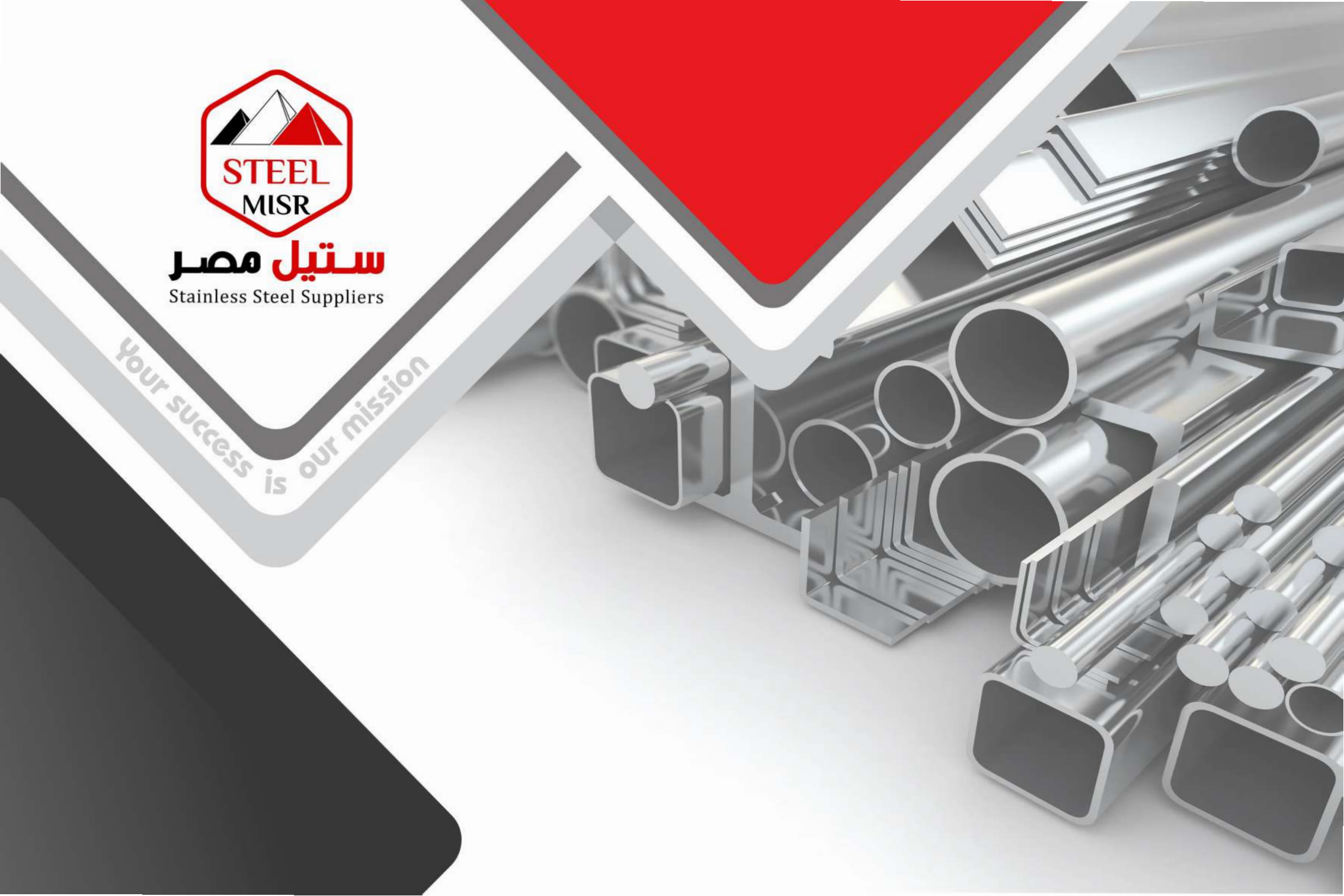
STEEL MISR

ستيل مصر

Stainless Steel Suppliers

Your success is our mission



WHO WE ARE ?

STEEL MISR is a distributor of stainless steel Sheets, Tubes, Fittings, Valves and all its related accessories, operating from locations nationwide.

We have extensive experience in providing ongoing maintenance support to major corporations, supplying large scale projects, and of course catering to the day–to–day requirements of Egypt′ s stainless steel fabricators.

