



**CyberCNC Machinery Sales, Inc**  
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Subject: Quotation on CyberTec Ultra-Turn 250 Turning Center

We are pleased to offer our quotation on the following equipment:

One - New **CyberTec Ultra-Turn SNC 250** CNC Turning Center complete with LNC Model 600T Series Advanced “ High Performance” CNC Controller with all standard equipment and including the following machine features and specifications:

**UltraTurn Series “High Performance” Machine Tool Design Features:**

The CyberTec [Ultra-Turn Series](#) Turning Centers set a new benchmark in levels of speed, performance and accuracy. Ultra Fast Axes Acceleration and unrivaled Rapid Traverse Rates, and interfaced with a Directly Servo Driven Turret slash non-cutting times and yet deliver superb finish and accuracies. A new, specially designed Mitsubishi “Wide Band Range” Spindle Motor develops a full 30 Horsepower at 50% Duty Rating beginning from just 435 RPM and generates outstanding spindle torque using a specially reinforced Multi-V Belt Pulley-Style Drive design. The number of pulley grooves on the SNC 250 is six (6) and the Torque Curve may be altered to particular customer requests as an option.

The massive power of the spindle drive motor is transmitted through a specially engineered Headstock and Chuck Package capable of providing up to 3.125” Bar Capacity through the Spindle Liner of the 10” 3-Jaw Hydraulic Chuck. The chuck is capable of 4,200 RPM. The maximum recommended spindle RPM is rated at 5,000 RPM when using a collet chuck or similar work-holding device capable of safe operation at these speeds. (Note: Custom power ranges packages are available as a spindle option on request.) The headstock spindle is coupled to an absolute spindle encoder and the use of super precision spindle bearings allow machine to generate superb surface finishes and repeatability due to relentless efforts to control all aspects of thermal growth. To enhance the thermal stability of the headstock area, the spindle drive motor is mounted outside of the bed casting allowing better dissipation of generated heat. This method also provides for easy access and maintenance to the entire drive and actuator assemblies.

**Use of Precision Components Produce Precision Workpieces:**

The brutal horsepower available for turning, acceleration and de-acceleration does not create any instability in turning accuracy. The use of heavy duty, ultra precision grade ball screws and thrust bearings afford precision sizing and mirror like finishing of work pieces. One major factor for being able to maintain this accuracy is that the major ball screw bearing housing is integrally cast into the bed and saddle components, subsequently machined in a single set-up.

**Use of Absolute Encoders**

To further assure sustained accuracy, all quality components are coupled with absolute servomotors. The LNC 600 T controller is driven with Mitsubishi advanced servo motors and



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drives and provides superior contouring capability and assures that the axes, spindle, and servo driven turret always know their absolute machining positions. The entire electrical cabinet is manufactured by Mitsubishi Electric and Automation located in

### **Eco-Friendly Machine Design:**

The Ultra-Turn Series of machines are designed to be Eco-Friendly to our world's environment as well. NSK Model K-1 equipped ball screws are equipped with Eco-Style Lubrication Packs to help eliminate the contamination of cutting fluids with way oils. Sealed bearings, TEFC motors, and powder-coated main sheet metal surfaces all combine to reduce harmful emissions into the workplace environment. Additionally, the user-settable power conserving functions of the CNC controller all combine to add long term durability in an operator friendly workspace.

### **Other outstanding machine features include:**

- A Highly Rigid Bed Design of Meehanite Cast Iron incorporates the use of a special casting technology eliminating most cored holes and provides up to 200% more rigidity than conventional casting methods.
- The *Doubled Anchored and Pre-Tensioned* ball screws are secured between the massive LM Guide Ways using integrally cast ball screw bearing housings which are permanently cast into and machined in the bed and cross-slide components.
- Ultra High Speed Machining demands efficient chip disposal, therefore the saddle and cross slide assembly traverses in the Z axis on a 90 degree bed design providing interference free chip disposal directly to catch pan or optional chip conveyor and excellent access to the chuck or crane loading.
- Superior Rapid Traverse rates are possible by employing a feed mechanism using a large diameter ball-screw that is pre-tensioned and double anchored between oversized, ultra-precision grade LM Type Guide Ways.
- Rapid traverse rates of up to **40m/minute** on the Z axis (1,181 I.P.M.) and **40m/minute** on the x axis (1,181 I.P.M.) increase profitability and productivity by dramatically reducing non-cutting and through-put times.
- Ultra High Speed rapid traverse rates are attained with minimized inertia induced flex during acceleration and deceleration of the axes due to the heavy-duty design and symmetrical way layout.
- A One-piece bed with a 90-degree "I-Bed" Type design provides for maximum swing and chip evacuation. This design has been developed and proven through leading machine tool engineering support group and specified for the CyberTec Ultra-Turn Series.



