

5-AXIS MACHINING CENTERS

Flexible performers for multi-faceted manufacturing needs.



AGILE ASSISTANT MULTI-FACETED MILLING

CREATORS' BRAND

CNC machines since 1968

At HURCO® we develop and produce CNC machining centers to satisfy any requirement. As a manufacturer with more than 50 years of experience in the CNC sector, we have a precise appreciation of your own unique production and manufacturing requirements. Our 5-axis machining centers are versatile and can be adapted to specific needs. That's how they help you accomplish easy, fast and precise milling of small and mid-size components with complex geometries.

Easy, since our dialog-based CNC control system intuitively guides you from the drawing to the finished workpiece.

Fast, with multiple features supporting maximum efficiency of your 5-axis milling machine: dialog-based programming of powerful spindles, the ergonomic MAX®5 control system, and a dual-screen setup so you can see everything you need.

Precise, thanks to numerous software functions including zero offset and 3D tool correction.

Our approach is shaped by experience, garnered in partnerships extending over many years with an array of clients representing a wide range of manufacturing sectors. This is how each HURCO® machine tool has been optimized to satisfy your company's diverse requirements. We source the components from premium brands and suppliers who have earned our confidence. Manufacturing processes are in compliance with the highest quality standards: Our quality management system has earned ISO 9001:2015 certification.

With expertise and passion

HURCO® is one of the largest and highest-performing international manufacturers of CNC machining centers. Our high-quality products have been used in numerous sectors around the globe for more than 50 years, including in aerospace and aeronautics, machine construction, medical technology, power and energy, and transport and computer technology.

At HURCO® you benefit from the unbeatable combination of machine and control system expertise. Our MAX®5 control system is an in-house development designed to minimize your training and programming times. Looking to make your production processes easier, faster and more precise? We would be happy to help you find the right model and will draw up a custom offer for you accordingly. That's how we help make sure your CNC machining center perfectly aligns with your company's production needs. Do you have questions about our machines, the fastest control system in the industry or maintenance and repair of your machining center? Your personal contact at HURCO® Werkzeugmaschinen GmbH will be glad to help you find all the answers you need.

TECHNICAL SPECIFICATIONS

THE FLEXIBLE

THE HIGH FLYER

Designation	VM 10Ui Plus	VMX 30Ui	VMX 42Ui	VMX 30UDi	VMX 42UDi
Travel distances					
X-axis (mm)	533	760	1,067	762	1,067
Y-axis (mm)	406	510	610	508	610
Z-axis (mm)	483	520	520	520	520
A-axis (°)	+30/-110	+30/-110	+30/-110	+30/-110	+30/-110
B-axis (°)					
C-axis (°)	360	360	360	360	360
Machine capacity					
Spindle nose to table (mm)	36 - 519	90 - 610	90 - 610	90 - 610	63 - 583
Face plates/max. workpiece diameter	198/320	250/435	398/535	248/435	398/535
Clamped table surface L x W (mm)					
Table load (kg)	150	200	250	200	250
Main spindle					
Spindle taper	SK40	SK40	SK40	SK40	SK40
Max. spindle speed (rpm)	12,000	12,000	12,000	15,000	15,000
Spindle power (kW)	11	13.4	18	15	15
Spindle torque (Nm)	61	215	239	95.5	96
Feed					
Rapid traverse X/Y/Z-axis (m/min)	28/28/28	38/38/32	38/38/32	38/38/32	45/45/40
Rapid traverse A-axis/C-axis (rpm)	25/25	25/25	25/25	25/25	25/25
Rapid traverse B-axis (rpm)					
Rapid traverse B-axis/C-axis (rpm)					
Tool changer					
Magazine capacity/optional	24	40	40	40	40/60
Max. tool diameter (mm)	80	76	75	76	75
Diameter with empty pockets (mm)	120	130	130	130	130
Max. tool length (mm)	250	300	300	300	300
Max. tool weight (kg)	7	7	7	7	7
Other data					
Air supply (bar)	7	7	7	7	7
Electrical power connection (kVA)	15	28	35	30	36
Machine weight (kg)	2,850	5,500	7,200	5,500	7,200
Required floor space L x W x H (mm) (incl. chip conveyor/door opening space)	3,264 x 3,379 x 2,714	3,940 x 4,041 x 2,864	4,600 x 3,718 x 3,111	3,940 x 4,058 x 3,166	4,578 x 3,719 x 3,237
Coolant tank capacity (I)	108	265	510	367	510

