

拥有火花机的自主核心技术

Possess independent and core technologies of EDM

专注于电加工的研发和制造

Be dedicated to the R&D and manufacturing of Electrical Processing

STANDY 商鼎®

广东商鼎智能设备有限公司

总部：广东省惠州市惠东县拓庆路广东商鼎智能设备产业园

东莞分公司

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STANDY Smart Co., Ltd.

Headquarter: STANDY Smart Industrial Park,
Tuoqing Rd., Huidong County, Huizhou City, Guangdong Province

DongGuang Branch

Address: No. 10-11, Block 7, Jinming International Machinery and Mold
Town, Jian'an Rd., Chang'an Town, Dongguan City

KunSan Branch

Address: No. 1228, Central Chengbei Rd., Kunshan City, Jiangsu
Province(at the cross of Huanqing Road) Unit 1012-1013, Hall 4, ZTL
International Industrial & Commercial Center

NingBo Branch

Address: No. 1425, Qiushi Rd., Haishu District, Ningbo City, Zhejiang Province

ChongQin Branch

Address: Block 8, No. 6, Lanxin Avenue, Huixing, Yubei District, Chongqing

South Korea Branch

Address: No.5 San'an Road ,Gimhae-si Gyeongsangnam-do, South Korea



扫一扫，关注商鼎

www.standycnc.com



专注放电技术20多年，

国内首家拥有高性能火花机智能算法系统软件著作权

Focus on discharge technology more than 20 years, the first domestic enterprise possessed with high performance spark machine intelligent algorithm system software copyright

注：由于不断的研究开发更新，产品将随设计更改而变化，恕不另行通知！
Note: Due to the continuous research and development, The product will be updated according to design change. Special notification will not be provided.

系统终身免费升级，

Lifecycle upgrade for the system without charge,

我们提供最新的技术，

We provides latest technology,

以帮您应对变化的世界！

Help you cope with the changing world!



廖煌友 Huangyou Liao

广东商鼎智能设备有限公司董事长

STANDY Smart Co., Ltd. CEO

公司简介

COMPANY PROFILE

专注成就专业 Profession is from dedication

公司二十多年来，一直致力于专业制造电火花机机床的技术开发。秉承“以客户为中心，以创新为己任”的企业发展观。特别在高精度、高效率的镜面电加工、石墨电加工、硬质合金电加工的控制技术上达到国际领先水平；在高难度、高精度加工方面，打破了国外产品在中国的市场垄断；扭转了电加工市场对国外技术的依赖。商鼎电加工放电技术的创新突破，使国内外用户体验到先进科技带来的高效率、高品质、低成本的技术成果。

商鼎专业的、完善的、售前售后服务，为海内外用户提供长期稳定、技术可靠的、高性价比的智能设备和解决方案。

With 25 years of experience in mechanical equipment, STANDY Smart Co.,Ltd is dedicated to the development and innovation of manufacturing EDM machine professionally, adhering to the "customer-centric, innovation-oriented" business development concept. STANDY features extremely high attainments in the aspects of high precision and high efficiency mirror EDM, graphite EDM and hard alloy EDM control technology. The EDM developed by STANDY technical team has achieved the nationalization of high difficulty and high precision machining without relying on the developed countries, and has reached the world advanced level. The innovative breakthrough of STANDY Electric Processing Discharge Technology enables foreign users to experience the high efficiency, high quality and low cost technology achievements brought by advanced technology.

STANDY professional perfect pre-sales and after-sales service providing long-term stable, technically reliable, cost-effective intelligent equipment and solutions for overseas users.

专业、专注的设备放电加工技术承诺满足客户需求

The professional and dedicated equipment as well as electrodischarge machining technology are commitment to meeting the demands of clients

STANDY商鼎强大的研发团队，整合电火花设备放电技术，满足您的需求并增强您的业务竞争力

STANDY, with the strong R&D team, has integrated the discharge technology of electrical spark equipment and is capable of meeting your demands and strengthening your competitive force



STANDY Industrial Park
广东商鼎产业园



STANDY Proscenium
广东商鼎前台



Production Workshop
生产车间



Office Area
一楼办公区域

整合高性能电加工技术

Integrate the high performance electrical machining technology

致力于人工智能发展方向

Devote to the development direction of artificial intelligence

为客户创造更高效益

Create more benefits for clients

DEVELOPMENT HISTORY

发展历程

- 2018**

业务稳步向海外拓展 The business has been expanding to overseas steadily.

2014年马来西亚代理销售和服务中心。
2014: Sales and Service Center was established in Malaysia.

2015年越南代理销售和服务中心。
2015: Sales and Service Center was established in Vietnam.

2017年韩国代理销售和服务中心。
2017: Sales and Service Center was established in South Korea.

2018年8月15日占地30亩自建生产基地投入使用。
30 acres of self-built production base was put into use on 15th, Aug, 2018.
- 2017**

优化升级系统软件V2.12C，人工智能电加工系统深圳研发总部实验室测试。

July 2017: system software V2.12C was optimized and upgraded, artificial intelligent electrical processing system was tested in the laboratory of Shenzhen R&D Headquarter.

优化升级系统软件V2.12，人工智能电加工系统逐步完善。

System software V2.12 was optimized and upgraded, artificial intelligent electrical processing system was gradually improved.
- 2016**

成立广东商鼎智能设备有限公司（注册资本2400万元）。
STANDY Smart Co., (registered capital: RMB24 million) was established.

同年在广东惠州自购生产基地20000平方米。
In the same year, the 20,000 square meters production base was purchased in Huizhou of Guangdong province.
- 2015**

优化升级系统软件V2.11，筹备开发人工智能电加工系统。

System software V2.11 was optimized and upgraded, prepared to develop the artificial intelligent electrical processing system.
- 2014**

优化升级系统软件V2.0。

System software V2.0 was optimized and upgraded.
- 2013**

成立深圳市上鼎科技有限公司STANDY商鼎品牌，推出高性能电加工系统软件V1.0。

established Shenzhen STANDY Technology Co., Ltd. STANDY brand, promoted the high performance electrical processing system software V1.0.
- 2007**

开始研发高性能电加工系统，历时6年。

started to develop high performance electrical processing system, It took 6 years.

注册商标：STANDY/商鼎

Registered Trademark: STANDY

拥有火花机的自主核心技术，专注于电加工的研发和制造。

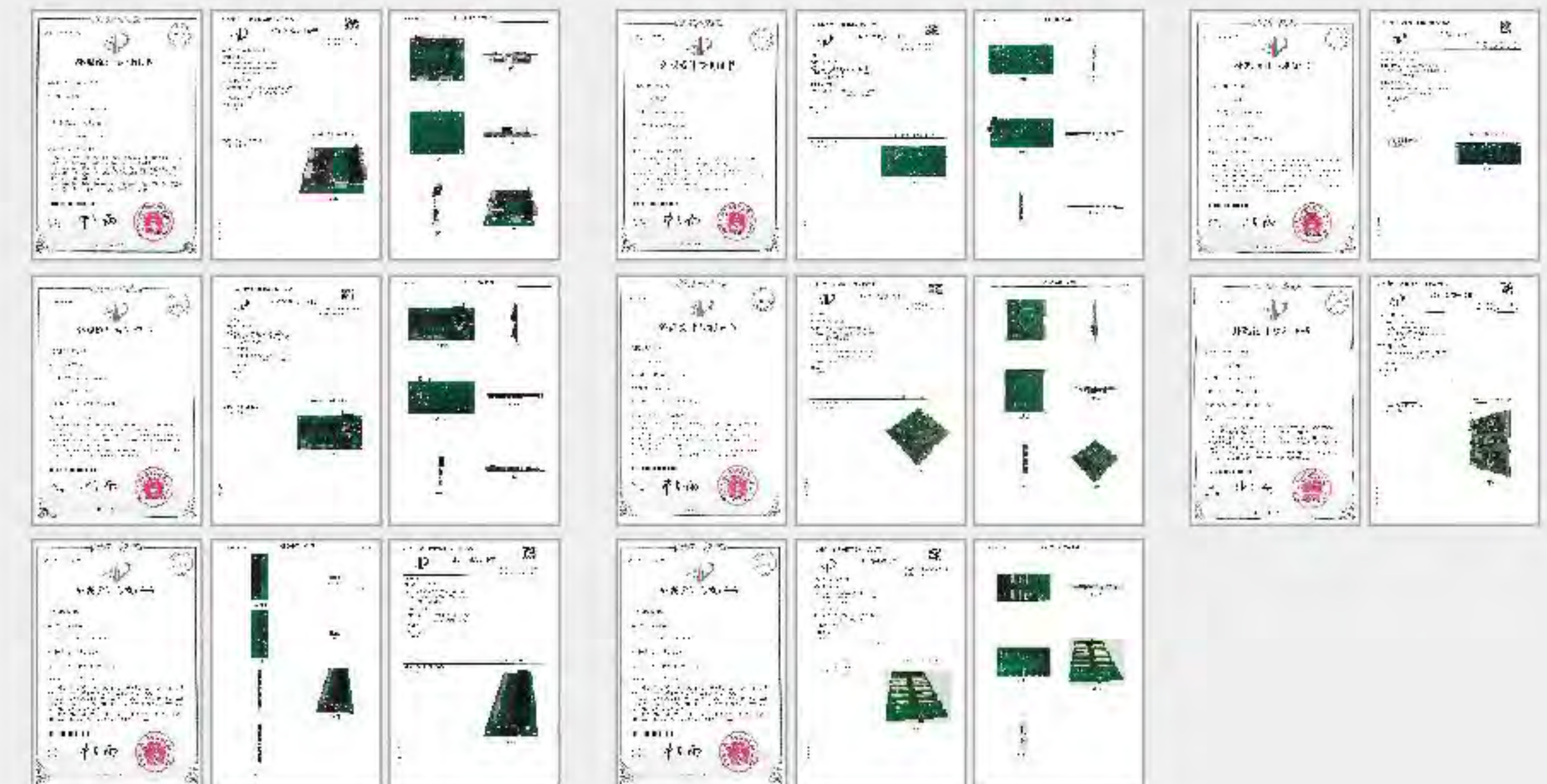
Possess independent and core technology of EDM; be dedicated to the R&D and manufacturing of Electrical Processing.



