



# YEUN CHYANG

ISO 9001  
允強實業

PIPE

TUBE

PIPE

TUBE

PIPE

TUBE

PIPE

TUBE

PIPE

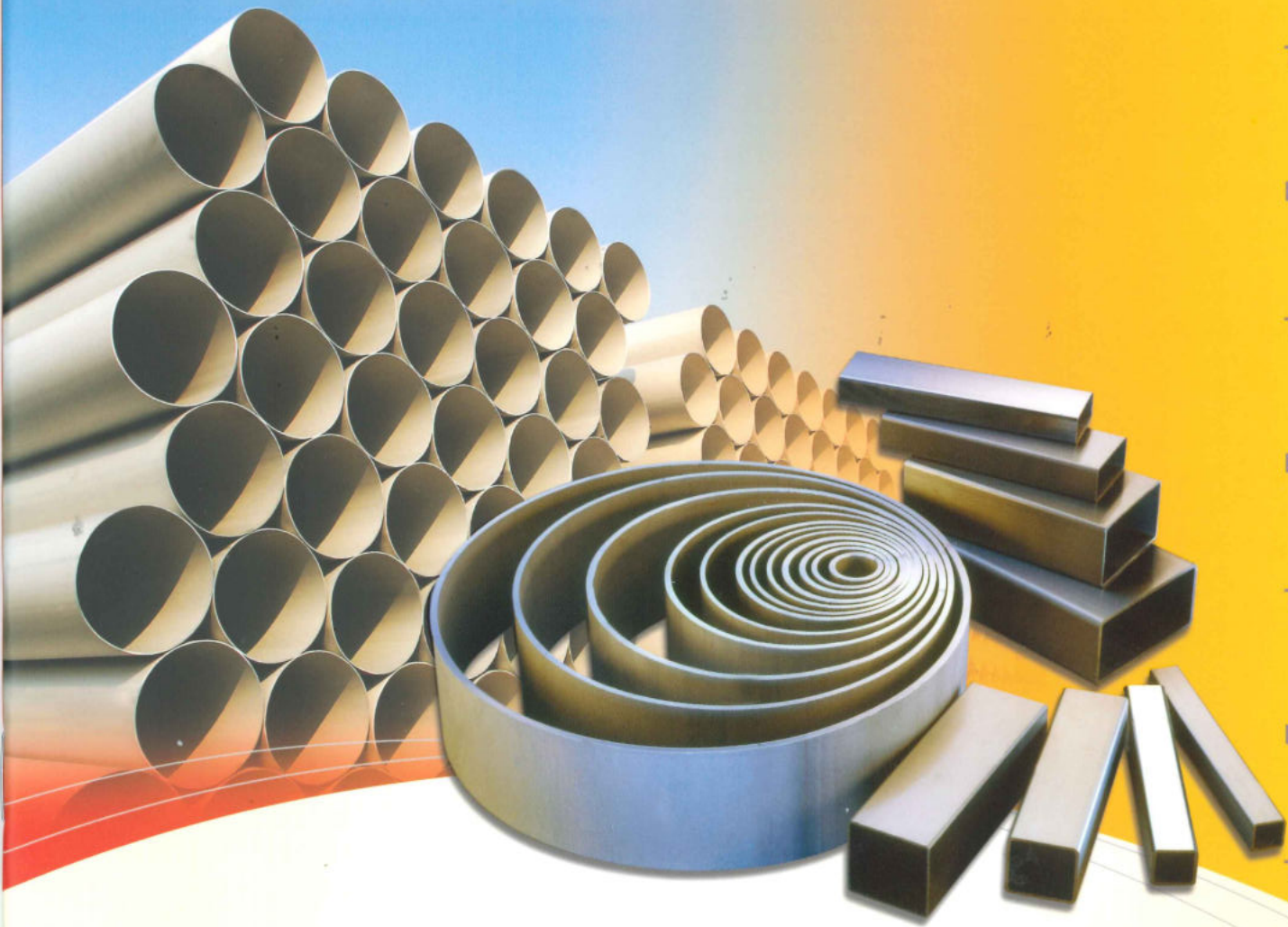
TUBE

PIPE

TUBE

PIPE

TUBE



Your Choice for Stainless.

## 公司沿革 Company History



經營理念：

「創新突破、追求卓越；  
品質第一、回饋社會」

董事長

張清課

CEO

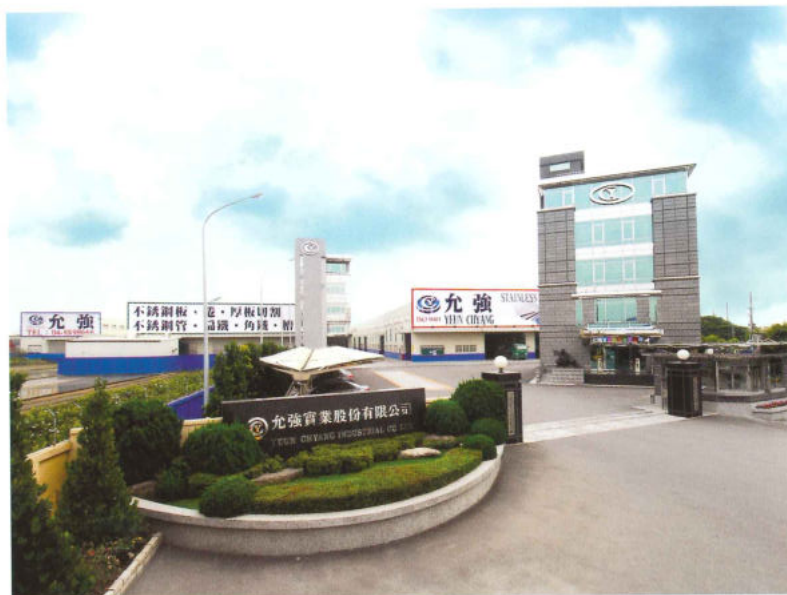
C.K. Chang

### CORPORATE MISSION STATEMENT:

TO BE A WORLD CLASS SUPPLIER OF INNOVATIVE STAINLESS STEEL PRODUCTS; CONTINUALLY PURSUING EXCELLENCE, PUTTING QUALITY FIRST AND CONTRIBUTING TO SOCIETY.



