Precision Engineered in China, Empowered by German Tech

Intelligent Waterjet SuperLine

德法水刀 · 智造未来

IWJ INTELLIGENT WATERJET 智能水刀

IWJ INTELLIGENT WATERJET

公司介绍
Company Introduction

自2014年成立以来，德法科技公司秉承锐意进取的开拓精神，坚持“以技术创新求发展”的经营思想，不断应用最新科技成果，努力提高企业科技实力和技术优势，并于2020年建立了一支由具有丰富研发经验且长期从事水刀行业的专家和资深工程技术人员组成的研发团队，相继研发出异步双刀头水切割设备、智能全自动水切割设备、AC五轴水切割设备、双飞梁水切割设备和自动连线设备等，可广泛应用于玻璃切割、陶瓷拼花、石材开料等领域。

德法科技公司拥有先进独特的经营管理模式以及全面周到的优化配置，从产品定制、生产、销售到售后建立了一套完善的服务管理体系，致力于追求企业、客户和其他合作伙伴之间的利益平衡，为每一位使用德法水刀的客户及合作伙伴创造美好的未来。

德法科技 – 实力
DEFA Technology Strength

16+
多项专利证书
Multiple patent certificates

- CE认证 CE Certification
- 国家高新技术企业 National high-tech enterprise
- 广东省创新型企业 Guangdong innovative Enterprise

CE

广东省创新型企业 Guangdong innovative enterprises

Since its founding in 2014, DEFA Technology has upheld a pioneering spirit of progress and adhered to the business philosophy of "development through technological innovation." Continuously applying the latest technological achievements, the company strives to enhance its technological strength and advantages. In 2020, DEFA Technology established a research and development team composed of experts and senior engineering technicians with extensive experience in the waterjet industry. This team has successively developed products such as asynchronous dual-head waterjet cutting equipment, intelligent fully automatic waterjet cutting equipment, AC five-axis waterjet cutting equipment, double-gantry waterjet cutting equipment, and automated connecting equipment. These products find wide applications in fields such as glass cutting, ceramic mosaic assembly, and stone material processing.

DEFA Technology possesses an advanced and unique operational management model as well as a comprehensive and meticulous optimization configuration. From product customization, production, and sales to after-sales service, the company has established a comprehensive service management system. It is committed to achieving a balance of interests between the company, customers, and other cooperative partners, striving to create a bright future for every customer and partner who utilizes DEFA waterjet technology.

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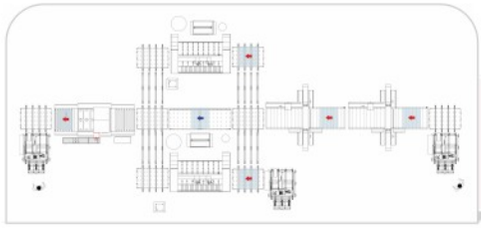
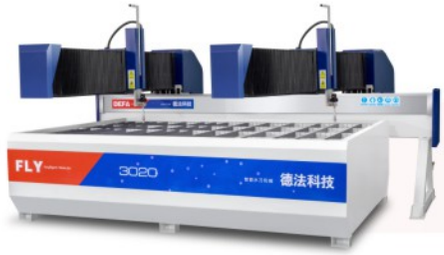
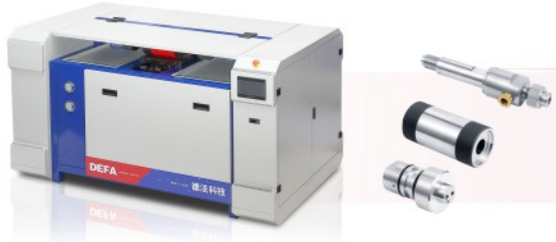






全自动系列
FULLY AUTOMATIC SERIES

全自动超级线 FULLY AUTOMATIC SUPERLINE

可切可磨 多类型加工
Capable of both cutting and grinding, supporting multiple processing types.

“IWJ超级线水刀”集成了切割与打磨双重核心功能，加工流程衔接紧密且高效。具体而言，水刀刀头首先完成对玻璃的精准切割，随后另一组磨头会立即对切割形成的边缘进行打磨处理。这一“切割 - 打磨”连贯工艺，能有效优化玻璃切口状态，显著降低后续钢化工序中因水切割切口问题导致的玻璃损耗。此外，设备具备灵活的功能配置可选性。若客户无需打磨功能，可将磨头模块替换为水刀切割头，使设备升级为双刀头切割模式，以满足更高效率的切割需求。

The "IWJ SuperLine WaterJet" integrates two core capabilities—cutting and grinding—into a seamless, high-efficiency process. The water jet first performs precise glass cutting, and a set of grinding heads immediately smooths the edges. This continuous "cut-and-grind" workflow optimizes edge quality and significantly reduces glass loss during subsequent tempering caused by water-cut edge issues. The system also offers flexible configuration options. If grinding is unnecessary, the grinding module can be replaced with an additional water jet cutting head, upgrading the system to a dual-head cutting mode for higher throughput.

智能识别 多段分流
Intelligent Recognition, Multi-segment Diversion

“IWJ超级线水刀”采用两段式控制设计，实现了加工流程的高效分流与并行处理。当待加工的玻璃按照生产节奏进入预设的加工通道，准备接受切割、打磨等核心工序时，系统可同步对无需加工的玻璃进行处理。借助专用的双向分流台，这部分玻璃会被精准引导至另一条独立的传送通道，无需等待加工流程完成，便能直接传送至下一道生产工序。这种设计有效避免了不同需求玻璃的流程冲突，大幅提升了整体生产线的运转效率与空间利用率。

The "IWJ SuperLine WaterJet" employs a two-stage control design to achieve efficient process diversion and parallel handling. As glass requiring processing enters the preset channel at production rhythm for core operations like cutting and grinding, the system simultaneously handles glass that needs no processing. Through a dedicated bidirectional diverter, this glass is precisely routed to a separate conveyor channel, proceeding directly to the next production stage without waiting for machining to complete. This design effectively eliminates workflow conflicts between glass with different processing needs, significantly boosting overall production line efficiency and space utilization.

智能加工 多模式自动切换
Intelligent Machining featuring Multi-Mode Auto-Switching

“IWJ超级线水刀” 具备根据玻璃宽度自动适配加工模式的智能调节能力，可灵活切换单段或双段协同运作。当传送进来的玻璃宽度小于1500mm 时，设备会自动启动单段加工模式，将玻璃精准导入左段通道进行加工操作，同时右段通道切换为分流传送通道，专门输送无需加工的玻璃，形成“一边加工、一边传送”的并行处理状态，大幅提升流程效率。若玻璃宽度大于 1500mm，“超级线”则会自动切换至“大玻璃加工模式”，左、右两条通道同步启动，协同完成大尺寸玻璃的传送与加工作业，确保加工稳定性与精准度。

The "IWJ SuperLine WaterJet" features intelligent adaptive control that automatically adjusts the processing mode based on glass width, seamlessly switching between single- and dual-lane operation. For glass less than 1500 mm wide, the system activates single-lane mode, precisely guiding the glass to the left lane for processing while the right lane switches to a bypass conveyor for unprocessed glass. This "process-while-convey" parallel operation significantly boosts throughput. For glass wider than 1500 mm, the system automatically switches to "wide-glass mode," engaging both left and right lanes simultaneously to coordinate the conveyance and processing of large-format glass, ensuring stability and precision. Would you like me to create a side-by-side bilingual comparison of this technical description? This format is often useful for international technical documentation and presentations.

创新方式 无限制加工

Innovative Method, Unrestricted Processing

IWJ INTELLIGENT WATERJET

“IWJ超级线水刀”加工核心在于让玻璃自身成为运动主体，通过控制玻璃的移动、旋转等姿态变化，配合切割刀头的作用，
从而摆脱了机器滚轮带来的加工局限。这种方式能够灵活应对各类切割需求，无论是规则几何图形还是不规则异形图案均可完成，
真正实现了玻璃加工在空间范围内的全域覆盖与任意形状切割。

The core processing principle of the "IWJ SuperLine WaterJet" is to take the glass itself as the moving subject. By controlling the glass's positional changes—such as translation and rotation—and coordinating with the cutting head, it overcomes the processing limitations imposed by machine rollers. This approach can flexibly cater to diverse cutting requirements, handling both regular geometric shapes and irregular special-shaped patterns with equal ease. It thereby truly achieves full spatial coverage and arbitrary shape cutting in glass processing.

突破局限 可加工超大材料

Beyond Limits – Processes Extra-Large Materials

“IWJ超级线水刀”系统实现了对传统水刀加工平台在玻璃版面尺寸上的关键突破。
其核心优势在于打破了长度限制，从理论层面而言，能够满足对无限长度玻璃的连续加工需求。
在实际应用中，该系统的加工能力同样表现突出，目前已可稳定处理最大版面尺寸达 16000mm × 4500mm 的玻璃，
充分展现了其在超大尺寸玻璃加工领域的强大实力。

The "IWJ SuperLine WaterJet" marks a major leap forward from conventional water jet platforms, overcoming fundamental glass sheet size limitations. Its core advantage lies in its ability to process glass of virtually unlimited length in theory,enabling continuous operation. In practice, it already handles glass sheets up to 16,000 mm × 4,500 mm with exceptional stability, showcasing its outstanding capabilities in extra-large glass processing.

解决行业痛点 无水箱免清砂

Solving Industry Pain Points – No Water Tank, No Sand Cleaning

“IWJ 超级线水刀” 配备了创新的无水箱磨料自动回收系统，其核心设计在于加工刀头的正下方，专门配置了切割后沙子的自动吸收装置。
该装置回收效率优异，能够将 99% 的废沙有效分离并排出，精准输送至机器外部的专用废沙收集机箱中。后续，工厂可通过配套处理系统轻松完成废沙的清运工作，整个流程高效且便捷。

The "IWJ SuperLine WaterJet" is equipped with an innovative water-tank-free abrasive auto-recovery system. At the heart of its design, directly beneath the processing head, is a dedicated automatic sand collection device. This highly efficient system captures up to 99% of the waste sand, separates it, and channels it precisely into an external waste-sand collection bin. Subsequently, the factory can easily dispose of the waste sand through the Integrated disposal system，making the entire process both efficient and convenient.

