

HURON

The background of the entire page is a photograph of a large industrial manufacturing facility. The scene is filled with various pieces of heavy machinery, conveyor belts, and structural elements of the factory. A prominent red semi-transparent overlay covers the left and central portions of the image. In the foreground, a large, highly detailed metal wheel is shown, featuring a complex, multi-spoked design that resembles a turbine or a specialized industrial component. The wheel has a polished, metallic finish and is set against the red background.

A fascinating story
An historical DNA

OUR MACHINES

OUR SOLUTIONS

OUR SERVICES

EDITORIAL

H as History...

Who could have imagined the destiny of a windmill dating back to 1455, which was bought by a manufacturer of metallurgical equipment in 1825 and has since become Huron Graffenstaden ?

HURON was born out of a passion for watchmaking.

Already established for several years on the banks of the River Ill in what was to become Graffenstaden, Jean-Baptiste Schwilgué created the « Etablissement de Construction Mécanique de Strasbourg » in 1838. This company, which specialised in precision mechanics, created the first machine tools which enabled to restore the famous astronomical clock in Strasbourg cathedral.

Over the following decades, the foundations were laid for a major industrial company in the field of mechanical engineering, known and recognised throughout the world.

In 1894, the invention of the **2-axis universal head** completely revolutionised machining and established the company's worldwide reputation. The world's first CNC milling machine was manufactured in 1960. 1993 witnessed the HSM revolution in the shape of the famous **Huron EX**. 1998 marked the start of the **Huron KX** adventure with an innovative gantry architecture that was to become the basis for the construction of the Huron product range. 2023 brings innovative solutions for automating and optimising industrial performance.

From the manufacture of steam locomotives to the production of machine tools, over the years **more than 100,000 machines** have been delivered worldwide. These machines are used in industries such as **aerospace, automotive, general mechanics, mouldmaking** and, more recently, the **energy** and **aerospace** industries.

The development and need to machine complex

materials has enabled us to demonstrate our know-how in all sectors of activity.

Our engineering specialists design highly technical products that are perfectly calibrated to meet the increasingly demanding requirements of **industrial performance**.

Huron is one of the **world's leading manufacturers of precision machine tools**, thanks to the experience it has acquired over the years, the know-how it has passed down from generation to generation, and the training it provides to new recruits in the ways of industrial excellence.

Our **worldwide coverage** is taking shape through the creation of subsidiaries that will enable us to build strong local relationships.

If Huron has crossed time through stock market crashes, economic crises, social conflicts, changes of nationality..., since 2007 with the Indian group Jyoti Automation Ltd, we have opened a new period which will be for Huron the beginning of a **new era of expansion**.

Huron has a fantastic historical asset. Its ever-changing DNA has been replicated and expanded by its experiences since 1825.

We're happy to share our history with our customers and partners, as we travel from our historic site, built in 1838 in Illkirch, to our modern site in Eschau.

The new plant we acquired in 2011 has enabled us to develop our production capacity for large-sized machines. The extension currently under construction, which will bring our production area to 15,000 sqm, will provide new production capacity, particularly for very large machines.

——— Marc Troïa

Every day, we create a new world for industry. Our experts use their skills to design the tools that will enable us to build together the Industry of the Future. We make industrial performance available to you, so that your industry becomes a high-performance, competitive industry.



MADE in FRANCE

HURON products are a guarantee of quality. **Compliance with** French and European **manufacturing and design standards** is the basis of our thinking and production processes. Our factory, **located in France**, reflects our attachment to the territory. Every day, our collaborators work to put the experience we have acquired into practice and to pass on our know-how.

Industry 5.0



HURON is a company that relies on its **human assets** and its **mastery of technology**. We daily use our know-how to guarantee **HURON quality**, which is reflected in terms of **robustness, precision and performance**.

Integrating agility into our machines and facilitating the **digital transition** of our customers are at the heart of our thinking for the **Industry of the future**.

To improve efficiency and productivity, our products are **adapted, automated and interconnected** to meet customer requirements. We support it in the digital transition in order to optimise its performance in terms of productivity, agility and performance.



Our legendary reputation for **eco-sustainable and responsible products** is well established.

HURON products are built to be **durable** and the **robust mechanical design** makes them competitive in the long term with retrofit or upgrade possibilities. The components are selected to ensure energy performance.

For a **profitable and competitive investment**, we offer optimized production solutions such as the addition of palletizers, machine/robot/cobo collaboration or flexible machining lines. We

offer our advice and experience to meet your technical and industrial requirements

Our team of experts works to develop additional tools to **improve machine performance**. Computer cycles from Expert HURON make our machines self-evolving. The machines communicate with each other and with people thanks to the connectivity tools installed in the machines. As a result, significant savings in time and money are made, helping to **improve the performance of our customers**.

Because the human being is at the heart of the industrial eco-system, we have always been committed to improving **production efficiency** by combining the cognitive computing capabilities of machines with human intelligence and ingenuity in collaborative applications.

FLEXIBILITY of the highest level

The MX series, the direct successor to the EX – a groundbreaker in its day in terms of modularity and adaptability – combines flexible multifunctionality with the latest machining and programming technologies, for workpiece milling and turning in a single setup, from roughing to finishing, along five axes and on five sides.



MX 10 structure

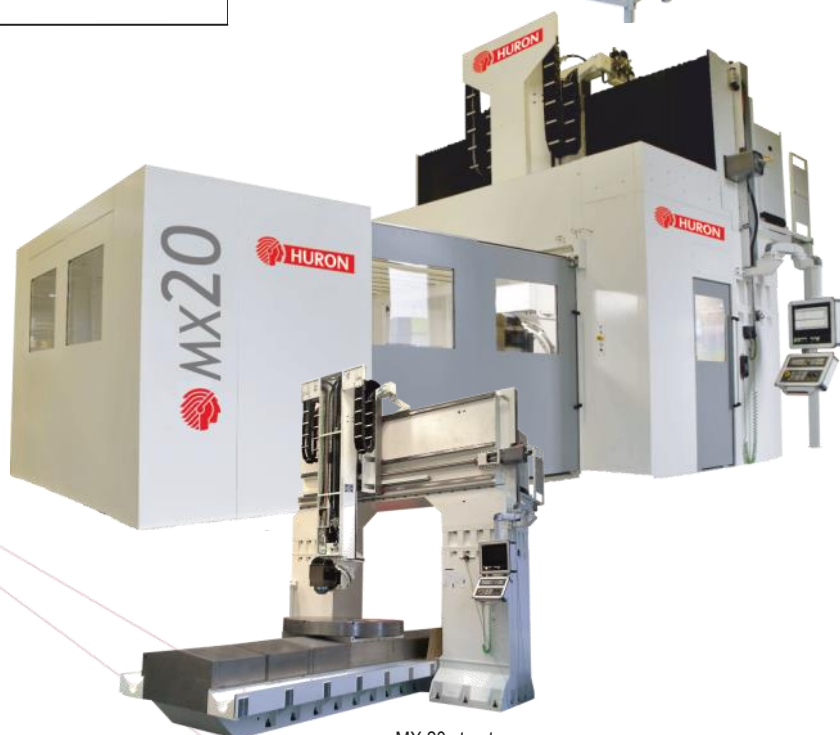


Design and structure

- Extremely rigid design
- Dedicated foundation for improved dynamics
- Structural design guaranteeing long mechanical life
- Column guiding system on the crossrail for a high level of stability
- Balanced Z-axis movement for greater precision and reduced energy consumption

Ergonomics and environment

- Channels for chips recovery with washing system and spiral conveyors
- Large glazed windows, with or without palletizer, for improved visibility over the work area
- Wide-opening doors for easier operator access to the table, workpiece and working area
- Tilting operator panel



MX 20 structure

MAIN PROPERTIES		MX 8 M/MT	MX 10 M/MT	MX 11 M	MX 12 M/MT	MX 16 M	MX 20 M
Travels X / Y / Z	mm	1.160 x 1.000 x 900	1.200 x 1.200 x 1.000	1.250 x 1.250 x 1.000	1.200 x 1.600 x 1.000	2.300 x 2.300 x 1.250	3.000 x 3.100 x 1.600
Feedrate	m/min	42	42	40	42	40	40
Tool changer	pockets	60	60	60	60	60	60
Positioning (P)		X / Y / Z : 0,007 mm – A, C : 10 sec					
Repeatability (Ps medium)		X / Y / Z : 0,004 mm – A, C : 5 sec					
Weight of the machine	kg	22.000	35.000	28.000	37.000	60.000	65.000
Width (doors closed + conveyor)	mm	6.250	6.335	5.900	6.460	7.500	8.500
Depth	mm	6.150	7.950	8.500	8.660	8.500	10.350
Height	mm	3.930	4.200	3.600	4.200	6.570	6.750

STANDARD SPINDLES	MX 8 / 10 / 11 / 12 – MODEL M	MX 8 / 10 / 12 – MODEL MT	MX 16 / 20 – MODEL M
Spindle speed	14.000 rpm	10.000 rpm	10.000 rpm
Tool taper	HSK 63A	HSK 100A	HSK 100A
Power	29 kW	43 kW	43 kW
Torque	277 Nm	415 Nm	415 Nm

WHAT MAKES THE DIFFERENCE

- Suitability for a variety of jobs
- Modularity
- Precise five-axis positioning for general mechanical engineering components
- Volumetric precision in mould making



Palletisation available

MX

THE UNIVERSAL HEAD

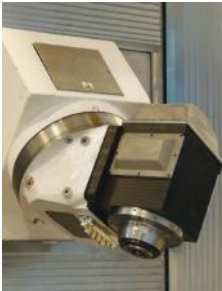
A trump card for productivity

Positioned on a 45° plane, the continuously controlled head is designed to maintain the levels of accuracy in terms of positioning and repeatability, even in high-speed machining.

