

石化装置、石油天然气管道投产运营服务

PETROCHEMICAL PLANT, OIL AND GAS PIPELINE OPERATION SERVICE

管道安装工程案例 Engineering Cases of Pipeline Installation

- 中原石油勘探局106国道DN1000 PCP供水管道、Φ630钢制排水管道安装工程
Installation works of DN1000 PCP and Φ630 steel drainage pipes of 106 National Highway of Zhongyuan Petroleum Exploration Bureau
- 中原石油化工有限公司Φ273天然气管道、Φ89乙烷管道安装工程
Φ273 Natural Gas Pipeline, Φ89 Ethane Pipeline Installation Project of Zhongyuan Petrochemical Co., Ltd
- 安徽亳州瑞能长白山药业支线热力管网安装工程
Installation Project of Ruineng Changbai Mountain Pharmaceutical Branch Line Thermal Pipeline Network in Bozhou, Anhui Province
- 襄阳输油处阀室升级改造及线路安装工程
Xiangyang oil transmission office valve room upgrading and transformation and line installation project
- 江苏成品油管道苏北线安装工程
Jiangsu refined oil pipeline Jiangsu North Jiangsu line installation project
- 中石化天津LNG管道安装工程
Sinopec Tianjin LNG Pipeline Installation Project

客户评价

EVALUATION FROM CUSTOMERS



与锐驰高科合作, 与平安相伴, 与幸福同行
Cooperation with RICH High-Tech means Peace and Happiness

锐驰高科股份有限公司

Rich High-Tech Co., Ltd.



董事长致辞 PRESIDENT'S ORATION

公司自成立以来,始终秉承“以科技为先导、以创新谋发展、以质量求生存、以诚信待客户”的企业信仰,坚持“科技领先、客户至上、人才为本”的经营理念,坚持以实现经济效益与社会效益共同提高的大局观为目标,全体员工勤勉敬业、拼搏进取,为促进并推动管道工程技术服务、应急救援、应急抢维修行业发展,锐驰高科将全力以赴,尽职尽责!

我们精雕细作,脚踏实地;我们胸怀天下,志存高远。立足中国,辐射周边,放眼全球,面向未来,我们只有一个目标:通过自身实力对社会做贡献,用“诚信和品质”塑造锐驰高科管道工程技术服务、应急救援、应急抢维修卓越品牌,打造国际管道技术服务航母,成为世界管道安全技术领跑者,确保人民的幸福生活更加有保障!

我们深信:锐驰高科将会以更加稳健的步伐,以时不我待,只争朝夕的紧迫感,以咬定青山不放松的执着和韧劲,在逐梦之路上砥砺前行,深度践行“实干、创新、奉献”精神,让锐驰梦与中国梦同频共振,以伟大的使命感和责任担当,引领管道工程技术服务、应急救援、应急抢维修行业阔步前进。

与锐驰高科合作,与平安相伴,与幸福同行!公司愿与您携手共进,共创更加辉煌的明天!

Since the establishment of our company, we keep adhering to the corporate belief of "Science and Technology as the Guide, Innovation for Development, Quality for Survival and Serving Customers in Good Faith", practicing the business philosophy of "Talent-Oriented, Customer First and Leading in Science and Technology", with the goal of realizing the double improvement of economic and social benefits, all the staff are diligent and enterprising, and have made outstanding contributions in promoting the development of pipeline engineering technical service, emergency rescue and rush repair industry.

While we work hard, we come down to earth; while we embrace the world, we aim high. Based in China, radiating around the world, looking to the future, we have only one goal: to shape the excellent brand of pipeline engineering technical service industry with 'Integrity and Quality' through our own strength and contribution to society, to build international pipeline technology service aircraft carrier, to become the world leader in pipeline safety technology, to make people's happy life more secure!

We are convinced that the increasingly mature RICH High-Tech will take a more steady pace, with the sense of urgency that we can't wait for the time and seize the day, with the firm perseverance and tenacity. On the way to pursue the dream, we will carry out deeply the spirit of "practical work, innovation and dedication", so that RICH High-Tech dream and the Chinese dream resonate with each other. And with great sense of mission and responsibility, lead the pipeline engineering technology service emergency rescue and rush repair industry to step forward.

Cooperation with RICH High-Tech means peace and happiness all around. With the principle of honesty and openness, our company is willing to work with you to create a more brilliant future.



锐驰高科股份有限公司成立于1994年，注册资金8178万元，占地150余亩，隶属于中国石化中原石油勘探局行业中心，中原油田改制企业，2016年新三板挂牌，证券简称：锐驰高科；证券代码：838355。经过近三十年的艰苦奋斗，现已发展成为一家集石油化工管道工程技术研发、管道装备制造、制造、销售、工程技术服务、特种设备作业考培、职业技能培训、应急救援、工业互联网平台开发运维等为一体的综合性高新技术企业。

公司现有员工368人，其中，国家万人计划领军人才1名，中原千人计划领军人才1名，濮阳大工匠2名，华龙工匠5名，河南省压力管道安全“双重预防体系建设”和“应急救援技术指导”专家2人，濮阳市应急管理和安全生产专家4人，濮阳市金牌技师6人，市技术能手10人；具有大中专以上学历180人，其中博士2人，硕士4人，本科54人；高级工程师22人，工程师62人，助理工程师36人；拥有一级注册建造师20人，二级注册建造师30人。

公司自主研发的15类100余项品牌技术，可成功解决从管道建设、安全运营管理、管道抢维修到管道报废无害化处理等全生命周期技术难题，为管道安全高效运营提供全生命周期的技术服务保障。被形象的誉为“管道医院”、“管道专家”、“管道卫士”、“管道119”、“管道120”。

公司自成立以来，始终坚持“科技兴企、人才强企”战略，践行“安全专注、高新实用、行业领跑”的技术追求理念；着力提升“量身定做、专业专注、一站式服务”的核心竞争力，专门设立了独立的研发中心和实验基地。凭借自身的技术和科研实力，依托国内外数十家签订战略合作协议的知名院校和名牌企业，使公司的各项技术始终位居同行业之首，同时，公司拥有河南省企业技术中心、河南省博

士后创新实践基地、河南省管道健康工程研究中心、河南省压力管道应急处置技术指导中心、中国石油学会油气储运专业委员会油气管道抢维修培训中心(基地)、河南省市场监督管理局特种设备作业人员考试机构、濮阳市应急管理局定点培训机构、濮阳市高校毕业生就业见习基地，为企业的高速发展和科技引领奠定了坚实的基础，确保公司技术做到“人无我有，人有我精，人精我强”，力求技术服务和产品生产遵循“高品质、低成本、节能、环保、低碳”的理念，努力将公司打造成为国际一流的高新技术企业。

