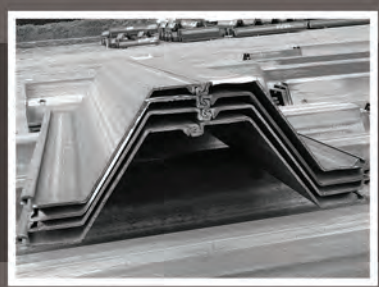


POWERSTEEL

The No.1 Steel Supplier in the Philippines

No.1 for more than 40 years



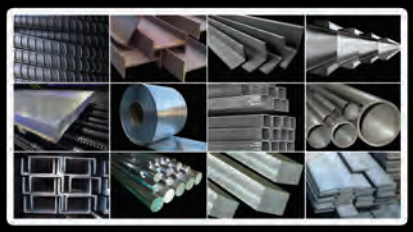



POWERSTEEL

The No.1 Steel Supplier in the Philippines

LOW PRICE * FAST DELIVERY * CREDIT TERMS

www.powersteel.com.ph



INTRODUCTION

OUR IDENTITY

Power Steel is one of the most trusted distributors of metal products in the Philippines. It is the choice of contractors, architects, industrial users and purchasers mainly because of our quality of service and the competitive pricing that we offer.

OUR HISTORY

Great things start with humble beginnings. In 1974, a man in a small office in Binondo had a dream to provide quality steel products at an affordable price. This dream has become a reality now known as Power Steel. Through the years, the Power Steel team strived to hold **true to its promise to provide best quality steel products** at an affordable price. Due to this, the company grew at a steady and sustainable pace, now offering over 1,300 products to supply the needs of the customers. Today, we look at the industry with the boldness of the new generation yet still carrying over 40 years of personalized customer service heritage.

OUR VISION

As it was from the very beginning, the vision of Power Steel is to provide quality steel products at a competitive price to meet the construction needs of our customers. From households to large corporations, we aim to be the top of mind steel company.

OUR VALUES

Power Steel exists to provide one thing, customer satisfaction. That is why we offer personalized service. Unlike other companies that are focused on shareholders, ours is a family operated business. Hence, we remain committed to the values instilled to us by our forefathers and that is to provide total customer.





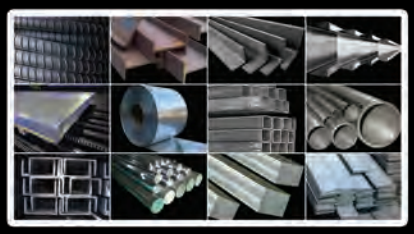
The Strength of your Success lies on the POWER of STEEL







The No.1 Steel Supplier in the Philippines



POWERSTEEL

The No.1 Steel Supplier in the Philippines

LOW PRICE * FAST DELIVERY * CREDIT TERMS

www.powersteel.com.ph

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Message of the President

When I look at our company, I see a well-established organization made up of what I believe to be the best group of professionals in the business. I see individuals who are not contented to rest on past accomplishments, constantly challenge themselves and their colleagues to find innovative ways to create value, increase efficiency and provide the highest level of service to our clients and partners.

Over the past 40 years, Power Steel has fully strengthened its reputation as a highly efficient, quality provider of steel materials to the Filipino people. Our commitment to give customer satisfaction has been the critical factor of this success. Customers will always be our first priority; this is an oath that will always be manifested by Power Steel, an oath that brought this company to soar greater heights in the steel industry.

As we pursue further growth, I believe that with this core group that Power Steel has and the values that we trail, we will achieve the sustainability objectives of the company and continually strive to be the No. 1 steel supplier in the philippines.

Company Information:

Business Name : **POWER STEEL SPECIALIST TRADING CORPORATION**

Business Address : **1714 Ma. Clara St., Sampaloc, Manila**

Telephone Number(s) : **(02) 731-0000 Connecting all departments**

Fax Number(s) : **(02) 524-0000**

Website : **www.powersteel.com.ph**

E-mail Address : **sales@powersteel.com.ph**

Type of Business : *Corporation*

Corporation TIN No. : **221-181-307-000**

SEC Registration No. : **CS200257521**

Date & Year Registered : **October 2002**

Date Organized : **July 1974**



A Short History of Steel

The development of steel can be traced back 4000 years to the beginning of the Iron Age. Proving to be harder and stronger than bronze, which had pre-viously been the most widely used metal, iron began to displace bronze in weaponry and tools.



For the following few thousand years,however, the quality of iron produced would depend as much on the ores available as on the production methods.

