ANSON

Henan Anson Steel Co., Ltd



Welcome to Anson!

About Anson

Henan Anson Steel Co., Ltd, a subsidiary of AGICO Group, has obtained a great success on exporting steel products. With guaranteed Grade-A quality, excellent performance and competitive price, we supply steel plates, tool steels, steel pipes and other steel products.

The steel products we mainly export are high value-added, including medium steel plates, shipbuilding steel plate, steel pipes, hot rolled coils, cold rolled coils, galvanized steel coils, prepainted steel coils, etc. They've been exported to overseas distributors, warehouses and factories in USA, Europe, Bangladesh, Sri Lanka, Egypt, Saudi Arabia and other countries & regions.

We have stable supply from advanced mills and large quantity of various products in stock. The warehouses where we stock our goods are full-fledged. We have a professional technician team, which not only has decades working experience in steel industry, but also has a deep& clear insight of the technology condition and manufacturing state to Chinese main steelmills & steelmakers.

With the high efficient supervision system and professional experience, we offer our efficient and considerate service to the clients across the world. We hope sincerely to become your Chinese supplier and partner.





MENU

01、Shipbuilding Steel Plate
02、Hot Rolled Steel Plate
03、Cold Rolled Steel Plate
04、Prepainted Steel Sheets
05、Tool Steel
06、Seamless Steel Pipe
07、Section Steel



01、Shipbuilding Steel Plate

We can supply you with shipbuilding plates in the following specifications：
Thickness: 3~200 mm
Width: 1500~4000 mm
Length: 5000~18000 mm

1,Hot rolled medium steel shipbuilding plate With Classification Society Quality Authentication from LR, ABS, NK, GL, DNV, BV, KR, RINA, CCS

2,Hot rolled High Strength shipbuilding plate AH32,AH36,DH32,DH36,EH32,EH36,AH40, DH40









Ⅰ. Grade and Chemical Composition (%)

Grade	C %≤	Mn %≤	Si %≤	p %≤	S %≤	Al %≤	Nb %≤	V %≤
A	0.22	≥2.5C	0.10~0.35	0.04	0.04	—	—	—
B	0.21	0.60~1.00	0.10~0.35	0.04	0.04	—	—	—
D	0.21	0.60~1.00	0.10~0.35	0.04	0.04	≥0.015	—	—
E	0.18	0.60~1.20	0.10~0.35	0.04	0.04	≥0.015	—	—
A32	0.18	0.70~1.60	0.10~0.50	0.04	0.04	≥0.015	—	—
D32		0.90~1.60						
E32		0.90~1.60						
A36	0.18	0.70~1.60	0.10~0.50	0.04	0.04	≥0.015	0.015~0.050	0.030~0.10
D36		0.90~1.60						
E36		0.90~1.60						

Mechanical Properties:

Grade	Thickness (mm)	Yieldpoint (Mpa)≥	Tensile Strength (Mpa)	Elongation (%)≤	V-impact test			Cold Bend Test	
					Temperature (℃)	Average AKV A kv /J ≥		b=2a 180°	b=5a 120°
						lengthways	crosswise		
A	≤50	235	400~490	22	—	—	—	d=2a	—
B					0	27	20	—	d=3a
D					-10				
E					-40				
A32	≤50	315	440~590	22	0	31	22	—	d=3a
D32					-20				
E32					-40				
A36	≤50	355	490~620	21	0	34	24	—	d=3a
D36					-20				
E36					-40				

II. Available Specification

variety		Thickness (mm)	Width (mm)	Length/ Inner Diameter (mm)
Shipbuiliding plate	Cutting Edges	6~50	1500~3000	3000~15000
	Non- cutting Edges		1300~3000	
Shipbuiliding coil	Cutting Edges	6~20	1500~2000	760+20~760-70
	Non-cutting Edges		1510~2010	

Theoretical Weight

Thickness (mm)	Theoretical Weight	
	Kg/ft2	Kg/m2
6	4.376	47.10
7	5.105	54.95
8	5.834	62.80
10	7.293	78.50
11	8.751	86.35
12	10.21	94.20
14	10.939	109.90
16	11.669	125.60
18	13.127	141.30
20	14.586	157.00
22	16.044	172.70
24	18.232	188.40

Thickness (mm)	Theoretical Weight	
	Kg/ft2	Kg/m2
25	18.962	196.25
26	20.420	204.10
28	21.879	219.80
30	23.337	235.50
32	25.525	251.20
34	26.254	266.90
35	27.713	274.75
40	29.172	314.00
45	32.818	353.25
48	35.006	376.80
50	36.464	392.50

III. Dimensional Deviation

Nominal Thickness (mm)	Thickness deviation with the following width (mm)			
	≤1200	>1200~1500	>1500~1800	>1800
>6.0~8.0	±0.29	±0.30	±0.31	±0.35
>8.0~10.0	±0.32	±0.33	±0.34	±0.35
>10.0~12.0	±0.35	±0.36	±0.37	±0.43

Nominal Thickness (mm)	Minus Deviation (mm)	Thickness deviation with the following width (mm)									
		>1000 ~1200	>1200 ~1500	>1500 ~1700	>1700 ~1800	>1800 ~2000	>2000 ~2300	>2300 ~2500	>2500 ~2600	>2600 ~2800	>2800 ~3000
>12~25	-0.8	+0.2	+0.2	+0.3	+0.4	+0.6	+0.8	+0.8	+1.0	+1.1	+1.2
>25~30	-0.9	+0.2	+0.2	+0.3	+0.4	+0.6	+0.8	+0.9	+1.0	+1.1	+1.2
>30~34	-1.0	+0.2	+0.3	+0.3	+0.4	+0.6	+0.8	+0.9	+1.0	+1.2	+1.3
>34~40	-1.1	+0.3	+0.4	+0.5	+0.6	+0.7	+0.9	+1.0	+1.1	+1.3	+1.4
>40~45	-1.2	+0.4	+0.5	+0.6	+0.7	+0.8	+1.0	+1.1	+1.2	+1.4	+1.5

02、 Hot Rolled Steel Plate





1、Specification Range
Thickness：8mm-300mm
Width：1500mm-4020mm
Length：3000mm-18000mm
Maximum Weight for Single Order：25 Ton

2、Status on Delivery: According to the performance and the requirements from clients, the status on delivery of steel plate can be hot rolled ,controlled rolling, normalizing,annealed tempering, normalizing + tempering, hardening + tempering , etc.

3、flaw detection & Through-Thickness Property
We are capable of manufacturing the steel plate with additional flaw detection and Z15-Z35 tear resistance (Through-Thickness Property), also can supply you with Z-Direction Steel Plate acoording to ASTM、A770 standard.

Steel Plate for Boilers and Pressure Vessels



Application:Widely used in petroleum, chemical industry, power plants, boilers and other fields, such as to produce reactors, heat exchangers, separators, spherical tank, oil tank, LPG tanks, nuclear reactor pressure shell, boiler drum, liquefied petroleum gas cylinders, hydropower high-pressure pipes, Turbine vortex shells and other equipment and components, etc.

