

## HURCO TMM8 Horizontal CNC Lathe With Live Tooling



**“Versatility” with a Compact Foot Print.** With a 12.6” swing and 20” turning length in a 9.7’ x 6.1’ x 6.9’ footprint the TMM8 is the industries most versatile horizontal CNC lathe. This 8,500 lbs, rigid one-piece slant bed base casting and heavy design head stock comes standard with an A2-6 nose, 4,800 RPM spindle, 750-ipm rapids in X / 945-ipm in Z and a fast 12 station live tool VDI30 turret. It is an ideal solution for short run operations, fast turn around jobs, bar fed production work, and a full range of turning and secondary mill operations. The TMM8 is equipped with the Hurco Single Screen WinMax<sup>®</sup> Control I providing the operator with Hurco Conversational turning and NC (M and G codes) part programming for ease of programming and maximum flexibility.

### Standard Machine Features

- Wide range 4,800 RPM Main Spindle
- Powerful 17.7 hp Main Spindle Motor
- Heavy duty cartridge Spindle
- A2-6 Spindle Nose
- 3 Jaw Chuck with one set of soft jaws
- Fast 750/945 ipm Rapid Traverse rates in X and Z
- 8,500 lbs solid frame design
- 5,000 RPM/6 HP Live Tool Spindle
- 12-Station Servo Driven VDI30 Tool Turret
- 0.23 Second Tool Index Time (adjacent)
- Shortest path tool turret indexing or direction selectable
- Oversized, double nut ball screws
- Automatic central lubrication system
- Latest AC servo motor and drive technology
- Heavy duty linear rails on X and Z axes
- Solid one piece fine-grain cast iron bed
- Large work cylinder (8.9”dia x 20” long)
- Large Travel (8” X and 20” Z)
- Full Enclosure
- Enclosure Door Opening of 24.4”
- Telescopic way covers
- Adjustable halogen work light

### Standard Control Features

- Conversational turning programming
- NC (G-Code) programming
- 12” Color LCD Monitor
- 40GB Hard Disk Drive
- 1 GB RAM (Expandable to 2 GB)
- 64 Bit Chip Set Technology
- Dual (2) RS-232 Ports
- USB Port
- Text Input Capabilities
- Multi Processor Motion Control System
- Constant Surface Speed
- Wire Frame Graphics (Conversational Only)
- Work end signal light
- Leveling pads
- Power Cabinet Heat Exchanger
- E-Stop Button on Controller
- UL/CSA Qualified Components and Certifications
- Instruction Manuals, Parts List and Electrical Diagrams in CD format
- 12 Months Parts Warranty
- 6 Months Labor Warranty

## MACHINE SPECIFICATIONS

### CAPACITY:

X-axis Travel	8" Chuck
Z-axis Travel	8"
Distance between centers	20"
Swing Over Cross Slide	23.1"
Swing Over Bed	12.6"
Maximum Turning Diameter	21.7"
Maximum Turning Length	8.9"
	20"

### SPINDLE:

Spindle Nose	A2-6
Spindle Speed	4,800 RPM
A.C. Spindle Motor (peak)	24 hp
A.C. Spindle Motor (1 min.)	17.7 hp
A.C. Spindle Motor (Continuous)	10.0 hp
Spindle Torque (1 min.)	258 lb-ft @ 300 RPM
Spindle Torque (Continuous)	146 lb-ft @ 300 RPM
Spindle Chuck	8" Diameter 3-jaw, Hydraulically Actuated
Spindle Bore diameter	2.44"
Maximum bar capacity	2.0"

### MOTION:

X-axis Rapid Feed Rate	750 ipm
Z-axis Rapid Feed Rate	945 ipm
Least Command Increment	0.0001"
Positioning Accuracy	-/+ 0.0002"
Repeatability	-/+ 0.0001"

### SERVO-DRIVEN TOOL TURRET:

Number of Stations	12
Tool Holder Type	VDI-30
Live Tool Coupling	DIN 5480
Turret Index Time (Adjacent)	.23 seconds
Turret Index Time (Farthest location)	.7 seconds
OD vs. ID tools	Any Combination
Live Stations	Any Station – Only tool in position is driven
Maximum Tool shank width	1" x 1"
Maximum Boring bar diameter	1.25"
Live Tool RPM	5,000
Live Tool HP (1 min.)	6.0
Live Tool HP (Continuous)	3.0