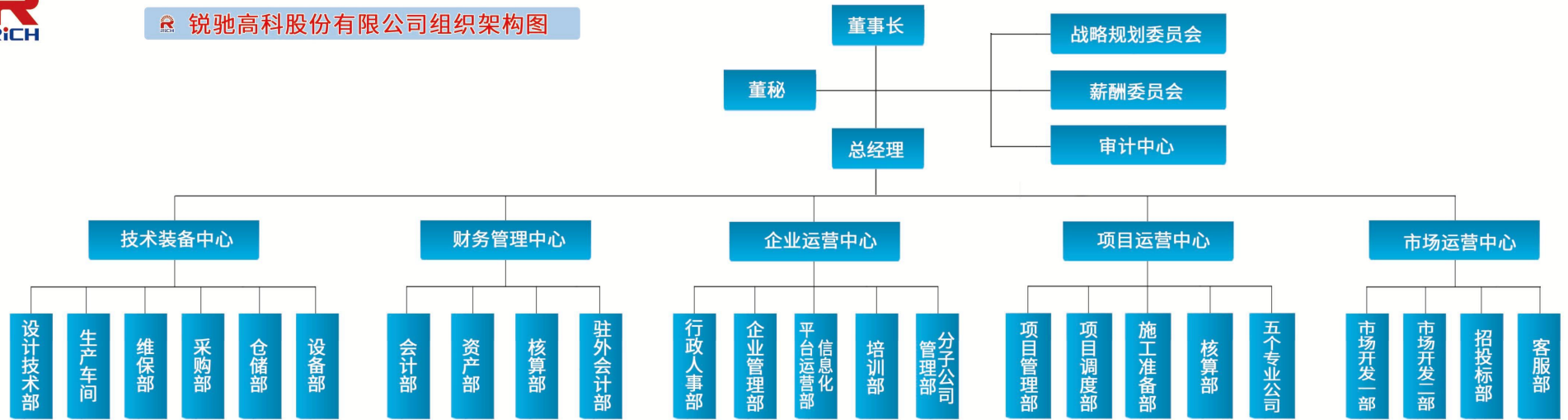
RICH Hi-Tech Co., Ltd. was founded in 1994. As a new OTC market listed company in 2016, With registered capital of 81.78 million yuan(RMB), it covers an area of more than 150 mu(10000sq.m) and belongs to Sinopec Zhongyuan Petroleum Exploration Bureau Industry Center, Zhongyuan Oilfield Restructuring Enterprises, Securities Abbreviation: Ruichi Gaoke (RICH Hi-Tech); Securities Code: 838355. After more than 20 years of hard working, now it has developed into a comprehensive and specialized leading enterprise integrating the research and development, equipment design, manufacture, sale, engineering technical service, special equipment operation examination and training, professional skill appraisal, emergency rescue, development and maintenance of industrial internet platform, etc.

The company has 368 employees , including 1 leading talent for National , 1 specially-invited expert for Zhongyuan Thousand Youth Talent Plan, 2 master craftsman of Puyang City, 5 craftsmen of Hualong District, 2 experts of dual prevention system construction and emergency rescue guidance for Henan Province pressare pipeline safety, 2 experts of Puyang emergency management and safety production, 6 gold medal technicians and 10 technical proficient of Puyang city, 180 with college or technical school education, including 2 doctors, 4 masters and 54 undergraduates, 22 senior engineers, 62 engineers, 36 assistant engineers, 20 builders with primary qualification and 26 builders with secondary qualification.

More than 100 brand technologies of 15 categories developed by the company have successfully solved technical problems ranging from pipeline construction, safety operation management, pipeline rush-repair and harmless treatment of pipeline scrap, to provide with the full range of technical services for the safe and efficient operation of the pipeline, figuratively known as "Pipeline Hospital", "Pipeline Expert", "Pipeline Guardian", "Pipeline 119(fire call)", "Pipeline 120(ambulance call)".

Since its establishment, the company has always adhered to the strategy of "Vitalizing Enterprise with Science and Technology" and "Strengthening Enterprise with Talents", in line with the enterprise tenet of "Introducing First-Class Talents with High Salary, Introducing First-Class Equipment with Heavy Investment, and Strictly Implementing First-Class Management, the company has set up an independent research and development center and an experimental base. Relying on its own technology and scientific research strength and dozens of well-known universities and famous-brand enterprises at home and abroad with strategic cooperation agreements, the company's technology has always been the top of the industry. At the same time, the company has Provincial Enterprise Technology Center, Provincial Post-Doctoral Innovation Practice Base, Pipeline Health Engineering Research Center, Henan Province pressure pipeline Emergency Rescue Engineering Technical Guidance Center, Oil and Gas Pipeline Rush-Repair Training Center (Base) for Oil and Gas Storage and Transportation Professional Committee of China Petroleum Institute, Special Equipment Operation personnel Examination Organization of Henan Provincial Market Supervision and Administration Bureau.The designated training institution of Puyang Emergency Management Bureau and University Graduates Employment Training Base, to lay a solid foundation for the rapid development of enterprise and science and technology to ensure that the company's technology to achieve 'I have things while others don't When they possessed, mine are better. Even if they got the best, mine are stronger.' We'll commit ourselves to making technical services and products comply with the concept of 'High-Quality, Low-Cost, Energy-Saving, Eco-Friendly and Low-Carbon,, and strive to build the company into a world-class high-tech enterprise.





公司
COMPANY'S MAIN BRANCHES
主要分支机构

管理中心

Management Centers

Technical Equipment Center, Financial Management Center, Enterprise Operation Center, Project Operation Management Center and Market Operation Center



专业公司

Specialized Companies

围绕着石油化工装置及长输管道工程技术服务,公司成立了五个专业公司,即:



Around the petrochemical plant and long-distance pipeline engineering technical service, the company has established five specialized companies, namely:

- 1) Cleaning and Pressure Testing Professional Company
- 2) Inspection and Repair Professional Company
- 3) Pipeline Rush-Repair Center (China Oil and Gas Pipeline 120)
- 4) Pipeline Health Diagnosis and Intelligent Pipeline Service Center
- 5) Installation Company

研究单位

Research Institute

河南省博士后创新实践基地	Postdoctoral Innovation and Practice Base of Henan Province
河南省省级企业技术中心	Henan Provincial Enterprise Technology Center
河南省管道健康工程研究中心	Henan Pipeline Health Engineering Research Center
河南省压力管道应急处置技术中心	Henan Province Pressure Pipeline Emergency Disposal Technology Center
濮阳市中原锐科石化工程技术研究所	Puyang Zhongyuan Ruike Petrochemical Engineering Technology Research Institute
刘素平劳模创新工作室	Liu Suping Labor Model Innovation Studio
徐兴斌工匠创新工作室	Xu Xingbin Craftsman Innovation Studio

培训单位

Training Unit

濮阳市华龙区锐驰职业培训学校 濮阳市中安众联应急救援服务中心
河南省压力管道应急处置技术培训中心
中国石油学会石油储运专业委员会油气管道抢维修培训中心(基地)

