

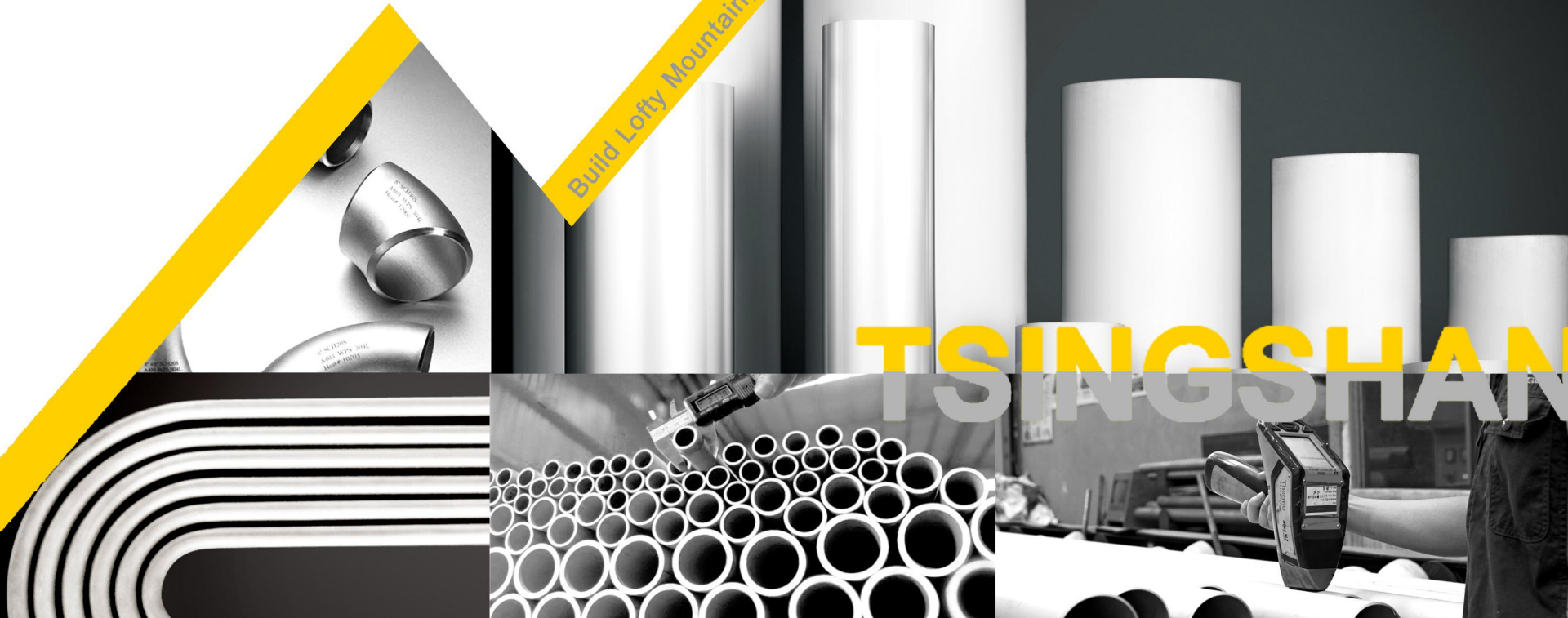


浙江青山钢管有限公司

Zhejiang Tsingshan Steel Pipe Co., Ltd.

Build Lofty Mountain, Manufacture Lifetime Stainless Steel

TSINGSHAN



Group Profile

集团概况



青山集团组织架构

Organization Chart of Tsingshan Group

TSINGSHAN

Tsingshan Holding Group

Financial center
1. Industry investment
2. Electronic transaction business

Shanghai Decent Group

Nickel minerals & ferronickel
1. Financial trade
2. Mineral resources development
3. Production & sales of mineral products

Sinotube Group

Piping solution
Production & sales of stainless steel seamless, welded tubes & pipes, fittings and bright bars

Fujian Tsingtuo Group

Integrated stainless steel production from laterite nickel ore to stainless steel long and flat products

Ruipu Technology Group

Stainless steel long products
Production & sales of stainless bar and wire rods

Eternal Group

Overseas investment such as Tsingshan Indonesia Industrial Park

Zhejiang Tsingshan Steel Pipe Co., Ltd.

SeAH CTC Co., Ltd.

Zhejiang Sinotube Heavy Industries Co., Ltd.

STK CO.,LTD.

Fujian Mengxin Group Co., Ltd.

Ningbo Sinotube Chemical Industry Co., Ltd.

Shanghai Max Fittings Co., Ltd.

Zhejiang Ruipu Precision Metal Products Co. Ltd.

Songyang Jiyanghao Steel Co. Ltd.