# TMM8 PROPOSAL

Live Tool Spindle Torque (1 min.)	21 lb-ft
Live Tool Spindle Torque (Continuous)	10.5 lb-ft

## **MACHINE DIMENSIONS:**

Floor Space Required (L x D x H)	116.3" x 60.2" x 83"
<i>(With optional chip conveyor)</i>	152.8" x 60.2" x 83"
Machine Weight	8,500 lbs
Machine Shipping Weight	9,095 lbs
Machine Shipping Dimensions (L x D x H)	119.5" x 90.6" x 80"
Optional Bar Feeder Ship Dimensions (L x D x H)	75" x 35" x 65"
Optional Bar Feeder Ship Weight	990 lbs
Voltage Required	208-240 VAC / 60Hz
Power Rating	22 KVA

## **MACHINE CONSTRUCTION**

### **BASE, HEAD STOCK, CROSS SLIDE:**

The major structural assemblies (base, head stock, and cross slide) of each Hurco machine are constructed of thick-walled, fine-grain cast iron. The rigid one-piece machine base casting is designed to yield excellent static and dynamic performance along with outstanding dampening properties that inhibit thermal deformation and twisting. The rigid box type cross slide provides rigid, stable turret, even in capacity cuts. The heavily constructed Headstock is designed to produce superior spindle stability for smooth surface finishes. Extra wide linear guide ways are generously spaced apart (X=6.5", Z=11.7") to provide excellent support to the cross slide.

### **SPINDLE MOTOR AND DRIVES:**

The heavy-duty cartridge designed spindle is standard at A2-6 and 4,800 RPM. The spindle is precision balanced, made of chrome-molly alloy, and permanently grease-lubricated. The spindle shaft (inside of the cartridge) is supported by four ABEC 7 precision class bearings, The bearing configuration consists of 1 dual cylindrical taper roller bearing and two angular contact bearings on the front of the spindle shaft and one dual cylinder taper roller bearings on the back of the spindle shaft assembly. A 17.7 hp peak high torque, brush-less, AC motor drives the spindle and delivers an impressive 258 lbs-ft at 300 RPM of torque. A heavy-duty multi-belt drives the spindle. The standard draw tube is hydraulically operated with pressure controls mounted in the front of the enclosure. Bar stock up to 2.0" dia can be handled automatically with an optional bar feeder or with a tool turret mounted bar puller.

## **GUIDEWAY:**

The guide mechanism of the X and Z-Axis are fitted with precision linear ball rails. Built with the same precision grinding technology used in the manufacturing of bearings, this unsurpassed product provides superior acceleration and deceleration performance at full load-carrying capacity in all directions. Using finite element analysis (FEA) technology the size and spacing of the linear ball rails have been carefully matched to the machines static (precision boring) and dynamic (cutting and traversing) operating requirements to minimize your non-cutting time and maximize your surface finish. Each machine axis has two rails and four bearing blocks. Each bearing block is independently and automatically lubricated to guarantee long life.

## **BALL SCREWS:**

For linear transmission, Hurco only uses premium quality designed ball screws. With up to 98% efficiency, the specifically selected re-circulating ball nut ensures low friction power transmission from the screw to the slide. This guarantees the combination of high accuracy, high rapid traverse rates and high feed thrust. The 1.26" diameter X and Z-axis double nut, direct driven ball screws are hardened and ground, centered between the guide ways and anchored at both ends with pre-loaded ABEC 7 precision class angular contact thrust bearings. This combination minimizes backlash and provides outstanding positioning repeatability.

## **AXIS DRIVES:**

To maintain a leading edge in motion control technology all ball screws are driven by Yaskawa's Sigma II Digital Servo Systems with adaptive tuning and high-resolution feedback to obtain the utmost in system performance and reliability. The AC Servo Motors are direct coupled to the ball screws for the highest level of accuracy. The brush-less AC servo drive motors provide high torque to inertia ratio for the axis drives. The X and Z, axis drives deliver 1,655 lbs of peak feed thrust

## **SERVO-DRIVEN TOOL TURRET:**

This 12 station, servo-driven, face-mounted VDI30 tool turret is designed to provide fast, accurate tool indexes. The VDI30 holders are designed to accommodate standard 1" square tool holders. The ID boring bar holders are designed for standard diameter boring tools. Any combination up to 12 ID and OD tool holders can be used. Index times of 0.23 seconds for adjacent tools and .7 seconds for the furthest tool.

