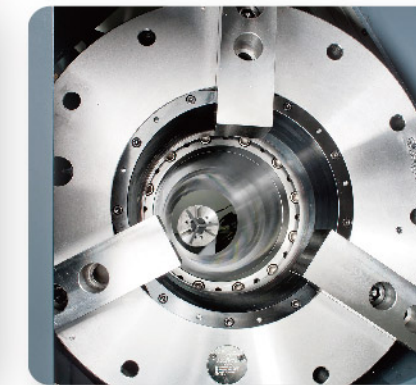
Tapping	
Tool Size	M20
Spindle Speed	500rpm
Feed Rate	3mm/rev
Depth of Cut	25mm

FEATURE & QUALITY



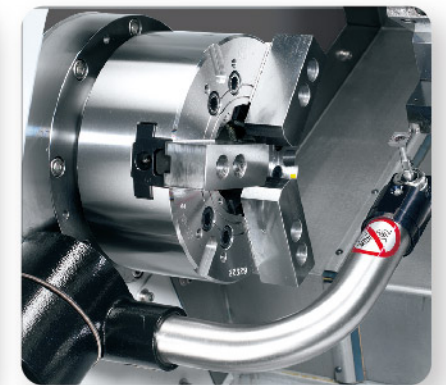
Chuck (STD.)

Each LEADWELL lathe comes with a 3-jaw hydraulic through hole chuck.



Double Chuck Spindle Design

It has clamping and supporting functions. Highly suitable for long tube work-pieces.

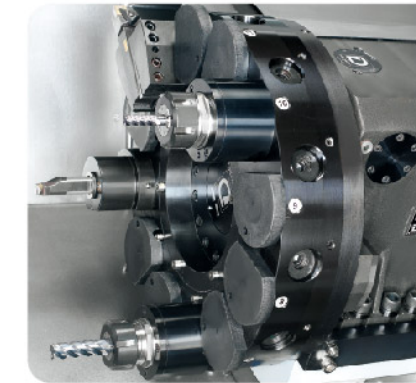


Tool Setter (Optional)

The tool setter has a touch sensor that can measure various tool lengths and detect broken tools. It can be easily programmed to store all the tool information to reducing tool change time.



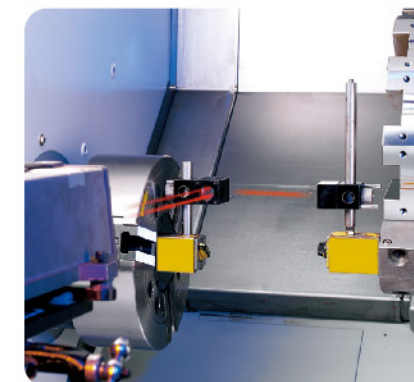
Tool Station
12pcs(standard)



Tool Station
12pcs(optional)



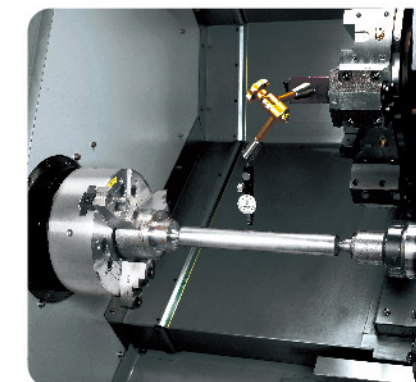
Security Auto Door
(optional)



LASER CALIBRATION

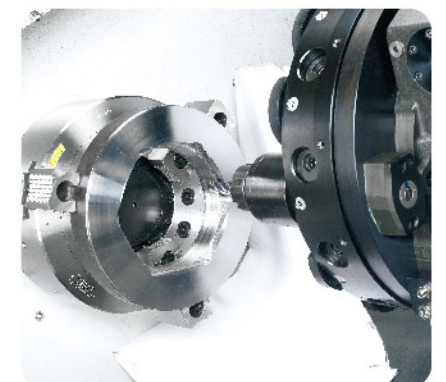
Lasers are used to measure the positioning accuracy of every machine over the full travel of each axis. Leadwell uses these measurements to compensate any axis error so that each machine meets the high accuracy requirements.

- Each machine is shipped with a positioning accuracy chart.



MACHINE GEOMETRIC CHECKING

Precision indicators are used to verify that spindle run-out and headstock to tailstock alignment meet all specifications.



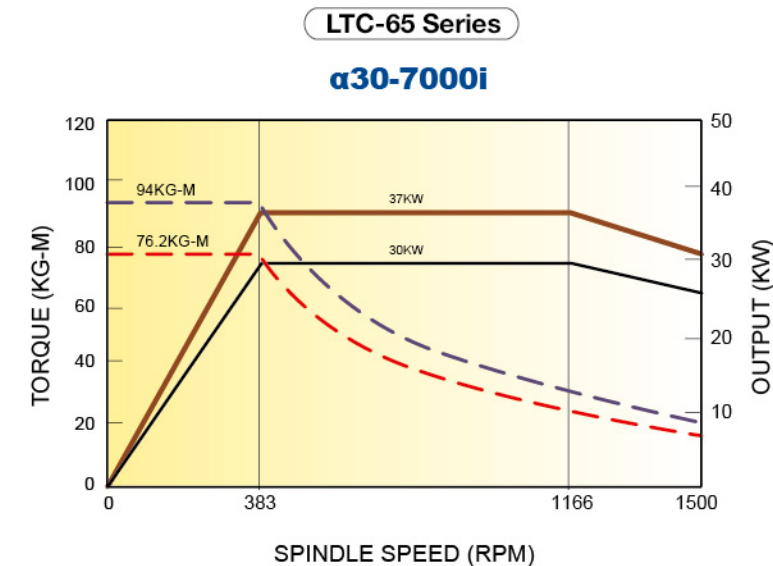
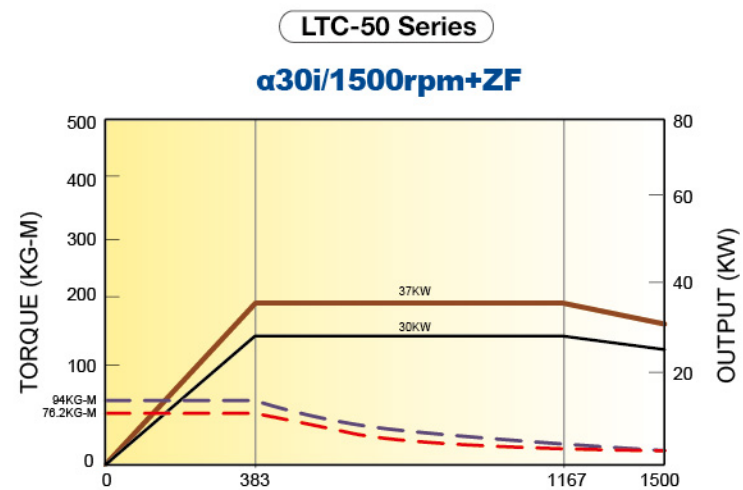
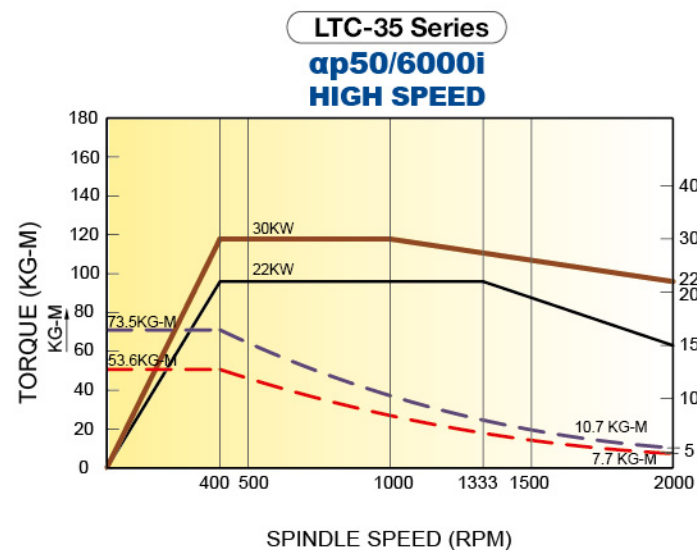
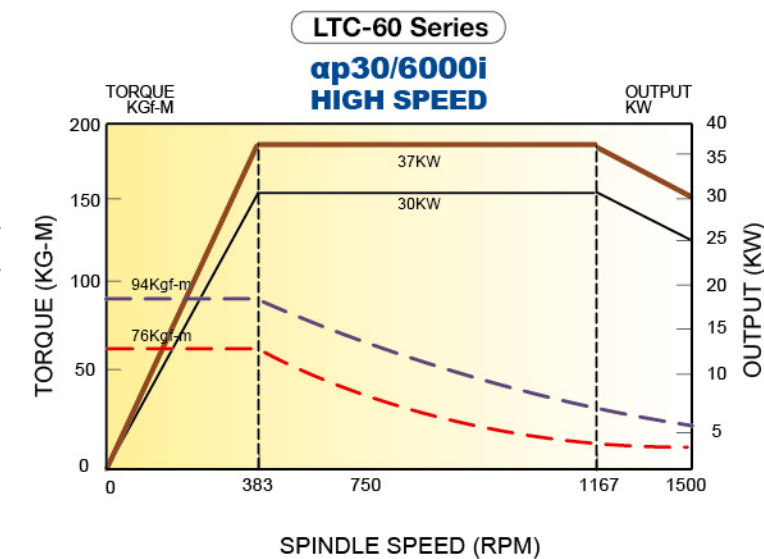
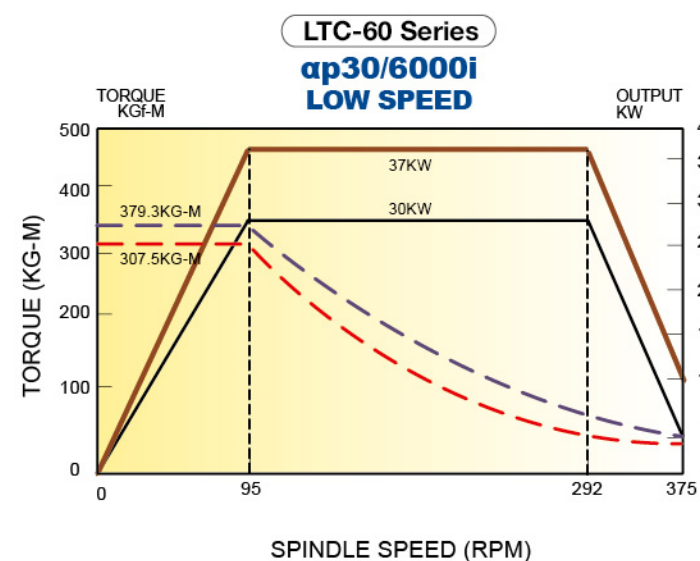
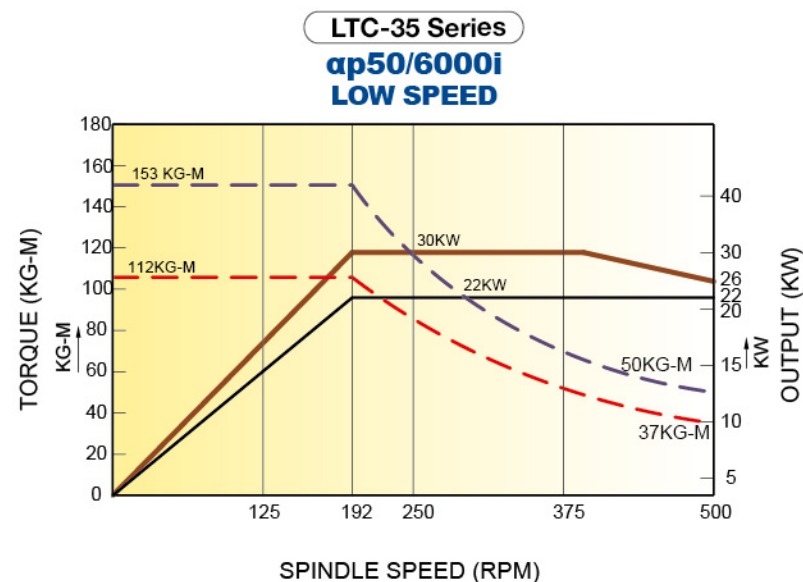
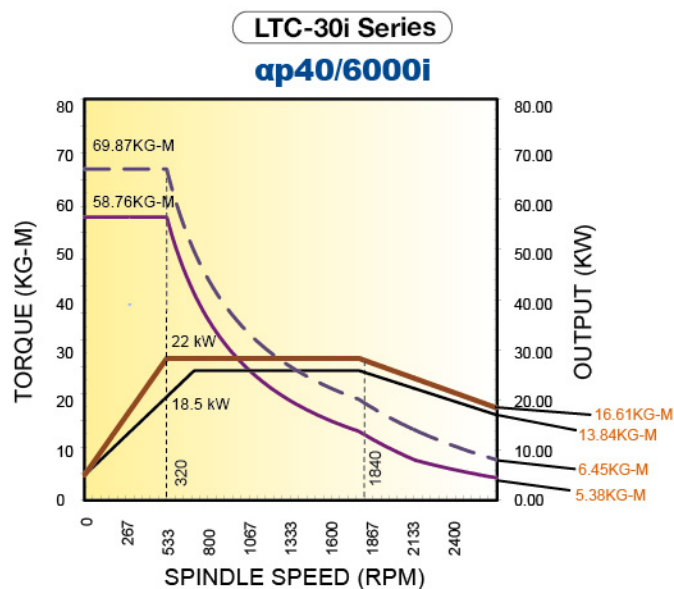
CUTTING AND COOLANT TESTING

