



ZHENXING

PETROCHEMICAL MACHINERY



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Zhenxing Integrity:

Honest, Responsible, Innovative, Pragmatic

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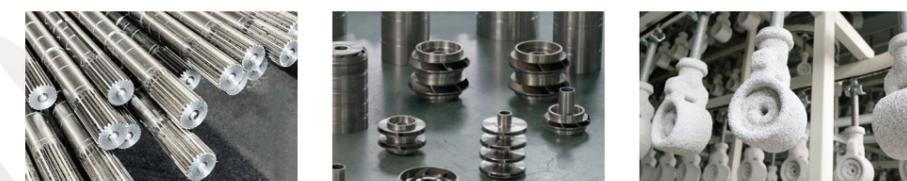


About Us

Zhenxing Petrochemical Machinery CO.,Ltd was founded in 1985 headquartered in Ruian, China, covers an area of 76,000m². We are a leading manufacturer who specialized in the development, design, production and sales of ESP stages, pump shaft and other spare parts for the submersible pump. As one of the earliest enterprise in petrochemical machinery industry, the company has become a key manufacturer of ESP accessories in China with annual production capacity of 5 million sets of pump stages and 1000 tons of pump shafts.

Zhenxing has experienced technical experts, strong science & technology ability, precision equipment and perfect quality control system. Now the company is officially recognized as National High-tech Enterprise and Provincial R&D Center. Besides the leading technology, quality control has always been considering as the lifeline of Zhenxing. We have granted ISO9001 certificate, ISO14001 cetificate and GB/T 28001 certificate.

After many years of experiences in the industry, Zhenxing has not only obtained many domestic top customers but also gained a reputation of excellence worldwide by our world-class quality and absolutely customer satisfaction spirit. No matter where you are, we are always your best ESP accessories provider.



Enterprise HONOR

Three system certificates



Certificate of Honor



Invention Patent



Utility Model Patent



Milestones



1987-2000

Founded in 1987, the company began with traditional machining and gradually developed expertise in manufacturing oil and gas extraction and artificial lift components.

2000

Introduced advanced CNC machines and 3D scanning technology, significantly improving machining precision, production efficiency, and quality inspection capability.

2014

Achieved a 35% share of the domestic market, ranking second nationwide in its specialized segment.

2015

Launched the “Machine Substitution for Labor” initiative, integrating gantry robotic systems and automated heat-treatment equipment, with over RMB 10 million invested in smart manufacturing upgrades within three years.

2022

Recorded RMB 278 million in annual revenue, with exports accounting for over 50% of total sales. Products were certified by major oil and gas service companies in the United States, Russia, and other global markets.

2023

Recognized as a Leading Industrial Enterprise in Rui'an City, and applied to establish a Provincial Enterprise Research Institute and Postdoctoral Research Workstation, further strengthening innovation and R&D capabilities.

