



细穴放电加工机

SMALL HOLE EDM DRILLING MACHINE

精密模具加工的得力助手

A reliable assistant for precision mold processing



成惠机械工贸（深圳）有限公司

Chenghui Machinery Industry and Trade (Shenzhen) Co., Ltd

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在塑胶模具制造领域，精度与效率至关重要。我们公司精心打造的细穴放电加工机，以卓越的性能和创新的功能，为您的模具加工提供全方位的解决方案。

In the field of plastic mold manufacturing, precision and efficiency are crucial. Our company's carefully crafted small hole EDM drilling machine provides a comprehensive solution for your mold processing with excellent performance and innovative features.



功能特色 /Features

- 自动加工塑胶模高低不平模具
Automatic processing of uneven plastic molds
- 加工盲孔，深度公差 $\pm 0.03\text{mm}$
Processing blind holes with a depth tolerance of $\pm 0.03\text{mm}$
- 穿透自动检测，无需人工干预
Penetrating automatic detection without manual intervention
- 可读NC程序，G代码，DXF档案
Can read NC programs, G code, DXF files
- 自动分中功能，可实现AR功能
Automatic centering function, capable of achieving AR functionality
- 中断停止功能，可随时启动当前加工
Interrupt stop function, can start the current processing at any time
- 防撞功能，避免人工操作撞机
Anti collision function to prevent manual operation from colliding with the aircraft
- 防护功能，避免加工中产生错误
Protective function to avoid errors during processing

■ 自动适应高低不平模具

独特的传感与控制系统，使设备能够快速准确地识别塑胶模高低不平的表面，自动调整加工参数和路径。无论是复杂曲面还是有高度差的模具，都能确保打孔的精准度和一致性，无需手动调整，大大节省了时间和人力成本，提升加工效率。

■ Automatically adapt to uneven molds

The unique sensing and control system enables the equipment to quickly and accurately identify uneven surfaces of plastic molds, automatically adjust processing parameters and paths. Whether it is complex surfaces or molds with height differences, the precision and consistency of drilling can be ensured without manual adjustment, greatly saving time and labor costs and improving processing efficiency.

■ 高精度盲孔加工

配备先进的放电技术和精密的运动控制系统，加工盲孔时深度公差可精准控制在 $\pm 0.03\text{mm}$ 以内。这意味着您可以放心地制造高精度要求的模具零件，减少后续加工工序和废品率，提高产品质量和市场竞争能力。

■ High precision blind hole machining

Equipped with advanced discharge technology and precise motion control system, the depth tolerance during blind hole machining can be accurately controlled within $\pm 0.03\text{mm}$. This means that you can confidently manufacture high-precision mold parts, reduce subsequent processing steps and scrap rates, and improve product quality and market competitiveness.

■ 穿透自动检测

内置智能穿透检测装置，在加工过程中实时监测打孔进度。一旦达到穿透状态，设备立即自动停止放电，无需人工干预。有效防止过度加工，保护模具材料和电极，同时提高加工的安全性和稳定性。

■ Penetration automatic detection

Built in intelligent penetration detection device, real-time monitoring of drilling progress during the processing. Once the penetration state is reached, the device automatically stops discharging without manual intervention. Effectively prevent excessive processing, protect mold materials and electrodes, while improving the safety and stability of processing.

■ 多元档案读取

具备强大的兼容性，可轻松读取 NC 程序、G 代码以及 DXF 档案。方便您与各种设计软件和编程平台无缝对接，快速导入加工数据，无论是新设计的模具还是旧有项目的修改，都能迅速启动加工，灵活应对多样化的生产需求。

■ Multi dimensional file reading

It has strong compatibility and can easily read NC programs, G codes, and DXF files. Convenient for seamless integration with various design software and programming platforms, quickly importing processing data, whether it is newly designed molds or modifications to existing projects, it can quickly start processing and flexibly respond to diverse production needs.

■ 自动分中与 AR 功能

自动分中功能通过高精度传感器快速定位模具中心，为加工提供精准的起始坐标。结合 AR 功能，操作人员可以直观地在设备屏幕上预览加工路径和效果，提前发现潜在问题并进行调整，进一步提高加工的准确性和可视化程度，降低操作难度。

■ Multi dimensional file reading

The automatic centering function uses high-precision sensors to quickly locate the center of the mold, providing accurate starting coordinates for processing. Combined with AR function, operators can intuitively preview the processing path and effect on the device screen, detect potential problems in advance and make adjustments, further improve the accuracy and visualization of processing, and reduce the difficulty of operation.

