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METICULOUSLY CRAFTED,
A NATURALLY SHARP BLADE



高刚 HIGH RIGIDITY 高效 HIGH EFFICIENCY 高精 HIGH PRECISION



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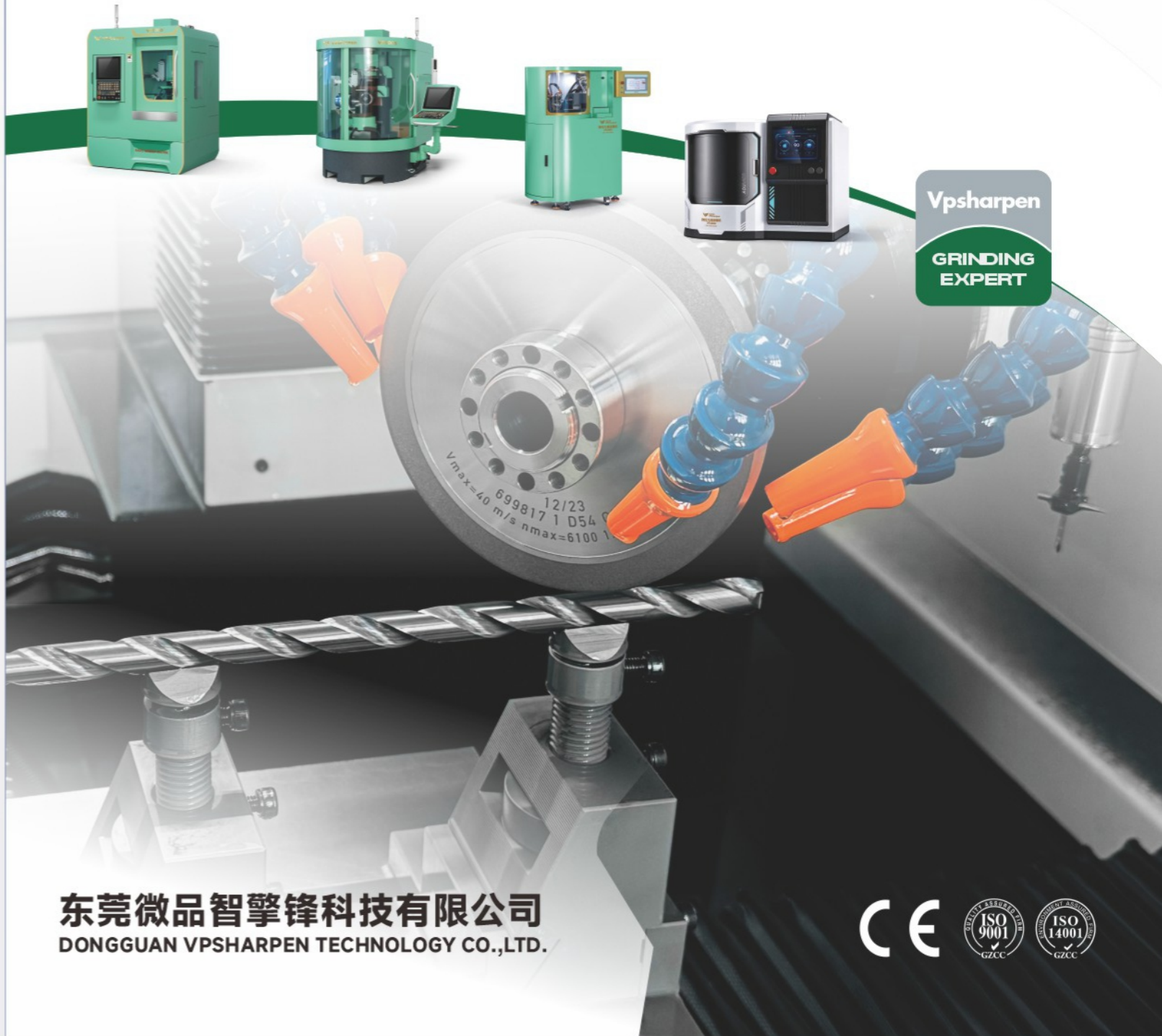
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专注数控刀具全周期管理
科技型解决方案服务商

Technology solution provider specializing
in full-lifecycle management of CNC cutting tools



东莞微品智擎锋科技有限公司
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About Us

公司介绍

智擎锋科技，专注CNC数控刀具全周期管理的数智化服务商。我们以"数据驱动工艺，技术赋能管理"为核心，通过"智能工艺平台+寿命监测+修复机器人+托管服务"的一体化闭环，帮精密加工企业降本、提质、增效，让每把刀具发挥极致效能。

VPsharpen Technology is a digital intelligence service provider focused on full life-cycle management of CNC cutting tools. Centered on the principle of "data-driven processes, technology-empowered management," we deliver an integrated closed loop of "intelligent process platform + tool life monitoring + restoration robot + managed service," helping precision machining enterprises reduce costs, improve quality, and enhance efficiency — maximizing the performance of every cutting tool.