- Optimum clamping torque for a high roughing capacity
- Direct drive for backlash-free and wear-free movement

A-axis = -45° / +180°

Rotating speed	100 rpm
Clamping torque	2.500 Nm
Working torque	1.200 Nm



VARIANTS

Fork head, for workpiece machining requiring negative angles. It is combined with a powerful 8.000 rpm spindle (86 kW / 235 Nm).
On 10/12 M models

B-axis = -110° / +10°

Rotating speed	30 rpm
Clamping torque	7.000 Nm
Working torque	500 Nm



Head with mechanical spindle, for hard material machining such as titanium, Inconel, stainless steel. Combined with a high-torque 6.000 rpm spindle (28 kW / 1.001 Nm), this head is designed for heavy roughing with a high chip removal rate.
On 10/12 M/MT and 16/20 M models

A-AXIS = -45° / +180°

Rotating speed	25 rpm
Clamping torque	7.000 Nm
Working torque	2.235 Nm (MX 10/12) 2.110 Nm (MX 16/20)

The table, Milling or Milling/Turning ? (model without APC)

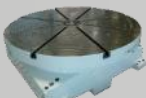
- Continuously controlled C-axis
- Optimum positioning accuracy and repeatability
- Torque motor drive for backlash-free and wear-free movement (except MX16 and MX20)
- Optimal clamping torque

M version MILLING



		MX 8 M	MX 10 M	MX 11 M	MX 12 M	MX 16 M	MX 20 M
Rotating speed	rpm	50	65	30	50	7**	7**
Table size	mm	Ø 1.000 x 800	Ø 1.250 x 900	Ø 1.000 x 800	Ø 1.600 x 1.250	Ø 1.600	Ø 2.200
Max. machining volume (ØxH)	mm	Ø 1.000 x 1.120*	Ø 1.250 x 1.220*	Ø 1.250 x 1.000	Ø 1.600 x 1.220*	Ø 2.000 x 1.400	Ø 3.000 x 1.750
Max. admissible load	kg	2.000	2.500	2.000	4.000	6.000	12.000

MT version MILLING/TURNING



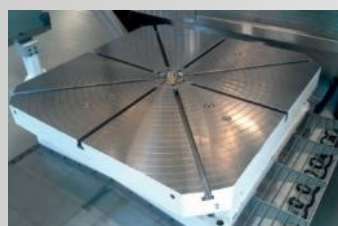
		MX 8 MT	MX 10 MT	MX 12 MT	MX 16 MT
Rotating speed	rpm	500	500	250	250
Table size	mm	Ø 800	Ø 1.000	Ø 1.400	Ø 1.600
Max. machining volume (ØxH)	mm	Ø 800 x 1.120*	Ø 1.000 x 1.220*	Ø 1.400 x 1.220*	Ø 1.600 x 1.400
Max. admissible load	kg	2.000	2.500	4.000	5.000

* with X-travel restriction

** other variants and accessories optionally available

A large machining area in version L (Variant)

The ideal version for working around large-diameter workpieces and with long tools: deep drilling, boring, etc.

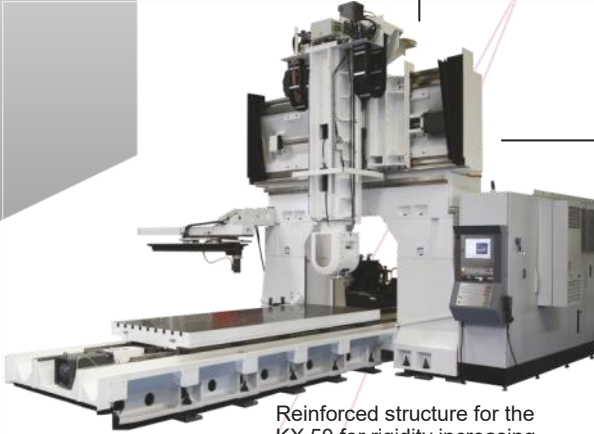


L VERSION	MX 12 M L	MX 12 MT L
Travels X / Y / Z	2.000 x 1.600 x 1.000 mm	2.000 x 1.600 x 1.000 mm
Table size	Ø 1.600 x 1.250 mm	Ø 1.400 mm
Max. machining volume (ØxH)	1.600 x 1.220 mm	Ø 1.400 x 1.220* mm
Max. admissible load	4.000 kg	4.000 kg
Table rotating speed	50 rpm	250 rpm
Torque : Motor / Clamping	4.590 / 10.000 Nm	4.390 / 12.000 Nm
Clamping system	10 slots	8 slots
T-slots	22H7 / H12 – 100 mm	22H7 / H12 - 45°
Reference bore	Ø 100H7	Ø 100H7

VERSATILITY to meet all customer requirements

The KX Large series offers a wide selection of machines for continuous five-axis/five-side machining of complex parts.

The fixed-portal architecture and machine design ensure maximum rigidity for extremely precise machining in a variety of difficult materials. Its large work area, capable of supporting up to 20 tons in weight and accommodating machining volumes up to 4.080 x 2.180 x 1.550 mm, is suited to machining large parts for general mechanical and precision engineering, 3D shapes, and the aeronautical and energy sectors. Customer requirements are comfortably met by the modularity of design, the choice of variants, and equipment.



Reinforced structure for the KX 50 for rigidity increasing

Design and structure

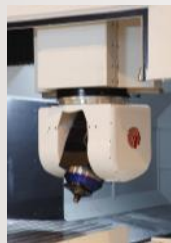
- Front guide rails on the Y-axis designed for effective distribution of the weight of the saddle/headstock assembly
- Balance for greater precision and reduced energy consumption
- Multiple fixing points providing rigidity and vibration absorption

MAIN PROPERTIES		KX 50 M	KX 50 L	KX 50 LL	KX 100	KX 200	KX 200 L	KX 250	KX 300	KX 300 XL
X-Travel	mm	2.000	3.000	3.500	2.300	3.300	4.000	3.300	5.000	7.600
Y-Travel	mm	1.700	1.700	1.700	2.300	2.300	2.300	2.850	3.100	3.600
Z-Travel	mm	900	900	900	1.000	1.000	1.000	1.000	1.500	1.500
Feedrate	m/min	X / Y / Z : 40	X / Y / Z : 40	X : 30 Y / Z : 40	X / Y / Z : 40	X : 25 Y / Z : 40	X : 25 Y / Z : 40	X : 25 Y : 30 / Z : 40	X / Y / Z : 20	X : 40 Y : 30 / Z : 40
Table size	mm	2.200 x 1.250	3.300 x 1.250	3.500 x 1.250	2.500 x 1.250	3.500 x 1.250	4.200 x 1.500	3.500 x 1.500	5.200 x 2.000	6.500 x 2.000
Max. admissible load	kg	4.000	6.000	6.000	6.000 (12.000 max.)	9.000 (12.000 max.)	6.000	10.000	20.000	15.000
Spindle speed	rpm	20.000	20.000	20.000	18.000	18.000	18.000	18.000	18.000	18.000
Spindle taper		HSK 63A	HSK 63A	HSK 63A	HSK 63A	HSK 63A	HSK 63A	HSK 63A	HSK 63A	HSK 63A
Power – Torque	kW – Nm	75 – 75	75 – 75	75 – 75	30 – 240	30 – 240	30 – 240	30 – 240	30 – 240	30 – 240
Tool changer	pockets	30	30	30	40	40	40	40	40	40
Positioning (P)		X / Y / Z : 0,007 mm B, C : 10 sec							X / Y / Z : 0,010 mm B, C : 10 sec	
Repeatability (Ps medium)		X / Y / Z : 0,004 mm B, C : 5 sec							X / Y / Z : 0,005 mm B, C : 5 sec	
Weight of the machine	kg	30.000	36.000	39.000	37.000	41.000	43.000	45.000	100.000	120.000
Width (doors closed + conveyor)	mm	4.930	4.930	4.930	7.280	7.280	7.280	9.200	8.900	21.000
Depth	mm	7.520	9.900	12.400	7.890	10.360	14.500	12.300	15.000	9.200
Height	mm	5.140	5.140	5.140	5.410	5.410	5.410	5.410	7.050	6.500

Main characteristics of the Serie. Other variants and accessories optionally available.

Fork head

- Positioning accuracy and repeatability maintained in high-speed machining, even for complex-shaped parts
- Angular encoder in the axis for high positioning accuracy and repeatability
- Torque motors for backlash-free and wear-free movement
- High clamping torque for high roughing ability
- Negative angles possible
- Spindle and machining process secured by vibration monitoring



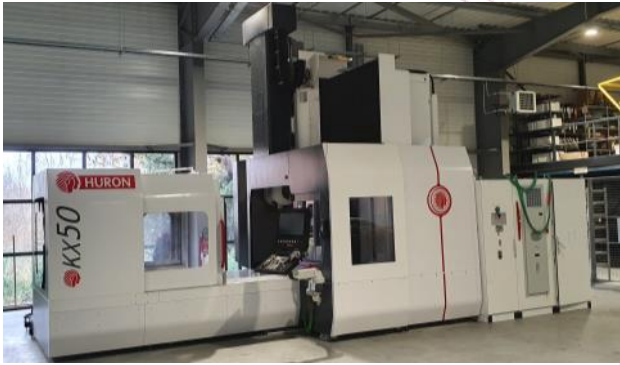
KX 50		KX 100 / 200 / 300	
B-AXIS = ±110°		B-AXIS = ±105°	
C-AXIS = ±360°		C-AXIS = ±190°	
Rotating speed	100 rpm	Rotating speed	30 rpm
Clamping torque	4.000 Nm	Clamping torque	7.000 Nm
Working torque	B : 994 Nm C : 878 Nm	Working torque	B : 1.150 Nm C : 1.100 Nm

Variant Hybrid head

- For hard materials machining such as titanium, Inconel and stainless steel.
- Can be combined with high speed mechanical spindle or electrospindle.
- Allow heavy roughing with high chips removal rate.