国内首家拥有高性能电加工智能算法系统软件著作权，整合高性能电加工技术，致力于人工智能发展方向，为客户创造更高效益。

The first enterprise domestic possesses intelligent algorithm system software copyright of high performance electrical processing. Integrating high performance Electrical Processing technology, being devoted to the development direction of artificial intelligence, and creating more benefits for clients.

其它各项专利：Other Patents:



MEDIA ATTENTION 媒体关注



PARTNER 合作伙伴



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CNC系列
CNC Series

CNC 400
Control system

全机操控采用

The operation and control of the whole machine adopts

智能算法软件

Smart algorithm software

使操作更方便

And features more convenient operation



油槽升降结构减少设备的占地面积，使操作员更方便快捷地接近加工区域

The oil tank elevating structure reduces the occupation area of the equipment, operators may conveniently and quickly approach the machining area.

可扩展自动化机型 / Scalable automation model

独特的牛头式自动油槽升降结构，配备ETC电极工作管理，搭配自主核心技术的智能算法系统软件，扩展未来的智能自动化生产线机型。

Distinctive Ox head automatic oil tank elevating structure, equipped with ETC electrode work management and intelligent algorithm system software with independent core technology, expanding future models with intelligent automatic production line

稳定的铸件系统 / Stable casting system

机身采用目前国内最稳定的铸件稳定系统设计配合STANDY商鼎系统，确保出色的重复定位精度。

The machine body adopts the currently domestic most stable casting system. Combining the STANDY system, it ensures outstanding repeat position accuracy

独到的应用技术 / Unique application technology

独到的脉冲电源优于电加工标准电源配合STANDY商鼎系统，确保放电导致极少的电极损耗。

The original pulse power supply is better than the electric machining standard power supply, combining the STANDY system, it ensures extremely less electrode loss during discharge

操作快捷，简单方便 / Quick, simple and convenient operation

具有高水准的自动化程度使得主要的操控性极佳。

The product features excellent controllability due to its highest degree of automation.

策略生成向导 / Strategy creation wizard

减少操作员的培训时间，操作员随时将自己的经验加到NC中，商鼎系列机床允许

创建自己的加工参数表并可用在制定的新程序中保存使用。

Reducing the times of training operators, the operator may add own experience into NC, STANDY series machining tool allows creating own machining parameter list which can be saved and adopted in the new program.



CNC系列
CNC Series

CNC 430
Control system

全机操控采用

The operation and control of the whole machine adopts

智能算法软件

Smart algorithm software

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And features more convenient operation



升降门结构减少设备的占地面积，使操作员更方便快捷地接近加工区域

Reducing the occupation area of the equipment with elevating door, operators may conveniently and quickly approach the machining area

独特的火花控制技术 / Distinctive discharge control technology

独特的火花控制技术配合STANDY商鼎智能算法对筋骨加工、镜面加工尤其显著。

The combination of distinctive discharge control technology and STANDY intelligent algorithm features obvious effect for rib machining and mirror machining

稳定的铸件系统 / Stable casting system

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CNC系列
CNC Series

CNC 540
Control system



全机操控采用

The operation and control of the whole machine adopts

智能算法软件

Smart algorithm software

使操作更方便

And features more convenient operation

独特的火花控制技术 / Distinctive discharge control technology

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稳定的铸件系统 / Stable casting system

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The original pulse power supply is better than the electric machining standard power supply, combining the STANDY system, it ensures extremely less electrode loss during discharge

操作快捷，简单方便 / Quick, simple and convenient operation

具有高水准的自动化程度使得主要的操作性极佳。

The product features excellent controllability due to its highest degree of automation.

策略生成向导 / Strategy creation wizard

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Reducing the times of training operators, the operator may add own experience into NC, STANDY series machining tool allows creating own machining parameter list which can be saved and adopted in the new program.



CNC系列
CNC Series

CNC 850
Control system



全机操控采用

The operation and control of the whole machine adopts

智能算法软件

Smart algorithm software

使操作更方便

And features more convenient operation

独特的火花控制技术 / Distinctive discharge control technology

独特的火花控制技术配合STANDY商鼎智能算法对筋骨加工、镜面加工尤其显著。

The combination of distinctive discharge control technology and STANDY intelligent algorithm features obvious effect for rib machining and mirror machining

稳定的铸件系统 / Stable casting system

机身采用目前国内最稳定的铸件稳定系统设计配合STANDY商鼎系统，确保出色的重复定位精度。

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The original pulse power supply is better than the electric machining standard power supply, combining the STANDY system, it ensures extremely less electrode loss during discharge

牛头式三轴数控移动方式 / Ox head type 3-axis numerical controlled movement

采用固定工作台设计完全箱型设计高密度多层肋骨补强确保重负荷时机台不变形。

三轴采用进口线性导轨和高精密丝杆确保高精度。

With fixed work table and complete box shape combining the high density and multi-layer rib reinforcement, it prevents deformation of machine under heavy load.

Three axes adopt imported linear guiderail and high precision screw to ensure high precision.

操作快捷，简单方便 / Quick, simple and convenient operation

具有高水准的自动化程度使得主要的操作性极佳。

The product features excellent controllability due to its highest degree of automation.

策略生成向导 / Strategy creation wizard

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CNC系列 CNC Series

CNC 1250 Control system

全机操控采用

The operation and control of the whole machine adopts

智能算法软件

smart algorithm software

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And features more convenient operation



独特的火花控制技术 / Distinctive discharge control technology

独特的火花控制技术配合STANDY商鼎智能算法对筋骨加工、镜面加工尤其显著。

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稳定的铸件系统 / Stable casting system

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The original pulse power supply is better than the electric machining standard power supply, combining the STANDY system, it ensures extremely less electrode loss during discharge

双牛头六轴数控移动方式 / Double ox head 6-axis numerical controlled movement

双牛头设计提高生产力，X Y Z六轴采用进口线性导轨，和高精密丝杆确保高精度。

Double ox head 6-axis numerical controlled movement: the productivity is improved with double ox head structure, X Y Z 6 axes adopt imported linear guiderail and high precision screw to ensure high precision.

操作快捷，简单方便 / Quick, simple and convenient operation

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CNC系列
CNC Series

CNC 1260

Control system



全机操控采用

The operation and control of the whole machine adopts

智能算法软件

Smart algorithm software

使操作更方便

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独特的火花控制技术 / Distinctive discharge control technology

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稳定的铸件系统 / Stable casting system

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CNC系列
CNC Series

CNC 1470
Control system

全机操控采用

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独特的火花控制技术 / Distinctive discharge control technology

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CNC系列 CNC Series

CNC 1880 Control system

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The combination of distinctive discharge control technology and STANDY intelligent algorithm features obvious effect for rib machining and mirror machining

稳定的铸件系统 / Stable casting system

机身采用目前国内最稳定的铸件稳定系统设计配合STANDY商鼎系统，确保出色的重复定位精度。

The machine body adopts the currently domestic most stable casting system. Combining the STANDY system, it ensures outstanding repeat position accuracy

独到的应用技术 / Unique application technology

独到的脉冲电源优于电加工标准电源配合STANDY商鼎系统，确保放电导致极少的电极损耗。

The original pulse power supply is better than the electric machining standard power supply, combining the STANDY system, it ensures extremely less electrode loss during discharge

双牛头六轴数控移动方式 / Double ox head 6-axis numerical controlled movement

双牛头设计提高生产力，X Y Z六轴采用进口线性导轨，和高精密丝杆确保高精度。

Double ox head 6-axis numerical controlled movement: the productivity is improved with double ox head structure, X Y Z 6 axes adopt imported linear guiderail and high precision screw to ensure high precision.

操作快捷，简单方便 / Quick, simple and convenient operation

具有高水准的自动化程度使得主要的操控性极佳。

The product features excellent controllability due to its highest degree of automation.

策略生成向导 / Strategy creation wizard

减少操作员的培训时间，操作员随时将自己的经验加到NC中，商鼎系列机床允许创建自己的加工参数表并可用在制定的新程序中保存使用。

Reducing the times of training operators, the operator may add own experience into NC, STANDY series machining tool allows creating own machining parameter list which can be saved and adopted in the new program.