Advantages

核心优势



技术领先

Technological Leadership

五轴联动高精控制、微米级加工精度
5-Axis simultaneous high-precision control
with micrometer-level machining accuracy



专业制造

Professional Manufacturing

覆盖刀具全生命周期"选-用-监-修-管"
闭环
Full-lifecycle closed-loop coverage from
selection to management



全链路服务

Full-Chain Service

工艺调试、设备培训、原厂维保全周
期保障
Process commissioning, equipment training,
and OEM maintenance throughout the product
lifecycle

高刚
HIGH RIGIDITY

高效
HIGH EFFICIENCY

高精
HIGH PRECISION

Culture

企业文化

品牌定位

Brand Positioning

数控刀具寿命全周期管理专家，以AI数据精算工艺，以全链管理刀具，以智能化方案降本增效。

Expert in full-lifecycle CNC tool management — harnessing AI data to precisely optimize processes, managing cutting tools across the full chain, and reducing costs while boosting efficiency through intelligent solutions.

使命与愿景

Mission & Vision

使命：引领数控刀具智能化寿命周期管理潮流，让每把刀具不断焕发新生，为CNC加工企业系统性降本、提质、增效。
愿景：成为全球领先的刀具寿命全周期管理解决方案服务商，用数据与技术重构刀具管理新标准。

Mission: Leading the trend of intelligent life-cycle management for CNC cutting tools, enabling every tool to continuously renew its service life, and systematically reducing costs, improving quality, and enhancing efficiency for CNC machining enterprises.

Vision: To become a globally leading solution provider for full life-cycle cutting tool management, redefining tool management standards with data and technology.

核心价值观

Core Values

以数据驱动工艺创新，以匠心深耕刀具全生命周期管理，用全链协同与诚信务实为客户创造可量化的降本价值。

Driving process innovation through data, deepening tool lifecycle management with craftsmanship, and delivering measurable cost-reduction value through full-chain synergy and integrity.



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五轴工具磨床

5-Axis Tool Grinder

面向高端精密制造领域的旗舰级解决方案，专为航空航天、精密模具、汽车零部件等行业的复杂刀具制造与高精度重磨需求打造。

A flagship solution for high-end precision manufacturing, designed for complex tool manufacturing and high-precision regrinding in aerospace, precision mold, and automotive component industries.

五轴联动·微米精度·全品类覆盖

5-Axis Tool Grinder · Micrometer Precision · Full-Category Coverage



01

VP500D
VP500S
VP500R

五轴工具磨床 5-Axis Tool Grinder

VP500D

可生产各类：铣刀、钻头、成型刀具、IT行业刀具、医疗行业刀具、木工刀具、航天航空刀具、汽车行业刀具。

Capable of producing various types of tools, including milling cutters, drill bits, forming tools, IT industry tools, medical industry tools, woodworking tools, aerospace tools, and automotive industry tools.



 **±0.005mm**
微米级加工精度
Micron-level machining accuracy

 **3-20mm**
自动夹紧工件范围
Automatic clamping range

 **4000~8000rpm**
磨头主轴转速
Spindle Speed

优势特点

Advantages

精度: 五轴联动+DD直驱+探针补偿, ±0.005mm加工精度

效率: 22kW大功率双磨头, 自动夹具提升换型速度

柔性: 3-20mm全范围工件, 一机多用

稳定: 直线电机+THK导轨, 24小时连续运行

Precision: 5-axis simultaneous + direct-drive motors + probe compensation, ±0.005mm machining accuracy

Efficiency: 22kW high-power dual grinding heads, automatic fixture for faster changeover

Versatility: 3-20mm full-range workpieces, one machine for multiple applications

Stability: Linear motors + THK guide rails, 24-hour continuous operation



技术参数 Technical Specifications

项目 / Item		VP500D
数控系统	CNC System	新代 Syntec 210MA-5E
自动夹紧工件范围	Auto Clamping Range	3-20mm
磨削软件	Grinding Software	刀具专用加工软件 Dedicated Tool Grinding Software
最大加工工件直径	Max Workpiece Diameter	20mm
刀具型号	Tool Holder Type	W20/W25
磨头摆动最高转速(C轴)	Max Spindle Oscillation Speed (C)	30rpm
磨削最大工件长度	Max Grinding Workpiece Length	300mm
C轴旋转范围	C-axis Rotation Range	325°(+230° ~ -95°)
工件主轴中心高	Workpiece Spindle Center Height	150mm
最大工件重量	Max Workpiece Weight	10kg
主轴工件径向跳动	Workpiece Spindle Radial Runout	≤0.005mm
电主轴功率	Spindle Motor Power	22kW
磨头主轴径向跳动	Spindle Radial Runout	≤0.005mm
砂轮尺寸(CBN/金刚石)	Wheel Size (CBN/Diamond)	50~150mm
气缸推力范围	Cylinder Thrust Range	500~580kg
磨头主轴转速	Spindle Speed	4000~8000rpm
磨头垂直升降行程(Z轴)	Spindle Vertical Travel (Z)	260mm
工作台行程X轴/Y轴	Worktable Travel X/Y	X: 550 / Y: 480
A轴旋转范围	A-axis Rotation Range	360°
工件主轴转速(A轴)	Workpiece Spindle Speed (A)	250rpm
电源	Power Supply	AC380V 50Hz 三相 (3-Phase)
机床总功率	Total Machine Power	≤30kW
机床重量	Machine Weight	4000kg