Strength

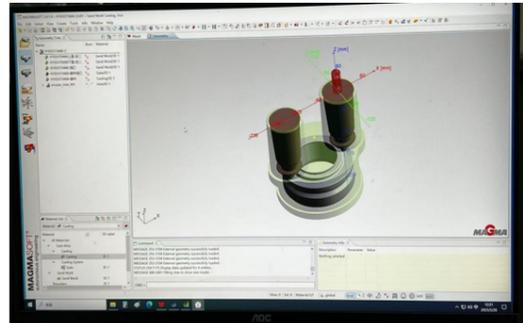
Production Equipment

Testing Equipment

3D printing



Casting simulation software3D



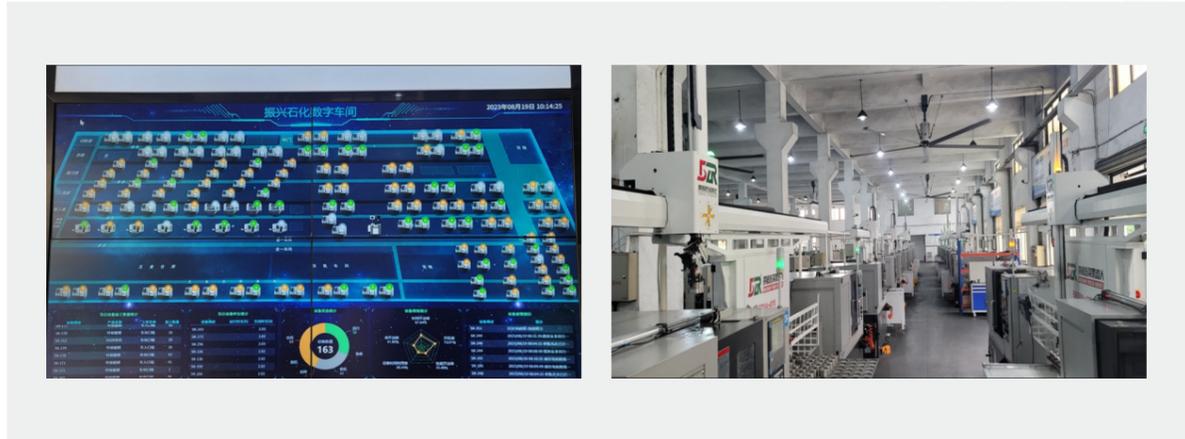
Spectrometer



CMM



Digital Workshop



Automated Casting

3D scanning & Tensile Tester



Product Introduction- ESP STAGE



ESP STAGE

Our leading product is ESP stage which have been well manufactured by the following material

1. Low Nickel austenitic cast iron(This is a developed in-house material which has been awarded national patent Number of the patent 200710163444.7)
2. Nickel alloy cast iron
3. Gray cast iron
4. Nodular cast iron
5. Copper alloy
6. Tungsten Carbide and Teflon Coating for the stage
7. Duplex

With our strong R&D and design ability, we are capable to supply you the high-quality product which can fully satisfy your desired product performance.



Product Introduction- PUMP SHAFT

PUMP SHAFT

Our company has maturely adopted the following materials for production and promotion with an application of 15.809mm:

- 1.Monel K - 500(The quality of this product meets the technical specifications of American ASTM B164 and AMS4676, and it is a high - strength pump shaft)
- 2.Inconel 718
- 3.Inconel 625
- 4.Monel R - 405
- 5.Monel 400
- 6.HP 17 - 4

Our company can carry out development and provide suitable high - quality products according to customers' requirements.

	HS Monel	Inconel 718	Inconel 625
Minimum Tensile Strength, ksi(Mpa)	165(1138)	212(1462)	185(1276)
Minimum Yield Strength, ksi(Mpa)	130(896)	202(1393)	165(1138)
Minimum Elongation, %	18	12	14
Max Hardness, HRC	40	49	43

Product Introduction- SLEEVE

Hard alloy sleeve



Material Type	Density(g/cm ³)	Hardness(HRA)	Bending Strength (σ _{bb} /Mpa)	Impact Toughness (σ _K /J/cm ²)
YG6	14.6-15.0	89.5	1450	2.6
YG8	14.5-14.9	89	1500	2.5
YG15	13.9-14.2	87	2100	4

Product Introduction- SEPARATOR PARTS



QYF Series of Separators

QYF95, QYF98, QYF101, QYF130

Clockwise; Counter - Clockwise

OTHERS



Coupling



Electric submersible pump rotor bearing



Fasteners



Coupling body

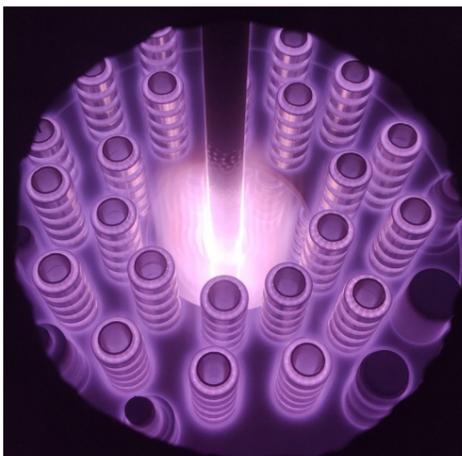
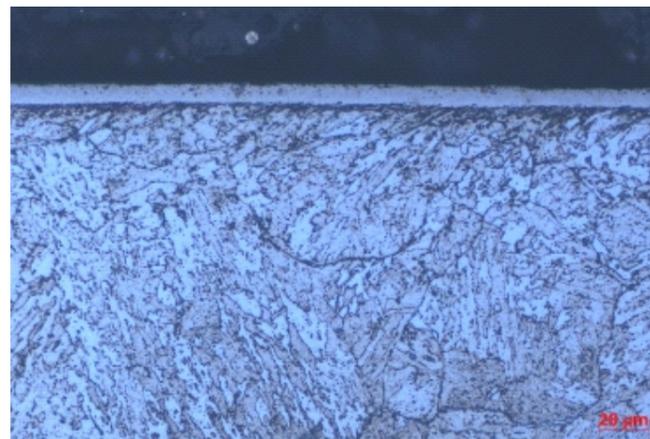


Components of PED

SURFACE TREATMENT

ION NITRIDING, NITROGEN CARBURIZING

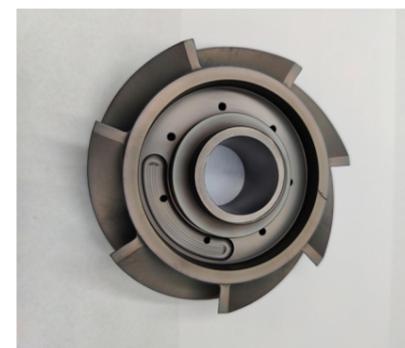
- Pollution-free&fast infiltration;
- The effective hardening layer thickness up to 500μm, the surface hardness up to 900HV;
- Significantly improve the surface hardness, wear resistance and fatigue strength of viscous material.



