

## UNIPORT6000-HV

5-axis portal bridge machining centre





www.unisign.com

### Economical and versatile manufacturing

The UNIPORT 6000-HV (horizontal/ vertical) is a truly cost-effective choice for 5-axis machining of large components. In addition to its generous daylight opening, the machine features a tilting nutator head. The spindle can travel through an angle of 100° in both directions, going from a vertical plane to 10° above horizontal for even the most extreme machining angles. The machine combines 5 axis, flexibility, precision, performance and maximum reliability. That makes it ideal for nearly any machining task and market segment including aerospace, general machining, oil & gas, energy, truck and train. Coupled with outstanding price/performance, this compact portal machine is truly flexible.

#### 2-axis nutator head

The powerful 2-axis nutator head has a host of productivity features that make it an exceptionally versatile machining centre. What sets it apart is the large horizontal and vertical opening for machining extremely large parts on a compact portal machine. This is further enhanced by the point of rotation of the head, which ensures that the full height of the working area is available in both vertical and horizontal orientations.

Able to machine any angle or plane without restriction, the machine with its 2-axis head and cross slide construction is well designed using proven technology. The drive for the continuously variable B-axis and C-axis is cooled to enhance thermal performance and maintain accurate

UNIPORT 6000-HV; full 5-axis machining for all types of materials



5-axis calibrating station

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### Highlights

- Maximum working area; smallest footprint
- Efficient machining of large components
- -5 axis
- High dynamics

Machining of slewing bearing

positioning. The powerful standard spindle with 73 kW, 7.000 rpm and 700 Nm can meet all machining challenges head on. Optional is an 82 kW, 15.000 rpm and 391 Nm for high speed machining. In this case, the machine is configured with raised guide ways and side walls to contain the generously created amount of chips. The dynamic proporties of the machine are also outstanding.

#### Work pieces are easy to change

The UNIPORT 6000-HV is installed into the factory floor. The low step makes getting on to the table extremely easy to change work pieces. The work area is versatile too: the entire area can be used for one large piece, or the two stations can be separated by a screen for pendulum machining.

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The UNIPORT 6000-HV offers maximum flexibility; ideal for large components



Production of machine base frame



# technical specifications

#### Work area

X-axis, longitudinal travel		mm	4.000 - 24.000+
Y-axis, cross travel		mm	2.500 - 6.000
Z-axis, height travel		mm	1.500 / 1.800
Horizontal clearance		mm	2.000 - 5.500
Vertical clearance		mm	1.700 / 2.000
Distance spindle nose to table (z	2-1.800)		
- spindle in vertical position		mm	200 - 2.000
- spindle in horizontal position		mm	190 - 1.950
Main spindle			
Power	(S6-40%)	kW	73 / 82
	(S1-100%)	kW	52/63
Spindle speed		min <sup>-1</sup>	7.000 / 15.000
Spindle torque	(S6-40%)	Nm	700 / 391
C-axis		0	+/- 185
Tilting angle		0	+/- 100
Tool storage			
Tool taper		-	HSK100A
Number of pockets		#	37 - 158
Tool change time		S	12
Axis drive and feed system			
Rapid / Feed rate	X-, Y-, Z-axis	mm/n	nin 40.000
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Various and optional			
- Powerful main spindle configu	iration - N	leasuring	probe

- Powerrui main spinule configuration	- Measuring probe
- Full 5-axis machining	- Tool measurement
- High speed machining	- Fume extraction
- Raised guide ways with side walls	- Integrated chip conveyor
- Pendulum machining	- SIEMENS 840D-sl /
- Operator platform	Heidenhain iTNC640 control
- Work area "vision" system	- TFT 19" colour monitor
- Linear scales in all axis	- Remote access

#### Spindle 63 kW









#### Sizes 4.000 - 24.000+ mm 2 500 - 6 000 mm

X:

Y:	2.500 - 6.000 mm
Z:	1.500 / 1.800 mm

Length (A):	X + 6.500 mm
Width (B):	Y + 5.000 mm
Height (C):	5.275 / 5.875 mm

#### Industries



### your partner in productivity

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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