

6 数控齿条加工机床

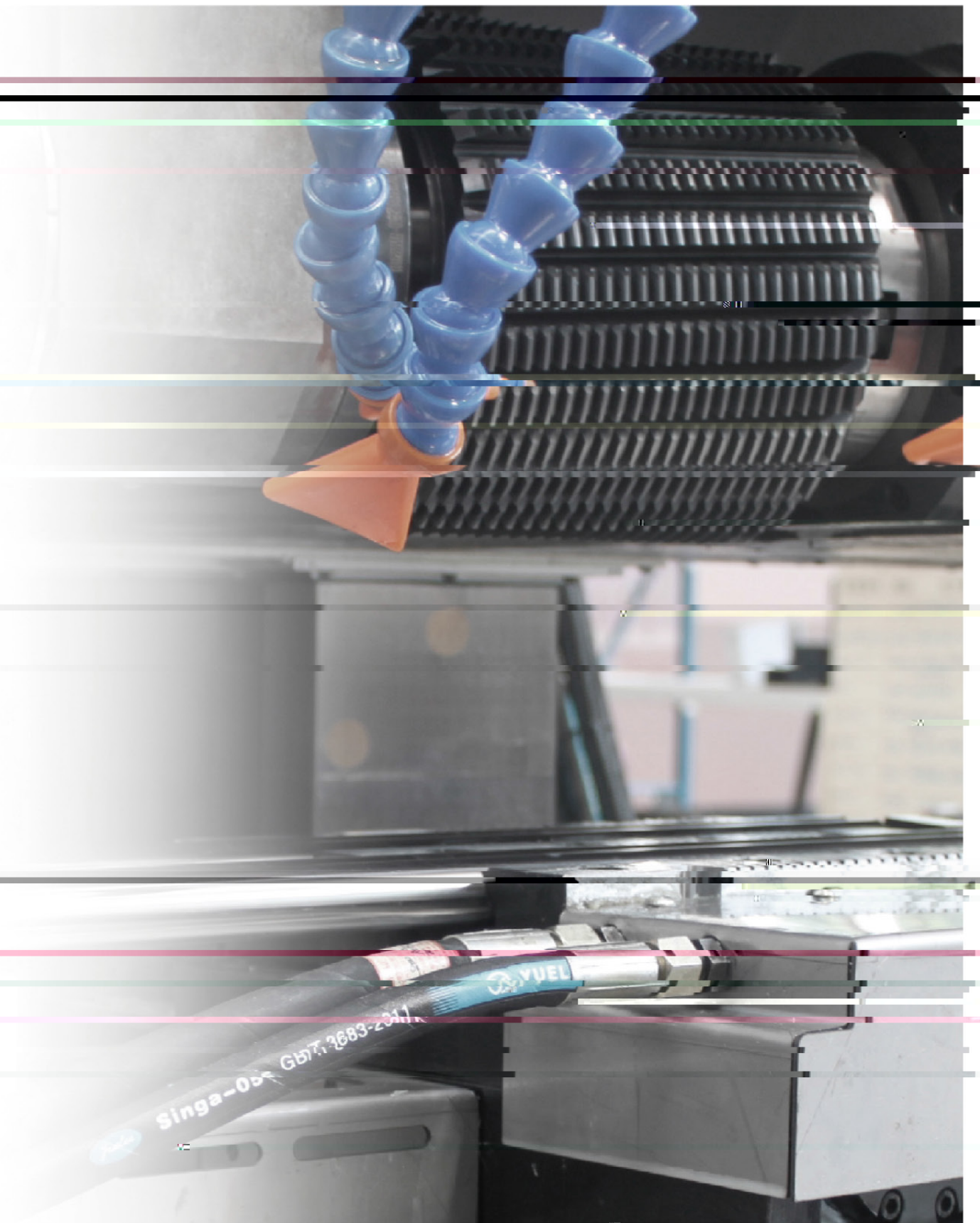
