# 公司简介

### **COMPANY PROFILE**

上海渊虹超高压水射流技术有限公司是一家专业从事超高压水射流设备研发、生产、销售、服务为一体的水射流设备供应商。

本公司品牌"YH Water Jet"数控床集数年产品研发,高精度电子设备制造,机械加工之经验,针对目前水刀数控机床参差不齐的技术及工艺现状,对其不断研究、完善与改进,成功开发出微电子行业的水刀数控机床,并把世界上先进的视觉自动对位平台技术应用在水切割设备上,使得"YH Water Jet"水切割设备的精度,效率及切割性得到了更好的提升。

上海渊虹超高压水射流技术有限公司与多家世界知名企业进行合作,其中有台湾振弘、台湾上银等。公司除经营水切割所有产品外,还特设了超高压研发中心,聘请了原国内外知名水刀切割公司的技术人员作为研发人员,并且聘请了著名材料大学院校的博士作技术支持,其中有北京航空航天大学等。

上海渊虹超高压水射流技术有限公司将本着"客户至上、质量第一"的理念,博采各家水刀之精华,根据客户需要为用户配置更佳方案,提供完善的配套服务。

Shanghai Yuanhong ultra-high pressure water jet technology Co., Ltd. is a water jet equipment supplier specializing in the research and development, production, sales and service of ultra-high pressure water jet equipment.

The company's brand "YH water jet" CNC bed sets several years of product research and development, Based on the experience of high-precision electronic equipment manufacturing and machining, and in view of the current uneven technology and process status of hydraulic cutter numerical control machine tools, continuous research, improvement and improvement have been carried out to successfully develop hydraulic cutter numerical control machine tools in the microelectronics industry, and the world's advanced visual automatic alignment platform technology has been applied to the water cutting equipment, making "YH water The precision, efficiency and cutting performance of jet "water cutting equipment have been improved.

Shanghai Yuanhong ultra high pressure water jet technology Co., Ltd. cooperates with many world famous enterprises, including Taiwan Zhenhong, Taiwan Shangyin, etc. In addition to operating all water cutting products, the company has also set up an ultra-high pressure R & D center, hired technicians from famous water cutting companies at home and abroad as R & D personnel, and employed doctors from famous material universities as technical support, including Beijing University of Aeronautics and Astronautics.

Shanghai Yuan Hong ultra high pressure water jet technology Co., Ltd. will take the spirit of "customer first, quality first" to win the essence of all water knives, and provide better solutions for users according to customer needs, and provide perfect supporting services.

### 公司资质

## **COMPANY QUALIFICATION**



















### 公司发展

### **COMPANY DEVELOPMENT**

### 技术研发与支持

#### **TECHNOLOGY R&D AND SUPPORT**

—满足客户需求永无止境 Meet customers' needs forever

渊虹致力于为用户提供完美的水射流解决方案,针对用户的不同的使用工况,制定贴合现场生产需要的最佳操作方案,技术 人员。生产人员为用户实行定制化生产,不断实现行业内的技术突破。

Yuanhong is committed to providing users with perfect water jet solutions. According to the different use conditions of users, it is necessary to develop the best operation plan and technical personnel to meet the needs of production on site. Production personnel carry out customized production for users, and constantly achieve technological breakthroughs in the industry.









客户现场

### 品质保证 QUALITY ASSURANCE

—让您的采购无后顾之忧 Make your purchase worry free

渊虹以严格的技术生产管控要求自身,以不断提高品质为发展基石,面向市场需求,严格的战略合作要求,使用户在使用中的产品得到质量保障,以此为出发点,让渊虹的产品远优于行业水平,达到企业和用户互赢互利。

With strict technical production control requirements, continuous improvement of quality as the cornerstone of development, market-oriented and strict strategic cooperation requirements, Yuanhong will ensure the quality of products in use, so as to make Yuanhong's products far superior to the industry level and achieve mutual benefit between enterprises and users.

### 市场支持 MARKER SUPPORT

一帮用户拓展市场业务 Help users expand market business

渊虹产品广泛运用于各个领域行业的水切割切割、高压清洗、检测测试等等,涉猎到军工制造、飞机机翼切割、轨道油田等需要冷切割处理的行业,为客户进入新的领域提供技术支持与解决方案。

Yuanhong products are widely used in various industries, such as water cutting, high-pressure cleaning, detection and testing, etc. they are involved in military manufacturing, aircraft wing cutting, orbital oil fields and other industries that need cold cutting treatment, providing technical support and solutions for customers to enter new fields.













# YH-JET-50 高压泵

# YH-JET-50 high pressure pump

渊虹 JET50 增压式高压泵是低成本,高效率水切割应用的新选择!采用国际增压器技术,提供客户持久,稳定的使用性能。它秉承新式,简约设计,控制简单,易用。





#### 规格参数(specification):

额定功率(Rated power)	50HP (37KW)
最大压力(Max. pressure)	60000PSI(4137bar)
最大单喷嘴直径(Max. single orifice diameter)	0.36mm
控制电压和电流(control voltage and current)	24DC , 10AMPS
环境温度(Ambient temperature)	5-40°C
液压油箱容量(Fuel tank capacity)	114L
冷却水量(cooling flow)	11.4L/MIN
储能器容 Xattenuation)	IL
长(long)	1473MM
宽(width)	1205MM
高(high)	1056MM
重量(weight)	1025KG

YuanHong JET50 intensifier typle high-pressure pump is low cost, high efficiency water cutting application new choice! The inte — rnational technology, provide customers lasting, stable performance. It take the modern, simple design, simple control, easy to use.

