

**TECH STAINLESS PTE LTD**

43 Joo Koon Circle, Singapore 629066

Tel : (+65) 6862 3188 • Fax : (+65) 6862 0685

www.techsing.com.sg • Email : sales@techsing.com.sg



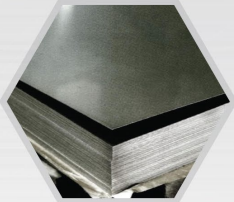
**TECH STAINLESS PTE LTD**

**bizSAFE**





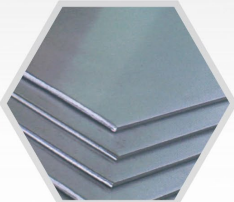
# ONLY THE BEST IN OUR EVERY ENDEAVOUR



Stainless Steel Sheet



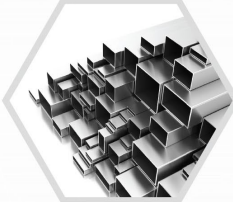
Stainless Steel Water Tube, "Tech Tube"



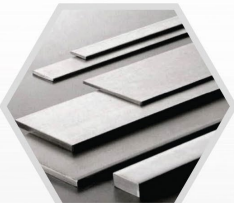
Stainless Steel Plate



Stainless Steel Slit Coil



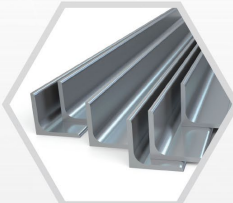
Stainless Steel Square & Rectangular Tube



Flat Bar



Stainless Steel Round Tube



Angle Bar



# ABOUT US

**TECH STAINLESS PTE LTD** is a subsidiary company of TECH INVESTMENT HOLDINGS PTE LTD, a stainless steel coil center in Singapore.

At Tech Stainless, we believe that understanding the needs and priorities of our customers is a key component of our craft. This we why, we make it our priority and are committed to serve our customers' every needs and wants. Pushing ourselves to always be dedicated in our field of work, we deliver results that will not only satisfy, but exceed expectations.

With quality stainless steel demand growing in the globalized world, we recognize that services to customers should be efficient, swift and should contain great value. As one of the primary exporters, we are able to provide a diverse range of products and value added services to suit your requirements in stainless steel coil and tube supply. With an extensive network at our fingertips, we thrive to deliver high quality products within the specifications and timeframe required by our

customers and this is something we are hugely proud of.

Customization is another value added service that we provide. So what are your specifications? What products suits you best? Our in-house technical team specializes in tailoring products and services to fit your every need. So look no further.

At Tech Stainless, we really are craftsmen, dedicated to producing excellent products of the highest quality. We implemented the strictest quality control over materials, manpower and technology to serve you better. Our production line is known to be one of the best in the market to ensure total satisfaction of our customers, and overall confidence of high quality workmanship to be found in our products.

Only the best in our every endeavour.

We look forward to serving you soon, at Tech Stainless Pte Ltd.

## MISSION

To provide our customers with a wide range of high-quality and durable stainless steel products that is both sustainable and cost-effective, combined with impeccable customer experience to turn every customer into an advocate of our brand.

## VISION

We are dedicated to become an industry leader to produce cost-effective stainless steel tubing and coils of the highest quality with a customer service experience second to none.

# HISTORY

**TECH STAINLESS PRIVATE LIMITED** (Tech Stainless Pte Ltd) was first established in 1988. Being one of the pioneers of the industry in Singapore, Tech Stainless has worked its way up to become one of the leading stainless steel manufacturers. Trusted by clients and distributors worldwide, Tech Stainless is constantly reaching new and prestigious milestones, and has become a highly

respected supplier known for its consistency in producing high quality products. Tech Stainless Pte Ltd was certified BS EN ISO 9001:2000 in 2003 and recertified as ISO 9001:2008 in 2013. The company was also certified Bizsafe Star by the Singapore Workplace Safety and Health Council in 2015.



**AUGUST**  
Established

1988

1989

**JUNE**  
Operation Started

**AUGUST**  
Member of Singapore Metal  
and Machinery

1995



2003

**MAY**  
BS EN ISO 9001:2000 Certified

**SEPTEMBER**  
Quality Policy :  
Committed to provide total customer satisfaction

- On-time Delivery
- Excellent Product / Service Quality

2010



2013

**MAY**  
ISO 9001:2008 Certified

**NOVEMBER**  
bizsafe Certified

2015



# QUALITY CONTROL



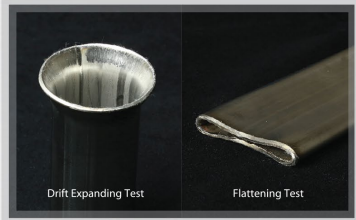
## RAW MATERIAL CONTENT VERIFICATION

Before any processing is done, our raw materials go through a 100% quality check using our In-House X-Ray Fluorescence Spectrometer to ensure the exact chemical content of each coil.