全自动系列 FULLY AUTOMATIC SERIES

全自动系列 FULLY AUTOMATIC SERIES

德法科技有限公司一直致力于对水刀设备高效能使用的执着追求，通过多年的研究，于2014年开发出新型节能高效的IWJ系列双刀头水切割机。德法科技有限公司的高效双刀水切割机器一经问世即引起广泛客户的关注及追捧。双刀头设备主要面对应用于建筑玻璃、门窗玻璃、陶瓷和石材等品种单一的产品加工切割。双刀头水切割设备在产能、效率、成本控制等环节上优势明显。IWJ双刀水切割机以压力稳定、效率高、低能耗、低故障率而闻名于世。

DEFA Science and Technology Co., Ltd. has been committed to the pursuit of high efficiency of waterjet cutting equipment, through many years of research, in 2014 to develop a new type of energy-saving and efficient IWJ series double-head waterjet cutting equipment. The high-efficiency double-head waterjet cutting equipment of DEFA Technology Co., Ltd. The dual blade equipment is mainly used for processing and cutting products with a single variety, such as architectural glass, door and window glass, ceramics, and stone. IWJ double-head waterjet cutting equipment is famous for its stable pressure, high efficiency, low energy consumption and low failure rate.

IWJ水刀的竞争优势 The competitive advantage of IWJ series waterjet

德法科技公司一直不断地研究开发水刀切割及高效自动化方面的应用，
并且发展出一系列适用于工厂及工地应用的设备以符合客户要求。

DEFA Science and Technology Company has been continuously researching and developing waterjet cutting and efficient automation applications, and has developed a range of equipment suitable for plant and site applications to meet customer requirements.

德法科技有限公司的创新及对客户的服务品质表明：

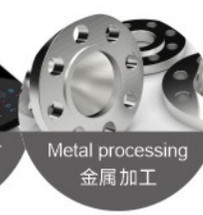
The innovation and service quality of DEFA Science and Technology Co., Ltd. shows that:

- 德法的设计能力可以制造出完整的高产能系统：包括超高压泵、切割刀头及X-Y全自动化切割平台。
- The design ability of DEFA can produce complete high capacity system: including super high pressure pump, cutting tool head and X-Y full automatic cutting flat table.
- 德法科技有限公司的售后服务人员可在全球各地提供服务及维修训练课程。
- The after-sales service staff of DEFA Science and Technology Company can provide service and maintenance training courses around the world.
- 在全球多地已安装了多套超高压水刀系统。
- Several sets of ultra-high pressure waterjet systems have been installed in many places around the world.
- 在全球多地都有服务中心。
- There are service centers in many places around the world.

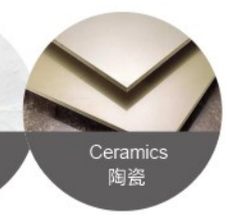
主要应用
产品行业
Main application industry


Shower room glass
淋浴房玻璃


Household appli-Ances glass
家电玻璃


Metal processing
金属加工


Stone
石材


Ceramics
陶瓷

产品特点 / Product features

- 结构稳定，油浸式机床
- 高精度，快速控制伺服系统
- 高性能专业智能水切割控制软件
- 高效的产品加工效率
- 全不锈钢外包围水箱体

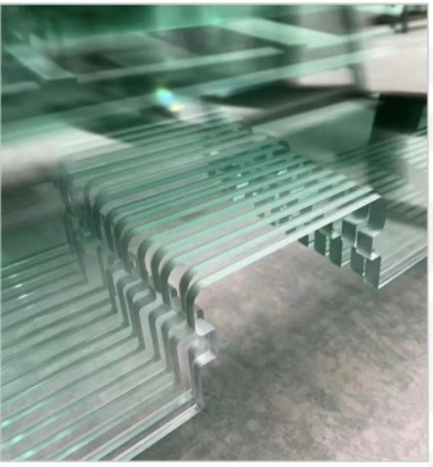
- Structural stability,Oil-immersed machine tool
- High precision and fast control servo system
- High performance professional intelligent waterjet cutting control software
- Efficient product processing efficiency
- All stainless steel outer surround water tank

基本参数/Essential Parameter			精度参数/Precision Parameter		
结构形式	Structural style	龙门式/Gantry type	控制精度	Control accuracy	0.01mm
控制系统	Navar	IWJ智能水切割系统/	切割精度	Cutting accuracy	±0.1~±0.2mm
		IWJ intelligent waterjet cutting system	重复定位精度	Re-positioning accuracy	±0.02/1000mm
驱动方式	Driving mode	交流伺服/ AC servo	切割速度	Cutting speed	<3m/min
使用电源	Use of power	AC 220V 50Hz/60Hz	X轴快速移动速度	Fast moving speed of x axis	3-6m/min
总功率	Aggregate capacity	< 6.79hp(5kW)	Y 轴快速移动速度	Fast moving speed of y axis	3-6m/min
最佳使用温度	Optimum operating temperature	59 °F(15°C)~ 86 °F(30°C)	Z 轴快速移动速度	Fast moving speed of z axis	1m/min
储存温度	Storage temperature	36 °F (2°C) ~ 104 °F(40°C)			
工作台承重	Bearing of worktable	500kg/m²			

备注:设备规格、参数及外观如有变动恕不另行通知

Please note: Further notification will not be provided if there is anychanges of equipment specifications, parameters and appearance.

智能化设备
INTELLIGENT EQUIPMENT



水切割设备自动生产线 AUTOMATIC PRODUCTION LINE

WATERJET AUTOMATIC PRODUCTION LINE

德法科技IWJ自动化水切割设备在加工生产上具有人工生产所不具备的优点。

IWJ automatic waterjet cutting equipment produced by DEFA Science and Technology Co., Ltd. has the advantage which the manual production does not have in the processing production

下面主要介绍IWJ自动化水切割设备生产的优点:

The following mainly introduces the IWJ automatic waterjet cutting equipment production merit:

◎ 高质量生产

High quality production

产品质量具有高度重复性、一致性，能够大幅降低不合格率;

Product quality has a high degree of repeatability, consistency, can significantly reduce the rate of non-conformity;

◎ 自动化控制

Automation control

清洗、输送连续自动进行，减少人工干预误差

Cleaning and conveying are carried out continuously and automatically, reducing manual intervention errors

IWJ INTELLIGENT WATERJET

◎ 产品精度高

High product precision

IWJ水切割设备采用了各种高精度的导向、定位、进给、调整、检测、视觉系统或部件，可以保证产品装配生产的高精度；

IWJ waterjet cutting equipment adopts various kinds of high-precision guidance, positioning, feed, adjustment, inspection, visual system or components, which can ensure the high precision of product assembly and production;

◎ 安全高效

Safe and efficient

在对人体有害、危险的环境下替代人工操作，让企业生产不用再受到生产员工的依赖和限制。

In the harmful and dangerous environment instead of manual operation, so that the production of enterprises are no longer dependent and limited by the production staff.

◎ 大幅提高劳动生产率

Greatly increase labor productivity.

单位时间内能够制造更多的产品，每个劳动力的投入能够创造更高的产值，而且可以将劳动者从常规的手工控制中解脱出来，转而从事更加有创造性的工作；

More products can be produced per unit of time, the input of each labor force can create higher output value, and the laborer can be freed from the conventional manual control to engage in more creative work;

◎ 大幅降低制造成本

Significantly reduce manufacturing costs

IWJ水切割设备自动化装配生产的节拍很短，可以达到较高的生产率，同时机器可以连续运行，因而在大批量生产的条件下能大幅降低制造成本；

IWJ waterjet cutting equipment automatic assembly production can achieve high productivity, and the machine can run continuously, so the manufacturing cost can be greatly reduced under the condition of mass production;

◎ 自动化提效

Automation efficiency improvement

缩短制造周期，减少制品数量。机器自动化使产品的制造周期缩短，能够使企业实现快速交货，提高企业在市场上的竞争力，同时还可以降低原材料及制品的数量，降低流动资金成本；

Shorten the manufacturing cycle, reduce the number of products. Machine automation shortens the manufacturing cycle of products, enables enterprises to achieve rapid delivery, improve the competitiveness of enterprises in the market, but also reduce the number of raw materials and products, reduce the cost of liquidity;

全自动线配套机器 FULLY AUTOMATIC LINE SUPPORTING MACHINE

IWJ清洗机
THE WASHING MACHINE

304钢防护罩
304 Steel Protective Cover

设备有安全防护罩。采用优质的SUS-304不锈钢板激光切割数控折弯焊接而成。起到安全防护作用。

The equipment is equipped with a safety guard. Made of high-quality SUS-304 stainless steel plates, it is laser-cut, CNC-bent, and welded to provide safety protection.

主要技术参数/ Main Technical Parameters

设备尺寸(长X宽X高) Dimensions(L×W×H)	最大加工玻璃尺寸 Max. Processable Glass Size	最小加工玻璃尺寸 Min. Processable Glass Size	加工玻璃厚度 Processable Glass Thickness	清洗室升降高度 Lifting Height of Cleaning Chamber	风刀数量 Number of Air Knives	风机功率 Fan Power	总功率 Total Power
5500 × 4600 × 2600 mm	2500 × 4000 mm	400 × 400 mm	2.5 – 20 mm	350 mm	3	30 KW	51 KW

榫卯坚固耐用
Mortise And Tenon Joints Are Sturdy And Durable

机身采用榫卯拼装（钢板喷粉+不锈钢主梁）结构，终身无报废概念，可终身更换机身配件。清洗室自带整体升降功能，升降高度最高350MM。方便日常维护和保养设备。

1The body adopts a mortise-and-tenon assembly structure (powder-coated steel plates + stainless steel main beams), featuring a lifelong non-scrapping concept, allowing for lifelong replacement of body components. The cleaning chamber is equipped with an integrated lifting function, with a maximum lifting height of 350 mm, facilitating daily maintenance and servicing of the equipment.