Steel Grade	Executive Standard
20g, 16Mng, 15CrMog, 12CrlMoVg, 19Mng, 22Mng, 13MnNiCrMoNbg	GB713-97
20g, 16Mng, 15CrMog, 15CrMoR, 13MnNiMoNbR, 15MnNbR, 15MnVNR	GB6654-96
16MnDR, 09MnNiDR, 15MnNiDR	Gb3531
12Cr2Mo1R, 14Cr1MoR, 07MnCrMoVR, 07MnNiCrMoVDR	Gb150
SB410, SB450, SB480	JIS G 3103
SPV235, SPV315, SPV355, SPV410, SPV450, SPV490	JIS G 3115
SGV410, SGV450, SGV480	JIS G 3118
SBV1A, SBV1B, SBV2, SBV3	JIS G 3119
SEV245, SEV295, SEV345	JIS G 3124
SPV235, SPV315, SPV355, SPV410, SPV450, SPV490	DIN17155
HI, HII, 10CrMo910, 15Mo3, 13CrMo44, 19Mn6	DIN17155
BHW35	Thyssen
13MnNiMo54	Dillingen
1Cr0.5Mo, 2.25Cr1Mo, 1.25Cr0.5Mo	special purpose & condition
(S)A299M (S)A515M(Gr.60, 65, 70) (S)A516M(Gr.55, 60, 65, 70) (S)A204M(Gr.A, B, C) (S)A387M(Gr.11, 12, 22) (S)A537M(CL.1, CL.2) (S)A662M(Gr.A, B, C) (S)A302M(Gr.A, B, C, D) (S)A737M(Gr.B, C) (S)A738M(Gr.A, B, C) (S)A533M(I, II)	ASTM、ASME
P235GH, P265GH, P295GH, P355GH, 16Mo3, 13CrMo4-5, 10CrMo9-10, 11CrMo9-10	EN10028-2
A42, A52, A48	NF A36-205
20MnHR, 20HR, 16MnHR	special purpose & condition
161G430	Bs1501

High Strength Low Alloy Steel Sheet



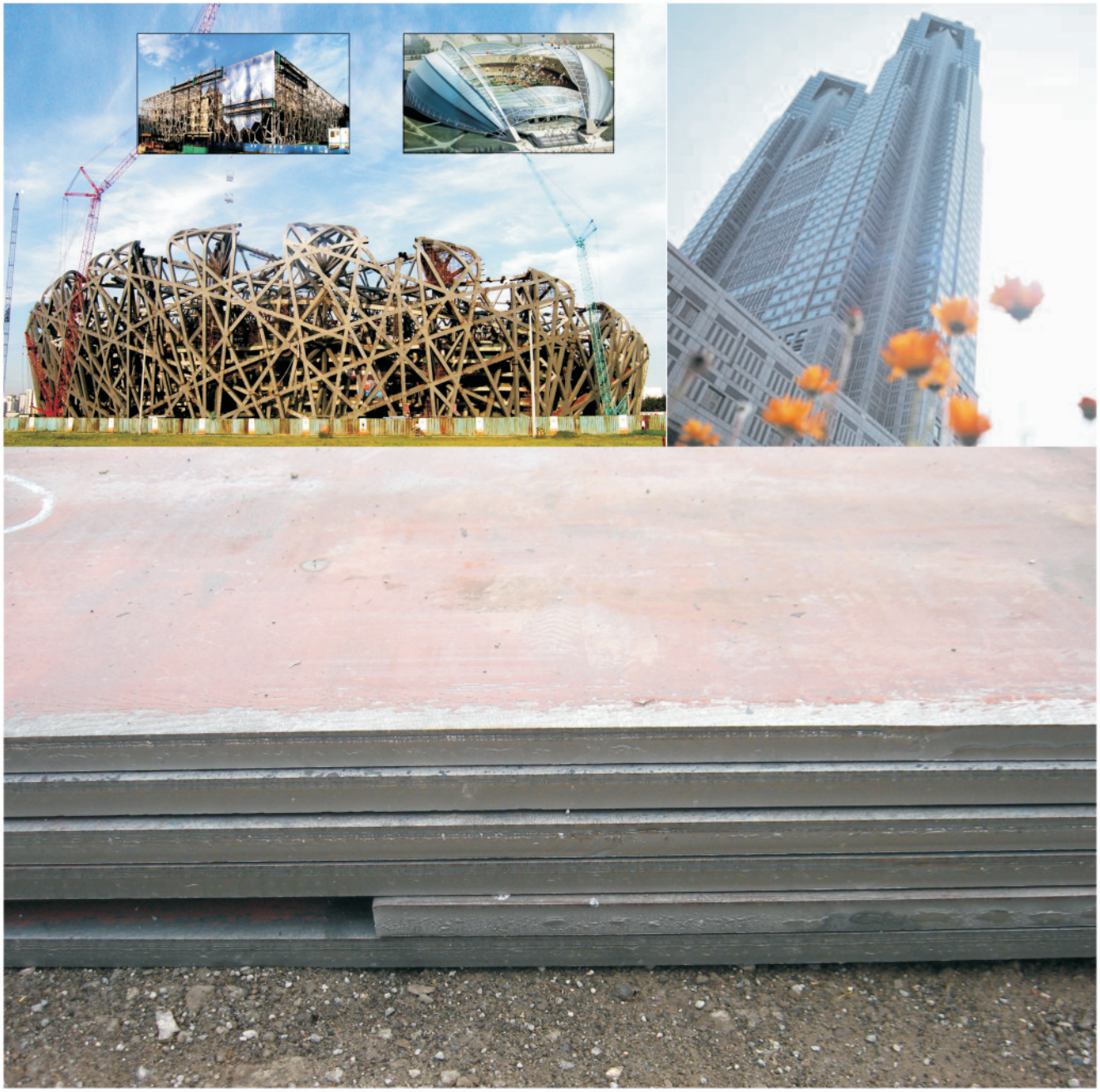


Application: To manufacture factory building, civil building and all kinds of engineering machinery in mine industry and various types of civil construction, such as drilling rig, electric shovel, powered wheel tipper, mining vehicles, excavators, loaders, bulldozers, industrial blowers, various types of cranes, mining machinery and equipment, (such as hydraulic support and other structural parts).

Steel Grade	Executive Standard
12Mn, 16Mn 15MnV, 15MnVN, 14MnNb	GB3274-88
Q295(A, B)	GB/T1591-94
Q345(A, B, C, D, E)≤100mm	GB/T1591-94
Q345(A, B, C, D, E)≥102mm	Q/WTB8 - 2000
Q390(A, B, C, D, E), Q420(A, B, C, D, E), Q460(C, D, E)	GB/T1591-94
Q500(D, E), Q550(D, E), Q620(D, E), Q690(D, E)	GB/T16270
SM490(A, B, C), SM490Y(A, B), SM520(B, C), SM570	JIS G3106
SS490, SS540	JIS G3101
St44-3, St52-3, St50-2, St60-2, St70-2	DIN17100
StE315, StE355, StE380, StE420, StE460, StE500	DIN17102
A572M(Gr42, 50, 60, 65), A633M(A, C, D, E)	ASTM
S275(JR, J0, J2G3, J2G4), S355(JR, J0, J2G3, J2G4), K2G3, K2G4, E295, E335, E360	En10025
S275N, S275NL, S355N, S355NL, S420N, S420NL, S460N, S460NL	En10113
50(A, B, C, D, DD, EE, F), 43(A, B, C, D, EE), 55(C, EE, F)	Bs4360
WH60（A、B、C、D、E）	WJX013-2001
Wh70	WYJ060-2000
Wh80	WYJ002-2002
WH410LK(BB41BF), WH490LK(BB503)	Special Purpose & Condition
E355(DD, E), E460(CC, DD, E)	ISO4950-2
E420(DD, E), E460(DD, E), E550(DD, E), E690(DD, E)	ISO4950-3
Fe430(A, B, C, D), Fe510(B, C, D)	ISO630

Steel Plate for High Rise Building Structure

To manufacture pillar and the load-bearing beam for industrial & civil buildings, other steel structure, etc.