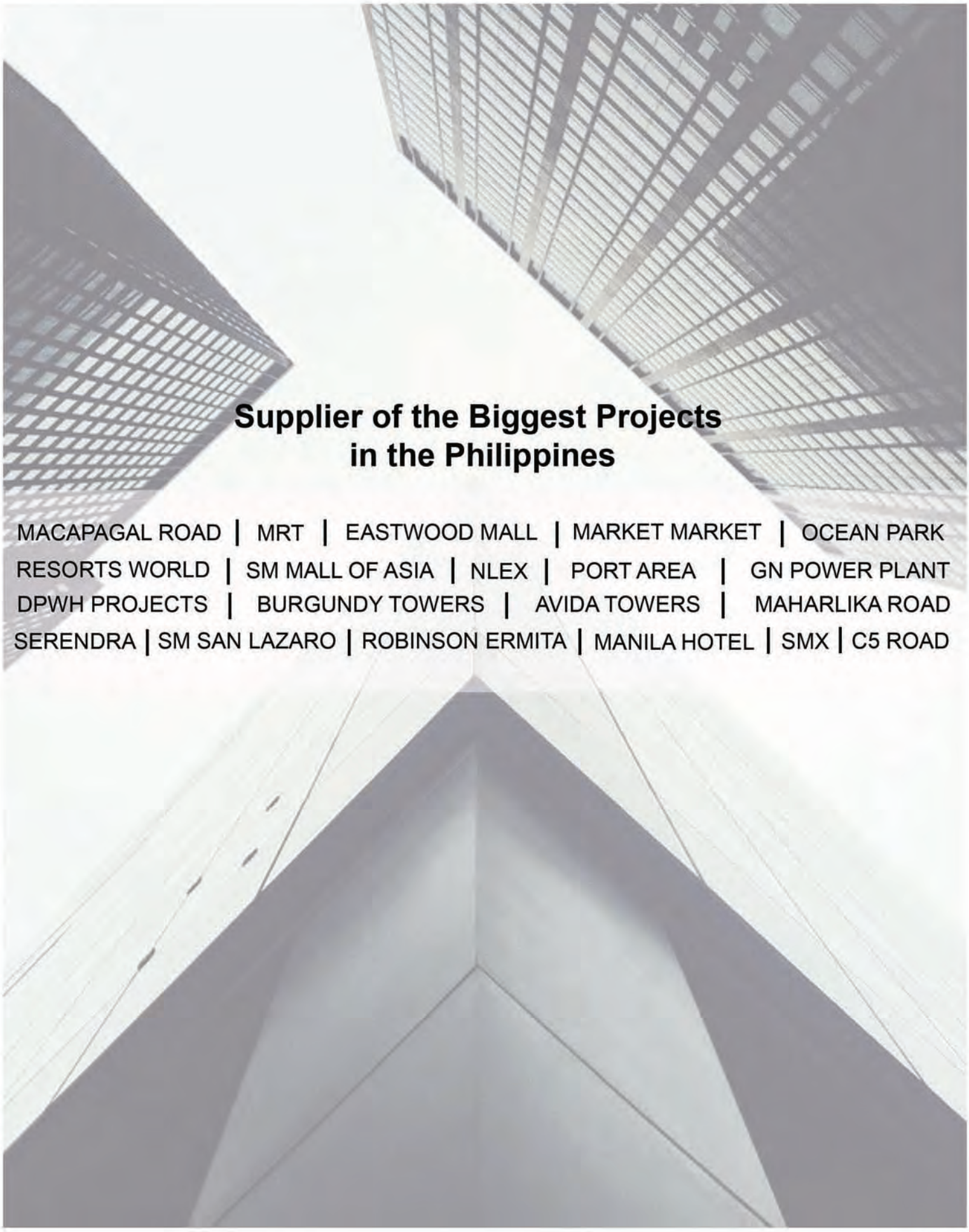




By the 17th century, iron's properties were well understood, but increasing urbanization in Europe demanded a more versatile structural metal. And by the 19th century, the amount of iron being consumed by expanding railroads provided metallurgists with financial vincentive to find a solution to iron's brittleness and inefficient production processes.



A major breakthrough came in 1856 when Henry Bessemer developed an effective way to use oxygen to reduce the carbon content in iron The modern steel industry was born.



Supplier of the Biggest Projects in the Philippines

MACAPAGAL ROAD | MRT | EASTWOOD MALL | MARKET MARKET | OCEAN PARK
RESORTS WORLD | SM MALL OF ASIA | NLEX | PORT AREA | GN POWER PLANT
DPWH PROJECTS | BURGUNDY TOWERS | AVIDA TOWERS | MAHARLIKA ROAD
SERENDRA | SM SAN LAZARO | ROBINSON ERMITA | MANILA HOTEL | SMX | C5 ROAD

Here at Power Steel, we promise to provide you with nothing less than the following:



LOW PRICE

Here in Power Steel, you can find the most suitable prices in the market that will meet your budget. Accompanied with good quality and service, surely, our prices are worthy of what we offer.



FAST DELIVERY

Time is always of the essence and that is why fast and prompt delivery is Power Steel's pormise. Your order will be delivered precisely on the date and time that you expect.



ACCESSIBLE WAREHOUSES

Because Power Steel has the widest steel distribution in the country, you do not have to travel far to go the warehouses. There is a Power Steel warehouse right where you are.



ACCEPTS CREDIT TERMS

At Power Steel, you may choose the payment method that works for you. Because we accept credit terms, payment is made easier on the budget.



"We Deliver Anywhere in the Philippines"
Luzon | Visayas | Mindanao

No minimum order required!!!

POWERSTEEL
The No.1 Steel Supplier in the Philippines

ACCESSIBLE WAREHOUSES

MANDALUYONG | QUEZON CITY | PASIG | UN AVENUE | BLUMENTRITT

MALABON | NAVOTAS | CALOOCAN | MAKATI | PARANAQUE

BULACAN | ANGELES | CEBU | ILOILO | CDO | DAVAO | ISABELA

"We surely have all your steel needs. With Power Steel's complete line of quality products, you don't have to go anywhere else."

MONOLITH CONSTRUCTION AND DEVELOPMENT CORPORATION

MyCitiHomes
Building from the heart.

Burgundy
Builders Development Corporation

bfmetal

Monark CAT

Ayala Land, Inc.

Frey-Fil
Freyssinet Filipinas Corporation

MEGAWIDE
CONSTRUCTION CORPORATION

Manila Hotel

North Park
Nodes

Megaworld

HBI
Honeycomb Builders, Inc.

Keppel

SM Development Corporation

MDC
Makati Development Corporation

Robinsons Land Corporation

Hanjin

Federal Land

Powercity



Our Clients. Our Pride.

List of Suppliers Worldwide:

- ARCELORMITTAL
- BAOSTEEL
- POSCO
- NIPPON STEEL
- JFE HOLDINGS
- JIANGSU SHAGANG GROUP
- TATA STEEL
- U.S. STEEL
- ANSHAN IRON & STEEL GROUP (ANSTEEL)
- GERDAU
- NUCOR
- SEVESTRAL
- WUHAN IRON & STEEL GROUP (WISCO)
- THYSSENKRUPP
- EZRAV GROUP
- SHOUGANG GROUP
- STEEL AUTHORITY OF INDIA (SAIL)
- SUMITOMO METAL INDUSTRIES
- HYUNDAI STEEL (HSC)
- CHINA STEEL CORPORATION



Customer Satisfaction

LOW PRICES

"I saved so much in building my home. Thanks to Powersteel's incredibly low prices."

- Enrique Iliscupidez

FAST DELIVERY

"I was able to meet my deadline because Powersteel delivered the materials right on the dot."

- Gigi Concepcion ; MEGAWORLD CORPORATION

ACCEPTS CREDIT TERMS

"Powersteel's products enabled me to stay within my working capital because they accept credit terms."

- Hadji Galicia ; BF METAL CORPORATION

ACCESSIBLE WAREHOUSES NEAR YOU

"I needed steel products asap which I promptly received because Powersteel has a warehouse nearby. It was really accessible and convenient for me."

- Janet Subista ; SLT CONSTRUCTION CORPORATION

COMPLETE PRODUCT LINE

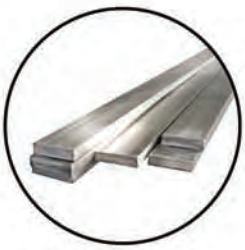
"Because Powersteel has every steel product that I could possibly need, I didn't have to look anywhere else."

