



UNIPRO5000

High speed 5-axis machining centre



www.unisign.com

 **unisign**
machine tools

Economical and versatile manufacturing

The UNIPRO 5000 is the result of years of experience and development in the aerospace industry. It is ideal for 5-axis simultaneous operations on complex elongated aluminium aeronautical structural components. Fast machining combines with safe and easy operation.

10.000 cm³ per minute materials removal rate

The unique and revolutionary 100 kW and 25.000 rpm UNISIGN spindle is, after many years in service, still the distinctive feature of the UNIPRO 5000. It can remove aluminium at up to 10.000 cm³ per minute, and the workhorse machine is widely respected in the market.

The spindle for vertical machining has a +/-15 degree tilting axis. The unique design of this B-axis allows using the full power of the spindle. The A-axis rotates with the customer specific clamping system. The clamping unit can be a 4-sided cube or a single large table, and the fixture naturally allows vacuum clamping. The standard machine is available in various lengths and so is ideally suited for 5-axis machining of complex elongated aluminium components where high dynamics and precision are key.

Fully enclosed for safe operation

The UNIPRO 5000 can be customised. It is completely enclosed for full protection, and there is optional fume extraction. The machine has direct linear scales in all axis as standard. The standard version also has a large tool storage of 57 tool pockets with another optional 100 tool pockets. The spindle has an HSK63A tool taper. If required, a torque bracket for smaller heads can make the machine even more versatile. Modern slideways with roller packs offer the highest accuracies for powerful machining. Visibility is perfect for all operations. There is comfortable access for the operator inside the machine area, which greatly improves ergonomics while loading and unloading components using an overhead crane.

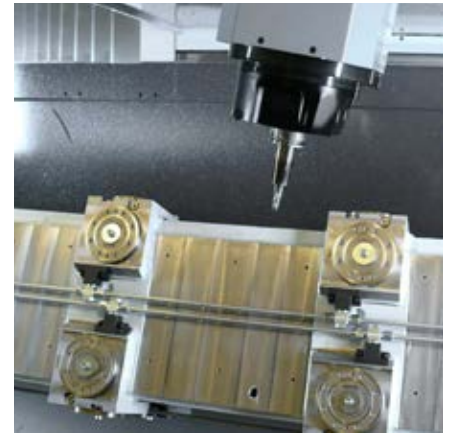
UNIPRO 5000;
the meticulous
aluminium
“billet killer”



Measuring probe

UNIPRO 5000
www.unisign.com





Turn-key package customised to requirements

UNISIGN can supply a turn-key package with a proven technology. It can develop customer specific part programs, select the ideal

strategic sequence of machining and the best corresponding tooling package, offer the easiest and fastest clamping possibilities, and include pre- and final-acceptance based on unique customer parts.

The UNIPRO 5000 is a versatile production asset, with fastest cycle times and quick return on investment.

