上海腾旺

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SHANGHAI TENGWANG NEW CERAMIC TECH CO.,LTD

上海腾旺新陶瓷技术有限公司

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Company Profile
公司简介

上海腾旺——窑炉热修的卓越之选

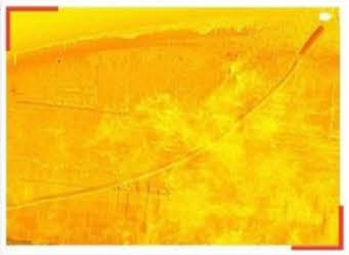
Shanghai Tengwang-----The Premier Choice for Furnace Hot Repair

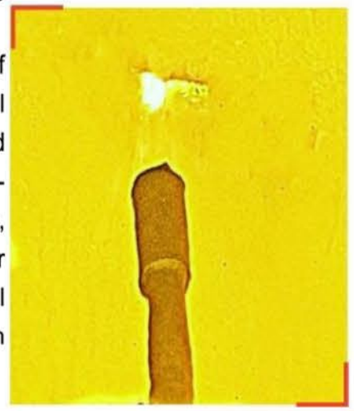
关于我们

上海腾旺公司，自2011年诞生以来，已为全球众多客户提供了可靠且高效的窑炉热修服务。作为一家窑炉热修公司，我们擅长处理各种复杂的热修工程，能够快速确定各种窑炉热修问题，为客户提供合理热修方案。

在质量方面，上海腾旺始终坚持严格的质量控制标准我们实施严格的现场管理制度，定期对专业技术人员培训，并引入视频引导陶瓷焊补技术，确保每项焊补维修质量符合客户标准。

上海腾旺以焊补质量控制和客户至上的服务理念，赢得了客户的信赖和赞誉。我们与众多知名企业建立了长期稳定合作关系，并致力于不断创新，提升服务质量，为客户创造更大价值。在未来的发展中，上海腾旺将继续秉承这一理念，为客户提供更优质热修服务。





About us

Since 2011, Shanghai Teng Wang Company has provided reliable and efficient glass furnace hot repair services to customers worldwide.As a company specializing in glass furnace hot repairs, we excel at managing complex projects, swiftly identifying problems, and offering reasonable solutions to our clients.

In terms of quality, SHANGHAI TENG WANG has always adhered to strict quality control standards. We implement strict on-site management systems, regularly train professional and technical personnel, and introduce video-guided ceramic welding and repair technology to ensure that the quality of each welding and repair meets customer standards.

SHANGHAI TENG WANG has won the trust and praise of customers with its quality control in welding and repair, as well as a customer-oriented service philosophy. We have established long-term, stable cooperative relationships with many well-known enterprises and are committed to continuous innovation, improving service quality, and creating greater value for customers. In future development, Shanghai Teng Wang will continue to adhere to this philosophy and provide customers with even better hot repair services.

企业使命——努力做好玻璃窑炉安全卫士

Mission Statement ---To be the guardian of glass furnace safety

01 ● 为安全生产，保驾护航
Guarantee safe production and escort it

02 ● 增加玻璃产量
Increase glass production

03 ● 提高窑炉热效率
Improve kiln thermal efficiency

04 ● 降低企业碳排放
Reduce enterprise carbon emissions

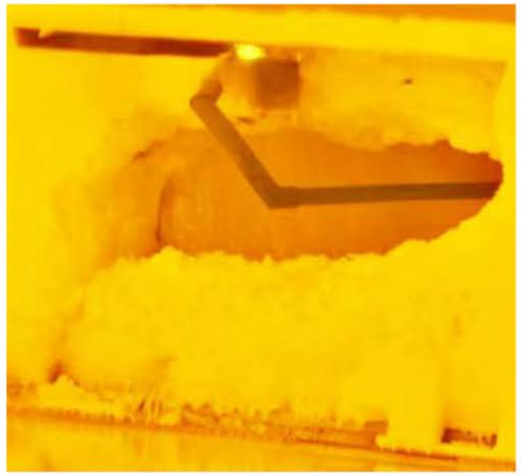
05 ● 促进人与自然和谐
Promote harmony between human and nature

陶瓷焊补

Ceramic Welding

陶瓷焊补，也被称为耐火材料焊补、陶质焊补或火焰焊补，是一种全新的工业炉窑热态维修新技术。这种技术主要针对工业炉窑内部的耐火砖进行高温热态修复。焊补后的焊补体状态与窑炉内衬相似，因此得名陶瓷焊补。这种技术可以在窑炉不停产的高温状态下进行维修，有效地延长了窑炉的使用寿命，并大大降低了企业生产成本。

Ceramic welding, also known as refractory welding, ceramic welding or flame welding, is a new technology for hot repair of industrial furnaces. This technology is mainly used for high-temperature hot repair of refractory bricks inside industrial furnaces. The welded body after welding is similar to the lining of the furnace, so it is named ceramic welding. This technology can be used for maintenance at high temperature without stopping the production of the furnace, effectively prolonging the service life of the furnace and greatly reducing the production cost of enterprises.

