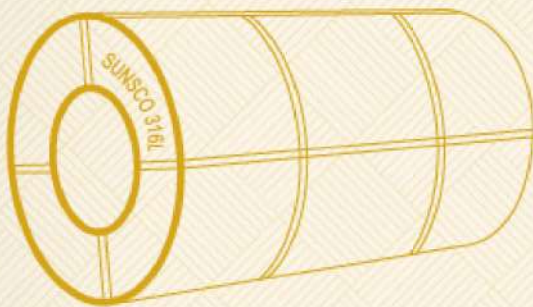


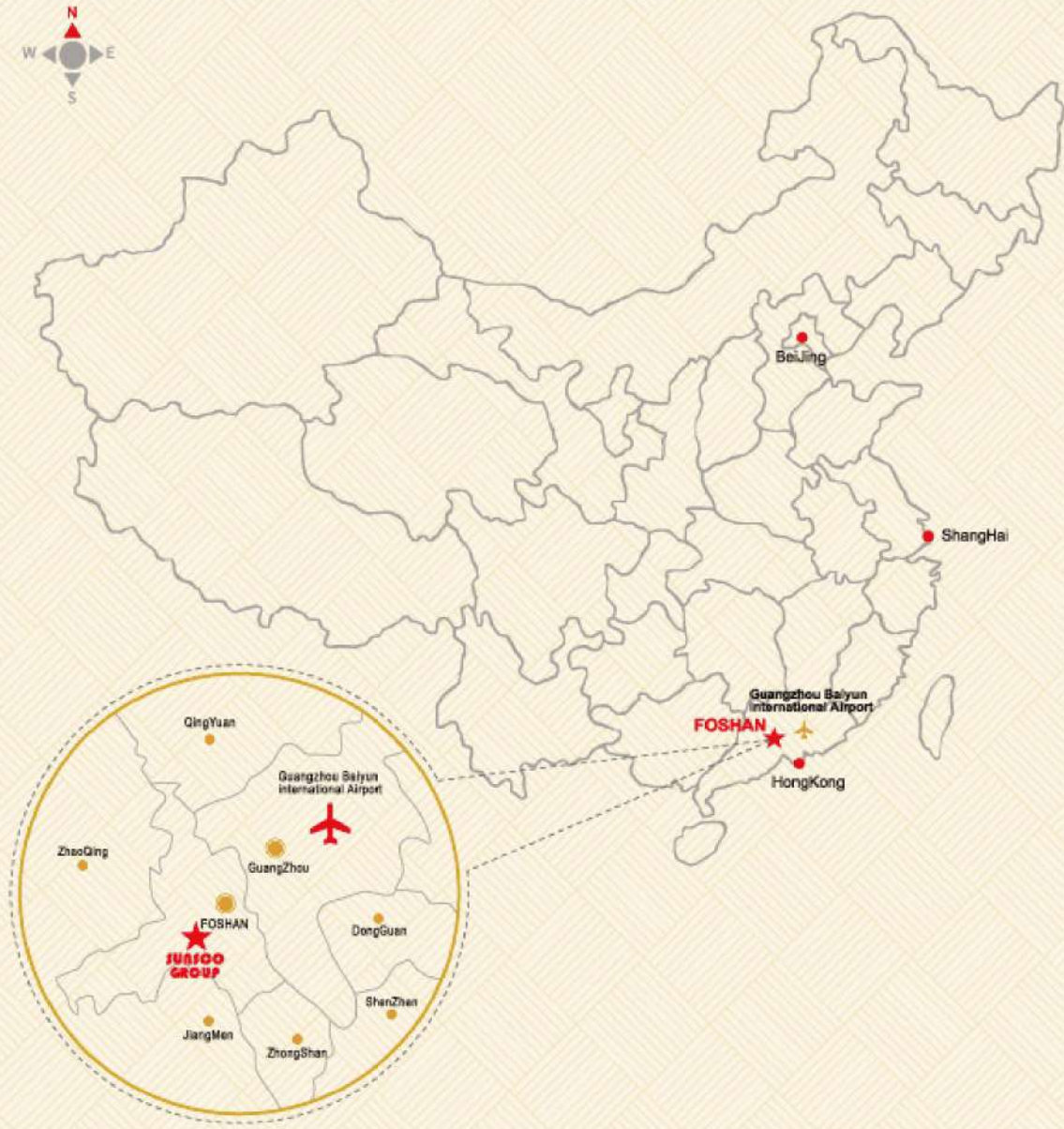
STEELSADRA (oahan)

&

SUNSCO GROUP



FOSHAN SUNSCO TECHNOLOGY CO., LTD



واحد فروش : ۰۲۱-۹۱۶۹۲۲۱۵

دفتر مرکزی : ۰۲۱-۸۸۱۷۳۶۹۳

دفتر چین : ۰۵۷۹-۸۵۱۸۹۸۴۱

واتساپ : (۹۸)۹۰۵۳۵۵۸۳۶۳
(۹۸)۹۰۵۳۵۵۸۳۵۲

وب سایت : oahan.com

آدرس دفتر مرکزی : تهران ، ضلع غربی میدان بنی هاشم ، ساختمان بانک سینا ، واحد ۱۲

دفتر بازار : بازار استیل ، مجتمع تجاری (بی تی اس) پلاک ۸ الی ۱۱

دفتر چین:

Dongting middle road, Xishan District, Wuxi City, Jiangsu Province

درباره استیل صدرا

هدینگ صدرا، بیش از سی سال سابقه فعالیت در زمینه تامین انواع مقاطع استنلس استیل یکی از معتبرترین تامین کنندگان این محصولات در ایران است. این هدینگ با برخورداری از دانش و تجربه کارشناسان و متخصصان خود، همواره در تلاش بوده است تا با ارائه محصولات باکیفیت و قیمت‌های رقابتی، نیازهای مشتریان خود را در صنایع نفت و گاز و پتروشیمی تامین نماید

هدینگ صدرا طیف گسترده‌ای از مقاطع استنلس استیل را در اختیار مشتریان خود قرار می‌دهد که شامل انواع ورق، لوله، اتصالات و شیرآلات می‌شود. این محصولات در انواع مختلف آلیاژهای استنلس استیل تولید می‌شوند و با توجه به نیازهای مشتریان، در اندازه‌ها و ابعاد مختلف قابل سفارش هستند

یکی از مزیت‌های رقابتی هدینگ صدرا، **امکان واردات سفارشی از چین در زمان تحویل کمتر از ۴۵ روز با قیمت‌های رقابتی** است. این امر به مشتریان این امکان را می‌دهد تا با توجه به نیاز خود، محصولات مورد نظر را با قیمت‌های رقابتی و در زمان‌بندی مناسب دریافت کنند. هدینگ صدرا با برخورداری از امکانات و تجهیزات پیشرفته، همواره در حال توسعه و گسترش فعالیت‌های خود است. این هدینگ در تلاش است تا با ارائه محصولات و خدمات باکیفیت، جایگاه خود را به عنوان یکی از پیشروترین تامین کنندگان مقاطع استنلس استیل در ایران تثبیت کند



Sunsco Group has an excellent team, with great quality and service, Sunsko stainless steel materials are sold to all over the world, including Brazil, Colombia, Chile, Peru, Mexico, Bulgaria, Moldova, Uzbekistan, Saudi Arabia, Dubai, Turkey , Iran, Russia, Egypt, Morocco, India, Thailand, Indonesia and receive well reputation.

We have a complete quality control and after-sales system, quality and value are our common pursuit!
Choosing Sunsko Group is your best choice!

Cooperative Brand



SUNSCO GROUP & STEELSADRA (oahan)

اهداف مشترک استیل صدرا و سانسکو

Goal: To become a leader in stainless steel manufacturing and trading in China

Mission: Integrity, Quality, Efficiency, Professionalism, Service, Teamwork





کنترل کیفیت مواد

به طور مداوم بر روی ارتقاء موجود ، برای رسیدن به یک جهش دیگر ، از معرفی مواد ، تا پذیرش فناوری جدید ، سپس تا آزمایش عملکرد کلی محصول ، مرکز تست تولید ، هر محصول جدید را دنبال می کند ، ما به کار سخت خود ادامه خواهیم داد تا محصولات خود را به سطح کیفی بالاتری برسانیم و با دقت به هر یک از مشتریان خود خدمت کنیم



