



弘源·HONGYUAN
Solution for corrosion and abrasion

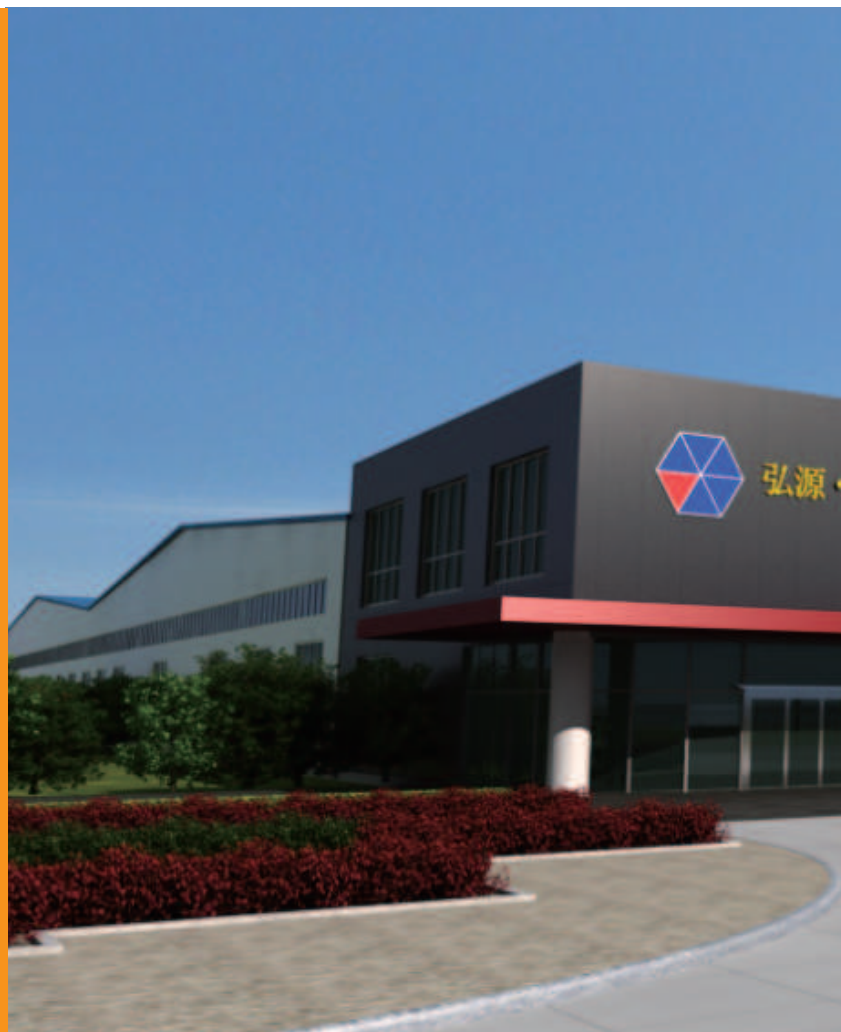
SILICON CARBIDE SLURRY PUMP



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.

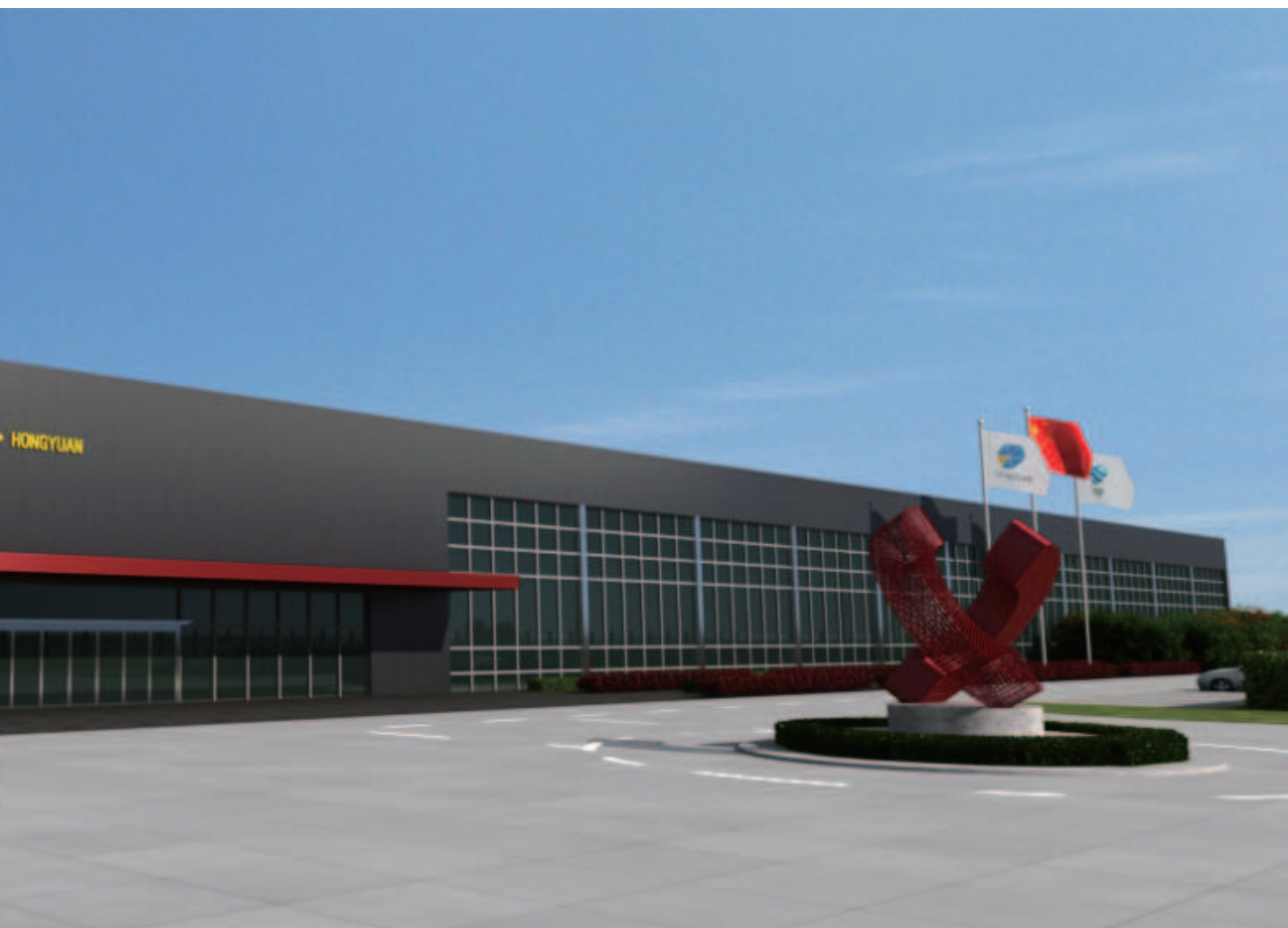
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ABOUT HONGYUAN

