



L.K Machinery Corp.

力盡淬鍊 勁是完美

# BTC series



L.K Machinery Corp.

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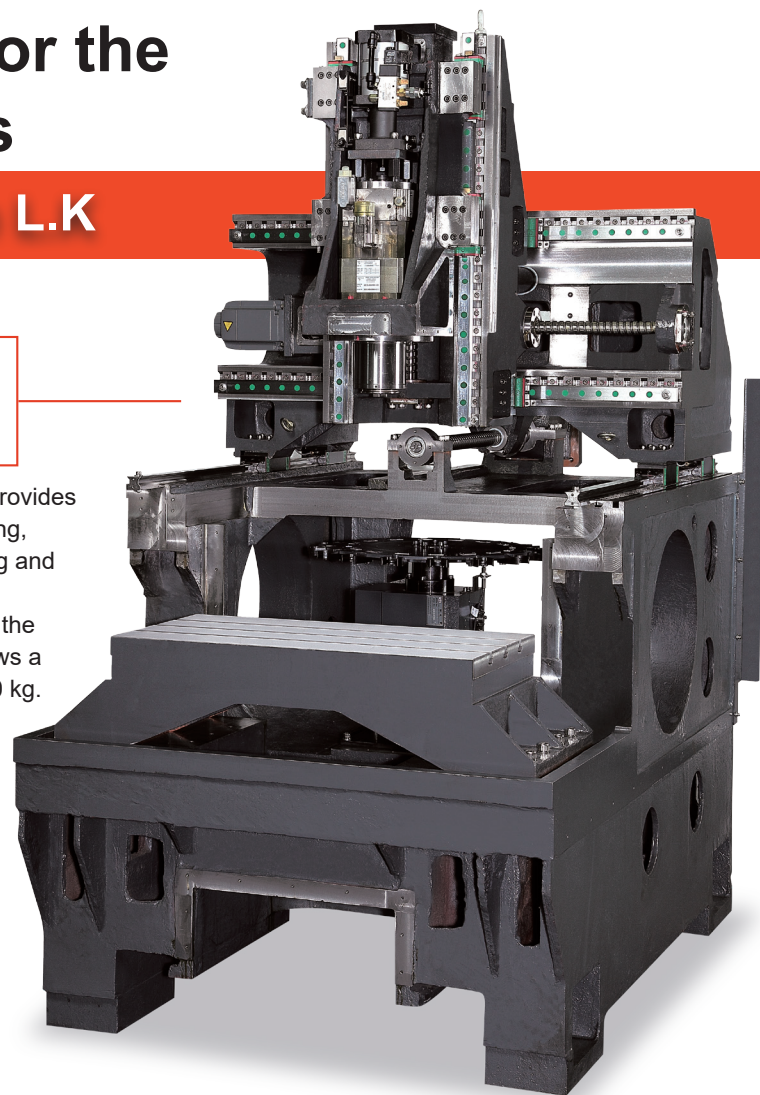
# BTC-550