TSS PIPES & FITTINGS INDUSTRY SDN.BHD

集团简介 —— 总体数据

Group Profile — Total Data

2021年世界500强第279名
Rank No. 279 in 2021 Fortune Global 500

2021年不锈钢总产值3520亿元
Stainless Steel total turnover in 2021: CNY352 billion

2021年不锈钢粗钢产量全球占比21%
Global ratio of Stainless Steel output in 2021: 21%

2021年不锈钢总产量1237万吨
Stainless Steel total output in 2021: 12.37million tons

2021年不锈钢长材产量208万吨
Stainless Steel long products output in 2020: 2.08million tons

2030年总产能2000万
Target capacity in 2030: 20 million

总员工数110000
Total Staff: 110thousand

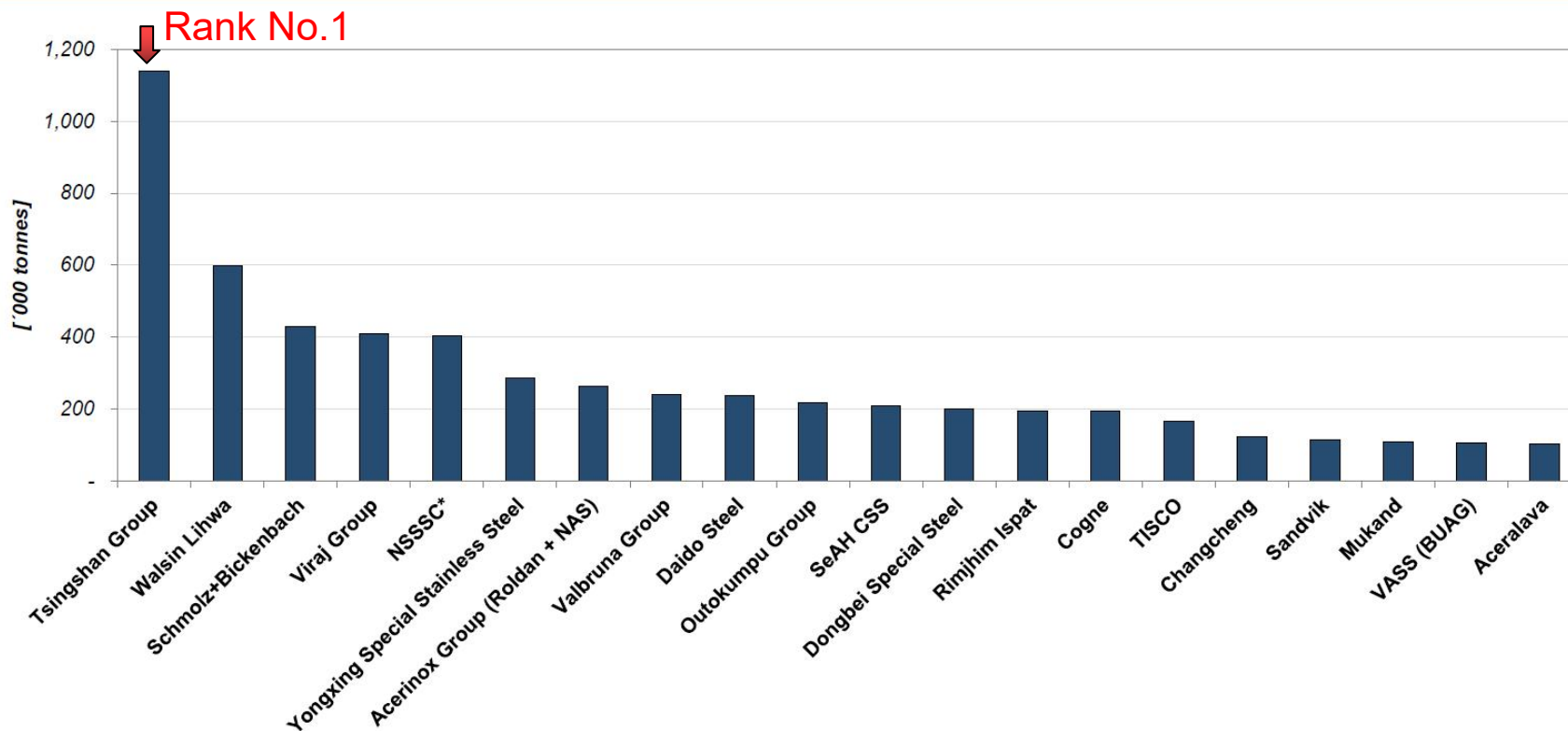


全球不锈钢长材制造商排名第一

No.1 Global SS Long Product Manufacturer

'Top 20' Global Stainless Steel Long Product Producers 2018 (estimate)