直线轴承稳支撑
Linear Bearing Stable Support

清洗室上架采用6里不锈钢板榫卯焊接安装直线轴承（专利技术），可使上胶辊压住玻璃时能够平稳顺畅上弹胶辊压住玻璃。特点：受力大，支撑性好，不易变形，不易磨损。能够最大程度保证上胶辊不会压坏玻璃。

The upper frame of the cleaning chamber uses 6-mm stainless steel plates with mortise-and-tenon welded installation and linear bearings (patented technology), ensuring that the glue application roller presses against the glass smoothly and stably while retracting elastically. Features: high load-bearing capacity, excellent support, resistance to deformation, and minimal wear. This maximizes the guarantee that the glue application roller will not damage the glass.

内循环风设计
Internal Circulation Air Design

风机带隔音箱体安装在清洗机风干段上部，特点：风机与风刀采用内循环风设计，风机通过风刀吹出热风通过风机箱底部回收进风机叶轮里面进行循环吹风加热在吹干玻璃，很大程度的保证了玻璃的风干效果。风机采用高压风机。风机带加热功能。

The fan with a soundproof casing is installed at the top of the drying section of the cleaning machine. Features: The fan and air knife adopt an internal circulating air design. The fan blows hot air through the air knife, which is then recycled back into the fan impeller through the bottom of the fan casing for circulating air heating and drying the glass. This significantly ensures the drying effect of the glass. The fan is a high-pressure fan with heating functionality.

IWJ上下片台
THE LOADING/UNLOADING TABLE

智能高效 *Intelligent and Efficient*

配有自动识别玻璃大小，实现任意尺寸自动调整吸盘开关，无需手动开关，机器自动高速吸取玻璃上片/下片，快速调整输送速度，大大提升批量单的加工能力。

Equipped with automatic glass size recognition, enabling automatic adjustment of suction cup activation based on any glass dimension without manual intervention. The machine automatically picks up and places glass at high speed and quickly adjusts the conveying speed, significantly enhancing the processing capacity for batch orders.

稳定安全 *Stable and Safe*

机器配有行走吸取玻璃变速功能，该功能用于在工作不同厚度玻璃或者出现故障时能自动切换到不同行走速度或者停止工作。

The machine features variable-speed glass handling, which automatically adjusts the operating speed or stops when working with glass of varying thicknesses or in case of malfunctions.

玻璃行程检测功能 *Glass Travel Detection Function*

当玻璃设定片数与机架行走限位出现异常/实际余量超出设计范围时配备的自动二次受力实时变频器监控，并且控制减低行走速度，以保证玻璃安全。

In the event of discrepancies between the set number of glass sheets and the machine's travel limit, or when the actual margin exceeds the design range, the system includes an automatic secondary force real-time frequency converter for monitoring. This reduces the travel speed to ensure glass safety.

整机具备自动连线功能
Automatic Connectivity Function

上下片台预留与清洗机、ERP 管理软件的对接口，
方便工厂自动化连线生产，实行实时连线数据对接，使用更方便。

The loading/unloading table is pre-equipped with interfaces for connecting to cleaning machines and ERP management software, facilitating automated production line integration in factories. It enables real-time data connectivity for more convenient operation.

THE CAGE-TYPE GLASS STORAGE RACK IWJ笼式储片台

优化生产管理与调度 *Optimized Production Management and Scheduling*

通常与生产管理软件（如MES/ERP)系统连接，可以按照预设的订单顺序进行管理和出库，确保“先进先出”，减少排序错误，实现精准的数字化管理。

Typically integrated with production management software (such as MES/ERP systems), it enables organized storage and retrieval according to preset order sequences. This ensures First-In-First-Out (FIFO) operation, minimizes sorting errors, and achieves precise digital management.

卓越的生产线缓冲与解耦能力 *Excellent Production Line Buffering and Decoupling Capability*

作为生产线中的“蓄水池”，它能够有效地将上游（如玻璃切割）和下游（如磨边、钻孔、水切割、钢化）的生产环节解耦。
当上游或下游设备因换单、维护或故障等原因暂时停顿时，笼式储片台可以继续接收或供应玻璃，确保生产线其他部分持续运行，从而显著提高整体生产效率。

Serving as a "reservoir" within the production line, it effectively decouples upstream (e.g., glass cutting) and down-stream processes (e.g., edging, drilling, waterjet cutting, tempering). During temporary interruptions in upstream or downstream equipment due to order changes, main-tenance, or malfunctions, the storage rack can continue receiving or supplying glass, ensuring uninterrupted operation of other production sections and substantially improving overall manufacturing efficiency.

提升安全性与降低劳动强度

Enhanced Safety and Reduced Labor Intensity

基本消除了人工操作重型、易碎的玻璃原片的需求，极大地降低了工伤风险和劳动强度，改善了工作环境。

It essentially eliminates the need for manual handling of heavy and fragile raw glass sheets, dramatically reducing workplace injury risks and labor intensity while improving overall working conditions.

高效的空间利用率

High Space Utilization Efficiency

采用垂直多层设计，能够在不增加占地面积的情况下，大幅提升玻璃原片的存储容量。这对于厂房空间宝贵的现代化工厂来说至关重要。

The vertical multi-layer design significantly increases raw glass sheet storage capacity without occupying additional floor space. This is particularly crucial for modern factories where production area is highly valuable.

减少玻璃破损与划伤

Reduced Glass Breakage and Scratching

玻璃被直立存放在稳固的支架上，彼此之间有足够的间隔，避免了平放堆叠时因摩擦和压力导致的划伤和破裂。自动化的存取方式也最大限度地减少了人工搬运带来的风险。

Glass sheets are stored upright on sturdy supports with adequate spacing between them, preventing scratches and breakage caused by friction and pressure during horizontal stacking. The automated storage and retrieval mechanism also significantly reduces risks associated with manual handling.

主要技术参数/ Main Technical Parameters

机架材质 Frame Material	输送系统 Conveying System	上下片速度 Loading/Unloading Speed	升降传动方式 Lifting Drive Method	速度调节 Speed Adjustment
采用国标方距管焊接烤漆喷涂工艺; Welded from national standard square steel tubes with baked paint finish.	传送为镀铬Φ25光轴/Φ90PU胶轮; Chrome-plated Φ25 smooth shaft /Φ90 PU rubber wheels.	10~12秒/片，每分钟5~6片 10~12 seconds/sheet, 5~6 sheets per minute	采用电机链条运动方式 Motor and chain mechanism	传送变频调速 Conveyor frequency conversion speed regulation
最大玻璃宽度 Maximum Glass Size	最小玻璃尺寸 Minimum Glass Size	玻璃厚度范围 Glass Thickness Range	输送台高度 / 总功率 Conveyor Table Height / Total Power	玻璃输送速度范围 Glass Conveying Speed Range
4500 x 2500 x 19mm	700 x 400 x 4mm	3~19mm	900+-30mm / 5KW	5~30米/分钟(meters/minute)

Durable Machine Frame Construction 整机机架

采用国标方距管钢材板件焊接，外表QPQ浴复合处理(新的金属表面强化改进技术)大幅度提高金属表面的耐磨性、抗蚀性，使加工件不发生变形，提高使用寿命。

The entire frame is welded from square steel tubes and steel plates conforming to national standards. The exterior is treated with QPQ bath composite processing (a new metal surface enhancement technology), significantly improving wear resistance and corrosion resistance. This ensures the workpiece remains deformation-free and extends the machine's service life.

主要技术参数 / Main Technical Parameters

机架材质 Frame Material	输送系统 Conveying System	上下片速度 Loading/Unloading Speed	升降传动方式 Lifting Drive Method	速度调节 Speed Adjustment
采用国标方距管焊接烤漆喷涂工艺; Welded from national standard square steel tubes with baked paint finish.	传送为镀铬Φ25光轴/Φ90PU胶轮; Chrome-plated Φ25 smooth shaft /Φ90 PU rubber wheels.	10~12秒/片，每分钟5~6片 10~12 seconds/sheet, 5~6 sheets per minute	采用气压传动，气压要求0.6Mpa以上 Pneumatic transmission, requiring air pressure ≥ 0.6MPa.	传送变频调速/翻臂/机架行走伺服调速 Conveyor frequency conversion speed regulation / Arm flipping & frame travel servo speed regulation.
最大玻璃宽度 Maximum Glass Size	最小玻璃尺寸 Minimum Glass Size	玻璃厚度范围 Glass Thickness Range	输送台高度 / 总功率 Conveyor Table Height / Total Power	玻璃输送速度范围 Glass Conveying Speed Range
4500 x 2500 x 19mm	700 x 400 x 4mm	3~19mm	900+-30mm / 25KW	20~60米/分钟(meters/minute)

自动化加工系统 AUTOMATIC MACHINING SYSTEM

扫描条形码或二维码加工 *Barcode or QR Code Scanning for Processing*

可通过扫描器或者采取视觉系统扫描条形码或者二维码识别需要加工的文件并提取加工。在识别文件名时，可指定第几段为文件名或直接识别完整的字符串为文件名 。

Capable of using scanners or vision systems to scan barcodes or QR codes to identify the file requiring processing and extract it for execution. When recognizing filenames, specific segments can be designated as the filename, or the complete string can be directly recognized as the filename.

