



嘉和

# 硫酸装置用泵

Pump for Sulfuric Acid Plant

昆明嘉和科技股份有限公司

KUNMING JIAHE SCIENCE & TECHNOLOGY CO.,LTD



## 公司概况

### Company Overview

昆明嘉和科技股份有限公司总部位于中国（云南）自由贸易试验区，系国内先进的特种工业泵系统化解决方案提供商，深耕特泵行业 20 余年，服务石油化工、硫磷化工、有色冶炼和煤化工等领域，是中石油、中石化主力供应商，国内硫磷化工行业用泵首选品牌。公司以做中国最优秀的特泵提供商为业务主体，以工业服务整体解决方案和工业节能整体解决方案为两翼，形成高端装备制造、工业服务和工业节能三大核心业务板块。近年来，公司抢抓中国制造转型升级的有利契机，切实优化产品结构，提升产品品质，多项产品实现“以国代进”。与欧洲、北美洲、南美洲、非洲、南亚、东南亚、中东等全球 20 多个国家和地区建立了良好的业务合作。践行“以卓越的技术和服务参与建设更美好的世界”的企业使命，创建祥和、共赢的百年嘉和！

Kunming Jiahe Science & Technology Co., Ltd., headquartered in China (Yunnan) Pilot Free Trade Zone, is an advanced domestic provider of systematic solutions for special industrial pumps. It has been deeply engaged in the special pump industry for more than 20 years, serving the fields of petrochemical, sulfur and phosphorus chemical, nonferrous smelting and coal chemical industry. It is the main supplier of PetroChina and Sinopec, and the brand special pump supplier of domestic sulfur and phosphorus chemical industry. The company takes being the most excellent special pump provider in China as its main business body, and takes the overall industrial service solution and the overall industrial energy saving solution as its two wings to form three core business segments of high-end equipment manufacturing, industrial service and industrial energy saving. In recent years, the company has seized the favorable opportunity of the transformation and upgrading of Chinese manufacturing, practically optimized the product structure, improved the product quality, and realized the "national substitution" of many products. It has established good business cooperation with more than 20 countries and regions in the world, such as Europe, North America, South America, Africa, South Asia, Southeast Asia and the Middle East. Practice the corporate mission of "participating in building a better world with excellent technology and services", and create a harmonious and win-win century Jiahe!





## JHB 高效智能高温浓硫酸液下泵

### JHB High-efficiency Intelligent High-temperature Concentrated Sulfuric Acid Submerged Pump

为更好地践行“碳达峰、碳中和”国家发展战略，以工业互联网赋能设备管理和节能减碳，公司研发团队吸收用户及行业专家在硫酸装置应用实践的经验，采用西门子的研发软件，联合浙江理工大学等高校，采用高效流体输送技术、智能传感技术开发了新一代高效智能高温浓硫酸液下泵，旨在为用户实现价值：

1. 节能减碳。利用新设计理念，进行了节能技术开发、结构优化、材质提升，新制造工艺保证产品的高效性，相比同等流量扬程产品，在现有能耗基础上，可实现节电率至少 20% 以上，部分可达到 50%。

2. 智能化升级，长周期运行。配备智能无线传感器、水冷轴承箱，通过智能无线传感技术，对设备运行数据集成、建模分析，利用物联网和云计算等大数据技术应用，掌握设备运行健康状况，实现在线监测，智能预警，精准诊断，为客户提供创新的设备预知性维护解决方案。降低设备运维成本、降低设备运行非计划停机损失，延长轴承寿命，实现产品智能化升级，保障设备更长周期运行。

3. 客户免维修，实现“零库存”。我公司提供整体维保服务，免费两年售后服务；在昆明建立总库，客户所在地设立分库，实现仓储信息共享、物料共享，达到快速交付，可实现用户备件零库存。

In order to better implement the national development strategy of "carbon peak, carbon neutral", the company's R&D team has absorbed the practical experience of users and industry experts in the application of sulfuric acid plants, adopted the R&D software of Siemens, combined with Zhejiang Sci-Tech University and other institutes, developed a new generation of efficient and intelligent high-temperature concentrated sulfuric acid submerged pump using efficient fluid delivery technology and intelligent sensor technology, designed to realize value for users:

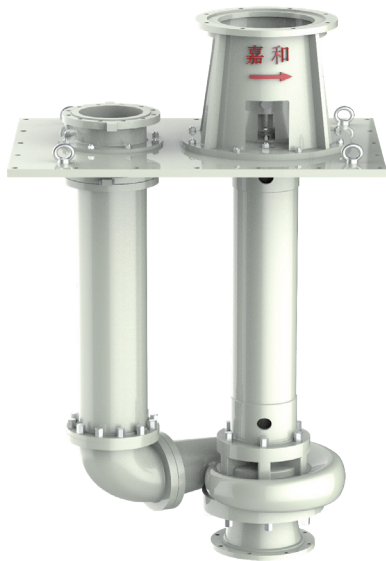
1. Energy saving and carbon reduction. Using the new design concept, we have carried out energy saving technology development, structural optimization, and material improvement. The new manufacturing process ensures the efficiency of the product. Compared with the products with the same flow and head, on the basis of the existing energy consumption, an ideal power saving rate of at least 20% has been achieved, and some can reach 50%.