Based on billet equivalent 2019年不锈钢长材全球前20位排名



* incl. 13CrOCTG

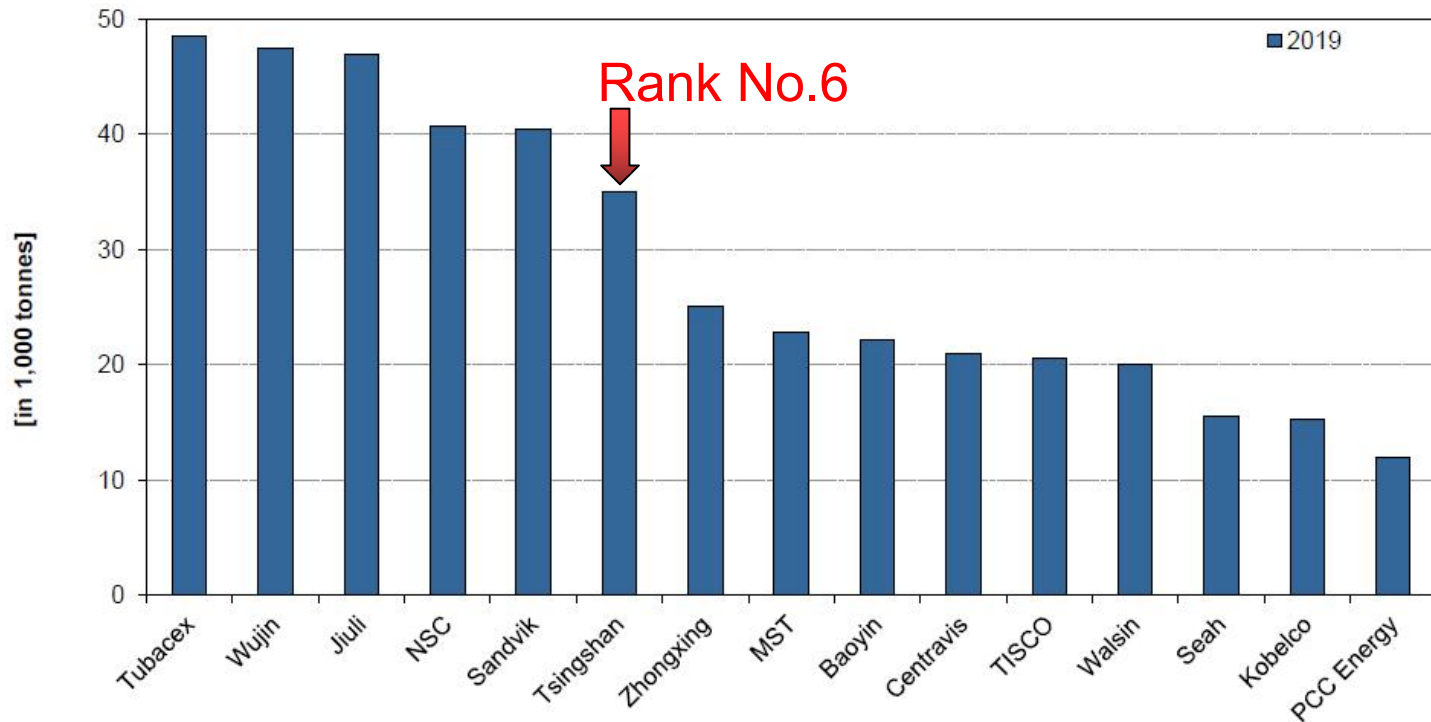
在全球无缝管制造企业名列前茅

Leading Global Seamless Tube & Pipe Manufacturer

NSC fell back to 4th position; Tubacex, Jiuli and NSC with declining production in 2019
Share of top 15 = 78 % (80 % in 2018)

