源泰德润



Tianjin Yuantai Derun Pipe Manufacturing Group Co., Ltd

天津源泰德润钢管制造集团有限公司

天津源泰德润钢管制造集团有限公司
Tianjin Yuantai Derun Pipe Manufacturing Group Co., Ltd

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中国生产规模最大的焊接方矩钢管制造集团
The largest manufacturer of hollow section in China

中国民营企业500强
Top 500 Private Enterprises in China

中国制造业500强
Top 500 Manufacturing Enterprises in China

中国金属材料流通协会方矩管分会会长单位
Chairman unit of Hollow Section Branch of China National Association of Metal Material Trade

FACTORY PRODUCTION CONTROL CERTIFICATE

In compliance with the requirements of BC1:2012 and the Building and Construction Authority, Singapore

This is to certify that the Factory Production Control System of:

Tianjin Yuantaiderun Pipe Manufacturing Group Co., Ltd.
Tianjin Yuantaiderun International Trade Co., Ltd.

In the production facility located at:

Industrial area, Daqiuzhuang Town, Tianjin City,
No.2, Science and Technology Road, Industrial Area,
Daqiuzhuang Town, Jinghai Section, Tianjin City,
People's Republic of China

has been assessed against the Factory Production Control requirements of BC1:2012 and conforms to the requirements for the production of:

Manufacture of Square and Rectangular Hollow Sections

This certificate is only valid when accompanied by a current schedule with the same number detailing the product standards, material grades and other details corresponding to this approval.

Approval is subject to the continued surveillance of the management system in accordance with the requirements of BC1:2012. Unauthorised changes to the management system will render this approval invalid.

Certificate Number:	BJG6023851/A
Original Approval Date:	14 November 2019
Current Issue Date:	17 July 2020
Expiry Date:	13 November 2022

Amanda Wu on behalf of Lloyd's Register Verification

FACTORY PRODUCTION CONTROL CERTIFICATE

In compliance with the requirements of BC1:2012 and the Building and Construction Authority, Singapore

CERTIFICATE BJG6023851/A SCHEDULE

Tianjin Yuantaiderun Pipe Manufacturing Group Co., Ltd.
Tianjin Yuantaiderun International Trade Co., Ltd.

In the production facility located at:

Industrial Area, Daqiuzhuang Town, Tianjin City,
No.2, Science and Technology Road, Industrial Area,
Daqiuzhuang Town, Jinghai Section, Tianjin City,
People's Republic of China

Mill Identification and Products	Standard, Grade and Size
Daqiuzhuang Town, Jinghai County, Tianjin, P.R. China	EN 10210-1: 2006, EN 10210-2: 2006 S235JRH, S275J0H, S275J2H, S355J0H, S355J2H and S355K2H and S460NH
50 welded pipe line (No. 2 line) ERW production line	For square pipe, side dimension range from 20 to 50mm, thickness range from 2.0 to 5.0mm; For rectangular pipe, BXH range from 20X25 to 60X40mm thickness range from 2.0 to 5.0mm.
114 welded pipe line (No. 7 line) ERW production line	For square pipe, side dimension range from 40 to 90mm, thickness range from 2.0 to 8.0mm; For rectangular pipe, BXH range from 60X40 to 120X60mm thickness range from 2.0 to 8.0mm.
200 welded pipe line ERW production line	For square pipe, side dimension range from 90 to 200mm, thickness range from 2.0 to 16.0mm; For rectangular pipe, BXH range from 120X60 to 300X100mm thickness range from 2.0 to 16.0mm.
300 welded pipe line (new) ERW production line	For square pipe, side dimension range from 200 to 300mm, thickness range from 3.0 to 16.0mm; For rectangular pipe, BXH range from 300X100 to 350X250mm thickness range from 3.0 to 16.0mm.

Schedule Issue: 02
Date of Schedule Issue: 17 July 2020

Amanda Wu on behalf of Lloyd's Register Verification

FACTORY PRODUCTION CONTROL CERTIFICATE

In compliance with the requirements of BC1:2012 and the Building and Construction Authority, Singapore

CERTIFICATE BJG6023851/A SCHEDULE

Tianjin Yuantaiderun Pipe Manufacturing Group Co., Ltd.
Tianjin Yuantaiderun International Trade Co., Ltd.

In the production facility located at:

Industrial Area, Daqiuzhuang Town, Tianjin City,
No.2, Science and Technology Road, Industrial Area,
Daqiuzhuang Town, Jinghai Section, Tianjin City,
People's Republic of China

Mill Identification and Products	Standard, Grade and Size
500 welded pipe line ERW production line	For square pipe, side dimension range from 300 to 500mm, thickness range from 5.0 to 18.0mm; For rectangular pipe, BXH range from 300X250 to 500X450mm thickness range from 5.0 to 18.0mm.
Cold-drawing pipe line Including Pipes formed by ERW, Pipes formed by LSAW, and Seamless pipes.	For square pipe, side dimension range from 200 to 800mm, thickness range from 5.0 to 50.0mm; For rectangular pipe, BXH range from 300X100 to 750X500mm thickness range from 8.0 to 50.0mm.
Heat treatment line	For square pipe, side dimension range from 20 to 800mm, thickness range from 2.0 to 50.0mm; For rectangular pipe, BXH range from 20X25 to 750X500mm thickness range from 2.0 to 50.0mm.
Daqiuzhuang Town, Jinghai County, Tianjin, P.R. China	EN 10219-1: 2006, EN 10219-2: 2006 S235JRH, S275J0H, S275J2H, S355J0H, S355J2H and S355K2H
50 welded pipe line (No. 2 line) ERW production line	For square pipe, side dimension range from 20 to 50mm, thickness range from 2.0 to 5.0mm; For rectangular pipe, BXH range from 20X25 to 60X40mm thickness range from 2.0 to 5.0mm.

Schedule Issue: 02
Date of Schedule Issue: 17 July 2020

Amanda Wu on behalf of Lloyd's Register Verification

FACTORY PRODUCTION CONTROL CERTIFICATE

In compliance with the requirements of BC1:2012 and the Building and Construction Authority, Singapore

CERTIFICATE BJG6023851/A SCHEDULE

Tianjin Yuantaiderun Pipe Manufacturing Group Co., Ltd.
Tianjin Yuantaiderun International Trade Co., Ltd.

In the production facility located at:

Industrial area, Daqiuzhuang town, Tianjin City,
No.2, Science and Technology Road, Industrial Area,
Daqiuzhuang Town, Jinghai Section, Tianjin City,
People's Republic of China

Mill Identification and Products	Standard, Grade and Size
114 welded pipe line (No. 7 line) ERW production line	For square pipe, side dimension range from 40 to 90mm, thickness range from 2.0 to 8.0mm; For rectangular pipe, BXH range from 60X40 to 120X60mm thickness range from 2.0 to 8.0mm.
200 welded pipe line ERW production line	For square pipe, side dimension range from 90 to 200mm, thickness range from 2.0 to 16.0mm; For rectangular pipe, BXH range from 120X60 to 300X100mm thickness range from 2.0 to 16.0mm.
300 welded pipe line (new) ERW production line	For square pipe, side dimension range from 200 to 300mm, thickness range from 3.0 to 16.0mm; For rectangular pipe, BXH range from 300X100 to 350X250mm thickness range from 3.0 to 16.0mm.
500 welded pipe line ERW production line	For square pipe, side dimension range from 300 to 500mm, thickness range from 5.0 to 18.0mm; For rectangular pipe, BXH range from 300X250 to 500X300mm thickness range from 5.0 to 18.0mm.
Cold-drawing pipe line Including Pipes formed by ERW, Pipes formed by LSAW	For square pipe, side dimension range from 200 to 500mm, thickness range from 5.0 to 40.0mm; For rectangular pipe, BXH range from 300X100 to 500X300mm thickness range from 8.0 to 40.0mm.

Schedule Issue: 02
Date of Schedule Issue: 17 July 2020

Amanda Wu on behalf of Lloyd's Register Verification

Certificate of Conformity of Factory Production Control

This certificate is issued to:

Manufacturer: Tianjin Yuantaiderun Pipe Manufacturing Group Co., Ltd.
Industrial Area, Daqiuzhuang Town, Tianjin City,
Tianjin Yuantaiderun International Trade Co., Ltd.
No.2, Science and Technology Road, Industrial Area,
Daqiuzhuang Town, Jinghai Section, Tianjin City,
People's Republic of China

In compliance with *Regulation 305/2011/EU* of the European Parliament and of the *Council of 9 March 2011* (the Construction Products Regulation or CPR),
this certificate applies to the construction product:

Manufacture of Square and Rectangular Hollow Sections

This certificate attests that all provisions concerning the assessment and verification of constancy of performance and the performances described in Annex ZA of the standard(s)

EN 10210-1:2006 Hot finished structural hollow sections of non-alloy and fine grain steels- Part 1: Technical delivery conditions

under system 2+ are applied and that the product fulfils all the prescribed requirements set out above.

The attached Schedule, of the same date, details the manufacturing location(s), harmonised product standard and product parameters and shall form a part of this certificate.

This Certificate will remain valid as long as the test methods and/or factory production control requirements included in the harmonised standard, used to assess the performance of the declared characteristics, do not change, and the product, and the manufacturing conditions in the plant are not modified significantly.