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## **LNC High Performance CNC Control Overview:**

### **LNC Series 600 T Controller Series with Complete Mitsubishi Electronics:**

The LNC CNC Controller is the flagship controller of Pou Chen Group, a leading designer group of a 40+ Billion Dollar Corporation building OEM Electronic Controllers and the world leader in producing Flat Screen Technologies to OEM world wide. All LNC products are built to exacting specifications, providing reliability and optimum performance to end users. The Flexible Module Structure of this series of controller is mated to the newest Mitsubishi CNC Series of Servo Drives and Motors. This “marriage” opens up new horizons of productivity allowing our customers to transition to the next level of success for world class CNC manufacturing and greater profitability through focused excellence of design. The CyberTec Ultra-Turn lathe series offers the LNC Controller and Operator Panel and TFT Screen which has been designed and jointly engineered between CyberCNC Machinery Sales, Inc. and Mitsubishi Electric and Automation USA to provide unprecedented productivity and reliability. Furthermore, the bright Full Color, Flat Panel Display Provides PC Quality Graphic Simulation and Operator Display and Help Screens specifically designed for operating a turning center.

The LNC 600 Series Controller offers new technology to allow the end user to excel in manufacturing in this new era of demands for competitive machining at world-wide pricing. The incorporation of LNC affordable components such as I/O cards, MPGs, and relay cards in this control substantially reduce overall costs. However, LNC component reliability is extremely high due to the high volume in which these components are produced and supplied to the world-wide electronic market. LNC controls employ the newest technology of today’s Hybrid Controllers. It combines CNC and a Windows HMI (human machine interface) affording outstanding versatility and upgrade in-the-field capability. In addition, the high speed processor’s PLC scan time provides lightning quick response time and coupled communication on all levels. Not only does the LNC 600 machine controller incorporate it’s built-in high speed servo network, it also is equipped with an Ethernet port to allow communication on both an intranet or on the World Wide Web. On-Line service diagnostics and even personal communication between an end user and the machine is all possible by employing any number of options purchased with the machine or in the future.

An outstanding [Two-Year Warranty](#) on all CyberTec machine tools is provided by LNC and Mitsubishi Electric and Automation anywhere the machine is installed throughout the world. Mitsubishi Electric and Automation (MEAU) provides the entire electrical cabinet and control system directly to CyberCNC Machinery Sales, Inc. (CyberCNC), where they are installed and undergo rigorous testing before actual shipment of the equipment to the end user. Both CyberCNC and MEAU (Mitsubishi Automation and Electric) stock a complete range of electrical and mechanical components for use in the possibility of a component failure somewhere in the future. In addition, all data as to hardware, software and parameters are available on line to our technicians allowing us to provide unsurpassed service to our customers on a world-wide basis.

In addition to the above, the LNC 600 Control is equipped (as standard CyberTec specification) with Graphic Aided Interactive programming software, enabling guided programming capabilities in 2D graphics and program generating software. Finally, CyberCNC has paired with LNC to offer total operation of the NC program at any time through using the Manual Pulse Generator. You may run the program forward and



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backward, from any start to any finish point, offering you and your operator the utmost in safety and security in running in a program for the first time.

### **Cybertec SNC Ultraturn 250 machine specifications**

#### **Quality Features standard on Ultra-Turn series**

- 20" Max. shaft length turning capacity (recommended)
- 19.68" Max. Diameter turning capability (recommended)
- 10" 3 Jaw Hydraulic Chuck (std.)
- 3.125" Bar Capacity through spindle
- 3.72" Hole thru spindle (less drawtube)
- Tailstock Spindle Taper MT#5 Morse taper
- Adjustable tailstock pressure valves rated up to 55kg
- Spindle mount A2-8 with heavy-duty, precision class spindle bearings
- Main bearing ID 5.5"(140mm) main spindle
- 22 KW/ 30H.P. duty rated spindle motor (Mitsubishi)
- 30-4200 rpm spindle speed with standard chuck (5,000 max)
- 2165" I.P.M Rapid Traverse "Z" axis (55m/min)
- 1968" I.P.M Rapid Traverse "X" axis (50m/min)
- Full rapid acceleration achieved in 250 mille-seconds (0.-25 seconds)
- X-axis motor 4.66 H.P. / 3.5 KW.
- Z-axis motor 4.66 H.P. / 3.5 KW.
- 12 station Block Turret standard equipment (6 ID/6 OD = standard)
- Turning tool dimensions: 1.0" O.D. / 2.0 I.D. Max Holder Diameter (25/50mm)
- 0.2 Second turret Index Single Face , 0.45 Six Faces
- 1.5 seconds average chip to chip turret index farthest point (example tool 1 to 6)
- Tool Setter equipped (Tool Length/Diameter Pre-setter)
- Manual Pulse Generator equipped (x1,x10,x100)
- Manual bi-directional operation of machine turret in jog
- Program check function
- Dry run program function feature