總公司 Headquarters



溪州廠 Shijou Mill (面積約area about 43,000m<sup>2</sup>)

# Company History

- 新建斗六廠專業不銹鋼冷軋裁剪中心完成，產能增為12,000公噸/月。
- 改善製程，增購設備，不銹鋼管產能增為8,000公噸/月。
- 新建溪州廠技術大樓竣工完成。
- 資本額增資為31.56億。

2007 96年

- New coil service center established for CR, capacity of 12,000 tons monthly.
- Improved production procedure. Facility and equipment upgraded. Capacity for stainless steel pipes & tubes increased to 8,000 tons/month.
- New Technical Center established in Headquarter.
- Capital increased to NTD 3.156 billion (USD \$940 million).

- 溪州廠新建不銹鋼熱軋厚板裁剪中心完成，產能3,000公噸/月。
- 增購設備，不銹鋼管產能增為6,000公噸/月；不銹鋼薄板產能增為6,000公噸/月。
- 資本額增資為12.6億。

2005 94年

- Coil service center established for HR, capacity of 3,000 tons monthly.

2004 93年

- 新建不銹鋼薄板裁剪中心，產能為3,000公噸/月。
- 股票轉上市。

- Facility and equipment upgraded. Capacity for stainless steel pipes & tubes increased to 6,000 tons/month. Capacity for stainless steel sheets increased to 6000 tons/month.
- Capital increased to NTD 1.26 billion (USD \$381 million).

2003 92年

- Established new service center for stainless steel sheets. Capacity 3,000 tons/month.

2001 90年

- 溪州廠建廠完成，不銹鋼管產能增為5,000公噸/月。
- 股票開始上櫃買賣，資本額增資為9.456億。

- Converted to public company from public OTC company.

2000 89年

- Shijou Mill was established. Stainless steel pipe and tube capacity increased to 5,000 tons/month.

1999 88年

- 大口徑一體成型擴充生產尺寸至66"。

- Public listed in OTC company. Capital increased to NTD 945.6 million.

1997 86年

- Welded pipe forming to 66" O.D.

- 通過經濟部標準檢驗局ISO9002認證。

1994 83年

- Authorized by ISO 9002.

- 通過經濟部標準檢驗局CNS正字標記。

1989 78年

- "CNS" specification of stainless steel pipe and tube was approved.

- 允強實業股份有限公司成立，資本額1980萬。

1973 62年

- Yeun Chyang Industrial Co., Ltd. was established, and owned capital of NTD 19.8 million.



埔心廠 Puoshing Mill (面積約area about 33,000m<sup>2</sup>)

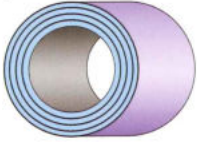


斗六廠 Douliou Mill (面積約area about 72,700m<sup>2</sup>)

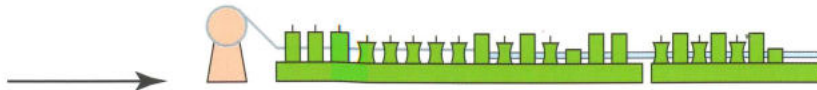
# 生產流程

## Manufacturing Process

Pipe/Tube by Coils  
(20"以下 Under 20")

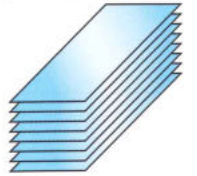


鋼捲  
Stainless Steel Coil

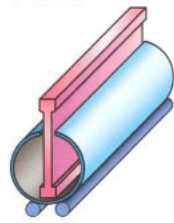


製管熔接 (熱處理)  
Automatic Electric Fusion Welding Pipe Mill/  
Inside Bead Removal On-Line Heat Treating

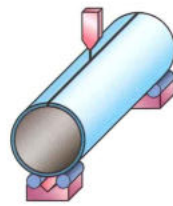
Pipe/Tube/Flat Bar by Pics  
(14"以上 Above 14")



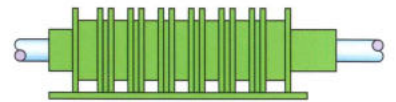
鋼板  
Stainless Steel Plate



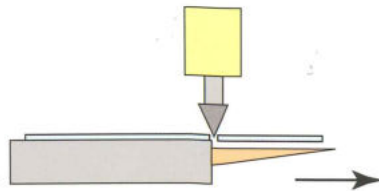
成型  
Forming



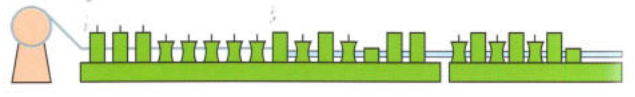
自動熔接  
Automatic Electric  
Fusion Welding



