

Technical Data

Item	Unit	LD-52	LD-65
Capacity			
Swing over bed	mm	Ø650	
Swing over cross slide	mm	Ø380	
Max. turning diameter(with turret)	mm	Ø380	
Max. turning length(with turret)	mm	520 / 1020	
Slant bed degree	degree	30	
Bar capacity	mm	Ø52	Ø65
Travel			
X axis	mm	215(200+15)	
Y axis (option)	mm	100(±50)	
Z axis	mm	520 / 1020	
Z2 axis	mm	520 / 1020	
Primary Spindle			
Spindle nose		A2-6	
Spindle hole diameter	mm	Ø66	Ø75
Suitable chuck size(option)	mm	200(8")	200(8")
Transmission		Belt	
Spindle speed	rpm	5000	4000
Motor output	kW	Fanuc:11/15	
Second Spindle			
Spindle nose		A2-5	
Spindle hole diameter	mm	Ø52	
Suitable chuck size(option)	mm	150(6")	
Transmission		Belt	
Spindle speed	rpm	5000	
Motor output	kW	Fanuc:7.5/11	
Turret			
Number of tool stations		12	
Tool allowance(square)	mm	25 x 25	
Boring bar dia.	mm	Ø40	
Living tool(Option)			
Tool shank	mm	25 x 25	
Tol holder		VDI-40 / BMT55	
Power rating	kW	3.75	
Maximum speed	rpm	6000	
Axes			
X-Axis rapid feed	m/min	24	
Y-Axis rapid feed(option)	m/min	6	
Z-Axis rapid feed	m/min	24	
Z2-Axis rapid feed	m/min	24	
X-axis ballsrew	mm	Ø32 x P10 x C3	
Y-axis ballsrew	mm	Ø28 x P6 x C3	
X-axis ballsrew	mm	Ø32 x P10 x C3	
Z2-axis ballsrew	mm	Ø32 x P10 x C3	
Motor			
X axis servo motor	Nm	8	
Y axis servo motor(option)	Nm	4	
Z axis servo motor	Nm	8	
Z2 axis servo motor	Nm	8	
Coolant pump motor	W	530 (50Hz) / 750 (60Hz)	
Hydraulic pump motor	W	2200	
Lubrication pump motor	W	30	
Accuracy			
Positioning accuracy	mm	0.01/300	
Repeatability accuracy	mm	±0.01	
Dimemnsions			
Lengthw/o chip conveyor	mm	3500	4020
Length w/ chip conveyor	mm	3985	4485
Width	mm	3135	
Height	mm	1950	
Weight	kg		
Total power consumption	KVA	Fagor:20/ Fanuc:25/ Siemens:20	

\*Specifications are subject to change without notice.

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MiCROCUT



LD Series

Twin-Spindle Single Turret Slant Bed CNC Lathe



# LD Series

## Twin-Spindle Single Turret Slant Bed CNC Lathe

### Flexible, Efficiency and Productivity

The LD series turning lathe is capable of multi-axis turning and milling.

The machine is well equipped with twin spindles single turret, live tooling, C-axis, Y-axis and is capable of producing high accuracy parts. Besides, this multi-functional LD series is ready to be implemented for automation. The tool setter and workpiece probe and accessories allow further setup for automated operation to reduce intensive labor costs.

This high quality twin spindle turning lathe not only can do complex machining in one-setup, but is also ideal for tasks requiring long time loading. It highly increases efficiency and productivity, and meets the diversified tasking requirement of production.