- Jeffrey C.Chong ; LKY DEVELOPMENT

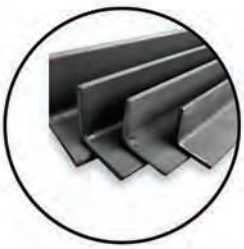
QUALITY & COMPLETE PRODUCT LINE



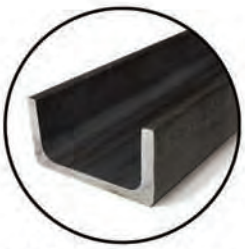
DEFORMED BAR



FLAT BAR



ANGLE BAR



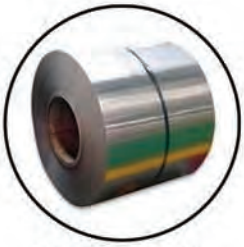
CHANNEL BAR



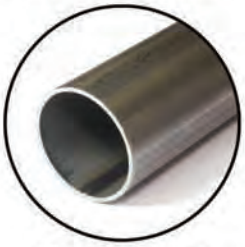
ROUND BAR



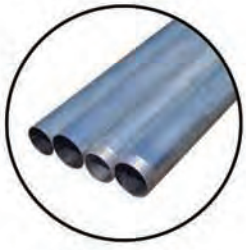
SQUARE BAR



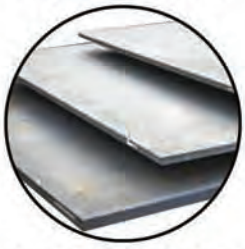
STEEL COIL



TUBULARS



GI / BI PIPES



MS PLATE SHEET



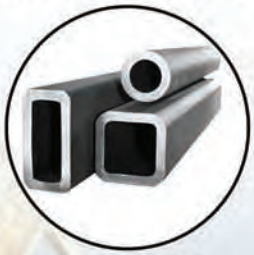
C / Z PURLINS



WIDE FLANGE



SHEET PILE



TUBULARS

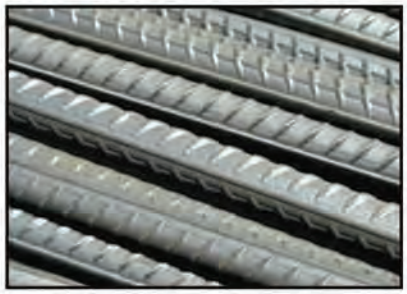


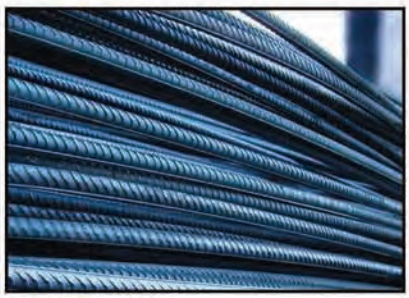
HARDWARE ITEMS



Deformed Bar

A deformed bar is a type of concrete rebar which has a rough surface for improved cement/mortar bonding. A steel bar with surface projections that increase its bond strength when used in reinforced concrete.







DEFORMED BAR



SPECIFICATIONS AND GRADING

The three grades under this specification – namely, Grades PNS 230, 275, and 415 –trace their roots to ASTM specifications. And the terms 'Structural', 'Intermediate', and 'High-tensile' originated from earlier versions of ASTM-A615 but remained unchanged in deference to custom and familiarity among users. The table below provides a handy reference as to the common understanding in the market regarding these grades.

ASTM vs PNS Codes	Popular Nomenclature	Typical Application
Grade 33 / PNS 230	Structural Grade	Low-rise Buildings and Low Loading Conditions
Grade 40 / PNS 275	Intermediate Grade	Medium-rise Structures / Infrastructure Work
Grade 60 / PNS 415	High-Tensile Grade	Medium & High-rise Structures / Infrastructure

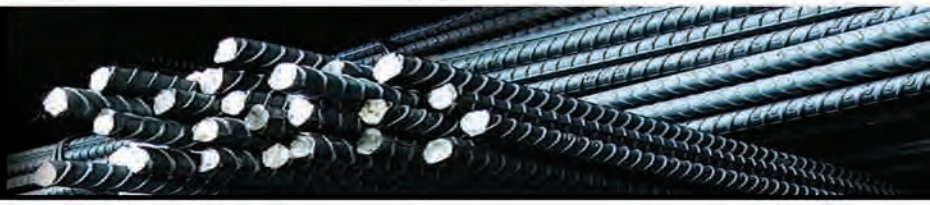
The three grades are distinguished by the different color markings painted at the ends of each bar, as shown in the following table:

Class	PNS Grade	ASTM Grade	Color Code	
Non-weldable Deformed Bars *same color on both ends*	230	33	White	
	275	40	Yellow	
	415	60	Green	
Weldable Deformed Bars *different colors on each end*	230	33	White / Red	
	275	40	Yellow / Red	
	415	60	Green / Red	

WELDABILITY OF A REBAR

It must be noted that, in the current PNS 49, rebars are further categorized into 'weldable' and 'non-weldable' grades. The difference between the two categories is primarily rooted in their different chemical compositions and carbon equivalents (CEQ). Despite the different nomenclatures and their connotations, both 'Weldable' and 'Non-weldable' grades can actually be welded. However, the relatively lower carbon content and CEQ of the so-called 'weldable' grade does make it easier to weld without having to worry about pre-heating and post-heating requirements and procedures, that is a concern highlighted especially in temperate situations.

DEFORMED BAR



LENGTH TOLERANCE

The cut length of a rebar varies as well because of shrinkage as it cools down. The standard however limits this shrinkage, and the minimum lengths of the finished rebar are shown below.

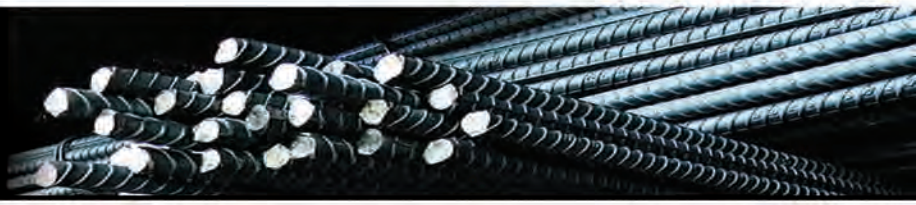
Std. Length (m)	Min. Acceptable Length (m)
6.0	5.960
7.5	7.453
9.0	8.935
10.5	10.440
12.0	11.940

Our rebar comes in these commercial lengths: 6.0, 7.5, 9.0, 10.5, and 12.0 meters.Special lengths of 1 3.5 and 15.0 meters are subject to special orders and negotiations.

MECHANICAL PROPERTY SPECIFICATIONS

Mechanical Properties							
Class	Grade	Yield Strength, MPa min.	Tensile Strength, MPa min.	Specimen	Elongation in 200mm, % min.	Bending Angle	Diameter of Pin (d = nominal diameter of specimen)
Hot-Rolled Non-Weldable Deformed Steel Bar	230	230	390	D<25mm D≥25mm	18 16	180	3d 4d
	275	275	480	D<25mm D≥25mm	10 8	180	4d 5d
	415	415	620	D<25mm D≥25mm	8 7	180	5d 6d
Hot-Rolled Weldable Deformed Bar	230	230	390	D<25mm D≥25mm	20 18	180	3d 4d
	275	275	480	D<25mm D≥25mm	16 14	180	4d 5d
	415	415*	550**	D<25mm D≥25mm	12 14	180	5d 6d

DEFORMED BAR



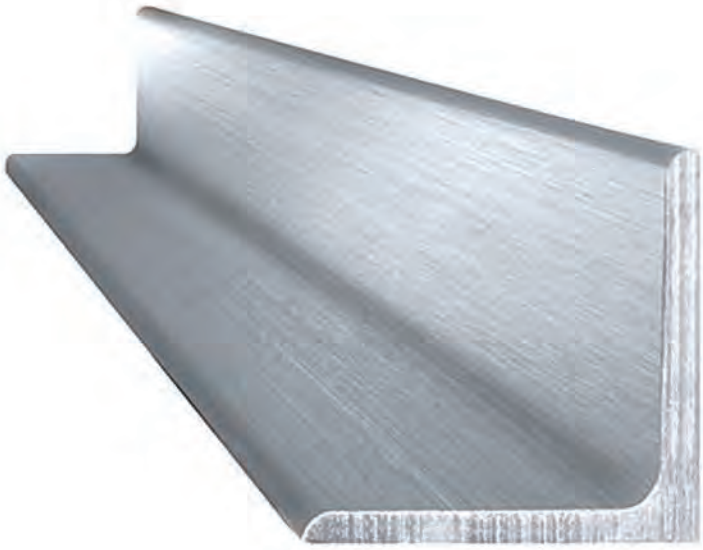
* Maximum yield strength of Weldable steel bars shall not exceed 540 MPa
** Tensile strength shall not be less than 1.25 times the actual yield strength

