HURCO

Turning Centres

MAX 5

From print to part to profit





TMi and TMXi

General purpose, heavy duty and high performance 2 axis lathes

- > TM6i XP
- > TM8i XP
- > TM10i XP
- > TM12i XP
- > TMX8i
- > TMX10i



Benefits of the TMi Series

TMi Series – Quick job set-up, easy programming, large workspace and efficient chip management make the TMi series of slant-bed lathes ideal for small-batch production.

Design and Construction – A true slant-bed cast design promotes larger turning capacity and more efficient swarf removal. Extra wide linear guide ways are strategically spaced to provide excellent support to the cross slide. This additional stability provides greater component accuracy and improved surface finish.

Hydraulic Turret – Available on all models as slotted turret, or VDI. The hydraulic system is fast, precise, reliable and very rigid in construction.

Tailstock – Programmable quill and draggable via turret hitch on all models.

XP Upgrade – The new models designated as XP, include design improvements to the entire range, including roller guideways, faster rapids, increased spindle bore and draw-bar capacity. Plus, a smaller footprint. This all makes the TM range more compact and the highest performance yet.

Benefits of the TMXi Series

TMXi Series – More horsepower, more torque, larger travels, faster rapids, faster acceleration and deceleration. This range of CNC turning centres is higher in specification and therefore more suited to a demanding production environment. The programmable tailstock gives greater flexibility for workpiece support. Larger, wide-spaced slideways allow for heavy duty cycles whilst maintaining outstanding accuracy and surface finish.

Working space	TM6i XP	TM8i XP	TM10i XP	TM12i XP	TMX8i	TMX10i
Max. turning diameter (mm)	316/215 VDI	356/256 VDI	450/304 VDI	510/395 VDI	355	415
Max. turning length (mm)	340/335 VDI	525/500 VDI	760/734 VDI	1,000/974 VDI	535	635
Chuck diameter (mm)	169	210	254	315	210 (option)	254 (option)
Draw-tube diameter (mm)	45	64.5	81	104	64.5	81
Travels						
X-Axis (mm)	176/168 VDI	203	250	305	203	232
Z-Axis (mm)	356	550	790	1,016	560	660
W-Axis (mm)	-	-	-	-	640	740
Feeds						
X/Z/W –Axis (m/min)	30/30/-	30/30/-	30/30/-	30/30/-	30/30/30	30/30/30
Spindle Motor						
Spindle power (KW) Max	13	23	22	55	37.5	37.5
Torque (Nm) Max @ (rpm)	113@1,090	219@1,000	350@600	606@870	369@970	523@685
Spindle						
Spindle Speed Max. (rpm)	6,000	4,000	3,000	2,800	4,500	3,500
Spindle Nose	A2-5	A2-6	A2-8	A2-11	A2-6	A2-8
Turret						
Type	Slotted Disc / VDI 20 option	Slotted Disc / VDI 30 option	Slotted Disc / VDI 40 option	Slotted Disc / VDI 40 option	Slotted Disc	Slotted Disc
Number stations	12	12	12	12	12	12
Tool shank (mm)	20 x 20 / 16 x 16 VDI	25 x 25 / 20 x 20 VDI	25 x 25 / 25 x 25 VDI	25 x 25 / 25 x 25 VDI	25 x 25	25 x 25
Maximum boring bar diameter (mm)	32 / 25 VDI	40 / 32 VDI	40 / 40 VDI	40 / 40 VDI	40	40
Further details						
Machine weight (kg)	3,200	4,030	5,000	6,700	5,900	6,100

Further information and technical data on the product, see www.hurco.co.uk.
Machines shown with options. Prices and information may change without notice.

