

ZHONGDA - CHINA

#### ZHEJIANG ZHONGDA SPECIAL STEEL CO., LTD

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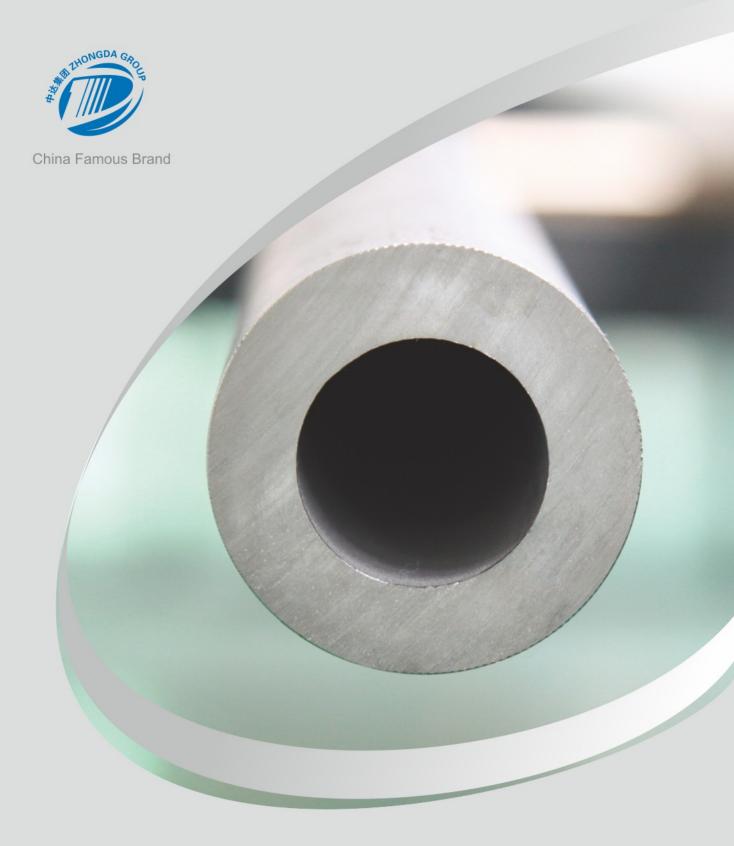
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# **ZHONGDA SPECIAL STEEL Tubes / Pipes**



Super Duplex Stainless Steel Ferritic Stainless Steel Seamless Piping Nickel Alloy Stainless Steel Martensitic Stainless Steel Instrumentation & Hydraulic Tubing

Austenitic Stainless Steel

Pressure Vessel Tubing



## **ZHONGDA SPECIAL STEEL**

#### At first, thanks to our worldwide clients:

Project Owner:	EPC Client:
SINOPEC, CNPC, CNOOC, BP, SHELL, TOTAL, ENI SPA, PTT,	GS E&C, DOOSAN E&C, SAIPEM, CTCI, SK E&C, SAMSUNG ENGINEERING, DAELIM INDUSTRY, FOSTER WHEELER,
PETRONAS, WOODSIDE, JAC, PETROBRAS, GASCO/ADNOC, KNPC, KOC, SIPCHEM, ARAMCO & SUMITTOMO CHEMICAL, NIOC,	FLUOR, TECHNIP, UHDE, TECNICAS, PETROFAC, AKER SOLUTIONS, JABCOS, RED MOUNTAIN ENERGY,



SONATRACH, ERC,

SURGUTNEFTEGAZ, ROSNEFT,

OXY PETROLEUM,

SASOL,

DOW CHEMICAL, HMC POLYMERS, SHELL CHEMICAL,

HANHWA,

KAVEH METHANAL CO.,

NOV,

Duplex Stainless Steel













## **General Information of Company**

Since established in 1992, as a manufacturer of stainless steel seamless tube & pipe, Zhongda has been obtaining the good experiences and results in producing the products and exporting to Heat Exchanger Fabricator, Air Cooler Fabricator, Boiler Fabricator, Pipe Fitting Factory, Engineering & Construction Company used in Petrochemical Industry, Chemical Industry, Refinery Industry, Off-shore Industry, Shipbuilding Industry, Power and Nuclear Power Plant and also participating in many projects in abroad for many years.