All 12 stations can be a live tool. The tools are driven by a sprocket type spline, DIN Standard 5480. Maximum 5,000 RPM with 6 HP @ 1 min with the dual wound motor.

## **COOLANT SYSTEM AND CHIP REMOVAL:**

A flood coolant system is standard equipment. The coolant is delivered to the tool station in use. The operator can control the coolant direction with adjustable coolant nozzles mounted on the tool turret. For ID tools, a station back plate can be used to induce coolant thru the tool. Coolant pressure is 50 PSI. Coolant capacity of the system is 30 gallons. The optional chip conveyor can drastically reduce chip cleanup time and improve house keeping.

## **AUTOMATIC LUBRICATION:**

The auto lube system automatically lubricates the guide ways and ball-screws. The pump flow is a timed cycle and delivers oil to the main manifolds, where it is delivered throughout the system. The discharge rate of the system pump is adjustable.

## LATHE MAX<sup>®</sup> CONTROL

Three decades of highly developed technical know-how went into the development of the Lathe WinMax<sup>®</sup> Touch Screen color LCD control which is the heart of our Horizontal CNC lathe. Our engineers have developed the Lathe WinMax<sup>®</sup> control, with the operator's needs in mind, with both Hurco Conversational and NC (M and G codes) part programming to coincide with modern production processes and help increase your manufacturing performance.

**Conversational programming** allows you to program a part at the machine while reading directly from the part drawing or program worksheet. When you are programming a part, the system displays operating selections and prompt on the text screens. You respond by pressing the appropriate keys and pushbuttons to select machine operations or enter part dimensions. The cursor position leads you through the programming steps necessary to enter data for a part program.

**NC part programs** can be created using the CNC software on the control or from off-line CNC programming software running on a PC or CAD station and then uploaded through the serial port, the usb port, or by the optional floppy disk drive.



### STANDARD MACHINE CONTROL FEATURES

- Auto Interrupt Cycle
- Automatic Tool Home
- Leadscrew Compensation
- Backlash Compensation
- Control and Machine Diagnostics
- Coolant Select
- Distance to Go (Conversational & NC)
- Feed Hold Button
- Feed-Rate Override 0-150%
- Rapid Override 0-100%
- Automatic Calculation
- 12" Color LCD Monitor
- Large Capacity Hard Drive
- Large Ram Capacity (up to 512 MB)
- Calculator Keypad
- Ergonomic Key Pad Layout
- Power On Diagnostics
- Program Manager Function
- Wire frame graphics (Conversational only)
- Main Spindle RPM Override 0-200%
- Live Tool RPM Override 0-200%
- Single Cycle Mode
- Stop Cycle Button
- Turret Index Control (Auto/Manual)
- Hurco Executive Software
- Optional Stop
- Spindle Jog
- USB Port
- Pentium<sup>®</sup> Based Processor
- Dual RS-232 Port
- PC Based Architecture
- Multi Processor Motion Control



# TMM8 PROPOSAL

## STANDARD PROGRAMMING FEATURES

- Auto Tool Nose Radius Compensation
- Auto Save
- Automatic Speed and Feed Calc for Hole Operations
- Automatic Optional stops
- Bar Puller or Bar Feed data block
- Blend Arcs
- Calc-Assist
- Chamfers
- Comment Block
- Constant Surface Speed, Selectable
- Conversational Programming
- Copy and Paste Tool Setups and Data Blocks within and between programs
- Cut off operations with pecks/parts catcher
- Part Zero Shift
- Data block search
- Diameter or Radius programming mode
- Distance to Go Graphic indicator
- Hole operations-Tap, Drill, Center Drill, Dwell and Ream
- Drilling (Dwell, Chip Break, Peck)
- Drill Tip compensation.
- Grooving: Inside, Outside, Face. Corners can be Radius or Chamfer, walls can be straight or tapered.
- Inch-Metric Programming (Switch-able anytime)
- M Code Auxiliary Functions
- Multiple programs active at any time
- NC (G Code) Programming
- On Screen User Prompt
- Parts Counter
- Data Block Repeat
- ID or OD Profile turning with face, turn, taper, arc, with bend arc, or chamfer between elements.
- Program Parameters
- Program Review
- Inside or outside threading, straight or tapered. Lead-in and out angles, multi-start, constant or decreasing depth of cut.
- 99, Work Offsets
- Drilling and Boring with Inserted drill
- 11 Tool Types: turning, boring, center drill, drill, threading, grooving, cutoff, back turning, back boring, tap reamer, inserted drill and custom for user selectable.
- Tool setup and review with graphics
- 99 Tool Offset table for X, Z, wear, tool nose radius, and orientation
- Wire frame graphics of part geometry with zoom. Includes error verification