固溶化熱處理  
Solid - Solution Heat Treating



剪床  
Plate Shearing Machine

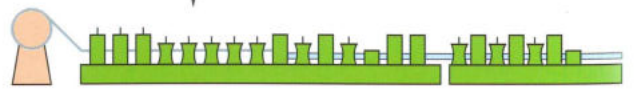


冷作扁鐵成型  
Cold-Worked Forming of Flat Bar

Angle/Flat Bar by Coils

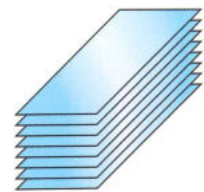


鋼捲  
Stainless Steel Coil

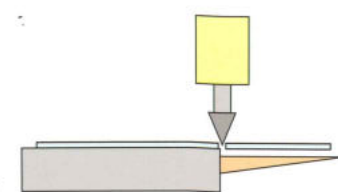


冷作等邊角鐵成型  
Cold-Worked Forming of Angle

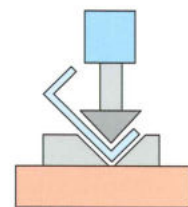
Channel/Angle by Pics



鋼板  
Stainless Steel Plate

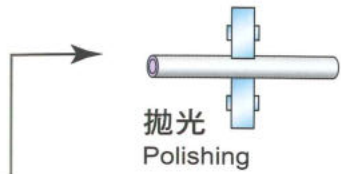


剪床  
Plate Shearing Machine



彎折成型  
Press Brake

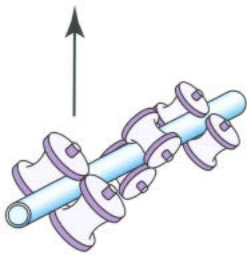
# Manufacturing Processes



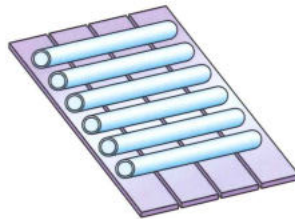
拋光  
Polishing



酸洗 Pickling



圓管、矯直  
Sizing / Straightening



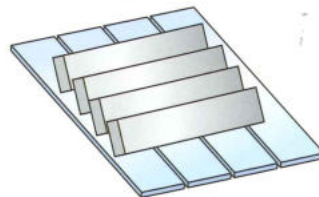
檢查  
Inspection



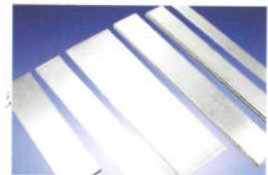
構造管成品  
Tube Product



配管成品  
Pipe Product



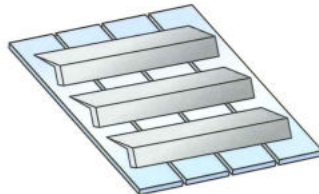
檢查  
Inspection



扁鐵成品  
Flat Bar Product



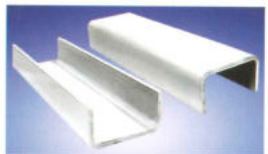
拋光 Polishing



角鐵成品  
Angle Product



檢查  
Inspection



槽鐵成品  
Channel Product

# 品質保證

Quality Assurance



		09
01		08 10
02 03 04		11 12
05 06 07		13 14

- 01 渦電流檢測系統(Eddy-current Test System)
- 02 小區域光澤度計(Small Area Glossmeter)
- 03 肥粒鐵含量測定儀(Ferritscope)
- 04 表面粗糙度計(Surface Roughness Tester)
- 05 液滲探傷(Liquid Penetrant Test)
- 06 移動式分光儀(Mobile Alloy Analyzer)
- 07 水壓試驗機(Hydrostatic Equipment)
- 08 實驗室分光儀(Spark Spectrometer)
- 09 試片(Specimens)
- 10 萬能材料試驗機(Universal Testing Machine)
- 11 硬度測試儀(Hardness Tester)
- 12 金相組織測試設備(Metallurgy Microscopic Structure Equipment)
- 13 即時射線檢測系統(Real Time Radiographic Examination System)
- 14 腐蝕試驗設備(Etching Test Equipment)



# Quality Assurance



# 生產設備

Main Equipment





# 環保設備

## Environmental Equipment

01	05		
02		07	08
03	06	09	
04		10	

- 01 線上中週波熱處理機(On line MF Induction Solid Solution Annealing Furnace)
- 02 14"~ 66"成型機(14"~ 66" Forming Roller)
- 03 2000噸NC折床(Press Brake Machine)
- 04 20呎油壓剪床(Plate Shear Machine)
- 05 固溶化熱處理機(Solid Solution Annealing Furnace(UP to 66"))
- 06 20" 製管機(20" Continuous Pipe mill)
- 07 廢棄廢水處理操作控制系統  
(Exhaust and Waste Water Treating Operating and Controlling System)
- 08 廢水處理系統(Waste Water Treating System)
- 09 廢氣洗滌塔(Exhaust Scrubber)
- 10 廢氣、廢水處理設備(Exhaust and Waste Water Treating Equipment)



**工業配管用不銹鋼鋼管** Stainless Steel Pipes  
ASTM A312/A358/A778 , ANSI/ASME B36.19M

稱呼 Nominal Diameter NPS	外徑 Outside Diameter (mm)	Nominal Wall Thickness								
		Schedule 5S			Schedule 10S			Schedule 40S		
		厚度 Wall Thickness (mm)	重量Weight(kg/m) 鋼種 Grade		厚度 Wall Thickness (mm)	重量Weight(kg/m) 鋼種 Grade		厚度 Wall Thickness (mm)	重量Weight(kg/m) 鋼種 Grade	
			304 304L	316 316L		304 304L	316 316L		304 304L	316 316L
1/4"	13.72	-	-	-	1.65	0.50	0.50	2.24	0.64	0.64
3/8"	17.15	-	-	-	1.65	0.64	0.64	2.31	0.85	0.86
1/2"	21.34	1.65	0.81	0.81	2.11	1.01	1.02	2.77	1.28	1.29
3/4"	26.67	1.65	1.03	1.03	2.11	1.29	1.30	2.87	1.70	1.71
1"	33.40	1.65	1.30	1.31	2.77	2.11	2.13	3.38	2.53	2.54
1 1/4"	42.16	1.65	1.67	1.68	2.77	2.72	2.74	3.56	3.42	3.45
1 1/2"	48.26	1.65	1.92	1.93	2.77	3.14	3.16	3.68	4.09	4.11
2"	60.33	1.65	2.41	2.43	2.77	3.97	4.00	3.91	5.50	5.53
2 1/2"	73.03	2.11	3.73	3.75	3.05	5.32	5.35	5.16	8.72	8.78
3"	88.90	2.11	4.56	4.59	3.05	6.52	6.56	5.49	11.4	11.5
3 1/2"	101.60	2.11	5.23	5.26	3.05	7.49	7.54	5.74	13.7	13.8
4"	114.30	2.11	5.90	5.93	3.05	8.45	8.51	6.02	16.2	16.3
5"	141.30	2.77	9.56	9.62	3.4	11.7	11.8	6.55	22.0	22.1
6"	168.28	2.77	11.4	11.5	3.4	14.0	14.1	7.11	28.5	28.7
8"	219.08	2.77	14.9	15.0	3.76	20.2	20.3	8.18	43.0	43.2
10"	273.05	3.4	22.8	23.0	4.19	28.1	28.2	9.27	60.9	61.3
12"	323.85	3.96	31.6	31.8	4.57	36.3	36.6	9.52	74.5	75.0
14"	355.60	3.96	34.7	34.9	4.78	41.8	42.0	-	-	-
16"	406.40	4.19	42.0	42.2	4.78	47.8	48.1	-	-	-
18"	457.20	4.19	47.3	47.6	4.78	53.9	54.2	-	-	-
20"	508.00	4.78	59.9	60.3	5.54	69.3	69.8	-	-	-
22"	558.80	4.78	66.0	66.4	5.54	76.4	76.8	-	-	-
24"	609.60	5.54	83.4	83.9	6.35	95.4	96.0	-	-	-
30"	762.00	6.35	119.5	120.3	7.92	148.8	149.7	-	-	-
32"	8128	厚度(Thickness) : 6.35~30mm								
		生產規格/厚度買賣雙方協議之								
80"	20320	Nominal diameter and wall thickness subject to the approval of vendor and purchaser								

**鍋爐熱交換器用不銹鋼鋼管**

Welded Austenitic Stainless Steel Tubes for Boiler,  
Heat-Exchanger, General Service Tubing  
ASTM A249/A269 , JIS G3463 CNS 7383

