

太原重工股份有限公司

TAIYUAN HEAVY INDUSTRY CO.,LTD.

焦炉机械设备

COKE OVEN MACHINERY



太原重工股份有限公司

TAIYUAN HEAVY INDUSTRY CO.,LTD.

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TYHI 企业简介 **Company Introduction**

Integrity Innovation Precision Brilliance



诚信 创新 精益 卓越

太原重工是中国重型机械行业第一家上市公司,始建于1950年,占地面积370万平方米,资产总额187亿元,员工8000余 人,年销售额超百亿元,属国家特大型重点骨干企业,被誉为"国之瑰宝"和"国民经济的开路先锋"。

公司主营:挖掘设备、起重设备、锻压设备、轧钢设备、焦炉设备、煤化工设备、铁路轮轴、齿轮传动、风力发电设备、 油膜轴承、铸锻件、海洋装备等产品及工程项目的总承包。产品广泛应用于冶金、矿山、能源、交通、航天、化工、铁路、 造船、环保等行业。

太原重工是中国最大的焦化设备制造企业,焦化设备远销印度、伊朗、印度尼西亚等国家。产品涵盖6.25m(分体机). 6.25m(SCP--体机)、6m、5.5m、4.3m捣固型焦炉成套设备,8m、7.63m、7m、6m、4.3m顶装式焦炉成套设备,3.6m、3.0m、 2.8m捣固型热回收焦炉成套设备。焦化设备先后荣获国家授权专利85项,发明专利21项,其中5.5米捣固焦炉成套设备获机械 工业协会科技进步二等奖。我公司已完全掌握了世界上最先进的顶装煤、捣固煤和热回收炼焦设备的设计制造技术,能够为 用户提供安全可靠、高效环保的焦炉成套设备。

同时,我公司还拥有国际领先水平的焦化工程工艺设计力量,具备焦化工程及配套干熄焦工程总承包的能力,承 揽了青岛特殊钢铁有限公司160万t/a焦化系统总承包项目和天津天铁冶金集团有限公司焦化干熄焦发电总承包项目。

Taiyuan Heavy Industry(TYHI)is the first listed company in China's heavy-duty machinery industry. It was established in1950and now consists of a campus with a total area of 370 hectares,8000 employees and the total asset of CNY18.7 billion and annual sales volume of CNY10 billion. AS a national key enterprise, TYHI has been dubbed a "National Treasure" and "Trailbreaker of National Economy" by various industry experts in China.

TYHI's main products cover excavator equipment, lifting equipment, forging equipment, rolling mill, coke oven equipment, coal chemical equipment, train wheel and axle, gear reducer ,wind power generator, oil film bearing, casting and forging parts and marine equipment etc. and EPC, which are wildly used for the metallurgy, mine, energy, transportation, aeronautics, chemistry, rail, shipbuilding and

TYHI is one of the largest design and manufacture bases of coke oven machinery in China; our coke oven machinery has been exported to India, Iran and Indonesia.

Our products covers 6.25m, 6.25m(SCP), 6m, 5.5m, 4.3m Tamping Coke Oven Machinery, 8m, 7.63m, 7m, 6m, 4.3m Top-Charging Coke Oven Machinery and 3.6m, 3.6m, 2.8m Heat-Recovery Tamping Coke Oven Machinery. Our coke oven machinery had won 85 China Authorized Patents, and 21 China Invention Patents, in which the 5.5m Tamping Coke Oven Machinery had earned Second Prize for Science & Technology Development of China Machinery Industry Association. By mastering state-of-the-art technologies of topcharging, coal tamping and heat-recovery, we supply customers with safe, reliable and eco-friendly coke oven machinery. Moreover, by





Brilliant Ability

卓越能力

Integrity Innovation Precision Brilliance



诚信 创新 精益 卓越

太原重工拥有各类设备4400余台,其中主要生产设备1700余台,重点设备200余台,进口设备260余台。

TYHI has over 4400 sets of various facilities in total, among which the main production equipments are over 1700 sets, the high-accuracy and heavy duty equipments are 200 sets, and the imported equipments are 260 sets.



数控天桥镗铣床 NC Bridge Boring-Milling Machine



8米立车 8m Vertical Lathe



125MN锻造油压机 125MN Forging Press



6.5X25m热处理炉 6.5X25m Heat Treatment Furnace



Φ260mm落地镗铣床 Φ260mm Boring and Milling Machine

太原重工是国家一级计量单位,理化检定中心拥有各类检测设备180台套,具有理化检测、强度测试、机械振动、电气涂装、焊接试验等先进检测手段。

Taiyuan Heavy Machinery Industry Co.,Ltd is the state's first-class metrological unit. The Physical & Chemical Calibration Center owns 180 sets of various inspection and test equipments, with advanced inspection and test means for physical inspection, strength test, mechanic vibration, electric coating and welding test, etc.