## The Right Solution for the Various Applications

All Aspect Solution from L.K

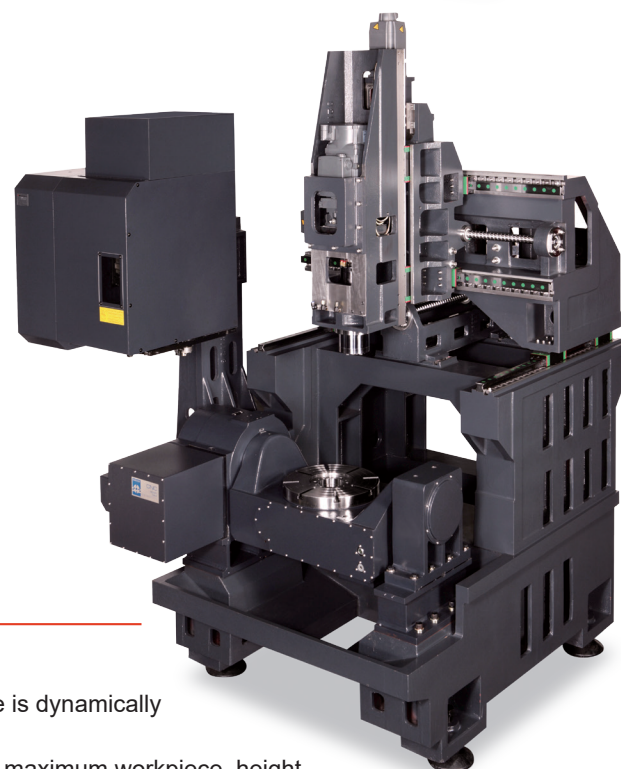
### BTC-550 Fixed Table

The BTC-550 design provides 3-axis high speed milling, perfect for mold making and all general processes. The superior rigidity of the machine structure allows a loading capacity of 600 kg.



### BTC-550 APC Pallet Changer

The machine is built for high productivity. The rapid APC system eliminates work place loading and unloading with a 3.2 second pallet change.



### BTC-550 AX 5-Axis

The servo driven 5-axis rotary table is dynamically accurate and reliable. The integrated structure allows the maximum workpiece, height up to 300 mm on a round table of the diameter is 350 mm.

## Ultimate Cubical Structure

Monolithic Cubical Structure Modular Concept for All the Requirements

### BTC-550 Casting Features (Based on part)

Large slop ensures efficient chip collection.

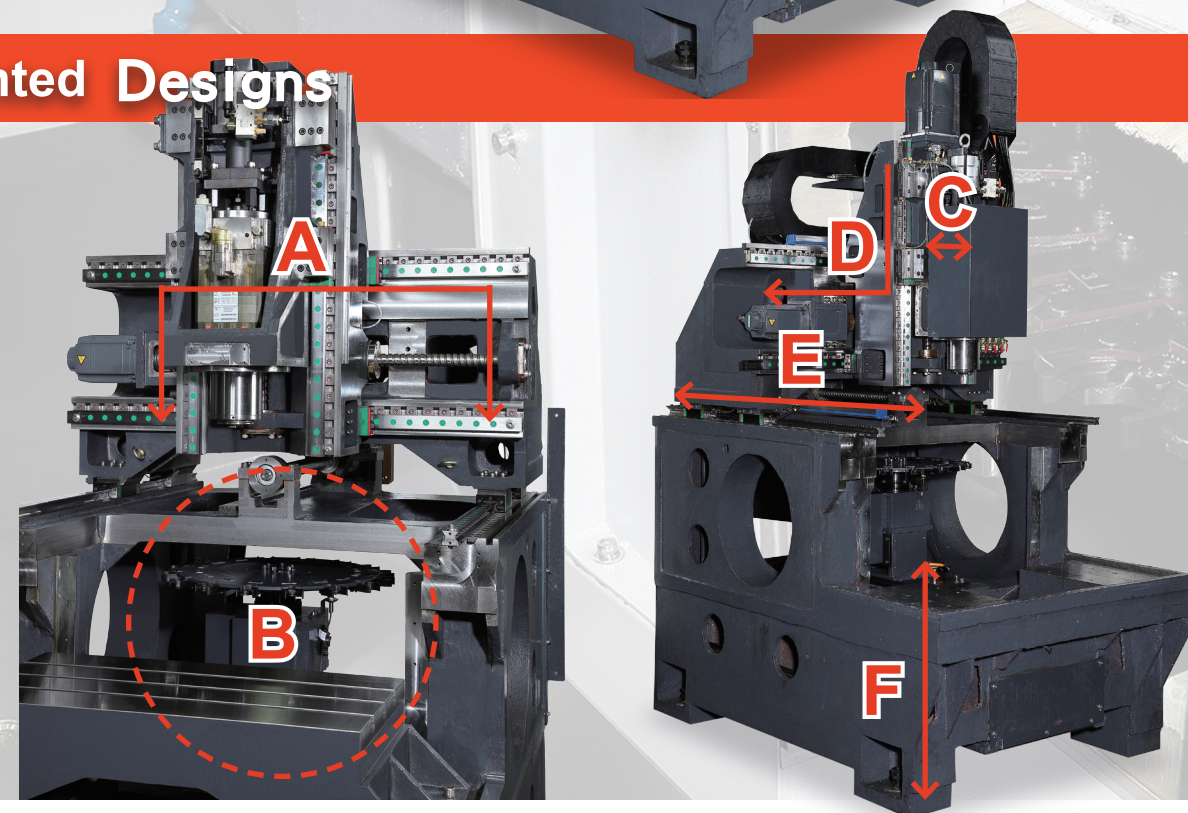
Double column walls that makes strengthen to the structural rigidity with a close-loop force flow.