外徑 Outside Diameter	厚度 Thickness (mm)	Gage					
		1.20	1.24	1.50	1.65	2.00	2.11
in	mm		18		16		14
1"	25.4						
1 1/4"	31.8						
1 1/2"	38.1						
2"	50.8						
2 1/2"	63.5						
3"	76.2						
3 1/2"	88.9						
4"	101.6						
4 1/2"	114.3						

**食品衛生用不銹鋼鋼管**

Welded Austenitic Stainless Steel Sanitary Tubing  
ASTM A270/A249, JIS G3447, CNS 6668, AS 1528

外徑 Outside Diameter	厚度 Thickness (mm)	Gage					
		1.20	1.24	1.50	1.65	2.00	2.11
in	mm						
-	25.0						
1"	25.4						
1 1/4"	31.8						
-	35.0						
-	38.0						
1 1/2"	38.1						
2"	50.8						
2 1/2"	63.5						
3"	76.2						
3 1/2"	88.9						
4"	101.6						
4 1/2"	114.3						

工業配管用不銹鋼鋼管 Stainless Steel Pipes  
JIS G3459, CNS 6331

稱呼 Nominal Diameter		外徑 Outside Diameter (mm)	Nominal Wall Thickness											
A	B		Schedule 5S			Schedule 10S			Schedule 20S			Schedule 40		
			厚度 Wall Thickness (mm)	重量Weight(kg/m) 鋼種 Grade		厚度 Wall Thickness (mm)	重量Weight(kg/m) 鋼種 Grade		厚度 Wall Thickness (mm)	重量Weight(kg/m) 鋼種 Grade		厚度 Wall Thickness (mm)	重量Weight(kg/m) 鋼種 Grade	
				304 304L	316 316L		304 304L	316 316L		304 304L	316 316L		304 304L	316 316L
8	1/4	13.8	1.2	0.377	0.379	1.65	0.499	0.503	2.0	0.588	0.592	2.2	0.636	0.640
10	3/8	17.3	1.2	0.481	0.484	1.65	0.643	0.647	2.0	0.762	0.767	2.3	0.859	0.865
	1/2	20.4	1.65	0.771	0.776	2.0	0.917	0.923	2.5	1.11	1.12	2.8	1.22	1.22
15	1/2	21.7	1.65	0.824	0.829	2.1	1.03	1.03	2.5	1.20	1.20	2.8	1.32	1.33
	3/4	26.4	1.65	1.02	1.02	2.0	1.22	1.22	2.5	1.49	1.50	2.9	1.70	1.71
20	3/4	27.2	1.65	1.05	1.06	2.1	1.31	1.32	2.5	1.54	1.55	2.9	1.76	1.77
	1	33.4	1.65	1.30	1.31	2.8	2.13	2.15	3.0	2.27	2.29	3.4	2.54	2.56
25	1	34.0	1.65	1.33	1.34	2.8	2.18	2.19	3.0	2.32	2.33	3.4	2.59	2.61
32	1 1/4	42.7	1.65	1.69	1.70	2.8	2.78	2.80	3.0	2.97	2.99	3.6	3.51	3.53
40	1 1/2	48.6	1.65	1.93	1.94	2.8	3.19	3.21	3.0	3.41	3.43	3.7	4.14	4.16
50	2	60.5	1.65	2.42	2.43	2.8	4.02	4.05	3.5	4.97	5.00	3.9	5.50	5.53
65	2 1/2	76.3	2.1	3.88	3.91	3.0	5.48	5.51	3.5	6.35	6.39	5.2	9.21	9.27
80	3	89.1	2.1	4.55	4.58	3.0	6.43	6.48	4.0	8.48	8.53	5.5	11.5	11.5
90	3 1/2	101.6	2.1	5.20	5.24	3.0	7.37	7.42	4.0	9.72	9.79	5.7	13.6	13.7
100	4	114.3	2.1	5.87	5.91	3.0	8.32	8.37	4.0	10.99	11.06	6.0	16.2	16.3
125	5	139.8	2.8	9.56	9.62	3.4	11.6	11.6	5.0	16.8	16.9	6.6	21.9	22.0
150	6	165.2	2.8	11.3	11.4	3.4	13.7	13.8	5.0	20.0	20.1	7.1	28.0	28.1
200	8	216.3	2.8	14.9	15.0	4.0	21.2	21.3	6.5	34.0	34.2	8.2	42.5	42.8
250	10	267.4	3.4	22.4	22.5	4.0	26.2	26.4	6.5	42.2	42.5	9.3	59.8	60.2
300	12	318.5	4.0	31.3	31.5	4.5	35.2	35.4	6.5	50.5	50.8	10.3	79.1	79.6

大管徑配管用不銹鋼鋼管 Large Diameter Stainless Steel Pipes  
JIS G3468, CNS 13517

稱呼 Nominal Diameter		外徑 Outside Diameter (mm)	Nominal Wall Thickness											
A	B		Schedule 5S			Schedule 10S			Schedule 20S			Schedule 40		
			厚度 Wall Thickness (mm)	重量Weight(kg/m) 鋼種 Grade		厚度 Wall Thickness (mm)	重量Weight(kg/m) 鋼種 Grade		厚度 Wall Thickness (mm)	重量Weight(kg/m) 鋼種 Grade		厚度 Wall Thickness (mm)	重量Weight(kg/m) 鋼種 Grade	
				304 304L	316 316L		304 304L	316 316L		304 304L	316 316L		304 304L	316 316L
350	14	355.6	4.0	35.033	35.258	5.0	43.667	43.948	8.0	69.270	69.715	11.1	95.255	95.866
400	16	406.4	4.5	45.051	45.340	5.0	49.994	50.315	8.0	79.393	79.903	12.7	125	125
450	18	457.2	4.5	50.745	51.071	5.0	56.322	56.683	8.0	89.52	90.09	14.3	158	159
500	20	508.0	5.0	62.649	63.051	5.5	68.85	69.29	9.5	117.97	118.73	15.1	185	187
550	22	558.8	5.0	68.98	69.42	5.5	75.80	76.29	9.5	129.99	130.82	15.9	215	216
600	24	609.6	5.5	82.76	83.30	6.5	97.65	98.28	9.5	142.01	142.92	17.5	258	260
650	26	660.4	5.5	89.72	90.30	8.0	130	131	12.7	205	206	17.5	280	282
700	28	711.2	5.5	96.68	97.31	8.0	140	141	12.7	221	222	17.5	302	304
750	30	762.0	6.5	122	123	8.0	150	151	12.7	237	239	17.5	325	327
800	32	812.8	-	-	-	8.0	160	161	12.7	253	255	17.5	347	349
850	34	863.6	-	-	-	8.0	171	172	12.7	269	271	17.5	369	371
900	36	914.4	-	-	-	8.0	181	182	12.7	285	287	19.1	426	429
1000	40	1016.0	-	-	-	9.5	238	240	14.3	357	359	26.2	646	650
1050	42	1066.8	厚度(Thickness) : 6.35~30mm 生產規格/厚度買賣雙方協議之 Nominal diameter and wall thickness subject to the approval of vendor and purchaser											
1650	80	1676.4												