Certificate Number:	0038/CPR/SHA/BJG6023851/B
Original Approval Date:	25 May 2015
Current Issue Date:	17 July 2020
Expiry Date:	29 Jun 2021
LRV Notified Body Number:	0038

Amanda Wu on behalf of Lloyd's Register Verification

Certificate of Conformity of Factory Production Control

CERTIFICATE 0038/CPR/SHA/BJG6023851/B SCHEDULE

Manufacturer: Tianjin Yuantaiderun Pipe Manufacturing Group Co., Ltd.
Industrial Area, Daqiuzhuang Town, Tianjin City,
Tianjin Yuantaiderun International Trade Co., Ltd.
No.2, Science and Technology Road, Industrial Area,
Daqiuzhuang Town, Jinghai Section, Tianjin City,
People's Republic of China

Manufacturing Location and Products	Standard, Grade and Size
Daqiuzhuang Town, Jinghai County, Tianjin, P.R. China	EN 10210-1: 2006, EN 10210-2: 2006 S235JRH, S275J0H, S275J2H, S355J0H, S355J2H and S355K2H and S460NH
50 welded pipe line (No. 2 line) ERW production line	For square pipe, side dimension range from 20 to 50mm, thickness range from 2.0 to 5.0mm; For rectangular pipe, BXH range from 20X25 to 60X40mm thickness range from 2.0 to 5.0mm.
114 welded pipe line (No. 7 line) ERW production line	For square pipe, side dimension range from 40 to 90mm, thickness range from 2.0 to 8.0mm; For rectangular pipe, BXH range from 60X40 to 120X60mm thickness range from 2.0 to 8.0mm.
200 welded pipe line ERW production line	For square pipe, side dimension range from 90 to 200mm, thickness range from 2.0 to 16.0mm; For rectangular pipe, BXH range from 120X60 to 300X100mm thickness range from 2.0 to 16.0mm.
300 welded pipe line (new) ERW production line	For square pipe, side dimension range from 200 to 300mm, thickness range from 3.0 to 16.0mm; For rectangular pipe, BXH range from 300X100 to 350X250mm thickness range from 3.0 to 16.0mm.
500 welded pipe line ERW production line	For square pipe, side dimension range from 300 to 500mm, thickness range from 5.0 to 18.0mm; For rectangular pipe, BXH range from 300X250 to 500X450mm thickness range from 5.0 to 18.0mm.

Schedule Issue: 04
Date of Schedule Issue: 17 July 2020
LRV Notified Body Number: 0038

Amanda Wu on behalf of Lloyd's Register Verification

Certificate of Conformity of Factory Production Control

CERTIFICATE 0038/CPR/SHA/BJG6023851/B SCHEDULE

Manufacturer: Tianjin Yuantaiderun Pipe Manufacturing Group Co., Ltd.
Industrial Area, Daqiuzhuang Town, Tianjin City,
Tianjin Yuantaiderun International Trade Co., Ltd.
No.2, Science and Technology Road, Industrial Area,
Daqiuzhuang Town, Jinghai Section, Tianjin City,
People's Republic of China

Manufacturing Location and Products	Standard, Grade and Size
Cold-drawing pipe line Including Pipes formed by ERW, Pipes formed by LSAW, and Seamless pipes.	For square pipe, side dimension range from 200 to 800mm, thickness range from 5.0 to 50.0mm; For rectangular pipe, BXH range from 300X100 to 750X500mm thickness range from 8.0 to 50.0mm.
Heat treatment line	For square pipe, side dimension range from 20 to 800mm, thickness range from 2.0 to 50.0mm; For rectangular pipe, BXH range from 20X25 to 750X500mm thickness range from 2.0 to 50.0mm.

Schedule Issue: 04
Date of Schedule Issue: 17 July 2020
LRV Notified Body Number: 0038

Amanda Wu on behalf of Lloyd's Register Verification

Certificate of Conformity of Factory Production Control

This certificate is issued to:

Manufacturer: Tianjin Yuantaiderun Pipe Manufacturing Group Co., Ltd.
Industrial Area, Daqiuzhuang Town, Tianjin City,
Tianjin Yuantaiderun International Trade Co., Ltd.
No.2, Science and Technology Road, Industrial Area,
Daqiuzhuang Town, Jinghai Section, Tianjin City,
People's Republic of China

In compliance with *Regulation 305/2011/EU* of the European Parliament and of the *Council of 9 March 2011* (the Construction Products Regulation or CPR), this certificate applies to the construction product:

Manufacture of ERW and LSAW Square and Rectangular Hollow Sections

This certificate attests that all provisions concerning the assessment and verification of constancy of performance and the performances described in Annex ZA of the standard(s)

EN 10219-1:2006 Cold Formed Welded Structural Hollow Sections of Non-alloy and Fine Grain Steels – General Technical Delivery Conditions

under system 2+ are applied and that the product fulfils all the prescribed requirements set out above.

The attached Schedule, of the same date, details the manufacturing location(s), harmonised product standard and product parameters and shall form a part of this certificate.

This Certificate will remain valid as long as the test methods and/or factory production control requirements included in the harmonised standard, used to assess the performance of the declared characteristics, do not change, and the product, and the manufacturing conditions in the plant are not modified significantly.

Certificate Number:	0038/CPR/SHA/BJG6023851/A
Original Approval Date:	25 May 2015
Current Issue Date:	17 July 2020
Expiry Date:	24 May 2021
LRV Notified Body Number:	0038

Amanda Wu on behalf of Lloyd's Register Verification

Certificate of Conformity of Factory Production Control

CERTIFICATE 0038/CPR/SHA/BJG6023851/A SCHEDULE

Manufacturer: Tianjin Yuantaiderun Pipe Manufacturing Group Co., Ltd.
Industrial Area, Daqiuzhuang Town, Tianjin City,
Tianjin Yuantaiderun International Trade Co., Ltd.
No.2, Science and Technology Road, Industrial Area,
Daqiuzhuang Town, Jinghai Section, Tianjin City,
People's Republic of China

Manufacturing Location and Products	Standard, Grade and Size
Daqiuzhuang Town, Jinghai County, Tianjin, P.R. China	EN 10219-1: 2006, EN 10219-2: 2006 S235JRH, S275J0H, S275J2H, S355J0H, S355J2H and S355K2H
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114 welded pipe line (No. 7 line) ERW production line	For square pipe, side dimension range from 40 to 90mm, thickness range from 2.0 to 8.0mm; For rectangular pipe, BXH range from 60X40 to 120X60mm thickness range from 2.0 to 8.0mm.
200 welded pipe line ERW production line	For square pipe, side dimension range from 90 to 200mm, thickness range from 2.0 to 16.0mm; For rectangular pipe, BXH range from 120X60 to 300X100mm thickness range from 2.0 to 16.0mm.
300 welded pipe line (new) ERW production line	For square pipe, side dimension range from 200 to 300mm, thickness range from 3.0 to 16.0mm; For rectangular pipe, BXH range from 300X100 to 350X250mm thickness range from 3.0 to 16.0mm.
500 welded pipe line ERW production line	For square pipe, side dimension range from 300 to 500mm, thickness range from 5.0 to 18.0mm; For rectangular pipe, BXH range from 300X250 to 500X300mm thickness range from 5.0 to 18.0mm.
Cold-drawing pipe line Including Pipes formed by ERW, Pipes formed by LSAW	For square pipe, side dimension range from 200 to 500mm, thickness range from 5.0 to 40.0mm; For rectangular pipe, BXH range from 300X100 to 500X300mm thickness range from 8.0 to 40.0mm.

Schedule Issue: 04
Date of Schedule Issue: 17 July 2020
LRV Notified Body Number: 0038

Amanda Wu on behalf of Lloyd's Register Verification

EPD™

Environmental Product Declaration

Global GreenTag^{CertTM} EPD Program

Compliant to EN 15804:2012+A1 2013

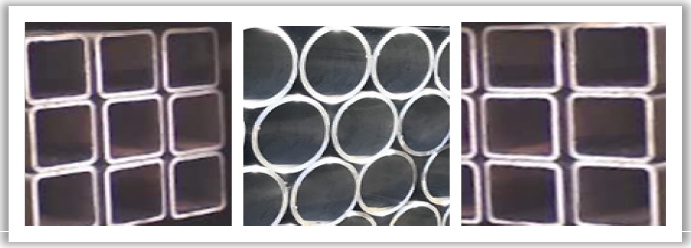
Yuantai Derun Steel Hollow Sections

Tianjin Yuantai Derun Pipe Manufacturing Group

Daqiuzhuang Industrial Zone, Jinghai, Tianjin, China

EPD Verification and LCA Details

EPD Scope	Cradle to Gate
EPD Number	TIA-001-2019
Issue Date	4th April 2019
Valid Until	4th April 2024



This EPD discloses potential environmental outcomes compliant with EN 15804:2012 + A1 2013 for business to consumer communication.

Demonstration of Verification

Standard EN 15804 serves as the core Product Category Rules (PCR)

Independent external verification of the declaration and data, according to ISO 14025:2010

☐ Internal ☒ External

Third Party Verifier [a] by Murray Jones Ecquate Pty Ltd 03-04-2019

LCA Reviewed by Omar Biaz Global GreenTag Pty Ltd 04-04-2019

EPD Reviewed by David Baggs Global GreenTag International Pty Ltd 05/04/19

a Optional for business-to-business communication; mandatory for business-to-consumer communication according to EN ISO 14025:2010, 9.4.

The EPD is property of declared manufacturer. Different program EPDs may not be comparable as e.g. Australian transport is often more than elsewhere. Comparability is further dependent on the product category rules used and the source of the data. Further explanatory information is found at info@globalgreentag.com or contact: certification1@globalgreentag.com.