Our Quality Team has been studying to develop the techniques in order to supply the better products to our customers continuously. Furthermore, we are doing our best to meet their requirements with the newest facilities in our new workshop established exactly according to the requirements of Nuclear Power Industry and Military Industry.

Zhongda has been approved as a manufacturer of stainless steel seamless tube & pipe by Lloyds and TUV according to ISO9001, AD2000 W0 and PED. In addition, Zhongda has got the work approval of DNV, ABS, LR, BV, and API 5LC, all to guarantee quality products.

Zhongda is ready to get any advice and instruction from you and cooperate with you for the good service to you.





## **Quality Control**

All Zhongda's tubes and pipes are tested by an independent division according to the specific Manufacture and Test Plans approved by clients. The tests are as follows.

\*Non-destructive Tests: **Eddy Current Test** Ultrasonic Test Hydrostatic Test PMI Test **Endoscope Test Dimension Inspection** Surface Inspection PT Test









\*Destructive Tests: Metallographic Examination Intergranular Corrosion Test Mechanical Property Test

- Tensile Test
- Flattening Test
- Flaring Test
- Bending Test
- Impact Test
- Hardness Test



## **Certificate of ISO System**

Issued Association	Certificate	Scope	<b>Current Expiry Date</b>
Lloyds	ISO9001:2008	Manufacture of seamless stainless steel tubes and pipes. Size ranging 8mm - 508mm O.D. x 1.0mm - 50mm W.T. for pressure purposes.	05August,2014

#### **Certificate of Class**

Issued Association	Certificate	Scope	Current Expiry Date
Lloyds	PED 97/23/EC	Seamless Stainless Steel Tubes and Pipes in the size range 8mm-508mm O.D	05 August, 2014
TUV Nord	AD 2000-Merkblatt W0	Manufacture of seamless stainless steel tubes and pipes.	June, 2014
BV	BV Shipping-Class	Manufacture of seamless stainless steel tubes and pipes	13 Feb., 2014
DNV	DNV Shipping-Class	Seamless pipes and tubes in Austenitic stainless steel	30 June, 2014
ABS	ABS Shipping-Class	Steel Pipe and Tubes	22 September, 2016
Lloyd	Lloyd Shipping-Class	Seamless pipes and tubes in Austenitic stainless steel	07 October, 2015
API 5LC	American Petroleum Institute	Manufacturer of CRA Line Pipe, License Number: 5LC-0034	06 March, 2015
IQNET/CQM	ISO 14001:2004	Manufacture of seamless stainless steel tubes and pipes	29 December 2014
IQNET/CQM	OHSAS 18001:1999	Manufacture of seamless stainless steel tubes and pipes	29 December 2014



## **General Information of Product**

### **Experienced list of Steel Grade and Applicable Specification**

**Steel Grade** 

Experienced Lists of Standard	Applicable Code No.	Steel Grade
ASTM	A213, A269, A268, A312, A376, A789, A790, B407, B423	TP304/L/H/N, TP310/S/H, TP316/L/H/Ti, TP317/L, TP321/H,TP347/H, TP410/S,TP430,S31803, S32205,S32750, S32760,S32304, S31500, TP904L,S31254, N08800, N08810, N08825
ASME	SA213, SA268, SA312, SA376, SA789, SA790, SB407, SB423	TP304/L/H/N, TP310/S/H, TP316/L/H/Ti, TP317/L,TP321/H, TP347/H, TP410/S,TP430,S31803,S32205, S32750, S32760, S32304, S31500, TP904L, S31254, N08800, N08810, N08825
JIS	JIS G3459, JIS G3463	SUS 304TB, SUS304HTB, SUS304LTB, SUS310TB, SUS310STB, SUS316TB, SUS316LTB, SUS316TTB, SUS317TB, SUS317LTB, SUS321TB, SUS321HTB, SUS347TB, SUS347HTB
EN & DIN	EN 10216-5, DIN 17456, DIN 17458	1.4301, 1.4307, 1.4541, 1.4401, 1.4404,1.4571, 1.4429, 1.4436,1.4435, 1.4462, 1.4424, 1.4507,