Puyang Huanglong District Rich Vocational Training School Puyang Zhongan Zhonglian Emergency Service Center
Henan Pressure Pipeline Emergency Response Technology Training Center
Oil and Gas Pipeline Rush-Repair Training Center (Base) for Oil and Gas Storage and Transportation Professional Committee of China Petroleum Institute

考试机构

Examination Institution

河南省特种设备作业人员考试机构 Henan Provincial Special Equipment Operation Personnel Examination Institution

考委会

Examination Committees

带压封堵带压密封作业考委会 Plugging & Sealing with Pressure Operation Examination Committee
应急救援技术技能考核委员会 Emergency Rescue Technical Skills Assessment Committee
职业技能考核鉴定委员会 Vocational Skills Examination and Appraisal Committee

智慧管道互联网科技单位

Smart Pipeline Internet Technology Company

河南中安众联管道安全科技有限公司 Henan Zhongan Zhonglian Pipeline Safety Technology Co.,Ltd

油气管道应急救援行业互联网平台

Oil & Gas Pipeline Emergency Rescue Industry Internet Platform

管道e生应急(健康)管理公共服务平台 Public Service Platform for e-Life Pipeline Emergency Health Management

应急救援指挥中心

Emergency Rescue Command Center

锐驰高科应急救援总队(12支队) RICH High-Tech Emergency Rescue Team (12 Branch Teams)
应急办公室 Emergency Office, Emergency Command Department, Emergency Security Department,
专家技术部 Expert Technology Department, Emergency Training Department, Cloud Emergency Center

十六个分公司(区域划分)

16 Branch Companies Set Up by Region

北京分公司 上海分公司 广东分公司 内蒙古分公司 新疆分公司 吉林分公司 成都分公司 普光分公司
陕西分公司 昆明分公司 贵州分公司 湖北分公司 青海分公司 天津分公司 宁波分公司 国外事业部
Beijing Branch, Shanghai Branch, Guangdong Branch, Neimenggu Branch, Xinjiang Branch, Jilin Branch, Chengdu Branch, Puguang Branch
Shaanxi Branch, Kunming Branch, Guizhou Branch, Hubei Branch, Qinghai Branch, Tianjing Branch, Ningbo Branch, Overseas Business Division



诚信服务
Sincere service

安全高效
Safety and efficiency

产品独到
Unique products

技术卓越
Excellent technology



企业文化 THE CORPORATE CULTURE

企业愿景 CORPORATE VISION

打造国际管道技术服务航母,成为中国第一品牌管道技术服务商,世界管道安全技术领跑者,做到哪里有管道哪里就有锐驰人。

To create an aircraft carrier of international technology service, to build RICH the first brand of pipeline technology service provider in China and the leader of pipeline safety technology in the world, to realize where there are pipelines there are RICH people.

企业使命 CORPORATE MISSION

专注技术,保驾护航,做“中国油气管道120”,确保人民的幸福生活更加有保障。

Focus on technology,serve as an escort or “an Ambulance for Oil & Gas Pipeline of China”, to ensure that the people’s happy life is more secure.

社会责任 CORPORATE SOCIAL RESPONSIBILITIES

管道安全,我的责任;
能源安全,我的责任;
城市安全,我的责任;
人民幸福,我的责任;
国家兴盛,我的责任。

The safety of pipelines and energy, the security of city and the happiness of its inhabitants as well as the national prosperity are all our responsibilities.

核心价值观 CORPORATE CORE VALUES

安全为天,质量第一,携手共赢,创新发展,服务社会。

To put safety uppermost and quality first, cooperate for win-win, keep innovation and development, serve the society.

企训 CORPORATE SERMON

精诚 笃信 创新 图强
To Be Sincere, Faithful, Innovative and Strong

工作目标 JOB AIM

提高管道输送能力,减少管道运营成本,确保管道输送安全,延长管道使用寿命,最大限度为客户提供服务、创造价值。

To increase the transmission capability of pipeline, decrease the cost of pipeline operation, assure the safety of pipeline transmission, extend the service life of the pipeline, provide service and create values to our customers to the maximum extent.

技术追求 TECHNICAL PURSUIT

安全专注 高新实用 行业领跑
To maintain new, high, safe, absorbed, practical and leading in the same industry

核心竞争力 CORE COMPETITIVENESS

量身定做 专业专注 一站式服务
Customized, absorbed and professional work, one-stop service

企业精神 EMPLOYEE SPIRIT

敢为人先、永不言败的创业精神; 逢山开路、遇水搭桥的开拓精神;
百折不挠、愈挫愈奋的进取精神; 好中求好、精益求精的敬业精神。

The Entrepreneurial Spirit that Dare to Be the First and Never Give Up
The Pioneering Spirit that Building Road through Mountains and Building Bridge above Water
The Ambitious Spirit that Never Yield in Spite of Reverses and More Frustrated and More Indomitable
The Professional Dedication that Constantly Strive for Excellence in the Best



企业资质 THE ENTERPRISE QUALIFICATION

(一) 建筑资质 CONSTRUCTION

- ◆ 石油化工工程施工总承包甲级
- ◆ 防水防腐保温工程专业承包甲级
- ◆ 市政公用工程施工总承包乙级
- ◆ 建筑工程施工总承包
- ◆ 消防设施工程专业承包乙级
- ◆ 机电工程施工总承包乙级
- ◆ 环保工程专业承包乙级

General Contracting of Petrochemical Engineering Construction (Class A)
 Professional Contracting of Waterproof Anti-corrosion and Thermal Insulation engineering (Class A)
 General Contracting of Municipal Utility Construction (Class B)
 General Contracting of Construction Project
 Professional Contracting of Fire Facilities Project (class B)
 General Contracting of Mechanical and Electrical Engineering Construction (Class B)
 Professional Contracting of Environmental Protection Engineering (Class B)

(四) 安全、健康、环保资质 HSE

- ◆ 环境管理体系认证证书
- ◆ 职业健康安全管理体系认证证书
- ◆ 质量管理体系认证证书
- ◆ 中国石化健康安全环境管理体系评价证书
- ◆ 中石油HSE管理体系评价证书

Environmental Management System Certification
 Occupational Health and Safety Management System Certificate
 Quality Management System Certificate
 Sinopec HSE Management System Evaluation Certificate
 CNPC HSE Management System Evaluation Certificate



(二) 清洗资质 CLEANING

- ◆ A级工业设备储罐清洗资质证书
- ◆ A级工业设备管道机械清洗PIG清洗资质证书
- ◆ A级工业设备化学清洗资质证书
- ◆ A级锅炉化学清洗资质证书

Tank Cleaning of Industrial Equipment (Class A)
 PIG Cleaning Qualification Certificate for Mechanical Cleaning of Industrial Equipment Pipeline (Class A)
 Chemical Cleaning of Industrial Equipment (Class A)
 Boiler Chemical Cleaning Qualification (Class A)