左右刀头切割自动判断 *Automatic Determination for Left/Right Cutting Head*

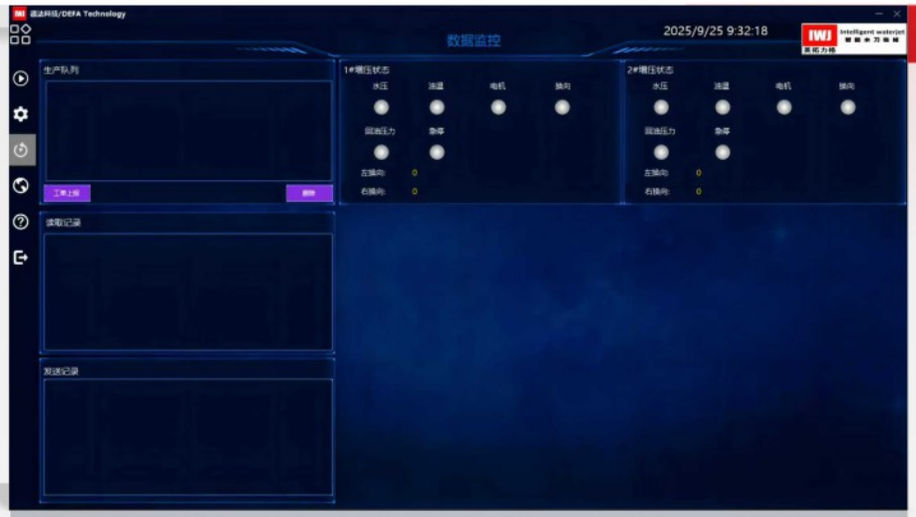
根据设置的左右刀头分割线来自动判断图形中的环用左刀头切割还是右刀头切割。软件自动识别图形中左右不同环关系，即使两个环顺逆方向不一样也会自动处理，分别识别为单独左刀头加工、单独右刀头加工、左右刀头同方向同步加工、左右刀头反向异步加工四种情况。

Automatically determines whether a contour in the graphic should be cut by the left or right cutting head based on a set dividing line. The software automatically identifies the relationship between different left and right contours in the graphics. Even if the rotational directions of two contours differ, it automatically processes them, recognizing four scenarios: left head cutting only, right head cutting only, synchronized cutting with both heads in the same direction, and asynchronous cutting with both heads in opposite directions.

继电器延时独立控制 *Independent Relay Delay Control*

针对高压、气阀、砂阀分别设置双刀头切割延时、左刀头切割延时、右刀头切割延时，在自动加工四种加工模式中自动根据刀头切割情况分别控制继电器延时。

Allows separate setting of relay delays for high pressure, air valve, and abrasive valve for dual-head cutting, left head cutting, and right head cutting. During automatic processing across the four processing modes, the system automatically controls relay delays based on the actual cutting status of the heads.



IWJ自动线MES软件系统

IWJ Automated Line MES Software System

系统集成与多终端支持 *System Integration & Multi-terminal Support*

可与上层ERP系统和下层自动化设备（如PLC、机器人、水刀切割系统）进行集成。支持PC、移动平板、车间终端等多种设备访问，方便不同角色的人员操作。

Integrates with upper-level ERP systems and lower-level automation equipment (e.g., PLCs, robots, waterjet cutting systems). Supports access via PCs, mobile tablets, and workshop terminals to facilitate operations across different roles.

Performance Analysis (OEE) & Reporting 绩效分析（OEE）与报表生成

自动计算设备综合效率（OEE）、可用率、性能率、合格率等关键绩效指标。生成多种统计分析报表（如产量、效率、质量报表），为决策提供数据支持。

Automatically calculates key performance indicators like Overall Equipment Effectiveness (OEE), availability, performance rate, and quality rate. Generates various statistical analysis reports (e.g., output, efficiency, quality) to support data-driven decision-making.

IWJ水刀切割加工软件系统

IWJ Waterjet Cutting Software System

软件具备多国语言

Multi-language Support

软件具有中文、英文、俄文、西班牙文、越南文等多种语言，可以根据客户的需求定制使用的语言体系。

The software supports multiple languages including Chinese, English, Russian, Spanish, and Vietnamese. Custom language systems can be implemented according to customer requirements.

外部开关加工控制 *External Switch Processing Control*

可与机器人或流水线连接，通过输入开关和输出继电器，实现外部加工控制功能。

Can connect with robots or production lines. Through input switches and output relays, it enables external processing control functionality.

Paperless Production & Centralized Data Management 无纸化生产与集中数据管理

取代传统纸质文档，所有工艺图纸和指令均通过中央服务器进行数字化管理和下发。确保操作人员始终使用最新版本的文件，从源头上杜绝因文件版本错误导致的失误。

Replaces traditional paper documents. All process instructions, drawings, and procedures are managed and distributed digitally from a central server. Ensures operators always access the latest versions, eliminating errors from outdated documents.

Visualized Production Scheduling & Real-Time Monitoring 可视化生产调度与实时监控

可提供中央看板，统一进行生产计划与排程。实时、可视化地展示整个生产线的状态，包括设备状态（运行、空闲、故障）、当前任务及进度。

Provides a centralized dashboard for production planning and scheduling. Offers a real-time, visual overview of the entire production line, displaying the status of equipment (e.g., running, idle, faulted), current orders, and progress.

Automated Workflow & Process Control 自动化工作流与工艺控制

自动将生产任务派发至相应工作站或设备。逐步指导操作员完成标准作业流程，并将数据（如切割程序）无缝对接到机器，减少人为干预和错误。

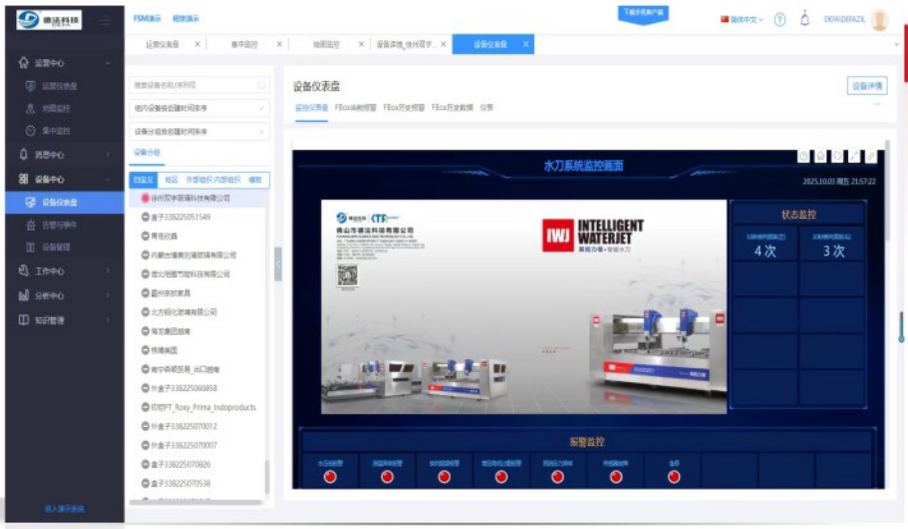
Automatically dispatches production tasks to relevant workstations or equipment.Guides operators step-by-step through standard procedures and seamlessly transfers data to machines (like cutting programs), reducing manual intervention and errors.

Production & Equipment Data Acquisition 生产与设备数据自动采集

自动采集并记录关键生产数据，如产量、合格数、设备利用率等。实时监控设备的运行参数和状态信息。

Automatically collects and records key production data (e.g., output, quantity, utilization rate). Monitors equipment operational parameters and status in real-time.

自动化加工系统 AUTOMATIC MACHINING SYSTEM



IWJ云端监控系统

IWJ Cloud Equipment Monitoring System

维护保养管理与提醒 *Maintenance Management and Reminders*

在系统中建立设备的预防性维护计划（如定期更换易损件、系统保养）。系统自动生成维护工单并提前提醒相关人员，实现预测性维护，减少非计划停机。
Establishes preventive maintenance plans for equipment within the system (e.g., regular replacement of wear parts, system maintenance). Automatically generates maintenance work orders and provides advance reminders to relevant personnel, enabling predictive maintenance and reducing unplanned downtime.

Multi-layered Security and Permission Management 多重安全保障与权限管理

从设备数据传输到云端存储，全程采用加密技术，保障数据安全。支持多级用户权限管理，不同角色（如操作工、维护员、管理者）可查看和操作不同的功能与数据
Employs end-to-end encryption technology from data transmission to cloud storage to ensure data security. Supports multi-level user permissions, allowing different roles (e.g., operators, maintenance staff, managers) to view and operate different functions and data.

模块化图库与智能调用 *Modular Library & Smart Call-Up*

内置丰富的、针对行业需求的“标准化图形模块库”（如字母数字、标准零件、装饰图案、建筑构件等）。用户只需从图库中选择所需的模块，或导入自定义的简单轮廓，系统即可自动识别并生成精准的矢量图形。
Features a rich built-in library of “standardized graphic modules” tailored to industry needs (e.g., letters & numbers, standard parts, decorative patterns, architectural components).Users simply select the required module from the library or import a simple custom outline, and the system automatically recognizes and generates precise vector graphics.

参数化驱动，输入即生成 *Parameter-Driven: Input to Generate*

采用参数化设计理念。用户无需手动绘图，只需在相应的模块中输入关键“数据”(如尺寸、数量、角度、半径等)，软件即可根据参数“自动驱动并生成”准确的加工图形。
Utilizes a parametric design concept. Instead of manual drawing, users only need to input key “data” (e.g., dimensions, quantity, angles, radius) into the corresponding module, and the software “automatically drives the generation” of an accurate machining graphic based on these parameters.

自动工艺参数匹配 *Automatic Process Parameter Matching*

与图形模块绑定，内置了推荐的水刀切割工艺参数（如切割速度、压力等）。生成图形的同时，自动为图形匹配合理的切割参数，进一步简化操作流程。
Comes pre-loaded with recommended waterjet cutting parameters (e.g., cutting speed, pressure) bound to the graphic modules. While generating the graphics, it automatically assigns appropriate cutting parameters, further simplifying the workflow.

