LEADWELL CNC MACHINES MFG.,CORP.
NO.23, Gong 33th Road, Taichung Industrial Park
Taichung 407, Taiwan
TEL: 886-4-23591880
FAX: 886-4-23592555, 23593875
E-mail: sales@leadwell.com.tw

www.leadwell.com.tw

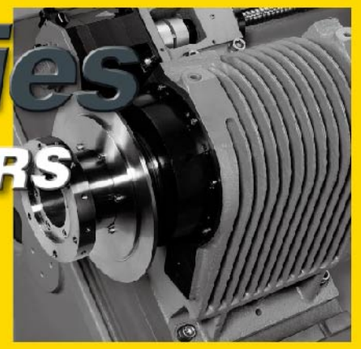
※ All performance are based on 220V/3PH/60HZ. Specification are subject to change without notice.

LEADWELL

LEADWELL CNC MACHINES MFG.,CORP.

LTC 20*i* Series

CNC TURNING CENTERS



LTC 20*i* Series CNC Turning Center

Innovative new design to outperform previous models

MORE POWERFUL
- Powerful main spindle with high toque and 6000 R.P.M. spindle speed

INCREASED CAPACITY
- 6 inch chuck standard.
- ø52mm bar capacity standard

FASTER / MORE PRODUCTIVE
- Fast rapid rates X - axis 20 m/minute & Z - axis 20 m/minute.
- Tool to tool turret indexing time 0.4 sec, 180° indexing 1.0 sec.

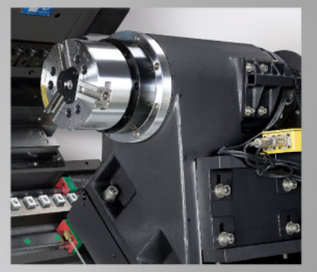
Easy to use membrane touch-pad control station

S + M

SUB-SPINDLE

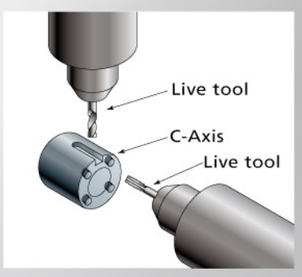
The sub-spindle replaces the standard tailstock on turning centers. A position CZi sensor is attached to the sub-spindle so the sub-spindle can then be synchronized with the main spindle. Special software allows the work piece to be transferred from the main spindle to the sub-spindle at any speed for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

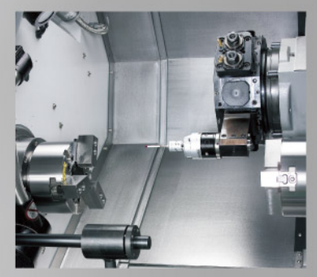
* Allows machining of both ends of parts.

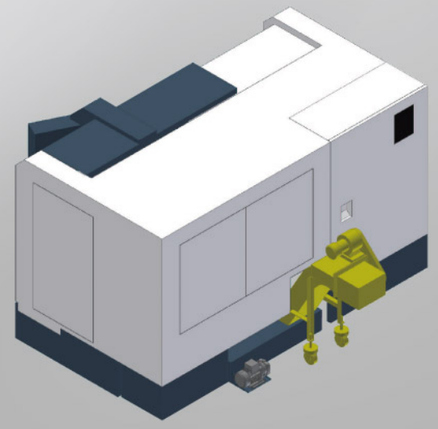


LIVE TOOL TURRET

The live tool turret replaces the standard turret on LTC-20*i* turning centers. Each tool can then become a rotating tool for both milling and drilling operations.
- Tools can be either radially or axially oriented.







