



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

■ 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

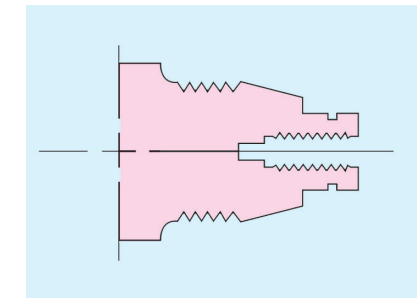
9" VGA high resolution monochrome monitor
Integrated PLC
8 bit bus, 32K RAM
Serial port(RS232 communication)
Teach-in mode
Semi-automatic, automatic(Cycle) and part program modes
Automatic acceleration/deceleration
Rapid traverse
Self diagnostic routines
Constant surface speed(CSS)
Two electronic handwheels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

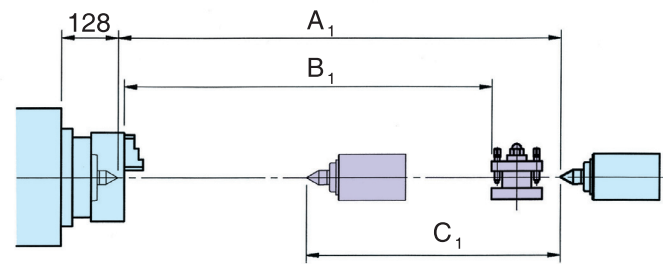
Sample drilling cycle
Tapping cycle
Finishing pass conditions setup:
-Finish stock to be removed
-Finishing feedrate
-Safety distance
Two execution levels:
-Semi-automatic & automatic(cycle)



■ CONTROL PANEL FUNCTION KEYS

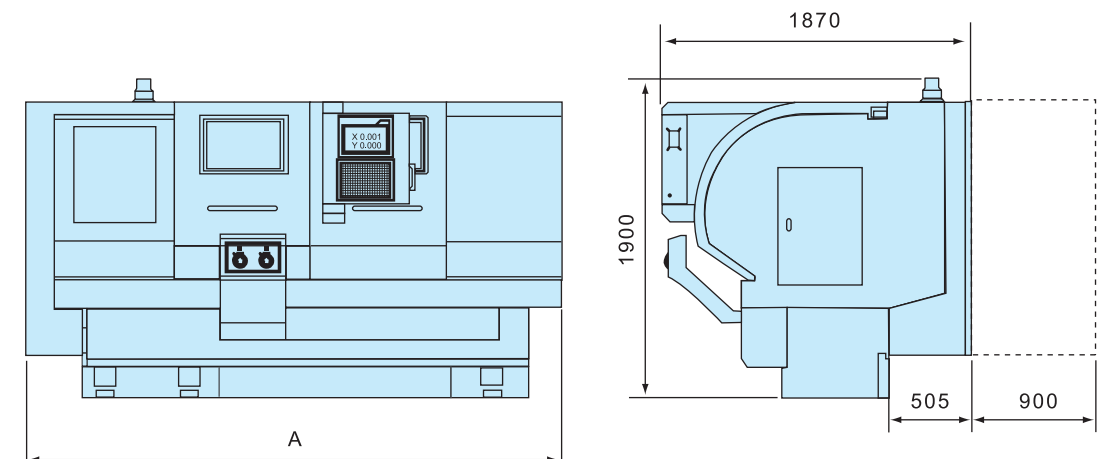
Auxiliary functions key
Axis selection
Begin/End points entry
Constant surface speed
Coolant on/off key
Cycle start/Cycle stop
Emergency stop
Feed and rapid override
Feedrate entry
Icon keys for operations
Inc/abs coordinate selection
Jog selection
New tool selection
Numeric keyboard
Output active/deactive 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
A ₁	1000 mm (40")	1500 mm (60")	2000 mm (80")
B ₁	804 mm (32")	1304 mm (51")	1804 mm (71")
C ₁	800 mm (32")	1300 mm (51")	1800 mm (71")

■ DIMENSION



■ 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-70 \bar{u} hardness, precision ground, auto-lubricating system, high accurate ballscrews for X & Z axis.

■ MORE STANDARD FUNCTIONS OF THE CONTROLLER

Display
Programming
Tooling compensation

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	Dia. 460 mm (18")	Dia. 540 mm (21")			Dia. 630 mm (25")		
Swing over cross slide	Dia. 230 mm (9")	Dia. 310 mm (12")			Dia. 400 mm (15")		
Center height	230 mm (9")	270 mm (10.6")			315 mm (12")		
Distance between centers	1000 mm (40") / 1500 mm (60") / 2000 mm (80")						
Width of bed	350 mm (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: 681-3100 rpm M: 153-680 rpm L: 33-152 rpm	H: 491-2250 rpm M: 126-490 rpm L: 27-125 rpm	H: 331-1500 rpm M: 93-330 rpm L: 20-92 rpm	H: 491-2250 rpm M: 126-490 rpm L: 27-125 rpm	H: 331-1500 rpm M: 93-330 rpm L: 20-92 rpm	H: 176-800 rpm M: 53-175 rpm L: 10-52 rpm	
Spindle bore	Dia. 56 mm (2.2")	Dia. 85 mm (3.3")	Dia. 105 mm (4")	Dia. 85 mm (3.3")	Dia. 105 mm (4")	Dia. 153 mm (6")	
Longitudinal travel (Z axis)	810 mm (31.8") / 1310 mm (51.5") / 1810 mm (71.2")						
Cross slide travel (X axis)	280 mm	350 mm					
Cross slide width	190 mm (7.4")	125 mm (5")					
Size of tool post shank	25 mm x 25 mm (1 x 1")						
Tailstock quill diameter	Dia. 75 mm (2.95")						
Tailstock quill travel	170 mm (6.6")						
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 / rev						
Coolant pump motor	1 / 6 HP						
Machine weight	2900 kgs / 3200 kgs / 3500 kgs	3100 kgs / 3400 kgs / 3700 kgs			3200 kgs / 3500 kgs / 3800 kgs		

※THE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

■ STANDARD ACCESSORIES:

1. Auto lubrication system
2. Coolant system
3. Full splash guard
4. RS-232 port
5. Work light
6. Adapter sleeve
7. Two dead centers
8. Leveling bolts & pads
9. Tool box with tools
10. Inspection record
11. 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. Rotation center, MT5
8. Hydraulic tailstock
9. 4 stations manual toolpost
10. Quick change toolpost
11. 4 stations electric turret
12. 8 stations hydraulic turret with direct type disk
13. Chip conveyor
14. CE mark

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