



SAZE TAJHIZ SIWAN





## درباره ما

شرکت تولیدی بازرگانی سازه تجهیز سیوان با تکیه بر بیش از دودهه سوابق مدیران و موسسین خود در بخش واردات و تامین نیازهای صنایع بالادستی و میان دستی و همچنین با بهره گیری از دانش فنی مدیران شرکت، و با هدف حمایت از تولید داخلی و اشتغال زایی، در سال ۱۴۰۰ مبادرت به تاسیس واحد تولیدی همسو با اهداف و برنامه های گذشته خود در استان تهران نموده و در این راستا در اولین گام اقدام به تولید آرک های معادن زیر زمینی و قطعات استیل و غلاف های نسوز واحد های تولیدی فولاد نموده است.

## About us

Saze Tajhiz Siwan is a Trading And Manufacturing Company, relying on more than two decades of records and its founders in production and supplying the needs of upstream and midstream industries, and also by using technical knowledge and with the aim of supporting domestic production and productivity, established the unit in 2021, it expressed its production in line with his past goals and plans in Tehran province and took the first step to produce underground mine arches and steel parts and fireproof sheaths of steel units.



## توانمندی

- تولید انواع آرک فولادی معادن زیر زمینی
- تولید انواع قطعات از جنس فولاد نسوز به شیوه ی ریخته گری
- تولید انواع اتصالات جوشی در بخش پایپینگ
- تولید انواع شیرآلات فولادی با آلیاژ های خاص
- تولید انواع گلوله های خط خردایش معدنی ( بال میل )
- تولید انواع قطعات ریخته گری تا 2.5 تن در انواع آلیاژ های پایه فولاد
- ماشین کاری کلیه قطعات ریخته گری شده و تعمیراتی
- طراحی و ساخت و تامین خط تولید صنعتی
- طراحی و ساخت انواع مبدل های حرارتی
- تامین انواع اتصالات، فیتینگ ها ، شیرآلات، ابزار دقیق
- تامین توربین های بخار، ژنراتور های دیزلی و الکتریکی، موتور ها و پمپ ها و قطعات یدکی آنها
- تامین مواد اولیه معدنی و آلیاژ ها به صورت مستقیم از تولید کننده
- مشاوره و پیشنهاد فنی جهت جایگزینی تجهیزات خطوط تولید از رده خارج شده با برند های معتبر خارجی و داخلی
- تامین کلیه ی قطعات و ماشین آلات معادن زیر زمینی با استاندارد های ضد انفجار (ATEX)
- مهندسی خرید و نظارت بر تامین کالا در داخل و خارج از کشور
- تامین کلیه گیربکس های صنعتی از برند های داخلی و خارجی

## Ability

- ❖ Production of all kinds of steel arches for underground mines
- ❖ Production of all kinds of refractory steel parts by casting
- ❖ Production of all kinds of welding joints in the piping sector
- ❖ Production of all kinds of steel valves with special alloys
- ❖ Production of all kinds of pellets of the mineral crushing line (ball mill)
- ❖ Production of all kinds of casting parts up to 2.5 tons in all kinds of steel base alloys
- ❖ Machining of all cast parts and repairs
- ❖ Design, construction and supply of industrial production line
- ❖ Design and manufacture of heat exchangers
- ❖ Providing all kinds of fittings, fittings, valves, precision instruments
- ❖ Supply of steam turbines, diesel and electric generators, motor pumps and their spare parts

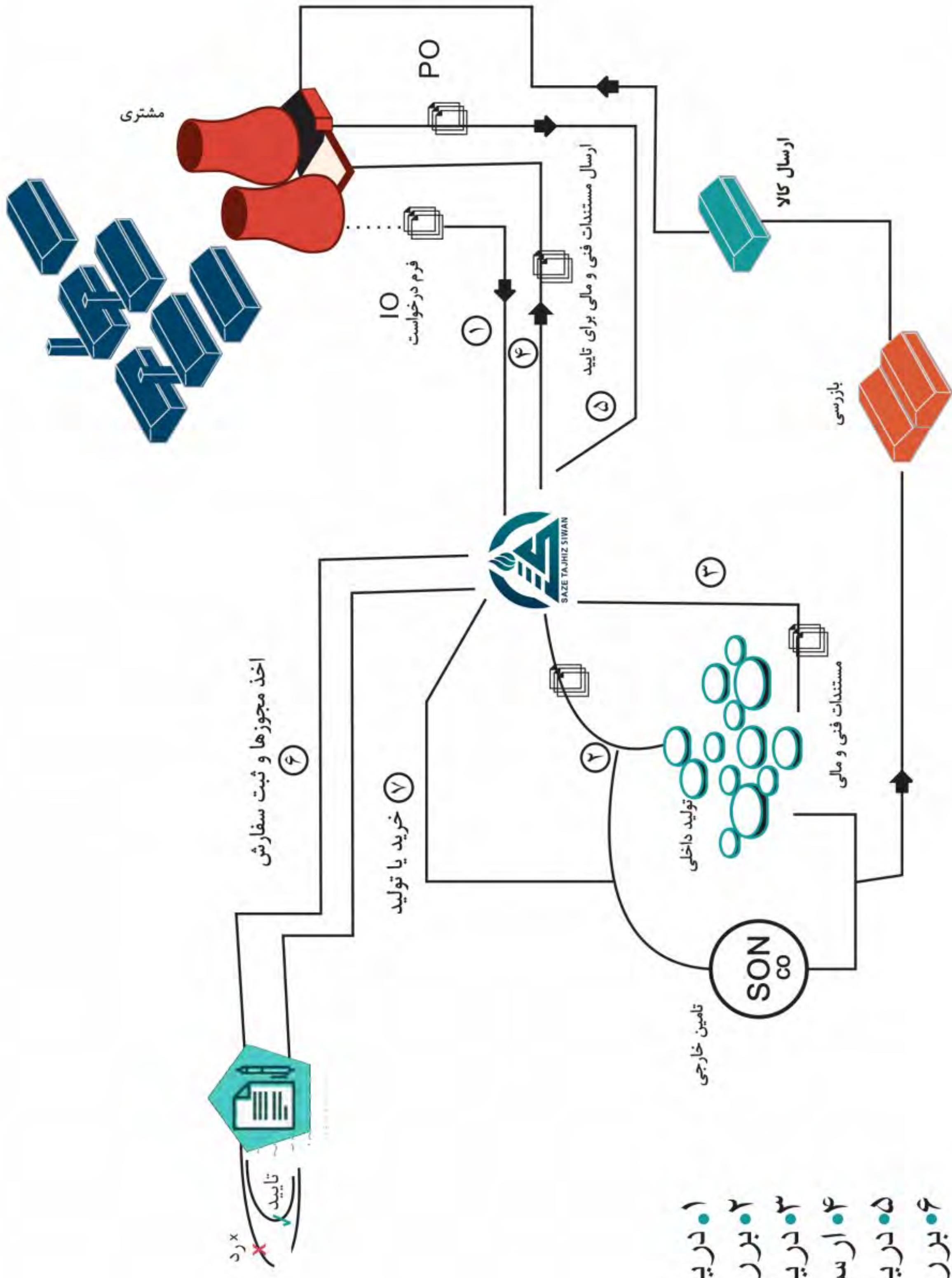
## صنایع

- پتروشیمی
- صنایع فولاد
- صنایع بالا دستی و پایین دستی نفت و گاز
- نیروگاه
- خط لوله
- معادن
- صنایع سیمان
- صنایع خودرو
- صنایع دریایی
- ایمنی و آتش نشانی
- صنایع کاشی و سرامیک
- صنایع برق

## Industries

- Petrochemical
- Steel and Primary Plant
- Down and Upstream Oil and Gas
- Power Plant
- pipeline
- Mining
- Cement Plant
- Automotive industry
- Marine industries
- Safety mand Fire Fighting
- Tile and Ceramic Industries
- Electrical Industry

# فرآیند خرید و تحویل کالا



۱. دریافت سفارش از مشتری
۲. بررسی اسناد
۳. دریافت پیشنهاد فني و مالي
۴. ارسال پیشنهاد فني و مالي برای مشتری
۵. دریافت تاییدیه خرید از مشتری
۶. بررسی و اخذ مجوزها و ثبت سفارش
۷. اقدام برای خرید یا تامین کالا
۸. بازرسی
۹. تسویه حساب و تحویل کالا



河北鑫炭新材料有限公司  
HEBEI GOLDEN CARBON NEW MATERIAL Co.,

Email: sales@hbgolden.cn  
Tel: +008615230040320  
Web: http://www.hbgolden.cn

## EXCLUSIVE APPOINTMENT LETTER

**Date of Letter:** 20/10/2022  
HEBEI GOLDEN CARBON NEW MATERIAL Co.  
Hebei Province, China  
**Tel:** +8615725599606 **Fax:** +8615230040320  
**E-mail Address:** Sales@hbgolden.cn  
**Name of Agent:** SAZE TAJHIZ SIWAN Co.  
Tehran, Iran  
**Tel:** +982188665718 **Mob:** +989128985632  
**E-mail Address:** comercial@stradings.com  
**Attention:** Whom it may concern

Dear Sir,

RE: EXCLUSIVE APPOINTMENT LETTER

We, HEBEI GOLDEN CARBON NEW MATERIAL Co., hereby confirm that your company, SAZE TAJHIZ SIWAN Co., has been appointed as our EXCLUSIVE AGENT specifically in Steel making, Metallurgical furnace, Non-ferrous metals industry, foundry, Ceramic smelting, and Glass industry market in the territory of IRAN AND TURKEY for our product as follows:

1. ULTRA HIGH-POWER GRAPHITE ELECTRODE (UHP)
2. HIGH-POWER GRAPHITE ELECTRODE (HP)
3. REGULAR-POWER GRAPHITE ELECTRODE (RP)

This appointment will be effective from the date hereof for a period of one year (renewable), and must be renewed in writing before expiration.

Thank you.  
Yours faithfully,





汉江弘源襄阳碳化硅特种陶瓷有限责任公司  
Hanjiang Hongyuan Xiangyang Silicon Carbide Special Ceramics Co., Ltd.

### Representative Letter

Date of Letter: 20/10/2022

**Hanjiang Hongyuan Xiangyang Silicon Carbide Special Ceramics Co. Ltd.**  
Middle of Zhonghang Road, Aerospace Industrial Park, Xiangyang City, Hubei Province, China  
Tel: +86-710-3155070 Fax: +86-710-3155506  
E-mail Address: [michelle@hysic.com](mailto:michelle@hysic.com), [maggie@hysic.com](mailto:maggie@hysic.com)  
Web: <http://www.hysic.com>

Name of Agent: Saze Tajhiz Siwan Co. Tehran, Iran  
Tel: +982188665718 Mob: +989128985632  
E-mail Address: [commercial@stradings.com](mailto:commercial@stradings.com)

Attention: Whom it may concern

Dear Sir,

RE: Representative Letter

We, Hanjiang Hongyuan Xiangyang Silicon Carbide Special Ceramics Co. Ltd., hereby confirm that, Saze Tajhiz Siwan Co. has been appointed as our Local Representative, to promote HONGYUAN Co. Technologies, Solutions, Equipment and Spare Parts in Iran and provide after sales and services support for all Projects and Plants for Three Years.

In return we would supply the service and equipment from our HONGYUAN Co. factories and know-how and also provide an appropriate Engineering and Design support.

Thank you.

Yours faithfully,

Maggie Feng

Overseas Department Manager



弘源·HONGYUAN

SPECIALIZED IN SILICON CARBIDE PRODUCTS



# C E R T I F I C A T E

The TUVGROUP Hereby Certify That

**Saze Tajhiz Siwan Co.**

Unit#13, 5th Floor, No.47, Kish St., Northern Didar Ave., Jahan Kodak District,  
Tehran, Iran

has been documented and found to be in accordance of  
**Occupational Health & Safety Management System**  
with the requirements of

## ISO 45001:2018

Activity Scope

Procurement, Inspection and Transportation of Goods in  
Oil, Gas and Petrochemical Industries, Power Plants and Steel Industries

Issue date: 30-Aug-2021    Expiry date: 30-Aug-2024

Certificate No. 13-26811202-IR



Authorized Signature

This certificate is valid only for the above mentioned address and scope.  
Please check the certificate number and expiry date. you can verify this certificate at  
[www.tuvgroupcenter.com](http://www.tuvgroupcenter.com)  
[info@tuvgroupcenter.com](mailto:info@tuvgroupcenter.com)



# C E R T I F I C A T E

The TUVGROUP Hereby Certify That

**Saze Tajhiz Siwan Co.**

Unit#13, 5th Floor, No.47, Kish St., Northern Didar Ave., Jahan Kodak District,  
Tehran, Iran

has been documented and found to be in accordance of  
**Environmental Management System**  
with the requirements of

## ISO 14001:2015

Activity Scope

Procurement, Inspection and Transportation of Goods in  
Oil, Gas and Petrochemical Industries, Power Plants and Steel Industries

Issue date: 30-Aug-2021    Expiry date: 30-Aug-2024

Certificate No. 12-26811202-IR



Authorized Signature

This certificate is valid only for the above mentioned address and scope.  
Please check the certificate number and expiry date. you can verify this certificate at  
[www.tuvgroupcenter.com](http://www.tuvgroupcenter.com)  
[info@tuvgroupcenter.com](mailto:info@tuvgroupcenter.com)





# C E R T I F I C A T E

The **TUV GROUP** Hereby Certify That

**Saze Tajhiz Siwan Co.**

Unit#13, 5th Floor, No.47, Kish St., Northern Didar Ave., Jahan Kodak District,  
Tehran, Iran

has been documented and found to be in accordance of

**Quality Management System**

with the requirements of

**ISO 9001:2015**

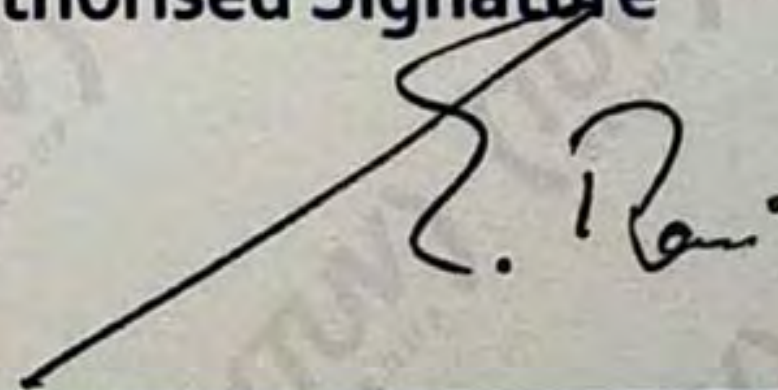
**Activity Scope**

**Procurement, Inspection and Transportation of Goods in  
Oil, Gas and Petrochemical Industries, Power Plants and Steel Industries**

Issue date: 30-Aug-2021      Expiry date: 30-Aug-2024

Certificate No. 11-26811202-IR

Authorised Signature



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[info@tuvgroupcenter.com](mailto:info@tuvgroupcenter.com)



# CERTIFICATE

The TUVGROUP Hereby Certify That

**Saze Tajhiz Siwan Co.**

Unit#13, 5th Floor, No.47, Kish St., Northern Didar Ave., Jahan Kodak District,  
Tehran, Iran

has been documented and found to be in accordance of

**Integrated Management System (IMS)**

with the requirements of

**ISO 9001:2015 & ISO 14001:2015 & ISO 45001:2018**

**Activity Scope**

Procurement, Inspection and Transportation of Goods in  
Oil, Gas and Petrochemical Industries, Power Plants and Steel Industries

Issue date: 30-Aug-2021    Expiry date: 30-Aug-2024

Certificate No. 18-26811202-IR

Authorised Signature



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[www.tuvgroupcenter.com](http://www.tuvgroupcenter.com)  
[info@tuvgroupcenter.com](mailto:info@tuvgroupcenter.com)



# CERTIFICATE

The TUVGROUP Hereby Certify That

**Saze Tajhiz Siwan Co.**

Unit#13, 5th Floor, No.47, Kish St., Northern Didar Ave., Jahan Kodak District,  
Tehran, Iran

has been documented and found to be in accordance of

**Health, Safety and Environmental Management System**

with the requirements of

**HSE - MS**

**Activity Scope**

Procurement, Inspection and Transportation of Goods in  
Oil, Gas and Petrochemical Industries, Power Plants and Steel Industries

Issue date: 30-Aug-2021    Expiry date: 30-Aug-2024

Certificate No. 14-26811202-IR

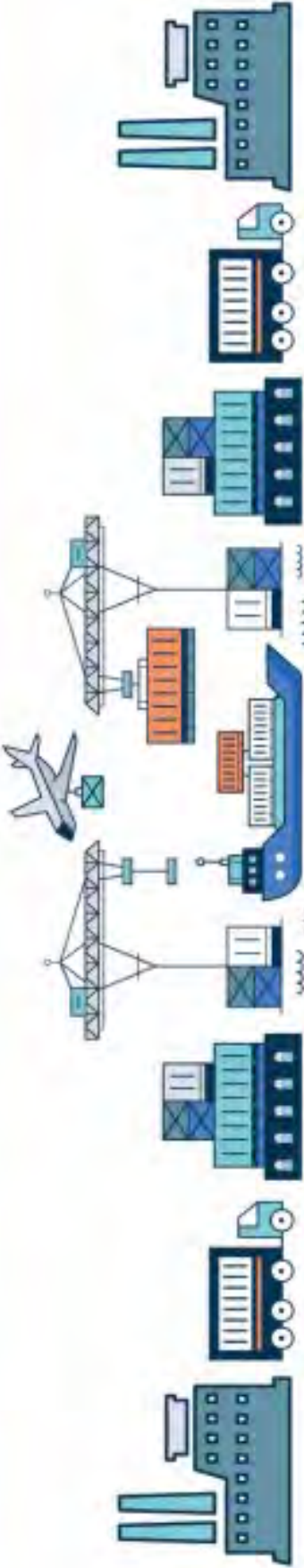
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[info@tuvgroupcenter.com](mailto:info@tuvgroupcenter.com)