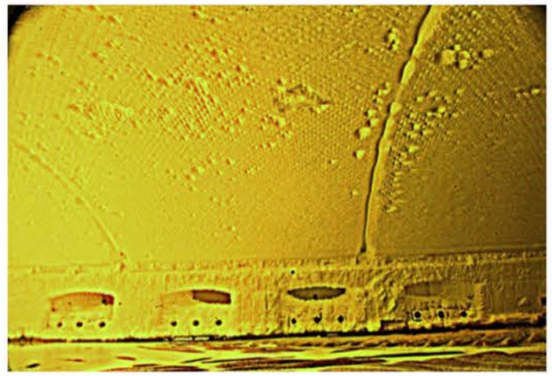


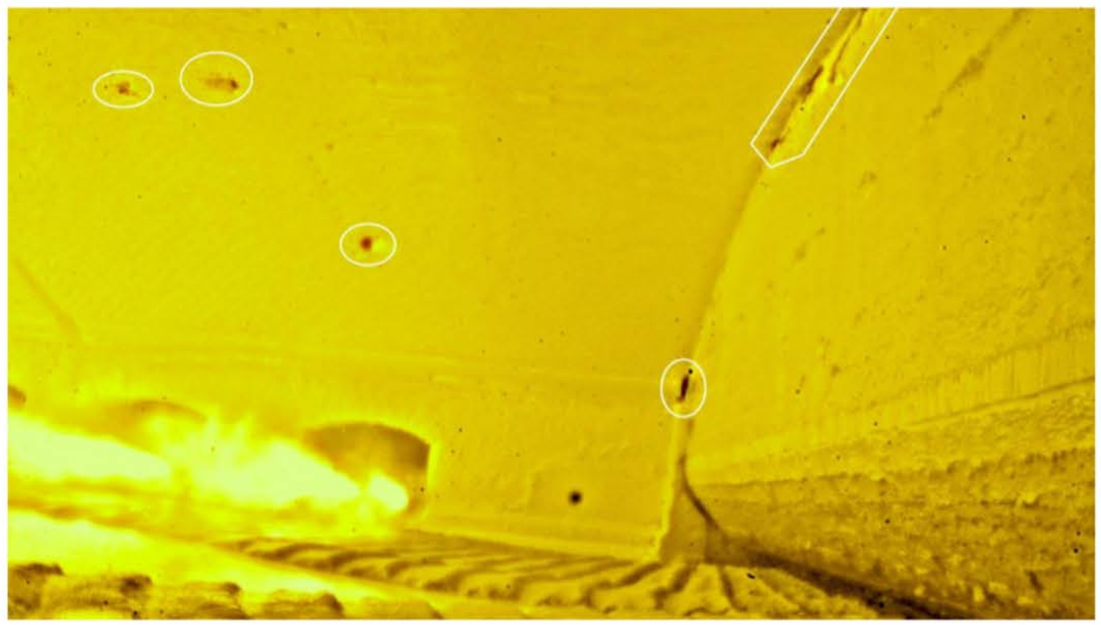
窑炉检查

Furnace Inspection

玻璃窑炉内窥镜检查是一种使用专门的内窥镜设备对玻璃窑炉内部进行检查和诊断的技术。这种技术主要用于观察窑炉内部的耐火材料状况，如碹顶烧蚀、损毁，格子砖堵塞。

Glass furnace endoscope inspection is a technology that uses specialized endoscope equipment to inspect and diagnose the inside of glass furnaces. This technology is mainly used to observe the condition of refractory materials inside the furnace, such as erosion and damage to the vault, and blockage of the grate bricks.





格子体疏通、更换

Checker Work Cleaning, Replacing

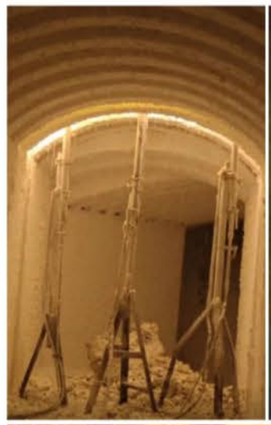
格子体清理主要涉及到对蓄热室格子体的维护和清洁工作。由于在使用过程中，格子体可能会受到积灰、堵塞等问题的困扰，因此需要采取一系列措施进行清理和疏通。

