CNC LATHE MACHINE

Model: 6132

Features

- CNC lathe machine should be controlled by micro- computer and driven by servo motors
- Should be suitable for turning cylindrical and taper faces, boring, grooving and cutting threads;
- Should adopt ISO international code with keyboard manual data input
- Should be provided with program of power cut-off protection.
- Should have automatic functions of diagnosis and USB/RS-232 interfacing.
- Should have provision to select 4 station tool post as well gang tool.
- Tool post should be located on precision contrite gears with a high repeated position accuracy.
- Infinitely variable speed change for spindle.
- LCD display should be integrated with CNC controller for network facility.
- 100Mbps Ethernet should be embedded with CNC controller for network facility.
- High speed data transfer between controller and machine.
- NC programs can be stored in controller.
- Memory operation and program editing facility in the controller.
- CNC controller should support G-code, M-code and ISO code.
- CNC controller should support various machining cycles.
- CNC controller should use high- speed microprocessor for speedy data processing.
- CNC controller should support power source regeneration for energy saving.
- CNC controller should have built-in tool management data table for managing tools.
- CNC controller should support English and other languages.
- CNC controller should adopt error correction code to correct the errors during data transfer.

Machine Specification	
swing over bed	320 mm
Swing over cross slide Distance between centers	110mm 500/700 mm
Spindle bore Spindle bore taper	60 mm MT6
Spindle nose type spindle speed steps	A2-5 step less
spindle speed range Turret /tool post	100-2000 rpm Electric 4 position
Tool size X-axis travel	20 x 20 mm 170 mm
Z-axis travel X-axis rapid traverse	500 mm 6000 mm
Z-axis rapid traverse Tailstock quill diameter Tailstock quill taper Tailstock quill travel	8000 mm 50 mm MT4 90 mm
Main spindle motor Coolant pump motor Controller Configuration Brand	4kw 0.09 kw GSK
Model	980 TDc

Product introduction	This is a new upgraded software, its software, its structure horizontal and vertical, matched with 8.4-inch color LCD, with 5 feed axes (including C axis), 2 analog spindles, least input increment 0.1μm. It uses the graphic interface, friendly human-machine operation window. It can realize the PLC on-line display, real-time monitoring and MPG trial-cut function. X, Z, Y, 4th, 5th ; axis name and axis type of Y, 4th, 5th can be defined 2ms interpolation period, control precision 1μm, 0.1μm Max. speed 60m/min (up to 24m/min in 0.1μm) Adapting to the servo spindle to realize the spindle continuously positioning, rigid tapping and the rigid thread machining Built-in multi PLC programs and the PLC program currently running can be selected. G71 supporting flute contour cycle cutting statement macro command programming, macro program call with parameter Metric/inch programming, automatic tool setting, automatic chamber, tool life management function Chinese, English, Spanish, Russian display can be selected by parameters. USB interface, U disc file operation, system configuration and software 2-channel 0V~10V analog voltage output, two-spindle control 1-channel MPG input, MPG function 41 input signals and 36 output signals
Technical specification	
Controllable axes	5 (X, Z, Y, 4th, 5th) (Option)
Link axes	3
PLC controllable axes	3 (X, Z, Y, 4th, 5th) (Option)
Feed axis function	
Least input increment	0.001mm (0.0001inch) and 0.0001mm (0.00001inch)
Least command increment	0.001mm (0.0001inch) and 0.0001mm (0.00001inch)
Position command range	±99999999× least command unit.
Rapid traverse speed	max. speed 60m/min in 0.001mm command unit, max. speed 24m/min in 0.0001mm command unit
Rapid override	F0, 25%, 50%, 100%
Feed rate override	0~150% 16 grades to tune
Interpolation mode	linear interpolation, arc interpolation (three-point arc interpolation), thread interpolation, ellipse interpolation, parabola interpolation and rigid tapping Automatic chamber function

Thread function	General thread (following spindle)/rigid thread Single/multi metric, inch straight thread, taper thread, end face thread, constant pitch thread and variable pitch thread Thread run-out length, angle, speed characteristics can be set .
Thread pitch	0.01mm～500mm or 0.06 tooth/inch～2540 tooth/inch
Acceleration/deceleration function	
Cutting feed	linear
Rapid traverse	linear, S
Thread cutting	linear, exponential Initial speed, termination speed, time of acceleration/deceleration can be set by parameters
Spindle function	2-channel 0V～10V analog voltage output, two-spindle control 1-channel spindle encoder feedback, spindle encoder line can be set （100p/r～5000p/r）
Transmission ratio between encoder and spindle	（1～255）：（1～255）
Spindle speed	it is set by S or PLC and speed range: 0r/min～9999r/min
Spindle override	50%～120% 8 grades tune
	Spindle constant surface speed control rigid tapping
Tool function	Tool length compensation Tool nose radius compensation (C) Tool wear compensation Tool life management
Tool setting mode	fixed-point tool setting, trial-cut tool setting, reference point return tool setting, automatic tool setting
Tool offset execution mode	modifying coordinate mode, tool traverse mode
Precision compensation	Backlash compensation Memory pitch error compensation
PLC function	Two-level PLC program,up to 5000 steps, the 1st program refresh period 8ms PLC program communication download PLC warning and PLC alarm Many PLC programs (up to 16PCS) , the PLC program currently running can be selected
Basic I/O	41 input signals /36 output signals
Man-machine interface 8.4" wide screen LCD	640×480 resolution Chinese, English, Spanish, Russian display Planar tool path display Real-time clock

Operation management	
Operation mode	Edit, auto, MDI, machine zero return, MPG/single, manual, program zero return Multi-level operation privilege management alarm record
Program edit	
Program capacity	40MB, 384 programs (including subprograms and macro programs
Edit function	Program/block word search, modification, deletion
Program format	ISO command, statement macro command programming, relative coordinate, absolute coordinate and compound coordinate programming Program call: macro program call with parameter, 4-level program built-in
Communication function	
RS232	Two-way transmitting part programs and parameters, PLC program, system software serial upgrade
USB	U file operation, U file directly machining, PLC program, system software U upgrade
Safety function	Emergency stop Hardware travel limit Software travel check Data backup and recovery
Environment and conditions	Storage delivery
Working environment as follows	
Working conditions	
Ambient temperature	0°C～45°C
Ambient humidity	≤90%(no freezing)
Atmosphere pressure	86 kPa～106 kPa
Altitude	≤1000m
Storage delivery conditions	
Ambient temperature	-40°C～+70°C

Ambient humidity	≤90%(no freezing)
Atmosphere pressure	86 kPa～106 kPa
Altitude	≤1000m
Storage delivery conditions	
Ambient temperature	-40°C～+70°C
Ambient humidity	≤95%(40)
Atmosphere pressure	86 kPa～106 kPa
Power supply	AC input power supply.
Voltage	Within (0.85～1.1)×200V (rated AC input voltage);
Frequency	49Hz～51Hz continuously changing.
Standard accessories	Should be supplied with following accessories 4-position electric tool post 3-jaw manual chuck Manual tailstock Tailstock center External and internal thread cutter Side cutter, Boring cutter, Slot cutter Half cover, inverter spindle and operation manual. Others Standard accessories with printed operational manual.