# INCOTERMS 2020



■ COSTS   
 ■ RISK   
 ■ INSURANCE   
 ■ ALL MODES OF TRANSPORT   
 ■ SEA AND INLAND WATERWAYS

## FREIGHT/RISK MORE DETAILS

DESCRIPTION	SELLER	BUYER	Freight	Risk	Insurance	More Details
<b>EXW</b> Ex Works	SELLER	BUYER	Sellers premises.	Sellers premises.		Seller responsible for making the goods available at the sellers premises. Buyer bears the full risk from there to destination.
<b>FCA</b> Free Carrier	SELLER	BUYER	Freight handler.	Freight handler.		Seller responsible for delivery to the custody of carrier, identified by the buyer. Risk is transferred when loading has taken place.
<b>CPT</b> Carriage Paid to	SELLER	BUYER	Destination.	First freight handler.		Seller delivers goods to the carrier at agreed place of delivery and pays transport to the named destination. Risk is transferred at place of delivery, whereas seller pays for transport to the destination.
<b>CIP</b> Carriage and Insurance Paid to	SELLER	BUYER	Destination.	First freight handler.		Seller delivers goods to carrier at agreed place of delivery and pays for transport and insurance to named destination. Risk transfers at the place of delivery, whereas seller pays for transport and insurance to the destination.
<b>DPU</b> Delivered at Place Unloaded	SELLER	BUYER	Destination.	Destination.		Seller delivers goods unloaded at a specified place. Risk is transferred as soon as goods have been unloaded.
<b>DAP</b> Delivered at Place	SELLER	BUYER	Place of destination.	Arriving means of transport at destination.		Seller delivers goods to disposal of buyer on arriving means of transport, at agreed place. Seller assumes risk until goods are made ready for unloading from the arriving means of transport.
<b>DDP</b> Delivered Duty Paid	SELLER	BUYER	Destination.	Destination.		Seller responsible for bringing goods to the destination, paying any duty and making the goods available to buyer. Risk transfers as soon as buyer has access to goods ready for unloading at agreed destination.
<b>FAS</b> Free Alongside Ship	SELLER	BUYER	Shipside in port of departure.	Shipside in port of departure.		Seller is responsible for delivery of goods at quay alongside the ship. From this point onwards, risk lies with buyer.
<b>FOB</b> Free on Board	SELLER	BUYER	On board ship.	On board ship.		Seller responsible for delivery of goods loaded on board the ship. Risk is transferred as soon as goods have been set down inside ship.
<b>CFR</b> Cost and Freight	SELLER	BUYER	Port of destination.	Port of destination.		Seller covers cost of freight, duty unpaid, to named port of destination. Risk is transferred as soon as the goods have been set down inside ship.
<b>CIF</b> Cost, Insurance and Freight	SELLER	BUYER	Port of destination.	Port of destination.		Seller covers cost of insurance and freight, duty unpaid, to named port of destination. Risk is transferred as soon as the goods have been set down inside ship.



# WE SUPPLY 250 BRANDS AND MORE





تماس با ما



+۹۸۲۱۸۸۶۵۳۶۶۱ & +۹۸۲۱۸۸۶۶۵۷۱۸

info@stardings.com

www.stardings.com

تهران، بزرگراه حقانی، خیابان دیدار شمالی  
خیابان کیش، پلاک ۴۷، طبقه ۵ واحد ۱۳

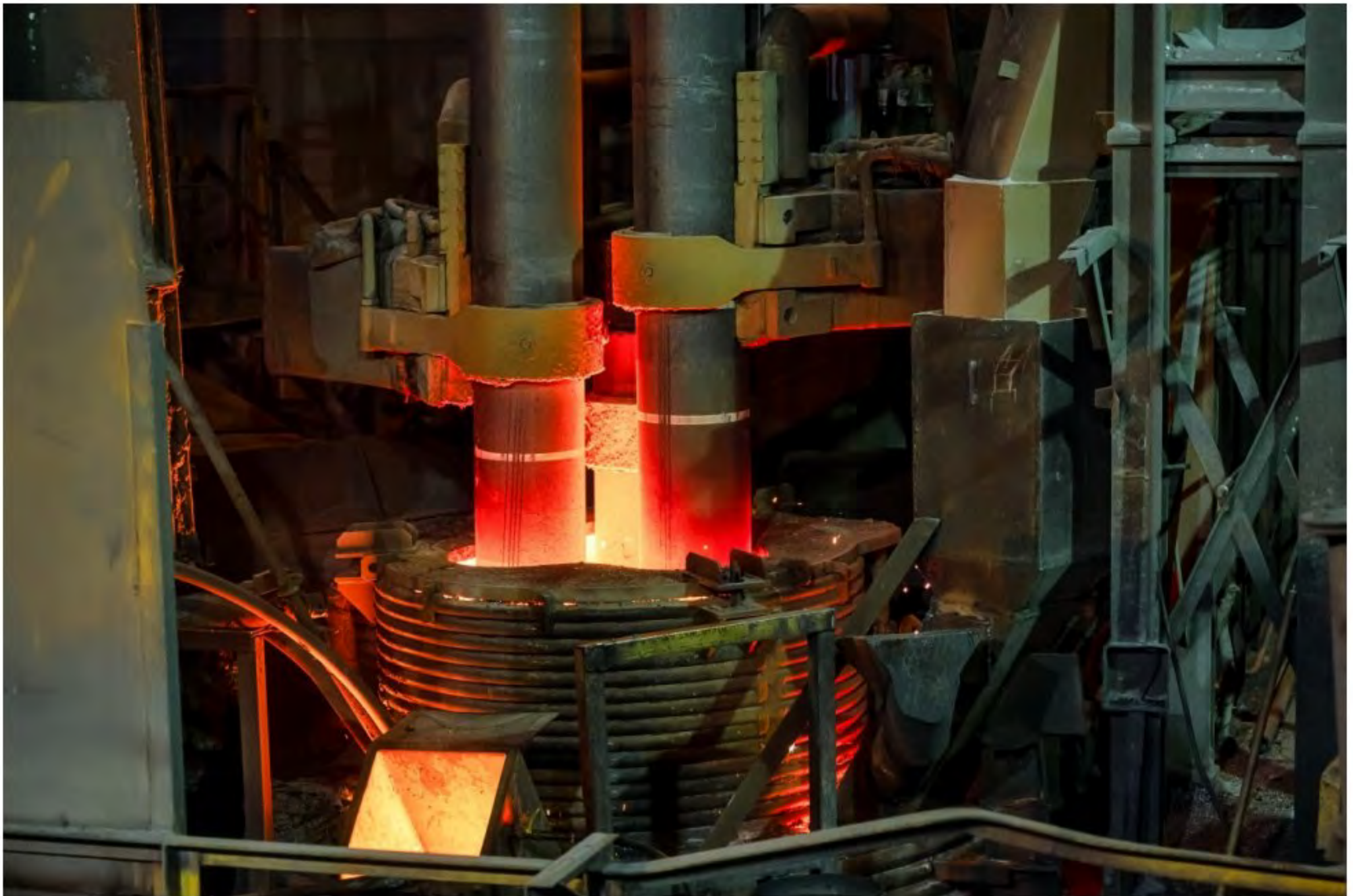


河北鑫炭新材料有限公司

HEBEI GOLDEN CARBON NEW MATERIAL CO.LTD



GOLDEN CARBON





河北鑫炭新材料有限公司  
HEBEI GOLDEN CARBON NEW MATERIAL Co.,

Email: sales@hbcarbon.cn  
Tel: +008615230040320  
Web: http://www.hbcarbon.cn

## EXCLUSIVE APPOINTMENT LETTER

**Date of Letter:** 20/10/2022  
HEBEI GOLDEN CARBON NEW MATERIAL Co.  
Hebei Province, China  
**Tel:** +8615725599606 **Fax:** +8615230040320  
E-mail Address: [Sales@hbcarbon.cn](mailto:Sales@hbcarbon.cn)  
Web: <http://www.hbcarbon.cn>  
**Name of Agent:** SAZE TAJHIZ SIWAN Co.  
Tehran, Iran  
**Tel:** +982188665718 **Mob:** +989128985632  
E-mail Address: [comercial@stradings.com](mailto:comercial@stradings.com)  
Attention: Whom it may concern

Dear Sir,

RE: EXCLUSIVE APPOINTMENT LETTER

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1. ULTRA HIGH-POWER GRAPHITE ELECTRODE (UHP)
2. HIGH-POWER GRAPHITE ELECTRODE (HP)
3. REGULAR-POWER GRAPHITE ELECTRODE (RP)

This appointment will be effective from the date hereof for a period of one year (renewable), and must be renewed in writing before expiration.

Thank you.  
Yours faithfully,





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## COMPANY PROFILE

### 企业简介

河北鑫炭新材料有限公司是一家石墨制品生产厂家，产品包括超高功率石墨电极，高功率石墨电极，普通功率石墨电极和石墨方。位于河北省邯郸市“中国北方碳素基地”，西邻京广铁路、京珠高速、石武高铁和107国道，晋冀鲁豫四省交界，工厂交通得天独厚，地理位置优越。公司拥有的碳素生产设备，技术力量雄厚，检测手段，产品遍布全国，部分产品远销日本、韩国、东南亚、中东、美洲、欧洲等国家和地区，并与众多冶金企业建立了长期的合作和友谊。

Hebei Golden Carbon New Material Co.Ltd.is a carbon graphite products manufacturers, products include ultra high power graphite electrode, high power graphite electrode, the ordinary power graphite electrode and graphite. Is located in handan city, hebei province ", "carbon base" in northern China, adjacent to beijing-guangzhou railway, beijing-zhuhai expressway, Shi Wugao iron and 107 national road, shanxi-hebei-shandong-henan area, between the four provinces factory advantaged transportation, favorable geographical position. Company has the carbon production equipment, strong technical force, the detection means, product all over the country, some products are exported to Japan, South Korea, southeast Asia, the Middle East, the americas, Europe and other countries and regions, and with a number of metallurgical enterprises has established the long-term cooperation and friendship.



## PRODUCT DISPLAY

## 产品展示



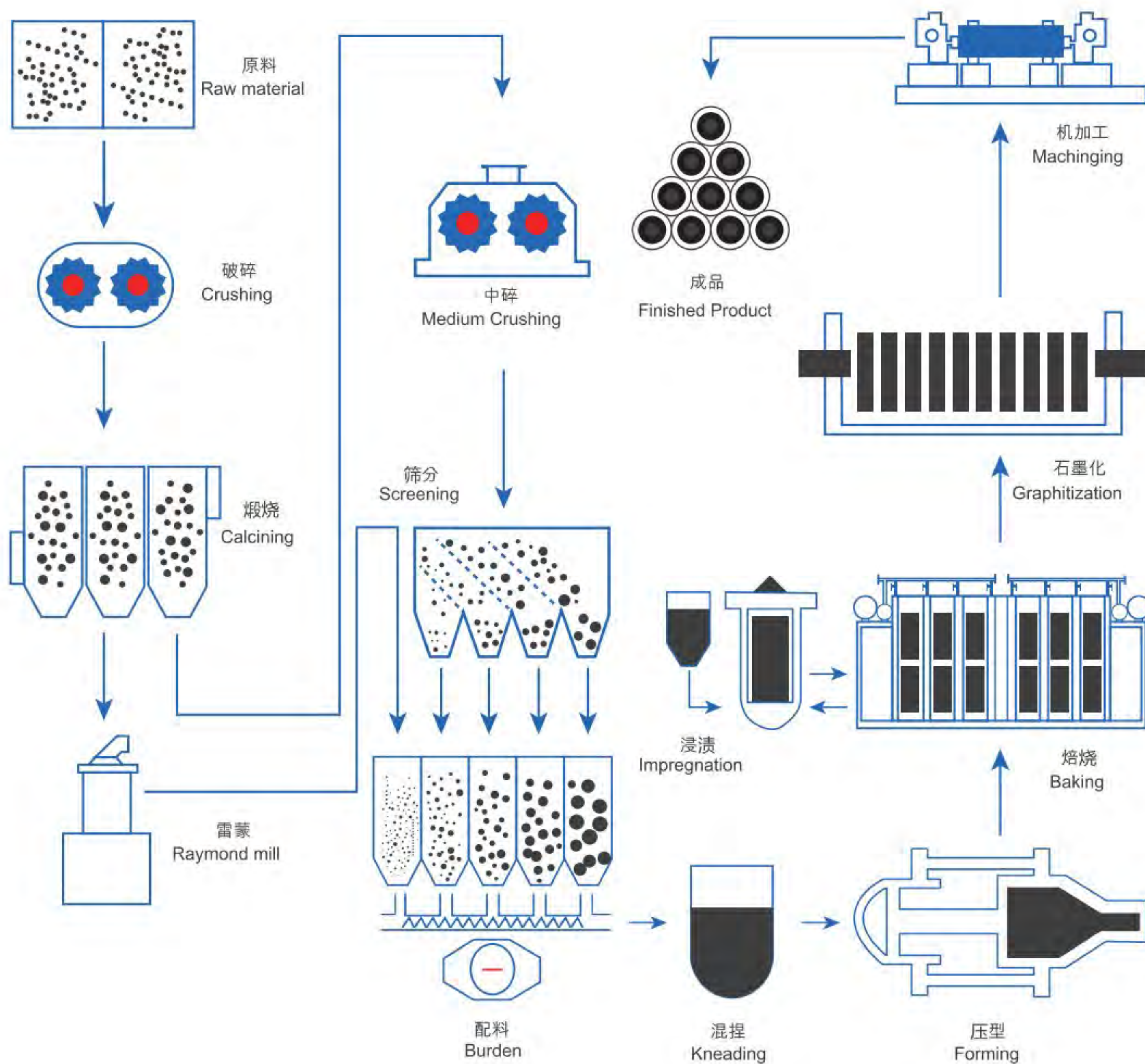
## PRODUCT APPLICATION

## 产品应用



# PRODUCTION PROCESS

## 生产流程



## PRODUCTION EQUIPMENT

## 生产设备



WE CARRY ON THE TECHNICAL TRANSFORMATION UNREMITTINGLY

## QUALITY CONTROL EQUIPMENT

### 生产质量监控设备



控制整个过程的细节，确保产品质量稳定。原材料、工艺检验、半成品和成品检测设备，不断更新达到国际先进水平，确保测试准确，高效。

We control the details of the whole process, to ensure the stability of product quality. Raw materials, process inspection, semi-finished products and finished products inspection equipment, constantly updated to the international advanced level, to ensure accurate and efficient testing.





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## TECHNICAL SPECIFICATION

### 技术指标

#### 【石墨电极】 GRAPHITE ELECTRODE

石墨电极选用进口针状焦、优质石油焦、优质煤沥青等低灰分原料，经煅烧、配料、混捏、成型、多次焙烧和浸渍、石墨化等工序制成石墨化半成品，最后经专业数控机床精细加工而成。产品具有电阻率低、灰分低、结构均匀、抗热振性好、机械强度高、热膨胀系数低、电极和接头配合精密等优点，是电炉炼钢和矿热炉冶炼的绝佳材料。

The graphite electrode is made of imported needle coke, high-quality petroleum coke, high-quality coal bitumen and other low-ash raw materials, through calcination, batching, kneading, forming, multiple baking and impregnation, graphitization and other processes to make graphitized semi-finished products, and finally through professional CNC machine tool fine processing. The product has the advantages of low resistivity, low ash content, uniform structure, good thermal vibration resistance, high mechanical strength, low thermal expansion coefficient, precise fit of electrode and nipple, etc., and is an excellent material for electric steelmaking and ore smelting.