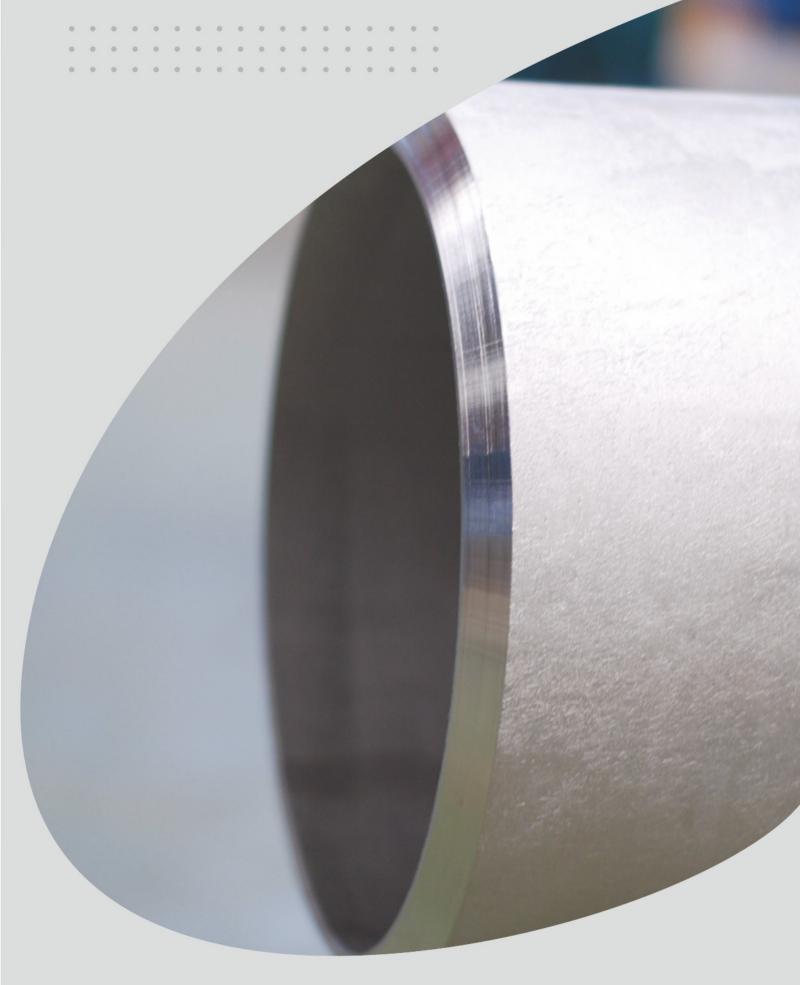
#### Size Range

Туре	O.D.	W.T.	Length	Bending Radius	Application Specification
S.S Seamless	6.0mm -	0.5mm -	Max. 25	/	A213, A268, A269, A789; SA213, SA268,
Tube	152.4mm	25.4mm	meters		SA789; JIS G3463; EN 10216-5
S.S. Seamless Pipe	10.29mm - 609.6mm	0.89mm - 45.0mm	Max. 17 meters	/	A312, A790, B423, B407; SA312, SA790, SB407, SB423; JIS G3459; EN 10216-5
S.S. Seamless	15.88mm -	1.24mm -	Max. 25	1.5 x OD	A213, A268, A789; SA213, SA268 SA789;
U-tube	38.1mm	3.40mm	meters	minimum	JIS G3463, EN 10216-5; SA688; TEMA











#### **Main Production**

#### 1, Seamless Piping

Specification:

ASTM A312 (ASME SA312): Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel

ASTM A790 (ASME SA790): Specification for Seamless and Welded Ferritic/Austenitic Stainless Steel Pipes

ASTM B423(ASME SB423): Specification for Nickel-Iron-Chromium-Molybdenum-Copper Alloy(UNS N08825 and N08221) Seamless Pipe and Tube

ASTM B407(ASME SB407): Specification for Nickel-Iron-Chromium Alloy Seamless Pipe and Tube

The specifications of JIS G3459 EN 10216-5, DIN 17456, DIN 17458 are available.