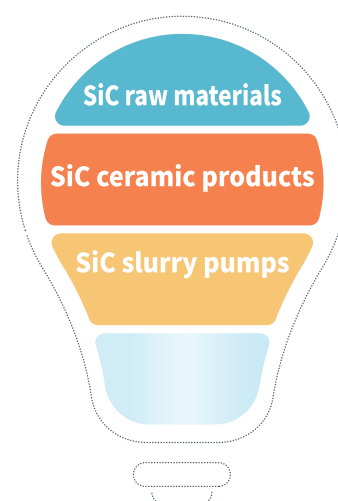
Hanjiang Hongyuan Xiangyang Silicon Carbide Special Ceramics Co.,Ltd., makes full use of the excellent properties of silicon carbide ceramics, such as wear resistance, corrosion resistance and high temperature resistance, which makes SiC slurry pumps more competitive in the working conditions of strong abrasion, strong corrosion, high density, large particles and impact. The overall technology



has reached the international advanced level.

Hongyuan obtains 20 Chinese invention patents, 49 Chinese utility model patents, 10 Chinese design patents, 1 South African invention patent, and presides over 3 revisions of line standards.

With first-rate technology and service, Hongyuan is competent to provide you with customized SiC products and slurry pumps.



WHY TO CHOOSE SILICON CARBIDE SLURRY PUMP

4-10 times longer life than metal pump

- **Abrasion resistance:** hardness is near to diamond
- **Corrosion resistance:** can resist almost all acids and alkalis
- **High temperature resistance:** 80°C-180°C depending on medium

