

LEADWELL
LEADWELL CNC MACHINES MFG.,CORP.

LTC-35 Series

CNC TURNING CENTERS

The Ultimate in Performance

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. Specifications are subject to change without notice.



Save Time! Save Money!

LTC-35 Series Innovative Designs that Outperform Previous Models

A medium-size 45 degree slant bed CNC turning center with box ways on all axes.

◆ MORE POWERFUL

- Extra powerful spindle motor - 30 KW / 40 HP
- Also available - high torque option motor and gear box drive (37 KW/ 49 HP)
- Tubular design with crossed ribs for extra rigidity
- New motor mount to reduce vibration for increased production

◆ INCREASED CAPACITY

- Standard 15 inch chuck with 4.5 inch bar capacity
- Max turning diameter now 600 mm and max swing diameter 800 mm
- Z-axis available from 1,100 mm (43 inches) to 4,100 mm (161.4 inches) - excellent for cutting long parts

◆ FASTER/MORE PRODUCTION

- Increased feed rate: X-15 M/min, Z-20 M/min
- 12 tool turret indexing time now 1.1 seconds

◆ NEW ERGONOMIC DESIGN

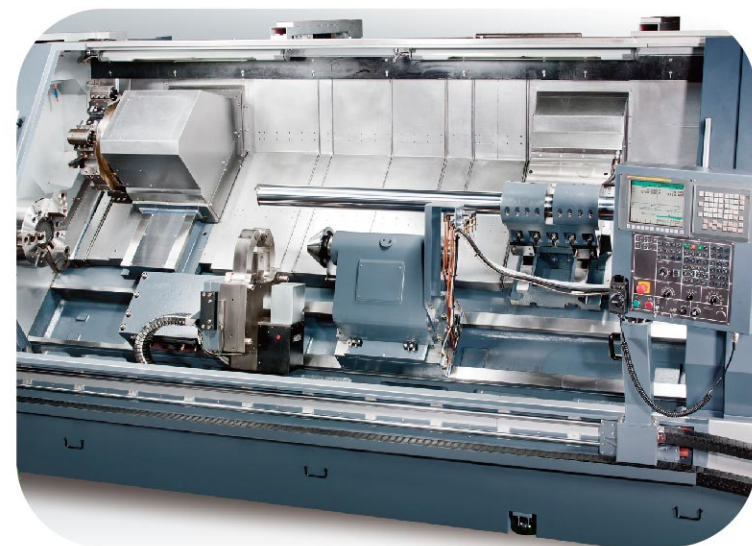
- Double pivoting operator panel for easy access to machine
- Quieter, due to wide angle drive belt
- Lubrication oil is separated from coolant
- Built-in way cover wash



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



Power Turret available



Max. turning diameter 600mm



1. 1.15" chuck + tool setter
2. Spindle speed: 2000rpm
3. Bar capacity: 115mm
4. Anti-vibration tool holder+ 10 bar high pressure pump + CTS

LEADWELL LTC SERIES FOR PRODUCTIVITY AND PROFITABILITY

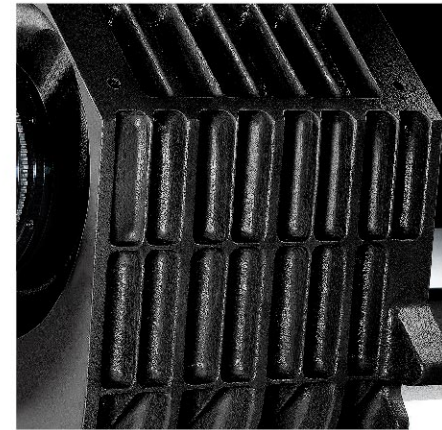
LEADWELL's new LTC-35 series slant bed CNC turning centers are engineered for speed, precision, and enhanced productivity. You can depend on LEADWELL's LTC series to operate reliably year after year. The rigid construction provides superior stability for heavy metal removal and excellent workpiece accuracy. LEADWELL turning centers will ensure your business stays competitive and profitable.

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

LEADWELL Guarantees Superior Stability and Accuracy

Superior Slant Bed Construction

LEADWELL turning centers are built from rigid cast iron construction to give a superior machining accuracy for years to come. The 45-degree slant bed allows for a stronger frame with easy access to the workpiece.

