TXD Steel Group Co., LTD. always pays attention to the
integration of resources and adheres to the concept of win-win cooperation.
Based on honesty and relying on resource advantages,
we guarantee the most reliable quality and the most favorable price.
Looking forward to be your best partner!

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Add. Huaiyin District, Jinan city, Shandong Province,China
Web. www.txdmetal.com

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# PRODUCT CATALOG

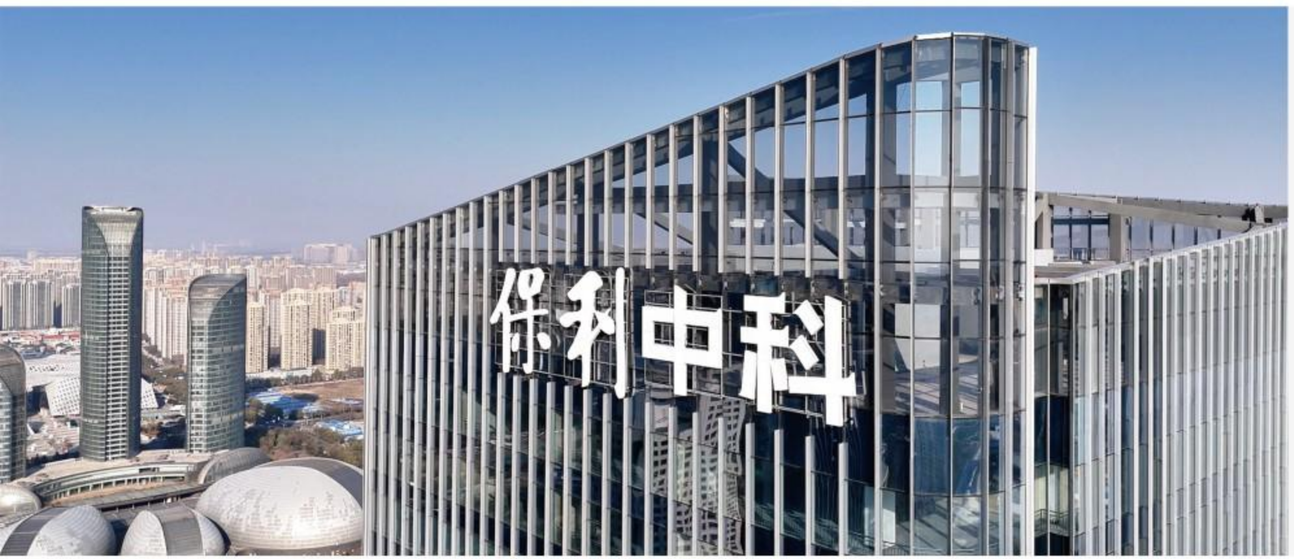
Sincere service

Quality product

Rich experience



# ABOUT OUR COMPANY







**100+**
**Countries of export**
Serve countless customers
and win praise from customers

**1000+**
**Employees**
All employees have been
professionally trained

**600+ million**
**Annual sales amount**
High sales more refined
product quality

**20+ years**
**Foreign trade experience**
We can solve any of your
problems smoothly

## TXD STEEL GROUP CO.,LTD

Our company is dedicated to the supply chain services of bulk materials, particularly steel. We have passed many certificates, such as ISO9001 ISO45001 and ISO Environmental Management System certification. Our products comply with various national standards, including Chinese, British, American, and European. The diversity and wide range of specifications of our products have expanded our business scope. We have over 400 employees and nearly 1,000 workers in our factory. Additionally, we have set up branches in Zibo, Liaocheng, Suzhou, and Guangzhou, as well as a subsidiary factory in Egypt. Our strong capabilities have enabled us to grow into a large-scale integrated industry and trade group, with annual sales from both domestic and export markets exceeding 4 billion RMB.

Since our establishment, we have successfully served numerous major national construction projects. Through years of production experience, we have obtained multiple national patents and international quality certifications, breaking through barriers in the steel production industry. We have also independently developed and launched several specialized production lines for products such as galvanized steel, color-coated steel, and profiles, creating a self-sustained production chain from manufacturing to transportation and export, offering one-stop procurement services for our customers.

At the same time, our dual domestic and international sales model has significantly enhanced the global visibility of our steel products. We participate in major international steel trade fairs throughout the year, and our partners span nearly 100 countries and regions. Furthermore, we have established offices in countries such as Indonesia, Philippines, Brazil, Peru, Iraq, the UAE, Jordan, Egypt, and Algeria, where we are dedicated to deepening market presence, serving clients, and providing comprehensive pre-sale and after-sale services to more customers around the world.







# Seamless steel pipe

TXD STEEL GROUP

## Product Reference Manual

Seamless steel pipe is a long strip of steel with hollow section and no joints. It is made by perforation, hot rolling or cold drawing and other processes. It is widely used in fluid transportation (such as oil and gas), machinery parts and building structures. Its advantage is that its flexural strength is comparable to solid steel but its weight is lighter and it is economical.

According to the manufacturing process, it can be divided into hot rolled pipe, cold drawn pipe, extruded pipe, etc. According to the material is divided into carbon steel, alloy steel, stainless steel, etc., external standard seamless steel pipe involves a variety of international standards, such as ASTM, EN, DIN, etc., and through SGS, ISO certification. Materials such as ASTM 1050 and S50C are suitable for different industrial requirements.



### Product specification

Square Steel Pipe

| | |
|---|---|
| **Raw material** | carbon steel |
| **Type** | hot rolled seamless carbon steel pipe |
| **Technique** | hot rolled |
| **Outer diameter** | 25mm-800mm (0.98''-31.4'')<br>diameter can be manufactured as cutomer require |
| **Wall thickness** | 3mm-20mm (0.11''-0.78'')<br>wall thickness can be manufactured as cutomer require |
| **Length** | 500mm-13000mm (19.6''-511.8'' or random length) |
| **Shape** | round, square, rectangular |
| **Pipe ends** | plain ends, beveled ends etc |
| **Surface treatment** | shot blasting/galvanized/painted as customer needs |
| **Certificate** | CE, ISO, API |
| **Packing** | option one: plastic caps covered on both ends of pipes;<br>option two: woven bag wrapped outside the pipes;<br>option three: tied in bundle |
| **Application** | oil/gas/water fluid transportation or construction, hydraulic precision<br>machinery parts/power/boiler/petrochemical/building<br>industry etc |
| **Inspection** | accept the third party to check the goods quantity and quality |



### Considerations for selecting external standard seamless steel pipe

Use environment: high temperature/high pressure (ASTM A106), corrosive medium (ASTM A312), precision assembly (DIN 2391).
Industry specification: Oil and gas industry mandatory API 5L, European pressure vessels must comply with the PED directive.
Cost effectiveness: the premium of American standard tube is about 20-30%, the cost performance of daily standard tube is high, and the European standard tube is suitable for high-end customization.
Certification requirements: SGS/BSI test report is required for export to Europe and the United States, and ASME III certification is required for nuclear power field.

### Comparison of International Standard Differences

| Dimension | ASTM (USA) | EN (Europe) | JIS (Japan) | GB (China) |
|---|---|---|---|---|
| Chemical Composition | Wide allowable range, focuses on performance compliance | Strict element control, emphasizes traceability | Lower limit for sulfur and phosphorus content | Similar to JIS, but slightly higher carbon content |
| Tolerance Precision | General grade ±0.8%, precision grade ±0.4% | EN 10305 tolerance ±0.2mm | JIS G3445 precision tube ±0.1mm | GB/T 3639 tolerance ±0.15mm |
| Inspection Requirements | Emphasizes UT/RT inspection | Mandatory hydrostatic test + hardness full inspection | Mainly uses drop weight impact test | Follows GB/T 5777 stratified inspection |
| Application Focus | Oil, nuclear, military | Automotive, machinery, chemical | Electronics, precision instruments | Construction, general machinery |
| Certification System | Needs PED/ASME certification | CE marking + material traceability code | JIS marking + third-party test factory | GB marking + production license |

| | | |
|---|---|---|
| Seamless Pipe Standard | China | GB/T8162/T8163 GB5310/6579/9948 |
| | U.S.A. | ASTM A53/A106/A178/A179/A192/A210/A213/A333/A335/A283/A135/ |
| | | A214/315/A500/A501/A519/A161/A334； API 5L/5CT |
| | Japan | JIS G3452/G3454/G3456/G3457/G3458/G3460/3461/3462/3464 |
| | Germany | DIN 1626/17175/1629-4/2448/2391/17200 SEW680 |
| | Russia | GOST 8732/8731/3183 |
| Materials And Grades | China | 0 # 、20 # 、16Mn、20G、15MoG、15CrMo、30CrMo、 42Crmo、 |
| | | 27SiMn、20CrMo |
| | U.S.A. | Gr.B/Gr.A/A179/A192/A-1/T11/T12/T22/P1/FP1/T5/4140/4130 |
| | Japan | STPG38、STB30、STS38、STB33、STB42、STS49、 STBA23、 |
| | | STPA25、STPA23 |
| | Germany | ST33，ST37，ST35，ST35.8，ST45，ST52，15Mo3， 13CrMo44， |
| | | 1.0309，1.0305，1.0405 |
| | Russia | 10, 20, 35, 45, 20X |







# Galvanized square pipe

TXD STEEL GROUP

## Product Reference Manual



### Product specification

Galvanized square pipe

| | |
|---|---|
| Product name | galvanized Steel Hollow Section China Manufacturer Yuantaiderun |
| Material | Gr.A, Gr.B, Gr.C,S275J0H,S355JR,S355J0H,S355J2H,A36,SS400,Q195,Q235,Q345 |
| Shape | square or rectangular or round |
| Thickness | 1.0-32 mm or as customer's actual reques |
| Length | 3-12M according to client requirement |
| OD(outer diameter) | square 10*10-1000*1000mm rectangular:10*15 800*1100mm Round:10.3mm-609mm |
| Technology | ERW,LSAW,SSAW,Seamless |
| MOQ | 5 Tons |
| Grade | 10#-45#, 16Mn, A53-A369, Q195-Q345, ST35-ST52 |
| | Grade A, Grade B, Grade C,etc |
| Pipe Ends | Plain end/Beveled,protected by plastic caps on both ends, |
| | cut quare,grooved,threaded and coupling,etc. |
| Application | 1. Fence, greenhouse, door pipe,greenhouse |
| | 2. Low pressure liquid, water, gas, oil, line pipe |
| | 3. For both indoor and outdoor the building construction |
| | 4. Widely used in scaffolding construction which is much cheaper and convenient |
| | 5.Machinery manufacture，Roads and Bridges |
| Surface Treatment | 1. Galvanized |
| | 2. PVC,Black and color painting |
| | 3. Transparent oil,anti-rust oil |
| | 4. According to clients requirement |
| Certification | CE,LEED,BV,PHD&EPD,BC1,EN10210,EN10219,ISO9000,ASTMA500,ASTM A501,AS1163,JIS G3466 |
| Brand | YUANTAI DERUN |
| Standards | Hollow section: API 5L, ASTM A53-2007, ASTM A671-2006, ASTM A252-1998, |
| | ASTM A450-1996, ASME B36.10M-2004, ASTM A523-1996, BS 1387, BS EN10296, BS |
| | 6323, BS 6363, BS EN10219, GB/T 3091-2001, GB/T 13793-1992, GB/T9711 |



Galvanized square pipe is a kind of square section steel pipe made by hot rolling or cold rolling galvanized strip or coil processing and welding, mainly divided into hot galvanized and cold galvanized two processes. Hot dip galvanizing by dipping into the zinc pool to form a coating, low cost but low strength; Cold galvanized by electrochemical method, corrosion protection performance is better but the cost is high. Its core features include excellent corrosion resistance (the zinc layer forms a dense barrier), high toughness, strong pressure resistance, as well as smooth surface, uniform specifications, environmental protection, etc. Widely used in construction (curtain wall, steel structure), machinery manufacturing, power engineering, transportation (guardrail, bridge), petrochemical (pipeline) and solar support and other fields.

| Characteristic | Hot-dip galvanized pipe | Pre galvanized pipe |
|---|---|---|
| Coating thickness | The minimum average requirement in BS EN ISO 1461 is a thick coating of 45-85μm | The coating thickness may vary, but the coating thickness of plate is usually about 20μm, and the coating thickness of pipe and wire is usually about 20-30μm |
| Continuous coating | Apply continuous coating to the entire object | Cutting edge uncoated area |
| Coating bonding | Strong metallurgical bonding with the base steel | Strong metallurgical bonding with the base steel |
| Coating formability | It is not recommended to form after hot-dip galvanizing as this may damage the coating | Thin coatings can form normally without causing any damage |
| Coating appearance | Usually bright, but variable | Usually achieving uniform brightness |
| Wear resistance | The thicker hard zinc iron alloy layer has high wear resistance | Thin alloy layer reduces wear resistance |
| Sacrificial protection | Provide the highest level of sacrificial protection | Sacrificial protection is reduced due to thin coating and certain uncoated areas (cutting edges) |

**Pre-galvanized - Square and Rectangular Steel Pipe size chart**

| Square Hollow Section | Rectangular Hollow Section | Wall Thickness |
|---|---|---|
| 15*15 | 10*20 | 0.4mm~1.5mm |
| 20*20 | / | 0.4mm~2mm |
| 25*25 | 20*30 15*30 | 0.4mm~2.3mm |
| 30*30 40*40 50*50 60*60 80*80 50*100 100*100 | 20*40 30*40 35*55 30*50 30*60 37*57 37*77 40*60 40*80 50*70 60*80 60*120 | 0.4mm~2.5mm |
| 37*37 | 27*4 25*50 | 0.4mm~2.3mm |

# Carbon steel square tube

TXD STEEL GROUP

## Product Reference Manual

### About Square steel pipe

Steel Square Tube is widely used in industrial maintenance, agricultural implements, transportation equipment, truck beds, trailers, frames, etc. It's box-shape configuration allows for much greater strength and rigidity compared to angles or channels. This steel shape is easy to weld, cut, form and machine with the proper equipment and knowledge.