Sintered silicon carbide pumps

sintered silicon carbide materials
silicon carbide composite materials

Ideal material for abrasion corrosion, high temperature and impacts resistance

04

Non-metallic material pumps

natural rubber
synthetic rubber
aluminum oxide ceramics

poor impact and high temperature resistance

03

High chrome white cast iron pumps

Cr15Mo3, Cr26

high hardness, but not ideal for heavy abrasion

02

Low chrome white cast iron pumps

nickel hard cast iron

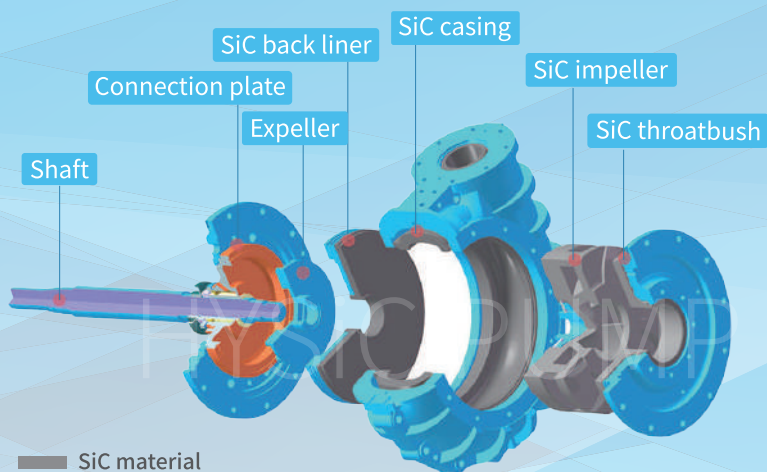
low hardness, not resistant to abrasion

01

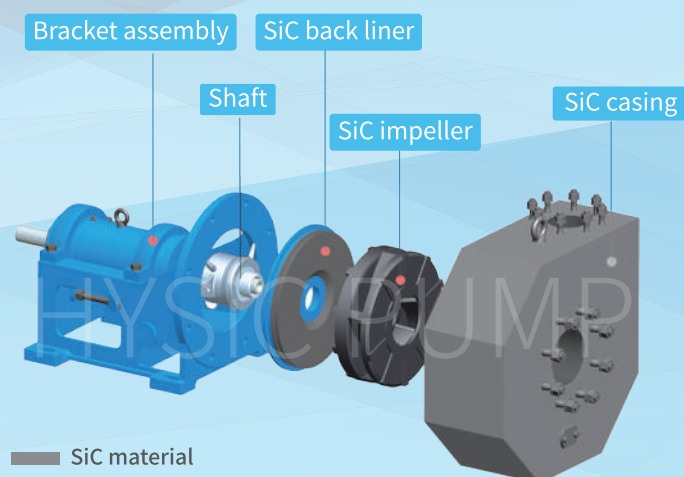


SiC Slurry Pump Structure

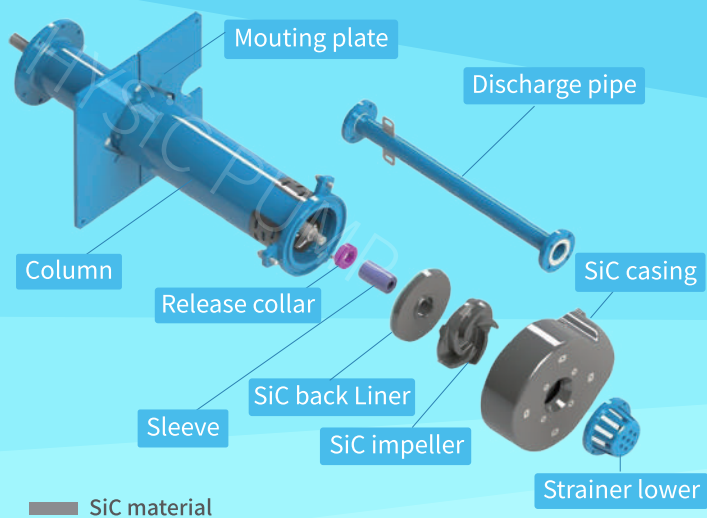
Hongyuan SiC Slurry Pumps, widely used in mineral processing, smelting, chemical industry, desulfurization, contain four main categories: heavy duty slurry pumps, light duty pumps, vertical slurry pumps, desulfurization circulating pumps, including HAH, ZVT, HG, LVT, HL, HVT and other series.



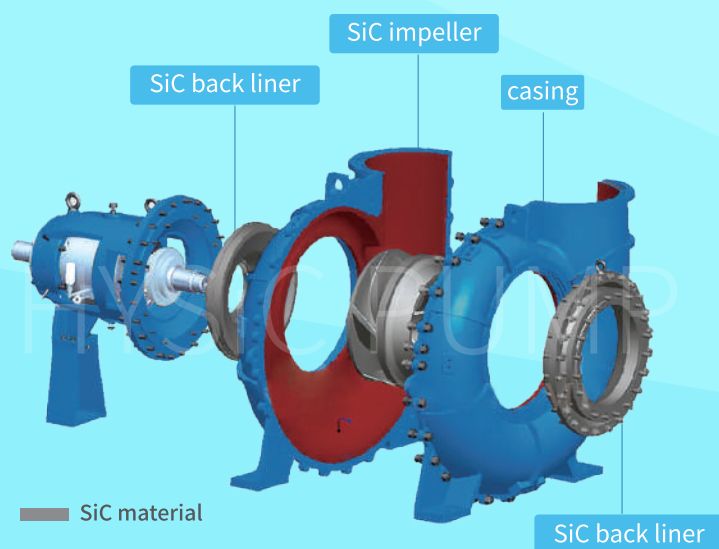
Heavy Duty Slurry Pumps



Light Duty Pumps



Vertical Submerged Pumps



Desulfurization Circulating Pumps

HAH SERIES HEAVY DUTY SLURRY PUMP

● Bracket assembly with long life, large space, no leakage

● Reliable installation
● Prevent slurry leakage

● Integral single casing
● Easy to disassemble

● Easy to adjust and operate

● Silicon carbide by one-piece molding
● Stable and reliable sealing

Product introduction

Widely used in mineral, metallurgy, alumina oxide, coal and other industries

Pumped Medium

Heavy abrasive, corrosive

Discharge Diameter

DN25-DN300

Parameters

Capacity: 5-3600m³/h
Head: 5-68m

Typical working station

Mineral processing

Mill pump, concentrate pump, tailings pump, filter press feed pumps, thickener underflow pumps

Alumina

Aluminum oxide intermediate pump

Others

Calcium slag slurry pump

Metallurgy

Secondary feed pump, demagnesia slurry pump, anode sludge pump

Product specifications

Num.	Product model	Max. power (kW)	Clear water performance			
			Q(m ³ /h)	H(m)	Speed n(r/min)	Max. Efficiency η (%)
1	HAH25-160	15	9-21	4-47	1200-3200	38
2	HAH40-185	15	19-40	3-44	1200-2800	45
3	HAH50-230	30	28-76	13-47	1300-2300	58
4	HAH80-256	60	28-198	5-53	1000-2200	74
5	HAH100-400	300	115-300	12-48	800-1400	68
6	HAH150-560	300	228-720	10-57	500-1100	72
7	HAH200-740	710	350-1150	11-64	400-850	74
8	HAH250-813	710	415-1680	7-64	300-800	78.5
9	HAH300-1000	1200	685-2460	10-59	300-600	76
10	HAH350-1100	1200	500-3600	11-64	250-550	85

ZVT SERIES HEAVY DUTY SLURRY PUMP

Product introduction

Widely used in mineral processing, metallurgy, alumina, coal and other industries

Pumped Medium

Heavy abrasive, corrosive

Discharge Diameter

DN50-DN300

Parameters

Capacity: 12-2333m³/h
Head: 7-134m

Typical working station

Mineral

Mill pump, concentrate pump, tailings pump, filter press feed pumps, thickener underflow pumps