EPD Program Operator	LCA and EPD Producer	Declaration Owner
Global GreenTag International Pty Ltd., PO Box 311 Cannon Hill, QLD 4170 Phone: +61 (0)7 33 999 686 http://www. globalgreentag.com	The Evah Institute PO Box 123 Thirroul NSW Phone: +61 (0)7 5545 0998 http://www.evah.com.au/	Tianjin Yuantai Derun Pipe Manufacturing Group Co., Ltd Daqiuzhuang Industrial Zone, Jinghai, Tianjin, China Phone: +86-022-58951960 http://www.ytdrintl.com/ http://www.ytdrgg.com/

Product Information

Product Name	Yuantai Derun Steel Hollow Sections
Product code	Chinese grade low carbon steels: • Q195 and • Q215A/B. Chinese grade mild steels: • Q235GJB/C/D • Q345GJC/D/E, Q345B & Q345GJB • Q390GJC/D/E and • Q460GJE/D/E. Chinese grade low alloy steels: • Q420GJC/D/E and • Q460GJE/D/E. EN-grade mild steels: • S235JRH/JOH/J2H • S275JRH/JOH/J2H,S275NH and • S355JRH/JOH/J2H, S355NH. Japanese Grade mild steels: • SS490 and SS400 American grade mild steels: • A500GA/GB, A500GC • A501GR.A and • A501 GR.B. EN-grade low alloy steels: • S420JOH and • S460NH/S460JOH.
Manufacturing Site	Tianjin Yuantai Derun Pipe Manufacturing Group Factory in Tianjin
Site Representation and Geography	Daqiuzhuang Industrial Zone, Jinghai, Tianjin, China
Manufacturer warranty	Not Applicable
Service Life	The reference service life is unspecified for cradle to gate scope
Standards	ASTMA500, ASTMA501, AS1163, EN10219, EN10210, BS1387, JISG3466, DIN2240
Product Specifications	Hollow sections 50 ±5mm thick wall exterior: • Square 1100*1100mm linear mass density 1627kg/m, • Rectangular 1000*1100mm linear mass density 1548kg/m and • Round 2032mm dia linear mass density 2440kg/m.
Functional & Technical Performance	Low carbon steel yield strengths of: • 195MPa • 215MPa. Mild steel yield strengths of: • 235MPa, • 345MPa, • 390 MPa or • 460 Mpa Low alloy steel yield strength of: • 420MPa or • 460MPa
Functional Performance in building	Hollow Structural sections can be circular (CHS), square (SHS) or rectangular (RHS). As well as welded steel frames RHS steel is commonly used for beams while SHS and CHS are more often used for columns.
No Very High Concern	Contains no substances in the “Candidate List of Substances of Very High Concern for authorisation” registration with the European Chemicals Agency

Program Description

PCR	This declaration is based on Structural Steel Products PCR SS: 2019 V1
PCR Review Chair	Murray Jones of Ecquate Pty Ltd
EPD type	Cradle to gate (A1 to A3) as defined by EN 15804 and depicted in Figure 1
Declared Unit	Each declared product per kilogram
Comparability	Construction product EPDs may not be comparable if not EN15804 compliant
Range and variability	Significant differences of average LCIA results are declared
Cut-off criteria and Data quality	Complies with the EN 15804 + A1 2013
Primary Data	Data was collected in accordance with EN ISO 14044:2006, 4.3.2, from primary sources including the manufacturer, suppliers and their publications on standards locations, logistics, technology, market share, management system, and commitment to improved environmental performance.
System boundary	The system boundary with nature includes material and energy system input processing plus manufacture and transport to factory gate plus waste arising.
Product stages included	A1, A2, A3 as depicted and denoted by x in Figure 1 Stages are included from • A1 raw material acquisition, extraction, refining and processing plus reuse of scrap or material from previous systems; electricity generated from all sources with extraction, refining & transport; plus secondary fuel energy and recovery processes, and • A2 transport internal and to the factory gate as well as • A3 manufacture of product packaging, inputs and ancillary material and system flows leaving at end-of-waste boundary allocated as coproducts.
Stages excluded	A4-5, B1-7, C1-1& D as depicted and denoted by MND in Figure 1

Information Modules

As Figure 1 shows an x marking LCA and EPD results to be shown summed for modules A1-3. Modules A4 to C4 and D are not declared marked MND which does not indicate zero inventory or impact.

Model	Actual					Scenarios										Potential		
Phase	Produce			Construct		Building Fabric					Building Use		End of life				Beyond Boundary	
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D1, D2	D3
Unit Operations	Resource supply	Transport	Manufacturing	Transport	Construction	Use	Maintain	Repair	Replace	Refurbish	Operating Energy	Operating Water	Demolish	Transport	Process Waste	Disposal	Reuse	Recovery	Recycling
Cradle to Gate	x	x	x	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

Figure 1 EPD Life Cycle Phases and Stages Cradle to Gate or Grave

Base Material Origin and Detail

Table 1 lists the low carbon, mild and low alloy steel hollow section product components, function, source and amount in mass percent.

Table 1 Base Material Chemical Analysis

Function	Component	Source of Input Flow	Low Carbon Steel % w/w		Mild steel % w/w	Low Alloy Steel % w/w
Steel Substrate	Iron	Australian and Brazilian iron ore charge for iron making	>98.00	>98.00	>97.00	>97.00
Strength & Hardness	Carbon	Australian and Chinese coking coal charge for iron making	≤0.12	≤0.15	≤0.20	≤0.20
Deoxidiser & Strength	Manganese	Chinese pyrolusite ore to make ferromanganese alloy for steel making	≤0.50	≤1.20	≤1.40	≤1.70
Deoxidiser & Strength	Silicon	Iron making charge and Chinese quartzite ore to make ferrosilicon steel making alloy	≤0.30	≤0.35	≤0.35	≤0.55
Hardenability	Chromium	South African chromite ore to make ferrochrome alloy for steel making				≤0.40
Ductility	Nickel	New Caledonian goethite ore to make ferronickel alloy for steel making				≤0.40
Machinability	Sulphur	Australian and Chinese iron ore & coal charge for iron making	≤0.04	≤0.05	≤0.035	≤0.035
Machinability & Durability	Phosphor-us	Australian and Brazilian iron ore charge for iron making	≤0.035	≤0.045	≤0.030	≤0.035
Deoxidiser	Aluminium	Chinese post industrial scrap to Aluminium for steel making	≥0.015	≥0.015	≥0.015	≥0.015
Hardness	Nitrogen	Australian and Chinese coke and gas charge for iron & steel making	≤0.009	≤0.009	≤0.009	≤0.009
Toughness	Titanium	Chinese scrap for ferrotitanium alloy for steel making				0.02-0.2
Toughness	Vanadium	Chinese magnetite ore to make ferrovanadium alloy for steel making				0.02-0.2
Toughness	Niobium	Brazilian & Canadian pyrochlore ore to make ferroniobium alloy for steel				0.015-0.06

Figure 2 shows included processes for making steel products in a lilac cradle to gate system boundary. Such processes require input flows from and generate output flows to air, land, water and communities.

Alongside, within the dashed lines, are depicted many excluded scenarios outside the EPD scope. These processes are from the factory gate to end of life grave.

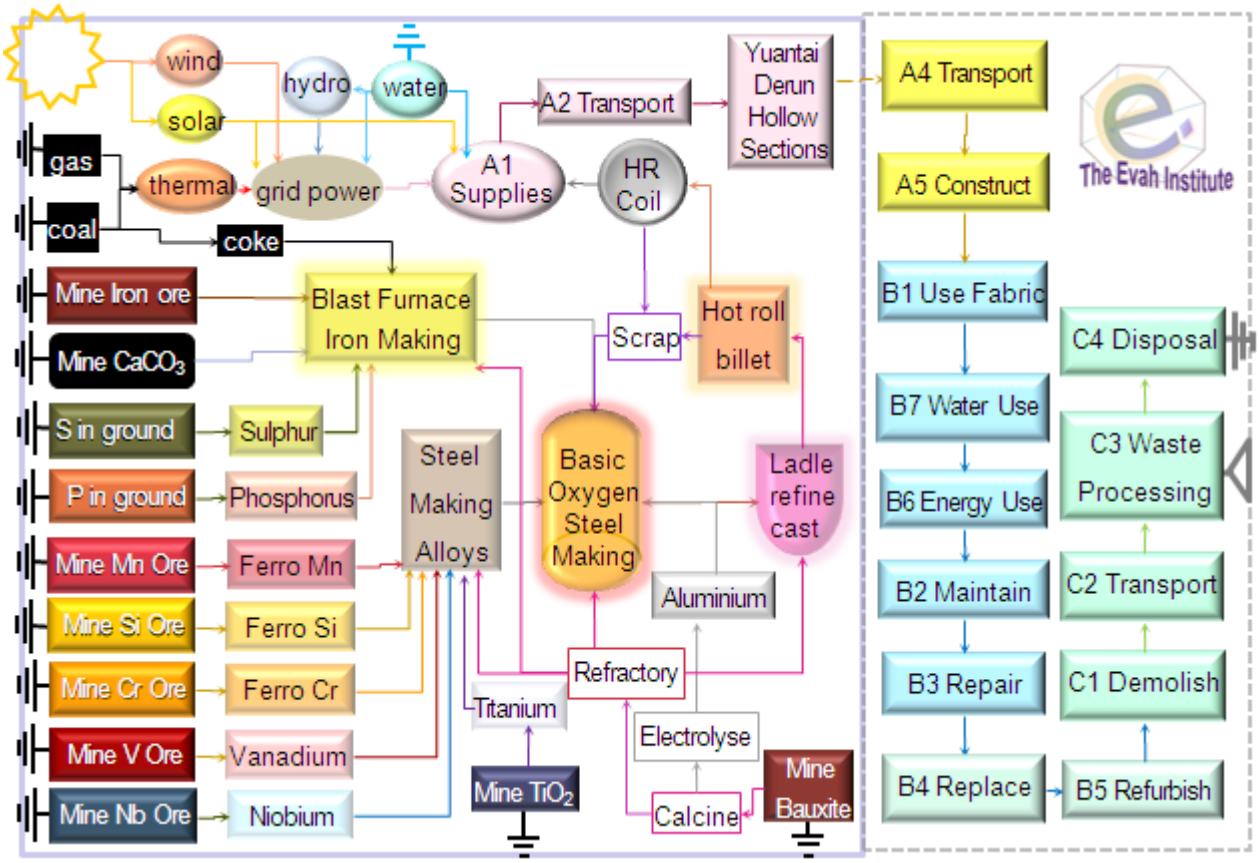


Figure 2 Steel Hollow Section Process Flow Chart Cradle to Gate

Processes include those of:

- Mining, extracting and refining resources to make commodities and packaging;
- Acquiring, cultivating, harvesting, extracting, refining produce and biomass;
- Fuel production to supply power and process energy and freight;
- Chemicals use in processing resources, intermediates and ancillaries;
- Process energy, fuel and freight of resources, intermediates and ancillaries;
- Infrastructure process energy transformed and material wear loss e.g. tyres.