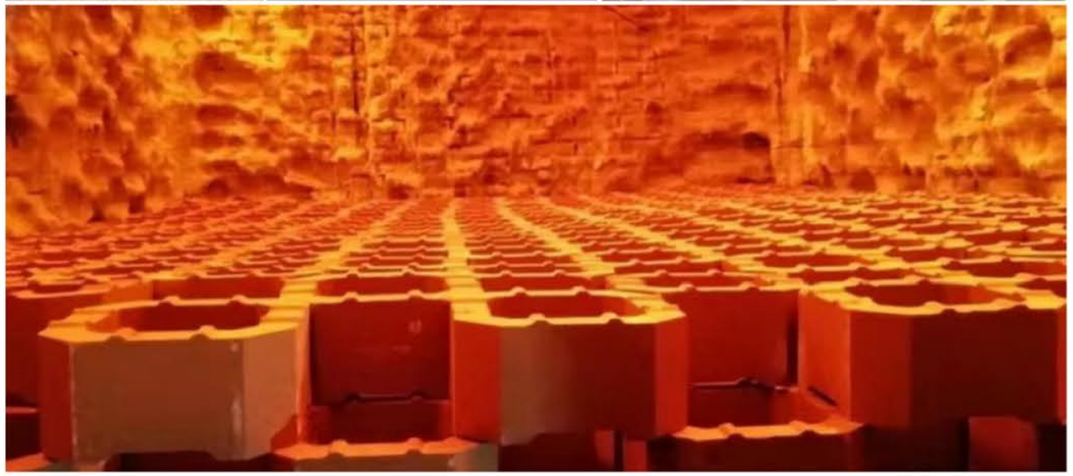
The cleaning of checker work mainly involves maintenance and cleaning work of the heat storage chamber checker work. Due to issues such as ash accumulation and blockage during use, a series of measures need to be taken for cleaning and clearing.

常用方法

common methods

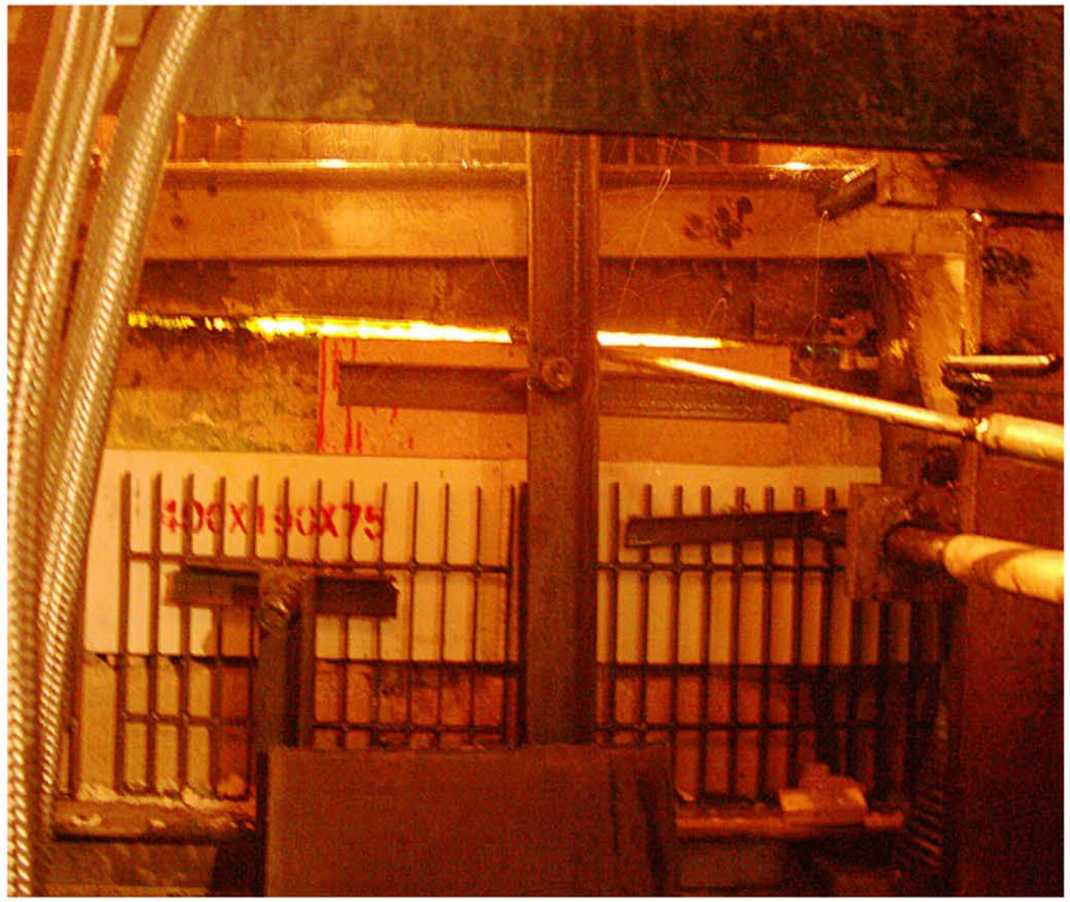
- 压缩空气吹扫法　Compressed air blowing method:
- 捅杆法　Rod poking method:
- 回火烧蚀法　Tempering erosion method
- 底部火焰烧蚀法　Bottom flame erosion method