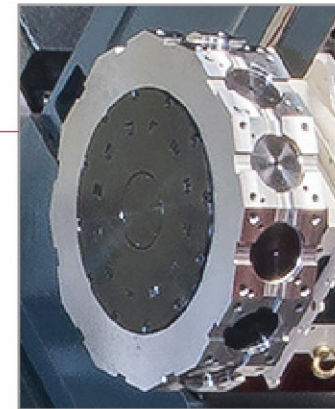


Headstock

The headstock has a thermally symmetric design with heat dissipating fins. This design prevents thermal distortion during long machining cycles.

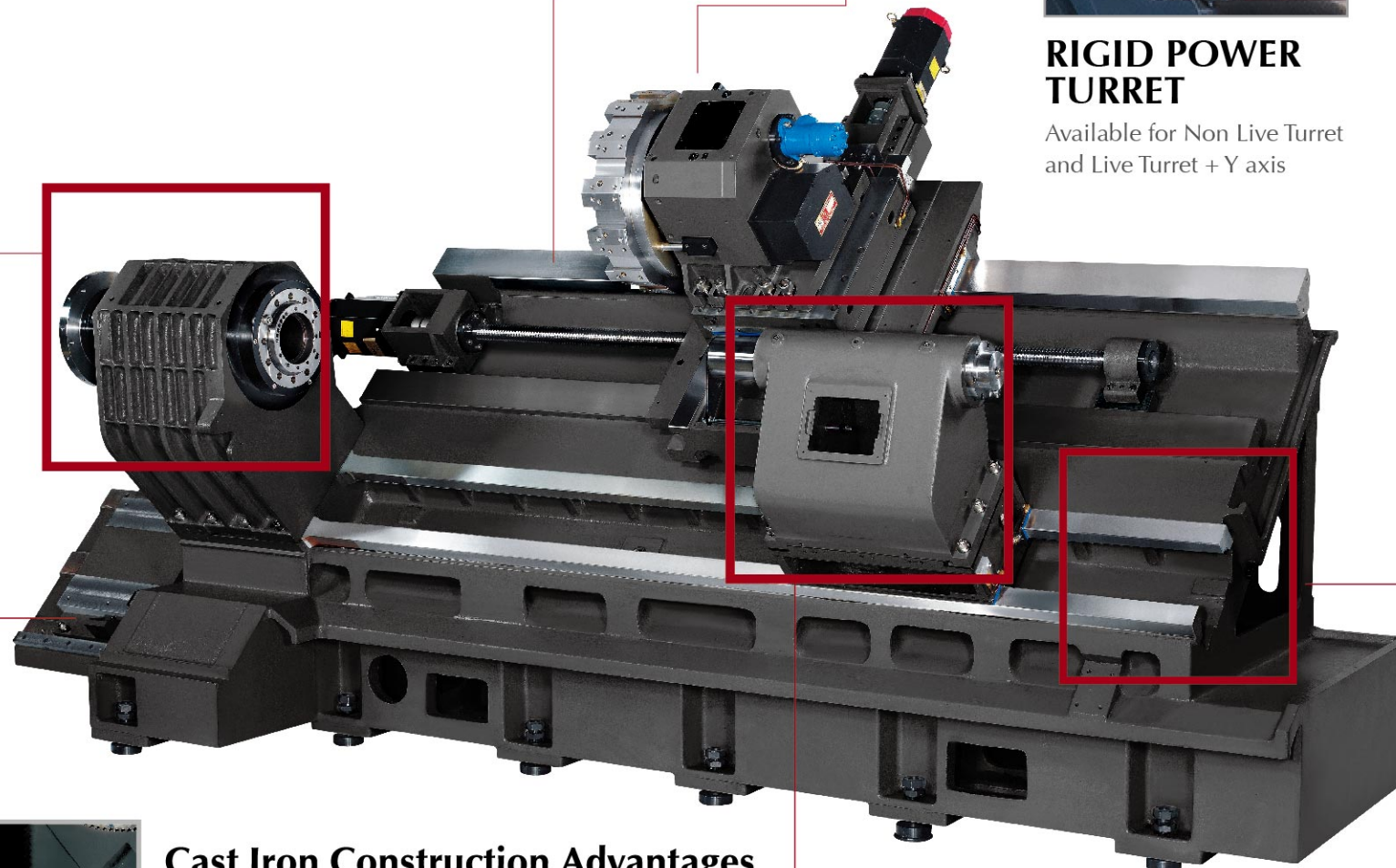
Extra Wide Span for Increased Stability

- The LTC series utilizes oversized box ways for high horse power machining. The extremely rigid base frame in combination with the box ways provide outstanding stability for precision turning.