THE VERSATILE

THE MASTER

VMX 42SWi	VMX 60SWi	VMX 84SWi	VMX 42SRTi	VMX 60SRTi	VC 500i	VCX 600i
1,067	1,524	2,134	1,067	1,524	520	820
610	660	864	610	660	450	550
610	610	762	610	610	400	500
					+110/-110	+110/-110
+/-92	+/-92	+/-92	+/-92	+/-92		
			360	360	360	360
152 - 762	102 - 711	127 - 889	9 - 619	12 - 622	150 - 550	150 - 650
152 - 762	102 - 711	121 - 889				150 - 650
1070 (10		0404 045	1,270 x 610/600	1,680 x 660/600	500/625	
1,270 x 610	1,680 x 660	2,184 x 865				600 x 600
1,360	2,000	2,268	1,360	1,360	250	350
SK40	SK40	SK40	SK40	SK40	SK40	SK40
12,000/ 16,000 (optional)	12,000/ 16,000 (optional)	12,000	12,000/ 16,000 (optional)	12,000/ 16,000 (optional)	12,000	12,000
36.5	36.5	36.5	36.5	36.5	13	16
118	120	120	118	118	82	102
38/38/32	32/32/24	18/18/13.5	38/38/32	32/32/24	28/28/28	36/36/36
	- , - ,				25/25	
50	90	50				50
			50/100	50/100		100
4.0	10110		40		22.42	
40	40/60	40	40	40	30/40	40
76	75	76	75	75	80/75	76
110	110	110	110	110	130	150
250	250	250	250	250	250	300
7	7	7	7	7	7	7
7	7	7	7	7	7	7
59	63	53	72	72	34	61
7,130	9,900	16,750	8,400	10,900	8,400	10,000
				5,662 x 3,921	4,592 x 3,604 x 2,955	4,482 x 4,635 x 3,217
4,598 x 3,713 x 3,149	5,606 x 3,930 x 3,378	7,557 x 4,501 x 3,163	4,954 x 3,767 x 3,187	x 3,298		
340	848	1,046	314	848	320	

VM/VMXUi SERIES

THE FLEXIBLE - FOR COMPLEX GEOMETRIES





VMX 30Ui

Travel distances X-/Y-/Z-axes (mm)	760/510/520
A-axis (°)	+30/-110
C-axis (°)	360
Rapid traverse X/Y/Z-axis (m/min)	38/38/32
Rapid traverse A-axis/C-axis (rpm)	25/25
Table load (kg)	200
Max. spindle speed (rpm)	12,000



VMX 42Ui

Travel distances X-/Y-/Z-axes (mm)	1,067/610/520
A-axis (°)	+30/-110
C-axis (°)	360
Rapid traverse X/Y/Z-axis (m/min)	38/38/32
Rapid traverse A-axis/C-axis (rpm)	25/25
Table load (kg)	250
Max. spindle speed (rpm)	12,000

The compact and flexible HURCO® 5-axis machining centers for fast and precise machining of small to mid-size workpieces.

VM 10UiPLUS | VMX 30Ui | VMX 42Ui

- Large A-axis pivot range, from +30° to -110°, facilitates machining of complex 5-axis components
- High rigidity and stability of the linear guides in all three axes
- Rigid cast iron machine bed produced by monobloc method and optimized via static and dynamic finite element analysis (FEA)
- Latest-generation Yaskawa drives

- Direct rotary encoder for rotary axes
- Standard software functions for 5-sided machining: linearization of tool path, zero offset (transformation layer), path-optimized travel of rotary axes
- Optional software functions: Tool Center Point Management, 3D tool correction, tool vector specification & retraction along tool vector

VMX UDi SERIES

THE HIGH FLYER - WHEN SPEED IS A PRIORITY







VMX 42UDi

Travel distances X-/Y-/Z-axes (mm)	1,067/610/520
A-axis (°)	+30/-110
C-axis (°)	360
Rapid traverse X/Y/Z-axis (m/min)	45/45/40
Rapid traverse A-axis/C-axis (rpm)	25/25
Table load (kg)	250
Max. spindle speed (rpm)	15,000

The HURCO® 5-axis machining center for fast and precise performance. Now with rotary/swivel table for greater flexibility during milling.