五轴工具磨床 5-Axis Tool Grinder

VP500S

可生产各类：铣刀、钻头、成型刀具、IT行业刀具、医疗行业刀具、木工刀具、航天航空刀具、汽车行业刀具。

Capable of producing various types of tools, including milling cutters, drill bits, forming tools, IT industry tools, medical industry tools, woodworking tools, aerospace tools, and automotive industry tools.



≤0.005mm
X/Y/Z轴定位精度
X/Y/Z Positioning Accuracy

10m/min
X/Y/Z轴快速移位速度
X/Y/Z Rapid Traverse

6000rpm
主轴最高转速
Max Spindle Speed

优势特点

Advantages

稳定性: 矿物质床身, 抗震吸震性能优异

精度: A/C轴DD直驱, 长期保持精度免维护

驱动: X/Y轴直线电机, 高精度长寿命

效率: 同步电主轴, 高转速高扭矩

Stability: Mineral cast bed, excellent vibration damping and absorption

Precision: A/C-axis direct-drive motors, long-term accuracy retention with maintenance-free design

Drive: X/Y-axis linear motors, high precision and long service life

Efficiency: Synchronous spindle motor, high speed and high torque



技术参数 Technical Specifications

项目 / Item	VP500S
加工长度	Machining Length
最大回转直径	Max Swing Diameter
X/Y/Z轴行程	X/Y/Z-axis Travel
X/Y/Z轴定位精度	X/Y/Z Positioning Accuracy
X/Y/Z轴重复定位精度	X/Y/Z Repeatability
X/Y/Z轴快速移位速度	X/Y/Z Rapid Traverse
A轴旋转角度	A-axis Rotation
C轴旋转角度	C-axis Rotation
主轴最高转速	Max Spindle Speed
电主轴额定功率	Spindle Rated Power
砂轮杆连接	Wheel Arbor Connection
可装砂轮内径	Mountable Wheel I.D.
可装砂轮外径	Mountable Wheel O.D.
可装砂轮片数	No. of Wheels
工件装夹方式	Workpiece Clamping
X/Y轴功率	X/Y-axis Power
Z轴伺服电机功率	Z-axis Servo Power
A/C轴DD马达功率	A/C-axis DD Motor Power
滚珠丝杆精密级	Ball Screw Precision
直线导轨精密级	Linear Guide Precision
3D探针	3D Probe
数控系统	CNC System
电气元件	Electrical Components
气动配件	Pneumatic Parts
联轴器	Coupling
机床总功率约	Total Power (approx.)
机床重量约	Machine Weight (approx.)
机床尺寸约	Machine Dimensions

五轴工具磨床

5-Axis Tool Grinder

VP500R

面向刀具生产、修磨场景的五轴工具磨床，可用于数控刀具、木工刀具与医疗刀具的生产、修磨和改制，兼顾稳定精度、加工效率与自动化操作。

A 5-Axis tool grinder for tool production and regrinding applications, suitable for the production, regrinding, and modification of CNC tools, woodworking tools, and medical tools, balancing precision stability, machining efficiency, and automated operation.



≤0.005mm
X/Y/Z轴定位精度
X/Y/Z Positioning Accuracy

10m/min
X/Y/Z轴快速移位速度
X/Y/Z Rapid Traverse

6000rpm
主轴最高转速
Max Spindle Speed

优势特点

Advantages

智能化: 3D仿真防碰撞，模块化界面，新手易掌握

精度: X/Y/Z轴上银P级导轨，日本C3级滚珠丝杆

测量: 标配先锋高精度3D探针，精准测量与补偿

自动化: 机械手替代人工，提升生产效率

Intelligence: 3D simulation collision avoidance, modular interface, easy for beginners to master

Precision: X/Y/Z-axis HIWIN P-grade linear guides, Japanese C3-grade ball screws

Measurement: Standard Pioneer high-precision 3D probe, accurate measurement and compensation

Automation: Robotic arm replacing manual labor, boosting production efficiency

技术参数 Technical Specifications

项目 / Item	VP500R
加工长度	Machining Length
最大回转直径	Max Swing Diameter
X/Y/Z轴行程	X/Y/Z-axis Travel
X/Y/Z轴定位精度	X/Y/Z Positioning Accuracy
X/Y/Z轴重复定位精度	X/Y/Z Repeatability
X/Y/Z轴快速移位速度	X/Y/Z Rapid Traverse
A/C轴旋转角度	A/C-axis Rotation
主轴最高转速	Max Spindle Speed
电主轴额定功率	Spindle Rated Power
砂轮杆连接	Wheel Arbor Connection
可装砂轮内径	Mountable Wheel I.D.
可装砂轮外径	Mountable Wheel O.D.
可装砂轮片数	No. of Wheels
工件装夹方式	Workpiece Clamping
X/Y/Z轴伺服电机功率	X/Y/Z-axis Servo Power
A/C轴DD马达功率	A/C-axis DD Motor Power
滚珠丝杆精密级	Ball Screw Precision
直线导轨精密级	Linear Guide Precision
3D探针	3D Probe
联轴器	Coupling
电气元件	Electrical Components
气动配件	Pneumatic Parts
机床总功率约	Total Power (approx.)
机床重量约	Machine Weight (approx.)
机床尺寸约	Machine Dimensions