TM Mi

3 axis CNC lathes with driven tools

- > TM8Mi
- > TM10Mi
- > TM12Mi

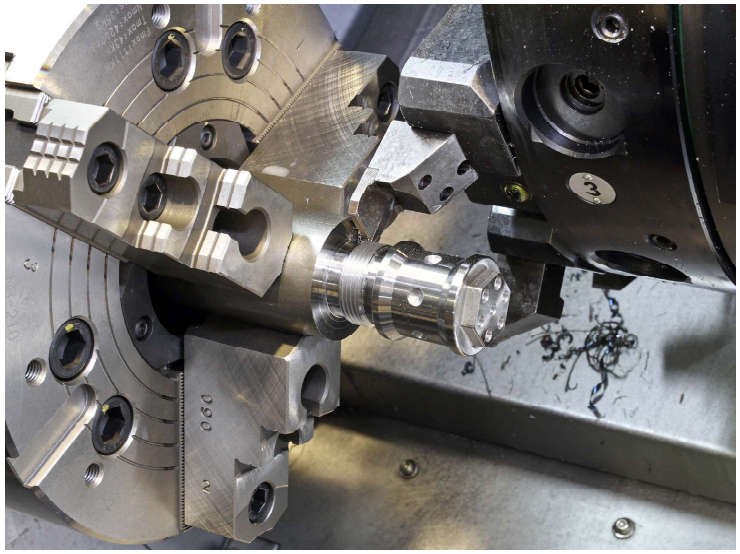


Benefits of the TM Mi Series

TM Mi Series Lathes – Ideal for off-centre drilling and simple milling operations on a turned part. The Max 5 control allows quick and easy programming, whilst the VDI tooling ensures a rapid set-up and quick turnaround for small batch production.

Design and Construction – The Meehanite cast structure has excellent characteristics for damping and torsional strength. The wide saddle and oversized rails provide maximum static and dynamic stiffness.

Servo Turret – All TM Mi Lathes are fitted as standard with a fast, servo-driven, 12 station Duplomatic turret. VDI toolholders allow quick changes and excellent repeatability.



	TM8Mi	TM10Mi	TM12Mi
Working space			
Max. turning diameter (mm)	256	295	360
Max. turning length (mm)	497	740	937
Chuck diameter (mm)	210	254	305
Draw-tube diameter (mm)	64.50	81	104
Travels			
X-Axis (mm)	198	198	305
Z-Axis (mm)	550	790	1016
Feeds			
X/Z –Axis (m/min)	30/30	30/30	30/30
Spindle Motor			
Spindle power (KW)	22.6	40	40
Torque (Nm) Max @ (rpm)	264@817	520@734	743.5@514
Spindle			
Spindle Speed max. (rpm)	4,000	3,000	2,800
Spindle Nose	A2-6	A2-8	A2-11
Turret			
Type	VDI 30 DIN 1809	VDI 40 DIN 1809	VDI 50 DIN 1809
Number stations	12	12	12
Tool shank (mm)	20 x 20	25 x 25	32 x 32
Maximum boring bar diameter (mm)	32	40	50
Driven tool speed (rpm)	5,000	4,000	4,000
Driven tool peak power (Kw)	4.6	6.6	6.6
Driven tool peak torque (Nm)	29.3@1,500rpm	42@1,500rpm	42@1,500rpm
Further details			
Machine weight (kg)	4,400	5,500	7,600

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TMX MYi and TMX MYSi

Multi Axis Mill Turn
High Performance Turning Centres

- > TMX8MYi
- > TMX10MYi
- > TMX8MYSi
- > TMX10MYSi



Benefits of the TMXMYi Series

TMXMYi Series – Built for speed. Servo turret provides quick-change tooling and fast indexing, features a large curvic coupling for superior rigidity, and makes all stations live-tool capable. The short drive train of live tooling generates less heat and provides more torque to the tool, resulting in higher reliability and quieter operation. Other benefits include: high output, digitally controlled spindle motor, programmable tailstock, and a component isolation system that combats heat dissipation and spindle head growth.

Benefits of the TMXMYSi Series

TMXMYSi Series – Built for speed. The high performance specifications and meticulous design and construction of the TMX8MYSi and TMX10MYSi make for powerful turning centers capable of the most productive multi-tasking feats. With live tooling and a sub-spindle, you can finish parts on both the front and back side. You'll achieve even greater productivity because you have less setups and less material handling. Faster rapids, increased travels, and more horsepower add to productivity gains.

