



UNISIGN

Uniport 8000

Travelling Bridge Machining Centre



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The economical solution to flexible manufacturing!

The UNIPORT 8000 range of portal type machining centres incorporates the experience and expertise gained from numerous portal machines that were built and installed over a period of more than 20 years. Machines from the UNIPORT 8000 range include some very unique features to further improve on flexibility, precision, power and speed! Last but not least, reliability, serviceability and ease of operation are brought to an even higher level!

The UNIPORT 8000 machine with travelling bridge is equipped with a hydrostatic slide way system for the X-axis. The large X- and Y-axis travels enables the machining of large and heavy components that are clamped onto the stationary clamping table. The concept of a stationary clamping table with travelling bridge minimizes the required floor space. Longer X-axis travels allow setting up components on one end of the table while machining on the other end of the table.

For highest flexibility in machining tasks, UNIPORT 8000 offers a head changer that physically exchanges various spindles. The spindle carrier (or 'ram') is equipped with an interface that is capable of connecting with various types of spindles. From straight forward vertical and horizontal spindles to spindle extensions, motor spindles or even a 2-axes servo head for continuous 5 axes machining.

The interface in the lower end of the spindle carrier incorporates couplings for central lubrication, flood- and through the spindle coolant, cooling oil, compressed air and electrical couplings for rotary encoders and 3-phase power supply for motor spindles. All couplings are automatically (dis-) engaged when exchanging spindles.

For increased Z-axis rigidity and stability, the Z-axis movement incorporates a hybrid slide way system. The combination of hardened and ground rails with roller packs for the actual Z-axis movement and a hydrostatic dampening system for vibration dampening results in a fast, precise and extremely rigid Z-axis.

All axes are equipped with powerful servo drive systems for rapid traverses of 40 m/min and acceleration / deceleration of up to 5 m/sec². Hardened and ground linear rails with heavy duty roller packs guarantee highest precision.

Clear visibility of the machining process is offered through two operator platforms that are mounted on both sides of the travelling bridge. An operator door with large window offers protection for the operator against chips and coolant.

UNIPORT 8000 is offered not only as a travelling bridge Gantry machine, but also as a moving table machine with pallet changer or as a "Twin-Table" machine with two moving tables in pendulum setup. The pendulum setup allows one table to be loaded while machining continuous on the other table. Alternatively, both tables may be mechanically linked for the machining of long components.





Travelling B

STANDARD CONFIGURATION



UNIPORT 8000 travelling bridge gantry machine

- Gantry style CNC-machining centre with travelling bridge and stationary clamping table
- Work area:
 - X-Axis 4.000 to 24.000 mm
 - Y-axis 3.100 to 4.600 mm
 - Z-axis 1.250 or 1.600 mm
- Water cooled main spindle motor AC 42 kW
- Two-stage gearbox, automatically shifting
- Exchangeable vertical main spindle and horizontal spindle, both with 6.000 rpm
- Digital AC servo drives on all axes
- Hydrostatic slide way system for the X-axis; high accuracy linear rails with roller packs for the Y-axis; hybrid slide way system for the Z-axis
- Tool magazine with 34 pockets for automatic tool change
- Taper size HSK 100-A (per DIN 69893)
- Taper cleaning by compressed air
- Tool change time of 10 seconds
- Closed loop cooling system with heat exchanger for main drive, spindle bearings, spindle carrier, gearbox and electrical cabinet
- Hydraulic counter weight for the spindle carrier
- Steel telescope covers for the X-axis; folding bellow covers for Y-axis
- Integrated chip conveyor on each side of the table
- Coolant collecting tank with coolant feed pump 40 l/min at 4 bar
- Automatic central lubrication with function control
- Two-tone machine painting light grey RAL 7035/7024
- SIEMENS Sinumerik 840-D Control
- Colour display 15"
- SIEMENS Tool management system
- User interface under MS-Windows
- Remote access for teleservice via modem
- Ethernet connection

Bridge Machining Centre

APPLICATIONS

Components typically suited for UNIPOINT 8000



Large, high precision components such as wall panels for printing machines



Large, high precision components for machine tools



Power plants: large ring shaped component for wind turbines



Machining of tank hulls or other armoured vehicles

AVAILABLE OPTIONS

Selection of available options

- Elevation of the cross rail for increased distance spindle nose to table top face of 1.750 or 2.000 mm
- Additional tool magazine with +97 / +105 / +113 / +121 pockets
- C-axis drive unit, integrated in spindle carrier
- Two-Axes Servo Head for continuous 5-axes machining.
- Extension spindle $\varnothing 175 \times 300$ mm
- High pressure through the spindle coolant supply
- Tool probe
- Tool identification system with data chips
- Tool monitoring system
- Spindle loaded measuring probe
- Handheld pulse generator with electronic hand wheel
- Operator platforms with guarding section
- Splash curtains with motorized height setting
- Fully integrated C-axis rotary table
- Fully integrated carousel turning station



Vertical main spindle (right) and vertical extension spindle (left)