Each machine must complete rigorous cutting tests to ensure machine integrity. Coolant tests guarantee that all components are working properly and machines are 100% leak proof.

48 HRS NON-STOP RELIABILITY TEST

Each machines is cycled for 48 hrs to ensure the highest reliability

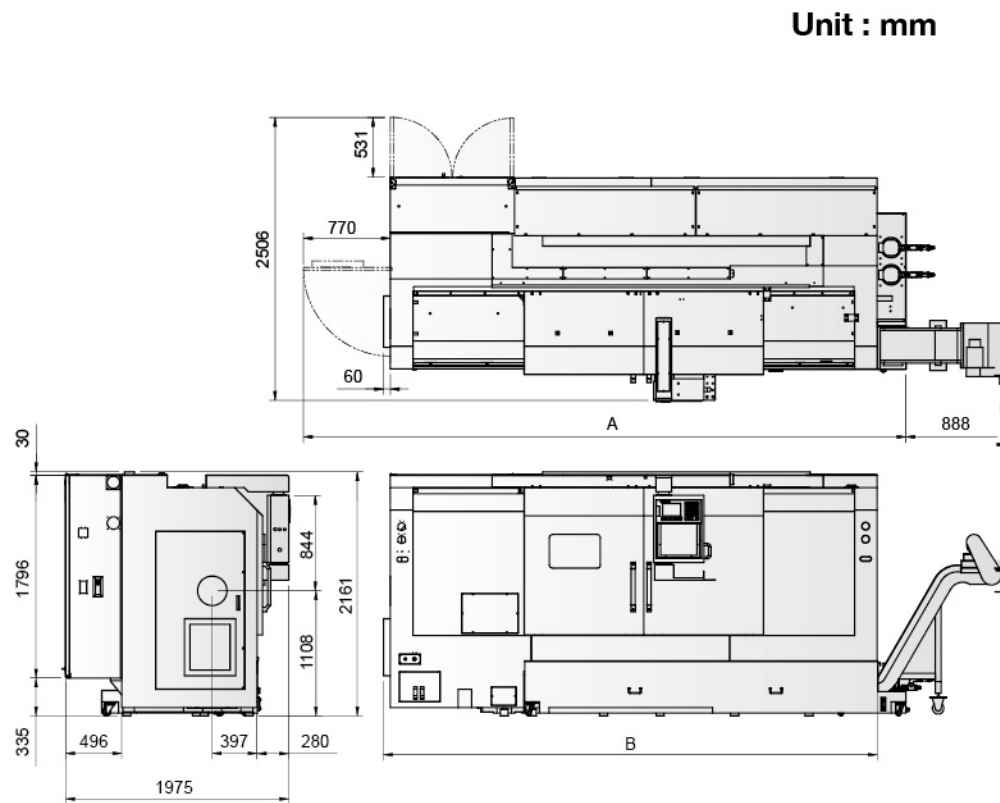
SPINDLE POWER CURVE



OUTLINE DIMENSION

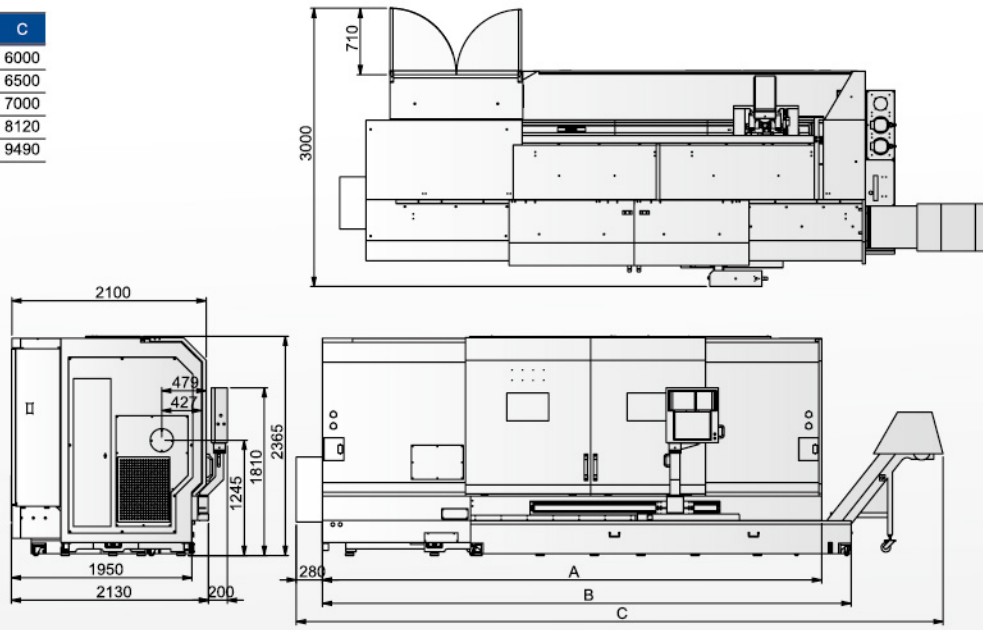
LTC-30i Series

MODEL	A	B
LTC-30i(M)	4796	3871
LTC-30iL(M)	5296	4431
LTC-30iXL(M)	6025	5160



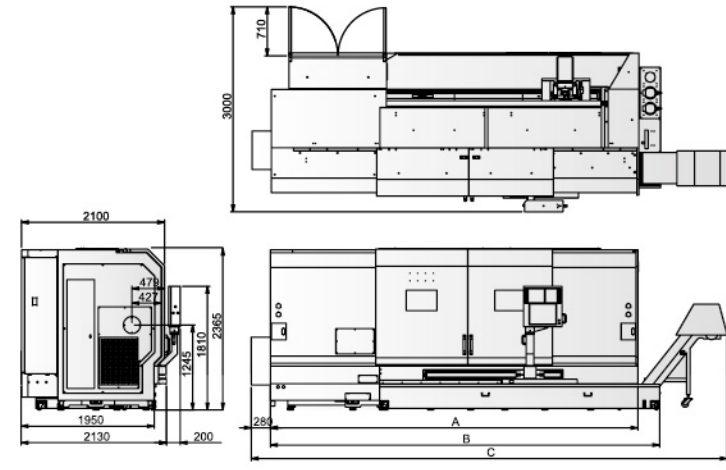
LTC-35 Series

MODEL	A	B	C
LTC-35C/M/Y	4380	4700	6000
LTC-35CL/LM/LY	4880	5200	6500
LTC-35CXL/XLM/XLY	5380	5700	7000
LTC-35CXXL/XXLM/XXLY	6500	6820	8120
LTC-35CLV/LVM/LVY	7870	8190	9490