室内装配 Indoor Assembly



磨齿机群 Gear Grinders



断裂韧性试验系统 Fracture Toughness Test System



Quality Certification and R & D Center

质量认证和研发中心

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诚信 创新 精益 卓越



工程设计资质证书 **ED Qualification Certificate**



International Standards Authentication Certificate Certification of VocationalHealth of Environment Managemen and Safety Management System System



职业健康安全管理体系认证 环境管理体系认证证书



ISO9001 国际标准质量体系认证 ISO9001



ISO9001 国际标准质量体系认证 ISO9001







太重技术中心是国家认定企业技术中心(2015年全国排名第二位,重型机械行业第一名)、博士后流动工作 站和全国企业专利试点单位,拥有一支526人的设计研发队伍,在德国弗莱施塔特和天津滨海各建有一个分中 心,设有起重设备、轧钢设备、锻压设备、焦化设备、风电设备、工程机械设备、海工设备和港机设备等9个专 业化研究所室以及CAE、测量控制、标准信息化和计算机等4个基础研究所室,形成了机、电、液、传动为一体 的技术研发体系。

The technology center of TYHI is the National Certified Technical Center, a post-doctoral workstation and a patent pilot unit. It has a R&D team with 526 engineers, and 2 sub-centers located at Freystadt, Germany and Binhai, Tianjin. It is composed of nine research departments (specializing in cranes, rolling equipment, forging equipment, excavator, coking plant machinery, wind power equipment, construction machinery equipment, offshore equipment and port equipment) and four basic research sectors (specializing in CAE, measurement and control, standard information and computer). Each department is able to do research and develop in a combination of mechanical, electric, hydraulic and transmission systems.









Coking General Contracting

TYHI 焦化总承包

Integrity Innovation Precision Brilliance



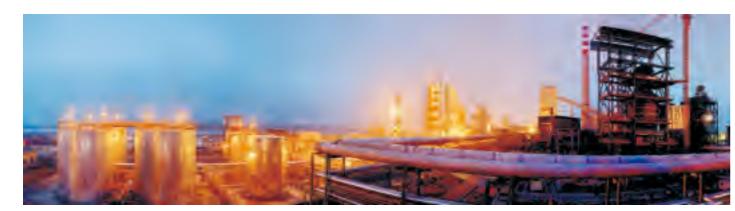
诚信创新精益卓越

我公司拥有国际领先水平的焦化工程工艺设计力量,具备焦化工程总承包的能力,承揽了青岛特殊钢铁有限公司 160万t/a 焦化系统总承包项目,该项目于2015年6月顺利投产运行。

By maintaining international standards of process design, we have the ability to take on general contracting of coking projects. And we had contracted the EPC project of 1.6 million t/a coking system for Qingdao Special Steel Co., Ltd, which was put into production in June, 2015.



焦化厂全景 Overview of Coking Plant



Night View of Coking Plant 焦化厂夜景





备煤出焦系统 Coal Preparation & Coke Outputting System 炼焦系统

Coking System







公辅系统 **Auxiliary System**



Chemical System



化产系统 **Chemical System**



Top Charging Coke Oven Machinery 顶装式焦炉机械设备

诚信创新精益卓越

Integrity Innovation Precision Brilliance



顶装式焦炉机械设备包括:装煤除尘车、推焦车、除尘拦焦车、干湿两用电机车、熄焦车、焦罐车、炉门服务车、液压交换机;该套采用大量的国内外先进的设计、工艺、制造和控制技术,其技术水平、自动化程度均有大幅度地提高,顶装式焦炉机械设备适用于年产焦炭60~200万吨焦炉。我公司累计生产4.3米、6米、7米顶装焦炉设备近百套。

Top charging coke oven machinery includes de-dusting charging car, pushing car, de-dusting guide car, loco car, quenching car, coke bucket car, oven-door service car and hydraulic exchanger. It adopts advanced technology home and abroad to enhance the technical and automation level. Top charging coke oven machinery applies to the coke oven with annual output of 0.6-2 million tons. TYHI has manufactured and supplied almost 100 sets of 4.3m, 6m, 7m top charging coke oven machineries.