## PHYSICOCHEMICAL INDEXES

### 理化指标

#### 【UHP理化指标】 SPECIFICATION OF UHP GRAPHITE ELECTRODE

项目 Item		单位 Unit	公称直径 Nominal Diameter(mm)		
			250-400	450-550	600-700
电阻率 Electrical Resistance	电极 Electrode	$\mu\Omega\cdot m$	4.8~5.8	4.5~5.6	4.5~5.4
	接头 Nipple		3.4~4.0	3.4~3.8	3.0~3.6
抗折强度 Bending Strength	电极 Electrode	Mpa	$\geq 12.0$	$\geq 12.0$	$\geq 10.0$
	接头 Nipple		$\geq 22.0$	$\geq 22.0$	$\geq 24.0$
弹性模量 Elastic Modulus	电极 Electrode	Gpa	$\leq 13.0$	$\leq 13.0$	$\leq 13.0$
	接头 Nipple		$\leq 18.0$	$\leq 18.0$	$\leq 20.0$
体积密度 Bulk Density	电极 Electrode	$G/cm^3$	1.68~1.73	1.68~1.72	1.68~1.72
	接头 Nipple		1.78~1.84	1.78~1.84	1.80~1.86
热膨胀系数 (C.T.E)	电极 Electrode	$10^{-6}/^{\circ}C$	$\leq 1.2$	$\leq 1.2$	$\leq 1.2$
	接头 Nipple		$\leq 1.0$	$\leq 1.0$	$\leq 1.0$
灰分 Ash content	电极 Electrode	%	$\leq 0.2$	$\leq 0.2$	$\leq 0.2$
	接头 Nipple		$\leq 0.2$	$\leq 0.2$	$\leq 0.2$

#### 【UHP电流负荷】 CURRENT LOAD OF UHP GRAPHITE ELECTRODE

公称直径 Nominal		超高功率石墨电极 UHP Graphite Electrodes	
mm	inch	允许电流负荷 (A) Current-Carrying Capacity	电流密度 (A/cm <sup>2</sup> ) Current Density
350	14	20000-30000	20-32
400	16	25000-40000	20-32
450	18	32000-45000	20-30
500	20	38000-55000	20-30
550	22	48000-60000	18-24
600	24	52000-72000	18-24
650	26	60000-85000	18-24
700	28	62000-95000	18-24

### 【HP理化指标】 SPECIFICATION OF HP GRAPHITE ELECTRODE

高功率石墨电极		单位 Unit	Φ200-400		Φ450-550		Φ600-700
			内控 FC	行业 YB	内控 FC	行业 YB	内控 FC
电阻率≤ Electrical Resistance	电极 Electrode	μΩ·m	6.8	7	7.5	7.5	7.5
	接头 Nipple		6.2	6.5	6.3	6.5	6.3
抗折强度≥ Bending Strength	电极 Electrode	Mpa	10.5	10.5	10.8	9.8	8.5
	接头 Nipple		15	14	15	14	17
弹性模量≤ Elastic Modulus	电极 Electrode	Gpa	12	12	12	12	14
	接头 Nipple		16	16	16	16	16
体积密度≥ Bulk Density	电极 Electrode	G/cm³	1.68	1.6	1.65	1.6	1.6
	接头 Nipple		1.74	1.7	1.74	1.7	1.72
热膨胀系数≤ (C.T.E)	电极 Electrode	10-6/°C	2.3	2.4	2.3	2.4	2.4
	接头 Nipple		2.1	2.2	2.1	2.2	2.2
灰分≤ Ash content	电极 Electrode	%	0.3	0.3	0.3	0.3	0.3
	接头 Nipple						

### 【HP电流负荷】 CURRENT LOAD OF HP GRAPHITE ELECTRODE

公称直径 Nominal		高功率石墨电极 HP Graphite Electrodes	
mm	inch	*允许电流负荷 (A) Current-Carrying Capacity*	*电流密度 (A/cm²) Current Density*
175	7	4400-6200	18-25
200	8	5500-9000	18-25
225	9	6500-10000	18-25
250	10	8000-13000	18-25
300	12	13000-17400	17-24
350	14	17400-24000	17-24
400	16	21000-31000	16-24
450	18	25000-40000	15-24
500	20	30000-48000	15-24
550	22	37000-57000	15-23
600	24	44000-67000	15-23
650	26	50000-68000	15-23
700	28	54000-73000	15-23

**【RP理化指标】 SPECIFICATION OF RP GRAPHITE ELECTRODE**

普通功率石墨电极		单位 Unit	Φ75-130			φ150-225			φ250-350			φ350-550			φ600-700	
			内控 FC	行业 YB		内控 FC	行业 YB		内控 FC	行业 YB		内控 FC	行业 YB		内控 FC	
电阻率≤ Electrical Resistance	电极 Electrode	μΩ·m	7.2	8.5	10	7.5	9	10.5	7.8	9	10.5	8	9	10.5	9	10.5
	接头 Nipple		6	8.5		6.5	8.5		6.8	8.5		6.8	8.5		7	
抗折强度≥ Bending Strength	电极 Electrode	Mpa	10.5	9.8		10.8	9.8		8.4	7.8		8.4	6.4		6.5	
	接头 Nipple		13.5	13		13.5	13		13.5	13		13.5	13		15	
弹性模量≤ Elastic Modulus	电极 Electrode	Gpa	9.3	9.3		9.3	9.3		9.3	9.3		9.3	9.3		9.3	
	接头 Nipple		14	14		14	14		14	14		14	14		14	
体积密度≥ Bulk Density	电极 Electrode	G/ cm³	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5		0.5	
	接头 Nipple		0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5		0.5	
热膨胀系数 ≤ (C.T.E)	电极 Electrode	10- 6/°C	1.6	1.58		1.55	1.52		1.55	1.5		1.55	1.5		1.52	
	接头 Nipple		1.72	1.63		1.72	1.63		1.72	1.7		1.72	1.7		1.7	
灰分≤ Ash content	电极 Electrode	%	2.8	2.9		2.8	2.9		2.8	2.9		2.8	2.9		2.9	
	接头 Nipple		2.6	2.7		2.7	2.7		2.7	2.8		2.7	2.8		2.8	

**【RP电流负荷】 CURRENT LOAD OF RP GRAPHITE ELECTRODE**

公称直径 Nominal		普通功率石墨电极 RP Graphite Electrodes	
mm	inch	"允许电流负荷 (A) Current-Carrying Capacity"	"电流密度 (A/cm²) Current Density"
75	3	1000-1400	22-31
100	4	1500-2400	19-30
130	5	2200-3400	17-26
150	6	3000-4500	16-25
175	7	3800-5100	16-21
200	8	5000-6900	15-21
225	9	6000-8000	15-20
250	10	7000-10000	14-20
300	12	10000-13000	14-18
350	14	13500-18000	14-18
400	16	18000-23500	13-17
450	18	22000-27000	13-16
500	20	25000-32000	13-16
550	22	32000-40000	13-16
600	24	38000-47000	13-16
650	26	40000-50000	13-16
700	28	45000-54000	13-16

## NIPPLE OF GRAPHITE ELECTRODE

### 石墨电极接头

#### 【4扣圆锥形接头及接头孔尺寸】 4TPI CONICAL NIPPLE AND NIPPLE SIZE

公称直径 ( mm )		接头尺寸 ( mm )						接头孔尺寸 ( mm )			罐距		
	Nominal	Size of Nipple						Size of Socket			mm		
	mm	D	L	d2	l	d1	H	Thread					
3TPI	225	139.7	0-0.5	203.2	0-1	90.73	0-5	<10	131.27	0-0.5	107.6	70	8.47
	250	155.57		220		103.8			147.14		116		
	300	177.16		270.9		116.9			168.73		141.5		
	350	215.9		304.8		150			207.47		158.4		
	400	215.9		304.8		150			207.47		158.4		
	400	241.3		338.7		169.8			232.87		175.3		
	450	241.3		338.7		169.8			232.87		175.3		
	450	273.05		355.6		198.7			264.62		183.8		
	500	273.05		355.6		198.7			264.62		183.8		
	500/550	298.45		372.6		221.3			290.02		192.2		
4TPI	200	122.24	0-0.5	177.8	0-1	80	0-5	<7	115.92	0-0.5	94.9	70	6.35
	225	139.7		177.8		97.46			133.38		94.9		
	250	152.4		190.5		108			146.08		101.3		
	300	177.8		215.9		129.2			171.48		114		
	350	203.2		254		148.2			196.88		133		
	400	222.25		304.8		158.8			215.93		158.4		
	400	222.25		355.6		150			215.93		183.8		
	450	241.3		304.8		177.9			234.98		158.4		
	450	241.3		355.6		169.42			234.98		183.8		
	500	269.88		355.6		198			263.56		183.8		
	500	269.88		457.2		181.08			263.56		234.6		
	550	298.45		355.4		226.58			292.13		183.8		
	550	298.45		457.2		209.65			292.13		234.6		
	600	317.5		355.6		245.63			311.18		183.8		
	600	317.5		457.2		228.7			311.18		234.6		
	650	355.6		457.2		266.79			349.28		234.6		
	650	355.6		558.8		249.86			349.28		285.4		
	700	374.65		457.2		285.84			368.33		234.6		
700	374.65	558.8	268.91	368.33	285.4								

## PACKAGING OF GRAPHITE ELECTRODE

### 石墨电极包装

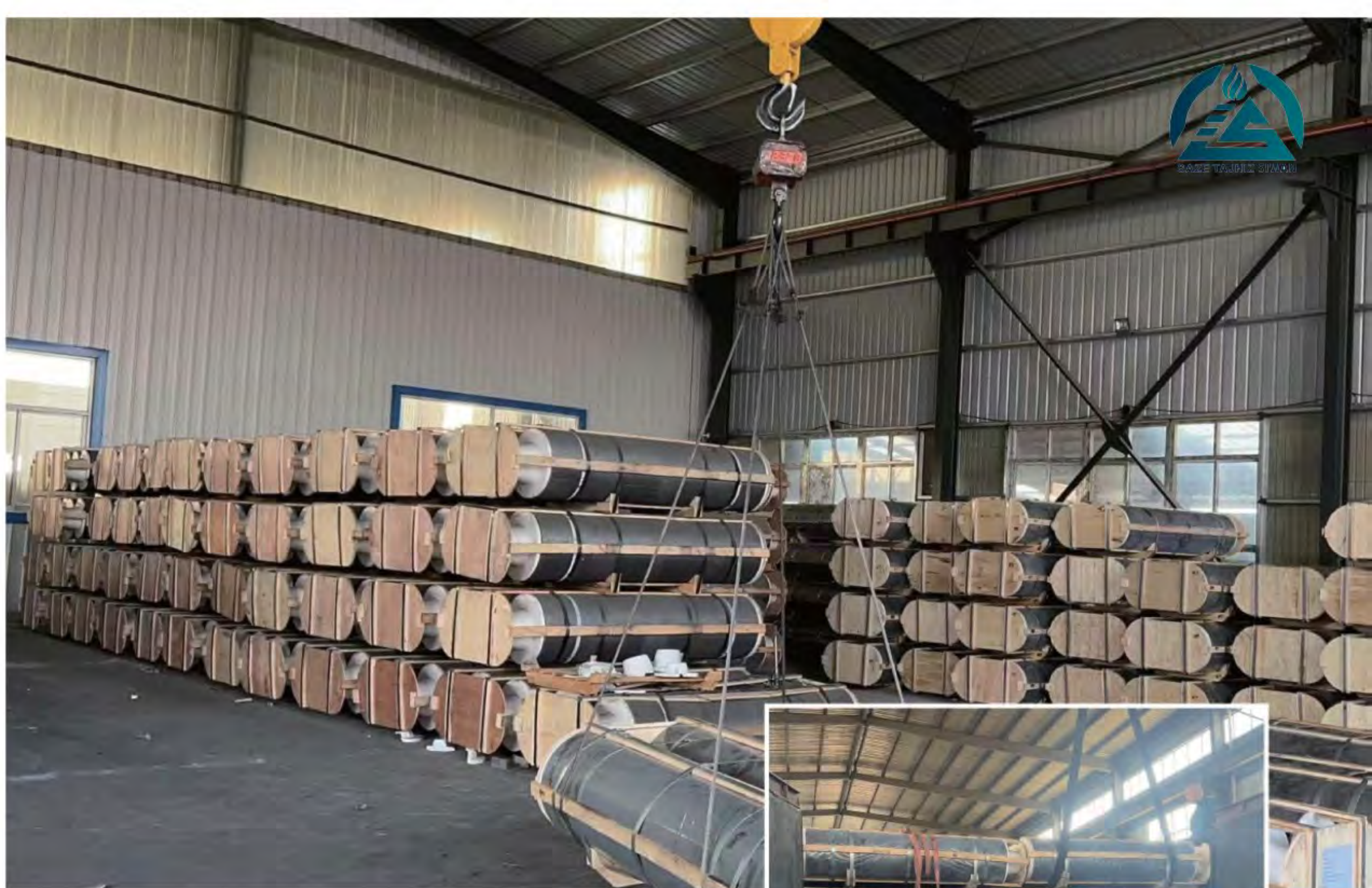


石墨电极采用木笼包装，接头采用木箱包装，或根据客户要求采用电极和接头连体包装，内衬防水防尘塑料布，外用钢带紧固，美观牢固，适用于陆路和海洋运输。

Graphite electrode is packaged by wooden cage and nipple is packaged by wooden box. Graphite electrode and nipple can be packaged together according to customer's requirement. The products are protected by waterproof and dustproof plastic inside fixed by steel bands, fit for road and sea transportation.

### 【石墨电极包装尺寸】 SIZES OF GRAPHITE ELECTRODE PACKAGING

公称直径 Nominal Diameter		支 /每件 Quantity/ packaging	石墨电极包装 Electrode Packaging		电极和接头连体包装接头 Electrode and Nipple packaged together	
Inch	mm		近似净重 (kg) Approximate Weight	轮廓尺寸 (mm) Overall Dimension	近似净重 (kg) Approximate Weight	轮廓尺寸 (mm) Overall Dimension
8*72	200*1800	9	908	1900*1070*470	930	2100*1070*470
10*72	250*1800	7	1110	1900*1065*580	1150	2100*1065*580
12*72	300*1800	3	685	1900*970*400	710	2050*970*400
12*72	300*1800	6	1370	1900*970*700	1420	2100*970*700
14*72	350*1800	3	880	1900*1100*480	915	2100*110*480
16*72	400*1800	2	795	1900*850*500	830	2100*850*500
16*72	400*1800	3	1180	1900*1260*500	1230	2100*1260*500
16*84	400*2100	2	890	2200*850*500	920	2400*850*500
16*84	400*2100	3	1300	2200*1260*500	1345	2400*1260*500
18*72	450*1800	2	990	1900*970*550	1035	2100*970*550
18*84	450*2100	2	1335	2500*970*550	1380	2660*970*550
20*72	500*1800	2	1205	1900*1070*600	1260	2270*1070*600
20*84	500*2100	2	1375	2200*1070*600	1440	2450*1070*600
20*96	500*2400	2	1625	2500*1070*600	1680	2700*1070*600
22*84	550*2100	2	1690	2200*1170*650	1775	2450*1170*650
22*96	550*2400	2	1940	2500*1170*650	2025	2750*1170*650
24*84	600*2100	2	2000	2200*1280*720	2098	2450*1280*720
24*96	600*2400	2	2300	2500*1280*720	2498	2750*1280*720
24*106	600*2700	2	2830	2850*1280*720	2880	3100*1280*720
26*106	650*2700	2	3275	2950*1390*810	3350	3200*1390*810
28*96	700*2400	2	3200	2780*1460*835	3290	3140*1460*835
28*106	700*2700	2	3600	3080*1460*835	3690	3440*1460*835



## PRODUCT INSTRUCTION

### 产品使用说明

#### 【石墨电极运输】 TRANSPORTATION OF GRAPHITE ELECTRODE

- ◆ 石墨电极在长途运输途中要加盖防雨篷布。

Cover a rain-proof tarpaulin in the graphite electrode in the course of long-distance transportation.

- ◆ 用起重机械吊卸木箱包装的电极时，必须使用钢丝绳，不得直接钩住电极的钢包装带进行吊卸。

It is important to use a Wire rope when lifting the wooden-packaged electrodes with a lifting crane. It is forbidden to lift the electrodes with the steel packaging belts on the wooden-packaged.

- ◆ 为保护电极断面和螺纹，不得直接用铁钩钩挂电极孔吊运电极。

For the purpose of protecting the electrodes end and threads, it is not allowed to lift an electrode with a grappling.

- ◆ 装卸接头箱子时，应轻拿轻放，以防螺纹损伤。

Put slightly when loading and unloading the nipple box so as to prevent the threads.

◆【石墨电极贮存】 STORAGE OF GRAPHITE ELECTRODE

电极应贮藏在清洁、干燥的地方；暂时不使用的电极与接头，不要将包装物去掉，要防止灰尘、杂物落到螺纹或电极孔内，影响产品对接精度。

The electrodes should be put in a clean and dry place; Don't remove the packaging before use so as to prevent the dusts and debris from dropping onto the threads or into the electrode socket and thus affect the precision of the electrode connection.



◆ 露天场地堆放的电极，一定要用防雨篷布盖好。

The electrodes stored in the open area must be covered with a rain-proof tarpaulin.