Eddy Current Testing



Hydraulic test



Polishing Test Equipment



Universal Testing Machine



Metallographic Microscope



Salt Spray Test

STAINLESS STEEL STRIP ROLLING PLATE MACHINING CENTER

- 14000M² Workshop Area
- 102,000 Tons Annual Output



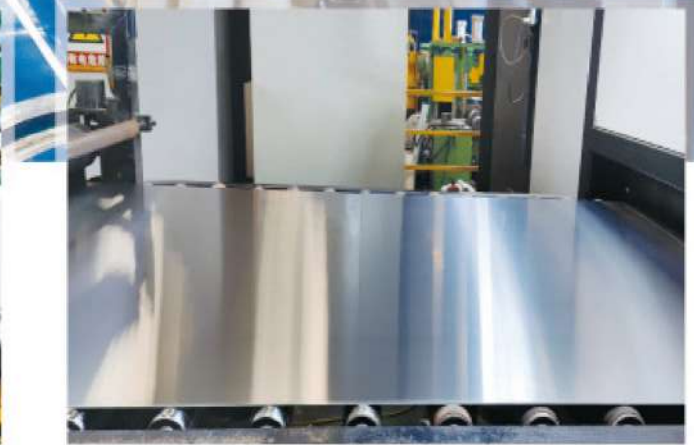
Coils Slitting



Sheets Slitting



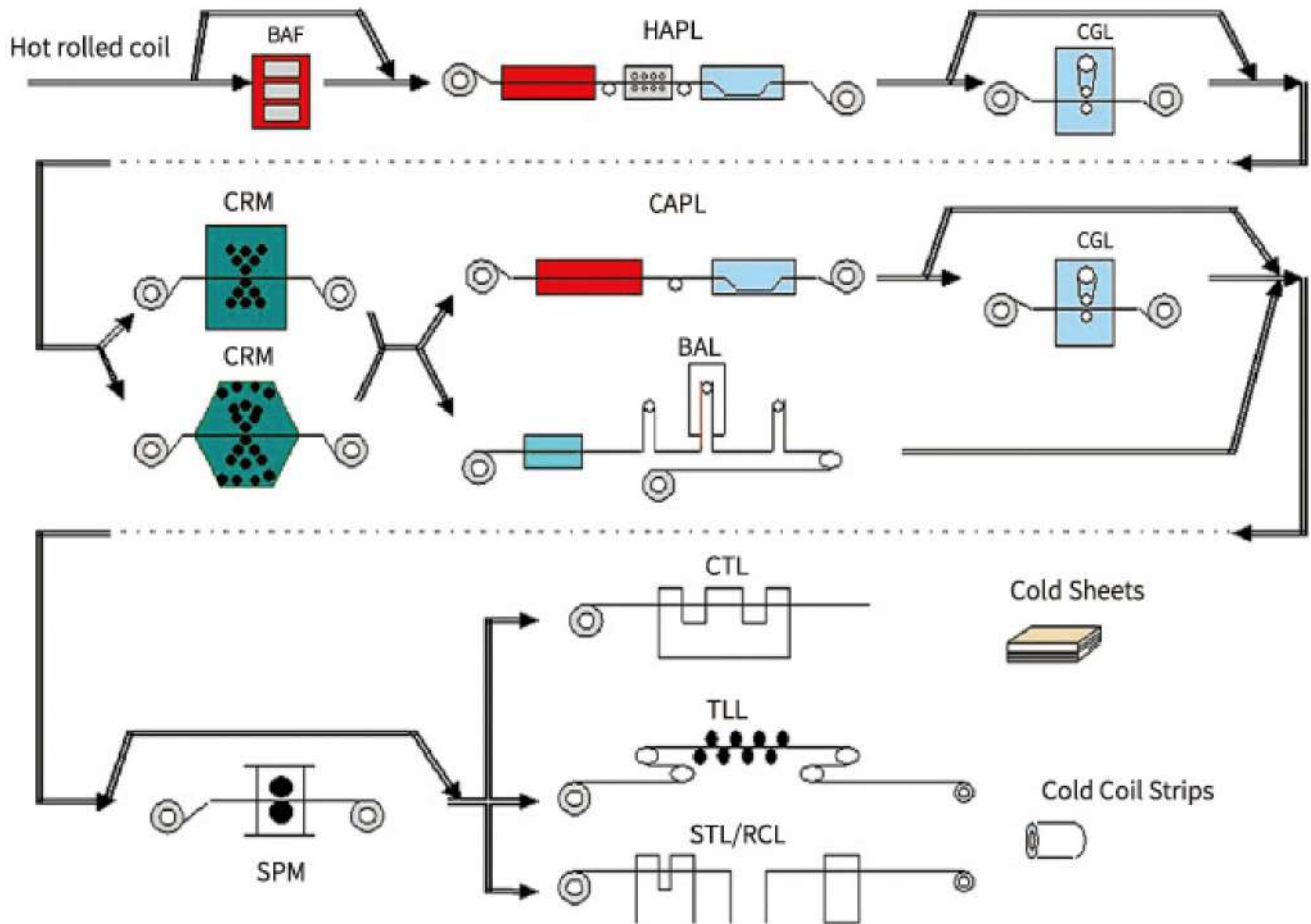
Surface Protection



N0.4 Process

SUNSCO GROUP & STEELSADRA (oahan)

PROCESS FLOW OF STAINLESS STEEL COIL PLATE



Cold Rolled Coil



Hot Rolled Coil

Material/ Grade: 304, 304L, 316L, 321, 310S, 309, 430, 420, 410, 409L, S32205, 201, etc.

Origin/Brand: Tisco, Posco, Jisco, Lisco, Tsingshan, Yongjin, Hongwang

Standard: ASTM, AISI, JIS, DIN, EN.

Cold rolled material thickness: 0.25mm ~ 6.0mm

Hot rolled material thickness: 3.0mm ~ 180mm

Width: For coil: 1000mm, 1219mm, 1250mm, 1500mm, 1800mm, 2000mm, Customized
For strip: 10mm ~ 730mm

Size for sheet: 1000mm x 2000mm

1219mm x 2438mm

1219mm x 3048mm

1250mm x 2500mm

1500mm x 3000mm

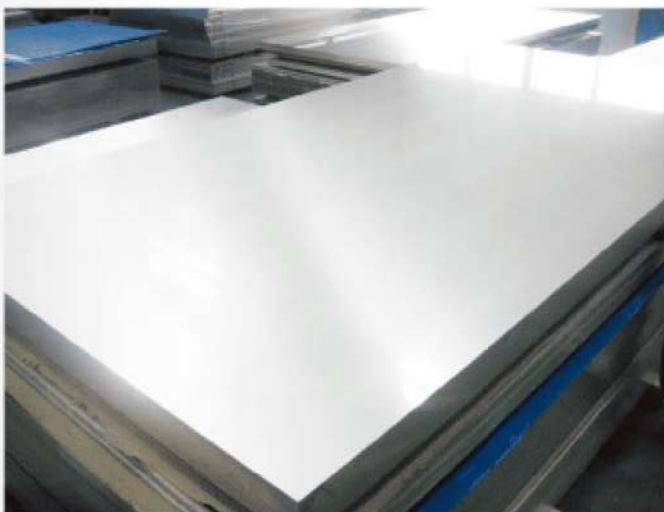
Customized

Surface finished: No. 1, 2B, BA, Hairline (HL), No. 4, 8K (Mirror)

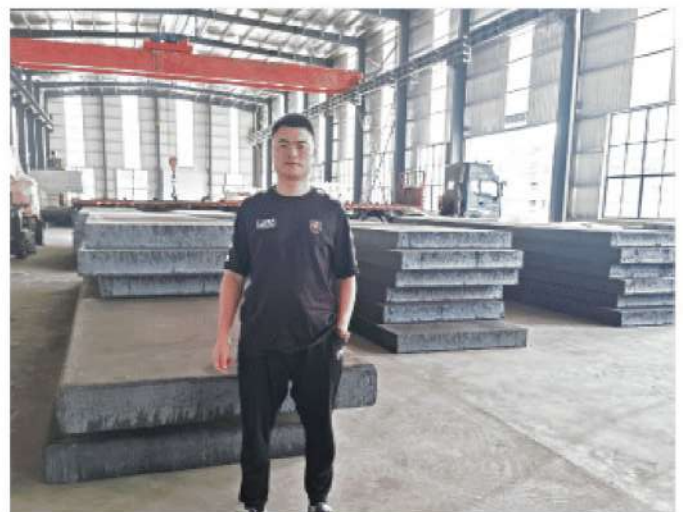
Special processing :

Etching, Stamping, Abrasive Blasting, Laser Engraving, Laser Cutting, PVD Coating

Also we can offer different color as customers' requirement.



Cold Rolled Sheet



Hot Rolled Sheet

SUNSCO GROUP & STEELSADRA (oahan)