# YH-SL-VI 高压泵

# YH-SL-VI high pressure pump

渊虹 YH-SL-VI 系列采用最新技术,易于使用,具有可靠,方便的创新设计。有更多的产品尺寸供你选择,此系列高压泵非常易于维护,也是我们系列泵里比较先进的产品,因其压力和水质的不同,渊虹这款泵的密封效果比其它任何水射流系统的密封效果都长久,可为水射流系统的不间断运作以满足苛刻的生产计划。



规格参数 (specifications)

y (openineations)	
30HP(22KW)	50HP ( 37KW)
60000PSI (4137BAR)	60000PSI (4137BAR)
2.27L/MIN	3.79L/MIN
0.279mm	0.355mm
24DC , 10AMPS	24DC , 10AMPS
5-40°C	5-40°C
106L	106L
9.5L/MIN	11.4 L/MIN
IL	IL
1700MM	1700MM
914MM	914MM
1453MM	1453MM
953KG	953MM
	30HP(22KW) 60000PSI (4137BAR) 2.27L/MIN 0.279mm 24DC , 10AMPS 5-40°C 106L 9.5L/MIN IL 1700MM 914MM 1453MM

YuanHong YH-SL-VI serial pump utilize the best technology,easy use,safe and reliable, Convenient innovative design. More product size for your choice, This series of high-pressure pump is very easy to maintain, We also more advanced products in the series pump, Due to the d 汗 ference of the pressure and water quality,YuanHong's The sealing of this pump effect than any other waterjet system sealing effect for a long time, For the waterjet system of unin terrupted operation to meet demanding production plan

# YH-JETLINE-I50 高压泵 YH-JETLINE-I50 high pressure pump

渊虹 JETLINE 系列是公司根据市场生产需求设计的一款大型增压式高压泵总成,采用国际领先超高压技术,在原有版本的高压泵的技术上更优化,更美观,性能也更优越,对易损件等的消耗上有了更大的改进,从传统密封过渡到新型密封,为水切割持续工作提供更稳定的操作。



### YH-JETLINE-JL-I50 规格参数 (Spcifications)

额定功率 Rated Power	30hp (22KW)	50hp (37KW
最大压力 Max. Constant Pressure	55,000PSI (3,800bar	66, 000PSI (4138bar)
最大流量 Maximumu Flow	2.31/min	3.81/min
最大喷嘴直径 Max. Single Nozzle	0.28mm	0.35mm
Diameter		
控制电压和电流 Control Voltage and	24VDC, 10AmpsDC	24VDC, 10AmpsDC
Electric Current		
环境温度 Ambinent Temperature	5-40 °C	5-40 ℃
油箱储量 hydraulic oil container	114L	170L
capacity		
储能器容量 Attenuation	1L	1L
长Long	1,935mm	1,935mm
宽 Width	914mm	914mm
高 Height	1,194mm	1,194mm
重 Weight	1,180kg	1, 180kg

Yuanhong JETLINE series is a large turbocharged high-pressure pump assembly designed by the company according to the market demand. It adopts the international leading ultra-high pressure technology. The original version of the high-pressure pump is more optimized in technology, more beautiful and superior in performance. It has made greater improvements in the consumption of vulnerable parts and so on. It has transited from traditional seal to new seal, so as to provide more stability for the continuous work of water cutting. Operation.

### YH Direct Drive Pump

#### 节能、效率高的水射流切割设备 ——操作简便、快速、易维护

渊虹直驱泵是一种功能强大的超高压水射流切割工具,旨在实现最小的维护量和可靠的性能。

- 1、良好的工件切边质量,更快的切割速度,使用范围广,操作简便;采用独特的设计,能和任意台面、操作系统相匹配,使 用范围更加的广泛; 其切割速度同其它泵相比快 30-50%
- 2、耗能低; 直驱泵采用 30hp 的电机,就能达到 50hp 电机的压力,让设备更节能,在 30hp 电机的带动下,轻松切割各种金属 石 材,玻璃以及其他各种材料; 3. 维护更简便; 无水压系统更易维护。



YH-DDP-30 第一代直驱泵总成

# YH-DDP-30 规格参数 (YH-DDP-30 Specifications)

额定功率(Rated Power)	22KW/30 马力
最大压力(Max pressure )	55000psi ( 3792bar)
气压(AIR)	80—120psi ( 5.5-8.3bar)
工作电压与电源(Operating voltage and power)	210-240/360-420V 50HZ
环境运行温度(Ambient operating temperature)	5° C-40° C (41° F-104° F )
长(Long)	51.25in (132cm)
宽(Width)	53.75in (136cm)
高(High)	42.5in (106cm)
重量(Weight)	700KG
最小进水量(Min.inlet water)	60psi 压力」加仑/分
泵速(Pump speed )	720rpm
油箱容量(Fuel tank capacity)	2. 6L
机油	SAE 30 (环境温度高于 32℃时采用 SAE40)

### 规格参数 (Specifications)



第二代直驱泵总成

	MIDSX (Specifications)	
额定功率(Rated Power)	22KW/30 马力	
最大压力(Max pressure )	60000psi (4138bar)	
气压(AIR)	80—120psi (5.5-8.3bar)	
工作电压与电源(Operating voltage and power)	210-240/360-420V 50HZ	
环境运行温度(Ambient operating temperature)	5° C-40° C (41° F-104° F )	
长(Long)	51.25in (132cm)	
宽(Width)	53.75in (136cm)	
高(High)	42.5in (106cm)	
重量(Weight)	700KG	
最小进水量(Min.inlet water)	60psi 压力」加仑/分	
泵速(Pump speed )	720rpm	
油箱容量(Fuel tank capacity)	2. 6L	
机油	SAE 30 (环境温度高于 32℃时采用 SAE40)	
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### Energy saving, high efficiency of water jet cutting equipment

#### - operation is simple, rapid and easy maintenance

Yuanhong direct drive pump is a powerful ultra-high pressure water jet cutting tool, aiming at achieving minimum maintenance and reliable performance.