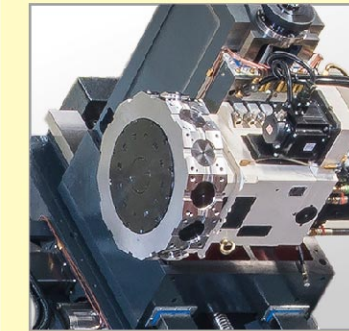
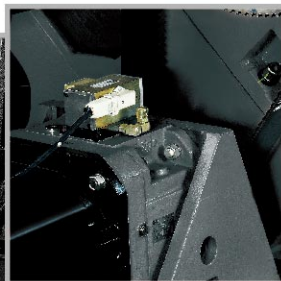
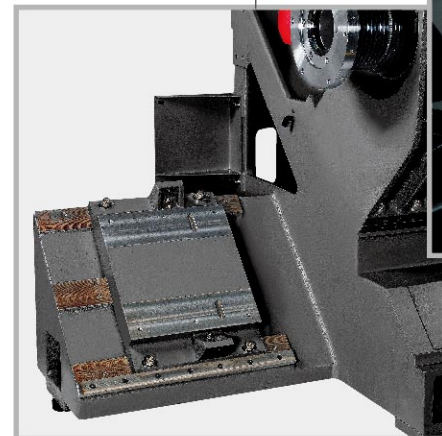
RIGID POWER TURRET

Available for Non Live Turret and Live Turret + Y axis



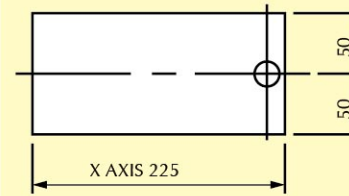
Cast Iron Construction Advantages

- LEADWELL uses only top quality well-ribbed castings.
- Advanced Finite Elements Analysis (FEA) is used for analyzing 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.
- Isolated gear box (opt.).



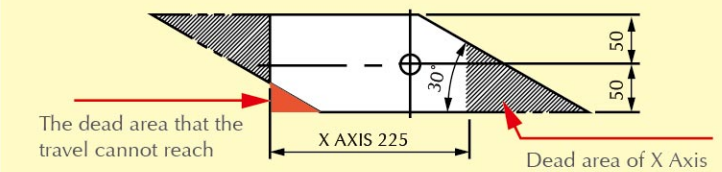
Orthogonal Y axis Explanation

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.

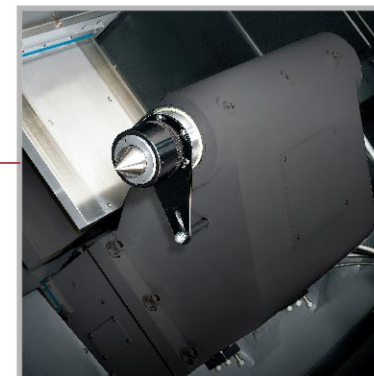


Easy Chip Disposal

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

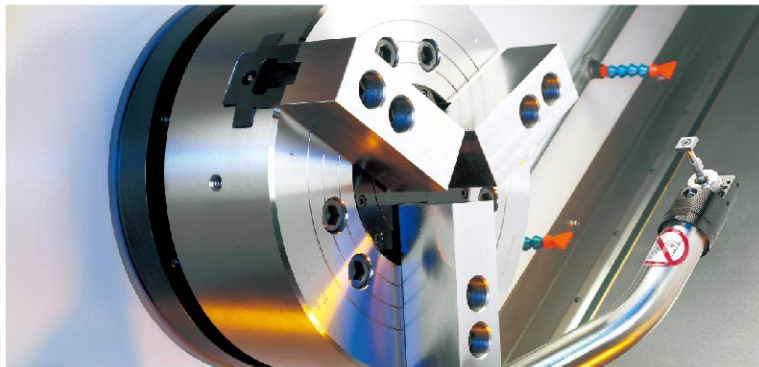
Rugged Tailstock

- The heavy-duty tailstock is attached to the lower guide of the machine base. The heavy casting, large diameter quill and precision morse taper center provide outstanding rigidity.
- The quill adjustment is hydraulic adding to the rigidity of the machine.
- Programmable tailstock is a standard accessory in LTC-35series.



LTC-35 Series		Item
15"		Chuck Size
		Chuck Each LEADWELL lathe comes with a 3-jaw hydraulic through hole chuck.
12PCS(STD)	12PCS(OPT)	Tool Station
		Turret The LTC series turret features a robust casting and a large coupling face adding extreme rigidity to the machine. This added rigidity enhances the metal removal rates, extends tool life, improves finishing quality, and ensures long term accuracy. A reliable high torque hydraulic indexing motor controls turret rotation, deceleration and clamping. Turret indexing is bi-directional with 0.25 second station-to-station indexing time.

