



台灣力得衛宇龍科技(股)公司

LEADERWAY CNC TECHNOLOGIES, CO., LTD..



High performance 5-axes
moving column machining center

Gantry Type 5-Axis Series

**Gantry type with moving column
High performance 5-Axis machining center**





High performance 5-axes
moving column machining center

Gantry Type 5-Axis Series





Large travel

X-axis standard travel: 6m (maximum travel up to 10m), and
Y-axis standard travel: 3.2m, creating spacious working area.

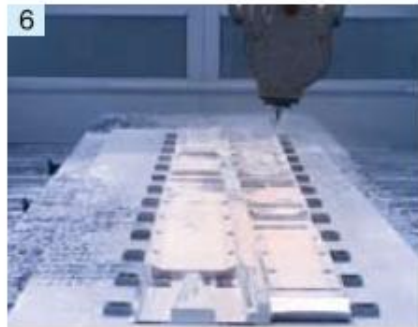
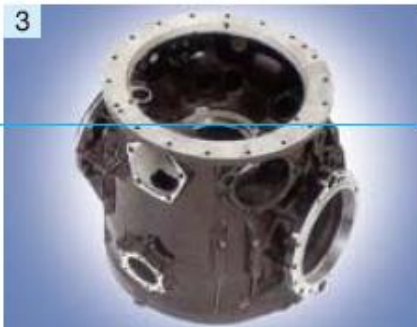
More accessories are available, providing customized machines for you.



Always for you
we have cutting test for customer sample
and send applications report to you.

Powerful and Performance 5-axes machining capability

Our 5-axis machining centers can meet with various machining requirements such as work piece side rotation, tooling side rotation, composite materials machining or large size work piece cutting. All kinds of solutions can be found in our machines. Applicable for large complex workpieces, the 5-axis cutting technique is able to process on multiple angles which can reduce processing time, increase accuracy and extend tool life span.



I11 Universal, milling and tapping

I21 Electrode manufacturing

I31 Helicopter transmission

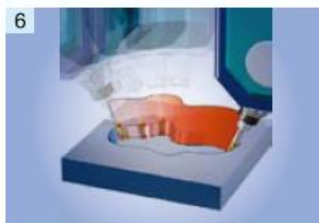
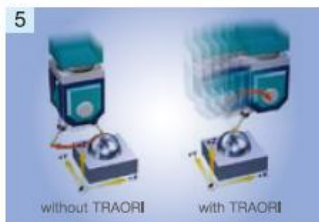
I41 Aerospace part

I51 Aircraft part

I61 Aerospace precision parts

I71 Vehicle molds

I81 Vehicle parts



11 High Dynamic Response Configuration

The SINUMERIK 840D sl incorporates SINAMICS S120 drive system, and uses advanced DSC (dynamic servo control) dynamic position control functions.

12 Our technological highlights

- Up-to-date user interface, with optimized route control.
- Low torque ripples for outstanding synchronous motion.
- High-resolution position feedback (nanometer precision).
- Volume compensation system "VCS plus"

13 Swivel cycle - CYCLE800

- Uses a dialog box to facilitate simple parameter settings. you can quickly program designs for complex work pieces, enhancing productivity.

14 "NEW" high-speed setting - CYCLE832

- SINUMERIK's intuitive setting system requires users to enter only two parameters, which can be applied to all milling applications, especially in the mold manufacturing and aircraft industries.

15 TRAORI Cutting Tool Central Control (TCPM)

During 5-axis milling, the length of the cutting tool will directly influence the movement of the machine. When SINUMERIK 840D is used to program the 5-axis machine tool, there is no need to consider the machine's movement or the length of the cutting tool; only the relative movement of the cutting tool and work piece, and other operations in control system are considered.

16 ORICURVE spline interpolation

Built-in NC ASPLINE / BSPLINE / CSPLINE curve interpolation functions can apply advanced CAD / CAM program design commands to curve interpolation. The route between the first point on the cutting nose and the second point on the cutting tool is used to determine the movement of the cutting axis deflection vector. This interpolation method can increase route speed and improve the quality of the processed surface.