① Cold-Rolled Strip



② Sizing



③ Welding



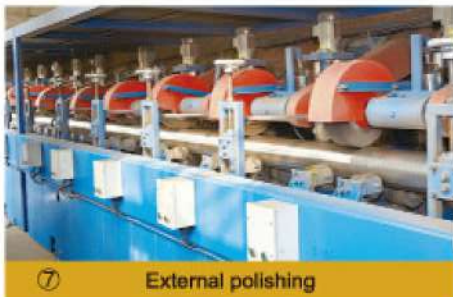
④ In-line leveling



⑤ Online annealing solid melt



⑥ Cutting



⑦ External polishing



⑧ Internal polishing



⑨ Hydraulic test



⑩ Eddy Current Testing



⑪ Ultrasonic cleaning



⑫ Testing



⑬ Packing

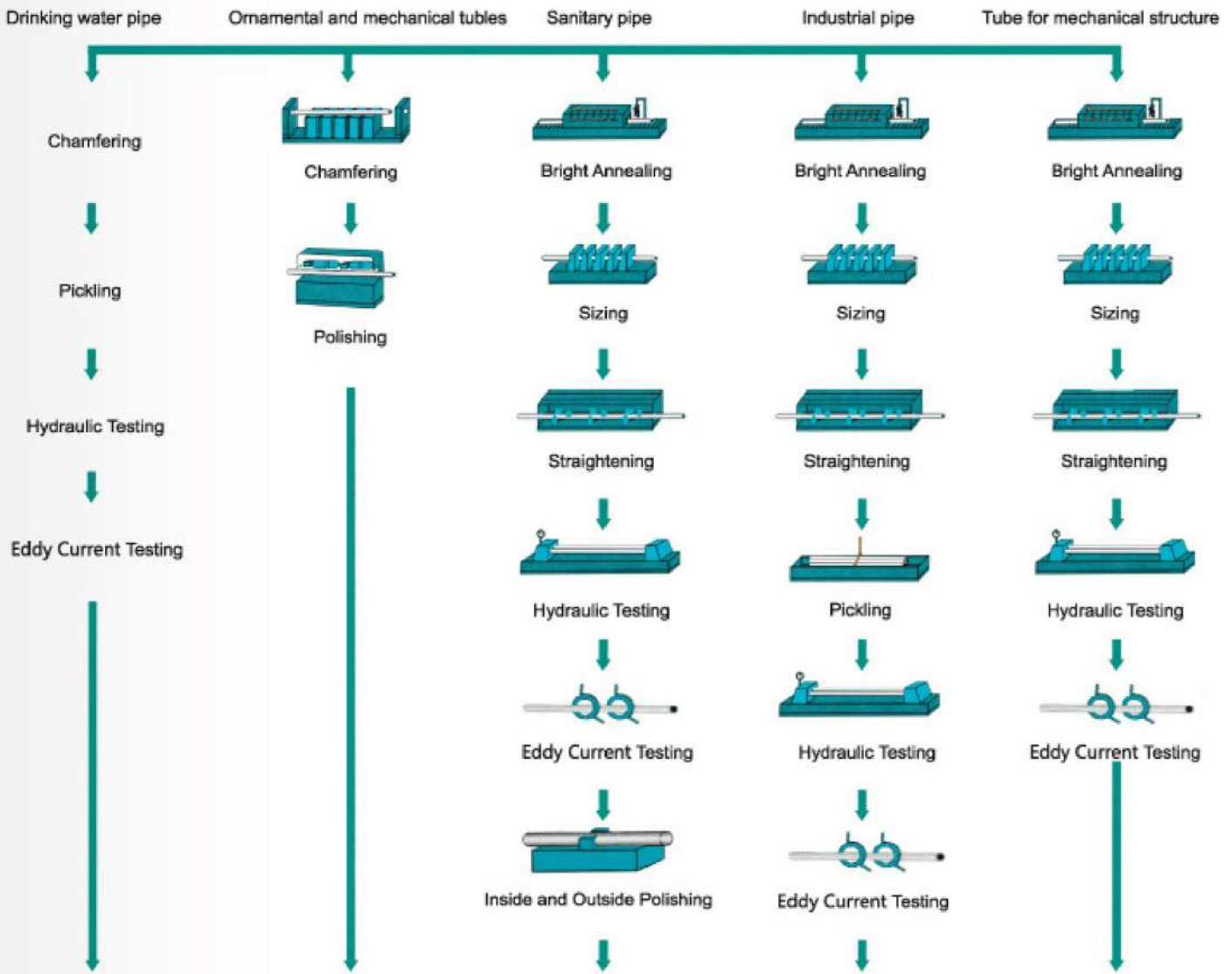
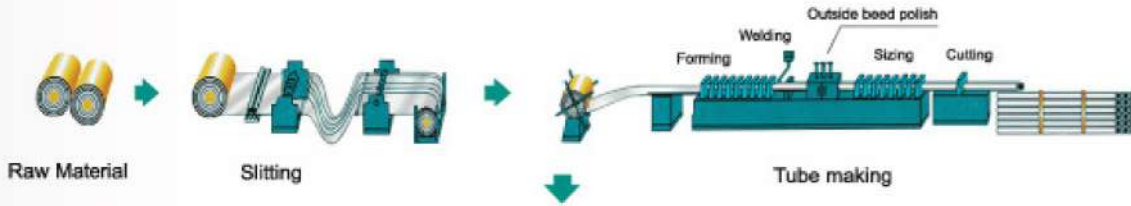


⑭ Bundling



⑮ Shipment

STAINLESS STEEL PIPE PRODUCTION PROCESS



SUNSCO GROUP & STEELSADRA (oahan)

COLD ROLLED COIL(CR)

GRADE: 304、304L、316L、310S、321、430、410、409L、S32205、201

STANDARD: ASTM, AISI, DIN, EN, GB, JIS

THICKNESS: 0.25~4.0mm

WIDTH: 1000mm, 1220mm, 1250mm, 1500mm or customized

EDGE: Slitting edge or Mill edge

SURFACE: BA, SB, NO.4, HL, Mirror, Color-coating



COLD ROLLED SHEET(CR)

GRADE: 304、304L、316L、310S、321、430、410、409L、S32205、201

STANDARD: ASTM, AISI, DIN, EN, GB, JIS

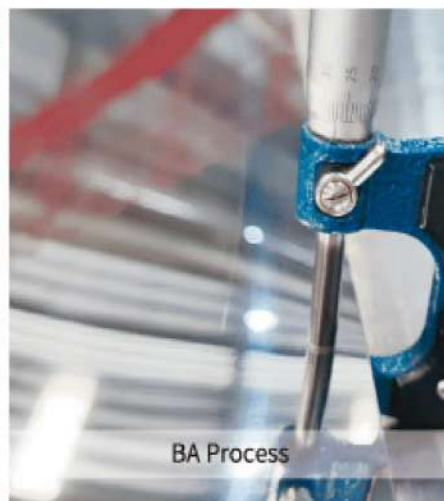
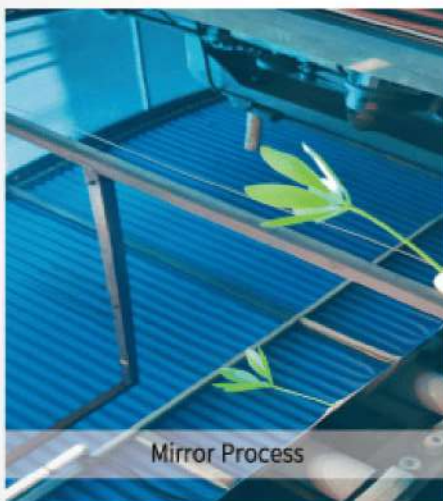
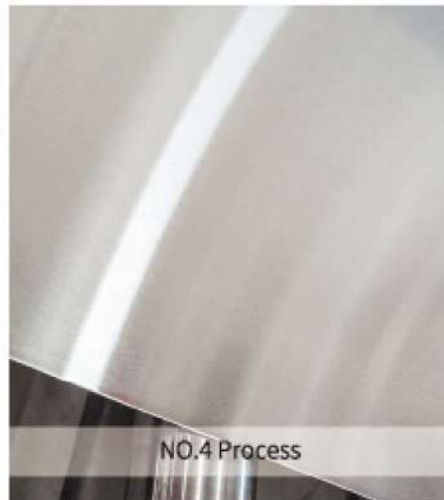
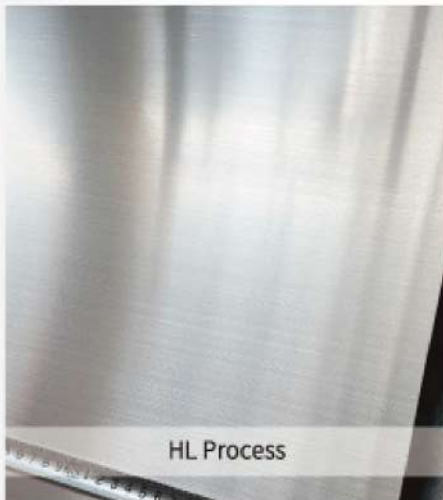
THICKNESS: 0.25mm~6.0mm(Cold rolled)

WIDTH: 1000mm, 1220mm, 1250mm, 1500mm or customized

LENGTH: 2000mm, 2440mm, 2500mm, 3000mm or customized

EDGE: Slitting edge or Mill edge

SURFACE: 2B, BA, NO.4, HL, SB, Mirror, Titanium, Color-coating,
Etched, Embossed, Vibration or customize



SUNSCO GROUP & STEELSADRA (oahan)

STRICT AND NORMATIVE PRODUCTION CAREFUL AND PRECISE TEST

Coil Quality Test



Length Detection



Thickness Detection



Material Detection



Weight Detection

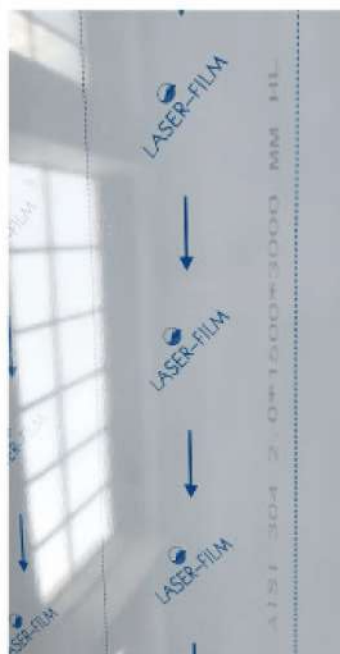
Sheet Quality Test



Length Detection



Thickness Detection



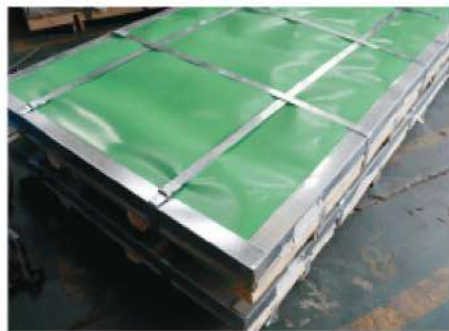
Marking Detection



Weight Detection

PACKING AND SHIPPING

- 1. Sheets packing:** Each two tons sheets be packed in full save wooden boxes / pallets.
- 2. Coil packing:** Wrapped by plastic cover, supported by wooden frame and iron steps.
- 3. Mark:** Label or printing at the surface of the packing with the details such as grade, dimension, surface finish, standard.