6米推焦车 6m Pushing Car



米装煤车 6m Charging Car



6米拦焦车 6m Guide Car



6米电机车 6m Loco Car



7米推焦车 7m Pushing Car



7米装煤车 7m Charging Car



7米电机车 7m Loco Car



7米拦焦车 7m Guide Car



7米熄焦车 7m Quenching Car



Tamping Coke Oven Machinery

捣固焦炉机械设备

Integrity Innovation Precision Brilliance 诚信创新精益卓越



捣固焦炉机械设备包括:装煤车、推焦车、SCP车、除尘拦焦车、燃烧导烟车(或U型管导烟车)、捣固机、摇动给料机、干湿两用电机车、熄焦车、液压交换机。该设备采用多项专利技术,吸收大量的国内外先进的经验,在焦炉机械的自动化水平、高可靠性和低维护量以及焦炉环保控制等方面达到国内领先水平。捣固焦炉机械设备适用于年产60~150万吨焦炉。我公司累计生产4.3米、5.5米、6米、6.25米(SCP)、6.25(分体)捣固设备200余套。

Tamping coke oven machinery includes charging car, pushing car, SCP, de-dusting guide car, fume guide car, tamping machine, shaking feeder, loco car, quenching car and hydraulic exchanger. It adopts advanced technology home and abroad and its automation, reliability, low maintenance rate and environmental control reach the leading level in China. Tamping coke oven machinery applies to the coke oven with annual output of 0.6-1.5 million tons. TYHI has manufactured and supplied more than 200 sets of 4.3m, 5.5m, 6m, 6.25m, 6.25m (SCP) tamping coke oven machineries.



6.25米推焦车 6.25m Pushing Car



6.25米拦焦车 6.25m Guide Car



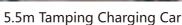
6.25米装煤车 6.25m Charging Car



6.25米熄焦车 6.25m Quenching Car



5米捣固装煤车 5.5n





推焦车 5.5m Pushing Car



4.3米推住3

4.3m Pushing Car



KSCP一体车 6.25m SCP Car



印度JSW 4.3米捣固焦炉设备

4.3m Tamping Coke Oven Machinery in JSW, India



Heat-Recovery Coke Oven Machinery

热回收焦炉机械设备

太原重工设计制造了世界上第一套清洁型捣固热回收焦炉机械设备,包括:装煤推焦车、接熄焦车和捣固站(机械捣固和液压捣固),荣获20多项国家发明专利。清洁型捣固热回收焦炉机械设备可适用于年产焦炭20~50万吨不同型号的清洁型焦炉。

TYHI designed and manufactured the first heat-recovery tamping coke oven machinery in the world. It includes charging-pushing car, receiving-quenching car and tamping station (mechanical and hydraulic). It earned more than 20 National Invention Patents. And heat-recovery tamping coke oven machinery applies to the coke oven with annual output of 0.2-0.5 million tons.



装煤推焦车 Charging –Pushing Car



接、熄焦车 Receiving-Quenching Car



捣固站 Stamping Station

Non-Standard Equipment 非标产品



我公司具备塔架和带式输送机等非标设备的生产、改造能力。在新领域中打造出属于太原重工的新天地。

We have the ability to manufacture and transform non-standard equipment as tower and belt conveyor, which had created a new field for TYHI in frontier.







TYHI 干熄焦总承包 CDQ General Contracting

我公司拥有焦化配套干熄焦工程、水泥厂工程的总承包能力,承揽了天津天铁冶金集团有限公司焦化干熄焦发电总承包项目。 We have the ability to take on general contracting of CDQ projects and cement plant turnkey projects. We had contracted the EPC project of CDQ power-generation for Tianjin Tiantie Metallurgical Group Co., LTD.