## 機械構造用不銹鋼鋼管 Stainless Steel Tubes for Mechanical and Structural Purposes

ASTM A554, JIS G3446, CNS 5802

外徑 Outside Diameter	厚度 Thickness																
	mm	0.6	0.7	0.8	0.9	1.0	1.20	1.25	1.50	1.60	1.65	2.00	2.11	2.5	3.00	3.05	
in	in mm	0.0236	0.0276	0.0315	0.0354	0.0394	0.0472	0.0492	0.0591	0.0630	0.0650	0.0787	0.0831	0.0984	0.1181	0.1201	
	9.5	△	△	△	△	△	△	△									
	10	△	△	△	△	△	△	△									
	12	△	△	△	△	△	△	△	△								
1/2"	12.7	△	△	△	△	△	△	△	△	△	△						
	14	△	△	△	△	△	△	△	△	△	△						
4/3"	15.9	○	○	○	○	○	○	○	○	○	○	○					
	18	○	○	○	○	○	○	○	○	○	○	○	○				
5/8"	19	○	○	○	○	○	○	○	○	○	○	○	○				
	20	○	○	○	○	○	○	○	○	○	○	○	○				
7/8"	22.2	○	○	○	○	○	○	○	○	○	○	○	○				
1"	25.4		○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	26.9		○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	28		○	○	○	○	○	○	○	○	○	○	○	○	○	○	
1 1/8"	28.6		○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	30		○	○	○	○	○	○	○	○	○	○	○	○	○	○	
1 1/4"	31.8		○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	33.7		*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	35			○	○	○	○	○	○	○	○	○	○	○	○	○	
1 1/2"	38.1			○	○	○	○	○	○	○	○	○	○	○	○	○	
	40				○	○	○	○	○	○	○	○	○	○	○	○	
	41.28				○	○	○	○	○	○	○	○	○	○	○	○	
	42.4								○	○	○	○	○	○	○	○	
	44.45								○	○	○	○	○	○	○	○	
	48.26								○	○	○	○	○	○	○	○	
2"	50.8								○	○	○	○	○	○	○	○	
	54								○	○	○	○	○	○	○	○	
	57								○	○	○	○	○	○	○	○	
2 1/2"	63.5								○	○	○	○	○	○	○	○	
	70								○	○	○	○	○	○	○	○	
3"	76.2								○	○	○	○	○	○	○	○	
3 1/2"	88.9									○	○	○	○	○	○	○	
4"	101.6									○	○	○	○	○	○	○	
4 1/2"	114.3									△	△	△	△	△	△	△	
	127											*	*	*	*	*	
	139.7													*	*	*	

**Remark**

(1) Marking : 產品規格(Product SPEC.)

(2) 表面(Finish) : (\* : Polish#180/#320) ; (△ : Polish#180/#320/#400) ; (○ : Polish#180/#320/#400/#600)

(3) Upon Request

## 一般配管用不銹鋼鋼管(壓接管)

Light Gauge Stainless Steel Pipes for Ordinary Piping  
JIS G3448, CNS 13392

外徑 Outside Diameter	Su	13	20	25	30	40	50	60	75	80	100	125	150	200	250	300
	mm	15.88	22.22	28.58	34.0	42.7	48.6	60.5	76.3	89.1	114.3	139.8	165.2	216.3	267.4	318.5
厚度 Thickness (mm)		0.8	1.0	1.0	1.2	1.2	1.2	1.5	1.5	2.0	2.0	2.0	3.0	3.0	3.0	3.0

**方管** Stainless Steel Square Tubes  
ASTM A554

外徑 Outside Diameter		厚度 Thickness (mm)	Thickness (mm)													
			0.6	0.7	0.8	0.9	1.0	1.2	1.5	1.6	2.0	2.5	3.0	4.00	5.00	6.00
in	mm						1.25	1.50	1.65	2.11		3.05				
1/2" x 1/2"	12.7x12.7	*	*	*	*	*	*	*	*	*						
-	15.0x15.0	*	*	*	*	*	*	*	*	*						
-	18.0x18.0	△	△	△	△	△	△	△	△	△						
3/4" x 3/4"	19.0x19.0		△	△	△	△	△	△	△	△	△					
-	20.0x20.0		*	*	*	*	*	*	*	*						
-	25.0x25.0		△	△	△	△	△	△	△	△	△	△				
1" x 1"	25.4x25.4		△	△	△	△	△	△	△	△	△	△				
-	30.0x30.0		△	△	△	△	△	△	△	△	△	△				
1 1/4" x 1 1/4"	31.8x31.8				△	△	△	△	△	△	△	△				
1 1/2" x 1 1/2"	38.1x38.1				△	△	△	△	△	△	△	△				
-	40.0x40.0					△	△	△	△	△	△	△				
-	50.0x50.0						△	△	△	△	△	△	*	*		
2" x 2"	50.8x50.8						△	△	△	△	△	△	*	*		
-	60.0x60.0							△	△	△	△	△	*	*		
-	70.0x70.0							△	△	△	△	△	*	*	*	
-	75.0x75.0							△	△	△	△	△	*	*	*	
-	80.0x80.0							△	△	△	△	△	*	*	*	
-	90.0x90.0									△	△	△	*	*	*	
-	100.0x100.0									△	△	△	*	*	*	
Remark		(1)Marking : 產品規格(Product SPEC.) (2)表面(Finish) : (* : Polish#180/#320) ; (△ : Polish#180/#320/#400)														