VMX 30UDi | VMX 42UDi

- Large A-axis pivot range, from +30° to -110°, facilitates machining of complex 5-axis components
- High rigidity and stability of the linear guides in all three axes
- Rigid cast iron machine bed produced by monobloc method and optimized via static and dynamic finite element analysis (FEA)
- Latest-generation Yaskawa drives

- Direct rotary encoder for rotary axes
- Standard software functions for 5-sided machining: linearization of tool path, zero offset (transformation layer), path-optimized travel of rotary axes
- Optional software functions: Tool Center Point Management, 3D tool correction, tool vector specification & retraction along tool vector

VMX SWi/ SRTi SERIES

THE VERSATILE - FOR HIGH-MIX PRODUCTION





VMX 60SWi

Travel distances X-/Y-/Z-axes (mm)	1,524/660/610
B-axis (°)	+/-92
Rapid traverse X/Y/Z-axis (m/min)	32/32/32
Rapid traverse B-axis (rpm)	90
Table load (kg)	2,000
Max. spindle speed (rpm)	12,000/16,000 (optional)



VMX 42SRTi

Travel distances X-/Y-/Z-axes (mm)	1,067/610/610
B-axis (°)	+/-92
C-axis (°)	360
Rapid traverse X/Y/Z-axis (m/min)	38/38/32
Rapid traverse B-axis/C-axis (rpm)	50/100
Table load (kg)	1,360
Max. spindle speed (rpm)	12,000/16,000 (optional)



VMX 84SWi

Travel distances X-/Y-/Z-axes (mm)	2,134/864/762
B-axis (°)	+/-92
Rapid traverse X/Y/Z-axis (m/min)	18/18/13,5
Rapid traverse B-axis (rpm)	50
Table load (kg)	2,268
Max. spindle speed (rpm)	12,000



VMX 60SRTi

Travel distances X-/Y-/Z-axes (mm)	1,524/660/610
B-axis (°)	+/-92
C-axis (°)	360
Rapid traverse X/Y/Z-axis (m/min)	32/32/24
Rapid traverse B-axis/C-axis (rpm)	50/100
Table load (kg)	1,360
Max. spindle speed (rpm)	12,000/16,000 (optional)

The HURCO® machining center with swivel head configuration enables maximum production flexibility.

VMX 42SWi | VMX 60SWi | VMX 84SWi | VMX 42SRTi | VMX 60SRTi

- Large B-axis pivot range, from +92° to -92°, enables machining of complex 5-axis components (on many models), both small and large
- Direct drive for all axes
- Direct rotary encoder for rotary axes
- High rigidity and stability of the linear guides in all three axes
- Rigid cast iron machine bed produced by monobloc method and optimized via static and dynamic finite element analysis (FEA)

- Latest-generation Yaskawa drives
- Standard software functions for 5-sided machining: linearization of tool path, zero offset (transformation layer), path-optimized travel of rotary axes
- Optional software functions: Tool Center Point Management, 3D tool correction, tool vector specification & retraction along tool vector

VC/VCX SERIES

THE MASTER -FOR COMPLEX COMPONENTS



360

25/25 250

12,000

Rapid traverse A-axis/C-axis (rpm)

Table load (kg)

Max. spindle speed (rpm)





VCX 600i

Travel distances X-/Y-/Z-axes (mm)	820/550/500
A-axis (°)	+110/-110
C-axis (°)	360
Rapid traverse X/Y/Z-axis (m/min)	36/36/36
Rapid traverse C-axis (rpm)	50
Rapid traverse A-axis/C-axis (rpm)	100
Table load (kg)	350
Max. spindle speed (rpm)	12,000

The HURCO® 5-axis machining centers for easier machining of complex components. With integrated rotary/swivel table.

