



Laboratory of Qingdao NPA Industry Co.Ltd
CNAS-accredited testing laboratory



Strong parent organization on which the laboratory is based

Qingdao NPA Industry Co., Ltd. is a subsidiary of China Iron & Steel Research Institute Group Co., Ltd, mainly produces heat-resistant alloys with operating temperature of 900-1250°C, and provides professional and integrated solutions for users of heat-resistant alloys of industrial furnaces around the world. The company mainly serves the petrochemical, metallurgy, glass building materials and other environmental protection industries, providing ethylene cracking furnace tube and conversion furnace tube, metallurgical treatment line of various types of rollers, radiation tube, combustion systems and environmental protection of hazardous waste treatment of multi-bed furnace equipment and other products and integrated services. Enterprises are committed to the industry's continued technological progress to create greater value for customers. Our bottom line is to meet customer needs and our goal is to exceed customer expectations. At the same time, we adhere to the development concept of becoming a global innovation leader in the heat-resistant alloy industry.



The total investment is
CNY700 million
(USD 111 million)



Production capacity
30,000 Tonnes / year



Covers an area of
180,000 square meter



More than
1100 equipments



Enterprise Strength

The company is a national high-tech enterprises, which was identified as Qingdao Hidden Champion Enterprises, Qingdao Industry Leading Enterprises, technological innovation demonstration enterprises in Shandong Province identified as the national integrity of the business of double excellent demonstration enterprises, with Shandong Province Enterprise Technology Center, Qingdao City, high-temperature pressurized high alloy engineering research center, Qingdao City, advanced iron and steel materials castings manufacturing technology innovation center. It has undertaken 55 key projects of technological innovation at provincial level.

The company has established a guarantee system integrating quality, environment and safety, and has passed the GB/T19001 (ISO9001) quality system certification, GB/T24001 (ISO14001) environmental management system certification, and GB/T28001 occupational health and safety management system certification.

- TUV three-system certification
- European Pressure Vessel Standard PED Certification
- Intellectual property management system certification



System Certification

- TUV three-system certification
- European Pressure Vessel Standard PED Certification
- Intellectual property management system certification



Industry recognition

- Sinopec EC procurement platform high-quality supplier
- Excellent supplier of ExxonMobil
- Excellent supplier in the steel industry
- Excellent supplier of JFE in China



intellectual property

- 132 invention patents
- 94 utility model patents
- 124 scientific research and development projects



CNAS accredited testing laboratory

According to ISO/IEC 17025-2017)

Founded in 2011, Qingdao NPA Industrial Co., Ltd. Laboratory is the only enterprise testing laboratory in the same industry in China that has been accredited by CNAS (China National Accreditation Service for Conformity Assessment), which is also a member of the International Laboratory Accreditation Cooperation Organization (ILAC), and is qualified to issue ILAC-CNAS stamped test reports.



CNAS laboratory accreditation is based on ISO/IEC17025, which is an internationally accepted standard for laboratory quality and technical requirements. The laboratory has been accredited by CNAS, which indicates that our laboratory has established a quality management system in accordance with international standards. According to the system, the testing work can ensure that the technical capabilities of the laboratory are continuously maintained and improved, which means that the scientific research data made by the laboratory for the company's products, the quality control of the product production process and the quality certificate service of the product meet international standards and meet the requirements of international customers. ISO/IEC17025 helps laboratories carry out quality planning, quality control, quality assurance and quality improvement through various quality management activities in the production of "products" to ensure the quality of "products" and services. CNAS-accredited laboratories can minimize the risk of providing substandard "products". CNAS has signed a multilateral mutual recognition agreement (MRA) with APLAC (Asia-Pacific Laboratory Accreditation Cooperation) and ILAC (International Laboratory Accreditation Cooperation), and laboratories accredited by CNAS can use this route to access other signatories of the agreement, so as to obtain wider international recognition and cooperation, and enhance the international exchange and learning improvement of laboratory testing technology. The laboratory has been accredited by CNAS, which indicates that the company has professional laboratory testing technology capabilities, has the ability to ensure the accuracy and fairness of the test results, so that the company's products can be reliable and consistent quality assurance, and also shows the company's determination to pursue high-quality products and services in the industry and stabilize the company's leading position in the international and domestic markets.



Perfect functional area for laboratory testing environment

The laboratory covers an area of nearly 2,300 square meters, with office area, sample management room (including sample preparation area), chemical laboratory, mechanics laboratory (multiple), spectrum analysis room, metallographic laboratory and other departments. Each functional area is reasonably planned. Its environmental conditions, safety facilities meet the requirements of the ISO17025 laboratory quality management system so that we can ensure that the testing activities of the laboratory are always safe, standardized, stable and reliable.