### LD series is superior for one-setup production of complex works

#### HIGHLIGHT SPECIFICATION

Max Turning Diameter Ø380mm	Primary Spindle Speed:	Second Spindle Speed 5000rpm
Max Turning Length 520/1020mm	4000rpm(LD-65)	Rapid feed rate(X/Y/Z/Z2)
Swing over Bed Ø650mm	5000rpm(LD-52)	24/6/24/24 m/min



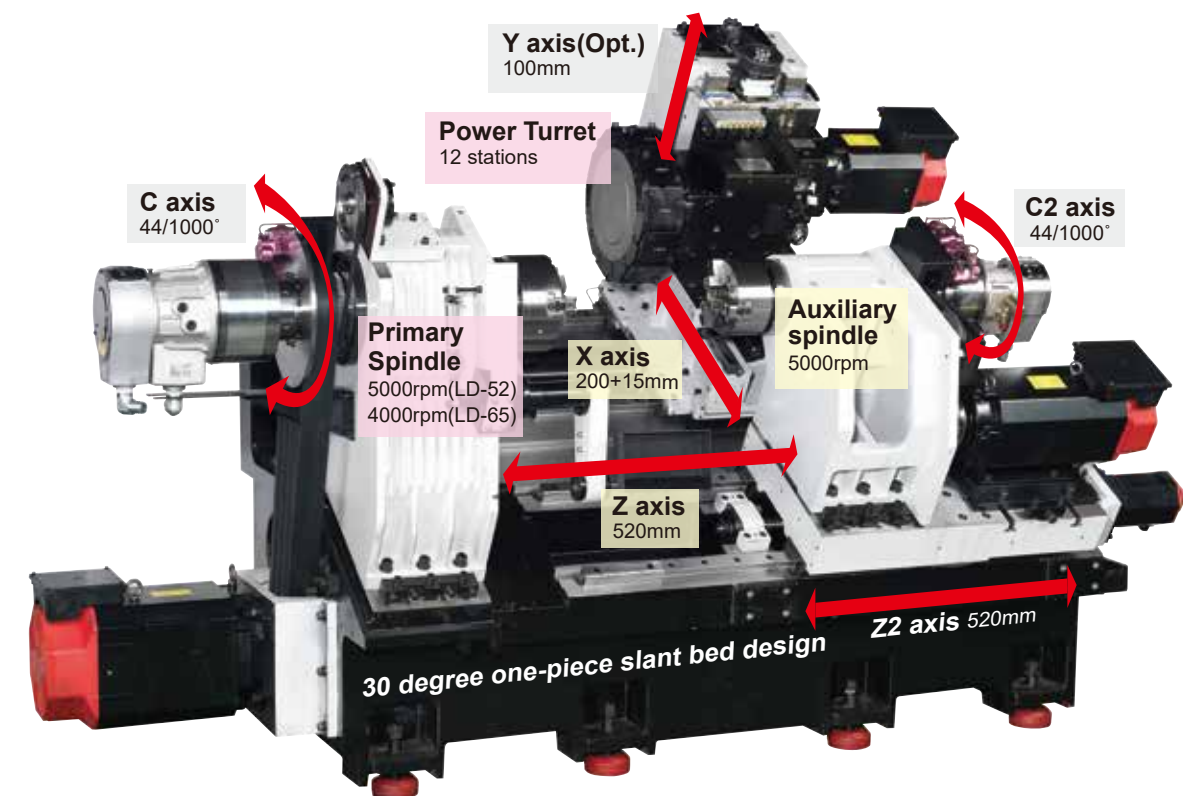
### Highlight

- Twin spindle single turret
- Reducing idle time
- Apply all processes on one machine
- Increase the productivity
- Milling and Turning in one-setup
- 30° one-piece slant bed for rigid structure
- Reducing frequency of loading & unloading
- Linear way ensures faster movement-Rapid feed 24 m/min
- 8" and 10" Hydraulic chuck

### Structure

#### Design for Stability

- One-piece Meehanite casting base
- Strategic ribbed bed for maximum stiffness
- 30 Degree slant bed for easy chip removal
- Headstock design with optimal heat dissipation
- Compact design with small floor occupation
- Spacious machining area
- Ready for automation



### Turret

#### Reliable and rapid turret indexing

To optimize the efficiency and utilization, turret option:

- Power turret driven by servo motor, 12 stations
- Hydraulic turret VDI-30, 12 stations



12-Station BMT-55 Power Turret



## Spindle



### Fast spindle speed with Powerful 11kW spindle drive

LD-52 Primary spindle/Second spindle : 5000rpm / 5000rpm  
LD-65 Primary spindle/Second spindle : 4000rpm / 5000rpm

### Large bar capacity

LD-52 Primary spindle/Second spindle : Ø66mm / Ø52mm  
LD-65 Primary spindle/Second spindle : Ø75mm / Ø52mm

### High productivity for complex machining

Twin-spindle machining increases productivity by reducing part handling.

