

# UNICOM7000

Large multitasking machining centre





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## Economical and versatile manufacturing

## UNICOM 7000; Complete machining without compromise



Large capacity and clearance in the working envelope increases the productivity of UNICOM 7000 for large components like pumps and valves, turbo chargers, jet engines, drive parts, and planetary gear carriers. The standard machine configuration includes a vertical carousel station and pallet changer. With fewer setups and shorter lead times, this extremely accurate machine delivers high output manufacturing for big work pieces.

#### Head changer exchanges spindles

Today, even large components need evershorter lead times. The UNICOM 7000 is our most adaptable and functional multitasking machine, delivering high output without sacrificing quality. Its head changer physically exchanges various spindles. The machine has a main vertical spindle, horizontal spindle and turning tool adapter with complementary heads. Those include different types of turning tool adaptors, extended spindle or even 5-axis configurations.

A range of machining spindles guarantees stable and highly accurate machining. Picking up a dedicated head for turning operations ensures that none of the cutting forces are loaded on the bearing, so extending spindle life time.

#### Unique ram with turning tool adapter

A unique UNICOM feature is the machine's ram with turning tool adapter. This design can plunge into the part using short, stable tools. Together with the in-process measuring probe, this ensures reliable and accurate processing. The excellent stability of the machine ensures heavy cutting with the maximum power and torque of the carousel turning station (which also works as a high precision C-axis).

In-process measuring probe

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#### Taking load off your mind

The pallet loading station is located close to the operator platform and does not restrict operator access to the machine. A transfer unit delivers the pallet from the loading station into the machine via an automatic sliding door in the rear guarding section. New components can be aligned during loading, which eliminates time consuming measuring inside the machine. For convenience, there is just one tooling system in the whole machine both for turning and milling operations. And for safety, the fully enclosed cabin gives unrestricted view of the machining processes. Few set-ups, a large variety of machining operations in a single machine and the latest machine tool technology make the UNICOM 7000 suitable for a wide range of applications.

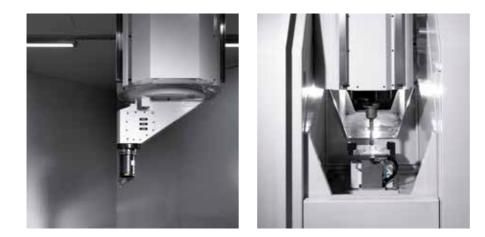
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### Highlights

- Powerful turning AND milling
- Significantly reduced production times
- Plunging inside components with short turning tools
- Various pallet sizes and configurations
- High accuracy in positioning, repeatability, geometrics and thermal stability

Automatic head changer



Pallet loading station with centring device



# technical specifications

#### Work area

X-axis, cross travel	mm	2.675 / 3.450 / 5.000
Y-axis, table travel	mm	2.300 / 2.500 / 4.000
Z-axis, height travel	mm	1.600
Vertical clearance	mm	2.000 / 2.300
Pallet sizes	ø mm	1.250 - 4.000
Swing circle	ø mm	2.000 - 4.500

#### Main and horizontal spindle

Power	(S6-40%)	kW	42
	(S1-100%)	kW	37
Spindle speed		min <sup>-1</sup>	6.000
Spindle torque		Nm	1.600

#### **Carousel turning station**

kW	70 / 95
Nm	70.000
min <sup>-1</sup>	125 - 450
	Nm

#### Tool storage

Tool taper	-	Capto C8 / HSK100A
Number of tool pockets	#	78 - 200
Tool change time	S	10

#### Axis drive and feed system

Rapid / Feed rate	X-, Z-axis	mm/min	40.000
	Y-axis	mm/min	30.000

#### Various and optional

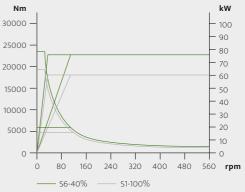
-	Turning tool adapters, vertical
	and horizontal

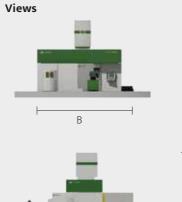
- Extended main spindle
- UNISIGN universal spindle
- 5-axis spindle variations
- Compact right angular head
- Various customer specific machining heads
- Increased capacity of carousel turning station
- Pallet changer with increased number of pallets

- Measuring unit for pallet loading
- Vacuum cleaning unit at loading station
- Linear scales in all axis
- In-process measuring probe on separate slide
- Fully enclosed working area
- SIEMENS 840D-sl with Operate interface
- Cycles for balancing, grooving and conical turning
- Work area vision system
- Remote access

#### Spindle 42 kW kW Nm 1600 45 36 1200 - 27 800 18 400 9 - 0 0 2000 3000 4000 5000 6000 rpm 0 1000 S6-40% S1-100%

#### **Carousel turning station**





С





Sizes	Standard	XL	XXL
Length (A):	12.000 mm	18.000	23.000
Width (B):	9.500 mm	11.500	16.000
Height (C):	6.300 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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