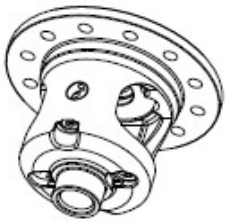
SAMSUNG SL 30/1000

CNC TURNING CENTER



MACHINE SPECIFICATIONS

CAPACITY

Swing over the bed	25.59”
Swing over the cross slide	18.90”
Maximum turning diameter	15.75”
Maximum turning length	41.34”

SPINDLE

Spindle nose	A2-8 (ASA)
Main spindle motor	30 / 25 hp

Prices and specifications are subject to change without notice.
Pictures and graphics are representative and may not be from the actual machine.

Spindle speed	2,500 rpm with 12” chuck
Bore diameter	4.13”
Draw tube ID	3.58”
Spindle torque (30 minute rating)	628.54 ft.-lbs.
Spindle drive method	Belt

BED, SLIDE & CARRIAGE

X axis travel	9.06”
Z axis travel	43.30”
Rapid traverse (X / Z)	945 ipm / 945 ipm
Guide ways (X / Z)	Box Way
Bed structure	45° Slant bed
Ball screws diameter (X / Z)	1.10” / 1.57”
Repeatability (X / Z)	±0.00012 / ±0.00039

TAILSTOCK

Tailstock center (Taper)	MT #4 (built-in)
Quill diameter	4.33”
Quill travel (by hydraulic)	3.94”
Maximum thrust of quill	1,586 lbs.

COOLANT SYSTEM

Coolant pump motor	1.2 hp (65 psi)
Coolant tank capacity	67.63 gal.
System type	Removable / Independent

HYDRAULIC / LUBRICATION

Hydraulic tank capacity	3.7 gal.
Hydraulic oil required (or equivalent)	ISO VG32
Way lubrication tank capacity	0.48 gal.
Way lubrication oil required (or equivalent)	ISO VG68

MACHINE SIZE

Floor space requirements (L x W)	190” x 69”
Machine weight	14,700 lbs.
Power consumption	42 kVA
Voltage	220V±10%, 60 Hz, 3 phase

CNC

CNC model	Fanuc 0i-TD
Display unit	10.4” TFT LCD Color Monitor

MACHINE CONSTRUCTION & FEATURES

- One-piece 45 degree rigid slant bed made out of **Meehanite** cast iron
- Box way construction with anti-friction mating way surfaces
- Anti-heat displacement spindle and headstock design
- Ultra precision and high rigidity P4 class spindle bearings
- Powerful and reliable Fanuc motors and drives system
- High precision pre-tensioned and double anchored ball screws - thrust bearings class of P4
- 12 Station rigid turret design with high accuracy indexing and rigid curvic coupling
- Heavy duty tailstock design
- Standard tool presetter to reduce set-up and tool measurement time
- Electric torque limiter protects ball screws
- Separate coolant system
- Metered piston distributor lubrication

STANDARD EQUIPMENT

- Tool presetting system (tool presetter)
  - Tool set-up / Tool wear compensation
- Machine work light
- Chip and coolant splash guarding (full coverage)
- Programmable tailstock (programmable tow-along tail body and programmable quill)
- 12 Inch diameter hydraulic thru-hole chuck package:
  - with one (1) set of hard jaws; three (3) sets of soft jaws
- 12 Station turret
- Lubrication system
- Rigid tapping on main spindle
- Chuck foot switch
- Front door interlock
- Hydraulic pressure interlock from main hydraulic line
- Foundation kit (plates only)
- One (1) set of adjusting tools
- Machine Manuals: one (1) each (Electric Diagram, Maintenance, Parts List, Operation / Maintenance)
- Fanuc Manuals: one (1) each (Manual Guide i, Operations, Parameter, Maintenance, Operators volumes 1 and 2)

FANUC 0i-TD CONTROL SPECIFICATIONS

TYPE OF CONTROL

- 32-bit multiprocessor continuous-path control

HARDWARE COMPONENTS

- 10.4” Color TFT LCD screen
- Flash memory card interface
- USB port
- Ethernet port
- RS 232C interface
- 110V AV output

SCREEN DISPLAY

- Window oriented operator interface
- Display of current block during program execution
- Screen texts: English (other languages: optional)
- Actual cutting / Spindle speed display
- Alarm display and alarm history display
- Clock (function) display

OPERATION

- Program protection on machine control panel
- 640M Part programming storage
- Number of registered programs: 400
- Built-in run hour / Parts counter display
- Multiple repetitive cycle II
- Tool life management
- Tool measurement and compensation (with tool eye)
- Background editing
- Linear and circular interpolation
- Help function
- Graphic display
- Variable lead thread cutting (G34)
- 1 Position spindle orientation
- Optional block skip 1 each
- Program restart
- Custom macro B with 600 user variables
- Play back function
- Rigid tap

MODES

- AUTOMATIC
- Control of AUTOMATIC mode by:
    - Feed hold and spindle stop
    - Skip block
    - Single block
    - Dry run feedrate
- JOG (setup)

- MDI (manual data input)

MACHINE CONFIGURATION FOR AXES

- Inch or metric programming
- Switchover between metric and inch for input and offsets, display, programmed traverse path
- Feedrate and rapid traverse: minimum input feedrate in inches / min. = 0.0001 inches / min.
- Revolution feedrate: minimum input feedrate in inches / rev. = 0.0001 inches / min.

MACHINE SPINDLE CONFIGURATIONS

- Constant cutting speed, cutting feedrate clamp
- Thread cutting, traverse, cross, tapered with thread constant
- Thread pitch constant: smallest pitch in inches / rev. = 0.0001 inches / rev.

OVERRIDES, OFFSETS AND COMPENSATIONS

- Feedrate override 0% to 150%
- Rapid traverse override 0%, 25%, 50%, 100%
- Spindle speed override 50% to 120%
- 64 pairs of tool offsets
- Tool nose radius compensation, Tool geometry / Wear compensation
- Chamfering / Corner R compensation
- Backlash compensation

CNC PROGRAMMING

- Diameter / Radius command
- Insertion of comments in the program
- Chamfer / Radius programming, Chamfer on / off
- Mirror image by each axis
- Stored stroke check 1st, 2nd reference position return
- Work coordinate system (G50), Work coordinate system selection (G52 ~ G59)
- Skip function (G31) optional block skip / 1 each
- Sub-program call (4 level)
- Searching function: Program no., Sequence no., and External work no.
- Simple canned cycle (G90, G92, G94)
- Multiple repetitive canned cycle (G70 ~ G76)
- Absolute and incremental programming
- Feed per minute (G98) / Feed per revolution (G99)
- Dwell time can be programmed in seconds or revolutions
- Single block by each axis, dry run

SAFETY AND DIAGNOSTIC FUNCTIONS

- Safety routines permanently active for measuring circuits, over temperature, battery, voltage, memory, limit switches, fan monitoring
- Self diagnostics
- Contour monitoring
- Spindle monitoring