

technical specifications

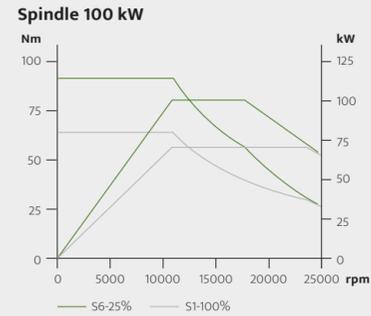
Work area		
X-axis	mm	1.000
Y-axis	mm	1.000
Z-axis	mm	600
Table dimensions	mm	800x800
Swing circle	mm	1.000

Main spindle			
Power	(S6-25%)	kW	100
	(S1-100%)	kW	75
Spindle speed	min ⁻¹		25.000
Spindle torque	Nm		90

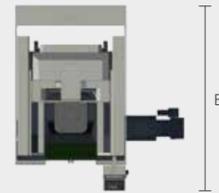
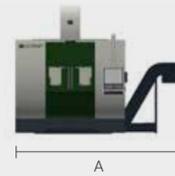
Tool storage		
Tool taper	-	HSK63A
Number of tool pockets	#	61 - 187
Tool change time	s	5

Axis drive and feed system			
Rapid / Feed rate	X-, Y-, Z-axis	mm/min	60.000
Table rotation speed	B-/C-axis	min ⁻¹	32 / 52

- | Various and optional | |
|--|--|
| - 100 kW, 25.000 min ⁻¹ motor spindle | - Excellent ergonomics, operator can get very close to the table |
| - UNISIGN Turn-Tilt table 800 x 800 mm | - Coolant through the spindle |
| - Rotary coupling for vacuum clamping | - Tool measuring via laser |
| - 1 or 2 additional tool storages | - Measuring probe |
| - High accuracy package standard | - Optional pallet loading |
| - Fully closed machining area | - Siemens 840D or Heidenhain control |
| - Sliding roof for (un)loading the machine | - Remote access |



Views



Sizes

Length (A): 4.100 mm
 Width (B): 4.000 mm
 Height (C): 3.400 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.

UNISIGN adds value to our customer production processes.

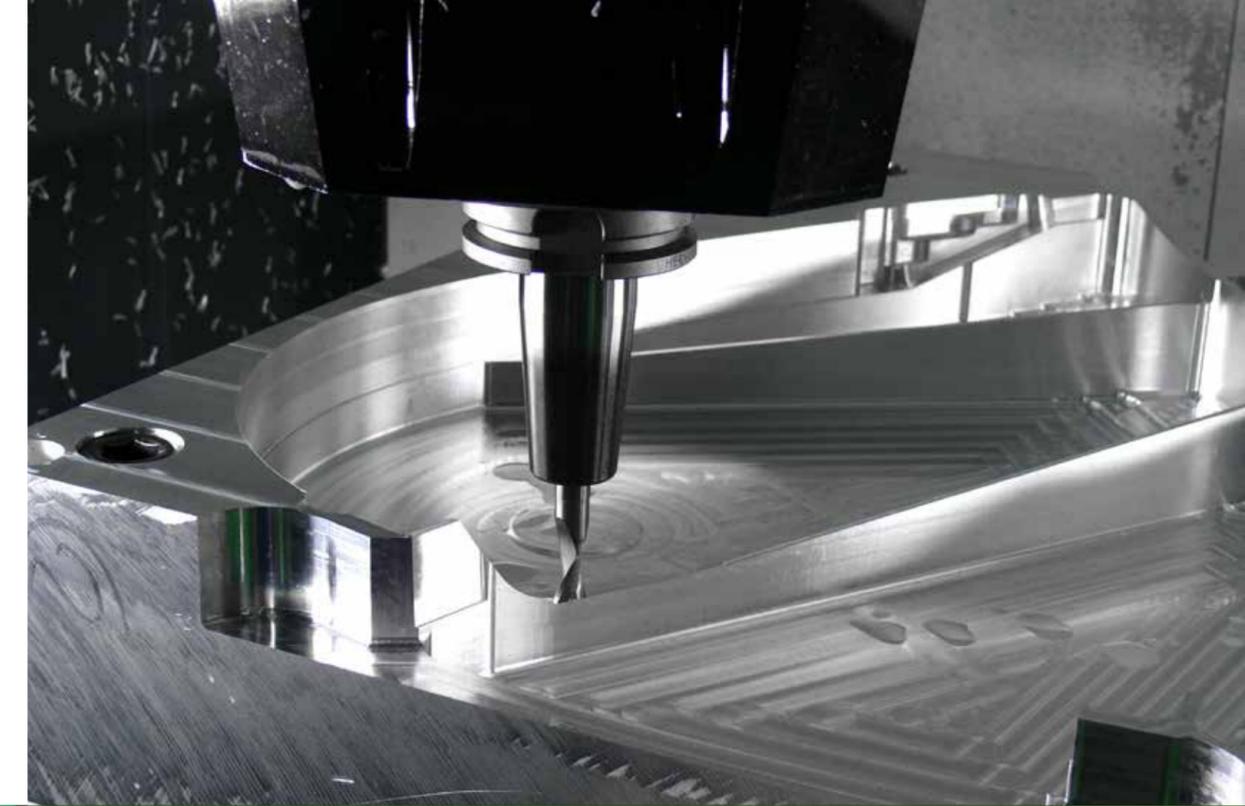
This makes UNISIGN your partner in productivity.