Monolithic structure for optimum rigidity.

Short chip conveying path minimizes that can be accumulating heat & effects on temperature inside the cutting chamber.

Bolt hole positions are well calculated optimizing the machine's dynamic structure balance.

### Patented Designs



- A** The "U-shaped" cast iron design provides structural rigidity during vibration on clamping in addition to distortion resistance.
- B** Cubical structure features, close-loop force distribution ensuring best dynamic performance of the machine and optimum workpiece surface finish.
- C** The distance from the spindle center line to the slide way surface is minimized, which are in the box-structured ram that can be guaranteed the best cutting performance from the machine, specially on hardened materials.
- D** A remarkable increase of axial rigidity is obtained by the step deployment of the X axis slide ways, and at the same time extends the life time of linear guide ways and ball screws.
- E** The base length of the cross beam is widely extended to rule out the metallic bending torque.
- F** To allow operators to load / unload the workplace easily.

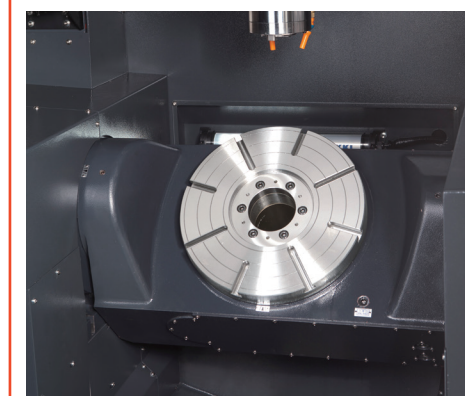


- A** The headstock's is cast iron & symmetrically designed which minimizes and stabilizes the thermo deformation.
- B** The choice of roller linear guide ways instead of ball guideways are determined by the need for high rigidity and high efficiency, which provides full load-carrying capacity, less power consumption and low friction. The maximum rapid federate
- C** The premium grade, oversized and pre-tensioned ball screws are applied on all 3 axes of the BTC series machines. The ball screws are directly coupled with a servo motor which features low temperature rising, low noise and long life.

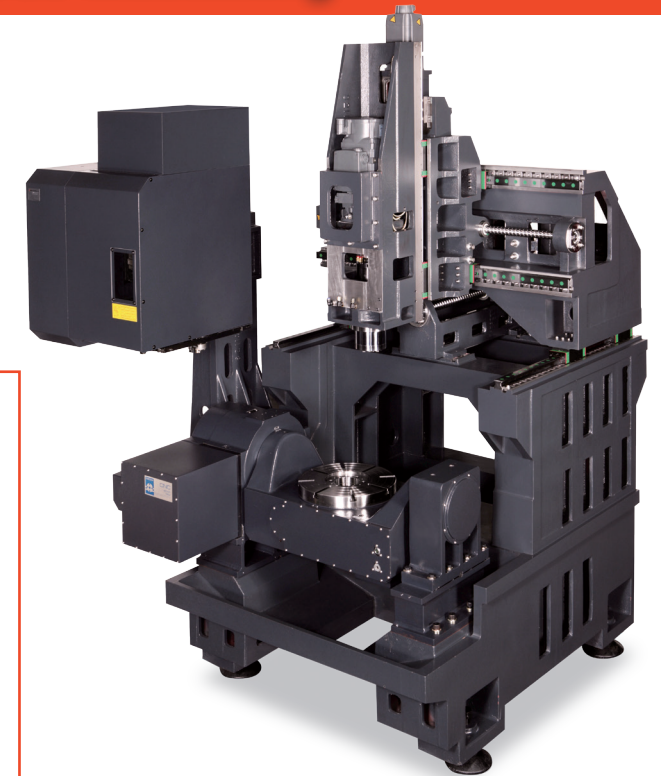
## High Speed 5-Axis Simultaneous Machining