VC 500i | VCX 600i

- Large B-axis pivot range, from +110° to -110°, facilitates machining of complex 5-axis components
- Integrated rotary table
- High rigidity and stability of the linear guides in all three axes
- Rigid cast iron machine bed produced by monobloc method and optimized via static and dynamic finite element analysis (FEA)
- Latest-generation Yaskawa drives
- Standard software functions for 5-sided machining: linearization of tool path, zero offset (transformation layer), path-optimized travel of rotary axes
- Optional software functions: Tool Center Point Management, 3D tool correction, tool vector specification & retraction along tool vector

FUNCTIONS WITHADDED VALUE

EASY MILLING WITH YOUR CUSTOMIZED MACHINE

You can individually and flexibly equip our machining centers with a wide range of machine options – for customized support in your production scenarios.



Workpiece position detection

The workpiece zero point is determined electronically both in manual setup mode and fully automatically during the program run. Reduces machine downtime and the risk of manual adjustment errors.

- Determination of workpiece zero point and rotation:
 - Edge
 - Corner
 - Drill hole
 - Cylinder
 - Rectangular recess
 - Cuboid
- Measuring the workpiece



Tool setting with touch probe

Get extra precision with the electronic measuring system for tools.

- Determination of tool length and diameter by exact measurement
- Tool breakage detection over length and if the tool is defectiv – use of a replacement tool
- Tool wear detection and compensation on both length and diameter

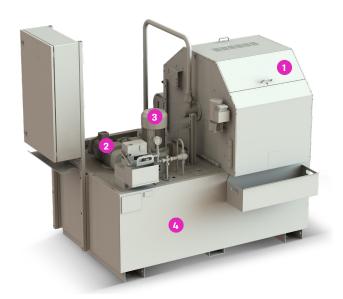
Tool setting with laser

Maximize the accuracy of tool setting using a laser. This option is recommended for small and sensitive tools in particular.

- Determination of tool length and diameter by exact measurement
- Tool breakage detection over length and if the tool is defective – use of a replacement tool
- Tool wear detection and compensation on both length and diameter

Production package

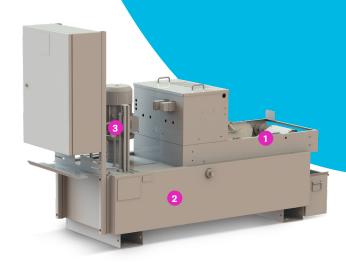
The production package includes a chip conveyor for reliable coolant cleaning and chip flushing, providing you with optimal support for the maintenance of your machine. A must-have for machining cast iron, brass, aluminum and comparable materials.



- 1 Paper belt filter
- Pumps for coolant Supply from outside and chip flushing
- 3 20 bar pump for internal coolant supply (optional: up to 70 bar)
- 4 Additional coolant tank (up to 1,350 l)

Bypass filtration system for ICF

Effectively reduce the maintenance effort for your ICF system with a gravity belt filter for cleaning the cooling lubricants. Highly recommended for machining cast iron, brass, aluminum and comparable materials.



- 1 Gravity paper belt filter
- 2 280 I coolant tank
- 3 20 bar pump for internal coolant supply (optional: up to 70 bar)

Rotary tables

Add a fourth axis to your SWi series 5-axis machining center with one of our rotary tables.



Rotary table (mm)	MR 120	MR 160	GT 200	GT 250	GT 320
Face plates Ø (mm)	128	165	200	250	320
Center height (mm)	120	140	140	180	225
Spindle passage (mm)	32	40	45	70	105



EVEN MORE OPTIONS FOR DOERS

Cooling air via coolant nozzles:

Choice of cooling emulsion or cooling air via coolant nozzles. Programmable as "Coolant 2" or via M function

Cooling air via spindle

As above, but supplied through the spindle. Prerequisite: Optional "internal coolant feed (ICF)"

Rotoclear

Rotating viewing window for a clear view of the workpiece when working with coolant emulsion



HURCO® CNC control combines powerful MAX® 5 hardware with user-friendly WinMax software and optional features such as Solid Model Import.

YOUR BENEFITS AT A GLANCE

- User-friendly operation. Perfection can be this easy –
 with intuitive plain text conversational programming,
 you can intuitively set the control system according to
 your requirements.
- Minimal time required. Use of the control system can be learned quickly without any programming knowledge at all. It optimally supports your employees in achieving faster programming times with short, clearly arranged programs.
- Individual configuration. Choose from a variety of features (e. g. Solid Model Import) specific to your needs

- to ensure that your HURCO® control system perfectly meets your needs.
- **High profitability.** Even the production of highly complex parts and a higher capacity utilization of your operation can be mastered in no time.
- Measurable productivity. The functions of the control system and numerous automation features demonstrably increase your capacity.
- Greater employee satisfaction. Automate processes and give your employees more time for more complex activities.

