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伊莱特股份 IRAETA

### 'Forge Ahead

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### 我们是谁



### **Company Profile**

Iraeta - Forge a safer, greener and more efficient future for mankind

Iraeta is committed to supplying mission-critical,
high-reliability components for advanced equipment and high-value assets.

We have half a century of dedication to the forging industry

and over 30 years of service offering experience in the global market.

We serve clients across clean energy, fossil fuels, marine engineering, tunnel boring tement production, and metal mining sectors through our 10 production bases in China and Spain, supported by a workforce of over 2,500

Specializing exclusively in forging, Iraeta manufactures disc, ring, and shell forgings, forged bars & shafts, as well as wear-resistant grinding media—covering small, medium, and large forgings ranging from 0.3 kg to 350 tons. We deliver end-to-end solutions, from custom material preparation and forging to heat treatment, high-precision machining, testing, and complex logistics.

With extreme manufacturing capabilities that only a handful of global firms possess, we can provide open-die forgings with a maximum weight of 350 tons, seamless rolled rings up to 22 m in diameter (monolithic construction), rolled cylindrical shells up to 5 m in height, and radially forged bars up to 25 m in length.

In 2022, Iraeta set a Guinness World Record by producing the largest seamless forged ring ever made: 15.7 m in diameter (49.2 m circumference).

These processing capabilities enable us to launch a series of innovative products, which have been successfully applied to super equipment such as the fourth-generation nuclear power plant, cement rotary kilns with a daily output of 10,000 tons, shield machines with a tunneling diameter of 16 m,

Vision: Forge a safer, greener and more efficient future for mankind

Mission: Become the core manufacturer of equipment forgings in the world

Values: Honesty, humility, tenacity, and diligence

### TÜVRheinland







### 公司介绍

伊莱特——为人类锻造更加安全、绿色与高效的未来工业 伊莱特致力于向各类先进装备与高价值资产提供关键可靠部件, 我们在锻造行业拥有半个世纪的坚定承诺, 以及超过30年的国际市场服务经验。

我们在中国和西班牙的10个生产基地和2500余名员工

服务于清洁能源、化石能源、海洋工程、隧道掘进、水泥制造、金属矿山等不同市场的客户。

伊莱特高度聚焦于锻造行业,主要产品包括盘类、环类、筒体锻件,锻棒与锻轴,耐磨介质等, 涵盖了从0.3公斤到350吨的各类大中小型锻件。

我们能提供从原材料定制、锻造、热处理、高精度机加工、检测、复杂运输的整套解决方案。

我们拥有全球少数公司才具备的极限制造能力,可提供最大重量350吨的自由锻件,最大直径22米的整体无缝轧环,最大高度5米的锻轧式筒节,以及最大长度25米的径向锻棒。伊莱特在2022年制造出了直径15.7米,周长49.2米的整体无缝锻环,创造了吉尼斯世界纪录。

这些加工能力帮助我们推出一系列创新性产品,

并将其成功应用于四代核电、日产万吨水泥回转窑、掘进直径16米盾构机、25 MW 漂浮式海上风机等超级装备中。

愿景:为人类锻造更加安全、绿色与高效的未来工业 使命:成为全球高端装备锻件核心部件制造商

价值观:诚实、谦逊、坚韧、拼搏

全球员工总计 Global staffs in total 2500 +

888888 88888

全球500强客户数量 Clients from Fortune 500

40+



出口占比 Export ratio

**≈**30%



### 价值观和经营准则

伊莱特将价值观作为经营准则, 我们深刻理解这些准则是企业运营的道德承诺:

诚实: 在重要事情和节点上保持坦诚与公平, 对所有相关方以诚相待

谦逊: 关怀、尊重、理解所有客户与员工, 保持谦逊品格

坚韧: 与全球合作伙伴建立稳固关系, 面对挑战坚韧不拔

拼搏:在质量和服务上追求最高标准,成为行业专家

### 愿景

### 为人类锻造更加安全、绿色与高效的未来工业。

人类社会正以前所未有的速度前进,

而工业正是这一变化的原动力,

人们希望工业变得更强大、更高效,也希望它变得更安全、更绿色。 作为古老锻造行业的传承者,

伊莱特致力于通过更绿色的方式向全球用户提供高性能锻件, 帮助人类的工业发展变得更加安全、绿色与高效。

### 使命

### 成为全球高端装备核心部件制造商。

我们将客户的成功视为自己的成功, 全力与客户一起应对复杂的工程和商业挑战, 并乐于分享自己在全球各个地区的本地化资源; 在为员工、客户和所在地提供创收和发展的同时, 我们也努力为投资者创造可持续性的投资回报。

### **Values and Operating Guidelines**

Taking values as our operating guideline, IRAETA deeply understands that these operating guidelines are the moral commitment of business operations:

**Honesty:** Maintain honesty and fairness on important issues and junctures, and treat all concerned parties with sincerity.

**Humility:** Care for, respect and understand all customers and employees, and have a humble attitude.

**Perseverance:** Establish stable relations with global partners and persist in confronting challenges.

**Work:** Pursue highest standards in quality and service to become an industry leader and expert in the field.

### Vision

### Build a safer, greener and efficient future industry for humankind

Human society is advancing at an unprecedented speed, and industry is the driving force behind this change. While people hope that the industry will become stronger and more efficient, they also hope it will become safer and greener. As a successor of the ancient forging industry, IRAETA is dedicated to providing high-performance industrial equipment forgings to global customers in a efficient and greener way, to help make humankind's industrial development safer, greener and efficient.

### Mission

### Become the core manufacturer of equipment forgings in the world.

We consider our clients' successes as our successes, and work with our customers to manage complex engineering and business challenges, and are willing to share our own localized resources in all regions of the world. While creating revenue and growth for our employees, customers and locations, we also strive to create a sustainable return on investment for our investors.





2006年,成立山东伊莱特,成为中国本土较早进行风电环锻件制造的企业之一。随后公司获得GAMESA和VESTAS认证并参与了参与国家能源局《风力发电机组环形锻件》标准的起草工作。

2006

2011年海上风电锻件制造事业部投产,随后获得ISO/IEC17025实验室认证,美国ABS、法国BV等八国船级社认证,2015年与中科院金属所合作成立"李依依院士工作站",同年耐磨钢球事业部投产。

2015

In 2006, Shandong IRAETA was established. In 2007, Spain's FORJAS DE IRAETA became a shareholder, and the new company name was officially changed to "IRAETA", becoming one of the earliest companies in China to manufacture wind power ring forgings. Subsequently, the company obtained GAMESA and VESTAS certifications and participated in the drafting the standards for Ring-Type Forgings of Wind Turbine Generator System of National Energy Administration.

In 2011, offshore Wind Power Forgings Manufacturing Division commenced operations and then IRAETA was certified by the ISO/IEC17025 laboratory and passed classification society certifications of the United States' ABS, France's BV and other eight national classification societies. In 2015, the "Academician Li Yiyi Workstation" was established with the Institute of Metal Research, Chinese Academy of Sciences. In the same year, the Grinding Balls Division was put into production.

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In 2016, the comprehensive processing centers for precision CNC commenced operations. In 2018, the Oversized Forging Division with an investment of 600 million yuan was put into production. In 2019, three large global forging rings with a diameter of 15.8 meters were successfully rolled off the production line .In 2020, Iraeta Advanced Materials Industry Research Institute was established and Iraeta (Shanghai) International Trade Co., Ltd. was established.

2026

2016年,精密数控综合加工中心投产。2018年, 投资6亿元的大锻件事业部投产。2019年,三件直 径15.8米全球超大锻环顺利下线。2020年,成立伊 莱特先进材料产业研究院,成立伊莱特(上海)国 际贸易有限公司。

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2021年,核电深海工程高端装备科创产业园开始投建,成立伊莱特(济宁)高端装备科技有限公司。2022年,海工装备事业部、核海新材料事业部先后试运营,海诚物流公司正式成立、热态直径16米的全球超大整体式无缝锻环成功下线,并创造了吉尼斯世界纪录。到2025年,我们将继续围绕锻造主业进行上下游产业优化,特别是高端先进材料的研发、制备与应用,加大全球营销力度,同时将通过参与资本市场,加大信息化应用进一步推动企业新旧动能转换。为此,我们制定了2025年实现100亿销售目标。

2025 -

In 2021, The construction of a high-end equipment science and technology industrial park for nuclear power deep-sea engineering has begun. Iraeta (Jining) High-tech Equipment Co.,Ltd was established. In 2022, Offshore and Marine Equipment Business Unit and Nuclear and Offshore New Materials Business Unit have been in trial operation. Haicheng Logistics Company was officially established. The second set of a total of global oversized integral seamless forging rings with a diameter of 16 meters in the hot state was successfully launched and set a Guinness World Record.

Between 2025, we plan to focus on the forging industry, optimize and extend upstream and downstream industries, especially the research, manufacturing and application of advanced material. At the same time, we will rely on capital market participant and increased information application to further foster the replacement of old growth drivers with new ones. Thus, To this end, we have set a sales target of 10 billion yuan by 2025.