OUTLINE DIMENSION

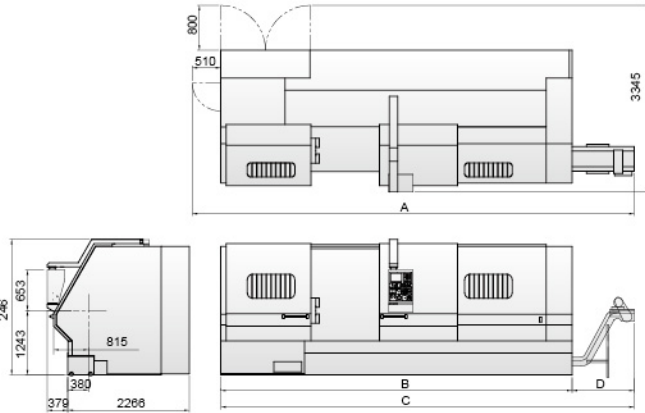
LTC-50 Series



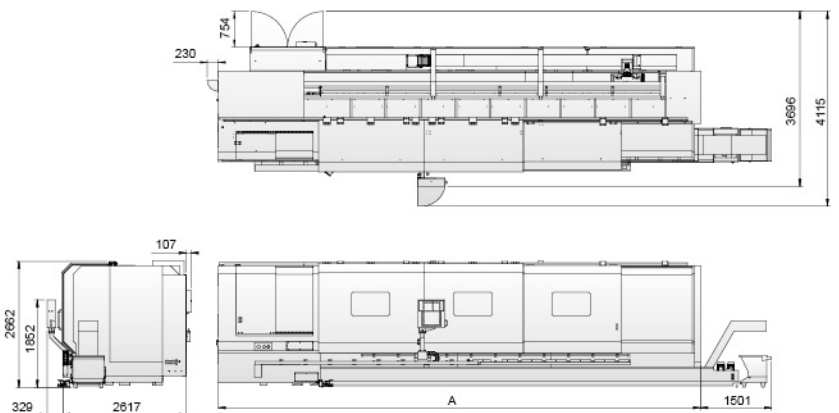
Unit:mm

MODEL	A	B	C
LTC-50C/M/Y	4380	4700	6000
LTC-50CL/LM/LY	4880	5200	6500
LTC-50CXL/XLM/XLY	5380	5700	7000
LTC-50CXXL/XXLM/XXLY	6500	6820	8120

