3-Axis

Machining Centres

MAX 5

From print to part to profit





VMi

Compact 3 axis machining centres with big machine performance

- > VM One
- > VM10i
- > VM10i Plus
- > VM10HSi
- > VM20i
- > VM20i Plus
- > VM30i
- > VM30i Plus



Benefits of the VMi Series

VMi Series – Although designed as entry-level, small footprint, general purpose machining centres, there is no compromise on build quality or features.

These machines are designed specifically to get the maximum amount of machine travel from the smallest possible footprint. Furthermore, only fast swing-arm electric toolchangers are used, meaning that tools remain clean and clear of the working area

The VM Series should not be confused with other "mini-mills" on the market. They are solid, accurate, built to last and are able to produce high quality surface finish.

For all models you get the Max5 single-screen control, allowing full conversational or ISNC programming capabilities with Ultimotion, look-ahead and smooth motion control as standard.

VMi Plus Series - the new VM Plus range includes a 12,000RPM spindle with cooler, 20 bar coolant through spindle, swarf auger, Max 5 twin-screen control and LCD remote jog all as standard.



	VM One	VM10i	VM10i Plus	VM10HSi	VM20i	VM20i Plus	VM30i	VM30i Plus
Table								
Table working surface (mm)	762 x 406	762 x 406	762 x 406	762 x 406	1,168 x 508	1,168 x 508	1,321 x 508	1,321 x 508
T-Slots (mm)	3 x 18 x 100	3 x 18 x 100	3 x 18 x 100	3 x 18 x 100	5 x 18 x 100	5 x 18 x 100	5 x 18 x 100	5 x 18 x 100
Max. load (Kg)	1500	1,500	1,500	1,500	1,800	1,800	1,800	1,800
Travels								
X-Axis (mm)	660	660	660	660	1,016	1,016	1,270	1,270
Y-Axis (mm)	406	406	406	406	508	508	508	508
Z-Axis (mm)	356	508	508	508	508	508	508	508
Spindle Motor								
Spindle Power Max. (KW)	7.5	11	11	8.5	15	15	15	15
Torque (Nm) Max. @ (rpm)	49 @ 1,450	72 @ 1,450	60.4 @ 1,740	5.4 @ 15,000	98.8 @ 1,450	82.3 @ 1,740	98.8 @ 1,450	82.3 @ 1,740
Spindle	BIG PLUS	BIG PLUS	BIG PLUS	I-BAG	BIG PLUS	BIG PLUS	BIG PLUS	BIG PLUS
Taper	SK40/BT40	SK40/BT40	SK40/BT40	BT30	SK40/BT40	SK40/BT40	SK40/BT40	SK40/BT40
Spindle Nose to table (mm) Max	432	610	610	610	610	610	610	610
Spindle Speed Max. (rpm)	8,000	10,000 (12,000*)	12,000	20,000/ (30,000*)	10,000 (12,000*)	12,000	10,000 (12,000*)	12,000
Toolchanger								
Stations	16	24	24	20	24	24	24	24
Max. Tool Diameter (mm)	89(127**)	80(120**)	80(120**)	60(100**)	80(120**)	80(120**)	80(120**)	80(120**)
Max. Tool Length (mm)	200	250	250	250	250	250	250	250
Max. Tool Weight (Kg)	7	7	7	3	7	7	7	7
Further Details								
Rapid travel (m/min) X/Y/Z - Axis	28/28/28	28/28/28	28/28/28	28/28/28	28/28/28	28/28/28	28/28/28	28/28/28
Machine weight (Kg)	2,900	3070	3070	3,100	4,100	4,100	4,245	4,245

*Option,**Adjacent pockets empty

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

VMXi

For high performance cutting

- > VMX24i
- > VMX30i
- > VMX42i
- > VMX50i
- > VMX60i
- > VMX64i
- > VMX84i



Benefits of the VMXi Series

VMXi Series – The VMXi 3-axis machining centre is the industry workhorse. Designed and built to achieve a combination of powerful cutting performance whilst remaining dynamic and agile. The VMXi range offers outstanding capacity within a compact footprint.

Build quality starts with a heavy, ribbed, fine-grain, high grade cast iron structure, double-nut, pre-tensioned ball-screws anchored both ends for increased rigidity and accuracy.