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### 风能 **Wind Power** 核能 **Nuclear Power** 特高压电网 UHV Grid Mine Abrasives 基础设施与资产装备 **Infrastructure and Asset Equipment**

### 我们在哪里



### Wind Power

Wind power is a kind of almost ubiquitous power source.

It has no trace but contains powerful power.

After decades of development,

ind power has become an extremely mature power solution in the world,

nd its cost is even lower than that of thermal power.

According to the forecast of "Global Wind Power Outlook",

wind power will offset 2.5 billion tons of carbon emissions per year

In order to make more efficient use of the power that nature has given us,

engineers are working hard to achieve one giant leap after another.

From the earliest models of hundreds of kilowatts to 25MW+ class generators

wind turbines are becoming super giants

We provide reliable components for wind turbines with the latest technology, to ensure that these giants can not only operate normally.

but also deal with extreme severe weathe

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### 风能

风能是一种几乎无处不在的能源,

它无影无踪却又蕴含强劲能量。

经过数十年的发展,

风力发电已经成为世界上极为成熟的能源解决方案,

其成本甚至低于火电,

根据"全球风能展望"预测,

到2030年,

风能将抵消每年25亿吨的碳排放。

为了更加高效地利用这种大自然赐予我们的能源,

工程师们正在努力实现一个又一个巨大的飞跃,

从最早的数百千瓦机型;

直到25MW+级发电机,

风力发电机组正在成为一个个巨无霸。

我们为最新技术的风力发电机组提供可靠的部件,

确保这些巨无霸不仅能正常运转,

还能应对极端的恶劣天气。





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### Building Strong Joints for the next generation of Wind Turbines

The 15-30 MW next generation wind turbine is well-deserved super giant,

connecting the tower into one so as to support the whole wind turbine.

with a distance of nearly 300 meters from the base to the highest point of the blade,
Which is more than three times the height of the Statue of Liberty, from the ground to the tip of her torch.
The annual power output of such a wind turbine has reached an astonishing 40-90 million kWh,
which is enough for the annual electricity consumption tens of thousands of households,
The weight of the blades and nacelles of this giant between 500-1000 tons,
and with such a "heavy head "it still needs to run under the strong sea wind.
Imagine the flagpole in the strong wind!
In order to ensure the safety of the turbine,
engineers designed tower flanges with a diameter of over 8 meters,
These flanges are like the bone joints of the turbine,

### 为下一代风机打造结实关节

15-30MW下一代风机是当之无愧的风电巨无霸,从基座到叶尖高达近300米,是自由女神像从地面到火炬尖端高度的3倍多。这样一台风机的年发电量可达惊人的4000-9000万度,足够数万家庭一年的用电量,这些巨无霸的叶片和机舱重达500-1000吨,头顶这样一个"大脑袋"还要在强劲的海风中运转,想象一下大风中的旗杆吧!为了确保风机的安全性,工程师们为他们设计的塔筒法兰直径超过8米,这些法兰就像风机的骨关节,将塔筒连接成一体,支撑整个风机。

行业产品: 塔筒法兰、单桩法兰、过渡段法兰 荣誉项目: 国华山东渤中项目、中广核惠州港口项目、三峡福建莆田DE项目、华能浙江玉环2项目、华电阳江三山岛六项目、国家电投揭阳神泉二项目、大唐海南儋州CZ3项目、华润浙江苍南项目、国信江苏大丰项目、国家电投山东U场址项目、Hywind Tampen项目、日本 Ishikari项目、英国Moray West 项目、法国PGL项目、英国苏格兰东海岸莫雷湾海上风电项目、波罗的海电力海上风电项目、丹麦索尔海上风电项目、英国霍恩锡三期、英国东安格利亚三期风电项目、美国弗吉尼亚海上风电(CVOW)项目等

Industry Products: Tower flange, monopile flange,

Transition flange

Mega Projects: Guohua Shandong Bozhong Project, CGN Huizhou Port Project, Three Gorges Fujian Putian DE Project, Huaneng Zhejiang Yuhuan 2 Project, Huadian Yangjiang Sanshan Island 6 Project, NEC Jieyang Shenquan 2 Project, Datang Hainan Danzhou CZ3 Project, CR Zhejiang Cangnan Project, Guoxin Jiangsu Dafeng Project, NEC Shandong U Site Project, Hywind Tampen project, Japan Ishikari project, UK Moray West project, France PGL project, UK Moray West Offshore Wind project, Poland Baltic Power project, Denmark Thor Offshore Wind Farm project, UK Homsea 3 project, UK East Anglia 3 project, USA Dominion project etc

### **Nuclear Power**

While science and technology benefits mankind,

it will also bring some unexpected harm.

Nuclear power is such a technology.

It is clean, efficient, and stable,

but it inevitably makes people worried about.

However, scientists and engineers have not given up on the exploration of safer nuclear power.

The fourth-generation nuclear power technologies such as sodium-cooled fast reactor and high-temperature gas-cooled reactor has continuously made breakthroughs.

With the fourth-generation nuclear power technology,

even if an accident occurs,

the residual heat of the reactor can be discharged only by means of gravity,

the difference in density of the cold and hot working working substances,

and the pressure difference of the loop

without manual intervention or external drive.

Thereby accidents such as core melting and damage to the containment can be avoided.

Similarly,

for various large forgings required by nuclear power plants,

the engineering community hopes to further reduce the uncertainty of traditional processes by increasing the level

of homogenization and using non-welded integrated manufacturing technologies.

Therefore, the technology of "metallic structure additive manufacturing + integral rolling near net shape forming" came into being.

Through this innovation,

we have significantly improved homogenization level of forging alloy components on the basis of achieving a 20% reduction in material and energy consumption.

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### 核电

科技在造福人类的同时,

也会带来一些意想不到的危害。

核电就是这样一种技术。

它清洁、高效、稳定,

却又难免让人们谈虎色变。

但科学家和工程师们并未因此放弃对安全核电的探索,

钠冷快堆、高温气冷堆等第四代核电技术不断取得突破,

采用四代核电技术的反应堆,

即便发生意外,

也可以在不依赖任何人为干预、外部动力的情况下,

仅依靠重力、冷热工质密度差、回路压差等方式即可将反应堆余热排出,

从而避免堆芯熔化、安全壳破损等事故。

对于核电站所需的各类超大锻件,

工程界希望通过提高均质化水平,

使用非焊一体化制造等技术,

进一步降低传统工艺的各种不确定性。

于是, "金属构筑增材制造+整体轧制近净成型"的技术应运而生。

我们在成功实现降低材料和能源消耗20%的基础上,

显著提高了锻件合金元素的均质化水平。

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### **Support a Safer Nuclear Power**

The fourth generation of nuclear power is a new generation of nuclear power technology, in which sodium-cooled fast reactor has attracted much attention because of its safety and high efficiency, high utilization rate of nuclear fuel and less nuclear waste.

Iraeta, together with China Institute of Atomic Energy and Institute of Metals, Institute of Metal Research, Chinese Academy of Sciences, used metal construction technology to provide four reactor support rings with a thermal diameter of 16m and a number of internals for the fourth generation nuclear 600 MW Demonstration Fast Breeder Reactor.

In August, 2022, the 15.673-meter nuclear power support ring manufactured by Iraeta successfully applied for the Guinness World Records.