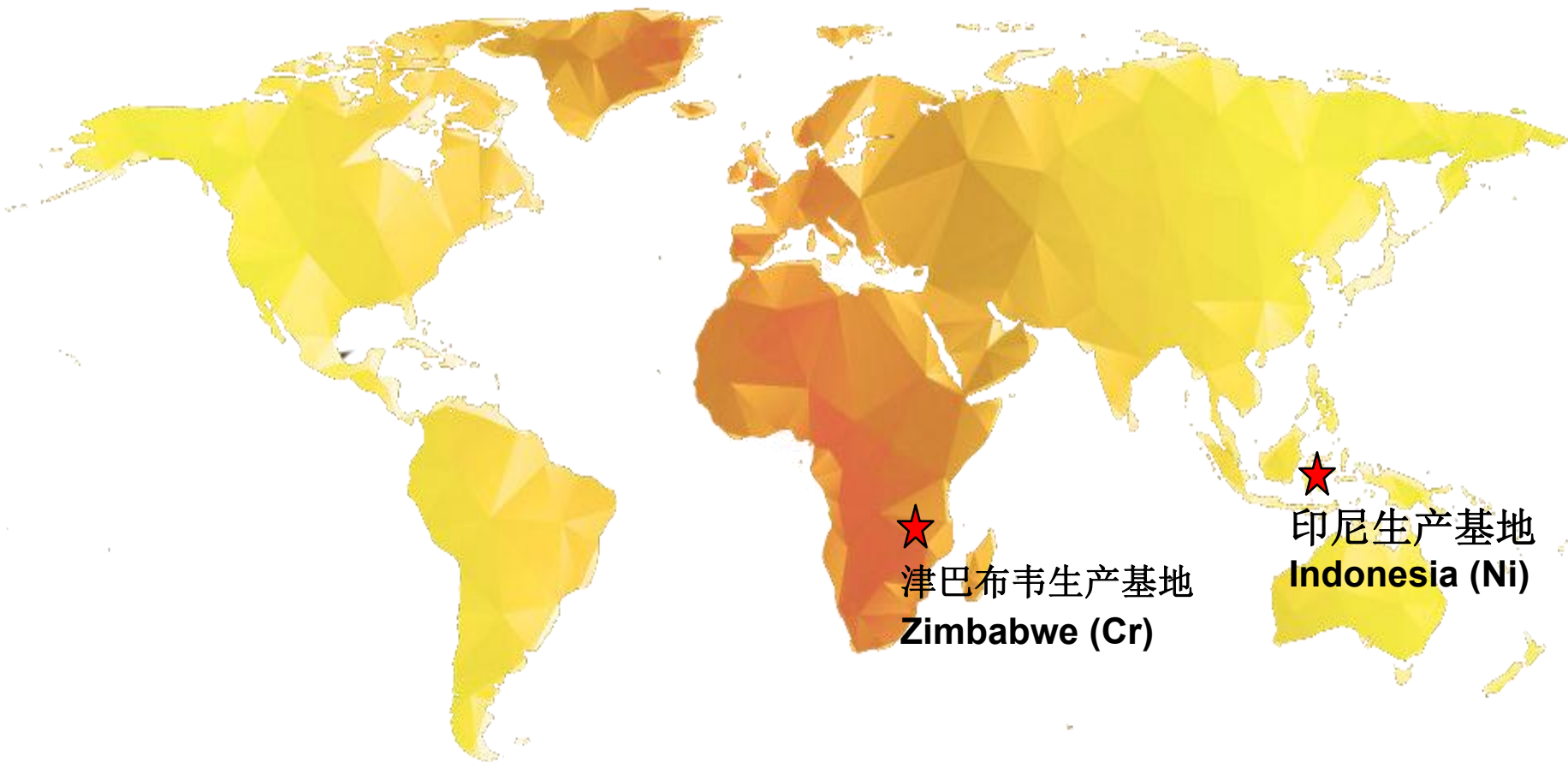
2019年全球不锈钢及镍铁合金无缝管生产制造企业前15位排名

Top 15 Producers of STS and Nickel Alloy Seamless Tube & Pipe (2016 - 2019)



集团概况 — 海外生产基地

Group Profile - Production Bases Abroad

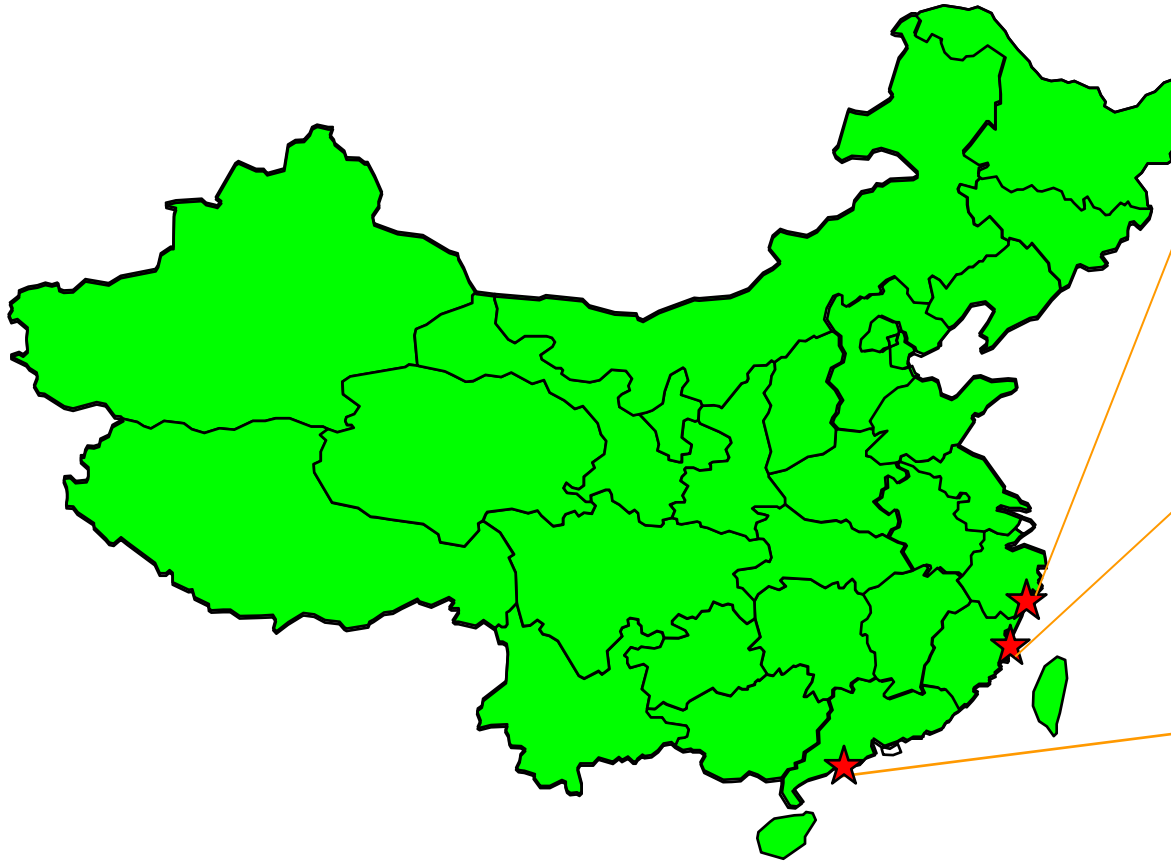


★
津巴布韦生产基地
Zimbabwe (Cr)

★
印尼生产基地
Indonesia (Ni)

集团概况 — 国内生产基地

Group Profile - Domestic Production Bases



丽水（青田） Lishui (Qingtian)

福建（周宁） Fujian(Zhouning)

不锈钢无缝管，焊管及管件
棒材，线材

**Stainless steel seamless/welded
pipes & tubes, fittings.
Bars and wire rods.**

福建（福安） Fujian (Fuan)

镍铁不锈钢一体化工厂
板材

**Integrated Stainless steel plant
producing stainless steel from
nickel Ore.
Slabs and coil.**

广东阳江 Guangdong Yangjiang

镍铁不锈钢一体化工厂，板材

**Integrated Stainless steel plant
producing stainless steel from nickel
Ore, slabs.**

青山优势

Tsingshan Strength

- I. 从上游原材料到下游成品的完整不锈钢产业链 P9-P10
Complete stainless steel industry chain from upstream to downstream
- II. 无缝管/焊管/管件产品一站式服务 P14-P16
One-stop solution manufacturer with SS seamless/welded tubes/pipes and fittings
- III. 先进的生产设备和检验设备 P19-P25
Advanced production and test facilities
- IV. 众多终端用户认证，如美孚、英国石油、马石油等 P26-P29
Approved by end users such as Exxon, BP and Petronas etc.
- V. 在相关领域有成熟的项目供货业绩 P30-P32
Highly experienced supplier for projects in various fields