## MATERIAL DIMENSION AND THICKNESS VERIFICATION

At each step of production, each product goes through a list of stringent quality control and standard verification including dimension, weight and thickness measurement. This is to make sure each product being produced adheres to the standards being implemented.



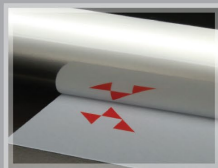
## FORMING AND WELDING CONTROL

To maintain high quality consistency of our products, our forming and welding of our products are tested as specified in the ASTM / JIS / BS EN Standards we are conforming to

- Eddy Current test for leak tightness
- Drift Expanding test and Flattening test for welding and tube strength conformance

## VALUE ADDED SERVICES FROM TECH STAINLESS

- Best finishing quality to ensure durability and shine
- Maximized packing and stuffing of each container to save on shipping cost
- Guaranteed Lead Time and Delivery period
- OEM Production service including customized sleeves and printing on tubes



# PRODUCTION



# TUBE PRODUCTS



# APPLICATIONS

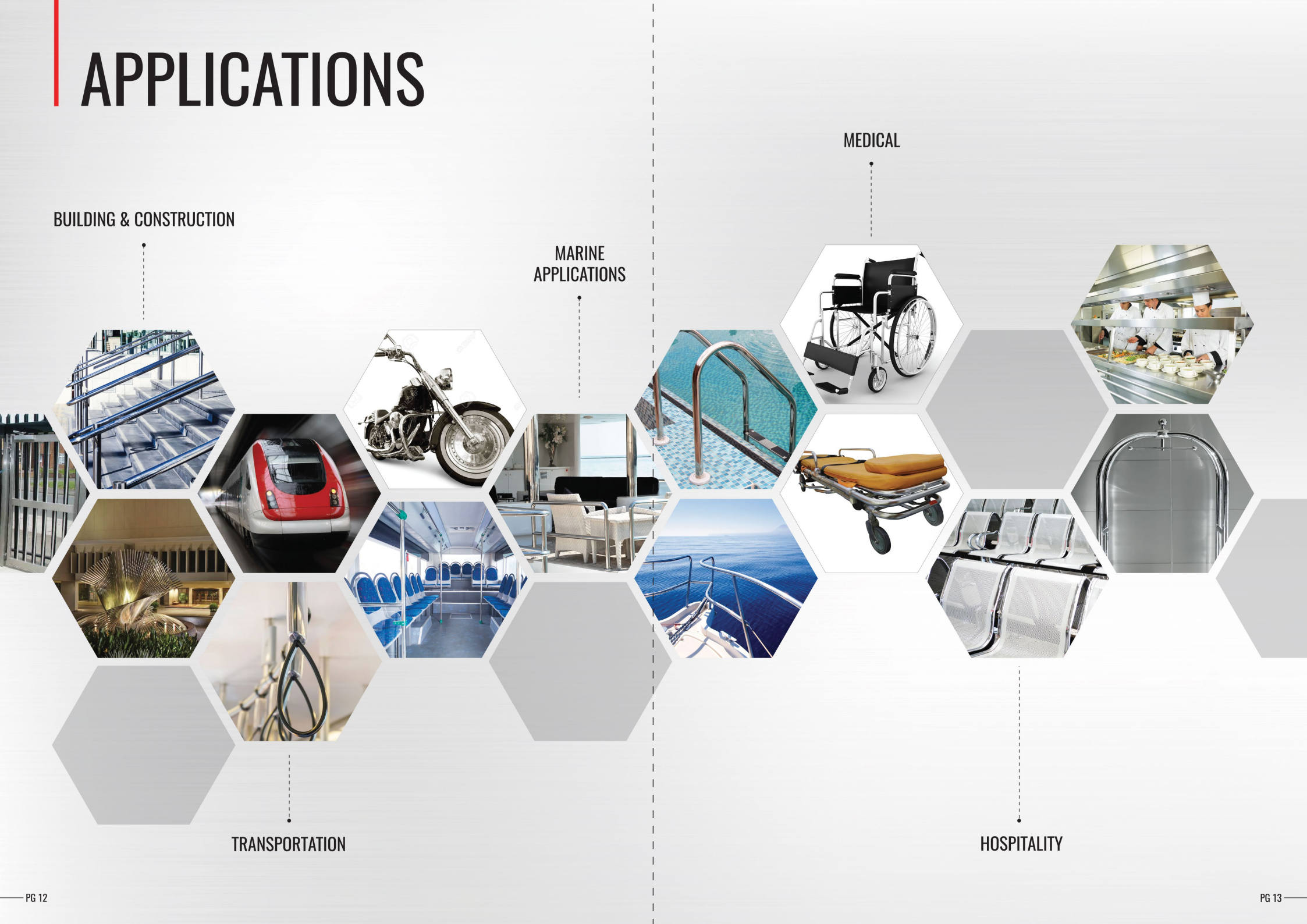
## BUILDING & CONSTRUCTION

## MARINE APPLICATIONS

## MEDICAL

## TRANSPORTATION

## HOSPITALITY



# STAINLESS STEEL ORNAMENTAL TUBE

For Mechanical and Structural purpose  
(TIG-WELDED)