LTC-60 Series

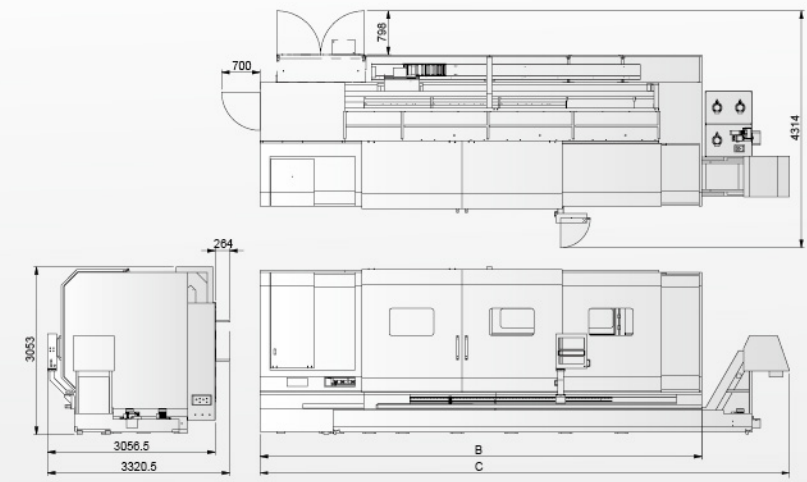


MODEL	A	B	C	D
LTC-60 CXL	11010	9090	10500	1410
LTC-60 CXXL	12100	10250	11590	1410



MODEL	A
LTC-60XLY	9113
LTC-60XXLY	10203

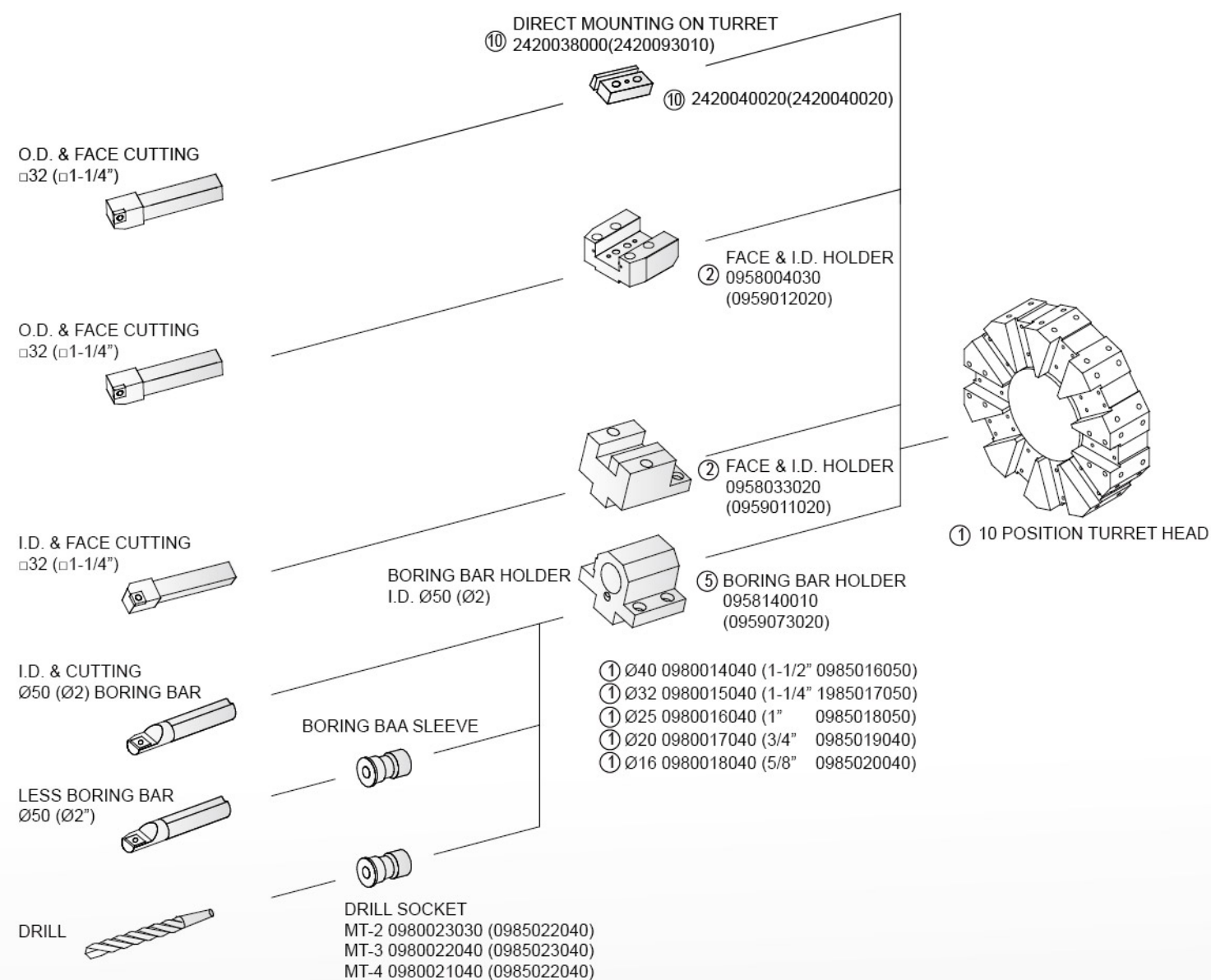
LTC-65 Series



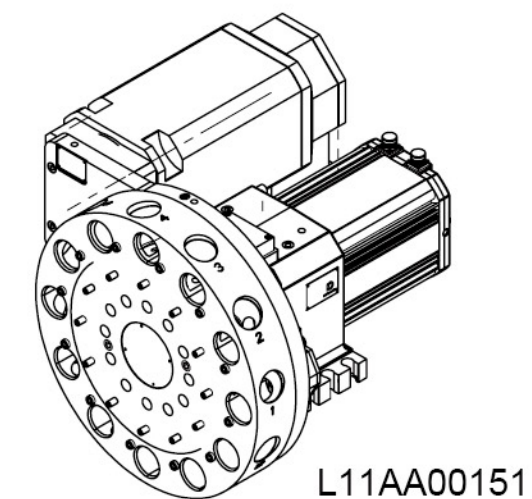
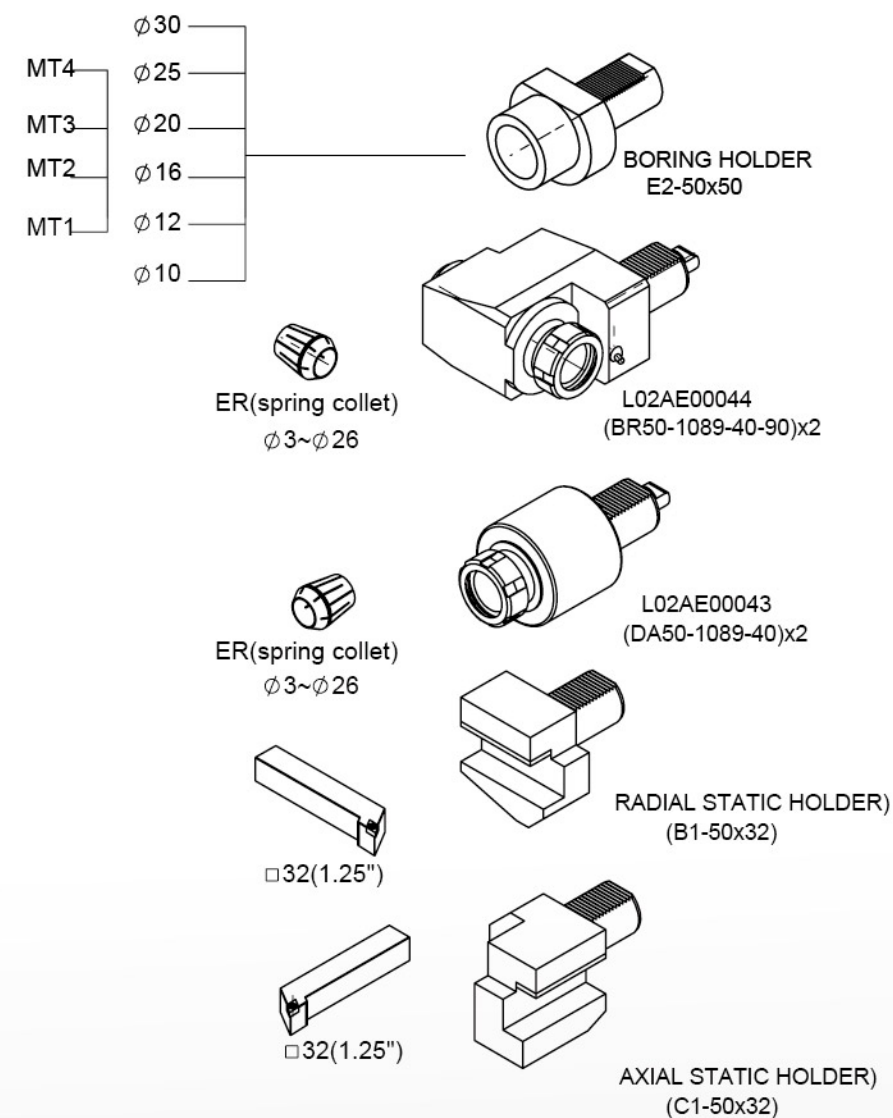
MODEL	A	B	C
LTC-65C	7380	5080	6680
LTC-65CL	8370	6070	7670
LTC-65CXL	9360	7060	8660
LTC-65CXXL	10350	8050	9650
LTC-65CLV	11340	9040	10640
LTC-65CXLV	12330	10030	11630