Grade: 304H, 310H, 321H, 347H, 347HFG

Specification:

ASME SA213: Standard Specification for Seamless Ferritic and Austenitic Alloy-Steel Boiler, Superheater, and Heat-**Exchanger Tubes** 

The specifications of ASME SA312, JIS G3459, EN 10216-5, DIN 17456, DIN 17458 are available.







#### 3, Pressure Vessel Tubing

- 1), Heat Exchanger Tubing (Straight and U tubing)
- 2), Air Cooler Tubing
- 3), Condenser Tubing
- 4), Evaporator Tubing

Specification:

ASTM A213 (ASME SA213): Specification for Seamless Ferritic and Austenitic Alloy-Steel Boiler, Superheater, and Heat-Exchanger Tubes

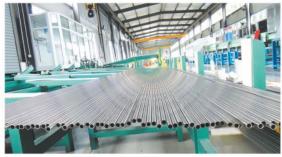
ASTM A789 (ASME SA789): Specification for Seamless and Welded Ferritic/Austenitic Stainless Steel Tubing for General Service

ASTM A268(ASME SA268): Specification for Seamless and Welded Ferritic and Martensitic Stainless Steel Tubing for General Service

Final Finishing: Solution Annealed & Pickled, Bright Annealed

The specifications of JIS G3463, EN 10216-5 are available







#### **6, Pipes for Producing Pipe Fittings**

Specification:

ASTM A312 (ASME SA312): Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel

ASTM A790 (ASME SA790): Specification for Seamless and Welded Ferritic/Austenitic Stainless Steel Pipe

ASTM B423(ASME SB423): Specification for Nickel-Iron-Chromium-Molybdenum-Copper Alloy(UNS N08825 and N08221) Seamless Pipe and Tube

ASTM B407(ASME SB407): Specification for Nickel-Iron-Chromium Alloy Seamless Pipe and Tube

The specifications of JIS G3459 and EN 10216-5 are available.

#### 4, Duplex & Super Duplex **Stainless Steel Tube & Pipe**

Grade Available: UNS S31803, UNS S32205, UNS S31500, UNS S32304. UNS S32750 S32760

Specification:

ASTM A789 (ASME SA789): Specification for Seamless and Welded Ferritic / Austenitic Stainless Steel Tubing for General Service

ASTM A790 (ASME SA790): Specification for Seamless and Welded Ferritic / Austenitic Stainless Steel Pipe

The specification of EN 10216-5 is available.

#### 5, Instrumentation **Tubing & Hydraulic Tubing**

Specification:

ASTM A269: Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service

ASTM A213 (ASME SA213): Specification for Seamless Ferritic and Austenitic Alloy-Steel Boiler, Superheater, and Heat-Exchanger Tubes

Final Finishing:

Solution Annealed & Pickled, Bright Annealed, OD Polished

The specification of EN 10216-5 is available.