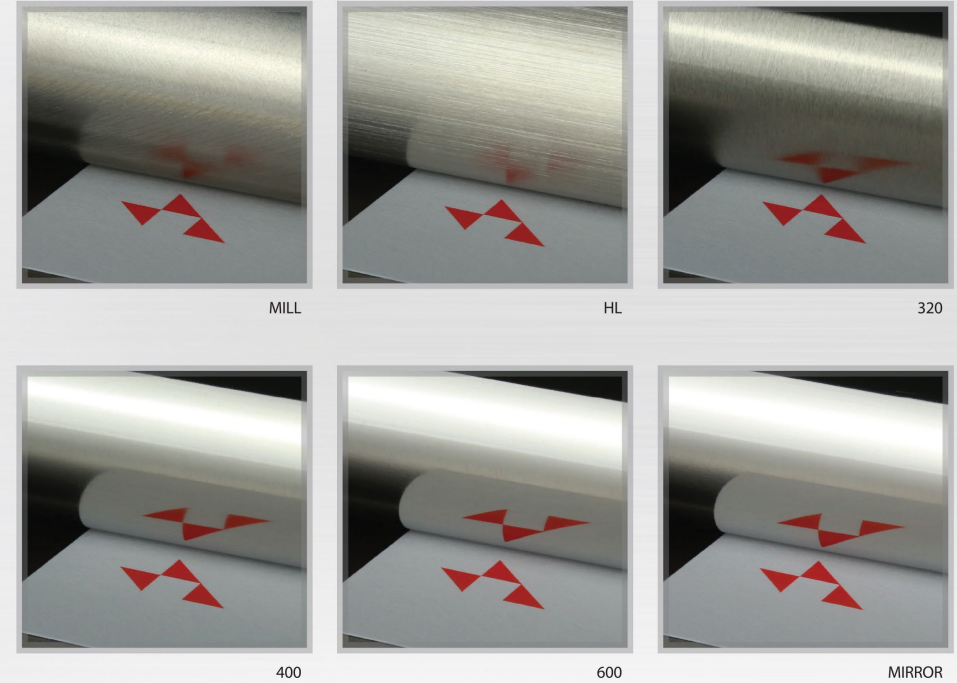


Standards : ASTM A554 , JIS G3446

## AVAILABLE STANDARD SIZE OF ROUND TUBE

OUTSIDE DIAMETER		THICKNESS (mm)								
(inch)	(mm)	0.7	0.8	0.9	1.0	1.1	1.2	1.5	2.0	3.0
3/4"	19.0		●	●	●	●	●	●		
	19.1		●	●	●	●	●	●		
7/8"	21.7	●	●	●	●	●	●	●		
	22.0	●	●	●	●	●	●	●		
1"	22.2	●	●	●	●	●	●	●	●	
	25.0		●	●	●	●	●	●	●	●
1 1/8"	25.4		●	●	●	●	●	●	●	●
	27.2		●	●	●	●	●	●	●	●
1 1/4"	28.0		●	●	●	●	●	●	●	●
	28.6			●	●	●	●	●	●	●
1 1/2"	30.0			●	●	●	●	●	●	●
	31.8			●	●	●	●	●	●	●
1 3/4"	32.0			●	●	●	●	●	●	●
	34.0			●	●	●	●	●	●	●
	34.9			●	●	●	●	●	●	●
	35.0			●	●	●	●	●	●	●
	38.0			●	●	●	●	●	●	●
2"	38.1			●	●	●	●	●	●	●
	41.3			●	●	●	●	●	●	●
	42.0			●	●	●	●	●	●	●
2 1/4"	42.7			●	●	●	●	●	●	●
	44.5			●	●	●	●	●	●	●
	48.3			●	●	●	●	●	●	●
2 1/2"	48.6			●	●	●	●	●	●	●
	50.0			●	●	●	●	●	●	●
3"	50.8			●	●	●	●	●	●	●
	57.2						●	●	●	●
2 1/2"	60.5						●	●	●	●
	63.5						●	●	●	●
3"	65.2						●	●	●	●
	76.2						●	●	●	●

O.D : Outside Diameter No hairline finish for O.D less than 25.00mm



## MATERIAL SPECIFICATIONS

MATERIALS (AISI/SUS)	304	316	304L	316L					
SURFACE FINISH	MILL	HL	180HL	180	240	320	400	600	MIRROR
STANDARD LENGTH	4000mm	6000mm	6096mm	Special Cut Length is available up to 8000mm upon request					