SURFACE DEFORMATIONS SPECIFICATIONS

Standard Weight of Deformed Round Steel Bars						
Bar Diameter	Unit Weight	Bar Commercial Length				
Ømm	Kg/m	6.0 m	7.5 m	9.0 m	10.5 m	12.0 m
10	0.616	3.696	4.620	5.544	6.468	7.392
12	0.888	5.328	6.660	7.992	9.324	10.656
16	1.578	9.468	11.835	14.202	16.569	18.936
20	2.466	14.796	18.495	22.194	25.893	29.592
25	3.853	23.118	28.898	34.677	40.457	46.236
28	4.834	29.004	36.255	43.506	50.757	58.008
32	6.313	37.878	37.348	56.817	66.287	75.756
36	7.990	47.940	59.925	71.910	83.895	95.880

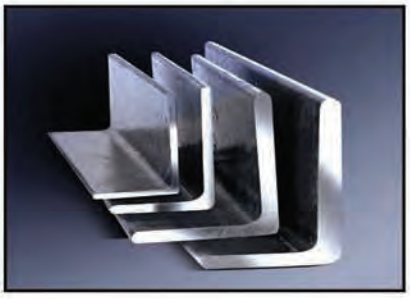
TABLE OF STANDARD WEIGHTS

Deformation Requirements						
Nominal Diameter	Max. Average Spacing of Lugs	Height Tolerance of Lugs		Max. Summation of Gaps(mm)		
		Minimum	Maximum			
10	0.616	3.696	4.620	5.544	6.468	7.392
12	0.888	5.328	6.660	7.992	9.324	10.656
16	1.578	9.468	11.835	14.202	16.569	18.936
20	2.466	14.796	18.495	22.194	25.893	29.592
25	3.853	23.118	28.898	34.677	40.457	46.236
28	4.834	29.004	36.255	43.506	50.757	58.008
32	6.313	37.878	37.348	56.817	66.287	75.756
36	7.990	47.940	59.925	71.910	83.895	95.880



Angle Bar

An upright bar at the meeting of two faces of a polygonal window, bay window, or bow window, also called angle, angle bar, L bar, L beam. a piece of structural iron or steel having a cross section in the form of an L .



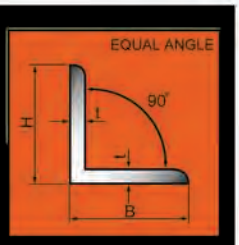


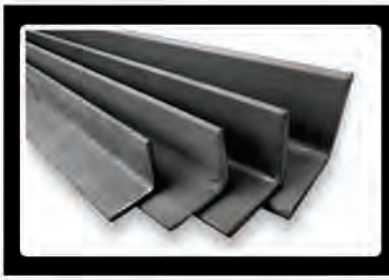


Hot Rolled
ASTM-A36 C1020 M1020

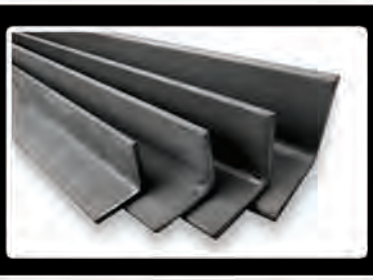
Angles can be furnished galvanized on short notice. Prices on request.

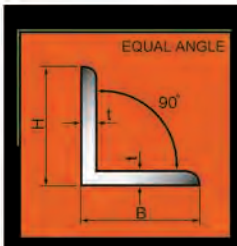
Also - High Strength Structurals in ASTM A-36, A-572, A-992, A-588





Size		Weight		Leg1, H	Leg2, B	Thickness, t	Weight per	
							20ft	40ft
in	Thickness, in	lbs/ ft	kg/ M	mm	mm	mm	kg	kg
1/2 x 1/2	1/8	0.39	0.58	12.70	12.70	3.18	3.56	7.11
5/8 x 5/8	1/8	0.49	0.73	15.88	15.88	3.18	4.47	8.94
3/4 x 3/4	1/8	0.60	0.90	19.05	19.05	3.18	5.49	10.97
	3/16	0.85	1.27	19.05	19.05	4.76	7.72	15.44
	1/4	1.08	1.60	19.05	19.05	6.35	9.75	19.51
1 x 1	1/8	0.82	1.22	25.40	25.40	3.18	7.42	14.83
	3/16	1.18	1.75	25.40	25.40	4.76	10.67	21.33
	1/4	1.51	2.25	25.40	25.40	6.35	13.72	27.43
1 1/4 x 1 1/4	1/8	1.03	1.53	31.75	31.75	3.18	9.35	18.69
	3/16	1.50	2.23	31.75	31.75	4.76	13.61	27.23
	1/4	1.95	2.90	31.75	31.75	6.35	17.68	35.36
	5/16	2.37	3.53	31.75	31.75	7.94	21.54	43.08
1 1/2 x 1 1/2	1/8	1.25	1.87	38.10	38.10	3.18	11.38	22.76
	3/16	1.83	2.72	38.10	38.10	4.76	16.56	33.12
	1/4	2.37	3.53	38.10	38.10	6.35	21.54	43.08
	5/16	2.91	4.33	38.10	38.10	7.94	26.41	52.83
	3/8	3.40	5.07	38.10	38.10	9.53	30.88	61.77
2 x 2	1/8	1.68	2.50	50.80	50.80	3.18	15.24	30.48
	3/16	2.47	3.68	50.80	50.80	4.76	22.45	44.91
	1/4	3.24	4.82	50.80	50.80	6.35	29.36	58.72
	5/16	3.99	5.93	50.80	50.80	7.94	36.17	72.34
	3/8	4.77	7.10	50.80	50.80	9.53	43.28	86.56
	1/2	6.10	9.08	50.80	50.80	12.70	55.37	110.74
2 1/2 x 2 1/2	3/16	3.07	4.57	63.50	63.50	4.76	27.85	55.70
	1/4	4.10	6.10	63.50	63.50	6.35	37.19	74.39
	5/16	5.00	7.44	63.50	63.50	7.94	45.36	90.72
	3/8	5.90	8.78	63.50	63.50	9.53	53.52	107.05
	1/2	7.82	11.63	63.50	63.50	12.70	70.91	141.83
3 x 3	3/16	3.77	5.62	76.20	76.20	4.76	34.24	68.48
	1/4	4.90	7.29	76.20	76.20	6.35	44.45	88.91
	5/16	6.19	9.22	76.20	76.20	7.94	56.18	112.36
	3/8	7.20	10.70	76.20	76.20	9.53	65.32	130.64
	5/8	11.68	17.38	76.20	76.20	15.88	105.96	211.93
	1/2	9.55	14.22	76.20	76.20	12.70	86.66	173.32





AngleBars-Equal Legs American Standard (Inches)

Hot Rolled
ASTM-A36 C1020 M1020

Angles can be furnished galvanized on short notice. Prices on request.