CNC系列
CNC Series

CNC 2110

Control system

全机操控采用

The operation and control of the whole machine adopts

智能算法软件

Smart algorithm software

使操作更方便

And features more convenient operation



独特的火花控制技术 / Distinctive discharge control technology

独特的火花控制技术配合STANDY商鼎智能算法对筋骨加工、镜面加工尤其显著。

The combination of distinctive discharge control technology and STANDY intelligent algorithm features obvious effect for rib machining and mirror machining

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ZNC系列 CNC Series

ZNC 430

Control system

国内**首创**单轴无粉镜面加工
Domestic original single axis powderless
mirror machining

国内石墨电极加工效率**最优秀**
The efficiency of processing graphite electrode
ranks first at home



模具工作室最普及机型

The machine tool adopted widest for the mould workshops

持续的稳定性: 机床Z轴采用三菱AC伺服马达, 进口C3级滚珠丝杆。

Constant stability: the Z axis of the machine tool adopts Mitsubishi AC servo motor and imported grade C3 ball screw.

高品质电火花专家控制器, 构成完善的放电系统: 评估放电的火花在必要时发挥特殊的作用

The complete discharge system is formed with high quality electrical discharge expertized controller: it features special function when assessing the discharging spark

速度快: 精加工时比普通火花机速度快2-3倍

Fast speed: the speed for finish machining is 2-3 times faster than common electrical discharge machine

简洁的系统介面, 操作性极佳, 简单方便

With concise system interface, the product features excellent operatability

ZNC系列 CNC Series

ZNC 540

Control system

国内**首创**单轴无粉镜面加工
Domestic original single axis powderless
mirror machining

国内石墨电极加工效率**第一**
The efficiency of processing graphite electrode
ranks first at home



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专家控制系统

全机操控采用智能算法软件，使操作更方便。

Expertized control system

The operation and control of the whole machine adopts intelligent algorithm software, and features more convenient operation.

拥有火花机的自主核心技术

专注于电加工的研发和制造

Possess independent and core technologies of EDM

Be dedicated to the R&D and manufacturing of Electrical Processing

镜面加工 Mirror Series

模具工作室高端机型，采用专用的镜面加工回路，无粉镜面加工。超精面，高镜面，超精边，超清角，高效加工，主轴抬刀速度最大可达到10m/min,高速抬刀能有效排除杂质，实现高效的稳定放电和表面的高质量。

As the high-end model for mould workshops, it adopts special mirror machining circuit with powderless mirror machining, and features ultra-precise surface, high mirror, ultra-precise edge, super clear angle and effective machining. The cutter lifting speed of the main axis reaches 10m/min, and the high speed cutter lifting is capable of effectively removing impurity, achieving effective and stable discharge as well as high quality surface.

石墨加工 Graphite Series

模具工作室高效机型，采用专用的石墨加工回路，高速粗加工较铜快3倍，高速精加工较铜快5倍，可加工性好，能实现复杂的几何造型，重量轻，密度不足铜的1/4，电极容易夹持，可减少单个电极的数量，因为可捆绑做成组合电极。

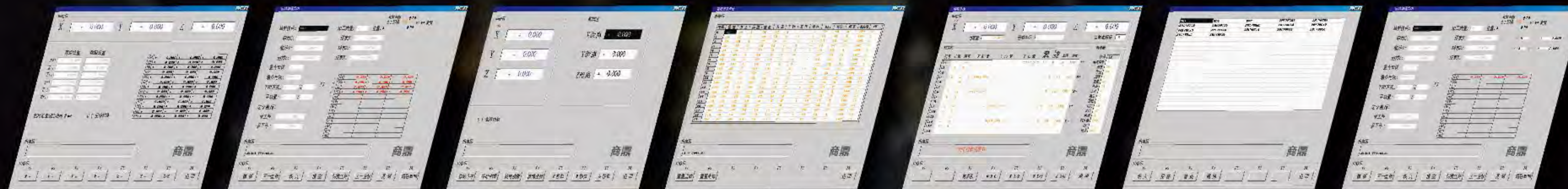
As the effective model for mould workshops, it adopts special graphite machining circuit with the high speed coarse machining 3 times faster than copper, and high speed finish machining 5 times faster than copper. The product features machinability, and is capable of achieving complicated geometric shape with light weight, its density is less than 1/4 of copper, which is easy for clamping with electrode, and can reduce the amount of single electrodes since they can be bundled as the combined electrode.

硬质合金加工 Hard Alloy Series

模具工作室高端机型，采用专用的硬质合金加工回路，无裂痕超硬加工，超精加工低电极消耗。

单一结构的底部采用高级铸铁，无变形，适合于高精密度的模具加工。

As the high-end model for mould workshops, it adopts special hard alloy machining circuit with crackless and ultra-high machining, and features ultra-precise machining and low electrode consumption, the bottom of single structure is made of high grade casting iron without deformation, and is suitable for machining moulds of high precision.



手动分中功能

Manual minute function

方便电极分液珠使用，操作简单，记忆超准。

Convenient for separating bead by electrode with simple operation and accurate memory.

自动编程功能

Automatic programming function

方便编程快、准，不容易出错。

Quick and accurate programming, avoiding mistake.

自动分中功能

Automatic minute function

节约时间、人工。

Saving time and labor.

标准参数修改功能

Standard parameters modifying function

方便手动编程，可直接读取里面的参数。

Convenient for manual programming, directly reading the parameters.

放电分中功能

Discharge minute function

方便电极直接分工件，不会产生有毛刺的情况。

Convenient for electrode to separate the workpiece without causing burr.

文件保存功能

Files saving function

方便复式模加工，修模加工。

Convenient for machining gang molds and trimming mould.

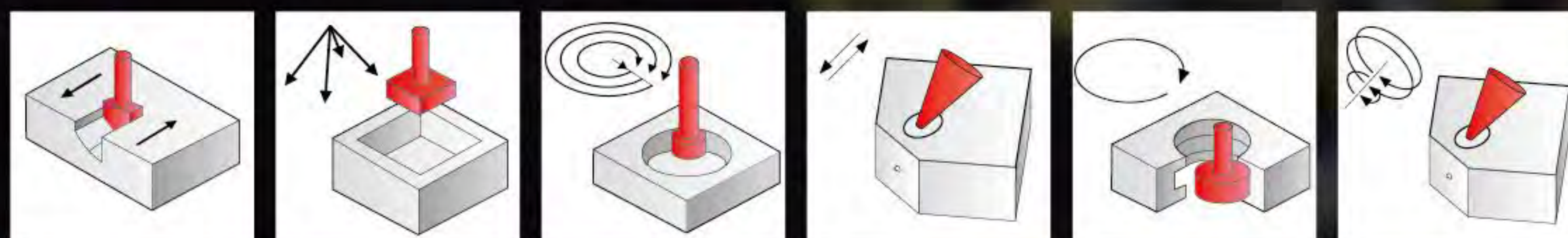
步距功能

Pitch function

更加提高编程的速度和准确率，让操作员看起来更清晰，方便加工移位数据一样的多位置模具。

Improving the speed and accuracy of programming, it is clear when observing by the operator, which is convenient for machining the multi-position mould as displacement data.

加工模式 Machining Mode



免费终身系统升级，我们提供最新的技术，以帮您应对变化的世界！

Lifecycle system upgrade free of charge, we provides you with latest technology for coping with the changing world!