Cradle to Gate Inventory and Potential Impact Results

Table 2 shows the low carbon steel product resource inputs plus waste and output flows per declared unit.

Table 2 Resource Inputs and Outputs A1-A3/kg

INPUTS	Unit	Q195	Q215A/B
Net Fresh Water	m^3	0.014	0.014
Secondary Water	m^3	0.008	0.008
Secondary Material	kg	0.004	0.004
Primary Renewable Energy Not Feedstock	MJ	0.327	0.322
Renewable Secondary Fuels	MJ	0.021	0.021
Primary Energy Renewable Feedstock Material	MJ	0.034	0.034
Total Primary Renewable Energy Resources	MJ	0.361	0.356
Non-Renewable Secondary Fuels	MJ	0.005	0.005
Primary Energy Non-Renewable Not Feedstock	MJ	29.67	29.57
Non-Renewable Primary Energy Feedstock	MJ	5.433	5.418
Total Non-Renewable Primary Energy Resources	MJ	35.10	34.99
OUTPUTS	**Unit**	**Q195**	**Q215A/B**
Hazardous waste disposed	kg	3.18E-05	3.18E-05
Non- Hazardous waste disposed	kg	8.44E-06	8.44E-06
Radio Active Waste disposed	kg	3.40E-12	3.40E-06
Components for reuse	kg	0.047	0.045
Material for recycling	kg	0.108	0.105
Material for Energy recovery	kg	<0.01	<0.01
Exported electrical energy	MJ	<0.01	<0.01
Exported Thermal Energy	MJ	<0.01	<0.01

Table 3 lists potential impact results per kg declared unit cradle to gate.

Table 3 Potential Impacts/kg

CATEGORIES	Factor	Q195	Q215A/B
Global Warming Potential	kg CO_{2e}	2.408	2.400
Stratospheric Ozone Depletion Potential	kg $R11_e$	3.25E-08	3.19E-08
Acidification of Land and Water Potential	kg SO_{2e}	8.00E-03	8.00E-03
Eutrophication Potential	kg PO_{4e}^3	1.50E-03	1.40E-03
Photochemical Ozone Creation Potential	kg C_2H_{4e}	1.37E-04	1.36E-04
Elements Abiotic Depletion Potential	kg Sb_e	2.28E-07	2.28E-07
Fossil Fuel Abiotic Depletion Potential	MJ_{ncv}	31.40	31.3

Table 4 shows the mild steel product inputs plus waste and output flows per kilogram declared unit.

Table 4 Resource Inputs and Outputs A1-A3/kg

INPUTS	Unit	Q235	Q345	Q390	Q460
Net Fresh Water	m^3	0.014	0.014	0.014	0.014
Secondary Water	m^3	0.008	0.008	0.008	0.008
Secondary Material	kg	0.004	0.004	0.004	0.004
Primary Renewable Energy Not Feedstock	MJ	0.313	0.312	0.331	0.313
Renewable Secondary Fuels	MJ	0.020	0.020	0.022	0.020
Primary Energy Renewable Feedstock Material	MJ	0.029	0.029	0.041	0.029
Total Primary Renewable Energy Resources	MJ	0.342	0.341	0.372	0.341
Non-Renewable Secondary Fuels	MJ	0.004	0.004	0.007	0.004
Primary Energy Non-Renewable Not Feedstock	MJ	28.38	28.46	30.29	28.29
Non-Renewable Primary Energy Feedstock	MJ	5.132	5.191	5.714	5.391
Total Non-Renewable Primary Energy Resources	MJ	33.51	33.625	35.959	33.681
OUTPUTS	**Unit**	**Q235**	**Q345**	**Q390**	**Q460**
Hazardous waste disposed	kg	3.18E-05	3.18E-05	3.18E-05	3.18E-05
Non- Hazardous waste disposed	kg	8.44E-06	8.44E-06	8.44E-06	8.44E-06
Radio Active Waste disposed	kg	3.47E-06	2.93E-04	3.46E-06	3.46E-06
Components for reuse	kg	0.047	0.047	0.058	0.044
Material for recycling	kg	0.135	0.133	0.120	0.131
Material for Energy recovery	kg	<0.01	<0.01	<0.01	<0.01
Exported electrical energy	MJ	<0.01	<0.01	<0.01	<0.01
Exported Thermal Energy	MJ	<0.01	<0.01	<0.01	<0.01

Table 5 lists potential impact results per kg declared unit cradle to gate.

Table 5 Potential Impacts/kg

CATEGORIES	Factor	Q235	Q345	Q390	Q460
Global Warming Potential	kg CO_{2e}	2.037	2.284	2.463	2.269
Stratospheric Ozone Depletion Potential	kg $R11_e$	3.11E-08	3.09E-08	3.27E-08	3.11E-08
Acidification of Land and Water Potential	kg SO_{2e}	7.00E-03	7.00E-03	8.00E-03	7.00E-03
Eutrophication Potential	kg PO_{4e}^3	1.40E-03	1.40E-03	1.50E-03	1.40E-03
Photochemical Ozone Creation Potential	kg C_2H_{4e}	1.28E-04	1.29E-04	1.40E-04	1.30E-04
Elements Abiotic Depletion Potential	kg Sb_e	2.17E-07	2.17E-07	2.35E-07	2.16E-07
Fossil Fuel Abiotic Depletion Potential	MJ_{ncv}	29.9	30.0	32.2	29.8

Table 6 shows low alloy steel products resource inputs plus waste and output flows per declared unit.

Table 6 Resource Inputs and Outputs A1-A3/kg

INPUTS	Units	Q420	Q460
Net Fresh Water	m^3	0.014	0.014
Secondary Water	m^3	0.008	0.008
Secondary Material	kg	0.002	0.002
Primary Renewable Energy Not Feedstock	MJ	0.320	0.320
Renewable Secondary Fuels	MJ	0.021	0.021
Primary Energy Renewable Feedstock Material	MJ	0.025	0.025
Total Primary Renewable Energy Resources	MJ	0.348	0.345
Non-Renewable Secondary Fuels	MJ	0.004	0.004
Primary Energy Non-Renewable Not Feedstock	MJ	30.01	30.01
Non-Renewable Primary Energy Feedstock	MJ	5.336	5.337
Total Non-Renewable Primary Energy Resources	MJ	35.348	35.348
OUTPUTS	**Units**	**Q420**	**Q460**
Hazardous waste disposed	kg	3.18E-05	3.18E-05
Non- Hazardous waste disposed	kg	8.44E-06	8.44E-06
Radio Active Waste disposed	kg	3.51E-06	3.51E-06
Components for reuse	kg	0.047	0.050
Material for recycling	kg	0.122	0.122
Material for Energy recovery	kg	<0.01	<0.01
Exported electrical energy	MJ	<0.01	<0.01
Exported Thermal Energy	MJ	<0.01	<0.01

Table 7 lists potential impact results per kg declared unit cradle to gate.

Table 7 Potential Impacts/kg

CATEGORIES	Factors	Q420	Q460
Global Warming Potential	kg CO_{2e}	2.417	2.417
Stratospheric Ozone Depletion Potential	kg $R11_e$	3.15E-08	3.15E-08
Acidification of Land and Water Potential	kg SO_{2e}	8.00E-03	8.00E-03
Eutrophication Potential	kg PO_{4e}^3	1.50E-03	1.50E-03
Photochemical Ozone Creation Potential	kg C_2H_{4e}	1.40E-04	1.40E-04
Elements Abiotic Depletion Potential	kg Sb_e	5.95E-7	5.95E-7
Fossil Fuel Abiotic Depletion Potential	MJ	31.6	31.6

References

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EN 10219:2006, Cold formed welded structural hollow sections of non-alloy and fine grain steels. Part 1: Technical delivery requirements, part 2: Tolerances, dimensions and sectional properties

EN 10210:2006, hot finished structural hollow sections of non-alloy and fine grain steels, part 1: Technical delivery requirements, part 2: Tolerances, dimensions and sectional properties

GreenTag™ 2019 http://www2.ecospecifier.org/services_offered/greentag_certification

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ISO/TS 21931-1:2010 Sustainability in building construction: Framework for assessment, Part 1:

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GLOBAL GREEN TAG INTERNATIONAL PTY LTD

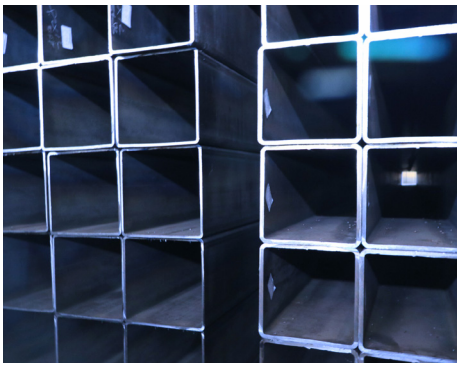
PhD™

Product Health Declaration

GLOBAL GREENTAG HEALTH RATE
CERT TM
Platinum HEALTH
trust brands™

Tianjin Yuantai Derun Pipe Manufacturing Group Co., Ltd

Steel Hollow Sections



Products/Ranges:	Rectangular, Circular and Square Hollow Sections
Product Stages Assessed:	Manufacturing and in-use
Licenced Site/s:	Tianjin China
Licence Number:	TIA- 001-v1-2019
Licence Date:	27th May 2019
Valid To:	27th May 2020
Standard:	GGT International v4.0
Assessment Year:	2019

This PhD ceases currency when original GreenTag GreenRate/LCARate certification expires or is revoked. Please check www.globalgreentag.com for currency.