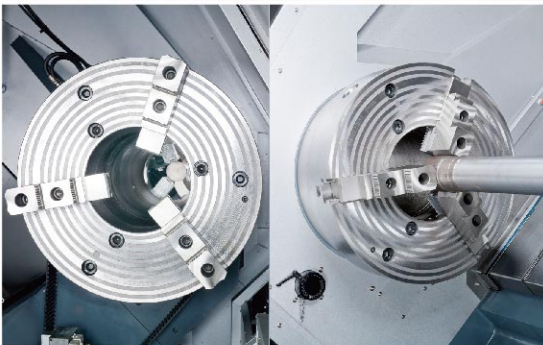
HIGH PRODUCTIVITY OPTIONS



Tool Setter (OPT)

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

Double Chuck (OPT)



Security Auto Door (OPT)



Quality Features Guarantee Greater Performance



- LEADWELL uses only premium quality preloaded double-nut ballscrews. Each ball screw is accurately aligned parallel to the box ways and anchored at both ends.
- Ball screws are pretensioned to improve machine stiffness. The rotational torque variation is inspected to guarantee non-binding, highly accurate, and long running components. This assures lifetime accuracy and maximum service life.

HIGH CHIP REMOVAL RATE-EASIER THAN EVER!

When your operations require higher efficiency to stay competitive.

CUTTING TEST RESULTS

O.D.TURNING				
Cutting Feed rate M/min.	Cutting Depth mm.	Feed rate mm/rev.	Chip Removal Rate c.c./min.	Workpiece Material
180	11	0.35	1054.7	S45C

GROOVING				
Cutting Feed rate M/min.	Slot Width mm.	Feed rate mm/rev.	Distance from Chuck Face	Workpiece Material
103.2	3	0.2	300 mm	S45C

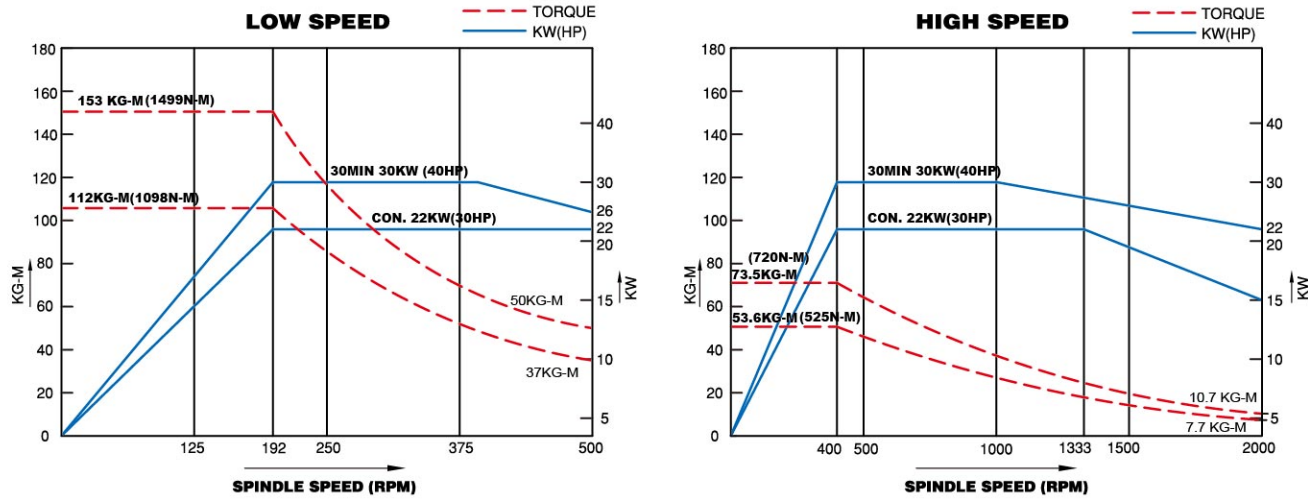
DRILLING				
Cutting Feed rate M/min.	Hole Dia. mm.	Feed rate mm/rev.	Spindle Speed (rpm)	Workpiece Material
77.4	70	0.15	516	S45C