B-AXIS = ±95°	
C-AXIS = ±200°	
Rotating speed	100 rpm
Clamping torque	2.500 Nm
Working torque	1.200 Nm





Palletisation
available

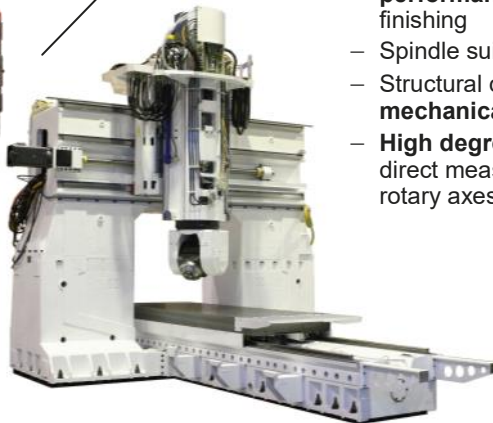
KX Large

WHAT MAKES THE DIFFERENCE

- Machine with palletizing function, **increased productivity**
- **Volumetric precision** for making moulds and complex parts
- **Wide clearance between columns** to exploit the work volume fully
- **Spindle offering optimum performance** for roughing and finishing
- Spindle suited to **high chip rates**
- Structural design guaranteeing **long mechanical life**
- **High degree of precision** due to direct measurement on the linear and rotary axes



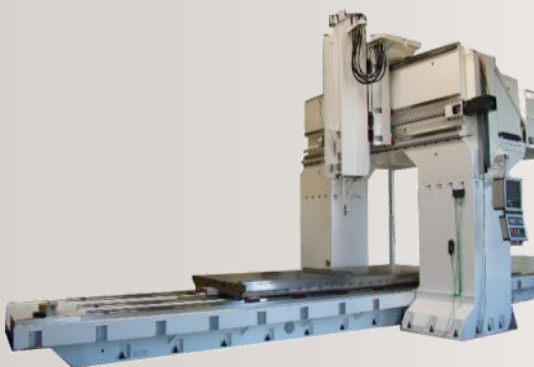
KX 100 / KX 200 structure



Very large machine for complexe and accurate workpieces

With its XXL dimensions, the **KX 300**, with its travels and the size of its table, can be used to set down very large workpieces while benefiting from the advantages of its gantry construction and structure :

- Its **polymer concrete** structure reduces the weight of the machine while increasing its **thermal stability**
- The **machine's inherent rigidity** is reinforced by floor-mounted fixing points, guaranteeing **high geometric precision**, **high surface quality** and **excellent chip removal**
- **Easy access to the working area** thanks to the wide-opening doors and the retractable roof



MACHINING PERFORMANCE enhanced

The KXG series comprises gantry milling centres that are particularly effective in machining large, complex parts.



Design and structure

- Gantry structure with reinforced, U-type moving crossrail
- Polymer concrete walls, incorporating a double guiding system
- X-axis drive by rack gear (KXG 30-15) or by linear motor (other models)
- Optimization of the moving axes by finite element structural calculation
- Dedicated foundation for improved dynamics



Table with T-slots as an option



MAIN PROPERTIES		KXG 30-15	KXG 45-14	KXG 45-23	KXG 60-23	KXG 90-23
Travels X / Y / Z	mm	3.000 x 1.500 x 1.000	4.500 x 1.400 x 800	4.500 x 2.300 x 800	6.000 x 2.300 x 800	9.000 x 2.300 x 800
Feedrate	m/min	X / Y : 60 / Z : 45	X / Y : 60 / Z : 45	X / Y : 60 / Z : 45	X / Y : 60 / Z : 45	X / Y : 60 / Z : 45
Table size	mm	3.000 x 1.500	4.700 x 1.390	4.700 x 2.480	6.200 x 2.480	9.000 x 2.480
Max. admissible load	kg	13.000	18.000	21.000	25.000	52.000
Spindle speed	rpm	20.000	20.000	20.000	20.000	20.000
Spindle taper		HSK 63A	HSK 63A	HSK 63A	HSK 63A	HSK 63A
Power – Torque	kW – Nm	75 – 75	75 – 75	75 – 75	75 – 75	75 – 75
Tool changer	pockets	40	40	40	40	40
Positioning (P)		X : 0,025 mm Y / Z / : 0,010 mm B, C : 10 sec	X : 0,025 mm Y / Z / : 0,010 mm B, C : 10 sec	X : 0,025 mm Y / Z / : 0,010 mm B, C : 10 sec	X : 0,035 mm Y / Z / : 0,010 mm B, C : 10 sec	X : 0,050 mm Y / Z / : 0,010 mm B, C : 10 sec
Repeatability (Ps medium)		X / Y / Z / : 0,005 mm B, C : 5 sec	X / Y / Z / : 0,005 mm B, C : 5 sec	X / Y / Z / : 0,005 mm B, C : 5 sec	X : 0,006 mm Y / Z / : 0,005 mm B, C : 5 sec	X : 0,006 mm Y / Z / : 0,005 mm B, C : 5 sec
Weight of the machine	kg	80.000	60.000	75.500	90.000	130.000
Width (doors closed + conveyor)	mm	8.100	7.550	8.940	9.100	10.210
Depth	mm	9.060	9.700	10.000	11.700	13.650
Height	mm	5.735	4.980	4.980	4.980	4.980

Main characteristics of the Serie. Other variants and accessories optionally available.

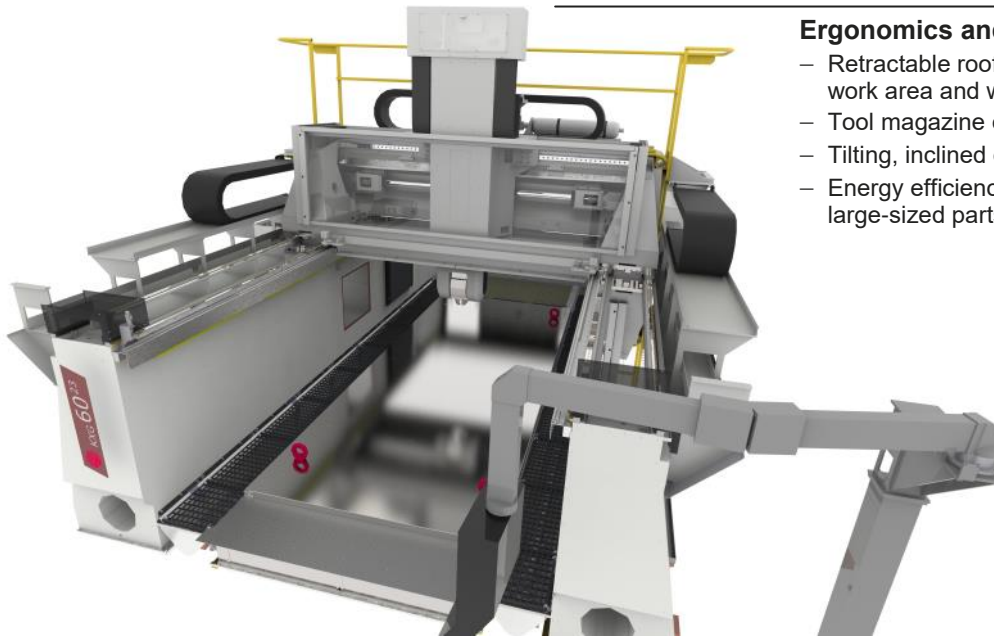
KXG



Palletisation
available

WHAT MAKES THE DIFFERENCE

- **Design suited** to continuous 5-axis machining of very large parts
- **Machining with very high feed speeds**
- **High rigidity** enabling very high metal removal rates



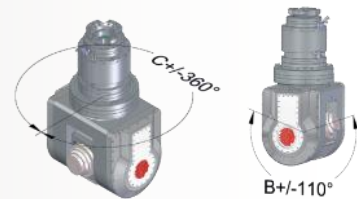
Ergonomics and environment

- Retractable roof for easy access to the work area and workpiece
- Tool magazine outside of the work area
- Tilting, inclined operator panel
- Energy efficiency for the production of large-sized parts

A winning trio for high productivity

Continuous 2-axis swivel fork head

- Positioning accuracy and repeatability maintained in high-speed machining, even for complex-shaped parts
- Angular encoder in the axis for high positioning accuracy and repeatability
- Torque motors for backlash-free and wear-free movement
- High clamping torque for high roughing capacity
- Negative angles possible



KXG	
Rotating speed	100 rpm
Clamping torque	4.000 Nm
Working torque	B : 994 Nm C : 878 Nm

Powerful electrospindle

- Powerful, high-speed electrospindle
- Several spindles available according to the type of application for an excellent compromise between power and torque
- Spindle and machining process secured by a vibration monitoring

Tool changer

- Tool changer with 40-tools loading station



EXCELLENCE in 5-axis precision machining

The KX Five series is a combination of dynamics and precision for continuous five-axis machining of complex parts.

Through the excellent standard of machining vibration damping, high-quality surface finishes and optimum precision can be achieved on a variety of materials.



Palletisation available

KX Five

WHAT MAKES THE DIFFERENCE

- **Direct measurement** on all axes for increased positioning accuracy
- **Large-sized monoblock bed and reinforced portal**
- **Exceptional accessibility and permanent visibility** over the workpiece
- **Performance**
- **High level of precision** in contouring and profiles
- **Compact, dynamic table**, with torque motors
- **Efficient swarf removal**
- Standard or specific **automation device**

MAIN PROPERTIES		K3X 8 FIVE	K2X 10 FIVE
Travels X / Y / Z	mm	780 x 700 x 500	900 x 900 x 500
Feedrate	m/min	X / Y / Z : 50	X / Y / Z : 50
Structure Table		Inclined plan at 55° +30° / -180°	Inclined plan at 45° +45° / -180°
A-axis : Swivelling	°		
Rotating speed	rpm	50	50
C-axis : Rotation		360° continuous	360° continuous
Rotating speed	rpm	50	60
Table size	mm	Ø 500	Ø 630
Max. admissible load	kg	300	750
Max. Ø of the workpiece	mm	Ø 700	Ø 800
Spindle speed	rpm	18.000	18.000
Spindle taper		HSK 63A	HSK 63A
Power – Torque	kW – Nm	26,7 – 110	26,7 – 110
Tool changer	pockets	36	36
Positioning (P)		X / Y / Z : 0,004 mm A, C : 7,2 sec	X / Y / Z : 0,004 mm A, C : 7,2 sec
Repeatability (Ps medium)		X / Y / Z : 0,002 mm A, C : 3,6 sec	X / Y / Z : 0,002 mm A, C : 3,6 sec
Weight of the machine	kg	10.000	14.500
Width (doors closed + conveyor)	mm	4.710	4.910
Depth	mm	2.685	3.660
Height	mm	3.320	3.470

Main characteristics of the Serie. Other variants and accessories optionally available.

