FANUC 20-TA CONTROL SPECIFICATIONS:

- Fanuc 20-TA Industry Standard CNC
- 9" monochrome monitor & 44 key keypad
- 2-axis (X & Z) digital readout screen
- Simultaneous 2-axis linear and circular interpolation
- Manual operation via handwheels
- Machine guidance operation via handwheels
- Teach-in / Playback operation: manually run 1st part, then Playback for automatic operation
- Automatic Generation of G-code from Geometry data during teach in operation
- Full CNC G-code, M-code, T-code, and S-code Functions
- Simultaneous multiple M-code processing (Up to 3 M-codes)
- Custom Macro B Programming Language for G-code programming (optional)
- Background Editing of G-code programming during program execution (optional)
- 6 CNC Operation Modes: MEM, EDIT, MDI, Mchn Gdnce, Man/Hndwl, Ref Return
- 5 Auxiliary CNC Modes: Dry Run, Single Block, Optional Blk Skip, Manual Handwheel Interrupt, and Auxiliary Function lock
- Manual Interrupt of automatic operations: Handwheel Interrupt and Spindle Interrupt

- Constant Surface Speed (CSS) control for manual and automatic operations (Standard)
- Conversational graphics programming
- Diameter / Radius programming
- Absolute and incremental programming
- Inch / Metric input and display
- On-line calculator function to aid in data input
- On screen tool path graphics to verify part program
- Taper, Chamfer, Radius, Roughing, Grooving, & Drilling in Manual and Automatic modes
- Inch/Metric threading; Straight, Taper, and Multi-lead threading
- X-Area Minus Area Cutting Function (Cutting from backside of part)
- User programmable "Software Travel limits" to limit the travel for X & Z axes
- Intelligent hardware travel limits - only stops movement in the over-travel direction
- Inch / Metric feed rate input: inch/rev and inch/min or mm/rev and mm/min
- Gear indicator lights on status panel
- Auto spindle jog during gear changes
- Spindle load meter: 0% - 180% of rated load
- Lock switch for disabling parameter and program modification
- Conveniently mounted machine controls on apron - E-Stop, Playback, Start, Stop
- Aux. Controls on apron: work lamp, coolant, and CSS on/off
- Spindle control on apron: forward, reverse, stop, and speed dial
- Auto/Jog feedrate override: 0% to 200%
- User selectable Jog / Feedrate override profiles: Linear or Exponential
- Spindle override: 50% to 150%
- Rapid Traverse override: 12.5%, 25%, 50%, & 100%
- Incremental / continuous jog for X & Z axes
- Intelligent Bi-directional home search for X & Z axes

- Triple electronic handwheels for manual and automatic turning operations (Simultaneously)
- Multiplier switch for handwheel sensitivity: 0.0001", 0.001", & 0.01"
- CNC **"RUN VERIFY"** by Joystick or handwheel for all automatic operations
- Easy one touch X-Z Part Coordinate System setting
- Full CNC control of coolant on-off functions via M-codes
- Full CNC control of work light on-off functions via M-codes
- CNC M-Code Controlled Power Contactors for controlling various accessories (Optional)
- Three coordinate systems: Machine, Absolute, & Relative
- Program storage 63 part program storage, 40 meters of paper tape (131 feet)
- Backlash error compensation
- Ballscrew pitch error compensation (from Laser Calibration Data)
- Built-in RS-232 port for loading/unloading of part programs and other CNC data
- 16 Tool Geometry and 16 Tool Wear offsets with tool nose radius compensation
- Self diagnostics with error messages on screen