



Tianjin Solos
International Trading Co.Ltd
GENERAL CATALOGUE

www.soloscompany.com



## about us

- Tianjin Solos is well known, reputable and market leader in row mineral material and is supplier of all equipments for below industries:
- Export of all equipments for Refinery, Power and Petrochemical ,plants, Wide range of Stainless Steel (Coil, Sheets, pipes, profiles Fitting and mesh) Other metal products are also available if customers require
- Import of Raw Mineral, Additive for Oil Well Drilling, Ceramic, asphalt Petrochemicals, Foundry industries



## **Our Mission**

We aspire to achieve business excellence through:

- strict inspection
- Optimum utilization of resources
- The highest ethics and standards
- Hiring, developing and retaining the best people
- The spirit of entrepreneurship and innovation
- Positive impact on the communities we touch
- Sustainable environment friendly procedures and practices







#### STAINLESS STEEL USES IN THE POWER GENERATION INDUSTRY

power and energy industrie that listed below. The amazing corrosion resistance of stainless steel is a necessity when dealing with the many extreme environments in , which power plants must be located

- Ability to form under hot and cold conditions
- Excellent weldability
- Good machinability
- High strength
- Wear resistance
- Corrosion resistance to most of the process conditions
- Heat resistance
- Durability at high temperatures

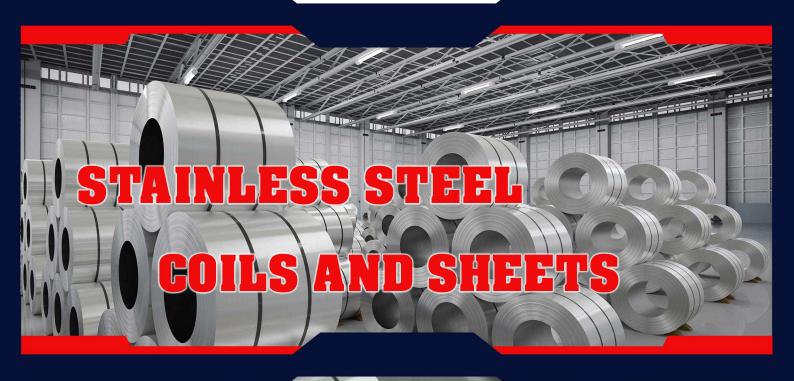
## stainless Steel Components of a power plant

- Super heaters and reheaters
- Storage vessels
- Heat exchangers
- Flue gas treatment
- Pipes
- Pressure tubes
- Containment vessels

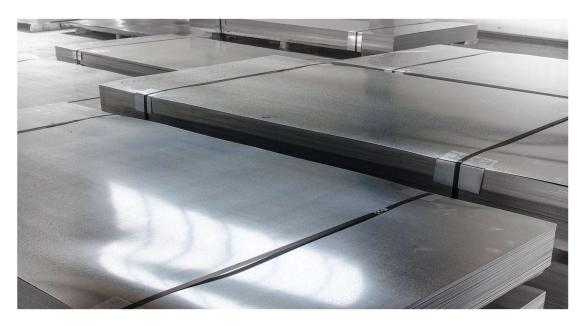


# **Stainless steel products**

- STAINLESS STEEL SHEETS & COILS
- **STAINLESS STEEL WELDED & SEAMLESS PIPES**
- **STAINLESS STEEL PIPE FITTING**
- **STAINLESS STEEL PROFILES**
- **STAINLESS STEEL MESHES**



**Stainless Steel Coils** are one of the most sought after types of raw material in the construction and manufacturing industries. ... Stainless steel coil is manufactured by hot rolling stainless steel slabs in a reheat furnace. The hot rolling process is carried out at a certain high temperature



**Stainless steel sheet/plate** is versatile and used in a variety of applications. It is primarily selected for its resistance to corrosion, longevity and formability. Typical uses of stainless steel sheet/plate include, construction, food service applications, transportation, chemical, marine, and textile industries

#### Stainless Steel is used in a wide range of application including

- Aerospace
- Defense
- Chemical Processing
- Oil and Gas
- Electrical Energy
- Medical
- Automotive
- **■** Food Preparation Equipment
- Application
- Construction
- Mining
- Transportation
- Electronics