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

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UNIPENT4000 AERO

High speed 5-axis machining centre



www.unisign.com



Economical and versatile manufacturing

The UNIPENT 4000 AERO offers extreme aluminium metal removal rate

The UNIPENT 4000 AERO is purpose designed to produce high-volume aluminium aerospace structural components quickly, accurately and cost-effectively. The powerful 100 kW spindle drive runs at 25.000 rpm and removes aluminium at a rate over 10.000 cm³ per minute while remaining ultra stable because of the extremely rigid machine design.

This workhorse machine is compact, and has a lightweight but highly rigid portal bridge construction. It has a two-sided synchronised drive system in the Y-axis for the movable bridge, and a moving spindle carrier with ram in the X-axis.

Accurate, high volume output at low cost

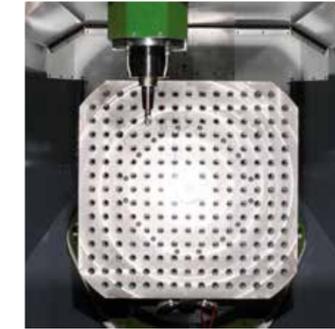
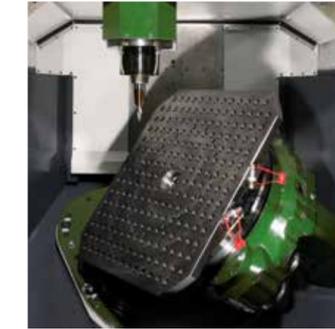
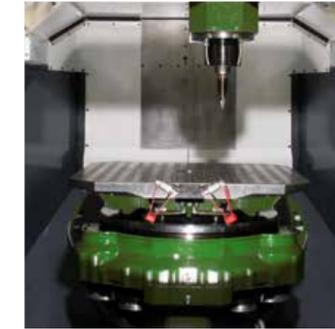
Aerospace structural parts demand high-volume production with extreme accuracies at lower cost. The revolutionary and unique UNISIGN 100 kW spindle is, after many years of service, still the distinctive feature in the UNIPENT 4000 AERO. With its large capacity, it is renowned in the market as the tireless hard worker.

The machine has a small footprint, but with a large product swing circle of 1 m. The integrated rotating and tilting table enables 5-axis machining and complex component positioning for highest productivity. The table allows complete access. It is extremely rigid, with a rotary coupling enabling vacuum clamping.

Easy to access, safe to operate

The machine is fully enclosed, with built-in fume extraction and electronic safety locks on the operator doors for a safe working environment. The operator has a good view of all processes, and the machine is easily accessible. A pneumatically activated

slideway system opens a roof for easy loading and unloading by overhead crane through the top of the machine. The UNIPENT 4000 AERO works either stand-alone or with multiple machines, there is an optional pallet changer for versatile production.



The UNIPENT 4000 AERO: extreme power in a state-of-the-art machining centre, ideal for any aerospace company.

UNISIGN... your partner in productivity!

Automatic loading via pallet system

The UNIPENT 4000 AERO offers shortest production times in the market



Highlights

- Full 5-axis machining capacity
- Over 10.000 cm³ per minute aluminium removal rate
- Stand-alone or multiple machines with optional pallet changer
- Portal machine configuration with extreme rigidity
- Excellent operator access

Zero-point clamping integrated in the machine table

UNIPENT 4000 AERO
www.unisign.com