THE REFERENCE in 5-sided machining

Thanks to our experience in 5-axis roto-tilting machines, the Umill benefits from the benefits of continuous improvement without compromising on the fundamental characteristic of HURON machines: increased stiffness for efficient and high-quality machining.



Palletisation available

Umill



MAIN PROPERTIES		UMILL 5	UMILL 6
Travels X / Y / Z	mm	500 x 560 x 450	700 x 740 x 550
Feedrate	m/min	40	40
A-axis swivelling		+20° / -110°	+20° / -110°
C-axis rotation		360°	360°
Table size	mm	Ø 500	Ø 630
Workpiece size : Ø x Height	mm	500 x 300	780 x 510
Max. admissible load	kg	450	600
Spindle speed	rpm	10.000	10.000
Spindle taper		ISO 40	ISO 40
Power – Torque	kW – Nm	18 – 176	18 – 176
Tool changer	pockets	30	30
Weight of the machine	kg	11.000	13.000
Width (doors closed + conveyor)	mm	4.200	4.450
Depth	mm	4.200	4.400
Height	mm	3.150	3.540

Main characteristics of the Serie. Other variants and accessories optionally available.

WHAT MAKES THE DIFFERENCE

- **Structural design** with the aim of limiting vibrations in order to **protect the mechanics** and increase the lifetime of components
- **A-axis**, worm and wheel drive
- **C-axis**, helical gear drive
- **Excellent approach of the part** on its 5 sides thanks to the profile of the spindle holder
- **Max. workpiece diameter up to 820 mm and weight of 600 kg**
- **Modern design**
- **Compact footprint**
- **Points of maintenance centralized at the rear** of the machine

LE CONCENTRE technologique 5 axes

The new GU range has all the characteristics of the HURON DNA: robustness, rigidity and precision. The structural design, combined with maximised dynamics and the choice of components are focused on performance and durability. The universality of its configurations provides the assurance of an investment able to meet every need.

Design and structure

- Cast iron structure with high mechanical characteristics for better damping of machining vibrations and longer component life
- Gantry architecture and calibrated guide rails for very high rigidity and excellent machine dynamics
- High dynamics for rapid changes of direction and acceleration
- Direct-drive ballscrews with direct coupling of the motors to the end of the ballscrew for high precision
- Very high thermal and geometric stability
- Excellent chip removal thanks to its design
- Easy loading/unloading of tools from the rear of the machine

WHAT MAKES THE DIFFERENCE

- **Ball screw nut cooling**
- **Refrigeration of guide rails**
- **A-axis**, helical gear drive
- **C-axis**, torque motor drive
- **Excellent 5-sided approach to the workpiece**
- **Loading/unloading and accessibility to the workpiece and the spindle** from the front side of the machine
- **Compact footprint**

Rotary tilting table

- **Large volume** of machining workpiece
- **Workpiece accessible from 360°** through the operator door
- Wide **A-axis angular variation** of $\pm 120^\circ$
- **High clamping torque** for heavy roughing operations
- **Milling/turning operations possible** thanks to spindle lock (model GU MT)



GU



Available models : GU, GU Five or GU MT

- **GU** : Basic model, **3+2** machining
- **GU Five** : model **5 continuous axes**, for complex, one-off or mass-produced parts and shapes requiring precision, surface finish and productivity
- **GU MT** : model **5 continuous axes** with possibility to have **turning operations**

MAIN PROPERTIES		GU 5 Five
Travels X / Y / Z	mm	600 / 600 / 500
Feedrate	m/min	50
A-axis : Swivelling		$\pm 120^\circ$
C-axis : Rotation		360°
Table size	mm	$\varnothing 500$
Max. workpiece size : $\varnothing$ x Height	mm	$\varnothing 500$ x 400
Max. admissible load	kg	400
Spindle speed	rpm	18.000
Spindle taper		HSK 63-A
Power – Torque	kW – Nm	30 - 110
Tool changer	pockets	40
Weight of the machine	kg	10.000
Width (doors closed + conveyor)	mm	3.880
Depth	mm	3.650
Height	mm	2.900

Main characteristics of the Serie. Other variants and accessories optionally available.

THE CHOICE for profitability

VX

The VX series, specially designed to meet customers' precision and reliability criteria, is extremely user-friendly and guarantees excellent profitability.
The return on investment is fast and proven.
Compact, ergonomic, powerful and precise, the VX is an ideal investment for the manufacture of tooling and for small to medium-series production.



Palletisation available

VX, A genuine production tool ready for action

The basic version of the VX is a comprehensive, packaged model that is delivered and installed, ready for production :

- 10.000 rpm spindle with ceramic ball bearings for improved thermal stability
- Low-pressure cooling by nozzles – 2 bar
- Preparation for through-tool cooling
- Air blowing by nozzles
- Tools changer with 40 pockets
- Chips conveyor
- Handwheel
- Air-conditioning of electrical cabinet
- Washing gun
- Chips bin

Ergonomie and accessibility

- Movable table for easy acces to the workpiece
- Swivelling operator console
- Easy access for maintenance, fluids control and cleaning of the work area



VX 12 structure



Constant rigidity and accuracy over time

- C-frame structure in high-quality ribbed cast iron
- Architecture with wide base and reinforced column to support cutting forces and dampen the effects of machining vibrations
- Highly dynamic for rapid changes of direction and acceleration
- Calibrated, prestressed ballscrews with direct coupling of the motors to the end of the ballscrew

THE RIGHT technical-economic COMPROMISE

The PX 40 milling centre is the ideal compromise for general engineering.
Its compact and rigid design guarantees very good machining performance, while perfectly meeting the constraints of economy and profitability of companies.

PX

WHAT MAKES THE DIFFERENCE

- High quality cast iron structure
- Compact footprint
- Machining of difficult materials in the shortest possible time
- High chip removal capacity
- High precision in contouring

MAIN PROPERTIES		PX 40
Travels X / Y / Z	mm	760 x 510 x 510
Feedrate	m/min	X / Y : 40 – Z : 32
Table size	mm	915 x 460
Max. admissible load	kg	500
Spindle speed	rpm	10.000
Spindle taper		ISO 40
Power – Torque	kW – Nm	8,3 / 53 (Siemens) 7,5 – 48 (Fanuc)
Tool changer	pockets	20
Positioning (P)	mm	X / Y / Z : 0,010
Repeatability (Ps medium)	mm	X / Y / Z : 0,005
Weight of the machine	kg	4.300
Width (doors closed + conveyor)	mm	2.710
Depth	mm	3.420
Height	mm	2.810

Main characteristics of the Serie. Other variants and accessories optionally available.



MAIN PROPERTIES		VX 8	VX 12	VX 13	VX 15	VX 18
X-Travel	mm	820	1.220	1.300	1.510	1.810
Y-Travel		510	600	700	810	810
Z-Travel		510	610	700	810	810
Feedrate	m/min	24	24	20	24	24
Table size	mm	1.000 x 530	1.400 x 630	1.500 x 700	1.700 x 810	2.000 x 810
Max. admissible load	kg	500	1.200	1.200	2.000	2.500
Spindle speed	rpm	10.000	10.000	10.000	10.000	10.000
Spindle taper		ISO 40	ISO 40	ISO 40	ISO 40	ISO 40
Power – Torque	kW – Nm	Siemens = 14,5 – 69 / Heidenhain = 14 – 89 / Fanuc = 11 – 70				
Tool changer	pockets	40	40	40	40	40
Weight of the machine	kg	5.300	8.000	9.000	14.500	16.000
Width (doors closed + conveyor)	mm	3.700	4.175	4.420	6.430	6.680
Depth	mm	4.220	2.580	2.650	3.310	3.310
Height	mm	2.900	3.210	3.470	4.000	4.000

Main characteristics of the Serie. Other variants and accessories optionally available.



VX 18 structure



WHAT MAKES THE DIFFERENCE

- **Versatility and performance in a range of machining operations** : milling, drilling, boring and tapping
- **High chip removal capability** thanks to the rigidity of the machine and a high-torque spindle
- **Machining quality** with a very high degree of precision in contouring and shaping
- **Easy to program** with the ergonomic human-machine interface
- **Excellent price/performance ratio**
- **Compact machine** with small footprint

THE PERFORMANCE

The RDX 30 milling centre has been specially designed for the production of workpieces with particularly high demands on precision and quality, such as general and precision mechanics.



WHAT MAKES THE DIFFERENCE

- High quality cast iron structure
- Compact and rigid design for excellent surface finish
- Compact footprint
- Machining of difficult materials in the shortest possible time
- High chip removal capacity
- High precision in contouring

RDX

MAIN PROPERTIES		RDX 30
Travels X / Y / Z	mm	1.020 x 600 x 610
Feedrate	m/min	X / Y / Z : 30
Spindle speed	rpm	10.000
Spindle taper		ISO 40
Power – Torque	kW – Nm	14,3 – 68 (Siemens) 11 – 70 (Fanuc)
Tool changer	pockets	24
Positioning (P)	mm	X / Y / Z : 0,015
Repeatability (Ps medium)	mm	X / Y / Z : 0,007
Weight of the machine	kg	6.500
Width (doors closed + conveyor)	mm	2.800
Depth	mm	2.600
Height	mm	2.900

Main characteristics of the Serie. Other variants and accessories optionally available.

RDX with 5 axes : RDX30³⁺²

The right machine for general mechanics !

WHAT MAKES THE DIFFERENCE

- Application with **3+2 axes** or **4+1 axes**
- **2-axis dividing plate** directly integrated on the XY cross slide



The table RDX 30		
Table size	mm	1.200 x 550
Max. admissible load	kg	900

The table RDX 30 ³⁺²		
Tilting plate / A-axis	kg	Swivelling : +110° / -30° Rotation = 25 rpm
Rotating table / C-axis	kg	Rotation : 360° Spindle rotation = 25 rpm
Table size	mm	Ø 348 mm
Max. admissible load	kg	Plate at 0° = 300 Plate at 90° = 250

Tachyon, mini drilling, tapping and milling centre for the production of small and medium series of general and precision mechanical components requiring extreme precision and high dynamism.

