



UNIPORT7000

Portal bridge machining centre



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 **unisign**
machine tools

Economical and versatile manufacturing

The UNIPORT 7000 offers head and spindle changing, making it ideal for any machining task

The UNIPORT 7000 gantry machine has a travelling portal bridge and stationary table, and is our most flexible machine platform. It can be installed in various configurations: as gantry with low or raised guideways, in a 5-axis configuration, with a carousel turning station or as a moving table machine with pallet changer. It therefore suits industries like general machining, oil & gas, truck & train and energy. It is reliable and easy to service.

The machine performs 5-sided machining on the component and has short changeover times and a large working envelope, making it a cost-effective production choice for many applications.

Versatile configuration

The symmetrical portal bridge has an innovative “box-in-box” construction. The moving ram is quadruple guided inside the Y-axis slide. This is in turn guided on either side between the two beams of the portal bridge, ensuring extreme rigidity. Together with an improved X-axis drive system, it makes for very stable and accurate production processes. There is a range of configurations. The high rail moving gantry with raised guideways ensures a closed machine area. The integration of a carousel turning station makes the UNIPORT 7000 a large mill-turn machining, with the 5-axis configuration producing complex shapes. Alternatively, the UNIPORT 7000 can also be delivered in pallet changer configuration.

Cartridge type main spindle

The spindle drive unit has a water cooled main drive motor that connects to the spindle by a central drive shaft. There's an automatic shifting two-stage gearbox in the top end of the spindle carrier, with a powerful cartridge-type main spindle in the lower end.



Head and spindle changer

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Highlights

- Automatic head and spindle changing
- Available in a wide range of configurations
- Carousel turning station
- 5-axis machining capabilities
- Pendulum machining

Full 5-axis machining

The UNIPORT 7000 offers a variety of standard or customer specific machining heads for flexible multi-sided operation. The heads are stored in a pickup station which is integrated in the moving bridge

for quick changeover. The UNISIGN right angle head performs horizontal machining. It has the same power and torque as the vertical main spindle and can be indexed in small increments. For even more versatility,

the UNISIGN universal head allows indexing down to 1° increments on the B- and C-axis. Ultimately, the machine can be completed with a nutator head for full 5-axis machining.





Pendulum machining

A large X-axis enables pendulum machining with loading in one zone while machining in the other. Large and heavy components are clamped directly onto the stationary clamping table. The clamping table is close to floor level, offering

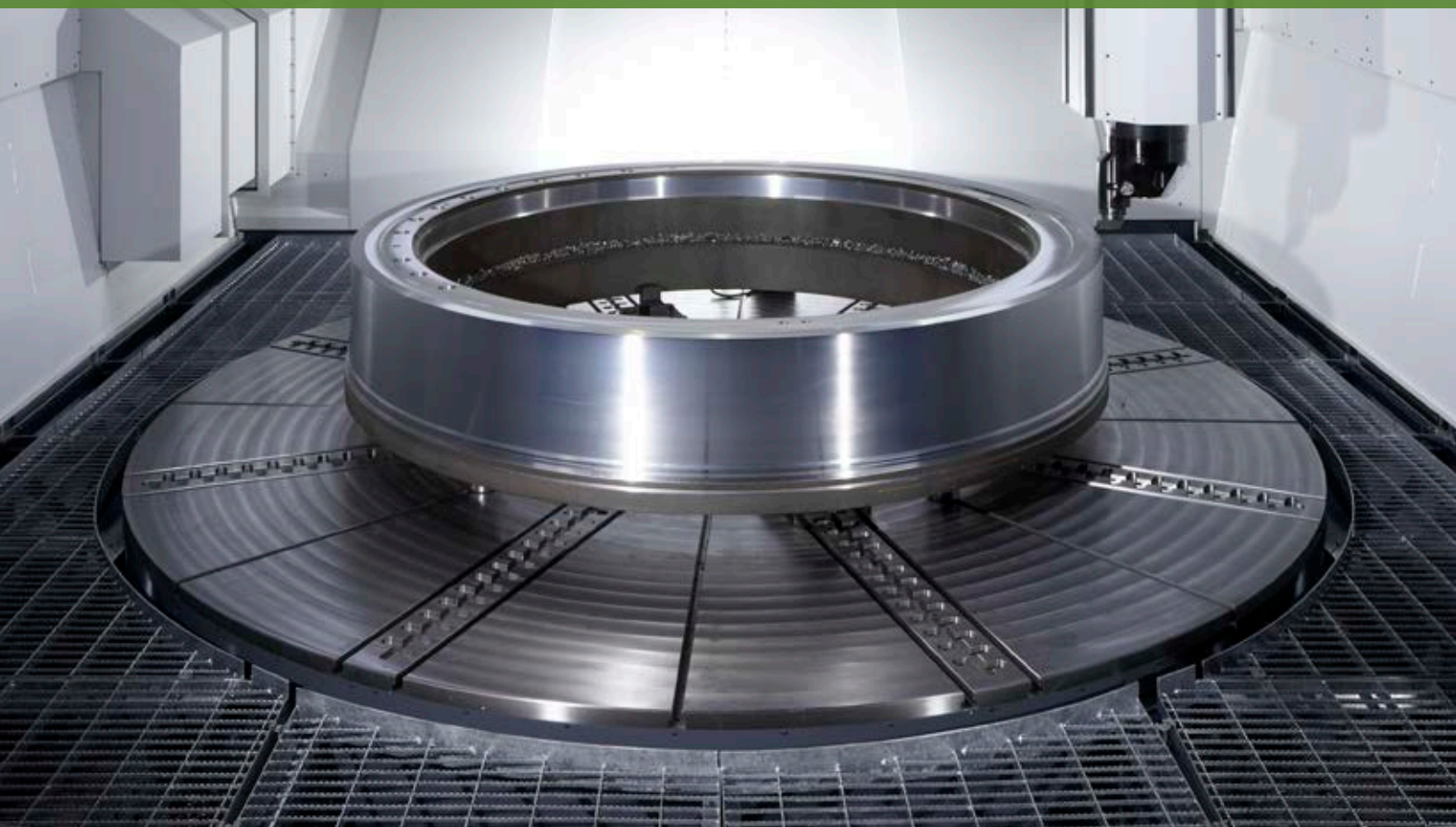
comfortable access for easiest loading and unloading. The stationary clamping table with travelling bridge reduces the floor space to an absolute minimum. The standard tool storage can be increased with additional storage on the rear side of the port bridge.