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Introduction

STEEL MISR is pleased to provide this Stainless Steel Products Catalogue for your use.

We aim to carry all popular products and sizes on a continuous basis, generally lists those sizes we carry ex-stock.

However, there are some sizes listed on an indent basis only.

We also carry many products not featured in this particular publication .

Please contact STEEL MISR for more information on our comprehensive range of steel products, or visit our website: www.steelmisr.com

TYPES OF STAINLESS STEEL

304

The most widely used stainless steel with the best all round performance. Its carbon content is lower and its corrosion resistance after welding is higher than T302. It is less susceptible to intergranularcorrosion after welding. Non-magnetic but slightly magnetic when cold worked.

304L

A low carbon stainless steel with general corrosion resistance like T304, but with superior resistance to intergranular corrosion following welding or stress relieving. Highly recommended for parts which are fabricated by welding and which can not be annealed.

Generally limited to temperatures up to 426 C. The physical properties and thermal treatments of T304L are similar but notidentical to T304. Non-magnetic when annealed but slightly magnetic when cold-worked.

316

Also known as marine grade stainless steel. T316 has 2-3% molybdenum which improves corrosion resistance. T316 has superior corrosion resistance to other austenitic steels when exposed to many types of chemical corrodents as well as marine environments - T316 also has applications in the chemical, textile, and paper industries. It has better strength and creep resistance at high temperatures than T304 and greater work hardening properties. Non-magnetic but slightly magnetic when cold-worked.

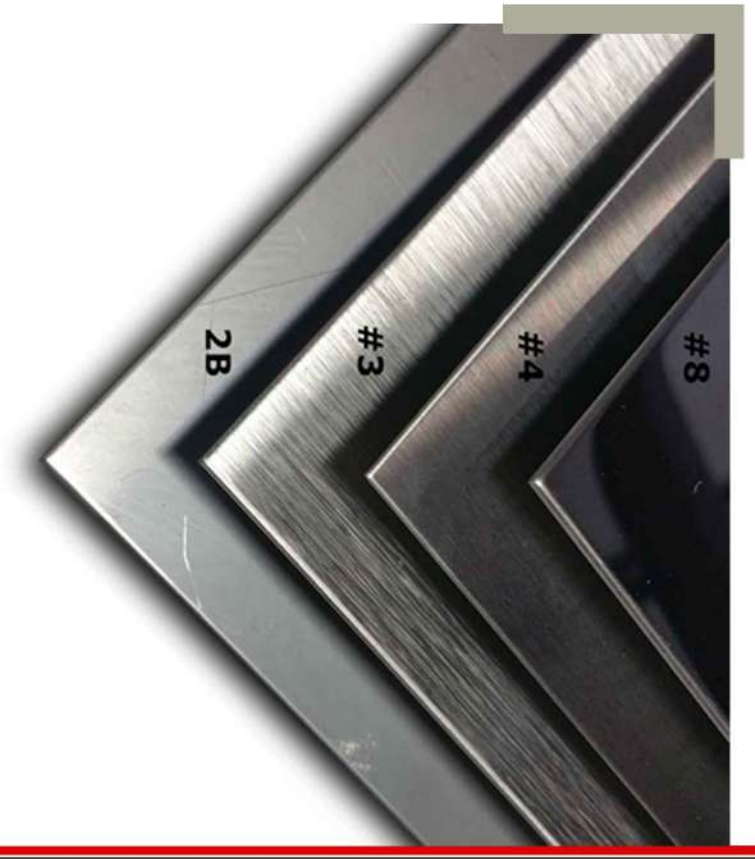
316L

Has lower carbon than T316, with corrosion resistance similar to T316, but superior resistance to intergranular corrosion following welding or stress relieving. It is recommended for parts which cannot be subsequently annealed. Service temperatures up to 426 C. The physical properties and thermal treatments of type 316L are similar but not identical to type 316. Non-magnetic when annealed but slightly magnetic when cold-worked.