# **All Grades of Stainless Steel Coil / Sheet**

| Material                    | Finish    | Grade             | Thickness(mm) | Width(mm)     |
|-----------------------------|-----------|-------------------|---------------|---------------|
| Stainless steel cold rolled | 2В        | 304/304L          |               | 750- Max.2000 |
|                             |           | 316L              | 0.3-4.0       |               |
|                             |           | 430/409L/439/410S | 0.3-4.0       |               |
|                             |           | 201/201           |               |               |
|                             | ВА        | 304/304L          |               | 750-1524      |
|                             |           | 316L              | 0.3-3.0       |               |
|                             |           | 430/409L/439/410S |               |               |
|                             |           | 201/202           |               |               |
|                             | No.3/No.4 | 304/304L          | 0.3-4.0       | 750-Max.2000  |
|                             |           | 316L              |               |               |
|                             |           | 430/409L/439/410S |               |               |
|                             |           | 201/202           |               |               |
|                             | HL        | 304/304L          | 0.3-4.0       | 750-Max.2000  |
|                             |           | 316L              |               |               |
|                             |           | 430/409L/439/410S |               |               |
|                             |           | 201/202           |               |               |
|                             | No.8      | 304/304L          | 0.3-3.0       | 750-1524      |

# **ALL GRADES OF STAINLESS STEEL**

| Grade       | Stainless     | Description of strengths, characteristics, and applications                          |  |  |
|-------------|---------------|--|--|--|
| Reference   | Steel Type    |  |  |  |
| 201         | Austenitic    | Low nickel equivalent of 301, used in flatware                                       |  |  |
| 202         | Austenitic    | Low nickel equivalent of 302, used for kitchenware                                   |  |  |
| 205         | Austenitic    | Low work hardening, for spin forming   |  |  |
| <u>301</u>  | Austenitic    | Higher work hardening, for trailer bodies, fasteners                                 |  |  |
| 302         | Austenitic    | General purpose grade  |  |  |
| <u>303</u>  | Austenitic    | Free machining version of 302, for screw machining                                   |  |  |
| 304         | Austenitic    | Low carbon, economical grade, not seawater resistant but weldable                    |  |  |
| <u>304L</u> | Austenitic    | Extra-low carbon improves resistance to post-weld corrosion                          |  |  |
| 305         | Austenitic    | Low work hardening, for spin forming   |  |  |
| 308         | Austenitic    | Higher alloy content for corrosion/heat resistance, for welding rod/wire             |  |  |
| 309         | Austenitic    | High temperature, scale resistant, for heat exchangers                               |  |  |
| 310         | Austenitic    | High temperature, scale resistant, for furnaces                                      |  |  |
| 314         | Austenitic    | High resistance to scale, for radiant tubes  |  |  |
| <u>316</u>  | Austenitic    | Increased molybdenum for improved corrosion resistance in seawater                   |  |  |
| 316L        | Austenitic    | A low carbon version of 316 for improved post-weld corrosion resistance              |  |  |
| 317         | Austenitic    | Improved corrosion and creep resistance over 316                                     |  |  |
| <u>321</u>  | Austenitic    | High titanium version of 304 for better high-temperature performance                 |  |  |
| 329         | Aust-Ferritic | General corrosion resistance, like 316, with improved stress-crack resistance        |  |  |
| 330         | Austenitic    | Resistant to carburization, oxidation, thermal shock, for heat-treating fixtures     |  |  |
| <u>347</u>  | Austenitic    | A higher creep-strength version of 321, for jet engine components                    |  |  |
| 348         | Austenitic    | Low retentivity version of 321, for nuclear service                                  |  |  |
| 384         | Austenitic    | Low cold work hardening, for bolts, screws   |  |  |
| 403         | Martensitic   | Turbine grade, for steam turbine blading   |  |  |
| 405         | Ferritic      | Non-hard enable grade of 403   |  |  |
| 409         | Martensitic   | General purpose, for constructions not requiring heat treatment                      |  |  |
| 410         | Martensitic   | General purpose, for machine parts such as shafting, auto exhausts                   |  |  |
| 414         | Martensitic   | High hardenability, for springs  |  |  |
| 416         | Martensitic   | Free machining version of 410  |  |  |
| 420         | Martensitic   | High carbon modification of 410, for surgical instruments                            |  |  |
| 422         | Martensitic   | High strength for temperatures to 1200°F, for turbine blades                         |  |  |
| 429         | Ferritic      | Exhibits better weldability than 430   |  |  |
| 430         | Ferritic      | Chromium type, non-hardening, for annealing baskets, dishwashers                     |  |  |
| 431         | Martensitic   | Special purpose, hard enable, for beater bars  |  |  |
| 434         | Ferritic      | Modified 430, for high resistance to road salts                                      |  |  |
| 436         | Ferritic      | General corrosion and heat resistant grade, for automotive trim                      |  |  |
| 440(A,B,C)  | Martensitic   | Highest hardenability of the stainless steel grades, for use to create bearing balls |  |  |
| 442         | Ferritic      | High temperature and scale resistance, for furnaces                                  |  |  |
| 446         | Ferritic      | High temperature and scale resistance, for intermittent use, pyrometer tubes         |  |  |
| 501         | Martensitic   | Heat resistant with high strength, for petrochemical equipment                       |  |  |
| 502         | Ferritic      | Heat resistant with high ductility, for petrochemical equipment                      |  |  |