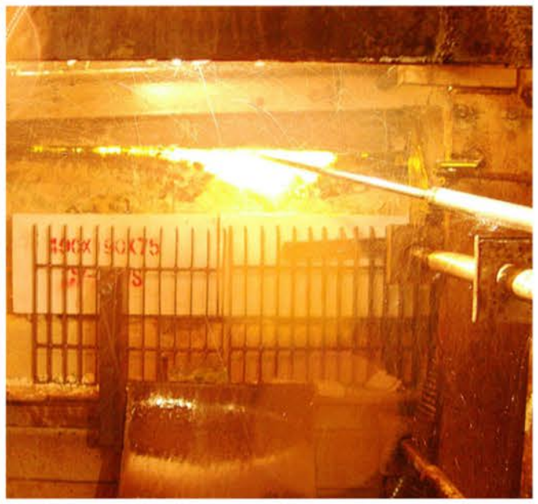




池壁绑砖

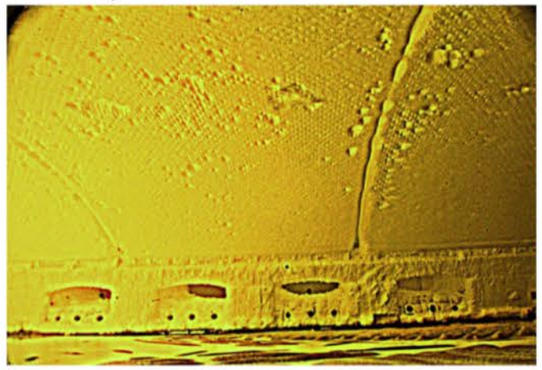
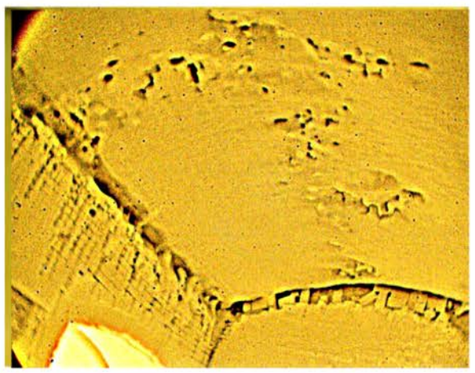
Side Wall Of Tank Patching





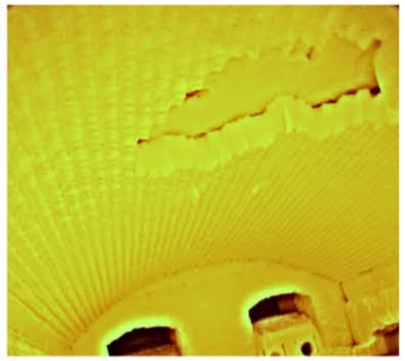
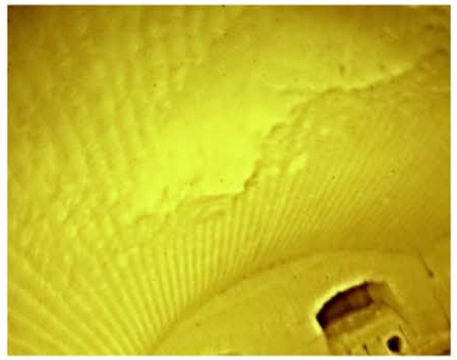
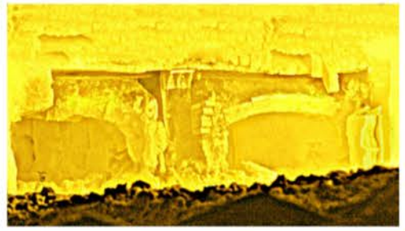
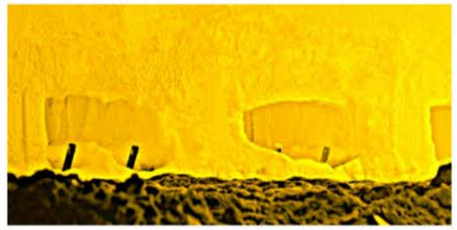
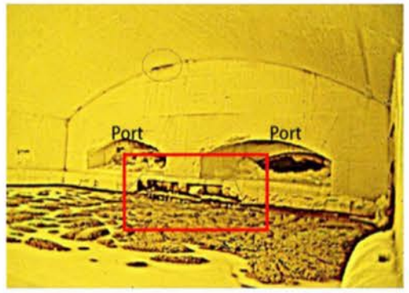
窑炉热修