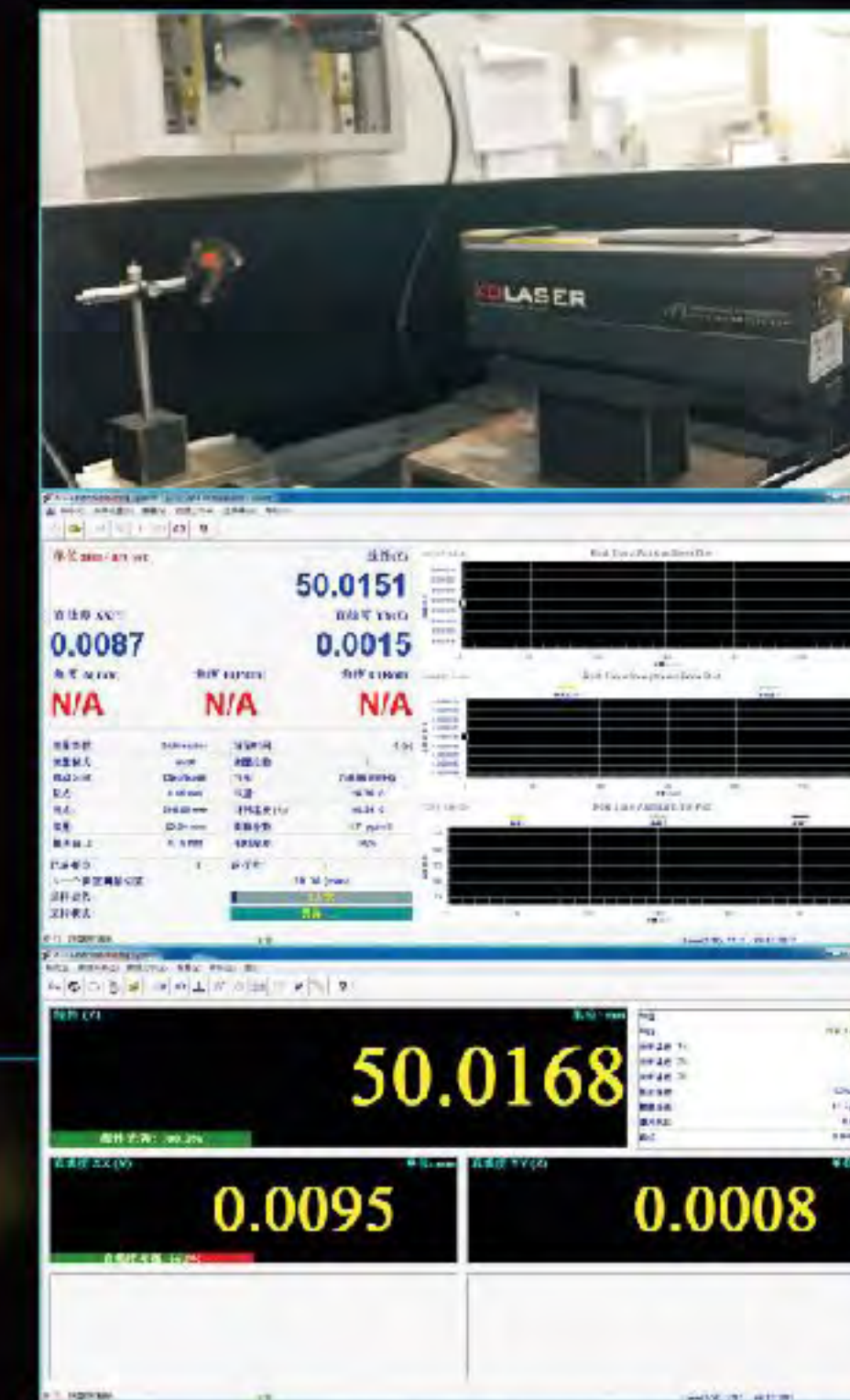
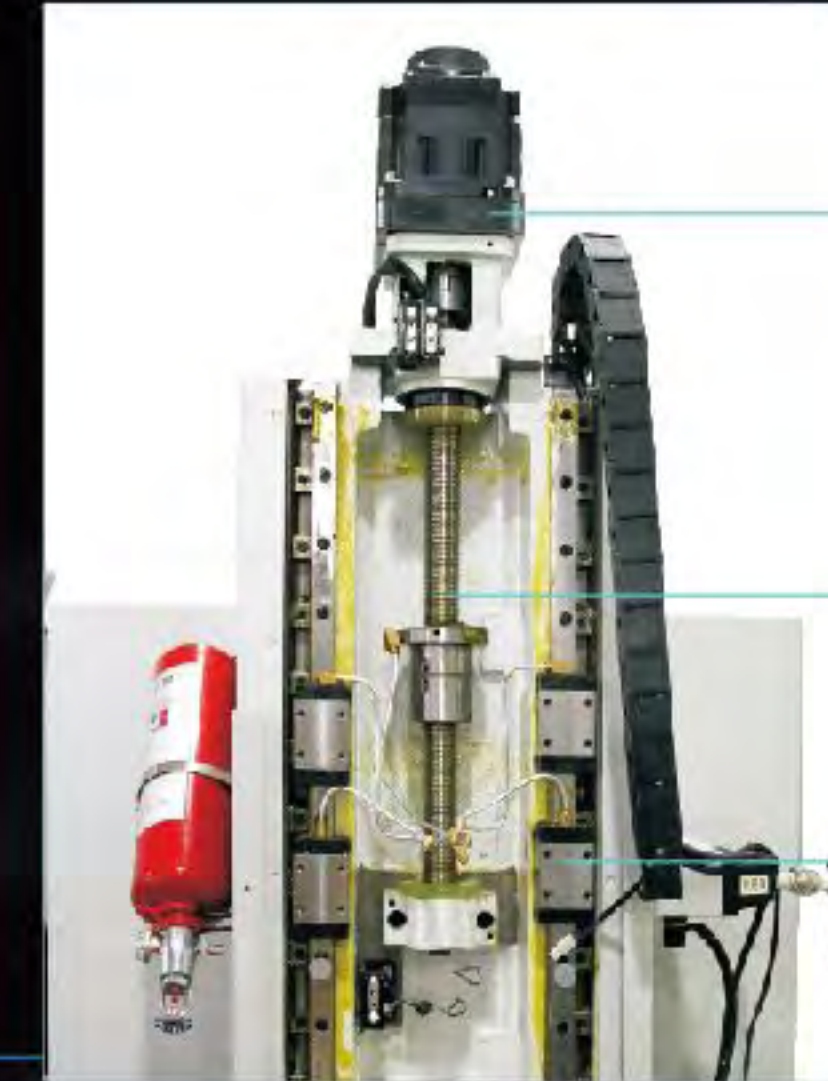
全系列机型标准配置

Standard configuration for all models of the series

基于成功的创新设计、创新功能

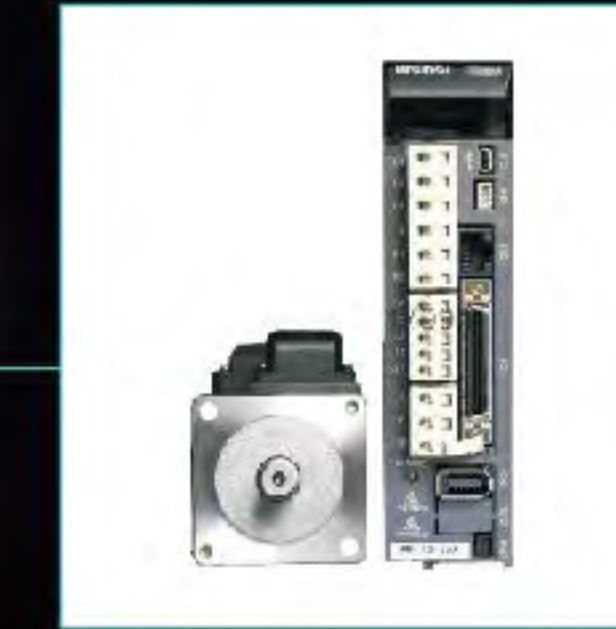
我们的解决方案可以提高加工性能和生产率，使加工稳定可靠。

Basing on successful innovative design and innovative function, our solution is capable of improving the machining performance and productivity, and ensuring stable and reliable machining.



全系列机型采用进口激光干涉仪调试，确保每一台出厂前的最佳精度。

All models are commissioned with imported laser interferometer to ensure best precision for each machine tool before delivery.



大理石工作台结构提供长时间使用时的精度稳定性。

The work table is made of marble. The precision stability is improved under constant running.

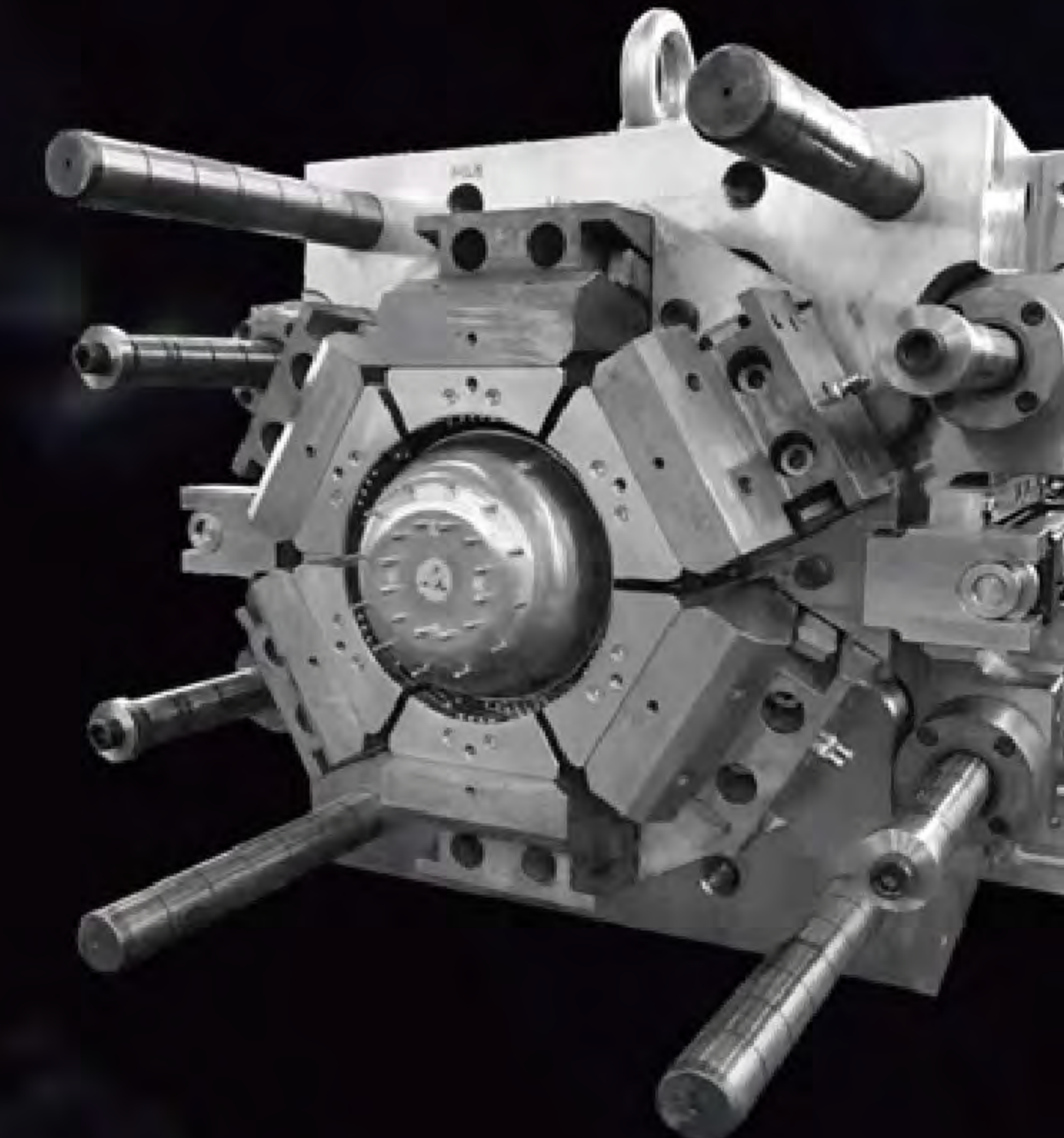
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Standard configuration for all models of the series