2. Intelligent upgrade and long cycle operation. It is equipped with intelligent wireless sensors and water-cooled bearing box. Through intelligent wireless sensor technology, it integrates and analyzes the equipment operation data, and uses big data technology applications such as the Internet of Things and cloud computing to master the equipment operation health status, realize online monitoring, intelligent early warning, accurate diagnosis, provide customers with innovative equipment predictive maintenance solutions. Reduce the cost of equipment operation and maintenance, reduce the loss of unplanned downtime of equipment operation, extend the service life of bearings, realize the intelligent upgrade of products, and ensure the longer cycle operation of equipment.

3. Customers are maintenance-free and realize "zero inventory". Our company provides overall maintenance service, free after-sales service for two years; Set up a general warehouse in Kunming and a sub-warehouse in the customer's location to realize warehouse information sharing and material sharing, achieve rapid delivery, and realize zero inventory of user spare parts.



## 型号说明 Model description



### JHB 200 S/L

S为小规格, L为大规格  
Model description S is small specification, L is large specification

泵出口口径  
Pump outlet diameter

JHB 高效智能高温浓硫酸液下泵  
JHB High-efficiency Intelligent High-temperature Concentrated Sulfuric Acid Submerged Pump



多平台互联监测  
Multi-platform interconnection monitoring

无线采集  
Wireless acquisition

## 性能表 Performance table

泵型号 Pump model	流量 Flow (m <sup>3</sup> /h)	扬程 Head (m)	配套电机功率 Auxiliary motor power (kW)
JHB125	160 ~ 220	~ 30	30 ~ 37
JHB150S	240 ~ 330	~ 30	37 ~ 55
JHB150L	288 ~ 400	~ 30	45 ~ 55
JHB200	450 ~ 660	~ 30	75 ~ 110
JHB250S	480 ~ 660	~ 30	75 ~ 110
JHB250L	650 ~ 825	~ 30	110 ~ 132
JHB300S	640 ~ 880	~ 30	110 ~ 132
JHB300L	800 ~ 1200	~ 30	110 ~ 160
JHB400	1200 ~ 1650	~ 30	185 ~ 220
JHB450S	1450 ~ 1980	~ 30	220 ~ 280
JHB450L	1920 ~ 2520	~ 30	280 ~ 355
JHB600	2560 ~ 3520	~ 30	355 ~ 450



## JHG 低温位热能回收循环酸泵

### JHG Low-temperature Heat Recovery Circulating Sulfuric Acid Pump

JHG 系列泵是单级、单吸、轴向吸入径向剖分液下离心泵，符合 ISO13709/API610 标准。该系列泵液下深度可达 3.6 米，采用双支撑结构，液上采用两列角接触球轴承，承受轴向载荷，液下设有一对或两对滑动轴承（即轴套、衬套），承受径向载荷。过流部件选用优质耐高温硫酸腐蚀的高温不锈钢材料，有寿命长优点。适合输送温度  $\leq 220^{\circ}\text{C}$ ，浓度为 98.6% ~ 100% 的浓硫酸。

JHG series pump is a single-stage, single-suction, axial suction radial split submerged centrifugal pump, complying with ISO13709/API610 standard. This series of pumps can reach a depth of 3.6 meters under the liquid and adopt a double support structure. Two rows of angular contact ball bearings are used above the liquid to bear axial load. One or two pairs of sliding bearings (i.e. shaft sleeves and bushings) are installed below the liquid to bear radial load. The flow passage parts are made of high temperature stainless steel with high temperature resistance and sulfuric acid corrosion resistance, which has the advantage of long service life. It is suitable for conveying concentrated sulfuric acid with temperature  $\leq 220^{\circ}\text{C}$  and concentration of 98.6%~100%.



JHG 1500 - 18

扬程 Head

流量 Flow

JHG 低温位热能回收循环酸泵  
JHG Low-temperature Heat Recovery  
Circulating Sulfuric Acid Pump

JHG 低温位热能回收循环酸泵 JHG Low-temperature Heat Recovery Circulating Sulfuric Acid Pump	
口径 Diameter (DN)	25 ~ 450mm
流量 Flow (Q)	~ 2500m <sup>3</sup> /h
扬程 Head (H)	~ 23m
设计压力 Design Pressure (P)	~ 1.0MPa
工作温度 Working Temperature (T)	~ 250°C