TOOLING SYSTEM

LTC-30i Series

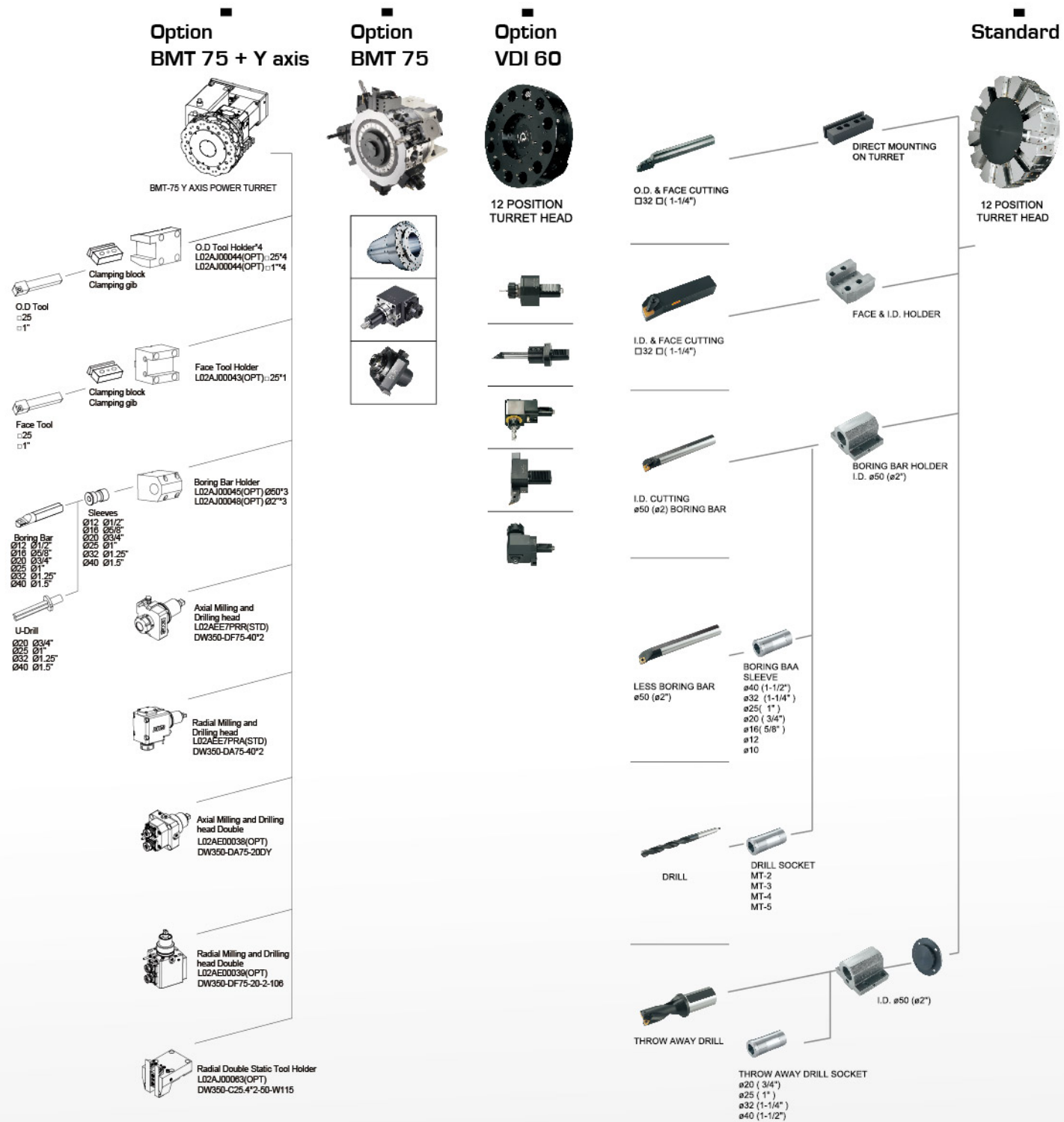


LTC-30iM Series



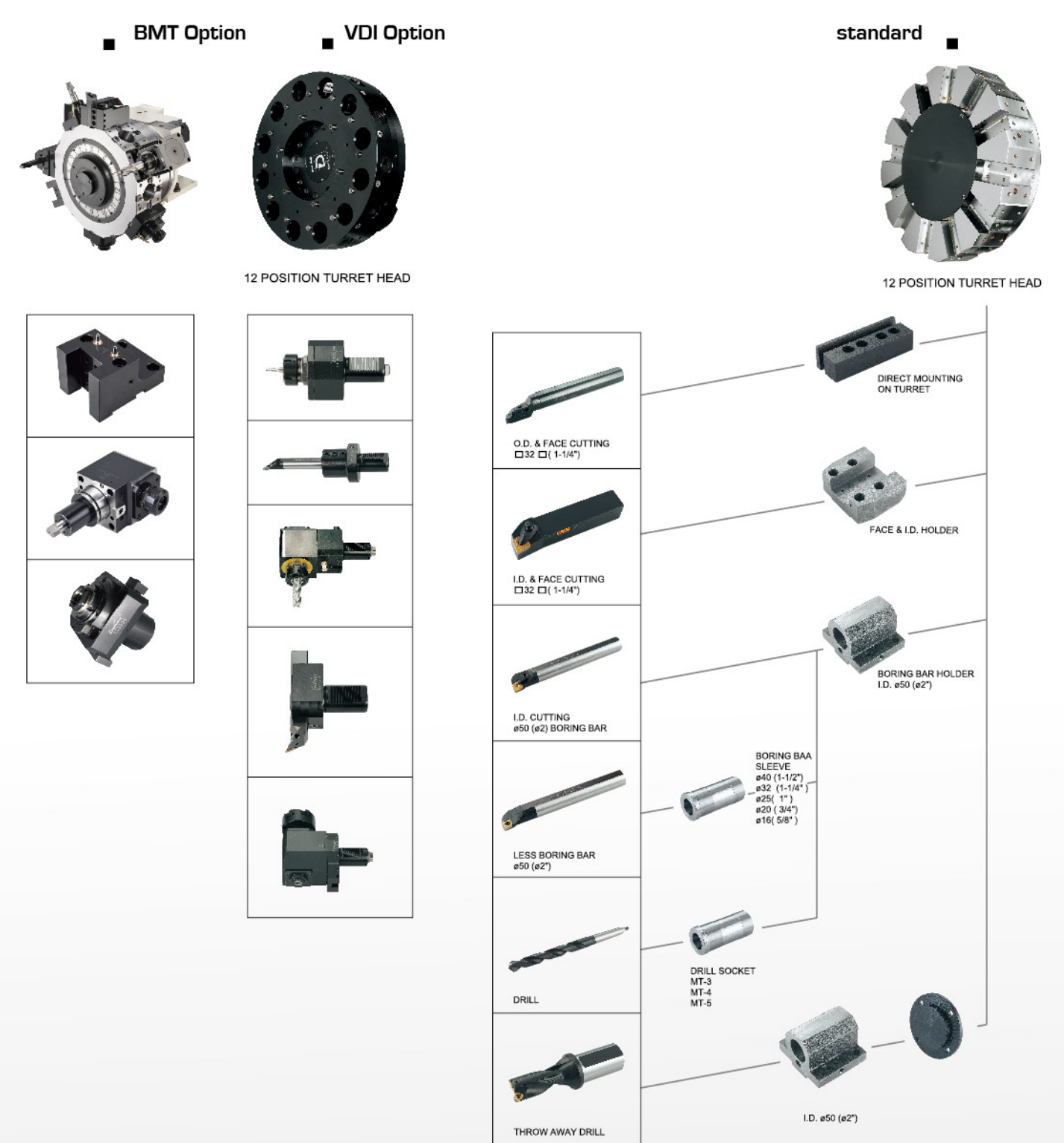
TOOLING SYSTEM

LTC-35 Series



TOOLING SYSTEM

LTC-50/60 Series



TOOLING SYSTEM

LTC-65 Series

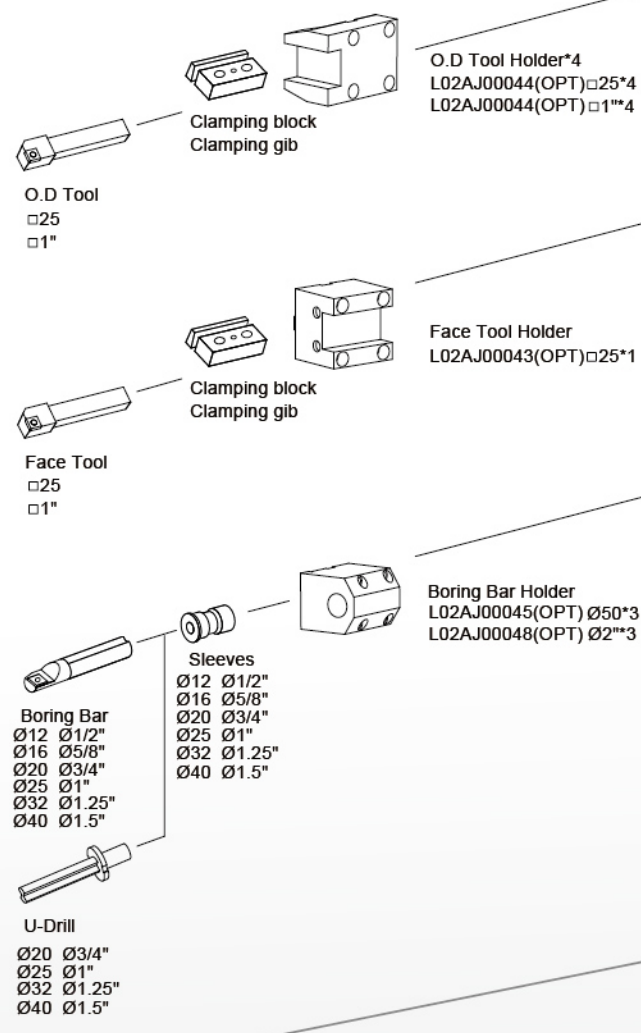
■ BMT Option



■ standard



12 POSITION TURRET HEAD

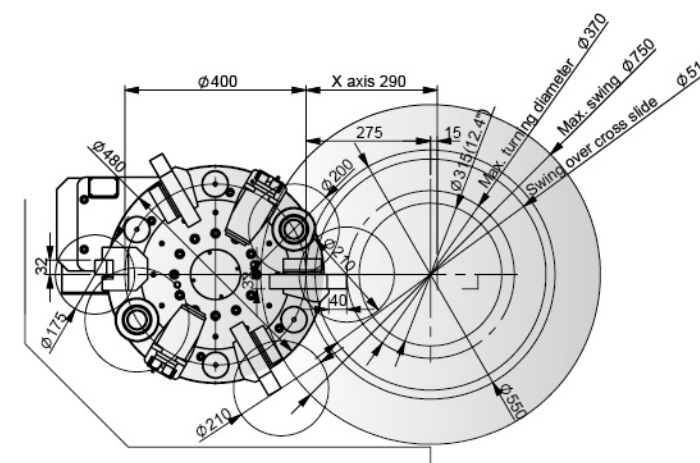
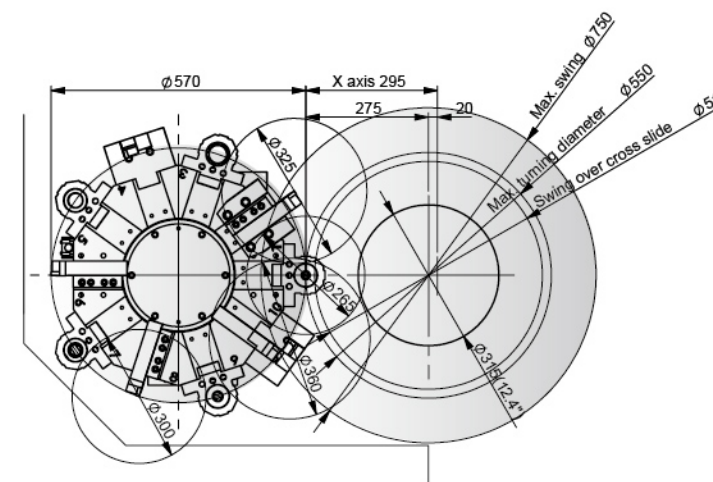