FANUC Oi-T

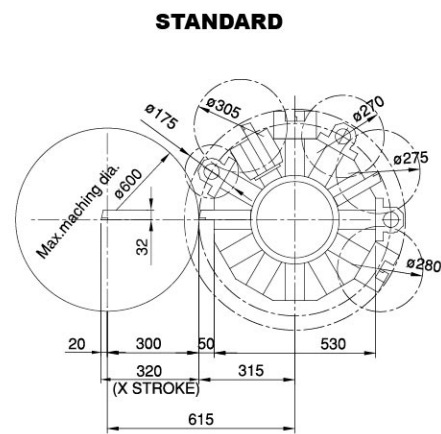
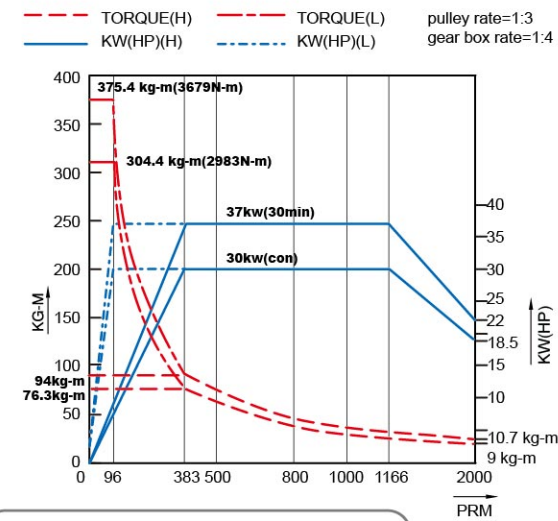
- Controlled axis
- Simultaneously controlled axes
- Least input increment
- Emergency stop
- Mirror image
- Follow up
- Servo off
- Backlash compensation
- Stored pitch error compensation
- DNC operation
- Manual reference position return
- Exact stop
- Rapid traverse override
- Automatic acceleration / deceleration
- Override cancel
- Tape code: EIA RS244/ISO 840
- Label skip
- Optional block skip
- Decimal point programming
- Rotary axis designation
- Automatic coordinate system setting
- Workpiece coordinate system
- Programmable data input
- Rigid tapping
- Tool function
- Cutter compensation C
- Canned cycles
- Background editing
- Status display
- Clock function
- Self-diagnosis function
- Alarm display
- Part program storage length: 1280 M
- Multi language display
- Data server & CF card
- 8.4" color TFT
- 10.4" color TFT(OPT)

SPINDLE SPEED/OUTPUT DIAGRAM

FANUC α P50i LTC-35 SERIES(CHUCK 15")