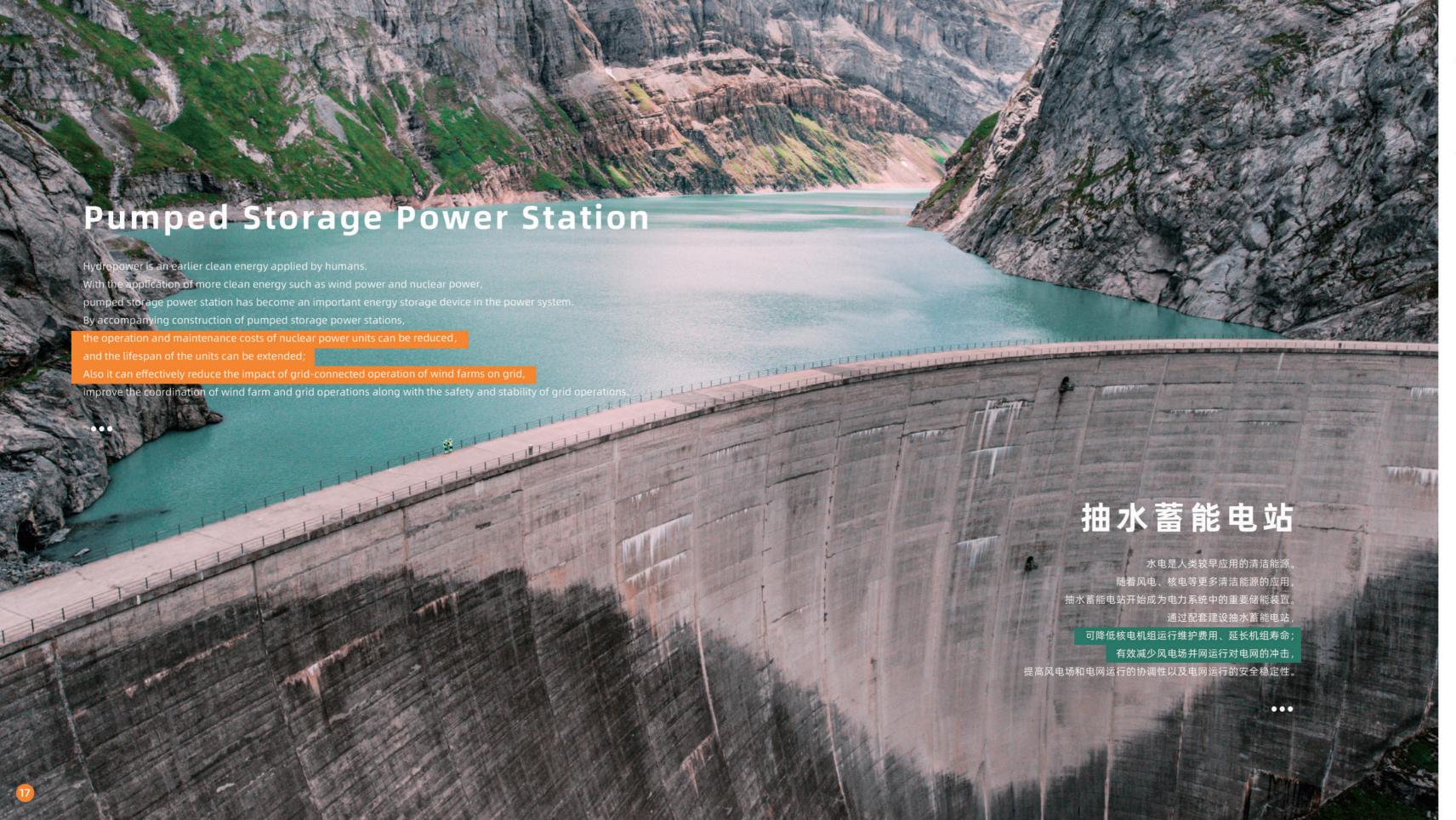
Therefore, Iraeta became the "largest manufacturer of integrated ring rolling rings".

### 支承更安全的核电

四代核电是新一代的核电技术, 其中钠冷快堆因安全高效、核燃料利用率高及较少产生核废料而备受关注。 伊莱特与中国原子能院、中国科学院金属研究所一道, 使用金属构筑技术,为四代核电600兆瓦示范快堆, 提供了4件热态直径16米的反应堆支承环, 及若干核一级堆内构件 其中,2022年8月份,伊莱特下线的15.673米的核电支承环,

成功申请吉尼斯世界纪录, 伊莱特成为"最大的整体环轧钢环"制造商。

行业产品:支承环、乏燃料储罐、泵支承、 旋塞、补偿器、贝类捕集器锻件、压力容器筒节 荣誉项目: 霞浦核电600MW示范快堆项目、 核电重大专项、红沿河应急柴油机组核2/3法兰等 Industry Product: Support ring, spent fuel storage tank, pump support, cock, compensator, shellfish trap forging,pressure vessel Mega Project: Xiapu Nuclear power 600MW fast reactor demonstration project, Major Nuclear Power Project, Red River Emergency Diesel Unit Nuclear 2/3 Flange etc



## 清洁能源



### Providing Urban Power Bank for Green Olympics

The Beijing Winter Olympics in 2022 is prepared to achieve 100% clean energy power supply.

To achieve this goal, Fengning Pumped Storage Power Station came into being.

This power station will become the world's largest pumped storage power station after its completion,

with an annual power generation of 6.6 billion kWh

which is equivalent to 480,000 tons of standard coal reduced.

The pumped storage power station is like a city-level power bank.

When the power consumption is low,

the surplus power is used to pump the water to a high place.

When the power consumption is high,

the water is discharged to the low reservoir for hydropower generation.

IRAETA provided three sets of magnetic yoke forgings for this power station.

These products are located at the core of the power station

and become the protection sleeve of the generator.

When the unit rotates,

it will withstand strong centrifugal force and ensure safe power generation.

### 为绿色奥运提供城市充电宝

2022年的北京冬奥会准备实现100%清洁能源供电。 为了实现这一目标,丰宁抽水蓄能电站应运而生。 这座电站建成后,将成为全球最大的抽水蓄能电站, 年发电量66亿度,相当于节约标准煤48万吨。 抽水蓄能电站就像一个城市级的充电宝。 在用电低峰时,用富余电力把水抽到高处, 用电高峰时,再向低处水库放水,进行水力发电。 伊莱特为这座电站提供了其中的3套磁轭锻件。 这些产品位于电站的核心位置。 成为发电电动机的心脏保护套, 在机组旋转时承受强大的离心力,并确保其安全发电。

行业产品:磁轭圆盘、镜板、环板、

顶盖法兰、筋板、中心体

荣誉项目: 荒沟抽水蓄能电站、丰宁水电站、 阳江抽水蓄能电站、缙云水电站、中洞水电站、 垣曲水电站、云霄水电站、松阳水电站、 抚宁水电站、石台水电站、白山水电站、 刘家峡水电站等 Industry Products: Magnetic yoke disc, thrust runner collar, ring plate, top cover flange, Reinforcing plate, center body

Mega Projects: Huanggou Pumped Storage Power Station,
Fengning Hydropower Station, Yangjiang Pumped Storage Power
Station, Jinyun Hydropower Station, Zhongdong Hydropower Station,
Yuanqu Hydropower Station, Yunxiao Hydropower Station, Songyang
Hydropower Station, Funing Hydropower Station, Shitai Hydropower
Station, Baishan Hydropower Station, Liu Jiaxia Hydropower Station etc

### **CSP Station**

Humans have long discovered the mystery that energy can be obtained by concentrating solar power.

With the help of an accurate control system,

modern CSP can perform photovoltaic conversion more efficiently.

The advantage of CSP is not only its cleanliness,

but also its power generation and energy storage

With the help of molten salt heat storage,

Dubai's DEWA CSP station can continue to generate electricity for 15 hours even after the sun sets.

### 光热电站

类很早就发现了通过聚集光可以获得能量的奥秘。

昔助精准的控制系统,

现代光热发电能更高效地进行光热电转换。

光热发电的优势不仅在于其清洁,

### 还在于其兼具发电和储能。

借助熔盐储热,

迪拜的DEWA光热电站甚至能在太阳落山后继续发电15小时。



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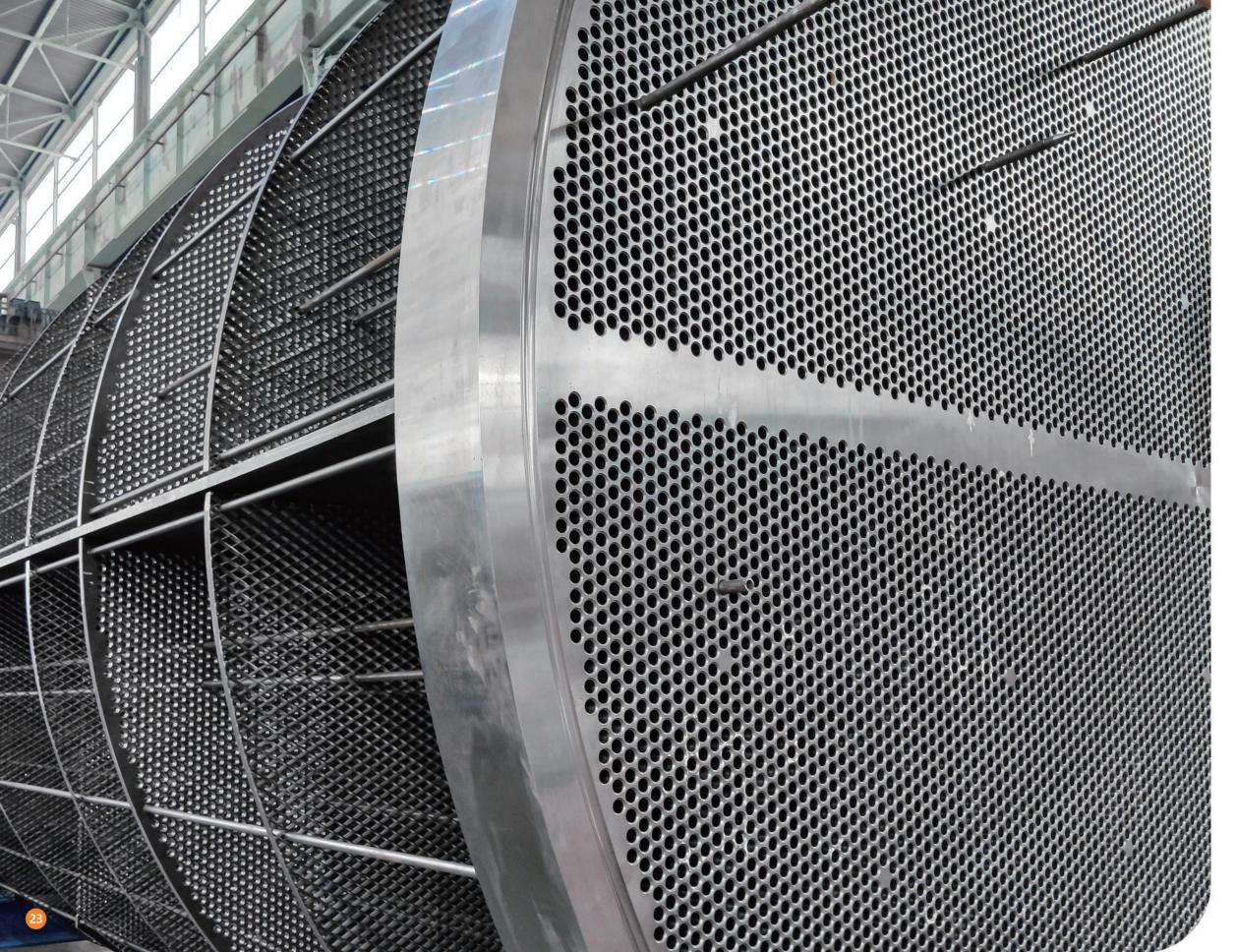
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### Water and Heat in the Desert

In the barren desert of Dubai,

people are planning to build the world's largest CSP station - DEWA project.