7x24 Real-Time Equipment Status Monitoring 7x24小时实时设备状态监控

通过物联网关采集设备数据，在云端看板上实时显示所有联网设备的运行状态（如运行、待机、报警、离线）。无需亲临车间，即可通过电脑、手机或平板电脑全球范围随时掌握设备动态。

Collects equipment data via IoT gateways and displays the real-time status (e.g., Running, Standby, Alarm, Offline) of all connected equipment on a cloud-based dashboard. Allows users to grasp equipment status globally and at any time via computer, mobile phone, or tablet, without needing to be on the factory floor.

Remote Viewing and Logging of Key Operational Parameters 关键运行参数远程查看与记录

实时显示并记录设备的核心运行参数，如切割压力、射流速度、砂阀状态、宝石嘴状态等。所有参数数据均存储在云端，便于随时查询和历史追溯。

Displays and records core operational parameters in real-time, such as cutting pressure, jet speed, abrasive valve status, and orifice condition. All parameter data is stored in the cloud, facilitating easy access and historical traceability.

Intelligent Alerts and Proactive Notification Mechanism 智能报警与主动推送机制

系统可预设参数阈值，当设备出现故障或参数异常时，自动触发报警。通过App、短信或邮件等方式，立即向相关维护人员和管理者推送报警信息，实现快速响应。

The system can pre-set parameter thresholds. It automatically triggers an alarm when equipment fails or parameters become abnormal.Immediately pushes alarm information to relevant maintenance personnel and managers via App, SMS, or email, enabling a rapid response.

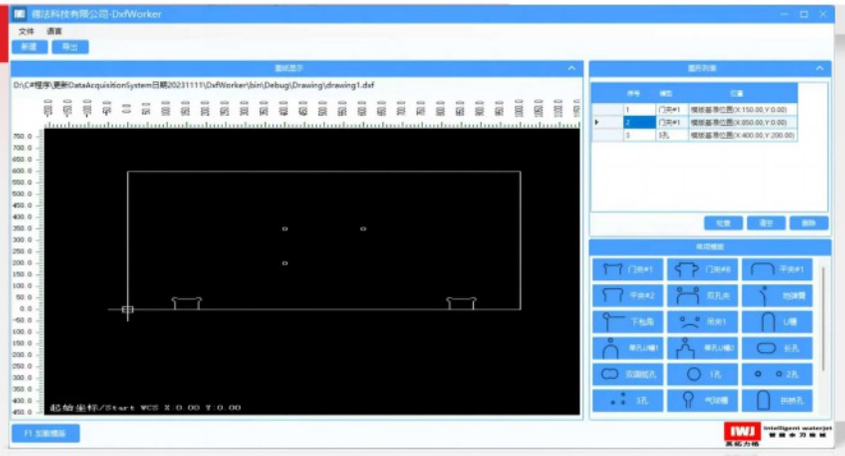
Equipment Efficiency Analysis and Report Generation 设备效率分析与报表生成

自动计算并分析关键绩效指标，如设备综合效率（OEE）、开机率、利用率等。自动生成每日、每周、每月的设备运行分析报告，为管理决策提供数据支持。

Automatically calculates and analyzes key performance indicators (KPIs), such as Overall Equipment Effectiveness (OEE), uptime rate, and utilization rate. Generates daily, weekly, and monthly equipment operation analysis reports automatically to support data-driven management decisions.

IWJ制图软件系统

IWJ Drawing Software System



“傻瓜式”操作与极简界面

"Foolproof" Operation & Simplified Interface

界面直观明了，摒弃复杂菜单，即使没有CAD软件使用经验的操作工，也能快速上手。整个流程导向清晰：导入/输入数据 → 选择模块 → 自动生成图形。

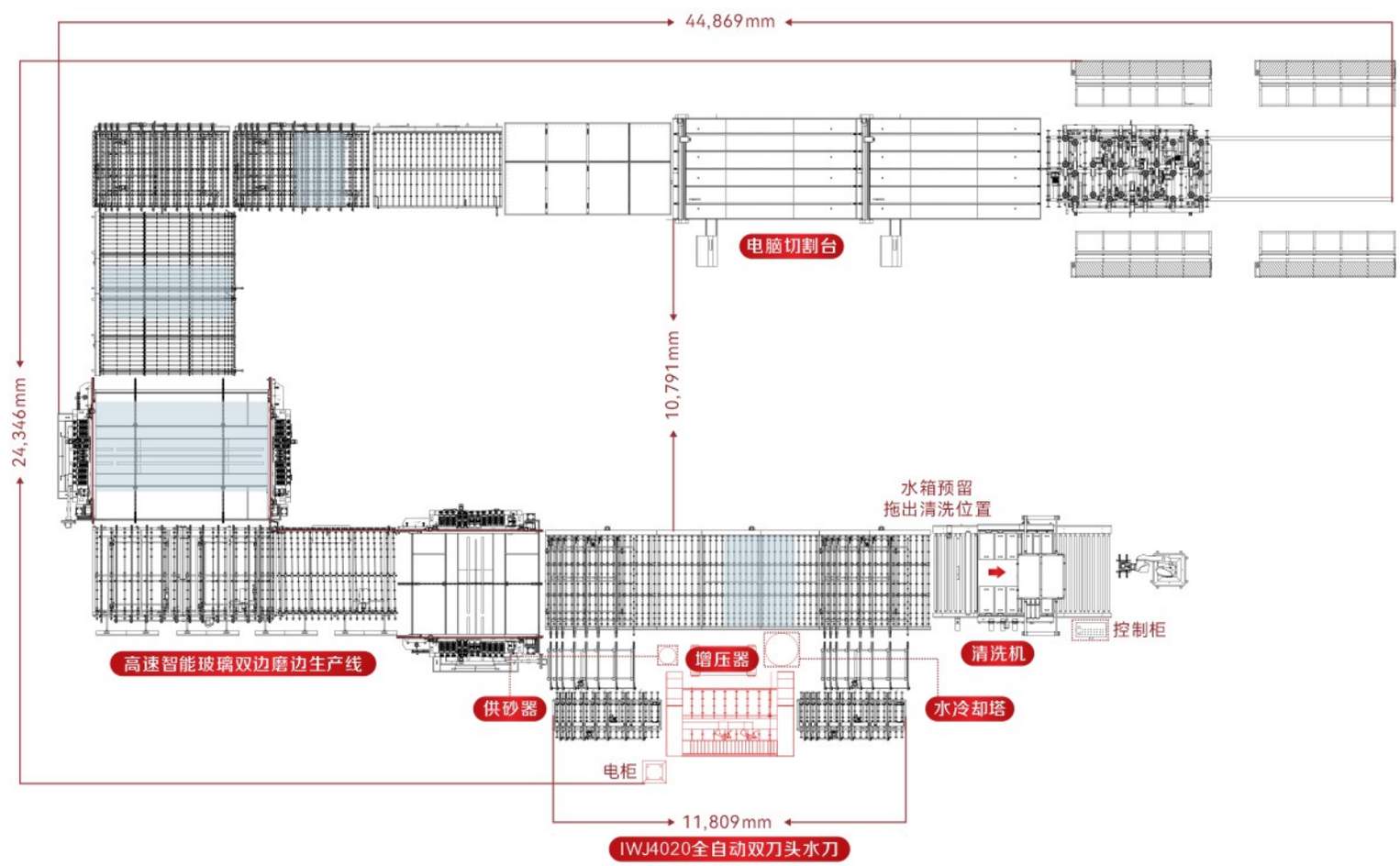
The interface is intuitive and straightforward, eliminating complex menus. Even operators with no CAD experience can quickly learn and use it.The workflow is clear and guided: Input/Import Data → Select Module → Automatically Generate Graphic.

数据接口多样，无缝对接 Versatile Data Interfaces & Seamless Integration

除了手动输入参数，软件支持从外部文件（如Excel表格、TXT文本）中批量读取数据。可自动识别并提取条码/二维码中包含的加工信息，直接生成对应的图纸，实现与生产管理系统（MES）的无缝集成。

Beyond manual parameter entry, the software supports batch data reading from external files (e.g., Excel spreadsheets, TXT files). Can automatically identify and extract machining information from barcodes/QR codes, directly generating the corresponding drawing for seamless integration with Manufacturing Execution Systems (MES).