Tachyon



WHAT MAKES THE DIFFERENCE

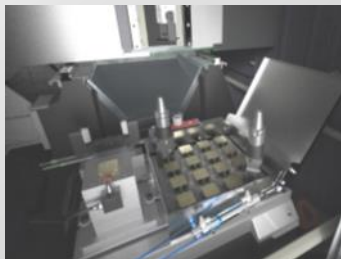
- **Fixed base, 3 linear axes on the tool**, constant accuracy event at high speed
- **Cross slide structure on fixed bed** for high dynamics and machining accuracy
- **Electromechanical drive system** for accurate and repeatable positioning and fast rotation (Rotopallet version)
- **Working feedrate** up to 60 m/min
- **Workpiece size** dimensioned in relation to the travels
- **Optimised Z-travel** for drilling and tapping operations

Design and structure

- High-quality cast-iron structure
- Compact, rigid design for excellent surface finish
- Compact machine with small footprint
- Hard materials machining in a short time
- High swarf removal capacity
- High-performance chips evacuation
- Highly accurate contouring

Tachyon FT - Fixed table

- Possibility of positioning a 2-axis dividing device
- When producing small parts, a loading box can be placed on the table
- Protective cover on the box
- Cleaning of the workpiece clamping system



Tachyon R - Integrated Rotopallet

- Rapid rotation of the rotopallet to reduce part changeover times
- A 2-axis dividing device can be positioned on either side of the pallet



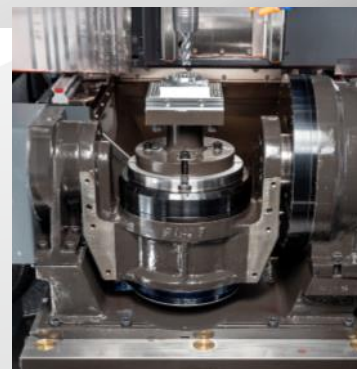
MAIN PROPERTIES		Tachyon 4 FT	Tachyon 5 FT	Tachyon 5 R	Tachyon 7 R
Travels X / Y / Z	mm	400 / 400 / 450	550 x 400 x 450	550 x 400 x 450	750 x 400 x 450
Feedrate	m/min	X / Y / Z : 60	X / Y / Z : 60	X / Y / Z : 60	X / Y / Z : 60
		Fixed table		Rotopallet / 2 integrated tables	
Table size	mm	600 x 400	600 X 400	2x 600 x 400	2x 800 x 400
Max. admissible load	kg	400	400	250, each table	300, each table
Spindle speed	rpm	24.000			
Spindle taper		BBT 30			
Power – Torque	kW – Nm	Siemens : 20 – 21 / Fanuc : 6 – 7,3			
Tool changer	pockets	24			
Positioning (P)	mm	X / Y / Z : 0,006			
Repeatability (Ps medium)	mm	X / Y / Z : 0,004			
Weight of the machine	kg	4.200	4.300	4.500	5.800
Width (doors closed + conveyor)	mm	1.530	1.620	2.210	2.210
Depth	mm	3.280	3.300	4.360	4.360
Height	mm	2.630	2.630	2.620	2.620

Main characteristics of the Serie. Other variants and accessories optionally available.

Tachyon 4 FT Five - 5 axes machining

- Based on a Tachyon 4 FT
- Replacement of the fixed table with a 2-axis rotary dividing device

Ideal machine for small, complex parts in the fields of general mechanics, watchmaking and the medical sector.



PRODUCTIVITY in series work



The horizontal machining centre HP easily combines high dynamics and high precision for a wide range of applications. Its high productivity allows a significant reduction in the time needed to produce finished parts.

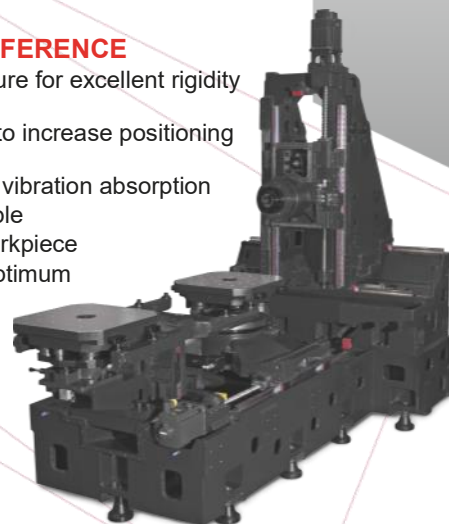
HP

MAIN PROPERTIES		HP 5000
Travels X / Y / Z	mm	900 x 800 x 800
Feedrate	m/min	60
Working feedrate	m/min	30
		Automatic pallet changer 2 pallets
Pallet size	mm	500 x 500
Max. size of workpiece (ØxH)	mm	900 x 1.000
Max. admissible load on pallet	kg	800
Spindle speed	rpm	10.000
Spindle taper		BBT 50
Power – Torque	kW – Nm	28,6 - 273
Tool changer	pockets	40
Positioning (P)	mm	X / Y / Z : 0,010
Repeatability (Ps medium)	mm	X / Y / Z : 0,005
Weight of the machine	kg	15.000
Width (doors closed + conveyor)	mm	3.860
Depth	mm	6.870
Height	mm	4.280

Main characteristics of the Serie. Other variants and accessories optionally available.

WHAT MAKES THE DIFFERENCE

- Cast iron machine structure for excellent rigidity and geometric accuracy
- Robust structure design to increase positioning accuracy
- Stable machine for good vibration absorption
- High load capacity on table
- Optimal space for the workpiece
- Torque motor table for optimum positioning accuracy
- Fast and accurate automatic pallet changer
- Excellent accessibility to the workpiece and to the loading/unloading area



THE SOLUTION dedicated to Energy



The ABX milling centre has been specifically designed for machining turbine blades. From roughing to finishing, the ABX machines in 5 continuous axes, offering a particularly attractive productivity solution in the Energy sector.

ABX

WHAT MAKES THE DIFFERENCE

- **C-frame** structure in high-quality ribbed cast iron
- **Wide base architecture and reinforced column** to support cutting forces and dampen the effects of machining vibrations
- **Rigid design** for excellent surface finish
- **B-axis** allowing **complex angular approaches**
- Direct drive, **synchronised A-axis**
- **Compact machine** with small footprint
- **Hard materials machining** in a short time
- **High swarf removal** capacity
- **Highly accurate** contouring



MAIN PROPERTIES		ABX 40
Travels X / Y / Z	mm	900 / 600 / 600
Feedrate	m/min	X : 24 - Y / Z : 40
A axis - Vertical rotating plate		
Plate size / workpiece	mm	300 / 250
Distance between plates	mm	min. = 450 / max. = 850
Max. admissible load	kg	450
Swing / Rotation		360° / 200 rpm
B axis - Tilting head		
Swing		-60° / +90°
Rotation		60 rpm
Spindle speed	rpm	12.000
Spindle taper		HSK 63-A
Power – Torque	kW – Nm	23,6 - 110
Tool changer	pockets	24
Positioning (P)		X / Y / Z : 0,006 mm A, B : 10 sec
Repeatability (Ps medium)		X / Y / Z : 0,003 mm A, B : 7 sec
Weight of the machine	kg	8.500
Width (doors closed + conveyor)	mm	2.830
Depth	mm	3.140
Height	mm	3.250

Main characteristics of the Serie. Other variants and accessories optionally available.

KX, a timeless name given to the first portal-structured machine and one that still features in the Huron product range. It incarnates the most efficient concept for machining complex parts along three axes, from roughing to finishing.

This range of machines combines dynamic action and precision for top quality surface finishes, especially for 3D shapes for moulds, forgings and tooling.

Kmill KX K2X



WHAT MAKES THE DIFFERENCE

- **Ribbed cast iron structure** offering high mechanical performance for greater rigidity
- **Excellent absorption of the vibrations** generated by the tough cutting conditions
- **Floor anchoring** to maintain geometric stability and accuracy over time



MAIN PROPERTIES		KMILL 8	KMILL 10	K2X 10	K2X 20	KX 30
Travels X / Y / Z	mm	700 x 600 x 500	1.000 x 700 x 600	1.000 x 800 x 500	1.200 x 1.000 x 500	1.800 x 1.000 x 700
Feedrate	m/min	X / Y / Z : 40	X / Y : 30 Z : 18	X / Y / Z : 60	X : 50 Y / Z : 60	X / Y : 30 Z : 18
Table size	mm	800 x 600	1.250 x 700	1.150 x 800	1.400 x 1.000	2.000 x 1.000
Max. admissible load	kg	500	1.500	1.000	2.000	4.000
Spindle speed	rpm	15.000	15.000	18.000	18.000	18.000
Spindle taper		ISO 40	ISO 40	HSK 63A	HSK 63A	HSK 63A
Power – Torque	kW – Nm	26,4 – 110	26,4 – 110	26,7 – 110	26,7 – 110	26,7 – 110
Tool changer	pockets	30	30	36	36	36
Positioning (P)	mm	X / Y / Z : 0,010	X / Y : 0,015 Z : 0,007	X / Y / Z : 0,004	X / Y / Z : 0,005	X : 0,009 Y / Z : 0,007
Repeatability (Ps medium)	mm	X / Y / Z : 0,005	X / Y : 0,007 Z : 0,005	X / Y / Z : 0,002	X / Y / Z : 0,003	X / Y / Z : 0,005
Weight of the machine	kg	7.000	10.500	12.500	14.400	17.000
Width (doors closed + conveyor)	mm	4.750	4.750	5.130	5.100	5.480
Depth	mm	2.320	2.680	3.550	4.830	4.700
Height	mm	3.060	2.960	3.400	3.560	3.425

Main characteristics of the Serie. Other variants and accessories optionally available.