Dry Quenching Lift

Performance Table 业绩表



业绩汇总 Performance Summary

| 序号 S/N | 设备系列 Model Name | 具体设备 Scope of Work | 设备数量 Supplied Qty |
|-----------|------------------------------------|--|----------------------|
| 1 | 热回收设备 Heat-Recovery Machinery | 装煤推焦车、捣固站、接、熄焦车等 Charing-Pushing Car、Stamping Station、Receiving-Quenching Car.etc | 27套 27 sets |
| 2 | 4.3米顶装 4.3m Top-Charging | 装煤车、推焦车、拦焦车、电机车等 Charing Car、Pusher Car、Guide Car、Loco Car.etc | 14套 14 sets |
| 3 | 4.3米捣固 4.3m Tamping | 装煤车、推焦车、捣固机、拦焦车等 Charing Car、Pusher Car、Tamping machine、Guide Car.etc | 100套 100 sets |
| 4 | 6米顶装 6m Top-Charging | 装煤车、推焦车、拦焦车、电机车等 Charing Car、Pusher Car、Guide Car、Loco Car.etc | 20套 20 sets |
| 5 | 5.5米捣固 5.5m Tamping | 装煤车、推焦车、捣固机、拦焦车等 Charing Car、Pusher Car、Tamping machine、Guide Car.etc | 101套 101 sets |
| 6 | 7米顶装 7m Top-Charging | 装煤车、推焦车、拦焦车、电机车等 Charing Car、Pusher Car、Guide Car、Loco Car.etc | 12套 12 sets |
| 7 | 6米捣固 6m Tamping | 装煤车、推焦车、捣固机、拦焦车等 Charing Car、Pusher Car、Tamping machine、Guide Car.etc | 4套 4 sets |
| 8 | 7.63米顶装 7.63m Top-Charging | 装煤车、推焦车、拦焦车、电机车等 Charing Car、Pusher Car、Guide Car、Loco Car.etc | 15套 15 sets |
| 9 | 6.25米捣固(SCP) 6.25m Tamping(SCP) | 装煤车、推焦车、捣固机、拦焦车等 Charing Car、Pusher Car、Tamping machine、Guide Car.etc | 4套 4 sets |
| 10 | 6.25米捣固(分体) 6.25m Tamping | 装煤车、推焦车、捣固机、拦焦车等 Charing Car、Pusher Car、Tamping machine、Guide Car.etc | 6套 6 sets |
| 11 | 焦化工程总承包 General Contracting | 土建、安装、调试、验收集一体 EPC | 4套 4 sets |

焦炉工程总承包(工程管理) General Contracting

| 序号 S/N | 用户单位 End User | 规 模/年 Annual Output | 工程范围 Scope Of The Project |
|-----------|--|------------------------|------------------------------|
| 1 | 山东宝华新能源 Shandong Baohua New Energy | 130万吨 1.3 million tons | 焦炉工程总承包 EPC |
| 2 | 中钢设备总包霍邱铁矿 SINOSTEEl-Huoqiu Iron Mine | 120万吨 1.2 million tons | 焦炉工程总承包 EPC |
| 3 | 青岛特殊钢铁 Qingdao Iron & Steel | 160万吨 1.6 million tons | 焦炉工程总承包 EPC |
| 4 | 天津铁厂 Tianjin Iron | 16吨/时 16 tons/H | 干熄焦工程总承包 EPC |



顶装焦炉机械设备部分用户

Some Users of Top-Charging Coke Oven Machinery

| 序号 S/N | 用户单位 End User | | 规 模/年 nual Output | 设 | 备数量 Qty |
|-----------|---|-------|----------------------|----------|----------------|
| 1 | 山东金能煤炭气化 Shandong Jinneng Coal | 150万吨 | 1.5 million tons | 7米顶装两套 | 2 sets of 7m |
| 2 | 孝义市金达煤焦 Xiaoyi Jinda Coke | 300万吨 | 3 million tons | 7米顶装四套 | 4 sets of 7m |
| 3 | 中钢设备渤海煤焦化 SINOSTEEl-Bohai Coal Coking | 300万吨 | 3 million tons | 7米顶装四套 | 4 sets of 7m |
| 4 | 宣化钢铁集团有限公司 Xuanhua Iron & Steel Co., Ltd | 100万吨 | 1 million tons | 6米顶装两套 | 2 sets of 6m |
| 5 | 包钢9、10#焦炉 Baogang 9、10# Coke Oven | 100万吨 | 1 million tons | 6米顶装两套 | 2 sets of 6m |
| 6 | 河北普阳钢铁 Hebei Puyang Iron & Steel | 100万吨 | 1 million tons | 6米顶装两套 | 2 sets of 6m |
| 7 | 山西金业煤焦化 Shanxi Jinye Coking Group | 80万吨 | 0.8 million tons | 4.3米顶装三套 | 3 sets of 4.3m |
| 8 | 山西清徐煤炭气化 Shanxi Qingxu Gasification | 60万吨 | 0.6 million tons | 4.3米顶装一套 | 1 set of 4.3 m |