Price for machine as described above with

WinMax<sup>o</sup> Lathe Control ..... \$ 81,995.00

**Standard Warranty: 12 months parts warranty, 6 months labor warranty.**

### TERMS

**DELIVERY:** F.O.B. Los Angeles, CA

**TERMS:** 10% Down, Balance 10 days after delivery (pending credit approval)

**SHIPMENT:** \_\_\_\_\_ weeks after receipt of order, subject to prior sale.

Hurco Machine Tool Products reserves the right to incorporate any modifications or improvements in machines and machine specifications that it considers necessary, but are not documented within this quotation. Hurco is not responsible for misprints or typographical errors. Proposal is valid for 30 days.



# TMM8 PROPOSAL

Part Number	Machine Software Options:	List Price
007-4127-050	<b>Lathe WinMax Classic Package</b> WinMax Classic Package (Includes Touch Screen 3D Graphics, Stylus, NCMP, 2 GB RAM, and 3.5" Disc Drive) DXF Transfer	\$2,995 <input type="checkbox"/>
007-4127-060	*Note: Requires the Lathe Max Classic Package to enable the 3D Shaded Verification Graphics capabilities to utilize the DXF Option. <i>WinMax Classic P/N 007-4127-050</i>	\$2,500 <input type="checkbox"/>
007-4127-111	Lathe Ultipocket	\$2,500 <input type="checkbox"/>
007-4127-080	<b>NCMP</b> user Macro Package (Includes Max Keyboard assembly)	\$1,500 <input type="checkbox"/>
007-4227-130	Rigid Tapping	\$750 <input type="checkbox"/>
007-4127-070	<b>Ultinet</b> (Ethernet capability software and hardware)	\$1,350 <input type="checkbox"/>
<b>Desktop Software Options:</b>		
002-3431-043	WinMax Desktop Software for Machining Centers and Lathes	\$4,300 <input type="checkbox"/>
<b>Lathe Accessories:</b>		
007-0020-007	Lathe Max Keyboard Assembly	\$199 <input type="checkbox"/>
803-1036-013	Hurco Floor Mat	\$55 <input type="checkbox"/>
007-4121-055	Disk Drive Assembly	\$495 <input type="checkbox"/>
004-0608-020	CE Door Switch Assembly	\$750 <input type="checkbox"/>
004-0808-006	Renishaw Automatic Tool Pre-Setter. (For tool setting only, not in-process tool checking)	\$3,995 <input type="checkbox"/>
004-0608-042	Hurco Bar Feeder, (Including Hurco bar feeder interface and slider assembly)	\$14,995 <input type="checkbox"/>
004-0608-014	Bar feeder interface – Non Hurco Bar Feeder (Requires customer supplied bar feeder to have PLC control)	\$1,500 <input type="checkbox"/>
004-0808-001	Tailstock, manual position, programmable hydraulic quill	\$2,995 <input type="checkbox"/>
004-0808-003	Parts Catcher Assembly	\$2,995 <input type="checkbox"/>
004-0808-005	Collet Chuck (size B-60)	\$1,700 <input type="checkbox"/>
004-0808-002	Hurco Chip Conveyor	\$3,995 <input type="checkbox"/>
509-0004-013	NexJen C-Thru Coolant / Oil Separator Package	\$1,325 <input type="checkbox"/>
<b>Customer Documentation:</b>		
704-0204-002	TMM8 Machine Documentation CD	\$100 <input type="checkbox"/>
<b>Tooling / Workholding:</b>		
004-0808-010	Hard Jaws (set of 3)	\$350 <input type="checkbox"/>
004-0808-013	Soft Jaws (set of 3)	\$350 <input type="checkbox"/>
707-1010-311	Eppinger Preci-Flex VDI 30 DIN 5480 Tooling Package	\$9,232 <input type="checkbox"/>