◆ 散装电极的堆放高度通常不超过2.8米，箱装电极的层高不宜超过4层。

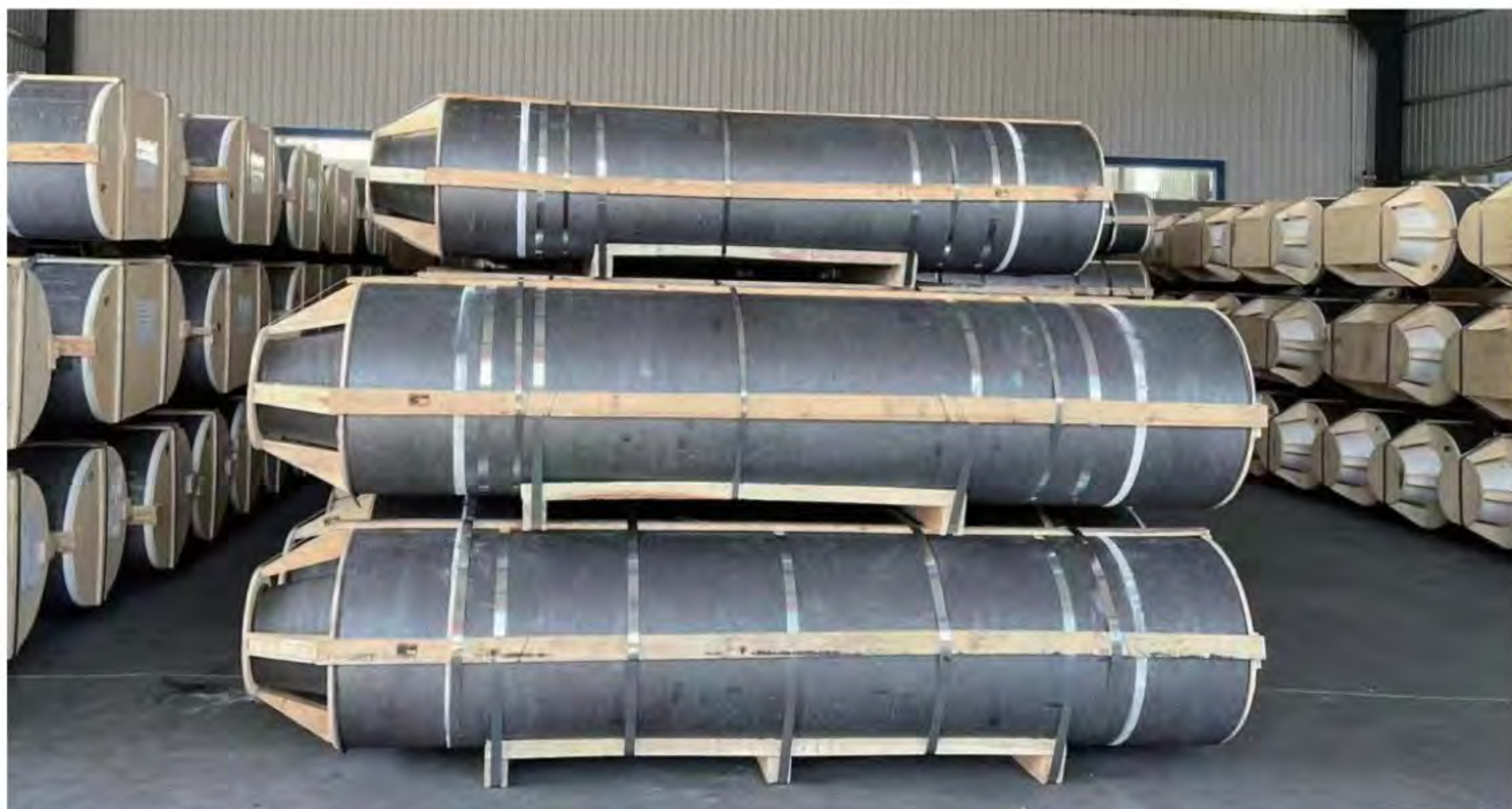
The stacking height of the scattered electrodes should not exceed 2.8 meters, while the electrodes packed in the box should not exceed 4 layers.

◆ 电极在库房内贮存要摆放整齐，电极垛两侧要垫好，以防滑垛。

The electrodes should be stored in the storehouse nearly. The both sides of the electrodes should be well stacked to prevent from stack sliding.

◆ 存放电极的场所温度不宜过高，以防沥青质的接头栓溶化。

The temperature of the storage places of nipple should not be too high so as to prevent melting of bitumen nipple bolt.



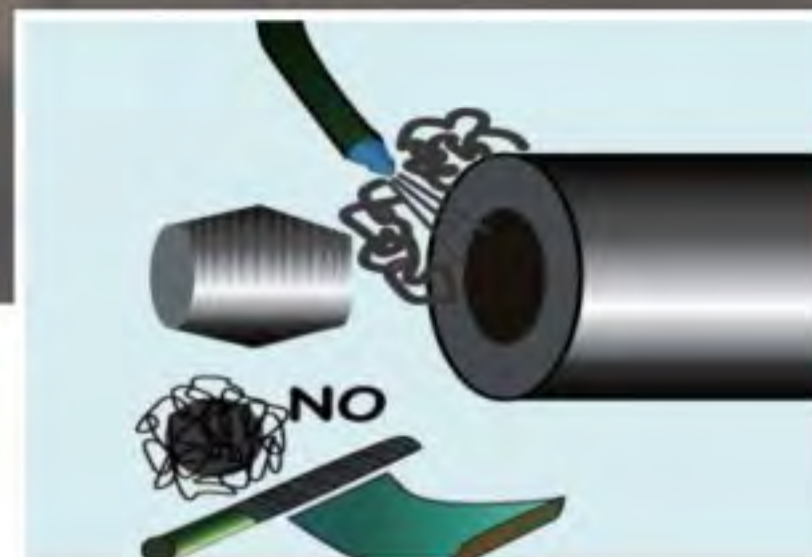


## 【石墨电极在使用时的注意事项】 NOTES OF THE USE OF GRAPHITE ELECTRODE



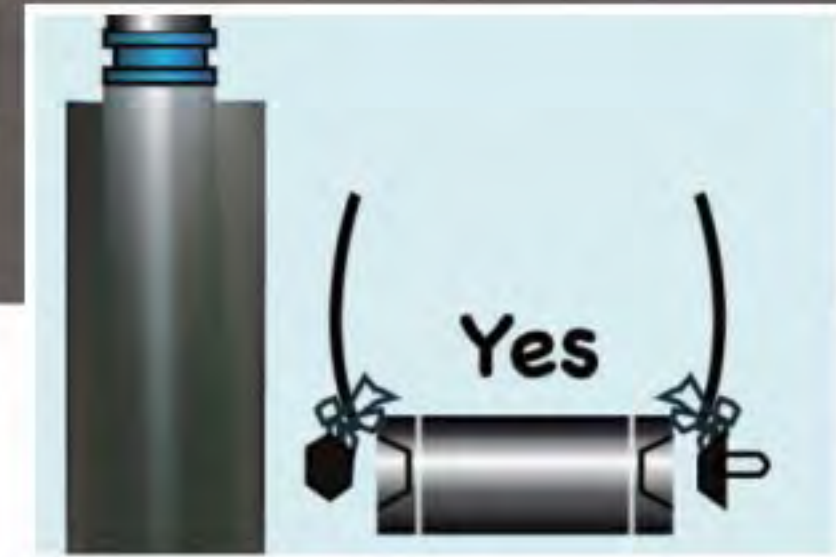
受潮湿的电极，使用前要烘干。去除备用电极孔上的泡沫塑料保护帽，检查电极孔内螺纹是否完整。

Wet graphite electrodes must be dried prior to use. The foam protective caps on the electrode sockets shall be removed to verify the integrity of the internal threads of the electrode socket.



用不含油和水的压缩空气清理备用电极表面和孔内螺纹，避免用钢丝团或金属刷纱布清理。

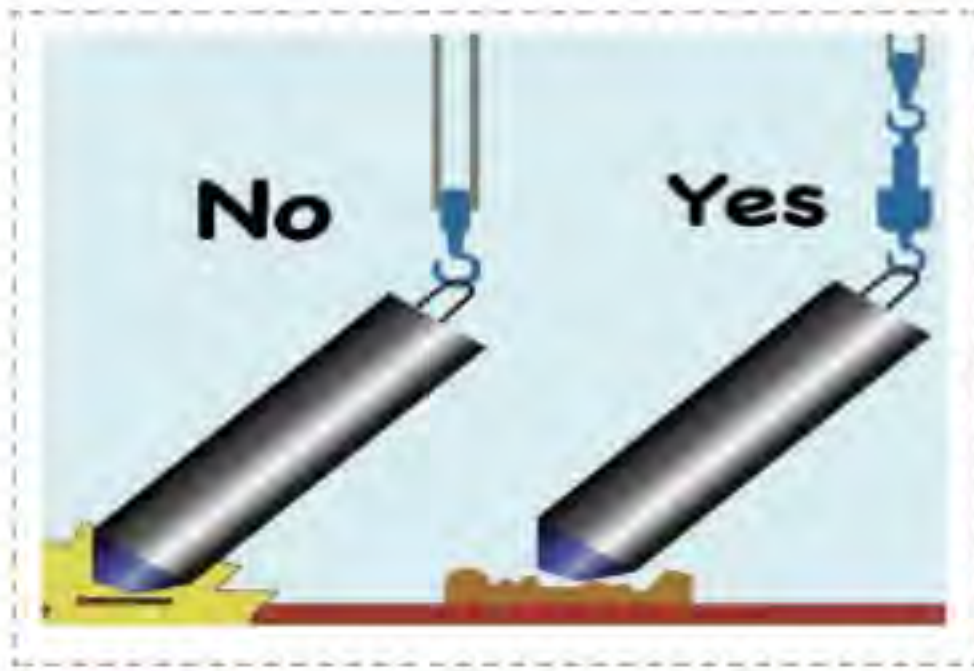
The surface of the electrodes and the internal threads of the socket shall be cleared by compressed air free of any oil and water, not by steel wool or metal brush gauze.



将接头小心地旋入备用电极一端的电极孔内，不得碰撞螺纹。将电极吊具(建议采用石墨材质的吊具)拧入备用电极另一端的电极孔内。

The nipple must be screwed carefully into the electrode socket of one end of the electrode without collision with the internal threads (it is not suggested to directly put the nipple into the electrode removed from the furnace). The lifting appliance (graphite lifting appliance be recommend) should be screwed into the electrode socket of other end of the electrodes.





起吊电极时，垫松软物到备用电极装接头一端的下面，以防止地面碰损接头；用吊具深入吊具的吊环后吊起，吊运电极要平稳，防止电极松脱或其他的固定装置碰撞。

When lifting the electrode, cushion-like materials must be put on the ground under the connecting end of the electrode to avoid any collision. After the lifting hock has been put into the ring of the lifting appliance, the electrode shall be lifted smoothly to prevent it from falling or colliding with any other fixture.



将备用电极吊到待接电极上方，对准电极孔后慢慢落下；旋转备用电极，使螺旋吊钩与电极一起转动下降。

The electrode shall be lifted above the head of the working electrode and dropped slowly aiming at the electrode socket. Then the electrode will be screwed to make the helical hook and the electrode declining and turning together.



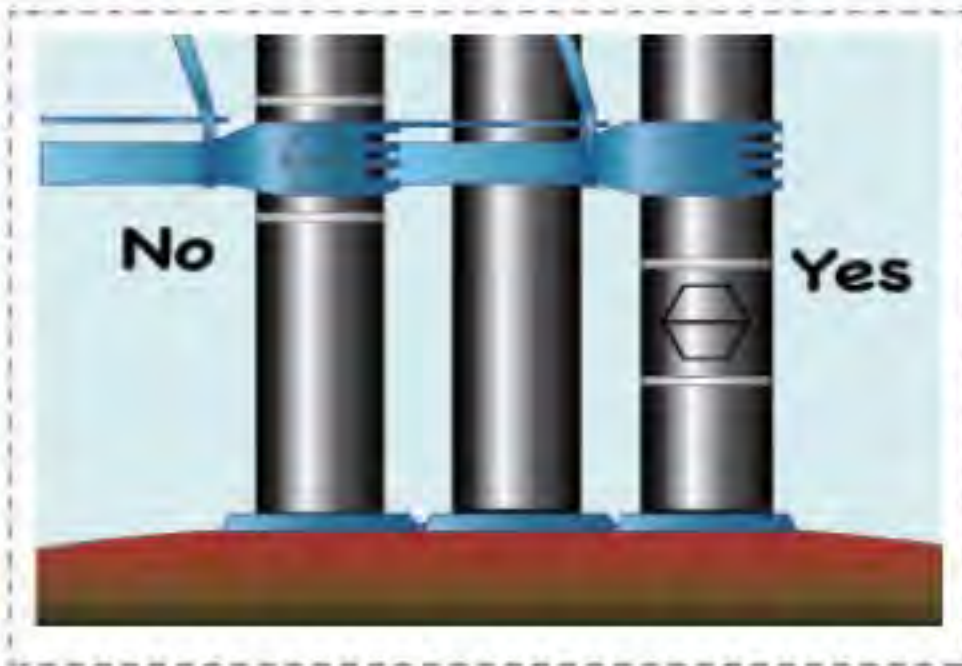
在两支电极端面相距10-20MM时，再次用压缩空气清理电极两个端面和接头的裸露部分；在最后完全下放电极时，不可过猛，否则因猛烈碰撞，会导致电极孔和接头的螺纹受损。

When the distance between the end faces of two electrodes is 10-20mm, the two electrodes of electrode socket and nipple will be damaged because of the violent collision.



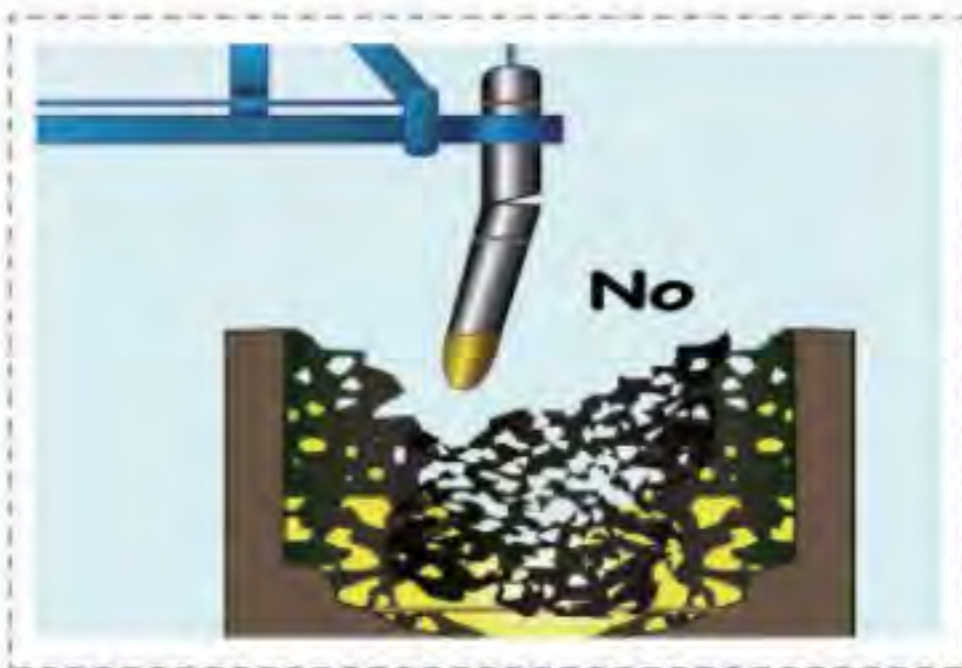
用力矩扳手拧备用电极，直到两支电极的端面紧密接触为止(电极和接头的正确连接夹缝小于0.05MM)。

Use torque spanner to screw the electrode until the end faces of the two electrodes contact closely (the gap of correct connection between the electrodes is less than 0.05mm).



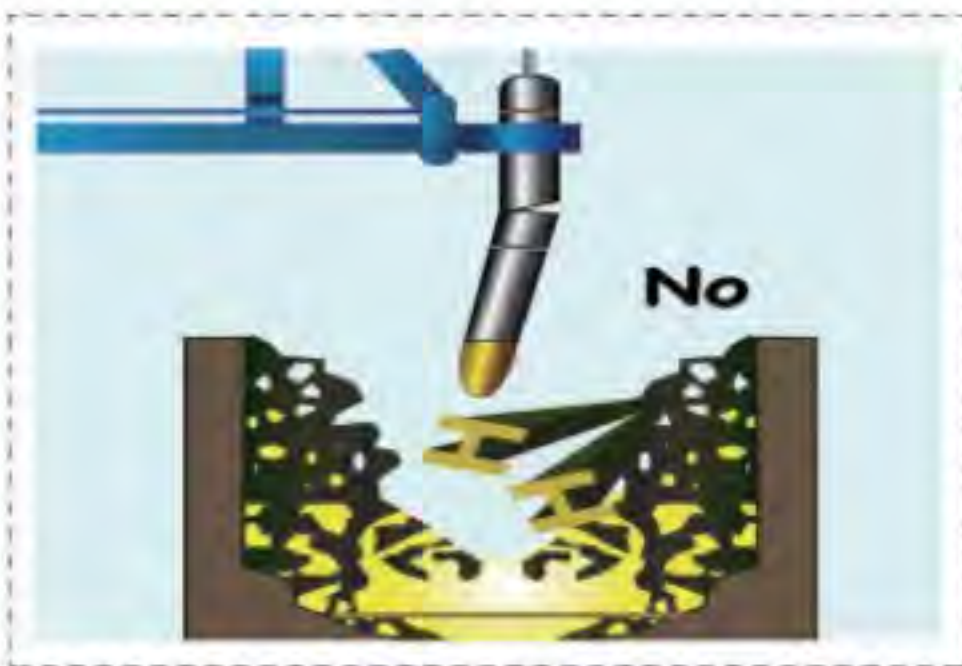
电极夹持器必须放置在两条白色保护线之间。电极夹持器和接口必须定期清洗，以保持与电极的良好接触。夹紧夹座的冷却水套应拧紧，防止漏水。

Electrode clamp holder must be placed between the two white guard lines. Clamp holder and interfaces of the electrode must be cleaned regularly to keep good touch with electrode. Cooling water jacket of the clamp holder should be tight to prevent water leakage.



为避免电极断裂，绝缘材料不应放入炉内。电极的工作电流必须符合说明书中电极的允许电流。

To avoid the electrode breakage, insulating materials should not be put into the furnace. The working current of electrode must be conformity with the allowable current of electrode in the instructions.



为了避免电极断裂，将大的材料放在下半部，小的材料放在上半部。

In order to avoid electrode breakage, put the large materials in lower part and small materials on the upper part.



如果电极的两端接触不良或者在超压状态下接触，可能会造成不良影响。

If the two poles of electrode are untouched or touched in over-pressure, this may cause bad effect.