TYPES OF STAINLESS STEEL

Here is a breakdown of the percentages of various elements used to create type 316 and 316L steels:

Element	Type 316 (%)	Type 316L (%)
Carbon	0.08 max.	0.03 max.
Manganese	2.00 max.	2.00 max.
Phosphorus	0.045 max.	0.045 max.
Sulfur	0.03 max.	0.03 max.
Silicon	0.75 max.	0.75 max.
Chromium	16.00-18.00	16.00-18.00
Nickel	10.00-14.00	10.00-14.00
Molybdenum	2.00-3.00	2.00-3.00
Nitrogen	0.10 max.	0.10 max.
Iron	Balance	Balance

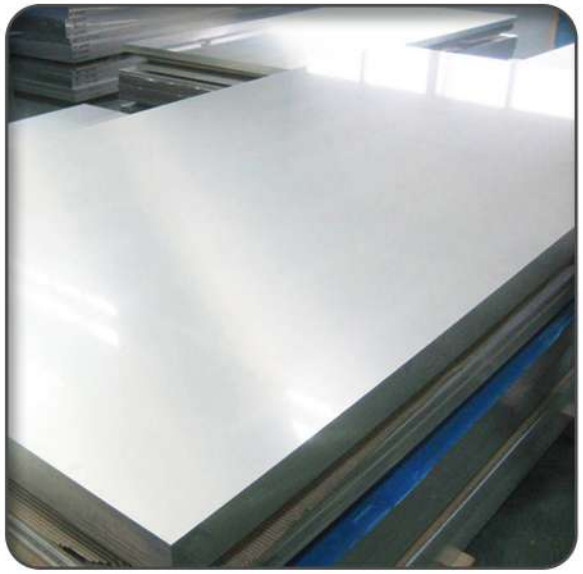


TYPES OF STAINLESS STEEL

Here is a breakdown of the percentages of various elements used to create type 304 and 304L steels:

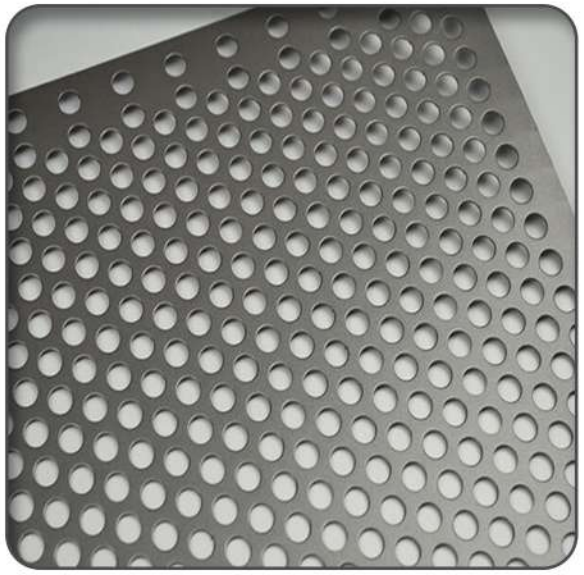
Element	Type 304 (%)	Type 304L (%)
Carbon	0.08 max.	0.03 max.
Manganese	2.00 max.	2.00 max.
Phosphorus	0.045 max.	0.045 max.
Sulfur	0.03 max.	0.03 max.
Silicon	0.75 max.	0.75 max.
Chromium	18.00-20.00	18.00-20.00
Nickel	8.00-10.50	8.00-12.00
Nitrogen	0.10 max.	0.10 max.
Iron	Balance	Balance

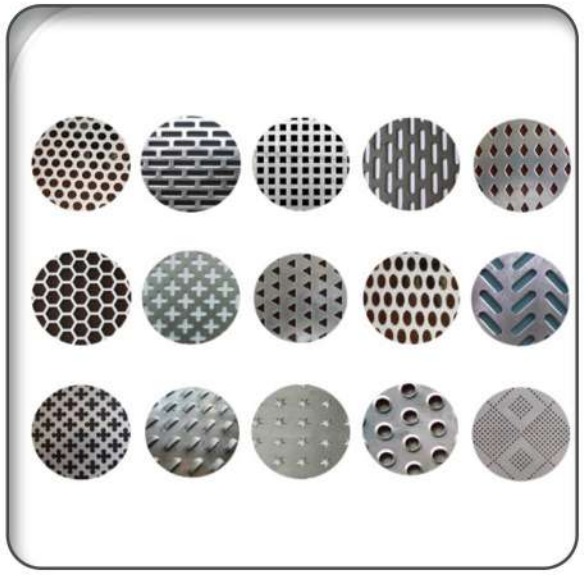
STAINLESS STEEL SHEETS


Grade	stainless steel plate/sheet - 304/316
Process	Hot rolled or Cold rolled
Surface treatment	No.1 / 2B / No.4 / HL / Brushed / BA / 8K Mirror / Embossed / Etched etc. (With Paper or PVC film to protection)
Standard	JIS, AISI, ASTM, GB, DIN, EN ,etc.
Thickness	Cold rolled (0.3-3mm). Hot rolled (3-100mm)
Width	600-2000mm or as customized
Length	1000-6000mm or as customized