Hundreds of thousands of "mirrors" will accurately gather sunlight into one place

to heat the molten salt in the receiver.

These molten salts will then be transported to the heat exchange system,

where water and heat begin to work.

Molten salts with a temperature of up to hundreds of degrees will continuously heat

thereby driving the steam turbine to generate electricity.

Among these systems,

the tube sheet is an important component.

It needs to withstand a temperature difference of hundreds of degrees

between the cold and hot media.

And it also needs corrosion resistance.

All these are very high requirements on the quality of the product.

IRAETA provided dozens of forged tube sheet blanks for the DEWA project

to ensure that these heat exchange systems can operate effectively in the desert.

### 沙漠里的水火交融

在迪拜荒芜的沙漠里,

人们准备在这里建起世界上最大的光热电站——DEWA项目。

数十万面"镜子"将把太阳光精确地汇聚到一处,

用来加热接收器内的熔盐。

这些熔盐随后将被输送到换热系统中,

在这里, 水与火开始交融,

温度高达数百度的熔盐将源源不断地把水加热为蒸汽,

从而带动汽轮机运转发电。

在这些系统中,管板是重要的部件,

它要承受冷热介质之间数百度的温差,

还要具备耐腐蚀的性能,

这对产品的质量提出了非常高的要求。

伊莱特为DEWA项目提供了数十件锻造管板毛坯,

确保这些换热系统在沙漠中有效运转。

行业产品: 换热器管板、定日镜回转支承 荣誉项目: 迪拜DEWA IV热电厂项目、 TECHNOBEL催化反应器项目。

TECHNOBEL催化反应器项目、 加拿大LNG项目、尿素设备管板项目等 Industry Products: Heat exchanger tube sheet,
heliostat slewing bearing,other vessel forgings
Mega Projects: Dubai DEWA IV thermal power plant project,
TECHNOBEL catalytic reactor project,Canada LNG project

Urea equipment tube plate project etc

### **UHV Power Grid**

China's hydropower, wind power, photovoltaic and other clean energy are mainly concentrated in the

The UHV project is like an "air highway" that transports these power resources to

eastern and central regions with dense population and industries.

Before the UHV power grid was available

a large number of thermal power plants should be built in these areas.

These thermal power plants not only emit a lot of pollutants,

but also bring heavy transportation pressure.

Now, a clean and efficient UHV power grid can transport all kinds of power resources to regions beyond 1000-3000 kilometers.

And it greatly reduces coal mining and the exhaust emissions of transportation vehicles.

It realizes the power distribution for ultra-wide areas.

These iron towers, which span the north and south of China, are assembled by numerous steel pipes connected by flanges.

Not only do they withstand the weighted susands of consof cables

but they also have to keep stable under the weather such as gusty wind, freezing rain, and heavy

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### 特高压电网

中国的水电、风电、光伏等清洁能源主要集中在三北和西南地区,特高压工程像一条条"空中高速公路",

将这些电力资源输送至东部、中部人口、产业密集的地区。

在没有特高压电网之前,这些地区只能就近建设大量火电站。这些火电站不仅会排放大量污染物,还带来了繁重的运输压力。

现在,清洁、高效的特高压电网可以将各类电力资源输送至1000-3000公里以外的区域,

并大量减少了火电用煤的开采和运输车辆的尾气排放,

实现了超广区域的电力调配。

这些横跨中国大江南北的铁塔,

由无数的钢管通过法兰连接组装,不仅要承受电缆上千吨的重量,

还要在狂风、冻雨、暴雪等极端天气下保持稳定。



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### "Eiffel Tower" Setting UP A Cross-Sea **Transmission Line**

Zhoushan Island is located in the east of Zhejiang.

One of the top three important ports in the world - Zhoushan Port is located here.

With the increasing demand for electricity,

people decided to transmit electricity to the island through UHV.

But the first challenge is the Xihoumen waterway,

which is located between two small islands.

To ensure that the 10,000-ton giant ship can continue to pass,

the newly erected cable must be 50 meters above the sea level.

In order to overcome this problem,

engineers decided to build two "Eiffel Towers" on both sides of the waterway to erect cables.

The two towers are 380 meters high,

which are 50 meters higher than the real Eiffel Tower.

The main components of the iron tower are steel pipes with a maximum steel pipe that's 2.3 meters in diameter.

Each iron tower weighs 7280 tons.

All steel pipes are connected and assembled together by neck flanges.

As an important builder of China's UHV market,

we also participated in some lines which successfully cross the Yangtze River and Yellow River.