Alumina

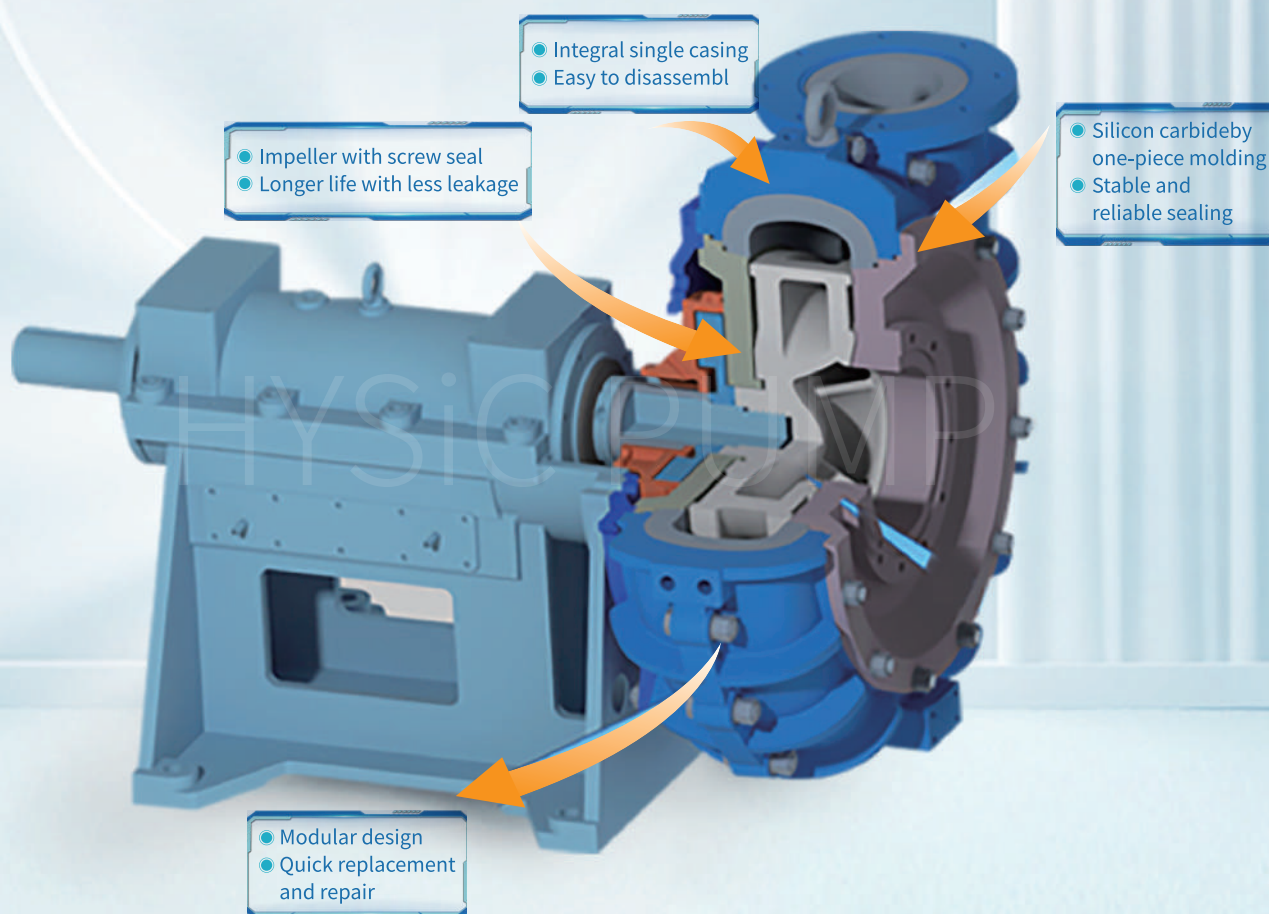
Aluminum intermediate pump

Others

Calcium slag slurry pump

Metallurgy

Secondary feed pump, demagnesia slurry pump, anode sludge pump



► Product specifications

Num.	Product model	Max. power (kW)	Clear water performance			
			Q(m³/h)	H(m)	Speed n(r/min)	Max. Efficiency η(%)
1	ZVT50-33	18.5	14-50	8-41	700-1480	42
2	ZVT50-46	55	31-95	16-85	700-1480	40
3	ZVT50-50	90	31-106	18-107	700-1480	42
4	ZVT65-30	15	27-82	7-36	700-1460	64
5	ZVT80-36	45	56-170	9-49	700-1480	64
6	ZVT80-42	75	77-240	13-70	700-1480	61
7	ZVT80-52	160	51-242	22-108	700-1480	59
8	ZVT100-36	55	61-245	10-50	700-1480	73
9	ZVT100-42	90	84-255	16-72	700-1480	66
10	ZVT100-50	160	115-345	20-100	700-1480	69
11	ZVT150-50	75	186-450	9-43	490-980	74
12	ZVT150-60	160	249-633	26-71	700-1040	72.9
13	ZVT150-65	200	150-600	18-76	490-980	72
14	ZVT150-70	185	93-401	22-91	490-980	65
15	ZVT200-60	185	204-655	13-62	490-990	72
16	ZVT200-65	250	235-950	16-72	490-980	82
17	ZVT200-70	315	205-976	20-87	490-980	78
18	ZVT200-75	355	225-900	28-102	490-980	75
19	ZVT200-85	560	221-907	32-134	490-980	73
20	ZVT250-65	315	299-1249	16-71	490-980	80
21	ZVT250-75	560	440-1480	20-97	490-980	75
22	ZVT250-85	800	376-1504	30-128	490-980	78
23	ZVT250-96	560	403-1466	25-94	400-730	80
24	ZVT300-56	250	395-1568	10-46	400-980	85
25	ZVT300-70	630	830-2500	14-75	490-980	82.6
26	ZVT300-90	560	505-1844	22-80	400-730	84
27	ZVT300-100	450	464-1826	15-65	300-590	83