完整的产业链

Complete Industry Chain

从上游至下游

From upstream to downstream



镍矿, 铬矿
Laterite Ore
Chrome Mine



铬铁和镍铁
FeCr & FeNi



电炉冶炼
Smelting in
electric furnace



镍铁红送AOD炉
Liquid FeNi
charged into AOD



LF 精炼
LF refining



不锈钢无缝管、焊管、管件
SS seamless/welded
pipes/tubes/fittings



冷加工
Cold work



圆棒, 板卷
Round bars
coils



热轧
Hot rolling



连铸
Continuous
casting

完整的产业链

Complete Industry Chain

从上游至下游

From upstream to downstream

品质优良

High Quality

- I. 47,040 hectare Laterite Ore with high reserve in Sulawesi Island, Indonesia;
- II. over 5,000 hectares Chrome Mine in Zimbabwei
- III. High quality of raw material:
(FeNi + FeCr) VS (Recycled scraps)
Tsingshan VS other manufacturers

节约成本

Cost Saving

- I. Initiated RKEF process for nickle smelting;
- II. Liquid FeNi directly charging into AOD furnace;
- III. Production of high output with high efficiency and energy saving.

交货迅速

Quick Delivery

- I. Set up own ocean fleets to open logistics routes for own mining business;
- II. Built 50,000 DWT dock to realize direct shipment between oversea mines and domestic production bases.



Tsingshan Overview

公司简介

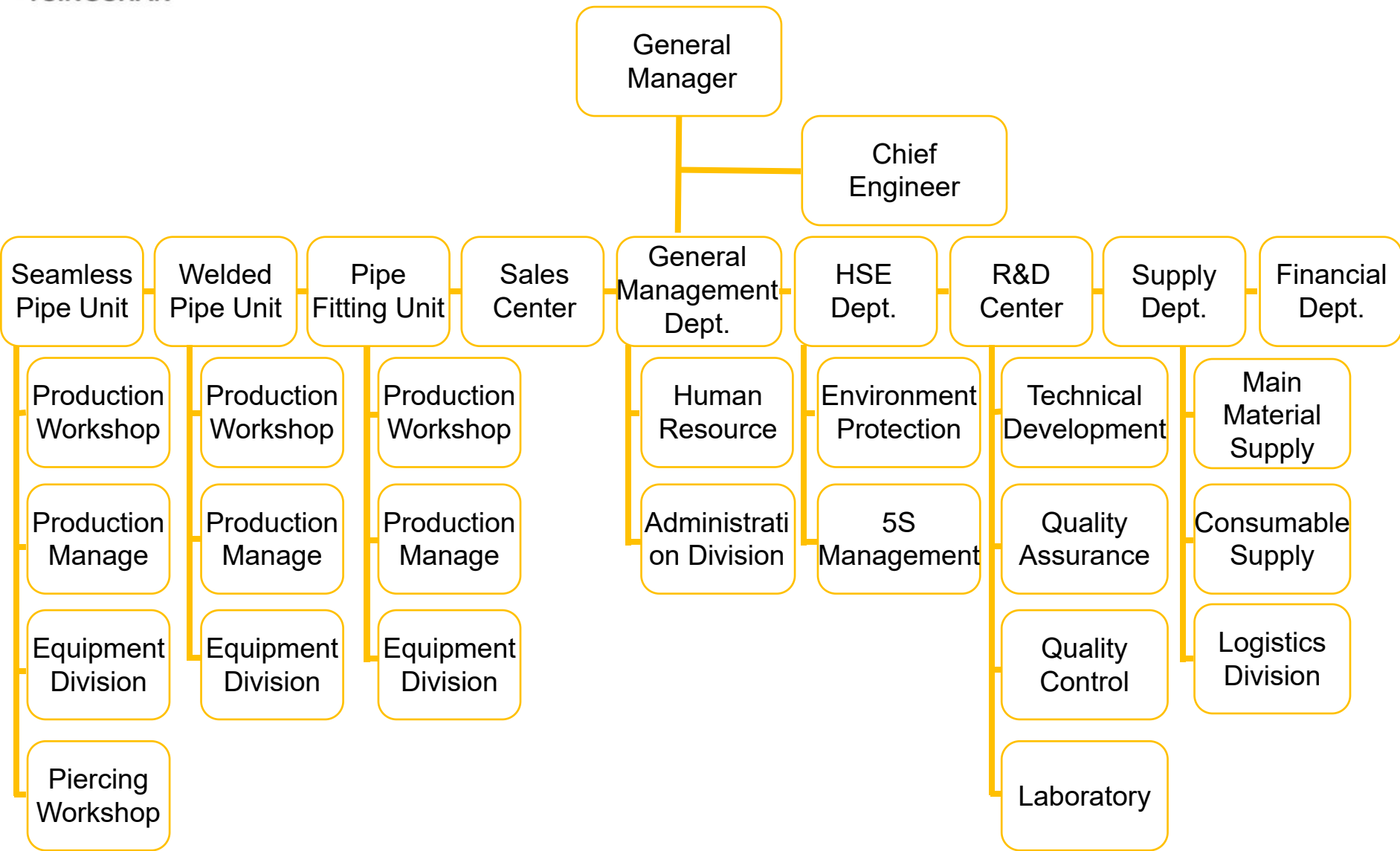


Date of Established	17 Nov., 2003
Registered Capital	320 million Yuan
Employees	1086
Quality Management System	ISO9001:2015
Environment Management System	ISO14001:2015
Occupational safety and health management system	OHSAS18001:2007
Major Products	SS Seamless Pipes & Tubes SS Welded Pipes & Tubes Pipe Fittings
Capacity	Seamless Pipes & Tubes: 35000tons
	Welded Pipes & Tubes: 30000tons
	Fittings: 2000000pieces