The UNIPORT 7000 can be configured to customer requirements, making it a truly versatile and cost-effective production machine.

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UNIPORT 7000 Mill Turn Centre

UNIPORT 7000; the ideal solution for flexible manufacturing and is also available in mill-turn configuration



technical specifications

Work area

X-axis, longitudinal travel	mm	6.000 - 24.000+
Y-axis, cross travel	mm	2.500 - 6.500
Z-axis, height travel	mm	1.600
Horizontal clearance	mm	2.000 - 6.000
Vertical clearance	mm	2.000

Main spindle, gearbox driven

Main drive motor	(S6-60%)	kW	36 / 42 / 73
	(S1-100%)	kW	28 / 37 / 65
Spindle speed	min ⁻¹		6.000
Spindle torque	Nm		1.350 / 1.600

Tool storage

Taper size	-	HSK100A
Number of pockets	#	48 - 330
Tool change time	s	10

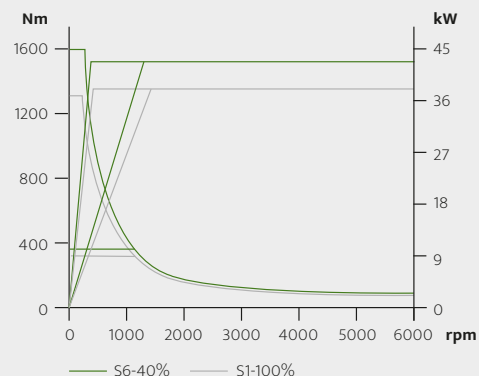
Axis drive and feed system

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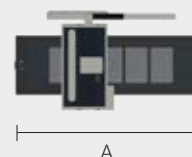
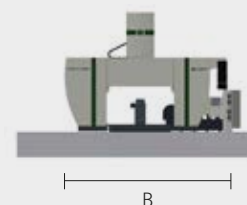
Various and optional

- Portal machining centre
- Box-in-box construction for Y- and Z-axis
- Available as:
 - Gantry style
 - Gantry with raised guide ways
 - Carousel turning station up to 95 kW, 120.000 Nm
 - Table moving design
 - Pallet changer
- UNISIGN right angle and universal head
- Large variety of customer specific machining heads
- 5-axis configuration
 - Nutator head up to 93 kW
 - Swivelling head with high torque
- Pendulum machining
- Large tool storage
- Measuring probe
- Linear scales in all axis
- Siemens or Heidenhain control
- Remote access

Spindle 42 kW



Views



Sizes

X:	6.000 - 24.000+ mm
Y:	2.500 - 6.500 mm
Z:	1.600 mm

Length (A):	X-axis + 7.000 mm
Width (B):	Y-axis + 5.100 mm
Height (C):	Z-axis + 4.700 mm

Industries



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

Through years of experience, UNISIGN has evolved into an international operating company with an impressive installed base. The basis of our success is the clear company philosophy to design all the machines in such a way that they can be tailor-made to create the ideal machine for our customers. The large number of machine tools supplied by UNISIGN reflects our strength and versatility.

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