- 1. Has good workpiece trimming quality, faster cutting speed, wide application range and easy operation. It can match any desktop and operating system with unique design and has a wider application range. Its cutting speed is 30-50% faster than other pumps;
- 2. Low energy consumption; direct drive pump with 30 HP motor, can achieve 50 HP motor pressure, so that equipment more energy-saving, driven by 30 HP motor, easy cutting of various metal, stone, glass and other materials;
- 3. Maintenance is simpler; no-hydraulic system is easier to maintain

### YH-7XS/XD 单/双增压泵

## YH-7XS/XD Single/ Double booster pump

#### 性能稳定、操作简便

为了使用户使用上安全稳定、操作简便的设备,我公司曾多次派设计师调研、到客户实地沟通操作,采纳客户宝贵意见,用户界面特 采用了简单的操作压力表和调节器,以及电灯、紧急停止按钮、计时器和感应灯,使客户用的放心、用的满意。同时我们还使用自动停机传感器可监控液压油水平过低、液压油温度过高以及进水压力过低与增压器超速。慢启动功能可以逐渐增加 用户定义的预设值的液压,从而延长泵的使用寿命。对引进的冷却水进行恒温控制可提高泵的性能,优化进水的用途。除了具有出色性能和高度稳定性外,所有的渊虹产品设计中都融入了安全元素。该设备能够在严苛的工业切割应用中安全、稳定并连续地运行。



YH-7XS 单增压泵

YH-7XD 双增压泵

#### YH-7XS 规格参数表:

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额定功率(Rated Power)	<b>37KW (</b> 50 马力)	
最大持续压力 (Max.pressure )	60000psi (4137bar)	
最大流量(Maximum flow)	2.841/min	
工作电压与电源(Operating voltage and power)	210-240/360-420V 50HZ	
环境运行温度(Ambient operating temperature)	5°C-40°C (41°F-104°F)	
⊬(Long)	52.15in (132cm )	
宽(Width)	53.75in (136cm)	
高(High)	42.5in (106cm)	
重量(Weight)	700KG	

备注: 规格参数如有变动恕不另行通知

(Note: Specifications are subject to change without notice.) Stable performance and easy operation

In order to make users use safe, stable and easy-to-operate equipment, our company has sent designers to investigate and communicate with customers on the spot for many times, and adopted the valuable opinions of customers. The user interface uses simple operating pressure gauges and regulators, as well as electric lights, emergency stop buttons, timers and induction lights, so that customers can use them safely and satisfactorily. At the same time, we also use automatic shutdown sensor to monitor the low level of hydraulic oil high temperature

At the same time, we also use automatic shutdown sensor to monitor the low level of hydraulic oil, high temperature of hydraulic oil, low inlet pressure and supercharger speed. Slow start function can gradually increase the user-defined preset value of hydraulic pressure, thereby prolonging the service life of the pump. Constant temperature control of imported cooling water can improve pump performance and optimize the use of water intake.

In addition to excellent performance and high stability, all Yuanhong products are designed with safety elements. The equipment can operate safely, stably and continuously in harsh industrial cutting applications.

### YH-7XS/XD 单/双增压泵

## YH-7XS/XD Single/ Double booster pump

#### 性能稳定、操作简便

为了使用户使用上安全稳定、操作简便的设备,我公司曾多次派设计师调研、到客户实地沟通操作,采纳客户宝贵意见,用户界面特采 用了简单的操作压力表和调节器,以及电灯、紧急停止按钮、计时器和感应灯,使客户用的放心、用的满意。同时我们还使用自动停机传感器可监控液压油水平过低、液压油温度过高以及进水压力过低与增压器超速。慢启动功能可以逐渐增加用 户定义的预设值的液压,从而延长泵的使用寿命。对引进的冷却水进行恒温控制可提高泵的性能,优化进水的用途。