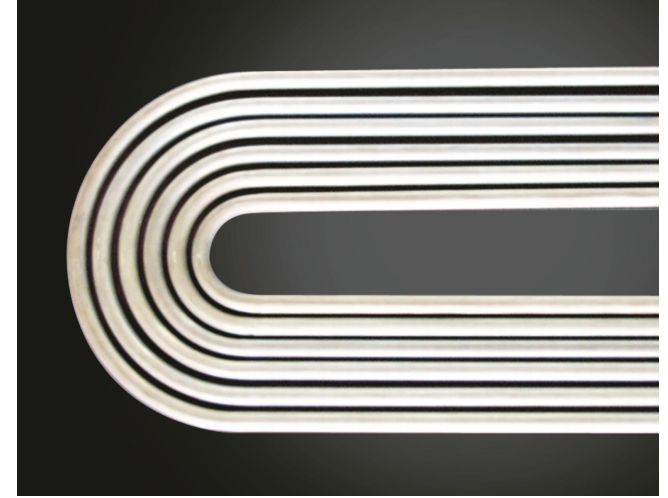




Zhejiang Tsingshan Steel Pipe Co., Ltd. Organization Chart



产品一站式服务 One-stop Solution for Projects



Seamless tube & pipe:

OD:6~813mm WT:0.65~50mm

Length:Max:24,000mm

U Bent Tube:

OD:6~32mm WT:0.35~3.5mm

Length: 24M for BA

26M for PA

产品一站式服务 One-stop Solution for Projects



Welded tube & pipe

Continuous online welding: OD: 12~406.4mm

WT: 1.24~9.53mm Length: 3,000~12,000mm

Offline JCO and welding: OD: 273~3000mm

WT: 3~60mm Length: 1,000~12,000mm

产品一站式服务 One-stop Solution for Projects



Butt Weld Fittings: Elbow, Reducer, Equal/reducing Tee, Equal cross, Cap,
Stub end short pattern type A, Butt-welding branch outlet

Seamless Fittings: OD: 12~711mm WT: 1.5~33mm

Welded Fittings: OD: 12~1524mm WT: 0.5~60mm

国际生产标准

International Production Standards

- International standard: ASTM standard, EN standard, DIN standard, GOST standard, JIS standard, GB standard, Norsok standard and API standard.
- When project comes, our engineer team will review project specifications and prepare production procedure as per project requirements.

Standard	Production standard
ASTM	ASTM A 312; A376; A213; A269; A511; A789; A790; A358; A928
EN	EN10216-5; EN10216-2
DIN	DIN 17456; DIN 17458
GOST	GOST 9941; GOST 5632
JIS	JIS G3459; G3463
GB	GB/T14975; T14976; GB13296; GB5310; GB/T21833
API	API5LC
NORSOK	NORSOK M-650

牌号种类

Wide Range of Steel Grade

- Steel grades : Austenite, Super Austenite, Duplex, Super Duplex, Ni-Alloy, API Corrosion Resistant Alloy.

Steel Type	Typical Steel Codes
Austenite	304/304H/304L/304LN;316/316L/316LN/316Ti/316H/316MO; 321/321H;310S/310H/310HCBN;317/317L;347/347H/347HFG
Super Austenite	N08904;N08367;S31254
Duplex	S31803;S32205
Super Duplex	S32750,S32760;LC65-2506;LC80-2507
Ni-Alloy	N08800;N08810;N08811;N08020;N08825;N08828;N06600;N06601;N06625
API Corrosion Resistant Alloy	LC30-1812; LC65-2205; LC65-2506; LC80-2507; LC30-2242

先进的生产设施

Advanced Manufacturing Facilities

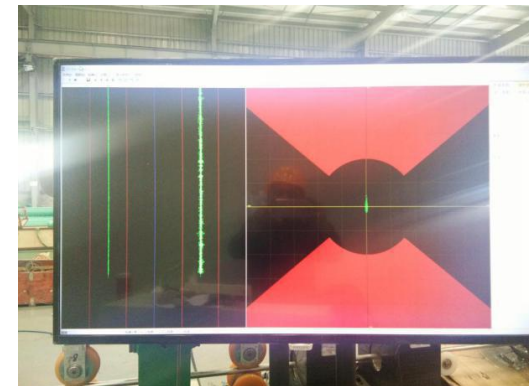
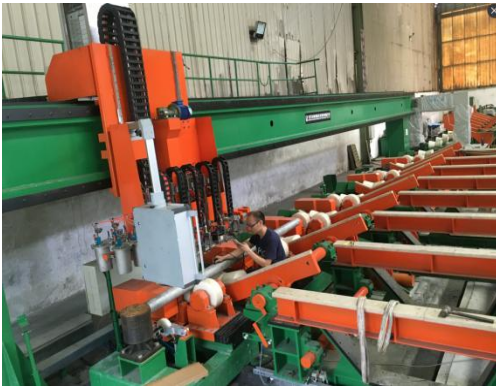
- Main facilities: peeling lines, piercing lines, cold drawn lines, cold rolling lines, continuous forming lines, bending machines, natural gas annealing furnace, pickling pools system;
- CNY30million investment pickling line of automatic acid make-up and zero-discharge
- Equipment Division for management & maintenance.