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- Power Operated Programmable Tailstock- capable of 200 I.P.M. positioning speed
- Coolant thru the turret tooling Standard
- 60 Tool offsets standard
- G54 thru G59 work coordinate capable standard equipment
- Rigid tapping capable
- Coolant pump HP .5/0.37KW
- Coolant tank capacity 200 Gallons (built in)
- Hydraulic pump Std 1.0 H.P./ 0.75 KW
- Work Light Low Energy L.E.D. type ( light emitting diode)
- Mitsubishi Electric and Automation USA built Electrical Cabinet/Control system
- Standard Steel Belt Lift-Type Chip Conveyor with right side discharge
- Chip Hopper with drain valve, rollers and built-in fork slots to lift
- Chip Conveyor includes stand alone operation panel and junction box.
- Conveyor is controllable with provided m-code thru control
- Call Light Signal (yellow) for program end or optional stop
- Tailstock spindle Taper MT#5 Morse taper
- Spindle orientation equipped such as “M19”
- On screen real time RPM & Load Meters
- Ethernet communication & RS232 standard features
- USB Port connection standard & PCMCIA for compact flash
- Mitsubishi USA Factory Built Complete Electrical Cabinet/Controllers

**Optional Accessories (For other option pricing, please inquire)**

- Daiken Eco rich Variable displacement pump (servo style)
- 12 station KV style quick change turret
- High Pressure coolant: 80 psi (Nippon Gear type)
- High pressure coolant 500 psi type (Hydra-Cell pump)
- Coolant Nozzle above Chuck
- Mist Collector (Royal 900 type CFM stand alone type)
- Chip Conveyor, rear Discharge style (Side Std.)



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- High/Low Chucking (hardware and interface)
- 2 speed tailstock option (m-code and touch)
- 360,000 position for main spindle
- Bar Puller
- Spindle through stopper
- Auto Door
- Parts catcher package
- Bar feeder
- Separate Run Hour meter
- Upgraded Call Light (Tier style)
- Automatic Power Cut Off device
- Additional M-Codes (single)
- Additional M-Codes (pairs)
- 3 Tier Call Light with Buzzer
- Single spindle positioning for hex bar stock loading
- Panel Mounted Meters (most types) each
- Auto loading devices available (upon request and application review)

**List Price of CyberTec Model SNC 250 with LNC /Mitsubishi 600 Series CNC \$108,900.00**

**Special Price \$68,500.00**

**Availability:**

**Current availability is from stock , Subject to prior sale.**

**Delivery: 2 to 3 days from receipt of order and down payment.**

**Warranties / Description**

**Electrical specifications:**

Machine Tool is wired for 200 volts 3 phase and 60 hertz. Cyber CNC specifies a transformer is required to maintain and regulate voltage to the machine prior to installation and power up at the customer. Please note that a transformer is not included in this quotation and can be purchased separately or supplied by customer

\* Transformer recommended: 45 KVA Delta Y series



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**Electrical**

Machine tool comes with a 2 year control warranty, fully supported by LNC and Mitsubishi Electric Corporation, located strategically throughout the United States and World Wide Branches.  
Main USA Mitsubishi office headquarters is located in Vernon Hills, Ill.

**Mechanical**

Standard warranty is two years. Additional extended warranty is available for an additional charge of 10% of selling price per year, limited to (4) four years total.

**Machine and Control Training**

Cyber CNC or its representative will provide basic operator training during the completion of the installation, limited to 2 days or less based on the customer's level of comfort and experience.

**Installation**

Cyber CNC Machinery Sales Inc. and/or its appointed agents will install the machine at no additional charge. Customer is responsible for providing a proper foundation to required specifications and supplying the proper oils, air and incoming power to the main breaker of the machine tool panel.

Cyber CNC is not responsible to provide services requiring labor to wire or run air supplies to the machine tool at customer's plant.

**FOB Point:**

Machine Tool is quoted FOB Your Truck, Big Bend, WI. All incoming freight has been paid on this machine and applied toward our show expense account. Cyber CNC will load your truck at no additional charge.

**Terms:** 20% down payment with Written Purchase Order.  
70% Prior to shipment  
10%-Balance due Net 20 days from installation.

