



CNC LATHES

TNC 460/460H/530  
TNC 660A/770A/890A

## **TEACH-IN CNC LATHES**

WITH **FAGOR** CONTROLLER

- EASY OPERATION
- ECONOMIC, HIGH EFFICIENCY
- MULTI FUNCTION

**CNC-TAKANG**

**CNC-TAKANG CO., LTD.**  
MANUFACTURER & EXPORTER

TEACH-IN

## ■ CONTROLLER FEATURES

### WIDER SELECTIONS

Manual operation with D.R.O. function.  
Semi-auto operation with auto feeding.  
Fully CNC operated lathes.

### EASY OPERATION

Interactive graphic data entry.  
Operations defined by symbol keys.  
Semi, fully-auto operation modes.

### MORE ADVANTAGES

Automatic part repetition for mass production.  
32 tool magazine  
Mini. preparation time.  
Part-operation sequence storage  
Tool data back-up

## ■ HARDWARE & OPERATION FUNCTIONS

Fagor 8055TC control + 11" LCD monitor  
Integrated PLC  
8 bit bus, 32K RAM  
Serial port(RS232 communication)  
Teach-in mode  
Semi-automatic, automatic (Cycle) and part program modes  
Automatic acceleration/deceleration  
Rapid traverse  
Self diagnostic routines  
Constant surface speed (CSS)  
Two electronic handwheels  
Automatic home searching  
Program input via RS-232 or floppy disk (option)

## ■ CONTROL PANEL FUNCTION KEYS

Auxiliary functions key	New tool selection
Axis selection	Numeric keyboard
Begin/End points entry	Output active/deactive keys
Constant surface speed	Parameter keys for operations
Coolant on/off key	Recall function
Cycle start/Cycle stop	Reset
Emergency stop	Single pass mode
Feed and rapid override	Spindle forward / reverse / off
Feedrate entry	Spindle override
Icon keys for operations	Spindle speed entry
Inc/abs coordinate selection	Spindle speed max. limitation in CSS
Jog selection	Zoom window function





## ■ MACHINE CONSTRUCTION BRIEF

### HEAD STOCK

3 positions bearing supported spindle, ground and hardened gear, auto lubricant and gear oil bathing system.

### BEDWAY

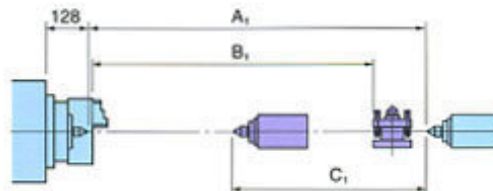
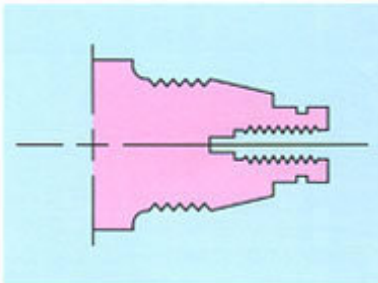
Meehanite FC-30 casting, heat-treat hardened, HS-70° hardness, precision ground, auto-lubricating system, high accurate ballscrews for X & Z axis.

## ■ MORE STANDARD FUNCTIONS OF THE CONTROLLER

Display  
Programming  
Tooling compensation

## ■ WORK RANGE : TNC460 / 460H / 530

MODEL	TNC460 / 460H / 530 x 1000	TNC460 / 460H / 530 x 1500
A <sub>1</sub>	1000 mm (40")	1520 mm (60")
B <sub>1</sub>	895 mm (35")	1415 mm (56")
C <sub>1</sub>	770 mm (30")	1290 mm (51")



