

UNIPORT4000

Gantry machine with travelling bridge



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 **unisign**
machine tools

UNISIGN quality in its most compact form yet

The UNIPORT 4000 offers excellent value for money



The UNIPORT4000 is the smallest model from UNISIGN's premium gantry machine series. This versatile piece of equipment takes up relatively little space on the shop floor thanks to its travelling portal bridge. The UNIPORT4000 is already renowned for its outstanding vertical machining performance. But now with an even higher clearance plus a right-angular head available as an option its functionality has been expanded, creating the ideal machining centre for processing multiple sides.

Right-angular head for multi-sided machining

You can work and machine more efficiently with the latest version of the UNIPORT4000. Now there is no need for third-party commercial heads to perform horizontal machining. Just one right-angular head with automatic tool change allows you to machine your products from all sides. The head also increases the Z-axis range by up to 50% (up to 750 mm). The vertical clearance can even be up to 1.250 mm.

Automatic tool changes

Changing tools manually is now a thing of the past, as the UNIPORT4000 does it for you. The machine is equipped with a chain-type tool store located in the moving bridge column as standard. If you need more tools, you can opt for a second tool storage mounted on the rear side of the portal bridge. In total, the UNIPORT4000 has storage capacity for more than 100 tools. Special safety panels protect the work area from chips and coolant.

Two work zones for higher spindle performance

For pendulum machining, the X-axis can be divided into two separate work zones. While you are machining a product in one zone, you can set up the next workpiece in the other zone. This means you can be sure to get the most out of the spindle.

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Shorter processing time

Have your current machines reached their limits? With the UNIPORT4000, you can make huge gains in processing time. Why process components on separate machines when you can now machine them in a single step? That means less handling, less clamping work and higher accuracy.

Higher rotational speed for aluminium and plastic

The UNIPORT4000's direct-driven, water-cooled main spindle has a capacity of 36 kW / 12.000 rpm and is suitable for various materials. If you are machining aluminium or plastic, we can supply a powerful 58 kW / 16.000 rpm main spindle

as an option. The machine bed's open design ensures optimal chip removal.

Reduce errors with automatic tool measurement

With the optional automatic tool measurement, the machine automatically measures the length and diameter of a tool



UNIPORT4000:
can be easily
adapted to any
customer specific
requirement!





using a laser. This prevents costly mistakes during programming and machining. Other popular options include internal cooling and a measuring probe.

Quiet working environment thanks to closed cooling system

The UNIPORT4000's main drive is water-cooled for better thermal control and lower noise, compared with air-cooled machines. The UNIPORT4000 is perfect for a quiet, healthy and safe working environment.

No need for expensive foundations

The UNIPORT4000 requires no special foundations. We simply set it up straight on your factory floor, making the installation time shorter. And if you want to move the machine later on, it's quick and easy to do.

More than just a machine

Which clamping adaptors do you need – hydraulic, vacuum or magnetic? Which machining head and tools? Would you like CNC programs supplied too? At UNISIGN, you don't just get a machine, you get a complete solution. You can customise your UNIPORT4000 to meet your specific needs. Everything you require to machine your products, that's what we'll deliver. And our expert advice based on our years of knowledge and experience comes at no extra charge.

Large components for an array of markets

Large X and Y-axis movements make the UNIPORT4000 ideal for machining large components. Our customers serve a wide range of markets. We would be happy to show you how the UNIPORT4000 can serve the applications you need. If you would like more information, please do not hesitate to get in touch with us on: +31-77-3073777.