### Product specification

Square Steel Pipe

| | |
|---|---|
| Product Name | Carbon steel square tube |
| Technique | Seamless pipe,ERW pipe,SSAW pipe |
| Wall Thickness | 0.5MM~300MM |
| Outer Diameter | 10MM~1200MM |
| Length | Length:Single random length/Double random length |
| Surface Treatment | 1. Galvanized |
| | 2. PVC,Black and color painting |
| | 3. Transparent oil,anti-rust oil |
| | 4. According to clients requirement |
| Standard | API 5L, ASTM A53-2007, ASTM A671-2006, ASTM A252-1998, ASTM A450-1996, ASME |
| | B36.10M-2004, ASTM A523-1996, BS 1387, BS EN10296, BS 6323, BS 6363, BS EN10219, |
| | GB/T 3091-2001, GB/T 13793-1992, GB/T9711 |
| Application | 1. Fence, greenhouse, door pipe,greenhouse |
| | 2. Low pressure liquid, water, gas, oil, line pipe |
| | 3. For both indoor and outdoor the building construction |
| | 4. Widely used in scaffolding construction which is much cheaper and convenient |
| Edge | Plain end/Beveled,protected by plastic caps on both ends, cut quare,grooved, |
| | threaded and coupling,etc. |
| Material | 10#, 20#, 45#, 16Mn, A53(A,B), Q235, Q345, Q195, Q215, St37, St42, St37-2, |
| | St35.4, St52.4, ST35 |
| Packing | Bundle, or with all kinds of colors PVC or as your requirements |
| Container Dimension | 20ftGP:5898mm(Length)x2352mm(Width)x2393mm(High) 24-26CBM |
| | 40ftGP:12032mm(Length)x2352mm(Width)x2393mm(High) 54CBM |
| | 40ftHC:12032mm(Length)x2352mm(Width)x2698mm(High) 68CBM |



Square tube is a versatile structural component that can also be used in appliances and fencing. Some of its common uses are steel frames for gate construction,door jambs, and grills. It can also be used in walls, rafters,floor joists,and studs for walls.

| SIZE (OUTER DIAMETER) | WALL THICKNESS | LENGTH |
|---|---|---|
| 20x20 / 25x25 | 1.2MM --2.75MM | 6M IN STOCK (OR CUSTOMIZED) |
| 30x30 / 20x40 / 30x40 / 25x40 | 1.2MM -- 3.5MM | 6M IN STOCK (OR CUSTOMIZED) |
| 40x40 / 50x5030x50 / 25x50 / 30x60 / 40x60 | 1.2MM -- 4.75 MM | 6M IN STOCK (OR CUSTOMIZED) |
| 60x60 / 50x70 / 40x80 / 40x50 | 1.2 MM -- 5.75 MM | 6M IN STOCK (OR CUSTOMIZED) |
| 70x70 / 60x80 / 50x80 / 100x40 / 50x90 | 1.5MM -- 5.75 MM | 6M IN STOCK (OR CUSTOMIZED) |
| 75x75 / 80x80 / 90x90 60x100 / 50x100 / 120x60 / 100x80 / 60x90 | 1.5MM -- 7.75 MM | 6M IN STOCK (OR CUSTOMIZED) |
| 100x100 / 120x80 | 1.8MM -- 7.75 MM | 6M IN STOCK (OR CUSTOMIZED) |
| 120x120 / 130x130 180x80 / 160x80 / 100x150 / 140x80 / 140x60 | 2.5MM -- 10.0 MM | 6M IN STOCK (OR CUSTOMIZED) |
| 140x140 / 150x150 / 100x180 / 200x100 | 2.5MM -- 10.0 MM | 6M IN STOCK (OR CUSTOMIZED) |
| 160x160 / 180x180 / 200x150 | 3.5MM -- 11.0 MM | 6M IN STOCK (OR CUSTOMIZED) |
| 200x200 / 250x150 / 100x250 | 3.5MM -- 11.0 MM | 6M IN STOCK (OR CUSTOMIZED) |
| 250x250 / 250x200 / 300x150 / 300x200 | 4.5MM -- 15.0 MM | 6M IN STOCK (OR CUSTOMIZED) |
| 300x300 / 350x200 / 350x250 /300x150 | 4.5MM -- 15.0 MM | 6M IN STOCK (OR CUSTOMIZED) |
| 350x350 350x300 / 450x250 / 400x300 / 500x200 | 4.5MM -- 15.75 MM | 6M IN STOCK (OR CUSTOMIZED) |
| 400x400 / 280x280 450x300 / 450x200 / 400x350 / 400x250 / 500x250 / 500x300 | 4.5MM -- 15.75 MM | |







# Oil casing pipe

TXD STEEL GROUP

## Product Reference Manual





| | |
|---|---|
| Product name | Seamless Oil Pipe |
| Process | Hot rolled and cold drawn |
| Standard | API 5L, API 5CT, ASTM A106/A53, ASTM A519, JIS G 3441, JIS G3444, JIS G3445 DIN 2391, EN10305, EN10210, ASME SA106, SA192, SA210,SA213, SA335, DIN17175, ASTM A179 |
| Our diameter | 1/8 – 30 inch (10.3-762mm) |
| Wall Thickness | 0.049" – 2.5" (1.24- 63.5mm) |
| Length | Random Length, Fixed Length, SRL, DRL |
| Steel Grade | API 5L: GR B, X42, X46, X56, X60, X65, X70<br>ASTM A53/A106: GR A, GR B, GR C<br>ASME SA106: GR.A, GR.B, GR.C<br>ASME SA192: SA192<br>ASME SA209M: T1, T1a<br>ASME SA210: GR.A-1, GR.C<br>ASME SA213: T2, T5, T9, T11, T12, T22<br>ASME SA335: P2, P5, P9, P11, P12, P22, P91<br>DIN17175:ST35.8, ST45.8, 15Mo3, 13CrMo44 |
| Surface | Fusion Bond Epoxy Coating,Coal Tar Epoxy,3PE,FBE,Varnish coating,Bitumen coating, Black Oil coating as per customers requirement |
| Treatment | Heat treatment:Annealed: Bright annealed,Spheroidize annealed, Normalized, Stress relieved, Cold finished, Quenched and Tempered. |
| Application | Applicable to the general structure, mechanical structure, water wall panel, economizer, super heater, boiler and heat exchanger with seamless steel tubes, and to transport liquid, gas, oil etc. |



| standard | model number | tensile strength (MPa) | yield strength (MPa) | durometer |
|---|---|---|---|---|
| API SPEC 5CT | J55 | ≥517 | 379~552 | |
| | K55 | ≥517 | ≥655 | |
| | N80 | ≥689 | 552~758 | |
| | L80(13Cr) | ≥655 | | ≤241HB |
| | P110 | ≥862 | 758~965 | |
| Packing | Export standard package or as customers' request | | | |
| Delivery time | Usually 7-15 dyas, or upon negotiation | | | |
| Samples | Free samples are provided but the fright is borne by the buyer | | | |

Oil casing is a large caliber steel pipe used to secure the well wall of oil and gas Wells. Its main functions include supporting the well wall to prevent collapse, ensuring the circulation of drilling mud, and isolating different formation pressures to ensure safe production. They are classified by application as conduit, surface casing, technical casing, and reservoir casing. The surface casing protects shallow layers from contamination, the technical casing separates pressure layers, and the reservoir casing directly exports oil and gas.

Casing materials are mainly high-strength steel, common steel grades include J55, N80, P110, etc., which should be selected according to well depth and geological conditions. Corrosion protection materials such as 3Cr and 13Cr should be used for corrosion environment
. The API 5CT standard is implemented, usually in the OD range of 114.3 mm to 508 mm, and the end machining form includes thread connection, etc. Casing is a disposable consumption material, accounting for more than 70% of oil well pipe consumption. It has high quality requirements and needs to pass strict testing such as flattening test and tensile test.

| Grade | Type | Total elongation under load (%) | Yield strength (min)Mpa | Yield strength (max)Mpa | Tensile strength min Mpa | Hardness Max (HRC) | Hardness Max (HBW) |
|---|---|---|---|---|---|---|---|
| J55 | - | 0.5 | 379 | 552 | 517 | - | - |
| K55 | - | 0.5 | 379 | 552 | 655 | - | - |
| N80 | 1 | 0.5 | 552 | 758 | 689 | - | - |
| N80 | Q | 0.5 | 552 | 758 | 689 | - | - |
| L80 | 1 | 0.5 | 552 | 655 | 655 | 23 | 241 |
| L80 | 9Cr | 0.5 | 552 | 655 | 655 | 23 | 241 |
| L80 | 13Cr | 0.5 | 552 | 655 | 655 | 23 | 241 |
| C90 | - | 0.5 | 621 | 724 | 689 | 25.4 | 255 |
| C95 | - | 0.5 | 655 | 758 | 724 | - | - |
| T95 | - | 0.5 | 655 | 758 | 724 | 25.4 | 255 |
| P110 | - | 0.6 | 758 | 965 | 862 | - | - |
| Q125 | All | 0.65 | 862 | 1034 | 931 | - | - |

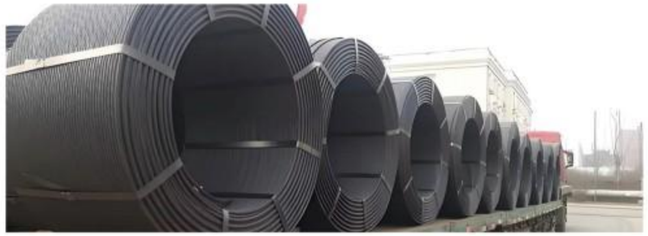
**All specifications products can be customized according to customer requirements**

# PC Steel Strand

TXD STEEL GROUP

## Product Reference Manual





Steel strand is a metal material formed by stranding multiple steel wires, which is mainly used in prestressed concrete structures. It has high strength, corrosion resistance and good workability. The manufacturing process includes cold drawing to produce a single wire, which is then twisted by a stranding machine. The prestressed steel strand also needs to be stabilized to reduce stress relaxation. Widely used in Bridges, tunnels, high-rise buildings, water conservancy engineering and other fields, can significantly improve the bearing capacity, seismic performance and service life of the structure.

| | |
|---|---|
| Material | SAE1006-1080,WA1010,Q195,SWRH32-37,SWRH42A-77A,SWRH42B-82B |
| Size Tolerance | ±1% |
| Wire Gauge | 1 - 50 mm |
| Dia tolerance | +/-0.3mm |
| Process | Hot rolled, Cold Drawn |
| Length | As customer's request |
| Technology | Hot roll, cold roll, cold drawn, ect. |
| Edge | Mill Edge Slit Edge |
| Certifications | MTC,ISO9001, BV,TUV |
| Sample | Free,Contact us to learn more |
| Packing | Industry standard packaging or according to client's requirement |

### Steel wire model comparison table

| serial number | model | diameter |
|---|---|---|
| 1 | 8# | 4 |
| 2 | 10# | 3.5 |
| 3 | 12# | 2.8 |
| 4 | 14# | 2.2 |
| 5 | 16# | 1.6 |
| 6 | 18# | 1.2 |
| 7 | 20# | 0.9 |