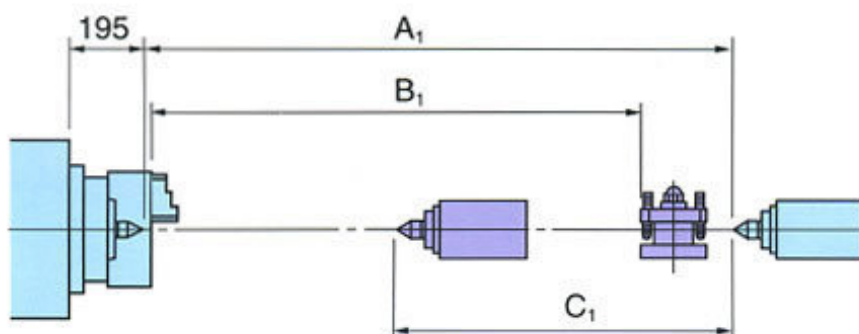
## ■ AUTOMATIC OPERATIONS

Turning cycle  
Facing cycle  
Taper turning cycle  
Rounding cycle  
Threading cycle  
Grooving cycle  
Straight section profiling cycle:  
-Pattern repeating  
-Stock removal

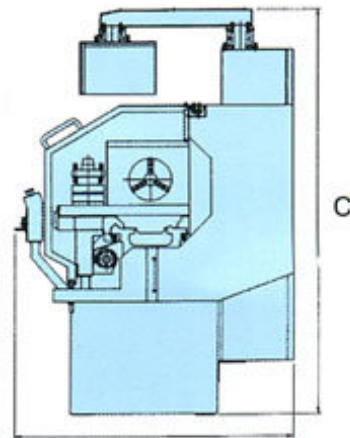
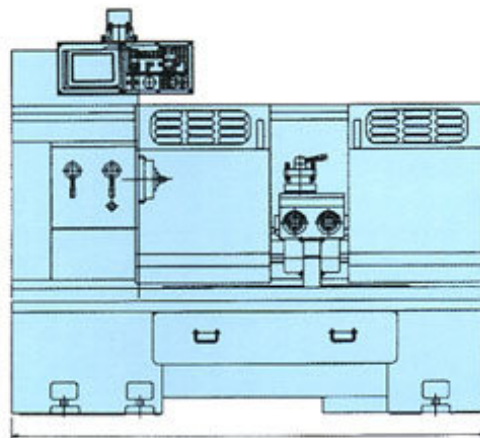
Sample drilling cycle  
Tapping cycle  
Finishing pass conditions setup:  
-Finish stock to be removed  
-Finishing feedrate  
-Safety distance  
Two execution levels:  
-Semi-automatic & automatic (cycle)

■ WORK RANGE : TNC660A / 770A / 890A

MODEL	TNC660A / 770A / 890A x 1500	TNC660A / 770A / 890A x 2000	TNC660A / 770A / 890A x 3000	TNC660A / 770A / 890A x 4000	TNC660A / 770A / 890A x 5000
A <sub>1</sub>	1520 mm (60")	2030 mm (80")	3050 mm (120")	4050 mm (159.5")	5050 mm (198.8")
B <sub>1</sub>	1380 mm (54.3")	1890 mm (74.4")	2910 mm (114.6")	3910 mm (154")	4910 mm (193.3")
C <sub>1</sub>	1350 mm (53.1")	1860 mm (73.2")	2880 mm (113.4")	3880 mm (152.8")	880 mm (192.1")

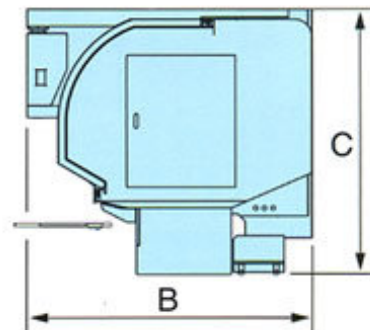
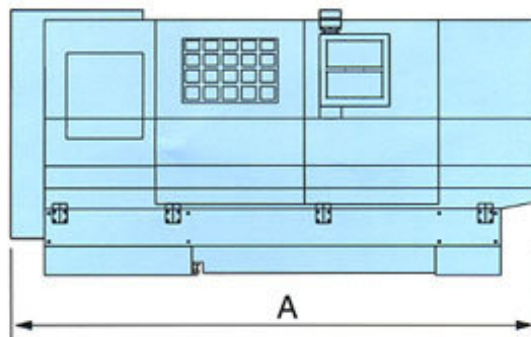