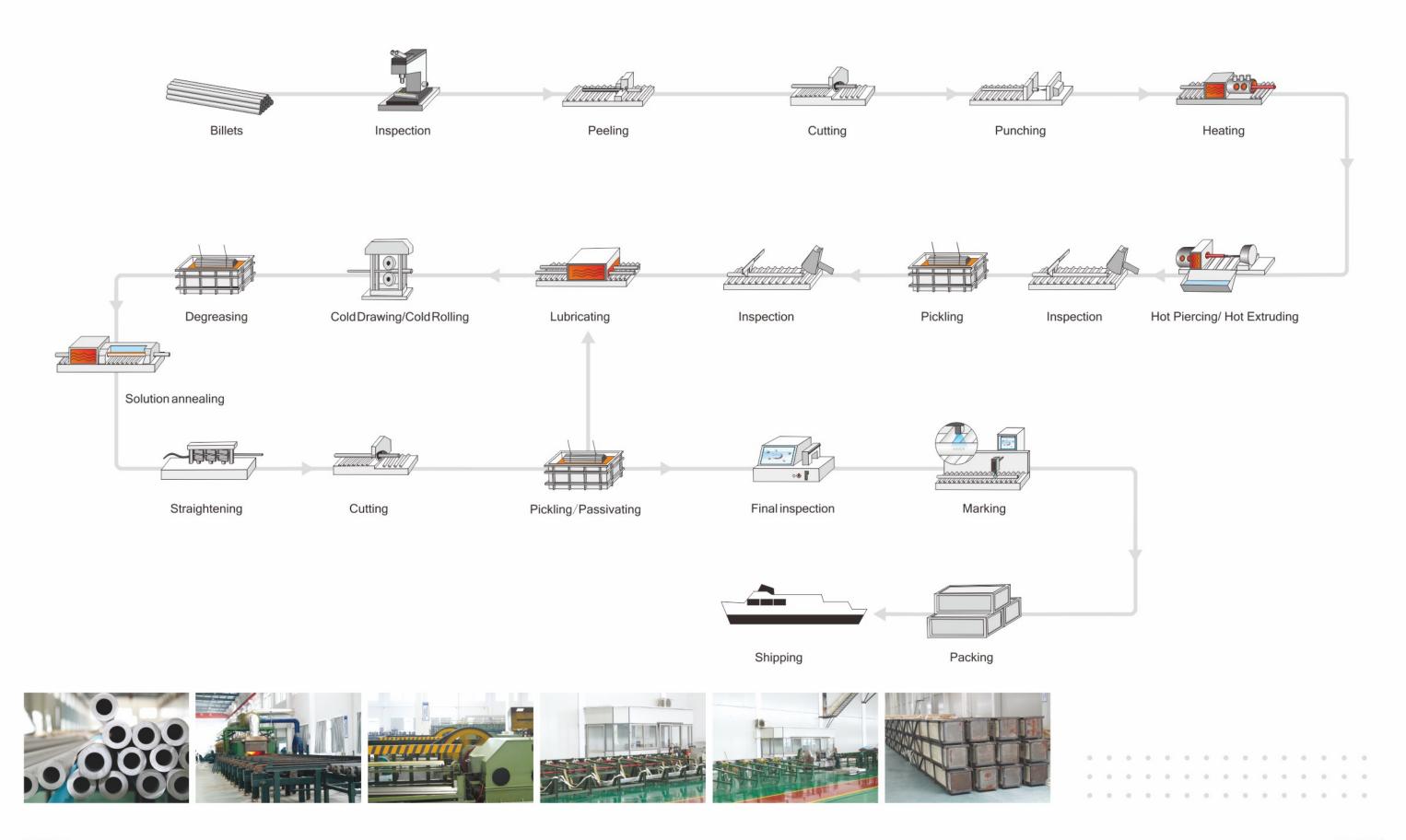


# **Dimensions for Seamless Pipes/Tubes**



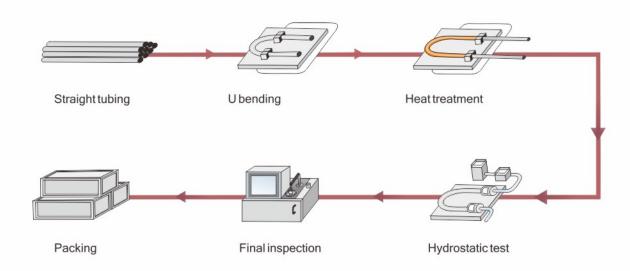
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# **Process of seamless staniness steel pipes/tubes**





# **PROCESS Of U Tubing**













# **Application Project**

Petro-Chemical

Oil & Gas

**Heat Exchanger** 

Chemical

Pulp & Paper

Ship Building

Electic Power Station(Thermal and Nuclear)

Instrumentation & Hydraulic System

Offshore Platform

**FPSO** 

Seawater Desalination









