

# 3-Axis

machining centres

## MAX 5

From print to part to profit





## **VMi**

Compact 3 axis machining centres with big machine performance

> VM10HSi



## 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. Best in class machine capacity is achieved. Furthermore, only fast 20 station swing-arm electric toolchangers are used, meaning that tools remain clean and clear of the working area.





	VM5i	VM10i	VM10HSi	VM20i	VM30i
Table					
Table working surface (mm)	457 x 356	762 x 406	762 x 406	1,168 x 508	1,321 x 508
T-Slots (mm)	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
Max.load (Kg)	227	340	340	544	544
Travels					
X-Axis (mm)	457	660	660	1,016	1,270
Y-Axis (mm)	356	406	406	508	508
Z-Axis (mm)	356	508	508	508	508
Spindle Motor					
Spindle Power Max.(KW)	7.5	11	8.5	15	15
Torque (Nm) Max. @ (rpm)	49 @ 1,450	74 @ 1,450	5.9 @ 14,700	102 @ 1,450	102 @ 1,450
Spindle					
Taper	CAT/BT40	CAT/BT40	BT30	CAT/BT40	CAT/BT40
Spindle Nose to table (mm) Max	457	610	559	610	610
Spindle Speed Max. (rpm)	8,000	10,000	20,000/	10,000	10,000
			30,000*		
Toolchanger					
Stations	16	20	20	20	20
Max. Tool Diameter (mm)	89	89	60	89	89
Max. Tool Length (mm)	200	250	250	250	250
Max. Tool Weight (Kg)	6.8	6.8	5	6.8	6.8
Further Details					
Rapid travel (m/min) X/Y/Z - Axis	19/19/19	24/24/24	24/24/24	24/24/24	24/24/24
Machine weight (Kg)	2,636	2,818	3,102	4,100	4,245
* ontion					

<sup>\*</sup> 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.



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



### 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, pretensioned ball-screws anchored both ends for increased rigidity and accuracy.

Choose the Mi or Ti ranges depending upon your needs. Most popular is the 12,000 rpm, high torque spindle range fitted to the VMXTi range, which also comes as standard with coolant washdown, spindle coolant ring, and swarf management. However, cost savings can be achieved by opting for the VMXMi range by removing options that aren't required, or selecting different options.

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.

	VMX24Mi/Ti	VMX30Mi/Ti	VMX42Mi/Ti	VMX50Mi/Ti/50Ti	VMX60Mi/Ti/50Ti	VMX64-40Ti/50Ti	VMX84-40Ti/50Ti
Table					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Table working surface (mm)	760 x 508	1,020 x 508	1,270 x 610	1,500 x 660	1,676 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
	1,360	1,360	1,360	1,360	1,360	2,722	2,268
Travels							
X-Axis (mm)	610	760	1,067	1,270	1,525	1,625	2,134
Y-Axis (mm)	508	508	610	660	660	865	865
Z-Axis (mm)	610	610	610	610	610	762	762
Spindle Motor							
Spindle Power Max. (KW)	15/9	15/13.4	22/18	22/18/22	22/18/22	18/22	18/22
Torque (Nm) Max. @ (rpm)	102 @ 1,450/	102 @ 1,450/	143 @ 1,450/	143 @ 1,450/	143 @ 1,450/	237 @ 720/	237 @ 720/
	95 @ 900	214 @ 600	237 @ 720	237 @ 720/	237 @ 720/	353 @ 600	353 @ 600
				353 @ 600	353 @ 600		
Spindle							
Taper (CAT or BT)	40/40	40/40	40/40	40/40/50	40/40/50	40/40/50	40/40/50
Spindle Nose to Table (mm) Max	762	762	762	762	711	914	909
Spindle Speed Max. (rpm)	10,000/	10,000/	10,000/	10,000/	10,000/	10,000/	12,000/
	12,000	12,000	12,000	12,000/8,000	12,000/8,000	12,000/8,000	8,000
Toolchanger							
Stations	30/30	30/30(40*)	30/30(40*)	30/30(40*)/30	30/30(40*)/30	30(40*or 96*)/32	40(96*)/32
Max. Tool Diameter (mm)	80	80	80	80/80/125	80/80/125	76/76/125	76/76/125
Max. Tool Length (mm)	300	300	300	300	300	300	300
Max. Tool Weight (Kg)	7	7	7	7/7/15	7/7/15	7/15	7/15
Further Details							
Rapid travel (m/min.) X/Y/Z-Axis	35/35/30	35/35/30	35/35/30	30/30/20	30/30/20	18/18/13.5	18/18/13.5
Machine Weight (Kg)	4,400/	4,500/	6,400/	7,800/	8,600/	14,200/	16,800/
	4,700	4,800	6,600	8,200/9,200	8,800/9,400	14,600/14,600	17,300/17,000
	.,,, 00	.,,,,,,,,,	3,000	3,203, 7,200	3,000,7,100	1 1,000	,555,,555

<sup>\*</sup> option

**VMXHSi** High speed machining

centres

- > VMX24HSi
- > VMX30HSi



## If high speed is required

The Hurco VMXHSi high-speed machining centres are equipped with the necessary components for speed, accuracy and repeatability. The VMXHSi includes ABEC-7 ceramic hybrid bearings and an 18,000 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.

Direct drives on all axes (belt drive VM10HSi), the latest Yaskawa digital drives and Hurco's patented Ultimotion high-speed contouring software ensure outstanding surface finish on 2D and 3D components.