HG SERIES HEAVY DUTY SLURRY PUMP

Application fields

Mineral processing, metallurgy, high pressure, long distance slurry transport

Pumped Medium

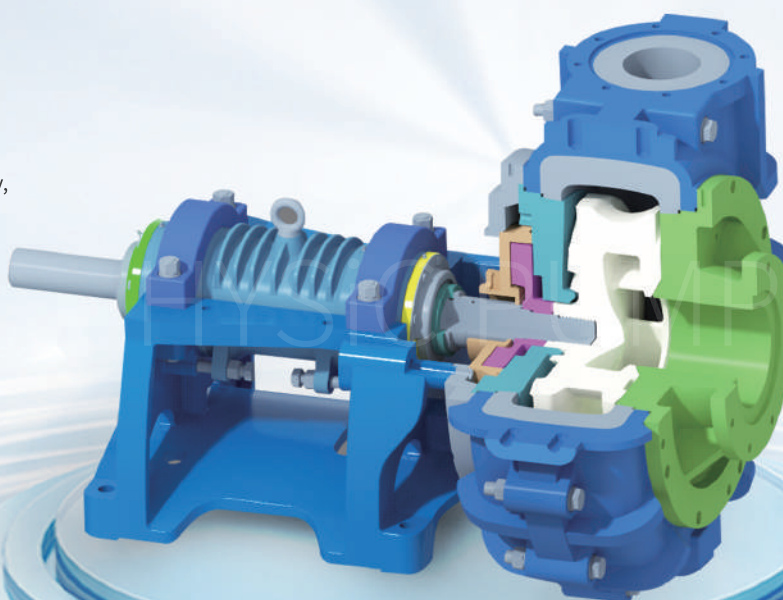
Abrasive, corrosive

Discharge Diameter

DN65-DN300

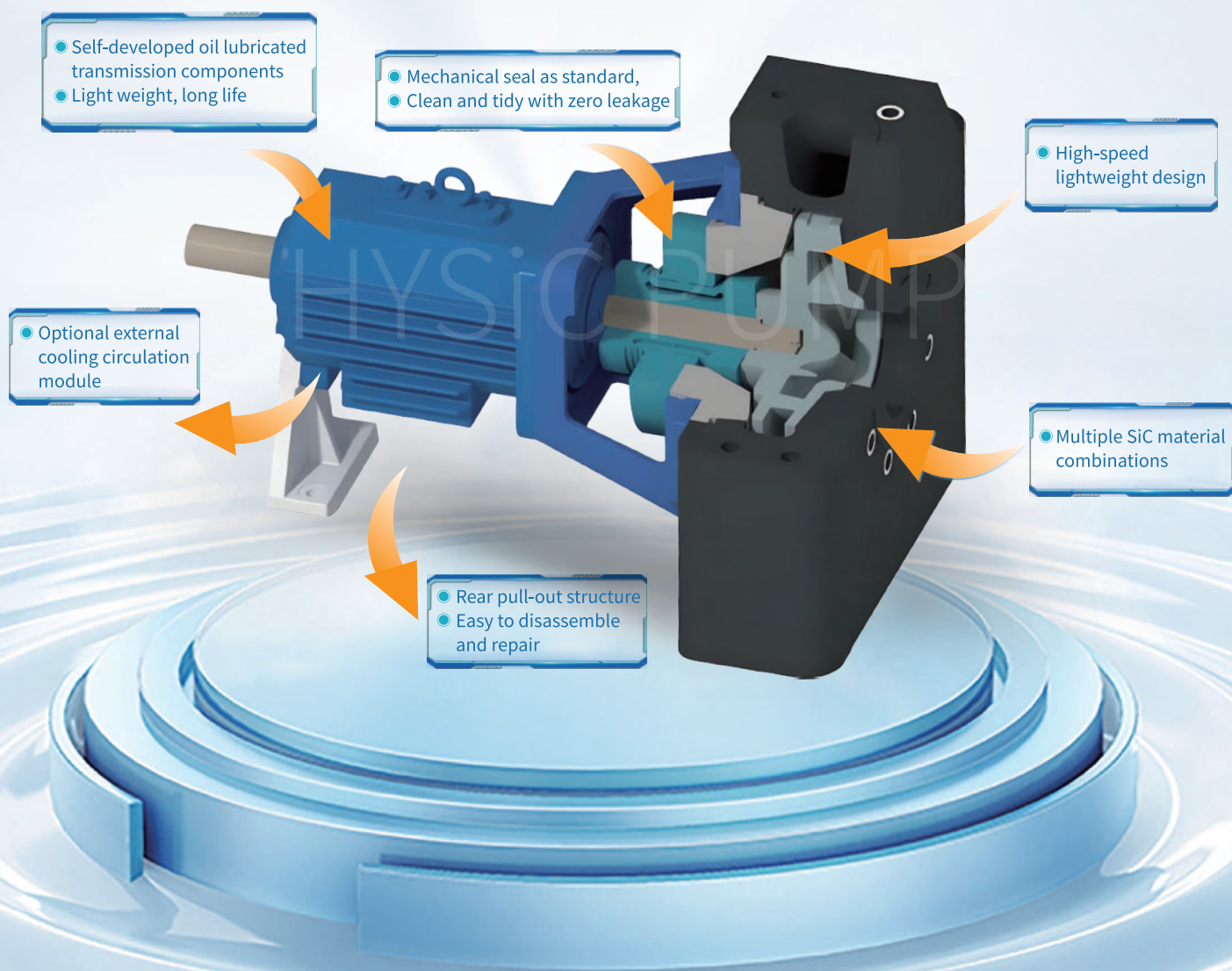
Parameters

Capacity: 30-1900m³/h
Head: 15-128m



Num.	Product model	Max. power (kW)	Clear water performance			
			Q(m ³ /h)	H(m)	Speed n(r/min)	Max. Efficiency η (%)
1	HG65-400	60	30-100	16-66	980-1480	65
2	HG80-510	300	100-248	18-97	600-1400	56
3	HG100-500	300	95-360	26-94	980-1480	80
4	HG150-650	200	300-600	17-70	490-980	73
5	HG150-710	220	180-550	22-90	490-980	66
6	HG150-700	387	254-584	49-92	720-990	60.5
7	HG200-650	250	312-913	15-70	490-980	75
8	HG200-750	355	225-900	23-103	490-980	80
9	HG200-700	315	500-980	20-78	490-980	80
10	HG200-850	560	460-900	32-128	490-980	72
11	HG250-650	315	413-1210	14-67	490-980	75
12	HG250-740	710	576-1440	16-89	450-980	75
13	HG250-850	800	750-1500	30-120	490-980	80
14	HG250-960	830	510-1380	24-87	400-740	71
15	HG300-810	852	815-1900	38-73	700-980	71