■ DIMENSION: TNC460 / 530



MODEL	A	B	C
TNC460 x 1000 TNC460H x 1000	2190 mm (86.2")	1280 mm (50.4")	1900 mm (74.8")
TNC460 x 1500 TNC460H x 1500	2710 mm (106.7")	1280 mm (50.4")	1900 mm (74.8")
TNC530 x 1000	2190 mm (86.2")	1340 mm (52.7")	1935 mm (76.2")
TNC530 x 1500	2710 mm (106.7")	1340 mm (52.7")	1935 mm (76.2")

■ DIMENSION: TNC660A / 770A / 890A



MODEL	A	B	C
TNC660A x 1500	3795 mm (149.4")	2090 mm (82.3")	1920 mm (75.6")
TNC660A x 2000	4295 mm (169.1")	2090 mm (82.3")	1920 mm (75.6")
TNC660A x 3000	5295 mm (208.5")	2090 mm (82.3")	1920 mm (75.6")
TNC660A x 4000	6295 mm (247.8")	2090 mm (82.3")	1920 mm (75.6")
TNC660A x 5000	7295 mm (287.2")	2090 mm (82.3")	1920 mm (75.6")
TNC770A x 1500	3795 mm (149.4")	2090 mm (82.3")	1920 mm (75.6")
TNC770A x 2000	4295 mm (169.1")	2090 mm (82.3")	1920 mm (75.6")
TNC770A x 3000	5295 mm (208.5")	2090 mm (82.3")	1920 mm (75.6")
TNC770A x 4000	6295 mm (247.8")	2090 mm (82.3")	1920 mm (75.6")
TNC770A x 5000	7295 mm (287.2")	2090 mm (82.3")	1920 mm (75.6")
TNC890A x 1500	3798 mm (149.4")	2090 mm (82.3")	1920 mm (75.6")
TNC890A x 2000	4295 mm (169.1")	2090 mm (82.3")	1920 mm (75.6")
TNC890A x 3000	5295 mm (208.5")	2090 mm (82.3")	1920 mm (75.6")
TNC890A x 4000	6295 mm (247.8")	2090 mm (82.3")	1920 mm (75.6")
TNC890A x 5000	7295 mm (287.2")	2090 mm (82.3")	1920 mm (75.6")