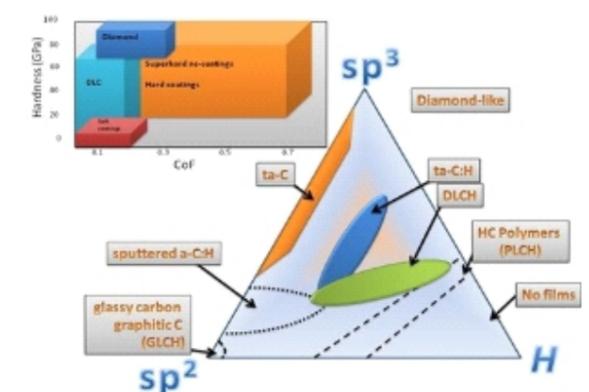
SUPERHARD NANO COATING

Technical Performance:

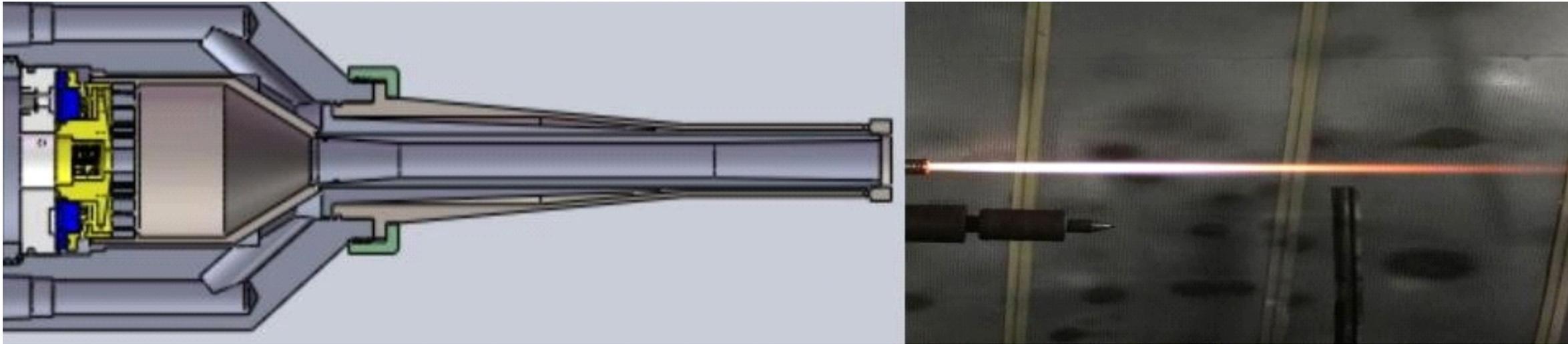
1. High hardness and self-lubricating characteristics of the unified solid film
2. Low deposition temperature (< 200°C), high surface hardness (> 4000HV), low friction coefficient (< 0.1)
3. Coating compatibility is strong, can be deposited on various materials



Fabrication of superhard nanocoatings



SUPERSONIC FLAME SPRAYING TECHNOLOGY



Technical features:

1. The coating hardness is high, good wear resistance;
2. Dense coating, high bonding strength;
3. The powder temperature is low when spraying, which is conducive to inhibiting the decomposition of carbide and enhancing wear resistance;
4. Spray powder particle size is small, smooth coating;
5. Especially suitable for spraying WC, Cr₃C₂ and other metal ceramic composite materials



Spraying Site

Stage

Supersonic spraying coating parameters

Coating type	Coating hardness HV _{0.05}	thickness μm	Binding force MPa	porosity/%	Service temperature °C
WC-10Co-4Cr	>1100	50~500	>70	<1	<350
Cr ₃ C ₂ -NiCr	>900	50~400	>60	<1.5	<650