	TMX8MYi	TMX10MYi	TMX8MYSi	TMX10MYSi
Capacity				
Max. turning diameter (mm)	336	375	336	375
Max. turning length (mm)	527	627	527	627
Chuck diameter (mm) main / sub	210 (option)	254 (option)	210 / 170 (options)	254 / 170 (options)
Draw-tube diameter (mm)	64.5	78	64.5	78
Travels				
X-Axis (mm)	285	305	285	305
Z-Axis (mm)	560	670	560	670
Y-Axis (mm)	+/- 55	+/- 55	+/- 55	+/- 55
W-Axis (mm)	640	740	640	740
Feeds				
X/Z/Y/W - Axis (m/min)	24/30/12/30	24/30/12/30	24/30/12/30	24/30/12/30
Main Spindle				
Maximum speed (rpm)	4,500	3,500	4,500	3,500
Maximum torque (Nm @ rpm)	239 @ 1,000	267 @ 1,000	239 @ 1,000	267 @ 1,000
Spindle power Max. (kW)	25	28	25	28
Spindle nose	A2-6	A2-8	A2-6	A2-8
Turret				
Turret type	VDI 40 / DIN 1809	VDI 40 / DIN 1809	VDI 40 / DIN 1809	VDI 40 / DIN 1809
Stations	12	12	12	12
Tool shank (mm)	25 x 25	25 x 25	25 x 25	25 x 25
Maximum boring bar diameter (mm)	40	40	40	40
Sub-Spindle				
Maximum speed (rpm)	–	–	6,000	6,000
Maximum torque (Nm @ rpm)	–	–	102 @ 1,390	102 @ 1,390
Spindle power (kW @ rpm)	–	–	15 @ 1,390	15 @ 1,390
Spindle nose	–	–	A2-5	A2-5
Live Tools				
Maximum speed (rpm)	5,000	5,000	5,000	5,000
Maximum torque (Nm @ rpm)	27 @ 2,190	27 @ 2,190	27 @ 2,190	27 @ 2,190
Spindle power (kW @ rpm)	6.3 @ 2,190 RPM	6.3 @ 2,190 RPM	6.3 @ 2,190 RPM	6.3 @ 2,190 RPM

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Accessories

HURCO offers a variety of optional accessories for turning centers

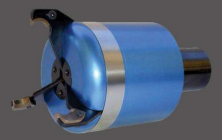


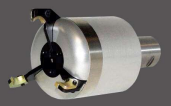






- Auto doors
- Bar feed & interface: Automates advancing the bar between parts
- Bar Pullers
- High Pressure coolant
- Oil skimmer: Increases coolant life by removing unwanted tramp oil
- Oil mist collector: Provides a safe, clean environment while also reclaiming evaporated coolant mist
- Parts ejector (sub-spindle)
- Parts conveyors & collectors
- Sub-spindle tool setter