HY SERIES METALLURGICAL CHEMICAL PUMP



Product introduction

Widely used in metallurgy, phosphorus chemical industry, petrochemical coal chemical, desulfurization and other industries

Pumped Medium

Corrosive, heavy abrasive
Temperature 0-100°C

Discharge Diameter

DN30-DN250

Parameters

Capacity: 15-1200m³/h
Head: 10-95m

Typical working station

Desulphurization

Limestone slurry pump, absorption circulation pump, gypsum discharge pump

Phosphorus chemical industry

Phosphoric acid transfer pump, extraction slurry pump

Metallurgy

Oxygen autoclave, filter press, anode sludge pump

Others

Lithium iron phosphate filter press pump

Product specifications

Num.	Product model	Discharge diameter (mm)	Impeller diameter (mm)	Clear water performance		
				H(m)	Speed n(r/min)	Max. efficiency η (%)
1	HY32-250	32	250	7.5-27.5	1450-2950	32.8
2	HY40-300	40	300	12-44	1450-2950	35.5
3	HY50-300	65	300	21-77	1450-2950	46
4	HY65-300	80	300	30-110	1450-2950	58
5	HY80-250	100	250	48-177	1450-2950	59
6	HY125-315	125	315	66-242	740-1480	62
7	HY150-400	150	400	120-440	740-1480	73.2
8	HY200-400	200	400	180-660	740-1480	75.9
9	HY250-400	250	400	300-1100	740-1480	79.1

LVT SERIES LIGHT DUTY SLURRY PUMP

Product introduction

Widely used in flue gas desulfurization, metallurgy, phosphorus chemical industry, alumina and other industries.