先进的无损检测设施

Advanced NDT Facilities

- Automatic UT-ET for longitudinal imperfection, transverse imperfection, laminar imperfection, wall thickness measurement & laser OD measurement
- Good traceability with test results and graphs. Marking system and scale bars available to locate the defects and segregate products with suspected defects.



R&D Center

研发中心



CNAS认可的实验室

CNAS Approved Laboratory

- CNAS accredited laboratory. (CNAS is equivalent to ISO 17025);
- Professional trained lab team.

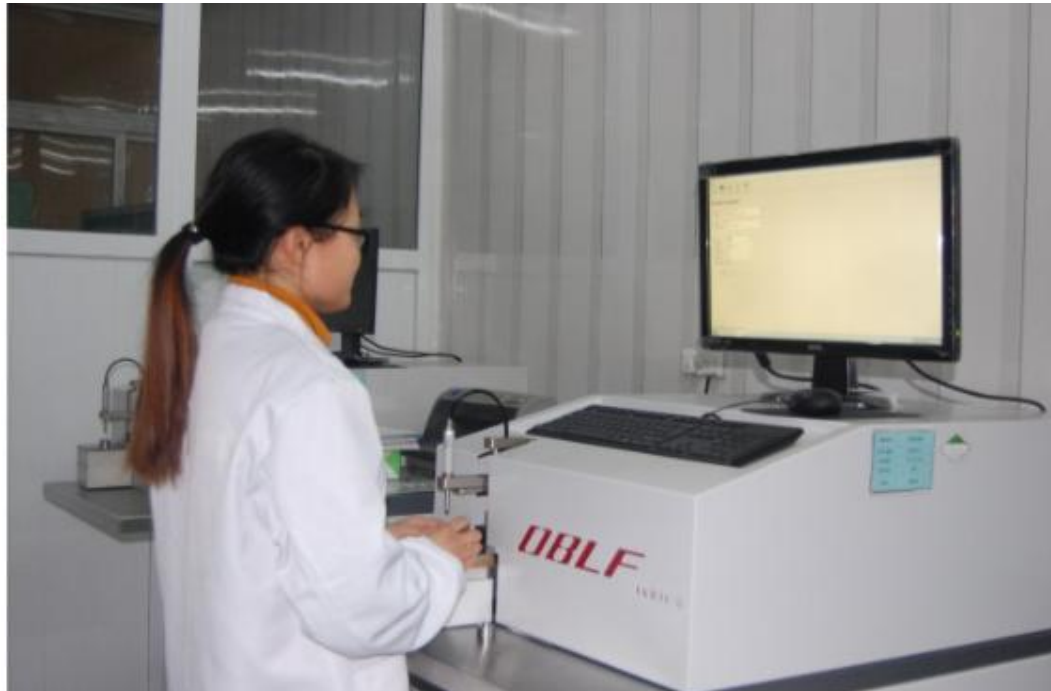


实验室设备

Lab Facilities

—化学成分 Chemical Composition

Item	Qty	Parameters	Remark
OBLF 直读光谱仪 OBLF Direct Reading Machine	2	OBLFGS1000	Chemical element analysis
伊斯诺便携式合金分析仪 INNOV Portable Alloy Analyzer	3	INNOV-X	100% PMI test



实验室设备

Lab Facilities

—力学性能 Mechanical Property

Item	Qty	Parameters
万能试验机 Universal Testing Machine	2	SHT4106, 0-1000kN
硬度试验机 Hardness Tester	3	Brinell, Rockwell, Vickers
冲击试验机 Impact Test Machine	1 set	-196°C

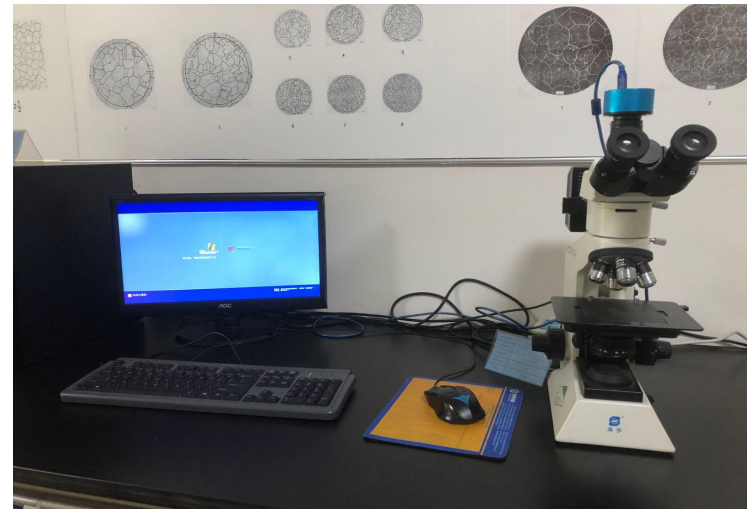


实验室设备

Lab Facilities

— 晶间腐蚀 Intergranular Corrosion Test

Item	Qty	Parameters
金相显微镜 Metallographic Microscope	2	适用各种标准对腐蚀试验的要求 Applicable to all standards of the corrosion test requirement
晶间腐蚀装置 Intergranular Corrosion Test Machine	2	