Used in production for complicated mold and dies for aerospace, medical equipment, optical-electronics, semi-conductor and all high precision industries, the BTC-550AX is the technology flagship model, and the machine with best price-performance ratio.

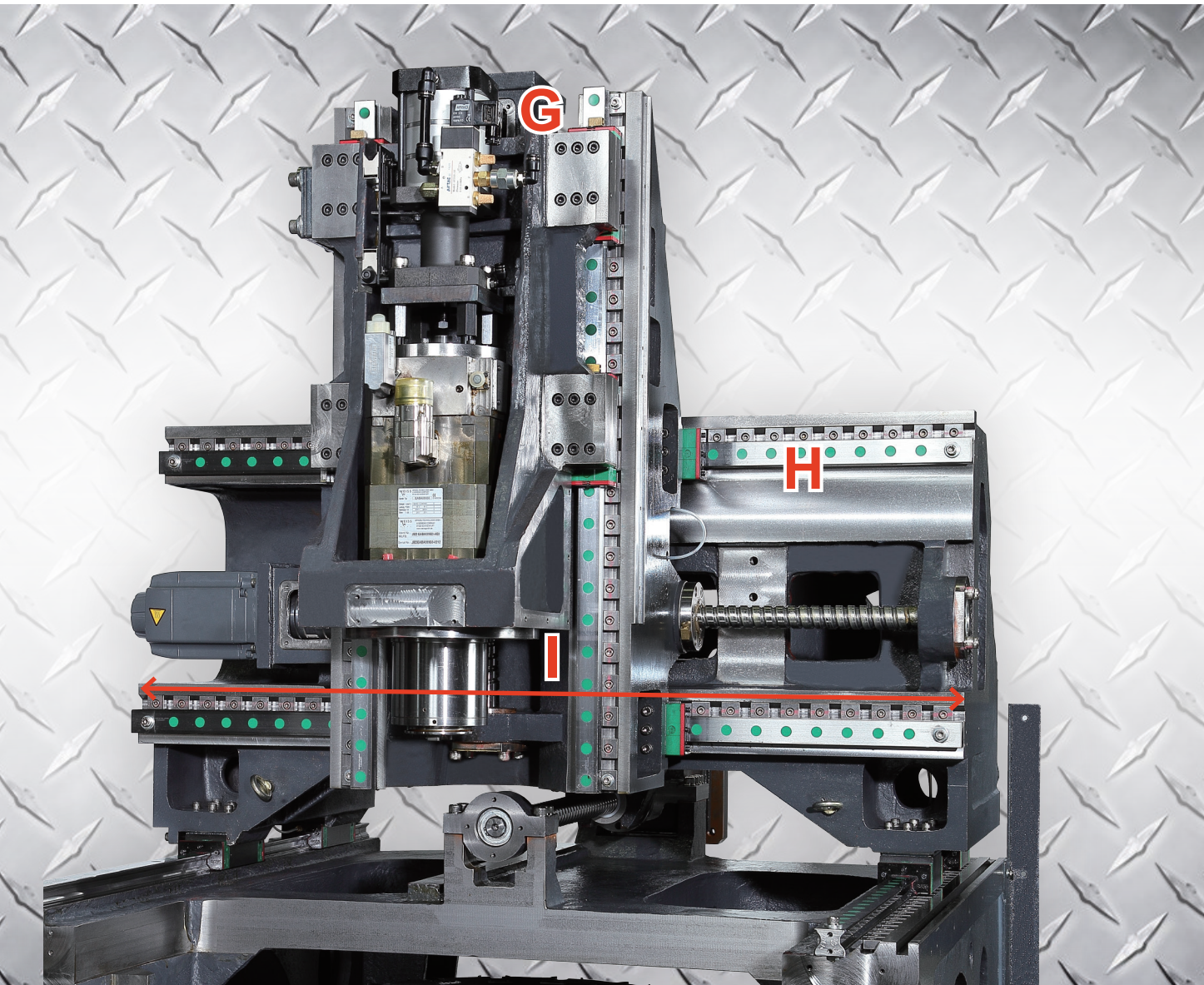