STAINLESS STEEL PERFORATED SHEETS





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Thickness	Cold rolled (0.3-3mm). Hot rolled (3-100mm)
Width	600-2000mm or as customized
Length	1000-6000mm or as customized

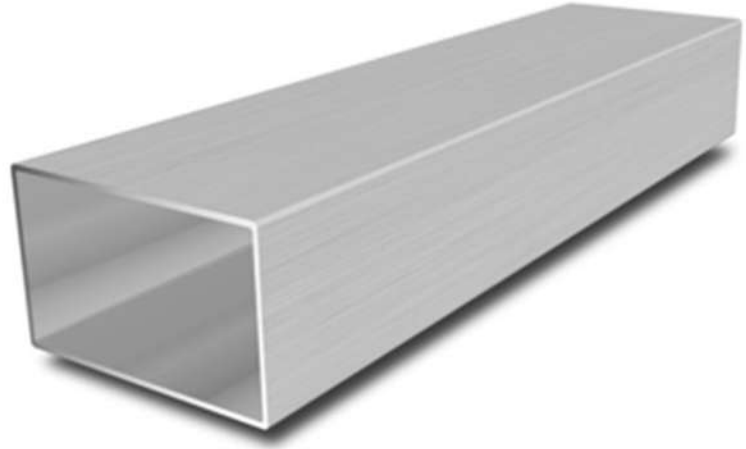
STAINLESS STEEL PIPE

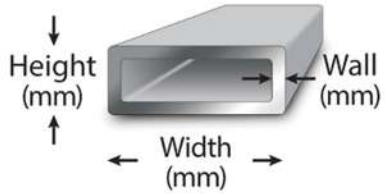
Stainless Steel Dairy PIPE

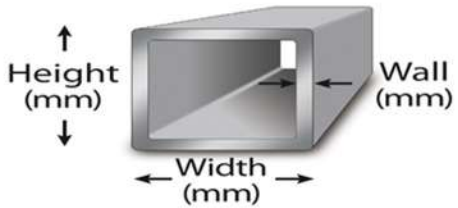
Stainless Steel Seamless PIPE

Stainless Steel Schedule PIPE

SQUARE AND RECTANGULAR TUBE

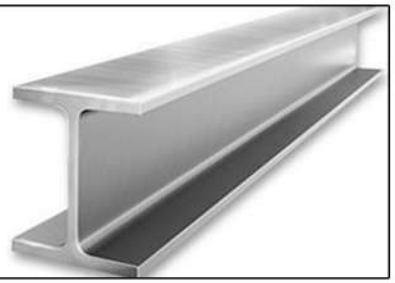






STAINLESS STEEL BARs

CHANNEL



FLATE Bar

ANGLE BAR

Hexagonal BAR

SQUARE BAR

ROUND BAR

Pipe Fitting & Accessories


















Pipe Fitting & Accessories













Pipe Fitting SCH

FLANGES

Threaded flange

Weld Neck Flanges

Slip-On Flanges

Socket-Weld Flanges

Blind Flanges

Lap Joint Flanges

BALL VALVES

- Rotary motion quarter turn value
- Uses a ball-shaped disk to stop or start flow
- Quick-Acting type
- Smaller and lighter than gate valve of same size and rating

VALVES

BUTTERFLY VALVE

- Quarter-Turn rotary motion valve
- Used to stop, regulate and start flow
- Light weight and easy to install and maintain

GATE VALVES

- Fully open or Fully closed
- Minor pressure loss when fully open
- Providing good shutoff
- Used in all types of services

Check valve

- Prevent back flow in piping system
- Open with forward flow and closed automatically in case of back flow
- Providing good shutoff

CRANE GLOBE VALVE

- Stop, Start and regulate the fluid flow
- Flow control and leak tightness required
- Costlier than gate valve

NEEDLE VALVE

- Design similar to globe valve
- Very fine control of flow in small diameter piping systems
- Sharp-Pointed conical disc and matching set
- Needle acts as a disk

SAMPLE VALVE

- A sampling valve is a type of valve used in process industries that allows taking a representative portion of a fluid (gases, liquids, fluidized, solids, or slurries) to test (e.g. by physical measurements, chemical analysis, microbiological examination), typically for the purposes of identification, quality control, or regulatory assessment.