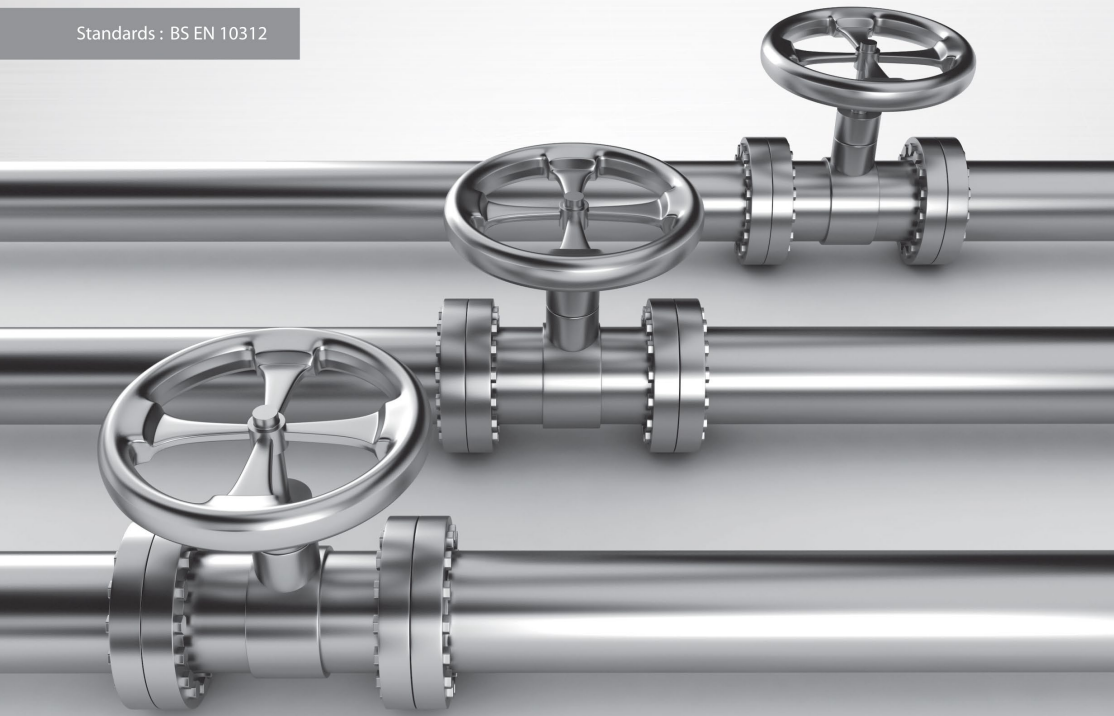
## TOLERANCE

SPECIFICATION	OUTSIDE DIAMETER	WALL THICKNESS	STRAIGHTNESS
ASTM and JIS	12.7mm - 25.4mm excl. +/-0.10mm	+/-10%	Below 1.0mm against 1000mm
	25.4mm - 38.1mm excl. +/-0.13mm		
	38.1mm - 50.8mm excl. +/-0.15mm		
	50.8mm - 63.5mm excl. +/-0.18mm		
	63.5mm - 76.3mm excl. +/-0.25mm		



## STAINLESS STEEL WATER TUBE, "TECH TUBE"

Standards : BS EN 10312



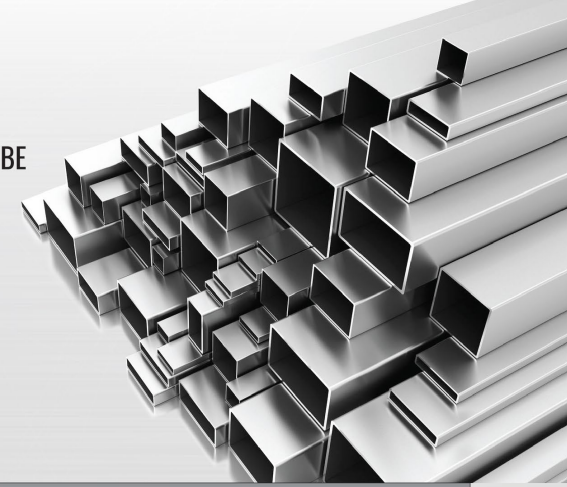
### SIZE AND CHEMICAL COMPOSITION

Size	Outside Diameter		Normal Thickness
	Max.	Min.	
mm	mm	mm	mm
22	22.055	21.950	0.7
28	28.055	27.950	0.8
35	35.07	34.965	1.0
42	42.07	41.965	1.1

Element	% min.	% max.
C	-	0.06
Si	-	1.00
Mn	-	2.00
P	-	0.045
S	-	0.030
Cr	17.5	19.0
Ni	8.0	11.0

## STAINLESS STEEL SQUARE & RECTANGULAR TUBE

Standards : ASTM A554, JIS G3446



### AVAILABLE SIZE OF SQUARE TUBE

OUTSIDE DIAMETER (mm)	THICKNESS (MM)			
	1.2	1.5	2.0	3.0
19.1 X 19.1	■	■		
25.0 X 25.0	■	■	■	
25.4 X 25.4	■	■	■	■
31.8 X 31.8	■	■	■	■
38.1 X 38.1	■	■	■	■
38.5 X 38.5	■	■	■	■
40.0 X 40.0	■	■	■	■
50.0 X 50.0	■	■	■	■
50.8 X 50.8	■	■	■	■
60.0 X 60.0		■	■	■