Choose the Ti, Di, or HSi model variation depending upon your needs. Most popular is the 12,000 rpm, high torque VMXTi range for all general purpose work, however the 15,000RPM Di range with in-line spindle offers performance advantages for high RPM, high feed-rate work, improving surface finish and thermal stability. These benefits can be taken a step further with the 20,000RPM motorised HSK63A Setco spindle on the HSi range.

All models come as standard with coolant washdown, spindle coolant ring, swarf conveyor, spindle chiller and dual screen Max5 control.

Powerful, 50 taper spindle options are also available on all of the larger models.

In designing the VMXi range, no expense has been spared to provide a range of rigid, powerful machines that deliver the best possible performance in terms of machining capacity and reliability.

	VMX24 Di/Ti	VMX30 Di/Ti/HSi	VMX42 Di/Ti/HSi	VMX50 Di/Ti/50Ti	VMX60 Di/Ti/50Ti	VMX64 Ti/50Ti	VMX84 Ti/50Ti
Table							
Table working surface (mm)	760 x 510	1,020 x 510	1,270 x 610	1,500 x 660	1,680 x 660	1,676 x 890	2,184 x 865
T-Slots (mm)	5 x 18 x 100	5 x 18 x 100	5 x 18 x 100	6 x 18 x 100	6 x 18 x 100	7 x 18 x 125	7 x 18 x 125
Max. load Kg	1,500	1,500	1,750	2,000	2,000	2,722	2,268
Travels							
X-Axis (mm)	610	762	1,067	1,270	1,525	1,625	2,134
Y-Axis (mm)	508	508	610	660	660	864	864
Z-Axis (mm)	610	610	610	610	610	762	762
Spindle Motor							
Spindle Power Max. (KW)	9/9	15/13.4/35	15/18/35	18/22	18/22	18/22	18/22
Torque (Nm) Max. @ (rpm)	57 @ 1,500/ 143 @ 600	95 @ 1,500/ 214 @ 600/ 119 @ 2,800	95 @ 1,500/ 237 @ 720/ 119 @ 2,800	140 @ 1,500/ 237 @ 720/ 353 @ 600	140 @ 1,500/ 237 @ 720/ 353 @ 600	237 @ 720/ 353 @ 600	237 @ 720/ 353 @ 600
Spindle	BIG PLUS	BIG PLUS/Setco	BIG PLUS/Setco	BIG PLUS	BIG PLUS	BIG PLUS	BIG PLUS
Taper (CAT or BT)	40/40	40/40/HSK63A	40/40/ HSK63A	40/40/50	40/40/50	40/50	40/50
Spindle Nose to Table (mm) Max	762	762	762	762	712	890	890
Spindle Speed Max. (rpm)	15,000/ 12,000	15,000/12,000/ 20,000	15,000/12,000/ 20,000	15,000/12,000/ 8,000	15,000/12,000/ 8,000	12,000/ 8,000	12,000/ 8,000
Toolchanger							
Stations	30/30	30(40*)/30(40*)/30(40*)	30(40*)/30(40*)/40	30(40*)/30(40*)/30	30(40*)/30(40*)/30	30(40*or 96*)/32	40(96*)/32
Max. Tool Diameter (mm)	76(130*)	76(130*)	76(130*)	76(130*)/125(171*)	76(130*)/125(171*)	76(130*)/125(220*)	76(130*)/125(220*)
Max. Tool Length (mm)	300	300	300	300	300	300	300
Max. Tool Weight (Kg)	7	7	7	7/15	7/15	7/15	7/15
Further Details							
Rapid Feedrate (m/min.) X/Y/Z-Axis	38/38/32	38/38/32 45/45/40	38/38/32 45/45/40	32/32/24	32/32/24	18/18/13.5	18/18/13.5
Machine Weight (Kg)	4,750/ 4,750	5,200/5,000 5,000	6,500/6,800 7,100	8,200/ 9,200	8,600/ 9,400	14,600/ 15,000	16,800/ 17,000

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

BXi

Portal design machine for higher dynamics and more Y travel

> BX40i
> BX50i
> BX60i



If high speed is required

The Hurco BXi high-speed machining centres are equipped with the necessary components for speed, accuracy and repeatability. This includes ABEC-7 ceramic hybrid bearings and a 20,000 rpm motorised spindle that is designed for running for long periods at high rpm. Because the motor and spindle are cooled by oil as a single component, thermal growth is negligible, compared to belt-driven or in-line spindles. The oil over air lubrication distributes oil evenly and prevents bearings from drying out.