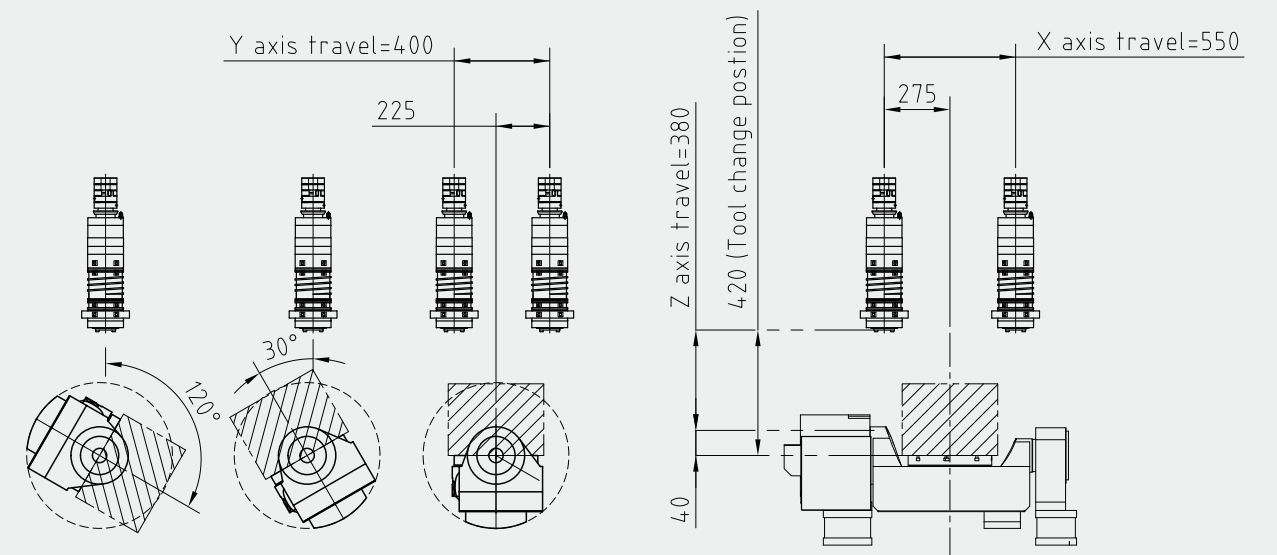
The L.K. BTC-550AX is the ultimate solution for sophisticated parts machining. The integrated rotary/tilting table provides accuracy, stability and flexibility.



The flexible and wide tilting range offers the maximum Z axis distance for cutting application.

