

Introduction of Shenyang Hermos CNC Machine Tool



Our company specializes in research and production of high end CNC grinding, which has the character of high efficiency, high precision, high rigidity, high stability.

The products we can provide for our customers: CNC Internal Grinder, CNC single surface grinding machines, CNC double surface grinding machines, [cnc hard turning lathes](#). Our product technology has reached the leading domestic and international advanced level, we can also supply CBN grinding wheel and CBN tools.

The service we can provide: providing complete solutions for hard workpiece, including CNC grinding machines or CNC lathes, supporting fixture, supporting the CBN grinding wheel, CBN wheel, CBN tools, and processes craft. That means we can provide comprehensive solutions to achieve high efficiency, high precision continuous processing.

Service industries: bearings, hydraulic, pneumatic, aerospace, engineering machinery, air conditioning compressor, auto parts, oil pump and nozzle, motorcycles and other industries. We can help customers to solve difficult processing parts problems, improve production efficiency, improve product consistency, reduce CNC Lathe, CNC Grinding procurement costs and labor costs, to instead of the imported CNC Lathe, [cnc surface grinding machine](#) or CNC Grinding.

Improved production technology, strict quality assurance system, and trustworthy delivery and satisfactory after sales service, is your preferred partner for purchasing CNC grinding (supporting CBN wheels) and CNC lathe (supporting CBN tools)!

Our company provides customers with volume parts grinding services.

Our company provides customers with a free trial grinding workpiece services. Welcome customers to try grinding workpiece to our company.

Our company specializes in research and production of high end CNC grinding, which has the character of high efficiency, high precision, high rigidity, high stability. The products we can provide for our customers: CNC Internal Grinder, CNC single surface grinding machines, CNC double surface grinding machines, CNC lathe hard machine. Our product technology has reached the leading domestic and international advanced level.

CNC Internal Grinding Machine

CNC Internal Grinding Machine of Centerless Type

<http://www.internalgrinder.com/products/cnc-internal-grinding-machine/cnc-internal-grinding-machine-of-centerless-type>



Stable performance and high reliability

In-process gauging

Stable dimensions can be ensured by in-process gauging and the qualification rate of dimension can reach 100% with CP value above 1.33.

Improving thermal stability with the constant temperature cooling

The constant temperature cooling water flows within spindle head and other important parts in order to reduce thermal deformation of machine, in addition, it's also useful to extend bearing life and make machining accuracy stable

The machine's program parameters are ensured to be not lost without battery backup program.



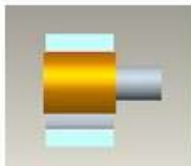
Bearing ring



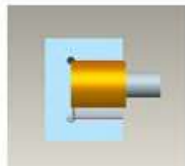
Ball cage



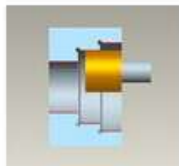
Grindable Surface



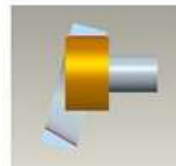
Through hole



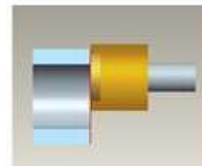
Blind hole



Stepped hole



Taper hole



End face

Self-adaptive control grinding and dressing

Grinding and dressing process can be monitored at the real time with power or AE signals. The consistent state of grinding wheel can be achieved by adjusting dressing cycles automatically and the accuracy of wheel size can be ensured by detecting the wheel diameter automatically. Besides, the controlled-force grinding is achieved by regulating the feed rate automatically according to the power or AE value, then the grinding performance can be maintained stably and the accuracy of workpiece is easy to be consistent. As a result, the rate of rejects is largely reduced to be below 0.5%.

Anti-collision function

This grinding machine can respond quickly when abnormal collision occurs with AE and machine's anti-collision function, therefore, the damage caused by accident is reduced and man-machine safety is ensured.

The machine's program parameters are ensured to be not lost without battery backup program. Strong operability and convenient production management.

The conversation operation interface with teaching function ensures even people without experience can grasp the operation method easily. The built-in maintenance and repair instructions make it easy for fresh man to maintain and repair machine. All the humanized designs are helpful for man to operate machines freely. Network production management system and automatic statistic function make it convenient for production management.

CNC Internal Grinding Machine of Chuck Type

<http://www.internalgrinder.com/products/cnc-internal-grinding-machine/cnc-internal-grinding-machine-of-chuck-type>



Stable performance and high reliability

Stable dimensions can be ensured by in-process gauging and the qualification rate of dimension can reach 100% with CP value above 1.33.