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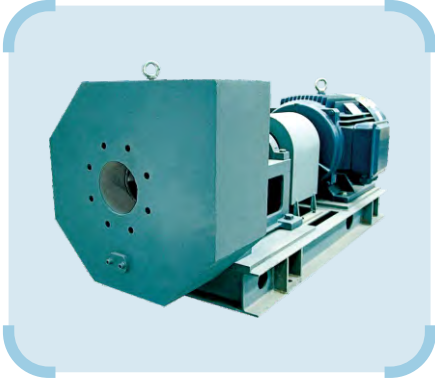
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# SIC

## CERAMIC PUMP

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### 弘源·HONGYUAN

SPECIALIZED IN SILICON CARBIDE PRODUCTS

## ABOUT HONGYUAN

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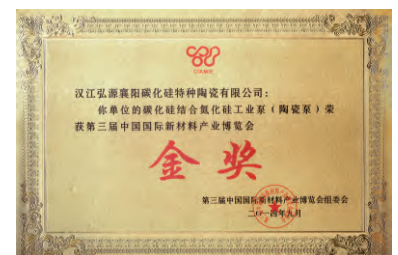
Leading production processing and innovation ability.



Hanjiang Hongyuan Xiangyang Silicon Carbide Special Ceramics Co., Ltd.(Hongyuan)- the subsidiary of Hanjiang Water Resources and Hydropower Group, is a state-owned company specialized in advanced silicon carbide products.

Being made of pure petrol coke, in the shape of large crystal, Hongyuan black silicon carbide exhibits very attractive properties like purity and toughness. It is the ideal material for top-end refractory components, kiln furniture and abrasives.

The silicon carbide ceramics products are produced with our finest material, which are excellent in performance of thermostability, corrosion resistance, abrasion resistance, and thermal shock resistance. These products are widely applied in fields of mining, molten metal industry, smelting industry, industrial furnace, coal-fired plant, chemical industry etc. With first-rate technology and service, Hongyuan are competent to provide you with customized silicon carbide ceramics as well as design plans.







## Why to choose SiC ceramic pump?

SiC served as a kind of mature anti-wear material, and has the features of high hardness, stable molecular structure, and good performance of anti-abrasion, corrosion resistance, high temperature resistance etc. It has been widely applied for mine, metallurgy, electricity, chemical engineering etc. In slurry pump industry, the working condition are mostly with high corrosion and abrasion, which are quite terrible. That requires material of flow-through parts to be endowed with favorable anti-abrasion and anti-corrosion performance, while SiC ceramic is the best choice.

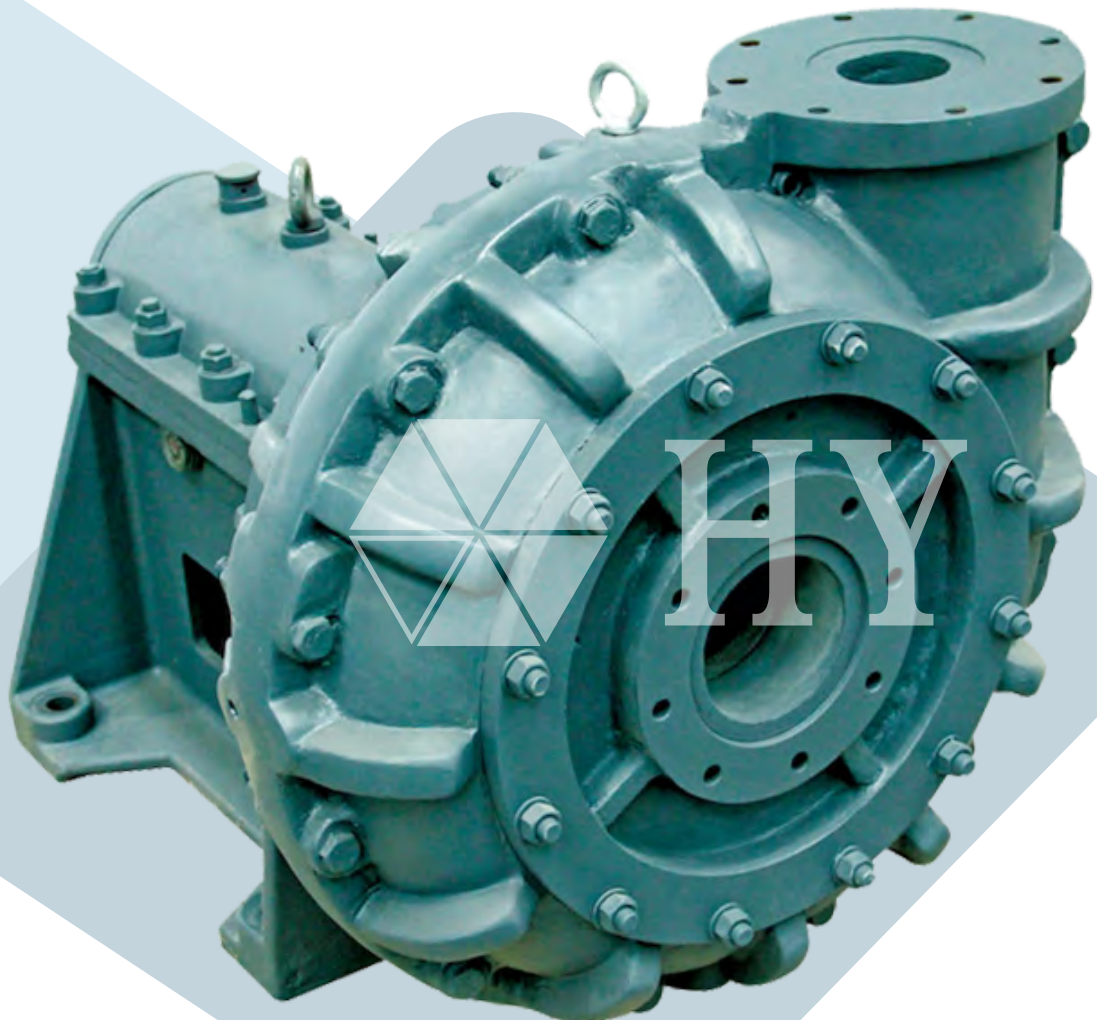
SiC ceramic pump, designed and manufactured by Hongyuan, shows high efficiency and long wear life, which helps customers to reduce the frequency of overhaul and save cost.

SHOCK RESISTANCE

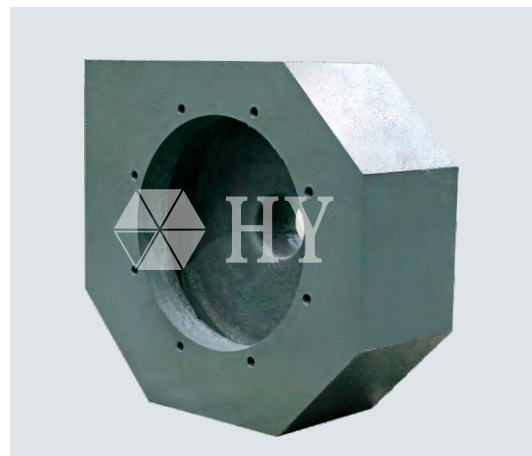
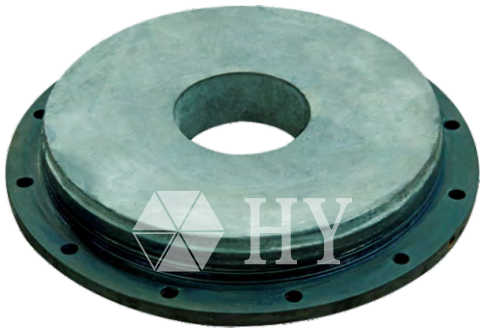
HIGH EFFICIENCY

LONG SERVICE LIFE

OVERALL COST REDUCTION



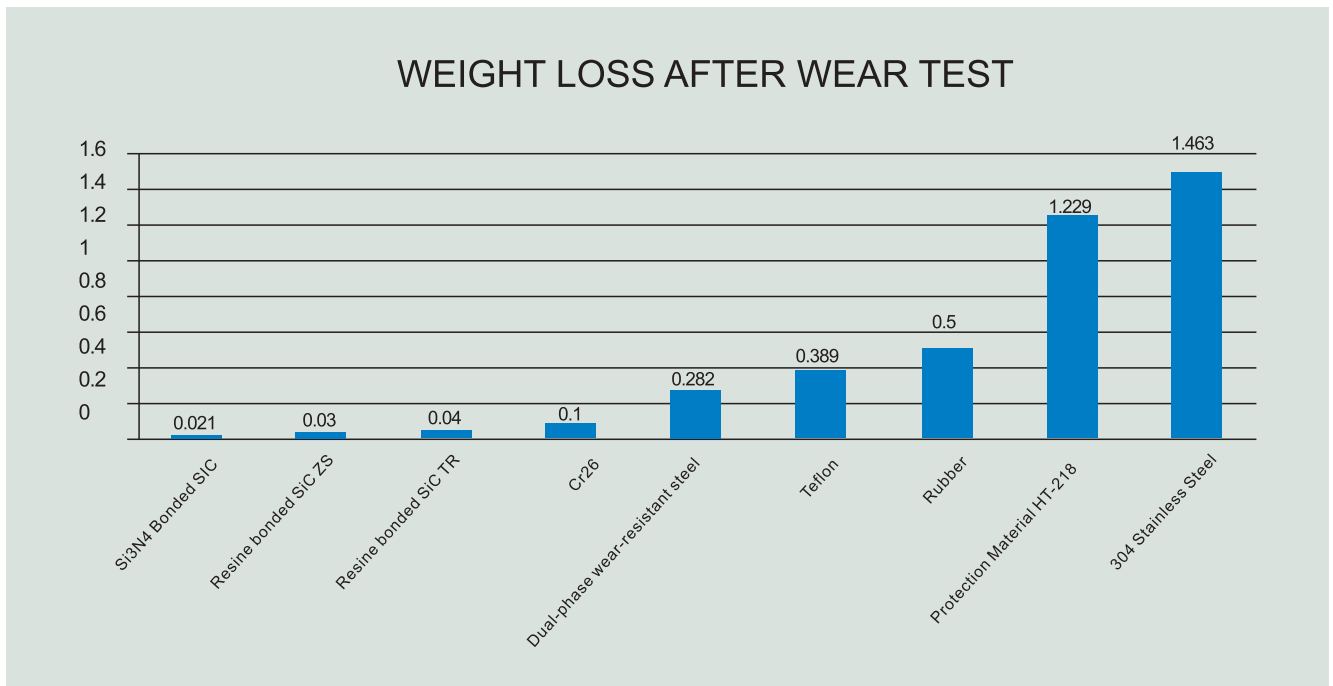
HAH Series SiC Ceramic Wet Parts



LVT Series SiC Ceramic Wet Parts

## SIC STRONG ANTI-WEAR PERFORMANCE

The crystal structure of SiC is same as regular tetrahedron of diamond, and it is also a compound mainly combined together by covalent bond. In fact, the hardness of SiC is next to that of diamond. Tested by XJTU, the anti-wear performance is 3.51 times that of Cr30.



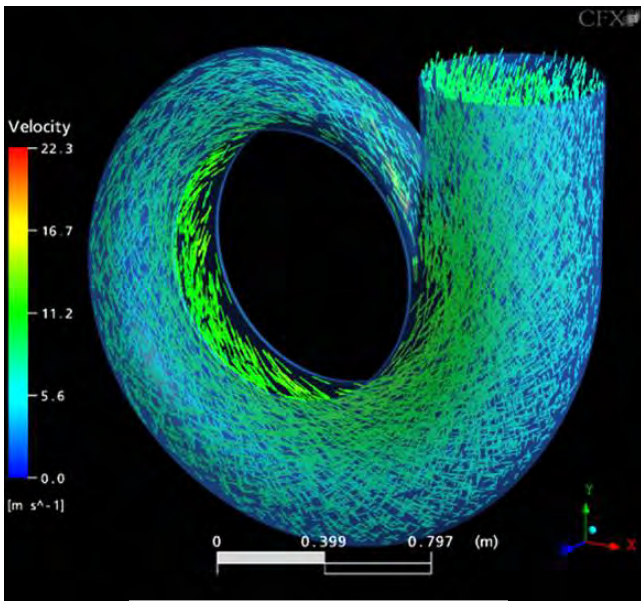
## SIC STRONG ANTI-CORROSION PERFORMANCE

With stable chemical property, SiC can stand nearly all kinds of corrosion of mineral acid, organic acid, alkali, and it also has great antioxidant performance.

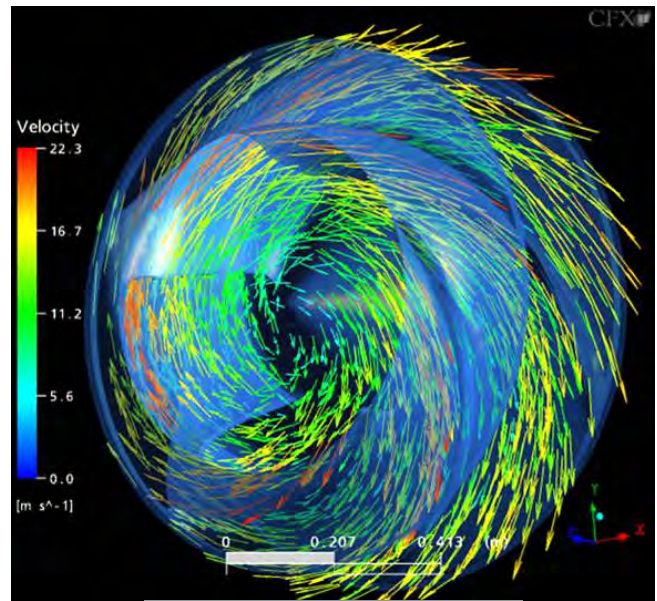
## SIC CERAMIC SLURRY PUMP APPLICATION

Industry	Device/Pump	Serie
coal-fired power generation	Desulphurization circulating pump, Gypsum discharge pump, Lime slurry cycling pump, Mill cycling pump, Emergency pump	HVT series desulphurization pump
		LVT series light-duty slurry pump
		HL series vertical slurry pump
ore grinding, beneficiation	Hydrocyclones feeding pump under mill, Tailings transport pump, Floating pump, Concentrate mine pump, Thickener flow pump	HAH series heavy-duty slurry pump
		ZVT series heavy-duty slurry pump
steelmaking, puddling	Slurry pump for blast furnace slag water	ZVT series heavy-duty slurry pump
		HAH series heavy-duty slurry pump
		HVT series desulphurization pump
chemical industry	Salt/alkali/phosphorus chemical industry and other kinds of highly corrosive process pump	LVT series light-duty slurry pump

## CFD SIMULATION



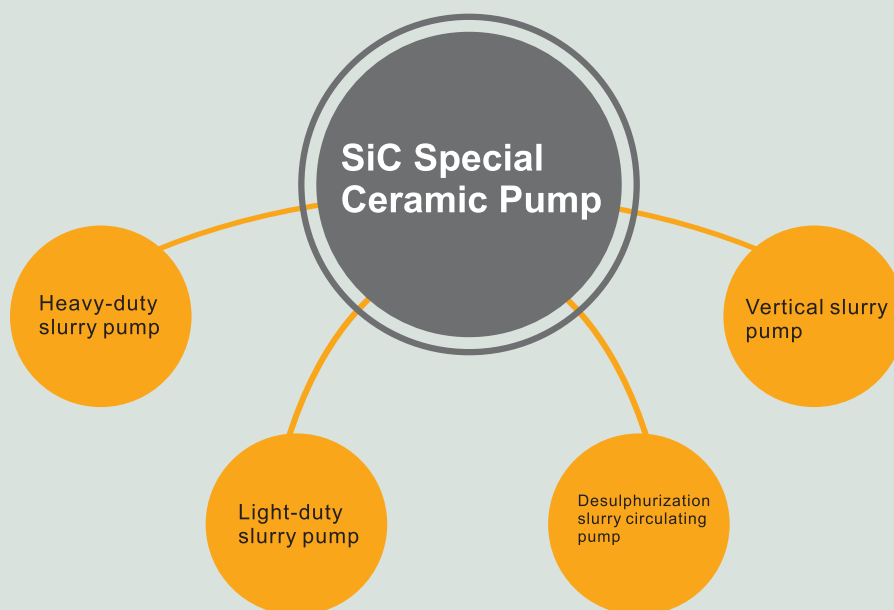
Flow Field Simulation in Volute



Flow Field Simulation in Impeller

## TYPE OF SIC CERAMIC PUMP

According to material characteristics, Our silicon carbide ceramic pump is mainly divided into: Heavy-duty slurry pump/ Desulphurization slurry circulating Pump/Light-duty slurry pump/Vertical slurry pump, and involving pump types are ZVT, HAH, HVT, LVT, HL.