**長方管** Stainless Steel Rectangular Tubes  
ASTM A554

外徑 Outside Diameter		厚度 Thickness (mm)	Thickness (mm)											
			0.8	0.9	1.0	1.2	1.5	1.6	2.0	2.5	3.0	4.0	5.0	6.0
					1.25	1.5	1.65	2.11		3.05				
10x20		*	*	*	*	*	*							
12x25			*	*	*	*	*							
15x30			*	*	*	*	*	*						
20x40			△	△	△	△	△	△						
22.4x28.3				△	△	△	△	△	△	△				
25x38				△	△	△	△	△	△	△				
25x50				△	△	△	△	△	△	△				
25x75					△	△	△	△	△	△				
30x60				△	△	△	△	△	△	△	*	*		
40x60					△	△	△	△	△	△				
40x80						△	△	△	△	△	*	*		
45x75						△	△	△	△	△	*	*		
45x95						△	△	△	△	△	*	*	*	
50x100						△	△	△	△	△	*	*	*	*
Remark		(1)Marking : 產品規格(Product SPEC.) (2)表面(Finish) : (* : Polish#180/#320) ; (△ : Polish#180/#320/#400)												

## 不銹鋼角鐵

Stainless Steel Angles

外徑 Outside Diameter		厚度 Thickness (mm)															
		1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0   9.0	10.0   13.0	15.0   16.0	20.0   22.0	25.0			
in	AxB mm																
"	20x20																
7/8"	22x22																
1"	25x25	*	*	*	*												
-	30x30	*	*	*	*												
1"	31.8x31.8	*	*	*	*												
-	38x38	*	*	*	*												
1"	40x40	*	*	*	*												
2"	50x50		*	*	*												
2"	65x65																
3"	75x75																
-	AxB				A ≥ 20 B ≥ 20	A ≥ 25 B ≥ 25	A ≥ 32 B ≥ 32	A ≥ 45 B ≥ 45	A ≥ 70 B ≥ 70	A ≥ 88 B ≥ 88	A ≥ 115 B ≥ 115	A ≥ 135 B ≥ 135					
		(1)A,B最大值(max.) ≤ 737 (2)A=B or A≠B															
Remark		(1)Marking : Mill Finish Products (2)* : 拋光產品#180/#400(Polish Products#180/#400)															

## 不銹鋼扁鐵

Stainless Flat Bar

ASTM A484

外徑 Outside Diameter (mm)		厚度 Thickness (mm)															
		2.0	3.0	4.0	5.0	6.0	8.0	9.0	10.0	12.0	13.0						
15																	
20			*	*	*	*											
25			*	*	*	*											
30			*	*	*	*											
38			*	*	*	*											
40			*	*	*	*	*	*	*								
50			*	*	*	*	*	*	*	*	*						
60			*	*	*	*	*	*	*	*	*	*	*				
65			*	*	*	*	*	*	*	*	*	*	*	*			
70			*	*	*	*	*	*	*	*	*	*	*	*	*		
75			*	*	*	*	*	*	*	*	*	*	*	*	*	*	
80			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
90			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
100			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
150			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
151~300																	
Remark		(1)Marking : Mill Finish Products (2)* : 拋光產品(Polish Products)															

歐規不銹鋼鋼管 Welded Circular Austenitic Stainless Steel Tubes  
EN 10217-7

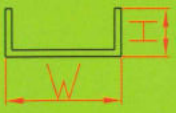
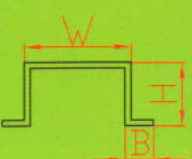
外徑 Outside Diameter(mm)	厚度 Thickness (mm)																				
	1.0	1.2	1.5	1.6	2.0	2.3	2.5	2.6	3.0	3.2	3.5	3.6	4.0	5.0	5.5	6.0	6.5	7.1	8.0	9.0	10.0
10	△	△																			
12	△	△	△																		
16	○	○	○	○	○																
17.2			*	*	*	*	*														
18	○	○	○	○	○																
20	○	○	○	○	○																
21.3		*	*	*	*	*	*	*	*												
22	○	○	○	○	○																
25	○	○	○	○	○	○	○	○	○												
26.9		*	*	*	*	*	*	*	*	*											
28	○	○	○	○	○	○	○	○	○	○											
30	○	○	○	○	○	○	○	○	○	○											
31.8	○	○	○	○	○	○	○	○	○	○											
32	○	○	○	○	○	○	○	○	○	○											
33.7			*	*	*	*	*	*	*	*	*	*	*								
35	○	○	○	○	○	○	○	○	○	○											
38	○	○	○	○	○	○	○	○	○	○											
38.1	○	○	○	○	○	○	○	○	○	○											
40	○	○	○	○	○	○	○	○	○	○											
42.4			*	*	*	*	*	*	*	*	*	*	*	*							
44.5	○	○	○	○	○	○	○	○	○	○											
48.3		○	○	○	○	○	○	○	○	○	*	*	*	*	*						
50.8		○	○	○	○	○	○	○	○	○											
51		○	○	○	○	○	○	○	○	○											
54		○	○	○	○	○	○	○	○	○											
57		○	○	○	○	○	○	○	○	○											
60.3		*	*	*	*	*	*	*	*	*	*	*	*	*	*						
63.5		○	○	○	○	○	○	○	○	○											
70		○	○	○	○	○	○	○	○	○											
76.1			○	○	○	○	○	○	○	○	*	*	*	*	*	*	*				
88.9			○	○	○	○	○	○	○	○	*	*	*	*	*	*	*	*	*		
101.6			○	○	○	○	○	○	○	○	*	*	*	*	*	*	*	*	*	*	*
114.3			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
139.7						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
168.3								*	*	*	*	*	*	*	*	*	*	*	*	*	*
219.1																					
273																					
323.9																					
355.6																					
406.4																					
457																					
508																					

**Remark**

(1) 橘色區塊(Orange Mark) : 無退火規格( No Anneal SPEC.)  
 (2) 表面( Finish ) : ( \* : Polish#180 / #320); ( △ : Polish#180/#320/#400); ( ○ : Polish#180/#320/#400/#600)  
 (3) 冷軋用料(CR Material) : 厚度(Thickness) 1.0~3.0mm  
 (4) 熱軋用料(HR Material) : 厚度 (Thickness) 3.0~10.0mm , 外徑(Outside Diameter) ≥ 219.1mm  
 (5) 外徑(Outside Diameter) ≤ 114.3mm , 亦可生產ASTM A554規範(Can Manufacture Follow ASTM A554)