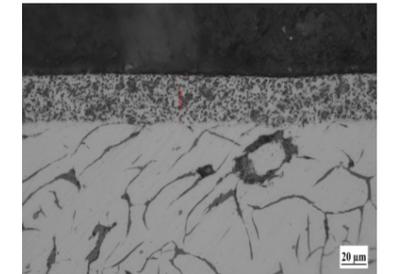
ELECTROLESS NICKEL PLATING



Nickel-plated stage



Metallographic structure of high nickel cast iron after nickel plating



Metallographic structure of Ni-P diamond coating

	Treatment temperature/°C	Surface hardness/HV _{0.05}	thickness/μm	Binding force/MPa	Corrosion resistance
untreated	-	~150	-	-	normal
Nickel plating	<100	>800 (HRC64)	>20	>30	good
Ni-P diamond coating (In development)	<100	>1400	>20	>30	good

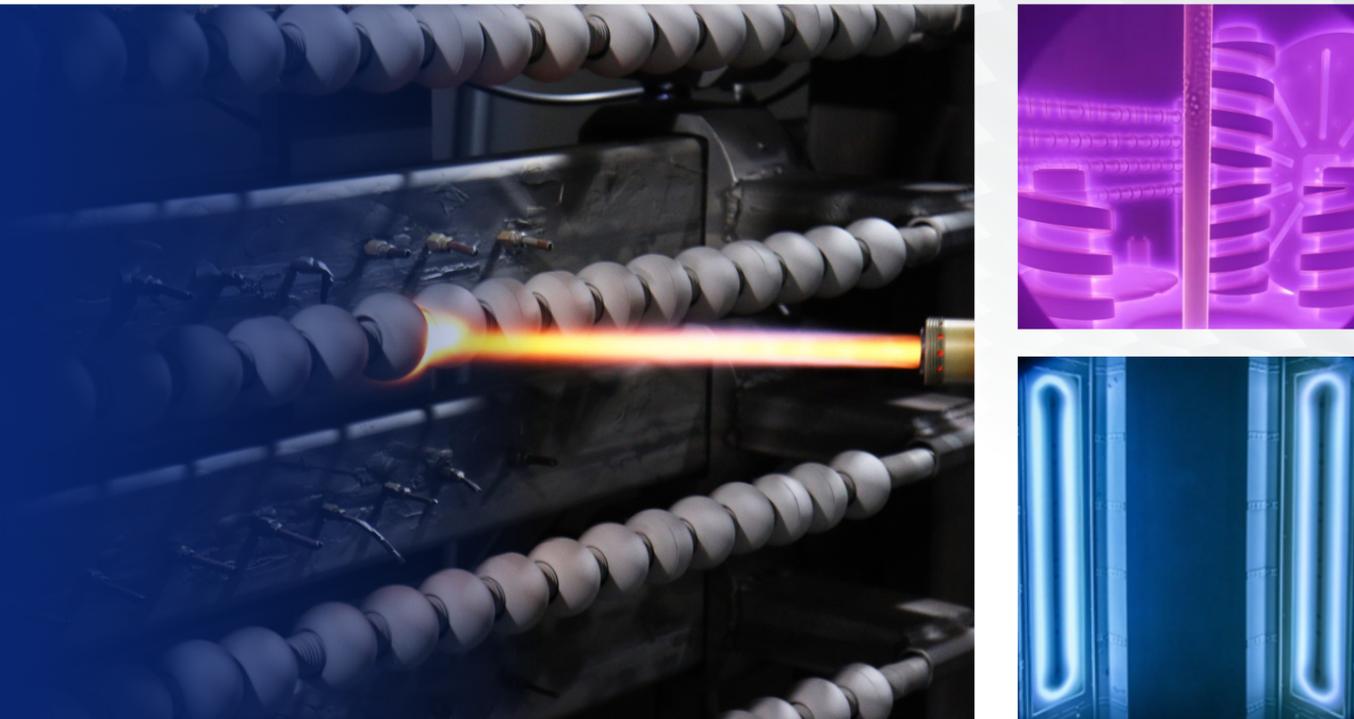
THE COMPARISON OF DIFFERENT HARDENING PROPERTIES OF TYPE - 1 NICKEL CAST IRON



Dedicated Science and Technology
Enhance the Professional Operating Strength
Refinement Focus Innovation and Excellence

ENTERPRISE

VISION



Treatment	Processing Temperature/°C	Surface Hardness/HV _{0.05}	Thickness/μm	Applicable working conditions	Maximum processing size
Electroless nickel plating	<100	>800 (HRC64)	>20	Strongly corrosive working conditions	∅ 800×1000mm
Ion nitriding	400-600	>700 (HRC60)	>50	Strong wear condition	∅ 1100×2500mm
Boronizing	700-900	>1400	20-60	Strong scouring condition	-
Supersonic flame spraying	<300	>1100 (HRC70)	50-500	Strong scouring condition	∅ 1000×1500mm
Superhard Nano Coating	<200	>2000	1~5	Strong wear and strong corrosion conditions	∅ 600×800mm