Improving thermal stability with the constant temperature cooling

The constant temperature cooling water flows within spindle head and other important parts in order to reduce thermal deformation of machine, in addition, it's also useful to extend bearing life and make machining accuracy stable.

The machine's program parameters are ensured to be not lost without battery backup program.

Self-adaptive control grinding and dressing

Grinding and dressing process can be monitored at the real time with power or AE signals. The consistent state of grinding wheel can be achieved by adjusting dressing cycles automatically and the accuracy of wheel size can be ensured by detecting the wheel diameter automatically. Besides, the controlled-force grinding is achieved by regulating the feed rate automatically according to the power or AE value, then the grinding performance can be maintained stably and the accuracy of workpiece is easy to be consistent. As a result, the rate of rejects is largely reduced to be below 0.5%.

Anti-collision function

This grinding machine can respond quickly when abnormal collision occurs with AE and machine's anti-collision function, therefore, the damage caused by accident is reduced and man-machine safety is ensured.

The machine's program parameters are ensured to be not lost without battery backup program. Strong operability and convenient production management

The conversation operation interface with teaching function ensures even people without experience can grasp the operation method easily. The built-in maintenance and repair instructions make it easy for fresh man to maintain and repair machine. All the humanized designs are helpful for man to operate machines freely. Network production management system and automatic statistic function make it convenient for production management.



Processing case: Internal grinding for compressor bearing			
	Stock removal	φ0.3mm	
	Roundness	1.5μm	
	Cylindricity	2μm	
	Roughness	Rz0.6μm	
	Cycle time	40s	

Processing case: Internal and face grinding for gear			
	Stock removal	Inner	φ0.3mm
		End face	0.08mm
	Roundness	2μm	
	Cylindricity	4μm	
	Roughness	Ra0.3μm	
	Cycle time	58s	



CNC Surface Grinding Machine

CNC Vertical Double-Surface Grinding Machine

<http://www.internalgrinder.com/products/cnc-surface-grinding-machine/cnc-vertical-double-surface-grinding-machine>



CNC Vertical Double-Surface Grinding Machine

The products are mainly used in several fields including air condition compressor, bearing, gear, auto parts, hydraulic parts and other industries, besides, it can be used to grind some parts with difficult-to-cut materials.

Rough and finish grinding for two parallel surfaces can be finished at the same time and the outer surface of parts can be any shape. The grinding machine is suitable for processing parts with high precision demands because of its excellent performance.

Stability Accuracy

The feed tables are guided by rectangular slide rails adhered with soft belts, which can achieve high load-bearing capacity and good vibration resistance;

The feed tables are driven by worm gear and ball screw transmission pairs, so that the feed process is more stable and accurate;

This machine is controlled by stable program supported by advanced system in order to reduce the failure rate and stabilize the grinding process;

The positioning and repeat positioning accuracy of each table can be ensured through the optimized

pitch compensation technology and the repeat positioning accuracy is less than $1\text{ }\mu\text{m}$.

High efficiency

Non-grinding time is largely shortened, equipped with double-position worktable and automatic loading and unloading system(optional), as a result, the production efficiency is largely improved with the processing time between 10 to 15 seconds.

High reliability

Automatic dimension compensation

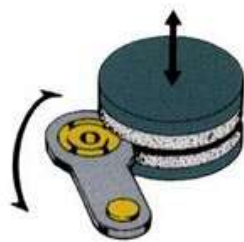
Dimensions can be self-corrected by adjusting feed table position automatically. The adjusting program is based on change rule and the compensation value can be regulated.

Operation grade setting

Key parameters are hard to be regulated by setting up different operation grades in order to avoid fault and damage caused by misoperation.

Automatic dressing

The performance of grinding wheel can be ensured by automatic dressing based on program in order to ensure the quality of ground workpiece.



Grinding mode: Swing arm plunge grinding



Using CBN grinding wheels



CNC Vertical Single-Surface Grinding Machine

<http://www.internalgrinder.com/products/cnc-surface-grinding-machine/cnc-vertical-single-surface-e-grinding-machine>



The products are mainly used in several fields including air condition compressor, bearing, gear, auto parts, hydraulic parts and other industries, besides, it can be used to grind some parts with difficult-to-cut materials.

Rough and finish grinding for single surface can be finished at the same time and the outer surface of parts can be any shape. The grinding machine is suitable for processing parts with high precision demands because of its excellent performance.

Stability & Accuracy

- a) The feed tables are guided by rectangular slide rails adhered with soft belts, which can achieve high load-bearing capacity and good vibration resistance;
- b) The feed tables are driven by worm gear and ball screw transmission pairs, so that the feed process is more stable and accurate;
- c) This machine is controlled by stable program supported by advanced system in order to reduce the failure rate and stabilize the grinding process;
- d) The positioning and repeat positioning accuracy of each table can be ensured through the optimized pitch compensation technology and the repeat positioning accuracy is less than 1 μ m.