(三) 压力管道资质 PRESSURE PIPELINE

- ◆ 特种设备生产许可证 (GA1、GB1、GB2、GC1)
- ◆ 压力管道元件特种设备制造许可证

The first item of the pressure pipeline qualification was changed to the Special Equipment Production License (GA1, GB1, GB2, GC1)
 Special Equipment Manufacturing License for Pressure Piping Components

(五) 其它资质 MISCELLANEOUS

- ◆ 两化融合管理体系评定证书
- ◆ 排水管道养护维修企业作业证书
- ◆ 中国防腐蚀安全证书
- ◆ 中国防腐蚀施工资质证书
- ◆ 河南省技术贸易资格证书
- ◆ 进出口企业资质证书
- ◆ 化工防腐施工资质证书

Evaluation Certificate of Integration Management System
 Operation Certificate of Drainage Pipe Maintenance Enterprise
 China Anti-corrosion Safety Certificate
 China Anti-corrosion Construction Qualification Certificate
 Henan Technology Trade Qualification Certificate
 Qualification Certificate of Import & Export Enterprises
 Chemical Anticorrosion Construction Qualification Certificate

企业资质、荣誉和奖励

CORPORATE SENIORITIES, HONORS AND AWARDS



(一) 企业资质 CORPORATE SENIORITIES

- ◆ 新三板上市企业
- ◆ 国家高新技术企业
- ◆ 河南省博士后创新实践基地
- ◆ 河南省省级企业技术中心
- ◆ 河南省压力管道应急处理技术中心
- ◆ 河南省管道健康工程研究中心
- ◆ 中国石油学会石油储运专业委员会油气管道抢维修培训中心(基地)

Listed Enterprise on the New Third Board
 New & High-Tech Enterprise
 Henan Provincial Postdoctoral Innovation Practice Base
 Henan Provincial Technology Center (Provincial Level)
 Henan Provincial Pressure Pipeline Emergency Treatment Technology Center
 Henan Provincial Pipeline Health Engineering Research Center
 Oil and Gas Pipeline Rush-Repair Training Center (Base) for Petroleum Storage and Transportation Professional Committee of China Petroleum Institute

(二) 企业荣誉 CORPORATE HONORS

- ◆ 全国防腐保温工程行业首批质量、安全、信誉、AAA+级示范企业
- ◆ 中国石油化工集团石油化工业施工行业信得过企业
- ◆ 中国质量、服务、信誉AAA级企业
- ◆ 河南省技术创新示范企业
- ◆ 河南省质量诚信体系建设A级企业
- ◆ 濮阳市建筑业先进企业
- ◆ 濮阳市工业发展先进企业
- ◆ 濮阳市信息化和工业化融合示范企业
- ◆ 濮阳市绿化示范企业
- ◆ 濮阳市文明诚信经营示范企业
- ◆ 濮阳市五一劳动奖状

One of the first batch of AAA+ Class Demonstration Enterprises for Quality, Safety and Credibility in the national anti-corrosion and thermal insulation engineering industry
 Trusted Company in the petrochemical and construction industries of Sinopec
 AAA-Level Enterprise for Quality, Service and Credibility
 Henan Provincial Demonstration Enterprise for Technological Innovation
 Henan Provincial A-Level Enterprise in Construction of Quality Credit System
 Puyang City Advanced Enterprise in Construction Industry
 Puyang City Advanced Enterprise for Industrial Development
 Puyang City Demonstration Enterprise for IT & Industrial Integration
 Puyang City Greening Demonstration Enterprise
 Puyang City Demonstration Enterprise for Civilized and Integrity Business
 Puyang May 1st Labor Certificate

(三) 企业奖励 CORPORATE AWARDS

- ◆ 濮阳市青年文明号
- ◆ 濮阳市高校毕业生就业见习单位
- ◆ 濮阳市文明单位
- ◆ 濮阳市平安创建工作先进单位
- ◆ 濮阳市“岗位大练兵、技能大比武”活动优秀组织单位
- ◆ 濮阳市“讲理想、比贡献”活动先进集体
- ◆ 濮阳市“扶贫济困献爱心共创和谐大家庭”光荣称号

Puyang City Youth Civilization Unit
 Puyang University Graduates Employment Probation Unit
 Puyang City Civilization Unit
 Puyang Advanced Unit in Peace-Building Work
 Puyang City Excellent Organization Unit in the activity of "Post Training & Skills Competition"
 Puyang City Advanced Unit in the activity of "Contribution Contest with Ideal"
 Puyang City Honorable Title of "Create a Harmonious Home with Helping the Poor with Love"

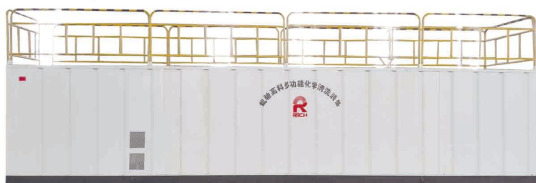


主要成熟技术 MAIN MATURE TECHNOLOGIES

1 清洗技术 Cleaning Technology

化学清洗技术 Chemical Cleaning Technology

- 特种化工装置检修化学清洗技术
 - 丁二烯停工清洗技术
 - 炼化装置除臭钝化清洗技术
 - 急冷油系统清洗技术
 - 裂解炉清洗技术
 - 新建石化装置开工前化学清洗技术
 - 新建锅炉开工前化学清洗技术
- Special chemical facilities inspection and repairing technology and chemical cleaning technology
 - Butadiene shut-down and start-up cleaning
 - Refining device deodorant passivation cleaning
 - Quench oil system cleaning
 - Cracking furnace cleaning
 - Chemical cleaning technology for newly-built facilities before operation
 - Chemical cleaning technology for newly-built boilers before operation



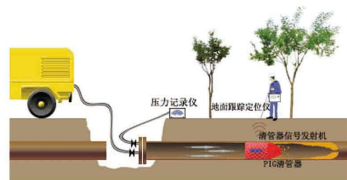
多功能化学清洗装置



智能控制部分

物理清洗技术 Physical Cleaning Technology

- COW原油储罐机械清洗技术
- 管线不停输PIG清洗技术
- 油田注水管道的硬垢清洗技术
- 超声波清洗技术
- 高压水射流清洗技术

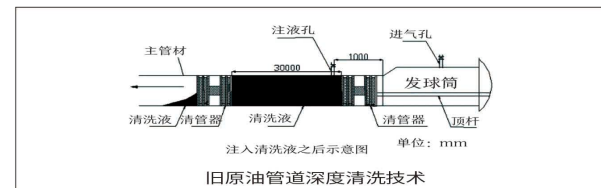


PIG清洗技术

- Cleaning technology for COW crude oil storage tanks
- Technology for PIG pipeline cleaning without stopping production
- Cleaning technology for hard scale in water injecting pipelines of oilfields
- Ultrasonic cleaning technology
- Cleaning technology with high-pressure water jet