Pumped Medium

Corrosive, heavy abrasive
Temperature 0-100°C

Discharge Diameter

DN40-DN250

Parameters

Capacity: 6-1300m³/h
Head: 8-105m

Typical working station

Desulphurization

Limestone slurry pump, absorption circulation pump, gypsum discharge pump

Alumina

Aluminum intermediate pump

Metallurgy

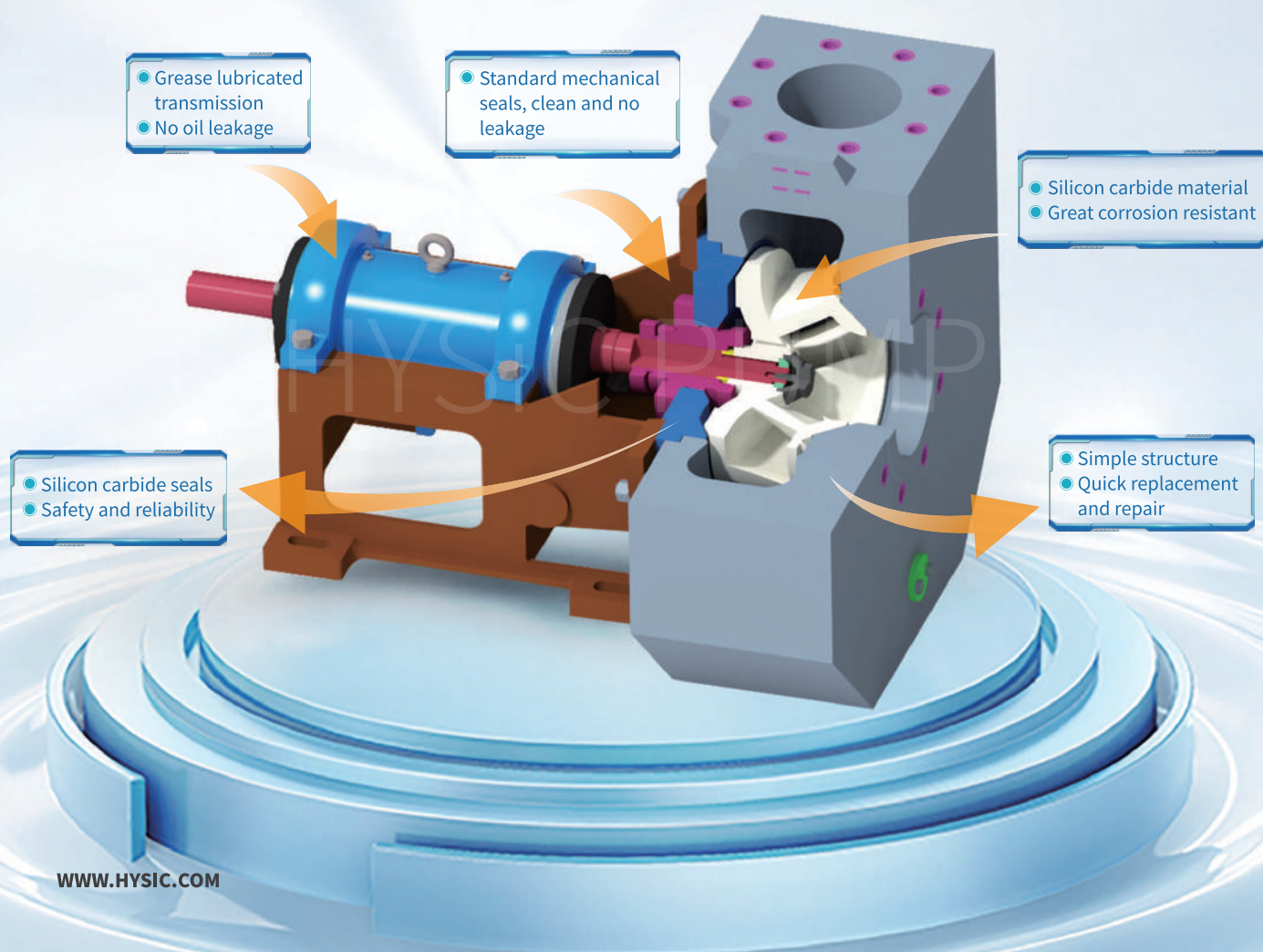
Oxygen autoclave, anode sludge pump

Phosphorus chemical industry

Phosphoric acid transfer pump, extraction slurry pump

Others

Lithium iron phosphate filter press pump



► Product specifications

Num.	Product model	Clear water performance			
		Q(m³/h)	H(m)	Speed n(r/min)	Max. efficiency η(%)
1	LVT40-250	10-35	4-21	740-1480	29
2	LVT40-350	11-37	10-44	740-1480	35
3	LVT40-400	15-50	14-67	740-1480	30
4	LVT50-300	11-43	6-30	740-1480	45
5	LVT50-350	21-70	10-45	740-1480	45
6	LVT50-400	24-80	14-60	740-1480	50
7	LVT50-460	37-124	20-88	740-1480	40
8	LVT65-310	27-105	7-38	740-1480	64
9	LVT65-350	41-148	10-48	740-1480	53
10	LVT65-400	41-138	14-67	740-1480	54
11	LVT80-400	74-245	15-66	740-1480	68
12	LVT80-450	45-160	15-90	960-1700	60
13	LVT100-300	30-225	7-60	725-1480	69
14	LVT100-320	49-178	6-34	740-1480	62
15	LVT100-350	56-206	11-50	740-1480	69
16	LVT125-405	105-385	14-67	740-1480	75
17	LVT150-300	113-412	6-32	740-1480	65
18	LVT150-350	95-380	16-72	980-1480	62
19	LVT200-315	144-528	6-34	740-1480	74
20	LVT200-400	80-700	9-73	740-1570	75
21	LVT250-430	195-715	5-27	490-980	80

HVT SERIES DESULFURIZATION CIRCULATING SLURRY PUMP

Application fields

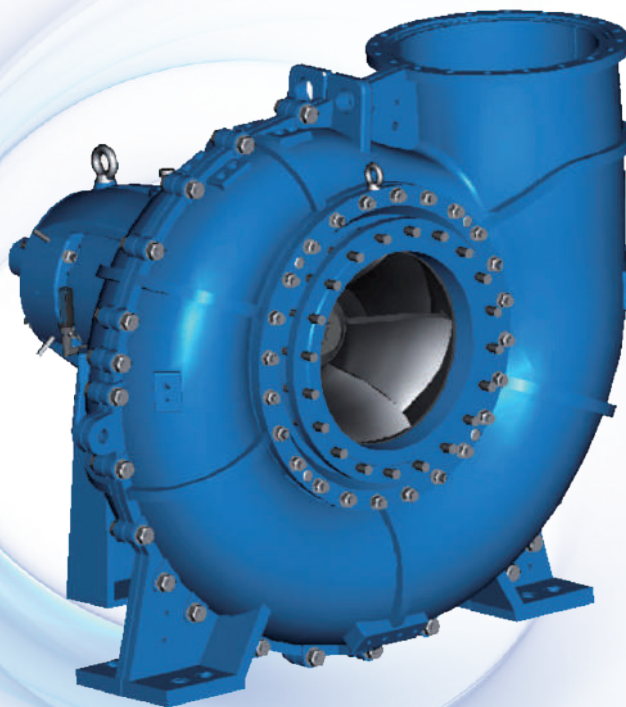
Coal-fired power plants, steel mills sinter and the Ammonia desulfurization

Pumped Medium

Corrosive, slightly abrasive

Parameters

Capacity: 750-14000m³/h
Head: 14-40m



► Product specifications

Num.	Product model	Clear water performance			
		Q(m ³ /h)	H(m)	Speed n(r/min)	Max. efficiency η(%)
1	HVT1000-1300	10000-14000	18-30	400-460	90
2	HVT1000-1200	10000-13500	18-28	400-470	90
3	HVT900-1100	9200-12500	15-25	400-460	90
4	HVT800-1000	8300-11000	15-25	400-470	89
5	HVT700-900	6000-9000	15-30	400-580	88
6	HVT600-825	4300-7000	15-25	500-690	88
7	HVT550-750	4000-6000	15-30	500-690	88
8	HVT550-750	4000-5700	19-26	590-760	85
9	HVT500-650	2400-3700	15-32	600-900	87
10	HVT400-540	1600-3500	14-35	600-990	80
11	HVT400-500	1500-3000	14-25	600-990	80
12	HVT350-500	1100-1800	16-25	600-990	78
13	HVT300-530	800-1500	19-40	600-990	78
14	HVT300-500	338-1237	6-32	490-980	79

HL SERIES VERTICAL SLURRY PUMP

01

Vertical pumps, immersed under liquid, transport abrasive, coarse particles, highly concentrated slurries.

02

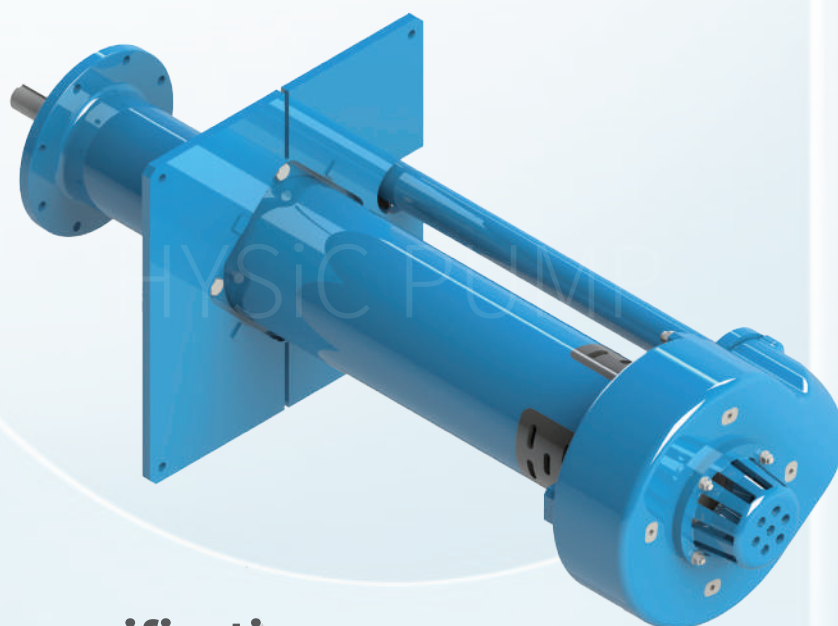
No need shaft seal, it can work well with insufficient suction volume.