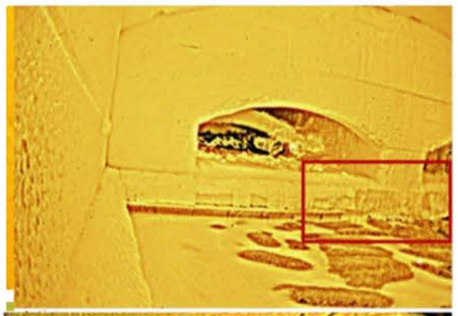
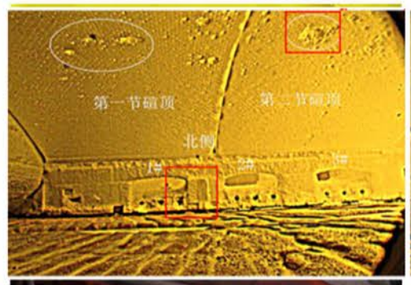
Hot Repair

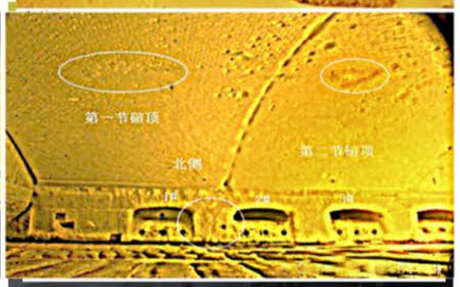



焊补实例

Success Case



研发及实验中心

Research and Development

硅砖及焊补体 SILICA BRICK AND WELDING MATERILAS

AZS及焊补体 AZS AND WELDING MATERIALS

焊补体理化指标 Physicochemical parameter of welding materials	硅质焊补体 (silica welding materials)	锆质焊补体 (zircon welding materials)
体积密度 (g/cm³) 1500℃*3hrs Bulk density (g/cm³)	≥1.83	≥2.33
耐火度 (℃) Refractoriness (℃)	≥1710	≥1800
耐压强度 (Mpa) 110℃*24hrs Compressive strength(Mpa)	≥34	≥118
荷重软化温度 (℃) 0.2Mpa Refractoriness under load (℃)	≥1,670	≥1700
热膨胀率 %(1300℃) The coefficient of thermal expansion	0.51	0.51
化学组成 Chemical composition	SiO_2≥99 Fe_2O_3 ≤0.2	SiO_2 ≥59 ZrO_2≤30

焊补设备

welding equipments

焊补装备材料研发

Research and Development

实验中心

上海腾旺公司实验中心成立于2011年，是腾旺公司的重要研发机构。中心拥有一支高素质的研发团队，包括4名本科及以上学历的研发人员。他们致力于自主开发窑炉热修材料和相关设备，为腾旺公司的产品创新和技术升级做出了突出贡献。

实验中心以科技创新为核心，不断探索和研究窑炉热修领域的新材料、新工艺和新技术。经过多年的努力，已经成功开发出多种具有自主知识产权的热修材料和设备，为提高窑炉热修专业性和可靠性提供了有力支持。

此外，实验中心还积极参与行业交流和合作，与国内外多家知名企业和高校建立了紧密的合作关系，共同推动窑炉热修技术的发展。

未来，上海腾旺公司实验中心将继续秉承创新、卓越的理念，不断推动窑炉热修技术的进步，为全球窑炉设备用户提供更优质的产品和服务。

Shanghai Tengwang Company Lab Center was founded in 2011 and is an important research and development institution of Tengwang Company. The center has a high-quality R&D team, including 4 researchers with bachelor's degree or above. They are committed to independently developing thermal repair materials and related equipment for multiple kiln, making outstanding contributions to product innovation and technological upgrading of Tengwang Company.

The Lab Center focuses on technological innovation, continuously exploring and researching new materials, technologies, and processes in the field of kiln thermal repair. After years of efforts, it has successfully developed various heat repair materials and equipment with independent intellectual property rights, providing strong support for improving the stability and reliability of kiln equipment.

In addition, the Lab Center also actively participates in industry exchanges and cooperation, establishing close cooperation relationships with many well-known enterprises and universities at home and abroad to jointly promote the development of kiln thermal repair technology.

In the future, Shanghai Tengwang Company Lab Center will continue to uphold the concept of innovation and excellence, continuously promote the progress of kiln thermal repair technology, and provide better products and services to global kiln equipment users.