不銹鋼槽鐵

Stainless Steel U Channel

槽鐵型式 U Channel Type	厚度Thickness t (mm)	3.0 4.0 5.0/6.0 8.0/9.0 10.0 12.0/13.0 15.0~19.0 20.0~25.0								
			高度Height H (mm)	最小值 Min.	20	25	32	45	50	65
	最大值 Max.		737							
	寬度Width W (mm)	$W \geq (H+25+t)$								
	邊幅Edge Width B (mm)	最小值 Min.	20	25	32	45	65	65	-	-
		最大值 Max.	50	50	50	100	100	100	-	-
	高度Height H (mm)	最小值 Min.	140	140	140	200	200	200	-	-
	寬度Width W (mm)	$W \geq (H+25+t)$								

## 食品衛生用及鍋爐熱交換器用不銹鋼鋼管

Welded Austenitic Stainless Steel Tubes for Heat-Exchanger, General Service & Food-Industrial Tubing  
ASTM A249, A269, JIS G3447 & G3463, CNS 6668, 7383

項目Item 規格Grade	外徑 Outside Diameter	厚度 Thickness	長度 Length
ASTM A249	$< 25 \text{ mm} + 0.10 \text{ mm} - 0.11 \text{ mm}$ $\geq 25 \text{ mm} \leq 40 \text{ mm} \pm 0.15 \text{ mm}$ $> 40 \text{ mm} < 50 \text{ mm} \pm 0.20 \text{ mm}$ $\geq 50 \text{ mm} < 65 \text{ mm} \pm 0.25 \text{ mm}$ $\geq 65 \text{ mm} < 75 \text{ mm} \pm 0.30 \text{ mm}$ $\geq 75 \text{ mm} \leq 100 \text{ mm} \pm 0.38 \text{ mm}$ $> 100 \text{ mm} \leq 200 \text{ mm} + 0.38 \text{ mm} - 0.64 \text{ mm}$ $> 200 \text{ mm} \leq 225 \text{ mm} + 0.38 \text{ mm} - 1.14 \text{ mm}$	$\pm 10 \%$	$\text{OD} < 50.8 \text{ mm} + 3.0 \text{ mm} - 0 \text{ mm}$ $\text{OD} \geq 50.8 \text{ mm} + 5.0 \text{ mm} - 0 \text{ mm}$
ASTM A269	$< 38.1 \text{ mm} \pm 0.13 \text{ mm}$ $\geq 38.1 \text{ mm} < 88.9 \text{ mm} \pm 0.25 \text{ mm}$ $\geq 88.9 \text{ mm} < 139.8 \text{ mm} \pm 0.38 \text{ mm}$ $\geq 139.8 \text{ mm} < 203.2 \text{ mm} \pm 0.76 \text{ mm}$	$\text{OD} < 12.7 \text{ mm} \pm 15 \%$ $\text{OD} \geq 12.7 \text{ mm} \pm 10 \%$	$\text{OD} < 38.1 \text{ mm} + 3.2 \text{ mm} - 0 \text{ mm}$ $\text{OD} \geq 38.1 \text{ mm} + 4.8 \text{ mm} - 0 \text{ mm}$
ASTM A270	$\leq 25.4 \text{ mm} \pm 0.13 \text{ mm}$ $> 25.4 \text{ mm} \leq 50.8 \text{ mm} \pm 0.20 \text{ mm}$ $> 50.8 \text{ mm} \leq 76.2 \text{ mm} \pm 0.25 \text{ mm}$ $> 76.2 \text{ mm} \leq 101.6 \text{ mm} \pm 0.38 \text{ mm}$ $> 101.6 \text{ mm} < 139.7 \text{ mm} \pm 0.38 \text{ mm}$	$\pm 12.5 \%$	$\text{OD} \leq 101.6 \text{ mm} + 3.2 \text{ mm} - 0 \text{ mm}$ $\text{OD} > 101.6 \text{ mm} + 4.8 \text{ mm} - 0 \text{ mm}$
CNS 6668 JIS G3447	$\leq 25.4 \text{ mm} \pm 0.15 \text{ mm}$ $> 25.4 \text{ mm} \leq 31.8 \text{ mm} \pm 0.16 \text{ mm}$ $> 31.8 \text{ mm} \leq 38.1 \text{ mm} \pm 0.19 \text{ mm}$ $> 38.1 \text{ mm} \leq 76.3 \text{ mm} \pm 0.25 \text{ mm}$ $> 76.3 \text{ mm} \leq 89.1 \text{ mm} + 0.30 \text{ mm} - 0.40 \text{ mm}$ $> 89.1 \text{ mm} \leq 101.6 \text{ mm} + 0.35 \text{ mm} - 0.40 \text{ mm}$ $> 101.6 \text{ mm} \leq 114.3 \text{ mm} + 0.40 \text{ mm} - 0.60 \text{ mm}$ $> 114.3 \text{ mm} \leq 139.8 \text{ mm} + 0.40 \text{ mm} - 0.80 \text{ mm}$ $> 139.8 \text{ mm} \leq 165.2 \text{ mm} + 0.40 \text{ mm} - 1.20 \text{ mm}$	$\pm 10 \%$	$+ 10 \text{ mm}$ $- 0 \text{ mm}$
CNS 7383 JIS G3463	$< 60 \text{ mm} \pm 0.25 \text{ mm}$ $\geq 60 \text{ mm} < 80 \text{ mm} \pm 0.30 \text{ mm}$ $\geq 80 \text{ mm} < 100 \text{ mm} \pm 0.40 \text{ mm}$ $\geq 100 \text{ mm} < 120 \text{ mm} + 0.40 \text{ mm} - 0.60 \text{ mm}$ $\geq 120 \text{ mm} < 160 \text{ mm} + 0.40 \text{ mm} - 0.80 \text{ mm}$ $\geq 160 \text{ mm} < 200 \text{ mm} + 0.40 \text{ mm} - 1.20 \text{ mm}$ $\geq 200 \text{ mm} + 0.40 \text{ mm} - 1.60 \text{ mm}$	$\text{OD} < 40 \text{ mm } t < 2 \text{ mm} + 0.4 \text{ mm} - 0$ $\text{OD} < 40 \text{ mm } t \geq 2 \text{ mm} + 20 \%$ $\text{OD} \geq 40 \text{ mm} + 22 \%$ $- 0$	$\text{OD} \leq 50 \text{ mm} + 7 \text{ mm} - 0 \text{ mm}$ $\text{OD} > 50 \text{ mm} + 10 \text{ mm} - 0 \text{ mm}$