High efficiency

Non-grinding time is largely shortened, equipped with double-position worktable and automatic loading and unloading system(optional), as a result, the production efficiency is largely improved with the processing time between 10 to 15 seconds.

Convenient operation

- a) Visual and humanized touch interface, easy to be grasped
- b) The related information of process is monitored at the real time and the production data can be remembered automatically which is convenient for users to do data statistics.

High reliability

Automatic dimension compensation

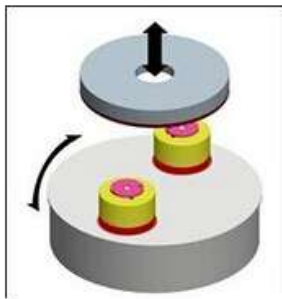
Dimensions can be self-corrected by adjusting feed table position automatically. The adjusting program is based on change rule and the compensation value can be regulated.

Operation grade setting

Key parameters are hard to be regulated by setting up different operation grades in order to avoid fault and damage caused by misoperation.

Automatic dressing

The performance of grinding wheel can be ensured by automatic dressing based on program in order to ensure the quality of ground workpiece.



Grinding mode: Swing arm plunge grinding



Using CBN grinding wheels



Machining parts

Air condition compressor bearings



Cylinder block of piston pump

CNC Horizontal Hard Turning Machine

<http://www.internalgrinder.com/products/cnc-hard-lathe-machine/cnc-horizontal-hard-turning-machine>



The product is mainly applied to processing bearings, gears and auto parts, etc with hardness above HRC60.

Precision work spindle and chuck ensure roundness within 0.01mm.

Stability of accuracy under heavy cutting can be ensured with high rigidity combined bearings in work spindle.

The axial table guideway are made up of hard rail and liner rail with excellent guiding accuracy and rigidity.

The complete solutions including machine, tool and process can be provided which can improve efficiency and extend tool life.

High precision work spindle under heavy cutting

Besides superior radial and axial load capacity, the work spindle has stable accuracy and long life due to the precision double row cylindrical roller bearings and two-way thrust angular contact ball bearings mounted within it. The spindle is driven by 22kw motor with the max speed 750rpm, which ensures heavy cutting for workpiece with hardness above HRC60, in addition, the workpiece roundness is no more than 0.01mm.

Composite guideway with excellent performance

The table is guided with composite guideways make up of hard rails and liner rails and the cross

slide is guided with needle rails, which ensures excellent guiding accuracy and stability. The hard rails are precision ground and the mating surface are adhered with soft belt in order to achieve best anti-friction performance.

The complete solutions including machine, tool and process can be provided which can improve cutting efficiency and extend tool life.

The best performance is achieved by optimizing the whole process system, as a result, the cutting efficiency can be raised by 50% and the PCBN tools' life can be extended by 30% compared with the current processing level.



Machine Specification Sheet

Items		Specifications or parameters
Processing range	Maximum swing diameter over saddle	600mm
	Maximum cutting length	600mm
	Maximum cutting diameter	600mm
Work spindle	Hydraulic chuck	8"
	Spindle end type and code	A2-8
	Spindle bearing diameter	160 mm
	Spindle motor power	22kw
	Maximum speed	750 rpm
Tool Turret	Turret Type	8-station hydraulic turret
	Knife size/quantity	32mm×32mm/8 knives
	Inner diameter of knife holder	40mm
X-axis	Stroke	300mm
	Rapid traverse rate	18m/min
Z-axis	Stroke	600mm
	Rapid traverse rate	9m/min
Others	Floor space (L×W×H)	3500×2200×2200mm
	Net weight	6500kg



Shenyang Hermos CNC Machine Tool Co.,Ltd.
 Add: 25 Century Road, Hunnan New District,
 Shenyang, Liaoning Province, P.R.China
 Post code: 110179
 Tel: +86-24-83787168
 Fax: +86-24-83787178
 Email: service_hermoscncm@163.com
 Website: www.syhaimo.com

Company Name
Shenyang Hermos CNC
Machine Tool Co., Ltd.

Tel 86-13889163187
Fax 86-24-83787178
Email z13889163187@sina.com
Address 25 Century Road, Hunnan New District, Shenyang, Liaoning, China

Legal Zhang Weilong
Main Products CNC Internal Grinding Machine, CNC lathe
Year of Establishment 2010
Zip Code 110000
<http://www.internalgrinder.com>
<http://www.internalgrinder.com/products>