数控刀具研磨机

CNC Tool Grinder

专为大中型制造企业打造的车间级刀具自动化维护解决方案，实现刀具修磨的标准化、智能化与规模化升级，直接降低新刀采购成本30%以上。

A shop-floor automated tool maintenance solution designed for small, medium, and large manufacturing enterprises, achieving standardized, intelligent, and scalable tool regrinding, directly reducing new tool procurement costs by over 30%.

车间级自动修磨·降本50%+·零门槛操作

Shop-Floor Automated Regrinding · 50%+ Cost Reduction · Zero-Experience Operation



02

VP300S

独立式 (Freestanding)

VP300D

桌面式 (Desktop-style)

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METICULOUSLY CRAFTED, A NATURALLY SHARP BLADE

数控刀具研磨机

CNC Tool Grinder

VP300D

桌面式数控刀具研磨机，兼容十余种主流工业刀具，360°全角度旋转修磨，双重精度管控确保成品一致性。

A benchtop CNC tool grinder compatible with over ten types of mainstream industrial tools, featuring 360° full-angle rotation regrinding and dual precision control to ensure finished product consistency.



优势特点

Advantages

刀具适配全面：兼容十余种主流工业刀具

360°全域旋转：A轴全角度转动，无研磨死角

伺服动力系统：多轴独立伺服驱动，运行平稳

操作零基础：无需专业技工，普通员工即可上手

Comprehensive Tool Compatibility:

Compatible with over ten types of mainstream industrial tools

360° Full-Domain Rotation:

A-axis full-angle rotation, no grinding blind spots

Servo Power System:

Multi-axis independent servo drive, smooth operation

Zero-Experience Operation:

No skilled technician required, ordinary employees can operate

技术参数 Technical Specifications

项目 / Item		VP300D
修磨直径	Regrinding Diameter	3-20mm
修磨长度	Regrinding Length	20-200mm
最大加持直径	Max Clamping Diameter	20mm
X/Y/Z轴行程	X/Y/Z-axis Travel	128mm
X/Y/Z轴重复定位精度	X/Y/Z Repeatability	≤0.01mm
X/Y/Z轴移位速度	X/Y/Z Traverse Speed	8m/min
A轴旋转角度	A-axis Rotation	360°
主轴最高转速	Max Spindle Speed	5000rpm
总功率	Total Power	2.5KW
机床重量	Machine Weight	200kg
机床尺寸	Machine Dimensions	620×930×1480mm

数控刀具研磨机 CNC Tool Grinder

VP300S

独立式数控刀具研磨机，采用自研气动后拉模组与磨削系统，无需编程，操作简单易上手。KK模组传动顺滑定位精准，适用于各类铣刀、钻头、球刀等刀具修磨。

A standalone CNC tool grinder featuring a self-developed pneumatic pull-back module and grinding system. No programming required — simple and easy to operate. The KK module ensures smooth transmission and precise positioning, suitable for regrinding various milling cutters, drill bits, and ball nose cutters.



360°
A轴旋转角度
A-axis Rotation

8m/min
X/Y/Z轴快速移位速度
X/Y/Z Rapid Traverse

5000rpm
主轴最高转速
Max Spindle Speed

可修刀具类型 Repairable Tool Types

铣刀 milling cutter



倒角刀 chamfering tool



圆鼻刀 Round nose knife



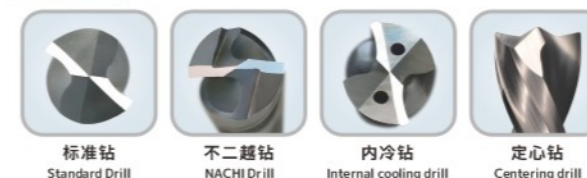
球刀 Ball knife



其他类型 Other types



钻头 drill



技术参数 Technical Specifications

优势特点 Advantages

KK模组：传动顺滑，定位精准，长期稳定性优异

气动装夹：速度快、受力均匀，替代手动操作

高精度探针：探测精度 $\leq 0.01\text{mm}$ ，双重精度管控

操作零基础：无需编程，新手快速上手

KK Module:

Smooth transmission, precise positioning, excellent long-term stability

Pneumatic Clamping:

Fast speed, uniform force, replacing manual operation

High-Precision Probe:

Detection accuracy $\leq 0.01\text{mm}$, dual precision control

Zero-Experience Operation:

No programming required, beginners can start quickly

项目 / Item		VP300S
磨削长度	Grinding Length	20~200mm
修磨直径	Regrinding Diameter	3~20mm
最大夹持直径	Max Clamping Diameter	20mm
X/Y/Z轴行程	X/Y/Z-axis Travel	128mm
X/Y/Z轴定位精度	X/Y/Z Positioning Accuracy	$\leq 0.003\text{mm}$
X/Y/Z轴重复定位精度	X/Y/Z Repeatability	$\leq 0.01\text{mm}$
X/Y/Z轴快速移位速度	X/Y/Z Rapid Traverse	8m/min
A轴旋转角度	A-axis Rotation	360°
主轴最高转速	Max Spindle Speed	5000rpm
总功率	Total Power	2.5KW
机床重量约	Machine Weight (approx.)	200kg
机床尺寸	Machine Dimensions	620×930×1480mm

便携式刀具研磨机

Portable Tool Grinder

面向产线一线的轻量化、便携型专用研磨机系列，主打“无需技巧、极速修复”。

让“修刀”从依赖设备与高级技工，变成产线员工随手即可完成的动作。

A lightweight, portable dedicated grinder series designed for production-line use, featuring "no skill required, rapid restoration."
Transforming tool regrinding from an equipment- and skilled-technician-dependent task into a simple operation any production-line worker can perform.

1分钟极速修复·零技巧门槛·轻量化便携

1-Min Rapid Restoration-Zero Skill Required-Lightweight and Portable



03

VP12 / VP16 / VP25

铣刀专用研磨机，覆盖 $\Phi 3-25\text{mm}$ ，三款型号
End mill dedicated grinder, covering $\Phi 3-25\text{mm}$, three models

VP1213 / VP1613

铣刀+钻头多用研磨机，覆盖铣刀 $\Phi 3-16\text{mm}$ 、钻头 $\Phi 3-13\text{mm}$
End mill + drill multi-purpose grinder, covering end mills $\Phi 3-16\text{mm}$ and drills $\Phi 3-13\text{mm}$

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铣刀研磨机

End Mill Grinder

VP12 / VP16 / VP25

轻量化便携式铣刀专用研磨机，无需技巧、1分钟极速修复。可研磨2/3/4刃硬质合金及高速钢端铣刀，研磨后刀刃等精度0.01mm以内。
A lightweight, portable end mill dedicated grinder featuring no skill required, 1-minute rapid restoration. Capable of grinding 2/3/4-flute carbide and HSS end mills, with post-grinding edge accuracy within 0.01mm.

优势特点 Advantages

- ★1分钟极速修复，无需任何技巧
- ★研磨后标准与新刀一致，精度0.01mm
- ★可配无刷电机，寿命长达2万小时
- ★整机仅10-14kg，普通插座即用，可随工位移动
- ★1-minute rapid restoration, no skill required
- ★Post-grinding standard matches new tools, accuracy 0.01mm
- ★Optional brushless motor, service life up to 20,000 hours
- ★Whole unit only 10-14kg, standard power outlet ready, portable between workstations



技术参数 Technical Specifications

项目 / Item		VP12	VP16	VP25
铣刀研磨直径	End Mill Grinding Dia.	$\Phi 3-12\text{mm}$	$\Phi 3-16\text{mm}$	$\Phi 3-25\text{mm}$
铣刀研磨角度	Grinding Angles	刃倾角 3° ，前斜角 20° ，后斜角 30° Edge 3° , Primary 20° , Secondary 30°		
电源	Power Supply	220V/400W		
转速	Speed	5000RPM		
砂轮	Grinding Wheel	标配SDC铣刀砂轮一片（CBN选配） SDC end mill wheel (CBN optional)		
包装尺寸	Package Dimensions	42x36x38cm		
重量	Weight	10.5KG	11KG	13.5KG

铣刀钻头研磨机

End Mill & Drill Grinder

VP1213 / VP1613

一机多用的轻量化便携式研磨机，既修端铣刀又修标准麻花钻。标配SDC+CBN砂轮各一片，兼顾硬质合金与高速钢两类材料。
A versatile, lightweight, portable grinder capable of regrinding both end mills and standard twist drills. Standard configuration includes one SDC and one CBN grinding wheel, accommodating both carbide and HSS materials.