The Global GreenTag Product Health Declaration has been designed to provide an additional level of service to the green product sector in facilitating an easier industry understanding of both the health hazard and risk (if any) associated with any certified product/s.

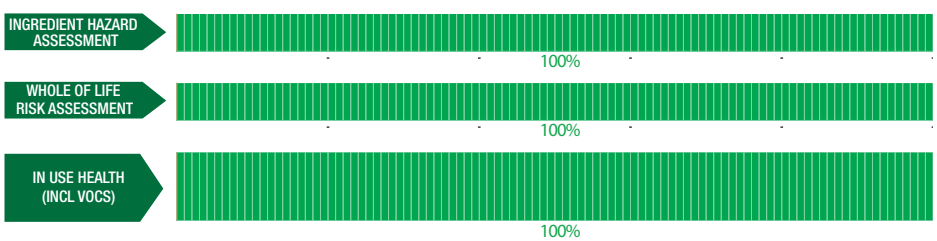
PhD Summary

Percentage Assessed: 100%

Declaration Limit: 100ppm

- GreenTag Banned List Compliant - Annex XVII of REACH, SVHC Candidate/Authorisation List in REACH
- Product Meets Optimisation requirements - No Grey or Red Light category ingredients
- Meets WELL™ Building Standard: feature 04: VOC Reduction Part 4: Insulation, Enhanced Material Safety
- Meets WELL™ Building Standard: Feature 26 Part 1: Precautionary Material Selection
- Meets WELL™ Building Standard: feature 97: Material Transparency
- Very low worker exposure to Carcinogens, Mutagens, Reproductive Toxicant or Endocrine Disruptors
- Very low user exposure to Carcinogens, Mutagens, Reproductive Toxicant or Endocrine Disruptors
- Very low environmental exposure to Carcinogens, Mutagens, Reproductive Toxicant or Endocrine Disruptors

MANUFACTURING, IN USE, & END OF LIFE STAGES
% by mass. See over for explanation.



Declared by:
Global GreenTag International Pty Ltd

David Baggs
CEO & Program Director

Verified compliant with:
ISO 14024 & ISO 17065

1.0 Scope

The Global GreenTag International (GGT) Product Health Declaration (PhD) has been designed to provide an additional level of service to the green product sector in facilitating an easier understanding of both the hazard and risk associated with any certified products and is intended to indicate:

- Chemical hazards of both finished product and unique ingredients to a minimum level of 100ppm for each homogeneous ingredient throughout the product life cycle, (including any VOC or other gaseous emissions);
- An assessment of exposure or risk associated with ingredient handling, product use, and disposal in relation to established mitigation and management processes;
- HealthRate level that reflects risks associated with the product in-use.

It is not intended to assess:

i. substances used or created during the manufacturing process unless they remain in the final product; or

ii. substances created after the product is delivered for end use (e.g., if the product unusually degrades, combusts or otherwise changes chemical composition).

GGT PhDs are only issued to products that have passed GGT Standards' certification requirements. The Level of Assessment (BronzeHEALTH, SilverHEALTH GoldHEALTH or PlatinumHEALTH) rating relates ONLY to in use risk assessment based on GGT Standard Sustainability Assessment Criteria 3, and is declared separately to the overall Bronze, Silver Gold or Platinum Green Tag Certification Mark Tier Levels.

1.2 Preparing an PHD

GGT PhDs are prepared using Hazard Classifications from the UN Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and as an outcome of a successful Application for Certification. Assessments are undertaken by GGT Qualified Exemplar Global Lead Auditors and subsequently accepted for Certification by the GGT Program Director (also a Qualified Exemplar Global Lead Auditor) under the GGT International Standard v4.0, Personal Products Standard v1.0, and Cleaning Products Standard v1.0 and above Program Rules.

1.3 External Peer Review

Every GGT PhD is independently peer reviewed by an external Consultant Toxicologist and Member of the Australian College of Toxicology &Risk Assessment.

2.0 Declaration of Ingredients

Where a manufacturer wishes recognition under a rating program that requires transparency of ingredients such as LEED v4.0, Living Building Challenge, Estidama etc., the following information is declared from audit:

Colour	Ingredient Name
Green	**Ideal- Low** No Comment required
Yellow	**Medium to Low** No Comment, or 'Issue of Concern' required depending on % of ingredient.
Orange	**Moderate** 'Issue of Concern'.
Red	**Problematic (Red): Target for Phase** 'Red Light' Comment.
Grey	**Uncategorised** Not able to be categorised due to lack of toxicity impact information.
Black	**Banned Ingredients** POPs, SVHCs plus a wide range of compounds depending on specific Standard requirements

Ingredient Name	GHS, IARC and Endocrine Category	Ingredient Assessment (Raw)	Whole Of Life Assessment	In Use Health Assessment	Comment
Function: Structural steel					
Steel	None	*100%*			Tianjin Yuantai Derun Pipe Manufacturing Group Co., Ltd fold and fabricate steels purchased from third party steel manufacturers.

This declaration is valid for the following steel grades:

- **Chinese grade low carbon steels: Q195 and Q215A/B.**
- **Chinese grade mild steels Q235GJB/C/D, Q345GJC/D/E, Q345B & Q345GJB, Q390GJC/D/E, Q460GJE/D/E.**
- **Chinese grade low alloy steels Q420GJC/D/E and Q460GJE/D/E.**
- **EN-grade mild steels S235JRH/JOH/J2H, S275JRH/JOH/J2H,S275NH and S355JRH/JOH/J2H, S355NH.**
- **Japanese Grade mild steels SS490 and SS400**
- **American grade mild steels A500GA/GB, A500GC, A501GR.A and A501 GR.B.**
- **EN-grade low alloy steels S420JOH andS460NH/S460JOH.**

KSA

日本工業規格表示認証書

認証番号 ： KSCN18029

天津源泰德潤鋼管製造集団有限公司

中国天津大邱庄工業区

韓国標準協会は日本工業標準化法の第23条の規定により
日本工業規格の表示について下記のように認証する。

日本工業規格の番号及び名称

JIS G 3466 ： 一般構造用角形鋼管

等級又は種類

STKR400, STKR490

その他の事項

・有効期間：2018年10月13日 ~ 2021年10月12日

・最初認證日：2018年10月13日

・發行日：2018年10月13日

韓国標準協会長

大韓民国ソウル特別市江南区テヘラン路305

KSA

JIS MARK CERTIFICATE

Certification No. KSCN18029

TIANJIN YUANTAIDERUN PIPE GROUP Co., Ltd.

Da Qiu Zhuang Industrial Area, Tianjin, China

Korean Standards Association hereby certifies the JIS Mark factory
in accordance with the provision of Article 23
of the Japanese Industrial Standardization Law as follows

JIS NUMBER & TITLE

JIS G 3466 : Carbon steel square and rectangular tubes for general structure

GRADE OR TYPE

STKR400, STKR490

OTHERS

· Certificate Valid Date : 13 October, 2018 ~ 12 October, 2021

· Original Certification Date : 13 October, 2018

· Date of Issue : 13 October, 2018

CHAIRMAN OF KSA

KOREAN STANDARDS ASSOCIATION

305, Teheran-Ro, Gangnam-Gu, Seoul, Korea

Marine & Offshore

Certificate number: SMS.W.II./112027/A.0

www.veristar.com

RECOGNITION FOR

BV MODE II SCHEME

Tianjin Yuantai Derun Pipe Manufacturing Group Co., Ltd.

TIANJIN - CHINA

Summary of the range of the recognition which is detailed in the subsequent page(s):

PIPE / TUBE AND FITTINGS - G0479 Welded Hollow Section

Welded carbon steel pipe-square(SHS) and rectangular(RHS)
Grade:STKR490 according to JIS-G3466-2006
Max.dimension: 500 x 500 x 16 mm

Steel plate purchase from BV approval manufacturer
Surveyor will witness sample & mechanical property test according to quality plan(YTDY-BV-CP1701 REV0) after the welded pipe has been finished the quality inspection oneself.

This certificate is issued to attest that Bureau Veritas Marine & Offshore has performed, at the above company's request and in compliance with the requirements of NR320, a satisfactory assessment of the manufacturing facilities and associated quality procedures related to the range of the recognition.

This certificate will expire on: 25 Oct 2021

For BUREAU VERITAS,

At BV SHANGHAI, on 16 Nov 2017,

George Qiao

BUREAU VERITAS SURVEYORS AT PARIS 1828 SHANGHAI INTERNATIONAL REGISTER

Certificate number: SMS.W.II./112027/A.0

THE SCHEDULE OF RECOGNITION

1. RANGE OF THE RECOGNITION

The products corresponding to the categories listed in the table below are to be certified individually or per batch by Bureau Veritas Marine & Offshore in compliance with the applicable requirements (IBV products as defined in NR320).