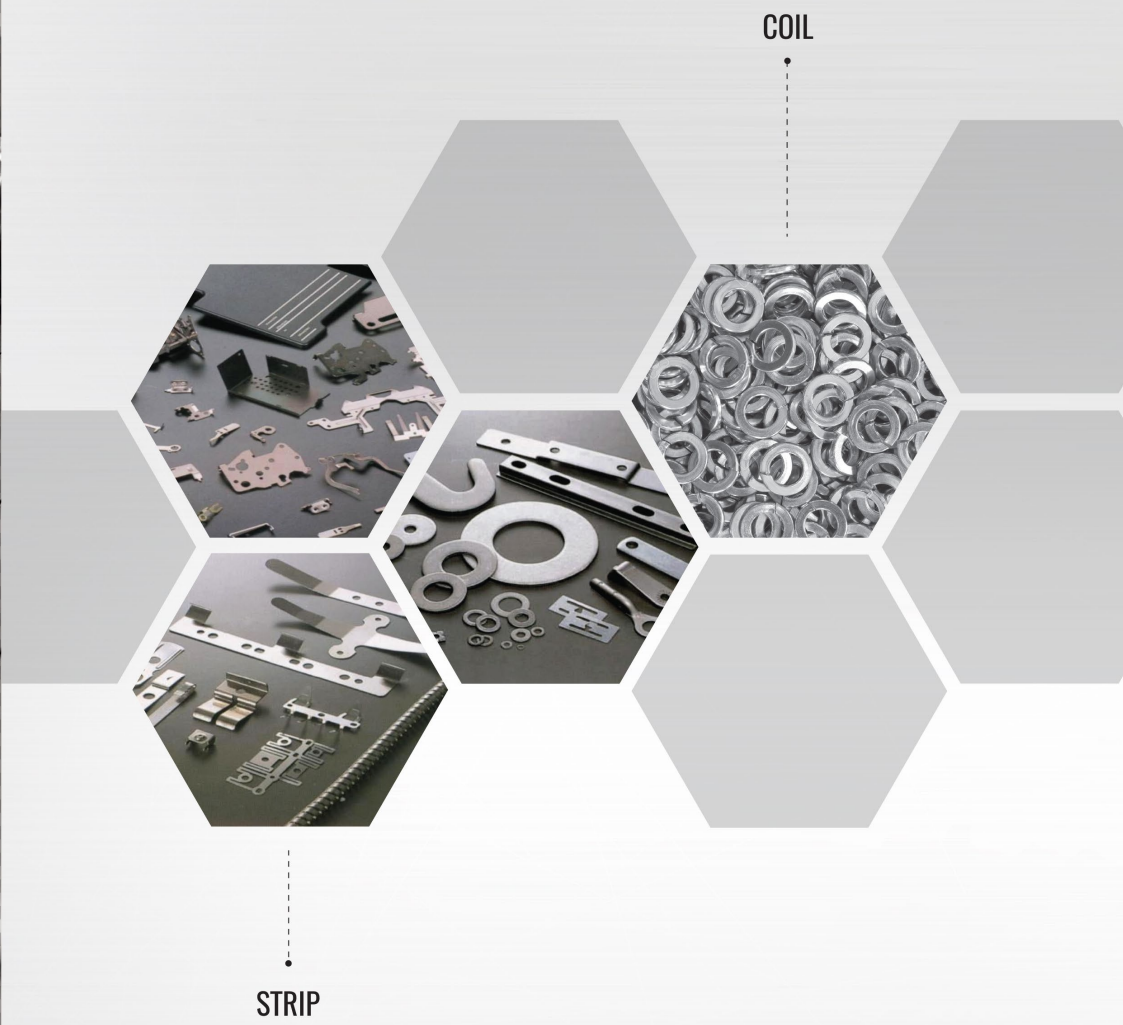
### AVAILABLE SIZE OF RECTANGULAR TUBE

OUTSIDE DIAMETER (mm)	THICKNESS (MM)			
	1.2	1.5	2.0	3.0
24.0 X 14.0	■	■		
40.0 X 18.0	■	■		
40.0 X 25.0	■	■	■	■
50.8 X 25.4	■	■	■	■
60.0 X 30.0	■	■	■	■
60.0 X 40.0	■	■	■	■
61.0 X 32.0	■	■	■	■

# SLIT COILS



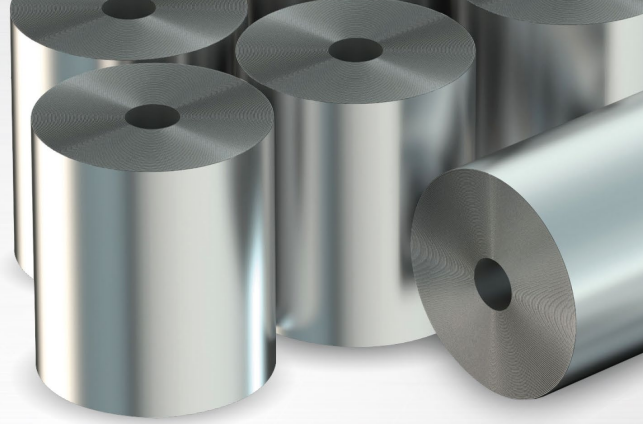
# APPLICATIONS



## STAINLESS STEEL SLIT COIL

Stainless steel cold roll strips.  
Precision Stainless Steel for Spring.