优势特点 Advantages

- ★一机多用：铣刀+钻头均可研磨
- ★钻头先端角 $90^\circ-140^\circ$ 可调，研磨量可调
- ★研磨精度：铣刀0.01mm，钻头0.03mm
- ★具有静点调整功能，延长钻头寿命
- ★Multi-Purpose: Both end mills and drills can be ground
- ★Drill point angle adjustable $90^\circ-140^\circ$, grinding amount adjustable
- ★Grinding Accuracy: End mill 0.01mm, drill 0.03mm
- ★Features static point adjustment function, extending drill bit life



技术参数 Technical Specifications

项目 / Item		VP1213	VP1613
铣刀研磨直径	End Mill Grinding Dia.	$\Phi 3-12\text{mm}$	$\Phi 3-16\text{mm}$
钻头研磨直径	Drill Grinding Dia.	$\Phi 3-13\text{mm}$	
钻头先端角	Drill Point Angle	$90^\circ-140^\circ$	
电源 / 转速	Power / Speed	220V/400W ; 4500RPM	
砂轮	Grinding Wheels	标配SDC铣刀+CBN钻头砂轮各一片 1xSDC end mill + 1xCBN drill (standard)	
包装尺寸	Package Dimensions	36x29x32cm	
重量	Weight	13.5KG	14KG

刀具检测仪

Tool Inspection Instruments

配套刀具全生命周期“监/管”环节的高清检测仪器系列，覆盖从实验室级全检测到生产现场快测的完整场景，以微米级量化检测替代主观目检。

A high-definition inspection instrument series supporting the "Monitor/Manage" phase of the full tool life cycle, covering the complete range from laboratory-grade comprehensive measurement to production-floor rapid testing, replacing subjective visual inspection with micrometer-level quantitative measurement.

微米级量化检测·全场景覆盖·智能化品控

Micrometer Quantification · Full-Scenario Coverage · Intelligent QC



04

VP800M

外观分析、简易测量，缺陷判定
Appearance analysis, simple measurement, defect determination

VP800S

4K画质·智能测量·全景观测
4K image quality · intelligent measurement · panoramic observation

VP800D

直径跳动、锥度同轴快测
Diameter runout, taper and concentricity rapid measurement

精磨细琢 利刃天成
METICULOUSLY CRAFTED, A NATURALLY SHARP BLADE

刀具检测仪

Tool Inspection Instrument

VP800M

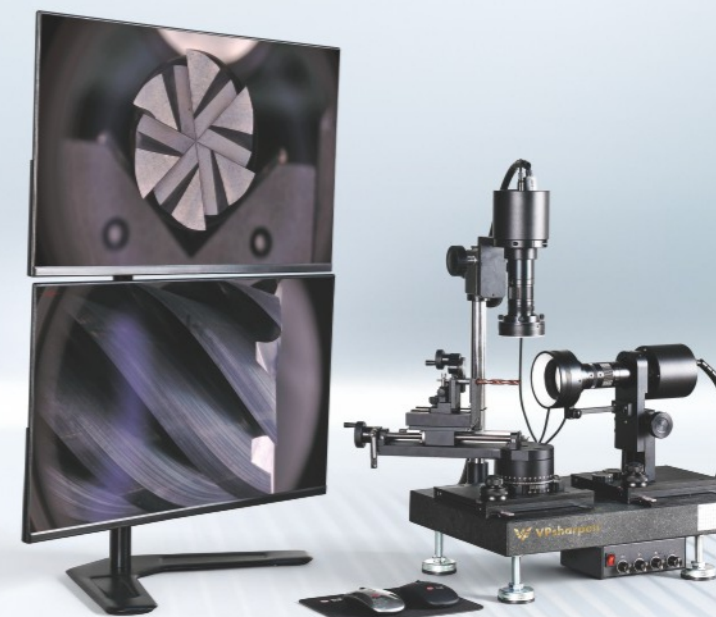
数控刀具、工业零件的外观高清放大观察分析，画面二维尺寸测量。

High-definition magnified visual inspection and surface analysis of CNC cutting tools and industrial parts, along with 2D dimensional measurement from the captured image.

优势特点

Advantages

- ★金属无反光技术，专攻金属表面
- ★20x变倍比宽变倍放大
- ★八轴协同机构无死角观测
- ★专利V型夹具机构
- ★Metal anti-reflection technology, specialized for metal surfaces
- ★20x zoom ratio wide-range magnification
- ★Eight-axis coordinated mechanism for all-angle observation
- ★Patented V-shaped fixture mechanism



技术参数 Technical Specifications

项目 / Item		VP800M	数量/Qty
相机	Camera	4K (3840x2160)	2
镜头	Lens	0.4x-8.0x 手动可调变倍 (Manual zoom)	2
放大倍率	Magnification factor	16.5x-310x 配27寸屏 (With 27" display)	-
最大视野	Max FOV	水平(L)36mmx垂直(V)20mm	-
最小视野	Min FOV	水平(L)1.8mmx垂直(V)1.0mm	-
光路设计	Lighting Design	4路 (channels) 光控 (Light control)	1
主光源	Main Light	特制环境光 (Special ambient light)	1
平装光源	Horizontal Light	LED	1
立装光源	Vertical Light	LED	1
XY移动滑台	XY Slide	XY行程均60mm (XY travel 60mm each)	2
Z轴-平装	Z-axis - Horizontal	微调行程50mm (Fine adjustment 50mm)	1
Z轴-立装	Z-axis - Vertical	微调行程50mm, 滑动行程200mm (Fine adjustment 50mm, slide 200mm)	1
A轴	A-axis	V型支撑, 聚氨酯滚轮; 夹持直径3-20mm; 夹持长度20-60mm V-support, PU roller; clamping dia. 3-20mm; length 20-60mm	1
A轴移动台	A-axis Slide	丝杆导轨, 数显尺行程100mm, 分辨率0.01mm (Ball screw, DRO 100mm, resolution 0.01mm)	1
C轴	C-axis	圆周转动行程200° (Rotation travel 200°)	1
显示屏	Display	27英寸 (inch), 1080P	2
大理石	Granite	400x300x50mm	1
重量/电压	Weight/Voltage	50kg / 100-220V	