Steel Grade	Executive Standard
HBS235(2), HBS345(2)	special purpose & condition
SN400, (A, B, C), SN490, (B, C)	JIS G 3136
275(D, E, EZ), 355(D, E, EM), 355EMZ, 450(EM, EMZ)	Bs7191
Q235GJC, D, E; Q345GJC, D, E;	GB19879
Q390GJC, D, E; Q420GJC, D, E; Q460GJC, D, E	

Carbon Structural Steel

Application: To manufacture all kinds of steel rivet, plug, welding for structural parts.



Steel Grade	Executive Standard
10-55, 20Mn-50Mn	Gb711and Special Purpose & Condition
Ss400	JIS G 3101
12Mn, 16Mn 15MnV, 15MnVN, 14MnNb	JIS G 3101
SM400（A, B）	JIS G 3106
S10C-S55C	JIS G 4051
St37-2, 1St37-3	DIN17100
A36, A283(A, B, C, D)1010-1050	ASTM
140(A, B, C, D, EE)	Bs4360
S235（JR, JO, J2G3, J2G4）	EN10025
1C22, 1C25, 1C30, 1C35, 1C40, 1C45, 1C50, 1C55	EN10083-2
Fe360（A, B, C, D）	ISO630

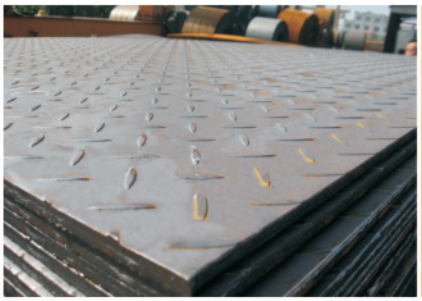
Steel Plate for Oil Gas Transport

Steel Grade	Executive Standard
X42, X46, X52 (L360), X56 (L390), X60 (L420), X65 (L460), X70, X80	API



Chequered Steel Plate







Standard	Steel Grade	Executive Standard
ASTM	1010,1017,1020	ASTM A29M
DIN	S185,S235JR	DIN EN 10025
JIS	SS330,SS400	JIS G3101-2004
GB	Q195,Q215,Q235	GB/T 700-2006

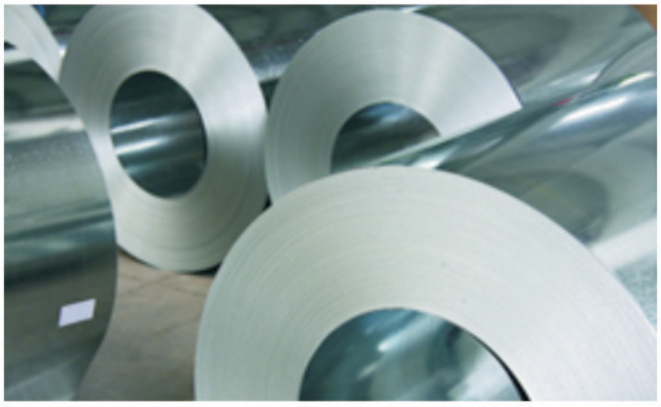
Product Name	Thickness(mm)	Width(mm)	Length(inner diameter of coil)(mm)
Steel Plate	2.5-10	1010-1500	2000-12000
Steel Coil	2.5-10	1000-1500	760+20-760-70

Theoretical Weight

Thickness (mm)	theoretical weight		Thickness (mm)	theoretical weight	
	Kg/ft^2	Kg/m^2		Kg/ft^2	Kg/m^2
2.5	1.979	21.3	6.0	4.497	48.4
3.0	2.267	24.4	7.0	4.887	52.6
3.5	2.638	28.4	7.5	5.064	54.5
4.0	3.01	32.4	8.0	5.240	56.4
4.5	3.382	36.4	9.0	5.630	60.6
5.0	3.763	40.5	9.5	5.807	62.5
5.5	4.116	44.3	10.0	5.983	64.4

Thickness (mm)	Tolerance (mm)
2.5-3.5	±0.3
4.0-4.5	±0.4
5.0-5.5	-0.5,+0.4
6.0-7.0	-0.7,+0.6
8.0-10.0	-0.8,+0.6

03、Cold Rolled Steel Plate





Low carbon and ultra-low carbon steel plates and strips. According to its application, the cold rolled low carbon steel and ultra-low carbon steel can be divided into common quality, drawing quality, deep drawing quality, extra-deep drawing quality and supreme extra-deep drawing quality.

Applications and Features:

Application	Features	Steel Grades, for example
Commercial purposes(CQ)	With some ductibility, they are suitable to simple forming, bending or welding	Dc01, SPCC, BLC
Drawing(DQ)	With more ductibility than the common ones, they are suitable to manufacture parts through drawing and relatively complicated deforming	Dc03, SPCD, BLD
Deep drawing(DDQ)	With more ductibility and homogeneity than the drawing ones, they are suitable to manufacture parts through deep drawing and complicated deforming.	Dc04, SPCE, BUSD
Extra-deep drawing(EDDQ)	With more ductibility and homogeneity than the deep drawing ones, they are suitable to manufacture parts through extra-deep drawing and more complicated deforming.	Dc05, BUFD
Supreme extra-deep drawing(SEDDQ)	With more excellent drawing capability than the extra deep drawing ones, they are suitable to manufacture parts through supreme extra-deep drawing and extremely complicated deforming.	Dc06, BSUFD

1.Reference list of standards and steel grades we supply as well as those equivalent or close to them

Standard No.	Q/BQB 403-2003	EN10130-1999	EN10130-1991	DIN1623-(1)-1983	GB/T5213-2001	Q/BQB403-1999 BZJ407-1999
Steel	DC01(St12)	Dc01	FeP01	St12	–	St12
	DC03(St13)	Dc03	FeP03	RRSt13	–	St13
Steades	DC04(St14, St15)	Dc04	FeP04	St14	Sc1	St14, St15
	DC05(BSC2)	Dc05	FeP05	–	Sc2	BSC2
	DC06(St16)	Dc06	FeP06	–	Sc3	St16

Standard No.	Q/BQB 402-2003	JISG3141-1996	GB/T5213-2001	Q/BQB 402-1999
Steades	SPCC	SPCC	–	SPCC
	SPCD	SPCD	–	SPCD
	SPCE	SPCE	Sc1	SPCE
	SPCEN	SPCEN	Sc2	SPCEN

2.Product sizes: Nominal thickness: 0.17mm~0.35mm, nominal width: 120mm~1850mm

3.Chemical Composition%:

Grade	Chemical Composition (%)				
	C	Mn	P	S	Alt
DC01(St12)	≤0.10	≤0.50	≤0.035	≤0.025	≥0.020
Dc03 (St13)	≤0.08	≤0.45	≤0.030	≤0.025	≥0.020
Dc04 (St14, St15)	≤0.08	≤0.40	≤0.025	≤0.020	≥0.020
Dc05 (BSC2)	≤0.008	≤0.30	≤0.020	≤0.020	≥0.015
Dc06 (St16)	≤0.006	≤0.30	≤0.020	≤0.020	≥0.015
SPCC	≤0.12	≤0.50	≤0.035	≤0.025	≥0.020
SPCD	≤0.10	≤0.45	≤0.030	≤0.025	≥0.020
SPCE,SPCEN	≤0.08	≤0.40	≤0.025	≤0.020	≥0.020

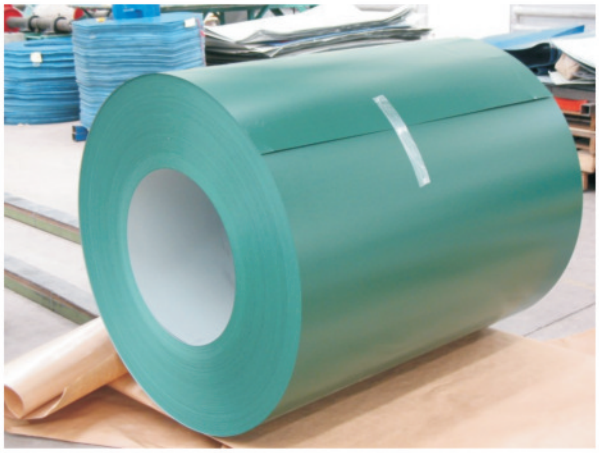
4.Mechanical Performances and Processing Features

Grade	Yield Strength MP	Tensile Strength MP≥	After Breakage Percent Elongation (LO=80mm,b=20mm)%≥			
			Nominal Thickness mm			
			≤0.70	0.70～<1.0	1.0～<1.6	≥1.6
Dc01 (St12)	130-260	270	28	30	32	34
Dc03 (St13)	120-240	270	32	34	35	36
Dc04 (St14, St15)	120-210	270	36	38	39	40
Dc04 (St14, St15)	110-190	260	38	39	40	41
Dc06 (St16)	100-180	250	39	40	41	42
Grade	Yield Strength MP	Tensile Strength MP≥	After Breakage Percent Elongation (LO=80mm,b=20mm)%≥			
			Nominal Thickness mm			
			≤0.60	0.60～<1.0	1.0～<1.6	≥1.0
SPCC	-	270	34	36	37	38
SPCD	-	270	36	38	39	40
SPCE,SPCEN	210	270	38	40	41	42

5.Surface Quality

Grade	Code No.	Features
Relatively high-grade finishing surface	FB(O3)	It is allowed for the existence of a few surface defects which will not affect forming and coating & plating adhesiveness such as minor scratch, impression, pit, roll mark and oxidation tint.
High-grade finishing surface	FB(O4)	FB(O4) One side of relatively good quality is free from any remarkable defect visible and the other side must reach FB requirements at least.
Ultra high-grade finishing surface	FB(O5)	One side of relatively good quality is free from any defect, namely appearance quality after painting or electrogalvanizing is not affected, and the other side must reach FB requirements at least.

04、Prepainted Steel Sheets









Application

Building roof, component of roof structure, mask plate of balcony, windowsill, newspaper booth, garage, roller shutter door, heater, drainage pipe, etc.

Appliance fridge, washer machine, switch board, air conditioning, microwave, bread machine, copier machine, automatic merchandising machines, electrical fan, dust collector, etc Furniture lighting hood, cabinet, desk, shelf, counter table, billboard, medical facility, etc

Transportation auto ceiling, outer shell, internal plate, tractor, electrical car, container, express way bounding wall, ship cell plate, etc.

Others musical instrument shell, dust bin, billboard, clock, camera, gauge etc.

Product name:	Prepainted galvanized Coil
Zinc Coating	60-275g/m2
Grade	TSGCC
Thickness	0.25mm – 0.8mm
Width	914mm – 1250mm
Coating	Top coat 5 + 15um , 5+ 20um, Back coat: 5-15um
Colour	RAL No. or Sample
Standard	JIS G3302

05、 Tool Steel

P20 Plastic Mould Steel

A:Specification



Product	Material	Spec.(mm)	Length(mm)	Remark
Plastic Mould Steels	1.2311(Plate)	20-75*2000	3000-10000	Hot Rolled,Black Skin,Pre-hardened
Product	Material	Spec.(mm)	Length(mm)	Remark
Plastic Mould Steels	P20(Sheet)	30-80*1800-2300	3000-10000	Hot Rolled,Black Skin,Pre-hardened
Plastic Mould Steels	P20(Flat)	20-45*255	3000-5800	Hot Rolled,Black Skin,Annealed

B:Performance Table

General Information	Pre-hardened grade specially designed for the plastic mold industry deliver in hardened and tempered condition (300HB),subsequent heat treatment is not necessary. Specially employed for the plastic mold industry and adapted ford polishing and chemical(low sulphur content)					
Comparable Standards	AISI/SAE	DIN	W.N	AFNOR	BS	SIAU
	-	40CrMnMo7	1.2311	35CMD7	-	2311
Chemical Analysis (%)	C	Mn	Si	Cr	Mo	P	S
	0.35-0.45	1.30-1.60	0.20-0.40	1.80-2.10	0.15-0.25	≤0.03	≤0.03

H13 Die Steel



A:Specification

Product	Material	Spec.(mm)	Length(mm)	Remark
Hot Work Steels	H13	Φ12-60	3000-5800	Hot Rolled、Annealed
Hot Work Steels		Φ65-350	3000-5800	Forging 、Annealed 、Polished
Hot Work Steels		Φ360-500	3000-5800	Polished、Annealed 、Electro-slag
Hot Work Steels		Φ340-650	3000-5800	Smooth Machined、Annealed、Electro-slag
Hot Work Steels	H13	25-60*255-405	3000-5800	Forging
Hot Work Steels		105-350*505-620	3000-5800	Forging Electro-slag
Hot Work Steels		30-48*510	3000-5800	Electro-slag

B:Performance Table

General Information	Very good retentively of hardness and toughness at elevated temperatures. Compression strength is very good and it is insensitive to thermal shocks. Wear resistance is than 2343. Good mechanical property in the annealed condition.						
Comparable Standards	AISI/SAE	DIN	W.N	AFNOR	JIS	SIAU	
	H13	X40CrMoV51	1.2344	-	Bh13	MTV	
Chemical Analysis (%)	C	Mn	Si	Cr	Mo	V	P	S
	0.37-0.42	0.30-0.50	0.90-1.20	4.80-5.50	1.20-1.50	0.90-1.10	≤0.03	≤0.03

D2 Tool Steel





A:Specification

Product	Material	Spec.(mm)	Length(mm)	Remark
Cold Work Steels	D2	Φ12-130	3000-5800	Hot Rolled、Annealed
Cold Work Steels		Φ65-420	3000-5800	Forging 、Annealed 、Polished
Cold Work Steels		Φ114-305	3000-5800	Forging、Annealed、Smooth Machined
Cold Work Steels	D2(Flat)	25-60*255-405	3000-5800	Forging、Black Skin
Cold Work Steels		100-150*610	3000-5800	Forging, Black Skin,Electro-slag
Cold Work Steels		180-350*620	3000-5800	