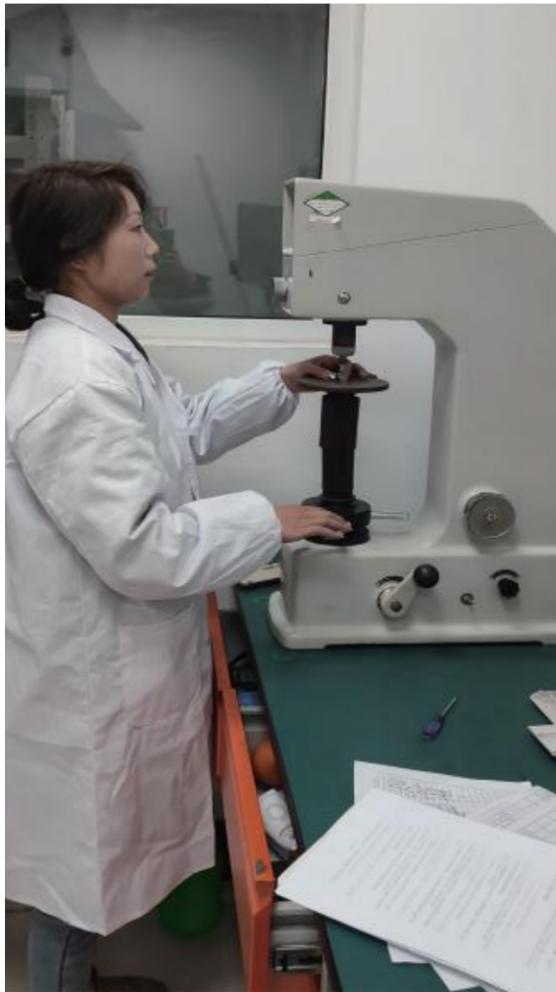
Advanced lab testing equipment

Equipped with a complete set of advanced testing equipment, large-scale testing instruments and equipment more than 50 sets. NPA possess Thermo Fisher, Hitachi and other international brands of spark direct-reading spectrometer and the domestic first-line brand of universal tensile strength machine, high-temperature creep test machine, infrared carbon and sulfur analyzer, oxygen, nitrogen and hydrogen analyzers, optical microscopes, Brinell hardness testers, etc. The ultra-high detection sensitivity, accuracy and stability provide a strong hardware protection for the accuracy and timeliness of the test data.

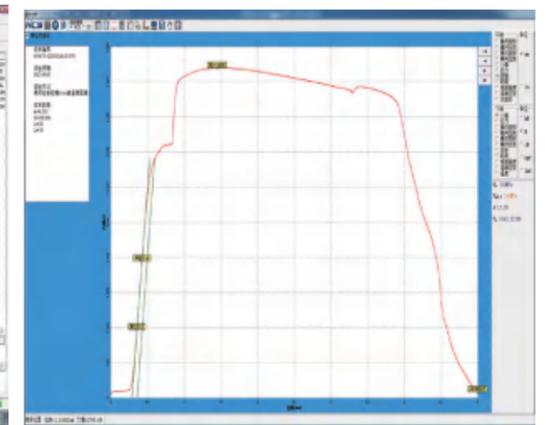
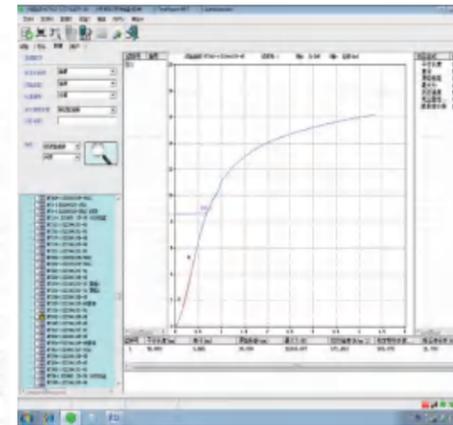


Excellent laboratory testing team

There are 16 employees, including 1 senior engineer (PhD) and 3 engineers. Managers and main testing staff have many years of research and testing experience in related materials in the industry, with professional metal materials testing technology and method development capabilities. They participate in the company's drafting and revision of heat-resistant alloy industry standards and technical verification of internal control standards, with the scientific research, industry standards development and modification of the ability to provide data analysis and program design.