Export Packing & Reinforcing



SUNSCO GROUP & STEELSADRA (oahan)

STRICT AND NORMATIVE PRODUCTION CAREFUL AND PRECISE TEST

Coil Quality Test



Length Detection



Thickness Detection



Material Detection



Weight Detection

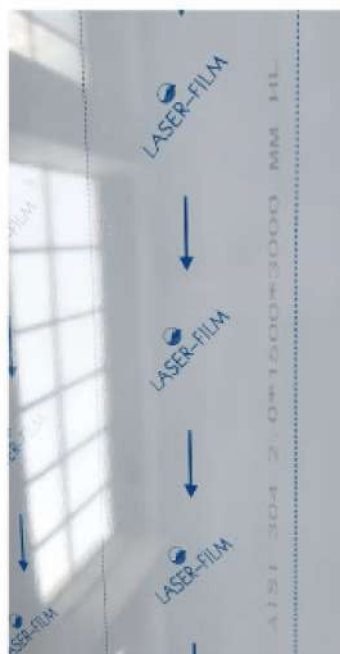
Sheet Quality Test



Length Detection



Thickness Detection



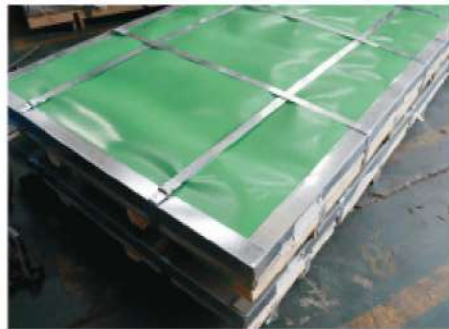
Marking Detection



Weight Detection

PACKING AND SHIPPING

- 1. Sheets packing:** Each two tons sheets be packed in full save wooden boxes / pallets.
- 2. Coil packing:** Wrapped by plastic cover, supported by wooden frame and iron steps.
- 3. Mark:** Label or printing at the surface of the packing with the details such as grade, dimension, surface finish, standard.



Export Packing & Reinforcing



SUNSCO GROUP & STEELSADRA (oahan)



بسته بندی / ارسال محصول





SUNSCO GROUP & STEELSADRA (oahan)

Welded Stainless Steel Round Tube
Welded Stainless Steel Square Tube
Welded Stainless Steel Rectangular Tube
Stainless Steel Special-shaped Pipe
Stainless Steel Sanitary Pipe
**Stainless Steel Welded Pipe For Boiler,
Heat Exchanger And Condenser**
Stainless Steel Industrial Pipe
Stainless Steel Seamless Pipe
Stainless Steel Round Bar
Stainless Steel Angle Bar
Stainless Steel Color Pipe
Stainless Steel Decorative Strip

Production line: 66

Annual output: 150000 Tons

Standards: ASTM-A554 / A270 / A249 / A269 / A312 / JIS G3448

Material: 304, 304L, 316L, 201J1, 201J4

Type: Round, Square, Rectangle, Flower, Color, Elliptic, Thread

Surface: 2B, No.1, No.4, HL, Mirror, 180#, 240#, 320#, 400#, 600#, 800#

Thickness: 0.25 ~ 14.0mm

Specification: 6 ~ 426mm 10 x 10mm ~ 200 x 200mm

Delivery time: 15 ~ 30 days, one container

Packing: each set of plastic bags, bundles or wooden box



SUNSCO 304

SUNSCO 304

SUNSCO 304

SUNSCO GROUP & STEELSADRA (oahan)



WELDED STAINLESS STEEL ROUND TUBE ASTM A554, EN10296-2, JIS G3446
SURFACE FINISHED: HL&GRIT 180#, 240#, 320#, 400#, MIRROR 400#, 600#, 800#

Thickness(mm)		0.40	0.50	0.60	0.70	0.80	0.90	1.00	1.20	1.50	2.00	2.50	3.00	3.50
Outside Diameter														
(Inch)	(mm)													
5/16"	8.00													
3/8"	9.53													
	10.00													
7/16"	11.11													
	12.00													
1/2"	12.70													
	14.00													
5/8"	15.90													
	18.00													
3/4"	19.10													
	20.5(20)													
7/8"	22.22(22)													
	23.5(23)													
1"	25.40													
1-1/8"	28.60													
	30.00													
	29.00													
1-1/4"	31.80													
	32.00													
1-3/8"	35.00													
1-1/2"	38.10													
	40.00													
1-5/8"	41.30													
	42.00													
1-3/4"	44.50													
1-7/8"	47.60													
	48.30													
2"	50.8(50)													
2-1/8"	54.00													
2-1/4"	57.00													
2-3/8"	60.30													
2-1/2"	63.50													
3"	76.20													
	80.00													
3-1/2"	88.90													
4"	101.60													
4-1/4"	108.00													
4-1/2"	114.30													
5"	127.00													
	133.00													
	141.00													
6"	152.40													
	159.00													
6-5/8"	168.00													
8"	203.00													
	219.00													
	273.00													



Tolerance

Standards	Item	Tolerance Tube of outside diameter (mm)			Tolerance Tube of Thickness (mm)	Length (mm)
		O.D(mm)	W.T(mm)	Tolerance(mm)		
ASTM A554	<12.7	0.51~1.24	± 0.10	± 10.0%	+4.8 -0.0	
						≥ 12.7~25.4
	>1.65~3.40	± 0.25				
	>25.4~38.1	0.64~1.65	± 0.20			
		>1.65~3.40	± 0.25			
	>38.1~50.8	0.64~1.24	± 0.25			
		>1.24~2.11	± 0.28			
		>2.11~3.78	± 0.30			
	>50.8~63.5	0.81~1.65	± 0.30			
		>1.65~2.77	± 0.33			
		>2.77~4.19	± 0.36			
	>63.5~88.9	0.89~4.19	± 0.36			
>4.19		± 0.51				
>88.9~127.0	0.81~4.19	± 0.51				
	>4.19	± 0.64				
>127.0~190.5	1.24~6.35	± 0.64				
	>6.35	± 0.76				
>190.5~406.4	± 1.0%D					
GB/T 12770	<25.0	± 0.15		± 10.0%	+20.0 -0.0	
	≥ 25.0~<40.0	± 0.18				
	≥ 40.0~<50.0	± 0.20				
	≥ 50.0~<60.0	± 0.23				
	≥ 60.0~<70.0	± 0.30				
	≥ 70.0~<80.0	± 0.30				
	≥ 80.0~<90.0	± 0.30				
	≥ 90.0~<100.0	± 0.40				
	≥ 100.0~<200.0	± 0.5%D				
	≥ 200.0	协议By agreement				
JIS G3446	<50.00	± 0.25		<3.0± 0.3	+50.0	
	≥ 50.00	± 0.5%		≥ 3.0± 10.0%	-0.0	



SUNSCO GROUP & STEELSADRA (oahan)



WELDED STAINLESS STEEL SQUARE TUBE ASTM A554, EN10296-2, JIS G3446
SURFACE FINISHED: HL&GRIT 180#, 240#, 320#, 400#, MIRROR 400#, 600#, 800#

Thickness(mm)		0.40	0.50	0.60	0.70	0.80	0.90	1.00	1.20	1.50	2.00	2.50	3.00	3.50
Outside Diameter														
(Inch)	(mm)													
5/16"x5/16"	10x10													
	12x12													
1/2"x1/2"	12.7x12.7													
	15x15													
5/8"x5/8"	15.9x15.9													
	17x17													
3/4"x3/4"	18x18													
	19x19													
7/8"x7/8"	20x20													
	22x22													
1"x1"	23x23													
	25x25													
1-1/4"x1-1/4"	30x30													
	31.8x31.8													
1-3/8"x1-3/8"	35x35													
1-1/2"x1-1/2"	38x38													
	40x40													
1-3/4"x1-3/4"	45x45													
	48x48													
2"x2"	50x50													
	60x60													
3"x3"	70x70													
	76.2x76.2													
4"x4"	80x80													
	90x90													
4"x4"	100x100													
	120x120													
	150x150													





WELDED STAINLESS STEEL RECTANGULAR TUBE ASTM A554, EN10296-2, JIS G3446
SURFACE FINISHED: HL&GRIT 180#, 240#, 320#, 400#, MIRROR 400#, 600#, 800#

Thickness(mm)														
Outside Diameter		0.40	0.50	0.60	0.70	0.80	0.90	1.00	1.20	1.35	1.50	1.80	2.00	2.70
(Inch)	(mm)													
	20x10													
	23x11													
	24x12													
	25x13													
	28x13													
	30x15													
	30x20													
	34x22													
	36x33													
	38x25													
1/2"x1"	40x20													
1"x1 1/2"	40x30													
1"x2"	48x23													
	50x20													
	50x25													
	60x15													
	60x30													
	60x40													
	75x40													
	80x40													
	80x60													
	95x45													
	100x40													
	100x50													
	100x60													
2"x3"	120x40													
	120x60													
2"x4"	150x100													