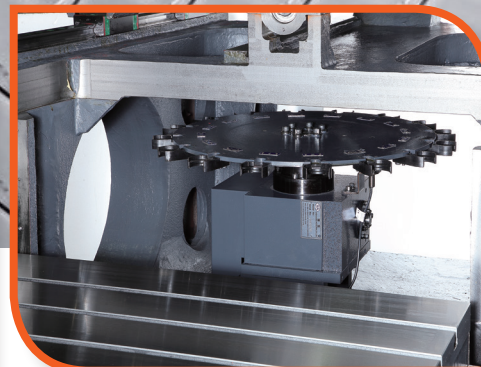


## BTC-550AX Interference Diagram



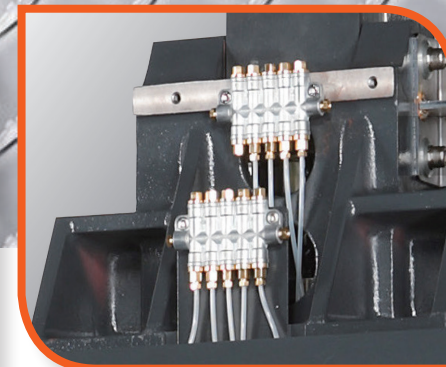
### Link-up Type Chip Conveyor

High efficiency and convenient to move in space arrangement.



### Turret Type tool magazine

Provide the best alternative for quick tool change and easy management.

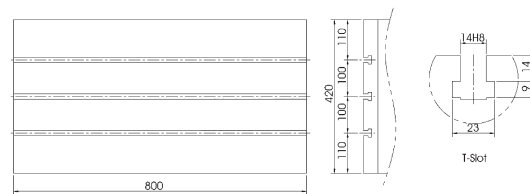


### Automatic Lubrication System

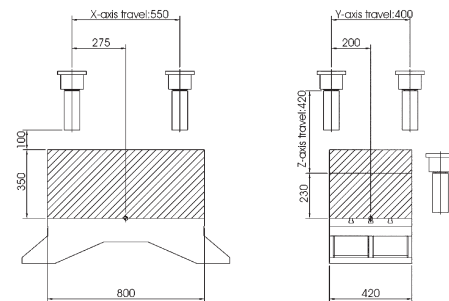
The lubrication system automatically distributes oil to all critical components with proper oil amount. The lubrication interval can be easily adjusted for the maximum performance.



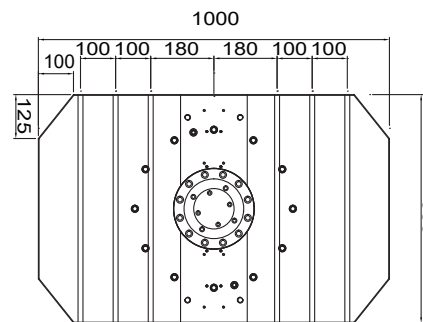
BTC-550 Table Dimension



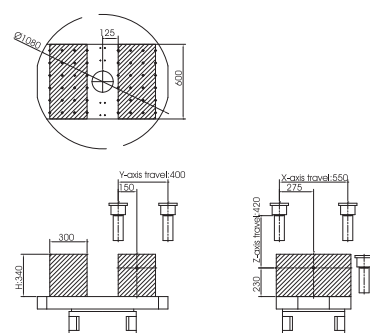
Working Range



BTC-550APC Table Dimension



Working Range



Specifications

Item/Model	Unit	BTC-550	BTC-550APC	BTC-550AX
CNC Control system		Mitsubishi M80	Mitsubishi M80	Siemens 840D
Travel				
X-axis Travel	mm	550	550	550
Y-axis Travel	mm	400	380	400
Z-axis Travel	mm	410	410	420
A-axis Travel(Tilting)	degree	-	-	+30 ° ~ -120 °
C-axis Travel(Rotary)	degree	-	-	360 °
Spindle Nose to Table Surface	mm	230-650	230-650	85-505
Spindle				
Spindle Speed	rpm	Direct Driven12,000	Direct Driven12,000	Direct Driven12,000
Spindle Nose	BT	BT-30	BT-30	BT-30
Spindle Motor(Continual/30min)	kw	3.7/5.5 Mitsubiishi	3.7/5.5 Mitsubiishi	4.1 Siemens
Table				
Table Size	mm	800X420	One Pallet 650X1000	Ø255
T Slot	mm	14X3X100	14X3X100	12x4x90 °
Table Load	kgs	600	200	100 Horizontal 75 Tilt
Rapid Travel				
Rapid Travel(X/Y/Z)	m/min	48/48/48	48/48/48	48/48/48
Axial Motor(X/Y/Z)	kw	1.5/3.0/2.3	1.5/3.0/2.3	2.3/3.8/2.3
Tool				
Tool Change Type		Turret Type	Turret Type	Arm Type
Tool Capacity	set	16	16	20
Max. Tool Weight	kgs	3	3	3
Max. Tool Length	mm	200	200	200
Max. Tool Diameter	mm	80	80	80
Tool Change Time (T-T)	sec	2.5	2.5	2.5
Others				
Machine Dimensions(LxWxH)	mm	3678X1500X1700	4284X1672X2095	3499X1750X2790
Machine Weight	kgs	4700	5250	5100