Also - High Strength Structurals in ASTM A-36, A-572, A-992, A-588

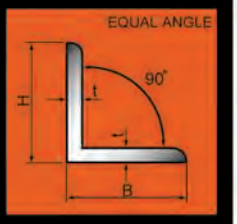
Size		Weight		Leg1, H	Leg2, B	Thickness, t	Weight per	
							20ft	40ft
in	Thickness, in	lbs/ ft	kg/ M	mm	mm	mm	kg	kg
3 1/2 x 3 1/2	1/4	5.80	8.63	88.90	88.90	6.35	52.62	105.23
	5/16	7.20	10.70	88.90	88.90	7.94	65.32	130.64
	3/8	8.50	12.60	88.90	88.90	9.53	77.11	154.22
	7/16	9.80	14.60	88.90	88.90	11.11	88.91	177.81
	1/2	11.10	16.50	88.90	88.90	12.70	100.70	201.40
	5/8	13.82	20.57	88.90	88.90	15.88	125.37	250.74
	3/4	16.26	24.20	88.90	88.90	19.05	147.52	295.03
4 x 4	1/4	6.60	9.82	101.60	101.60	6.35	59.87	119.75
	5/16	8.20	12.20	101.60	101.60	7.94	74.39	148.78
	3/8	9.80	14.60	101.60	101.60	9.53	88.91	177.81
	7/16	11.30	16.80	101.60	101.60	11.11	102.51	205.03
	1/2	12.80	23.40	101.60	101.60	12.70	116.12	232.34
	5/8	15.70	10.55	101.60	101.60	15.88	142.43	284.86
	3/4	18.50	12.43	101.60	101.60	19.05	167.83	335.66
5 x 5	5/16	10.30	15.30	127.00	127.00	7.94	93.44	186.88
	3/8	12.30	18.30	127.00	127.00	9.53	111.58	223.17
	7/16	14.30	21.30	127.00	127.00	11.11	129.73	259.46
	1/2	16.20	24.10	127.00	127.00	12.70	146.97	293.93
	5/8	20.00	29.80	127.00	127.00	15.88	181.44	362.88
	3/4	23.60	35.10	127.00	127.00	19.05	214.10	428.20
	7/8	27.20	40.50	127.00	127.00	22.23	246.76	493.51
6 x 6	5/16	12.40	18.50	152.40	152.40	7.94	112.49	224.98
	3/8	14.90	22.20	152.40	152.40	9.53	135.17	270.34
	7/16	17.20	25.60	152.40	152.40	11.11	156.04	312.07
	1/2	19.60	29.20	152.40	152.40	12.70	177.81	355.62
	9/16	21.90	32.60	152.40	152.40	14.29	198.68	397.35
	5/8	24.20	36.00	152.40	152.40	15.88	219.54	439.08
	3/4	28.70	42.70	152.40	152.40	19.05	260.36	520.73
	7/8	33.10	49.30	152.40	152.40	22.23	300.28	600.56
	1	37.40	55.70	152.40	152.40	25.40	339.29	678.58
8 x 8	1/2	26.40	39.30	203.20	203.20	12.70	239.50	479.00
	9/16	29.60	44.10	203.20	203.20	14.29	268.53	537.06
	5/8	32.70	48.70	203.20	203.20	15.88	296.65	593.30
	3/4	38.90	57.90	203.20	203.20	19.05	352.90	705.80
	7/8	45.00	67.00	203.20	203.20	22.23	408.24	816.47
	1	51.00	75.90	203.20	203.20	25.40	462.67	925.34
	1 1/8	56.90	84.70	203.20	203.20	28.58	516.19	1032.39

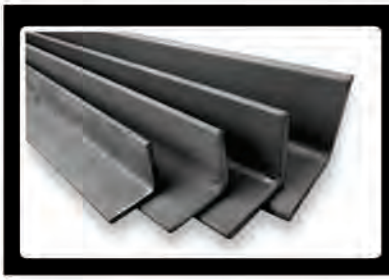
Hot Rolled
ASTM-A36 C1020 M1020

Angles can be furnished galvanized on short notice. Prices on request.

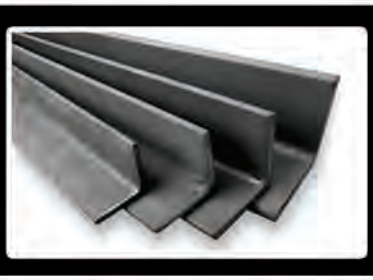
Also - High Strength Structurals in ASTM A-36, A-572, A-992, A-588

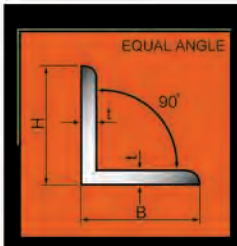
AngleBars-Equal Legs (JIS) Metric





Size		Weight		Leg1, H	Leg2, B	Thickness, t	Weight per	
							6M	12M
mm	Thickness, mm	lbs/ ft	kg/ M	mm	mm	mm	kg	kg
25 x 25	3.0	0.74	1.11	25	25	3.0	6.64	13.28
30 x 30	2.5	0.76	1.13	30	30	2.5	6.77	13.54
	2.7	0.82	1.21	30	30	2.7	7.29	14.57
	3.0	0.90	1.34	30	30	3.0	8.05	16.11
	3.7	1.10	1.64	30	30	3.7	9.81	19.62
	4.0	1.18	1.76	30	30	4.0	10.55	21.10
38 x 38	2.5	0.97	1.44	38	38	2.5	8.66	17.31
	2.7	1.04	1.55	38	38	2.7	9.32	18.64
	3.0	1.16	1.72	38	38	3.0	10.32	20.63
	3.7	1.41	2.10	38	38	3.7	12.60	25.20
	4.0	1.52	2.26	38	38	4.0	13.57	27.13
	4.6	1.73	2.58	38	38	4.6	15.47	30.94
	5.0	1.87	2.79	38	38	5.0	16.72	33.44
	5.5	2.05	3.04	38	38	5.5	18.26	36.53
40 x 40	2.7	1.10	1.64	40	40	2.7	9.83	19.66
	3.0	1.22	1.81	40	40	3.0	10.88	21.76
	3.7	1.49	2.22	40	40	3.7	13.30	26.59
	4.0	1.60	2.39	40	40	4.0	14.32	28.64
	4.6	1.83	2.72	40	40	4.6	16.34	32.67
	5.0	1.98	2.94	40	40	5.0	17.66	35.33
45 x 45	4.0	1.84	2.74	45	45	4.0	16.44	32.88
	5.0	2.27	3.38	45	45	5.0	20.28	40.56
50 x 50	3.7	1.88	2.80	50	50	3.7	16.78	33.57
	4.0	2.06	3.06	50	50	4.0	18.36	36.72
	4.6	2.31	3.45	50	50	4.6	20.67	41.34
	5.0	2.51	3.73	50	50	5.0	22.37	44.75
	5.5	2.74	4.08	50	50	5.5	24.48	48.96
	6.0	2.98	4.43	50	50	6.0	26.58	53.16
	8.0	3.88	5.78	50	50	8.0	34.68	69.36
	9.0	4.32	6.43	50	50	9.0	38.58	77.16
	9.5	4.54	6.75	50	50	9.0	40.50	81.00





AngleBars-Equal
Legs (JIS) Metric

Hot Rolled
ASTM-A36 C1020 M1020

Angles can be furnished galvanized on short notice. Prices on request.