# TMM8 PROPOSAL

## Training:

Hurco Lathe Introductory 3 Day Training Program at Hurco Companies, Inc. Indianapolis, IN	\$750 (per person)	<input type="checkbox"/>
Hurco Live Tool Lathe Introductory 1 Day Training Program at Hurco Companies, Inc. Indianapolis, IN (Hurco Introductory Lathe Training is a prerequisite)	\$250 (per person)	<input type="checkbox"/>
On Site Hurco Lathe Introductory Training Program	Consult factory	

All option and accessory prices listed are valid on new machine purchases only. Options and accessories purchased as field installation items may be subject to additional charges.

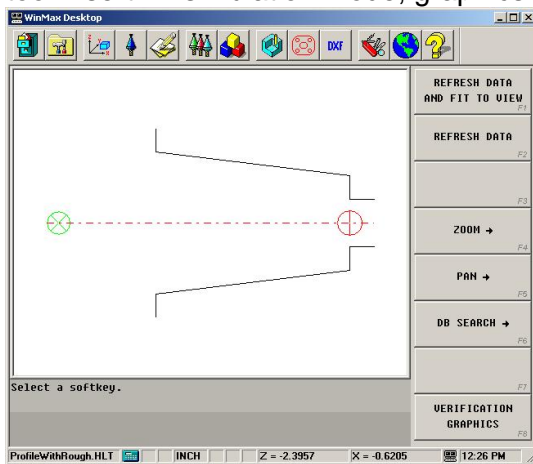
## Software Option Descriptions

### Lathe WinMax Classic Package Option:

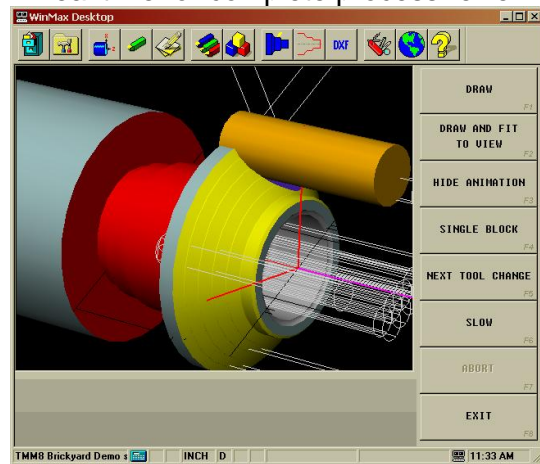
This optional package is available on Hurco CNC Lathes only.

- Touch Screen 3D Shaded Verification Graphics and Stylus.
- Disk Drive
- 2 Gig Ram
- NCMP

With regard to Touch Screen 3D Shaded Verification Graphics, The Lathe WINMAX Control has as standard in Conversational programming a 'wire frame' representation of the part program. This image can be 'panned', 'zoomed' for detail, and highlighted with 'data block search' for fast program editing. However, it does not show tool path or rapid tool movements. The Optional 3D shaded verification graphics shows complete part outline in both Conversational and NC programming, indicates initial material cylindrical shape, shows tool rapid moves, and shows tool path with selected tool insert. In simulation mode, graphics are presented in real time for complete process review.



**Standard Conversational 'Wire Frame' Graphics**



**Optional, 3D Shaded Verification Graphics**

## PROGRAMMING FEATURES

### (With 3D Shaded Verification Graphics Option)

- Display of work piece, chuck, jaws, and operational sequence
- 3D, Side, Top and End Views
- 3D Graphics with Rotation
- Display of rapid and feed rate tool paths.
- Simulated tool path with tool insert outline.
- Zoom, Pan and Rotate
- Real Time graphics display in Auto
- Test run graphics to simulate tool motion with index turret
- Snapshot of graphics stored with program
- Set-up of Chuck and Jaw sizes

## **DXF Transfer:**

The UltiDraw Data Exchange Format (DXF) File Translation Option is a graphic and rapid means of creating Hurco conversational data blocks from CAD drawings. The UltiDraw DXF option allows you to select geometric data in the CAD drawing and load it automatically into a conversational data block. You then may use the Hurco Lathe programming screens to add part and tool setup information to create a complete conversational part program.