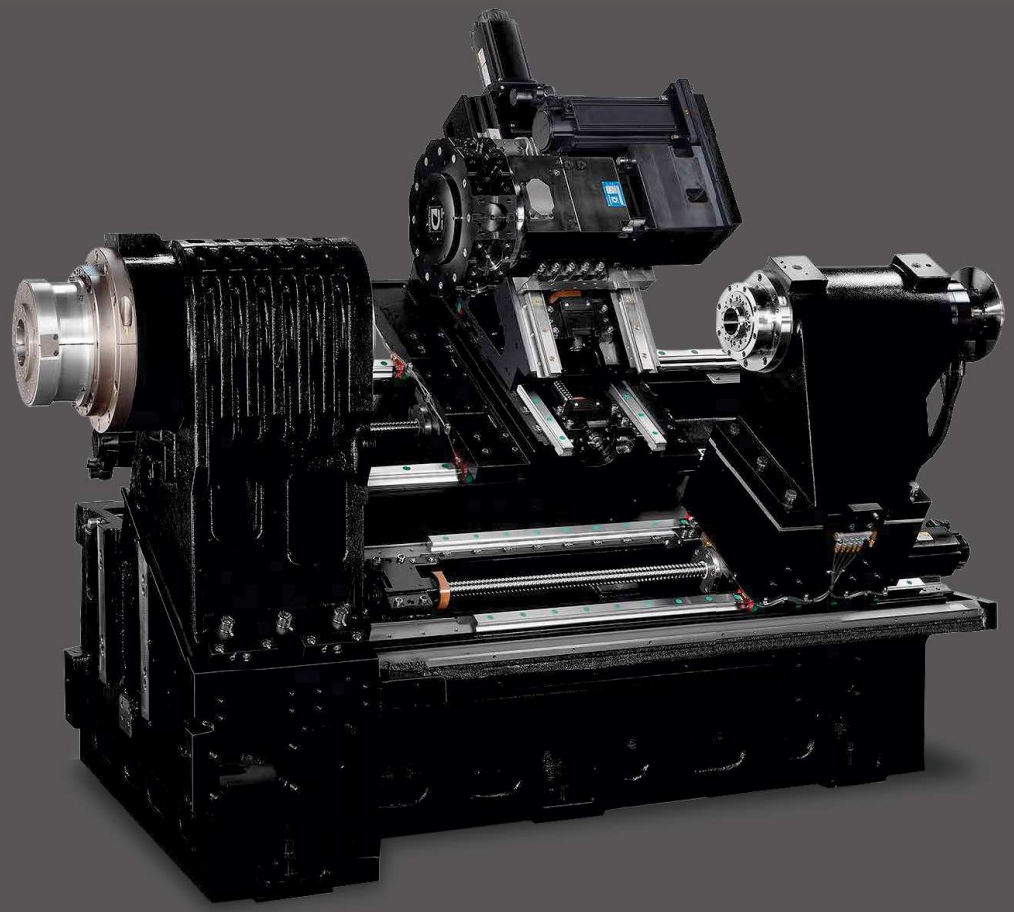






Premium Components

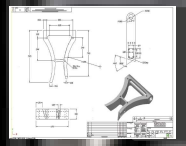
- HURCO uses double-nut ball screws that are anchored at both ends which applies pressure in opposite directions to the ball screw , keeps the nut under tension, and prevents backlash which produces less heat than a single nut system.
- HURCO linear motion guides (LMG) provide excellent rigidity during heavy cutting with very low friction characteristics even with very high feed rates. HURCO castings are machined with a slot and shoulder for the rail. The rail is then wedge-locked with heavy duty fasteners to ensure straightness and rigidity, instead of just bolting the rail to the top of the casting with no shoulder.
- Finite Element Analysis (FEA) is used to evaluate structural rigidity, torsional stiffness, thermal characteristics, and natural frequency to achieve the best frame design.
- Fast servo turret with 12-driven tool stations is designed to provide faster and more accurate tool indexes (TMM Series and higher). Any combination of ID and OD live/static tool holders can be used.
- The spindles have a larger diameter for rigidity, are made of chrome-moly alloy, come permanently grease packed and precision balanced for long life.
- The ITX design of the HURCO control module has eliminated a large number of plug-in connections and board level parts which results in very high reliability. The modular design minimizes downtime as the one-piece control module can quickly and easily be swapped out in the field. The machine configuration files automatically back up to a flash drive for easy recovery.