证书号第21546693号

专利公告信息

实用新型专利证书

实用新型名称：焊补枪高温感应镜头套

专 利 权 人：上海腾旺新陶瓷技术有限公司

地　　址：201900 上海市宝山区月罗路310号F东2-G294室

发 明 人：张立生;王日尧

专　利　号：ZL 2023 2 3418246.4　　授权公告号：CN 221560232 U

专利申请日：2023年12月15日　　授权公告日：2024年08月20日

申请日时申请人：上海腾旺新陶瓷技术有限公司

申请日时发明人：张立生;王日尧

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2024年08月20日

第 1 页 (共 1 页)

蓄热室碹顶陶瓷焊补维修

The regenerator crown hot repair

9平方蓄热室碹顶吊砖焊补

A 9m² hole in regenerator crown hot repair

1.做好安全保护措施
2.吊挂零膨胀硅砖
3.实施陶瓷焊补

1.Implement safety protection measures
2.Suspend zero expansion silicon brick
3. Implement ceramic welding repairs.

胸墙内倾解决方案

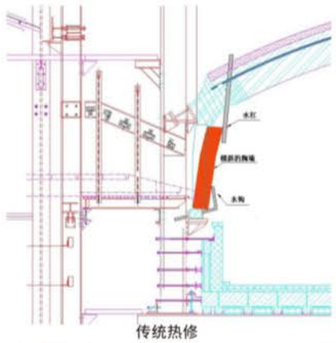
The breat wall hot repair

浮法窑炉胸墙内倾解决方案

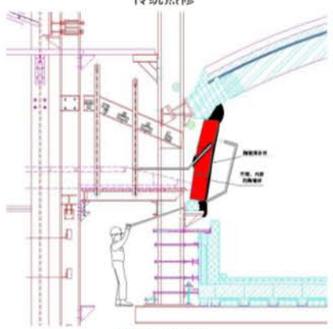
Breast wall inward leaning hot repair methods

1.传统热修手段：传统的维护措施是在窑炉熔化部大碹顶开孔，伸入倾斜的水杠挡在胸墙前，用水杠挡住胸墙砖。从下面间隔砖伸入一支水钩将倾斜的胸墙钩住。
2.陶瓷焊补热修。采用了在胸墙砖上打盲孔下水钩锚拉并进行陶瓷焊补的优化措施，有效的阻止了胸墙的内倾。

1.Traditional maintenance measures: The traditional maintenance measures involve opening a hole in the arch at the top of the melting section of the furnace, inserting a water bar that is inclined to block the breast wall bricks. A water hook is inserted through the interval bricks to hook the leaning breast wall from below.
2. Ceramic welding repair. An optimized measure has been adopted to a drill blind hole on the breast wall brick, insert water hook anchors, and perform ceramic welding repairs. This effectively prevents inward leaning of the breast wall.



传统热修



陶瓷焊补热修

企业团队介绍

窑炉热修团队介绍

The furnace maintenance team introduction

技术手段先进。采用感应陶瓷焊补枪，焊补过程实施监控记录。
维修经验丰富。15年窑炉热修经验。
年龄结构合理。团队年龄中位数40岁。

Advanced technical means. the use of induction ceramic welding gun, the welding process is monitored and recorded.
Rich maintenance experience. 15 years of furnace heat maintenance experience.
Reasonable age structure. the median age of the team is 40 years old.

黄经理

王经理

邓队

王队

熊队

一、 公司特点

1、Company characteristics

- ✓ 员工学历高
- ✓ **High-degree employee**

我司员工是由中青年工程师、技师为主；员工的整体学历高，其中有硕士 **2** 人，大专 **2** 人；所有员工都在玻璃行业工作多年，经验丰富，职业素养高，在行业内有良好的口碑。

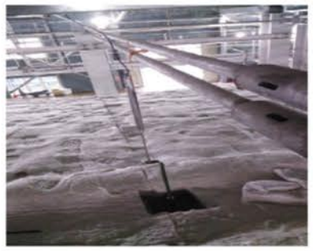
Our employees are mainly young and middle-aged engineers and technicians; The overall education of the employees is high, including 2 master's degree and 2 college degree; All employees have worked in the glass industry for many years, with rich experience and high professionalism, and have a good reputation in the industry.