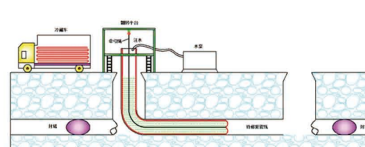
旧原油管道深度清洗技术 Thorough Cleaning Technology for Old Crude Oil Pipeline

- 原油管道改输航油(汽油、柴油)深度清洗技术
 - 原油管道改输天然气深度清洗技术
 - 天然气管道改输成品油清洗生产技术
- Thorough cleaning technology for aviation oil (gasoline, diesel oil) pipeline transformed from crude oil pipeline
 - Thorough cleaning technology for natural gas pipeline transformed from crude oil pipeline
 - Cleaning technology of natural gas pipeline to product oil pipeline

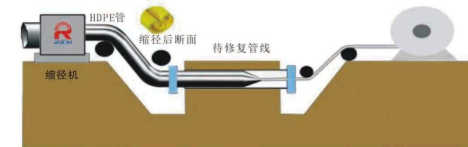


旧原油管道深度清洗技术

2 旧管道非开挖内衬修复技术 The Trenchless Liner Repair Technology for Old Pipeline



CIPP内衬修复示意图



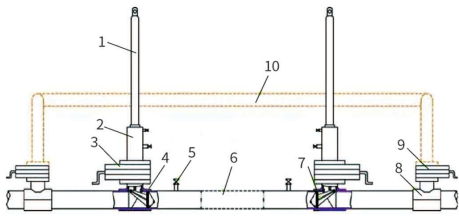
HDPE内衬修复示意图

- HDPE管穿插内衬修复技术
 - CIPP翻转内衬修复技术
 - 紫外光固化内衬修复技术
 - 不锈钢内衬修复技术
 - 聚合物水泥砂浆内衬修复技术
 - 现场缠绕制管内衬修复技术
 - 高分子材料喷涂旧管道修复技术
 - HT-PO管等径穿插内衬修复技术
- HDPE pipe interpenetration liner repairing
 - CIPP liner inversion repairing
 - Light curing glass fiber reinforced plastic liner repairing
 - Stainless steel liner repairing
 - Polymer cement and sand slurry liner repairing
 - Field winding pipe liner repairing
 - Polymer material spraying old pipe repairing
 - Repair technology of HT-PO pipe with equal diameter and inner lining

主要成熟技术 MAIN MATURE TECHNOLOGIES

3 管道不停输带压开孔、封堵技术 Pipeline Non-stop Hot Tapping & Blocking

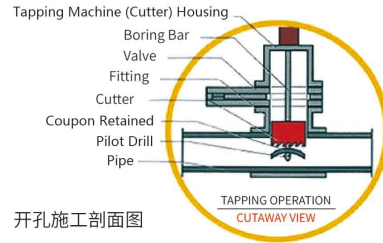
不停输开孔封堵示意图



1.封堵器; 2.封堵结合器; 3.封堵夹板阀; 4.封堵三通; 5.压力平衡短节; 6.维修改造管段; 7.封堵头; 8.旁通三通; 9.旁通夹板阀; 10.旁通管道
 1. plugging; 2.combined component; 3. plugging sandwich valve; 4.T-joint of plugging; 5. pressure balancing joint; 6. maintenace reconstruction pipe; 7. plugging bottom sub; 8.by-pass T-joint; 9.by-pass sandwich valve; 10.by-pass pipe



管道不停输带压开孔示意图



4 不停输带压补强、堵漏技术 The Preprocessing Reinforcing and Plugging Technology

5 新建管道开工前预处理技术 The Preprocessing Technology of Newly-built Pipeline before Start-up

管道试压技术 Pipeline Pressure-Test Technology	管道干燥技术 Pipeline Drying Technology	氮气置换技术 Nitrogen Displacement Technology	预冷技术 Precooling Technology
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6 检测与完整性评价技术 The Pipeline Inspection and Integrity Evaluation Technology

- PCM检测评估技术
- ACVG/DCVG阴极保护有效性检测评估技术
- RTK/GPS检测定位技术
- 杂散电流检测技术
- 金属蚀矢量腐蚀检测技术
- 长距离导波检测技术
- 管道变形和金属漏磁智能检测技术
- 检测数据分析技术
- 完整性评价技术
- 储罐检测评价技术
- 油田地面管道的腐蚀监测技术
- PCM inspection and evaluation technology
- ACVG/DCVG cathodic protection effectiveness inspection and evaluation technology
- RTK/GPS detection and positioning technology
- Stray current detection technology
- Metal vector corrosion detection technology
- Long-distance guiding wave technology
- Intelligent detection technology for the pipeline deformation and metal magnetic leakage
- Inspection data analysis
- Integrity evaluation technology
- Storage tank inspection and evaluation technology
- Corrosion monitoring technology for oilfield ground pipeline

7 工业废气(VOCs)治理技术 Industrial Waste Gas (VOCs) Treatment Technology



工业废气(VOCs)治理装备

智能控制部分

主要成熟技术 MAIN MATURE TECHNOLOGIES

8 废弃油气管道无害化综合治理技术
Discarded Oil & Gas Pipeline Harmless Treatment Comprehensive Control Technology

9 石化装置、石油天然气管道投产运营技术
Petrochemical Plant and Oil & Gas Pipeline Operation Technology

10 阴极保护设计与施工技术
Cathode Protection Design and Construction Technology

11 工业废水废固、化学清洗废水处理技术
Industrial Waste Water and Solid, Chemical Treatment Technology

12 钻井液废液废固处理技术
Drilling Fluid Waste Water and Solid Treatment Technology

13 重度油污污水处理技术
Heavy Sewage Oil and Water Treatment Technology

14 土壤污染治理和复耕技术
Soil Pollution Control and Rehabilitation Technology.

15 长输管道阀门、压缩机、执行机构维修技术
Long-distance Pipeline Valve, Compressor, Actuator Repairing Technology

16 油水井检维修技术
Oil and Water Well Inspection and Repairing Technology

17 管道e生应急(健康)管理服务平台及管道健康诊断技术
Pipeline e-Life Emergency (Health) Management Service Platform and Pipeline Health Diagnosis Technology