These machines are built to last and to retain accuracy with larger rails that are mounted to a machined shoulder for increased rigidity. Additionally, the rails are wedge-locked to the frame to reduce vibration. The ball-screws are stretched and pre-loaded and have an additional anchor to the Z axis. The dual column design gives far greater rigidity compared to a C frame machine. This improves dynamics and machine accuracy

The latest Yaskawa digital direct-drives on all axes and Hurco's patented Ultimotion high-speed contouring software ensure outstanding surface finish on 2D and 3D components. Linear scales and coolant through spindle are fitted as standard to the BXi range.

	BX40i	BX50i	BX60i
Table			
Table working surface (mm)	1,050 x 700	1,360 x 960	1,900 x 1,300
T-Slots (mm)	6 x 18 x 125	6 x 22 x 160	8 x 22 x 160
Max. load Kg	1,000	2,000	6,000
Travels			
X-Axis (mm)	1,020	1,250	1,600
Y-Axis (mm)	700	950	1,300
Z-Axis (mm)	500	580	700
Spindle Motor			
Spindle Power Max. (KW)	35	35	35
Torque (Nm) Max. @ (rpm)	119 @ 2,800	119 @ 2,800	119 @ 2,800
Spindle			
Taper	HSK63A	HSK63A	HSK63A
Spindle Nose to Table (mm)	678	780	880
Spindle Speed Max. (rpm)	20,000	20,000	20,000
Toolchanger			
Stations	30/(50*)	30/(50*)	30/(50*)
Max. Tool Diameter (mm)	76/(127*)	80/(150*)	80/(150*)
Max. Tool Length (mm)	300	300	300
Max. Tool Weight (Kg)	7	7	7
Further Details			
Rapid Feedrate (m/min.) X/Y/Z-Axis	36/36/36	36/36/36	36/36/36
Machine Weight (Kg)	9,100	11,960	20,000

*option

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DCXi

Double column machining centres

- DCX22i
- DCX22–50Ti
- DCX32i
- DCX32–26i
- DCX42i



Double column for the BIG stuff

The Hurco Max 5 control is well suited to large component manufacture. The parts are often relatively simple 2D operations. The ease of WinMax programming ensures that everything can be done quickly and simply at the control, in much less time than can be achieved off-line. Furthermore, editing and tuning of the programme is done instantly without having to rely on CAD/CAM programmers.

There is an increasing demand for larger Hurco machines. Our design engineers strongly believe that as soon as a Y travel of more than 1 metre is required, the traditional C-frame design machining centre loses too much stability to maintain the required accuracy.

The dual column design allows a very stiff and thermally stable structure. Additionally, the high capacity worktable can cater for very heavy components and easy loading by fork-lift or crane. Since its introduction, the DCXi Series has quickly become the first choice of automotive press-tool manufacturers and also is widely used in aerospace power generation and large component manufacture.

5 axis model variations of the DCX32i and DCX42i are now available, see our 5 axis brochure.

	DCX22i	DCX22–50Ti	DCX32i	DCX32-26i	DCX42i
Table					
Table working surface (mm)	2,100 x 1,600	2,100 x 1,600	3,000 x 1,700	3,000 x 2,100	4,000 x 2,100
T-Slots (mm)	9 x 22 x 180	9 x 22 x 180	7 x 22 x 220	9 x 22 x 220	9 x 22 x 220
Max. load Kg	8,000	8,000	11,000	14,000	16,000
Travels					
X-Axis (mm)	2,200	2,200	3,200	3,200	4,200
Y-Axis (mm)	1,700	1,700	2,100	2,600	2,600
Z-Axis (mm)	750	750	920	920	1,100
Spindle Motor					
Spindle Power Max. (KW)	18	26	80	80	80
Torque (Nm) Max. @ (rpm)	237 @ 720	544 @ 458	764 @ 1,000	764 @ 1,000	764 @ 1,000
Spindle					
Taper CAT or BT	40	50	50	50	50
Spindle Nose to Table (mm) Max.	902	902	1084	1084	1260
Spindle Speed Max. (rpm)	12,000/(15,000*)	6,000/(8,000*)	6,000/(10,000*)	6,000/(10,000*)	6,000/(10,000*)
Toolchanger					
Stations	40(60*)	40	40	40	40
Max. Tool Diameter (mm)	75/(120*)	125/(220*)	125/(220*)	125/(220*)	125/(220*)
Max. Tool Length (mm)	300	300	300	300	300
Max. Tool Weight (Kg)	7	15	15	15	15
Further Details					
Rapid Feedrate (m/min.) X/Y/Z-Axis	32/32/24	32/32/24	15/15/10	15/15/10	12/12/10
Machine Weight (Kg)	20,000	20,500	35,000	40,000	50,900