Industry Application

General

Machining welded constructions

Machining steel constructions

Contour-milling plastic parts from sheets

Machine engineering

Machining side walls of machine frames

* Wood processing machines

* Textile machines

* Printing machines

Energy

Machining heat exchangers

Truck

Machining truck components such as chassis beams

Railway

Machining components for bogies

Equipment construction

Machining industrial components

Oil and gas

Machining castings and welded constructions for pump and valve housings

Agriculture

Machining farm machinery components

Aerospace

Machining aluminium components

Contour-milling aluminium parts from sheets

Technical specifications

Work area

X-axis, longitudinal travel	mm	4.000 - 24.000+
Y-axis, cross travel	mm	1.500 - 3.500
Z-axis, height travel	mm	500 / 600 / 750
Horizontal clearance	mm	1.550 - 3.550
Vertical clearance	mm	610 / 750 / 1.000 / 1.250

Main spindle, direct-driven

Power	(S6-40%)	kW	36 / 58
	(S1-100%)	kW	26 / 45
Spindle speed		min ⁻¹	12.000 / 16.000
Spindle torque		Nm	180 / 135

Tool storage

Tool taper	-	HSK63A
Number of tool pockets	#	29-102
Tool change time	s	8

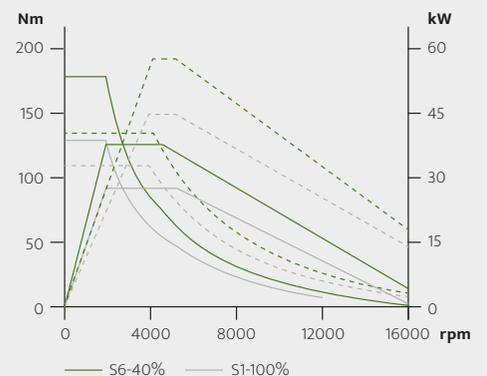
Axis drive and feed system

Rapid / Feed rate	X-, Y-, Z-axis	mm/min	40.000
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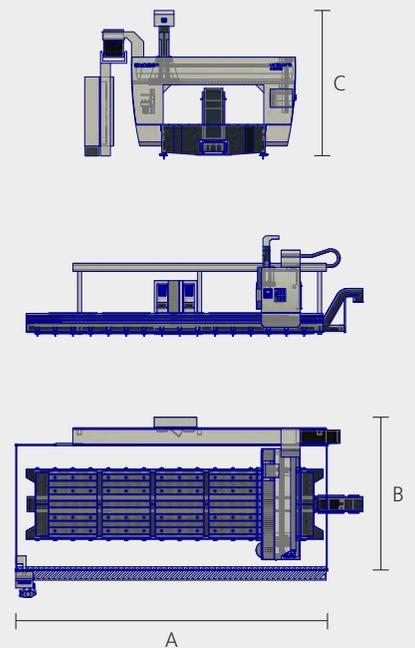
Various and optional

- Unisign right-angular head for multi-sided machining
- Automatic head change and tool change for right-angular head
- Powerful water cooled direct-driven spindle
- Optional 16.000 min⁻¹
- Double sided synchronised X-axis drive
- One large work area or pendulum machining
- Large tool storage pockets
- Safety panels on front and rear of portal bridge
- Linear scales in all axis
- Measuring probe
- Siemens or Heidenhain control
- Remote access

Spindle 36 & 58 kW



Views



Sizes

X:	4.000 - 24.000+ mm
Y:	1.500 - 3.500 mm
Z:	500 / 600 / 750 mm

Length (A):	X-axis + 4.800 mm
Width (B):	Y-axis + 3.250 mm
Height (C):	3.300 / 3.700 / 3.950 mm

Industries



UNIPORT4000: The benefits

- Compact CNC machining centre with travelling bridge.
- Excellent value for money.
- Large work area, small footprint.
- Right-angular head for multi-sided machining, indexable in 5° increments.
- Sturdy bridge construction with high stability.
- Double-sided synchronised X-axis drive.
- Automatic tool change.
- Pendulum machining.
- Closed main spindle cooling system: thermal stability and low noise.
- Easy to access for loading, unloading and cleaning.
- Fully tailored to your needs.

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UNISIGN is an engineering company producing innovative and proven machine tool technology for customers in all markets segments.

-  aerospace
-  general machining
-  oil and gas
-  energy
-  truck & train

UNISIGN adds value to our customer production processes.

This makes UNISIGN your partner in productivity.

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