



® BAOJI MACHINE TOOL

# 2MK2218 “智控”珩磨机

CNC Honing Machine



宝鸡忠诚机床股份有限公司  
BAOJI ZHONGCHENG MACHINE TOOL CO., LTD.



## 概述

2MK2218数控珩磨机是一台集高性能、高精度、高可靠性和高安全性为一体的全闭环控制数控产品。适用于发动机缸体、缸套等零件精密孔的珩磨加工，加工后尺寸由在线自动测量系统控制。该机床采用西门子S7-300 PLC控制，由液压伺服系统驱动，同时配备有在线自动测量系统，可实现单机自动化，也可纳入自动生产线，具有很高的生产效率。2MK2218数控珩磨机具有国内领先、国际先进水平。

## Description

2MK2218 CNC Honing Machine is a high performance, high accuracy, high reliability and high safety full-enclosed numerical-controlled product, which applies for machining all kinds of precision holes such as engine cylinder holes, cylinder sleeve holes and other holes. The holes machined by this machine can acquire high quality geometry and microcosmic network. This machine is a perfect honing equipment for machining cylinder body, cylinder sleeves and the holes of other workpieces. This machine, controlled by Siemens S7-300 PLC, driven by hydraulic servo system, equipped with an auto measurement system on-line, can realize single machine automatization and bring into auto production line too, and can achieve very high productivity during honing machining, keeps ahead in domestic market and is up to the top level in international market.

## 性能结构特点

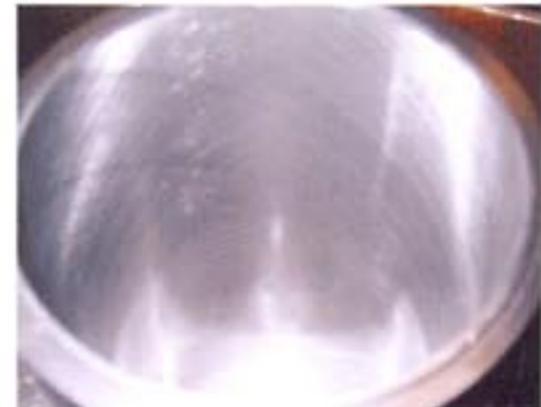
1. 主轴旋转速度和往复运动速度均为闭环控制，可实现无级变速。
2. 珩磨头为双进给结构，可实现闭环控制。珩磨尺寸由在线自动测量系统控制。
3. 机床工作台采用双工位回转工作台，分度速度快，定位精度高，稳定可靠。
4. 机床工作台及防护门安装有安全互锁装置，确保操作者和机床的安全。
5. 机床液压系统采用国际知名品牌液压元件，配备有强制冷却系统，保证了机床的高稳定性和高可靠性。
6. 机床冷却系统为循环冷却，通过油冷机使珩磨液温度保持在最佳工作温度。
7. 机床控制系统采用西门子S7-300高性能可编程序控制器，并配置10.4"彩色液晶显示器。良好的人机界面和人性化的设计使操作更加便捷。

## Features

1. Spindle rotation speed and spindle to-and-fro movement speed are closed loop control, and are stepless speed change.
2. The honing tool is a double-feeding structure, and fulfills closed loop control. The honing size is controlled by on-line auto measurement system.
3. Worktable of the machine is rotary table of double-station with speedy index, high accuracy positioning, excellent stability and high reliability.
4. The worktable and protective door of machine are equipped with safety inter-lock switch, which can ensure the safety of operator and machine.
5. The hydraulic system of machine adopts international famous hydraulic components. And it is equipped with force cooling system, which ensures high stability and high reliability of machine.
6. Machine cooling system is cycle cooling. The Oil Cooling Machine keeps honing liquid temperature within best working temperature.
7. The machine control system uses Siemens S7-300 high performance programmable controller, which is equipped with a 10.4" multicolor LCD. The excellent man-machine interface and man-friendly design make operation more convenient and more prompt.