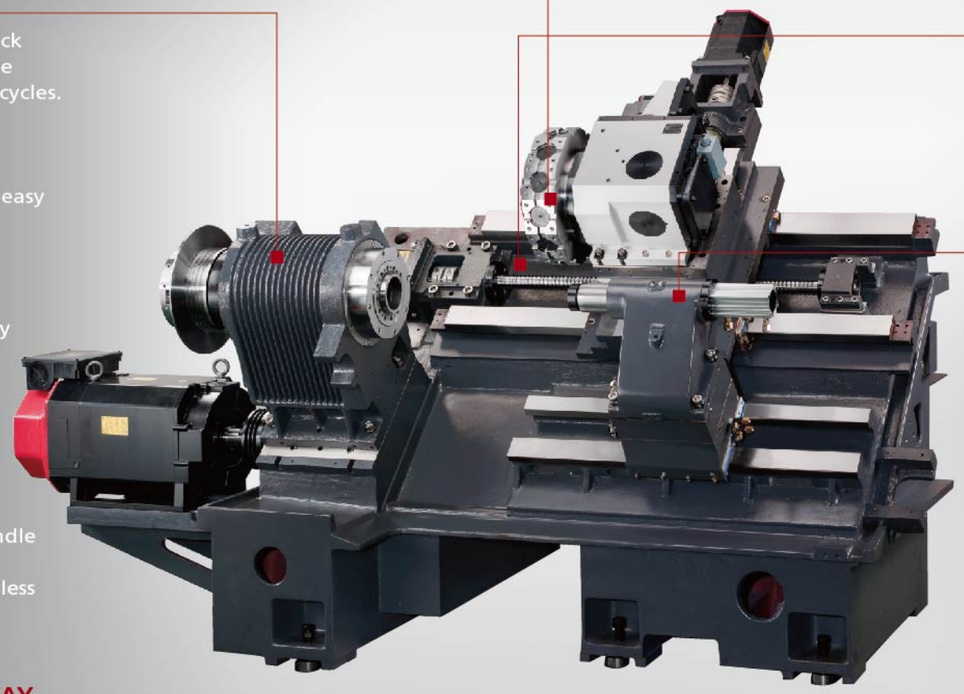
Chip conveyor can be at right side or rear side by using the same coolant tank.

LTC 20*i* Series CNC Turning Center

Rigid Construction

Wide working space, the minimum machine foundation
X axis rapid traverse 220 mm (LTC-20*i*)
Z axis rapid traverse 560 mm (LTC-20*i*)

OPT:power turret EWS BMT-55



HEADSTOCK

Heavy duty thermally symmetrical headstock design has heat dissipating fins to minimize thermal distortion during long machining cycles. All critical components are machined in a temperature controlled environment and assembled in a clean-room.

- Cartridge style spindle provides quick and easy replacement.

- *The 45 degree slant bed design allows chips to fall directly into the chip tank, avoiding accumulation inside the machine.*

TAILSTOCK

- Heavy duty tailstock with large diameter quill and precision #5 Morse taper provides outstanding rigidity.
- The tailstock is drived by servo motor to increase the accuracy. Without the impulse when adjustment by hydraulic.

CARTRIDGE TYPE SPINDLE

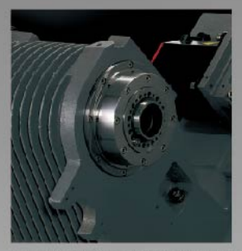
The heavy-duty spindle utilizes high quality bearings to support heavy cutting.

- Heavy duty A2-5 spindle nose
- Wide bearing spacing for high rigidity
- Special heat treatment for critical parts
- 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

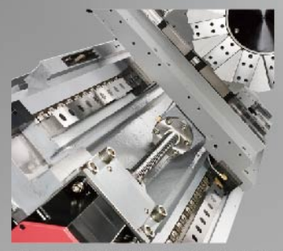
All of which produces better part finish in less time.

THE ROLLER TYPE LINEAR GUIDE WAY

LTC series equip with roller type linear guide way can provide higher rigidity and make the movement more smooth and stability, especially for the request of high accuracy and heavy load.



CARTRIDGE TYPE SPINDLE



THE ROLLER TYPE LINEAR GUIDE WAY

Servo tail stock
Rigid tailstock driven by a servo motor provides outstanding stability.

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.