**\*Note: Requires Lathe WinMax Classic Package to enable the 3D Shaded Verification Graphics capabilities to perform the DXF function.**

## **UltiPocket<sup>®</sup> Option:**

The UltiPocket<sup>™</sup> programming option adds special milling routines for machining pocket boundaries. This option provides complete clean out of odd-shaped pockets. The software automatically calculates the tool path eliminating the long task of plotting these shapes.

## **UltiNet:**

The UltiNet option adds capability and flexibility to your Lathe Control operation by providing connection to your Local Area Network (LAN). Using UltiNet, you can communicate with other CNCs and with PCs or file servers connected to your LAN using standard TCP/IP and FTP protocols. The UltiNet option can be utilized as a hardwired system via a RJ45 connection or used in a wireless network environment.

## **NCMP user Macro Package**

The NC Macro Package (NCMP) option provides features that enhance productivity and aid in producing smaller, more powerful, and easier to maintain NC programs. NCMP features include variables; subprogram calls, macros, user-defined codes, mathematical equations and address expressions, and M99 jump statements. The NCMP option includes the Lathe Max Mini Keyboard assembly, part number 007-0020-007.

## **Renishaw Auto Tool Presetter:**

This Tool Touch Probing package is a compact and robust tool setting probe which utilizes a stylus touch application for accurate measurement of tool offset position and radius. Probe is powered into position and then each tool is 'touched off' in sequence. Software for probe is for initial tool set only and will not support automatic in process gauging.

## **Bar Feeder:**

Increase productivity with a Hurco, magazine fed automatic bar feeder. The Hurco Bar Feeder handles bar diameters from 3/16" to 2-5/8", and can take round bar lengths up to 60". The Integrated PLC controller comes with a remote control pendant for fast and easy setups. Includes three pusher rods (15/64", 1/2", and 3/4") with a maximum magazine capacity of 460 lbs. The Hurco Bar Feeder has a capacity of 25 – 5/8" bars or up to 10 -2 1/2" bars. The Hurco bar feeder comes standard with a slider assembly. Electronic interface to lathe sold separately.

## **Tail Stock:**

Heavy duty, manual position tail stock with programmable hydraulic quill. The Tail Stock can be positioned over a 12" range. Tail stock ways are ground for precise alignment for accurate center positioning. The hydraulic quill is 2.3" in dia with 3.5 " of travel. The live center is an MT-4. The quill can be activated by footswitch or M function from control.

## Parts Catcher:

Air operated swing plate type parts catcher. Part transferred to enclosed bin mounted outside sliding access door. Can handle up to 2" dia x 4" parts. Kit includes air pressure regulator/dryer/lubricator.

## WinMax Desktop Software:

### WinMax Desktop

WinMax Desktop software includes **WinMax Desktop Mill** and **WinMax Desktop Lathe** programming software.

**WinMax Desktop Mill** programming software allows you to create Hurco Conversational programs that will run on your UltiMax 4, UltiMax 3, UltiMax 2 and WinMax controls. WinMax Desktop Mill comes with all Hurco productivity options that make it a powerful software package, such as:

- Advanced Verification Graphics with solid 3D rendering and real time tool display and dynamic rotation.
- Swept Surface simplifies 3D Mold programming and provides additional tool path strategies.
- NC/Conversational Merge combines the best of both programming methods.
- Tool & Material Library eliminates redundancy, simplifies programming, and prevents common tool crash conditions.
- 4<sup>th</sup> Axis Rotary Wrap simplifies wrap and unwrap of 2D contours around Rotary A Axis.
- Estimated Run Time Calculation.
- UltiPocket feature to clear pocketed areas with unlimited islands.
- DXF programming to automatically create data blocks from DXF drawing features.
- True Type Font Milling.
- Winmax desktop includes post processors for Hurco BX, UltiMax 2, UltiMax 3, and UltiMax 4 controls.

**Note:** Software options such as Pocketing, Swept Surface, NC/Conversational Merge and Cutter Inserts must exist on the target Winmax control to be run on that control.