### PC Steel Strand Types:



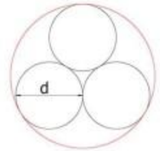
1 × 7 strand PC steel wire



1 × 7 strand PC steel wire drawing



1 × 3 strand PC steel wire




1 × 3 strand PC steel wire drawing

### Comparison of various standards

| ASTMA416-06 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Grade | mm Nominal Diameter | | mm Diameter Tolerance | mm²Nominal Area | KG/1000m Nominal Weight | KN Min.Breaking Strength | KN Min.Yeld Strength | Relaxation | | |
| | | | | | | | | Min.Elongation at Max Load | Initial Load Of Min Nominal Breaking Strength | 1000h Value No More Than |
| 250 | 0.375 | 9.53 | ±0.4 | 51.61 | 405 | 89 | 80.1 | 3.50% | 60% 70% 80% | 1% 2.5% 4.5% |
| | 0.438 | 11.11 | | 69.68 | 548 | 120.1 | 108.1 | | | |
| | 0.5 | 12.7 | | 92.9 | 730 | 160.1 | 144.1 | | | |
| | 0.6 | 15.2 | | 139.35 | 1094 | 240.2 | 216.2 | | | |
| 270 | 0.375 | 9.53 | +0.650.15 | 54.84 | 432 | 102.3 | 92.1 | | | |
| | 0.438 | 11.11 | | 74.19 | 582 | 137.9 | 124.1 | | | |
| | 0.5 | 12.7 | | 98.71 | 775 | 183.7 | 165.3 | | | |
| | 0.6 | 15.24 | | 140 | 1102 | 260.7 | 234.6 | | | |

| BS5896 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Type | mm Nominal Diameter | mm Diameter Tolerance | mm2 Nominal Area | KG/1000m Nominal Weight | KN Strength grade | Min.Breaking Strength | Min.Yeld Strength | mm Min Elongation at Max Load | Relaxation | |
| | | | | | | | | | Initial Load Of Min Nomina Breaking Strength | 1000h Value No More Than |
| Standard 7 wire | 9.3 | 0.3 | 52 | 408 | 1770 | 92 | 85%Min Breaking strength | 3.50% | 60%70% 80% | 1% 2.5% 4.5% |
| | 11 | -0.15 | 71 | 557 | 1770 | 125 | | | | |
| | 12.5 | 0.4 | 93 | 730 | 1770 | 164 | | | | |
| | 15.2 | -0.2 | 139 | 1090 | 1670 | 232 | | | | |
| Super 7wire | 9.6 | 0.3 | 55 | 432 | 1860 | 102 | | | | |
| | 11.3 | -0.15 | 75 | 590 | 1860 | 139 | | | | |
| | 12.9 | 0.4 | 100 | 785 | 1860 | 186 | | | | |
| | 15.7 | -0.2 | 150 | 1180 | 1770 | 265 | | | | |

| JISG3536 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Type | mm Nomina Diameter | mm Diameter Tolerance | mm²Nominal Area | KG/1000m Nomina Weight | KN Min.Breaking Strength | KN Min.Yield Strength | Min.Elongation at Max Load | Relaxation | |
| | | | | | | | | Initial Load Of Min Nominal Breaking Strength | 1000h Value No More Than |
| SWPR 7AN | 9.3 | +0.4 -0.2 | 51.61 | 405 | 88.8 | 75.5 | 3.50% | 70% | 2.50% |
| | 10.8 | | 69.68 | 546 | 120 | 102 | | | |
| SWPR 7AL | 12.4 | | 92.9 | 729 | 160 | 136 | | | |
| | 15.2 | | 138.7 | 1101 | 240 | 204 | | | |
| SWPR 7BN | 9.5 | | 54.84 | 432 | 102 | 86.8 | | | |
| | 11.1 | | 74.19 | 580 | 128 | 118 | | | |
| SWPR 7BL | 12.7 | | 98.71 | 774 | 183 | 156 | | | |
| | 15.2 | | 138.7 | 1101 | 261 | 222 | | | |
| SWPR 19W SWPR 19L | 17.8 | +0.6 -0.25 | 208.4 | 1652 | 387 | 330 | | | |
| | 21.8 | | 312.9 | 2482 | 573 | 495 | | | |
| | 28.6 | | 532.4 | 4229 | 949 | 807 | | | |

# Steel wire mesh

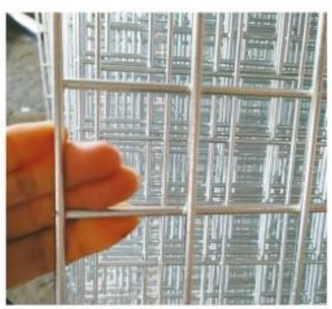
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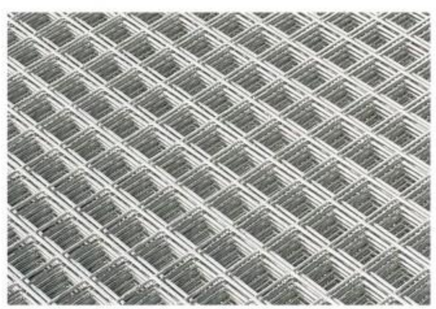
## Product Reference Manual

Galvanized wire mesh is composed of a number of wires that are twisted together. The twisting creates a network of tiny channels in the metal, which protects the mesh from rust and other damages.

Galvanized wire mesh is strongest when placed over an area that contains high levels of stress or abuse, such as behind gates or around trees. This is because galvanized wire mesh can handle repeated impacts better than other types of fencing options.

The amount of protection that galvanized wire mesh provides depends on the quality of galvanization and zinc coating. Additionally, the size and shape of the wire can affect how well it protects against damage.  There are many benefits to using galvanized wire mesh, including its durability, its low maintenance costs, and its resistance to rust.





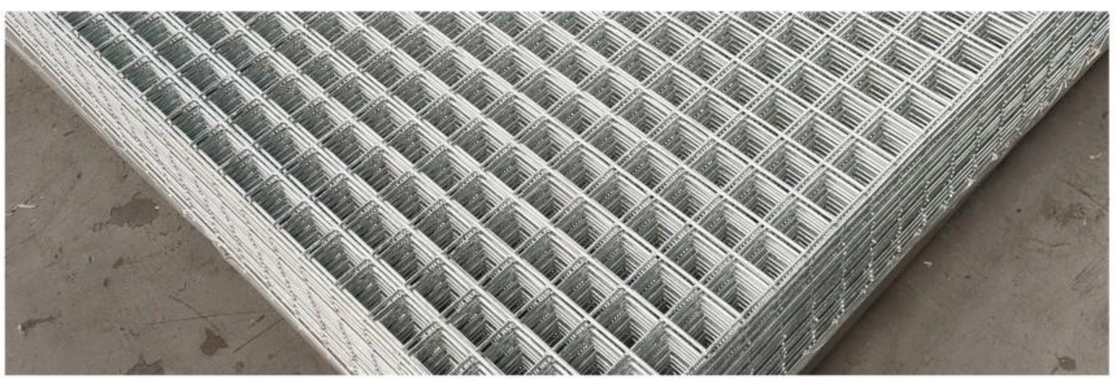


## The benefits of galvanization include

1.  Increased lifespan. Galvanized wire mesh has a longer lifespan than regular wire mesh, due to the protection it provides against corrosion.

2. Reduced maintenance costs. Galvanized wire mesh requires less maintenance than regular wire mesh, as it does not corrode as easily. This means that there are fewer opportunities for problems to occur, and maintenance costs are reduced overall.

3. Improved safety. Galvanized wire mesh is much safer than regular wire mesh when it comes to preventing accidents and injuries. This is because it is more difficult for people or animals to get through the fence material, which reduces the risk of accidents occurring.





## The benefits of galvanization include

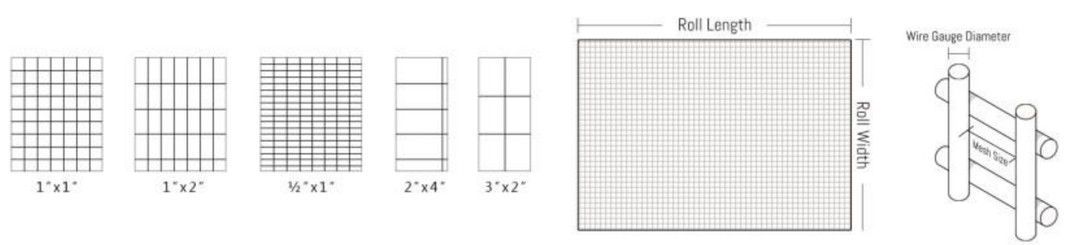
Wire mesh is a versatile material that can be used for a variety of purposes.

Galvanized wire mesh is most commonly used for fencing purposes. It is particularly popular for use in residential and commercial settings, as it provides a high level of security and protection against corrosion.

In addition to being used for fencing, galvanized wire mesh can also be found as component parts of other industrial applications, such as warehouses and manufacturing plants.

Some other applications of gi wire mesh  include staining and screening. Galvanized wire mesh is available in different gauges and sizes, making it suitable for a wide range of applications. It is important to choose the right type of wire mesh for the intended application, as each type has specific benefits and drawbacks. For example, galvanized wire mesh is stronger than other types of wire mesh but less flexible.

Custom made wire mesh can be an ideal solution for certain applications. For example, if you need to create a custom shape or size of wire mesh, custom made wire mesh may be the best option for you. Alternatively, if you need to repair or replace damaged wire mesh, custom made wire mesh may be the best option for you because it will fit exactly where needed without any gaps or tears




| Opening | | Wire Diameter BWG |
|---|---|---|
| **In inch** | In metric unit(mm) | BWG24-22 |
| **1/4" x 1/4"** | 6.4 x 6.4mm | BWG22-19 |
| **3/8" x 3/8"** | 10.6x 10.6mm | BWG23-16 |
| **1/2" x 1/2"** | 12.7 x 12.7mm | BWG21-18 |
| **5/8" x 5/8"** | 16x 16mm | BWG21-16 |
| **3/4" x 3/4"** | 19.1 x 19.1mm | BWG21-16 |
| **1" x 1/2"** | 25.4x 12.7mm | BWG19-14 |
| **1-1/2" x 1-1/2"** | 38 x 38mm | BWG16-14 |
| **1" x 2"** | 25.4 x 50.8mm | BWG15-12 |
| **2" x 2"** | 50.8 x 50.8mm | BWG15-12 |
| **2"  x 4"** | 50.8 x 101.6mm | BWG15-12 |
| **4"  x 4"** | 101.6 x 101.6mm | BWG15-12 |
| **4"  x 6"** | 101.6 x 152.4mm | BWG15-12 |
| **6"  x 6"** | 152.4 x 152.4mm | BWG15-12 |
| **6"  x 8"** | 152.4 x 203.2mm | BWG14-12 |

# Carbon steel coil

TXD STEEL GROUP

## Product Reference Manual

### Introduction to Carbon Steel

Carbon steel is the most commonly produced metal today. It is manufactured in a variety of shapes and sizes and is used in most applications of any metal. It is defined as steel with carbon content ranging from 0.05 percent to 2.1 percent by weight. The term carbon steel includes many different grades/classifications, such as low carbon, high carbon, and alloy steels. In general, carbon steel has a higher carbon content, a lower melting point, and greater durability than stainless steel.

Coil - a finished steel product, such as sheet or strip, that has been rolled and then coiled or wound. Based on the experience gained over the years, steel coils are classified into cold rolled steel coils and hot rolled steel coils, or stainless steel coils, carbon coils and galvanized steel according to current products and international standards.