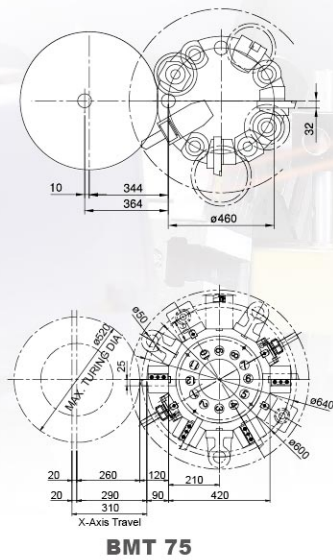


α 30 6000rpm/ON MODEL LTC-35C(+)+Gear box

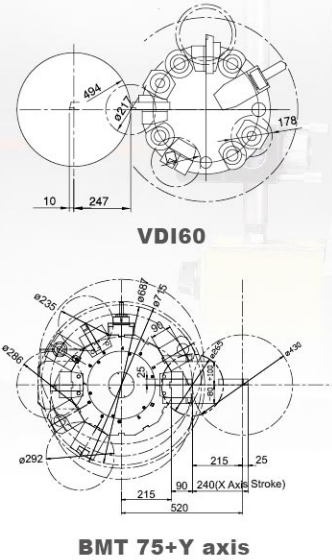


TOOLING INTERFERENCE

Option VDI 60



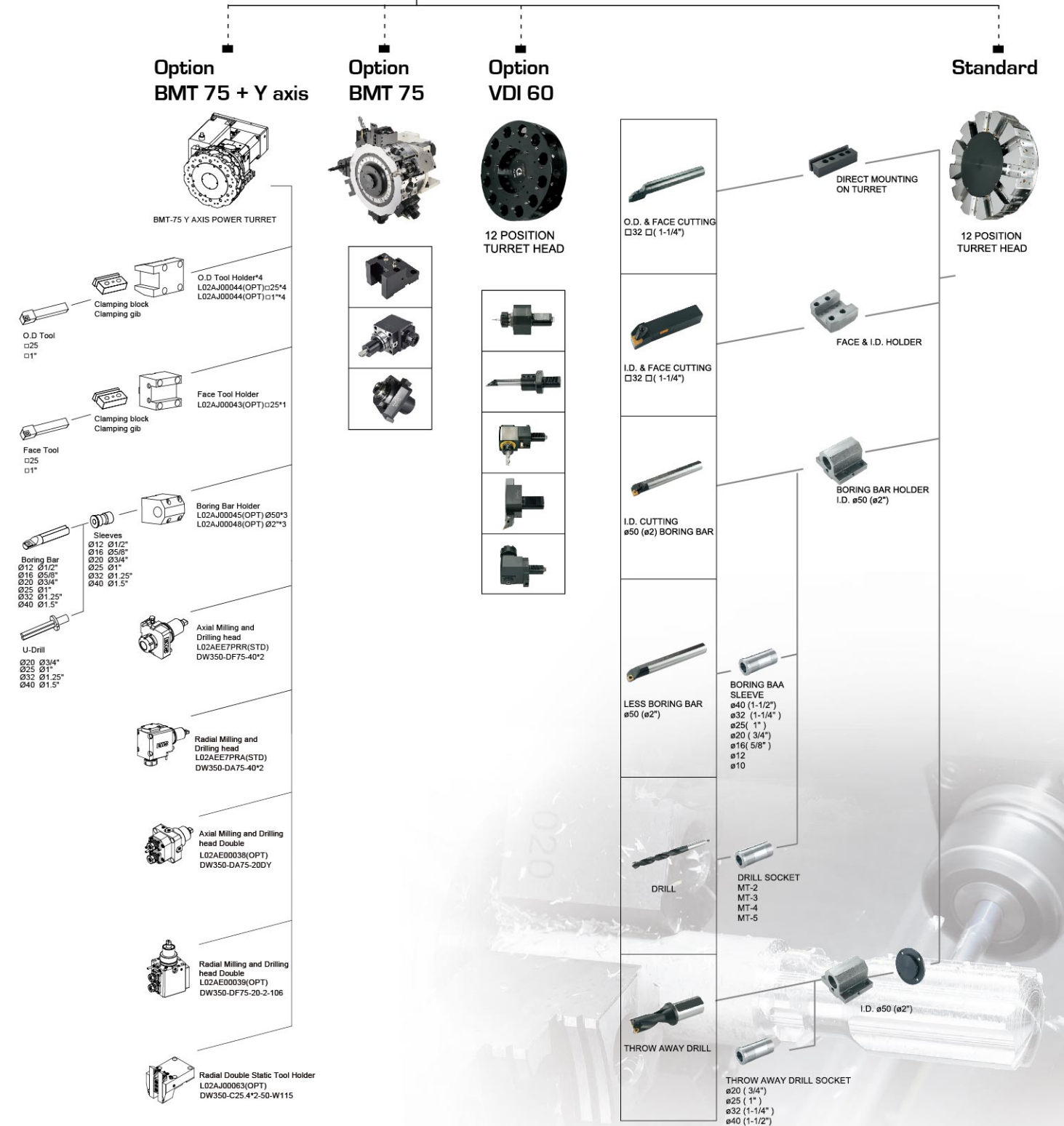
BMT 75



BMT 75+Y axis

Heavy Duty Turret

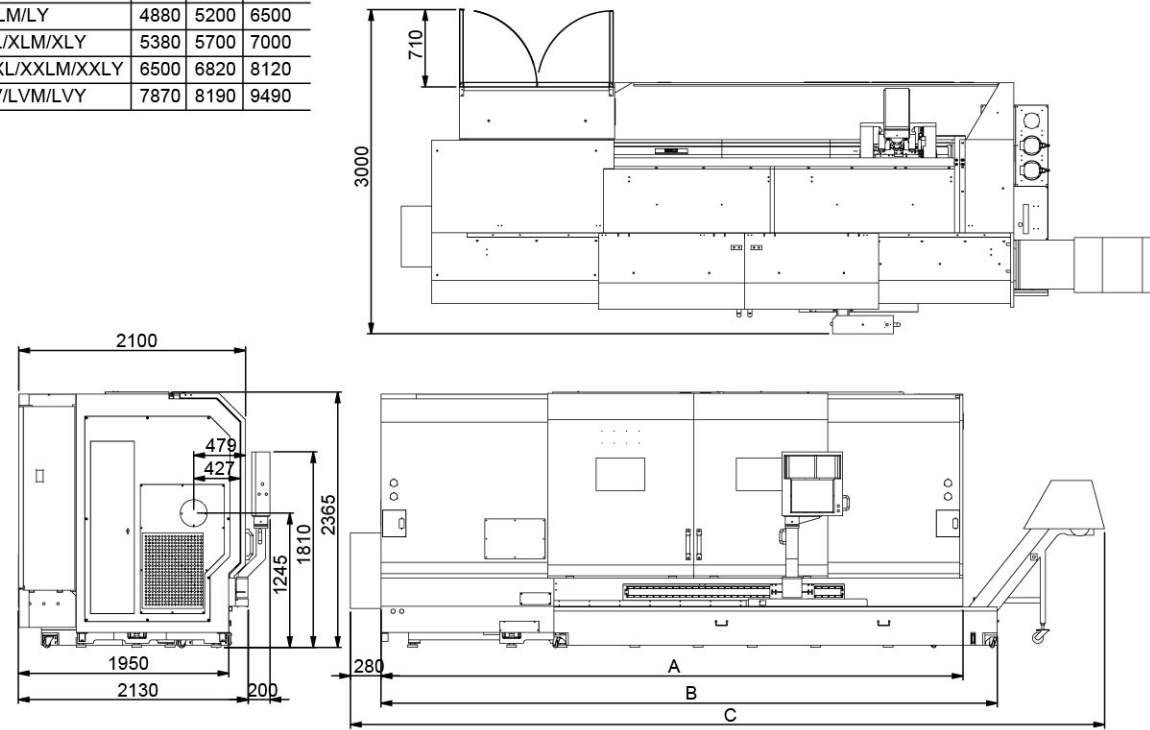
The LTC series turret features a robust casting and a large coupling face adding extreme rigidity to the machine. This added rigidity provides increased metal removal rates, extends tool life, enhances finishing quality, and ensures long term accuracy. A reliable high torque hydraulic indexing motor controls turret rotation, deceleration and clamping. Turret indexing is bi-directional with 1.7 second station-to-station indexing time.