### Rotary C-axis function

C-axis on twin spindles with unlimited rotational positioning allows the machine to perform complex contour machining

### Easy maintenance

Cartridge type spindle is easy to replace

### Highly rigid spindle with better support combined load

Four angular bearings can accept both radial and axial loads simultaneously.

## Axis Transmission

The C3 precision ground ballscrews provide high accuracy and rapid feed rate. All axes are driven with AC servo motors. The high power thrust enables high accuracy cutting.

### X/Z/Z2 axes

Servo motor and high precision ballscrew are directly coupled to reduce vibration.

### Y axis(option)

Y-Axis transmission is driven by servo motor and belt. The servo motor is well deployed for space-saving.

## Guideway

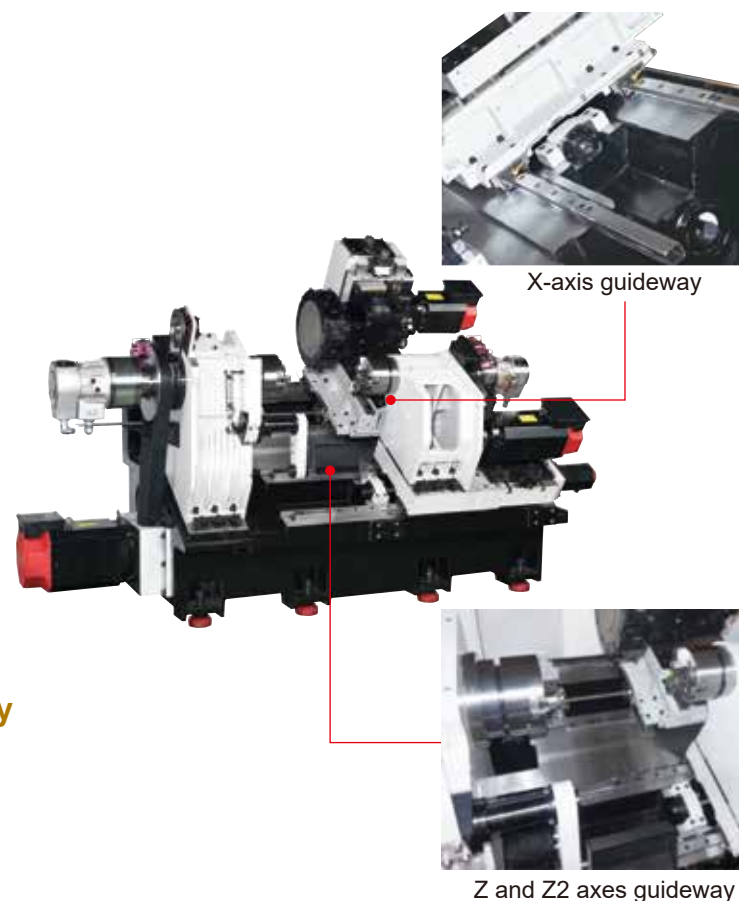
Heavy duty linear guideways supports high stability, high precision and lower vibration during heavy duty machining.

### X/Z/Z2 axes ball-type linear guideway

Achieve high precision by greatly enhanced moving accuracy.

### Y axis box way

Ensures high stability during cutting



## Turning & Milling in One-Setup

The combination of turning and milling brings higher efficiency and enhances the productivity of high complex parts



### Y-axis(opt.)

The perpendicular motion of  $\pm 50\text{mm}$  to X-axis enables diverse and off-center machining for complicated parts.