### Product specification

Carbon Steel Coil

| | |
|---|---|
| **Thickness** | 0.8-100 mm , as Your Request |
| **Width** | 1250-2500mm,or as Your Request ( regular width 1000mm, 1250mm,1500mm) |
| **Coil ID** | 508mm or 610mm |
| **Coil Weight** | 5-30 Tons or as your request |
| **Standard** | ASTM EN DIN GB ISO JIS BA ANSI |
| **Steel Grade** | Q235B Q355B SS400 S235JR S355JR A36 65Mn 08F SAE1006 SAE1008 SAE1020 DD11 SPHT |
| **Technique** | Hot rolled cold rolled as Your Request |
| **Surface Treatment** | Bare,Black,Oiled, Shot Blasted,Spray Paint,Coated,Galvanized,or as Your Request |
| **Application** | Applies to appliances construction, machinery manufacturing, container manufacturing, shipbuilding, bridges, etc. |
| **Package** | Standard Export packing(Plastic film in the first layer,second layer is Kraft paper. Third layer is galvanized sheet) |
| **Remarks** | Insurance per to Contract terms;<br>MTC will be handed on with shipping documents;<br>We accept the third party certificatation test. |



### Carbon steel material comparison

| Material | China/GB | USA/ASTM | Europe/EN | Germany/DIN | France/NFA | Italy/UNI | UK/BS |
|---|---|---|---|---|---|---|---|
| 1.0035 | Q235 | A283 A,B,C,D | S185 | St 33 | A 33 | Fe 320 | - |
| 1.0037 | Q235A | A53 Gr.A | S235JR | St 37-2 | E24-2 | Fe 360 B | - |
| 1.0121 | - | - | S235JRG1 | USt 37-2 | - | Fe 37 BFU | - |
| 1.0038 | Q235A | A284 Gr.C,D | S235JR | RSt 37-2 | E24-2 | Fe 360 B | 40(A)B |
| - | - | - | S235J0 | St37-3U | E 24-3 | Fe 360 C | 40C |
| 1.0116 | - | - | S235J2+N | St 37-3 N | E24-4 | Fe 360 D | 40D |
| 0.0117 | Q235-F | A36 | S235J2 | - | - | - | 40 EE |
| 1.0044 | Q295 | A529 Gr.42,50 | S275JR | ST 44-2 | E 28-2 | Fe430B | 43(A)B |
| 0.0143 | Q295 | - | S275J0 | St44-3U | E 28-3 | Fe 430 C | 43 C |
| 0.0144 | Q295 | A572 Gr.42,50 | S275J2+N | St 44-3N | E 28-4 | Fe 430D | 43 D |
| 0.0145 | Q295 | - | S275J2 | - | - | - | 43EE |
| - | Q215 | A573 Gr.58,65,70 | - | - | - | - | - |
| 0.0145 | Q295 | A633 Gr.A,C,D | S355JR | - | E 36-2 | Fe 510 B | 50 B |
| 1.0553 | Q345 | - | S355J0 | St 52-3 U | E 36-3 | Fe 510C | 50 C |
| 1.057 | Q345 | - | S355J2+N | St 52-3 N | - | Fe 510D | 50 D |
| 1.0577 | Q345 | A656 Gr.50 | S335J2 | - | - | - | - |
| 1.0595 | Q345 | - | S335K2+N | - | E 36 -4 | Fe 510 DD | 50 DD |
| 1.0596 | Q345 | - | S335K2 | - | - | - | 50 EE |
| - | - | A709 Gr.36,50,50 | - | - | - | - | - |
| - | Q295 | - | S275N | StE285 | - | Fe E 275 kg N | - |
| - | Q295 | - | S275NL | TStE285 | - | Fe E 275 KT N | 43EE |
| - | Q345 | - | S355 N | StE355 | E 355 R | Fe E 355 kg N | - |
| - | Q345 | - | S355 NL | TStE355 | E 355 FP | Fe E 355 KT N | 50EE |
| - | Q420 | - | S420N | StE420 | E 420 R | - | - |
| - | Q420 | - | S420NL | TStE420 | E 420 FP | - | - |
| - | Q460 | - | S460N | StE460 | E 460 R | Fe E 460 kg N | - |
| - | Q460 | - | S460NL | TStE460 | E 460 FP | Fe E 460 KT N | 55EE |
| - | Q295 | - | S275M | - | - | Fe E 275 kg TM | - |
| - | Q295 | - | S275ML | - | - | Fe E 275 KT TM | - |
| - | Q345 | - | S355M | StE355 TM | - | Fe E 355 kg TM | - |
| - | Q345 | - | S355ML | TStE355 TM | - | Fe E 355 KT TM | - |
| - | Q420 | - | S420M | StE420 TM | - | - | - |

# Stainless steel coil

TXD STEEL GROUP

## Product Reference Manual

### About Stainless Steel Coil

Stainless steel is notable for its corrosion resistance, and it is widely used for food handling and cutlery among many other applications. Stainless steel does not readily corrode, rust or stain with water as ordinary steel does. However, it is not fully stain-proof in low-oxygen, or high-salinity environments. There are various grades and surface finishes of stainless steel to suit the environment the alloy must endure.

### Stainless steel surface treatment



2B



2BA



BA



8K



NO4



Hairline



SB



Embossed

| Surface Finish | Definition | Application |
|---|---|---|
| 2B | Finished by heat treatment , picking or equipvalent cold rolling , followed by skin pass to obtain adequate luster surface. | With bright and smooth surface ,easy for further grinding to obtain brighter surface ,suitable for medical instruments ,milk containers ,tableware and so on. |
| BA | Bright heat treatment after cold rolling. | Structual members .etc.kitchen utensil ,cutlery ,eleltric applicances ,medical instruments ,building decorations ,etc. |
| NO.3/NO.4 | Polished with No.150-240 abrasives. | Milky food processing equipment , medicalinstruments ,building decorations. |
| HL | Finshed by polishing with abrasives of suitable grain size to obtain continuous streaks. | Building decorations ,such as elevators ,escalators ,door etc. |
| 6K/8K | A mirror-like reflective surface ,which is obtained by polishing with successively finer abrasives and buffing extensively with all gritlines are removed. | Buliding entrances,bulkding column casting ,elevator's wall doors, counters,sculptur |



### Stainless Steel Coil/Sheet/Plate Information

| Technique | Surface Finish | Grade Series | Thickness (mm) | Width(mm) Main Dimension | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 20-850 | 1000 | 1219 | 1240 | 1250 | 1500 |
| Hot Rolled | No.1 / 2E | 201/202/304 | 2.2-12.0 | √ | √ | √ | √ | - | √ |
| Cold Rolled | 2B | 201/304 | 0.25-3.0 | √ | √ | √ | √ | √ | √ |
| | | 410S/430 | 0.25-2.0 | √ | √ | √ | √ | | - |
| | Hairline | 201/304 | 0.22-3.0 | √ | √ | √ | √ | √ | - |
| | Mirror | | | | | | | | |
| | SB | 410S/430 | 0.25-2.0 | √ | √ | √ | √ | √ | - |
| | BA | 201/304 | 0.2--1.8 | √ | √ | √ | √ | - | - |
| | | 410S/430 | 0.25-2.0 | √ | √ | √ | √ | - | - |
| | 2BA | 410S/430 | 0.25-2.0 | √ | √ | √ | √ | - | - |

### Material list

| Grade | C | Si | Mn | P | S | Ni | Cr | Mo |
|---|---|---|---|---|---|---|---|---|
| 201 | ≤0.15 | ≤0.75 | 5.5-7.5 | ≤0.06 | ≤0.03 | 3.5-5.5 | 16.0-18.0 | - |
| 202 | ≤0.15 | ≤1.0 | 7.5-10.0 | ≤0.06 | ≤0.03 | 4.0-6.0 | 17.0-19.0 | - |
| 301 | ≤0.15 | ≤1.0 | ≤2.0 | ≤0.045 | ≤0.03 | 6.0-8.0 | 16.0-18.0 | - |
| 302 | ≤0.15 | ≤1.0 | ≤2.0 | ≤0.035 | ≤0.03 | 8.0-10.0 | 17.0-19.0 | - |
| 304 | ≤0.08 | ≤1.0 | ≤2.0 | ≤0.045 | ≤0.03 | 8.0-10.5 | 18.0-20.0 | - |
| 304L | ≤0.03 | ≤1.0 | ≤2.0 | ≤0.035 | ≤0.03 | 9.0-13.0 | 18.0-20.0 | - |
| 309S | ≤0.08 | ≤1.0 | ≤2.0 | ≤0.045 | ≤0.03 | 12.0-15.0 | 22.0-24.0 | - |
| 310S | ≤0.08 | ≤1.5 | ≤2.0 | ≤0.035 | ≤0.03 | 19.0-22.0 | 24.0-26.0 | - |
| 316 | ≤0.08 | ≤1.0 | ≤2.0 | ≤0.045 | ≤0.03 | 10.0-14.0 | 16.0-18.0 | 2.0-3.0 |
| 316L | ≤0.03 | ≤1.0 | ≤2.0 | ≤0.045 | ≤0.03 | 12.0-15.0 | 16.0-18.0 | 2.0-3.0 |
| 321 | ≤0.08 | ≤1.0 | ≤2.0 | ≤0.035 | ≤0.03 | 9.0-13.0 | 17.0-19.0 | - |
| 630 | ≤0.07 | ≤1.0 | ≤1.0 | ≤0.035 | ≤0.03 | 3.0-5.0 | 15.5-17.5 | - |
| 631 | ≤0.09 | ≤1.0 | ≤1.0 | ≤0.035 | ≤0.035 | 6.50-7.75 | 16.0-18.0 | - |
| 904L | ≤2.0 | ≤0.045 | ≤1.0 | ≤0.035 | - | 23.0-28.0 | 19.0-23.0 | 4.0-5.0 |
| 2205 | ≤0.03 | ≤1.0 | ≤2.0 | ≤0.030 | ≤0.02 | 4.5-6.5 | 22.0-23.0 | 3.0-3.5 |
| 2507 | ≤0.03 | ≤0.80 | ≤1.2 | ≤0.035 | ≤0.02 | 6.0-8.0 | 24.0-26.0 | 3.0-5.0 |
| 2520 | ≤0.08 | ≤1.5 | ≤2.0 | ≤0.045 | ≤0.03 | 0.19-0.22 | 0.24-0.26 | - |
| 410 | ≤0.15 | ≤1.0 | ≤1.0 | ≤0.035 | ≤0.03 | - | 11.5-13.5 | - |
| 430 | ≤0.12 | ≤0.75 | ≤1.0 | ≤0.040 | ≤0.03 | ≤0.60 | 16.0-18.0 | - |

# Stainless steel coil

TXD STEEL GROUP

## Product Reference Manual

### Austenitic Stainless Steel

| China | Jepan | USA | | Korea | Germany | Australia | China-Taiwan |
|---|---|---|---|---|---|---|---|
| GB | JIS | ASTM | UNS | KS | DIN | AS | CNS |
| 12Cr17Mn6Ni5N | SUS201 | 201 | S20100 | STS201 | 1.4372 | 201-2 | 201 |
| 12Cr18Mn9Ni5N | SUS202 | 202 | S20200 | STS202 | 1.4373 | - | 202 |
| 12Cr17Ni7 | SUS301 | 301 | S20200 | STS301 | 1.4319 | 301 | 301 |
| 06Cr19Ni10 | SUS304 | 304 | S30400 | STS304 | 1.4301 | 304 | 304 |
| 022Cr19Ni10 | SUS304L | 304L | S30403 | STS304L | 1.4306 | 304L | 304L |
| 06Cr19Ni10N | SUS304N1 | 304N | S30451 | STS304N1 | 1.4315 | 304N1 | 304N1 |
| 06Cr19Ni9NbN | SUS304N2 | XM21 | S30452 | STS304N2 | - | 304N2 | 304N2 |
| 022Cr19Ni10N | SUS304LN | 304LN | S30453 | STS304LN | - | 304LN | 304LN |
| 10Cr18Ni12 | SUS305 | 305 | S30500 | STS305 | 1.4303 | 305 | 305 |
| 06Cr23Ni13 | SUS309S | 309S | S30908 | STS309S | 1.4833 | 309S | 309S |
| 06Cr25Ni20 | SUS310S | 310S | S31008 | STS310S | 1.4845 | 310S | 310S |
| 06Cr17Ni12Mo2 | SUS316 | 316 | S31600 | STS316 | 1.4401 | 316 | 316 |
| 06Cr17Ni12Mo2Ti | SUS316Ti | 316Ti | S31635 | - | 1.4571 | 316Ti | 316Ti |
| 022Cr17Ni12Mo2 | SUS316L | 316L | S31603 | STS316L | 1.4404 | 316L | 316L |
| 06Cr17Ni12Mo2N | SUS316N | 316N | S31651 | STS316N | - | 316N | 316N |
| 022Cr17Ni13Mo2N | SUS316LN | 316LN | S31653 | STS316LN | 1.4429 | 316LN | 316LN |
| 06Cr18Ni12Mo2Cu2 | SUS316J1 | - | - | STS316J1 | - | 316J1 | 316J1 |
| 022Cr18Ni14Mo2Cu2 | SUS316J1L | - | - | STS316J1L | - | - | 316J1L |
| 06Cr19Ni13Mo3 | SUS317 | 317 | S31700 | STS317 | - | 317 | 317 |
| 022Cr19Ni13Mo3 | SUS317L | 317L | S31703 | STS317L | 1.4438 | 317L | 317L |
| 06Cr18Ni11Ti S | SUS321 | 321 | S32100 | STS321 | 1.4541 | 321 | 321 |
| 06Cr18Ni11Nb | SUS347 | 347 | S34700 | STS347 | 1.455 | 347 | 347 |