Standards : JIS G4313



Thickness	Width	4	10	20	25	30	50	350	650
3.0									
2.5									
2.0									
1.5									
1.2									
1.0									
0.9									
0.8									
0.7									
0.6									
0.5									
0.4									
0.3									
0.2									
0.1									

1) Interleave paper and PVC are available upon request  
2) Coil ID:300mm and 500mm for up to 0.6mm thickness, 500mm for 0.7mm to 3.0mm

## JIS G4313 : MECHANICAL PROPERTIES OF STAINLESS STEEL STRIPS

Type symbol	Temper Symbol	As cold rolled or as solution-treated				As precipitation-hardened		
		Proof Stress N/mm <sup>2</sup>	Tensile Strength N/mm <sup>2</sup>	Elongation %	Hardness HV	Heat Treatment Symbol	Proof Stress N/mm <sup>2</sup>	Tensile Strength N/mm <sup>2</sup>
SUS301 CSP	1/2H	510 min.	932 min.	10 min.	310 min.			
	3/4H	745 min.	1128 min.	5 min.	370 min.			
	H	1030 min.	1324 min.		430 min.			
	EH	1275 min.	1569 min.		490 min.			
SUS304 CSP	1/2H	471 min.	785 min.	6 min.	250 min.			
	3/4H	667 min.	932 min.	3 min.	310 min.			
SUS631 CSP	O		1030 max.	20 min.	200 max.	Th1050	961 min.	1138 min.
						RH950	1030 min.	1226 min.
	1/2H		1079 min.	5 min.	350 min.	CH	883 min.	1226 min.
	3/4H		1177 min.		400 min.	CH	1079 min.	1422 min.
	H		1422 min.		450 min.	CH	1324 min.	1716 min.

## AIISI : MECHANICAL PROPERTIES OF TYPE 301

Treatment	Tensile Strength			Yield Stress (Offset: 0.2perCent)			Hardness	
	PSI	(K2/mm <sup>2</sup> )	(N/mm <sup>2</sup> )	PSI	(K2/mm <sup>2</sup> )	(N/mm <sup>2</sup> )	HR	(HV)
Annealed	110,000	77.34	(758.45)	40,000	(28.12)	(275.76)	B85	(170)
1/4H	125,000 *	87.88	(861.81)	75,000 *	(52.73)	(517.10)	C25 *	(266)
1/2H	150,000 *	105.46	(1,034.21)	110,000 *	(77.34)	(758.45)	C32 *	(318)
3/4H	175,000 *	123.04	(1,206.61)	135,000 *	(94.91)	(930.75)	C37 *	(364)
Full Hard	185,000 *	130.07	(1,275.55)	140,000 *	(98.43)	(965.27)	C41 *	(409)