### C-axis with Braking System

Both spindles have C-axis control. C axis with hydraulic braking system provides spindle angle indexing and superior machining performance.

## High-efficient Controller



### Fanuc 0iTF controller with 10.4" LCD display and Manual Guide i (Opt.)

The optimal ease-of-use controller with large screen provides easy operation. The screen and operation panel can swivel to an optimal position and the screen height is set to fit the ergonomic requirement. USB and Ethernet connection port are designed on the front panel, providing easy usage of memory card or network. The high-tech electric cabinet meets the latest CE regulation.

## Accessory

### Standard

- Fanuc 0iTF with 8.4" LCD Manual Guide 0i
- Main spindle motor 11/15kW
- Auxiliary spindle motor 7.5/11kW
- C axis with braking system
- Power turret, APEX PT16-16-RB-330, 12-station, BMT55 tooling
- Cooling system
- Hydraulic 3-jaw chuck for LD-52 & LD-65: 8" for primary spindle; 6" for auxiliary spindle
- Foot switch for chuck operation
- Auto lubrication system
- Work lamp
- M30 program stop light
- Hydraulic unit
- Fully enclosed splash guard with interlock safety device
- Tool set & box, level pads, operation manual & parts list
- Heat exchanger for electric cabinet

### Option

- C axis
- Y axis
- Chip conveyor
- Air conditioner
- 12-station hydraulic turret, regular type
- 12-station VDI30 power turret
- 12-station VDI30 power servo turret
- 10" Hydraulic 3-jaw chuck for LD-65 primary spindle
- Hydraulic collet chuck
- Tool probe (Automatic / Manual)
- Coolant through tool system (20bar)
- Bar feeder
- Fanuc 0iTF controller with 10.4" LCD display and Manual Guide i
- FANUC  $\alpha 15/7000i$  15/18.5 kW for main spindle
- Parts catcher



Hydraulic 3-jaw chuck



Tool probe (Automatic/Semi-automatic)