刀具检测仪 Tool Inspection Instrument

VP800S

数控刀具、工业零件的外观高清放大观察、分析，高精度二维尺寸测量。

High-definition magnified visual inspection and analysis of CNC cutting tools and industrial components, along with high-precision two-dimensional dimensional measurement.

优势特点 Advantages

- ★4K画质，27寸大屏
- ★宽变倍放大16-300x
- ★八轴协动机构无死角观测
- ★智能测量软件：自动测量取点寻边、DXF对比、拍照录像
- ★4K image quality, 27-inch large screen
- ★Wide-range magnification 16-300x
- ★Eight-axis coordinated mechanism for all-angle observation
- ★Intelligent measurement software: auto-measurement point selection and edge detection, DXF comparison, photo and video recording



技术参数 Technical Specifications

项目 / Item	VP800S	数量 / Qty
相机 Camera	4K (3840x2160)	1
镜头 Lens	0.6x-7.5x 手动可调变倍 (Manually adjustable zoom)	1
最大视野 Max FOV	水平(L)25mm × 垂直(V)14mm	1
最小视野 Min FOV	水平(L)2.0mm × 垂直(V)1.1mm	1
放大倍率 Magnification factor	24x-300x 配27寸屏 (With 27" display)	1
光路设计 Optical path design	4路(channels) 光控(Light control); 背光源(Backlight): LED 面光源(Area light source): 独创环绕环境光 (Unique 2-way ambient light 	1
XY 光栅移动台 XY grating moving stage	XY行程 200mm, 光栅分辨率 0.5um (XY Travel distance: 200mm, grating resolution: 0.5um)	1
Z 轴升降 Z-axis elevation/descent	主: 丝杆导轨(Master: Screw guide rail); 行程(travel) 150mm 副: 齿轮齿条(Assistant: Rack and pinion); 行程(travel) 95mm	1
A 轴 A-axis	V 型支架, 圆柄夹持稳定圆周运动, 聚氨酯滚轮; (V-shaped support, round handle for stable circular motion, polyurethane rollers); 夹持直径(Clamping diameter): 3-20mm; 圆柄夹持长度(Round handle clamping length): 30-100mm; 尾座: 上下行程 15mm, 前后 10mm (Tail stop: Up and down travel 15mm, front and back 10mm) 夹持跳动精度(Clamping jump accuracy): ≤1um	1
夹具导轨滑台 Fixture guide rail slide table	水平/垂直夹具左右滑动行程 100mm (horizontal/vertical fixture can slide left and right with a travel of 100mm)	1
C 轴(水平调节) C-axis (horizontal adjustment)	微调精度 0.01° (Fine adjustment accuracy of 0.01°)	1
显示屏 Display screen	27英寸(inch), 1080P	1
刀片磁吸杆 Blade magnetic attraction rod	直径(Diameter) 10mm, 长度(Length) 40mm	1
大理石 Marble	长(L): 356mm 宽(W): 425mm 厚(T): 50mm	1
设备尺寸 Device dimensions	长(L): 710mm 宽(W): 560mm 高(H): 780mm	
重量/电压 Weight / Voltage	约(Approx.) 100kg / 100-240V	
产品夹持范围 Product clamping range	柄径(Shank Diameter) 3-29mm; 柄部夹持长度(Handle clamping length) 30-100mm	
允许产品长度 Allowable product length	最大水平总长(Max total horizontal length): 200mm; 最大垂直总长(Max total vertical all length): 160mm	
测量精度 Measurement Accuracy	影像(image): 低倍间 0.02mm, 高倍间 0.005mm (0.02mm at low magnification, 0.005mm at high magnification) 光栅(grating): ±1.5μm	