Also - High Strength Structurals in ASTM A-36, A-572, A-992, A-588

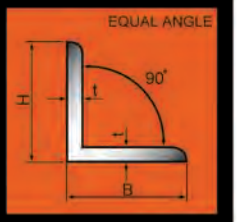
Size		Weight		Leg1, H	Leg2, B	Thickness, t	Weight per	
							6M	12M
mm	Thickness, mm	lbs/ ft	kg/ M	mm	mm	mm	kg	kg
60 x 60	4.0	2.47	3.68	60	60	4.0	22.08	44.16
	5.0	3.06	4.55	60	60	5.0	27.30	54.60
65 x 65	5.0	3.36	5.00	65	65	5.0	30.00	60.00
	6.0	3.97	5.91	65	65	6.0	35.46	70.92
	8.0	5.15	7.66	65	65	8.0	45.96	91.92
	10.0	6.33	9.42	65	65	10.0	56.52	113.04
70 x 70	6.0	4.29	6.38	70	70	6.0	38.28	76.56
75 x 75	6.0	4.60	6.85	75	75	6.0	41.10	82.20
	9.0	6.69	9.96	75	75	9.0	59.76	119.52
	12.0	8.74	13.00	75	75	12.0	78.00	156.00
80 x 80	6.0	4.92	7.32	80	80	6.0	43.92	87.84
90 x 90	6.0	5.80	8.48	90	90	6.0	50.88	101.76
	7.0	6.44	9.59	90	90	7.0	57.54	115.08
	9.0	8.20	12.20	90	90	9.0	73.20	146.40
	10.0	8.94	13.30	90	90	10.0	79.80	159.60
	13.0	11.40	17.00	90	90	13.0	102.00	204.00
100 x 100	6.0	6.60	9.42	100	100	6.0	56.52	113.04
	7.0	7.19	10.70	100	100	7.0	64.20	128.40
	12.0	11.96	17.80	100	100	12.0	106.80	213.60
	8.0	8.20	12.56	100	100	8.0	75.36	150.72
	10.0	10.00	14.90	100	100	10.0	89.40	178.80
	13.0	12.80	19.10	100	100	13.0	114.60	229.20
110 x 110	10.0	11.15	16.60	110	110	10.0	99.60	199.20
	12.0	13.24	19.70	110	110	12.0	118.20	236.40
120 x 120	8.0	9.88	14.70	120	120	8.0	88.20	176.40
	11.0	13.37	19.90	120	120	11.0	119.40	238.80
	12.0	14.50	21.60	120	120	12.0	129.60	259.20
	13.0	15.66	23.30	120	120	13.0	139.80	279.60
	15.0	17.87	26.60	120	120	15.0	159.60	319.20

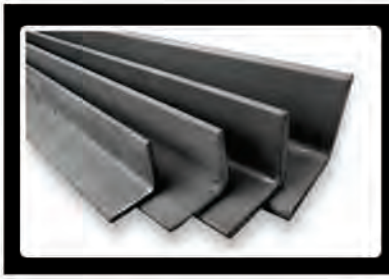
Hot Rolled
ASTM-A36 C1020 M1020

Angles can be furnished galvanized on short notice. Prices on request.

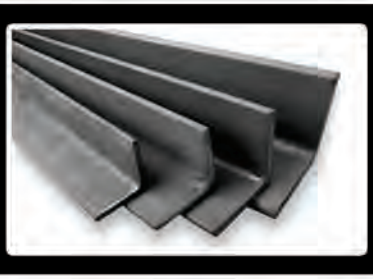
Also - High Strength Structurals in ASTM A-36, A-572, A-992, A-588

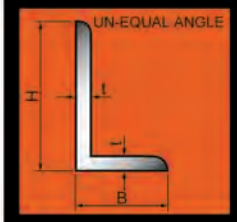
AngleBars-Equal Legs (JIS) Metric





Size		Weight		Leg1, H	Leg2, B	Thickness, t	Weight per	
							6M	12M
mm	Thickness, mm	lbs/ ft	kg/ M	mm	mm	mm	kg	kg
130 x 130	9.0	12.00	17.90	130	130	9.0	107.40	214.80
	12.0	15.70	23.40	130	130	12.0	140.40	280.80
	15.0	19.40	28.80	130	130	15.0	172.80	345.60
140 x 140	13.0	18.48	27.50	140	140	13.0	165.00	330.00
150 x 150	11.0	16.87	25.10	150	150	11.0	150.60	301.20
	12.0	18.34	27.30	150	150	12.0	163.80	327.60
	14.0	21.23	31.60	150	150	14.0	189.60	379.20
	15.0	22.60	33.60	150	150	15.0	201.60	403.20
	18.0	28.42	40.48	150	150	18.0	242.88	485.76
	19.0	28.20	41.90	150	150	19.0	251.40	502.80
	20.0	31.57	47.10	150	150	20.0	282.60	565.20
160 x 160	15.0	24.32	36.20	160	160	15.0	217.20	434.40
	17.0	27.35	40.70	160	160	17.0	244.20	488.40
175 x 175	12.0	21.40	31.80	175	175	12.0	190.80	381.60
	15.0	26.50	39.40	175	175	15.0	236.40	472.80
180 x 180	16.0	29.23	43.50	180	180	16.0	261.00	522.00
	18.0	32.66	48.60	180	180	18.0	291.60	583.20
200 x 200	15.0	30.40	45.30	200	200	15.0	271.80	543.60
	16.0	32.59	48.50	200	200	16.0	291.00	582.00
	20.0	40.10	59.70	200	200	20.0	358.20	716.40
	24.0	47.77	71.10	200	200	24.0	426.60	853.20
	25.0	49.50	73.60	200	200	25.0	441.60	883.20
250 x 250	25.0	62.64	93.22	250	250	25.0	559.34	1118.68
	35.0	85.85	127.77	250	250	35.0	766.59	1533.18





AngleBars-

Unequal Legs American Standard (Inches)

Hot Rolled
ASTM-A36 C1020 M1020

Angles can be furnished galvanized on short notice. Prices on request.