除了具有出色性能和高度稳定性外,所有的渊虹产品设计中都融入了安全元素。该设备能够在严苛的工业切割应用中安全、 稳定并连续地运行。

最大压力(PSI/BAR) Maximum Pressure(PSI/BAR) 输出流量(GPM/LPM) Output Flow(GPM/LPM)		60000/4137		油温高 Oil tempreture High	Yes
		1.24	Ala	油位低 Oil level Low	Yes
	嘴直径(Inch) lozzle Diameter(Inch)	0.015	5 报前	进水压力低 Inlet water pressure low	Yes
推健喷 Recon	嘴直径 (Inch) nmended Nozzle Diameter (Inch)	0.010*2	Alarm Information 报警信息	止回阀温度高 Check Valve temperature high	Yes
<u> </u>	马达马力 Horsepower	60	tion	泄压阀温度高 relief valve temperature high	Yes
马 Motor 达	三项电压 Threephase Voltage	190 to 440(50hz) 200 to 575(60Hz)		增压器超速 intensifier overspeed	No
7	马达功率 (KW) Motor Power (KW)	45	Valve 阀	冷却水流量控制阀 cooling water flow control valve	No
=	增压器数量 Num. of Intensifier	2	图Ve	切割水故障阀 cutting water force valve	Yes
Intensifier 增压器	增压器比例 Proportion	20:01	蓄能器尺寸 Accumulator Size		125in³ (2.2Liter)
- 1	增压器换向类型 Reversing Type	Electric	最小X Minin	対水流量(GPM) num Cooling Water Flow Rate(GPM)	4
Oil Pump	液压泵 Fluid Type	Rexroth 71C.C/Rev*1ea	ы₩	前置增压泵	Standard, Built
泵mp	油箱容量(Gallons) Capacity of tank (Gallons)	35			in unit belt driven off of
控制类型 Conrolling Type		Micrologix 1000	公言	Preposition Booster Pump	special motor/pump
双压力变换 Double Pressure Transformation		Remote control by Table			coupling.
	压力控制 Pressure Control	Manual knob		推健进水压力 (PSI)/流量(GPM) Recommend Intake Pressure (PSI)/(GPM)	Over15/2.5
	泵开始/停止 PB Pump on/off PB	Standard & remote	环境温度 Environment Temperature		2°C to 49°C
	紧急停止 PB Emergencey Stop PB	Standard & remote	相对湿度 Relative Humidity		Up to 95% @ 49℃
Oper 坦	显示泵跑的状态 Pump Running State	Lamp	外型尺寸(L*W*H,Unit:mm) External Dimension(L*W*H,Unit:mm)		1607*851*1484
Operation Panel	显示故障信息 Fault Message	Lamp	重量(Kg) Weight(Kg)		1050
	液压表 Hydraulic Pressure Guage	Standard	注意 Notice		Only one
	水滤表 Water Filter Table	Standard			intensifier operates at a time
	计时表 Stopwatch	Standard			
	高压水表 High Pressure Water Meter	No		规格参数如有变动恕不另行通知 Specifications are subject to change	without notice

#### Stable performance and easy operation

In order to make users use safe, stable and easy-to-operate equipment, our company has sent designers to investigate and communicate with customers on the spot for many times, and adopted the valuable opinions of customers. The user interface uses simple operating pressure gauges and regulators, as well as electric lights, emergency stop buttons, timers and induction lights, so that customers can use them safely and satisfactorily. At the same time, we also use automatic shutdown sensor to monitor the low level of hydraulic oil, high temperature of hydraulic oil, low inlet pressure and supercharger speed. Slow start function can gradually increase the user-defined preset value of hydraulic pressure, thereby prolonging the service life of the pump. Constant temperature control of imported cooling water can improve pump performance and optimize the use of water intake.

In addition to excellent performance and high stability, all Yuanhong products are designed with safety elements. The equipment can operate safely, stably and continuously in harsh industrial cutting applications.

# YH-20XD-87K 双增压泵

## YH-20XD-87K Double booster pump

渊虹根据行业的需求,研发了87000PSI的超高压泵,压力最高可达到600MPa,压力稳定,为持续工作环境提供有力的后盾。

- 1、可切割新材料,提高切割质量 增加最大切割厚度(高达 400 或 500 mm)
- 2、提高切割速度
- 3、减少磨料消耗 (30%至40%)
- 4、切割更硬的材料,如陶瓷
- 5、可能减少切削宽度和切口锥度
- 6、可切割新材料,提高切割质量



#### 规格参数:

Max. Pressure(PSI)最高压力	90000
Max. Output Flow Rate(GALLON)最大输出流量	1.4
Max. Single Orifice(mm) 最大单孔宝石喷嘴	0.33
Recommend meach Orifice(Inch) 建议使用	0.33*1 or 0.26*2
Motor Horse Power 马力	100
3Phase Voltage 三相电压	190 to 415(50hz) 200 to 460(60Hz)
Full Load Watt (KW)全负荷功率	75
Recommend Inlet Water Pressure(PSI)/Flowrate 推荐进	Over15/4
口水压(psi)/流量	
Ambient Temperature 环境温度	2°C to 49°C
Relative Humidity 相对湿度	Up to 90% @ 38 $^{\circ}{\mathbb C}$
Overall Dimensions 整体尺寸(I*w*h,单位:毫米)	1458*14046*1120
Weight(Kg)重量	3400

Yuanhong has developed 87000PSI ultra-high pressure pump according to the needs of the industry. The maximum pressure can reach 600MPa. The pressure is stable, which provides a strong backup for the continuous working environment.

- 1. Cut table new materials, improve cutting quality and increase maximum cutting thickness (up to 400 or 500 mm)
- 2. Increasing Cutting Speed
- 3. Reduce abrasive consumption (30% to 40%)
- 4. Cutting harder materials, such as ceramics
- 5. Possible Reduction of Cutting Width and Cut Taper
- 6. Cut table New Materials to Improve Cutting Quality

# YH-S75 高压泵

# YH-S75 High Pressure Pump

渊虹的研发团队,根据行业对高压力小流量的需求,设计了一款功率小、压力高、流量小的超高压泵体,相较于传统常规高压泵,它配备的 7.5kw 电机,要很大程度上节约了用电的消耗,另外压力又能保持不变,流量会相对减小,对切割行业中的特殊要求用户得到满足。



#### 规格参数:

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Max. Pressure 最高压力	60000psi
Max. Single Orifice 最大单孔宝石喷嘴	0. 1mm
额定功率(Rated Power)	7. 5KW
长 Long	1200mm
宽 Width	950mm
高 High	1050mm

Yuanhong's R&D team designed an ultra-high pressure pump body with low power, high pressure and low flow according to the industry's demand for high pressure and small flow. Compared with the traditional high pressure pump, the 7.5 kW motor equipped with it saves electricity consumption to a great extent. In addition, the pressure can remain unchanged, the flow will be relatively reduced, and the special requirements in the cutting industry will be satisfied by users.