### Duplex Stainless Steel

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| - | SUS329J1 | 329 | S32900 | STS329J1 | 1.4477 | 329J1 | - |
| 022Cr23Ni5Mo3N | - | S32205 | F60 | - | 1.4462 | 2205 | 2205 |
| 022Cr25Ni7Mo4N | - | S32750 | F53 | - | 1.441 | 2507 | 2507 |



### Ferritic Stainless Steel

| China | Jepan | USA | | Korea | Germany | Australia | China-Taiwan |
|---|---|---|---|---|---|---|---|
| GB | JIS | ASTM | UNS | KS | DIN | AS | CNS |
| 06Crl3Al | SUS405 | 405 | S40500 | STS405 | 1.4002 | 405 | 405 |
| 022Cr11Ti | SUH409 | 409 | S40900 | STS409 | 1.4512 | 409L | 409L |
| 022Cr12 | SUS410L | - | - | STS410L | - | 410L | 410L |
| 10Cr17 | SUS430 | 430 | S43000 | STS430 | 1.4016 | 430 | 430 |
| 10Cr17Mo | SUS434 | 434 | S43400 | STS434 | 1.4113 | 434 | 434 |
| 022Cr18NbTi | - | - | S43940 | - | 1.4509 | 439 | 439 |
| 019Cr19Mo2NbTi | SUS444 | 444 | S44400 | STS444 | 1.4521 | 444 | 444 |

### Martensitic Stainless Steel

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 12Cr12 | SUS403 | 403 | S40300 | STS403 | - | 403 | 403 |
| 12Cr13 | SUS410 | 410 | S41000 | STS410 | 1.4006 | 410 | 410 |
| 20Cr13 | SUS420J1 | 410 | S42000 | STS420J1 | 1.4021 | 420 | 420J1 |
| 30Cr13 | SUS420J2 | - | - | STS420J2 | 1.4028 | 420J2 | 420J2 |
| 68Cr17 | SUS440A | 440A | S44002 | STS440A | - | 440A | 440A |

### Chemical composition of stainless steel

| Grade | C | Mn | Cr | Mo | S | P |
|---|---|---|---|---|---|---|
| 2Cr18Ni9 | 0.12-0.22 | ≤ 2.0 | 17-19 | - | ≤ 0.03 | ≤ 0.035 |
| 1Cr18Ni9(304) | ≤ 0.015 | ≤ 2.0 | 17-19 | - | ≤ 0.03 | ≤ 0.035 |
| 0Cr18Ni9(304L) | ≤ 0.08 | ≤ 2.0 | 17-19 | -- | ≤ 0.03 | ≤ 0.035 |
| 1Cr18Ni9Ti | ≤ 0.12 | ≤ 2.0 | 17-19 | | ≤ 0.03 | ≤ 0.035 |
| 0Cr18Ni9Ti(321) | ≤ 0.08 | ≤ 2.0 | 17-19 | - | ≤ 0.03 | ≤ 0.035 |
| 0Cr18Ni11Nb(347) | ≤ 0.08 | ≤ 2.0 | 17-19 | - | ≤ 0.03 | ≤ 0.035 |
| 0Cr17Ni12Mo2(316) | ≤ 0.08 | ≤ 2.0 | 16-19 | 1.8-2.5 | ≤ 0.03 | ≤ 0.035 |
| 00Cr26NiMo2Ti( 双相 ) | ≤ 0.03 | ≤ 1.5 | 25-27 | 1.5-2.5 | ≤ 0.03 | ≤ 0.035 |
| 1Cr13(410) | ≤ 0.15 | ≤ 1.0 | 11.5-13.5 | - | ≤ 0.03 | ≤ 0.035 |
| 2Cr13(420) | 0.16-0.25 | ≤ 1.0 | 12-14 | - | ≤ 0.03 | ≤ 0.035 |
| 3Cr13 | 0.26-0.35 | ≤ 1.0 | 12-14 | - | - | ≤ 0.03 |
| 4Cr13 | 0.36-0.45 | ≤ 1.0 | 12-14 | - | - | ≤ 0.03 |
| 1Cr17(430) | ≤ 0.12 | ≤ 0.8 | 16-18 | - | - | ≤ 0.03 |

# Galvanized steel coil

TXD STEEL GROUP

## Product Reference Manual

### Introduction to galvanizing

Galvanized steels are to prevent the surface of the steel sheet from corrosion and prolong its service life. A layer of metal zinc is coated on the surface of the steel sheet. This galvanized steel is called galvanized steel sheet or coil.

Galvanizing is an economical and effective rust prevention method that is often used, and about half of the world's zinc production is used in this process. The coating of galvanized steel sheet has strong toughness, and the galvanized layer forms a special metallurgical structure, which can withstand mechanical damage during transportation and use. The surface of galvanized steel sheet has strong anti-oxidation ability, which can strengthen the anti-corrosion penetration ability of parts.



### Product specification

Galvanized Steel Coil

| | |
|---|---|
| Width | 1219mm/1250mm/1500mm/as you required |
| Thickness | 0.12~6.0 mm or as your request |
| Weight | 3-8Tons/Coil |
| Standard | AISI,ASTM,DIN,JIS,GB ,JIS,SUS,EN,etc |
| MOQ | 5Tons |
| Technique | Hot rolled/Cold rolled |
| Coating Weight | 20-600 g/m2,double side |
| Technology | Hot Dipped |
| Material | DX51D/DX52D/DX53D/etc |
| Application | making pipes, cutting sheets, making small tools, making corrugated sheets, making container, making fences |
| Shipment Time | 2000 ton:Within 7 days after deposit Customize<br>Size:Within 10days after deposit OEM Product: Within 15 days after deposit |
| Capacity | 20000Tons/Month |



### Galvanized material comparison

| Chinese Standard | Japanese Standard | European Standards |
|---|---|---|
| DX51D+Z/DC51D+Z(CR) | SGCC | DX51D+Z |
| DX52D+Z/DC52D+Z | SGCD1 | DX52D+Z |
| DX53D+Z/DC53D+Z/DX54D+Z/DC54D+Z | SGCD2/SGCD3 | DX53D+Z/DX54D+Z |
| S220/250/280/320/350/550GD+Z | SGC340/400/440/490/570 | S220/250/280/320/350GD+Z |
| DX51D+Z/DD51D+Z(HR) | SGHC | DX51D+Z |

### Galvanized pattern



Zero spangle | Small spangle | Regular spangle | Big spangle

### Manufacturing process

Galvanized steel is a carbon steel that has been coated with zinc. The most common method of zinc coating is the hot-dip process.

The hot-dip process consists of submerging the carbon steel into a molten zinc bath (approximately 680 degrees Fahrenheit). When the material is removed from the zinc bath and cooled a reaction to the oxygen in the air occurs. The reaction causes the zinc to become part of the steel (an iron-zinc alloy bond). The new surface finish appears to have a crystalline finish or spangled finish.

Continuous galvanizing applies the zinc coating to the surface of a continuous ribbon of steel (coil) as it passes through a zinc bath. The coil travels at speeds of approximately 600 feet per minute.

As the coil leaves the zinc bath it carries with it an extra layer of molten zinc. The extra zinc is removed with high pressure air (air knives) to create the desired thickness. The material is then allowed to cool and the spangled. finish is formed.

Continuous galvanizing allows for more precise control of the thickness and is typically used for steel products that have not yet been fabricated. As the coating thickness increases, the risk of losing some coating during fabrication or forming also increases.

# Galvalume steel coil

TXD STEEL GROUP

## Product Reference Manual

### About Galvalume Coil

Galvalume is a coating consisting of zinc, aluminum and silicon that is used to protect a metal (primarily steel) from oxidation. It is similar to galvanizing in that it is a sacrificial metal coating which protects the base metal.

Galvalume is applied to a material using the hot-dipping process. Therefore, a Galvalume coating has similar thicknesses to that of hot-dipped galvanized material. The thickness for the hot-dipping process is around 1 mil thick. The thickness can range somewhat depending on the coating specification. If the coating thicknesses of a Galvalume-coated steel and a galvanized steel are equal, the Galvalume steel will generally outlast the galvanized one, depending on the environment.



### Product specification

Galvalume Coil

| | |
|---|---|
| **Standard** | AISI,ASTM,DIN,JIS,GB,JIS,SUS,EN,etc. |
| **Grade** | DX51D+AZ、DX52D++AZ、DX53D++AZ、DX54D++AZ、S250GD+AZ、S300GD+AZ S350GD+AZ、S450GD+AZ、S550GD+AZ |
| **Thickness** | 0.12-5.0mm |
| **Width** | 600-1500mm |
| **Length** | as customer requirements |
| **Coil ID** | 508mm/610mm |
| **Coil weight** | 3-8 Tons (as customer requirements) |
| **Zinc coating** | 40-180g/m2 |
| **Surface** | Dry, Oil, Chromate,AFP/Galva clean， Non-Gr,Gr-free |
| **Tolerance** | thickness +- 0.02 or +- 0.04, width +-5mm |
| **Hrb** | Soft Hard (<60),Medium Hard (60-85), Full Hard (85-95) |
| **Certification** | ISO9001,CE,BV,SGS |
| **Packaging** | 3 layers. kraft paper inside + water-proof plastic film in the middle + strong steel strips covered outside |
| **Delivery time** | It takes about 7 days for stock goods, or it will need 15-25 days if goods need to be customized |



### Surface style

The main difference between galvanizing and Galvalume is that galvalume is a combination of zinc, aluminum, and silicon, while galvanizing is 100% zinc. The makeup of the three elements in a Galvalume coating is just over 50% aluminum, just under 50% zinc, with trace amounts of silicon.






### Galvalume material comparison

| CHINA QB/T 14978 | European EN10346 | JAPAN JIS G 3321 | US ASTM A792M |
|---|---|---|---|
| DX51D+AZ | DX51D+AZ | SGLCC | Cs Type B.C |
| DX52D++AZ | DX52D+AZ | SGLCD | DS |
| DX53D++AZ | DX53D+AZ | SGLCD2 | - |
| DX54D++AZ | DX54D+AZ | - | - |
| S250GD+AZ | S250GD+AZ | - | SS255 |
| S300GD+AZ | - | SGLC400 | - |
| S350GD+AZ | S350GD+AZ | SGLC440 | SS345 Class1 |
| S450GD+AZ | - | SGLC490 | SS410/480 |
| S550GD+AZ | S550GD+AZ | SGLC570 | SS550 Class1 |

### Common application data

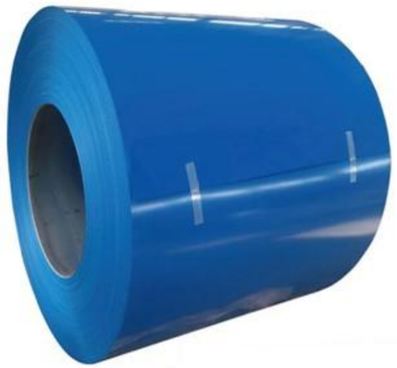
| Usage | Grade | Yield Strength (MPA) | Tensile Strength (MPA) | Elongation rate % |
|---|---|---|---|---|
| Punching galvanized steel | DX51D+Z | - | 270-500 | >=20 |
| | DX52D+Z | 140-300 | 270-420 | >=22 |
| | DX53D+Z | 140-260 | 270-380 | >=26 |
| | DX54D+Z | 140-220 | 270-350 | >=30 |
| Structure galvanized steel | S220GD+Z | >=220 | >=300 | >=18 |
| | S250GD+Z | >=250 | >=330 | >=17 |
| | S280GD+Z | >=280 | >=360 | >=16 |
| | S320GD+Z | >=320 | >=390 | >=15 |
| | S350GD+Z | >=350 | >=420 | >=14 |
| | S400GD+Z | >=400 | >=470 | - |
| | S500GD+Z | >=500 | >=530 | - |
| | S550GD+Z | >=550 | >=560 | - |

# PPGI/PPGL

TXD STEEL GROUP

## Product Reference Manual

### About Ppgi



The term is an extension of GI which is a traditional abbreviation for Galvanized Iron. Today the term GI typically refers to essentially pure zinc (>99%) continuously hot dip coated steel, as opposed to batch dip processes. PPGI refers to factory pre-painted zinc coated steel, where the steel is painted before forming, as opposed to post painting which occurs after forming.

The hot dip metallic coating process is also used to manufacture steel sheet and coil with coatings of aluminium, or alloy coatings of zinc/aluminium, zinc/iron and zinc/aluminium/magnesium which may also be factory pre-painted. While GI may sometimes be used as a collective term for various hot dip metallic coated steels, it more precisely refers only to zinc coated steel.