1

Z-C-Axis

2

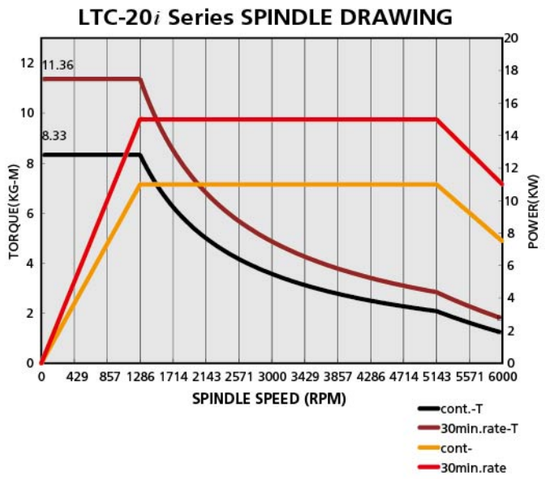
C-Axis

- *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.*

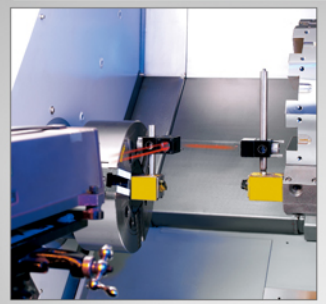
3

X-C-Axis

Spindle Speed/Output Diagram



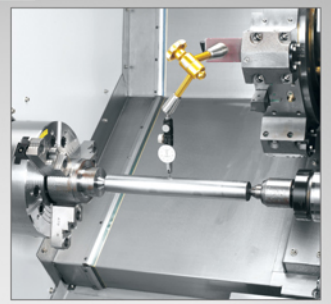
High Quality Assurance



Laser Calibration

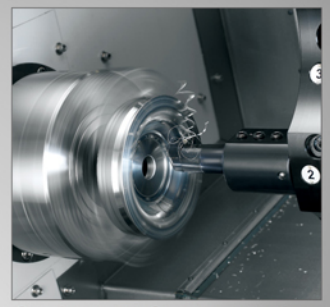
Lasers are used to measure the positioning accuracy of every machine over the full travel of each axis. Leadwell uses these measurements to compensate any axis error so that each machine meets the high accuracy requirements.

- Each machine is shipped with a positioning accuracy chart.
- Each machines is cycled for 48 hrs to help ensure the highest reliability.



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

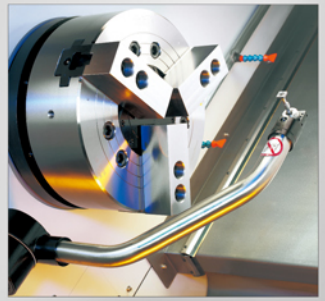
Each machine must complete rigorous cuttings test to ensure machine integrity. Coolant tests guarantee that all components are working properly and that machine 100% leak proof.

High Productivity Options

Bar Feeder Option

This option automatically loads bar stock to the LTC-20*i* machine. It is controlled by an IO interface and has a convenient LCD display. Diameter changes are made in less than one minute.

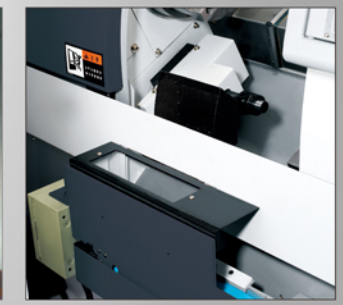
- Feeds round, hexagonal and square stock.
- This option can be easily added to any LTC-20*i* series machine.



Tool Setter Option

Leadwell's tool setter option measures both radial and axial tools. It uses macro programming to automatically define and update tool offsets.

- Reduces setup time.
- The tool setter option can also check for broken tools.