**Validity:** This proposal is offered for your immediate acceptance and subject to prior sale.

In closing, we would like to thank you for the opportunity to quote you one of our fine products, and hope to be of service to you in the near future!

Sincerely,

*Cyber CNC Machinery Sales, Inc.*



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**1. QUOTATIONS AND ACCEPTANCES:**

For immediate acceptance, subject to prior sale or other disposition, and change without notice. Proposals and acceptances of orders are made with the mutual understanding that orders are not subject to cancellation after acceptance by Buyer is conveyed to Seller in writing, except as designated herein. Shipping date is approximate only, and contingent upon delays or nonperformance occasioned by strikes, accidents, fires, or other causes beyond our control.

By accepting delivery of the machinery and equipment designated herein, Buyer accepts the terms and conditions of the Proposal and Sellers subsequent Invoice.

**2. PRICES:**

F.O.B. Shipping Point: Our dock, Big Bend, WI (unless otherwise specified). Prices are exclusive of Federal, State, County, or Local taxes. Taxes are paid by Buyer in addition to quoted purchase price.

**3. INDEMNIFICATION:**

BUYER AGREES TO INDEMNIFY, DEFEND, AND HOLD SELLER HARMLESS FROM ANY AND ALL LIABILITY, LOSS OR DAMAGES, INCLUDING ATTORNEY FEES, WHICH SELLER MAY SUFFER AS A RESULT OF ANY CLAIMS, DEMANDS, COSTS OR JUDGMENTS ARISING OUT OF, OR IN ANY WAY RELATED TO, SAID MACHINERY AND EQUIPMENT SOLD PURSUANT TO THIS AGREEMENT, INCLUDING, BUT NOT LIMITED TO, ANY USE WHATSOEVER OF THE MACHINERY AND EQUIPMENT, THE FAILURE OF BUYER, BUYER'S OFFICERS, AGENTS OR EMPLOYEES TO FOLLOW MANUFACTURERS INSTRUCTIONS, WARNINGS OR RECOMMENDATIONS; THE FAILURE OF BUYER, BUYER'S OFFICERS, AGENTS OR EMPLOYEES TO COMPLY WITH FEDERAL, STATE OR LOCAL LAWS OR REGULATIONS APPLICABLE TO THE USE OF SUCH MACHINERY AND EQUIPMENT, INCLUDING, BUT NOT LIMITED TO, ALL OCCUPATIONAL SAFETY AND HEALTH ACTS AS AMENDED; ANY LIABILITY BASED UPON OR RESULTING FROM ANY NEGLIGENT ACT OR OMISSION OF SELLER OR ANY OF SELLER'S OFFICERS, AGENTS OR EMPLOYEES, OR RESULTING FROM ANY LEGAL THEORY OF STRICT LIABILITY OR LIABILITY WITHOUT FAULT OR RESULTING FROM ANY THEORY OF BREACH OF WARRANTY OF ANY KIND.

**4. ADDITIONAL MATTERS:**

- (a) It is understood there are no conditions or agreements pertaining to the equipment herein other than as set forth in this written proposal, and all prior conversations, agreements, or representations are superseded. Seller reserves the right to correct typographical errors.
- (b) Warranty information may vary depending on the machine, make, and model. Please refer to quotation for complete warranty information.
- (c) Buyer, In purchasing said machinery and equipment agrees that upon receipt of said machinery and equipment subject to this agreement it will be Buyer's Duty to inspect all machinery and equipment On A Continuing Basis; Provide Proper Safety Devices and Equipment or Means Necessary To Safeguard The Operator From Harm For Any Particular Use, Operation or Set-Up of the Machines and Equipment; To Adequately Safeguard that all Machinery and Equipment Meets All Government Safety Standards which May be Imposed from Time to Time, Including, but not limited to, all applicable Occupational Safety and Health Acts.
- (d) Any provision contained in a Customer Purchase Order or any other documentation which is inconsistent with the terms and conditions of this Proposal, shall be null and void unless specifically agreed to in writing by an officer of the Seller..
- (e) Wisconsin LAW: This agreement shall be construed according to the laws of the State of Wisconsin. Further, it is agreed that any claims relative to this Agreement, or the machinery and equipment purchased herein, shall be brought in the appropriate Court in Milwaukee County, Wisconsin
- (f) All specifications are offered merely as a guide and are approximate only, and not binding upon Seller.

**5. ADDITIONAL PROVISIONS:**

Note: Any additional provisions contrary to the above must be included in writing in this space or attached to buyer's purchase order and acknowledged in writing by seller to buyer unless included in our quotation attached.