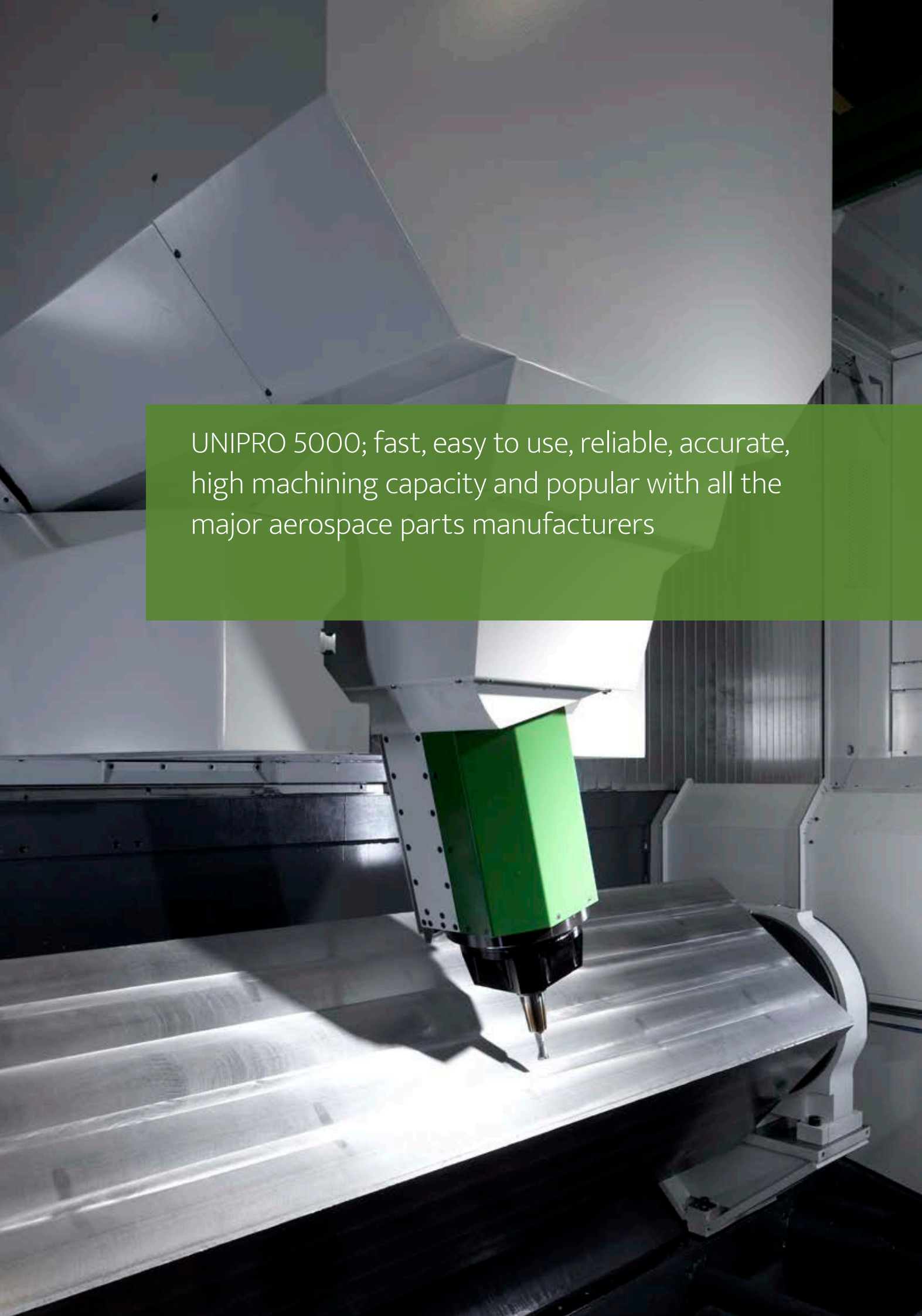
UNISIGN... your partner in productivity!



Highlights

- High speed 5-axis
- 100 kW spindle;
10.000 cm³ per minute aluminium removal
- Very stable B-axis configuration
- Large variation in clamping cubes

Clamping cube for multiple components

A close-up photograph of a green UNIPRO 5000 CNC machine head in operation. The machine is positioned over a large, rectangular aluminum workpiece. The machine's head is a vibrant green color, and a small, dark cutting tool is visible at the point of contact with the metal. The background shows the industrial setting of a factory or workshop, with various metal structures and lighting fixtures. The overall scene is brightly lit, highlighting the precision and scale of the manufacturing process.

UNIPRO 5000; fast, easy to use, reliable, accurate, high machining capacity and popular with all the major aerospace parts manufacturers

technical specifications

Work area

X-axis		mm	3.000 / 5.000
Y-axis		mm	800
Z-axis		mm	500
Tilting range B-axis	continuous	°	+/- 15
Rotating range A-axis	continuous	°	+/- 360

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	#		57 / 157
Tool change time	s		5

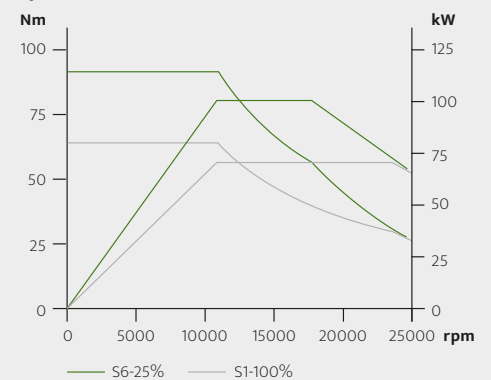
Axis drive- and feed system

Rapid / Feed rate	X-, Y-, Z-axis	mm/min	60.000
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Various and optional

- | | |
|--|--------------------------------------|
| - 5-axis machining | - Linear scales for all axis |
| - 100 kW, 25.000 min ⁻¹ motor spindle | - Radio wave measuring probe |
| - Unique B-axis design | - Tool storage with 57 / 157 pockets |
| - Large working envelope | - Full enclosure guarding |
| - Large variation in clamping possibilities | - Fume extraction system |
| - High dynamics | - SIEMENS 840D-sl control |
| | - Remote access |

Spindle 100 kW



Views



Sizes

Length (A): X-axis + 4.500 mm
 Width (B): 4.700 mm
 Height (C): 3.800 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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