### Product specification

PPGI

| | |
|---|---|
| **Production Name** | PPGI |
| **Thickness** | 0.12~2.0 mm or as Customized |
| **Width** | 200-1250mm Or According To Customer's Requirement |
| **Length** | In Coil Or According To Customer's Demends |
| **Paint Thickness** | Top Side:15-30um Back:5-25um |
| **Color** | According to RAL color or clients sample |
| **Coil Weight** | 2-10 Tons |
| **Coil Inter Diameter** | 508mm/610mm |
| **Coil Outer Diameter** | 800mm-1500mm |
| **Package** | Standard export packing or as customer's requirements |
| **Delivery Time** | 15~30 days after T/T prepayment or L/C date |
| **Application Range** | Construction / machinery / stamping parts / A variety of tools / band saw material / |
| | saw blade deep drawing materials / electrical materials / automotive materials etc. |
| **Coating Surface Condition** | Common Coating PPGI |
| | Print Coating PPGI |
| | Embossed PPGI |
| **Topcoat Types** | Polyester (PE), Silicone Polyester (SMP), High Durable Polyester (HDP), Fluoropolymer (PVDF) |



### Standard Color

Our ppgi has a variety of colors for you to choose from. You can see part of RAL color cards here for reference of the colors you need. You can also visit our ppgi factory, where you can see the colors of these ppgi more directly.

If you need to know more colors, please contact our sales staff, we will provide you with the most detailed parameters and the products you need, I hope our quality service can let you get the most comfortable shopping experience.




Similarly, PPGI may sometimes be used as a general term for a range of metallic coated steels that have been pre-painted, but more often refers more precisely to pre-painted zinc coated steel.

Zinc coated steel substrate for PPGI is typically produced on a continuous galvanizing line (CGL). The CGL may include a painting section after the hot dip galvanising section, or more commonly the metallic coated substrate in coil form is processed on a separate continuous paint line (CPL). Metallic coated steel is cleaned, pre-treated, applied with various layers of organic coatings which can be paints, vinyl dispersions, or laminates. The continuous process used to apply these coatings is often referred to as Coil Coating.





### Ppgi application

The main uses of pre-painted Ppgi are home appliances and construction.

Home appliance uses are mainly side door panels for refrigerators, and shells for air conditioners, freezers, and washing machines. The construction field is more widely used than home appliances.

PPGI for construction is used for roofing, guttering, sandwich panels, industrial building facades, cold storage panels, and rolling doors.

# Color steel tile

TXD STEEL GROUP

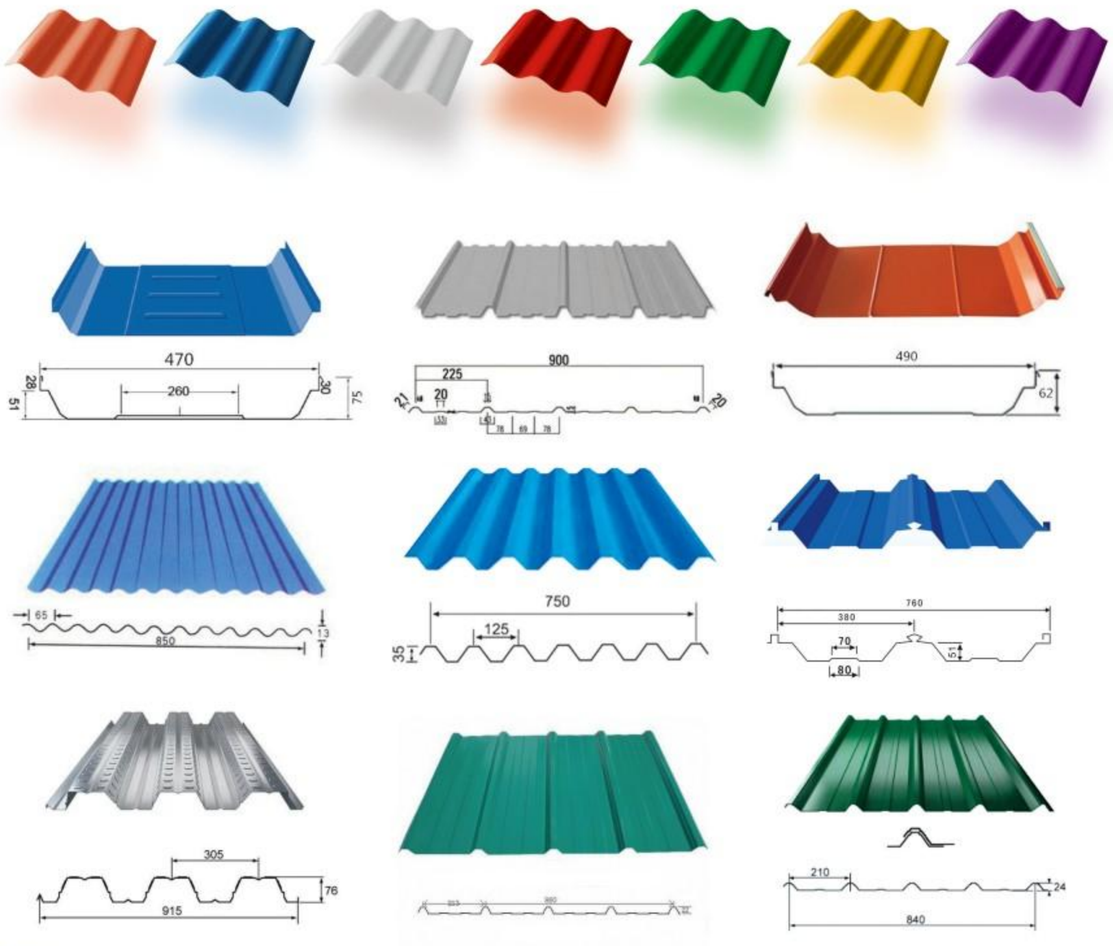
## Product Reference Manual

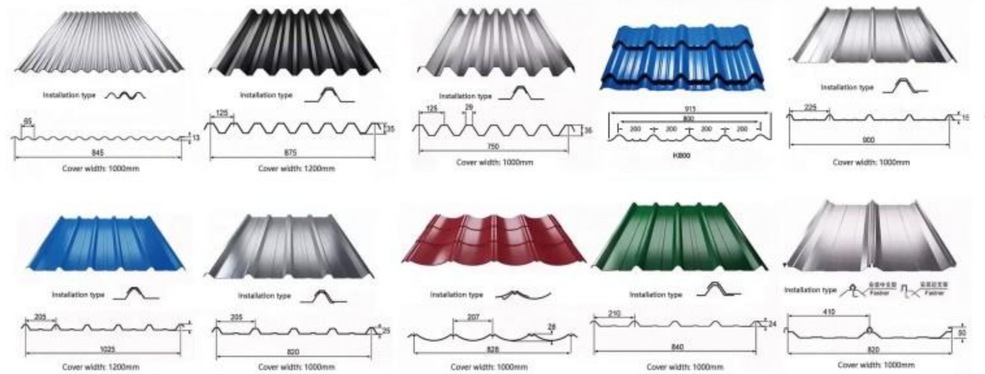
### About Roofing Sheet

Roofing Sheet Roofing sheet is a color coated steel sheet which is cold formed by roller into various wave shapes.

It is suitable for industrial and civil buildings, warehouses, special buildings, large-span steel structure of the roof, wall and interior and exterior wall decoration, with light weight, high strength, rich color, convenient construction, seismic, fire, rain, long life, maintenance-free and other characteristics, has been widely used.





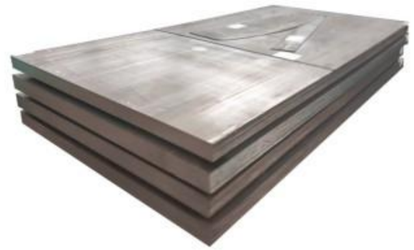

| | |
|---|---|
| Application | Construction & Industrial |
| Thickness | 0.2-0.8mm |
| Width | 20-1250mm, 20-1250mm |
| Length | 1400-1799mm, 1800-2000mm, 2001-3600mm, 3601-3660mm |
| Certificate | API, ce, RoHS, SNI, BIS, SASO, PVOC, SONCAP, SABS, sirm, tisi, KS, JIS, GS, ISO9001 |
| Coating | AZ10-AZ29 Z30-40 Z31-60 Z61-90 |
| Tolerance | ±1% |
| Processing Service | Welding, Punching, Cutting, Bending, Decoiling |
| RAL Color | Red, bule, white or any ther Ral Color |
| Aluminium Content | 0-20% |
| Hardness | Mid Hard |
| Delivery Time | 8-14 days |
| Product name | Galvanized Color Coated Steel Plate |
| Color | Customers Samples Color |
| Thickness | 0.2-0.8mm |
| Surface | Galvanized Coated |
| Surface Treatment | Galvanized Copper Coated Color Coated |
| Zinc Coating | 30-275g/m2 |
| length | 1-12m or as Requirement, 1-12m or as Requirement |
| Packing | Standard Seaworthy Package |
| MOQ | 1 Ton |
| Type | Steel Plate, Color Coated Steel Shee |

# Wear Resistant Steel Plate

TXD STEEL GROUP

## Product Reference Manual

Wear-resistant steel plate is a special plate designed for high wear conditions. It is usually made of low carbon steel or low alloy steel substrate and high hardness alloy wear-resistant layer through metallurgical combination. Its alloy layer accounts for 1/3-1/2 of the total thickness, mainly containing chromium, manganese, molybdenum and other elements, hardness up to HRC58-62, wear resistance far beyond ordinary steel plate.



| | |
|---|---|
| **Product** | Wear Resistant Steel Plate |
| **Place of Origin** | China Jinan |
| **Standard** | GB /ASTM/JIS/AISI |
| **Material** | NM360，NM400，NM450，NM500，Xar00，Xar450，Xar500，Xar550，Xar600，JFEEH360，JFE-EH400，JFE-EH450，JFE-EH500，JFE-EH550. |
| **Width** | 500-3000mm or as required |
| **Length** | 1000-12000 or as required |
| **Tolerance** | 1%，3%，5%，10% |
| **Technology** | hot rolled or cold rolled |
| **Processing Service** | Bending, Welding, Decoiling, Cutting, Punching |
| **Surface treatment** | clean, blasting and painting as required |
| **Application area** | Construction, machinery manufacturing, vehicle manufacturing, shipbuilding, etc |
| **Package** | standard seaworthy packing |
| **Delivery Time** | within 7 days |

### Mechanical property

| Grade | Thickness | tensile strength | Elongation A | Surface Brinell hardness |
|---|---|---|---|---|
| | (mm) | (MPa) | (%) | (HBW) |
| NM300 | ≤80 | ≥1000 | ≥14 | 270-330 |
| NM360 | ≤80 | ≥1100 | ≥12 | 330-390 |
| NM400 | ≤80 | ≥1200 | ≥10 | 370-430 |
| NM450 | ≤80 | ≥1250 | ≥7 | 420-480 |
| NM500 | ≤70 | - | - | ≥470 |



### Material range of Wear Resistant Steel Plate

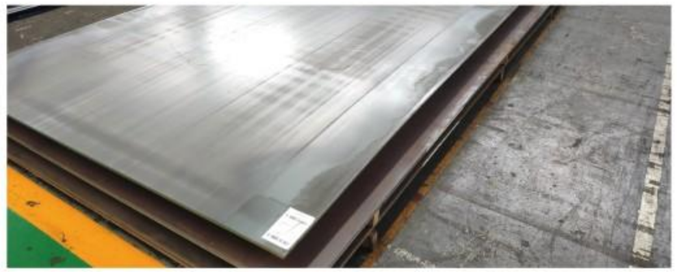
| Steel/Grade | C | Si | Mn | P | S | AL | Cr+Ni+Mo |
|---|---|---|---|---|---|---|---|
| NM360/AR360 | 0.10-0.30 | 0.20-0.40 | 1.00-2.00 | ≤0.015 | ≤0.003 | ≥0.20 | <0.6 |
| NM400/AR400 | 0.10-0.40 | 0.20-0.40 | 1.00-2.00 | ≤0.015 | ≤0.003 | ≥0.20 | <0.9 |
| NM450/AR450 | 0.10-0.40 | 0.20-0.40 | 1.00-2.00 | ≤0.015 | ≤0.003 | ≥0.20 | <1.2 |
| NM500/AR500 | 0.10-0.40 | 0.20-0.45 | 1.00-2.00 | ≤0.015 | ≤0.003 | ≥0.20 | <1.5 |
| NM550/AR550 | 0.10-0.50 | 0.20-0.45 | 1.00-1.50 | ≤0.015 | ≤0.003 | ≥0.20 | <2.0 |
| NM600/AR600 | 0.10-0.50 | 0.20-0.45 | 1.00-1.50 | ≤0.015 | ≤0.003 | ≥0.20 | <2.5 |

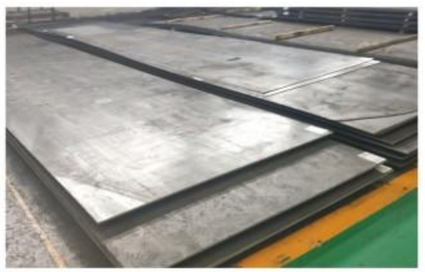
NM400 and NM450 are multi-purpose wear plates. Due to its high toughness, good bending and welding performance, it can also be used for load applications in some applications.