主要化工产品 MAIN CHEMICAL PRODUCTS

1 RCHQ 系列清洗剂
RCHQ series cleaning agent

2 RCHD 系列除臭钝化清洗剂
RCHD series deodorant passivation cleaning agent

3 RCHJ 系列急冷油清洗剂
RCHJ series quench oil cleaning agent

4 RCHH 系列缓蚀剂
RCHH series corrosion inhibitor

5 RCHL 系列炼化助剂
RCHL series refining agent

6 RCHZ 系列钻井助剂
RCHZ series drilling agent

7 RCHZJ 系列水处理阻垢阻聚剂
RCHZJ series water treatment scale and polymerization inhibitor

8 RCHSJ 系列杀菌剂
RCHSJ series bactericide

9 RCHN 系列粘泥剥离剂
RCHN series sludge stripper

10 RCHW 系列废水废固处理剂
RCHW series waste water and solid treating agent

11 RCHX 系列土壤污染修复剂
RCHX series soil pollution restoring agent

主要机械产品 MAIN MECHANICAL PRODUCTS

- RCHDN50-DN2400系列低中高压管道带压开孔设备
RCHDN50-DN2400 LP/MP/HP series pipeline hot tapping equipment
- RCHDN50-DN1400系列低中高压管道带压封堵设备
RCHDN50-DN1400 MP/HP/LP series pipeline hot blocking equipment
- 各种管径三通、四通管件
Three and four way pipe fittings with various diameter
- RCH自爬式液压切管机
RCH self climbing type hydraulic pipe cutting machine



液压封堵机



液压开孔机

- 各种规格夹板阀
Sandwich plate valve with various size
- RCH-U型内衬修复缩径机
RCH-U type liner restoring and reducing machine
- RCH液压泵站
RCH hydraulic pump station
- 光固化内衬修复设备
Light curing liner restoring equipment
- 涂料喷涂设备
Coating spraying equipment
- RCH液压强力泥浆泵
RCH hydraulic power mud pump
- RCH带压堵漏机具
RCH hot plugging machines and tools
- RCH全自动翻转内衬操作平台
RCH automatic liner inversion operation platform



全自动内焊机



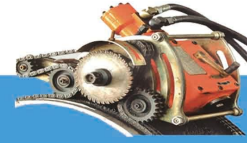
全自动双枪外焊机



全自动单枪外焊机



全自动坡口机



RCH型自爬式液压断管机



液压强力泥浆泵



汽油液泵站



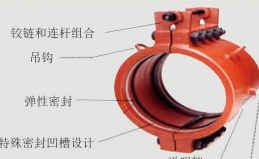
柴油液泵站

- RCH无级变速牵引机
RCH stepless speed towing machine
- RCH聚氨酯翻转软袋
RCH polyurethane inversion soft bag
- RCH智能内窥镜
RCH intelligent endoscope
- RCH机械连接管夹
RCH mechanical connection pipe clamp
- RCH泄露修复管夹
RCH pipe clamp for leakage repair
- RCH系列清管器
RCH series pipeline pig
- RCH干燥机
RCH drying machine
- 快装收发球筒
Packaged pig receiver and launcher

- 全自动内焊机
Automatic internal welding machine
- 全自动双枪外焊机、全自动单枪外焊机
Automatic double-gun external welding machine, fully automatic single-gun external welding machine
- 全自动坡口机
Automatic sloping machine
- 各种管径内对口器
Internal clamp in various pipe diameter
- 各种化学清洗撬装泵组
Various chemical cleaning skid pump package
- 大型化学清洗装备
Large chemical cleaning equipment
- 污水处理撬装装置
Sewage treatment skid device
- 各种低中高压阀门、特种阀门
Various MP/HP valves and special valves



机械连接管夹



带压堵漏夹具



双封堵头



堵漏夹具



夹板阀



三通



筒刀

典型工程案例 TYPICAL ENGINEERING CASES

清洗工程案例 Cleaning Engineering Cases

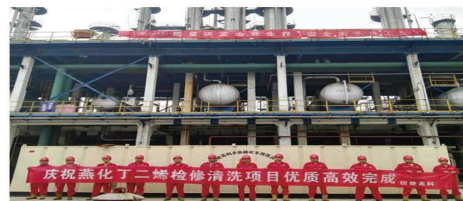
- ➔ 中石化镇海炼化100万吨/年乙烯丁二烯装置停开工化学清洗工程
Starting and stopping of chemical cleaning engineering sinopec Zhenhai Refinery 1 million tons/year ethylene butadiene unit
- ➔ 中沙(天津)石化100万吨/年乙烯丁二烯装置停开工化学清洗工程
Starting and stopping chemical cleaning engineering device in SINOPEC SABIC Tianjin Petrochemical Company Limited 1 million tons/year ethylene butadiene
- ➔ 天津石化炼油装置停工检修除臭钝化清洗工程
The petroleum refining unit of Tianjin petrochemical plant shutdown maintenance deodorant passivation cleaning project
- ➔ 赤峰博元科技有限公司10万吨/年酚醛树脂项目甲醇储罐装置化学清洗工程
Chifeng Boyuan technology co., LTD. 100000 tons/year phenolic resin project chemical cleaning engineering project of methanol storage tank device
- ➔ 中化泉州石化有限公司原油储罐、重质油储罐机械清洗工程
Mechanical cleaning project of crude oil tank and heavy oil tank of sinochem Quanzhou Petrochemical Company Limited
- ➔ 大唐国际煤制烯烃项目动力车间1#-5#(420吨)锅炉开工前化学清洗工程
The CTO project of DaTang International Company: the pre-service chemical cleaning for 420 tons boiler in powerhouse 1#-5#
- ➔ 神华宁煤400万吨/年煤炭间接液化项目高压蒸汽管道、氧气管道化学清洗工程
Chemical cleaning of Shenhua Ningxia coal Group 4 million tons/year indirect coal liquefaction project of high pressure steam pipe, oxygen pipeline
- ➔ 中石油彭州大乙烯装置停开工清洗工程
Stop- start cleaning engineering for Petrochina Pengzhou big ethylene plant



中沙(天津)石化丁二烯装置化学清洗工程



中石化普光净化厂、元坝净化厂检修清洗和除臭钝化工程



燕山石化丁二烯装置清洗工程



镇海炼化丁二烯球罐清洗工程

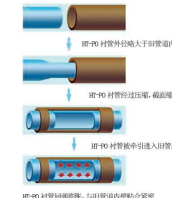
- ➔ 中石化普光净化厂、元坝净化厂检修清洗和除臭钝化工程
Sinopec Puguang purification plant, Yuanba purification plant maintenance cleaning and deodorization passivation project
- ➔ 海南华盛新材料科技有限公司2×26万吨/年非光气法聚碳酸酯项目(一期)化学清洗工程
Chemical cleaning project of 2 × 260000t/a non phosgene polycarbonate project (phase I) of Hainan Huasheng New Material Technology Co., Ltd
- ➔ 连云港石化有限公司空分、锅炉、EOEG装置化学清洗工程
Chemical cleaning project of air separation, boiler and EOEG unit in Lianyungang Petrochemical Co., Ltd