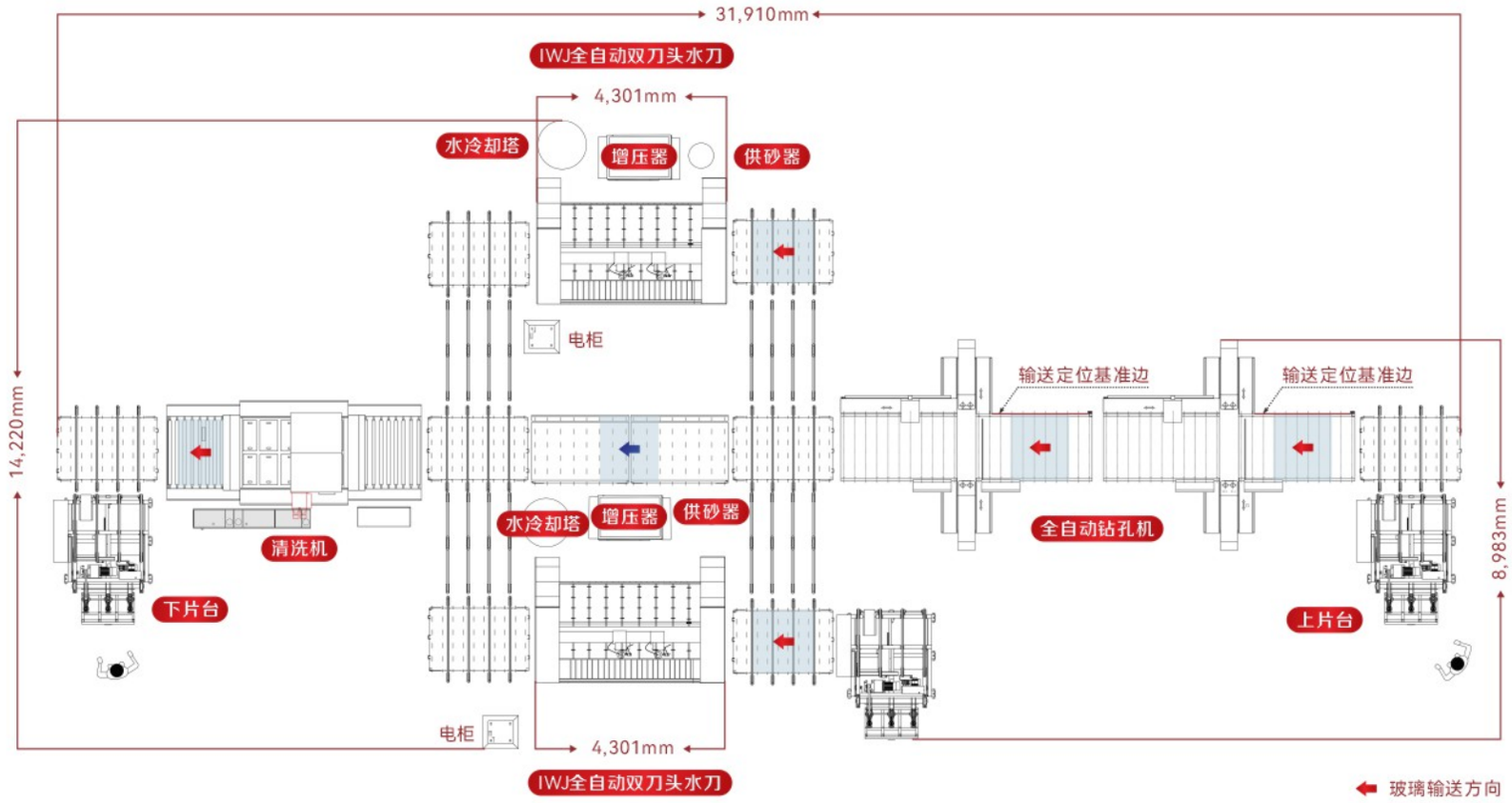
德法IWJ建筑玻璃水刀连线 ARCHITECTURAL GLASS WATERJET LINE



基本参数/ Essential Parameter		
控制轴数	Number of control axes	六轴 Six axis
加工尺寸	Machining dimension	1000*350mm—4000*2000mm
传送尺寸	Transfer size	1000*350mm—3700mm*1600mm（可定制customizable）
输送线传输方式	Transmission line transmission mode	滚轮或者棍棒动力传输 Roller or stick power transmission
设备承重	Equipment load-bearing	水箱可承重1000KG物料，传送机构最大可承重200KG物料。 The water tank can bear 1000KG of materials, and the conveying mechanism can bear a maximum of 200KG of materials
Z轴行程	Z-axis travel	3—100mm
控制精度	Control accuracy	±0.05mm
切割精度	Cutting accuracy	传送切割精度±0.5mm（可配合软件控制达到精度） Transfer cutting accuracy：±0.5mm (Can be used in conjunction with software control to achieve accuracy)
X/Y 轴重复定位精度	X/Y axis repeated positioning accuracy	±0.02mm
快速移动速度	Fast moving speed	3000-8000mm/min
额定压强	Rated pressure	413.8Mpa（60000PSi）
额定流量	Rated flow rate	3.7L/min
最大切割厚度	Maximum cutting thickness	150mm
电源参数	Power supply parameter	3 相 380V\50HZ 3-phase 380V\50HZ

德法IWJ淋浴房玻璃水刀连线 SHOWER ROOM GLASS WATERJET LINE

IWJ INTELLIGENT WATERJET



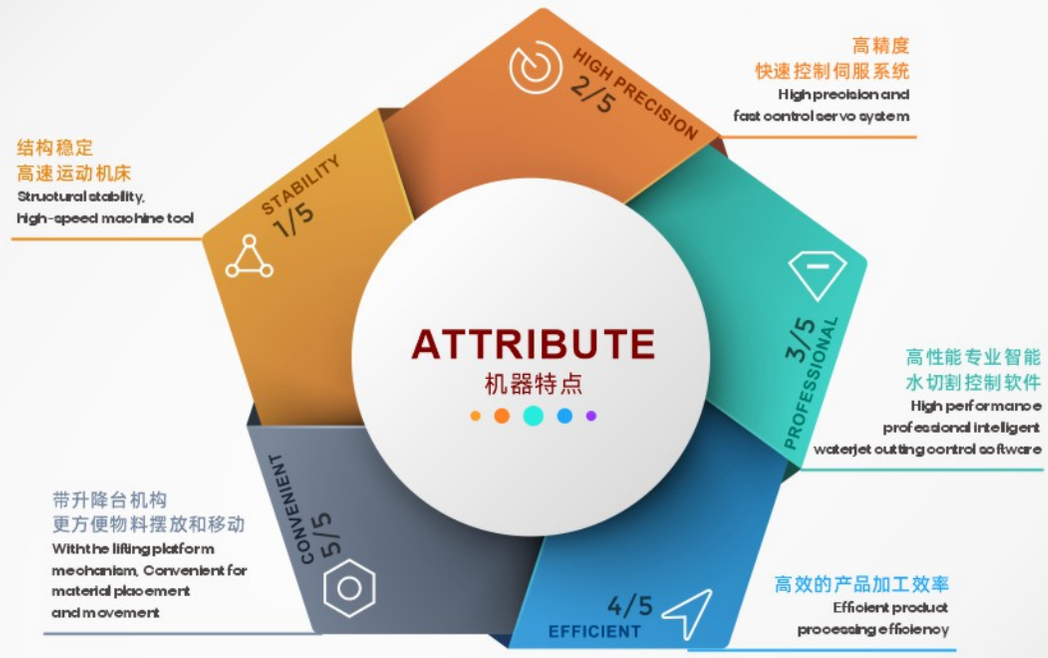
基本参数/Essential Parameter		
控制轴数	Number of control axes	六轴 Six axis
加工尺寸	Machining dimension	1000*350mm—3000*2000mm
传送尺寸	Transfer size	1000*350mm—2700mm*1400mm（可定制customizable）
输送线传输方式	Transmission line transmission mode	滚轮或者棍棒动力传输 Roller or stick power transmission
设备承重	Equipment load-bearing	水箱可承重1000KG物料，传送机构最大可承重200KG物料 The water tank can bear 1000KG of materials, and the conveying mechanism can bear a maximum of 200KG of materials
Z轴行程	Z-axis travel	3—100mm
控制精度	Control accuracy	±0.05mm
切割精度	Cutting accuracy	传送切割精度±0.5mm（可配合软件控制达到精度） Transfer cutting accuracy：±0.5mm (Can be used in conjunction with software control to achieve accuracy)
X/Y 轴重复定位精度	X/Y axis repeated positioning accuracy	±0.02mm
快速移动速度	Fast moving speed	3000-8000mm/min
额定压强	Rated pressure	413.8Mpa（60000PSi）
额定流量	Rated flow rate	3.7L/min
最大切割厚度	Maximum cutting thickness	150mm
电源参数	Power supply parameter	3 相 380V\50HZ 3-phase 380V\50HZ

智能化设备
INTELLIGENT EQUIPMENT

半自动系列 SEMI-AUTOMATIC SERIES

SEMI-AUTOMATIC SERIES - 5 MAJOR ADVANTAGES

半自动系列 – 5大优势



Technology

Fast

Innovation

Stable

Precise

Efficient

结构稳定 | 高精度控制 | 高性能 | 打造完美工件

Stable structure | High precision control | High performance | Creating perfect workpieces

IWJ INTELLIGENT WATERJET

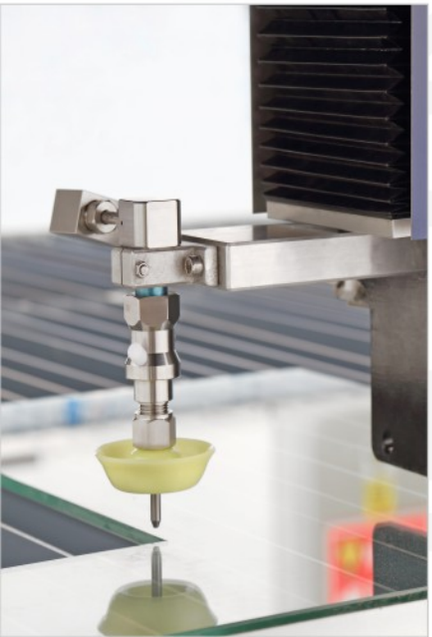
基本参数/ Essential Parameter			精度参数/Precision Parameter		
结构形式	Structural style	龙门式 Gantry type	控制精度	Control accuracy	0.05mm
控制系统	Navar	IWJ智能水切割系统	切割精度	Cutting accuracy	±0.1~±0.2mm
		IWJ intelligent waterjet cutting system	重复定位精度	Re-positioning accuracy	±0.02/1000mm
驱动方式	Driving mode	交流伺服 AC servo	切割速度	Cutting speed	< 3m/min
使用电源	Use of power	AC 220V 50Hz/60Hz	X轴快速移动速度	Fast moving speed of X axis	3-8m/min
总功率	Aggregate capacity	< 6.79hp（5kW）	Y轴快速移动速度	Fast moving speed of Y axis	3-8m/min
最佳使用温度	Optimum operating temperature	59°F（15°C）~ 86°F（30°C）	Z轴快速移动速度	Fast moving speed of Z axis	1m/min
储存温度	Storage temperature	36°F（2°C）~ 104°F（40°C）			
工作台承重	Bearing of worktable	1000kg/m²			

型号/Type	A1520	A2015	A1525	A2030	A2040	A2060	A3020	A3040
X轴行程(mm)/X-axis stroke(mm)	1500	2000	1500	2000	2000	2000	3000	3000
Y轴行程mm/Y-axis stroke(mm)	2000	1500	2500	3000	4000	6000	2000	4000
Z轴行程mm /Z-axis stroke(mm)	150	150	150	150	150	150	150	150

备注:设备规格、参数及外观如有变动恕不另行通知

Please note: Further notification will not be provided if there is anychanges of equipment specifications, parameters and appearance.