- ✓ 设备一流
- ✓ **First-rate facilities**

采用多种先进技术对传统烤窑设备进行系统改造升级，使我司的设备装备水平达到国际领先水平：全新设计燃烧设备、测温系统和全电子测膨胀系统。

A variety of advanced technologies are used to systematically transform and upgrade the traditional heating-up equipment, so that our equipment and the level has reached the international leading level: entirely new designed heating up equipment, temperature measurement system and **all-electronic measurement expansion coordinate system.**

烤窑设备 **The furnace heating-up equipment**



电子膨胀测量系统 **Electronic measurement expansion**

- ✓ 技术先进、业务广泛
- ✓ **Advanced technology, Extensive business**

我司技术服务范围广泛、技术开发能力强，如：烤窑过程中建立完善窑炉膨胀数据理论；煤气窑炉过火、煤气生产指导理论。特别是我司开发了定向加热疏通技术具有能耗低，效率高和环保生产影响小等特点，也可以实现煤气空气蓄热室加热疏通；每年疏通蓄热室超过 **100** 多个，受到用户大量好评。

Our company has a wide range of technical services and strong technology development capabilities, such as: establishing and improving the theory of furnace expansion data in the heating up process, Gas furnace heating with normal burner and production guidance theory.

In particular, our company has developed directional heating up cleaning technology, with low energy consumption, high efficiency and minimal environmental impact on production. It can also use gas to heating up and checker cleaning of regenerator; More than 100 regenerators are cleaning every year, and received a lot of praise from customers.

特有定向热风疏通蓄热技术

Specific directional heat-up regenerator checker cleaning technology

二、 公司业务范围

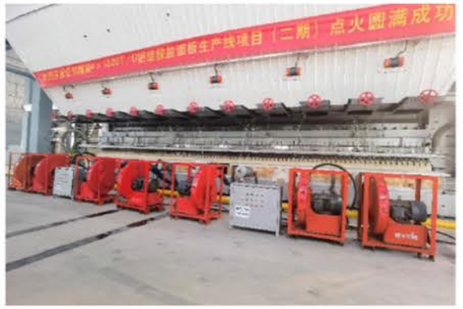
2、Company business scope

2.1 窑炉升温和膨胀控制/窑炉降温和收缩控制

2.1 Furnace heating up and controlled expansion / furnace cooling and shrinkage control

使用先进烤窑设备和作业理念进行窑炉烘烤或降温保窑。

Using advanced furnace heating up equipment and operational concepts for furnace baking or furnace cooling protection.



烤窑点火 **Furnace ignition**

2.2 窑炉热态密封、窑炉保温施工

2.2 Furnace heat seal, furnace insulating construction

承揽窑炉过大火后热态密封和保温施工工作。

Contracted the furnace heat sealing and insulation construction work after heating with normal burner

热密封和保温施工 Heat seal, insulating construction

2.3 水淬法放玻璃水

2.3 Glass draining

水淬法放玻璃水操作方便、安全、可靠，并可以根据窑炉不同情况做出方案优化。

The water quenching method to drain glass water is easy to operate, safe and reliable, and can be optimized according to different conditions of the furnace.

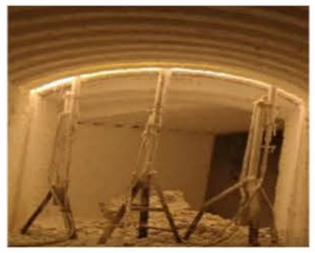
水淬放玻璃水 Glass draining

2.4 热风疏通蓄热室/人工疏通蓄热室

2.4 Heat-up regenerator checker cleaning for using gas / manually dredge the regenerator

我司可以根据窑炉状况，进行热风或人工蓄热室疏通工作。

According to the furnace conditions, we can use gas to heat-up regenerator for checker cleaning or manually dredge the regenerator



疏通蓄热室 Regenerator checker Cleaning

2.5 蓄热室砖热修

窑炉热修
Hot Repair

2.5 Regenerator bricks hot repair

对堵塞的蓄热室格子砖进行整体/局部更换或顶部摘帽。

Complete/partial replacement or removal top Layers of blocked regenerator checker

蓄热室格子体更换 Regenerator checker replacement

2.6 窑炉局部热修

2.6 Local hot repair of furnace

我司承接窑炉碹顶补洞、更换烧嘴砖、吊墙热态维修及更换、热态更换唇砖工作。

Our company undertakes the work of furnace crown holes repairing, replacement of burner block, Suspended wall hot repair and replacement, and hot change lip brick.

热态更换唇砖 Hot change lip brick 吊墙热态安装 Suspended wall hot installation

2.7 池壁绑砖

2.7 Sidewall block overcoating

根据窑炉情况，进行一次绑砖到多次绑砖;也可通过水淬法配合放玻璃水进行流液洞绑砖。

According to the furnace conditions, overcoating once to multiple times. It can also be used water quenching method to put glass water and overcoating the dog-hole.

