

# QD580 5-AXIS CNC TOOL GRINDER

## 五轴数控工具磨床

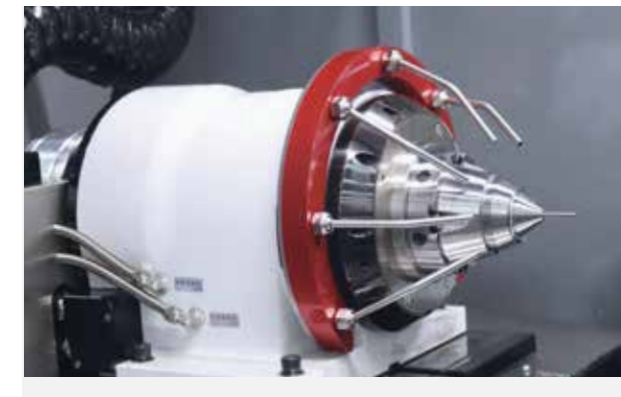


### Features | 特点

1. QD580 is a high-efficiency grinder that is good at making non-standard tools.
2. The machine has a simple shape, human-computer interface, Natural granite base with unmatched thermal stability and excellent vibration absorption.
3. It is suitable for producing or grinding various diameters of milling tools, drilling tools, forming tools, etc.
4. The machine can be equipped with automatic loading and unloading and anti-collision system, precision clamping mechanism and innovative tool precision support system.

- QD580是一款善做非标刀具的高效率磨床。
- 机床造型简洁，人机界面友好，天然大理石构件，稳定性好。
- 适用于生产或修磨各种规格的直径在 $\Phi 3$ - $\Phi 32$ mm铣削类刀具、钻削类刀具、成形刀具等
- 机床可配置自动上下料和防撞系统，精密装夹机构和创新的刀具精密支撑系统。

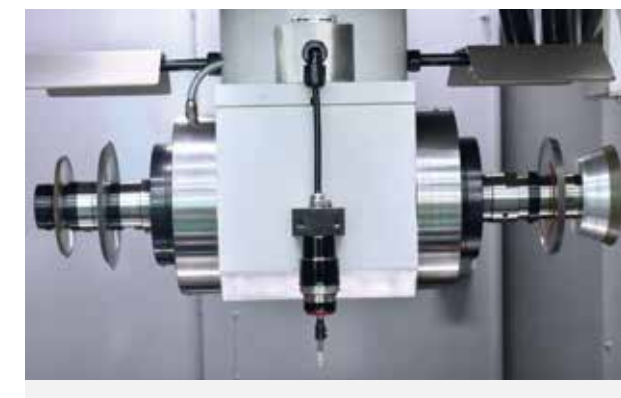
### Workpiece Spindle | 工件主轴



The workpiece spindle adopts dd direct drive, with precision NSK bearing. It is equipped with W25 tool holder matched with Schaublin collets, the workpiece is pneumatically clamped.

- 工件主轴采用dd直驱、轴承为NSK精密主轴轴承，配置与肖柏林精密夹头相配套的W25液压刀柄，工件气动夹紧。

### Grinding Spindle | 磨头



1. The machine adopts direct drive frequency grinding spindle with high rigidity and precision. The spindle is 24KW big power. and the grinding wheel flange can be equipped with 2 to 4 grinding wheels at the same time, which can satisfy the grinding process of the front, back and end faces of the tool in one clamping need.
2. Using the Renishaw precision probe, it can automatically measure the length of the workpiece and the inclination of the helix, and automatically compensate for the length deviation.

- 机床采用高刚性、高精度、大功率(24KW)直驱变频电主轴磨头，砂轮法兰可同时装2~4片砂轮，满足一次装夹完成对刀具的前面、后面、端面的磨削工艺需求。
- 采用雷尼绍精密测头，可自动测量工件长度与螺旋线倾角，并长度偏差进行自动补偿。



## Operation panel | 操作面板

1. Function keys integrated into the operator panel for quick configuration of operation.
2. The display has touch screen function to assist the operator.
3. The console can be adjusted flexibly.
4. Durable design for a variety of industrial environments.

- 功能按键集成到操作面板，可快速配置操作
- 显示屏具有触屏功能，辅助操作人员操作
- 控制台可灵活调整位置
- 适用于各种工业环境的耐用设计



## Hand-held Remote Pendant 手持式遥控操作器

1. It is easier for the operator to set up the grinder without going to the screen or leaning over.
2. The remote manipulator has a feed rate control, and the feed rate can be easily changed during commissioning.
3. It has the function of "hand-held operation" and conforms to CE certification.

- 操作人员更容易进行磨床设置，无需到屏幕前或俯身。
- 遥控操作器带有进给倍率控制，调试过程中可轻松改变进给速度。
- 有“手持运行”功能，符合CE认证。



## Optional Devices | 可选配置

1. SCHUNK holder and collet
2. Filter system and oil cooler
3. Special fixture
4. Auxiliary support
5. Grinding wheel
6. Automatic feeding and unloading device "Nachi Robot"

- 雄克刀柄和雄克夹头
- 过滤系统和油冷机
- 专用夹具
- 辅助支撑
- 砂轮
- 自动上下料-那智机械手

## Specifications | 技术参数

X-axis Stroke X轴行程	520 mm
Y-axis Stroke Y轴行程	540 mm
Z-axis Stroke Z轴行程	350 mm
Swivel Angle A-axis Stroke A轴旋转范围	∞
Swivel Angle C-axis Stroke C轴旋转范围	+225°~ -95°

### Rapid Traverse

Rapid Traverse X/Y/Z 直线轴快速移动速度	15 m/min
Rapid Traverse A 工件主轴转速(A轴)	200 rpm
Rapid Traverse C 磨头摆动最高转速(C轴)	30 rpm

### Resolution

Linear Resolution 直线轴分辨率	0.0001 mm
Radial Resolution 旋转轴分辨率	0.0001°

### Grinding Range

Max. Turning Diameter 最大加工工件直径	3-32 mm (Disc type <200mm)
Max. Workpiece Length 最大工件长度	370 mm
Max. cutting edge length 最大切削刃长度	290mm
Max. groove depth 最大加工工件槽深	20 mm
Max. weight 最大工件重量	20 kg

### Wheel Spindle (C-axis)

Wheel size 砂轮尺寸(CBN/金刚石)	Ø50mm-Ø200 mm
Wheel Spindle 砂轮主轴	HSK-50E Built-in Spindle
Spindle Power 磨头最大功率(直驱电主轴)	24 kw
Rotation Speed 磨头主轴转速(变频调速)	1000-6000 rpm
Radial Runout 径向跳动	≤0.005 mm

### Workpiece Spindle (A-axis)

Center Height 工件主轴中心高	135 mm
Radial Runout 径向跳动	≤0.005 mm

### Controller

Controller 系统	SYNTEC
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### Software

Software 软件	QD
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### Machine Dimensions

Electrical Power 电源	AC 380V 50HZ
Total Power 总功率	32 kw
Weight 重量	5T (Linear motor model 6.5T)
Dimensions (L x W x H) 长x宽x高	2300*1750*2230MM