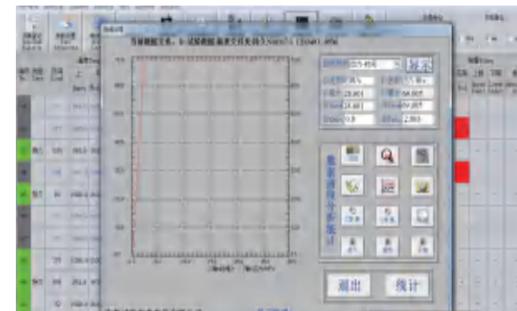
Element	Symbol	Unit	Value	Unit	Value	Unit	Value
Fe	Fe	%	58.74	Cr	Cr	%	1.91
Ni	Ni	%	38.52	Mn	Mn	%	0.02
C	C	%	0.002	P	P	%	0.0001
S	S	%	0.0001	Si	Si	%	0.0001
Al	Al	%	0.0001	Mo	Mo	%	0.0001
W	W	%	0.0001	Nb	Nb	%	0.0001
Co	Co	%	0.0001	Cu	Cu	%	0.0001
Ca	Ca	%	0.0001	Mg	Mg	%	0.0001
Na	Na	%	0.0001	K	K	%	0.0001
Cl	Cl	%	0.0001	As	As	%	0.0001
Se	Se	%	0.0001	Sb	Sb	%	0.0001
Te	Te	%	0.0001	Bi	Bi	%	0.0001
Pb	Pb	%	0.0001	Sn	Sn	%	0.0001
Zn	Zn	%	0.0001	Hg	Hg	%	0.0001
Ag	Ag	%	0.0001	Au	Au	%	0.0001
Cd	Cd	%	0.0001	Pt	Pt	%	0.0001
Ba	Ba	%	0.0001	La	La	%	0.0001
Y	Y	%	0.0001	Ce	Ce	%	0.0001
Pr	Pr	%	0.0001	Nd	Nd	%	0.0001
Sm	Sm	%	0.0001	Eu	Eu	%	0.0001
Gd	Gd	%	0.0001	Tb	Tb	%	0.0001
Dy	Dy	%	0.0001	Ho	Ho	%	0.0001
Er	Er	%	0.0001	Tm	Tm	%	0.0001
Yb	Yb	%	0.0001	Lu	Lu	%	0.0001
Hf	Hf	%	0.0001	Zr	Zr	%	0.0001
Nb	Nb	%	0.0001	Mo	Mo	%	0.0001
Ta	Ta	%	0.0001	W	W	%	0.0001
Re	Re	%	0.0001	Os	Os	%	0.0001
Ir	Ir	%	0.0001	Pt	Pt	%	0.0001
Au	Au	%	0.0001	Hg	Hg	%	0.0001
Pb	Pb	%	0.0001	Bi	Bi	%	0.0001
Po	Po	%	0.0001	At	At	%	0.0001
Rn	Rn	%	0.0001	Ac	Ac	%	0.0001
Th	Th	%	0.0001	Pa	Pa	%	0.0001
U	U	%	0.0001	Np	Np	%	0.0001
Pu	Pu	%	0.0001	Am	Am	%	0.0001
Cm	Cm	%	0.0001	Bk	Bk	%	0.0001
Cf	Cf	%	0.0001	Es	Es	%	0.0001
Fm	Fm	%	0.0001	Md	Md	%	0.0001
No	No	%	0.0001	Lr	Lr	%	0.0001



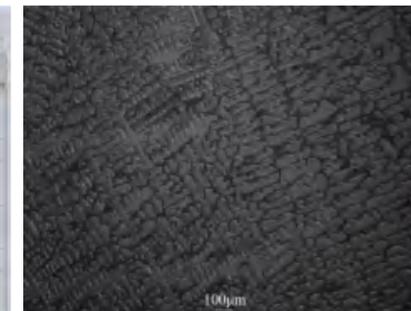
Chemical composition analysis

Room temperature tensile test

High temperature mechanical tensile test



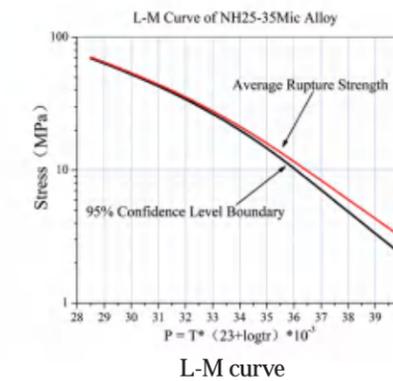
High-temperature long-term creep test



Micro test



Macroscopic test



Comprehensive heat-resistant alloy material testing capabilities

The testing capacity covers the analysis and testing of chemical, mechanical, physical, metallographic and microstructure of metal materials, including pre-furnace chemical composition and chemical composition of finished products, room temperature mechanical tensile test, high temperature mechanical tensile test, high temperature creep test, bending test, hardness, macroscopic test, micro test, etc. The tests are conducted in accordance with the international and domestic IEC/ISO/ASTM/GB/HG standards, which provide a solid technical guarantee for the company's product research, raw material inspection, pre-furnace composition analysis and debugging, and strict control of the performance and quality of the final product.

NPA PRODUCT PROFILE
Index- 2024.04-V1/EN

The copyright of all content of this document belongs to NPA and reproducing in any form is not allowed without permission.

青岛新力通工业有限责任公司
Qingdao NPA Industry Co., Ltd.

Add: Pingdu High-tech Industrial Park, Qingdao City, China

Tel: +86-532-87314976

Email: npamarket@163.com

Web: www.npa-china.com