a) Value in () are given for information only b) \* Minimum

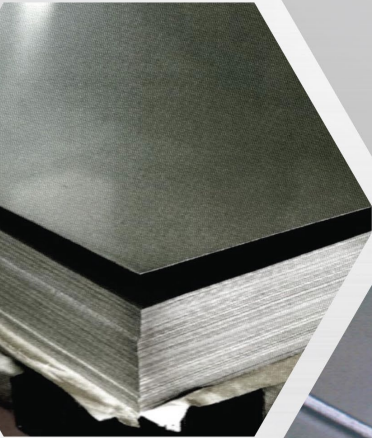
## REPRESENTATIVE KINDS OF COLD-ROLLED STRIP & CHEMICAL COMPOSITION

Type	Chemical Composition (%)									Example of Use	
	C	Si	Mn	P	S	Ni	Cr	Mo	Other		
Austenite	301	0.15 max.	1.00 max.	2.00 max.	0.045 max.	0.03 max.	6.00 ~8.00	16.00 ~18.00			Spiral springs, springs, wheel cover
	304	0.08 max.	1.00 max.	2.00 max.	0.045 max.	0.03 max.	8.00 ~10.50	18.00 ~20.00			Food equipment, general chemical equipment, fork and spoon
	304L	0.03 max.	1.00 max.	2.00 max.	0.045 max.	0.03 max.	9.00 ~13.00	18.00 ~20.00			Parts which cannot be subjected to post-weld heat treatment, chemical industry
	310S	0.08 max.	1.50 max.	2.00 max.	0.045 max.	0.03 max.	19.00 ~22.00	24.00 ~26.00			Boiler parts, furnace component
	316	0.08 max.	1.00 max.	2.00 max.	0.045 max.	0.03 max.	10.00 ~14.00	16.00 ~18.00	2.00 ~3.00		Materials resistance to milk and dairy product, paper manufacturing, industrial pipes
	316L	0.03 max.	1.00 max.	2.00 max.	0.045 max.	0.03 max.	12.00 ~15.00	16.00 ~18.00	2.00 ~3.00		Oil refinery
	321	0.08 max.	1.00 max.	2.00 max.	0.045 max.	0.03 max.	9.00 ~13.00	17.00 ~19.00		Ti : 5XC% min.	Chemical plant
Ferrite	430	0.12 max.	0.75 max.	1.00 max.	0.04 max.	0.03 max.	0.6% max. of Ni may be contained	16.00 ~18.00			Building interior finishing, household utensils
	434	0.12 max.	1.00 max.	1.00 max.	0.04 max.	0.03 max.	0.6% max. of Ni may be contained	16.00 ~18.00	0.75 ~1.25	The content of Ti No Zr shall fallen between 8(XC+H)-0.8	A modification of grade 430, exterior part of automobiles
	444	0.025 max.	1.00 max.	1.00 max.	0.04 max.	0.03 max.	0.6% max. of Ni may be contained	17.00 ~20.00	1.75 ~2.25		For application requiring stress corrosion crack resistance, hot water tank, water heaters
Martensite	410	0.15 max.	1.00 max.	1.00 max.	0.04 max.	0.03 max.	0.6% max. of Ni may be contained	11.50 ~13.50			General purpose, cutlery
	410S	0.08 max.	1.00 max.	1.00 max.	0.04 max.	0.03 max.	0.6% max. of Ni may be contained	11.50 ~13.50			A variation of grade 410 with improved corrosion resistance and formability
	420J2	0.26 max.	1.00 max.	1.00 max.	0.04 max.	0.03 max.	0.6% max. of Ni may be contained	12.00 ~14.00	Mo may be added up to 0.75%		Cutlery, valves, straightedges
*	631	0.09 max.	1.00 max.	1.00 max.	0.04 max.	0.03 max.	6.50 ~7.05	16.00 ~18.00		Al : 0.75~1.50	Springs, washers, instrument parts