刀具检测仪 Tool Inspection Instrument

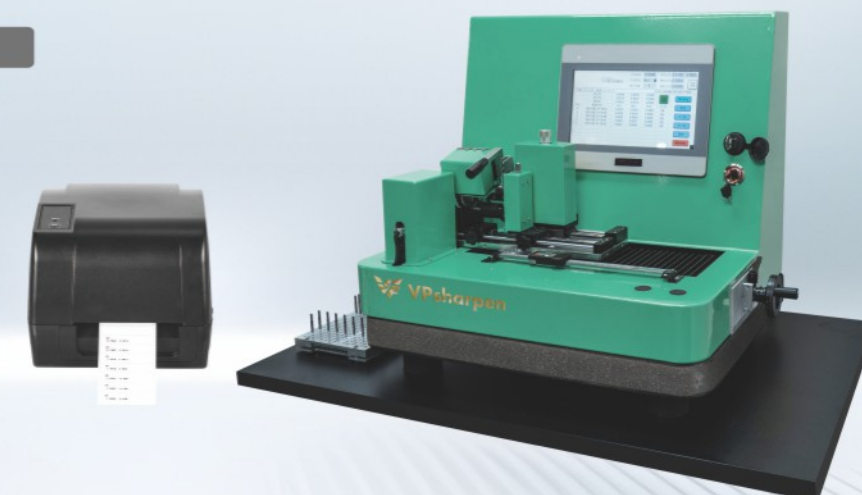
VP800D

数控刀具、圆柄类零件的直径跳动，圆度测量。

Radial runout and roundness measurement of CNC cutting tools and cylindrical-shank components.

优势特点 Advantages

- ★单支刀具快速测量，不同型号快速切换
- ★小批量同规格快速全检
- ★V型支撑，圆轮压紧，电机驱动旋转
- ★集成软件自动测量，数据可保存
- ★Single-tool rapid measurement, quick switching between different models
- ★Small-batch same-specification rapid full inspection
- ★V-shaped support, round wheel clamping, motor-driven rotation
- ★Integrated software auto-measurement, data saveable



技术参数 Technical Specifications

项目 / Item	VP800D
直径范围 Diameter Range	0.2mm-25mm
夹持柄径 Clamping Shank Dia.	3-25mm
长度范围 Length Range	40-250mm
测量刃径范围 Measurable Flute Dia. Range	0-20mm
分辨率 Resolution	0.1μm
重复精度 Repeatability	±1μm ± 0.05%·D
测量精度 Measurement Accuracy	±1μm ± 0.1%·D
设备尺寸 Dimensions	560×500×550mm
电压/功率 Voltage/Power	100-220V/100W
净重 Net Weight	约(Approx.) 100KG

刀具磨削油净化机

Tools Grinding Oil Purification Machine

配套磨床的油性磨削油过滤净化系统，1μm高精度过滤+反冲自清洗，延长砂轮与刀具寿命，降低废液成本，是刀具"管"环节的刚需基础设施。

An oil-based grinding fluid filtration and purification system for grinding machines, featuring 1μm high-precision filtration + backwash auto-cleaning, extending grinding wheel and tool life while reducing waste fluid costs — an essential infrastructure for the "Manage" phase of the tool life cycle.

1μm精密过滤·反冲自清洗·双泵冗余

1μm Precision Filtration · Backwash Auto-Cleaning · Dual-Pump Redundancy



精磨细琢 利刃天成

METICULOUSLY CRAFTED, A NATURALLY SHARP BLADE

优势特点

Advantages

- ★1μm高精度过滤，反冲自动清洗滤芯，杜绝黑油
- ★双泵冗余供液（国产+格兰富），保障连续供液
- ★工业级电控：施耐德电气+OJO PLC+亚德客气动
- ★低门槛接入：6bar+380V/3kW即可运行

- ★1μm high-precision filtration, backwash auto-cleaning filter element, eliminating oil blackening
- ★Dual-pump redundant fluid supply (domestic + Grundfos), ensuring continuous fluid supply
- ★Industrial-grade electrical control: Schneider Electric + OJO PLC + Airtac pneumatics
- ★Low-threshold integration: operates with 6bar + 380V/3kW

技术参数 Technical Specifications

项目 / Item		VP160C
过滤流量	Filtration Flow	160L/min
过滤精度	Filtration Precision	1μm
油温精度	Oil Temp. Accuracy	±0.5℃
废料回收	Waste Recovery	自动刮排式(Auto scraper type)
系统电力	System Power	3-3.8kW
外形尺寸	Dimensions	1380×1100×1280mm

全系列选型参考 Full-Series Selection Reference

项目 / Item		OJO-RH2	OJO-RH3	OJO-RH4	OJO-RH6	OJO-RH9	OJO-RH12
设计流量(L/min)	Design Flow (L/min)	300	450	600	900	1350	1800
过滤单元(组)	Filter Units (sets)	2	3	4	6	9	12
过滤介质	Filter Medium	油性磨削油(Oil-based grinding fluid)					
过滤杂质	Filtered Contaminants	砂轮灰、硬质合金(Wheel grit, carbide)					
过滤精度(μm)	Filtration Precision (μm)	1	1	1	1	1	1
自动排污机	Auto Discharge Unit	RH-A	RH-B	RH-D	RH-F	RH-G	RH-W
系统电力(KW)	System Power (kW)	6	10	15	22	26	38
供应磨床数量(台)	Grinders Supported	2-3	3-4	5-6	7-8	10-12	16-20
参考尺寸 长(mm)	Ref. Dimensions Length (mm)	2000	2500	2800	3200	3800	4600
参考尺寸 宽(mm)	Ref. Dimensions Width (mm)	1200	1200	2000	2200	2000	2200
参考尺寸 高(mm)	Ref. Dimensions Height (mm)	1750	1750	1750	1750	1750	1750