Siemens 840 solutionline

- Easiest interactive programming through identical "Look & Feel" for turning and milling
- New user interface SINUMERIK Operate
- Fast view and simulation of complex parts programmes
- Efficient tool management
- Comprehensive 5-axis functions with numerous correction and intervention possibilities
- Efficient, graphic support for installation and measuring steps
- Advanced Surface - ensuring the highest surface quality, ideal supplementation for tool and mould construction
- Direct spline processing of CAD data



Heidenhain iTNC 530

- Shop floor or DIN-ISO programming
- Fastest programming with clear text programming
- Visual programming
- Uptake compatible
- 3D work piece simulation
- smarT.NC - new user -friendly interface
- Comprehensive selection of cycles in the standard version (e.G. plane, cylinder barrel interpolation, etc.)
- Efficient tool management
- Mould construction - specific geometry functions*
- DXF converter*
- AFC - Adaptive Feed Control*



Comprehensive Inspection Procedures and Assembly Inspection



I11 Ballbar Testing

Ballbar testing is performed to check and measure small variations of matching precision in couple axis.

I21 Laser Inspection

The column and saddle are inspected during assembly and final stage. we use laser inspection to perform measurements when performing inspections during the manufacturing process.

I31 Spindle Run-In

Spindle run-in is an extremely important part of testing, and ensures that spindles can perform cutting smoothly.

I41

- Axial Linear inspection
- Ball-bar measurement
- 3-axis cutting test
- 5-axis cutting test
- 5-axis TCPM
- Extended all-function run-in testing



5 Axes - Large components of up to lot, large work area and maximum travel requirements

Large traverse paths of 3200 x 2700 x 10000 mm up to 10000 x 4000 x 1600 mm, a high table load of up to lot, innovative machining possibilities, such as 5-sided / 5-axis milling and turning in on setting, are only a few criteria for efficient applications. The optimal access to the work area, diverse spindle versions and other process-optimised options round off this design.