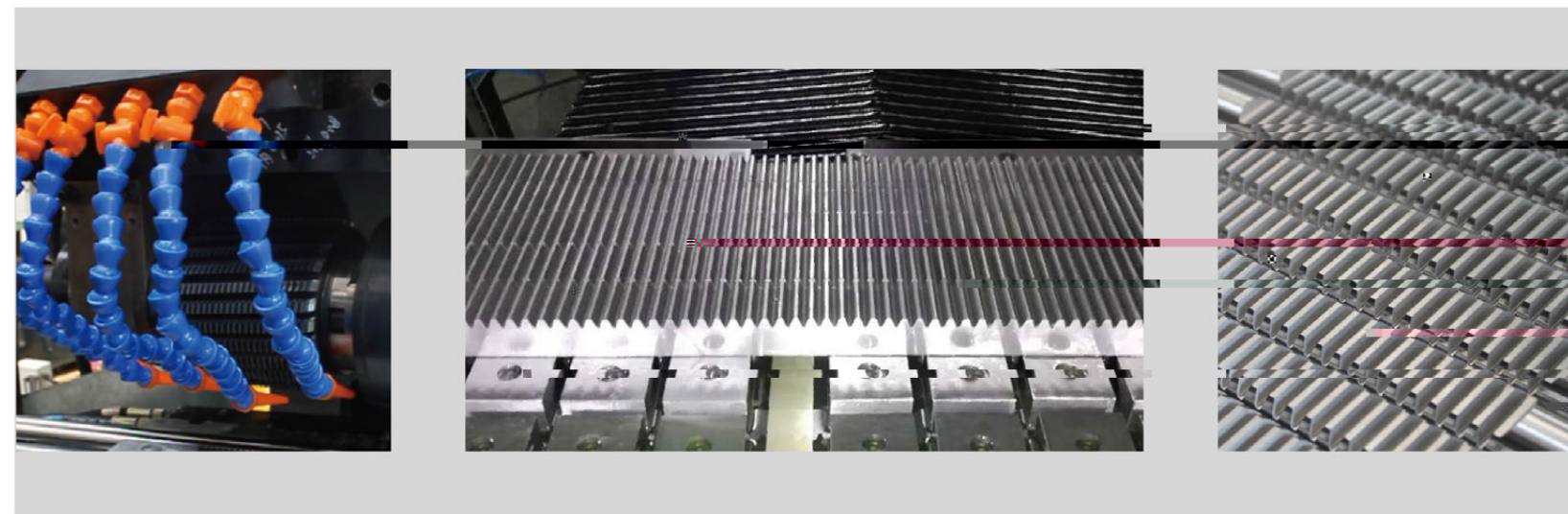
CNC RACK GEAR MACHINE SERIES