Generic product	Description
PIPE / TUBE AND FITTINGS	Welded carbon steel pipe-square(SHS) and rectangular(RHS)

2. LIMITATIONS

The certificates listed in the range of recognition are to be valid, as applicable.

Bureau Veritas Marine & Offshore is to be informed immediately of any modification to manufacturing facilities and associated quality procedures in order to agree on appropriate actions.

Tianjin Yuantai Derun Pipe Manufacturing Group Co., Ltd. has to apply for the periodical audits as agreed with Bureau Veritas Marine & Offshore.

3. PERIMETER OF CERTIFICATION

Quality system of following site(s) has been assessed:

Tianjin Yuantai Derun Pipe Manufacturing Group Co., Ltd. - TIANJIN - CHINA

4. REMARKS

Address: Daqiuzhuang Industrial Zone, Jinghai District, Tianjin City(China)
Annual Audit: 1 time/every year

***** END OF CERTIFICATE *****

ISO 9001

ISO 9001

Certificate of Approval

Certificate No.: 10118Q16196ROM

Awarded to

Tianjin YuantaiDerun PipeGroup CO., LTD.

Organization Code Certificate No. / Unified Social Credit Code:55038238-1
Add.:Daqiuzhuang Industrial Zone Tianjin P.O. :301606

Beijing ZhongLianTianRun Certification Center (ZLTR) certify that the Quality Management System of the above organization has been assessed and found to be in accordance with the requirements of the standard:

GB/T19001-2016 / ISO9001:2015

SCOPE OF CERTIFICATION/REGISTRATION

STEEL PLATE ROLLING ,DEALING WITH SQUARE & RECTANGULAR PIPE , HOT –DIPPED GALVANIZED PIPE ,METALIC MATERIALS AND AFTER-SALES SERVICE (EXCLUDING THE SCOPE OF MANDATORY REGULATIONS)

This certificate is made valid when used with certification scopes and the requirements of applicable laws and regulations. These requirements include, but are not limited to, administrative permits, scopes of qualifications, and CCC requirements.
Subject to operation conditions in requirements conformity with Quality Management System, This Certificate is valid for a period of three years only,

Date from: Jul 20th,2018 To: Jul 19th,2021
Renewal Date:Jun 12th,2019

The effectiveness of this Certificate shall be Validated by periodic surveillance audit of ZLTR for maintenance.

Information of this certificate can be found on the official website of Beijing Zhonglian Tianrun Certification center (http://www.zltr.com.cn)

SCC Accredited CB-MS
OCSM Accrédité CCN
Accredited CB-MS
(Certification Body - Management Systems)

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

Beijing Zhongliantianrun Certification Center
ISSUED BY

Beijing Zhongliantianrun Certification Center

Room2603, 22nd Floor, 2nd Unit, Block 1, No.4 Yard, Qiyang Road, Chaoyang District, Beijing, P.R. China 100102

Information of this certificate can be found on the official website of Certification and Accreditation Administration of the People's Republic of China (http://www.cnca.gov.cn)

CERTIFICATE

OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE

Certificate No.：SDCB19S10021R0M

This is to certify that

Tianjin Yuantai Derun Pipe Manufacturing Group Co.,Ltd.

Organization Code: 911200005503823816

Registration Add.: Daqiuzhuang Industrial Zone, Tianjin , P.R.China

Certication Add.: Daqiuzhuang Industrial Zone, Jinghai District, Tianjin City, P.R.China

is in conformity with:

GB/T 28001-2011/OHSAS 18001:2007

This certificate is covering the following scope:

Production and sales of square rectangular pipe and hot galvanized pipe

Issue Date: 2019-03-15 Expiry Date: 2021-03-11

Registration No.: SDCB-2019-0030

于志忠

山东诚标认证技术有限公司 2019-03-15 3701027155344

SDCB

GB/T 28001

Shandong ChengBiao Certification Technology Co.,Ltd.
Registration Add:Room 407 Jiaxin Business Building, No.154,Huayuan Road,Licheng District,Jinan City, Shandong,P.R. China
Website:Http://www.sdcbrz.com

CERTIFICATE

ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

Certificate No.：SDCB19E20023R0M

This is to certify that

Tianjin Yuantai Derun Pipe Manufacturing Group Co.,Ltd.

Organization Code: 911200005503823816

Registration Add.: Daqiuzhuang Industrial Zone, Tianjin , P.R.China

Certication Add.: Daqiuzhuang Industrial Zone, Jinghai District, Tianjin City, P.R.China

is in conformity with:

GB/T 24001-2016/ISO 14001:2015

This certificate is covering the following scope:

Sales of square rectangular pipe and hot galvanized pipe

Issue Date: 2019-03-15 Expiry Date: 2022-03-14

Registration No.: SDCB-2019-0030

于志忠

山东诚标认证技术有限公司 2019-03-15 3701027155344

SDCB

GB/T 24001

Shandong ChengBiao Certification Technology Co.,Ltd.
Registration Add:Room 407 Jiaxin Business Building, No.154,Huayuan Road,Licheng District,Jinan City, Shandong,P.R. China
Website:Http://www.sdcbrz.com

天津源泰德润钢管制造集团有限公司
TIANJIN YUANTAI DERUN PIPE MANUFACTURING GROUP CO., LTD

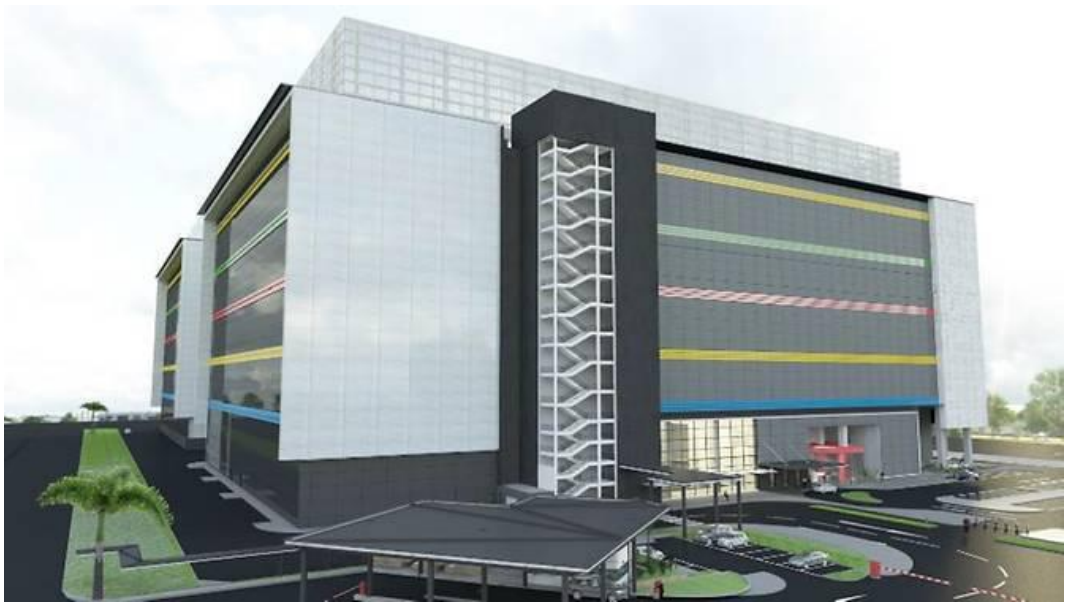
Project List In Recent 3 Years

Product	Project Name	Fabricator or EPC	Qty Ton	YEAR
HOLLOW SECTION	DUBAI HILL PROJECT	ASSENT	4200	2018

Product	Project Name	Fabricator or EPC	Qty Ton	YEAR
HOLLOW SECTION	DUBAI EXPO 2020	CLEVELAND BRIDGE	5500	2018/2019

Product	Project Name	Fabricator or EPC	Qty Ton	YEAR
HOLLOW SECTION	KUWAIT AIRPORT	LIMAK	11000	2018/2019

Product	Project Name	Fabricator or EPC	Qty Ton	YEAR
HOLLOW SECTION	SINGAPORE GOOGLE BUILDING	EVERSENDAI	5000	2018/2019



Product	Project Name	Fabricator or EPC	Qty Ton	YEAR
GI HOLLOW SECTION	EGYPT GREEN HOUSE PROJECT	SINOMACH	75000	2017/2018

Product	Project Name	Fabricator or EPC	Qty Ton	YEAR
HOLLOW SECTION	EGYPT CAIRO CBD	CSCEC	1500	2019/2020

天津源泰德润钢管制造集团有限公司
TIANJIN YUANTAI DERUN PIPE MANUFACTURING GROUP CO., LTD

Product	Project Name	Fabricator or EPC	Qty Ton	YEAR
HOLLOW SECTION	Kuwait AL SHAHEED PARK	AL HANI	5500	2020/2021

Enterprise character Dedicated	Diliget Gratitude Return
Enterprise philosphy	People-oriented,Pioneering spirit, Realistic and Pragmatic,Fighting for excellence
Administration tenet	Quality and credit first,Mutual benefit
Enterprise spirit	Integriy,Innovation,Development,Dedication

Inegrity:Rely on faith and trust to be achievements,make friends and be on the way all the time

Innovation: Be low key but ambitious,look forward to the Era of Smart Production with intelligence,information and precision

Development: Create a century brand by the way of forging ahead and pursuing excellence

Dedication:Realize our vision and task,be valuable and feedback

源泰德润

Tianjin Yuantai Derun Pipe Manufacturing Group Co., Ltd

Tianjin Yuantai Derun Pipe Manufacturing Group Co., Ltd., established in March 2002 and stemmed from Tianjin Yuantai Industrial and Trading Co., Ltd, is located in the biggest pipes-manufacturing base—Daqiuzhuang industrial zone in Jinghai Tianjin which is close to the China National Highway 104 and 205 and is only 40 km far away from the Tianjin Xingang Port. The excellent geographical location supports the convenience to both inland and out-land transportation.