TOOLING INTERFERENCE

LTC-30i Series

LTC-30iM Series

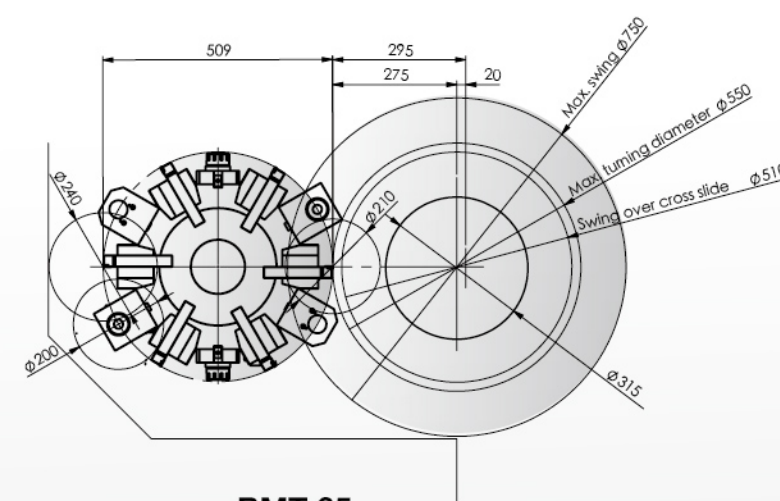
Unit:mm



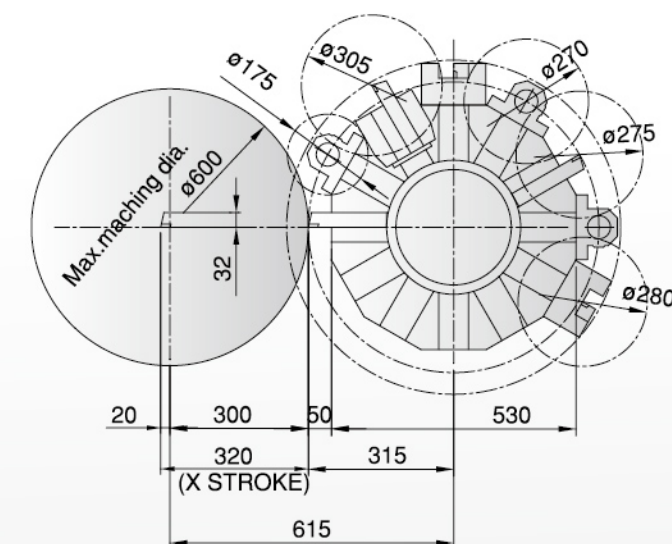
VDI 50

LTC-30iM Series

LTC-35 Series



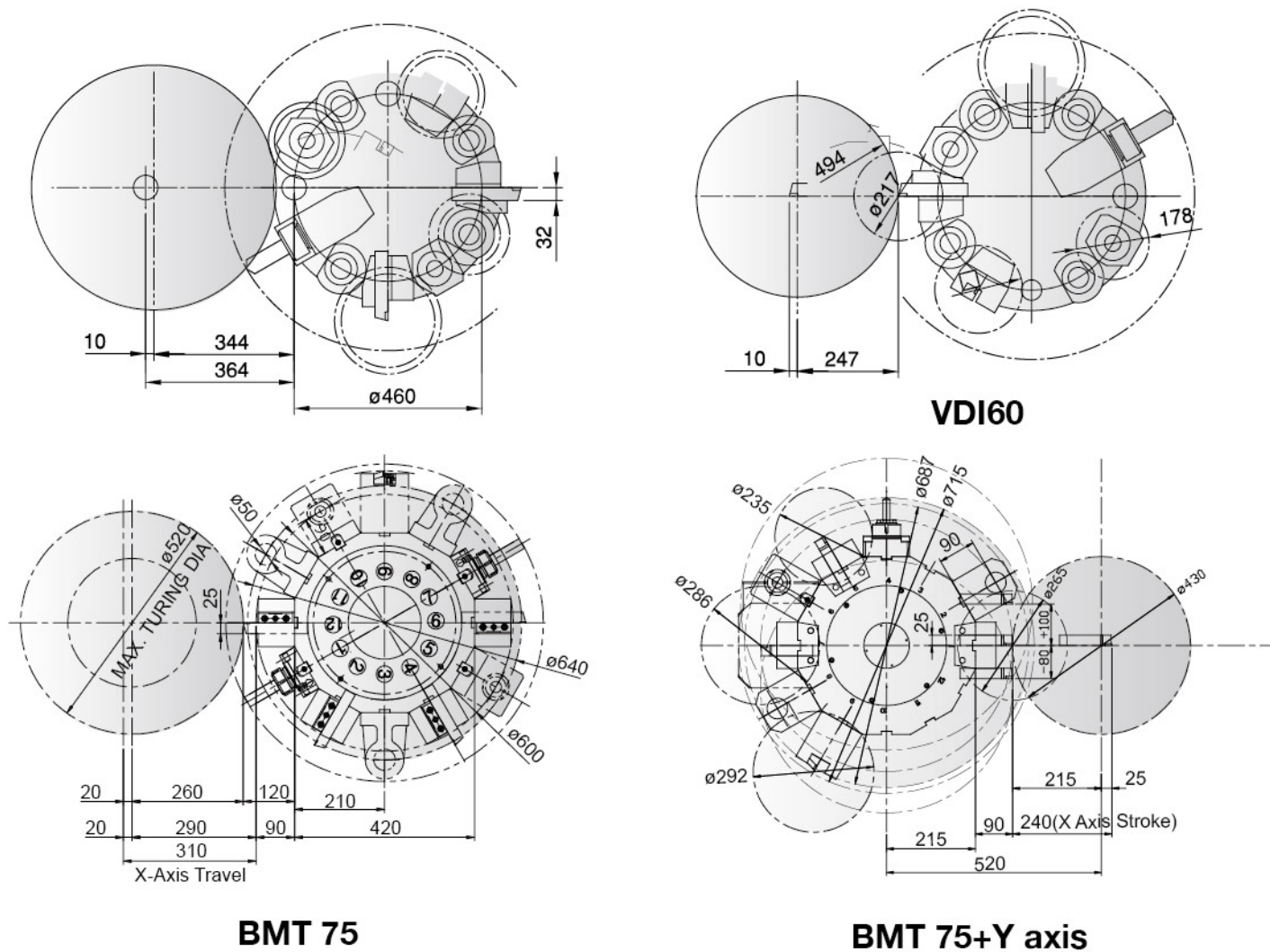
BMT 65



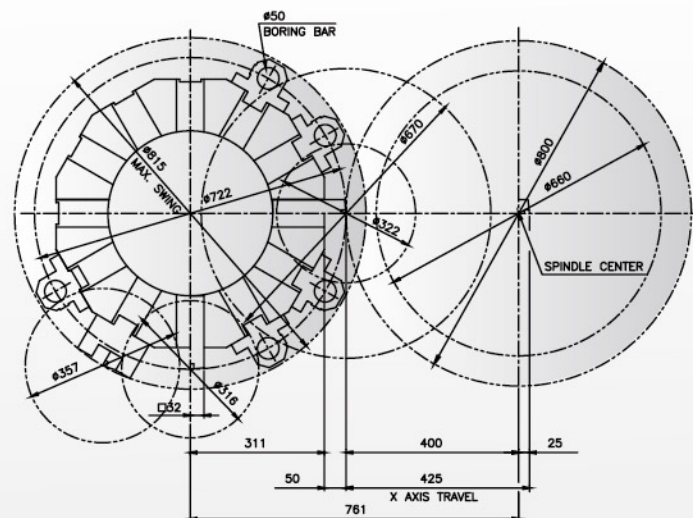
TOOLING INTERFERENCE

LTC-35 Series

Unit:mm



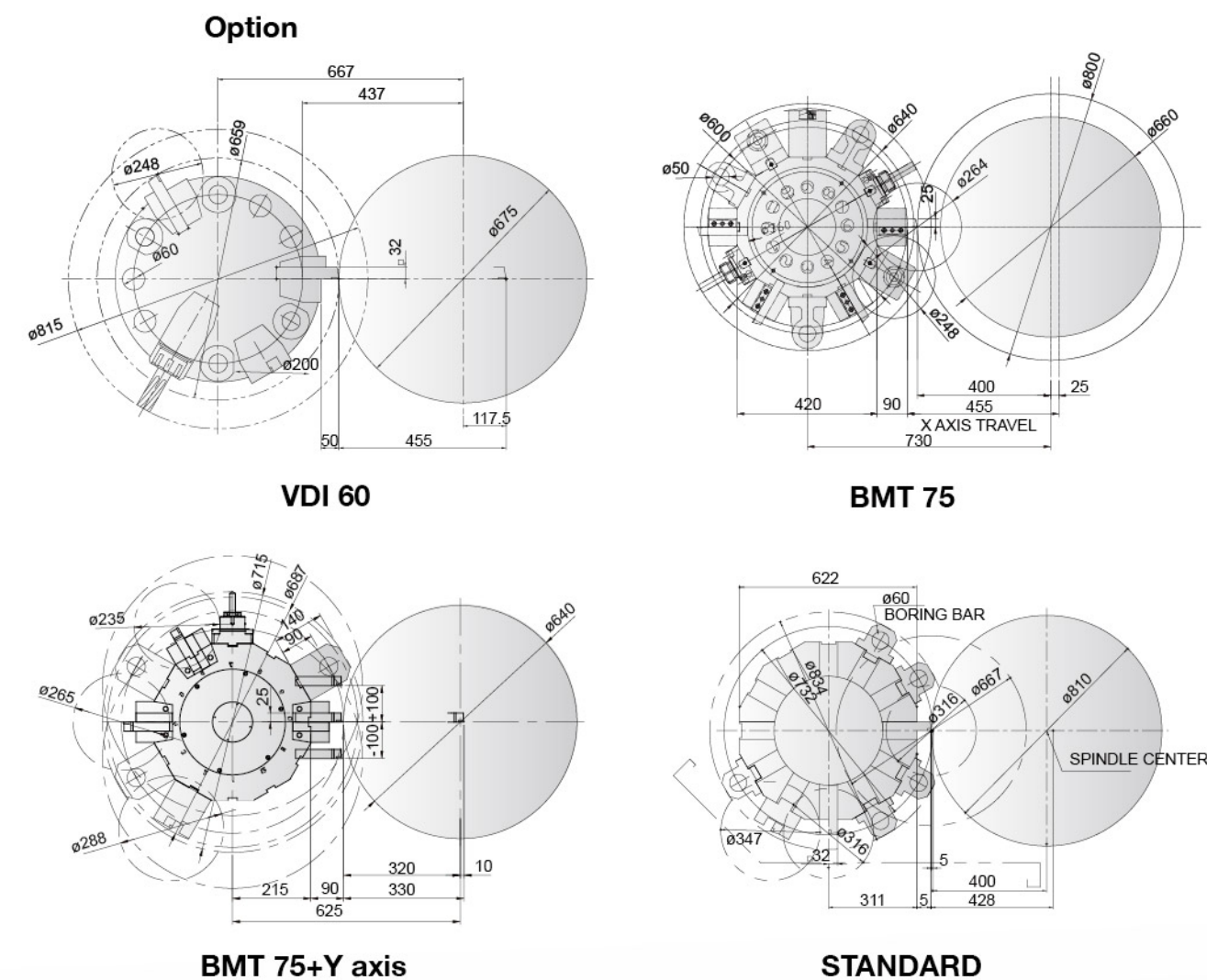
LTC-50 Series



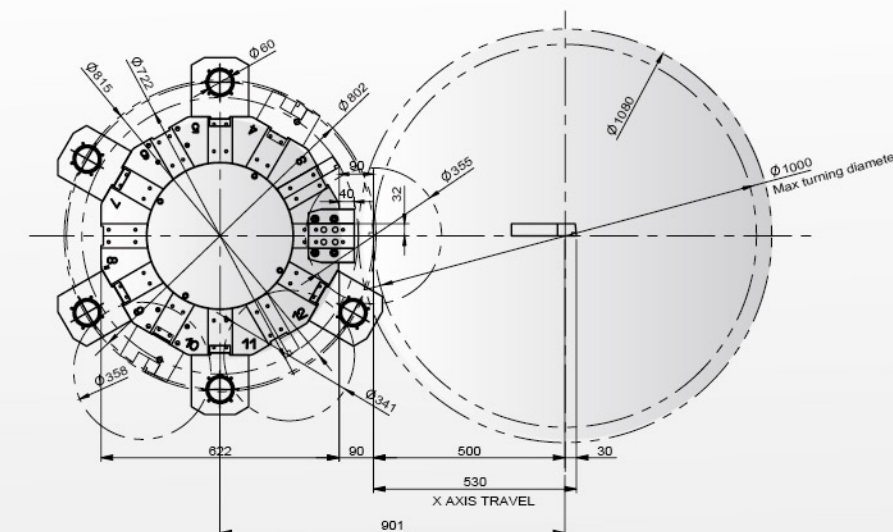
TOOLING INTERFERENCE

LTC-60 Series

Unit:mm

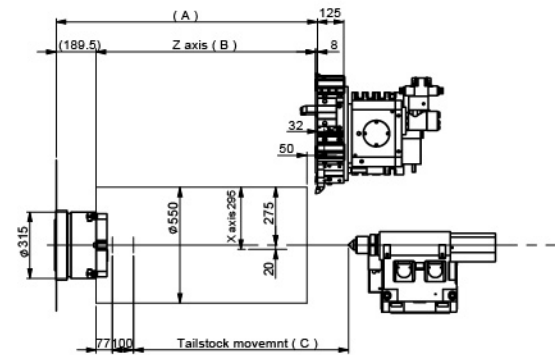


LTC-65 Series

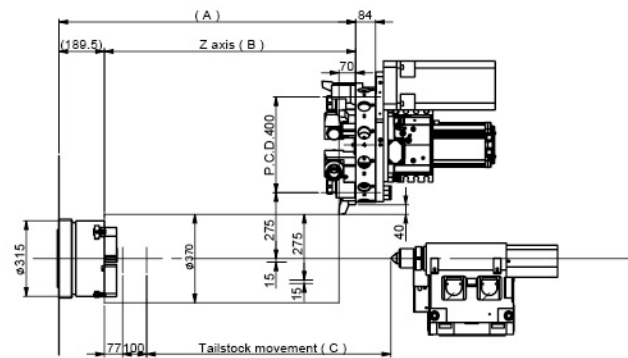


WORKING CAPACITY

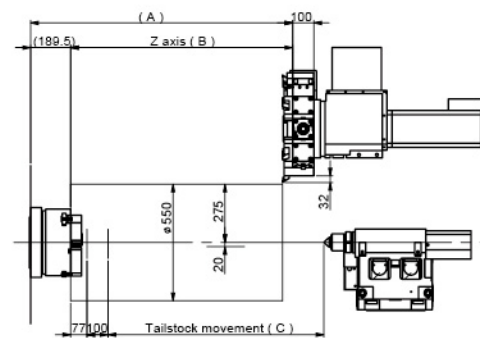
LTC-30i Series



MODEL	A	B	C
LTC-30i/IM	1245.5	1050	1020
LTC-30iL/ILM	1745.5	1550	1520
LTC-30iXL/XLM	2245.5	2050	2020

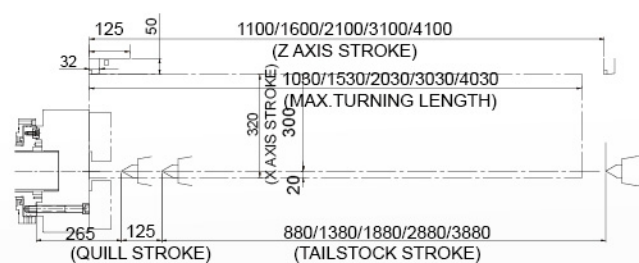


VDI50

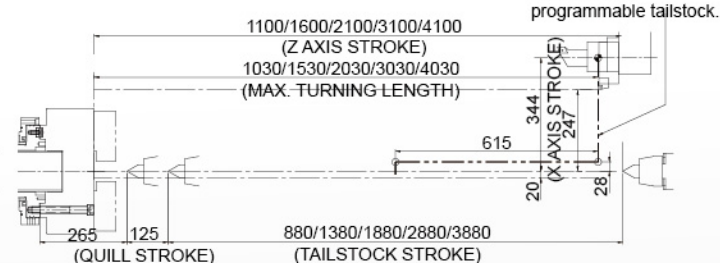


BMT65

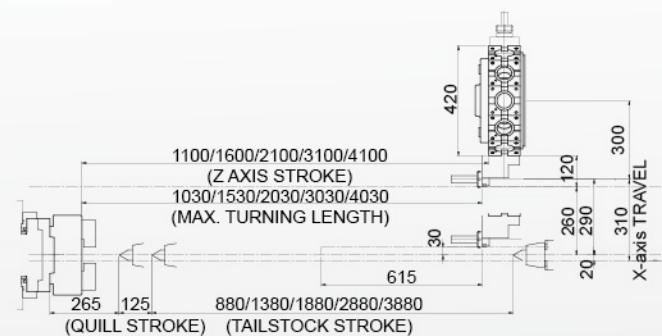
LTC-35 Series



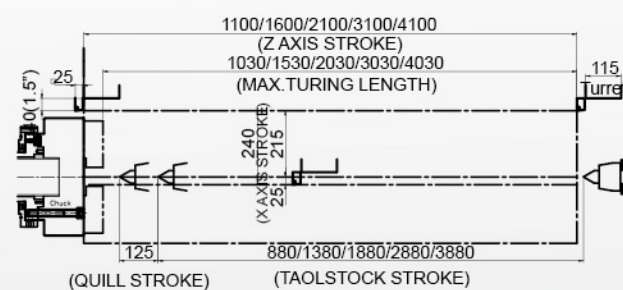
Standard



Option VDI 60



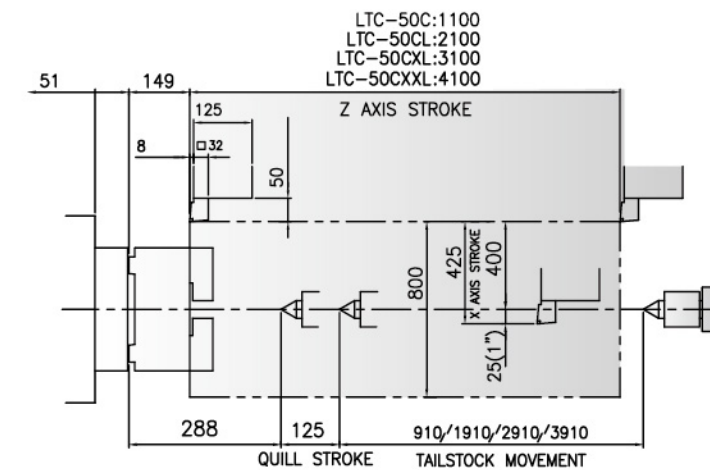
Option BMT 75



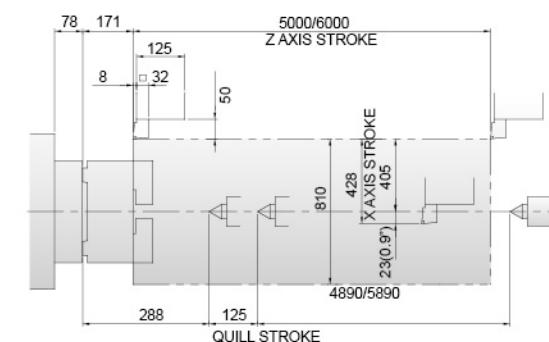
Option BMT 75 + Y axis

WORKING CAPACITY

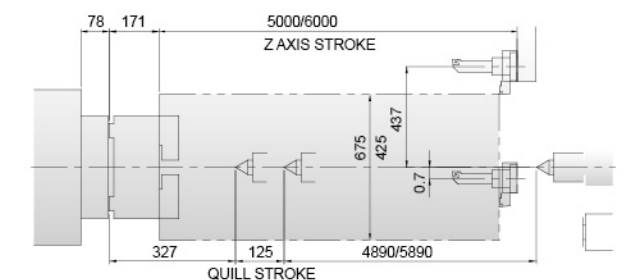
LTC-50 Series



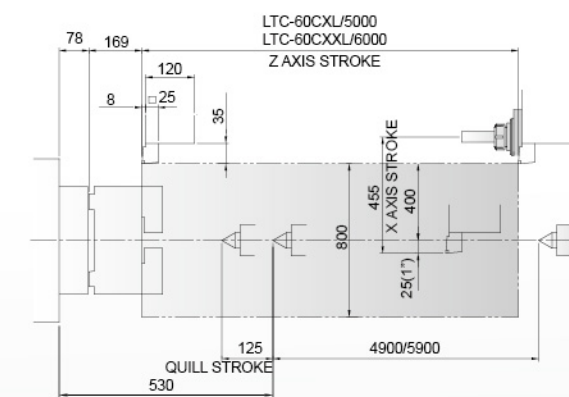
LTC-60 Series



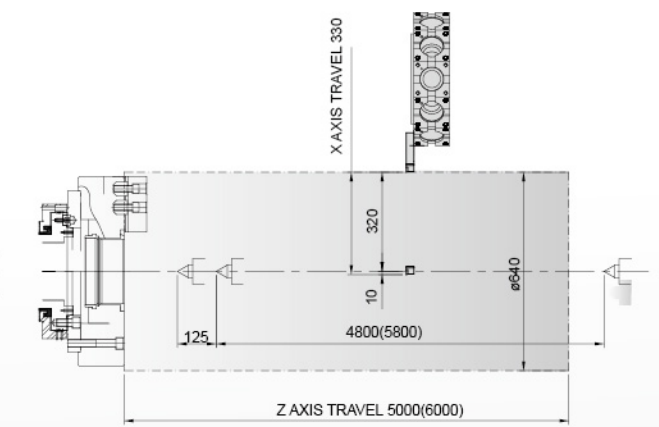
Standard



Option:VDI 60

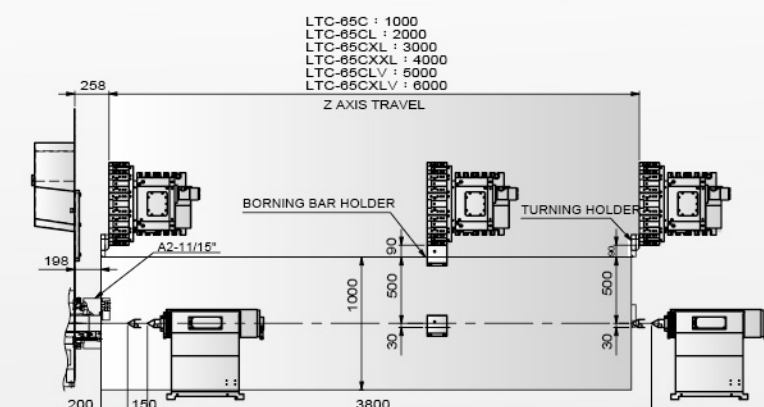


Option BMT 75



Option: BMT 75+Y axis

LTC-65 Series



MACHINE SPECIFICATIONS

ITEM	MODEL	LTC-30i/iL/iXL	LTC-30iM/iLM/iXLM
CAPACITY		Unit	
Max. swing	mm (in)	750(29.5)	
Max. turning diameter	mm (in)	550(21.6)	370(14.5)
Max. turning length	mm (in)	1000/1500/2000(39.3/59/78.7)	980/1480/1980(38.5/58.2/77.9)
Bar capacity	mm (in)	103(4)	
TRAVEL			
X axis travel	mm (in)	275+20(10.8+0.8)	
Z axis travel	mm (in)	1050/1550/2050(41.3/61/80.7)	
SPINDLE			
Spindle speed	rpm	35-2500	
Chuck size	in	12	
Type of spindle nose		A2-11	
Spindle motor power	kw(hp)	22(29.5)	
TURRET			
Number of tool stations	pcs	10	12
Shank height for square tool	mm (in)	32(1.25)	
Shank diameter for boring bar	mm (in)	50(1.96)	
Rotary tool spindle speed range: axis units	rpm	---	5000
Rotary tool spindle speed range: radial units	rpm	---	5000
FEED RATE			