## 加工零件

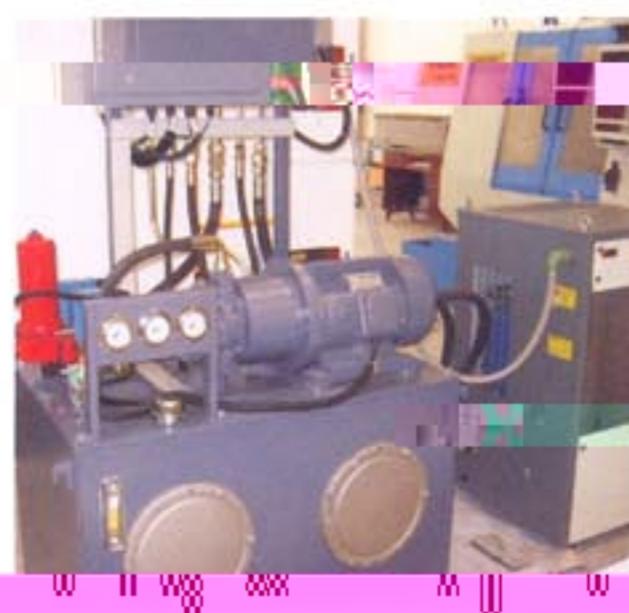
Machined workpieces



工作台 Worktable



液压 Hydraulics



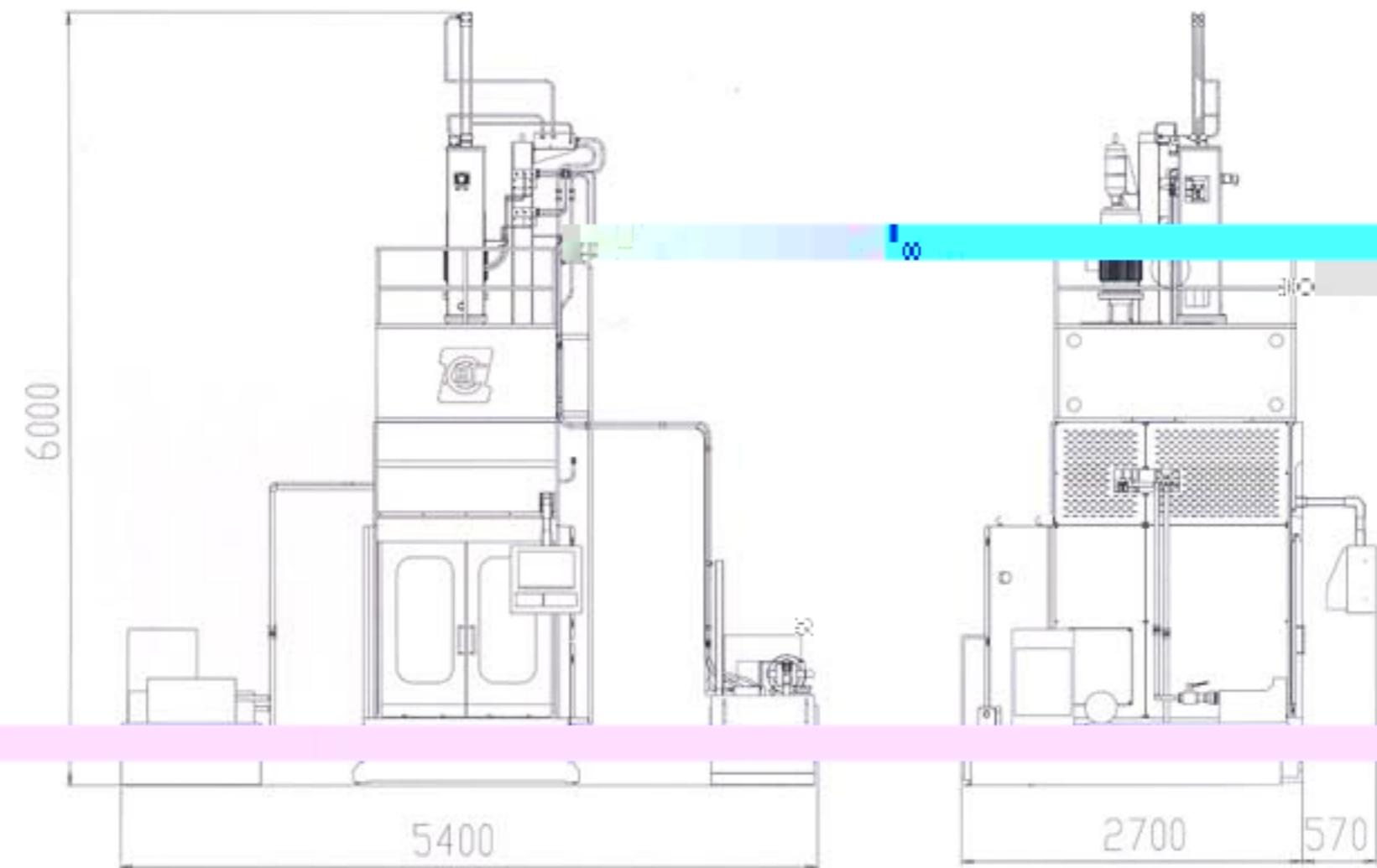
冷却系统 Cooling system



控制系統 Control system



机床外形图 External dimensions



## 技术规格 Specifications

项目 Items		单位 Unit	规格 Size
珩磨孔直径	Honing diameter	mm	Φ80~Φ180
最大珩孔深度	Max. honing length	mm	400
珩磨头数	Number of honing tool	1	
主轴最大行程	Max. spindle stroke length	mm	800
主轴转速范围	Spindle rotation speed	r/min	25~250
主轴往复速度	Spindle to-and-fro speed	m/min	2.5~25
主轴端面距工作台面的距离 Distance between spindle end face to rotary table surface		mm	1065~1865
粗进给推杆的最大行程量	Max. stroke of rough feeding push rod	mm	30
精进给推杆的最大行程量	Max. stroke of fine feeding push rod	mm	30
珩磨头进给方式	Honing tool feeding method		定压进给 Constant pressure feeding
工作台驱动方式	Rotary table drive		电动 Electric
工作台工位数	Number of positions of rotary table		2
工作台分度时间(180°)	Time to positions of rotary table (180°)	sec	2.16
工作台尺寸	Size of rotary table	mm	Φ720
工作台定位精度	Positioning accuracy of rotary table	mm	±0.03
机床主机外形 (长×宽×高) Machine dimensions (master machine) (L×W×H)		mm	1760×2450×5925
机床重量	Machine weight	kg	约8500
机床加工精度 Machine accuracy	圆度 Roundness	mm	0.0025
	圆柱度 Cylindricity	mm	0.008
	粗糙度 Roughness	μm	Ra0.2

本样本内所印各种文字说明如有更改，恕不另行通知。

Design and specifications given herein are subject to change without prior notice.

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