Tianjin Yuantai Derun Pipe Manufacturing Group Co., Ltd.(below shorted as YUANTAI) is the biggest manufacturer of ERW square, rectangular and galvanized hollow section in China. Annual maximum production capacity reaches 5 million tons. YUANTAI has 10 subsidiaries and 7 production plants. Total factories area covers 900 acres. YUANTAI is a large united enterprise group with a registered fund of USD 65 million and fixed assets of USD 200 million.

YUANTAI has 59 production lines of High Frequency welding pipe, 10 production lines of galvanized pipe and 3 production lines of spiral welding pipe. Square hollow section from 19*19*1mm to 800*800*40mm, rectangular hollow section from 20*30*1mm to 600*800*40mm, spiral pipe from Ø219—1420mm can be manufactured.. YUANTAI can manufacture hollow sections as per standards of ASTM A500, JIS G3466, EN10219, EN10210, BS1387, DIN2240, AS1163, GB/T6728-2002, GB/T6725-2002, GB/T3094-2000. YUANTAI has the biggest hollow section and coil stock(100,000 Ton/Month) in China which can meet customer's direct procurement requirement.

Years of technology accumulation makes YUANTAI possessing a wealth of production experience which can greatly shorten the development the production cycle and speed up the delivery time. At the same time YUANTAI also pays attention to advanced technology research and invest much on updating equipment. Theproduction lines of 500*500mm, 300*300mm and 200*200mm are the most advanced equipment-lines in China which can realize the electronic-controlling automation from the forming to the finishing entirely.

Advanced production equipment, superb technical force, excellent managing talents and solid financial strength guarantee the excellent pipe manufacturing. YUANTAI products are widely used in many fields, including steel structure of building, automobile manufacture, shipbuilding, machinery manufacturing, bridge construction, container keel construction, stadiums construction, and large airport constructions. YUANTAI products were used in many Chinese famous projects such as the National Stadium (The Bird's Nest), the National Grand Theater and the ZhuHai-HongKong-Macao Bridge. At same time YUANTAI products are widely exported to Middle East, Southeast Asia, European Union, Africa, Latin America, USA etc.

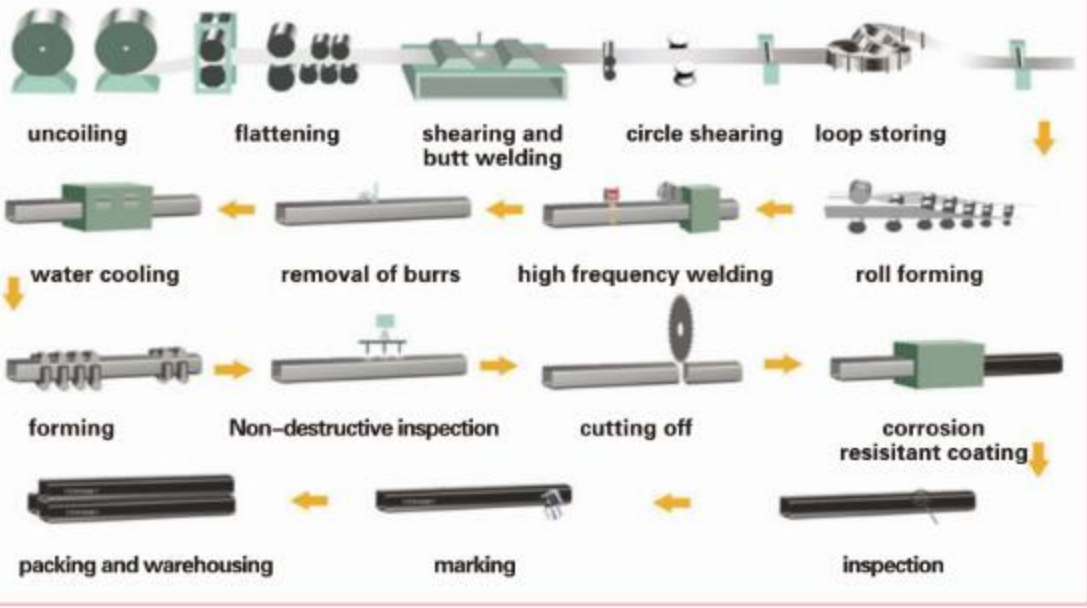
YUANTAI obtained the certificates of ISO9001-2008 International Quality Management System and EU CE10219 system. Now Yuantai Derun is striving to apply for "National Well-known Trademark".

源泰德润

Raw materials

plent of material supplying

Square welded pipe manufacturing flow chart



Quality first,Customers foremost!
Warmly service,Continuous improvement!

源泰德润

Production equipment

Advanced equipment ensure the best quality of our product.

We put great premium on the quality of our products as well as the quality of our service, we are committed to the building of a better world with our products of superior quality and we are passionate about delivering real to our clients with our quality products and service.

Products

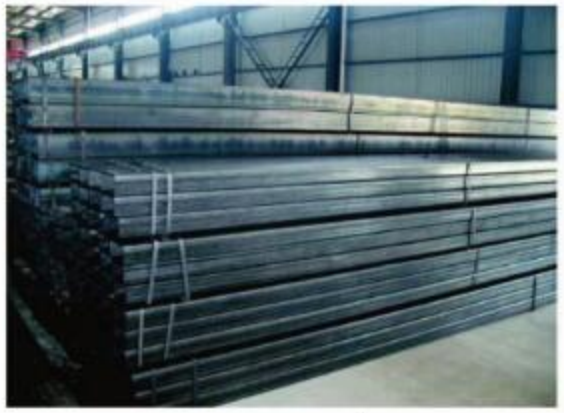
源泰德润

We always put users and customers firstly,try to provide the first-class products,quality assurance and service system according to various of requirement from customers. The products truly reflect the most economical, practical,safest and durable principle.

rectangular pipe

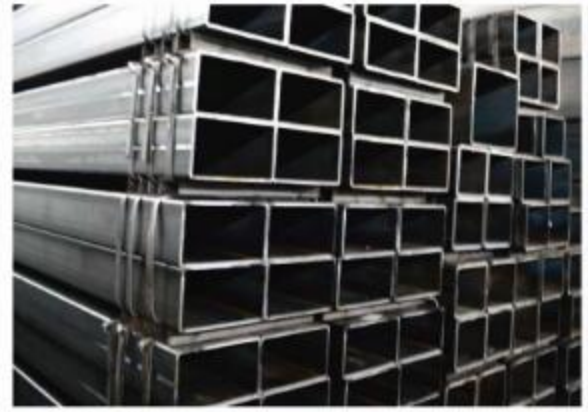
square pipe

galvanized square pipe



square tube

rectangular tube



hollow section pipe

black square pipe

New Idea · Excellent Quality

Controlling Product Quality
perusing the perfect

Square Hollow Section summary

源泰德润

Black square rectangular pipe/tube

Spec.(mm)	Spec.(mm)	W.T.(mm)	Spec.(mm)	Spec.(mm)	W.T.(mm)
19*19	20*20	1.0 1.2 1.3 1.4 1.5 1.7 2.0	40*135 50*140 60*130 75*125	50*150 60*140 80*120 100*100	1.5 1.7 2.0 2.2 2.5~5.0 5.25~6.0 6.5~9.75 11.5~16
	25*25 20*30	1.0 1.2 1.3 1.4 1.5 1.7 1.8 2.0 2.2 2.5~3.0	50*160 60*150 60*180 65*180 70*150 90*150 90*160 100*120 100*125 100*140	60*160 80*140 80*160 100*150 120*120 110*110 120*180 125*125	2.5 2.75 3.0~4.0 4.25~4.75 5.25~6.0 6.5~7.75 9.5~9.75 10.5~11.75 12.5~15.75 16~~40
32*32 35*35 20*50 25*40	20*40 30*30 30*40	1.0 1.2 1.3 1.4 1.5 1.7 1.8 2.0 2.2 2.5~3.0 3.5~3.75	60*170 70*160 75*150 80*150 80*180 127*127 60*200 60*220 80*200 80*220	100*200 140*140 150*150 130*130 100*250 160*160 180*180 140*180	2.5 2.75 3.0~5.75 7.5~9.75 10.5~11.75 12.5~15 2.5 2.75~3.25 3.5~5.0 5.25~7.75
20*60 20*80 25*65 30*70 35*60 38*38 40*50 45*45	25*50 30*50 30*60 40*40 40*60 50*50	1.2 1.3 1.4 1.5 1.7 1.8 2.0 2.2 2.5~4.0 4.25~5.0 5.25~5.75 5.75~6.0	100*180 120*160 120*200 100*350 125*250 130*250 135*135 140*240 150*220 225*225 100*400 130*300	150*170 150*180 150*200 100*300 150*250 200*200 200*250 150*300 200*300	9.5~11.75 12.5~15.75 16~~40 2.75 3.0~3.25 3.5~9.75 11.5~11.75 12.5~14.75 15.5~15.75 16~~40 3.5~4.0 4.5~7.75
30*100 40*70 40*90 50*60 50*75 50*80 50*90 55*55 65*65	40*80 40*100 50*70 60*60 60*80 70*70	1.3 1.4 1.5 1.7 1.8 2.0 2.2 2.5~4.0 4.25~5.0 5.25~5.75 5.75~6.0	150*350 200*280 220*220 200*350 250*350 200*500 250*450 300*320 300*350	250*250 180*300 200*400 300*300 300*400 350*350	9.5~11.75 12.5~14.75 15.5~17.75 4.75~11.75 12.5~14.75 15.5~17.75 4.75~11.75 12.5~14.75 15.5~17.75
40*120 40*140 50*110 50*120 50*125 60*90 70*100 85*85 90*90	50*100 60*100 60*120 75*75 80*80 80*100	1.3 1.5 1.7 1.8 2.0 2.2 2.5~4.0 4.25~5.0 5.25~5.75 7.5~9.75	150*450 200*450 200*600 250*400 250*500 300*600 300*700 300*650 320*320 400*500 400*600	300*500 400*400 280*280 300*450 350*400 500*500 450*450	4.5~5.75 6.5~11.75 12.5~14.75 15.5~17.75 18~~40 4.5~7.75 9.5~9.75 11.5~13.75 14.5~15.75 16.5~17.75 18~~40

Standard : ASTM A500,JIS G3466,EN10219,EN10210,BS1387,DIN2440,AS1163

Length: 6m & 12m or customized.