\* All specifications design and characteristics shown in this catalogue are subject to change without prior notice.  
\* L.K. Machinery Corp. will not be legally responsible for any unauthorized modification on the machine or other equipment.

Standard Accessories

- BTC-550APC Mitsubishi M80 Direct Driven 12,000
- BTC-550AX Siemens 840D Direct Driven 12,000
- Turret type tool magazine 16 tools
- Spindle Tool Change Sir Blow
- Side Flush System
- MPG Hand Wheel
- Full Body Enclosure
- Work Light with Tri Color Indicator Lamp
- Leveling Bolts & Pads
- Tool Bax
- Heat Exchanger
- Automatic Lubrication System
- Link Type Chip Conveyor

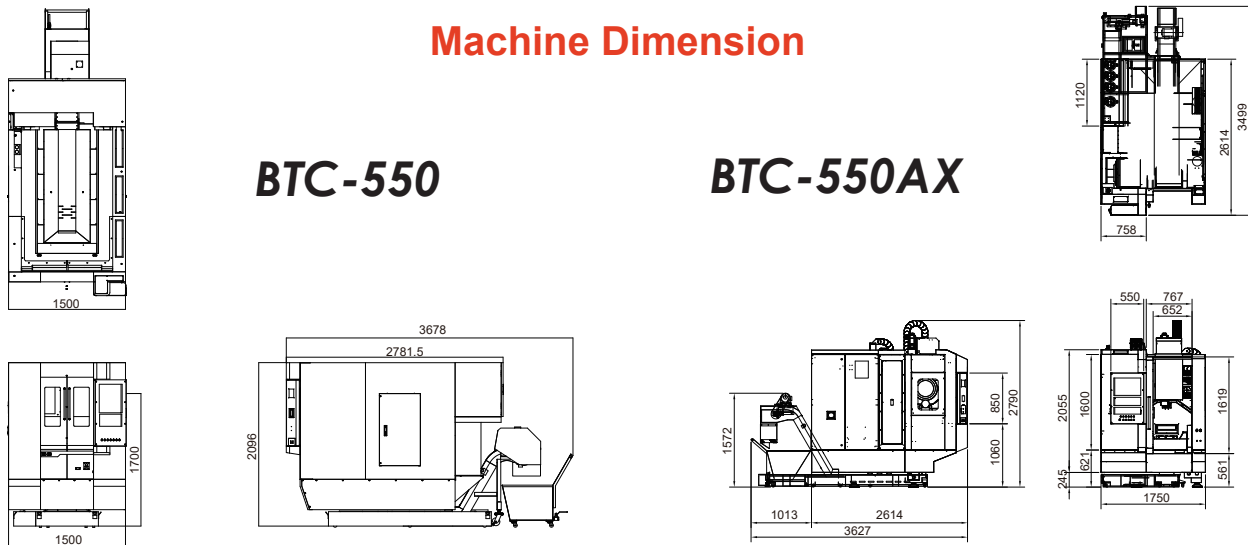
Optional Accessories

- Direct Driven 15,000
- Direct Driven 20,000
- Direct Driven 24,000
- Grease Lubrication, Linear Guideways, Ball Screws
- CTS(Coolant Through Spindle)
- Rapid Traveres 60x60x60m/min
- Tool Length Measurement System
- BT-40
- HSK-A63

Machine Dimension

BTC-550

BTC-550AX



BTC-550APC