Square and Rectangular Tube Tolerance

Standards	Item	Max Radii of Corners (mm)		Tolerance Tube of Outside Diameter (mm)	
		W.T(mm)	Radii of Corners, Max (mm)	O.D(mm)	Tolerance(mm)
ASTM A554		>0.51~1.24	2.4	≤31.8	± 0.38
		>1.24~1.65	3.2	>31.8~63.5	± 0.51
		>1.65~2.11	3.6	>63.5~139.7	± 0.76
		>2.11~2.42	4.8	>139.7~203.2	± 1.52
		>2.42~2.77	5.2	Twist Tolerance (mm)	
		>2.77~3.40	5.6	O.D(mm)	Tolerance(mm)
		>3.40~3.96	6.4	<12.7	1.4
		>3.96~5.05	9.5	>12.7~38.1	2.1
		>5.08~6.35	12.7	>38.1~63.5	2.6
		>6.35~9.53	19.1	>63.5~101.6	3.5
				>101.6~152.4	6.9
				>152.4	10.4

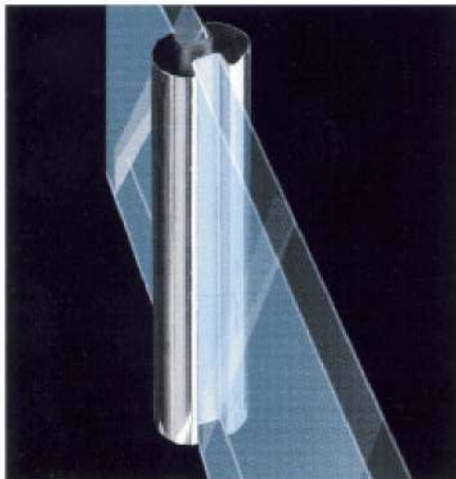
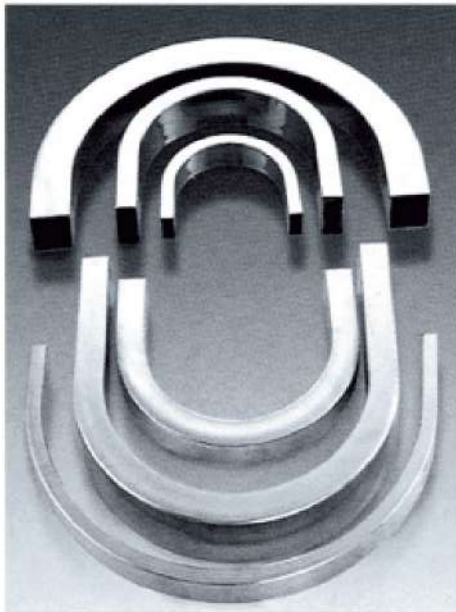
SUNSCO GROUP & STEELSADRA (oahan)



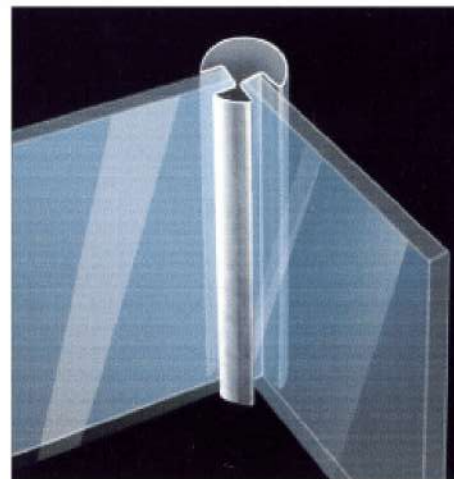
STAINLESS STEEL SPECIAL-SHAPED PIPE

ASTM A554, EN10296-2, JIS G3446

SURFACE FINISHED: SATIN/HL GRIT 180#, 240#, 320#, 400#, POLISH/MIRROR 400#, 600#, 800#



Installation diagram of 180° double-slot tube




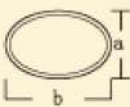

Installation diagram of 90° double-slot tube


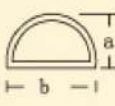
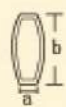
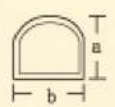

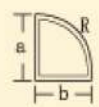












Installation diagram of 90° double-slot tube

Name	Diameter	Slot Size
Single Slot Round Tube 	25.4	14x14
	38.1	15x15
	50.8	15x15
	42.4	24x24
	48.3	27x30
	60	24x24
	60.3	34x34
	63.5	20x20
	101.6	26.7x23x26.7

Name	Diameter	Slot Size
Single Slot Oval Tube 	80x40	24x24
	80x40	33x26
	40x110	33x26
Single Slot Square Tube 	25x21	14x14
	60x40	24x24
	40x40	24x24

Name	Specification(axb)	Figure
OVAL PIPE	9.6x15	40x80
	10x20	60x90
	14x22	55x95
	12.5x22.5	46x100
	12x24	30x100
	13x23	48x107
	17x21	58x118
	14.5x25	70x105
	14x28	50x120
	16x26	80x120
	17x25	63x133
	15x30	50x150
	13x33	25x48
	20x30	20x50
	25x40	30x45
	16x44	75x49
	25x38	19x25
	20x40	15x22
	28x57	20x35
	30x57	40x110
35x53		
30x60		
43x58		
40x60		
35x65		
30x70		
37x76		
45x75		
48x76		
Name	Specification(axb)	Figure
FLAT OVAL PIPE	7x16	25x45
	8x16	20x58
	8x20	30x60
	10x20	20x70
	12x23	25x80
	13x22	35x80
	12x24	40x75
	15x25	40x96
	8x30	50x110
	16x28	20x50
	15x30	45x95
	17x25	14x28
19x38		
14x43		
25x35		
15x41		
20x40		

Name	Specification(axb)	Figure
TRIANGLE PIPE	25x25x25	
	33x33x33	
	39x39x39	
Name	Specification(axb)	Figure
SEMICIRCULAR PIPE	8x12	
	15x25	
	15x30	
	20x40	
	23.5x47	
	30x60	
38x79		
Name	Specification(axb)	Figure
TWO FACES ARCH PIPE	15x27	
	20x35	
	20.5x39	
	25.5x38	
	25x40	
Name	Specification(axb)	Figure
ARCH PIPE	12x12	
	13x25	
	15x22	
	50x100	
	29.5x19.5	
	25x40	
	30x60	
	31.7x36.3	
	40x07	
Name	Specification(axb)	Figure
BREAD-SHAPED PIPE	20x27	
	26x34	
	30x40	
	42x52	
	57x66	
Name	Specification(axb)	Figure
FAN-SHAPED PIPE	11x11x15	
	22x22x30	
	30x30x40	
	33x33x45	
	45x45x60	

Name	Specification(axb)	Figure
MOUTH PIPE	12x23	
	25x39	
Name	Specification(axb)	Figure
HORSESHOE PIPE	63x43	
	72x52	
	107x54	
Name	Specification(axb)	Figure
ISOSCELES TRAPEZOID PIPE	23x26x29	
	22x37x27	
Name	Specification(axb)	Figure
HEXAGONAL PIPE	17x19	
	19x22	
	22x25	
	31x32	
	33x38	
	49x50	
	55x63	
	67x76	
Name	Specification(axb)	Figure
HANDRAIL PIPE	64x49	
	80x45	
	75x35	
	80x40	
	59x31	

SUNSCO GROUP & STEELSADRA (oahan)

STAINLESS STEEL WELDED PIPE FOR BOILER, HEAT EXCHANGER AND CONDENSER ASTM A269, ASTM A249, EN10217-7, JIS G3446, DIN 17457

Outside Diameter		Thickness (mm)										
		0.80	1.00	1.20	1.24	1.50	1.65	2.00	2.11	2.50	2.77	3.05
inch	mm				18GA		16GA		14GA		12GA	11GA
	9.50	☆	☆	☆	☆	☆	☆					
1/2"	12.70	☆	☆	☆	☆	☆	☆					
5/8"	15.88	☆	☆	☆	☆	☆	☆	☆	☆	☆		
	18.00	☆	☆	☆	☆	☆	☆	☆	☆	☆		
3/4"	19.10	○	○	○	○	○	○	○	○	☆		
	21.34	○	○	○	○	○	○	○	○	☆		
7/8"	22.20	○	○	○	○	○	○	○	○	☆		
1"	25.40	○	○	○	○	○	○	○	○	☆		
1-1/8"	28.60	○	○	○	○	○	○	○	○	☆		
1-1/4"	31.80	○	○	○	○	○	○	○	○	☆		
	33.40	○	○	○	○	○	○	○	○	☆		
	35.00	○	○	○	○	○	○	○	○	☆	☆	☆
1-1/2"	38.10	○	○	○	○	○	○	○	○	☆	☆	☆
	41.30	○	○	○	○	○	○	○	○	☆	☆	☆
	42.16	○	○	○	○	○	○	○	○	☆	☆	☆
1-3/4"	44.50	○	○	○	○	○	○	○	○	☆	☆	☆
	48.60	○	○	○	○	○	○	○	○	☆	☆	☆
2"	50.80	○	○	○	○	○	○	○	○	☆	☆	☆
	57.00	○	○	○	○	○	○	○	○	☆	☆	☆
	60.30		○	○	○	○	○	○	○	☆	☆	☆
2-1/2"	63.50			○	○	○	○	○	○	☆	☆	☆
	70.00			○	○	○	○	○	○	☆	☆	☆
3"	76.20			○	○	○	○	○	○	☆	☆	☆
	85.00			○	○	○	○	○	○	☆	☆	☆
3-1/2"	88.90					○	○	○	○	☆	☆	☆
4"	101.60					○	○	○	○	☆	☆	☆
4-1/2"	114.30					△	△	△	△	☆	☆	☆

☆ A269 Can Produce ○ A249/A269 Can Produce △ Only inside bead removed

- Materials: SUS304, SUS304L, SUS316L
- Surface Finish: Pickled surface, 180#-600#
- Application: The product is applicable in construction of the high/super-high pressure power boiler, the superheating steam tube, the boiling water pipe and the superheating tube for locomotive boiler.