**WinMax Desktop Lathe** programming software allows you to create Hurco Conversational programs for WinMax Lathe controls. Features for Turning and Mill/Turn operations are included, such as:

- Advanced Verification Graphics with solid 3D rendering and real time tool display and dynamic rotation.
- Profile Turning.
- Threading operations - outside diameter, inside diameter for straight or tapered threading, and face threading operations.
- Grooving operations for inside, outside or face grooves with square, chamfer or radius corners.
- Hole operations.
- Cutoff operations with standard, dwell, chip breaking and pecking options.
- Barfeed operations for bar pulling, tool guiding stock, or tool bumping of stock.
- Repeat Cycle for running multiple instances of the part program.
- Positional programming with optional stop.
- Radial Milling - circles, frames, slots, contours.
- Radial Hole Operations - drill with pecking, chip break, dwell.
- Axial Milling - circles, frames, slots, contours, flats.
- Axial Hole Operations - drill with pecking, chip break, dwell.

**Note: WinMax Desktop Lathe does not offer post processor capability at this time.**



# TMM8 PROPOSAL

All sales contracts are subject to the export control laws and associated regulations of the United States and/or other countries, and is contingent upon the licensing requirements imposed by such laws and regulations. Buyer and or end user shall not retransfer, or re-export commodities subject to this contract unless the required authorization and/or license is obtained from the proper government agency(ies) prior to such transfer  
Hurco cannot warranty, service, or provide support (including parts) for any and all machines that have not been processed/transferred in accordance with this and all applicable regulatory policies.

## LIMITED WARRANTY AND SOFTWARE LICENSE

### I. DEFINITIONS:

Capitalized terms used in this Warranty shall have the meanings ascribed to such terms where they first appear in this Warranty in quotations.

“Autobend Product” means any control, back gauge or press brake accessory manufactured by or for Hurco bearing the “Autobend” name or trademark and purchased by an End User new directly from Hurco or a Hurco distributor, together with any new accessory, kit or optional equipment supplied and installed on that Autobend Product by Hurco or a Hurco Distributor prior to or at the time of the initial installation of that Autobend Product.

“Defect” means a failure of a part or component (or Media) of a Hurco Product to conform in any substantial way with Hurco’s specifications and performance standards for that part or component (or Media).

“Covered Defect” means a Defect which is not an Excluded Defect.

“End User” means an individual or entity that purchases for its own use a new Hurco Machine Tool or Autobend Product directly from Hurco or a Hurco Distributor. The term End User does not include any individual or entity that purchases a Hurco Machine Tool or Autobend Product for resale, lease or other transfer to, or use by, any third party.

“Excluded Defect” means a Defect which is caused by or results from:

- (a) normal wear, tear or deterioration to the Hurco Product;
- (b) inadequate or improper maintenance of the Hurco Product by End User, such as End User’s failure to clean, lubricate, replenish or replace oil, fluids, coolants, lamps, fuses, belts, filters and similar items;
- (c) accident, negligence, theft, fire or any other peril, misuse, abuse, programming error, improper operation or failure to follow use instructions contained in the owner’s manual or given by a Hurco technical specialist;
- (d) any mishandling, negligence, improper packaging or accident or other act which occurs during or in connection with the shipment of the Hurco Product to Distributor or End User, or during or in connection with the rigging or installation of the Hurco Product, unless caused by Hurco or a Hurco Distributor.
- (e) any repair, replacement or installation, modification or alteration of a Hurco Product not authorized by Hurco.

“Hurco” means Hurco Companies, Inc., and its machine tool products division, Hurco Machine Tool Products Division, and its control products division, Autobend Control Products Division, One Technology Way, P.O. Box 68180, Indianapolis, Indiana 46268-0180 or additional designated operating locations.

“Hurco Accessory” means a new accessory, kit or optional equipment supplied and installed on a Hurco Machine Tool or Autobend Product by Hurco or a Hurco Distributor at any time after the initial installation of that Hurco Machine Tool or Autobend Product.

“Hurco Distributor” means a person or business entity authorized by Hurco to sell or service a Hurco Product or to perform repairs under this Warranty.