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有偿配置 Payable configuration



ETC选配
ETC options



稳压器
Voltage stabilizer



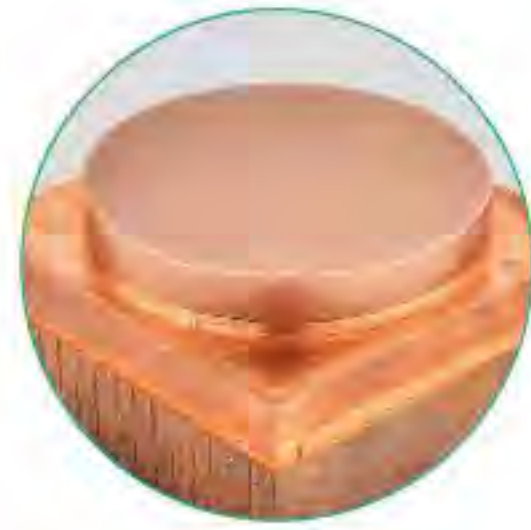
高性能油温控制设备
High performance
oil temperature control device



高品质镜面火花油
High quality mirror spark oil

加工实例

Machining Cases



圆形深腔镜面加工
Round deep cavity mirror machining

使用机型: CNC430
Applicable Model: CNC430

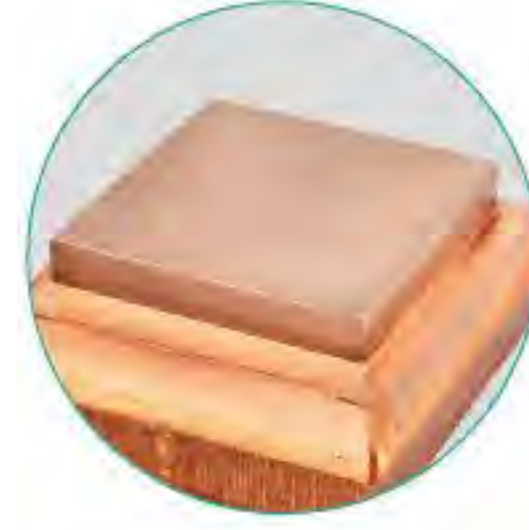
电极: 铜
Electrode: Copper

工件: S136H
Workpiece: S136H

尺寸: $\Phi 40S=1256mm$
Size: $\Phi 40S=1256mm$

加工时间: 4小时45分
Machining Time: 4 hours and 45 minutes

表面粗糙度: VDI=Ra0.1
Surface Roughness: VDI=Ra0.1



方形深腔镜面加工
Square deep cavity mirror machining

使用机型: CNC430
Applicable Model: CNC430

电极: 铜
Electrode: Copper

工件: S136H
Workpiece: S136H

尺寸: $40 \times 40 \times 8$
Size: $40 \times 40 \times 8$

加工时间: 6小时
Machining Time: 6 hours

表面粗糙度: VDI=Ra0.1
Surface Roughness: VDI=Ra0.1



深腔镜面加工
Deep cavity mirror machining

使用机型: CNC-430
Applicable Model: CNC-430

电极: 铜
Electrode: Copper

工件: S136H
Workpiece: S136H

尺寸: $80 \times 10 \times 6$
Size: $80 \times 10 \times 6$

加工时间: 4小时
Machining Time: 4 hours

表面粗糙度: VDI=Ra0.1
Surface Roughness: VDI=Ra0.1



石墨深腔骨位加工
Graphite deep cavity rib machining

使用机型: CNC-540
Applicable Model: CNC-540

电极: 石墨
Electrode: Graphite

工件: S136H
Workpiece: S136H

火花位: 《粗公: 0.15/s》
Spark Position: "Coarse copper electrode: 0.15/s"

《幼公: 0.07/s》
"Fine copper electrode: 0.07/s"

表面粗糙度: VDI 21号纹
Surface Roughness: VDI 21# texture



尺寸: $29 \times 2 \times 45$
Size: $29 \times 2 \times 45$

加工深度: 40mm
Machining Depth: 40mm

加工时间: 5小时10分
Machining Time: 5 hours and 10 minutes



尺寸: $20 \times 1 \times 25$
Size: $20 \times 1 \times 25$

加工深度: 20mm
Machining Depth: 20mm

加工时间: 1小时10分
Machining Time: 1 hour and 10 minutes

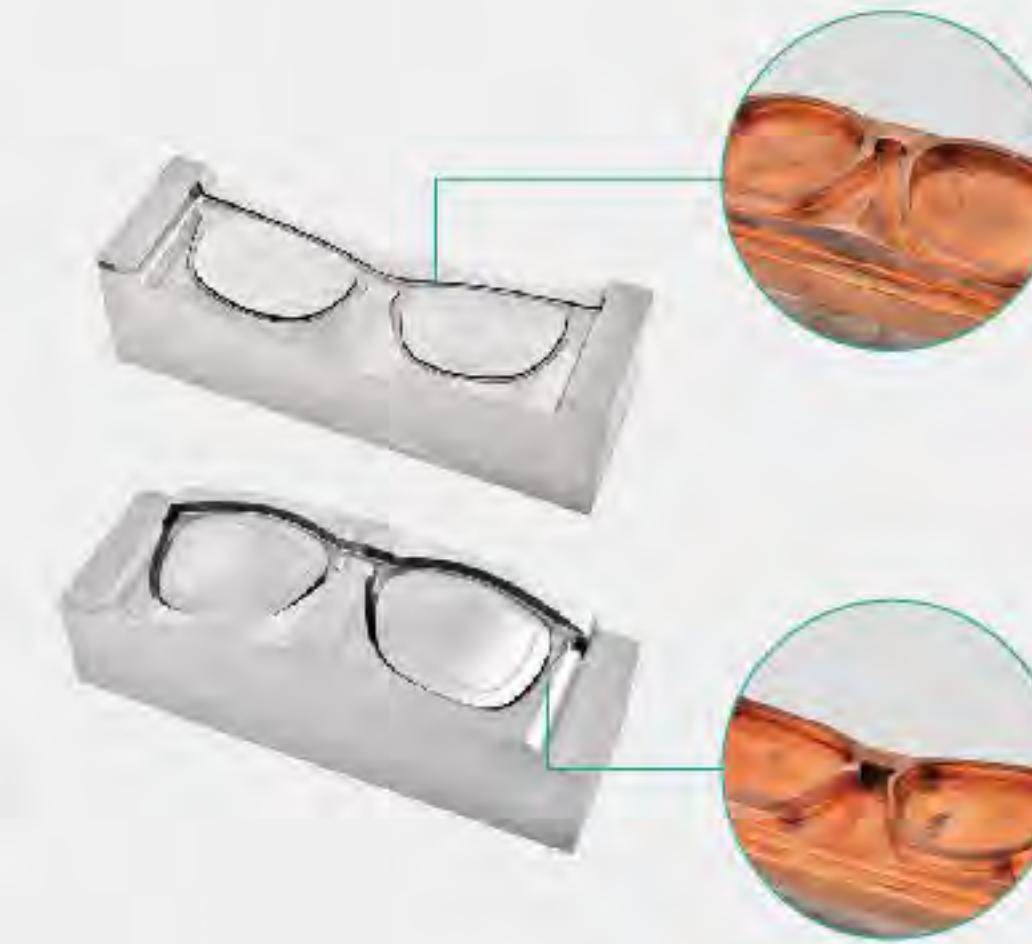
眼镜框前后模镜面加工
Spectacle frame front and rear film mirror machining