03

Silicon carbide material, abrasion resistance, corrosion resistance, long service life.

04

Suitable for various pit pumps in mining, coal and desulfurization industries



► Product specifications

Num.	Product model	Clear water performance			
		Q(m³/h)	H(m)	Speed n(r/min)	Max. efficiency η(%)
1	HL40	18-28	17-30	1800-2350	49
2	HL65	47-84	5-30	1100-1480	50
3	HL100	54-289	15-27	500-1200	60
4	HL150	108-480	8-40	500-1000	58
5	HL200	189-891	7-37	400-850	68
6	HL250	261-1089	8-34	400-750	63
7	HL300	288-1267	7-33	350-700	55

APPLICATION CASES IN THE FIELD OF MINERAL PROCESSING

Iron mine in Sichuan



Hongyuan undertakes operation and maintenance of this project which used several types of SiC slurry pumps, including: HAH250-813, ZVT250-75, more than 200 units, used for mill pumps, cyclone feed pumps, concentrate pumps, tailings pumps and other work stations.



Tungsten and molybdenum mine in Henan



Original pumps	VS	Hongyuan SiC pumps
30-60 days	◀ Service life ▶	270-300 days
High chrome	◀ Material ▶	Sintered silicon carbide
Working station: mill pumps		
Working condition: heavy abrasion		

Copper gold mine in Fujian



Original pumps	VS	Hongyuan SiC pumps
15-30 days	◀ Service life ▶	360 days
metal	◀ Material ▶	Sintered silicon carbide
Working station: thickener bottom flow pumps		
Working condition: moderate abrasion		



APPLICATION CASES IN THE FIELD OF HYDROMETALLURGY

Lead and zinc smelting project in Guangdong



Original pumps	VS	Hongyuan SiC pumps
60 days	◀ Service life ▶	510 days
Stainless Steel	◀ Material ▶	Sintered silicon carbide
Working station: pressurized kettle feed pumps		
Working condition: heavy corrosion, light abrasion		



Uranium-Molybdenum mine in Hebei



Original pumps	VS	Hongyuan SiC pumps
7 days	◀ Service life ▶	270-300 days
Fluoroplastic	Material	Sintered silicon carbide
Working station: leach plant filter press feed pump		
Working condition: corrosion, abrasion, cavitation		

Lead and zinc mine in Yunnan



Original pumps	VS	Hongyuan SiC pumps
7-15 days	◀ Service life ▶	540 days
metal	◀ Material ▶	Sintered silicon carbide
Working station: feed pumps		
Working condition: heavy abrasion, corrosion		



APPLICATION CASES IN THE CHEMICAL INDUSTRY

Phosphorus chemical project in Hubei



Original pumps	VS	Hongyuan SiC pumps
90 days	◀ Service life ▶	300 days
Stainless Steel	◀ Material ▶	Sintered silicon carbide
Working station: mill under cyclone feed pumps		
Working condition: moderate abrasion		



Phosphorus chemical project in Hubei



Original pumps	VS	Hongyuan SiC pumps
87 days	◀ Service life ▶	360 days
Stainless Steel	◀ Material ▶	Sintered silicon carbide
Working station: scum return pump		
Working condition: extra heavy abrasion		

Phosphorus chemical project in Guizhou



Original pumps	VS	Hongyuan SiC pumps
120 days	◀ Service life ▶	500 days
metal	◀ Material ▶	Sintered silicon carbide
Working station: scum return pump		
Working condition: moderate abrasion		



APPLICATION CASES WITH OVERSEAS CUSTOMERS



Copper Mine project in Chile



Copper Mine project in Chile



Copper Mine project in Chile



Copper Mine Project in Africa



Copper Mine Project in Africa



Copper Mine Project in Africa



Lithium Mine project in Indonesia



Alumina Mine project in Russia



Copper Mine Project in Africa



Copper Mine Project in Africa

MANAGEMENT SYSTEM

Hongyuan has the certificates of ISO9001 certificate of quality management system, ISO45001 certificate of occupation health & safety management system, ISO14001 certificate of environmental management system, as well as GB/T29490 intellectual property management system.



ISO 9001



ISO 45001



ISO 14001



CERTIFICATES & QUALIFICATIONS

Hubei Provincial Industrial Design Center

Hubei Provincial-level Green Factory

Hubei Provincial Science And Innovation "New Species" Enterprise Gazelle Enterprises

Hubei Provincial Expert Workstation



National High-tech Enterprise

National-level Specialized, Sophisticated, Distinctive And Innovative: "Little Giant" Enterprise

National Intellectual Property Demonstration Enterprise

Patent Certificates

20

Chinese invention patents

49

Chinese utility model patents

10

Chinese design patents

1

South African invention patent



MARKETING GLOBALIZATION



弘源·HONGYUAN
Solution for corrosion and abrasion

HanjiangHongyuan Xiangyang Silicon Carbide Special Ceramics Co.,Ltd

ADD: Middle Of Zhonghang Road, Aerospace Industrial Park, Xiangyang City, Hubei Province, China

Maggie Feng

Tel: +86-15072239775

Fax: +86-710-3155070

Email: sales@hysic.com

Website: www.hysic.com