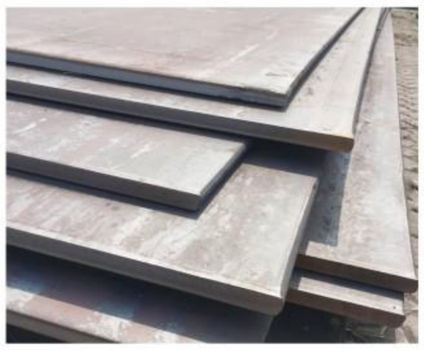
NM500 is a bendable and welded wear plate that can be used in areas where wear resistance is required.

NM550 is an average hardness of 550HBW wear-resistant steel plate, its toughness and NM500 the same, is used in high wear and tear occasions. It is mainly for users and manufacturers of wear-resistant steel plates using high manganese steel castings or Brinell hardness of 500. When upgrading from the NM500 steel sheet to the product, the Brinell hardness increased by 50 units, without loss of steel toughness in the case of extended wear life.

NM600 is the world's hardest wear-resistant steel plate, the hardness value of 600HBW. It is generally used in situations where wear is extremely severe and is mainly used to replace cast steel, chrome cast iron, and surface hardened metals. Despite its high hardness, we are still able to machine, weld and cut it. Although the hardness of the NM600 is very high, it still has a very high impact toughness.









# Copper Tube

TXD STEEL GROUP

## Product Reference Manual

## About Copper Tube

Copper tube (also known as red copper tube), often used in water pipes, heating and cooling pipes, can be used in different environments. Copper pipe set the advantages of metal and non-metal pipe in a body, in the hot and cold water system exclusive torture, is the best connection pipe. Copper pipes are refractory and heat-resistant, and can maintain their shape and strength at high temperature without aging.

The pressure resistance of copper pipe is several times or even dozens of times that of plastic pipe and aluminum plastic pipe, and it can withstand the highest water pressure in today's buildings. In the hot water environment, with the extension of service life, the bearing capacity of plastic pipe significantly decreases, while the mechanical properties of copper pipe remain unchanged in all thermal temperature ranges, so its pressure resistance will not be reduced, nor will aging occur.



| GB | Composition(%) | | | |
|---|---|---|---|---|
| | Cu | P | 0 | Othe |
| TU1 | 99.97 | 0.002 | less than 0.002 | balance |
| TU2 | 99.95 | 0.002 | less than 0.003 | balance |
| T2 | 99.9 | - | - | balance |
| TP1 | 99.9 | 0.004-0.012 | - | balance |
| TP2 | 99.9 | 0.015-0.040 | - | balance |
| C10200 | 99.95 | 0.001-0.005 | - | balance |
| C11000 | 99.9 | - | - | halance |
| C12000 | 99.9 | 0.004-0.012 | - | balance |
| C12200 | 99.9 | 0.015-0.040 | - | balance |

| Grade(China) | Grade(Japan) | Temper | External diameter(mm | Tensile strength(Mpa | Elongation(%) | |
|---|---|---|---|---|---|---|
| | | | | | 610 | 65 |
| | | | | More than | | |
| T2/T3/ TP1/TP2 | C11000/C1201 C1220 | Y | more than 10 | 315 | - | - |
| | | | more than 100-360 | 295 | - | - |
| | | Y2 | ess than 100 | 235-345 | - | - |
| | | M | 3-360 | 205 | 35 | 40 |



## Product specification

### Copper Tube

| | |
|---|---|
| Product name | copper tube |
| Material | copper |
| Standard | ASTM, AISI ,JIS,GB, DIN, EN, etc. |
| Grade | T1,T2,C10100,C10200,C10300,C10400,C10500,C10700,C10800,C10910,C10920, TP1,TP2,C10930,C11000,C11300,C11400,C11500,C11600,C12000,C12200,C12300, TU1,TU2,C12500,C14200,C14420,C14500,C14510,C14520,C14530,C17200,C19200, C21000,C23000,C26000,C27000,C27400,C28000,C33000,C33200,C37000,C44300, C44400,C44500,C60800,C63020,C65500,C68700,C70400,C70600,C70620,C71000, C71500,C71520,C71640,C72200,etc |
| Shape | Round,Square,Rectangular,Oval,half-round |
| Round | OD:2-914mm (1/16"-36") WT:0.2-120mm(SCH5S-SCH160S) |
| Square | Size:2*2-1016*1016mm(1/16"-40") WT:0.2-120mm |
| Rectangular | Size:2*4-1016*1219mm(1/16"-48") WT:0.2-120mm |
| Length | 1m,2m,3m,6m,or as required |
| Hardness | 1/16 hard,1/8 hard,3/8 hard,1/4 hard,1/2hard,full hard,soft,etc |
| Surface | mill,polished,bright,oiled,hair line,brush,mirror,sand blast,or as required |
| Application | 1. Pancake Coil for ACR, General Engineering Applications<br>2. LWC Coil for ACR, General Engineering Applications<br>3. Straight Copper Tubes for ACR and Refrigeration<br>4. Inner-grooved copper tube for ACR and Refrigeration<br>5. Copper Pipe for Transportation System of water, gas and oil<br>6.PE-coated copper tube for water/gas/oil transportation system<br>7.Semi-finished Copper tube for industrial applications |







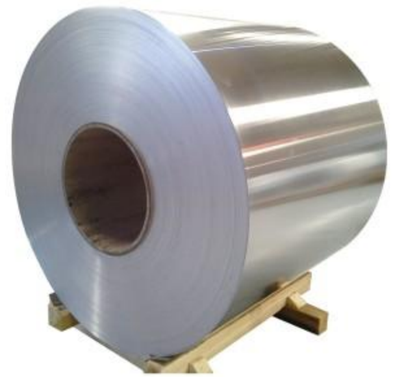
# Aluminium coil

TXD STEEL GROUP

## Product Reference Manual

For the majority of manufacturing uses, pure aluminum is too soft. As a result, most aluminum coils are produced and delivered as an alloy. These alloys contain two or more elements, at least one of which is aluminum. The Aluminum Association oversees the four-digit number system to identify aluminum alloys for sheet products. Aluminium's mechanical and other qualities can be adjusted to satisfy particular demands for strength, formability, and other properties when alloyed with other metals.

Aluminum coil, often known as "gauge," is offered in different lengths, widths, and thicknesses. The size of the components created and the production technique employed define the precise dimensions. In addition, many surface treatments are available, such as mill, matte, and brilliant. The choice will be based on the intended purpose and appearance of the finished component.



### Product specification

Aluminium Coil

| | |
|---|---|
| **Thickness** | 0.2mm-4.0mm |
| **Width** | 600mm-1500mm |
| **Length** | 800-600mm or as customer's requirements |
| **Temper** | O, H, T |
| **Color** | RAL Color or as customer's requirements |
| **Model (Alloy)** | 1000-8000 Series |
| **Features** | 1) Easy installation 2) High strength 3) Low in costs 4) Durable<br>5) Nice appearance 6) Anti oxidation |
| **Application** | 1) building and construction 2) decoration 3) curtain wall 4) Shelter 5) oil tank 6) mould |
| **Surface** | Flat every pieces covered with PE film |
| **Packing** | Export standard wooden pallets (as per requirements) |
| **Payment Terms** | 30% T/T in advance as deposit,or 100% irrevocable L/C at sight |
| **MOQ** | 5 tons pre size |
| **Delivery time** | 20-30 days after receiving L/C or deposit |
| **Loading Port** | TianJin QingDao port |
| **Remark** | Specific requirement of alloy grade,temper or specification can be discussed at your request<br>discussed at your request |
| **Technology** | Hot Rolled/Cold Rolled |
| **Surface** | 1.Mill Finish,Without Any Surface Treatment 2.Embossed |



### Domestic and foreign commonly used aluminum and aluminum alloy grade comparison table

| | |
|---|---|
| **Pure aluminium** | 1A99 1A97 1A95 1A93 1A90 1A85 1A80 1A80A 1070 1070A 1370 A1060 1050 1050A 1A50<br>1350 1145 1350 1A30 1160 1200 1235 |
| **Series 2** | 2A01 2A02 2A04 2AO6 2A10 2A11 2B11 2A12 2A13 2A14 2A16 2B16 2A17 2A20 2A21 2A25<br>2A49 2A50 2A70 2A80 2A90<br>2004 2011 2014 2014A 2214 2017 2017A 2177 2218 2618 2219 2024 2124 |
| **Series 3** | 3A21 3003 3103 3004 3005 3105 |
| **Series 4** | 4A03 4A11 4A13 4A17 4004 4032 4043 4043A 4047 4047A |
| **Series 5** | 5A01 5A02 5A03 5A05 5A06 5B06 5A12 5A30 5A33 5A41 5A42 5A66 5005 5019 5050 5251<br>5052 5154 5154A 5454 5154A<br>5754 5056 5356 5456 5082 5182 5086 |
| **Series 6** | 6A02 6B02 6A51 6101 6101A 6005 6005A 6351 6060 6061 6063 6063A 6070 6181 6082 |
| **Series 7** | 7A01 7A03 7A04 7A05 7AO9 7A10 7A15 7A19 7A31 7A33 7A52 7003 7005 7020 7022 7050<br>7075 7475 8A06 8011 8090 |

| category | China | America | Britain. | Japan | France | Germany. |
|---|---|---|---|---|---|---|
| | GB | ASTM | BS | JIS | NF | DIN |
| Industrial pure aluminum | 1A 99 | 1199 | - | - | - | A199.99R |
| | 1A 97 | - | - | - | - | A199.98R |
| | 1A 95 | - | - | - | - | - |
| | 1A 80 | - | 1080( 1A ) | 1080 | 1080A | A199.90 |
| | 1A 50 | 1050 | 1050(1B) | 1050 | 1050A | A199.50 |
| Antirust aluminum | 5A 02 | 5052 | NS4 | 5052 | 5052 | A1Mg2.5 |
| | 5A 03 | - | NS5 | - | - | - |
| | 5A 05 | 5056 | NB6 | 5056 | - | A1Mg5 |
| | 5A 30 | 5456 | NG61 | 5556 | 5957 | - |
| duralumin | 2A 01 | 2036 | - | 2117 | 2117 | AlCu2.5Mg0.5 |
| | 2A 11 | HF15 | 2017 | 2017S | - | AlCuMg1 |
| | 2A 12 | 2124 | - | 2024 | 2024 | AlCuMg2 |
| | 2B16 | 2319 | - | - | - | - |
| Wrought aluminium | 2A 80 | - | - | 2N01 | - | - |
| | 2A 90 | 2218 | - | 2018 | - | - |
| | 2A 14 | 2014 | - | 2014 | 2014 | AlCuSiMn |
| superduralumin | 7A 09 | 7175 | - | 7075 | 7075 | AlZnMgCu1.5 |

# Steel Structure

TXD STEEL GROUP

## Product Reference Manual

### Steel structure is a kind of building structure system with steel as the main material, which has the following characteristics and advantages

**High strength and light weight:** The compressive strength of steel is much higher than that of concrete, but its weight is only one third of that of concrete, so the steel structure has light weight and is suitable for large-span and heavy-duty structures.

**Good plasticity and toughness:** steel has excellent plasticity and toughness, deformation but not fracture when the force exceeds the carrying capacity, which makes it excellent in seismic performance, especially for earthquake-prone areas.

**Fast construction speed:** steel structure members can be prefabricated in the factory, simple on-site assembly, short construction period, significantly shorten the construction period.

**Flexibility and diversity:** The design of steel structure is flexible and can adapt to various complex building forms and space requirements, while facilitating expansion and transformation.

**Environmental protection and sustainability:** steel can be recycled, in line with the requirements of sustainable development, and high degree of industrialization, reduce environmental pollution.