使用机型: CNC-430
Applicable Model: CNC-430

电极: 铜
Electrode: Copper

工件: S136H
Workpiece: S136H

表面粗糙度: VDI=Ra0.1
Surface Roughness: VDI=Ra0.1



尺寸: 130×40
Size: 130×40

加工时间: 10小时
Machining Time: 10 hours

尺寸: 130×40
Size: 130×40

加工时间: 12小时
Machining Time: 12 hours

LED灯罩外形镜面加工
LED lampshade contour mirror machining

使用机型: CNC-430
Applicable Model: CNC-430

电极: 铜
Electrode: Copper

工件: S136H
Workpiece: S136H

表面粗糙度: VDI=Ra0.1
Surface Roughness: VDI=Ra0.1



尺寸: $\Phi 30$
Size: $\Phi 30$

加工时间: 4小时30分
Machining Time: 4 hours and 30 minutes

尺寸: $43 \times 25 \times 5$
Size: $43 \times 25 \times 5$

加工时间: 5小时
Machining Time: 5 hours

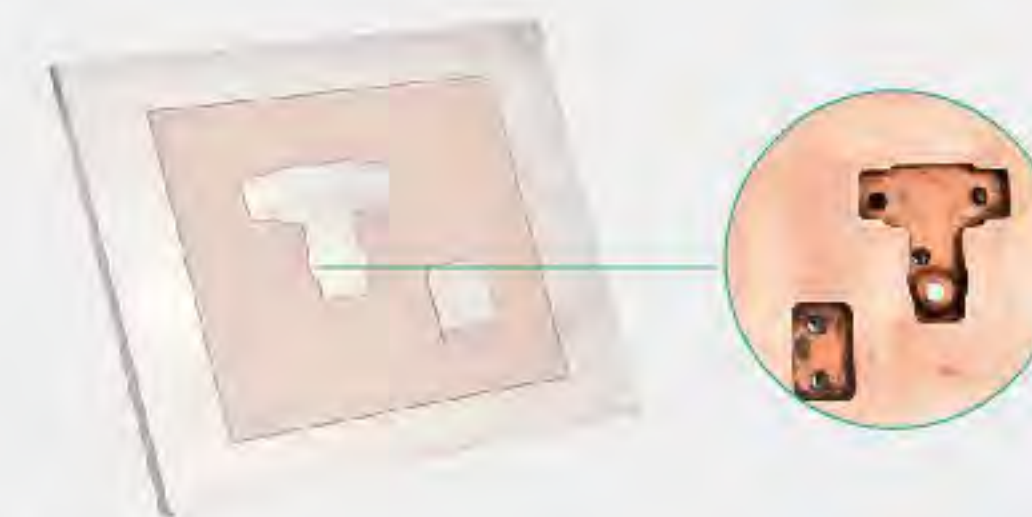
平面精幼纹路加工
Plane fine texture machining

使用机型: CNC-430
Applicable Model: CNC-430

电极: 铜
Electrode: Copper

工件: S136H
Workpiece: S136H

表面粗糙度: VDI 18号纹 Ra0.8
Surface Roughness: VDI 18# texture Ra0.8



尺寸: 90×86
Size: 90×86

加工时间: 4小时30分
Machining Time: 4 hours and 30 minutes

机型参数

Model Parameters



项目 Items	单位	CNC-400	CNC-430	CNC-540	CNC-850	CNC-1260	CNC-1250/双 /double	CNC-1470单/双 Single/double	CNC-1880单/双 Single/double	CNC-2110单/双 Single/double	CNC-2510单/双 Single/double	CNC3010 单/双 Single/double	ZNC-430	ZNC-540	
工作槽 (长*宽*高) Working slot (L*W*H)	mm	710*930*340	1050*620*450	1370*810*450	1800*1100*600	2000*1300*700	2000*1100*600	2250*1300*700	3000*1500*850	3500*1800*850	3800x1800x850	4500x1800x800	1370x670x450	1400x700x500	
工作台面规格 Work table size	mm	600*500	700*400	850*500	1050*600	1250*800	1200*600	1500*900	2000*1000	2500*1200	2700x1200	3200x1200	700x400	800x400	
XYZ轴工作行程 (单头) XYZ axis working travel (single head)	mm	400*400*300	400*300*300	500*400*300	800*500*400	1200*600*450		1400*700*500	1800*800*600	2300*900*600	2500x900x600	3000x900x600	400x300x180	500x400x200	
XYZ轴工作行程 (双头) YZ axis working travel (double head)	mm						600*500*400	850*700*500	1200*800*600	1450*900*600	1750x900x600	2400x900x600			
主轴至台面最低、高点 Lowest and highest points from main axis to the work surface	mm	260-570	300-600	390-690	500-900	550-1000	330-730	700-1200	600-1200	650-1250	650-1250	700-1300	180-580	180-680	
最大电极重量 Max weight of electrode	kg	50	50	150	200	300	150	400	400	450	450	450	150	150	
最大工作物载重量 Max load for working object	kg	400	400	1800	3000	3500	3000	5000	6500	8000	10000	15000	1000	1300	
机床规格 (长*宽*高) Dimension of machine tool (L*W*H)	mm	2170*1730*2600	1980*2030*2250	2500*2400*2800	2900*2900*3000	3500*3200*3500	3700*2900*3000	5000*4000*3500	6000*4000*3600	7000*5000*3600	7500x5500x3600	8000x5500x3650	2700x1500x2400	3000x1600x2450	
机床总重量 Total weight of machine tool	kg	3000	3000	3500	5000	6000	7800	9500	13000单 / 15000双	15000单 / 17000双	单17500 / 双19500	单23000 / 双25000	1800	2200	
定位精度 Positioning precision		≤0.005mm 检测标准GB/T5291.1-2001 ≤0.005mm test standard GB/T5291.1-2001							≤0.005mm 检测标准GB/T5291.1-2001 ≤0.005mm test standard GB/T5291.1-2001						
重复定位精度 Repeat positioning precision		±0.005mm 检测标准GB/T5291.1-2001 ±0.005mm test standard GB/T5291.1-2001							±0.005mm 检测标准GB/T5291.1-2001 ±0.005mm test standard GB/T5291.1-2001						

机械安装 Mechanical installation

机械完全能发挥其性能, 需要考虑机械安装环境
The installation environment should be taken into consideration to make the full performance of the machine tool

温度: 20°C ~ 25°C

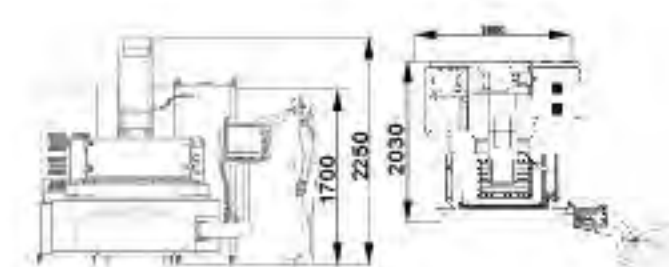
Temperature: 20 C -25 C

湿度: 50%左右

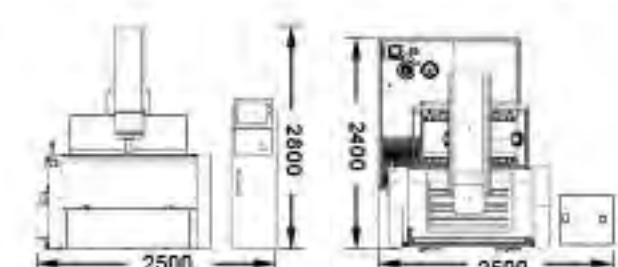
Humidity: About 50%

振动: 最大瞬间振动 0.5G以下

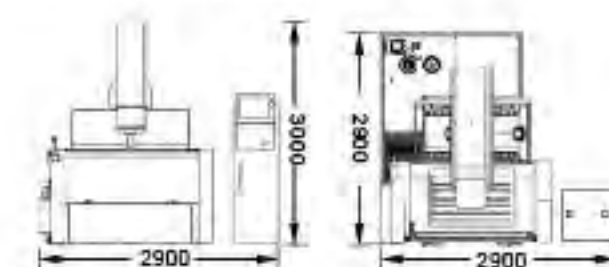
Vibration: Max transient vibration is <0.5G



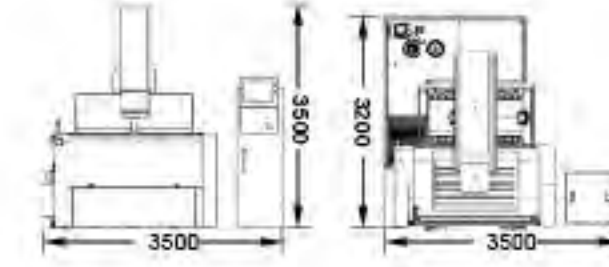
CNC-430



CNC-540



CNC-850



CNC-1260

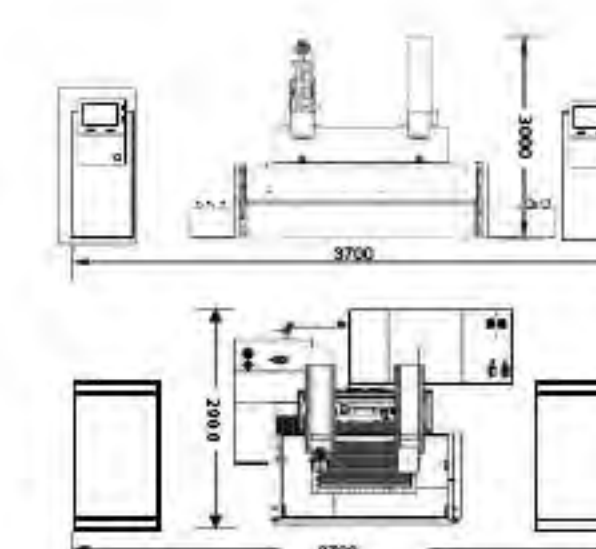
电气条件 Electric conditions

1、输入电源3相AC-380V/50HZ. 电压为 ± 10%以上变动时我们建议
使用稳压器。准备好符合CNC电源装置及各种选配件等总电
气量的保险开关。接地要10Ω以下的三重施工。