Notice Thickness :under I , I, 2 , 3 , 4 (MM)



Stainless Steel profiles are steel products which have been rolled, drawn or pressed into a shape which is of the same cross-section over its entire length.

Angel (equal leg and unequal leg)



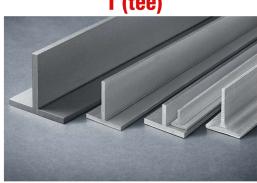
**C-Channel** 



**Beam** 



T (tee)





Stainless steel can be welded with shielded metal arc welding (MIG), gas tungsten arc welding (TIG) and stick welding, and each of these processes will yield a slightly different result. Seamless tubes are as defined – they do not have a welded seam





#### **Mechanical Properties**

| Grades | Item-per               | Tensile Psi  | Yield Psi   | Elong % | Rockwell Hardness |
|--------|------------------------|--------------|-------------|---------|-------------------|
| 304    | Annealed<br>I 1/8 Hard | 85000-105000 | 35000-75000 | 20-55   | 80-95             |
| 304L   | Annealed<br>I 1/8 Hard | 80000-105000 | 30000-75000 | 20-55   | 75-95             |
| 316    | Annealed               | 85000 min    | 35000 min   | 50 min  | 80 min            |
| 316L   | Annealed               | 80000 min    | 30000 min   | 50 min  | 75 min            |









Stainless steel square bar





Corrosion Resistance - Stainless steel tube is capable of resisting water, most acids, alkaline solutions, and chlorine bearing environments, and properties which are utilized in process .plants

Hygiene - Stainless steel tube's easy cleaning ability makes it a premier choice for strict .hygiene conditions, such as hospitals, kitchens, abattoirs and other food processing plants Fire & Heat Resistance - Different grades of stainless steel metal tube will resist scaling and retain strength at high temperatures

Strength-To-Weight Advantages - The structural nature of stainless tube allows for a higher .strength-to-weight ratio than other types of metal

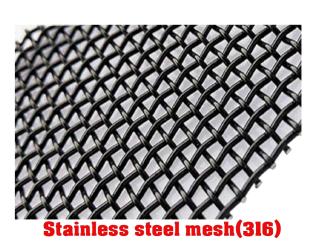
Aesthetics - Stainless steel tube is bright and easy to maintain, which provides for a modern and attractive appearance

Stainless steel bar products are used for an abundance of structural and fabrication related projects where increased strength and superior corrosion resistance is required. Some of the unique applications related to our stainless steel bar stock, include:Kitchen projects Food processing equipment Construction materials Automotive & aerospace structural uses **Architectural pieces** 



Plain/twill weave wire mesh (square mesh) has been widely used to form filters and screens. The choice of braiding method should satisfy factors such as the ratio of opening area to wire diameter and application. Especially in the production of fine meshes with a pore .size of  $150\mu$  or less, we have gained a high reputation





Stainless steel welded mesh is usually made of 201, 202, 304, 304L, 316, 316L and other stainless steel wires as materials, and is processed by precise automated mechanical technology. Even if it is partially cut or partially subjected to pressure, it will not become loose. Mainly used in mining, petroleum, chemical, food, medicine, machinery manufacturing and other industries



#### contact us

Email:Jeff@soloscompany.com Whatsapp:+86-177-20112897 Address:No 401,U. 8,Building B1,Jinbinjiezuo,Teda,Tianjin,China