捣固焦炉机械设备部分用户 Some Users of Tamping Coke Oven Machinery

| 序号 S/N | 用户单位 End User | 规 模/年 Annual Output | 设备数量 Qty |
|-----------|---|------------------------|---------------------------|
| 1 | 山西新石煤焦化 Shanxi Xinshi Coal Chemical | 500万吨 5 million tons | 6.3米捣固一套 1 set of 6.3m |
| 2 | 孝义金岩电力煤化工 Xiaoyi Jinyan Electric | 500万吨 5 million tons | 6.25米捣固四套 4 sets of 6.25m |
| 3 | 山东潍焦薛城能源 Shandong Weijiao Xuecheng Energy | 150万吨 1.5 million tons | 6.25米捣固两套 2 sets of 6.25m |
| 4 | 鄂托克旗建元煤焦化 Etuokeqi Jianyuan Coal Chemical | 300万吨 3 million tons | 6.25米捣固两套 2 sets of 6.25m |
| 5 | 中普(邯郸)钢铁 Zhongpu (Handan) Iron & Steel | 130万吨 1.3 million tons | 6米捣固两套 2 sets of 6m |
| 6 | 山西立恒钢铁 Liheng (Shanxi) Iron & Steel | 150万吨 1.5 million tons | 6米捣固两套 2 sets of 6m |
| 7 | 山西沁县华安焦化 Shanxi Qinxian Huaan Coking | 130万吨 1.3 million tons | 5.5米捣固两套 2 sets of 5.5m |
| 8 | 山东邹平铁雄焦化 Shandong Zouping Tiexiong Coking | 150万吨 1.5 million tons | 5.5米捣固两套 2 sets of 5.5m |
| 9 | 山西金业煤焦化(二期项目) Shanxi Jinye Coking Shanxi (2nd) | 200万吨 2 million tons | 4.3米捣固四套 4 sets of 4.3m |



出口焦炉设备部分用户

Some Users of Exported Coke Oven Machinery

| 序号 S/N | 用户单位 End User | 规 模/年 Annual Output | 设备数量 Qty |
|-----------|---|------------------------|---|
| 1 | 中钢设备有限公司印度 SINOSTEEL-ISPAT, India | 200万吨 2 million tons | 5.5米捣固四套 4 sets of 5.5m Tamping |
| 2 | 中国三冶(伊朗扎兰德钢铁) MCC (Zarand Iron & Steel Iran) | 80万吨 0.8 million tons | 4.3米顶装两套 2 sets of 4.3m Top-Charging |
| 3 | 中国三冶(伊朗扎兰德钢铁) MCC (Zarand Iron & Steel Iran) | 80万吨 0.8 million tons | 4.3米顶装一套 1 set of 4.3m Top-Charging |
| 4 | 首钢国际(印度金斗不锈) Shougang International-JSL Indian | 80万吨 0.8 million tons | 4.3米捣固一套 1 set of 4.3m Tamping |
| 5 | 中钢设备有限公司(印度JSW) Sinosteel (JSW, India) | 150万吨 1.5 million tons | 4.3米捣固四套 4 sets of 4.3m Tamping |
| 6 | 中钢设备公司(印度JSW二期) Sinosteel-JSW, India (2nd-Phase) | 190万吨 1.9 million tons | 4.3米捣固四套 4 sets of 4.3m Tamping |
| 7 | 中凯(印度U-TTAM) Zhongkai-U-TTAM, India | 50万吨 0.5 million tons | 4.3米捣固一套 1 set of 4.3m Tamping |
| 8 | 中钢设备有限公司(印度JSPL) SINOSTEEL-JSPL, India | 190万吨 1.9 million tons | 4.3米捣固四套 4 sets of 4.3m Tamping |
| 9 | 北京天士安(印度U-TTAM) Beijing Tianshian—U-TTAM, India | 50万吨 0.5 million tons | 4.3米捣固一套 1 set of 4.3m Tamping |
| 10 | 中钢设备有限公司(印度金斗不锈) SINOSTEEL-JSL, India | 80万吨 0.8 million tons | 4.3米捣固一套 1 set of 4.3m Tamping |
| 11 | 中钢设备有限公司(印度南方钢铁) SINOSTEEL, SISCOL India | 40万吨 0.4 million tons | 清洁型一套 1 set of Heat-Recovery |
| 12 | 中钢设备公司(印度南钢二期) SINOSTEEL, SISCOL India 2nd-Phase | 40万吨 0.4 million tons | 清洁型一套 1 set of Heat-Recovery |
| 13 | 中钢设备印度乌纱马丁 SINOSTEEL USHA MARTIN, India | 50万吨 0.5 million tons | 清洁型一套 1 set of Heat-Recovery |