“Hurco Machine Tool” means a machine tool manufactured by or for Hurco, bearing Hurco’s name or trademark and serial number, and purchased by an End User new directly from Hurco or a Hurco Distributor, together with any new accessory, kit or optional equipment supplied and installed on that Hurco Machine Tool by Hurco or a Hurco Distributor prior to or at the time of the initial installation of that Hurco Machine Tool.

“Hurco Product” means any Hurco Machine Tool, Autobend Product, Hurco Replacement Part, Hurco Accessory or Media.

“Hurco Replacement Part” means a new or rebuilt Hurco genuine part or component provided by or for Hurco or a Hurco Distributor under this Warranty in replacement of a part or component of a Hurco Product that has a Covered Defect.

“Hurco Software” means software owned or licensed by Hurco that is contained in, installed on or supplied with a new Hurco Machine Tool or Autobend Product for use in connection with the operation of the Hurco Machine Tool or Autobend Product.

“Media” means the media upon which any Hurco Software is contained.

“Warranty” means this Limited Warranty and Software License.

“Warranty Period” means:

- (a) for a Hurco Machine Tool, a period of 12 months, from the earlier of (i) the date of the first use of the Hurco Machine Tool at the End User, and (ii) that date which is 60 days after shipment by or for Hurco of the Hurco Machine Tool to a Hurco Distributor or the End User. Such period may be extended, on exception basis by a separate warranty extension issued by Hurco to End User for that Hurco Machine Tool;
- (b) for an Autobend Product, a period of 12 months material, 90 days labor from the date of shipment of the Autobend Product to the End User. Such period may be extended on exception basis by separate warranty extension issued by Hurco to End User for that Autobend Product;
- (c) for a Hurco Replacement Part, a period which is the longer of (i) 90 days after the date of the shipment by or for Hurco of the Hurco Replacement Part to a Hurco Distributor or End User, and (ii) expiration of the Warranty Period for the Hurco Machine Tool or Autobend Product on which the Hurco Replacement Part is installed;
- (d) for a Hurco Accessory, a period of 90 days after the date installed on a Hurco Machine Tool or Autobend Product; and
- (e) for Media, the Warranty Period for the Hurco Machine Tool or Autobend Product in which the Hurco Software contained on the Media is used.



# TMM8 PROPOSAL

## II. LIMITED WARRANTY:

Subject to the terms and conditions of this Limited Warranty, Hurco warrants to End User that the parts and components (and Media) of the Hurco Product for which this Limited Warranty is issued will be free from any Covered Defect during the Warranty Period for that Hurco Product. Hurco shall have no responsibility under this Limited Warranty for any Excluded Defect.

## III. HURCO'S RESPONSIBILITIES UNDER THIS LIMITED WARRANTY:

Hurco will, at its option, replace or repair any part or component (or Media) of a Hurco Product that has a Covered Defect at no expense to End User, except that: (1) End User must pay all labor expenses to repair or replace any Hurco Replacement Part that has a Covered Defect, and must pay all labor expenses to repair or replace any other Hurco Product that has a Covered Defect if the Covered Defect arose after the initial 90 day period of the Warranty Period for that Hurco Product; (2) End User must pay for any repair, replacement or installation costs not authorized by Hurco; and (3) End User must pay for all shipping charges (including freight charges, taxes, and insurance), except that Hurco will pay the shipping charges for repaired parts and components or a Hurco Replacement Part (or Media) shipped under this Warranty to End User or, at Hurco's option, to the Hurco Distributor who sold the Hurco Product to End User.

## IV. END USER'S RESPONSIBILITIES UNDER THIS LIMITED WARRANTY:

End User must report to Hurco in writing any Covered Defect in any part or component (or Media) of the Hurco Product as soon as practicable upon discovery and in all events prior to the expiration of the Warranty Period for that Hurco Product. Hurco shall have no responsibility under this Warranty with respect to any Covered Defect which is not reported to Hurco by written notice prior to the expiration of the Warranty Period for that Hurco Product. Upon request, End User must allow Hurco or a Hurco Distributor to inspect the Hurco Product during business hours to determine whether the Defect is a Covered Defect. Upon request, End User must return the part or component (or Media) that has a Covered Defect to Hurco at the following address: Hurco Companies, Inc., One Technology Way, Indianapolis, Indiana 46268. End User is responsible for shipping to Hurco any part or component (or Media) of a Hurco Product that has a Covered Defect and for paying all shipping charges.

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