

SELECTED FIELD APPLICATIONS

Project References

Selected field applications of cold-applied corrosion protection systems on storage tanks, buried valves, industrial pipework and steel connections.

9

Cold-applied tank projects

100 000 m³

Largest tank

2017–2023

Period

4

Case studies



00

How to Read These References

Zhuohuang supplies cold-applied wrapping materials and supports product selection, system configuration, installation communication and field application guidance. The references in this document illustrate how petrolatum-based and related wrapping systems are configured around real asset geometry and site conditions.

Application category	Typical condition
Tank edge protection	Dynamic annular plate transitions, rainwater ingress and exposed tank bases.
Buried valve protection	Valve chambers subject to standing water, underground moisture and irregular geometry.
Pipeline maintenance	Local coating failure, humid pipe-rack environments and complex elbows or penetrations.
Bolts and steel connections	Crevices, fasteners and connection plates that are difficult to protect with conventional coatings.

REFERENCE STATUS

Project conditions, surface preparation, system components and operating environments vary. Photographs and project details are selected from Zhuohuang company records and client names are translated from the Chinese originals. A reference demonstrates application experience; it does not replace project-specific technical review or the current product data sheets. Full project photographs, technical proposals and customer-specific documents can be supplied for qualified review where available.



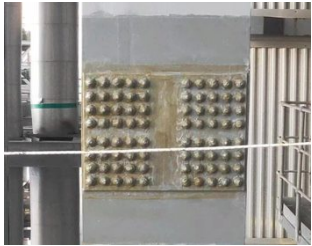
Tank edge



Buried valve



Pipe-rack lines



Steel connections

01

Oiltanking

Storage tank annular edge

Field	Detail
Client	Oiltanking
Location	Qingdao, Shandong, China
Asset	Storage tank annular edge
System	Petrolatum tape system
Reference	Reference date 5 November 2021

PROJECT CHALLENGE

The tank shell-to-foundation transition is exposed to rainwater, retained moisture and movement between full and empty operating conditions. Rigid coating details may crack or lose adhesion at this dynamic edge.

SYSTEM CONFIGURATION

- Petrolatum primer
- Elastic profiling mastic
- Petrolatum corrosion protection tape
- Metal protective outer wrap
- Outer-wrap primer and elastomeric finishing layer

Reference outcome

The system created a sealed, flexible transition from the lower tank shell to the concrete foundation edge. Following initial use, the solution was recognised for continued application through planned tank maintenance activities.



Photographs are selected from Zhuohuang project records and are retained as documentary references rather than marketing images. Some original records contain limited-resolution photographs.

02

China Gas

Buried valves and flanges in valve chambers

Field	Detail
Client	China Gas
Location	Nanjing / Hangzhou / Yangzhong, China
Asset	Buried valves and flanges in valve chambers
System	Petrolatum primer + mastic + tape
Reference	In use since 2018

PROJECT CHALLENGE

Valve chambers accumulate rainwater or groundwater. Conventional paint films deteriorate when valves, flanges and fasteners remain wet or are periodically submerged, while complex shapes create difficult coating details.

SYSTEM CONFIGURATION

- Remove loose rust and contamination
- Apply petrolatum primer
- Profile recessed areas with mastic
- Wrap petrolatum tape with controlled overlap
- Smooth joints and eliminate voids

Reference outcome

The wrapping system has been used in China Gas valve chambers since 2018. The flexible, water-displacing system supports continued protection where valve assemblies are exposed to chamber water ingress and difficult maintenance access.



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03

Nanjing Iron & Steel Group

Utility pipelines in pipe racks

Field	Detail
Client	Nanjing Iron & Steel Group
Location	Metallurgical industry, China
Asset	Utility pipelines in pipe racks
System	Petrolatum wrapping system
Reference	Project reference published 2021

PROJECT CHALLENGE

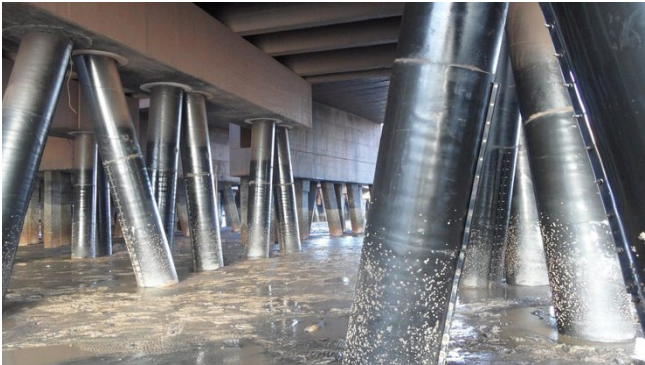
Pipe-rack utility lines operate continuously in a humid industrial atmosphere. Local paint breakdown, corrosion at fittings and restricted access make conventional recoating difficult and disruptive.

SYSTEM CONFIGURATION

- Manual surface preparation to remove loose corrosion
- Primer or paste where required
- Petrolatum tape wrapping
- Compatible protective outer layer selected for exposure and mechanical conditions

Reference outcome

The cold-applied method enabled local maintenance around pipeline surfaces and irregular details without hot work or lengthy curing.