POWER and rigidity for roughing

The NX series of flexible, modular three-axis portal milling centres fulfils the most exacting demands in the field of general mechanical and precision engineering

The portal structure, the large distance between the columns and the optimised cutting conditions allows the intensive and high quality machining of heavy and complex workpieces of large dimensions.

NX

WHAT MAKES THE DIFFERENCE

- **Robust construction and floor anchoring** to guarantee accuracy and geometric stability
- **High chip removal capacity on roughing** thanks to the friction guiding system on the vertical axis
- **Large area on table and wide distance between columns** to process the full volume of the workpiece
- **Outstanding accessibility to the table and the workpiece** thanks to the tunnel-type safeguard
- **Efficient swarf removal**
- **Tilting operator panel**
- **Easy maintenance**

Robust design

- Heavy column and portal for greater stability
- Friction guide ram design enabling the rigidity, the stability on machining and the absence of vibration during cutting
- Z-axis balancing for smooth motion during axis movements
- X and Y guide rails for improved productivity and consistent accuracy



Head changer

- Possibility of adding a head changer to work horizontally and on all 4 sides
- Considerable reduction in downtime
- 1 single part clamping for complex parts
- Accurate machining
- Facilitates mass production and helps increase productivity

MAIN PROPERTIES		NX 40	NX 50	NX 60	NX 70
Travels X / Y / Z	mm	2.200 x 1.500 x 800	3.200 x 1.500 x 800	3.200 x 2.760 x 800	4.200 x 2.760 x 800
Feedrate	m/min	X / Y : 20 Z : 15	X / Z : 15 Y : 20	X / Y / Z : 15	X / Y / Z : 15
Table size	mm	2.200 x 1.250	3.000 x 1.250	3.000 x 2.000	3.500 x 2.000
Max. admissible load	kg	6.000	8.000	10.000	10.000
Spindle speed	rpm	6.000	6.000	6.000	6.000
Spindle taper		ISO 50	ISO 50	ISO 50	ISO 50
Power – Torque	kW – Nm	32,3 – 170	32,3 – 170	32,3 – 170	32,3 – 170
Tool changer	pockets	40	40	40	40
Positioning (P)	mm	X / Y / Z : 0,020	X / Y / Z : 0,020	X / Y / Z : 0,020	X / Y / Z : 0,010
Repeatability (Ps medium)	mm	X / Y / Z : 0,008	X / Y / Z : 0,008	X / Y / Z : 0,008	X / Y / Z : 0,008
Weight of the machine	kg	22.000	25.000	30.000	37.000
Width (doors closed + conveyor)	mm	5.200	5.400	6.160	6.160
Depth	mm	7.400	9.550	9.550	13.000
Height	mm	4.420	4.420	4.420	4.790

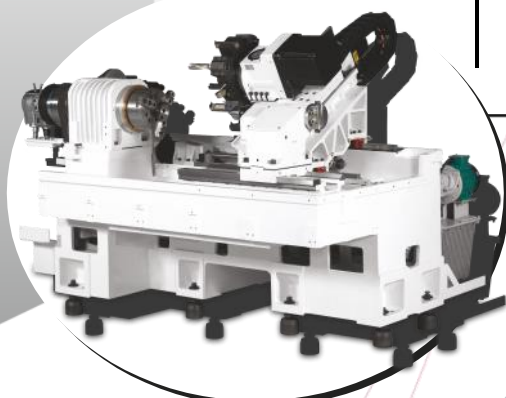
Main characteristics of the Serie. Other variants and accessories optionally available.

TURNING with 2 axes

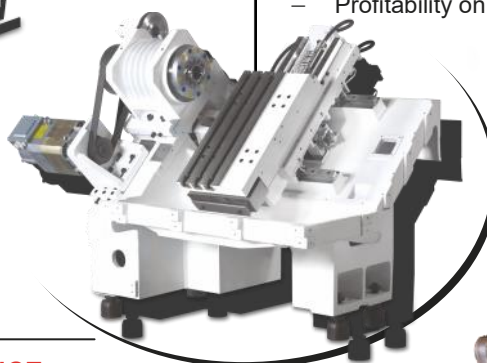
The DX range, a 2-axis turning centre, is ideal for the production of parts in one clamping

Particularly flexible and equipped with a turret with tools for drilling, boring and turning operations, the DX turning centre allows significant time savings. The rigidity combined with high positioning accuracy and repeatability make it an investment of choice and a good value for money thanks to its excellent price/performance ratio.

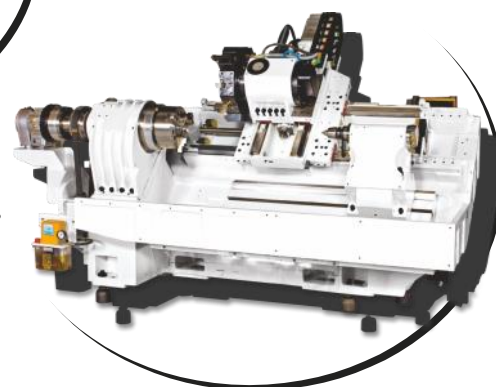
DX



DX 200 structure
Structure with rigid bed and monobloc carriage inclined at 30° for high cutting forces and faster production.



DX 350 structure
Monobloc structure with a rigid 45° bed, allowing large cuts even in hard materials.



DX 100 structure
Monobloc structure with linear tool-holder table on a 45° plane for reduced cycle times.

WHAT MAKES THE DIFFERENCE

- Robustness and high precision
- Excellent swarf removal
- High torque **electrospindle**
- **Motorised tool probe**
- **Compact footprint**
- Accessible and **intuitive NC**
- Easy to program with **ShopTurn**
- Wide range of **productivity options** such as bar feeder, parts catcher...



DX 200/5 nvu



DX 200/12

MAIN PROPERTIES		DX 100	DX 200/5 nvu	DX 200/12	DX 350/10
Max. swing over bed	mm	470	500	500	740
Standard/max. turning Ø	m/min	100 / 200	250 / 330	250 / 365	415 / 600
Max. turning length	mm	200	500	1.200	1.000
Chuck Ø	mm	169	210	210	304
Travels : X / Z	mm	360 / 200	200 / 500	200 / 1.200	310 / 1.000
Spindle speed	rpm	50 – 4.000	50 – 4.500	50 – 4.500	50 – 2.500
Spindle nose		A ₂ -5	A ₂ -6	A ₂ -6	A ₂ -8
Power / Torque	kW / Nm	9,8 / 70	9,2 / 175	9,2 / 175	15,6 / 298
Max. bar capacity	mm	44	52	52	65
Turret		Tool holder table – 4 pockets	12 pockets – VDI 30	12 pockets – VDI 30	8 pockets – 25 x 25 mm
Weight of the machine	kg	2.500	3.800	4.800	6.500
Width x Depth x Height (doors closed + conveyor)	mm	3.270 x 1.470 x 1.665	4.050 x 1.710 x 1.690	4.960 x 2.250 x 1.640	4.725 x 1.890 x 2.025

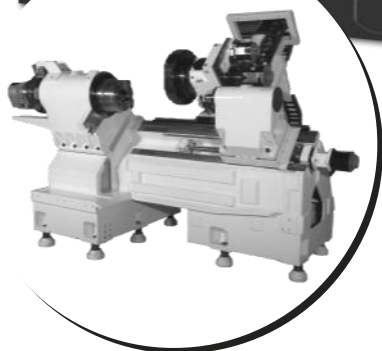
Main characteristics of the Serie. Other variants and accessories optionally available.

MULTI-TASKING with precision

The flexible and rigid AX series has been designed to meet a variety of needs.

The AX can carry out a number of turning and milling operations. With its driven tools, C axis or Y axis, the AX multitasking centre is perfectly suited to the production of runs of engineering parts for the automotive or hydraulics industries, or precision engineering parts.

AX



Structure

- High quality cast iron structure for maximum rigidity
- 45° inclined bed architecture for excellent chip evacuation

WHAT MAKES THE DIFFERENCE

- **Robust, rigid monoblock construction** for excellent vibration damping
- Very high **surface finishing quality**
- High **accuracy and repeatability**
- **12-stations turret** with all powered tools
- **C-axis** for milling operations
- **Y-axis**
- **Optimised tool management**
- **High speed electrospindle** and rigid spindle holder
- **Motorised tailstock**
- **Excellent swarf removal**
- **Compact footprint**
- Accessible and **intuitive NC**
- Easy to program with **ShopTurn**

Productivity

Possibility to add many equipments such as various hydraulic collet chucks, bar feeders, tool feeler, 10 bar coolant by the tool centre, set of tool holders, parts catcher

Ergonomics

- Adjustable, operator-friendly control panel
- Compact footprint

MAIN PROPERTIES		AX M Live tools		AX MY Live tools + Y-Achse		AX MSY Live tools + Y-Achse + secondary spindle	
		200	300	200	300	200	300
Max. swing over bed	mm	550	650	550	650	550	650
Standard/max. turning Ø	mm	330	420	330	420	330	420
Max. turning length	mm	625	600 / 1.200	625	600 / 1.200	625	600 / 1.200
Chuck Ø	mm	200	254	200	254	200	254
X travel	mm	200	250	200	250	200	250
Z travel	mm	625	625 or 1.225	625	625 or 1.225	625	625 or 1.225
Main spindle		Main spindle / Model 200				Main spindle / Model 300	
Spindle speed	rpm	4.500				4.000	
Spindle nose		A ₂ -6				A ₂ -8	
Power	kW	9,2				26,5	
Torque	Nm	175				253	
Max. bar capacity	mm	52				65	
Secondary spindle						Secondary spindle MSY	
Spindle speed	rpm					5.000	4.500
Spindle nose						A ₂ -5	A ₂ -6
Power	kW					7	9,2
Torque	Nm					95	175
Max. bar capacity	mm					65	65
Chuck Ø	mm					170	210
Revolver		Live tools – 12 pockets					
Tool-hold		BMT 45 / VDI 30	BMT 55 / VDI 40	BMT 45 / VDI 30	BMT 55 / VDI 40	BMT 45 / VDI 30	BMT 55 / VDI 40
Weight of the machine	kg	4.800	6.500	4.800	6.500	5.000	6.500
Width (doors closed + conveyor)	mm	4.280	4.225	4.280	4.225	4.280	4.225
Depth	mm	2.436	4.220	2.436	4.220	2.436	4.220
Height	mm	1.990	2.210	1.990	2.210	1.990	2.210

Main characteristics of the Serie. Other variants and accessories optionally available.