B:Performance Table

General Information	Steel with hardening air, oil and salts bath. It features good resistance and toughness for hot and treatments. Normally used for mould carrier frames, containers for pressure casting, sub-dies for extrusion of aluminum, plastic moulds.					
Comparable Standards	AISI/SAE	DIN	W.N	AFNOR	BS	SIAU
	D2	X155CrVMo12_1	1.2379	Z160CDV12	BD2	KORV

Chemical Analysis (%)	C	Mn	Si	Cr	Mo	V	P	S
	1.50-1.60	0.15-0.45	0.10.40	11.0-12.0	0.60-0.80	0.90-1.10	≤0.03	≤0.03

SKD11 Cold Work Tool Steel



A:Specification

Product	Material	Spec.(mm)	Length(mm)	Remark
Cold Work Steels	SKD11 Round	Φ16-50	3000-5800	Hot Rolled、Annealed

B:Performance Table

General Information	Steel with hardening air, oil and salts bath. It features good resistance and toughness for hot and treatments. Normally used for mould carrier frames, containers for pressure casting, sub-dies for extrusion of aluminum, plastic moulds.							
Comparable Standards	AISI/SAE	DIN	W.N	AFNOR	BS	SIAU		
	D2	X155CrVMo12_1	1.2379	Z160CDV12	BD2	KORV		
Chemical Analysis (%)	C	Mn	Si	Cr	Mo	V	P	S
	1.50-1.60	0.15-0.45	0.10.40	11.0-12.0	0.60-0.80	0.90-1.10	≤0.03	≤0.03

06、Seamless Steel Pipe





ASTM SA335 Boiler Pipe

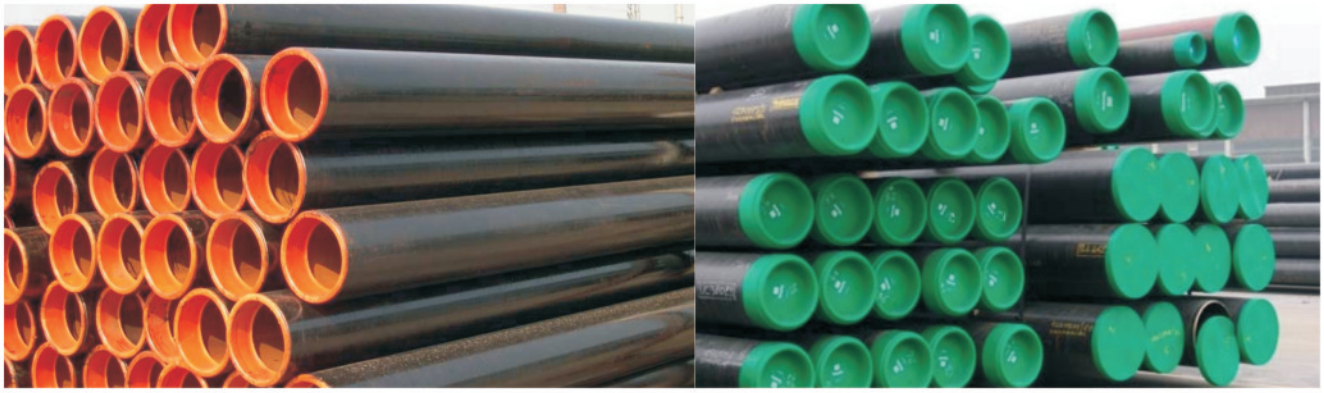
Product	Steel Code	Tensile Strength(MPa)	Yield Strength(MPa)	Elongation Percent(%)	Impact Power(J)	Rigidity
ASME SA335	SA335 P11	≥415	≥205	≥22	≥35	≤163HB
	SA335 P12	≥415	≥200	≥22	≥35	≤163HB
	SA335 P22	≥415	≥205	≥22	≥35	≤163HB
	SA335 P5	≥415	≥205	≥22	≥35	≤187HB
	SA335 P91	585～760	≥415	≥20	≥35	≤250HB
	SA335 P92	≥620	≥440	≥20	≥35	≤250HB

Chemical Composition

Product	Steel Code	Chemical Composition (%)													
		C	Si	Mn	P	S	Cr	Mo	Cu	Ni	V	Al	W	Nb	N
ASME SA335	SA335 P11	0.05～0.15	0.05～1.0	0.30～0.60	≤0.030	≤0.030	1.00～1.50	0.50～1.00							
	SA335 P12	0.05～0.15	≤0.50	0.30～0.61	≤0.030	≤0.030	0.80～1.25	0.44～0.65							
	SA335 P22	0.05～0.15	≤0.50	0.30～0.60	≤0.030	≤0.030	1.90～2.60	0.87～1.13							
	SA335 P5	≤0.15	≤0.50	0.30～0.60	≤0.030	≤0.030	4.00～6.00	0.45～0.65							
	SA335 P91	0.08～0.12	0.20～0.50	0.30～0.60	≤0.020	≤0.010	8.00～9.50	0.85～1.05		≤0.40	0.18～0.25	≤0.015		0.06～0.10	0.03～0.07
	SA335 P92	0.07～0.13	≤0.50	0.30～0.60	≤0.020	≤0.010	8.50～9.50	0.30～0.60	B0.001 0.006	≤0.40	0.15～0.25	≤0.015	1.50～2.00	0.04～0.09	0.03～0.07

Type of Steel Pipes	OD(D)		WT(S)	
	OD(mm)	Tolerance (mm)	Wall Thickness(mm)	Tolerance (mm)
Cold Drawn Steel Pipe	>30～50	±0.3	>3～20	±10%
	>114～159	±0.8%	≤30	±10%
	>159～219	±1.0%		
Hot Rolled Steel Pipe	>219～457	±1.0%	≤20	+10%,-12.5%
			>20～40	+10%,-10%

API SPEC 5L Steel Pipe Line



Specification for Line Pipe

GB/T 3639 Cold drawn or cold rolled precision seamless steel tubes

GB/T 8713 inside precision seamless tubes for hydraulic pressure and pneumatic services

Application: for atuo use; for machinery use;/Oil cylinder tube;/Motorcycle shock reducer steel tubes;/Auto shock reducer inner cylinder

Size(mm):0. D. : Φ10.3～609.6mm

W.T: 1.7～36mm L:max 12000mm

Features Specifications:

Line Pipe	
Application:	It is used for conveying gas,water,and petroleum of both the oil and natural gas industries.