### 用"埃菲尔铁塔"架设跨海线路

舟山岛位于浙江东部,

这里有世界排名前三的重要港口--舟山港。

随着电力需求的不断增长,人们决定通过特高压向岛上输送电力,

但首先要面对的挑战是西堠门水道,

这处水道位于两座小岛中间,

要保证万吨巨轮能够继续通行,

新架设的电缆必须高出海面50米。

为了突破这一难题,

工程师们决定在两岸修建两座"埃菲尔铁塔"架设电缆,

这两座铁塔高达380米,比真正的埃菲尔铁塔还要高出50多米。

铁塔主要部件为钢管,最大钢管直径2.3米,每座铁塔重7280吨,

所有钢管通过高颈法兰连接组装为一体。

作为中国特高压市场的重要建设者,

我们也帮助了多条线路成功跨越长江、黄河。

行业产品: 平板法兰、高颈法兰、

气体绝缘开关铝镁合金法兰

荣誉项目: 皖电东送工程、

张北-雄安特高压输变电工程、

锡盟-山东输变电工程、

驻马店-武汉特高压交流输变电工程、

武汉-南昌双回1000千伏线路工程、

川渝特高压交流工程线路工程、

荆门-武汉1000千伏特高压交流输变电线路工程、

南昌-长沙1000千伏特高压交流输变电线路工程、

南阳-荆门-长沙1000千伏特高压交流输变电线路工程等

Industry Products: Plate flange, Welding Neck flange,

Aluminum-magnesium alloy flange

Mega Projects: Anhui power transmission project,

Zhangbei-Xiongan UHV transmission project,

Ximeng-Shandong transmission project,

Zhumadian-Wuhan UHC AC power transmission and transformation project,

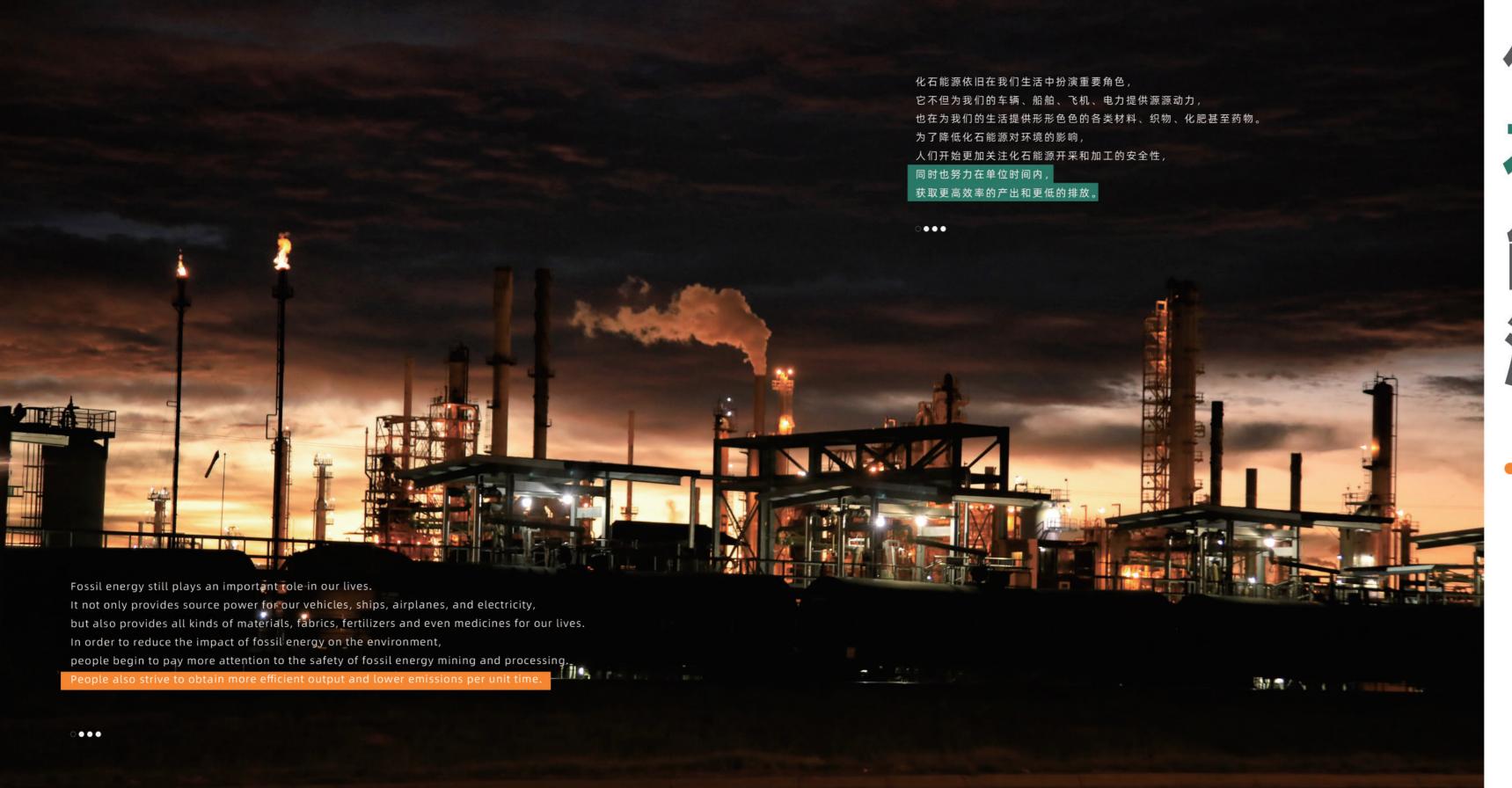
Wuhan-Nanchang double-circuit 1000 kV transmission line project,

Sichuan-Chongqing UHV AC Project Line Project,

Jingmen-Wuhan 1000kV UHV AC Transmission Line Project,

Nanchang-Changsha 1000kV UHV AC Transmission Line Project,

Nanyang-Jingmen-Changsha 1000kV UHV AC Transmission Line Project etc



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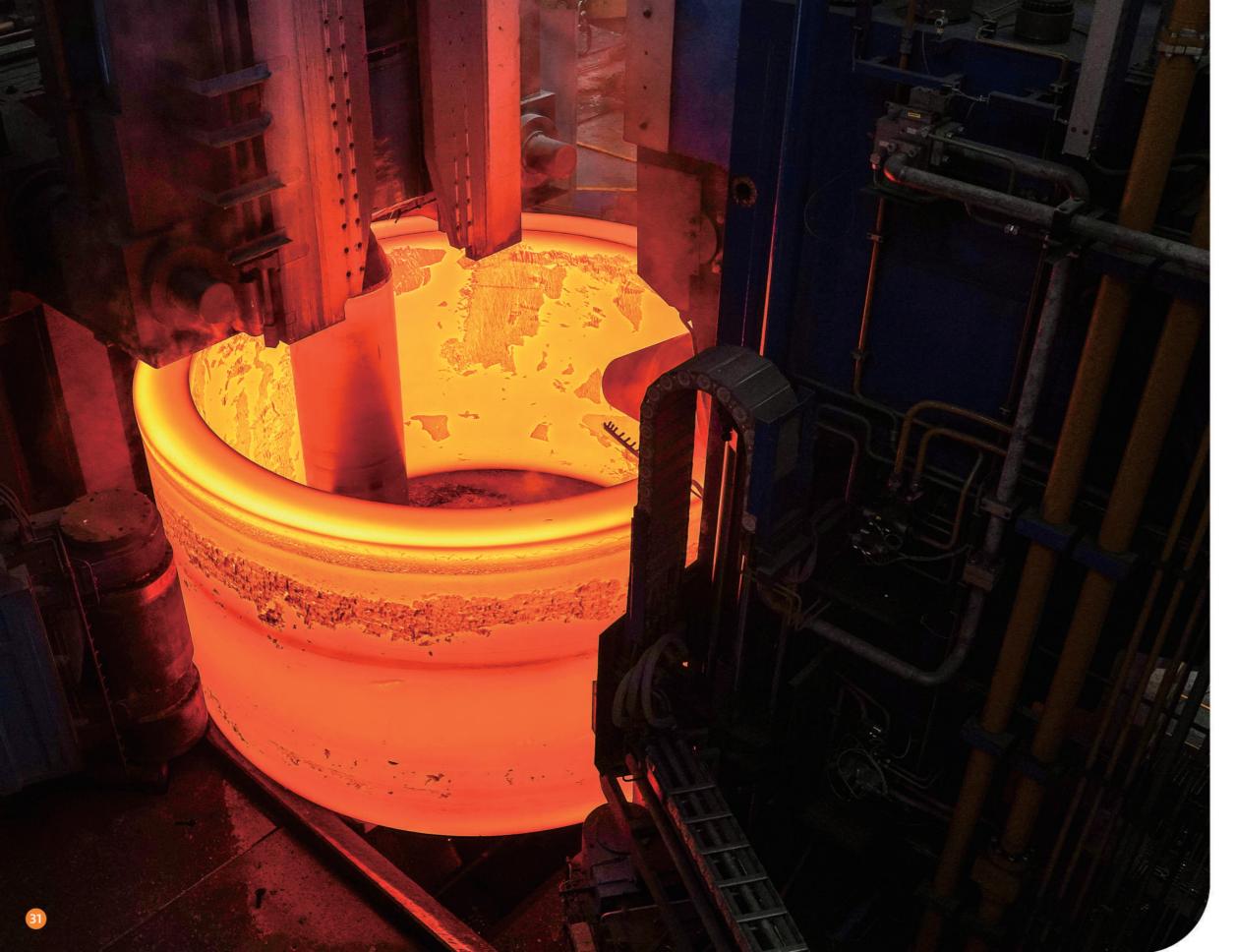
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### **Larger and More Efficient**

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the petrochemical and coal chemical industries are facing more and more challenges, that is safety, environmental protection, efficiency and cost.

In order to achieve greater scale benefits, the reactor,

which is the core equipment of the petrochemical plant,

has begun to develop in the direction of large scale - a larger diameter and a greater wall thickness.

IRAETA provides forgings such as barrel section and transition section, which are manufactured by radial-axial rolling technology.

This technology can break through the work piece size limitation, put on by the column spacing of traditional free forging press.

It also has advantage of higher mechanical performance and shorter lead time.

### 更大更高效

今天,

石油化工、煤化工行业在面对着越来越多的挑战, 安全、环保、效率及成本。 为了实现更大的规模效益, 作为石化装置核心设备的反应器, 开始向大型化方向发展——更大的直径、更大的壁厚。 伊莱特使用径轴向轧制技术制造的筒节和过渡段等锻件, 可以突破传统自由锻压机立柱间距对工件尺寸的限制, 而且具有更高的机械性能和更短的交付周期。

行业产品: 反应器筒节、过渡段、管板 荣誉项目: 中委广东石化炼化一体化项目、 盛虹石化、裕龙石化、出口加氢反应器项目、 银江水电站筒节项目、压力筒项目等 Industry Products: Reactor shell, transition section, Tube plate
Mega Projects: Guangdong CNPC integrated refining project,
Guangdong CNPC integrated refining project, Shenghong
petrochemical project, Shandong Yulong petrochemical project,
Export hydrogenation reactor project, Yinjiang hydropower
station cylinder section project, Pressure cylinder project etc.

### Fluid Transport and Control

Our world is connected by countless pipelines,

like human blood vessels,

supporting the operation of industrial society.

In these 'blood vessels', there are continuously flowing petroleum,

natural gas and fresh water.....

Some pipelines are like our aortas

tretching for thousands of kilometers

They become the economic lifeline of a region and a country.

Some other pipelines are like our capillaries.

They are distributed in corners of buildings.

In these pipeline networks,

flanges connect the pipes into one integrated part.

Valves are used for flow control and emergency shutdown.

They are important components of the fluid transport.

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### 流体输送与控制

我们的世界被无数的管道连接在一起*,* 犹如人体的血管,

支撑着工业社会的运行。

在这些血管中,

流淌着无数的石油、天然气、淡水.....

有的管道像我们的主动脉,

绵延数千公里,

### 成为一个国家和地区的经济命脉,

有的则像我们的毛细血管,

分布在建筑里的各个角落。

在这些网络中,

法兰将管道连接成一体,

阀门则用于控制流量、紧急关停,

他们共同构成了流体输送的重要部件。

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## 化石能源



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### Mining Fossil Energy More Environmentally Friendly

LNG Canada is the largest energy investment project in Canadian history.

It cost US \$ 40 billion and was jointly invested by five consortiums including Shell and CNPC.

LNG liquefied natural gas is colorless, non-toxic, and non-corrosive.