精密齿条制齿的全工艺制造机床 为客户提供全套解决方案

针对于汽车行业、电梯、工程机械、机床等行业的精密磨削加工，无论是单件加工还是高效的中小批量生产，亦或是大批量成型精密加工，我们都能全面为客户提供解决方案。

The whole process manufacturing machine for precision rack teeth provides customers with complete sets of solutions.

For precision rack processing in the automotive industry, elevators, construction machinery, machine tools and other industries; whether it is single-piece processing, or efficient small-batch production, or high-volume mass production, we can provide customers with a full set of solutions.



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数控齿条铣齿机

CNC RACK GEAR MILLING MACHINE

机床特点

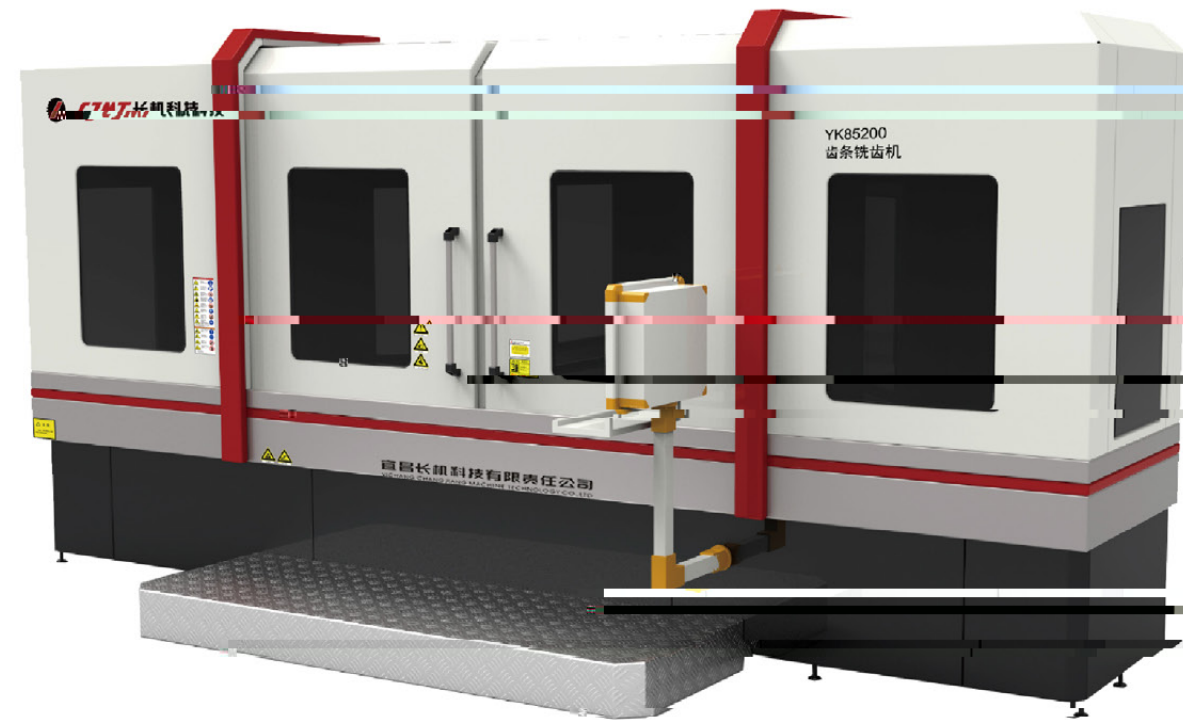
YK85125A和YK85200A是大改进机型，精度更稳定和效率提高50%；

1. 机床刚性好：机床铸件采用高强度铸件，拓扑优化设计，碳钢导轨，动静丝杠，且主轴传动链全密封，轴承，丝杠，压罩，密封，SIEMENS伺服主轴驱动，传动链精度高。
2. 机床精度高：工作台全闭环，静压导轨，确保分度高精度；主轴驱动轮独立支撑，HSK刀柄定位，回转精度高；双AA级齿条铣刀，切削精度达国际级。
3. 机床切削效率高：机床主轴电机45KW(S3)，利用率可达85%；设计刀具保护和全保护装置，确保高速加工安全。
4. 机床适配性：机床数控系统采用SIEMENS 828D；排屑系统配三级过滤净化、大流量冷却、冲屑；导轨防护大升级，确保大流量冲屑安全；全防护或半防护，确保机床冲洗、冷却充分；可选配夹具、单机自动上下料等。

MACHINE TOOL FEATURES

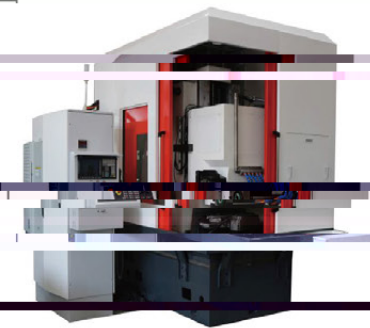
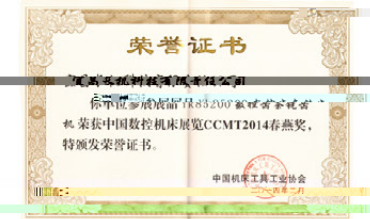
YK85125A and YK85200A are greatly improved machine tools with more accurate accuracy and 50% higher efficiency.

1. Good rigidity of machine tool: machine tool castings adopt high strength castings and Topology optimization design; inlaid steel guide rail, follow-up locking; tool spindle drive chain full clearance, bearing static pressure double support, SIEMENS servo spindle motor drive, good torque characteristics.
2. High accuracy of the machine tool: full closed-loop workbench, static guide to ensure high precision indexing; Spindle drive wheel independent support, HSK chain positioning, high rotation accuracy; Double AA grade rack milling tool, cutting accuracy reaches national standard 7.
3. The cutting efficiency of the machine tool is high: the spindle motor of the machine tool is 45KW (S3), and the utilization rate can reach 85%; design tool protection and safety protection devices to ensure the safety of high-speed machining.
4. Machine tool adaptability: machine tool CNC system adopts SIEMENS 828D; chip removal system is equipped with three-stage filtration and large flow cooling and chip punching. The guide rail protection is greatly upgraded to ensure the safety of large flow chip punching; fully-guarded or semi-guarded to ensure adequate flushing and cooling of the machine; optional fixtures, single machine automatic loading and unloading, etc.