Grade and Chemical Composition(%)

Standard	Grade	Chemical Composition(%)			
		C	Mn	P	S
	B	≤0.28	≤1.20	≤0.030	≤0.030
	X42	≤0.28	≤1.30	≤0.030	≤0.030
	X46,X52	≤0.28	≤1.40	≤0.030	≤0.030

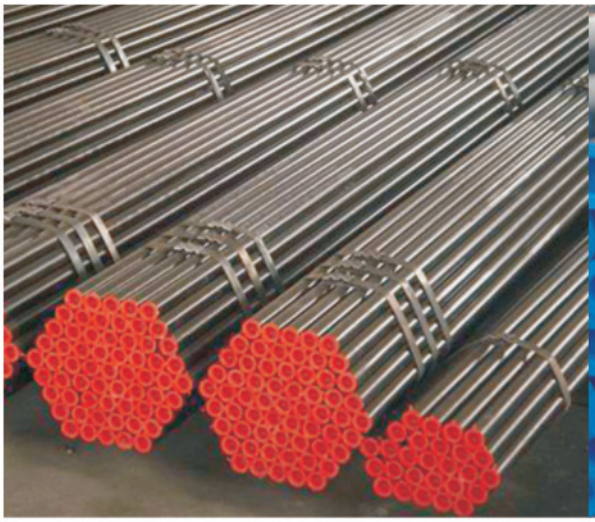
Mechanical Properties(MPa)(PSL1): Grade and Chemical Composition(%)

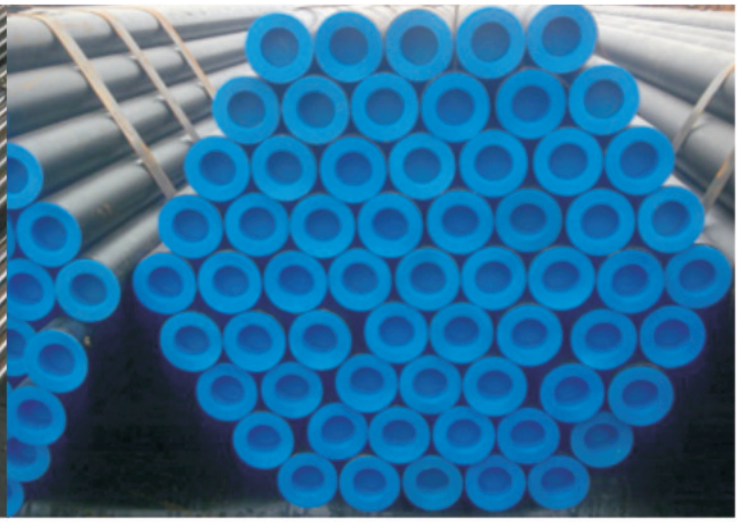
Standard	Grade	(MPa)		(MPa)		A%	Standard	Grade	(MPa)		(MPa)		A%	(J)
API SPEC 5L	PSL1 ≥						API SPEC 5L	PSL2						
		psi	MPa	psi	MPa	MIN(%)			Min	Max	Min	Max		Min
	B	35,000	241	60,000	414	21~27		B	241	448	414	758	21~27	41(27)
	X42	42,000	290	60,000	414	21~27		X42	290	496	414	758	21~27	41(27)
	X46	46,000	317	63,000	434	20~26		X46	317	524	434	758	20~26	41(27)
	X52	52,000	359	66,000	455	20~24		X52	359	531	455	758	20~24	41(27)

Mechanical Properties(MPa)(PSL2):

Standard	Grade	Chemical Composition(%)				
		C	Mn	TI	P	S
	B	≤0.24	≤1.20	≤0.04	≤0.025	≤0.015
	X42	≤0.24	≤1.30	≤0.04	≤0.025	≤0.015
	X46,X52	≤0.24	≤1.40	≤0.04	≤0.025	≤0.015

ASTM SA213 Alloy Steel Tubes





Seamless Ferritic and Austenitic Alloy Steel Tubes for Boiler, Superheater and Heat Exchanger

Size(mm): O.D.: 28-168

W.T.: 2～30 L: max 12000

Description:

1、Specification: ASTM A213(ASME SA213)

2、The major products use: apply to the overheated boiler and used in the minimum thickness of ferrite and seamless steel pipes and heat exchangers used in austenitic pipe

3、The main products of steel / steel-class:T11;T22

4、Specifications: diameter: 320 to 127 mm thickness: 0.4 to 12.7 mm Length: 6m above, and, in accordance with customer demand, we can supply other specifications of steel pipe

5、Chemical and mechanical properties

Alloy Steel Pipe Pipes Tubing Features Specifications:

Standard Specification for Seamless Ferritic and Austenitic Alloy-Steel oiler, Superheater,and Heat-Exchanger Tubes	
Application:	For manufacturing wall panel,economizer,superheater and steam pipeline of boilers

Grade and Chemical Composition(%)

Grade	C	Mn	P≤	S≤	Si	Cr	Mo
T11	0.05-0.15	0.30-0.60	0.025	0.025	0.50-1.00	0.50-1.00	1.00-1.50
T12	0.05-0.15	0.30-0.61	0.025	0.025	≤0.50	0.80-1.25	0.44-0.65
T13	0.05-0.15	0.30-0.60	0.025	0.025	≤0.50	1.90-2.60	0.87-1.13

Mechanical Properties(MPa):

Grade	Tensile Point	Yield Point
T11	≥415	≥205
T12	≥415	≥220
T13	≥415	≥205

ASTM A192 Steel Bolier Tubes





Seamless Carbon Steel Boiler Tubes for High-Pressure for seamless carbon steel boiler and superheater tubes for high-pressure service

Seamless Carbon Steel Boiler Tubes for High-Pressure	
Application:	For seamless carbon steel boiler and superheater tubes for high-pressure service
Size(mm):	O.D.:28～168 W.T.:2～30 L:max 12000

Grade and Chemical Composition (%)

Chemical Composition	C	Mn	P≤	S≤	Si≤
	0.06-0.18	0.27-0.63	0.035	0.035	0.25

SA-450/SA-450M):

OD In (mm)	+	-	WT In(mm)	+	-
<1(25.4)	0.10	0.10	≤1.1/2(38.1)	20%	0
1～1.1/2(25.4～38.1)	0.15	0.15	>1.1/2(38.1)	22%	0
>1.1/2～<2(38.1～50.8)	0.20	0.20			
2～<2.1/2(50.8～63.5)	0.25	0.25			
2.1/2～<3(63.5～76.2)	0.30	0.30			
3～4(76.2～101.6)	0.38	0.38			
>4～7.1/2(101.6～190.5)	0.38	0.64			
>7.1/2～9(190.5～228.6)	0.38	1.14			

Brinell Hardness Number (WT≥) 0.200In(5.1mm)	Rockwell Hardness Number (WT)0.200In(5.1mm)
137HRB	77HRB