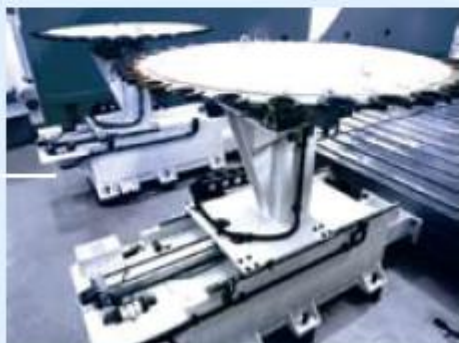


ATC

Standard 30 tools

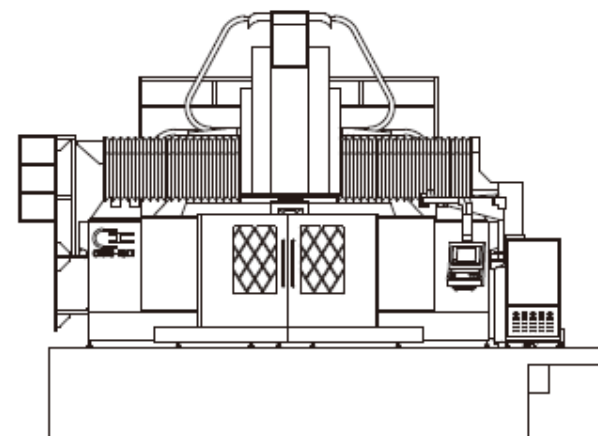
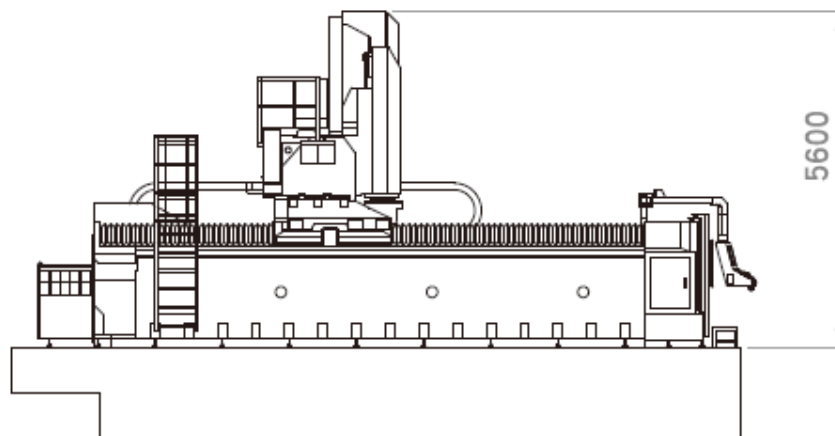
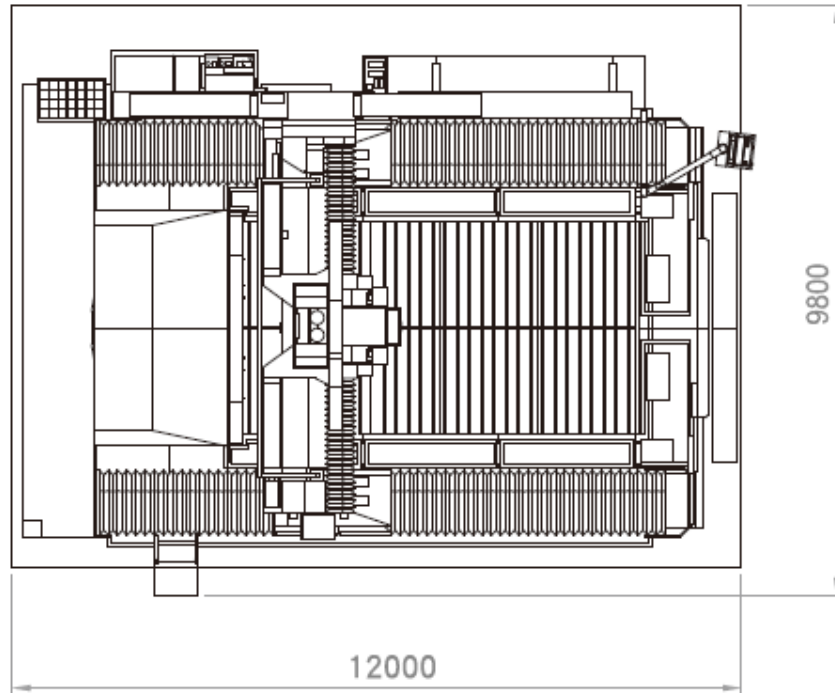


Optional 60 tools

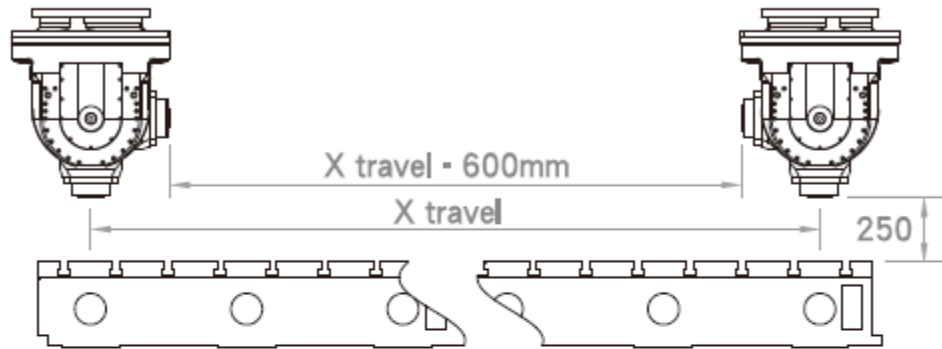


Tool holder for spindle	Type	HSK 63 A / HSK 100A
Tool magazine (standard)	Pockets	30
Type-Tool magazine (standard)	Type	chain magazine
Max. tool length for full load	mm / in.	315 / 12.4
Max. tool length at max. rotational speed	mm / in.	200 / 7.9
Max. tool diameter for full load	mm / in.	80 / 3.1
Max. tool diameter for full load and max. rotational speed	mm / in.	60 / 2.0
Max. tool diameter for half-full tool changer and at max. rotational speed	mm / in.	105 / 4.1
Chip-to-chip time	sec.	8