技术参数 THE MAIN PARAMETERS

名称 Description	型号 Type	YK85125A		YK85200A	
最大加工工件长度(直齿) Max. workpiece length (straight tooth)	mm	1250		2000	
最大加工模数 Max. module	mm	30		30	
加工斜齿条角度范围 Max. helix angle	°	±25		±25	
最大加工宽度 Max. workpiece width	mm	400		400	
工作台最大承重 Max. load of worktable	kg	3000		5000	
工作台尺寸 Worktable diameter	mm	600 x 1250		805 x 2900	
最大装刀直径 Max. Size of milling cutter	mm	φ200		φ200	
最大装刀宽度 Max. mounting width of milling cutter	mm	300		300	
主轴电机功率 Main spindle motor power	kW	37 (S1)		37 (S1)	
主轴转速 Main spindle speed	r/min	40~3500		40~3500	
主轴装刀直径 Max. diameter of spindle cutter holder	mm	φ60		φ60	
刀具纵向进给速度 Speed of cutter longitudinal feed	mm/min	5000		5000	
刀具垂直进给速度 Speed of cutter vertical feed	mm/min	2000		2000	
工作台横向进给速度 Speed of worktable transverse feed	mm/min	10000		10000	
机床重量 Total weight	t	约17		约21	
主要外形尺寸(长×宽×高) Main Machine Dimension...	m	3.56x4.7x3.1		3.72x7.35x3.1	



注：
1. 重量仅供参考，实际产品以实物为准。
2. 外观防护分半防护、全防护，用户可根据实际需要进行选择。
3. 公司持续创新机床设计，本手册中各系列产品均保持持续优化。

Note:
1. The weight is for reference only, actual product shall prevail;
2. The appearance protection of the machine tool has two options: semi-protection and full protection, which can be selected according to actual needs;
3. The company continues to innovate machine tool design, the parameters of each series of products in this manual are for reference only, if you have any inquiry, please contact us for the update.

数控齿条磨齿机

CNC RACK GEAR GRINDING MACHINE

机床特点

适用于各类直、斜齿条齿面的磨削加工, 特别适合各种精密齿条齿面的磨削。机床主要技术特点:

1. 机床砂轮机械主轴由西门子主轴伺服电机驱动, 内置动平衡仪, 自动监测并实现砂轮的自动平衡; 砂轮恒线速度磨削;
2. 机床配AE自动对刀系统;
3. 砂轮修整金刚滚轮采用电主轴直驱, 回转精度高且寿命长;
4. 配备了高灵敏性高精度的在位检测系统;
5. 机床排屑系统实现了磨削油温度的恒温控制;
6. 机床具有断电自动回退功能, 确保机床运行的安全。

MACHINE TOOL FEATURES

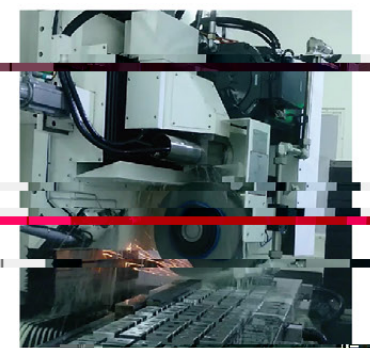
CNC rack gear grinding machine is especially suitable for grinding various of precision rack gears. Machine tool main technical Feature:

- 1.The Spindle is driven by Siemens servo motor, built-in dynamic balancing instrument to automatically monitor and realize the automatic balance of grinding wheel.And keep Constant linear grinding speed.
- 2.Machine with AE automatic cutter match system.
- 3.Grinding wheel dressing diamond roller adopts direct drive by motorized spindle with high rotation accuracy and reliability.
- 4.Equipped with grinding wheel in place detection system
- 5.The chip conveyor realizes the constant temperature control for grinding oil!
- 6.Automatically retract function when power on to ensure the machine safety.



技术参数 THE MAIN PARAMETERS

名称 Description	型号 Type
	YK78200
砂轮最大模数 Max. module	18
最大加工工件长度 Max. workpiece length	2000
加工斜齿条最大角度 Max. helical angle	±20
主轴电机功率 Spindle motor power	45
砂轮最大转速 Grinding wheel spindle speed	12000
最大砂轮宽度 Maximum grinding wheel width	105
砂轮直径 Grinding wheel diameter	φ220-400
砂轮砂轮安装直径 Mounting diameter of spindle grinding wheel	φ152.4 (inch)
金刚滚轮直径 Diameter of grinding wheel of gold diamond roller	φ200
X轴最大行程 Max. stroke of X-axis	500
X轴最大进给速度 Maximum feed speed of X-axis	6000
Y轴最大行程 Max. stroke of Y-axis	2000
Z轴最大行程 Max. stroke of Z-axis	400
Z1轴最大行程 Max. stroke of Z1-axis	100
Y1轴最大行程 Max. stroke of Y1-axis	125
机床总功率 Total machine power	约110
机床重量 Total weight	约23
主机外形尺寸(长×宽×高) Main Machine Dimension	5.98×3.77×2.34



- 注:
1. 重量仅供参考, 具体以实物为准;
 2. 外观防护分半防护、全防护两种, 可根据实际需求进行选择;
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