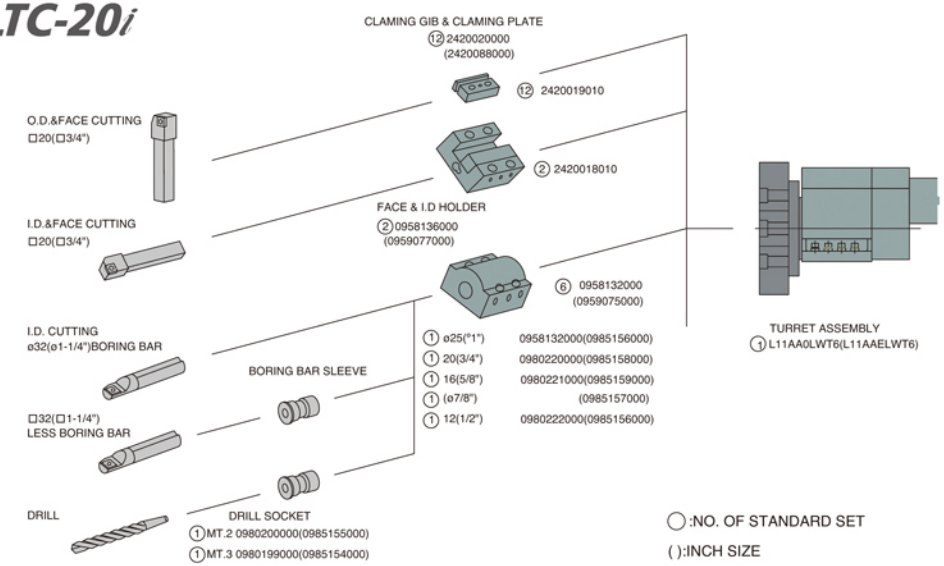
Parts Catcher and Conveyor Option

The unique Leadwell parts catcher design works well with the bar feeder option to improve productivity. Parts are transferred outside the operator door, which eliminates the need to stop the machine to unload finished parts

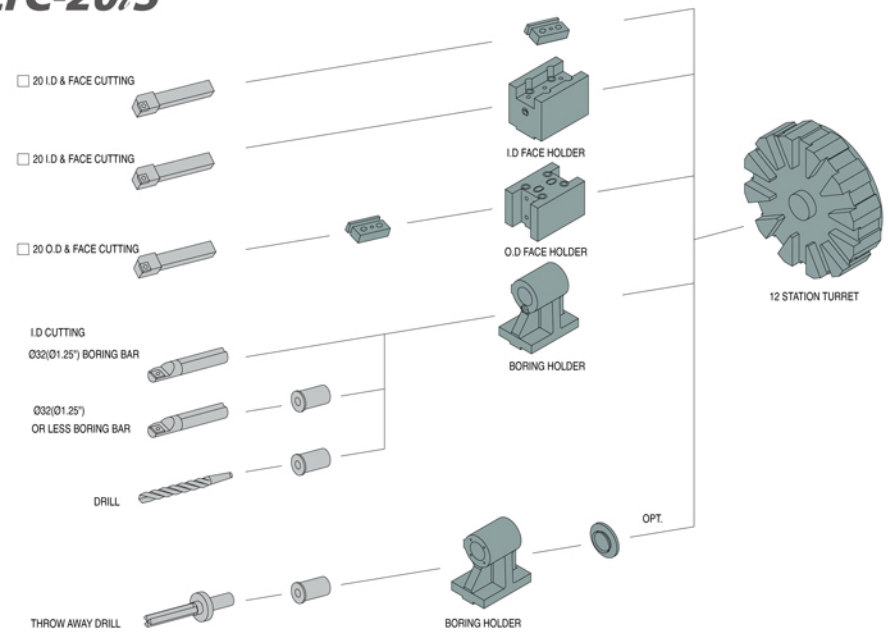
- This option can be easily added to any LTC-20*i* series machine.
- Used with the Bar Feeder option, the LTC-20*i* becomes an unmanned machine.