# 40000psi/60000psi 增压器

# 40000psi/60000psi HYPERPRESSURE Supercharger 渊虹生产的增压器,具有性能稳定,压力高,易损件寿命长的特点,根据客户的需求制定了三款主流型产品。



40K 增压器总成,最大压力 40000psi, 280MPa 40K supercharger assembly, maximum pressure 40000 psi, 280mpa



60K 增压器总成,最大压力 60000psi, 420MPa 60K supercharger assembly, maximum pressure 60000psi, 420MPa



60K 增压器总成,最大压力 60000pai, 420MPa 60K supercharger assembly, maximum pressure 60000pai, 420MPa

The supercharger produced by Yuanhong has the characteristics of stable performance, high pressure and long service life of vulnerable parts. According to the needs of customers, we have developed three mainstream products.

# 87000psi 增压器 87000 PSI HYPERPRESSURE Supercharger

HYPERPRESSURE™ 的优势(The advantage of HYPERPRESSURE™)
87,000 psi 额定压力增压器对比 60,000 psi 额定压力增压器
(87000 psi pressure rated supercharger compared to 60000 psi pressure rated super charger:)

- •切割速度快 30-50% (cutting speed 30-50%)
- •砂料使用减少 30-50% (the use of sand fill reduce 30-50%)
- •零件成本减少 20-30% ( parts cost reduction of 20-30% )
- •维护极其迅速、简便(maintenance extremely fast and simple )
- •可以直接在 60000psi 泵上改造(can be directly on the 60000 psi pump)



#### 切割更迅速

渊虹的 HYPERPRESSURE 增压器额定压力为 87,000 psi ,并且在 60,000 psi 的压力下提供持续运行压力一压力显著增加,由传统的 55,000psi 增长到 60,000 psi 额定超高压力系统。二氧化碳激光瓦数可提高切割速度,水压增加也可提高切割速度。随着压力的上升,水流速度增大,切割功率密度增加。使用 HYPERPRESSURE 增压器,水流速度可接近 4 马赫,是音速的四倍。从石材到铝、钢再到特殊复合材料,将加砂水刀水流速度增加到现有最高水平是切割速度增加 30-50%的原因。无论何种材料或厚度 如何,切割速度随着压力增加而增加。

#### 提高生产效率

切割速度加快意味着可以切割更多的部件,制造商的销售量也会增加。从内部生产到定制装配和协议制造车间,使用 HYPERPRESSURE 增压器可以在更短的时间内完成更多的工作

由于企业发展和场地空间越来越宝贵,增加机械设备已经不是理想的解决办法。使用渊虹特有的 HYPERPRESSURE 增压器可提高产

能,这将推动各企业在不加大场地空间、公用设施需求或员工数量的前提下加速发展。

#### 降低成本

速度提高和产能增加不会造成成本增加一HYPERPRESSURE 增压器操作成本更低。成本节约源于砂料。

砂料占机器运行成本的 2/3 ,并且随着压力的上升,水流移动加快,直径变小。更少的砂料就被夹带着进入水流中,但是每个粒子夹带更多的能量和切割功率。

超压泵能够以比标准泵高 45%或者更高的压力运行。因为砂料成本占水刀泵运行成本的大部分,使用减少 30-50%砂料的超压泵 会节 省成本。因此其运行成本比低压运行的传统泵更低,切割速度更快。

运行成本降低并且速度提高意味着每个部件或协议工作的成本大幅减少。福禄超压泵能够实现更高效的车间运行, 在更短的时间内以 更低的成本生产更多部件, 因此成为众多客户的最佳选择。

# 87000psi 增压器 87000 PSI HYPERPRESSURE Supercharger

#### **Cutting more quickly**

Yuanhong's HYPERPRESSURE supercharger has a rated pressure of 87,000 psi, and provides continuous operating pressure under 60,000 psi pressure. The pressure increases significantly from 55,000 psi to 60,000 psi rated super high pressure system. Carbon dioxide laser wattage can increase cutting speed, and water pressure can also increase cutting speed.

With the increase of pressure, the flow velocity and cutting power density increase. Using the HYPERPRESSURE supercharger, the flow velocity can be close to Mach 4, which is four times the speed of sound.

From stone to aluminium, steel to special composite materials, increasing the flow velocity of sand-adding water cutter to the current maximum level is the reason for the increase of cutting speed by 30-50%. Regardless of the material or thickness, the cutting speed increases with the increase of pressure.

#### **Improving Production Efficiency**

Faster cutting speed means more parts can be cut; manufacturers'sales will also increase. From internal production to customized assembly and protocol manufacturing workshops, more work can be accomplished in a shorter time using the HYPERPRESSURE supercharger.

As the development of enterprises and the space of sites become more and more precious, increasing mechanical equipment is not an ideal solution. Using YPERPRESSURE supercharger unique to Yuanhong can improve production

Yes, it will accelerate the development of enterprises without increasing space, public facilities or the number of employees.

#### **Reduction the cost**

Increased speed and capacity will not result in increased costs - the operation cost of HYPERPRESSURE supercharger is lower. Cost savings come from sand.

Sand accounts for 2/3 of the running cost of the machine, and with the increase of pressure, the flow moves faster and the diameter decreases. Less sand is entrained into the flow, but each particle carries more energy and cutting power.

Overpressure pumps can operate at 45% or higher pressure than standard pumps. Because the cost of sand accounts for most of the running cost of water knife pumps, the use of overpressure pumps with 30-50% reduction of sand will save costs. Therefore, its operation cost is lower than that of low-pressure conventional pumps, and the cutting speed is faster.