一次池壁绑砖 First sidewall blocks overcoating

二次换池壁砖 **Second overcoated blocks**

2.8 锡槽放锡铸锭作业

2.8 Tin bath draining and ingotting operation

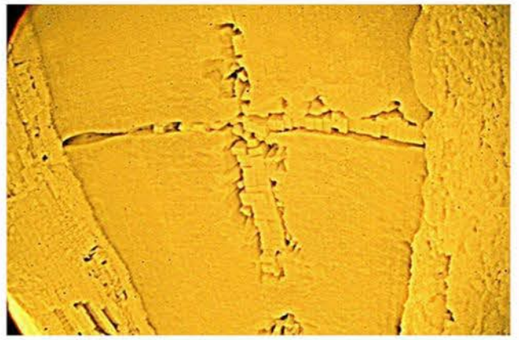
采用虹吸法放锡作业，具有比传统放锡或人工接锡所用时间短的优势，可减少 **20~30** 小时，大大缩短了接锡时间。同时，防止了接锡过程中，锡的洒出和流失，减少锡的氧化，提高锡回收率。操作方便、快捷、安全、可靠。

The siphon method of tin drain has the advantage of shorter time than the traditional tin drain or manual work, which can reduce 20~30 hours and greatly shorten the drain time.it prevents the spilling and loss of tin in the process of tin drain, reduces tin oxidation and improves the recovery rate of tin. The operation is convenient, fast, safe and reliable.

放锡铸锭 **Tin bath draining and ingotting**

窑炉热修
Hot Repair

Before & After ceramic welding on the Crown of Reg



合作伙伴

Cooperative Partner

ARDAKAN GLASS CORPORATION

TAIWANGLASS

GUARDIAN GLASS
See what's possible

PHILIPS

HONGYU 宏宇能源

鑫利玻璃

AGHT

南玻集团

旗滨集团 KIBING

AYG安玻

耀华玻璃

BOSCH

HBIS 河北钢铁集团

MA STEEL

中国洛玻集团

金晶

德金玻璃

新兴铸管

sinoma 中国中材

信发集团

上海腾旺新陶瓷技术有限公司

总经理致辞

亲爱的各位合作伙伴、员工以及关心上海腾旺公司的朋友们：

大家好！我是上海腾旺公司的总经理，很荣幸能够在此向大家分享我们的故事。

上海腾旺公司自2011年成立以来，一直专注于窑炉热修领域，致力于为客户提供高效、专业的服务。我们深知窑炉热修对于企业生产的重要性，因此我们始终坚持对技术的不断追求和创新，以满足客户的需求为己任。

回顾过去，上海腾旺在大家的支持和关注下取得了不俗的成绩。这些成绩的背后，是我们每一位员工的辛勤付出和团队的协作精神。我们要感谢所有与我们并肩作战的合作伙伴和员工们，正是因为你们的努力和奉献，才使得上海腾旺能够在窑炉热修领域不断突破自我，实现一次又一次的技术飞跃。

然而，我们深知成绩只是过去，未来还有更多的挑战等待着我们。随着市场的变化和技术的更新换代，我们需要不断地学习和创新，以满足客户更高的要求。为此，我们将继续加大投入，提升技术实力，培养更多的专业人才，以更好地服务客户。

我们将坚守初心，秉持“客户至上”的服务理念，不断提升服务质量和效率。我们将继续深化与合作伙伴的关系，共同开拓更广阔的市场。同时，我们也将积极履行社会责任，为行业的可持续发展贡献自己的力量。

最后，我衷心希望各位朋友能够一如既往地支持上海腾旺公司，与我们携手共进，共创美好未来！

谢谢大家！

General Manager's speech

Dear partners, employees, and friends who care about Shanghai Tengwang Company: Hello everyone! I am the General Manager of Shanghai Tengwang Company. It is my great honor to share our story with you all. Since its establishment in 2011, Shanghai Tengwang has been dedicated to the field of furnace thermal repair and providing efficient and professional services to customers. We fully understand the importance of furnace thermal repair in enterprise production, so we have always adhered to the continuous pursuit and innovation of technology to meet customer needs. Looking back, Shanghai Tengwang has achieved remarkable results with everyone's support and attention. Behind these achievements are the hard work of each of our employees and the team collaboration spirit. We would like to thank all the partners and employees who have worked alongside us. It is because of your efforts and dedication that Shanghai Tengwang can continue to break through itself in the field of furnace thermal repair and achieve technical breakthroughs again and again. However, we are well aware that these achievements are just the past, and there are still more challenges waiting for us in the future. With market changes and technological updates, we need to continue to learn and innovate to meet customers' higher requirements. To this end, we will continue to increase investment, enhance technical strength, cultivate more professionals, and better serve customers. We will adhere to our original intention, uphold the service concept of "customer first", continuously improve service quality and efficiency. We will continue to deepen relationships with partners, jointly explore broader markets. At the same time, we will also actively fulfill our social responsibilities and contribute our own strength to the sustainable development of the industry. Finally, I sincerely hope that you will continue to support Shanghai Tengwang Company as always, join hands with us to create a better future! Thank you all!