Also - High Strength Structurals in ASTM A-36, A-572, A-992, A-588

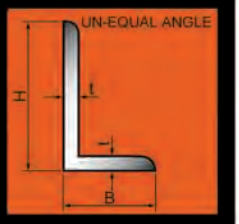
Size		Weight		Leg1, H	Leg2, B	Thickness, t	Weight per	
							20ft	40ft
in	Thickness, in	lbs/ ft	kg/ M	mm	mm	mm	kg	kg
1 x 5/8	1/8	0.64	0.95	25.40	15.88	3.18	5.81	11.61
1 1/4 x 7/8	1/8	0.85	1.26	31.75	22.23	3.18	7.71	15.42
	3/16	1.28	1.90	31.75	22.23	4.76	11.61	23.22
1 1/2 x 1	1/8	1.02	1.52	38.10	25.40	3.18	9.25	18.51
1 3/4 x 1 1/4	1/8	1.23	1.83	44.45	31.75	3.18	11.16	22.32
	3/16	1.80	2.68	44.45	31.75	4.76	16.33	32.66
	1/4	2.34	3.48	44.45	31.75	6.35	21.23	42.46
1 3/8 x 1 1/4	1/8	1.07	1.59	34.93	31.75	3.18	9.71	19.41
1 3/8 x 7/8	1/8	0.91	1.35	34.93	22.23	3.18	8.26	16.51
	3/16	1.32	1.96	34.93	22.23	4.76	11.97	23.95
2 x 1 1/4	3/16	1.96	2.92	50.80	31.75	4.76	17.78	35.56
	1/4	2.55	3.79	50.80	31.75	6.35	23.13	46.27
2 x 1 1/2	1/8	1.44	2.14	50.80	38.10	3.18	13.06	26.13
	3/16	2.12	3.15	50.80	38.10	4.76	19.23	38.47
	1/4	2.77	4.12	50.80	38.10	6.35	25.13	50.26
	5/16	3.39	5.04	50.80	38.10	7.94	30.75	61.51
	3/8	3.99	5.94	50.80	38.10	9.53	36.20	72.39
2 1/2 x 1 1/2	1/8	1.65	2.46	63.50	38.10	3.18	14.97	29.94
	3/16	2.44	3.63	63.50	38.10	4.76	22.14	44.27
	1/4	3.19	4.75	63.50	38.10	6.35	28.94	57.88
	5/16	3.92	5.83	63.50	38.10	7.94	35.56	71.12
	3/8	4.70	6.99	63.50	38.10	9.53	42.64	85.28
	7/16	5.30	7.89	63.50	38.10	11.11	48.08	96.16
	1/2	6.00	8.93	63.50	38.10	12.70	54.43	108.86
2 1/2 x 2	1/8	1.86	2.77	63.50	50.80	3.18	16.87	33.75
	3/16	2.75	4.09	63.50	50.80	4.76	24.95	49.90
	1/4	3.62	5.39	63.50	50.80	6.35	32.84	65.68
	5/16	4.50	6.70	63.50	50.80	7.94	40.82	81.65
	3/8	5.30	7.89	63.50	50.80	9.53	48.08	96.16
	7/16	6.10	9.08	63.50	50.80	11.11	55.34	110.68
	1/2	6.80	10.12	63.50	50.80	12.70	61.69	123.38
3 x 2	3/16	3.07	4.57	76.20	50.80	4.76	27.85	55.70
	1/4	4.10	6.10	76.20	50.80	6.35	37.19	74.39
	5/16	5.00	7.44	76.20	50.80	7.94	45.36	90.72
	3/8	5.90	8.78	76.20	50.80	9.53	53.52	107.05
	7/16	6.80	10.12	76.20	50.80	11.11	61.69	123.38
	1/2	7.70	11.46	76.20	50.80	12.70	69.85	139.71

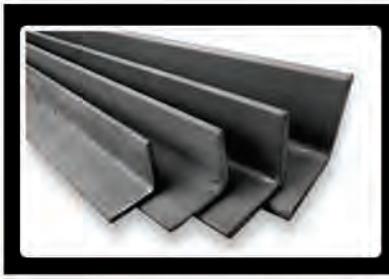
Hot Rolled
ASTM-A36 C1020 M1020

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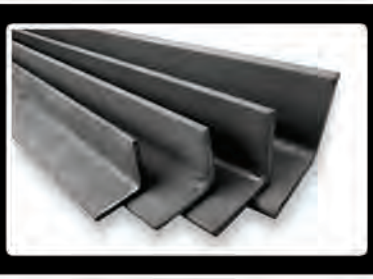
Also - High Strength Structurals in ASTM A-36, A-572, A-992, A-588

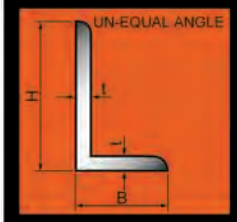
AngleBars-
Unequal Legs American Standard (Inches)





Size		Weight		Leg1, H	Leg2, B	Thickness, t	Weight per	
							20ft	40ft
in	Thickness, in	lbs/ ft	kg/ M	mm	mm	mm	kg	kg
3 x 2 1/2	3/16	3.39	5.04	76.20	63.50	4.76	30.75	61.51
	1/4	4.50	6.70	76.20	63.50	6.35	40.82	81.65
	5/16	5.60	8.33	76.20	63.50	7.94	50.80	101.61
	3/8	6.60	9.82	76.20	63.50	9.53	59.87	119.75
	7/16	7.60	11.31	76.20	63.50	11.11	68.95	137.89
	1/2	8.50	12.65	76.20	63.50	12.70	77.11	154.22
3 1/2 x 2 1/2	3/16	3.71	5.52	88.90	63.50	4.76	33.66	67.31
	1/4	4.90	7.29	88.90	63.50	6.35	44.45	88.91
	5/16	6.10	9.08	88.90	63.50	7.94	55.34	110.68
	3/8	7.20	10.71	88.90	63.50	9.53	65.32	130.64
	7/16	8.30	12.35	88.90	63.50	11.11	75.30	150.59
	1/2	9.40	13.99	88.90	63.50	12.70	85.28	170.55
	9/16	10.40	15.48	88.90	63.50	14.29	94.35	188.70
	5/8	11.50	17.11	88.90	63.50	15.88	104.33	208.65
3 1/2 x 3	3/16	4.10	6.10	88.90	76.20	4.76	37.19	74.39
	1/4	5.40	8.04	88.90	76.20	6.35	48.99	97.98
	5/16	6.60	9.82	88.90	76.20	7.94	59.87	119.75
	3/8	7.90	11.76	88.90	76.20	9.53	71.67	143.34
	7/16	9.10	13.54	88.90	76.20	11.11	82.55	165.11
	1/2	10.20	15.18	88.90	76.20	12.70	92.53	185.07
	9/16	11.40	16.97	88.90	76.20	14.29	103.42	206.84
	5/8	12.50	18.60	88.90	76.20	15.88	113.40	226.80
	11/16	13.60	20.24	88.90	76.20	17.46	123.38	246.76
	3/4	14.70	21.88	88.90	76.20	19.05	133.36	266.72
4 x 3	3/16	4.40	6.55	101.60	76.20	4.76	39.92	79.83
	1/4	5.80	8.63	101.60	76.20	6.35	52.62	105.23
	5/16	7.20	10.71	101.60	76.20	7.94	65.32	130.64
	3/8	8.50	12.65	101.60	76.20	9.53	77.11	154.22
	7/16	9.80	14.58	101.60	76.20	11.11	88.91	177.81
	1/2	11.10	16.52	101.60	76.20	12.70	100.70	201.40
	9/16	12.40	18.45	101.60	76.20	14.29	112.49	224.98
	5/8	13.60	20.24	101.60	76.20	15.88	123.38	246.76
	11/16	14.80	22.02	101.60	76.20	17.46	134.26	268.53
	3/4	16.00	23.81	101.60	76.20	19.05	145.15	290.30





AngleBars-

Unequal Legs American Standard (Inches)

Hot Rolled
ASTM-A36 C1020 M1020

Angles can be furnished galvanized on short notice. Prices on request.