It is regarded as an advanced fossil energy source

because of its small air pollution and large heat release after combustion.

IRAETA provided dozens of flanges for this project.

These flanges have a diameter of more than 2 meters

and a drilling depth of nearly 500 millimeters,

all of which are used in important locations.

### 开采更环保的化石能源

LNG Canada是加拿大史上最大的能源投资项目, 耗资400亿美元, 由壳牌、中石油等5家财团共同投资。 LNG液化天然气无色、无毒、无腐蚀性, 由于燃烧后对空气污染非常小, 释放热量大等优点, 被视为一种先进的化石能源。 伊莱特为该项目提供了数十件法兰, 这些法兰直径超过2米, 钻孔深度近500毫米, 全部应用于重要位置。

行业产品:各类标准法兰、阀门 荣誉项目:LNG Canada, Petrobras FPSO P67/P70, HYUNDAI SAMHO, SAMSUNG HEATY INDUSTRIES, Hardisty Contract Tanks -Phase 1, Kaybob Duvernay Project, PETROCHEMICAL CW System Upgrading Project, 海南文昌气田群水下阀门锻件等

Industry Products: Various standard flanges, valves
Mega Projects: LNG Canada,
Petrobras FPSO P67/P70,
HYUNDAI SAMHO,
SAMSUNG HEATY INDUSTRIES,
Hardisty Contract Tanks -Phase 1,
Kaybob Duvernay Project,
PETROCHEMICAL CW System Upgrading Project,
Hainan Wenchang Gas Field underwater valves forgings etc

### Infrastructure and Asset Equipment Infrastructure and asset equipment carry the development of the enti

From roads, bridges, ports to various machine tools, equipment, engineering machinery, these facilities need huge investments in them and have long payback period.

IRAETA high-quality components can be used to effectively reduce the risk of equipment failure, frequency of maintenance and repair costs.

- 基础设施: 桥梁、建筑、电站、海水淡化、水处理用连接法兰、锻件
- 海洋工程: 打桩锤替打环、船舶尾轴管、高压氧仓法兰、海上平台锻件
- 轨道交通: 盾构机刀盘法兰、驱动箱法兰、中心环、齿轮
- 工程机械:起重机回转支承、轴承
- 工业传动: 水泥回转窑、工业干燥机、矿山磨机用轮带、滚圈、托轮、齿轮
- Infrastructure: Bridge, building, power station, desalination, flange and forging for water treatment
- Ocean engineering: Pile driving hammers ring, ship stern tube, hyperbaric oxygen chamber flange, offshore platform forging
- Rail transit: shield machine cutter flange, drive box flange, center ring, gear
- Engineering machinery: Crane slewing bearing, bearing
- Industrial transmission: Kiln tyre for Cement rotary kiln, industrial drying machine, mining mill, rolling ring, supporting wheel, gear

基础设施与资产装备

成本回收周期长,

...

检修频率和维修成本。

基础设施和资产装备承载着整个人类现代文明的发展,

使用伊莱特的高质量部件可以有效降低设施的故障风险

从道路、桥梁、港口到各种机床、装备、工程机械,

这些设施投资巨大,



Iraeta(Jining)High-tech Equipment Technology Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly-owned subsidiary of Iraeta Energy Equipment Co., Ltd. is a wholly

and specialized in the development and manufacturing of titanium and titanium-alloys super-alloys, nickel-based-alloys, and special steels,

including more than 300 grades of high-quality special steel forgings and forged products in 13 major categories including bonded steel, military steel, tool and die steel, gear steel, bearing steel,

roll steel, and stainless steel, where the maximum diameter of forged products is 1,200mm and the maximum length is 25m. Its products have been widely used domestically in large-scale locomotives,

machinery, tooling, automobile, shipbuilding, petrochemical, aerospace, nuclear power, wind power,

military industry and other industries, while large quantities also being exported to Australia,

Germany, Italy, France, the United States, Japan, South Korea, Turkey,

Brazil and other European, American and Asian countries and regions.

The Company has cooperation experiences in Chinese national key projects,

such as national aerospace launchers, Olympic torch lifter,

the Three Gorges large-sized starting gate, large aircraft mould manufacturing,

high-speed EMU and large and heavy coal shearer.

The Company has currently formed a complete production and processing system integrating high-speed forging, precision forging, heat treatment, fine machining and physical and chemical inspection.

It has introduced 2000T RF100 Radial&Precision forging machine from Austrian GFM.

**行业产品:** 工模具钢 锻棒 锻轴 锻管 模块 Industry products: Tool Stee/Forged Bar Forged Shaft/Forged Tube/Forged Block

### 矿山磨料

从高楼大厦到交通工具, 从家用电器到航空航天, 从金银首饰到电子电池, 金属以各种形态和特性出现在我们的世界, 推动着工业的前进。 2018年,

全球金属矿山行业产量近16亿吨,

### 产值7千多亿,

### 贡献了全球GDP的0.8%。

作为一种基础工业原料, 矿石在开采后只有经过破碎选矿, 才能进行后续的金属提炼, 而破碎所需的基本产品就是耐磨钢球。

庞大的市场需求和持续不断地磨矿消耗 耐磨钢球成为矿山成本的重要开支。 对于矿山行业, 高品质的磨球可以有效降低选矿的能源成本。

同如灰的岩环可以有双阵以近少的形像

### $\circ \bullet \bullet \bullet$

### **Mine Abrasives**

From high-rise buildings to transportation, from household appliances to aerospace, from jewelry to electronic batteries, metal appears in our world in various forms and characteristics, propelling the industry.

In 2018, the global metal mining industry produced nearly 1.6 billion tons.

The output value is more than 700 billion yuar

### contributing 0.8% of global GDP.

As a type of basic industrial raw material,

ores need to go through the crushing and beneficiation.

Only after that can subsequent metal extraction be carried out.

The basic product required for crushing is grinding steel balls.

The huge market demand and continuous grinding consumption have made grinding steel balls an important mine cost.

For the mining industry,

high-quality grinding balls can effectively reduce the energy cost of beneficiation and increase the output efficiency of ore powder.

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### 超大装备核心部件事业部,

聚焦未来十年重大装备行业新质生产力构筑,

服务国家和全球高端装备的创新型突破和下一轮技术革命的爆发。

主要设备包括:全球最大2.2万吨压机一台,配套300吨操作机;

### 轧制直径22米,高度5米全球最大轧环机1台;

加热炉10台套、热处理设备12台套、机加工设备13台套、环保设备1台套;

其他辅助设备14台套。

依托伊莱特与中国科学院金属所、中国原子能院、清华大学、

山东大学等科研机构的深度产学研合作,融合稀土钢材料研发、

金属构筑增材制造等世界前沿技术,

针对20-30兆瓦海上风电、先进炼化、大容量制氢储氢、三代核电、

四代核电、超深海工程、太空工程、基础物理等国际高尖端领域,

开展先进技术、先进研究成果的产业化落地和市场推广, 为相关装备关键核心部件的研发制造提供有力保障。

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focuses on building new quality productive forces for the major equipment industry over the next decade, serving the innovative breakthroughs and the next round of technological revolution for national and global high-end equ

Main equipment includes:One of the world's largest 22,000-ton presses, with 300-ton manipulating machines;

10 sets of heating furnaces, 12 sets of heat treatment equipment, 13 sets of machining equipment, and 1 set of environmental protection equipment; 14 sets of other auxiliary equipment.

The project relies on in-depth industry-university-research cooperation with Iraeta,

the Institute of Metal Research of the Chinese Academy of Sciences,

the China Atomic Energy Institute, Tsinghua University, Shandong University, and other research institutions.

It integrates cutting-edge technologies such as rare earth steel material development and metal construction additive manufacturing.

The project targets international high-end fields such as 20-30 megawatt offshore wind power,

advanced refining, large-capacity hydrogen production and storage, third-generation nuclear power,

fourth-generation nuclear power, ultra-deep sea engineering, space engineering, and basic physics.

It aims to industrialize and promote advanced technologies and research findings,

providing strong support for the research and manufacturing of key core components of related equipment.

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### Our Green Cycle

In 2015, Iraeta cooperated with the Institute of Metal Research of the Chinese Academy

of Sciences to establish the "Academician Li Yiyi Workstation".

Jointly committed to the material research and development

and preparation of large scale high-end forgings,

Relying on the team of academician Li Yiyi of the Institute of Metals for many years,

Deep accumulation in the field of advanced materials research

and development and forging processes.

Academician Li Yiyi's workstation carried out diversified trial production and improvement in Iraeta

It has accelerated the industrial application of advanced

metal materials and large-scale forgings research in Chir

In order to solve the manufacturing problems of large high-end forgings more systematically

Iraeta decided to redesign the process chain and extend it upstream.

In September 2022, 1.7 billion yuan was invested in the nuclear power

deep-sea engineering high-end equipment science

and innovation industrial park. Mainly for nuclear power,

hydropower, marine engineering, high-end equipment fields,

R&D and preparation of various advanced materials,

This also enables us to achieve an integrated process design for material preparation,

forging, heat treatment and machining.

It has a new pattern of green and low-carbon circular economy development industry with a closed-loop whole industrial chain.