Lower operating costs and faster speeds mean a significant reduction in the cost of each component or protocol work. Fleur Overpressure Pump is the best choice for many customers because it can achieve more efficient workshop operation and produce more components at lower cost in a shorter time.



# 旋转阀和泄压阀 Rotary and relief valves

### 1. 旋转阀 Rotary valves

### 60K 旋转阀 60k rotary valve











B-5490 1/4 单轴旋转阀

010140-1 3/8 单轴旋转阀

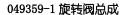
C-5155-1 90°旋转阀

C-5152-1 180°旋转阀

B-5725-1 直角旋转阀

### 87K 旋转阀 87k rotary valve







014922-1 旋转阀总成

### 2、检测型开关阀总成 Detection type on-off valve assembly



C-2728-1 常闭型开关阀 closed **3、泄压阀 Relief valves** 



C-2729-1 常开型开关阀 open



C-5841-1 60K 泄压阀总成



019309-1 87K 泄压阀总成

## 渊虹控制系统

# YH Water cutting control system

渊虹水切割系统是一款自主研发的经济型一体机,具有高可靠性,高性价比的水切割控制系统,支持2-5轴。

YH water cutting system is an independent research and development and economical machine has high reliability, high cost performance of water cut control system, support 2-5 axis.





THE TANKS OF THE PROPERTY OF T

系统操作简单,导入标准的零件代码程序或 DXF (CAD)文件,即可进行加工。

简便的起始点设置,路径回退等运动控制操作。

进给倍率在线调节,10%-250%。

支持跳段执行功能,即用户可以自行选择加工行段。

水刀工艺参数配置简便,包括高压,水阀,砂阀的开关顺序和延迟时间。

针对各种材料的切割工艺可以修改保存, 切割前选择即可。

支持拐角处速度控制,提高切割质量。

时间到期管理功能,支持操作员,技服权限限制功能,提高操作安全性。

System simple operation, import the code or standard parts DXF (CAD) Documents, can be processed.

The starting point of the simple Settings, motion control operation such as path back.

Feed rate online adjustment, 10% ~-250%.

Support jump period of executive function, that is, the user can choose processing line segments.

Water knife parameters configuration is simple, including high pressure, water valve, sand valve switching sequence and time delay late.

According to various material cutting process can be modified to keep, choice you before cutting.

Support the corner speed control, and improve the cutting quality.

Due time management functions, support the operator, tech support authority limit function, improve operation safety.

# YH-ASFS 自动供砂系统 YH-ASFS Automatic System For Sand

#### 储砂系统

渊虹自动供砂系统为水切割机提供储砂罐和将磨料自动传送到砂斗的功能,可大大提高工作效率和减轻操作人员劳动强度。

- 200 公斤的容积保证连续 500-800 分钟切割所需要的砂量。
- 工作时所需压缩气体压力小于 0.2Mpa, 砂量均匀, 输送平稳。
- 无需电控,操作简单方便,运行可靠,免维护。

#### 控砂系统

渊虹控砂系统具备操作简单、切割灵活、重量轻、耐用,非金属质地容易清洗且防腐等特点,从根本上解决了堵砂和断砂的问题。 准确的砂量控制盘和可靠的防回水设计,避免了由于切割头回水而造成的磨料潮湿、堵砂、断砂等故障,确保切割的连续性,同时可以 精确的控制磨料的用量,有效的减少磨料的浪费。



#### Sand storage system

Yuanhong automatic sand supply system provides the function of sand storage tank for water cutting machine and transferring abrasives to sand bucket automatically, which can greatly improve work efficiency and reduce the labor intensity of operators.

- The volume of 200 kg guarantees the amount of sand required for 500-800 minutes of continuous cutting.
- When working, the pressure of compressed gas is less than 0.2 Mpa, the sand volume is uniform and the transportation is smooth.
- No need of electronic control, simple and convenient operation, reliable operation and maintenance-free.

#### Sand control system

Yuanhong sand control system has the characteristics of simple operation, flexible cutting, light weight, durability, easy cleaning and anti-corrosion of non-metallic texture, which fundamentally solves the problems of sand plugging and sand breaking.

Accurate sand control panel and reliable anti-backwater design can avoid abrasive dampness, sand plugging and sand breaking caused by backwater of cutting head, ensure the continuity of cutting, and precisely control the amount of abrasive, effectively reduce the waste of abrasive.

### 五轴动态切割刀头

### Five axis dynamic cutting head

#### 1、优缺点 advantages and disadvantages

1) 简单操作且节省成本, operation simple and cost savings

渊虹的系统操作方式简单便捷,可切割任何设计和创造之图形。

YH's system operate simple and convenient, Can be cut any design and creative graphics 2)安全性 safety

不会产生灰尘和有毒气体, 我司提供全面的安全措施。

Does not produce dust and poisonous gas, We provide comprehensive security measures

3) 帮助制造商开发新的市场 Help manufacturers to develop new markets

a 五轴动态水刀非常适合于现行平板切割客户或其他先前认为传统加沙水刀技术太不精确,太慢或太贵的应用。为现行的水刀使用者开发新的市场。

five-axis dynamic water cut is very suitable for the current flat cutting customers or other previously thought traditional abrasive water jet cutting technology is not accurate too slow or too expensive use. For the existing water jet users to develop new markets.

b) 五轴动态水刀能在高速下, 生产更高质量的工件、而传统水刀只能在低速下生产高质量的工件, 五轴动态水刀可比传统水刀产生更佳的 切边质量及工件几何形状。

five-axis dynamic water jet can under the high speed, Produce higher quality of the work piece. And traditional water jet can produce high quality of the work piece under low speed. Five-axis dynamic water jet produces better than the traditional water jet cutting quality and work piece geometry.