# HEAVY-DUTY SLURRY PUMP

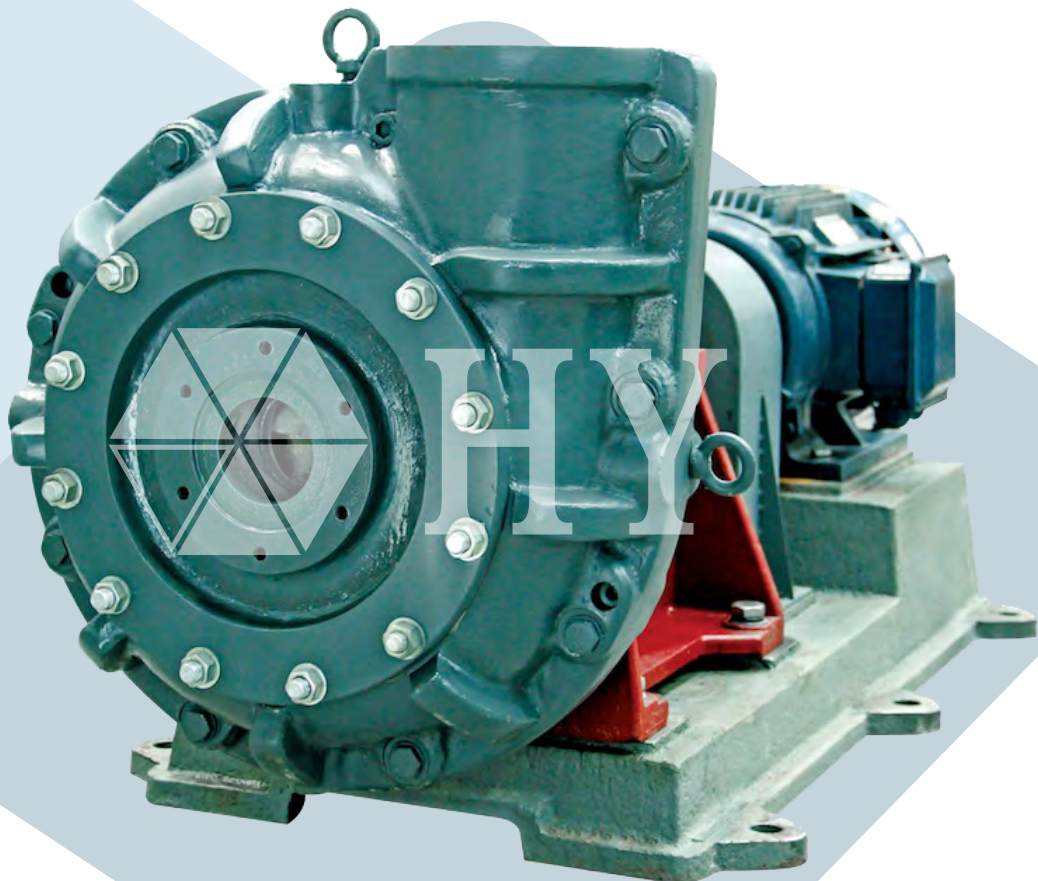
## HAH/ZVT Series

Heavy-duty Slurry pumps are applied for mining, metallurgy, electricity, coal, chemical, building materials and many other industries. They can transport medium with solid particles, which may has abrasion, corrosion, for example ash, coal slurry transportation in power station, mine pulp transportation in metallurgy dressing plant, coal slurry and other heavy media transportation in coal washing plant. It is able to work for the slurry with high weight concentration-45% for ash slurry and 60% for ore slurry.

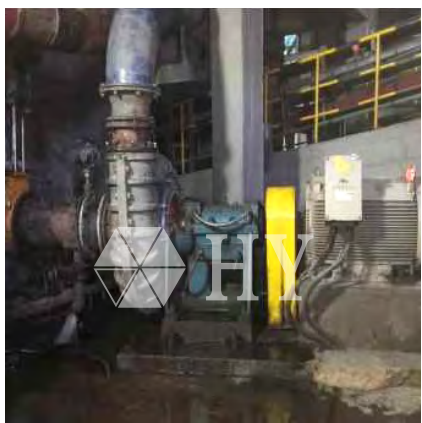
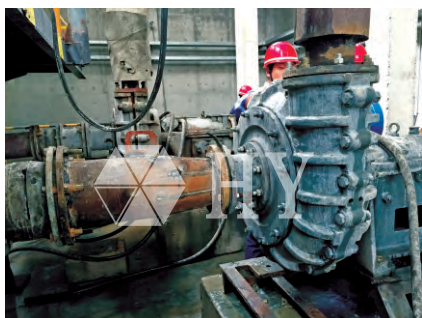
This kind of pump is featured with high efficiency, running stably, reliable and long-life service, **it improved the impact resistance and applied to a section of mill slurry pump successfully.**



HAH Series



ZVT Series



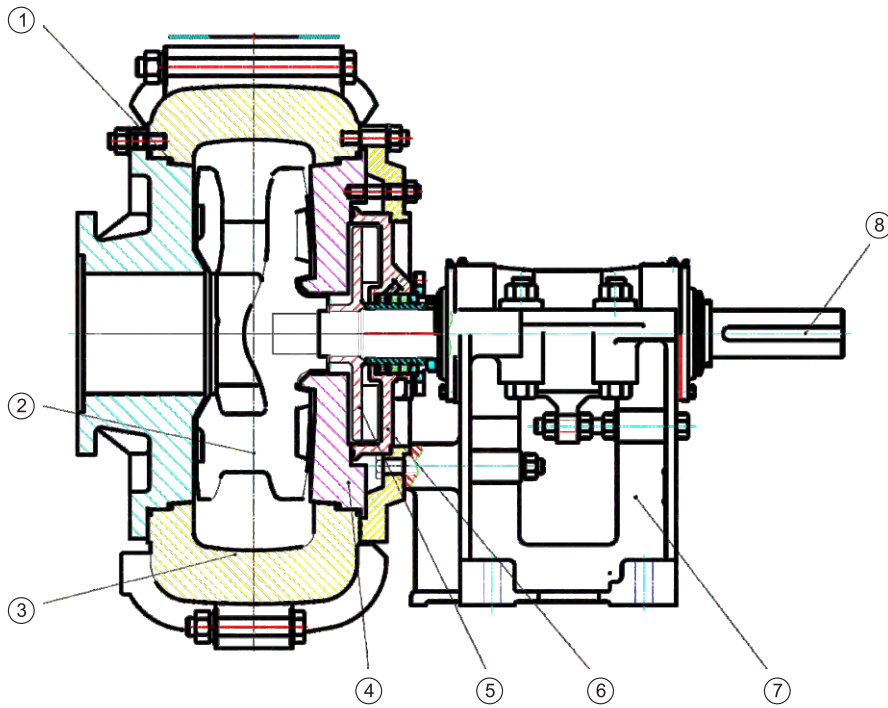
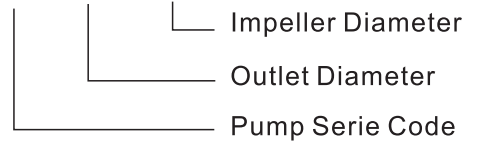
In abrasion mine condition, The service life of ceramic pump is 4-6 times that of metal pump, The maximum size of slurry in existing cases can reach 32mm, it can meet the requirements of all process pumps in mineral processing.



# HEAVY SLURRY PUMP

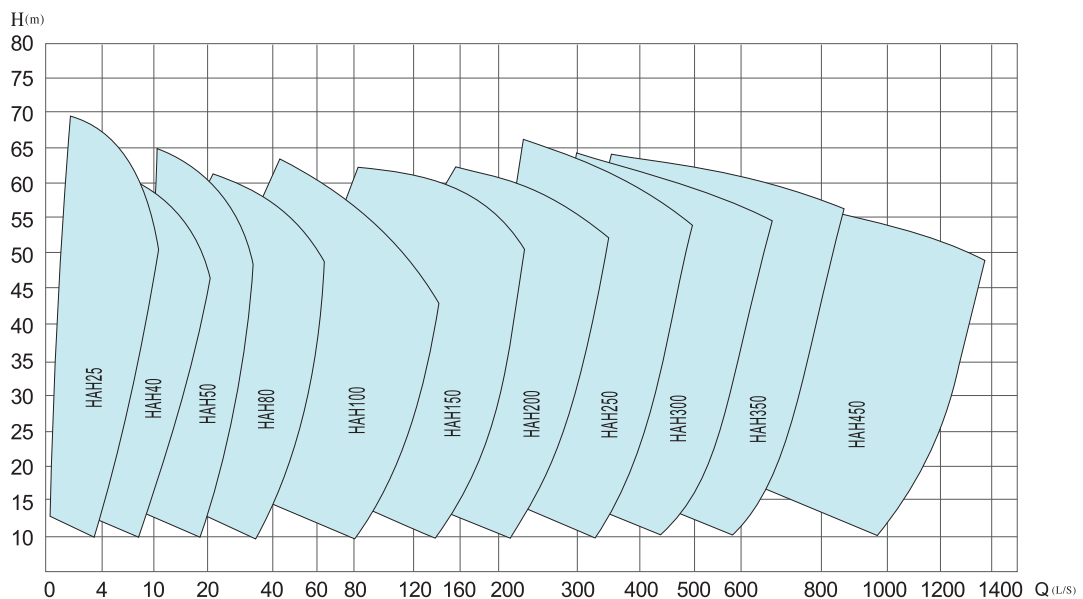
HAH Series

Model Meaning: HAH 150 / 560



1. Throat Bush
2. SiC Impeller
3. Pump Casing
4. SiC Frame Cover
5. Expeller
6. Expeller Ring
7. Pedestal
8. Shaft

## HAH HEAVY-DUTY SLURRY PUMP PARAMETER CHART

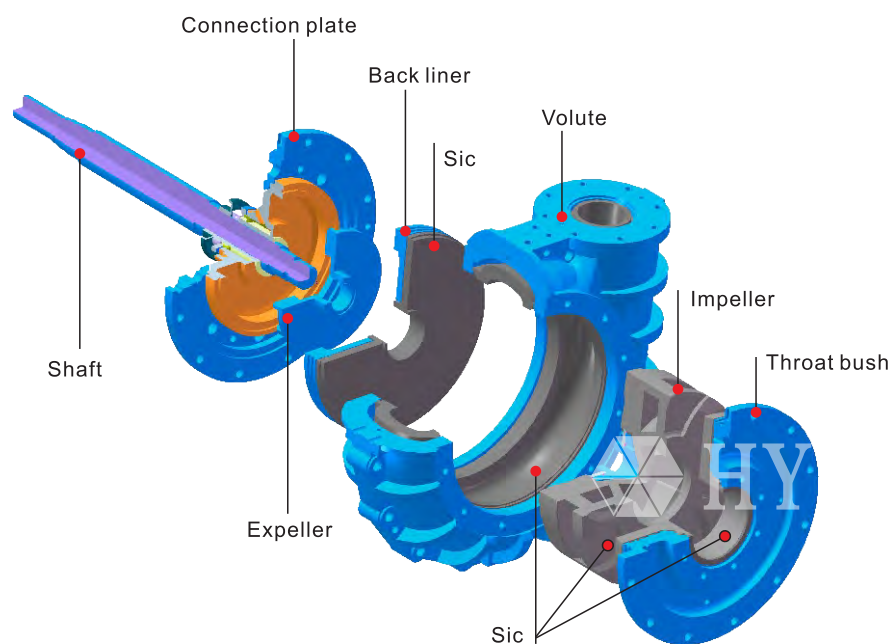


## HAH SLURRY PUMP PARAMETER TABLE

Product model	Corresponding size	Clean water performance			
		Q ( m <sup>3</sup> /h )	H (m)	Rotation n (r/min)	Efficiency η (%)
HAH25-160	1.5/1	12.6--28.8	6--68	1200--3800	40
HAH40-185	2/1.5	16.2--34.2	6--58	1200--3200	45
HAH50-230	3/2	39.6--86.4	12--64	1300--2700	55
HAH80-265	4/3	86.4--198	9--52	1000--2200	71
HAH100-400	6/4	162--360	12--56	800--1550	65
HAH150-560	8/6	360--828	10--61	500--1140	72
HAH200-740	10/8	612--1368	11--61	400--850	71
HAH250-813	12/10	936--1980	7--68	300--800	82
HAH300-1000	14/12	1260--2772	13--63	300--600	77
HAH350-1100	16/14	1368--3060	11--63	250--550	79

## HEAVY-DUTY SLURRY PUMP FEATURES

- The wet end parts are made by silicon nitride bonded silicon carbide ceramic, which can be applied for medium with strong abrasion and corrosion.
- The wet end parts and frame are connected by bolts, so the angle of pump outlet can be adjusted, which makes multi-connecting for pumps available.
- Bolt on the bracket is used to adjust the gap between impeller and frame cover plate, in order to achieve high efficiency performance after the wear.
- Temperature measuring seat on bearing helps DCS system to collect data.
- For dealing with abrasion and corrosion slurry, mechanical spring is set outside in case of blocking. Stationary Design is adopted when the axle diameter is large and linear velocity is high.