Cerificates & Reference

证书与业绩



青山证书 Certificates

- **ISO 9001:2015, ISO 14001, ISO 45001**
- **NORSOK Approval**
- **CNAS, ASME**
- **PED+AD2000, API 5LC**
- **ABS, BV, LR, KR, DNV.GL, RINA, CCS, GOST, CU-TR**
- **Manufacture License of Special Equipment (China)**
特种设备制造许可证（中国）

终端认证和业绩

Approvals & References

国外 OVERSEAS



国内 DOMESTIC



Client	EPC	Application	Project name	Project Location	Year of Supply
Exxon	CCZJV	LNG	Golden Pass LNG Export Project	USA	2020
	Tecnimont	Chemical	BAYTOWN CHEMICAL EXPANSION	USA	2019
	Foster Wheeler	Refinery	Crisp	Singapore	2019
	CUEL	Chemical	BLADE	USA	2019
	CTCI McDermott	LNG	GCGV	USA	2018
Shell	JGC, Fluor	LNG	Canada LNG	Canada	2019
ADNOC	CPECC	Gas	HABSHAN-5	UAE	2021
	TR	Oil&Gas	BUHASA	Abu Dhabi	2019~2021
	AL ASAB/ROBT STONE	Oil	Tie-in Works	Abu Dhabi	2016~2020
	Archirodon	Oil	THAMMAMA	Abu Dhabi	2019
	Petrofac	Oil	Qusahwira Field Development Phase II	Abu Dhabi	2018
	CPECC	Oil	Bab Integrated Facilities Project	Abu Dhabi	2018

Client	EPC	Application	Project name	Project Location	Year of Supply
BP	Saipem	LNG	TORTUE DEVELOPMENT	Africa	2019
	JORD International	FGC Recycle Cooler	Rumaila Oil Field/BP IRAQ N.V	Iraq	2016
Total	Saipem	LNG	Mozambique LNG	Mozambique	2020
	Saipem	Oil&Gas	Kaombo	Angola	2015~2016
	Technip/JGC	LNG	Yamal LNG	Russia	2014~2016
KOC	ISCO	Water	Water Management at GC's 6,8,11 & 19 in S&EK Area	Kuwait	2020
	ISCO/MECC	Water	Water Management at GC 1,2,6,8,9,10,11,19,20,22	Kuwait	2017~2019
	CPECC	Oil&Gas	TRAIN 3 OF WARA PRESSURE MAINTENANCE	Kuwait	2018~2019
	Petrofac	Oil	Lowerfars Heavy Oil Development	Kuwait	2016~2017
	GS E&C	Oil	New Water Center	Kuwait	2016
	L&T/Petrofac /Alkhorayef	Oil&Gas	GC 16, 29, 30	Kuwait	2012~2015
Thai Oil	PSS	Fuel	Clean Fuels Project	Thailand	2019

Client	EPC	Application	Project name	Project Location	Year of Supply
Sonatrach	Petrofac	Gas	Ain Tsila Development	Algeria	2019
	Tecnimont	Train GPL Plant	REALISATION DU 4eme TRAIN GPL A ZCINA	Algeria	2019
	Engtp	Petrochemical	BETHIOUA	Algeria	2017
	TR	Gas	Touatgaz	Algeria	2014
Gazprom	Saipem	Oil	SRU PLANT, SERBIA PIPELINE	Russia	2020
	Tecnimont	Petrochemical	OMSK Delayed Coking Unit (DCU)	Russia	2019
	Fluor,CPECC, NIPIGAS	Gas	Amursky Gas Processing Plant PJT Non Licensed Units	Russia	2018~2019
	Linde	LNG	Portovaya LNG Plant	Russia	2017~2018
	PETON/LINDE	Heat Exchanger	Amur Gas Processing Plant	Korea	2017
Sibur	Technip	Petrochemical	ZAPSIB-2	Russia	2016~2017
Sakhalin Energy	Petrofac	Oil&gas	Compression Station of the Offshore Processing Facility	Russia	2018
PJSC Nizhnekamskneftekhim	Linde	Chemical	NKNK New Ethylene Complex Nizhnekamsk 03	Russia	2019

Client	EPC	Application	Project name	Project Location	Year of Supply
Petrobras	MODEC	FPSO	MV32	Brazil	2020
	MODEC	FPSO	Anita Garibaldi MV33	Brazil	2020
	MODEC	FPSO	MV30	Brazil	2018
	Jurong/EBR /Technip, Techint	FPSO	P-series(P66, 69,71,74,76, etc.)	Brazil	2014~2017
Eni Mexico	MODEC	FPSO	Eni Mexico Area 1 Development	Mexico	2019
KURARAY	JGC	Petrochemical	Harmony	Thailand	2019
GS Caltex	GS E&C	Petroleum	MFC PROJECT	Korea	2019~2021
GE	ISGEC	Boiler	Ghatampur project	India	2019
			AIG project		2018
Sarawak Petchem	Samsung	Petrochemical	Sarawak	Malaysia	2021

青 山 钢 管
诚挚欢迎您考察指导工作
谢 谢!

Zhejiang Tsingshan Steel Pipe Co., Ltd
Warmly welcome your visit.
Thank You!