	VM10HSi	VMX24HSi VMX30HSi		VMX42HSi
Table	V/MIUHSI	V/WX24HSI	VIVIX3UHSI	V/WX42H5I
Table Table working surface (mm)	762 x 406	760 x 508	1,020 v.F10	1 270 v /10
			1,020 x 510	1,270 x 610
T-Slots (mm)	3 x 18 x 100	5 x 18 x 100	5 x 18 x 100	5 x 18 x 100
Max.load Kg	340	1,360	1,360	1,360
- 1				
Travels				
X-Axis (mm)	660	610	762	1,067
Y-Axis (mm)	406	508	508	610
Z-Axis (mm)	508	610	610	610
Spindle Motor				
Spindle Power Max. (KW)	8.5	35	35	35
Torque (Nm) Max. @ (rpm)	5.9 @ 14,700	119 @ 2,800	119 @ 2,800	119 @ 2,800
Spindle				
	BT30	HSK63A	HSK63A	HSK63A
Spindle Nose to Table (mm)	559	762	762	737
Spindle Speed Max. (rpm)	20,000/30,000*	18,000	18,000	18,000
Toolchanger				
Stations	20	30	30/40*	40
Max. Tool Diameter (mm)	60	76	76	76
Max. Tool Length (mm)	250	300	300	300
Max. Tool Weight (Kg)	5	8	8	8
Further Details				
Rapid travel (m/min.) X/Y/Z-Axis	24/24/24	45/45/40	45/45/40	45/45/40
Machine Weight (Kg)	3,100	4,818	5,000	7,100
* ontion	<u> </u>	,		

<sup>\*</sup> option

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.

	DCX22i	DCX22–50Ti	DCX32i	DCX32-26i	DCX42i
Table	5 6/122		3 37.82.	5 67.02 20.	3 6/1.12
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	6,000	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	60	60	60
Torque (Nm) Max. @ (rpm)	237@720	555@458	570@1,000	570@1,000	570@1,000
Spindle					
Taper CAT or BT	40	50	50	50	50
Spindle Nose to Table (mm) Max.	900	900	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	40	40	40	40
Max. Tool Diameter (mm)	75	125	125	125	125
Max. Tool Length (mm)	300	300	300	300	300
Max. Tool Weight (Kg)	7	15	15	15	15
Further Details					
Rapid travel (m/min.) X/Y/Z-Axis	24/24/24	15/15/12	15/15/10	15/15/10	12/12/10
Machine Weight (Kg)	20,000	20,500	35,000	40,000	50,900

<sup>\*</sup>option



## 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.

- > Setup.
- > Program.
- > Verify.
- > Powerful software simplifies 5-sided programming.
- > Reduce programming time by 80 percent with Swept Surface. Additional tool path strategies simplify 3D mold programming\*.
- > Maximize surface finish and minimize time with Select Surface Finish Quality Machining.
- Eliminate bottlenecks with automated programming of DXF Transfer feature\*.
- Incorporate NC code into conversational programs with NC/Conversational Merge\*.
- > Save time with Math Assist feature that automatically trigs out missing values.



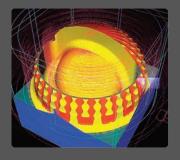
#### Step 1: Setup

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.

- Tool and Material Library\*
   9,999 programmable tools
- > Tool change optimization with Conversational Programs\*
- > Conversational NC-Merge\*
- > HURCO Ultimotion, high speed contouring

<sup>\*</sup> optional

#### **United Kingdom and Ireland**

Halifax Road Cressex Business Park High Wycombe HP12 3SN Tel: (01494) 442222 sales@hurco.co.uk

#### **South Africa**

Hurco South Africa Unit 9, 30 Golden Drive Benoni, Gauteng South Africa Tel: +27 11 849 5600/1 sales@hurco.co.za www.hurco.co.za

#### Sweden

AB Nordiska Wemag Gottskarsvagen 150 SE-43994 Onsala Sweden Tel: +46 300 302 90

Tel: +46 300 302 90 info@nordiskawemag.se www.nordiskawemag.se

#### Israel

NR Automation Shenhav 9 Neve Monoson 60190 Israel Tel: 03-6342115 www.n-r.co.il info@n-r.co.il

#### Saudi Arabia

International Commercial Enterprises Co, Port Gate Building, Office No. 10 & 11, King Abdulaziz Road, P.O. Box: 8998, Dammam – 31412, Saudi Arabia Tel. +966 13 814 0266 info@tj-icec.com www.icec.co.sa

#### Greece

Ropi Machine Tools 64B Vasilikon Str. 18 540 PIRAEUS, Greece Tel: +30 210 413 1712 Fax: 0030 210 4131714 info@ropi-machines.gr www.ropi-machines.gr

#### Finland

Prokone Oy Sahamaenkuja 4 01860 PERTTULA Finland Tel: +358 400 793734 info@prokone.com www.prokone.com

#### Denmark

Maskingruppen A/S Amtsvejen 45A Gassum DK-8981 Spentrup Tel: +45 8645 3400 info@maskingruppen.dk www.maskingruppen.dk

#### Setra Egypt

Professional Industrial Solutions Ordonia Buildings, Building 16, Office 1 Post No. 44466, Egypt Tel: +20 1001 82 1622 Email: Yasser@setraegypt.com www.setraegypt.com

## MACHINING CENTRES T

## TURNING CENTRES





5 AXIS

### DOUBLE COLUMN

## SUPERIOR CONTROLS