4) 提高生产力 improve productivity

五轴刀头的平面切割角度最大可达到61度,弧面切割最大可达81度

Five-axis cutting head to a maximum of 61 degree Angle of the cutting, cambered surface cut maximum to 81 degrees 与传统的平板切割机械相比,工件切割速度可提升 25%至 400% ;且 25MM 厚得钢板上下单边缘之差不大于 0.06MM. Compared with the traditional plate cutting machine, Work piece cutting speed can increase 25% to 400%, And

25 MM thick steel plate up and down the difference between the single edge not greater than 0.06 MM.

a. 以更快的切割速度改善切割工件公差和几何图形;减少工件成本;真正的工件叠层能力;层层之间保持一致公差,无需二次加工

Faster cutting speed to improve the cutting tolerance and geometric shapes, Reduce the work piece cost,

The real work piece laminated ability, Remain consistent between layers of tolerance, without secondary processing.

b. 可切割各种不同材料:如金属,石材,玻璃及复合材料

Can cut all kinds of different materials: Such as metal, stone, glass and composite materials

. 方便编程和操作,不需要特别的训练和知识要求。切割任何使用 CAD 档案的图案和文件

Easy programming and operation, Do not need special training and knowledge requirements. Any use of cutting the patterns of the CAD files and documents.

#### 2. 切割效果 cutting effect

a 切割效果数据 Effect of cutting data (the big 5 axis)





大五轴切割刀头 (Big Five Axia)



小五轴切割刀头 (Small Five Axis)

The small 5 axis's rotary axis travel 小五轴旋转角度	4-10°C
A and B axis's back lash tolerance A 轴 B 轴误差范围	+-0.0127mm
Work envelope with 3D motion 3D 切割误差范围	+/-40MM
Max. recommended rapid traverse speed 最大旋转角度	180°/sec
Max. control speed 最大控制速度	180°/sec

# 五轴动态切割刀头 Five axis dynamic cutting head





### 五轴动态切割刀头

### Five-axis dynamic cutting head

名称 C/B Accuracy	C 轴/C-axis	B 轴/B-axis	备注
Rotary Axis Travel: 旋转角度	±270°	±90°	
Rotary Axis Travel: 旋转角度	±0.2°	±0.2°	
Rotary Positioning Repeatability: 旋转重复定位精度	±0.2°	±0.2°	
Maximum Rapid Traverse Speed: 最大旋转角度	90°/sec	90°/sec	
Maximum Control Speed: 最大控制速度	90°/sec	90°/sec	
在 10 度增额下的检测精度,在 39.4 英寸直径的圆上每 90 度相距和着 4 的度数的轨迹是正			
负 0.005 英寸			
Accuracy Tests at 10° Increments Tram ±0.005in .Taken on			
39.4in.diaCircle with 4 readings every 90° apart			
B 轴程序范围是正负 180 度,有效倾斜是正负 90 度 *B-Axis Program range is ±180°			
Effective tilt is ±90°			



备注: 1、制冷量依据: 冷冻水进出水温度  $12\mathbb{C}/7\mathbb{C}$ ,冷却进出风温度  $30\mathbb{C}/35\mathbb{C}$  2、工作范围: 冷冻水温度范围  $5\mathbb{C} \mathbb{E}$  35 $\mathbb{C}$ ,冷冻水进出水温差:  $3\mathbb{C} \mathbb{E}$  8 $\mathbb{C}$  。 在冷凝温度不高于  $3\mathbb{E} \mathbb{E}$  5 $\mathbb{C}$  环境使用

#### YH-TR系列机器人空间水切割系统

项 目 item		型 号 type	CA-05
制冷量 coding capacity	kcal/h		11223
	K	W	13.05
输入总功率 total power	K	W	5.54
	电源 power		3PH-380V/50HZ
制冷剂	名称	name	R22
cooling Agent	控制方式 cor	ntfol method	毛细管 capillary
压缩机	类型	type	全封闭涡旋式 totally-endosed serole
compressor	功率 power	KW	4.41
冷凝器	类型	type	高效紫铜管套铝翅片式+低噪音外转子风机 efficiency copper tube sleeve aluminum fin type low noise external rotor
condenser	冷却风量 airflow	m3/h	5000
	类型	type	水箱盘管式(壳管式 ) Water tank coil type (shell and tube type)
蒸发器	冷冻水量 Frozen water	m3/h	6.0
ewuporator	水箱容量 Water tanr capacity	L	70
	进出7 Inletand	K管径 autlet DI	1"
水泵	功率 power	KW	1.1
water pump	扬程 lift	М	33
安全保护	压缩机过热保护,过流保护,高低压力 protection, over-current protection, low pressure protection, ov		, 口保护,超温保护,流量保护,相序/缺相保护,排气过热保护 retemperature protection, traffic protection, phase sequence protection, overheat protection exha
机械重量 weight	KG		180
机械尺寸 size	mm		1140×560×1040

Remarks: 1. Basis of refrigerating capacity: chilled water inlet and outlet temperature 12  $^{\circ}$ C / 7  $^{\circ}$ C, cooling inlet and outlet air temperature 30  $^{\circ}$ C / 35  $^{\circ}$ C

2. Working range: the temperature range of chilled water is 5  $^{\circ}$ C to 35  $^{\circ}$ C, and the temperature difference between the inlet and outlet of chilled water is 3  $^{\circ}$ C to 8  $^{\circ}$ C.