Tolerance

Standards	Item	Tolerance Tube of Outside Diameter (mm)	Tolerance Tube of Thickness (mm)	Length (mm)
ASTM A269	<38.1	± 0.13	OD<12.7 ± 15.0% OD≥ 12.7 ± 10.0%	OD<38.1 +3.20 -0.00 OD≥38.1 +4.00 -0.00
	≥ 38.1~88.9	± 0.25		
	≥ 88.9~139.7	± 0.38		
	≥ 139.7~203.2	± 0.76		
	≥ 203.2~304.8	± 1.01		
	≥ 304.8~355.6	± 1.26		
ASTM A249	<25.4	± 0.10	± 10.0%	OD<50.8 +3.00 -0.00 OD≥50.0 +5.00 -0.00
	≥ 25.4~38.1	± 0.15		
	≥ 38.1~50.8	± 0.20		
	≥ 50.8~63.5	± 0.25		
	≥ 63.5~76.2	± 0.30		
	≥ 76.2~101.6	± 0.38		
	≥ 101.6~190.5	+0.38 -0.64		
	≥ 190.5~228.6	+0.38 -1.14		



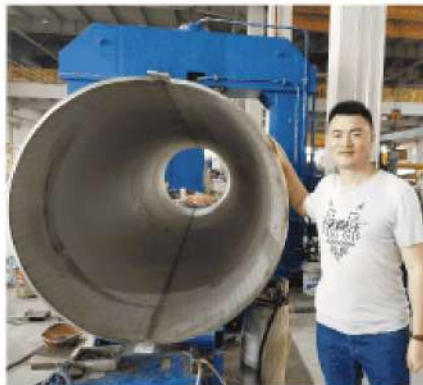
SUNSCO GROUP & STEELSADRA (oahan)

STAINLESS STEEL INDUSTRIAL PIPE ASTM A312, ASTM A358 , ASTM A790, ASTM A928

Grade: 304, 304L, 316L, 2205, 310S

ASTM A312、A778(B36.19)

Nominal Outside Diameter		OD(mm)	Thickness(mm)		
NPS	inch	O.D	5S	10S	40S
8	1/4"	13.7	1.24	1.65	2.24
10	3/8"	17.2	1.24	1.65	2.31
15	1/2"	21.3	1.65	2.11	2.77
20	3/4"	26.7	1.65	2.11	2.87
25	1"	33.4	1.65	2.77	3.38
32	1-1/4"	42.2	1.65	2.77	3.65
40	1-1/2"	48.3	1.65	2.77	3.68
50	2"	60.3	1.65	2.77	3.91
65	2-1/2"	73.0	2.11	3.05	5.16
80	3"	88.9	2.11	3.05	5.49
90	3-1/2"	101.6	2.11	3.05	5.74
100	4"	114.3	2.11	3.05	6.02
125	5"	141.3	2.77	3.40	6.55
150	6"	168.3	2.77	3.40	7.11
200	8"	219.1	2.77	3.76	8.18
250	10"	273.1	3.40	4.19	9.27
300	12"	323.9	3.96	4.57	9.53
350	14"	355.6	3.96	4.78	9.53
400	16"	406.4	4.19	4.78	9.53
450	18"	457.2	4.19	4.78	9.53
500	20"	508.0	4.78	5.54	9.53
550	22"	558.8	4.78	5.54	-
600	24"	609.6	5.54	6.35	9.53
650	26"	660.4	7.92	9.53	12.70
700	28"	711.2	7.92	9.53	12.70
-	30"	762.0	7.92	9.53	12.70
800	32"	812.8	7.92	9.53	12.70
-	34"	863.6	7.92	9.53	12.70
900	36"	914.4	7.92	9.53	12.70
-	38"	965.2	-	9.53	12.70
1000 2000	40" 80"	1016.0 2032.0	Nominal diameter and wall thickness subject to the approval of vendor and purchaser.		



EN 10217-7 Stainless Steel Pipe For Liquid Delivery

Thickness	1.20	1.60	2.00	2.30	2.60	2.90	3.20	3.60	4.00	4.50	5.00	5.60	6.30	7.10	8.00	8.80	10.00	11.00	12.50	14.20	
Gauge																					
13.50																					
17.20																					
21.30																					
26.90																					
33.70																					
42.40																					
48.30																					
60.30																					
76.10																					
88.90																					
101.60																					
114.30																					
139.70																					
168.30																					
219.10																					
273.00																					
323.90																					
365.60																					
406.40																					
457.00																					
508.00																					
610.00																					

Tolerance

Item	Outside Diameter Tolerance (mm)	Tolerance of Thickness (mm)	Bending (mm)	Length (mm)
ASTM A312	≤ 48.26 $+0.4 -0.8$ $> 48.26 \sim \leq 114.3$ $+0.8 -0.8$ $> 114.3 \sim \leq 219.08$ $+1.6 -0.8$ $> 219.08 \sim \leq 457.2$ $+2.4 -0.8$ $> 457.2 \sim \leq 660.4$ $+3.2 -0.8$ $> 660.4 \sim \leq 863.6$ $+4.0 -0.8$ > 863.2 $+4.48 -0.8$	$\pm 12.5\%$	6.4mm/6.0m	$+6.0$ -0.0 $+50.0$ -0.0
EN 10217-7	$D_1 \leq 168.3$ $D_1 \pm 0.50\%$ or $\pm 0.1\text{mm}$ $D_2 > 168.3$ $D_2 \pm 1\%$	$\pm 10.0\%$	3.0mm/m	$L \leq 6.0\text{m}$ $+5.0 -0.0$ $6.0\text{m} <$ $L < 12.0\text{m}$ $+10.0 -0.0$ $L > 12.0\text{m}$ By agreement

Application: Products are widely applicable in the area of chemical, industry, petroleum, paper making, energy, sewage engineering and etc.



SUNSCO GROUP & STEELSADRA (oahan)

STAINLESS STEEL SEAMLESS PIPE ASTM A312

Nominal Pipe Size Chart - Nominal Pipe Dimension in Milimeter(mm)										
Inch	DN in mm	OD	5	5S	10	10s	20	30	40	40s
1/8"	6	10.3			1.24	1.24			1.73	1.73
1/4"	8	13.7			1.65	1.65			2.24	2.24
3/8"	10	17.1			1.65	1.65		1.85	2.31	2.31
1/2"	15	21.3	1.65	1.65	2.11	2.11		2.41	2.77	2.77
3/4"	20	26.7	1.65	1.65	2.11	2.11		2.41	2.87	2.87
1"	25	33.4	1.65	1.65	2.77	2.77		2.90	3.38	3.38
1-1/4"	32	42.2	1.65	1.65	2.77	2.77		2.97	3.56	3.56
1-1/2"	40	48.3	1.65	1.65	2.77	2.77		3.18	3.68	3.68
2"	50	60.3	1.65	1.65	2.77	2.77		3.18	3.91	3.91
2-1/2"	65	73	2.11	2.11	3.05	3.05		4.78	5.16	5.16
3"	80	88.9	2.11	2.11	3.05	3.05		4.78	5.49	5.49
3-1/2"	90	101.6	2.11	2.11	3.05	3.05		4.78	5.74	5.74
4"	100	114.3	2.11	2.11	3.05	3.05		4.78	6.02	6.02
5"	125	141.3	2.77	2.77	3.40	3.40			6.55	6.55
6"	150	168.3	2.77	2.77	3.40	3.40			7.11	7.11
8"	200	219.1	2.77	2.77	3.76	3.76	6.35	7.04	8.18	8.18
10"	250	273	3.40	3.40	4.19	4.19	6.35	7.80	9.27	9.27
12"	300	323.8	3.96	3.96	4.57	4.57	6.35	8.38	10.31	9.53
14"	350	355.6	3.96	3.96	6.35	4.78	7.92	9.53	11.13	9.53
16"	400	406.4	4.19	4.19	6.35	4.78	7.92	9.53	12.70	9.53
18"	450	457	4.19	4.19	6.35	4.78	7.92	11.13	14.27	9.53
20"	500	508	4.78	4.78	6.35	5.54	9.53	12.70	15.09	9.53
22"	550	559	4.78	4.78	6.35	5.54	9.53	12.70		
24"	600	610	5.54	5.54	6.35	6.35	9.53	14.27	17.48	9.53
26"	650	660			7.92		12.70			
28"	700	711			7.92		12.70	15.88		
30"	750	762	6.35	6.35	7.92	7.92	12.70	15.88		
32"	800	813			7.92		12.70	15.88	17.48	
34"	850	864			7.92		12.70	15.88	17.48	
36"	900	914			7.92		12.70	15.88	19.05	
38"	950	965								
40"	1000	1016								
42"	1050	1067								
44"	1100	1118								
46"	1150	1168								
48"	1200	1219								