智能化设备
INTELLIGENT EQUIPMENT



飞梁系列 FLYING BEAM SERIES

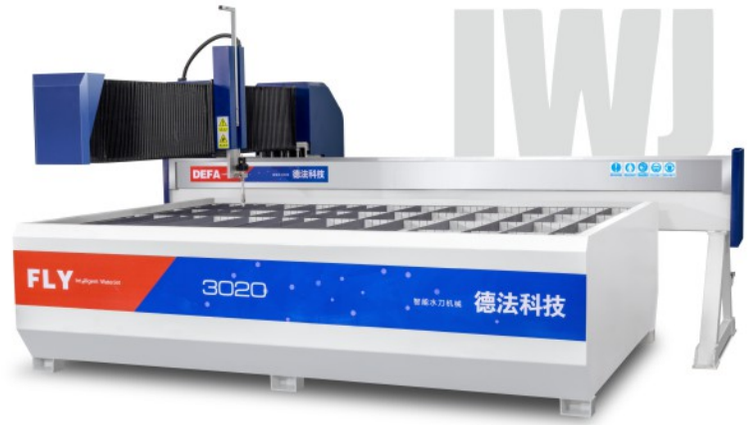
FLYING BEAM SERIES - 6 MAJOR ADVANTAGES

飞梁系列 – 6大优势

Technology

Fast

Innovation



Stable

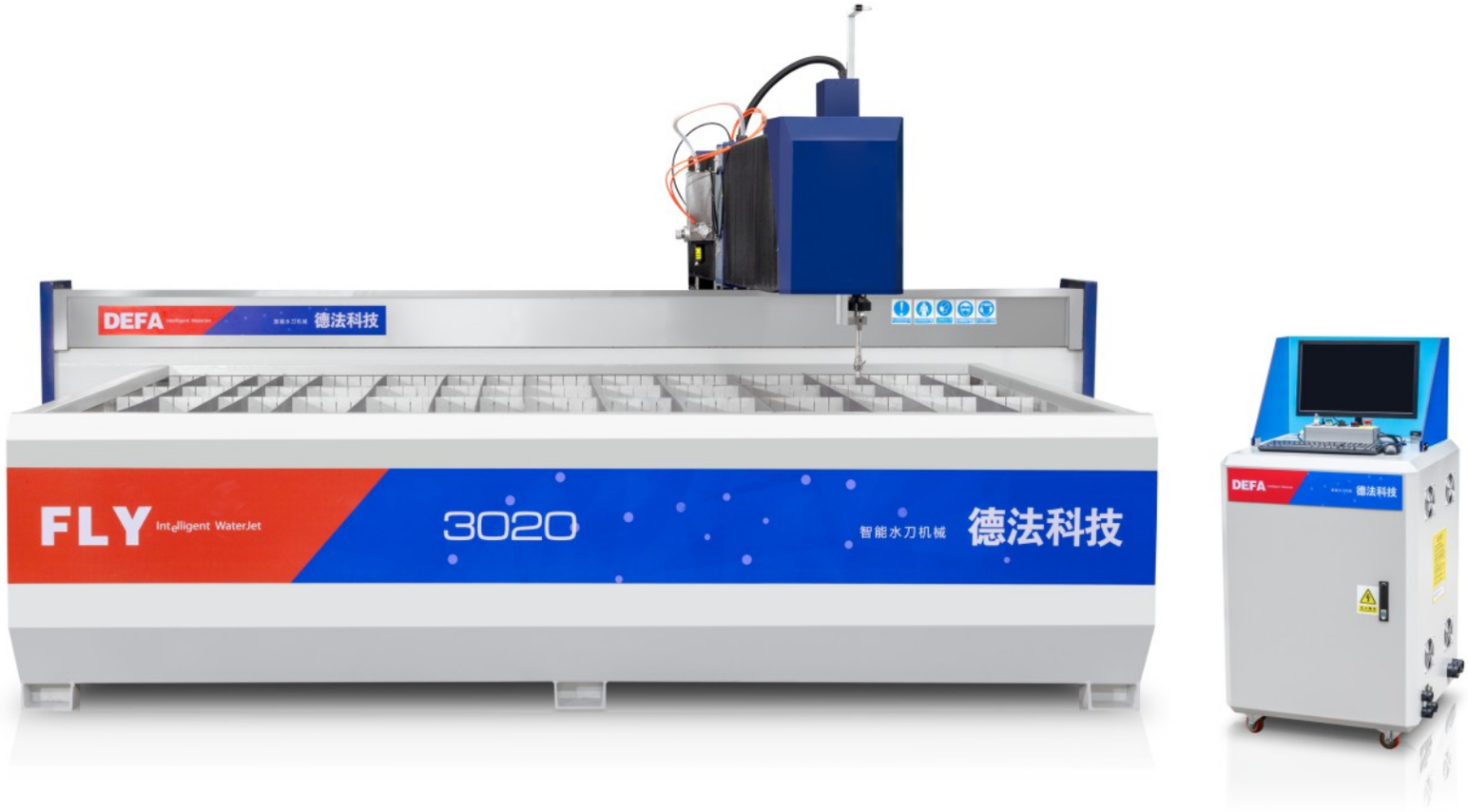
Precise

Efficient

结构稳定 | 高精度控制 | 高性能 | 打造完美工件

Stable structure | High precision control | High performance | Creating perfect workpieces

IWJ INTELLIGENT WATERJET



基本参数/ Essential Parameter			精度参数/Precision Parameter		
结构形式	Structural style	悬臂式 Cantilever type	控制精度	Control accuracy	0.05mm
控制系统	Navar	IWJ智能水切割系统	切割精度	Cutting accuracy	±0.1~±0.2mm
		IWJ intelligent waterjet cutting system	重复定位精度	Re-positioning accuracy	±0.02/1000mm
驱动方式	Driving mode	交流伺服 AC servo	切割速度	Cutting speed	< 3m/min
使用电源	Use of power	AC 220V 50Hz/60Hz	X轴快速移动速度	Fast moving speed of X axis	3-8m/min
总功率	Aggregate capacity	< 6.79hp（5kW）	Y轴快速移动速度	Fast moving speed of Y axis	3-8m/min
最佳使用温度	Optimum operating temperature	59°F（15°C）~ 86°F（30°C）	Z轴快速移动速度	Fast moving speed of Z axis	1m/min
储存温度	Storage temperature	36°F（2°C）~ 104°F（40°C）			
工作台承重	Bearing of worktable	1000kg/m²			

型号/Type	A1520	A2015	A1525	A2030	A2040	A2060	A3020	A3040
X轴行程(mm)/X-axis stroke(mm)	1500	2000	1500	2000	2000	2000	3000	3000
Y轴行程mm/Y-axis stroke(mm)	2000	1500	2500	3000	4000	6000	2000	4000
Z轴行程mm /Z-axis stroke(mm)	150	150	150	150	150	150	150	150

备注:设备规格、参数及外观如有变动恕不另行通知

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五轴系列
FIVE-AXIS SERIES

五轴高速运动龙门架
Five-axis High Speed Moving Gantry Frame

五轴旋转切割刀头 FIVE-AXIS ROTARY CUTTING HEAD

• 五轴水刀其工作原理是通过在原有的三轴平台基础上再增加两个旋转轴，即回旋轴（A轴）和偏摆轴（B轴），可以让切割刀头任意方向摆动。

• The operation principle of the Five-axis Rotary Cutting Head is that the cutting head can swing in any direction by adding two rotating shafts which are the rotary axis (A axis) and the deflection axis (B axis)to the original three-axis platform.

• 并利用预先在数控系统中设置的斜度模型图案，以及对切割轨迹的实时计算，再根据被切工件的材料与厚度进行修正。

• The slope model pattern set and real-time calculation of the cutting track are used in advance in the NC system. The system will make calculation according to the material and thickness of the cut workpiece.

• 在切割的过程中不断地摆动切割刀头，全程完全智能系统控制，配合人机交互技术，完全具备三维连续插补的能力，可以真正实现三维动态切割，使用范围广泛

• The cutting head is constantly swung in the process of cutting and completely controlled by the intelligent system. With human-computer interaction technology, our waterjet cutting equipment is capable to complete with the ability of three-dimensional continuous interpolation, which can make the real three-dimensional dynamic cutting.

• 切割出来的工件可达到完美的无斜度状态。不仅可用于矫正切割斜度，还可用于切断面为一定斜度（如加工焊接件坡口）的工件加工，并具有加工圆锥体、圆锥齿轮及匀速旋转曲面的功能，拓展了水切割机的应用领域。

• Our waterjet cutting equipment can be widely used with cutting of all kinds of workpiece into perfect slope. It can be used not only to correct the cutting slope, but also to cut off the workpiece with a certain slope (such as the groove of welded parts). It also has the functions of machining cone, bevel gear,uniform rotating surface and expanding the application field of waterjet cutting equipment.

智能多向切割与加工 Intelligent multi-directional cutting and processing

in range of

±45°

AC五轴水刀可以实现切割刀头在±45°范围内任意角度的切割，在大理石、瓷砖等材料的加工过程中有着优越的表现。

The cutting head can be cut at any angle in the range of ±45° with the five-axis waterjet cutting equipment, and it has a superior performance in the process of processing marble, ceramic tile and other materials.

is controlled at

0-4°

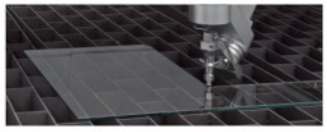
AB五轴当切割刀头控制在0-4°时，两块切割完成的工件拼接就可以达到上表面没有缝隙，下表面有缝隙的效果。这样就省去了手工二次打磨的工序，以达到提高工作效率，减低加工成本，改善环境，进而打造无尘拼花，拉高拼花的质量，成就完善的技术!