■ 中断恢复功能

加工过程中遇到突发情况需要中断时，设备会自动记录当前加工状态和参数。待问题解决后，可随时一键启动恢复当前加工，无需重新设置程序和调整刀具位置，最大限度减少生产中断带来的损失，保证生产连续性。

■ Interrupt recovery function

When encountering unexpected situations during the processing that require interruption, the equipment will automatically record the current processing status and parameters. After the problem is solved, it can be easily restarted to restore the current processing without resetting the program or adjusting the tool position, minimizing the losses caused by production interruptions and ensuring production continuity.

■ 防撞保护机制

采用先进的防撞传感器和智能控制算法，在加工过程中实时监测电极与模具的相对位置。一旦检测到可能发生碰撞的危险，设备立即停止运动并发出警报，有效避免因人工操作失误或程序错误导致的撞机事故，保护设备和模具免受损坏，降低维修成本和停机时间。

■ Anti collision protection mechanism

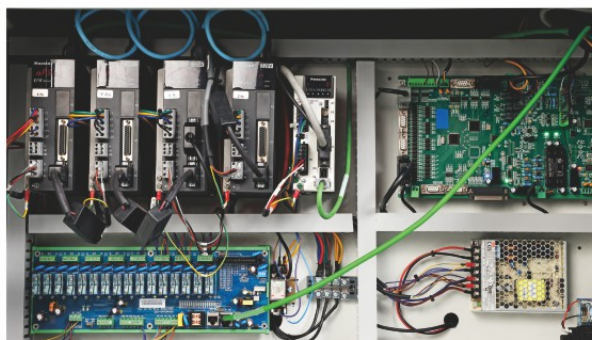
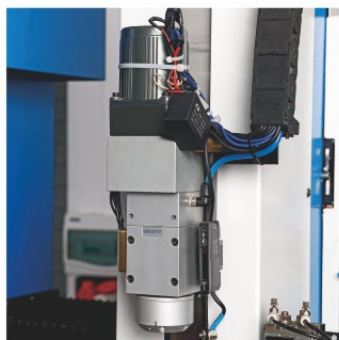
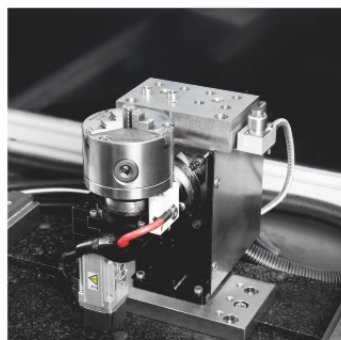
Advanced collision sensors and intelligent control algorithms are used to monitor the relative position of electrodes and molds in real-time during the machining process. Once the danger of collision is detected, the equipment immediately stops moving and issues an alarm, effectively avoiding collision accidents caused by manual operation errors or program errors, protecting equipment and molds from damage, reducing maintenance costs and downtime.

■ 全面防护系统

具备完善的防护功能，从电气安全到加工过程中的错误预防。设备外壳采用防护设计，防止操作人员意外接触带电部件；软件层面设置多重错误检测和纠正机制，对加工参数错误、电极损耗过大等情况及时预警并采取相应措施，确保加工过程稳定可靠，产品质量符合标准。

■ Comprehensive protection system

Equipped with comprehensive protective functions, from electrical safety to error prevention during processing. The equipment casing adopts a protective design to prevent operators from accidentally coming into contact with live parts; At the software level, multiple error detection and correction mechanisms are set up to promptly alert and take corresponding measures for processing parameter errors, excessive electrode wear, and other situations, ensuring stable and reliable processing processes and product quality compliance with standards.



规格表

Specification

项目 Project	型号 Model	GS-430C	GS-640C	选项 Option
工作台面积 Workbench area		470*370mm	620*420mm	水缸 Water Tank 油缸 Oil Tank 刀库 ATC 自动换导咀 AGC
XYZW 轴行程 XYZW axis travel		400*300*350*450mm	500*400*350*450mm	
最大工作荷重 Maximum working load		500kgs	500kgs	
电极铜管尺寸 Electrode copper tube size		φ0.1~φ3.0mm	φ0.1~φ3.0mm	
外形尺寸 External dimensions		1000*1600*2100mm	1400*1900*2100mm	
净重 Net weight		900kgs	1200kgs	
输入功率 Input power		3.5KVA	3.5KVA	
最大加工电流 Maximum processing current		30A	30A	
输入电压 input voltage		380V	380V	

样板加工实例 Sample Processing Example



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