Galvanized square rectangular pipe/tube

Specification (mm)	Wall Thickness(mm)	Specification (mm)	Wall Thickness(mm)
20*20	1.50 1.70 2.00 2.5-2.75	75*75 80*80 50*100 60*100 80*100 60*120 40*100	1.50 1.70 1.80 2.00 2.20 2.50 2.75 3.00 3.5-3.75 4.50 4.75-5.75
20*30 25*25	1.50 1.70 1.80 2.00 2.20 2.50 2.75		
30*30 20*40 30*40	1.50 1.70 1.80 2.00 2.20 2.50 2.75 3.00	80*120 100*100	1.70 2.00 2.20 2.50 2.75 3.00 3.5~4.0 4.25~6.0
25*50 30*60	1.50 1.70 1.80 2.00 2.20 2.50 2.75 3.00 3.5~3.75 4.00	80*140	2.50 2.75 3.00 3.25 3.5 3.75 4.0 4.25 4.5 4.75~6.0
30*50 40*40	1.50 1.70 2.00 2.20 2.50 2.75 3.00 3.5 3.75~4.0 4.5~4.75	120*120	2.50 2.75 3.00 3.25 3.5 3.75 4.0 4.25 4.5 4.75~6.0
40*50 40*60 50*50	1.50 1.70 2.00 2.20 2.50 2.75 3.00 3.5 3.5~4.0 4.5~4.75	80*160 75*150 100*150	2.50 2.75 3.00 3.5~4.0 4.25~6.0
		150*150 140*140 200*100	2.50 2.75 3.00 3.5~4.0 4.25~6.0
40*80 50*70 50*80 60*80 60*90 60*60 70*70	1.50 1.70 1.80 2.00 2.20 2.50 2.75 3.00 3.5-4.0 4.5~5.75	200*200	3.5 3.75 4.5 4.75 5.5 5.75 7.5 7.75 9.5 9.75~10.0

Standard : ASTM A500,JIS G3466,EN10219,EN10210,BS1387,DIN2440,AS1163

Length: 6m & 12m or customized.

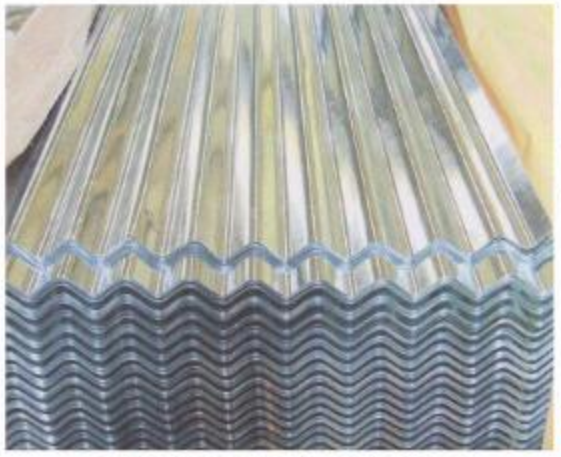
源泰德润

Product package

Test and QC Center

源泰德润

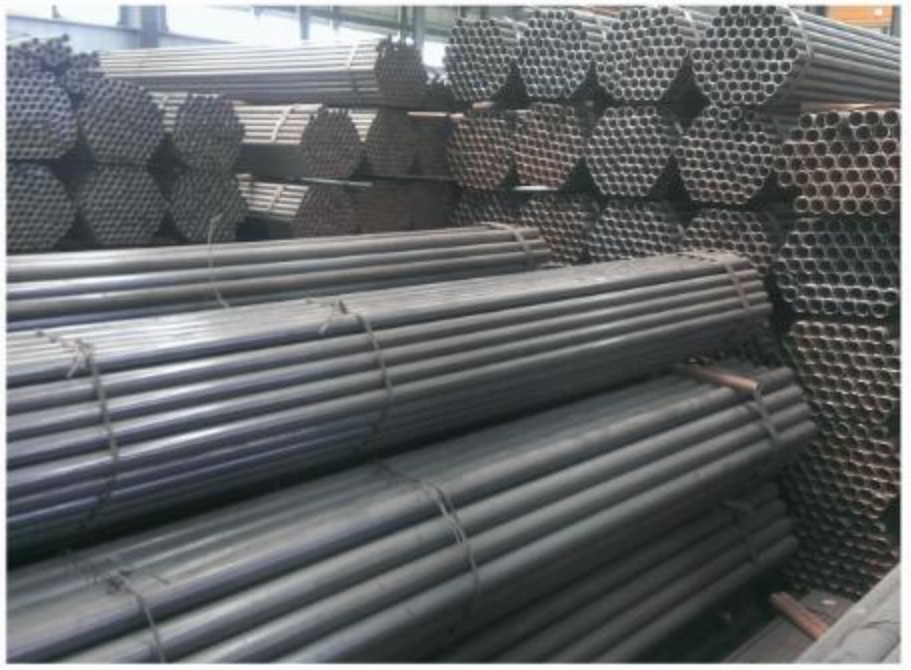
Various Types Of Products



corrugated sheets

steel coils

galvanized steel pipe

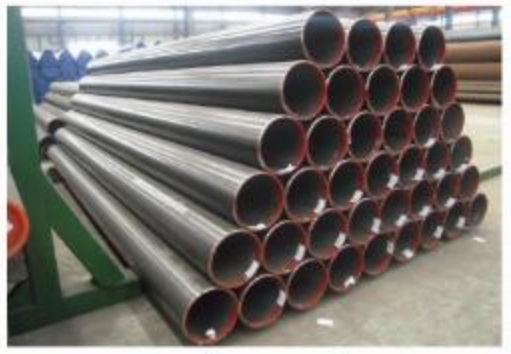


ERW pipe

PPGI/PPGL

hot rolled steel plate

angle bar



seamless pipe

Project cases

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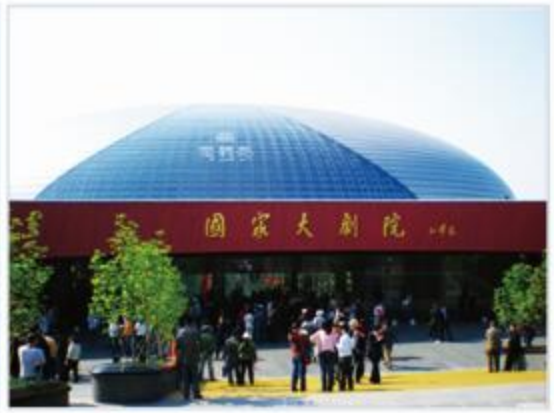
The Bird's Nest



National Grand Theater

Water Cube

Capital International Airport

Cars

Tianjin Tower

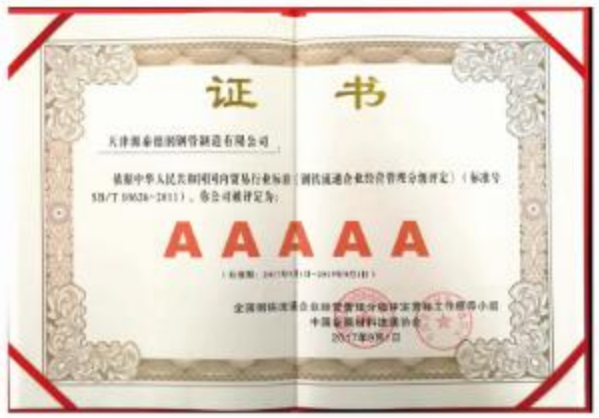
Hongkong–Zhuhai–Macao Bridge

Main Customers

BILFINGER · ACS · CSIC 中船重工 · BECHTEL · ZOOMLION · CRCC 中国铁建 · ATKINS · HOCHTIEF · DAEWOO · 国家核电 SNPTC · 中国核建 China Nuclear E&C Group · CSSC · 国机集团 SINOMACH · SKANSKA · SAMSUNG · CSCEC · SANY · 中国建筑 · 中国五矿集团公司 CHINA MINMETALS CORPORATION · VINCI · STRABAG · AECOM · Technip · FLUOR · HYUNDAI HEAVY INDUSTRIES CO.,LTD

Honors and Certificates

源泰德润



Products Cover All Over The Word

Tianjin Yuantai Derun International Trade Co., Ltd

Tianjin Yuantai Derun International Trade Co., Ltd(YTDRINTL) is a wholly owned subsidiary of Tianjin Yuantai Derun Pipe Manufacturing Group Co., Ltd. YTDRINTL is responsible for the import and export business of Yuantai oversea market. YTDRINTL is also responsible for the procurement of raw materials, spare parts and equipments from overseas for Yuantai and other domestic customers. Several overseas subsidiaries and representative offices have been set up in U.A.E, Southeast and Latin America to bring us closer to customers keeping in perspective our goal to provide the best products and service to our clients. The sales representatives and distributors have also been appointed in more than 20 countries and regions to render better service to our customers.