

COMPACT PRECISION GANG TYPE CNC LATHE

L20



The L20 is a compact gang type CNC lathe that TAKAHASHI's over 55years experienced high-speed precision turning technologies are condensed.

●Spindle & Headstock

High-speed precision spindle with built-in spindle motor enables maximum 10,000min⁻¹.
(option: 15,000min⁻¹)

Combined machining is available by using C-axis and rotating tool(option).

●X-axis & Z-axis sideways's

X,Z axis ball screws are preloaded to maintain the thermal stability from the heat expansion.
High rigid linear slide ways are employed which offers smooth contour machining for light taper and radius turning.

TMW TAKAHASHI MACHINERY

MACHINE STANDARD SPECIFICATION

Specifications	Unit	L20
Capacity	Max.turnable O.D.	mm (in) $\phi 100(3.937)$
	Max.bar capacity	mm (in) $\phi 20(0.787)$
	Max.turnable length	mm (in) 80(3.144)
	Max.chuck size	in 4
Travel	Z-axis	mm (in) 200(7.874)
	X-axis	mm (in) 200(7.874)
Main Spindle max.speed	min ⁻¹ (rpm)	Max.10,000 (Option:15,000 with Ceramic ball bearings)
Rapid feed rate	X-axis	mm/min (IPM) 20,000(787.401)
	Z-axis	mm/min (IPM) 20,000(787.401)
Cutting feed rate	mm/rev (in/rev)	0.0001~40.0(0.000001~9.999999)
	mm/min (IPM)	1~4,000(0.01~400.0)
Main Spindle motor	kw (HP)	Built-in spindle motor 2.2/1.5(2.9/2.0) (Option: Ceramic ball bearings with grease lubrication)
Servomotor	kw (HP)	X:0.75/Z:0.75(1.0/1.0)
Machine size	Height	mm (in) 1,450(57.086)
	Floor space(WxD)	mm (in) 1,350(53.149)×1,190(46.85)
	Weight	Kg (lb) 1,200(2,646)

STANDARD ACCESSORIES

- X-Z axis lubrication system 1 set ● Tool holders 3 sets ● Spindle chilling system 1 set ● Splash guard 1 set ● Coolant unit 1 set ● Door lock system 1 set ● Work light 1 set ● Coolant blow system 1 set ● Hand tools 1 set

OPTIONAL ACCESSORIES

- X axis linear scale(resolution 0.05 micron meter) ● Chip conveyor ● Automatic fire extinguisher ● Duct for mist collector ● Oil mist collector ● Coolant temperature controller ● 4"precision air chuck and jaws ● 4"diaphragm chuck and jaw ● Air blow through spindle ● Air blow system ● Tool counter ● TMW 20-type($\phi 20$ mm max.)mechanical collet closer ● Quick change type toolholder system ● Door automatic open/close

CNC UNIT STANDARD SPECIFICATIONS

Specifications	Unit	FANUC Series Oi-T
Controlled axis		3 Axes(X,Z,C) Simultaneously controlladle axis: 3 axes(automatic mode)
Least input increment	mm (in)	0.0001(0.00001)
Max.programmable dimensions	mm (in)	$\pm 9999.9999(\pm 999.99999)$
Manual handle feed	mm (in)	0.0001(0.00002),0.001(0.0001),0.01(0.001)
Interpolation function		Linear,Taper,Threading,Circular Incremental & Absolute
Part program storage & editing	m (ft)	800(2,624.8)
Display	in	8.4 inch color LCD
Number of register able programs		400
Input code		ISO/EIA automatic recognition
Tool offset maount memory		± 7 digits,64pairs
Rapid traverse override		4 steps
Reference position		Manual,Automatic

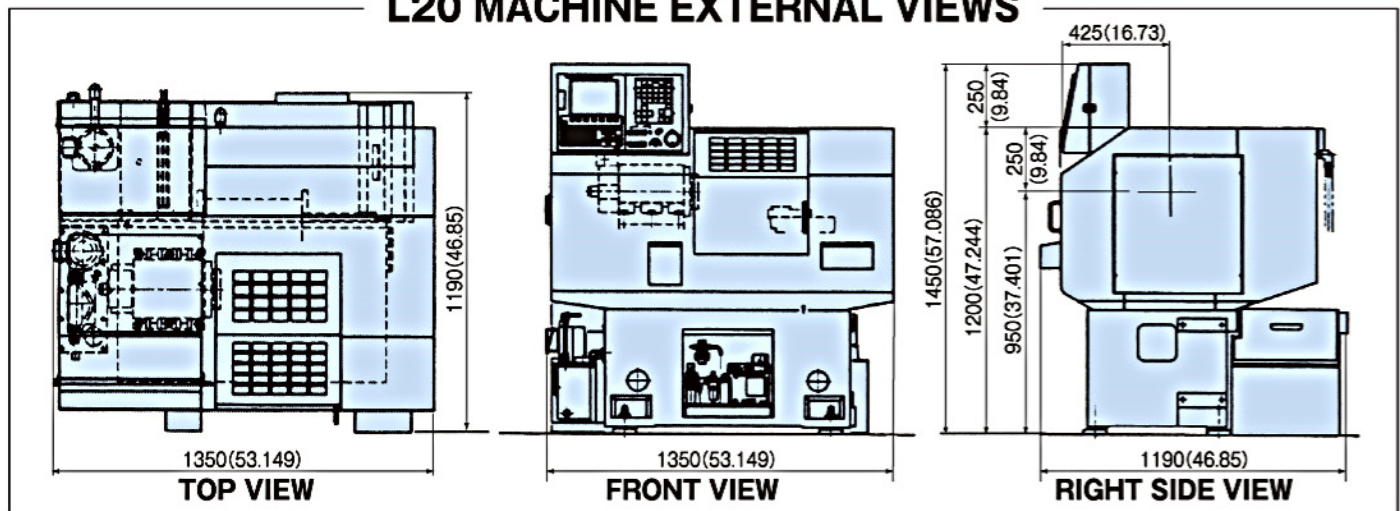
CNC UNIT STANDARD ACCESSORIES

- Tool geometry and wear offset ● Chamfering/corner R ● Manual pulse generator ● Backlash compensation ● Canned cycles ● Multiple repetitive cycles (G70~G76) ● Run hour and parts count display ● Thread cutting retract ● Continuous threading ● Play back ● Radius designation on arc ● X axis diameter/radius programming ● Constant surface speed control ● Tool nose radius compensation ● Inch/metric conversion ● Custom macro ● Extended program editing ● Rigid tapping

CNC UNIT OPTIONAL ACCESSORIES

- External offset input interface ● Reader/puncher interface ● Automatic tool offset

L20 MACHINE EXTERNAL VIEWS



TMW

● Due to continual research and improvement, the above specifications are subject to change without notice.

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