X/Z axis rapid traverse	m(in)/min	15/20(590.5/787.4)	
FEED MOTORS			
X/Z axis motor	kw(hp)	3/4(4/5.4)	
TAILSTOCK			
Quill diameter	mm (in)	100(3.9)	
Quill inside taper	M.T	5	
MACHINE SIZE			
Height of machine (H)	mm (in)	2165(85.2)	
Floor space (L)	mm (in)	4190/4690/5190(165/185/204)	
Floor space(W)	mm (in)	1980(78)	
Total machine weight	kg	6700/7700/8700	
Power requirement	KVA	45	55
Controller	FANUC	Oi-T	

Control Panel OPTION



FANUC



SIEMENS



MITSUBISHI



FAGOR

MACHINE SPECIFICATIONS

ITEM	MODEL	LTC-35C/CL/CXL/CXXL/CLV	LTC-35M/LM/XLM/XXLM/LVM	LTC-35Y/LY/XLY/XXLY/LVY
CAPACITY	Unit			
Max. swing	mm(in)	800(31.5)		
Max. turning diameter	mm(in)	600(23.6)	494(19.4)/520(20.5) BMT 75	430(16.9)
Max. turning length	mm(in)	1030/1530/2030/3006/4006(40.6/60.2/79.9/118.3/157.7)		
Bar capacity	mm(in)	115(4.5)		
TRAVEL				
X axis travel	mm(in)	300+20(11.8+0.78)	344+10(13.5+0.39)/290+20(11.4+0.8)	215+25(8.5+1)
Z axis travel	mm(in)	1100/1600/2100/3100/4100(43/63/83/122/161)		
Y axis travel	mm(in)	---		+100/-80(3.8/-3.15)
SPINDLE				
Spindle speed	rpm	2000	10~2000	
Chuck size	in	15		
Type of spindle nose		A2-11		
Spindle motor power	kw(hp)	30(40)		
TURRET				
Number of tool stations	pcs	12		
Shank height for square tool	mm(in)	32(1.25)	32(1.25) VDI 60 / 25(1) BMT 75 OPT	25(1) BMT 75
Shank diameter for boring bar	mm(in)	50(2) /63(2.5) OPT	50(2) VDI 60/ BMT 75 OPT	50(2) BMT 75 / 63(2.5) BMT 75 OPT
Rotary tool spindle speed range: axis units	rpm	---	3000	4000
Rotary tool spindle speed range: radial units	rpm	---	3000	4000
Rotary tool motor power	kw(hp)	---	15(20)	10(13.4)
FEED MOTORS				
X /Z axis motor	kw(hp)	4/7(5.4/9.4)		
Y axis motor	kw(hp)	---	---	4(5.4)
FEED RATE				
X axis rapid traverse	m(in)/min	15(591)		
Z axis rapid traverse	m(in)/min	20/20/20/12/10 (787.4/787.4/787.4/472/393.7)		
Y axis rapid traverse	m(in)/min	---		7.5(295.3)
TAILSTOCK				
Quill diameter	mm(in)	110(4.3)		
Quill inside taper	M.T	5		
MACHINE SIZE				
Height of machine (H)	mm(in)	2310(91)		2365(93.1)
Floor space (L)	mm(in)	4380/4880/5380/6500/7880 (172.4/192/211.8/255.9/310.2)		
Floor space (W)	mm(in)	2120(83.5)		2130(83.8)
Total machine weight	kg	10500/11500/12500/17500/20000		13200/13800/14500/21300/23800