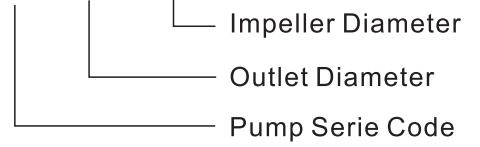




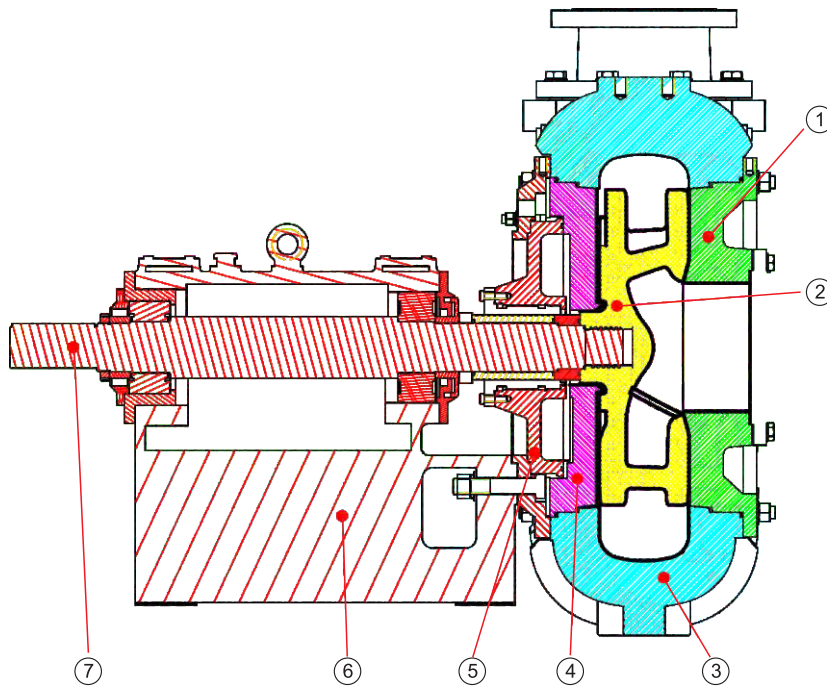
# HEAVY-DUTY SLURRY PUMP

ZVT Series

Model Meaning: **ZVT 100 / 42**

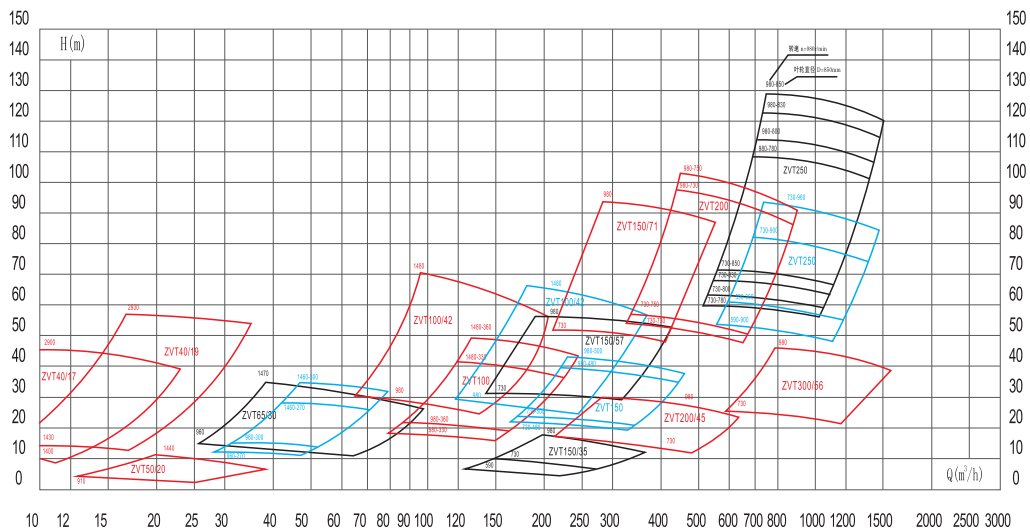


## ZVT HEAVY-DUTY SLURRY PUMP ASSEMBLY DRAWING



1. SiC Throat Bush
2. SiC Impeller
3. SiC Pump Casing
4. SiC Frame Cover Liner
5. Expeller Ring
6. Pedestal
7. Shaft

## ZVT HEAVY-DUTY SLURRY PUMP PARAMETER CHART

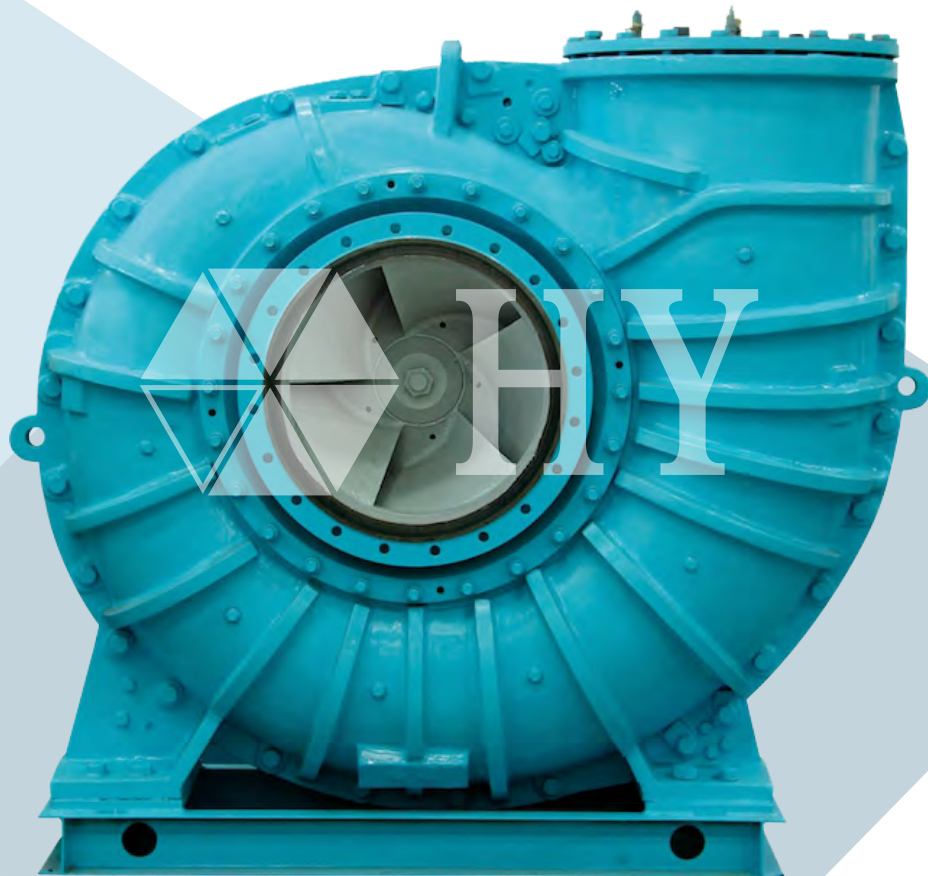


Product model	Maximum power (KW)	Clean water performance					Maximum particle size (mm)	Weight (kg)
		Q ( m3/h )	H (m)	Rotation n (r/min)	Efficiency $\eta$ (%)	NPSHr (m)		
ZVT50-33	18.5	12-54	7.7-42.5	700-1480	41.4	2.9	13	537
ZVT50-46	55	23-94	17.9-85.8	700-1480	44.7	1.4	13	1082
ZVT50-50	90	27-111	22.3-110.7	700-1480	45.1	3	13	1378
ZVT65-30	15	23-79	7.4-34.8	700-1480	63.5	2	19	504
ZVT80-36	45	46-190	9.6-51.4	700-1480	67.7	2.4	24	980
ZVT80-42	75	61-204	14.4-70.4	700-1480	66.7	2.5	24	1053
ZVT80-52	160	51-242	22.1-109.8	700-1480	56.3	2.1	21	1465
ZVT100-36	55	61-245	9.7-49.5	700-1480	71.6	2	32	1010
ZVT100-42	90	66-275	14.7-70.8	700-1480	70.4	2.5	35	1075
ZVT100-50	160	85-360	20.5-100.2	700-1480	68.5	2.5	34	1475
ZVT150-50	75	115-460	9.5-43.1	490-980	76.8	2.3	48	1735
ZVT150-60	160	135-550	14.7-63.5	490-980	74.6	2.5	48	2203
ZVT150-65	200	150-600	17.4-75.7	490-980	69.2	2.5	48	2223
ZVT150-70	185	93-401	22-91.2	490-980	62.3	2	37	2245
ZVT200-60	185	218-870	13.9-62	490-980	82.7	2.5	62	2223
ZVT200-65	250	235-950	16.4-72	490-980	79.6	2.5	62	232
ZVT200-70	315	205-976	19.4-86.4	490-980	75.6	2.8	56	2465
ZVT200-75	355	225-900	228-102.9	490-980	72.8	3	56	3070
ZVT200-85	560	221-907	32-133.7	490-980	70.5	2.8	54	4110
ZVT250-65	315	299-1249	15.4-71	490-980	76.9	3	72	3020
ZVT250-75	560	300-1480	20.8-97.5	490-980	76	3	72	3480
ZVT250-85	800	376-1504	30.1-128.7	490-980	75.6	3.5	76	4530
ZVT250-96	560	403-1466	25.4-93.7	400-730	77.8	3.5	69	5035
ZVT300-56	250	395-1568	9.7-46	400-980	80.9	3.5	96	3030
ZVT300-70	630	635-2333	16-76.8	490-980	80.4	3.9	92	3560
ZVT300-90	560	505-1844	21.2-79.9	400-730	81.4	3.9	85	5005
ZVT300-100	450	464-1826	15.3-65.2	300-590	80.7	3	88	5265

# DESULPHURIZATION SERIFLUX CIRCULATING PUMP

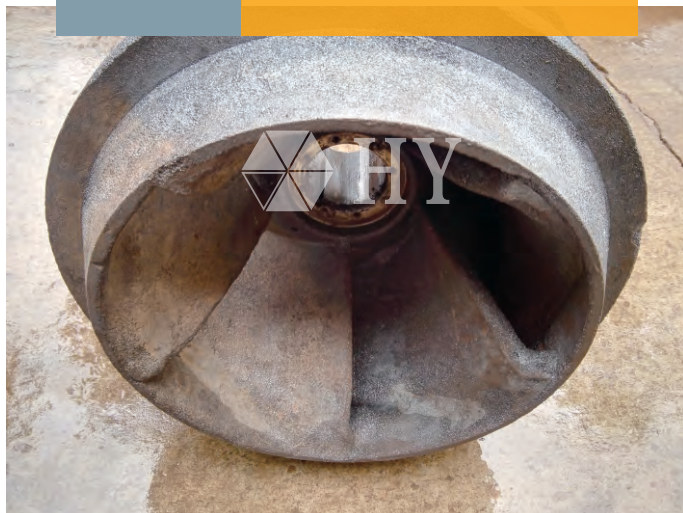
## HVT Series

The resin silicon carbide ceramic desulphurization circulating pump is designed according to the characteristics of industrial flue gas desulfurization pump, and learning the technology of liquid-solid two-phase fluids pump, and CFD software used to predict and upgrade hydraulic performance.



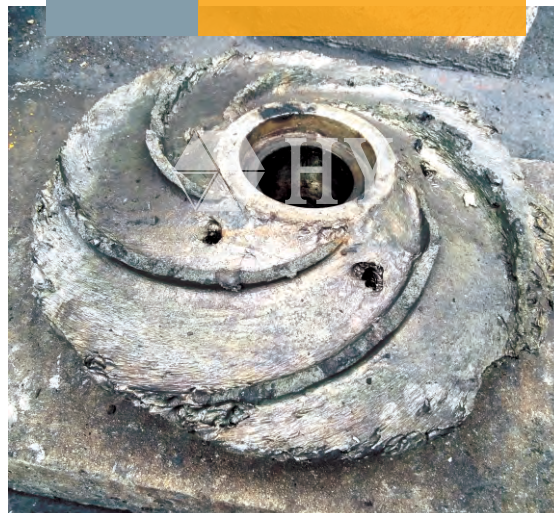
SiC  
Impeller

After 18 months  
working



Metal  
Impeller

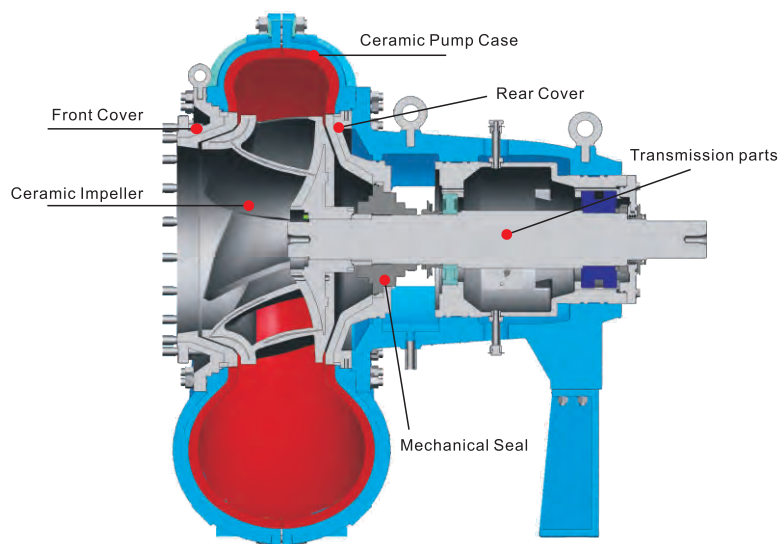
After 3.5 months  
working



In the field of environmental protection and waste water discharge, ceramic pump has the advantages of long service life, high efficiency and stable operation.

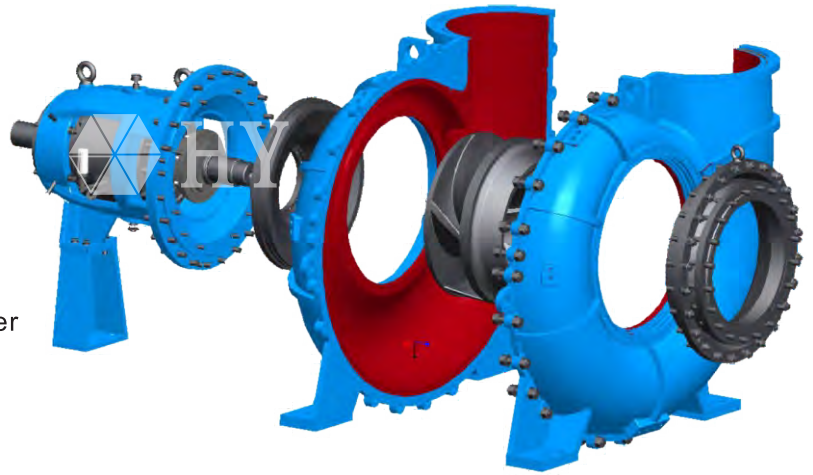
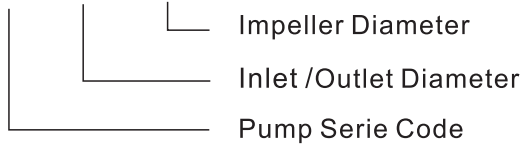
## HVT SERIE DESULPHURIZATION SERIFLUX-CIRCULATING PUMP FEATURE

- The wet end parts are made by silicon nitride bonded silicon carbide, it has good abrasion resistance and corrosion resistance performance.
- The impeller can be adjusted in axle direction to keep the gap between impeller and front cover, so the pump can always work in high efficiency.
- The pump is designed as a real-pulling structure, which allows us to disassemble impeller, mechanical seal and shaft without taking down the in/out tubes.
- The pump shaft is short and has a large diameter, that lessens the flexibility under working.
- Bearing is lubricated by thin oil. It is installed in a case with rubber seal ring for stopping water and dirt getting in.

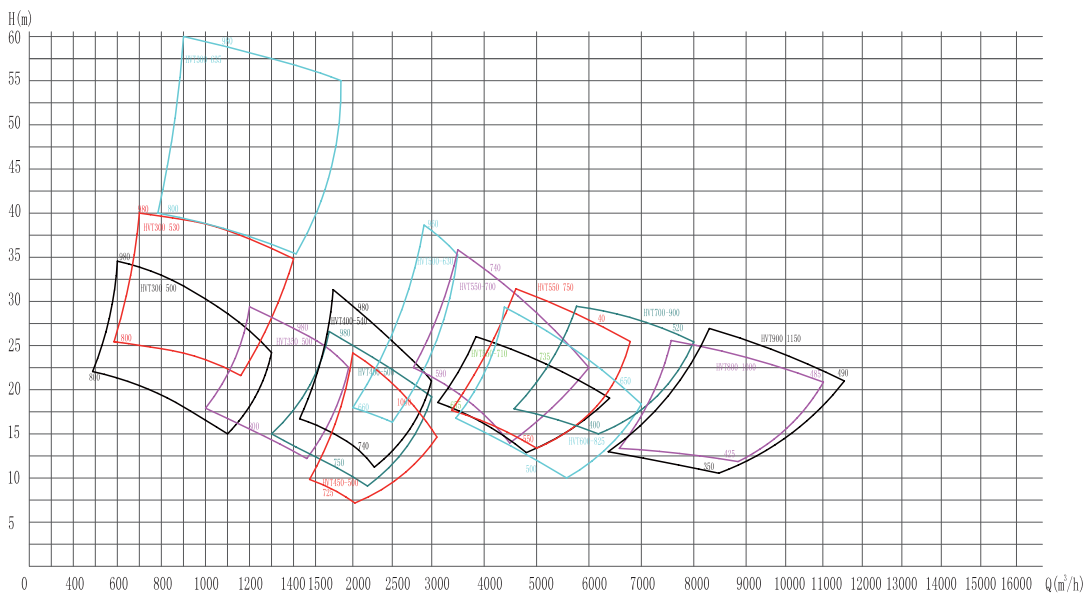


Model Meaning:

HVT 300 / 500



### DESULPHURIZATION SLURRY-CIRCULATING PUMP MODEL CHART



### HVT DESULPHURIZATION SLURRY-CIRCULATING PUMP PARAMETER TABLE

Product model	Q ( m <sup>3</sup> /h )	H (m)	Rotation (rpm)	Efficiency (%)	Weight (kg)
HVT800-1000	8300--11000	15--25	400--470	83--89	6105
HVT700-900	6000--9000	15--30	400--580	82--88	4635
HVT600-825	4300--7000	15--25	500--690	81--88	3465
HVT550-750	4000--6000	15--30	500--690	81--88	3200
HVT550-700	4000--5700	19--26	290--760	80--85	2820
HVT500-650	2400--3700	15--32	600--900	82--87	2440
HVT400-540	1600--3500	14--35	600--990	75--80	2200
HVT400-500	1500--3000	14--25	600--900	75--80	2010
HVT350-500	1100--1800	16--25	600--900	72--78	1850
HVT300-530	800--1500	19--40	600--900	72--78	1765
HVT300-500	750--1400	19--35	600--900	72--78	1610

# LIGHT-DUTY SLURRY PUMP

## LVT Series

Light-duty slurry pump is applied for transporting fluid that contains suspending particles, corrosive/abrasive media, or fluid that will get encrusted and contains gas. It is widely applied for desulphurization, hydrometallurgy, phosphorous chemical, aluminum oxide etc. For its perfect hydraulic performance, wear and anti-corrosion performance, the LVT light-duty slurry pump has been the first choice for special working condition.