2015年,伊莱特与中科院金属研究所合作成立了"李依依院士工作站"。

共同致力于大型高端锻件的材料研发与制备,

依托金属所李依依院士团队多年来,

在先进材料研发和锻造工艺领域的深厚积累。

李依依院士工作站在伊莱特进行多样化试产与改进,

加快了我国先进金属材料和大型锻件研究的产业化应用。

为了更加系统性地解决大型高端锻件的制造难题,

伊莱特决定重新设计工艺链条,向上游延伸工艺链。

2022年9月,投资17亿元、建设的核电深海工程高端装备科创产业园。

主要针对核电、水电、海洋工程、高端装备领域,

进行各类先进材料的研发和制备

这也使我们实现了材料制备、锻造、热处理和机械加工的一体化工艺设计。

具备了闭环全产业链的绿色低碳循环经济发展产业新格局。

### 我们的绿色循环

2020 年 9 月,中国国家主席习近平在第七十五届联合国大会上表示:
中国将力争 2030 年前实现碳达峰, 2060 年前实现碳中和。

作为清洁能源产业链上的一环,伊莱特对清洁能源蓬勃、广阔的未来前景充满期待。

我们相信,碳达峰、碳中和是构建人类命运共同体的必由之路。
同时也深知锻造企业的绿色转型之路充满巨大挑战,

未来,我们将从技术变革、生产方式、组织文化等各方面做出努力。

适应未来的商业形态,履行企业、公民更高标准的责任和义务。

为此,伊莱特成立了 "双碳" 领导小组,并制定了自己的碳达峰、碳中和行动路线和目标。

我们将积极探索、实践、分享节能减排技术与经验。

引领行业"绿色锻造"转型,向客户提供更加绿色的产品和服务。

In September 2020, the President of China stated at the 75th session of the United Nations General Assembly:

China will strive to peak carbon emissions before 2030

and achieve carbon neutrality before 2060.

As a link in the clean energy industry chain,

Iraeta is full of expectations for the vigorous and broad future prospects of clean energy.

We believe that carbon peaking and carbon neutrality

are the only way to build a community with a shared future for mankind.

At the same time, we also know that the green transformation of forging enterprises is full of great challenges.

In the future, we will make efforts in terms of technological change,

production methods, organizational culture and other aspects.

Adapt to the future business form, and fulfill the responsibilities and obligations

of higher standards of enterprises and citizens.

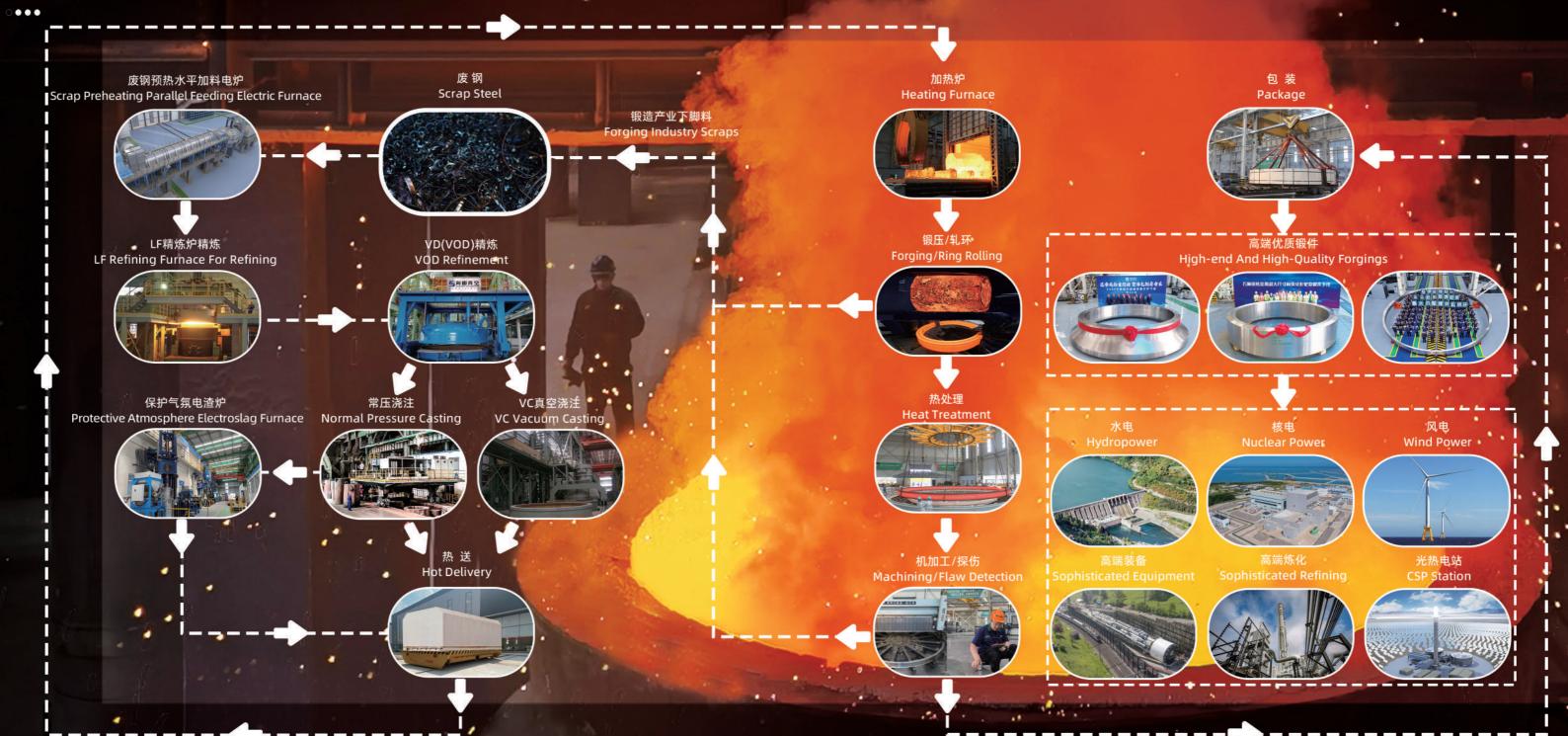
To this end, Iraeta has established a "dual carbon" leading group and formulated its

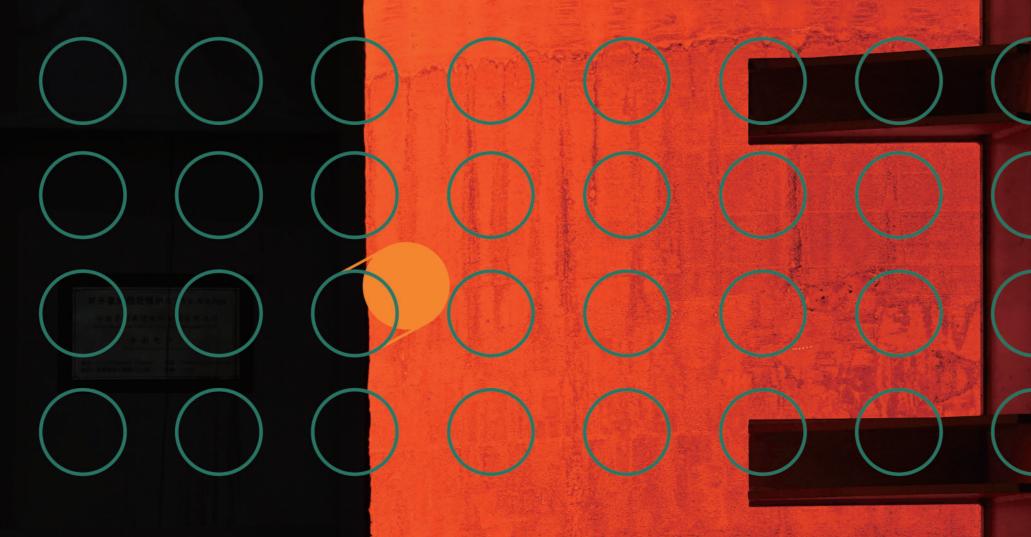
own carbon peaking and carbon neutrality action lines and goals.

We will actively explore, practice and share energy-saving and emission-reduction technologies and experiences. Lead the "green forging" transformation of the industry and provide customers with greener products and services.

### 绿色循环产业链

Green Recycling Industry Chain





盘类、环类、筒体、异形锻件; 锻管、锻棒; 耐磨钢球、钢段及钢棒。

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### 产品材料

实现从黑色金属到有色金属的全覆盖。 •••

实现直径从73毫米到22米,

产品单重

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实现从重量 0.3kg 到 350 吨的全覆盖。

产品尺寸

高度从 12.5 毫米到 5 米的全覆盖。 长度最长可达 25 米。

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### **Leading Products** Discs, rings, hollows, irregular-shaped forgings;

forged tube, bar round bar; grinding steel balls, steel bars and rods.

### **Product Materials**

from ferrous metals to non-ferrous metals.

### **Product Size**

Achieve comprehensive coverage, from 73 mm to 22 m in diameter, and from 12.5 mm to 5 m in height.

### **Product Weight**

Achieve comprehensive coverage, from 0.3 kg to 350 t, maximum lengh is 25m.