Use in the environment with condensation temperature not higher than 35  $\,^{\circ}\text{C}$ 

# YH-TR 系列机器人空间水切割系统 YH-TR Robot space water cutting system

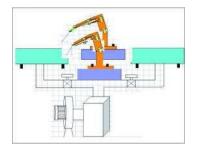
相对加砂切割而言,纯水切割拥有更快的切割速度,尤其适合塑料、合成建筑板材、泡沫、橡胶、皮革等各类软材料和复合材料的切害 0。 纯水切割在汽车顶棚、地毯等内饰件的应用中尤其发挥了显著的优势,成为汽车内饰件成型切割的全新解决方案。

YH-TR 机器人空间水切割系统由机器人系统、超高压泵、纯水切割系统、工作台、真空吸附及废水废料分离排放系统、安全防护系统、 电器控制系统以及工业水冷机、软化水等选配系统组成。YH-TR 采用高精度 6 轴水切割专用机器人为执行机构,超高压泵为切割能源, 模具为工件定位,以纯水切割方式实现内饰件的边缘轮廓线切割和定位打孔,使工件和废料分离,所有加工一次完成。YH-TR 还具有 节能、环









保、经济、可靠、操作维护方便等诸多优点。

#### TH-TR 系列机器人空间水切割系统

机器人系统 Robotic system	ABB/YASKAWA (可选) optional
总功率 total power	60kw (单机器人 lrobot) 75KW (双机器人
安装方法 installatio n	立式/倒挂式 pedestal/inversional
最大作用半径 Max.working radius	3200mm
最大切割速度 Max. cutring speed	400mm/s

Compared with sand cutting, water cutting has faster cutting speed, especially suitable for plastic, synthetic building plate, foam, rubber, leather and other soft materials and composite materials. Pure water cutting has played an important role in the application of automobile interior parts such as roof, carpet and so on. It has become a new solution for automobile interior parts forming and cutting.

YH-TR robot space water cutting system consists of robot system, ultra-high pressure pump, pure water cutting system, worktable, vacuum adsorption and waste water separation and discharge system, safety protection system, electrical control system, industrial water cooler and softening water selection system. YH-TR uses high-precision 6-axis water cutting robot as the executive mechanism, ultra-high pressure pump as the cutting energy, and die as the workpiece positioning. It realizes the edge contour line cutting and positioning drilling of the interior trim by pure water cutting, so that the workpiece and waste are separated and all the processing is completed at one time. YH-TR also has many advantages such as energy saving, environmental protection, economy, reliability, convenient operation and maintenance.

# 悬臂系列台面

# Mesa of cantilever series

渊虹的悬臂系统台面可精准切割,加砂水刀系统在三维切割方面非常出色,而且渊虹能够制造出完整的组合系统,以切割复杂的形状。 悬臂系列台面可以每分钟 10 米的速度精准切割。







	基座:1.8m、3.6m、4.8m、6m
工件/切割尺寸: Artifacts/cutting size: base:	桥轴: 2.4m ;也可以定制尺寸
	1.8 m, 3.6 m, 4.8 m, 6 m
定位精度(+/-)/Positioning accuracy (+ / ·)	0.127mm
	± 0.076mm
重复定位精度(+/-)/Repeat positioning accuracy + / -	-0.076 mm (+ / -)
移动速度/Move speed: X axis and Y axis:	X 轴和 Y 轴:最高 7.6 mpm the highest 7.6 MPM
Z 轴/The Z axis:	最高 1 mpm the highest 1 MPM
切割速度/Cutting speed:	最高 6 mpm/top 6 MPM
控制系统/ Control system:	自主研发 CNC 控制器 independent research and development of CNC controller
Z 轴调节度/The Z axis adjustment:	500mm

#### 设备细节图:







Mesa of YH cantilever system precision cutting, sand water system in three-dimensional cutting knife is very good, and fort YH can make the combination of the complete system, in cutting complex shape. Cantileverseries mesa can be 10 meters per minute precision cutting

# 龙门系列台面

# Mesa of Gantry series

龙门式水切割平台:数控运动机构与支撑工件的工作台为分体结构,有效杜绝了切割过程中由于水的涌动而对运动度的影响; 渊虹所有台面骨架结构都采取退火工艺,保证了骨架不会变形,确保台面坚实可靠,经久耐用。







工件/切割尺寸:	Base 基座: L8m、3.6ms 4.8ms 6m、12m
Workpiece / cutting dimensions	Bridge axis 桥轴:2.4m ; 3.4m 也可以定制尺寸Can also be
	customized size
定位精度 (+/-)	0.127mm
The positioning accuracy of (+ / -)	
重复定位精度(+/-) Repeat positioning accuracy (+ / -)	± 0.076mm
移动速度: Moving speed	X 轴和 Y 轴: 最高 7.6 mpm
Z 轴: Z axis	最高 100mm
切割速度:Cutting speed	最高 800mm
控制系统:Control system	CNC 控制器
Z 轴调节度: Z axis regulation	500mm

#### 设备细节图:







Gantry water cutting platform: CNC motion mechanism and supporting artifacts workbench for fission structure, effective to eliminate the cutting process due to the rush of water's in flue nee on the degree of movement;

YH all mesa skeleton structure adopts the annealing process, ensure the skeleton will not deformation, to ensure that mesa solid and reliable, durable.

# Cutting head assemblies and accumulators

### 加沙切割刀头 Gaza cutter head









纯水切割刀头 Pure water cutting head





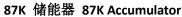


储能器 Accumulator











60K 2L 储能器 60K 2L Accumulator