**Economy:** Due to its light weight and fast construction, steel structures can reduce foundation expenses and save construction time, thus reducing costs.

**Superior seismic performance:** The ductility and toughness of steel make it perform well under external shocks such as earthquakes, making it an ideal choice for seismic fortification areas.

**Industrial production:** The components of steel structure are mostly prefabricated in the factory, the quality is easy to control, and the installation accuracy is high.













# Container house

TXD STEEL GROUP

## Product Reference Manual

## SPACE CAPSULE

Streamlined appearance with panoramic floor glass, 270° unobstructed view of mountains, lakes and seas. The top skylight adopts electrically controlled atomized glass, which is transparent during the day and keeps warm. At night, you can see the stars while lying in bed by switching the transparent mode with one button. The cabin is equipped with an intelligent voice control system, which can adjust the lighting, air conditioning, curtains and other equipment through voice control, so that you can enjoy a comfortable experience without using your hands.

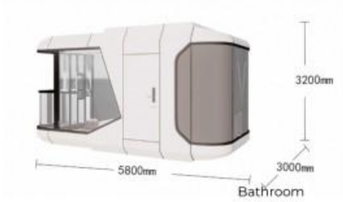
The whole house adopts constant temperature system, with quiet fresh air, to ensure fresh air in four seasons. Bathroom mirror integrated touch function, can check the weather in real time, adjust the light; Some rooms are equipped with an open-air hot spring pool, which can also enjoy the natural scenery while bathing. The building is made of lightweight aviation aluminum, which can be quickly installed without foundation, adapting to various terrain such as mountain and seaside, and is environmentally friendly without destroying the original ecology.

STRONG DESIGN SENSE | QUICK BUILD | SMART HOUSE | FLEXIBLE DEPLOYMENT







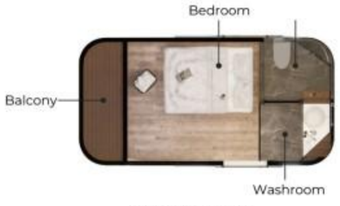





AREA:38sqm
WEIGHT:8Ton
CAPACITY:2-4



AREA:28sqm
WEIGHT:6Ton
CAPACITY:2-4




AREA:18sqm
WEIGHT:4Ton
CAPACITY:2







## APPLE CABIN

Modular design and rapid construction: With modular design, it can be quickly and flexibly built and assembled. This design not only improves the construction efficiency, but also makes it highly adaptable in different scenarios. For example, it can be used as a temporary building, hotel, office, or residence, among other uses.

Environmental protection material and durability: the shell is made of weather resistant steel, with excellent corrosion and rust resistance performance, while the internal structure is made of WPC + PU foam material, both environmental protection and durability. In addition, it has good sealing performance and can effectively cope with various adverse weather conditions, such as rain and dust environment.

Versatility and comfort: The interior is well designed and fully equipped with facilities, including solar water heater, shower system, kitchen and toilet, etc., to meet the various needs of daily life. At the same time, its design focuses on aesthetics and practicality, such as the texture of the aluminum shell and the simple appearance, making it highly attractive.

Economy and long-term value: The construction cost is relatively low and the service life is long, usually with a one-year warranty service, which provides long-term economic value to the user.









SIZE:11.5M*2.2M*2.5M(Customizable)
AREA:25sqm
WEIGHT:7TON
CAPACITY:2-4

SIZE:5.8M*2.2M*2.5M(Customizable)
AREA:13sqm
WEIGHT:3TON
CAPACITY:2









# Container house

TXD STEEL GROUP

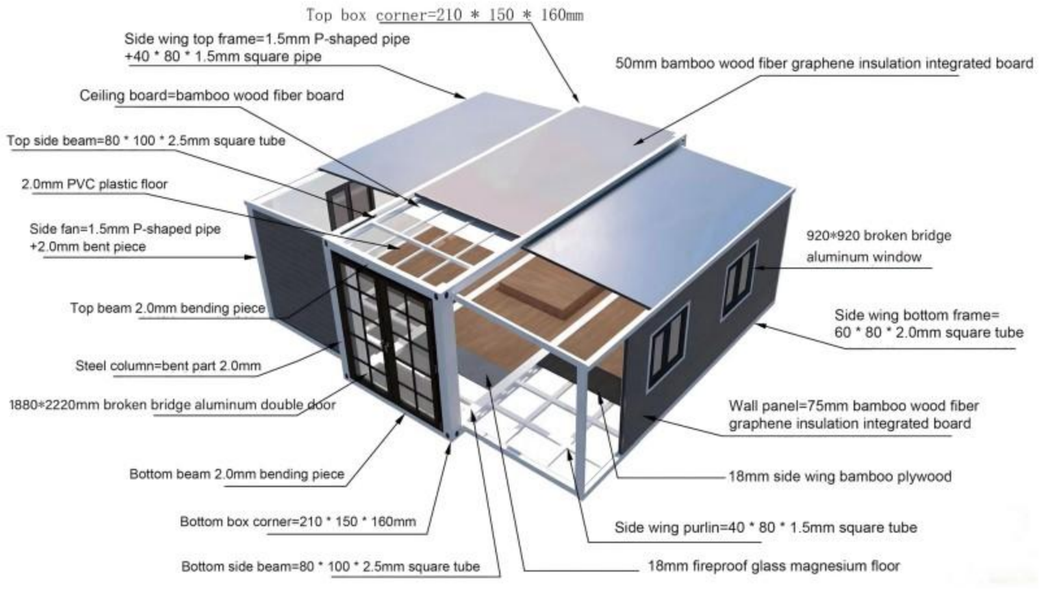
## Product Reference Manual

## EXPANDABLE HOUSE

Flexibility and adaptability: The expandable house has a modular design that allows space to be easily added or removed as required, adapting to changing living needs and land conditions. This flexibility makes it ideal for extending an existing home or as a multifunctional space.

Economy: Compared to traditional construction, the cost of extendable houses is lower, which is suitable for individuals or families with limited budget. In addition, they are less expensive to build and maintain, such as waterproofing systems and low-maintenance designs.

Environmental protection and sustainability: Use recycled materials and sustainable resources to reduce the impact on the environment. At the same time, its design focuses on energy saving, such as reducing air conditioning use through shading curtains.



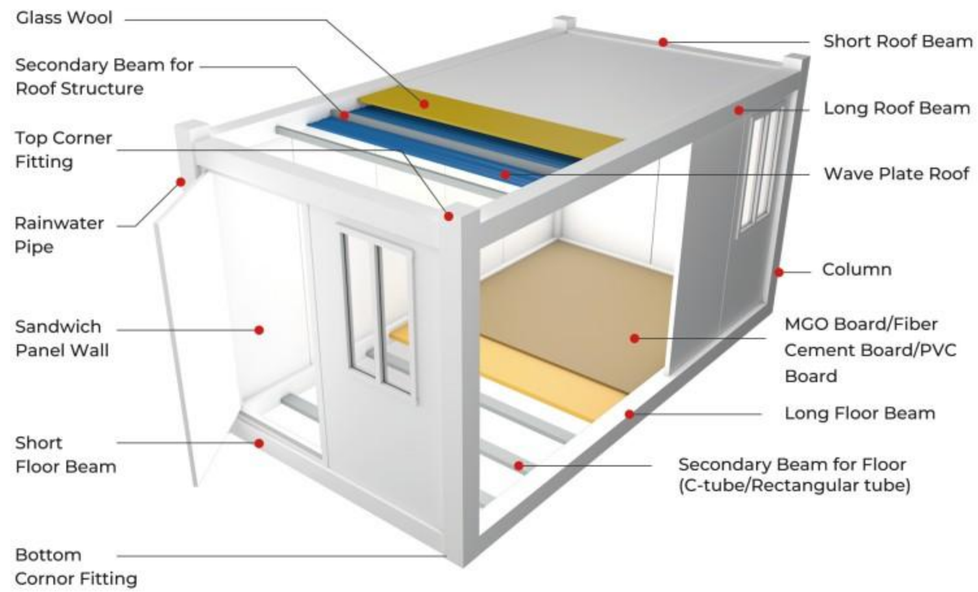

Product illustration - Take 40FT as an example







## FOLDING HOUSE




Product illustration









# Section steel

TXD STEEL GROUP

## Product Reference Manual

### About Steel Section

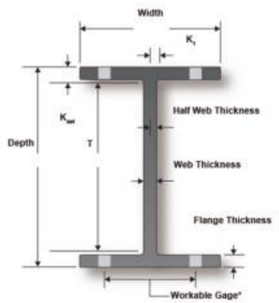
Steel sections are a key component in steel fabrication owing to their extremely versatile properties. These properties enable steel sections to be manufactured in an array of shapes and, therefore, give engineers many factors to consider when choosing sections for their projects, including weight, size and profile.

Most common usages of this section are connection between I-shapes and/or other shapes, bracing in truss members, Chords, Battens and/or Laces of built-up member, Diaphragm members in bridge girder system, Web stiffening elements for I-shape sections, etc.







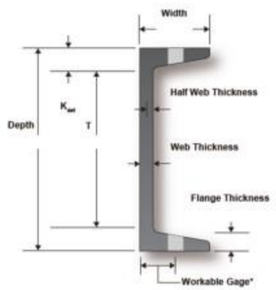



### I-beams

I-beams are sometimes called the universal beam or wide flange beams. The name describes the shape of the cross-section and legs that are parallel. I-beams act as the critical support trusses in construction framework.

### C-channels

C-channels have a slight slope on the inner flange surface. They are not typically applied as primary load-bearing beams. Rather, they provide a great amount of structural support, most useful as frames and for bracing.

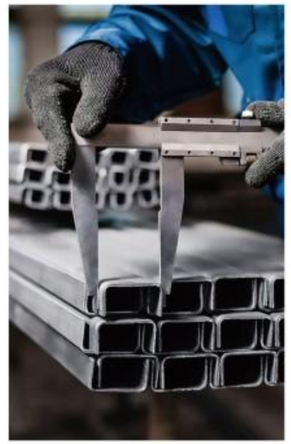




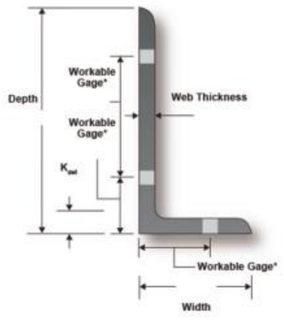

### Product specification

Steel Section 型钢

| | |
|---|---|
| Length | 5-19m Or customer customization |
| Thickness | 1.5mm-25mm Or customer customization |
| Usage | Building Construction etc |
| Species | Angle Sections/Channel Sections/T- Sections/I - Sections/Round Bars/Square Bars/Flat Bars/Steel Plates.etc. |
| Technique | Hot Rolled |
| Material | 195/Q235/Q345/304/316L/Other Metal Materials |
| Quality | High Quality. Inspection |
| Color | Black \Silver |



** H beam we can supply: JIS,ASTM,HEA/HEB,EN10025 HP/UB,UC standard*




### Angle Steel

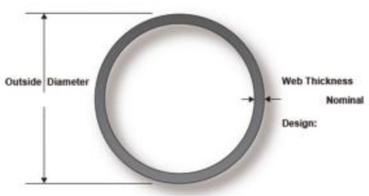
Structural steel angles is a hot rolled product with an L-shaped cross-section that's appropriate for a number of applications. A standard structural angle is 90 degrees and is measured by the length of the legs as well as the leg thickness.

L-shapes are produced with both equal and unequal leg lengths. When notating unequal leg angles in measurement, the longer leg is always first, and thickness last. All measurements are always taken from the outside.

Applications include structural reinforcement, framework, shelving, and repair.

### Structural Steel Tubing – Hollow Structural Sections

Hollow structural section (HSS) refers to high-strength welded steel tubing. Sometimes referred to as hollow steel sections, they are produced in round, square, and rectangular shapes that support multidirectional load bearing. As the name suggests, regardless of shape, the mid-sections are hollow.




Tubes are a hollow steel shape that can be further distinguished as either mechanical or structural tubing. Mechanical tubing is used in low-stress applications and is characterized by a thinner wall. Structural tubing is designed for high-stress structural applications in bridges, buildings, roll cages, and underwater platforms. The walls are thicker and stronger.

Pipes are another hollow structure that is intended to carry liquids, gasses, or even solids. Its wall thickness is described by its schedule, which is a system created by the American Standards Association.

### T-beams

T-beams have a T-shape, like the universal beam but without a bottom flange. T-beams are best for reinforcement, as they do not resist bending to bear equal weight as well as the I-beam.