*option

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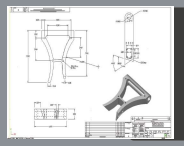
Max 5

From print to part to profit

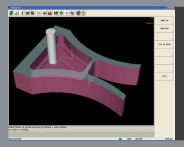
- > faster from drawing to finished part
- > shortest learning curve
- > fastest programming
- > intuitive operation
- > ergonomically designed



Sketch



Drawing



CAD/CAM



Desktop



DXF File



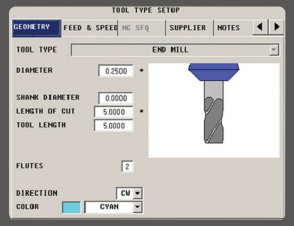
All Hurco machining centres incorporate a multi-core CPU to allow concurrent programming capabilities and high resolution 3D graphic display. A minimum of 2.7GHz Dual Core Intel i5 processor with 4GB RAM and 128 GB SSD Hard Drive supports the Windows operating system. All-digital internal communications 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.

WinMax®

Faster from the drawing to the finished part

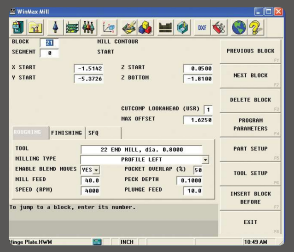
HURCO continues its reputation for technology innovation that yields measurable productivity gains for its customers because we're focused on your success. When we designed WinMax® control software, we focused on simplicity for the user. Less keystrokes, intuitive software, advanced graphics capabilities, and an enhanced graphical interface.

Conversational programming with WinMax® gets you from print to part faster than ever. Three steps and you're there.



Step 1: Setup

Setup is even easier with the WinMax® Tool & Material Library. Set up each tool one time and you're finished - the parameters are stored with the control so you just recall the tool the next time.



Step 2: Program

The graphical user interface of WinMax simplifies programming. Conversational programming with WinMax® will save you time and give you peace of mind - especially when you need to hire and train employees because it's easy to learn and easy to use.



Step 3: Verify

Advanced Verification Graphics with 3D solid rendering of the part, including dynamic rotation and real time tool display, make proving out the part a snap. View the part from any angle without the need to redraw it.

Now with Solid Model Import

WinMax Features and Options

- Interrupt cycle – Stop the program whenever you like to check the part or clean the tool. The machine will restart where you left off
- Data Block Search – Touch the feature that you need to edit on the graphics screen. The input screen will jump automatically to that part of the program
- Estimated run-time – Provides an accurate run-time estimate based on the feeds, speeds and tool-change times of that particular machine
- Concurrent programming – Program the next job, whilst simultaneously running your current job
- Math Assist – Draw the part geometry and the control will automatically calculate the intersection points for you.
- Select Surface Finish Quality – Maximise the surface finish and minimise the time spent cutting to suit your needs.
- Tool Change Optimization – Optimise the number of tool changes to minimise cycle times for conversational programs
- Ultimotion - High-speed contouring with look-ahead and data-smoothing standard on all Hurco machines
- ISNC – Industry standard compatibility for CAM programs
- Ultipocket – Unlimited islands within a pocket boundary, includes Helical ramp entry and Adaptipath, optimised CAM-style cutting routines*
- Conversational / NC Merge – Incorporate NC code as part of a conversational program*
- DXF – Take features, contours, hole positions direct from a DXF file. Save time, make less mistakes*
- Solid Model Import – Import STEP models direct into the control. Works great for 5-sided parts. Uses Hurco's transform plane software to rotate the part automatically*
- Adjacent Pocket Empty – Feature to accept toolchanging of larger tools*

*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