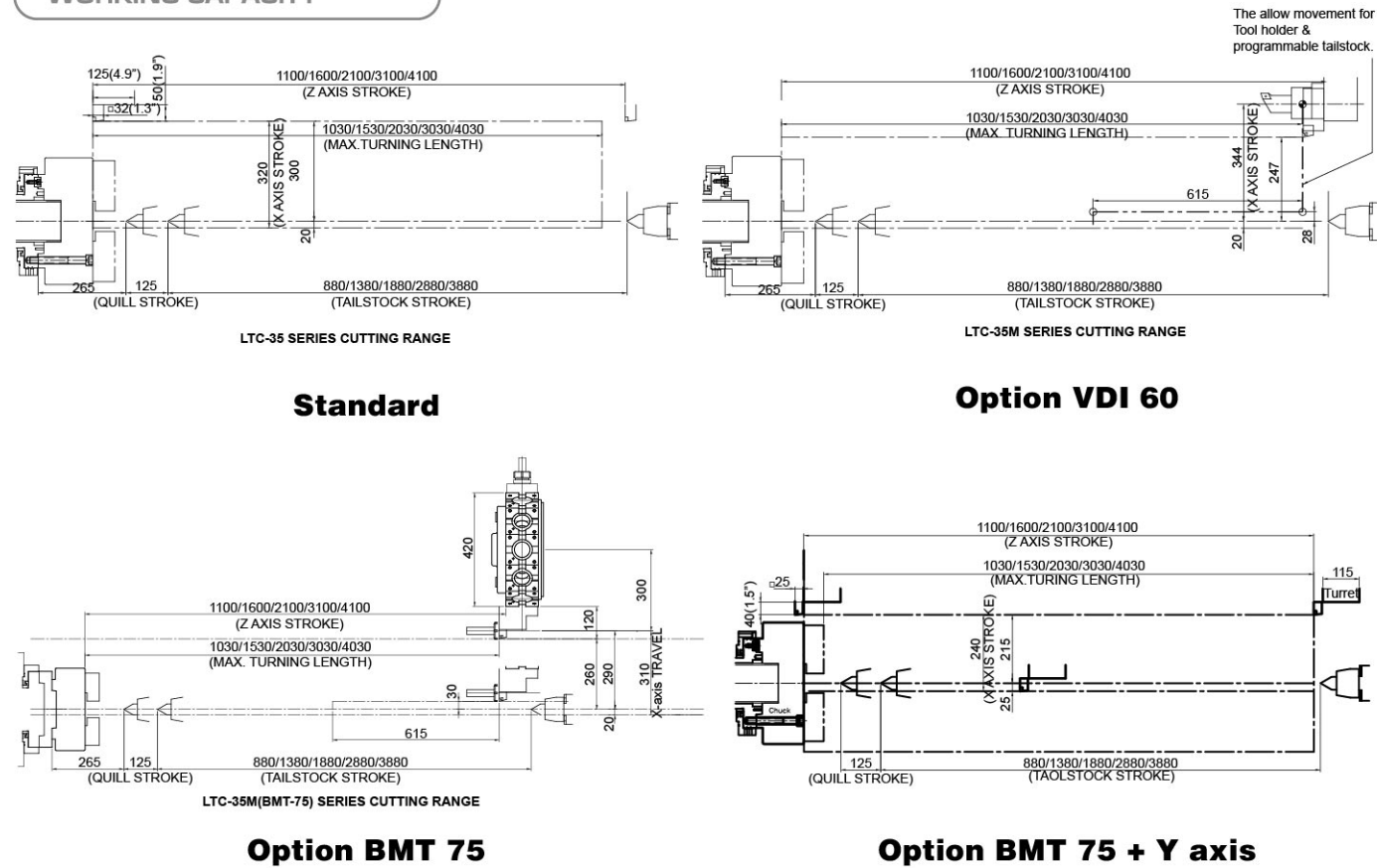
DRAWING

OUTLINE DIMENSION

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



WORKING CAPACITY



MACHINE SPECIFICATIONS

ITEM	MODEL	LTC-35C/CL/CXL/CXXL/CLV	LTC-35M/LM/XLM/XXLM/LVM	LTC-35Y/LY/XLY/XXLY/LVY
CAPACITY				
Max. swing	mm (in)	800(31.5)		
Swing over cross slide	mm (in)	540(21.3)		
Max. turning diameter	mm (in)	600(23.6)	494(19.4)	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	mm (in)	300+20(11.8+0.8)	344+10(13.5+0.39)	215+25(8.5+1)
Z axis	mm (in)	1100/1600/2100/3100/4100 (43/63/83/122/161)		
Y axis	mm (in)	-		
SPINDLE				
Spindle speed	rpm	2000	10~2000	
Chuck size	mm (in)	381(15)		
Spindle nose		A2-11		
Spindle power	Kw(hp)	30(40)		
TURRET				
Number of tool	PCS	12		
Shank height for square tools	mm (in)	32(1.25)	32(1.25) VDI 60 / 25(1) BMT 75 OPT	25(1) BMT 75
Shank diameter for boring tools	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
Index time (adjacent tools)	sec	1.7	1.3	
Index time (180)	sec	4.5	3.18	
FEED RATE				
X axis rapid traverse	m/min(ipm)	15(591)		
Z axis rapid traverse	m/min(ipm)	20/20/20/12/10 (787.4/787.4/787.4/472/393.7)		
Y axis rapid traverse	m/min(ipm)	-		
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)		
Total machine weight	kg	10000/11000/12000/17000/19500		12700/13300/14000/20800/23300
Power requirement	KVA	55	70	
Controller	FANUC	0i-T		

*AVAILABLE CONTROLLER: SIEMENS/FAGOR

ITEM / MODEL	LTC-35C/CL/CXL/CXXL/CLV	LTC-35M/LM/XLM/XXLM/LVM	LTC-35Y/LY/XLY/XXLY/LVY
Metric disc	•	X	X
Inch disc	■	X	X
Manual tailstock	X	X	X
Buzzer	•	•	•
Alarm lamp	■	■	■
Heat exchanger	•	•	X
Air conditioner	■	■	•
Full enclosed splash guard	•	•	•
3 jaw open center chuck	•	•	•
3 jaw close center chuck	■	■	■
Air chuck	■	■	■
Foot switch for chuck	•	•	•
Foot switch for tailstock	■	■	■
V-belt	•	•	•
H.T.D belt	■	■	■
Micro V belt	X	X	X
Electric high/low gear control	•	•	•
Programmable tailstock	•	•	•
Parts catcher	X	X	X
Bar feeder	X	X	X
Spindle air outer blow	■	■	■
High pressure pump	■	■	■
Steel belt chip conveyor	■	■	■
Chip bucket	■	■	■
Collect chuck	X	X	X
Oil skimmer	■	■	■
Mist separator	■	■	■

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