Tooling System

LTC-20*i*

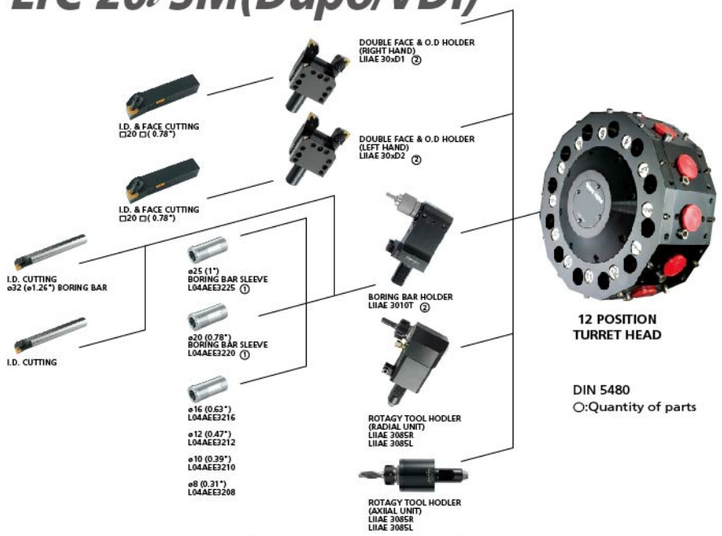


LTC-20*i*S

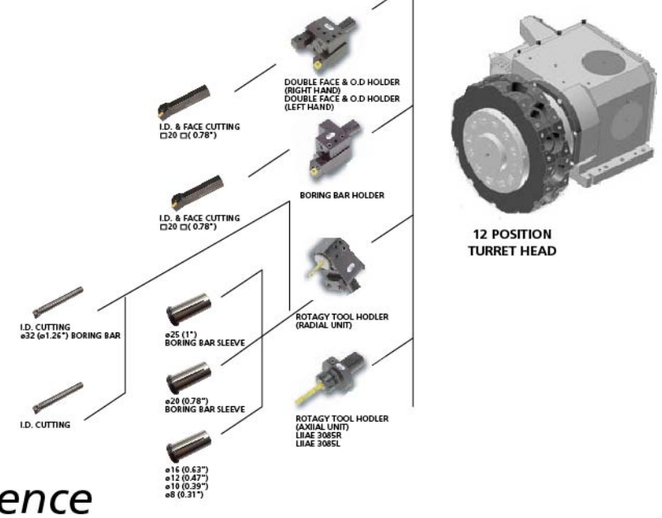


LTC 20*i* Series CNC Turning Center

LTC 20*i* M / LTC 20*i* SM(Dupo/VDI)

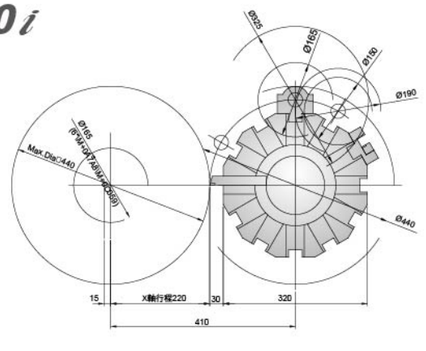


LTC 20*i* M / LTC 20*i* SM(EWS/BMT)

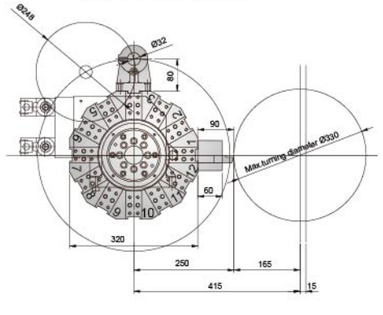


Tooling Interference

LTC 20*i*

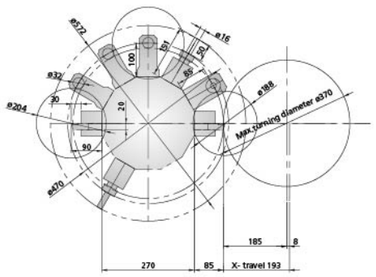


LTC 20*i* S

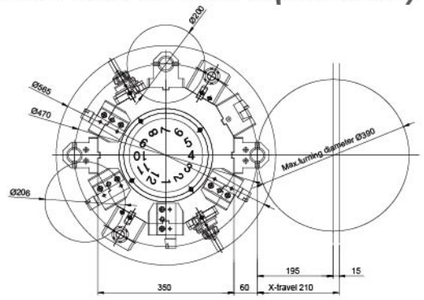


Tooling interference

LTC 20*i* SM / LTC 20*i* M(Dupo / VDI)

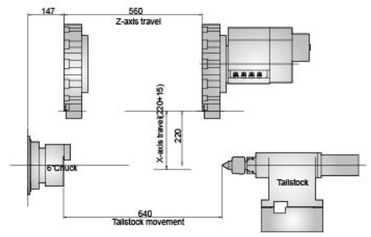


LTC 20*i* SM / LTC 20*i* M(EWS/BMT)