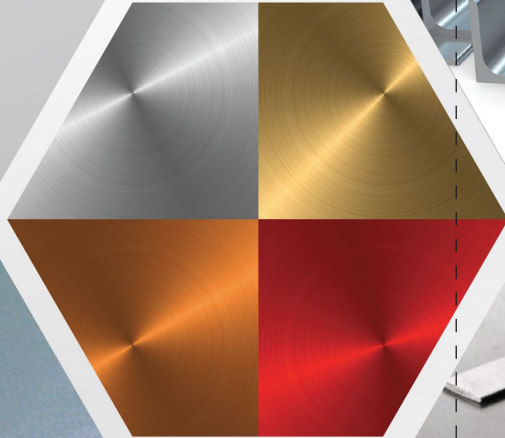
\* Precipitation-hardening type

# OTHER PRODUCTS

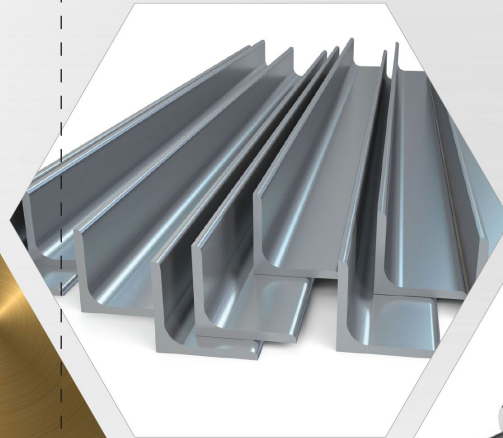
STAINLESS  
STEEL SHEET



DECORATIVE PLATES



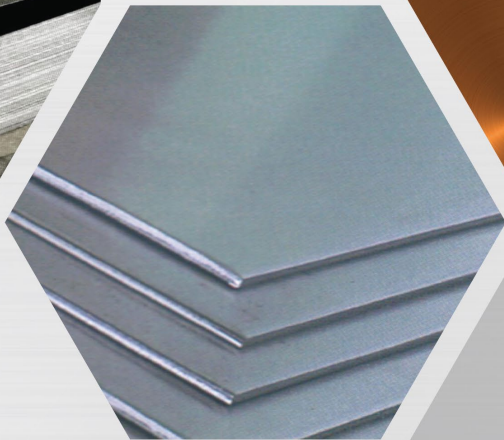
ANGLE BAR



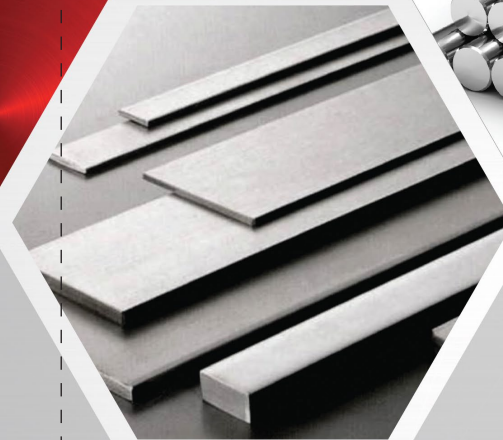
ROUND BAR



STAINLESS  
STEEL PLATE



FLAT BAR



FLANGES



## WEIGHT TABLE FOR STAINLESS STEEL SHEET / PLATE

Mark	Specific Gravity	Grade	Surface Finish
A	7.93	304,316,321	No.1, 2B, BA, No.3, No.4, HL,
B	7.7	430, 410	No.8/Mirror

Unit : Kg/pc

Thickness	W x L		1219mm x 2439mm (4" X 8")		914mm x 1829mm (3" x 6")		1524mm x 3048mm (5" x 10")	
	A	B	A	B	A	B	A	B
0.4	9.43	9.15	5.30	5.15				
0.5	11.8	11.4	6.63	6.44				
0.6	14.1	13.7	7.96	7.72				
0.7	16.5	16.0	9.28	9.01				
0.8	18.9	18.3	10.6	10.3	29.5			
0.9	21.2	20.6	11.9	11.6	33.2			
1.0	23.6	22.9	13.3	12.9	36.8			
1.2	28.3	27.5	15.9	15.4	44.2			
1.5	35.4	34.3	19.9	19.3	55.3			
1.6	37.7	36.6	21.2	20.6	58.9			
1.8	42.4	41.2	23.9	23.2	66.3			
2.0	47.1	45.8	26.5	25.7	73.7			
2.3	54.2	52.6	30.5	29.6	-			
2.5	58.9	57.2	33.1	32.2	92.1			
3.0	70.7	-	39.8		111			
4.0	94.3	91.5			147	143		
5.0	118	114			184	179		
6.0	141	137			221	215		
7.0	165	160			257	250		
8.0	189	183			295	286		
9.0	212	206			332	322		
10.0	236	229			368	358		
12.0	283	275			442	429		
14.0	330	320			516	501		

## WEIGHT TABLE FOR FLAT BAR

Unit weight (Approx. Kg/m)

Width in mm	Thickness in mm									
	3	4	5	6	8	9	10	12	13	15
15	0.363	0.484	0.604							
20	0.484	0.645	0.806	0.967	1.29	1.45	1.61	1.93		
25	0.604	0.806	1.01	1.21	1.61	1.81	2.02	2.42	2.62	3.02
30	0.725	0.967	1.21	1.45	1.93	2.18	2.42	2.90	3.14	3.63
35	0.846	1.13	1.41	1.69	2.26	2.54	2.82	3.39	3.67	4.23
40	0.967	1.29	1.61	1.93	2.58	2.90	3.22	3.87	4.19	4.84
45	1.09	1.45	1.81	2.18	2.90	3.26	3.63	4.35	4.72	
50	1.21	1.61	2.02	2.42	3.22	3.63	4.03	4.84	5.24	6.04
60			2.42	2.90	3.87	4.35	4.84	5.80	6.29	7.25
65			2.62	3.14	4.19	4.27	5.24	6.29	6.81	7.86
70			2.82	3.39	4.51	5.08	5.64	6.77	7.33	8.46
75			3.02	3.63	4.84	5.44	6.04	7.25	7.86	9.07
80				3.87	5.16	5.80	6.45	7.74	8.38	9.67
90				4.35	5.80	6.38	7.25	8.70	9.43	10.9

## WEIGHT TABLE FOR ANGLE BAR

Unit weight (Approx. Kg/m)

Legs in mm	Thickness in mm									
	3	4	5	6	7	8	9	10	11	12
20 x 20	0.908	1.16	1.41							
25 x 25	1.15	1.48	1.81	2.12						
30 x 30	1.39	1.80	2.21	2.58						
35 x 35	1.64	2.13	2.62	3.00						
40 x 40	1.88	2.45	3.03	3.56						
50 x 50	2.41	3.14	3.87	4.55			6.60	7.26		
60 x 60			4.68	5.53	6.39					
65 x 65			5.13	6.07	6.98	7.87	8.87	9.67		
70 x 70				6.55	7.54	8.51	9.50	10.50		
80 x 80				7.52	8.67	9.8	11.0	12.0	13.2	14.3
90 x 90				8.53	9.85	11.1	12.5	13.7	15.0	16.2

- 1.) Stainless Steel Sheets and Plates under ASTM 240 & JIS standard.
- 2.) Flat Bar, Angle Bar, Round Bar, Fittings and Flanges under ASTM A182 in accordance of ANSI and JIS/BS standard.
- 3.) Industrial Pipes under ASTM A312 standard and ASTM A213.
- 4.) All materials are tested by SGS and in accordance to MSDS.