ASME B36.10M-2015: Welded and Seamless Wrought Steel Pipe

ASME B36.19M-2004: Stainless Steel Pipe (For 5S,10S,40S and 80S)



Std	60	80	80s	XS	100	120	140	160	XXS
1.73		2.41	2.41	2.41					
2.24		3.02	3.02	3.02					
2.31		3.20	3.20	3.20					
2.77		3.73	3.73	3.73				4.78	7.47
2.87		3.91	3.91	3.91				5.56	7.82
3.38		4.55	4.55	4.55				6.35	9.09
3.56		4.85	4.85	4.85				6.35	9.70
3.68		5.08	5.08	5.08				7.14	10.16
3.91		5.54	5.54	5.54				8.74	11.07
5.16		7.01	7.01	7.01				9.53	14.02
5.49		7.62	7.62	7.62				11.13	15.24
5.74		8.08	8.08	8.08					16.15
6.02		8.56	8.56	8.56		11.13		13.49	17.12
6.55		9.53	9.53	9.53		12.70		15.88	19.05
7.11		10.97	10.97	10.97		14.27		18.26	21.95
8.18	10.31	12.70	12.70	12.70	15.09	18.26	20.62	23.01	22.23
9.27	12.70	15.09	12.70	12.70	18.26	21.44	25.40	28.58	25.40
9.53	14.27	17.48	12.70	12.70	21.44	25.40	28.58	33.32	25.40
9.53	15.09	19.05	12.70	12.70	23.83	27.79	31.75	35.71	
9.53	16.66	21.44	12.70	12.70	26.19	30.96	36.53	40.49	
9.53	19.05	23.83	12.70	12.70	29.36	34.93	39.67	45.24	
9.53	20.62	26.19	12.70	12.70	32.54	38.10	44.45	50.01	
9.53	22.23	28.58		12.70	34.93	41.28	47.63	53.98	
9.53	24.61	30.96	12.70	12.70	38.89	46.02	52.37	59.54	
9.53				12.70					
9.53				12.70					
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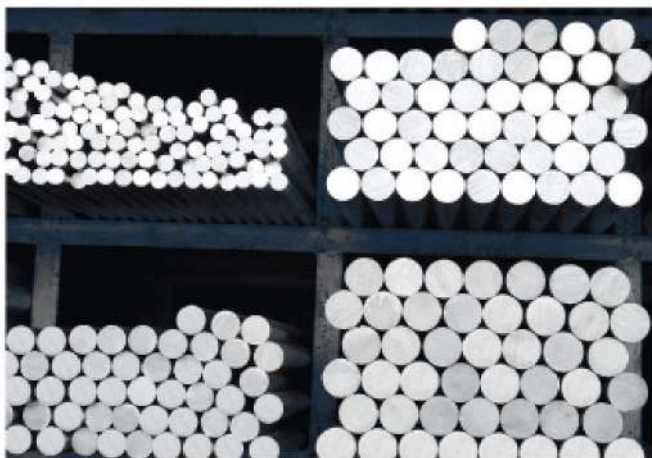


SUNSCO GROUP & STEELSADRA (oahan)

STAINLESS STEEL ROUND BAR

MASTM A484 / 484M / A276

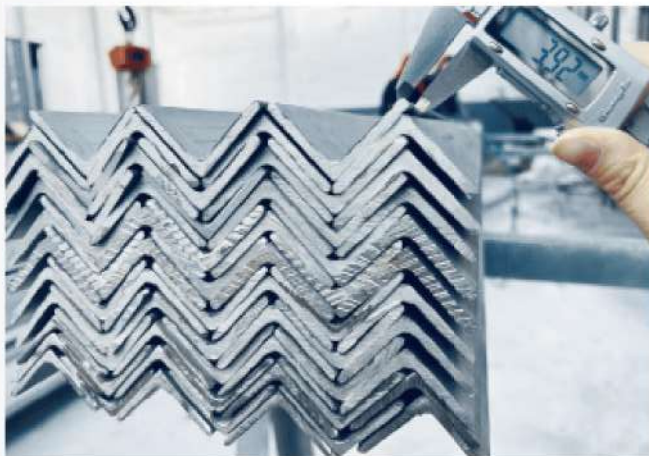
Diameter mm	Theory weight (kg/m)	Diameter mm	Theory weight (kg/m)	Diameter mm	Theory weight (kg/m)
Φ 2	0.025	Φ 15	1.402	Φ 34	7.202
Φ 3	0.056	Φ 16	1.595	Φ 35	7.632
Φ 4	0.100	Φ 18	2.019	Φ 36	8.074
Φ 5	0.156	Φ 19	2.249	Φ 38	8.996
Φ 6	0.224	Φ 20	2.492	Φ 40	9.968
Φ 7	0.305	Φ 22	3.015	Φ 42	10.990
Φ 8	0.399	Φ 24	3.588	Φ 45	12.616
Φ 9	0.505	Φ 25	3.894	Φ 46	13.183
Φ 10	0.623	Φ 27	4.542	Φ 48	14.354
Φ 11	0.754	Φ 28	4.884	Φ 50	15.575
Φ 12	0.897	Φ 30	5.607	Φ 55	18.846
Φ 14	1.221	Φ 32	6.380	Φ 60	22.428



STAINLESS STEEL ANGLE BAR

MASTM A484 / 484M / A276

Width mm	Weight (kg/m)	Thickness (mm)								
		3	4	5	6	7	8	9	10	12
20x20	0.89	1.14	1.39							
25x25	1.13	1.45	1.77							
30x30	1.36	1.71	2.17							
40x40	1.85	2.41	2.97	3.49						
50x50		3.07	3.79	4.46						
60x60			4.58	5.42	6.24	7.03				
63x63			5.03	5.95	6.84	7.71				
65x65			5.15	6.19	7.22	8.25				
70x70			5.42	6.42	7.39	8.34				
75x75			5.82	6.89	7.95	8.97	10.00	11.00		
80x80				7.37	8.50	9.61	10.70	11.80		
90x90				8.33	9.65	10.90	12.20	13.40	15.90	
100x100				9.28	10.80	12.20	13.60	15.00	17.80	



SUNSCO GROUP & STEELSADRA (oahan)

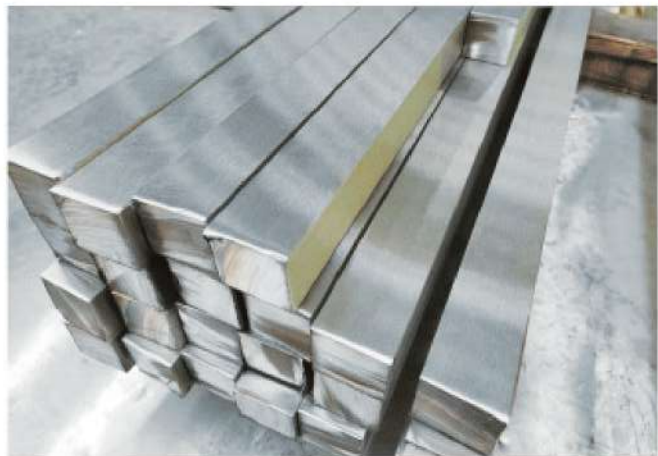
STAINLESS STEEL SQUARE BAR

Material Grade: 201, 202, 301, 302, 303, 304, 304L, 309, 310S, 316, 316L, 316Ti, 321, 410, 420, 416, 430, 431, 2205, 630 etc.

Surface: Black, Pickled, Hair-line, Polished, Mirror

Length: 2 to 6.1 meters

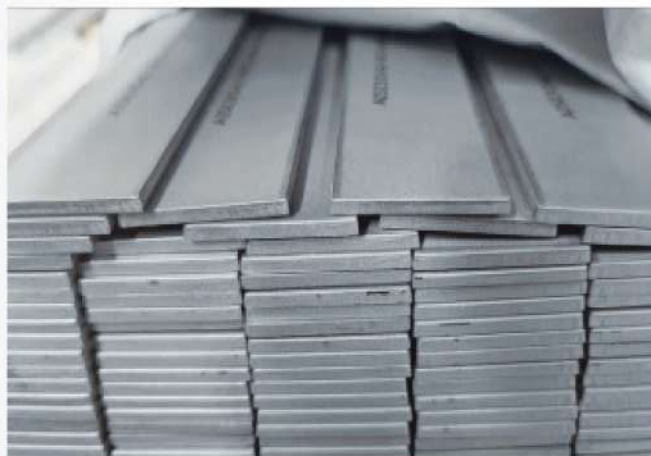
Size mm	Theory weight (kg/m)	Size mm	Theory weight (kg/m)	Size mm	Theory weight (kg/m)	Size mm	Theory weight (kg/m)
3×3	0.071	15×15	1.784	30×30	7.137	60×60	28.548
4×4	0.127	16×16	2.03	32×32	8.12	63×63	31.474
5×5	0.198	17×17	2.292	34×34	9.167	67×67	35.598
6×6	0.285	18×18	2.569	35×35	9.714	70×70	38.857
7×7	0.389	19×19	2.863	38×38	11.451	75×75	44.606
8×8	0.508	20×20	3.172	40×40	12.688	80×80	50.752
9×9	0.642	21×21	3.497	42×42	13.989	85×85	52.294
10×10	0.793	22×22	3.838	45×45	16.058	90×90	64.233
11×11	0.96	24×24	4.568	48×48	18.271	95×95	71.568
12×12	1.142	25×25	4.956	50×50	19.825	100×100	79.3
13×13	1.34	26×26	5.361	53×53	22.275		
14×14	1.554	28×28	6.217	56×56	24.868		