Power requirement	KVA	55	70	
Controller	FANUC	Oi -T		

MACHINE ACCESSORIES

ITEM	MODEL	LTC-30I/IL/IXL/IM/ILM/IXLM	LTC-35C/CL/CXL/CXXL/CLV	LTC-35M/LM/XLM/XXLM/LVM	LTC-35Y/LY/XLY/XXLY/LVY
Alarm lamp		■	■	■	●
Auto door		▲	■	■	■
Air conditioner		▲	■	■	●
Automatic workpiece measurement		▲	▲	▲	▲
Buzzer		●	●	●	●
Bar feeder		▲	X	X	X
C axis and driven		X	X	●	●
Chip conveyer		■	■	■	■
Chip bucket		■	■	■	■
Electric high / low gear control		X	●	●	●
Full enclosed splash guard		●	●	●	●
Foot switch		●	●	●	●
High pressure pump		■	■	■	■
H.T.D belt		●	■	■	■
Heat exchanger		●	●	●	■
Inch disc		▲	■	X	X
Linear scale		X	■	■	■
Manual steady rest		X	■	■	■
Mist separator		X	■	■	■
Metric disc		●	●	●	●
Oil skimmer		■	■	■	■
Programmable tailstock		X	●	●	●
Parts catcher		▲	▲	▲	▲
Rotating tailstock		X	■	■	■
Robot		▲	▲	▲	▲
Spindle air outer blow		■	■	■	■
Spindle air inner blow		▲	X	X	X
Transformer		■	■	■	■
Two speed gearbox		X	■	■	■
Tool setter		X	■	■	■
VDI disc		▲	■	●	▲
V-belt		X	●	●	●
3 jaw close center chuck		▲	■	■	■
3 jaw open center chuck		●	●	●	●

● : STD / ■ : OPT(DESIGNED) / ▲ : OPT(TO BE ADVISED) / X : N/A(NOT AVAILABLE)

MACHINE ACCESSORIES

ITEM	MODEL	LTC-50C/CL/CXL/CXXL	LTC-50M/LM/XLM/XXLM	LTC-50Y/LY/XLY/XXLY	LTC-60CX/CL/CXL	LTC-60XM/XLM	LTC-60XLY/XXLY	LTC-65 SERIES
Alarm lamp		●	●	■	■	■	■	■
Auto door		▲	▲	▲	▲	▲	X	▲
Air conditioner		●	●	●	●	●	●	●
Automatic workpiece measurement		▲	▲	▲	▲	▲	▲	▲
Buzzer		●	●	●	●	●	●	●
Bar feeder		X	X	X	X	X	X	X
Chip conveyer		●	■	■	●	●	●	●
Chip bucket		●	■	■	■	■	■	■
Full enclosed splash guard		●	●	●	●	●	●	●
Foot switch		●	●	●	●	●	●	●
High pressure pump		■	■	■	■	■	■	■
H.T.D belt		●	●	●	●	●	●	●
Heat exchanger		▲	▲	▲	▲	▲	▲	▲
Linear scale		■	■	■	■	■	■	■
Manual steady rest		■	■	■	■	■	■	■
Mist separator		■	■	■	■	■	■	■
Oil skimmer		■	■	■	■	■	■	■
Programmable tailstock		●	●	●	●	●	●	●
Parts catcher		X	X	X	X	X	X	X
Robot		▲	▲	▲	▲	▲	▲	▲
Spindle air outer blow		■	■	■	■	■	■	■
Spindle air inner blow		X	X	X	X	X	X	X
Transformer		■	■	■	■	■	■	■
Two speed gearbox		●	●	●	●	●	●	●
Tool setter		■	■	■	■	■	■	■
3 jaw close center chuck		▲	▲	▲	▲	▲	▲	▲
3 jaw open center chuck		●	●	●	●	●	●	●

● : STD / ■ : OPT(DESIGNED) / ▲ : OPT(TO BE ADVISED) / X : N/A(NOT AVAILABLE)