Photographs are selected from Zhuohuang project records and are retained as documentary references rather than marketing images. Some original records contain limited-resolution photographs.

04

Client identity not disclosed

Bolts, base plates and structural connections

Field	Detail
Client	Client identity not disclosed
Location	Industrial steel-structure maintenance
Asset	Bolts, base plates and structural connections
System	Paste + petrolatum tape + protective cover
Reference	Selected reference

PROJECT CHALLENGE

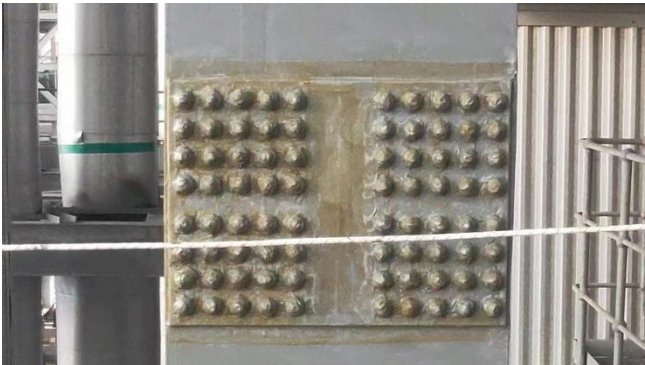
Bolts, connection plates, welds and recesses create sharp changes in geometry and hidden crevices. Paint application is difficult to control and water can enter gaps between connected steel components.

SYSTEM CONFIGURATION

- Inspect and prepare the connection
- Apply corrosion protection paste to fill gaps
- Build smooth transitions around bolts
- Apply petrolatum tape
- Add a protective cover or finishing layer

Reference outcome

The system fully encapsulated the bolt and surrounding connection zone. Flexible paste and tape filled irregular spaces, while the outer protection provided a maintainable finish for the exposed steel detail.



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05 Storage Tank Edge Reference List

Cold-applied petrolatum tank-edge system — extracted from company project records

Capacities are nominal tank capacities. Each project may use a different detail design, material combination and acceptance standard. All projects listed below use the cold-applied petrolatum tank-edge system described in this document set.

Client / project	Period	Tank capacity	System
Ningbo Dingshi Storage Co., Ltd.	2021–2022	50 000 m ³	Petrolatum tank-edge system
Sinopec Zhanjiang Refining & Chemical	2018–2020	100 000 m ³	Petrolatum tank-edge system
Sinopec Chongqing Branch	2019	100 000 m ³	Petrolatum tank-edge system
Sinopec Tongxiang Oil Depot	2020	50 000 m ³	Petrolatum tank-edge system
Daqing Pure Benzene Project	2023	50 000 m ³	Petrolatum tank-edge system
Zhangjiagang Vopak Storage	2019–2020	30 000 m ³	Petrolatum tank-edge system
Beifang Petroleum	2017–2020	20 000 m ³	Petrolatum tank-edge system
Shanhaiguan Airport Fuel Depot	2022	10 000 m ³	Petrolatum tank-edge system
Jiujiang Airport Fuel Depot	2022	5 000 m ³	Petrolatum tank-edge system

Client names above are translated from Zhuohuang company records. Where a client name is a well-known international operator, the translated form is used for identification only.

A SEPARATE COATING TECHNOLOGY

Company records also include 6 tank-edge projects using an elastic coating system. Elastic coating is a different, brush- or spray-applied material technology — it is not a cold-applied wrapping product and it is not part of the product range described in this document set. It is listed here only for completeness and is not detailed further; project information can be supplied separately on request.

Application areas represented in company records

- Storage tank annular plate and chime edges
- Buried valves, chambers and gas network fittings
- Cooling water lines and plant utility pipework
- Steel structure connections, base plates and anchor bolts
- Manhole and nozzle sealing details
- Jetty and quay steel pipe piles
- Loading arms and terminal equipment
- Horizontal vessel saddles and equipment bases
- Circumferential weld protection
- Offshore wind and insulation termination sealing

06

Requesting Project Documentation

Detailed project documentation — including additional photographs, technical proposals, material quantities and acceptance records — can be supplied for qualified review, subject to client confidentiality.

TECHNICAL & COMMERCIAL CONTACT

Send us your asset information

Tell us the asset type and the environment you are working with and we will send the closest reference material together with the corresponding technical documents.

- Product and system selection
- Technical data sheets and safety data sheets
- Third-party test reports and certificates
- Installation sequence and application guidance
- Samples, packaging and private-label discussion

Company	Nanjing Zhuohuang Industrial Technology Co., Ltd.
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Manufacturing	Manufacturing facilities in Anhui and Tianjin, China

DISCLAIMER

The information in this document is based on Zhuohuang product records, manufacturer data and third-party test reports available at the date of issue. Values are typical or standard configurations and are not universal acceptance limits. Product performance depends on substrate condition, surface preparation, geometry, operating temperature and exposure. Confirm the applicable grade, current packaging, project acceptance criteria and the relevant safety data sheet before order and application. A project reference records past application experience and does not constitute a performance guarantee for a different asset or environment.