STAINLESS STEEL FLAT BAR

MASTM A484 / 484M / A276

Width mm	Weight(kg/m)											
	Thickness (mm)											
	3	4	5	6	8	10	12	14	16	20	25	30
10	0.238	0.32	0.40	0.48	0.63							
15	0.36	0.48	0.59	0.71	0.95	1.19						
20	0.476	0.63	0.79	0.95	1.27	1.59	1.90					
25	0.585	0.79	0.99	1.19	1.59	1.98	2.38					
30	0.714	0.95	1.19	1.43	1.90	2.38	2.85	3.33	3.81	4.758	5.948	
40	0.952	1.27	1.59	1.90	2.54	3.17	3.81	4.44	5.08	6.34	7.93	9.52
50	1.19	1.59	1.98	2.38	3.17	3.97	4.76	5.55	6.34	7.93	9.91	11.90
60	1.428	1.9	2.38	2.85	3.81	4.76	5.71	6.66	7.61	9.52	11.90	14.27
70		2.22	2.78	3.33	4.44	5.55	6.66	7.77	8.88	11.1	13.88	16.65
80			3.17	3.81	5.08	6.34	7.61	8.88	10.15	12.69	15.86	19.03
90			3.57	4.28	5.71	7.14	8.56	9.99	11.42	14.27	17.84	21.41
100			3.97	4.76	6.34	7.93	9.52	11.10	12.69	15.86	19.82	23.79
110				5.23	6.98	8.72	10.47	12.21	13.96	17.45	21.81	26.17
120				5.71	7.61	9.52	11.42	13.32	15.23	19.03	23.79	28.55
130				6.19	8.25	10.31	12.37	14.43	16.49	20.62	25.77	30.93
140				6.66	8.88	11.10	13.32	15.54	17.76	22.20	27.76	33.31
150				7.14	9.52	11.90	14.27	16.65	19.03	23.79	29.74	35.69
160				7.61		12.69	15.23	17.76	20.30	25.38	31.72	38.06
170						13.48	16.18	18.87	21.57	26.96	33.70	40.44
180						14.27	17.13	19.98	22.84	28.55	35.69	42.82



SUNSCO GROUP & STEELSADRA (oahan)

TABLE OF THE CHEMICAL COMPOSITION OF STAINLESS STEEL PIPE & TUBE

Standard		Chemical Composition(%)								
		C	Si	Mn	P	S	Ni	Cr	Mo	N
ASTM	304	≤ 0.08	≤ 0.75	≤ 2.00	≤ 0.045	≤ 0.03	8.0-10.5	18.0-20.0	--	≤ 0.1
	304L	≤ 0.03	≤ 0.75	≤ 2.00	≤ 0.045	≤ 0.03	8.0-12.0	18.0-20.0	--	≤ 0.1
	316	≤ 0.08	≤ 0.75	≤ 2.00	≤ 0.045	≤ 0.03	10.0-14.0	16.0-18.0	2.0-3.0	≤ 0.1
	316L	≤ 0.03	≤ 0.75	≤ 2.00	≤ 0.045	≤ 0.03	10.0-14.0	16.0-18.0	2.0-3.0	≤ 0.1
	430	≤ 0.12	≤ 1.00	≤ 1.00	≤ 0.040	≤ 0.03	≤ 0.75	16.0-18.0	--	--
GB	06Cr19Ni10	≤ 0.08	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.03	8.0-11.0	18.0-20.0	--	--
	022Cr19Ni10	≤ 0.03	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.03	8.0-12.0	18.0-20.0	--	--
	06Cr17Ni12Mo2	≤ 0.08	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.03	10.0-14.0	16.0-18.0	2.0-3.0	--
	022Cr17Ni12Mo2	≤ 0.03	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.03	10.0-14.0	16.0-18.0	2.0-3.0	--
	10Cr17	≤ 0.12	≤ 1.00	≤ 1.00	≤ 0.040	≤ 0.03	≤ 0.60	16.0-18.0	--	--
EN	X5CrNi18-10/1.4301	≤ 0.07	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.015	8.0-10.5	17.5-19.5	--	≤ 0.11
	X2CrNi18-9/1.4307	≤ 0.03	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.015	8.0-10.0	17.5-19.5	--	≤ 0.11
	X5CrNiMo17-12-2/1.4401	≤ 0.07	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.015	10.0-13.0	16.5-18.5	2.0-3.0	≤ 0.11
	X2CrNiMo17-12-2/1.4404	≤ 0.03	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.015	10.0-13.0	16.5-18.5	2.0-3.0	≤ 0.11
	X6Cr17/1.4016	≤ 0.08	≤ 1.00	≤ 1.00	≤ 0.040	≤ 0.015	--	16.0-18.0	--	--

STAINLESS STEEL MECHANICAL PROPERTIES

Grade	Tensile Strength	Yield Strength	Elongation	Hardness	Solution Annealing	
	Kgf/mm ² (N/mm ²)	Kgf/mm ² (N/mm ²)	%	HRB(HV)		
ASTM	TP304	≥ 53 (515)	≥ 21 (205)	≥ 35	≤ 90 (200)	1040~1150°C Water Quenching
	TP304L	≥ 50 (485)	≥ 17 (170)	≥ 35	≤ 90 (200)	
	TP316	≥ 53 (515)	≥ 21 (205)	≥ 35	≤ 90 (200)	
	TP316L	≥ 50 (485)	≥ 17 (170)	≥ 35	≤ 90 (200)	
GB	06Cr19Ni10	≥ 53 (520)	≥ 21 (210)	≥ 35	≤ 90 (200)	1010~1150°C Water Quenching
	022Cr19Ni10	≥ 49 (480)	≥ 21 (180)	≥ 35	≤ 90 (200)	
	06Cr17Ni12Mo2	≥ 53 (520)	≥ 21 (210)	≥ 35	≤ 90 (200)	
	022Cr17Ni12Mo2	≥ 59 (480)	≥ 18 (180)	≥ 35	≤ 90 (200)	
EN	X5CrNi18-10/1.4301	(500~700)	≥ 20 (195)	≥ 40	≤ 90 (200)	1000~1100°C Water Quenching
	X2CrNi18-9/1.4307	(470~670)	≥ 18 (180)	≥ 40	≤ 90 (200)	
	X5CrNiMo17-12-2/1.4401	(510~710)	≥ 21 (205)	≥ 40	≤ 90 (200)	1020~1120°C Water Quenching
	X2CrNiMo17-12-2/1.4404	(490~690)	≥ 19 (195)	≥ 40	≤ 90 (200)	

STAINLESS STEEL PIPE WEIGHT CALCULATION FORMULA

Type			Density(g/cm ³)	Calculation Method
ASTM	GB	EN		
304	06Cr19Ni10	1.4301	7.93	W=0.02491*t*(D-t)
304L	022Cr19Ni10	1.4307		
316	06Cr17Ni12Mo2	1.4401	7.98	W=0.02507*t*(D-t)
316L	022Cr17Ni12Mo2	1.4404		

W: Weight(kg/m) D: Outside Diameter(mm) t: Wall Thickness(mm)

STAINLESS STEEL PLATE WEIGHT CALCULATION FORMULA

Type			Density(q/cm^3)	Caulation Method
ASTM	GB	EN		
304	06Cr19Ni10	1.4301	7.93	W.T=T*W*L*D
304L	022Cr19Ni10	1.4307		
316	06Cr17Ni12Mo2	1.4401	7.98	W.T=T*W*L*D
316L	022Cr17Ni12Mo2	1.4404		

W • T: Weight(kg/m) W: (width) T: Wall Thickness(mm) L: Length(m) D: Density(kg/m³)

STAINLESS STEEL PIPE PRESSURE CALCULATION FORMULA

Type			Caulation Method
ASTM	GB	EN	
304	06Cr19Ni10	1.4301	P=(2SR)/D
304L	022Cr19Ni10	1.4307	
316	06Cr17Ni12Mo2	1.4401	
316L	022Cr17Ni12Mo2	1.4404	

P: Mpa S= Nominal W.T(mm) D= Nominal O.D(mm) 1Mpa=10kh/cm
R=50% Yield Strength(Mpa)



SURFACE FINISH

Item	Round Tube		Coll., Sheet and Plate	
	Surface	Description	Surface	Description
Surface	MF	As welded	NO.1	Hot-rolled annealed and pickled. Surface presents silvery white, lackluster and coarseness.
	180#	Buffed after polishing by 180#		
	400#	Buffed after polishing by 400#		
	600#	Buffed after polishing by 600#	2D	Non-glossy cold-rolled, annealed and pickled. Surface presents silvery white glossiness and flatness.
	H.L	Hairline finished after polishing 180#/240#		
	Square & Rectangle Tube		2B	Skinpass conducted on 2D, It has better gloss and surfsce flatness compared to NO.2D.
	Surface	Description		
	MF	As welded	NO.3	Polished with abrasive belt of grit#100-#120
	180#	Buffed after polishing by 180#		
	400#	Buffed after polishing by 400#	NO.4	Polished with abrasive belt of grit#150-#180
600#	Buffed after polishing by 600#			
		H.L	Polished with abrasive belt of grit#150-#320 on the No.4 finish and has continuous streaks.	