Stainless Steel Pipe

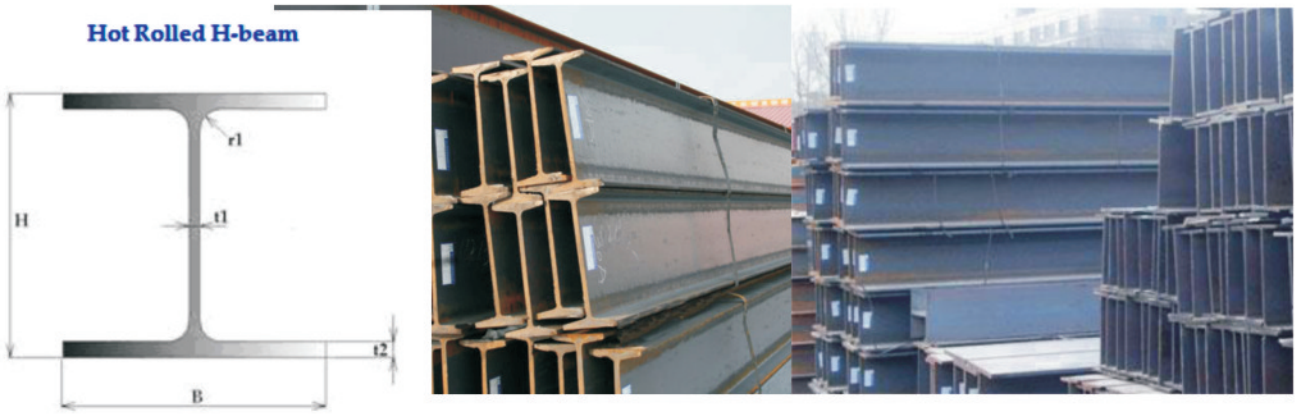


Item: 304/304L(1. 4301/1. 4307)316/316L（1. 4401/1. 4404）; 316Ti(1. 4571); 321(1. 4541); 310S(1. 4845); 317L(1. 1138); 321H(1. 4878); 304H(1. 4948); 347H(1. 4551); 2205(1. 4462)
Standard: GB/T 14976 ; GB 13296 ; GB5310 ; GB9948 ASTM : A213 ; A269 ; A312 ; A511 ; A789 ; A790 DIN : 17456 ; 17458
JIS: G3459 ; G3463 GOST 9940;GOST 9941;

(WT)mm / (OD)mm	0.6-0.8	0.9-1.2	1.3-1.6	1.7-2.2	2.3-2.9	3-4.5	4.6-5.5	5.6-7.5	7.6-9	9.1-12	12.1-16	16.1-24	24.1-32
5-7	●	●	●	●	●								
8-10	●	●	●	●	●	●							
11-16	●	●	●	●	●	●							
17-25	●	●	●	●	●	●	●						
26-35		●	●	●	●	●	●						
36-45			●	●	●	●	●						
46-56			●	●	●	●	●	●	●				
57-65				●	●	●	●	●	●				
66-76					●	●	●	●	●	●			
77-100					●	●	●	●	●	●			
101-114						●	●	●	●	●			
115-133						●	●	●	●	●	●	●	●
134-159						●	●	●	●	●	●	●	●
160-219						●	●	●	●	●	●	●	●
220-273							●	●	●	●	●	●	●
274-325								●	●	●	●	●	●

07、 Section Steel

Hot Rolled H-beam



Section Dimension (mm)			Unit Weight (kg/m)	Section Dimension (mm)			Unit Weight (kg/m)
H×B	t1	t2		H×B	t1	t2	
100×50	5	7	9.30	388×402	15	15	140
100×100	6	8	17.2	394×398	11	18	147
125×60	6	8	13.2	394×405	18	18	168
125×125	6.5	9	23.8	400×400	13	21	172
150×75	5	7	14.0	400×408	21	21	197
148×100	6	9	21.1	414×405	18	28	232
150×150	7	10	31.5	428×407	20	35	283
175×90	5	8	18.1	458×417	30	50	415
175×175	7.5	11	40.2	498×432	45	70	605
198×99	4.5	7	18.2	446×199	8	12	66.2
200×100	5.5	8	21.3	450×200	9	14	76.0
194×150	6	9	30.6	440×300	11	18	124
200×200	8	12	49.9	492×465	15	20	204
200×204	12	12	56.2	496×199	9	14	79.5
248×124	5	8	25.7	500×200	10	16	89.6
244×175	7	11	44.1	502×465	15	25	240
244×252	11	11	64.4	502×470	20	25	260
250×125	6	9	29.6	506×201	11	19	103
250×250	9	14	72.4	482×300	11	15	114
250×255	14	14	82.2	488×300	11	18	128
298×149	5.5	8	32.0	596×199	10	15	94.6
300×150	6.5	9	36.7	600×200	11	17	106
294×200	8	12	56.8	606×201	12	20	120
294×302	12	12	84.5	582×300	12	17	137
300×300	10	15	94.0	588×300	12	20	151
300×305	15	15	106	594×302	14	23	175
346×174	6	9	41.4	692×300	13	20	166
350×175	7	11	49.6	700×300	13	24	185
340×245	9	14	79.7	792×300	14	22	191
344×348	10	16	115	800×300	14	26	210
350×350	12	19	137	890×299	15	23	213
396×199	7	11	56.6	900×300	16	28	243
400×200	8	13	66.0	912×302	18	34	286
390×300	10	16	170				

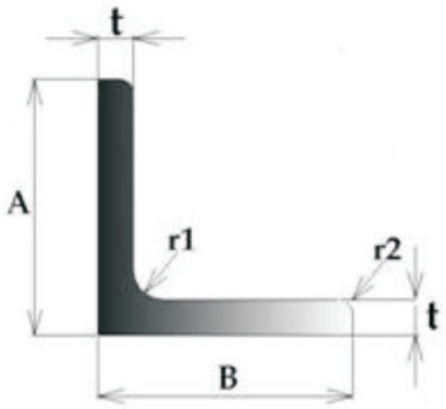
Chemical Composition

Steel Grade	Grade	C (%)	Mn (%)	Si	P	S	V (%)	Nb (%)	Ti (%)
				≤(%)					
Q195	-	0.06-0.12	0.25-0.50	0.30	0.050	0.045	-	-	-
Q215	A	0.09-0.15	0.25-0.55	0.30	0.050	0.045	-	-	-
	B				0.045				
Q235	A	0.14-0.22	0.30-0.65	0.30	0.050	0.045	-	-	-
	B	0.12-0.20	0.30-0.70		0.045				
Q345	A	≤0. 20	1.00-1.60	0.55	0.045	0.045	0.02-0.15	0.015-0.060	0.02-0.
	B				0.040	0.040			