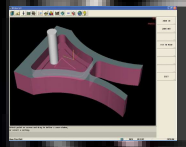


Max 5
Lathe control

- > faster from drawing to finished part
- > shortest learning curve
- > fastest programming
- > intuitive operation
- > ergonomically designed


Sketch


Drawing


CAD/CAM


Desktop



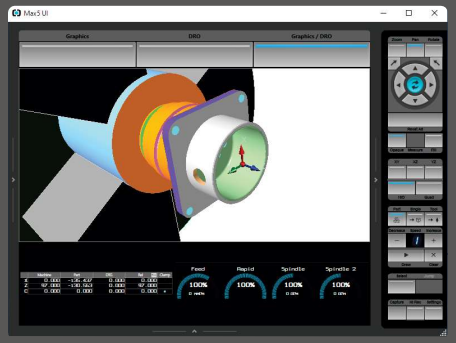
DXF File

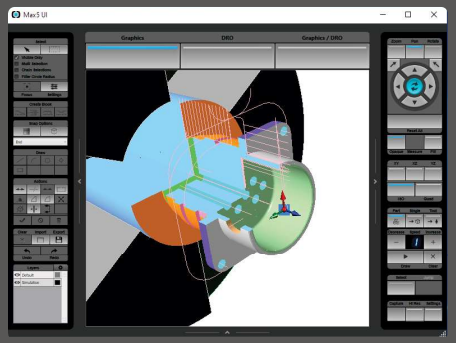


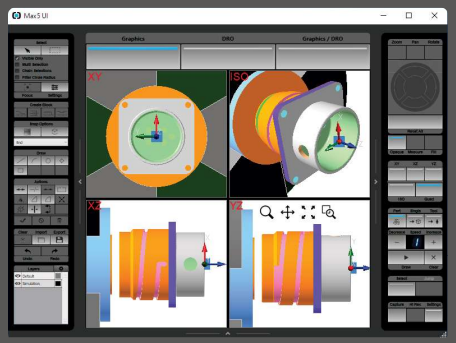
All Hurco turning centres incorporate a multi-core CPU to allow concurrent programming capabilities and high resolution 3D graphic display. A minimum of 2.7GHz Duel Core Intel i5 processor with 4GB RAM and 128 GB SSD Hard Drive supports the Windows operating system. All-digital internal communications and drives are able to respond precisely to the Ultimotion software, achieving 600 block look ahead and 2,277 block processing speed. Simple, easy to use interface accepts Hurco's popular Conversational, or Industry Standard NC programming as standard.

Max 5 Lathe Control

Faster from the drawing to the finished part







- Interactive Touch Screen for conversational , NC programming and for graphical representation.
- Program Management: User-centric archiving, by attached images and text search.
- Adjustable ergonomically designed control panel.
- Graphical program editing, fast program editing. Use the search function. Increases accuracy and allows rapid changes to the program.
- Graphics allow the workpiece to be rotated to any angle or view. This displays the tool path and part geometry, including scaling workpiece size.
- 3D simulation. Before running the program, tool movement can be tracked in real time 3D simulation.
- Fault diagnosis. All programs, tools and program parameter errors are displayed.
- ID/OD Profile Turning with face, turn, taper, arc, with blend arcs or chamfers between elements.
- Grooving Cycles – chamfer, radius or square corners with ability to taper the groove walls from the on-screen menu.
- Thread Cycle Blocks – inside or outside , parallel or tapered. Lead in and out angles, multi start, constant or decreasing depth of cut.
- Ultimotion – improved surface finish and reduced cycle times.

- Auto Tool Nose Radius Compensation
- Diameter/Radius Programming Modes
- CSS Constant Surface Speed
- Bar Feed Cycle Blocks
- Bar Puller Cycle Blocks
- Cutoff Cycle Blocks
- Drill Tip Compensation
- Rigid Tapping with pecking
- Tool probing is a standard feature
- 99 workpiece and tool offsets
- Thread Repair Block
- Spindle Harmonic Control
- Compute Estimated Run Time
- Concurrent programming
- Recovery Restart – NC and conversational
- Linear broaching Blocks* – TMMi's & TMXMY/Si only
- Polygon Turning* – TM XMY/Si only **NEW Feature!**
- Gear Hobbing* – TM XMY/Si only **NEW Feature!**

*Option (The above list is not exhaustive, book a demo to see the all available WinMax features)

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MACHINING CENTRES



TURNING CENTRES



5 AXIS



DOUBLE COLUMN



SUPERIOR CONTROLS