旧管道非开挖内衬修复工程案例 Engineering Cases of the Trenchless Repair for Old Pipeline

- ➔ 新疆塔河油田采油一厂原油管道HT-PO管内衬修复工程
The factory of oil production in Tahe, Xinjiang oil field oil pipeline HT-PO pipe lining repair project
- ➔ 黄岛北部工业区污水管道DN1200、DN1000、DN800 CIPP翻转内衬修复工程
CIPP liner inversion repairing of Sewage pipes of DN1200, DN1000, DN800 in the industrial zone of northern Huangdao
- ➔ 华电潍坊发电有限公司水源地A、B补水管线HDPE内衬工程
Huadian weifang power generation co., LTD., water source of A and B hydrating line part of the PE pipe lining project
- ➔ 杭州市政排水公司中东河DN1200、DN1000、DN800排污管线CIPP翻转内衬修复工程
CIPP lining inversion restoration project of DN1000, DN1200 and DN800 sewage water pipelines of Zhongdonghe for Hangzhou Municipal Drainage Company
- ➔ 河南中原大化集团DN800/900/1200钢质循环水管道不锈钢内衬修复工程
Henan Zhongyuan Chemical Group DN800/900/1200 steel circulating water pipe stainless steel lining repair project



镇海炼化HDPE内衬工程



新疆塔河采油一厂HT-PO非开挖O型缩径内衬修复工程

典型工程案例 TYPICAL ENGINEERING CASES

→ 青岛排水DN600管道紫外光固化非开挖内衬修复工程

Non excavation lining repair engineering of DN600 pipeline light curing glass fiber reinforced plastic in Qingdao

→ 青岛2019年市区排水管网改造工程

Qingdao Hyde Engineering Group Co., Ltd. 2019 urban drainage official website reconstruction project

→ 镇海炼化DN1200供水管道HDPE非开挖U型缩径内衬修复工程

Repair of HDPE trenchless U-shaped reduced diameter inner lining for DN 1200 water supply pipeline of Zhenhai Refining and Chemical Co., Ltd

管道不停输带压开孔、封堵、管道带压补强、堵漏工程案例

Engineering Cases of Pipeline Non-stop Hot Tapping, Blocking, Reinforcing & Plugging

→ 中国石油青海分公司西固段天然气管线安全隐患治理项目(带压封堵工程)

Chinese Petroleum Engineering Co. Ltd. Qinghai Branch West Section of extension of natural gas pipeline safety risk management of the project (pressure plugging Engineering)

→ 中海石油(中国)有限公司湛江分公司乐东陆管白沙河隐患治理工程

Ledong Luguan Baisha River Hidden Danger Treatment Works of Zhanjiang Branch of CNOOC (China) Ltd

→ 安徽省天然气管网不停输年度维保工程

Hot plugging and rerouting maintenance engineering for natural gas pipeline of AnHui Natural Gas Co., Ltd

→ 郑州华润Φ813高压燃气管道四封四堵工程

Zhengzhou Huarun Φ813 high pressure gas pipeline four sealing and four plugging project



华润Φ813高压燃气管道四封四堵工程



中裕燃气管道不停输带压封堵工程



徐州管道局潍坊输油管道封堵项目



中海壳牌石油化工有限公司 SMOP/POD项目带压45°斜开孔工程

→ 太原天然气有限公司高压管线马练营路DN600带压开孔、封堵工程

Hot tapping and plugging and rerouting for valve DN600 of malianying road natural gas pipeline of Taiyuan Natural Gas Co., Ltd

→ 中开天然气管线碳纤维补强工程

Intensification restoration with carbon fibre for Zhongkai natural gas pipeline

→ 中原大化集团蒸汽管道DN300阀门带压堵漏工程

Blocking of valve DN300 on steam pipeline of Zhongyuan Dahua Group

→ 抚宁中石油昆仑燃气有限公司抚宁门站至秦皇岛高压管道改迁工程不停输封堵(双侧双封)改线工程

Non-stop block (dual side-dual block) relocation of high pressure pipeline from funingmen station to Qinhuangdao of Funing PetroChina Kunlun Gas Co., Ltd

→ 南昌市燃气集团有限公司石埠-湾里(翠柳路)高压燃气管道不停输封堵工程

Non-stop plugging project of Shibu-Wanli (Cuiliu Road) high pressure gas pipeline of Nanchang Gas Group Co., Ltd

→ 中国石化管道储运有限公司襄阳输油处魏荆线汉江管桥北阀室自控升级改造工程

Automatic control upgrading project of North valve chamber of Hanjiang pipeline bridge on Wei Jing line of Xiangyang Oil Transportation Department of Sinopec pipeline storage and Transportation Co., Ltd

→ 中海壳牌石油化工有限公司SMOP/POD项目带压45°斜开孔工程

45° Pressurized opening service engineering of SMOP / POD project of CNOOC Shell Petrochemical Co., Ltd

→ 长治华润煤气铸铁管道Φ335单封工程

Φ335single seal project of Changzhi China Resources Gas Co.cast iron pipeline

试压、干燥、置换、预冷工程案例

Engineering Cases of Pipeline Pressure-test, Pipeline Drying and Nitrogen Displacement

→ 中石化青岛LNG储罐和场站干燥预冷、氮气置换工程

Sinopec Qingdao LNG storage tank and station dry cooling, nitrogen replacement project

石化装置、石油天然气管道投产运营服务

PETROCHEMICAL PLANT, OIL AND GAS PIPELINE OPERATION SERVICE

- 中石化天然气分公司榆林—济南输气管道工程Φ610x223km濮阳—济南段清管试压干燥置换工程
Sinopec Natural gas branch company: pipeline pigging dehydration and displacement for gas transmitting pipe Φ610x223km from Yulin to Jinan and from PuYang to Jinan
- 中石化天然气分公司川气东送管道第9标段Φ1016x166.4km工程管道干燥工程
Sinopec Natural gas branch company: pipeline dehydration of gas transmitting pipe which is of the 9th sections Φ1016x166.4km project from Sichuan to the East of China
- 中石油西气东输二线高陵—潼关段Φ1219主管线、Φ1016平泰支线、上海支线、广南支线等956km清管、干燥、置换工程
Sinopec Natural Gas Co.,Ltd: the second west-east Gaoling - Tongguan section with Φ1219 main line, Phi Φ1016 Pingtai branch, Shanghai branch, Guangnan extension 956km cleaning and drying, replacement engineering
- 中石化山东液化天然气项目输气干线工程氮气置换工程
Nitrogen replacement project of gas pipeline project of Sinopec Shandong LNG project
- 中海油粤东液化天然气公司LNG高压外输管道及BOG再冷凝器低温氮气预冷工程
LNG high pressure export pipeline and BOG Recondenser Low Temperature Nitrogen Precooling project of CNOOC Yuedong Company

检测与完整性评价工程案例

Engineering Cases of Pipeline Inspection and Integrity Evaluation

- 中石化福炼一体化成品油管道一期工程南管线Φ355x360km音频检测工程
Φ355x360km audio frequency detection of the northern pipelines of integrated product oil of the first-stage project for Sinopec-Fulian
- 中石化鲁皖二期郑州-汤阴段、石家庄-邯郸段、济南-汤阴段成品油管道音频检测工程
Audio detection projects of the product oil pipelines from Zhengzhou to Tangyin, Shijiazhuang to Handan and Jinan to Tangyin for Sinopec Luwan's second-stage engineering
- 兰郑长成品油管道音频检测工程
The audio detection project for Lanzhou-Zhengzhou-Changsha product oil pipelines
- 中石化天然气分公司榆林—济南输气管道工程Φ610x223km濮阳—济南段检测工程
branch company Yulin to Ji'nan natural gas pipeline engineering: testing engineering: with Φ610x223km Puyang - Ji'nan section