When the cutting head is controlled at 0-4 °, the splicing of the two cutting pieces can achieve the effect that there is no gap in the upper surface and a gap in the lower surface. This saves the manual secondary grinding process, in order to improve work efficiency, reduce processing costs, improve the environment,and then create dust-free mosaic, improve the quality of mosaic, achieve perfect technology!

精准切割 | 智能控制 | 实现三维动态切割 | 打造完美工件

Precision cutting | Intelligent control
| Realizing 3D dynamic cutting
| Creating perfect workpieces

IWJ INTELLIGENT WATERJET



五轴水刀在切割玻璃、金属材料等使用中效果显著，工作时，不再依靠降低切割速度来实现较为垂直的加工，在不改变加工速度情况下，就可达到理想的效果

The five-axis waterjet has a significant effect in cutting glass, metal materials, and other materials. When working, it no longer relies on reducing the cutting speed to achieve more vertical processing. Without changing the processing speed, the ideal effect can be achieved.

基本参数/Essential Parameter			精度参数/Precision Parameter		
结构形式	Structural style	龙门式 Gantry type	控制精度	Control accuracy	0.01mm
控制系统	Navar	CNC（水切割机专用控制系统 Special	切割精度	Cutting accuracy	±0.1~±0.2mm
		control system for waterjet cutting equipment）	重复定位精度	Re-positioning accuracy	±0.01/1000mm
驱动方式	Driving mode	交流伺服 AC servo	AB轴摆动角度	AB axis swing angle	＜4°
使用电源	Use of power	AC 220V 50Hz/60Hz	AC轴摆动角度	AC axis swing angle	±45°
总功率	Aggregate capacity	＜6.79hp（5kW）	X轴快速移动速度	Fast moving speed of X axis	8-15m/min
最佳使用温度	Optimum operating temperature	59°F（15°C）~86°F（30°C）	Y轴快速移动速度	Fast moving speed of Y axis	8-15m/min
储存温度	Storage temperature	36°F（2°C）~104°F（40°C）	Z轴快速移动速度	Fast moving speed of Z axis	1m/min
工作台承重	Bearing of worktable	500kg/m²			

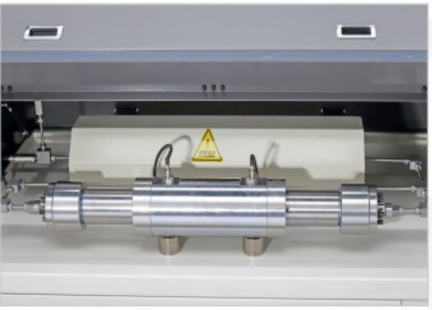
型号/Type	A1520	A2015	A1525	A2030	A2040	A2060	A3020	A3040
X轴行程(mm)/X-axis stroke(mm)	1500	2000	1500	2000	2000	2000	3000	3000
Y轴行程mm/Y-axis stroke(mm)	2000	1500	2500	3000	4000	6000	2000	4000
Z轴行程mm /Z-axis stroke(mm)	150	150	150	150	150	150	150	150

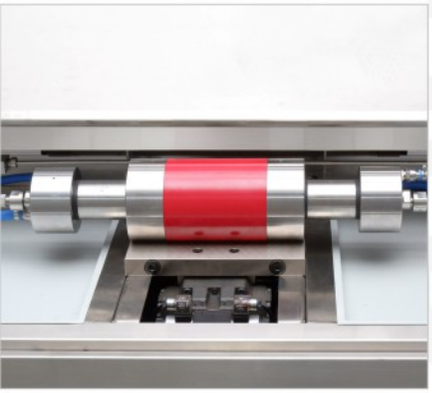
备注:设备规格、参数及外观如有变动恕不另行通知

Please note: Further notification will not be provided if there is anychanges of equipment specifications, parameters and appearance.

增压器 / 自动供砂系统

SUPERCHARGER SERIES / AUTOMATIC SAND FEEDING SYSTEM





增压器 SUPERCHARGER SERIES

产品特点 / Product features

- 全进口高压发生器
- 多种保护装置
- 大容量储能缸体
- PLC多触点控制液压系统
- 压力稳定性高，可持续24小时工作
- 稳定耐用

- Imported high voltage generator
- Multiple safety devices
- Cylinder with large capacity of energy storage
- Hydraulic control system with PLC multi-conductor
- High stability of pressure, 24 hours continuous operation
- High stability and durability

DF-410主要技术参数 Technical Parameter

长度	Length	2200mm	持续工作压力	Working pressure	300-350MPa
高度	Height	1035mm	最大水流量	Max.flow rate	3.7L/min
宽度	Width	1191mm	最大宝石喷嘴直径	Max.Φ of orifice	0.33mm
重量	Weight	2260lbs（1025kg）	工作电源	Power supply	380V 50Hz
电机功率	Power rate	37KW/50hp	供水流量	Water spply	≥15.1L/min
最高输出压力	Max.pressure	420MPa/4200bar	供水压力	Water pressure	≥0.1MPa

备注:设备规格、参数及外观如有变动恕不另行通知

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售后服务与技术培训 AFTER-SALE SERVICE & TECHNICALLY TRAINING

售后服务 After-sale Service

零配件保证长期供应
Spare parts guarantee long-term supply

终身负责维修
Be responsible for maintenance for life.

上门安装和调试
Door-to-door installation and commissioning.

我们为所有售出的产品提供如下售后保证： We provide the following after-sale guarantee for all products sold:

- 安装、调试后1年整机免费保修（易损件和易损件更换除外）
  Free warranty for 1 year after installation and commissioning(except for easy parts and parts replacement).
- 为用户培训设备操作、维修、维护人员2人，计算机操作人员1人
  Training of 2 person for users in equipment operation, maintenance and maintenance, and 1 person for computer operation.
- 对于普通故障，以电话、传真或电子形式指导用户尽快恢复生产。
  For common failures, direct users to resume production as soon as possible by telephone, fax or electronic.
- 当有新产品和新技术时，可以享受优惠价升级
  When new products and new technologies are available, you can enjoy preferential price upgrades.
- 维修回应时间：质量保证期内，用户设备出现故障时，在收到书面通知后24小时内响应。
  Repair response time: during the quality assurance period, customer equipment failure, within 24 hours after receiving written notice.

经过用户操作人员努力仍然无法排除故障时，我们会尽快赶到现场并协助用户解决问题。
After the user operator efforts still can not troubleshoot, we will arrive as soon as possible and help the user solve the problem.

技术培训 Technically Training

培训地点：
Training site:

德法科技有限公司厂址或客户厂址
DEFA Technology Co., Ltd. site or customer site

客户购买德法科技有限公司生产的水刀后，公司将会对客户进行为期一周的技术培训。

After the customer buys the waterjet cutting equipment manufactured by DEFA Science and Technology Co., Ltd, the company will train the customer for a week.

培训内容：

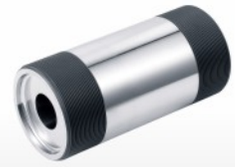
- 超高压水切割机的基本工作原理；
- 超高压发生器的工作原理；
- 超高压水切割机各部件构成、性能及功能；
- 高压系统零部件的更换；
- 高压系统的维护保养及常见故障的判断和排除方法；
- 数控切割平台的操作；
- 数控切割平台的日常维护及保养；
- 主要高压功能部件、高压水开关、切割刀头及控砂阀的原理、维护及常见故障的判断和排除方法；
- 图形设计及数控编程、软件操作、参数设置及保存；
- 磨料控制与输送系统的工作原理及使用方法；
- 设备安装；
- 现场操作与切割。

Training content:

- The basic principle of ultra-high pressure waterjet cutting equipment;
- The working principle of EHV generator;
- The composition, performance and function of the components of the ultra-high pressure waterjet cutting equipment;
- High pressure system parts replacement;
- High voltage system maintenance and common fault judgment and troubleshooting methods;
- Operation of NC cutting platform;
- Daily maintenance and maintenance of NC cutting platform;
- Main high pressure function components, high pressure water switch, cutting knife head and sand control valve principle,maintenance and common fault judgment and troubleshooting method;
- Graphic design and NC programming, software operation, parameter setting and saving;
- The working principle and application method of abrasive control and conveying system;
- Equipment installation;
- Field operation and cutting.

设备配件 ACCESSORIES

高压缸
HIGH PRESSURE CYLINDER



高压缸塞头
HIGH PRESSURE CYLINDER PLUG HEAD ASSEMBLY

切割刀头+刀头接口
CUTTING HEAD & KNIFE HEAD INTERFACE

高压环
HIGH PRESSURE RING

宝石喷嘴
ORIFICE

「德法水刀·智造未来」

Precision Engineered in China
Empowered by German Tech

德法科技 DEFA

IWJ INTELLIGENT WATERJET

KTF WATERJET

佛山市德法科技有限公司

FOSHAN CITY DEFA TECHNOLOGY CO., LTD.

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ADD:1st Floor, Block 14, Building A, Core area, Guangdong New Light Source Industry base,Luo Village, Shishan Town, Nanhai District, Foshan City,Guangdong Province,China.

电话(TEL):(86)757-82702101、82702103　传真(FAX): (86)757-82703650　邮箱(E-MAIL):fsdefa@126.com

德法科技有限公司江苏分厂

DEFA TECHNOLOGY CO., LTD. JIANGSU BRANCH

地址:江苏省常熟市碧溪街道汶张公路51号

Address: No. 51, Wenzhang Highway, Bixi Sub-district, Changshu City, Jiangsu Province

马来西亚德法科技有限公司

IWJ Machinery Technology (M) Sdn Bhd

Add : No.3, Jln Eco Perindustrian 1/3B, Eco Businessparks 5, Bandar Puncak Alam, 42300 Selangor. D.E. Malaysia

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