## 歐規不銹鋼鋼管 EN10217-7

Welded Steel Tubes for Pressure Purposes

	外徑 Outside Diameter	厚度 Thickness	長度 Length
$D \leq 168.3$	D3 $\pm 0.75\%$ or $\pm 0.3 \text{ mm}$ 兩者取大值	T3 $\pm 10\%$ or $\pm 0.2 \text{ mm}$ 兩者取大值	$L \leq 6000 + 5 \text{ mm}, - 0 \text{ mm}$ $6000 < L \leq 12000 + 10 \text{ mm}, - 0 \text{ mm}$ $L > 12000 + \text{by agreement}, - 0 \text{ mm}$
	D4 $\pm 0.5\%$ or $\pm 0.1 \text{ mm}$ 兩者取大值		
$D > 168.3$	D2 $\pm 1.0\%$		

Tolerance Classes are According to EN ISO 1127 (D3/T3)



工業配管用不銹鋼鋼管 ASTM A312, JIS G3459, CNS 6331  
Stainless Steel Pipes

項目Item 規格Grade	外徑 Outside Diameter	厚度 Thickness	長度 Length
CNS 6331 JIS G3459	< 30.0 mm ±0.30 mm ≥ 30.0 mm ± 1 %	< 2 mm ±0.20mm ≥ 2 mm ±10%	指定長度 Definite Cut Lengths
ASTM A312	≤ 48.26 mm +0.40mm- 0.80mm > 48.26 mm ≤ 114.3 mm ±0.80mm > 114.3 mm ≤ 219.08mm +1.60mm- 0.80mm > 219.08 mm ≤ 457.2 mm +2.40mm- 0.80mm > 457.2 mm ≤ 660.4 mm +3.20mm- 0.80mm > 660.4 mm ≤ 863.6 mm +4.00mm- 0.80mm > 863.6 mm +4.80mm- 0.80mm	Nominal Thickness ±12.5%	+ 6.0 mm - 0 mm

一般配管用不銹鋼鋼管（壓接管） JIS G3448, CNS 13392  
Light Gauge Stainless Steel Pipe for Ordinary Piping

項目Item 規格Grade	外徑 Outside Diameter	厚度 Thickness	長度 Length
CNS 13392 JIS G3448	< 34.0 mm +0 mm -0.37 mm ≥ 34.0 mm < 42.7 mm ±0.34 mm ≥ 42.7 mm < 48.6 mm ±0.43 mm ≥ 48.6 mm < 60.5 mm ±0.49 mm ≥ 60.5 mm < 76.3 mm ±0.60 mm ≥ 76.3 mm ±1 %	0.7mm ~ 1.2 mm ± 0.12 mm 1.5 mm ± 0.15 mm 2.0 mm ± 0.30 mm 3.0 mm ± 0.40 mm	指定長度 Definite Cut Lengths

機械構造用不銹鋼鋼管 ASTM A554, JIS G3446, CNS 5802  
Stainless Steel Tubes for Mechanical & Structural Purposes

項目Item 規格Grade	外徑 Outside Diameter	厚度 Thickness	長度 Length
CNS 5802 JIS G3446	< 50.0 mm ±0.25mm ≥ 50.0 mm ±0.5 %	< 3 mm ± 0.3 mm ≥ 3 mm ± 10 %	+ 50.0 mm - 0 mm
ASTM A554	< 12.7 mm ±0.10mm ≥ 12.7 mm ≤ 25.4 mm ±0.13mm > 25.4 mm ≤ 38.1 mm ±0.20mm > 38.1 mm ≤ 50.8 mm ±0.25mm > 50.8 mm ≤ 63.5 mm ±0.30mm > 63.5 mm ≤ 88.9 mm ±0.36mm > 88.9 mm ≤ 127 mm ±0.51mm > 127 mm ≤ 190.5 mm ±0.64mm > 190.5 mm ≤ 406.4 mm 每增加 1" 公差±0.03mm	± 10 %	指定長度 Definite Cut Lengths

## 不銹鋼化學成分表

Table of the Chemical Composition of Stainless Steel Pipes & Tubes

規格 Grade		化學成分Chemical Composition(%)							
		C	Si	Mn	P	S	Ni	Cr	Mo
JIS	SUS 304 TP	≤ 0.08	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.03	8.00~11.00	18.00~20.00	
	SUS 304L TP	≤ 0.03	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.03	9.00~13.00	18.00~20.00	
	SUS 316 TP	≤ 0.08	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.03	10.00~14.00	16.00~18.00	2.00~3.00
	SUS 316L TP	≤ 0.03	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.03	12.00~16.00	16.00~18.00	2.00~3.00
ASTM	TP 304	≤ 0.08	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.03	8.00~11.00	18.00~20.00	
	TP 304L	≤ 0.035	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.03	8.00~13.00	18.00~20.00	
	TP 316	≤ 0.08	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.03	10.00~14.00	16.00~18.00	2.00~3.00
	TP 316L	≤ 0.035	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.03	10.00~14.00	16.00~18.00	2.00~3.00

## 不銹鋼管固溶化熱處理 Stainless Steel Solution Annealing Condition

JIS 規格		ASTM 規格		CNS 規格	
鋼種	固溶化處理 (°C)	鋼種	固溶化處理 (°C)	鋼種	固溶化處理 (°C)
SUS 304 TP	1010°C 以上急冷 Rapid Cooling	TP 304	1040°C 以上水急冷 Water Quenching	304 TP	1010°C 以上急冷 Rapid Cooling
SUS 304L TP		TP 304L		304L TP	
SUS 316 TP		TP 316		316 TP	
SUS 316L TP		TP 316L		316L TP	

## 不銹鋼管重量計算公式表

Calculating Formula for the Value of Mass

鋼種 Type		基本質量 Basic Mass(kg)	計算方式 Formula
SUS 304 TP    SUS 304L TP 304 TP        304L TP		7.93	$W = 0.02491 t (D - t)$
SUS 316 TP    SUS 316L TP 316 TP        316L TP		7.98	$W = 0.02507 t (D - t)$

W : 鋼管單位質量Weight(kg/m)    D : 鋼管外徑Outside Diameter(mm)    t : 鋼管厚度Wall Thickness(mm)

## 產品用途

產品項目 Item	重要用途 Application
不銹鋼管 Stainless Steel Welded Pipe/Tube	化工業、建築業、食品業、機械業、環保工程、消防工程、電信工程……等耐腐蝕、耐高溫、耐壓力用途。 Petro-chemical, Food and Machinery Industry, Construction for building, Environment, Fire and Telecom etc.
不銹鋼角鐵 Stainless Steel Angle	扶手、欄杆、防盜門窗、展示架……等。 Handrail, Banister, Display Rack, Frame etc.