## JHL、JHXL 高温硫磺液下泵

### JHL, JHXL High-temperature Sulfur Submerged Pump

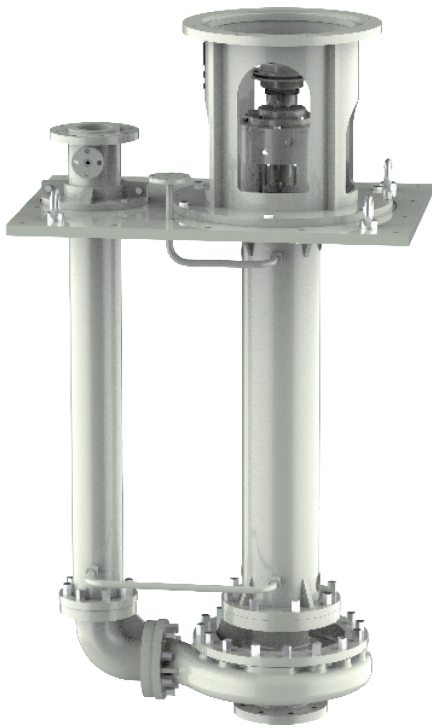
JHL、JHXL 系列高温硫磺液下泵为单级、单吸液下离心泵，符合 ISO13709/API610 标准。

JHL 系列泵液下深度可达 6 米，采用双支撑结构，液上采用两列角接触球轴承，承受轴向载荷，液下设有-对或多对滑动轴承（即轴套、衬套），承受径向载荷。JHXL 系列为悬臂式液下结构，液下无滑动轴承，充分利用自身吸程，



可增加最大长度 1.5m 吸入管，使泵整机液下深度达 3m，叶轮采用半开式设计，通过能力强，通过颗粒直径达  $\phi 18$  以上，泵吸入口无需设置吸入滤网，不会因液态硫磺中含有杂质颗粒而导致流道堵塞出现流量、扬程不足和转子抱死现象。触液接管部件、出液管部件均采用蒸汽夹套设计，确保硫磺不会失温结晶造成堵塞，过流部件选用优质耐高温腐蚀的材料，具有通过能力强，运转稳定及寿命长优点。适合输送温度为  $135^{\circ}\text{C} \leq T \leq 145^{\circ}\text{C}$  熔融液态硫磺。JHL 系列常用于精硫、液硫输送工位，JHXL 常用于液态粗硫、过滤槽输送泵、中间槽泵等工位。

JHL and JHXL series high-temperature sulfur submerged pumps are single-stage, single-suction submerged centrifugal pumps, complying with ISO13709/API610 standards. JHL series pump can reach a depth of 6 meters under the liquid, and adopts a double support structure. Two rows of angular contact ball bearings are used above the liquid to bear axial load. One or more pairs of sliding bearings (i.e. shaft sleeves and bushings) are installed below the liquid to bear radial load. JHXL series is a cantilever underwater structure with no sliding bearing under the liquid. It can make full use of its suction lift to increase the maximum length of 1.5m suction pipe, so that the underwater depth of the pump is up to 3m. The impeller adopts a semi-open design, with strong passing capacity and particle diameter of up to  $\phi$  Above 18, the suction inlet of the pump does not need to be equipped with a suction filter screen, and the flow passage will not be blocked due to the impurity particles contained in the liquid sulfur, resulting in insufficient flow, head and rotor lock. The liquid-contact connecting pipe parts and liquid outlet pipe parts are designed with steam jacket to ensure that sulfur will not be blocked due to crystallization due to temperature loss. The flow passage parts are made of high-quality high-temperature corrosion resistant materials, which have the advantages of strong passing capacity, stable operation and long service life. Suitable for conveying molten liquid sulfur at  $135^{\circ}\text{C} \leq T \leq 145^{\circ}\text{C}$ . JHL series is often used in fine sulfur and liquid sulfur delivery stations, and JHXL is often used in liquid crude sulfur, filter tank delivery pump, intermediate tank pump and other stations.



JHL



JHXL

JHL 10-80

扬程 Head

流量 Flow

JHL高温硫磺液下泵  
JHL High-temperature Sulfur  
Submerged Pump

JHXL 50-30

扬程 Head

流量 Flow

JHXL悬臂式高温硫磺液下泵  
JHXL Cantilever High-temperature  
Sulfur Submerged Pump

JHL高温硫磺液下泵 JHL High-temperature Sulfur Submerged Pump		JHXL悬臂式高温硫磺液下泵 JHXL Cantilever High-temperature Sulfur Submerged Pump	
口径 Diameter (DN)	25 ~ 150mm	口径 Diameter (DN)	25 ~ 150mm
流量 Flow (Q)	~ 200m <sup>3</sup> /h	流量 Flow (Q)	~ 200m <sup>3</sup> /h
扬程 Head (H)	~ 120m	扬程 Head (H)	~ 60m
设计压力 Design Pressure (P)	~ 1.6MPa	设计压力 Design Pressure (P)	~ 1.6MPa
工作温度 Working Temperature (T)	~ 180°C	工作温度 Working Temperature (T)	~ 180°C



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