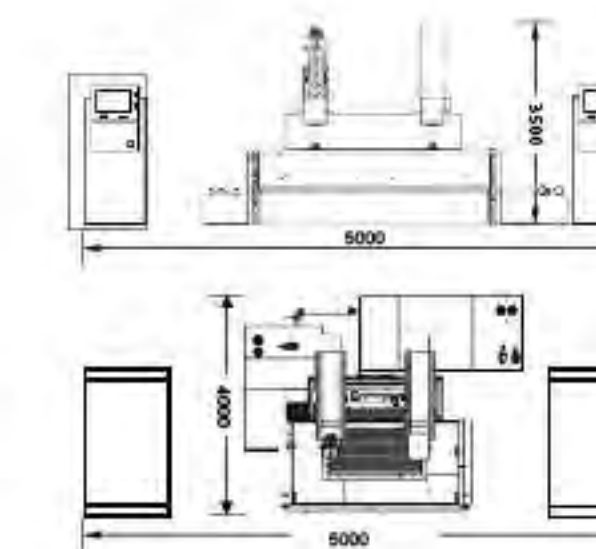
1. Power input: 3-phase AC-380V/50HZ. When the voltage fluctuation is over ±10%,
it is suggested to adopt voltage stabilizer. Prepare the fuse switch with total electric capacity
meeting the requirements of CNC power device and various options.
The grounding shall be lower than 10Ω with triple constructions.

2、需安装缺相保护器。

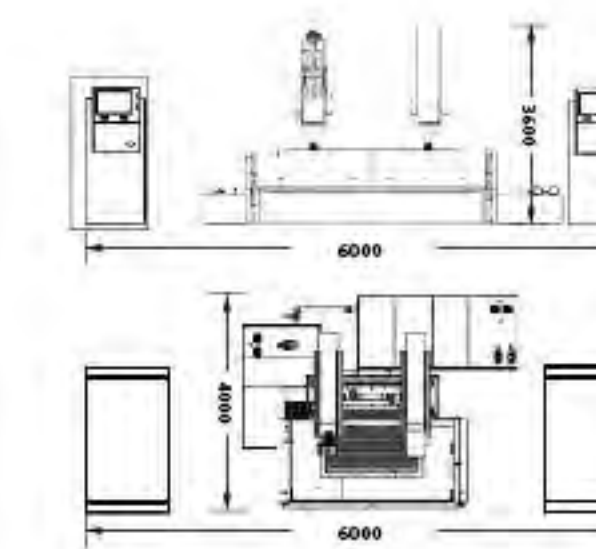
2. Open-phase protection is required.



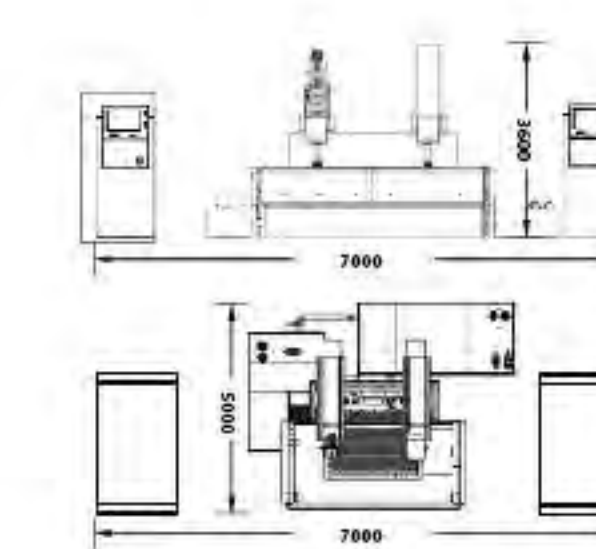
CNC-1250



CNC-1470



CNC-1880



CNC-2110

表面粗糙度

Surface roughness

EDM 表面粗糙度标准

EDM surface roughness standard

EDM表面粗糙度各种标准对照表 / Comparison on Various Standards of EDM Surface Roughness				
国家标准 香港模协 National standard Hong Kong Mould & Die Council	法国 = ISO标准 France = ISO Standard	欧洲 Europe	Ra=CLA (英国) =AA (美国) Ra值 Ra=CLA (British) =AA (USA) Ra Value	
JB/7781 MDC	NF0 5051=ISO1302	VD13400	μm	μinch
E (等级) E (grade)	N (等级) N (grade)	CH(夏米尔等级) CH(Charmilés grade)		
	N3	0	0.10	4.0
		1	0.11	4.4
		2	0.12	4.8
		3	0.14	5.6
		4	0.16	6.4
		5	0.18	7.2
	N4	6	0.20	8.0
		7	0.22	8.8
		8	0.25	10.0
		9	0.28	11.2
		10	0.32	12.8
		11	0.35	14.0
	N5	12	0.40	16.0
E1		13	0.45	18.0
		14	0.50	20.0
		15	0.56	22.4
E2		16	0.63	25.2
		17	0.70	28.0
E3		18	0.80	32.0
	N6	19	0.90	36.0
		20	1.00	40.0
		21	1.12	44.8
		22	1.25	50.4
E4		23	1.40	56.0
			1.60	64
		24	1.62	63.0
	N7	25	1.80	72.0
		26	2.00	80.0
		27	2.20	88.0
		28	2.50	100
		29	2.80	112
E5	N8	30	3.20	125
		31	3.50	140
E6		32	4.00	160
		33	4.50	180
E7		34	5.00	200
		35	5.60	224
	N9	36	6.30	250
		37	7.00	280
E8		38	8.00	320
		39	9.00	360
E9		40	10.00	400
		41	11.20	448
E10			12.5	500.4
	N10	42	12.60	500
		43	14.00	560
E11		44	16.00	640
		45	18.00	760
E12			20.00	800