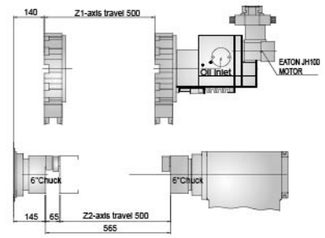


Capacity

LTC 20*i*

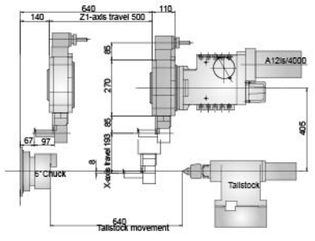


LTC 20*i* S

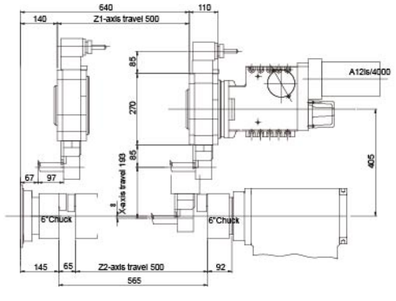


Capacity

LTC 20*i* M

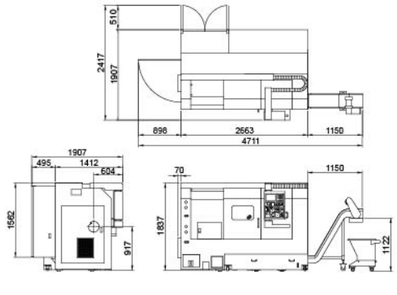


LTC 20*i* SM

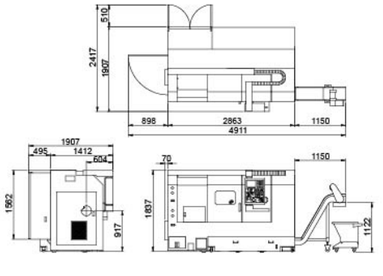


Machine Size

LTC 20*i* / LTC 20*i* M



LTC 20*i* S / LTC 20*i* SM



Machine Specifications

ITEM / MODEL		LTC 20i		LTC 20iM	
CAPACITY	Unit	STD.	OPT.	STD.	OPT.
Max swing	mm (in)	580 (22.8)	580 (22.8)	580 (22.8)	
Max turning diameter	mm (in)	440 (17.3)	420 (16.5)	370 (14.6)	
Max turning length	mm (in)	560 (22.1)	520 (20.5)	500 (19.7)	480 (18.9)
Bar capacity	mm (in)	ø51 (2) / ø66 (2.6)	ø51 (2) / ø66 (2.6)	ø51 (2)	ø66 (2.6)
TRAVEL					
X axis	mm (in)	220+15 (8.7+0.6)	210+15 (8.3+0.6)	185+8 (7.3+0.3)	
Z axis	mm (in)	560 (22.1)	520 (20.5)	500 (19.7)	480 (18.9)
SPINDLE					
Spindle speeds range	rpm	600	4500	6000	4500
Chuck size	mm (in)	6"	8"	6"	8"
Spindle nose		A2-5	A2-6	A2-5	A2-6
Spindle motor power	KW (HP)	15 (20)		15 (20)	
Min. spindle indexing increment		—		±0.001°	
TURRET					
Number of tool stations	pcs	12		12	
Shank height for square tool	mm (in)	□20(0.78)	□25(1)	VDI 30 20(0.8)	
Turret indexing time (adjacent tool)	sec	1.0	1.3	0.4	
Rotary tool spindle speed range:axis units	rpm	-	-	4000	
FEEDRATE					
X/Z axis rapid traverse	mm(in)/min	20000/20000 (788/788)		20000/20000 (788/788)	
MOTORS					
X/Z axis motor	kw (HP)	3 (4)		3 (4)	
MACHINE SIZE					
Total machine weight	kg	3900		3900	
Machine length	mm (in)	2730 (107.5)		2730 (107.5)	
Machine width	mm (in)	1910 (75.2)		1910 (75.2)	
Machine height	mm (in)	1830 (72.1)		1830 (72.1)	
Power requirement	KVA	30		30	
Computer Control	FANUC	0i-T		0i-T	

STANDARD ACCESSORIES

- Metric disc
- Manual tailstock
- VDI disc (For LTC- 20iM)
- Buzzer
- Heat exchanger
- Full enclosed splash guard
- 3 jaw open center chuck
- Foot switch
- Wide angle V-Belt

OPTIONAL ACCESSORIES

- Transformer
- Programmable tailstock
- Parts catcher
- Alarm lamp
- Air conditioner
- Bar feeder
- Auto door
- Spindle air outer blow
- High pressure pump
- Chip conveyer
- Chip bucket
- Collect chuck
- Oil mist collector
- Oil skimmer
- Inch disc
- Tool setter
- Main Spindle air outer blow
- Automatic workpiece measurement
- EWS Turret BMT55

2010.07