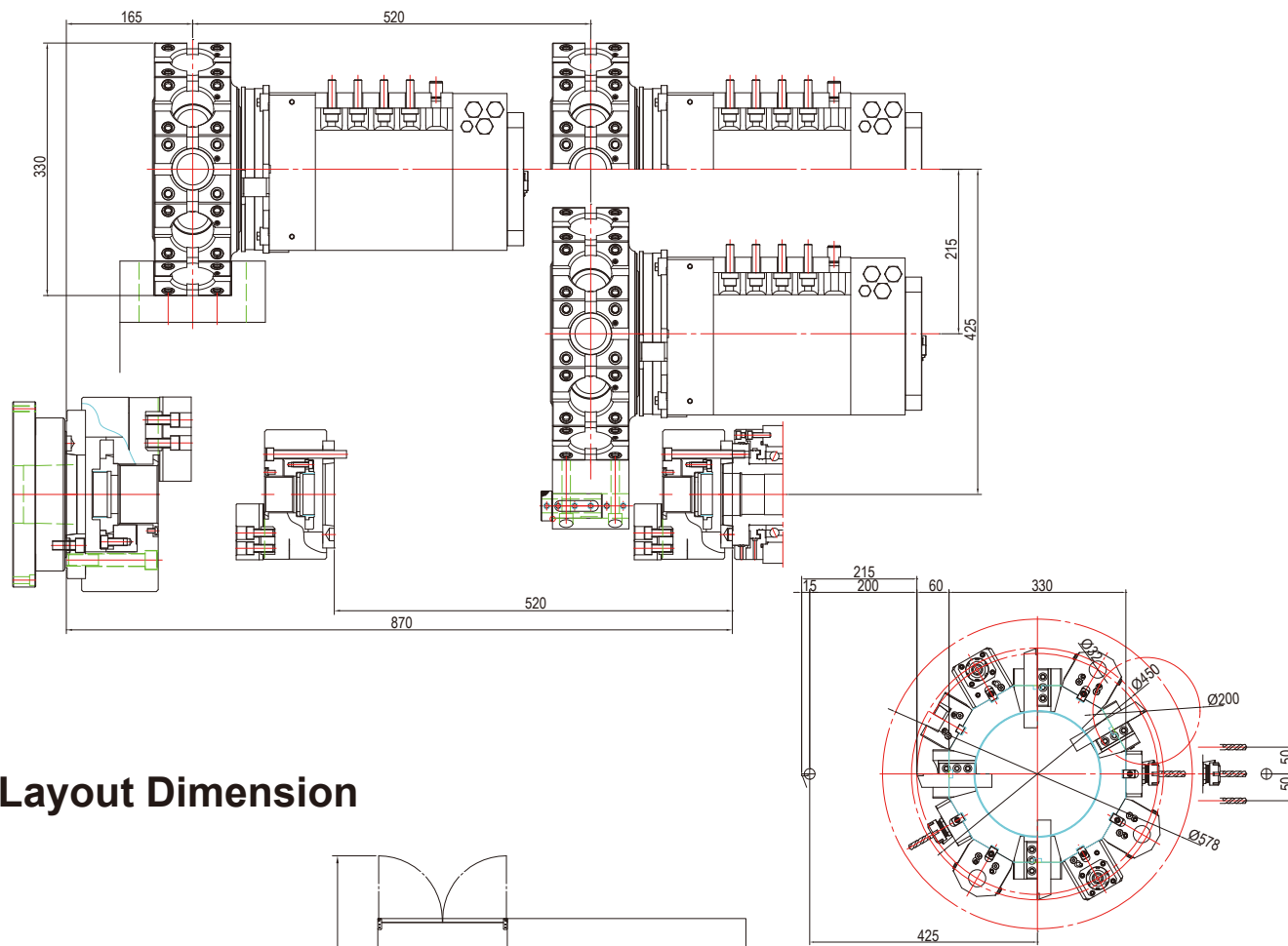


Automatic parts catcher

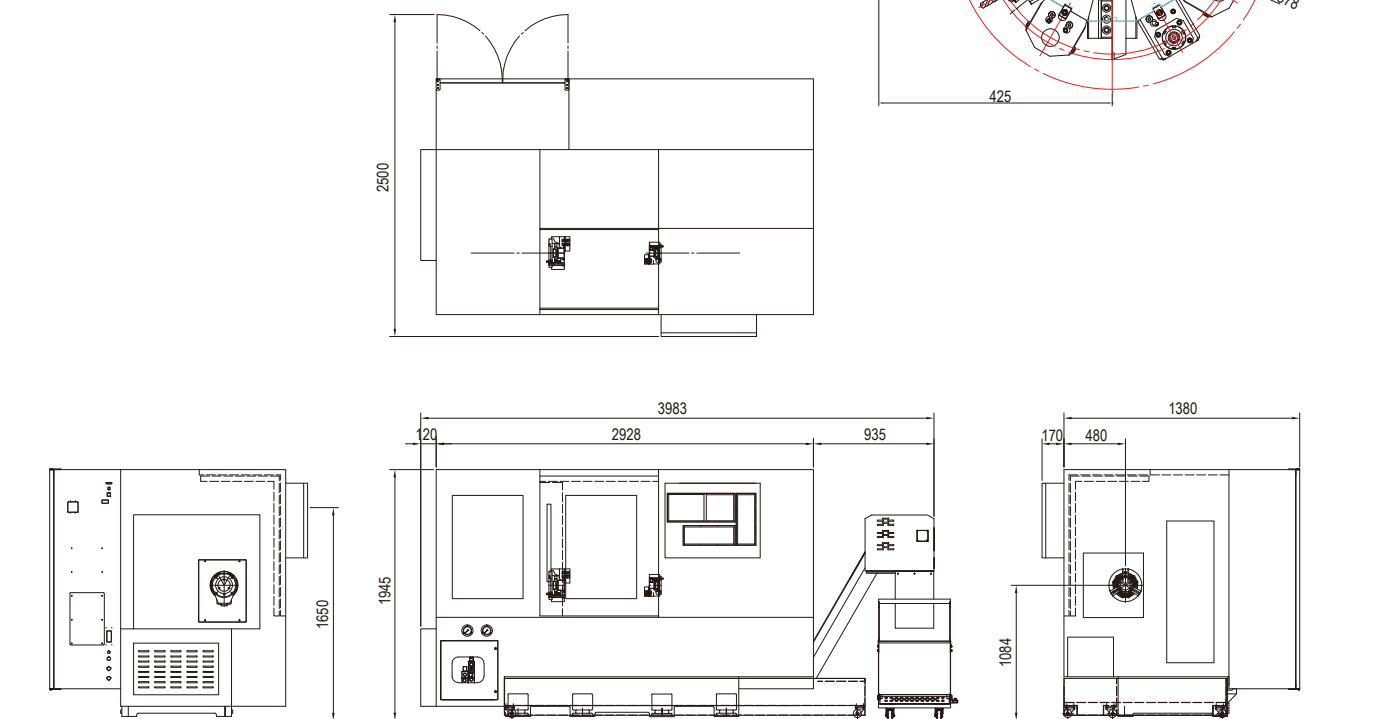


Bar feeder interface

## Interference Drawing

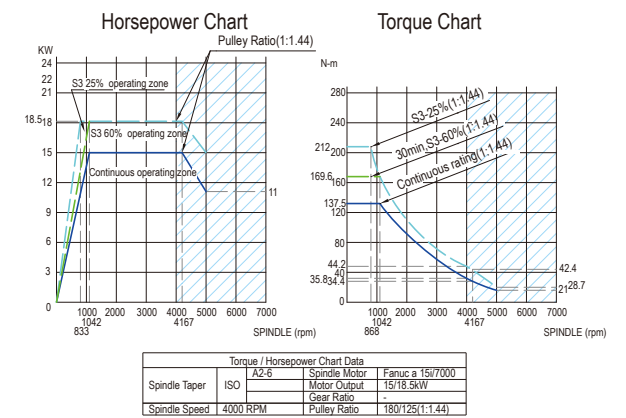
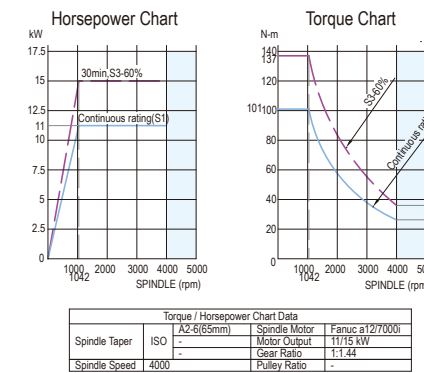


## Layout Dimension

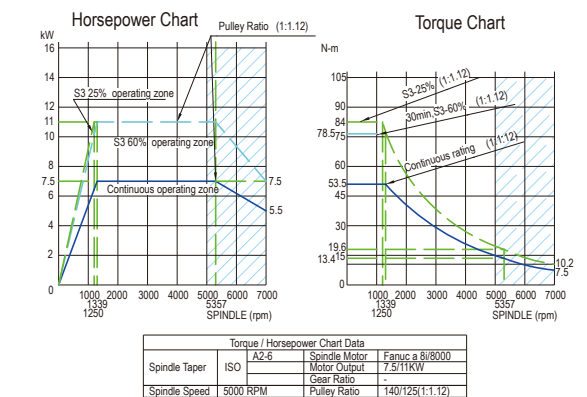


## Torque and Power Chart

## Primary spindle Standard



### Auxiliary spindle



## Tooling System

## 12-Station BMT-55 Power Turret/ Toolholder 20mm