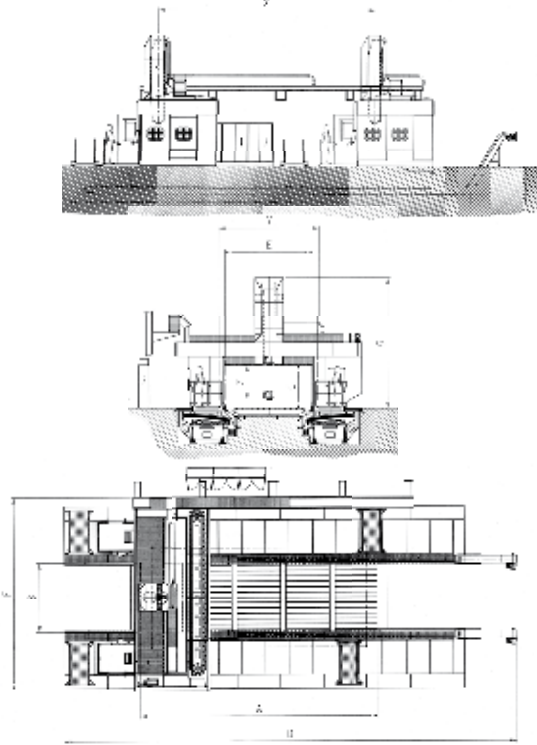
Horizontal spindle for horizontal machining



Two-axes servo head for continuous 5-axis machining



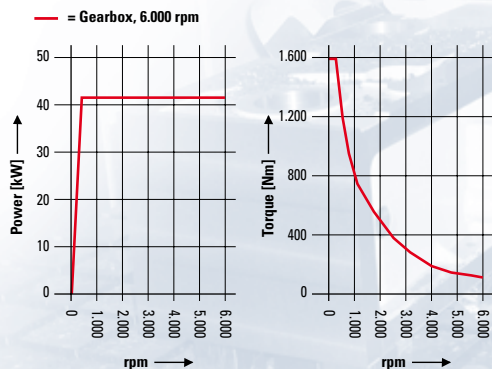
TECHNICAL SPECIFICATIONS



SIZES & TRAVEL

[X]X-Axis	4.000	5.000	6.000	8.000	10.000	12.000
[A] Table Length	4.250	6.500	6.500	8.750	11.000	13.250
[D] Overall Length	13.000	15.000	16.000	19.000	21.000	23.000
[X]X-Axis	14.000	16.000	18.000	20.000	22.000	24.000
[A] Table Length	15.500	17.750	20.000	20.000	22.250	24.500
[D] Overall Length	26.000	28.000	30.000	33.000	35.000	37.000
[Y]Y-Axis	3.100	3.600	4.100	4.600		
[E] Horizont. Clearance	2.500	3.000	3.500	4.000		
[B] Table Width	1.700	2.200	2.700	3.200		
[F] Overall Width	7.300	7.800	8.300	8.800		
[Z]Z-Axis	1.250	1.250	1.600	1.600		
[C] Vertical Clearance	1.500	1.750	1.750	2.000		
[G] Table Width	4.850	5.100	5.750	6.000		

POWER/TORQUE CHARTS



Work Area

X-axis, bridge travel	mm	4.000 - 24.000
Y-axis, cross travel	mm	3.100 - 4.600
Z-axis, spindle height travel	mm	1.250
- Optional	mm	1.600
Clearance between the columns	mm	2.500 - 4.000
Clearance under the cross rail	mm	1.500 - 2.000
Distance spindle nose to table top	mm	250 - 1.500
- Optional	mm	500 - 1.750
- Optional	mm	150 - 1.750
- Optional	mm	400 - 2.000
Clamping table		
- Length	mm	4.250 - 24.500
- Width	mm	1.700 - 3.200

Spindle Drive Unit

Drive Unit with Gearbox integrated in upper half of spindle carrier

Main drive motor AC (S6-60%)	kW	42
(S1-100%)	kW	37
Maximum spindle speed	rpm	6.000
Gearbox	-	2-speed
Maximum available drive torque	Nm	1.600

Exchangeable Vertical Main Spindle

Power (S6-60%)	kW	42
(S1-100%)	kW	37
Speed range	rpm	0 - 6.000
Maximum available torque	Nm	1.600
Main bearing diameter	mm	110

Exchangeable Horizontal Spindle

Power (S6-60%)	kW	42
(S1-100%)	kW	37
Speed range	rpm	0 - 6.000
Maximum available torque	Nm	1.600
Main bearing diameter	mm	105

Tool SystemV

Tool magazine located at the column

Taper size DIN 69893	-	HSK 100-A
Number of pockets	-	34
- Optional	-	+97/+105/+113/+121
Maximum tool size		
- with loaded adjacent pockets	mm ø	150
- with empty adjacent pockets	mm ø	250
- depending on shape	mm	350 x 100
Maximum tool length	mm	700
Maximum tool weight	kg	25
Tool change time	sec.	10

Axis Drive- and Feed System

Digital AC-Servo drives

Rapid traverse	X-, Y- and Z-axis	mm/min	40.000
Feed rate	X-, Y- and Z-axis	mm/min	5 - 40.000
Feed pressure	X-axis	N	100.000
	Y-axis	N	50.000
Drilling pressure	Z-axis	N	24.000

Capacity in C45

Drilling	mm ø	130
Tapping	--	M 55
Milling	cm ³ /min	1.400

Various

Power supply	KVA	140
Electrical equipment for		400 V / 3 ph / 50 Hz

We reserve the right to change technical specifications without prior notice.



PANNINGEN
THE NETHERLANDS

UNISIGN

The Unisign range of standard products, UNIVERS, UNI-PRO, UNI-PORT and UNICOM, are ideally suited for almost any machining task due to their flexibility. All configurations guarantee high productivity combined with competitive prices. The machining centres are developed and built by Unisign and supported by our well trained service technicians for fast and reliable service, direct from Unisign.

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