AUTOMATION, the tool for industrial performance



Palletisation
available

To help our customers achieve profitability, both industrially and financially, we offer automation solutions to create operational excellence within the company. Whether it's a question of increasing machining rates, optimising machining cycles or compensating for a lack of manpower, facilitating human/machine collaboration through automation is one of the answers to the daily concern for industrial performance.

APC

Accroissement de la productivité

- Palletising system attached to the front of the machine
- Optimal operator access to the machine and constant visibility over the work area
- Safeguard for easy, ergonomic pallet loading/unloading from above and from the front of the machine

WHAT MAKES THE DIFFERENCE

- **Productivity** investment
- **Optimisation** of material flow
- Decrease in downtime
- Increase in **production rates**
- Optimisation of **machining cycles**



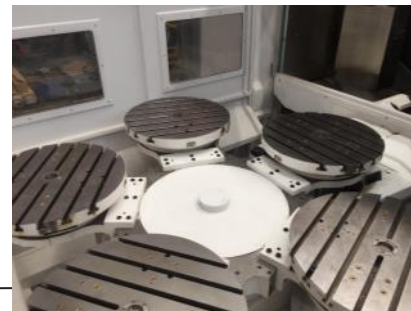
Pallet device with up to 4 pallets for MX16 and MX20



Twin-pallet device MX8 to MX12



Pallet device from 2 up to 5 pallets for the MX 8 / 10



Pallet loader MP PRO500 (KX Five and VX 8 / 12 / 13)

- Modular, fully automated equipment
- Its compact, monoblock design allows for quick installation and commissioning.
- Interactive solutions between machine, robot and part measurement system are possible to fully automate the part production cycle.
- Included :
 - 1 loading/unloading station
 - 1 supervisory station
 - 1 transfer robot
 - 5 storage racks with 3 pallets each



WHAT MAKES THE DIFFERENCE

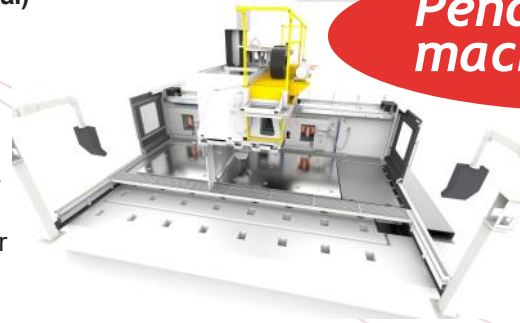
- Increase of the machine's **useful rate**
- **Adaptability** to part changes
- Machine **versatility**
- **Saving time** and reducing downtime
- **Pallet weight capacity** up to 250 kg

TWIN machining - Pendulum machining on KXG (optional) Optimisation of investment

- Adaptability and flexibility of the work space to match the customer's production requirements with ease
- 2 independent machining and work areas obtained by a separating wall with 3 different positions
- Retractable shutter for head transfer between areas
- Access to each area via sliding doors at the front and rear of the machine
- Each area is equipped with a tool changer, an operator panel and all other necessary workpiece machining equipment



Pendulum machining

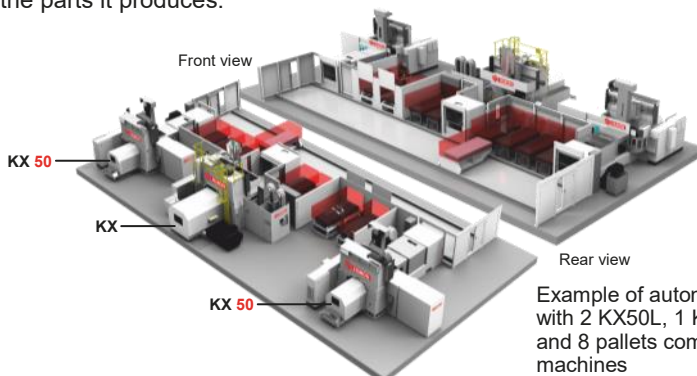


WHAT MAKES THE DIFFERENCE

- **Weight capacity**, from 10 kg to 10 tonnes
- **Adaptability** to part changes
- Machine **versatility**
- Saving time and reducing downtime

FMS, Flexible Manufacturing System

In order to increase production speeds and optimise machining cycles, we offer a variety of palletizing configurations. With 1, 2, 3 or more machines, your line will become a flexible production unit, allowing you to save valuable time. The processes are independent, safe and reliable. The company is becoming more flexible and improving its capacity to deliver the parts it produces.



Example of automated cell with 2 KX50L, 1 KX200, and 8 pallets common to the 3 machines

FMS

WHAT MAKES THE DIFFERENCE

- **Ability** to adapt to production changes
- Manufacturing of a **wide variety of parts** without additional investment
- **Optimal use** of machines
- Maximisation of **production**
- Elimination of machine stops due to part changes or cycle times
- **Around the clock work**

Robotisation and Cobotisation, a competitive asset for companies and jobs

- Several possible configurations for collaboration between human, machine, robot and cobot
- An innovative tool for expanding and winning new market share
- Cost-effective relocation of production activities by transferring labour costs to new jobs and high value-added skills

WHAT MAKES THE DIFFERENCE

- **Key for competitiveness** by enabling you to produce more at a lower cost
- **Automation** of the production line
- **Job transformation** and creation of **new skills**
- **Very high flexibility** to meet customer needs by enabling rapid reconfiguration of task lists
- **Improved and repeatable accuracy and quality** of parts produced

Robotisation Cobotisation





HURON

Reliability | Productivity | Performance

Serving the success of its Customers !



- **Reliability**
(Preventive maintenance)
- **Planify**
(Choose the best time for intervention)
- **Produce more**
(Reduce unscheduled downtime)
- **Produce better**
(Skills and knowledge)
- **Profitability**
(Maximise resources capacities)

To secure your production, we offer a range of calibrated or customised services

- **Service, one-off maintenance and maintenance contrat** for a sustainable and perennial machine
- **Assistance and technical support** from our experts
- Original **spare parts and consumables**
- **Spindle repair** to continue to benefit from all the dynamic features of HURON machines
- **Upgrade and Retrofit** of HURON machines to remain at the cutting edge of technology
- **Training** to increase the competence of machine operators
- **Applications and consulting** on machining strategies to develop business opportunities

MAINTENANCE CONTRACT, an asset for reliability

Having a maintenance plan in place is an additional asset for the long-term preservation of the qualities of the investment property.

3 fundamental pillars :

- **Performance**, by delivering consistent quality. It participates actively and agilely in the profitability of the company
- **Serenity**, by guaranteeing cost control and planning of interventions
- **Safety**, by safeguarding the technical qualities of the machine and making it sustainable

WHAT MAKES THE DIFFERENCE

- **Priority** and personalised **taking care**
- **Sustainability** and long-term viability of the investment property
- **Optimisation of the machine availability rate** thanks to the control of the planning of interventions
- **Control of operating costs** which are known, contained and predictable
- **Long-term geometric stability maintaining** of the machine
- **Maintaining machining accuracy** over time
- **Prevention and anticipation** of wear and tear
- **Machine monitoring** by the manufacturer
- Findings and recommendations



REMOTE CONTRAT, an asset for profitability

To save time and money, remote maintenance is a real investment !

« **Huron Secure Remote Service** » allows the remote monitoring of the machine, the elaboration of a precise and fast diagnosis as well as the execution of online interventions.

The real-time connection and visualisation of remote devices by our technicians is a real asset that contributes to improving the availability of the machine and its operating rate.



No compromises on safety !

- **Cyber-secured** IT solutions
- **Secured wired connection**, easy to install
- **Dedicated server**, managed by HURON
- **ON/OFF access switch**, activated by the customer in his factory
- **Data protection** and **confidentiality**

WHAT MAKES THE DIFFERENCE

- Better diagnostic **reliability**
- **Quick** intervention
- **Immediate availability of our experts**
- Remote control and immediate corrective action
- **Time saving**
- **Reduced costs** for repairs and interventions
- **Excellent compromise** between geographical distance and the psychological comfort of having assistance
- **Diminution de l'empreinte carbone**

EXPERTLINE, your new best friend

Our experts are at the service of our customers, supporting them according to their needs and specific requirements.



The ExpertLine package offers greater access to the skills and expertise of our teams.

Our teams can provide you with all the assistance you need. We can carry out specific troubleshooting, respond to a request for machining advice, or provide one-off training to give you additional knowledge.

WHAT MAKES THE DIFFERENCE

- **Prioritisation** of intervention and **availability** of our experts
- Customised **remote assistance**
- **Easy** to operate
- **Agile support** to enable resources to **meet the company's economic challenges**
- Time saving and more efficient use of resources (time, cost, carbon)
- Increasing **skills** and knowledge

HURON SPINDLE REPAIR, the perennial dynamic

HURON is offering milling centres equipped with spindles and electrospindles for over 30 years. These are specifically developed for HURON machines to offer you the best machining performance.



Sustain your competitiveness

- Limit downtime and stops of production
- Reduce your maintenance and repair costs
- Optimize the time in production availability
- Increase the life of your HURON machines
- Reliability of production
- Preserve the legendary accuracy and repeatability
- Strengthen your competitiveness

Machining operations place great stress and strain on the spindles and electrospindles of your HURON machine tools. To compensate for failures and loss of performance of these components, HURON provides repair or standard exchange.

Your equipment benefits from the latest improvements and a quality repairing. We guarantee the preservation of productivity thanks to the integration of high-performance components of the latest technology.

By using our support, you can be sure that you will continue to benefit from the performance of HURON machines. You preserve your productivity and the profitability of your production equipment.

Our experts will advise you on the best solution for your needs in terms of price and time.