Stainless Steel Y Strainer – Flanged ANSI 150

Function: filter impurities in the fluid

Features: as an indispensable high-efficiency filtration equipment in purification equipment engineering, Y-type filter has played a great role in the treatment of domestic wastewater and industrial wastewater. With its advantages in design and application, it is now favored.

Y-type filter has effectively treated a large number of domestic and industrial sewage in the application of various industries, so that valuable water resources can be effectively reused and a large number of water resources can be saved. The advantages of Y-type filter include full automation, maintenance free, large filtering area, high efficiency of filter screen, long service life, stainless steel material, optional filtering accuracy and complete specifications. Compared with other filtration equipment, it is one of the most effective equipment in reclaimed water reuse project. Moreover, the water quality after Y-type filter treatment not only meets the national discharge standard, but also achieves the purpose of repeated and recycling.

THEORETICAL BURSTING PRESSURES OF STAINLESS STEEL PIPE

STEEL PIPE METRIC CONVERSION			THEORETICAL BURSTING PRESSURES								
NOMINAL BORE MM	NOMINAL BORE INCH	OD MM	SCHEDULE 10S			SCHEDULE 40S			SCHEDULE 80S		
			WALL MM	WEIGHT KG/M	PRESSURE KPA*	WALL MM	WEIGHT KG/M	PRESSURE KPA*	WALL MM	WEIGHT KG/M	PRESSURE KPA*
6	1/8"	10.29	1.24	0.28	125139	1.73	0.37	173575	2.41	0.47	242523
8	1/4"	13.72	1.65	0.49	124450	2.24	0.63	168576	3.02	0.8	227871
10	3/8"	17.15	1.65	0.63	99629	2.31	0.84	139446	3.2	1.1	193053
15	1/2"	21.34	2.11	1	102214	2.77	1.27	134275	3.73	1.62	180987
20	3/4"	26.67	2.11	1.28	81702	2.87	1.69	111350	3.91	2.2	151684
25	1"	33.4	2.77	2.09	85839	3.38	2.5	104628	4.55	3.24	140825
32	1 1/4"	42.16	2.77	2.7	67913	3.56	3.39	87218	4.85	4.47	118934
40	1 1/2"	48.26	2.77	3.11	59295	3.68	4.05	78945	5.08	5.41	108937
50	2"	60.33	2.77	3.93	47401	3.91	5.44	67224	5.54	7.48	94975
65	2 1/2"	73.03	3.05	5.26	43092	5.16	8.63	73084	7.01	11.41	99284
80	3"	88.9	3.05	6.45	35508	5.49	11.29	63776	7.62	15.27	88646
100	4"	114.3	3.05	8.36	27579	6.02	16.07	54468	8.56	22.32	77452
125	5"	141.3	3.4	11.57	24993	6.55	21.77	47918	9.52	30.97	69678
150	6"	168.28	3.4	13.84	21029	7.11	28.26	43782	10.97	42.6	67418
200	8"	219.08	3.76	19.96	17754	8.18	42.55	38610	12.7	64.6	59974
250	10"	273.05	4.19	27.8	15857	9.27	60.3	35163	12.7	96.01	48102
300	12"	323.85	4.57	36	14651	9.53	73.88	30337	12.7	132.08	40557
350	14"	355.6	4.78	41.3	13967						
400	16"	406.4	4.78	47.29	12238						
450	18"	457.2	4.78	53.26	10859						
500	20"	508	5.54	68.61	11204						

*Theoretical internal bursting pressure calculated using formula; P=2St/OD

* Nominal bursting, test and working pressures for stainless steel pipe (based on Barlow's formula).

* Bursting pressure rating: (ref ASTM A230M) P = (2 x S x t)/OD.

* P = Bursting pressure in MPa (x 1000 to get kPa).

* t = wall thickness (mm).

* OD = Outside diameter (mm).

* S = Minimum ultimate tensile strength in MPa.

* Test pressure:

substitute: s = 50-60% of minimum material 0.2% yield stress MPa.

Note:

- Weights are approximate.

Client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