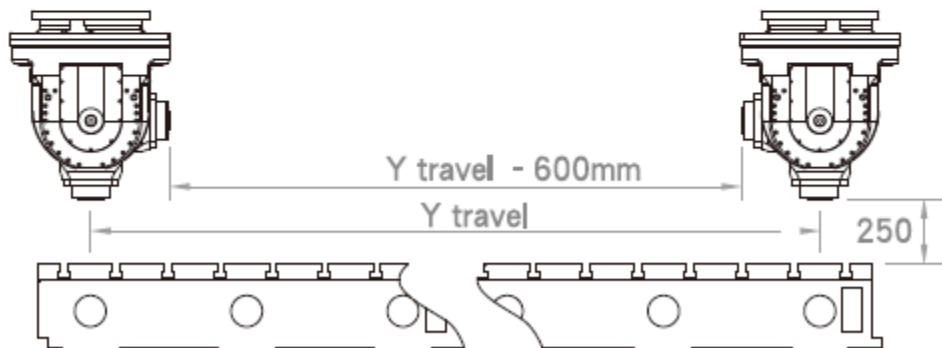
Floor Plans



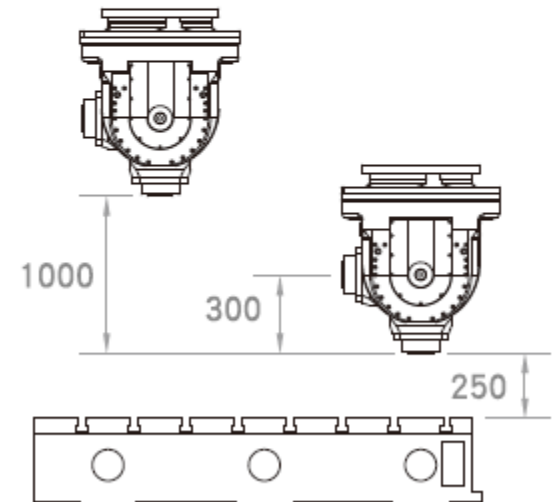
Max Working Dimensions



X-axis travel



Y-axis travel



Z-axis travel

Specifications

		CHEM 2750L	CHEM 3260L	CHEM 4080L
Working-table				
X-axis (mm)		5,000	6,000	8,000
Y-axis (mm)		2,700	3,200	4,000
Load capacity (ton)		90	140	260
Table T slot size (mm)		28		
Travel				
Travel X (mm)		5,000	6,000	8,000
Travel Y (mm)		2,700	3,200	4,000
Travel Z (mm)		1,000	1,000	1,000
B/C axis / Spindle				
Swivel range (B/C axis)		±115° / ±240°		
Spindle output		43 kW		
Max. spindle torque		90 Nm		
Max. spindle speed		24,000 rpm (HSK A63)		
Feedrate				
Axis Drive (kw)	X	45.2 x 4	47.2 x 4	
	Y	27.5 x 2	27.5 x 2	
	Z	28.1 x 1	28.1 x 1	
Rapid movement		50 m/min	40 m/min	
Acceleration		3 m/s ²		
Cutting feedrate		16 m/min		
Accuracy (VDI / DGQ 3441)				
Positioning accuracy on X-axis		0.035 mm		
Positioning accuracy on Y - & Z-axis		0,015 mm		
Repeatability on X-Axis		0,015 mm		
Repeatability on Y - & Z-Axis		0.010 mm		
Tool magazine				
Tool holder		HSK A63		
Tool magazine capacity		30 pcs		
Machine power		400A(±5%), 250KVA, 3 phase, AC 400V(±10%), 50/60HZ(±1%)		

REMARK: This products described in this catalogue are subject to change and revision without advance notice.



Optional

- A second HSK A63 30 position tool magazine
- 30 bar high-pressure through spindle coolant system
- Water tank equipped with a paper filter
- Laser Tool Setting Systems
- Wireless work piece measurement device
- Oil-mist cutting cooling-system
- Continuously rotating C-Axis
- HSK A100 spindle (12,000rpm / 220Nm)
- HSK A100 spindle (15,000rpm/130Nm)
- Z axis up to 1300mm

Standard

- Siemens SINUMERIK 840D sl controller
- 15" color LCD, Chinese / English display
- Portable operating panel
- Linear motor in 3 axis (X / Y / Z)
- Linear optical encoders
- Linear roller guideways
- Hydraulic balance weight system
- Screw-type chip conveyor
- External coolant system
- Water cooling system for the spindle, B/C axis and linear motor
- 250 KVA isolated transformer / voltage regulator



ISO9001 quality assurance system



ISO14001 environmental management system



CNC national standards



ASME (American Society of Mechanical Engineers)



TAF (Taiwan Accreditation Foundation)



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Leaderway

Leaderway



CHUNG-HSIN



Thanks for your attentions.