MAIN PROPERTIES

- **Professional repair by qualified technician**
- No chrome plating of the spindle taper or bearing spans
- No use of non-interchangeable chams
- Use of last generation spare parts
- Availability of spare spindles for spindles equipping HURON KX and VX machine tools
- **Repairing within 10 banking days**
- **Exchange with spindle repaired within 2/3 working days**
- **Total warranty 6 months on complete spindle**, including non-replaced parts (commissioning by an authorized HURON technician)



Mechanical spindle with belt drive



Mechanical spindle with direct drive



Electrospindle

UPGRADE AND RETROFIT, the eco-sustainable alternative

HURON milling centres are built to be durable. Their robust architectures combined with high dynamics make them extremely powerful tools that will outlast the decades.

You would like to diversify your activities but your machine lacks equipment or does not have enough power for your new projects?

With Upgrade or Retrofit, transform your investment property to make it competitive and efficient.

Our experts will help you decide on the best solution for your current needs.

Retrofit is suitable for used machines where we replace components with new, similar and efficient ones in order to increase the longevity of the machine.

Upgrading consists of replacing and/or adding new features to machines, regardless of their age, in order to increase their performance.

WHAT MAKES THE DIFFERENCE

- **Scalable and sustainable solution**
- Complete or partial **reconditioning** of the machine
- Maintaining and improving of the performances
- Restoration of **equipment reliability**
- Development of the **flexibility** and **agility** of the machine
- Improve of the **competitiveness**
- **Moderate expense** not requiring depreciable investment

CYCLES EXPERTS, a guarantee of performances !

Productivity is an essential criterion in the field of machining.

To support our customers in meeting this challenge, we offer a range of solutions dedicated to increasing productivity and profitability while optimising accuracy.

Each cycle developed deals with a technical complexity. In the end, the programmer or operator benefits from a simple, efficient and intuitive interface to solve a complex problem.

These cycles, combined with the capabilities of our milling centres, make the HURON machine tool more efficient and facilitate the automation of manufacturing processes.

PRECIPROTECT®, or how to machine without risk of collision ?

- **Detection of collisions** before they occur
- Toolpaths and movements are monitored in **real time** and in anticipation of the actual machine data and the machining program
- If a risk of collision is detected, the machine **immediately** and **automatically** stops all movement
- Guarantee of **safety**
- Complete **digital twin** for simulation

MAIN FEATURES

- **Functioning in automatic or manual mode**
- Benefit from the speed of the machine
- Prevention of operating errors in manual mode
- Preservation of machine and workpiece integrity
- Work without surveillance thanks to the reliability of the system

Amortisation : from the 1st collision avoided !

PRECILIFE®, or how to manage tool life automatically ?

- **Automation of measurement, inspection and tool replacement** in hidden time.
- No changes required to the NC program other than calling the cycle at the start of the program

MAIN FEATURES

- Machining possible without the operator being present
- Optimisation of tool use and **reduction in tooling costs**
- Preservation of the **integrity of the workpiece**
- Decrease of downtime

Amortisation : On long machining operations and depending on the type of production production and associated costs, quantifiable over a period of 6 months !

PRECIPOWER®, or how to optimise roughing operations ?

- **Optimum roughing**, saving from 10% to 50% on roughing time
- Automatic real-time modulation and adaptation of feedrate
- **High efficiency in material removal rate**

MAIN FEATURES

- Consistent use of the available spindle power
- Protection against spindle and rotary axis overloads during roughing
- Increased tool life
- Significant improvement in productivity

Amortisation : Time saved, reduced tooling costs, reduction in roughing time, quantifiable over a period of 3 months !

PRECIFIVE®, or how to get an accurate calibration of the machine ?

- **Automated calibration of the kinematics** by measuring the position and orientation of the rotating axes
- Cycle can be included directly in the machining process for **optimum accuracy**.
- **Elimination of scrap parts**
- **Fast verification of kinematics** after a collision

MAIN FEATURES

- **Automatic, accurate and rapid** measurement
- Optimisation of **accuracy**
- **Compensation for thermal expansion** of the machine
- Maintenance tracking with history

Amortisation : from the 1st use, avoiding on-site intervention!

PRECIBALANCE®, ou or how to detect unbalance on Mill/Turn machines during turning operations ?

- This cycle **automatically measures the unbalance** of the part and its clamping. It determines the angular position and the required balancing mass in order to obtain a balance in a plane. The cycle can be re-run after mounting the counterweights to validate the balancing and before starting the machining.

MAIN FEATURES

- Workpiece balancing
- Elimination of vibration for increased accuracy and improved surface finish
- Reduced wear and tear on mechanical components of the machine

APPLICATIONS, the assurance of a support and a technical assistance

Whether it's a question of defining your technical requirements, studying the feasibility of a part, solving customer-specific problems or finding new solutions to improve productivity, our Applications and Development Experts are there to listen and help you.

Technical assistance

- Demonstrations of how our Expert tools operate
- Study, discussion and integration of cycles into the customer's manufacturing process
- Optimisation of machine use

Custom developments

- Solving specific customer problems
- Improving productivity
- Development of customised solutions: cycles, graphical interfaces, data collection, etc.

Consulting and accompaniment

- Proposing and tailoring of automated and/or robotised solutions
- Analysis, optimisation and recommendations on machining strategies
- Workpiece feasibility studies and machining time estimations
- Management of complex industrial configurations by offering turnkey services: programming, fixturing solutions, machining, training, etc.

TRAINING, the key to acquiring skills !

Training is essential to improve your skills, develop additional competencies and adapt to new technological developments.

HURON offers a full range of training programmes, from machine maintenance to operating the machines, right through to becoming an expert in machining technologies.

WHAT MAKES THE DIFFERENCE

- **Tailored** training to suit the level and needs of the customer
- Training at the **customer's site or at HURON**
- **Increase in skills level**
- **Optimised use of machine performance**
- **Compensating for hard-to-find skills**
- **Maintaining skills** within the company

Machine maintenance

- Training adapted and tailored to the customer's machine
- Optimum preparation for maintenance work in an autonomous way
- Skills transfer: prevention, diagnosis, repair
- Avoid slowdowns, breakdowns and production interruptions

Machining strategies

- Complex parts machining
- Generating industrial performance
- Integrating accessories into machining processes
- Programming in front of the machine
- Management of all machine axes
- High-speed machining

OPCO

Possibility of OPCO funding
(Only for France)

Use of machines

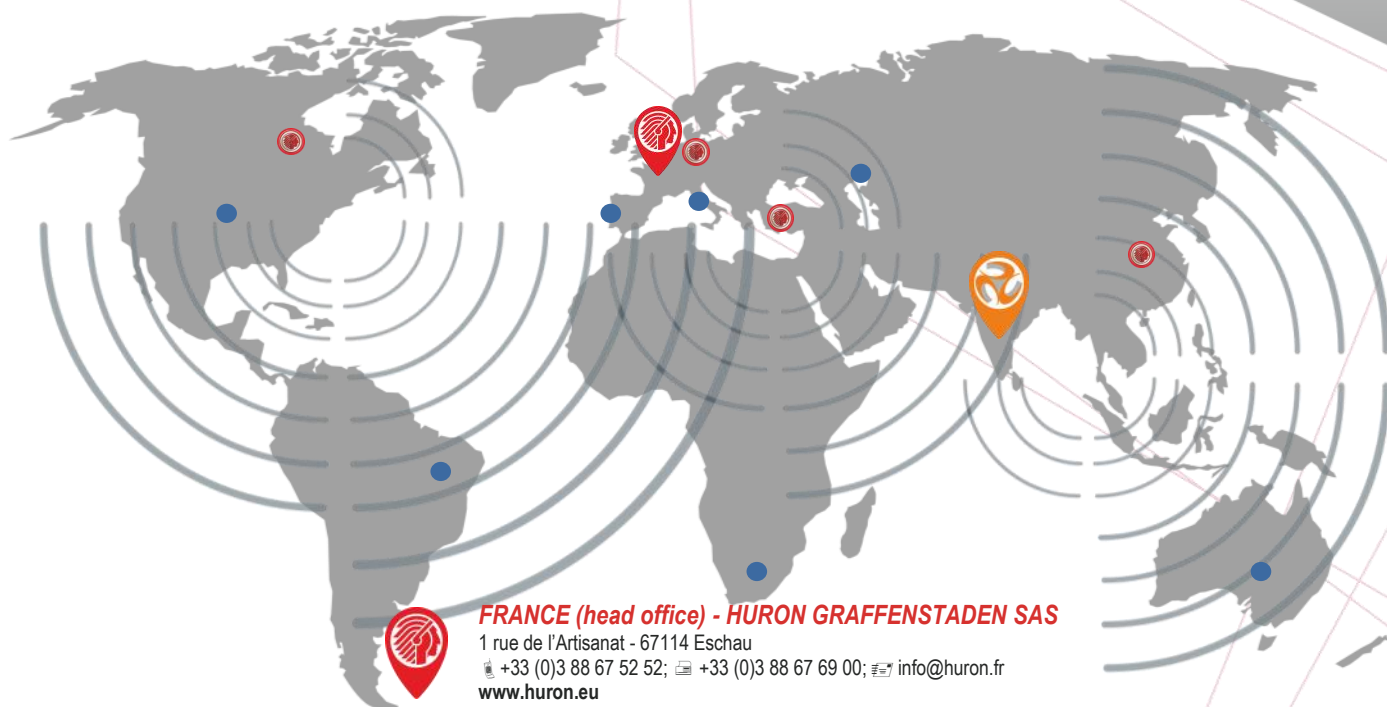
- Training in machine use
- Training to operate the machine

A WORLDWIDE PRESENCE, a local and close assistance !

Through our offices around the world, in support of our sales and service teams, we surround ourselves with partners who are close to our customers, able to advise and support them and intervene quickly and effectively.

WHAT MAKES THE DIFFERENCE

- Our local agents and partners are always ready to **assist customers** ; thanks to them, we can communicate **without** cultural and linguistic **barriers**
- HURON is never far away. Organised by geographical area, we are able to **intervene quickly and efficiently**
- We share our values, skills and expertise to help our customers achieve excellence



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