MAX® 5 CON-TROL SYSTEM

WINMAX® 5 SOFTWARE

A dream for users from design to result.

With MAX® 5, you can process sketches and drawings, read solid models for program creation, and program directly on the machine without an additional programming station.

Supported by the best. For the maximum performance of your HURCO® machine, we developed WinMax®5, a software program that is aligned exactly with the performance data of our machine tools and your needs as the user.

Tailored to your needs in every respect

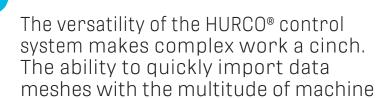
- Ergonomic, rugged design
- Pull-out keyboard with adjustable inclination
- Height-adjustable, retractable console for minimal footprint¹
- CAD/CAM support
- Solvent-resistant keyboard constructed in ABS polycarbonate
- Rotary override knobs in brushed stainless steel

Spotlight on WinMax® 5

- Clearly displayed. Perform solid-model programming directly on the graphic display screen with simultaneous simulation of machining³
- Supportive. The software independently creates machining data sets based on automatically recognized contours and drilling patterns.²
- Practical. Recess and drill hole depths are automatically detected and stored in the data set.³

options.





Gröbner Fertigungs GmbH

SOLID MODEL IMPORT

Simply gain greater flexibility. With the advanced Solid Model Import function, you can import DXF and STEP data directly and import free-form surfaces as conversational data sets so that they can be directly produced on the machine.

How does the feature benefit you?

- Fast 3-axis, 4-axis and 5-axis machining.
 Using Solid Model Import, you can program right at the control system simply, with the help of the solid model.
- Time-saving. Import solid models right at the control system – without the hassle of creating 2D drawings with dimensions.
- **Better overview.** You can switch between the solid model for programming and the simulation of the generated machining in the graphic view or display both in overlapping form.

¹ Depending on model

² Only with Solid Model Import or DXF

³ Only with Solid Model Import

THE AGILE ASSISTANT CLOSE TO YOU

Do you already use HURCO® solutions in your company, or are you interested in them and have questions? You will find the right answers and services from a single source.

HURCO®-SERVICES

Personal contacts for your region

Our regional contact persons are at your service to provide advice and assistance regarding your HURCO® machine or general questions – even long after the successful installation of your machining center. Simply reach out to us by email or phone.

Phone +49 89 905 094 - 0 | info@hurco.de Mon. - Fri. 7:30 a.m. - 4:00 p.m.

Application advice

There is a dedicated hotline for your user questions.

Phone +49 89 905 094 - 66 | awt@hurco.de Mon. - Fri. 8:00 a.m. - 4:00 p.m.

Spare parts services & next day delivery

High spare parts availability at our Munich central warehouse and fast delivery of our spare parts means that your operation gets back up and running quickly from repairrelated downtime. On request, we can also replace your old spindle with either a reconditioned or new spare part.

Phone +49 89 905 094 - 55 | ersatzteile@hurco.de Mon. – Thurs. 8:00 a.m. – 5:00 p.m. | Fri. 8:00 a.m. – 4:00 p.m.

Service

Our experienced service technicians will support you on site or via remote maintenance in the maintenance, care or repair of your HURCO® machine tools.

Phone +49 89 905 094 - 44 | service@hurco.de Mon - Thurs 7:00 a.m.- 5:00 p.m. | Fri. 7:00 a.m.- 4:00 p.m.

Training & free tutorials

We give you the knowledge for getting the most out of your HURCO® machine and the MAX®5 control system – with customized on-site training for every user level and our free instructional videos on YouTube.



HURCO® on YouTube: @hurco-cnc-tooling-machines

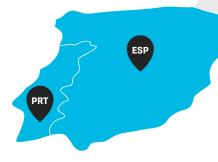
HURCO® Refurbished

You can regularly score real bargains from us with demo and used machines under attractive conditions – including a manufacturer's warranty.



OUR SALES OFFICESOUR OUR PARTNERS





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SIMPLER. MORE ACCESSIBLE. HURCO.