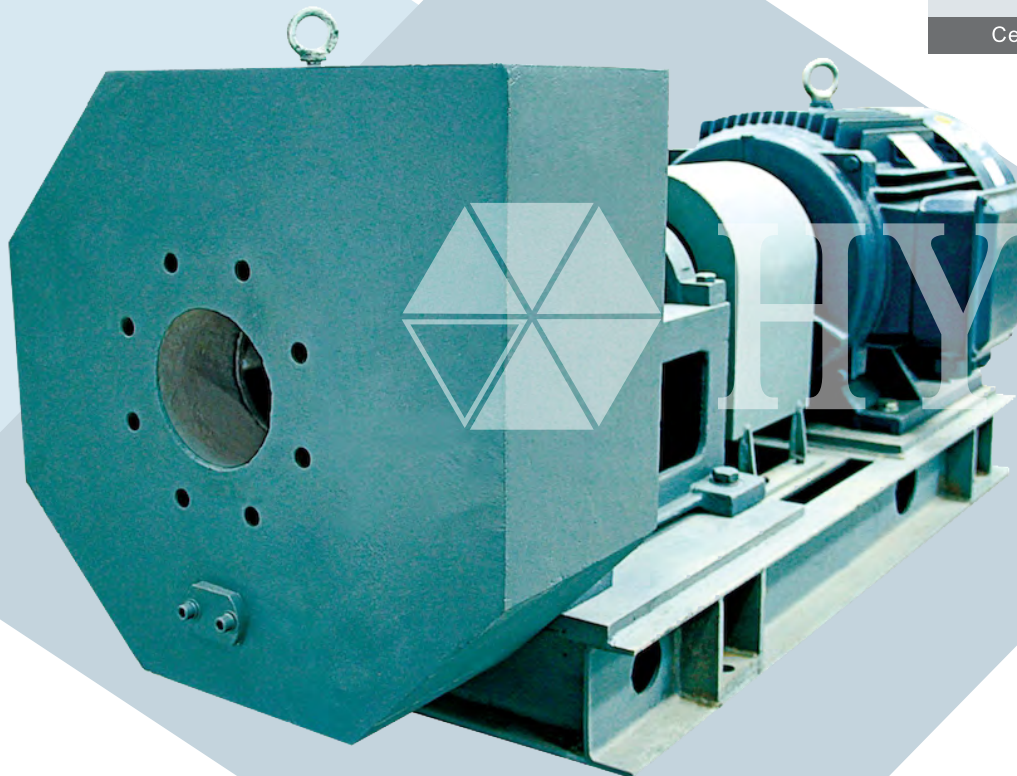
Ceramic Volute



Ceramic Plate

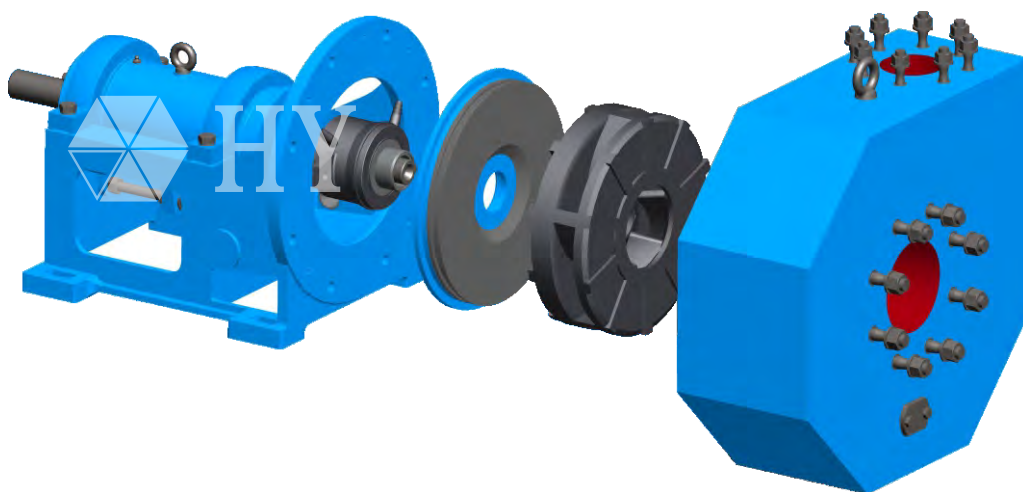


Ceramic Impeller



## LVT LIGHT-DUTY SLURRY PUMP FEATURES

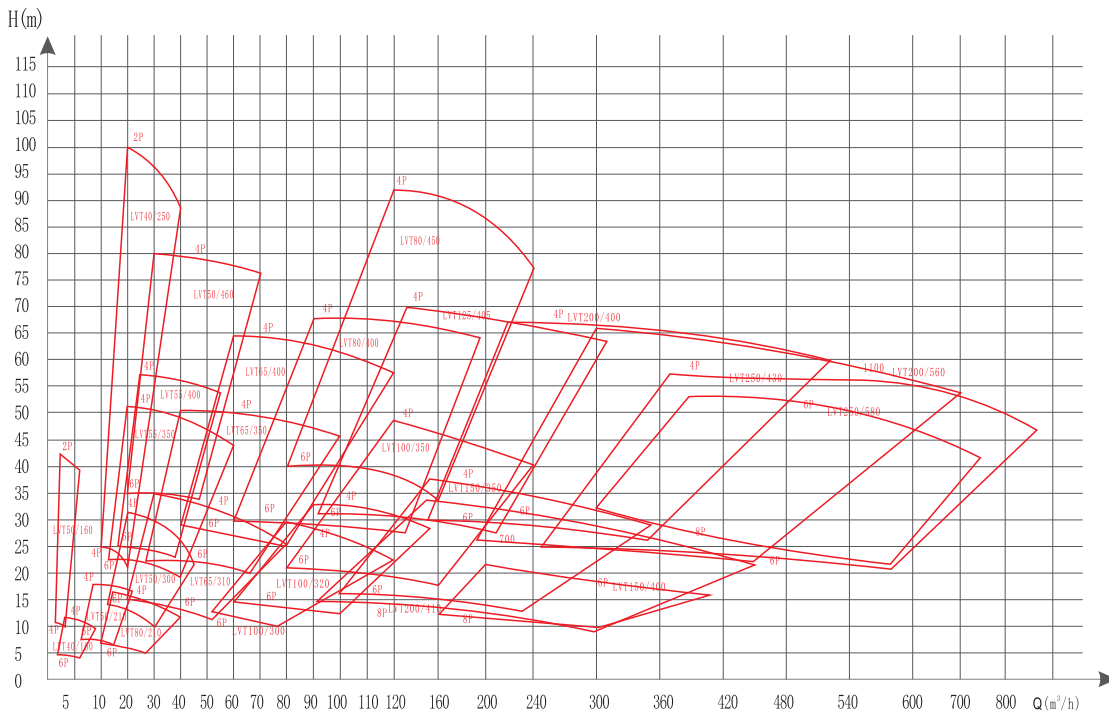
- All the parts contacted with fluid are made by SiC ceramic, it has good abrasion and corrosion resistance performance, which is to ensure the long service life.
- The flow-through components can be adjusted in the axial direction to keep the pump working at high efficiency.
- There is a cone gap between impeller and cover, which helps to stop the particle get into shaft seal, increasing the shaft's service life.
- The rigidity shaft is mounted with roller bearing and centripetal thrust bearing that can stand large radial force and keep shaft working stably.



## LVT LIGHT-DUTY SLURRY PUMP PARAMETER TABLE

Product model	Q ( m <sup>3</sup> /h )	H (m)	Efficiency ( η )	Rotation (r/min)
LVT40-250	6-48	8-45	52	1480-3000
LVT40-350	6-50	10-65	52	980-2000
LVT40-400	8-60	10-70	52	980-2000
LVT50-300	10-48	10-60	52	980-2000
LVT50-350	10-70	16-60	52	980-2000
LVT50-400	15-75	20-80	53	980-2000
LVT50-460	18-96	36-105	55	980-2000
LVT65-310	30-160	10-70	63	980-2000
LVT65-350	27-144	20-95	62	980-2000
LVT65-400	25-130	25-90	56	980-2000
LVT80-400	30-150	20-80	58	725-2000
LVT80-450	45-160	15-90	60	960-1700
LVT100-300	30-225	7-60	65	725-1480
LVT100-320	40-180	15-67	67	725-1480
LVT100-350	150-240	40-80	67	980-1450
LVT125-400	55-450	11-76	66	720-1570
LVT150-300	100-560	10-60	66	980-1480
LVT150-350	95-380	16-72	58	980-1480
LVT200-315	80-700	9-73	73	740-1570
LVT200-400	80-700	9-73	73	740-1570
LVT250-430	70-700	8-62	72	725-1550

**LVT LIGHT-DUTY SLURRY PUMP PARAMETER CHART**



**Light duty slurry pump for desulphurization, hydrometallurgy, phosphorous chemical, aluminum oxide**



SiC slurry pump exhibits very attractive properties in hydrometallurgy, phosphorous chemical and other corrosive, abrasion working conditions with high cost performance, and the service life is 4-6 times that of traditional metal pump.





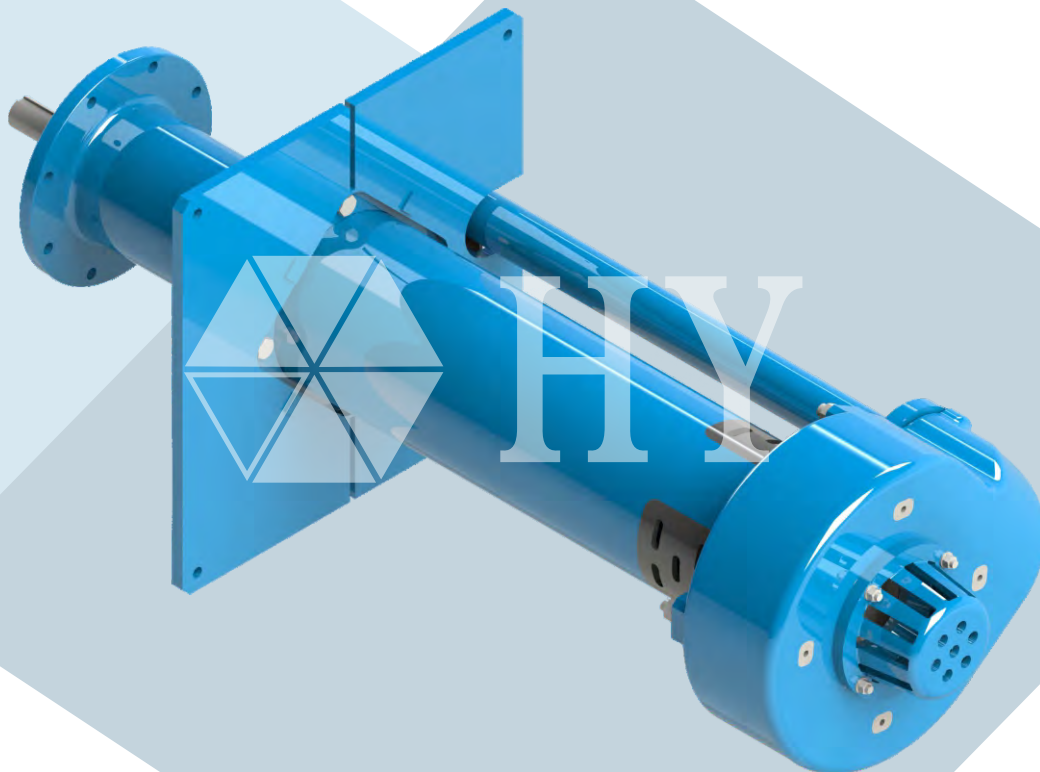


# VERTICAL SLURRY PUMP

## HL Series

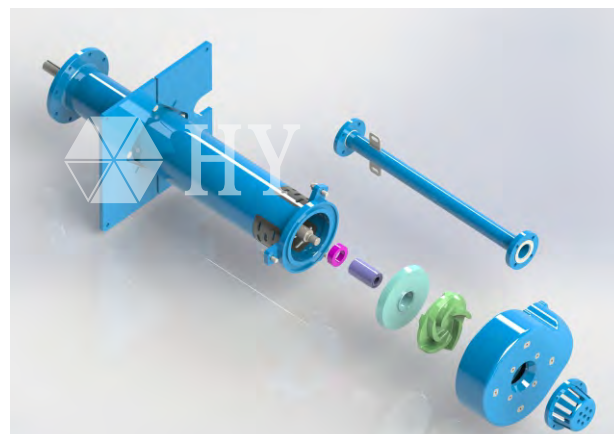
Submersible pump is vertical centrifugal slurry pump, it is used for conveying abrasion, coarse particles and high concentration slurry under submerged liquid. No seal and seal water is required, and it can work well under the condition of insufficient intake.

HL series submersible pump wet end parts are made by SiC ceramics, with good wear resistance, corrosion resistance and long service life. It is especially suitable for various pit pumps in mines, coal cleaning and desulphurization systems.

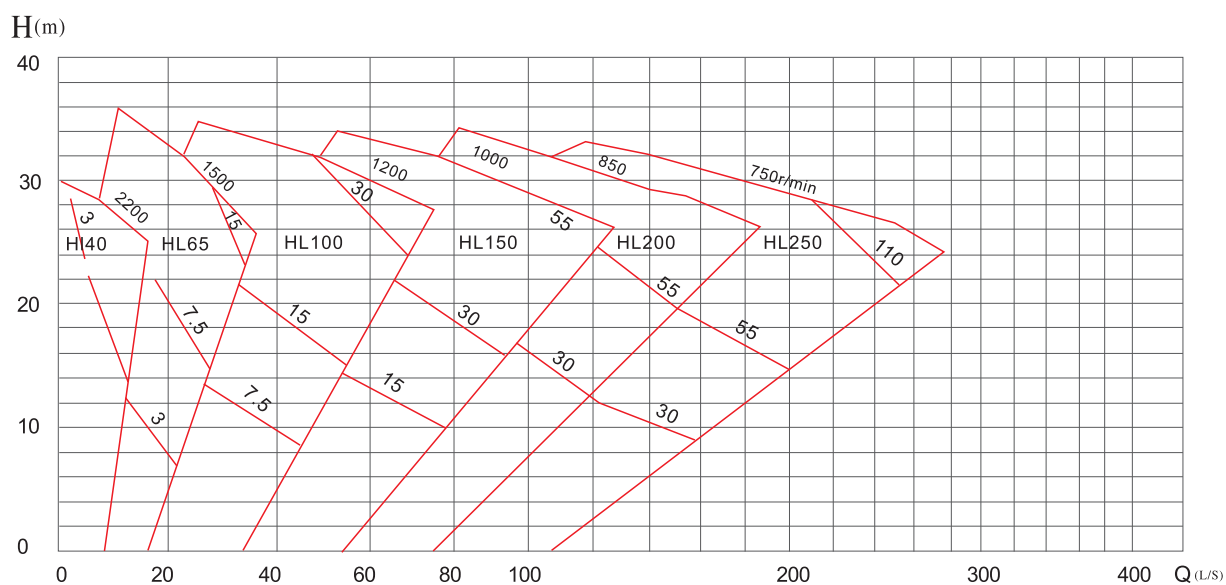


## HL SUBMERSIBLE PUMP STRUCTURE FEATURES:

- It is vertical cantilever structure.
- Silicon carbide ceramic impeller, with a disassembling ring and easy for impeller remove.
- All wet end parts are made by SiC ceramic ,with excellent abrasion and corrosion resistance, which can improve the overall service life of the pump.
- It use the cylindrical bearing assembly and high capacity bearing, and the bearing is lubricated with grease.
- The gap between the impeller and the guard plate can be adjusted to ensure the efficient operation of the pump.
- Without shaft seal.
- Direct and v-belt transmission can be used for pump and driver.



## VERTICAL SLURRY PUMP PARAMETER CHART



## VERTICAL SLURRY PUMP PARAMETER TABLE

Product model	Maximum power (KW)	Clean water performance			Impeller		
		Q (m <sup>3</sup> /h)	H (m)	Rotation n(r/min)	Efficiency η (%)	Vane quantity	Impeller outer diameter
HL40	15	19.44--43.2	4.5--28.5	1000--2200	40	5	188
HL65	30	23.4--111	5--29.5	700--1500	50	5	280
HL100	75	54--289	5--35	500--1200	56	5	370
HL150	110	108--479.2	805--40	500--1000	52	5	450
HL200	110	189--891	605--37	400--850	65	5	520
HL250	200	261--1089	7.5--33.5	400--750	60	5	575

# WEAR-RESISTANT COATING AND REPAIR

## COATING

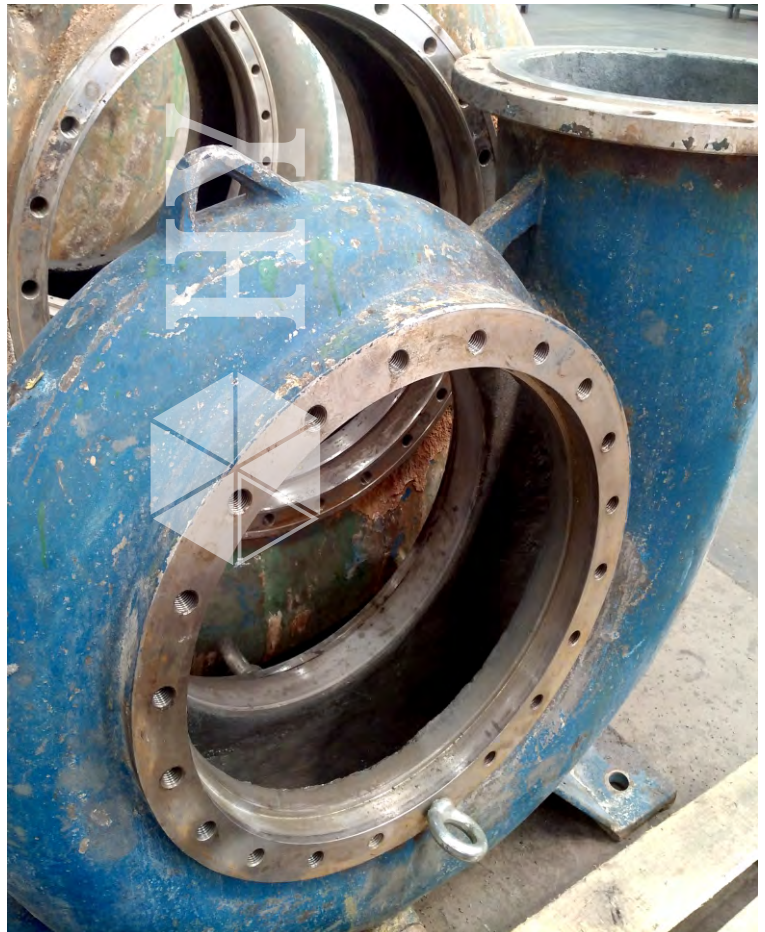
Verified by a lot of experiments and cases, SiC coating layer on metal surface enables flow-through components to be wear and corrosion resistant.



After coating, the service life is 1.5-3 times that of metal pump.



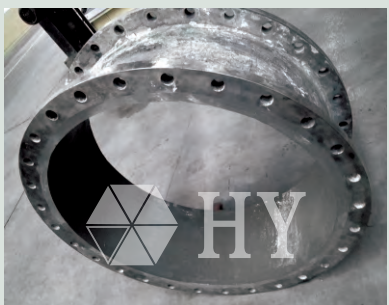
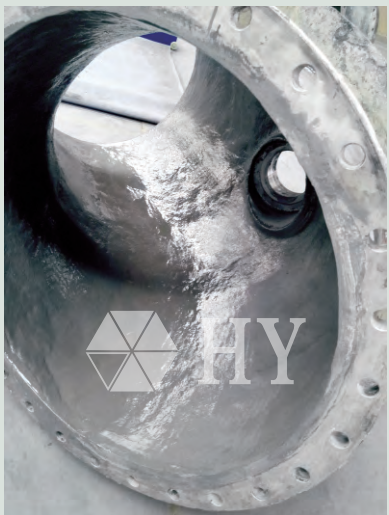
After coating the service life of pump came to 45 days, much longer than 25 days of the metal material.



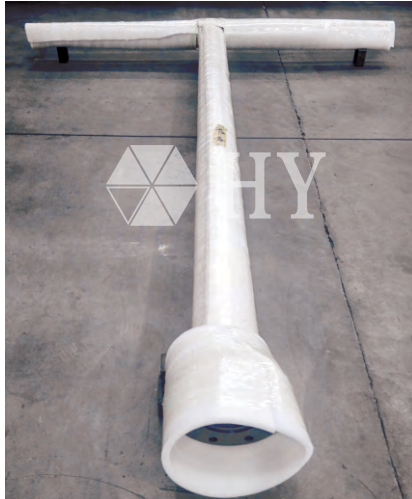
# WEAR-RESISTANT COATING AND REPAIR

## REPARING

If the metal flow-through components are worn and corroded under working, we can repair them by SiC material and make them serve a longer life.



An axial-flow pump was hurt after working for 8 months, so we repair it with SiC material, and it has already worked for 12 months.



The service life of the original agitator blade in sulfuric acid pool is 3.5 months, and it reaches 8 months after repair.



An  $\Phi 900$  metal impeller of desulphurization could only work for 4 months, and after repaired by SiC, it has already worked for 7 months.



SAZE TAJHIZ SIWAN

تماس با ما



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