- 南京市燃气高压管道Φ610管道漏磁检测工程
Φ610 pipeline leakage magnetic detection project of Nanjing city gas high pressure pipe network
- 中济线天然气管道超声波检测工程
The line of natural gas pipeline from ZYOF to Jinan ultrasonic testing engineering

废弃油气管道无害化综合治理工程案例

Engineering Cases of Discarded Oil & Gas Pipeline Harmless Treatment Comprehensive Control

- 中石油北京输油气分公司任京线废弃原油管道无害化综合治理工程
CNPC Beijing oil and gas branch Co. abandoned oil and gas pipelines Renjiu-Beijing harmless disposal of comprehensive treatment project
- 中石油沈阳输油气分公司铁大线废弃原油管道无害化综合治理工程
CNPC Shenyang oil and gas branch Co. abandoned oil and gas pipelines harmless Tiling-Dalian disposal comprehensive treatment project
- 兰郑长管道会盟镇改线段无害化处理工程
Lanzhou-Zhengzhou-Changsha Pipeline Huimeng Town section harmless treatment engineering
- 中石化镇海炼化分公司北仑段石油化工管线隐患整改工程废弃管线处理工程
The waste pipeline treatment project for the hidden danger rectification of the petrochemical pipeline in the Beilun Section of Sinopec Zhenhai Refining and Chemical Branch Company
- 国家管网集团北方管道有限责任公司锦州输油气分公司铁秦输油管道封存管线拆除工程
Tieling-Qinhuangdao oil pipeline sealing pipeline demolition project of Jinzhou Oil and Gas Transportation Branch of National Pipe Network Group North Pipeline Co., Ltd
- 中石化天津分公司Φ426管线原油改航煤深度清洗工程
Deep pigging project of converting crude oil into aviation kerosene in Tianjin Petrochemical Company of Sinopec Tianjin Branch

石化装置、石油天然气管道投产运营服务工程案例

Engineering Cases of Petrochemical Plant and Oil & Gas Pipeline Operation Service

- 广州天然气管网投产运营服务工程
Service project of Guangzhou natural gas pipeline network operation
- 山西国化能源输气管道投产运营服务工程
Shanxi National Energy Co.,Ltd. gas pipeline operation and service engineering

阴极保护设计与施工工程案例

Engineering Cases of Cathodic Protection Design and Construction

- 中石化鲁皖二期郑州-汤阴段、石家庄-邯郸段、济南-汤阴段1000km成品油管道阴极保护施工、调试工程
Sinopec Lu-Wan second-phase Zhengzhou-Tangyin section, Shijiazhuang-Handan section, Ji'nan-Tangyin section of 1000km oil pipeline cathodic protection construction and commissioning

石化装置、石油天然气管道投产运营服务

PETROCHEMICAL PLANT, OIL AND GAS PIPELINE OPERATION SERVICE

→ 中石油西气东输二线上海支线、十堰支线1200km天然气管道阴极保护、调试工程
Cathodic protection and commissioning of 1200km gas pipeline in Shanghai branch and Shiyan branch of PetroChina west-east gas pipeline project

→ 兰郑长650km成品油管道阴极保护、调试工程
Cathodic protection and commissioning project of 650km Lanzhou-Zhengzhou-Changsha petroleum products oil pipeline

工业废水废固、化学清洗废液处理工程案例
Engineering Cases of Industrial Waste Water and Solid Treatment

→ 中石化普光生产、清洗废液废固处理工程
Sinopec Puguang produced, cleaning wastewater and solid waste treatment project

→ 中沙(天津)石化生产、清洗废液废固处理工程
Sinopec SABIC Tianjin (SSTPC) produced, waste cleaning waste water and solid treatment engineering

钻井液废液废固处理工程案例
Engineering Cases of Chemical Cleaning, Drilling Mud Waste Water and Solid Treatment

→ 中石化普光气田钻井液废液废固处理工程
Sinopec Puguang Gas Field Drilling Fluid Waste Water and Solid Treatment Project

土壤污染治理和复耕工程案例
Engineering Cases of Soil Pollution Control and Rehabilitation Project

→ 中石化中原油田井场污染土壤治理和复耕工程
Sinopec Zhongyuan oil field contaminated soil treatment and Rehabilitation Project

重度污油污水处理工程案例
Engineering Cases of Heavy Sewage Oil and Water Treatment

→ 中石油北京输油气分公司任京线废弃原油管道无害化综合治理工程污油污水处理工程
CNPC Beijing oil and gas branch company abandoned oil and gas pipelines Renqiu-Beijing harmless disposal of comprehensive treatment project

→ 中石油沈阳输油气分公司铁大线废弃原油管道无害化综合治理工程污油污水处理工程
CNPC Shenyang oil and gas branch company abandoned oil and gas pipelines Tieling-Dalian harmless disposal comprehensive treatment project

长输管道阀门、压缩机、执行机构维修工程案例
Engineering Cases of Long-distance Pipeline Valve, Compressor, Actuator Repairing

→ 中石化榆济线天然气管道阀门、压缩机、执行机构维修工程
Sinopec Yulin-Jinan natural gas line pipeline valve, compressor and actuator maintenance

→ 山西国化能源天然气管道阀门、压缩机、执行机构维修工程
Shanxi national energy Co. Ltd gas pipeline valves, compressors, actuator maintenance

油水井检维修服务工程案例
Engineering Cases of Oil and Water Well Inspection and Maintenance Service

→ 中原油田油水井检维修工程
Oil and water well inspection and maintenance project in Zhongyuan Oilfield

→ 普光气田油水井检维修工程
Oil and water well inspection and maintenance project in Puguang gas field

管道维保、应急救援、应急演练工程案例
Engineering Cases of Pipeline Maintenance, Emergency Rescue and Emergency Drill

→ 全国第19个安全生产月“天然气管线泄漏事故应急处置”应急演练
Emergency drill activity of "emergency disposal of natural gas pipeline leakage accident" in the 19th national production safety month

→ 挥公大道二硫化碳罐车泄漏应急救援
Emergency Rescue for Carbon Disulfide tank truck leakage on Huigong Avenue

→ 河南发展燃气公司中原油田-开封-薛店线与唐伊线天然气管道维保服务
Henan development gas company Zhongyuan Oilfield-Kaifeng-Xuedian line and Tanghe-Yichuan line natural gas pipeline maintenance service



安全生产月应急演练



挥公大道二硫化碳罐车泄漏应急救援