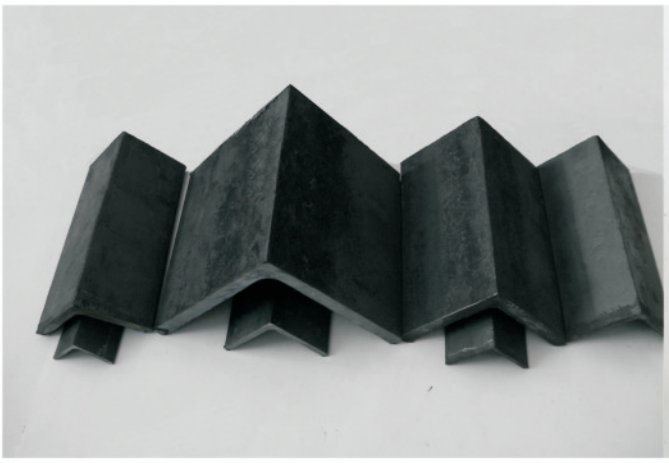
Mechanical Capability

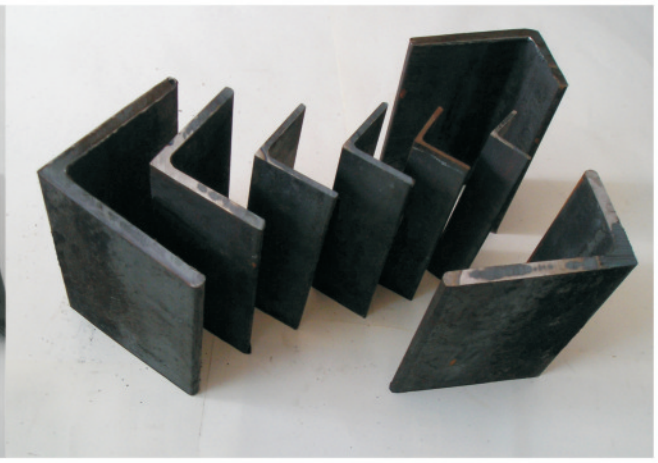
Steel Grade	Yield Strength		Tensile Strength (Mpa)	Elongation		180°Cold-Bend Test r-Pin Diameter a-Thickness		Charpy V-notch Impact Test (Longitudinal)	
	Thickness (mm)	σ_s ≥ (Mpa)		Thickness (mm)	δ ≥ (%)	Longitudinal	Transverse	Temperature ℃	A_{KV} /J ≥
Q195	≤16	195	315-430	≤16	33	0	0. 5a	-	-
	>16-40	185		>16-40	32				
	>40-60	-		>40-60	-				
	>60-100	-		>60-100	-				
	>100-150	-		>100-150	-				
	>150	-		>150	-				
Q215	≤16	215	335-450	≤16	31	0. 5a	a	20	27
	>16-40	205		>16-40	30				
	>40-60	195		>40-60	29				
	>60-100	185		>60-100	28	1. 5a	2a		
	>100-150	175		>100-150	27	2a	2. 5a		
	>150	165		>150	26				
Q235	≤16	235	375-500	≤16	26	a	1. 5a	20	27
	>16-40	225		>16-40	25				
	>40-60	215		>40-60	24	a	1. 5a	0	
	>60-100	205		>60-100	23	2a	2. 5a		
	>100-150	195		>100-150	22	2. 5a	3a	-20	
	>150	185		>150	21				
Q345	≤16	345	470-630	21		-	-	20	34
	>16-35	325							
	>35-50	295							
	>50-100	275							

Angle



Section Dimension (mm)		Unit Weight (kg/m)	Section Dimension (mm)		Unit Weight (kg/m)
A×B	t		A×B	t	
25×25	3	1.12	90×90	7	9.59
30×30	3	1.36	90×90	10	13.3
40×40	3	1.83	90×90	13	17.0
40×40	5	2.95	100×100	7	10.7
45×45	4	2.74	100×100	10	14.9
45×45	5	3.38	100×100	13	19.1
50×50	4	3.06	120×120	8	14.7
50×50	5	3.77	130×130	9	17.9
50×50	6	4.43	130×130	12	23.4
60×60	4	3.68	130×130	15	28.8
60×60	5	4.55	150×150	12	27.3
65×65	5	5.00	150×150	15	33.6
65×65	6	5.91	150×150	19	41.9
65×65	8	7.66			
70×70	6	6.38			
75×75	6	6.85	200×200	15	45.3
75×75	9	9.96	200×200	20	59.7
80×80	6	7.32	200×200	25	73.6
90×90	6	8.28			





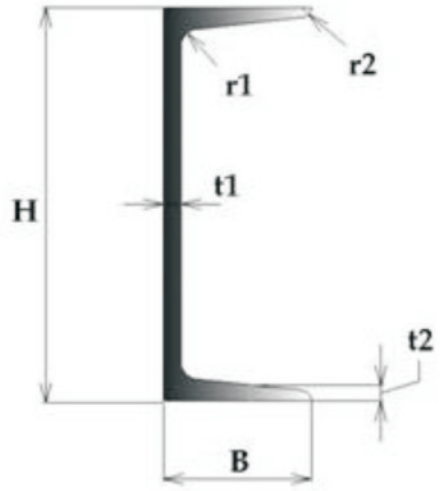
Chemical Composition

Steel Grade	Thickness mm	C (%)	Si (%)	Mn (%)	P (%)	S (%)
SS330	-	-	-	-	≤0.050	≤0.050
SS400	-	-	-	-	≤0.050	≤0.050
SM490A	≤50	≤0. 20	≤0. 55	≤1. 60	≤0.035	≤0.035
	>50-200	≤0. 22	≤0. 55	≤1. 60	≤0.035	≤0.035
SM490B	≤50	≤0. 18	≤0. 55	≤1. 60	≤0.035	≤0.035
	>50-200	≤0. 20	≤0. 55	≤1. 60	≤0.035	≤0.035

Mechanical Capability

Steel Grade	Yield Strength		Tensile Strength (Mpa)	Elongation		180°Cold-bend Test "r"-Inside Radius "a"-Thickness	A_{KV} (°C) /J
	Thickness (mm)	σ_b ≥ (Mpa)		Thickness or Diameter (mm)	δ ≥ (%)		
SS330	≤16	205	330-430	Plate,Strip,Flat Bar		r=0.5a	-
				≤5	26		
	>16-≤40	195		5-16	21		
				16-50	26		
	>40	175		>40	28		
				Steel Bar,Angle		r=0.5a	
				≤25	25		
				>25	30		
SS400	≤16	245	400-510	Plate,Strip,Flat Bar		r=1.5a	-
				≤5	21		
	>16-≤40	235		5-16	17		
				16-50	21		
	>40	215		>40	23		
				Steel Bar,Angle		r=1.5a	-
				≤25	20		
				>25	24		
SM490A	≤16	325	490-610	≤5	22	-	
	>16-≤40	315		5-16	17		
	>40	295		16-50	21		
				>40	23		
SM490B	≤16	325	490-610	≤5	22	-	34
	>16-≤40	315		5-16	17		
				16-50	21		
	>40	295		>40	23		

Channel Bar



Section Dimension (mm)			Unit Weight (kg/m)
H×B	t1	t2	
75×40	5	7	6.92
100×50	5	7.5	9.36
125×65	6	8	13.4
150×75	6.5	10	18.6
150×75	9	12.5	24.0

Steel Grade	Yield Strength		Tensile Strength (Mpa)	Elongation		180°Cold-bend Test "r"-Inside Radius "a"-Thickness	A_{KV} (°C) /J
	Thickness (mm)	σ_b ≥ (Mpa)		Thickness or Diameter (mm)	δ ≥ (%)		
SS330	≤16	205	330-430	Plate,Strip,Flat Bar		r=0.5a	-
				≤5	26		
	>16-≤40	195		5-16	21		
				16-50	26		
	>40	175		>40	28		
				Steel Bar,Angle		r=0.5a	
				≤25	25		
				>25	30		
SS400	≤16	245	400-510	Plate,Strip,Flat Bar		r=1.5a	-
				≤5	21		
	>16-≤40	235		5-16	17		
				16-50	21		
	>40	215		>40	23		
				Steel Bar,Angle		r=1.5a	-
				≤25	20		
				>25	24		
SM490A	≤16	325	490-610	≤5	22	-	
	>16-≤40	315		5-16	17		
				16-50	21		
	>40	295		>40	23		
SM490B	≤16	325	490-610	≤5	22	-	34
	>16-≤40	315		5-16	17		
				16-50	21		
	>40	295		>40	23		




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