## SPECIFICATIONS:

MODEL	DESCRIPTION	TNC460 / TNC460L	TNC460H / TNC460HL	TNC530 / TNC530L	TNC660A	TNC770A	TNC890A
Capacity	Swing over bed	460 mm (18")	460 mm (18")	530 mm (20.9")	660 mm (26")	770 mm (30.3")	900 mm (35.4")
	Swing over cross slide	240 mm (8.7")	240 mm (8.7")	305 mm (9.4")	360 mm (14.2")	470 mm (18.5")	600 mm (23.6")
	Center height	230 mm (9")	230 mm (9")	265 mm (10.4")	325 mm (12.8")	380 mm (15")	445 mm (17.5")
	Distance between center	1000 mm (40"), 1500 mm (60")	1000 mm (40"), 1500 mm (60")	1100 mm (40"), 1520 mm (60")	1500 mm (60"), 2000 mm (80"), 3000 mm (120"), 4000 mm (157"), 5000 mm (196")		
	Bed width	350 mm (13.8")	350 mm (13.8")	350 mm (13.8")	480 mm (18.9")		
Spindle	Spindle nose	A1 - 6 or D1 - 6	A2 - 6	A1 - 8 or D1 - 8	A1 - 11 or D1 - 11		
	Spindle speeds (4 steps)	H1 : 900 - 2500 rpm H2 : 320 - 1000 rpm L1 : 110 - 400 rpm L2 : 45 - 150 rpm	40 - 4000 rpm	H1 : 550 - 1600 rpm H2 : 210 - 640 rpm L1 : 80 - 250 rpm L2 : 30 - 100 rpm	H1 : 541 - 1200 rpm H2 : 166 - 540 rpm L1 : 76 - 165 rpm L2 : 25 - 75 rpm		
	Spindle bore	54 mm (2.1")	54 mm (2.1")	80 mm (3.2")	104 mm (4") / 155 mm (6") 230 mm (9") (OPT)		
	Chuck size	8"	8"	10"	12" / 15" (OPT)		
Turret	Longitudinal travel (Z axis)	895 mm (35.2"), 1415 mm (55.7")	895 mm (35.2"), 1415 mm (55.7")	895 mm (35.2"), 1415 mm (55.7")	1305 mm (51.4"), 1800 mm (70.8"), 2800 mm (110.2"), 3800 mm (49.61"), 4800 mm (188.98")		
	Crossslide travel (X axis)	280 mm (11")	280 mm (11")	300 mm (11.8")	400 mm (15.7")		
	Topslide width	115 mm (4.5")	115 mm (4.5")	125 mm (4.9")	280 mm (11")		
	Size of toolpost shank	25 mm x 25 mm (1" x 1")	25 mm x 25 mm (1" x 1")	25 mm x 25 mm (1" x 1")	32 mm x 32 mm (1.3" x 1.3")		
	X axis rapid travel	5 M / min. (200 ipm)	5 M / min. (200 ipm)	5 M / min. (200 ipm)	5 M / min. (200 ipm)		
	Z axis rapid travel	10 M / min (400 ipm)	10 M / min (400 ipm)	10 M / min (400 ipm)	10 M / min (400 ipm)		
Tailstock	Quill diameter	65 mm (2.5")	65 mm (2.5")	65 mm (2.5")	105 mm (4.1")		
	Quill travel	150 mm (6")	150 mm (6")	150 mm (6")	150 mm (6")		
	Quill taper	MT 4	MT 4	MT 5	MT 5		
Motor	Spindle motor	7.5 HP / 10 HP (OPT)	7.5 HP / 10 HP (OPT)	10 HP / 15 HP (OPT)	20 HP / 25 HP (OPT)		
	Drives (X, Z)	DC SERVO	AC SERVO	DC SERVO	AC SERVO		
	Range of feeds in manual mode	0.01 - 500 m / rev. (0.0004 - 19.68 in / rev.)	0.01 - 500 m / rev. (0.0004 - 19.68 in / rev.)	0.01 - 500 m / rev. (0.0004 - 19.68 in / rev.)	0.01 - 500 m / rev. (0.0004 - 19.68 in / rev.)		
	Coolant pump motor	1 / 8 HP	1 / 8 HP	1 / 8 HP	1 / 8 HP		
Machine weight	2270 kgs (5000 lbs), 2724 kgs (6000 lbs)	2500 kgs (5500 lbs), 2750 kgs (6050 lbs)	3000 kgs (6600 lbs), 3500 kgs (7700 lbs)	5000 kgs (11000 lbs), 5500 kgs (12100 lbs), 6500 kgs (14300 lbs), 7500 kgs (16500 lbs), 8500 kgs (18700 lbs)			

※ THE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

### ■ STANDARD ACCESSORIES:

1. Auto lubrication system
2. Coolant system
3. 8" hydraulic hollow chuck & cylinder (Only for TNC460H series)
4. H4 electrical tool post (Only for TNC460H series)
5. 4 stations manual toolpost
6. Rear splash guard with two slide front doors
7. RS-232 port
8. Work light
9. Adapter sleeve
10. Two dead center
11. Leveling bolts & pads
12. Tool box with tools
13. Accuracy test record
14. Operation & service manual

### ■ OPTIONS:

1. Larger spindle motor
2. Bigger spindle bore
3. 3-jaw chuck (OD)
4. 4-jaw chuck (OD)
5. Hydraulic chuck (OD, Through hole)
6. Face plate
7. Steady rest
8. Follow rest
9. Quick change tool post
10. 4 stations electric turret
11. 8 stations hydraulic turret with direct type disk
12. Rotation center
13. Hydraulic tailstock
14. Chip conveyor
15. Transformer (power supply except 220V)
16. CE mark

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