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### A Member of the Society

We know that enterprises not only exist in the business environment,
but are also an integral part of the entire society.

We pay attention to employee development,
ensure the safety of employees' working environment,
and pay attention to the sustainable development with community residents.

IRAETA is compliant with the ISO14001 environmental management system and the ISO45001 occupational health and safety management system.

We ensure the safety of the surrounding environment of the community

and reviewing employee's working safety from the perspective of being responsible for employee's entire family.

We actively give priority to provide employment opportunities for surrounding communities.

We provide vocational skills training for young people.

We promote women's employment and equality and provide necessary help for special groups such as poor children and the elderly.



### 社会一员

我们深知企业不仅仅存在于商业环境中, 更是整个社会的有机组成部分。 我们关注员工发展, 确保员工工作环境的安全, 并注重与社区居民的可持续性发展。 这些措施包括遵从ISO14001环境管理体系以及ISO45001职业健康安全管理体系,确保社区周边环境的安全性, 以及对员工整个家庭负责的角度审视员工工作环境的安全性; 积极为周边社区优先提供就业机会, 关注年轻人群的职业技能培训; 促进女性就业与平等, 为贫困儿童、年长者等特殊群体提供必要帮助等。

### 20+

全年安全培训次数20+ 20+ times of safety training each year

### 600+

每年帮助社区特殊人群600+人次 Help 600+ person-time of special people in the community each year

### **≈**12%

近三年新增就业增长率为12% Annual growth rate of new employment is around 12% in the last three years

### 150+

近三年学徒工培训人次150+ 150+ person-time of apprenticeship training in the last three years

### ISO14001

环境管理体系认证 Environment management system certification

### ISO45001

职业健康安全管理体系认证 Occupational health and safety management system certification

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### 质量-我们赢得市场的根本

伊莱特迄今已经有超过20年的全球销售经验, 我们深刻理解标准化对全球不同国家、地区、组织和企业的重要作用。 因此我们严格遵循并积极推进自己的运营符合相关标准, 迄今我们取得的各类认证和供应商审核包括:

### 通用体系认证:

ISO 9001/TÜV Rheinland ISO 14001/NQA ISO 50001/CQM

### 实验室认证:

ISO 45001/NQA

ISO 17025/ilac-MRA CNAS

### 产品、材质、特殊行业认证:

特种设备制造许可证/山东省市场监督管理局

PED/TÜV Rheinland

CPR/TÜV Rheinland

EN1090/TÜV Rheinland

CCS

LLOYD'S

ABS

DNV-GL

ClassNK

BV RINA

日本经济产业省

鉴衡认证

NORSOK M-123工厂评估证书

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### 以下企业对我司进行周期性审核或认证:

### 风电类:

维斯塔斯VESTAS

西门子歌美飒

通用电气

上海电气

远景科技

天顺风能

中船澄西

### 管道、管塔、工程机械法兰和锻件:

巴西石油

中国国家电网

波马POMA

三井物产MITSUI

日立建机

利勃海尔

凯登KAYDON

纽威

伊藤忠丸红

中石油天然气集团

### 核电类:

中国一重集团有限公司

上海电气核电集团有限公司

### 磨球类:

Vale

Rio Tinto

BHP

Zijin

China Minmetal

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### **Quality - the Root of Our Winning Market**

IRAETA has over 20 years of global sales experience. We understand the significance of standardization for various countries, regions, organizations and enterprises. Thus, we strictly follow and actively ensure our operations meet relevant standards. So far, we have acquired the following certifications and supplier audits:

Generalsystem certification:

ISO 9001/TÜV Rheinland

ISO 14001/NQA

ISO 50001/CQM

ISO 45001/NQA

### Laboratory certification:

ISO 17025/ilac-MRACNAS

Product, material and special industry certification:

Civil Nuclear Safety Equipment Manufacturing License/Shandong Admin-

istration for Market Regulation

PED/TÜV Rheinland

CPR/TÜV Rheinland

EN1090/TÜV Rheinland

CCS

LLOYD'S

ABS

DNV-GL

ClassNK

BV RINA

KR

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CHINAGENERAL CERTIFICATIO

Thefollowing enterprises periodically audit or certify our company:

### Wind power:

**VESTAS** 

SIEMENS GAMESA

SHANGHAI ELECTRIC GROUP

**ENVISION** 

TITANWind

CSSC

### Pipeline, pipe tower, engineering mechanical flange and forgings:

**PETROBRAS** 

StateGrid

POMA MITSUI

Hitachi Construction Machinery

LIEBHERR

KAYDON

NEWAY

MARUBENI-ITOCHUSTEEL

CNPC

### Nuclear power:

CHINA FIRST HEAVY INDUSTRIES

SHANGHAI ELECTRIC NUCLEAR POWER GROUP

CO., LTD.

### Grinding ball:

Vale

Rio Tinto

BHP

Zijin

China Minmetal

The above certification is for reference only. Please contact the sales department for detailed certification scope, certificate number, etc.

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### 荣誉与影响力

企业荣誉:

国家级企业技术中心制造业单项冠军示范企业(风电法兰)国家级绿色工厂国家高新技术企业中国机械企业500强2017/2018/2019/2022中国锻协信用等级AAA级企业

山东省人民政府先进民营企业 山东省院士工作站 山东省瞪羚企业 山东省中小企业隐形冠军企业 山东省专精特新企业 山东省制造业单项冠军-风电法兰锻件 山东省高端装备制造业领军企业-新能源装备 山东省工程实验室 山东省技术创新示范企业 山东省科技领军企业

全国模范职工小家 山东省模范职工之家 山东省五一劳动奖状 山东省诚信经营示范单位 山东省资信等级AAA企业 山东省厂务公开民主管理工作优秀单位

山东省两新组织党建工作示范点 山东省先进基层党组织 山东省锻压协会会长单位 济南市"厚道鲁商"品牌企业 参与以下国家、行业、团体标准制定:

《风力发电机组 环形锻件》

《合金铸铁磨球》

《锻(轧)钢球》

《低铬合金铸铁磨段》

《球磨机用锻(轧)钢段》

《球磨机钢球用钢》

《风力发电机组 整锻塔架法兰制造标准》

《锻-轧式大型筒形锻件 通用技术条件》

《锻-轧式大型环形锻件 通用技术条件》

《回转窑构筑成形锻造轮带》

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### **Enterprise honor:**

National Enterprise Technology Center Manufacturing single champion demonstration enterprise (wind power flange)

Honors and Influence

National Green Factory

National High-tech Enterprise

Top 500 Chinese Machinery Enterprises 2017/2018/2019/2022

Confederation of Chinese Metalforming Industry credit rating AAA enterprise

Pioneer Private Enterprise of Shandong Province Government

Shandong Academician Workstation

Shandong Province Gazelle Enterprise

Hidden champion enterprise of small and medium-sized enterprises in Shandong Province

Shandong Province specialized in special new enterprises

Shandong Province Manufacturing Individual Champion-Wind Power Flange Forging

Shandong Province High-end Equipment Manufacturing Leading Enter-

prise-New Energy Equipment

Shandong Engineering Laboratory

Shandong Province technology innovation demonstration enterprise Leading enterprise of science and technology in Shandong Province

National Model Workers' Family

Shandong Model Workers' Home

May Day Labor Certificate of Shandong Province

Demonstration Unit of Good Faith Management in Shandong Province

Credit Rank AAA Enterprise of Shandong Province

Shandong Province factory affairs open democratic management excellent unit

Shandong "Two New" organizations Party Building Demonstration

Shandong City Pioneer Grassroots Party Organizations

President unit of Shandong Forging Association

Jinan City "Honest Lu Shang" Enterprise

Participate in the development of the following national, industry and group standards:

Industry standard: Ring Forgings of Wind Turbine Generator Set

Industry standard: Alloy Cast Iron Grinding Balls

Industry standard: Forging (Rolling) Steel Grinding Balls

Industry standard: Low Chromium Alloy Cast Iron Grinding Cylpebs

Industry standard: Forging (Rolling) Steel Grinding Cylpebs for Ball Mill

Industry standard: Steel Used in Grinding Balls in Ball Mill

Association standard: Wind Turbines - Manufactural Standard for Integrally-forged Tower Flanges

Association standard: General Specifications for Forging and Rolling Large Cylindrical Forgings

Association standard: General Technical Conditions for Forging and Rolling Large Ring Forgings

Association standard: Construction of Rotary Kiln for Forming and Forging Tyres

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济南国际机场 Jinan Airport



驾车40分钟/ 40 mins' drive

青岛 Qingdao



高铁1小时20分钟/ 1 hours 20 mins by train

北京 Beijing



高铁1小时20分钟/ 1 hour 20 mins by train

上海 Shanghai



高铁3小时10分钟/ 3 hours 10 mins by train



飞机1小时50分钟/ 1 hour 50 mins by plane

### 周边主要港口/ Major Surrounding Ports

距章丘港: 30公里 To Zhangqiu Port: 30km

距青岛港: 300公里

To Qingdao Port: 300km

距潍坊港: 200公里

To Weifang Port: 200km

距日照港: 300公里

To Rizhao Port: 300km