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NO 序号	Processing Way 加工方式	(A) 平均电流	电流 序号	IN 脉宽	IE 休止	TW 间隙	TN 工时	FIV 高压	(g/min) 分钟加工量	One side Gap(mm) 侧边间隙	Size(mm) 面积	One side Gap(mm) 底边间隙	底边间隙 相差值
1	铜-钢Copper-steel	0.5	1	20	20	6	6	3	*0.003	0.015	5*5	0.025	
	石墨-钢Graphite-steel			20	25	2	6	3					0.020
2	铜-钢Copper-steel	1.2	2	30	20	6	6	3	*0.005	0.035	5*5	0.045	
	石墨-钢Graphite-steel			25	30	2	6	3					0.015
3	铜-钢Copper-steel	2.2	3	60	20	7	6	0	*0.008	0.05	5*5	0.060	
	石墨-钢Graphite-steel			30	30	2	7	3					0.020
4	铜-钢Copper-steel	3.1	4	70	20	7	7	0	*0.02	0.065	5*5	0.080	
	石墨-钢Graphite-steel			40	30	2	7	0					0.020
5	铜-钢Copper-steel	4	5	80	20	8	7	0	*0.035	0.08	10*10	0.100	
	石墨-钢Graphite-steel			50	30	2	7	0					0.020
6	铜-钢Copper-steel	4.9	6	90	20	8	8	0	*0.05	0.09	10*10	0.120	
	石墨-钢Graphite-steel			60	30	3	10	0					0.025
7	铜-钢Copper-steel	5.8	7	100	20	8	8	0	*0.06	0.1	10*10	0.145	
	石墨-钢Graphite-steel			70	30	3	10	0					0.015
8	铜-钢Copper-steel	6.7	8	110	20	9	9	0	*0.08	0.115	15*15	0.160	
	石墨-钢Graphite-steel			80	30	3	10	0					0.020
9	铜-钢Copper-steel	7.7	9	120	20	9	9	0	*0.11	0.125	15*15	0.180	
	石墨-钢Graphite-steel			90	30	3	10	0					0.020
10	铜-钢Copper-steel	8.7	10	130	20	10	10	0	*0.14	0.14	15*15	0.200	
	石墨-钢Graphite-steel			100	30	3	10	0					0.015
11	铜-钢Copper-steel	9.6	11	140	20	10	10	0	*0.17	0.155	20*20	0.215	
	石墨-钢Graphite-steel			110	30	5	10	0					0.015
12	铜-钢Copper-steel	10.6	12	150	20	10	10	0	*0.18	0.165	20*20	0.230	
	石墨-钢Graphite-steel			120	30	3	10	0					0.015
13	铜-钢Copper-steel	11.6	13	160	20	10	10	0	*0.2	0.18	20*20	0.245	
	石墨-钢Graphite-steel			130	30	3	10	0					0.010
14	铜-钢Copper-steel	12.2	14	170	20	10	10	0	*0.22	0.19	25*25	0.255	
	石墨-钢Graphite-steel			140	30	3	10	0					0.015
15	铜-钢Copper-steel	13.1	15	170	20	10	10	0	*0.245	0.205	25*25	0.270	
	石墨-钢Graphite-steel			150	30	3	10	0					0.015
16	铜-钢Copper-steel	14.1	16	180	20	10	12	0	*0.28	0.21	25*25	0.285	
	石墨-钢Graphite-steel			160	30	3	10	0					0.015
17	铜-钢Copper-steel	15.1	17	200	20	10	12	0	*0.32	0.22	30*30	0.300	
	石墨-钢Graphite-steel			170	30	3	10	0					0.020
18	铜-钢Copper-steel	15.7	18	210	20	10	13	0	*0.37	0.235	30*30	0.320	
	石墨-钢Graphite-steel			180	30	3	10	0					0.020
19	铜-钢Copper-steel	16.7	19	220	20	10	13	0	*0.4	0.245	30*30	0.340	
	石墨-钢Graphite-steel			190	30	3	10	0					0.015
20	铜-钢Copper-steel	17.7	20	230	20	10	14	0	*0.45	0.26	30*30	0.355	
	石墨-钢Graphite-steel			200	30	3	10	0					0.025
21	铜-钢Copper-steel	22.6	25	280	20	10	15	0	*0.6	0.3	35*35	0.380	
	石墨-钢Graphite-steel			250	30	3	10	0					0.035
22	铜-钢Copper-steel	25.1	28	310	22	10	15	0	*0.67	0.33	35*35	0.415	
	石墨-钢Graphite-steel			280	30	3	10	0					0.065
23	铜-钢Copper-steel	26.8	30	330	22	10	15	0	*0.80	0.385	35*35	0.480	
	石墨-钢Graphite-steel			300	45	5	10	0					0.050
24	铜-钢Copper-steel	31.6	35	380	23	10	16	0	*1.05	0.42	50*50	0.530	
	石墨-钢Graphite-steel			350	45	5	10	0					0.020
25	铜-钢Copper-steel	35.1	40	430	23	10	18	0	*1.2	0.46	50*50	0.550	
	石墨-钢Graphite-steel			400	45	5	10	0					0.050
26	铜-钢Copper-steel	40	45	480	23	10	18	0	*1.35	0.5	50*50	0.600	
	石墨-钢Graphite-steel			450	60	5	10	0					0.050
27	铜-钢Copper-steel	44.7	50	530	24	10	19	0	*1.41	0.53	50*50	0.650	
	石墨-钢Graphite-steel			500	60	8	10	0					0.030
28	铜-钢Copper-steel	49.8	55	580	25	10	19	3	*1.40	0.55	80*80	0.680	
	石墨-钢Graphite-steel			550	60	8	10	0					0.050
29	铜-钢Copper-steel	53	60	625	30	10	19	3	*1.60	0.6	80*80	0.730	
	石墨-钢Graphite-steel			600	80	8	10	0					0.050
30	铜-钢Copper-steel	62	70	685	35	13	19	3	*1.83	0.65	80*80	0.780	
	石墨-钢Graphite-steel			700	90	10	10	0					0.070
31	铜-钢Copper-steel	72	80	735	45	14	20	3	*2.05	0.75	80*80	0.850	
	石墨-钢Graphite-steel			800	90	10	10	0					

表面粗糙度

Surface roughness

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Standard for EDM surface roughness

EDM加工不同的加工部位的粗糙度标准

Roughness standard for different machining parts with EDM

- 1、封胶位：加工表面粗糙度Ra2.20 μm（即国家标准E4级与E5级之间或CH27）
1- Sealant position: surface roughness Ra2.20μm(national standard Grade E4 to Grade E5 or CH27)
- 2、插穿、碰穿面：加工到表面粗糙度Ra3.2 μm（即国家标准E5级或CH30）
2- Shutoff/kissoff surface: to surface roughness Ra3.2μm(national standard Grade E5 or CH30)
- 3、配合位：加工到表面粗糙度Ra1.6 μm（即国家标准E4级或CH24）
3- Fit position: to surface roughness Ra1.6μm(national standard Grade E4 or CH24)
- 4、胶位面：表面粗糙度，按下表加工
4- Material level: surface roughness is subject to form below

产品表面要求	砂纸抛光	钻石膏抛光	火花纹
EDM加工要求 Requirement on product surface Requirement on EDM machining	Ra2.2 (E4-E5之间或CH27) Sandpaper polishing Ra2.2(E4-E5 or CH27)	Ra (E4或CH4) Diamond paste polishing Ra (E4 or CH4)	按产品要求大两级CH加工 Thin fire texture 2 grades higher according to the product requirement with CH machining

注：加工面积200cm以上时可加大一级E等级粗糙度加工
Note: when the processing area is over 200cm, the roughness is one grade higher to grade E

- 5、骨位：表面粗糙度Ra1.6 μm左右（即国家标准E4级或CH24）
5- Rib: surface roughness is about Ra1.6μm (national standard Grade E4 or CH24)
- 6、避空位：表面粗糙度Ra6.4-Ra12.5 μm（即国家标准E9级与E10级之间或CH36-CH41）
6- Clearance position: surface roughness ranges Ra6.4-Ra12.5μm(national standard Grade E9 to Grade E10 or CH36-CH41)

商鼎电加工参考的放电加工参数

Reference Electrical Processing parameters for STAN DY electrical discharge machine

Ra值 (μm)	电极材料 Material of electrode	电流序号 Current sequence	脉宽 Pulse width	休止 Stop	高压 High voltage	工时 Working hours	升高 Rising	间隙 Clearance	速度 Speed
Ra 0.22 CH7	铜 Copper	401	1	1	3	6	5	1	5
Ra 1.1	铜 copper	1	20	20	3	6	10	6	10
CH20	石墨 graphite	201	20	25	3	6	10	2	10
Ra 1.3	铜 copper	2	30	20	3	6	10	6	10
CH22	石墨 graphite	202	25	30	3	6	10	2	10
Ra 1.6	铜 copper	3	60	20	0	6	100	7	10
CH24	石墨 graphite	203	30	30	0	6	100	6	10
Ra 2.2	铜 copper	5	80	20	0	7	100	8	10
CH27	石墨 graphite	205	50	30	0	7	100	6	10
Ra 3.2	铜 copper	7	100	20	0	8	100	8	10
CH30	石墨 graphite	207	70	30	0	8	100	6	10
Ra 6.4-Ra12.5	铜 copper	10- 15	130- 180	20	0	10	100	10	10
CH36- CH42	石墨 graphite	210- 215	100- 150	30	0	10	100	6	10

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粗糙度换算表 Conversion form of roughness						
R max	R y	R a	R z	Rmax的换算比率 Conversion ratio of R max		
				R y/R max	R a/R max	x R z/R ma
2	3.1	0.42	2.5	1.54	0.21	1.25
4	5.7	0.81	4.7	1.43	0.20	1.18
6	7.8	1.16	6.6	1.30	0.193	1.10
9	10.8	1.66	9.5	1.20	0.184	1.06
12	13.5	2.2	11.7	1.13	0.181	0.98
14	15.1	2.5	13.1	1.08	0.179	0.94
16	16.4	2.8	14.2	1.03	0.176	0.89
20	19.8	3.5	16.8	0.99	0.175	0.84
23	22	4.0	18.0	0.97	0.174	0.78
25	24	4.3	19.3	0.94	0.173	0.77
30	28	5.2	23	0.93	0.172	0.75
40	36	6.9	29	0.90	0.172	0.73
50	44	8.6	35	0.88	0.172	0.70
70	60	12	46	0.86	0.171	0.66
90	76	15.4	56	0.84	0.171	0.62
110	91	18.7	66	0.83	0.170	0.60
130	106	22	75	0.82	0.169	0.58
160	128	27	89	0.80	0.169	0.56

- 1、国家JB/7781标准与香港模具协会MDC标准规格相同；
1- The specification listed in the National standard JB/7781 is the same as that in Hong Kong Mould & Die Council MDC Standard;
- 2、MDC标准表面粗糙等级可参考商鼎提供的ABS纹板；
2- Refer to ABS texture board provided by STAN DY for the MDC standard surface roughness grade;
- 3、VDI3400标准表面粗糙等级与夏米尔CH等级等同，可对考夏米尔CH纹板；
3- The surface roughness grade listed in VDI3400 Standard is the same as that of CHARMILLES CH grade, refer to CHARMILLES CH texture board;
- 4、法国NF05051标准表面粗糙等级与ISO1302标准等同；
4- The surface roughness grade listed in NF05051 Standard is the same as that of ISO1302 Standard;
- 5、对于给定的脉冲电源规范，加工不同材料的表面粗糙度是不相同的；
5- For the set pulse power supply specification, the surface roughness is different for machining different materials;
- 6、表达表面粗糙度的标准有Ra Rq Ry Rz；
6- The standards for expressing surface roughness include Ra, Rq, Ry and Rz;
- 7、Ry的旧美式名称是Rmax；一些EDM机床上仍在使用Rmax，如：MakIno（牧野）火花机等。
7- The old US name of Ry is Rmax; Rmax is also adopted by some EDM, for example: MakIno EDM.

部分客户现场实景

CASE



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