



# TNC-460N/540N/630N

TEACH-IN **CNC** LATHES SERIES

TAKANG LATHES WITH **FAGOR** CONTROLLER

- EASY OPERATION
- ECONOMIC, HIGH EFFICIENCY
- MULTI FUNCTION

**CNC-TAKANG**

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

TNC-460N/540N/630N

## ■ 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

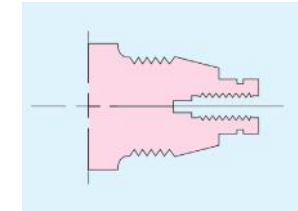
9" VGA high resolution monochrome monitor  
Integrated PLC  
8 bit bus, 32K RAM  
Serial port(RS232 communication)  
Teach-in mode  
Semi-automatic, automatic(Cycle) and part program modes  
Automatic acceleration/deceleration  
Rapid traverse  
Self diagnostic routines  
Constant surface speed(CSS)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



## ■ AUTOMATIC OPERATIONS

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

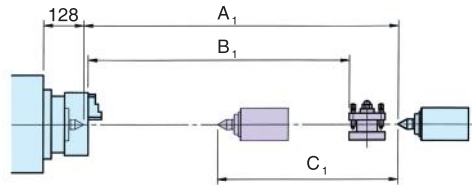
Sample drilling cycle  
Tapping cycle  
Finishing pass conditions setup:  
-Finish stock to be removed  
-Finishing feedrate  
-Safety distance  
Two execution levels:  
-Semi-automatic & automatic(cycle)



## ■ CONTROL PANEL FUNCTION KEYS

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

## ■ WORK RANGE



MODEL	TNC460N / 540N / 630N x 1000	TNC460N / 540N / 630N x 1500	TNC460N / 540N / 630N x 3000
<b>A<sub>1</sub></b>	1000 mm (40")	1500 mm (60")	2000 mm (80")
<b>B<sub>1</sub></b>	804 mm (32")	1304 mm (51")	1804 mm (71")
<b>C<sub>1</sub></b>	800 mm (32")	1300 mm (51")	1800 mm (71")

## ■ MACHINE CONSTRUCTION BRIEF

### HEAD STOCK

3 points bearing supported spindle, ground and hardened gear, well lubricant and gear oil bathing system.

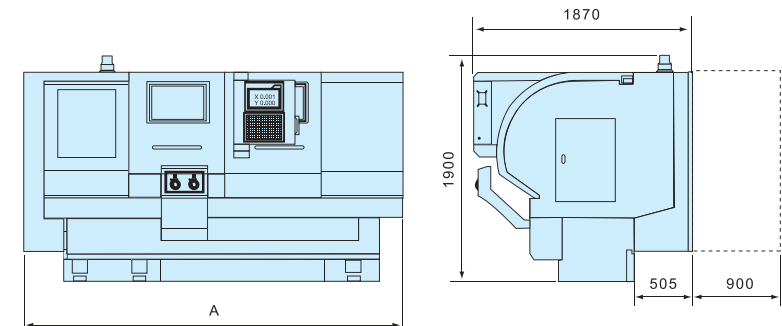
### BEDWAY

Meehanite FC-30 casting, heat-treat hardened, HS-700 hardness, precision ground, auto-lubricating system, high accurate ballscrews for X & Z axis.

## ■ MORE STANDARD FUNCTIONS OF THE CONTROLLER

Display  
Programming  
Tooling compensation

## ■ DIMENSION



MODEL	A	B	C
TNC460N / 540N / 630N x 1000	2720 mm (107.1")	1870 mm (73.6")	1900 mm (78.4")
TNC460N / 540N / 630N x 1500	3220 mm (126.8")	1870 mm (73.6")	1900 mm (78.4")
TNC460N / 540N / 630N x 2000	3720 mm (146.5")	1870 mm (73.6")	1900 mm (78.4")

## SPECIFICATIONS:

MODEL	TNC-460N	TNC-540N			TNC-630N	
Swing over bed	Ø460mm (18")	Ø540mm (21")			Ø630mm (25")	
Swing over cross slide	Ø230mm (9")	Ø310mm (12")			Ø400mm (15")	
Center height	230mm (9")	270mm (10.6")			315mm (12")	
Distance between centers	1000mm (40") / 1500mm (60") / 2000mm (80")					
Width of bed	350mm (13.8")					
Spindle nose	D1-6	D1-8	A2-11 (OPT)	D1-8	A2-11(OPT)	A2-11(OPT)
Auto change spindle speed (3 steps)	H : 3100-681rpm M : 680-151rpm L : 150-30rpm	H : 2250-491rpm M : 490-125rpm L : 124-27rpm	H : 1500-330rpm M : 330-92rpm L : 92-24rpm	H:2250-491rpm M : 490-125rpm L : 124-27rpm	H: 1500-330rpm M : 330-92rpm L : 92-24rpm	H : 800-176rpm M : 175-53rpm L : 52-10rpm
Spindle bore	Ø 56 mm (2.2")	Ø 85 mm (3.3")	Ø 104 mm (4")	Ø 85 mm(3.3")	Ø 104 mm (4")	Ø 153 mm (6")
Longitudinal travel (Z axis)	910 mm (35.8") / 1410 mm (55.5") / 1910 mm (75.2")					
Cross slide travel (X axis)	280 mm	350 mm				
Top slide width	110 mm (4.3")	125 mm (5")				
Size of tool post shank	25 mm x 25 mm (1 x 1")					
Tailstock quill diameter	Ø 75 mm (2.95")					
Tailstock quill travel	180 mm (7.1")					
Tailstock quill taper	MT5					
Spindle motor	7.5 HP (10 HP OPT)	10 HP (15 HP OPT)				
Drives (X, Z)	SERVO					
Rapid traverse X, Z	5000, 7000 mm / min					
Range of feeds in manual mode	0.01 – 500 mm / min					
Coolant pump motor	1/6 HP					
Machine weight	2700 kgs / 3000 kgs / 3300 kgs	3100 kgs / 3400 kgs / 3700 kgs			3300 kgs / 3700 kgs / 4000 kgs	

※THE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

### ■ STANDARD ACCESSORIES:

1. Auto lubrication system
2. Coolant system
3. 4 stations manual toolpost
4. Full splash guard
5. RS-232 port
6. Work light
7. Adapter sleeve
8. Two dead centers
9. Leveling bolts & pads
10. Tool box with tools
11. Inspection record
12. Operation & service manual

### ■ OPTIONS:

1. Larger spindle motor
2. 3-jaw chuck
3. 4-jaw chuck
4. Face plate
5. Steady rest
6. Follow rest
7. Quick change toolpost
8. Rotation center, MT5
9. Hydraulic tailstock
10. 4 stations electric turret
11. 8 stations hydraulic turret with direct type disk
12. Chip conveyor
13. CE mark

## CNC-TAKANG CO., LTD.

No. 72, Alley 7, Lane 98, 1st Road, Taichung Industry Park,  
Taichung 40767, TAIWAN  
FAX: +886-4-2359 6064 E-mail: takang@ms17.hinet.net  
TEL: (04)2359 6056 Web site: www.cnctakang.com.tw

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