Also - High Strength Structurals in ASTM A-36, A-572, A-992, A-588

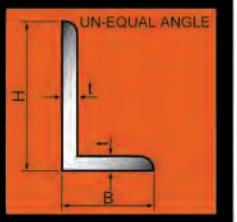
Size		Weight		Leg1, H	Leg2, B	Thickness, t	Weight per	
							20ft	40ft
in	Thickness, in	lbs/ ft	kg/ M	mm	mm	mm	kg	kg
4 x 3 1/2	1/4	6.20	9.23	101.60	88.90	6.35	56.25	112.49
	5/16	7.70	11.46	101.60	88.90	7.94	69.85	139.71
	3/8	9.10	13.54	101.60	88.90	9.53	82.55	165.11
	7/16	10.60	15.77	101.60	88.90	11.11	96.16	192.33
	1/2	11.90	17.71	101.60	88.90	12.70	107.96	215.91
	9/16	13.30	19.79	101.60	88.90	14.29	120.66	241.31
	5/8	14.70	21.88	101.60	88.90	15.88	133.36	266.72
4 x 3 1/2	11/16	16.00	23.81	101.60	88.90	17.46	145.15	290.30
	3/4	17.30	25.75	101.60	88.90	19.05	156.94	313.89
5 x 3	1/4	6.60	9.82	127.00	76.20	6.35	59.87	119.75
	5/16	8.20	12.20	127.00	76.20	7.94	74.39	148.78
	3/8	9.80	14.58	127.00	76.20	9.53	88.91	177.81
	7/16	11.30	16.82	127.00	76.20	11.11	102.51	205.03
	1/2	12.80	19.05	127.00	76.20	12.70	116.12	232.24
	9/16	14.30	21.28	127.00	76.20	14.29	129.73	259.46
	5/8	15.70	23.36	127.00	76.20	15.88	142.43	284.86
	11/16	17.10	25.45	127.00	76.20	17.46	155.13	310.26
	3/4	18.50	27.53	127.00	76.20	19.05	167.83	335.66
5 x 3 1/2	1/4	7.10	10.57	127.00	88.90	6.35	64.41	128.82
	5/16	8.70	12.95	127.00	88.90	7.94	78.93	157.85
	3/8	10.40	15.48	127.00	88.90	9.53	94.35	188.70
	7/16	12.00	17.86	127.00	88.90	11.11	108.86	217.73
	1/2	13.60	20.24	127.00	88.90	12.70	123.38	246.76
	9/16	15.20	22.62	127.00	88.90	14.29	137.89	275.79
	5/8	16.80	25.00	127.00	88.90	15.88	152.41	304.82
	11/16	18.30	27.23	127.00	88.90	17.46	166.02	332.03
	3/4	19.80	29.47	127.00	88.90	19.05	179.62	359.25
	7/8	22.70	33.78	127.00	88.90	22.23	205.93	411.87

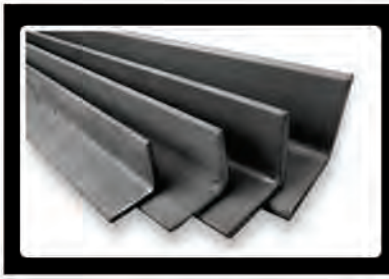
Hot Rolled
ASTM-A36 C1020 M1020

Angles can be furnished galvanized on short notice. Prices on request.

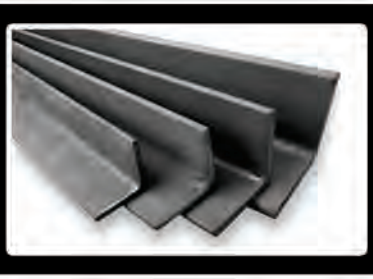
Also - High Strength Structurals in ASTM A-36, A-572, A-992, A-588

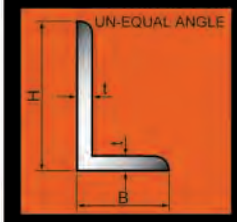
AngleBars-
Unequal Legs American Standard (Inches)





Size		Weight		Leg1, H	Leg2, B	Thickness, t	Weight per	
							20ft	40ft
in	Thickness, in	lbs/ ft	kg/ M	mm	mm	mm	kg	kg
6 x 3 1/2	1/4	7.87	11.71	152.40	88.90	6.35	106.25	212.51
	5/16	9.80	14.58	152.40	88.90	7.94	88.91	177.81
	3/8	11.70	17.41	152.40	88.90	9.53	106.14	212.28
	7/16	13.50	20.09	152.40	88.90	11.11	122.47	244.94
	1/2	15.30	22.77	152.40	88.90	12.70	138.80	277.60
	9/16	17.10	25.45	152.40	88.90	14.29	155.13	310.26
	5/8	18.90	28.13	152.40	88.90	15.88	171.46	342.92
	11/16	20.60	30.66	152.40	88.90	17.46	186.88	373.76
	3/4	22.40	33.34	152.40	88.90	19.05	203.21	406.42
	13/16	24.00	35.72	152.40	88.90	20.64	217.73	435.45
	7/8	25.70	38.25	152.40	88.90	22.23	233.15	466.30
	15/16	27.30	40.63	152.40	88.90	23.81	247.66	495.33
	1	28.90	43.01	152.40	88.90	25.40	262.18	524.36
6 x 4	1/4	8.30	12.35	152.40	101.60	6.35	75.25	150.51
	5/16	10.30	15.33	152.40	101.60	7.94	93.44	186.88
	3/8	12.30	18.30	152.40	101.60	9.53	111.58	223.17
	7/16	14.30	21.28	152.40	101.60	11.11	129.73	259.46
	1/2	16.20	24.11	152.40	101.60	12.70	146.97	293.93
	9/16	18.10	26.94	152.40	101.60	14.29	164.20	328.40
	5/8	20.00	29.76	152.40	101.60	15.88	181.44	362.88
6 x 4	11/16	21.80	32.44	152.40	101.60	17.46	197.77	395.54
	3/4	23.60	35.12	152.40	101.60	19.05	214.10	428.20
	13/16	25.40	37.80	152.40	101.60	20.64	230.43	460.85
	7/8	27.20	40.48	152.40	101.60	22.23	246.76	493.51
	15/16	28.90	43.01	152.40	101.60	23.81	262.18	524.36
	1	30.60	45.54	152.40	101.60	25.40	277.60	555.20
7 x 4	3/8	13.60	20.24	177.80	101.60	9.53	123.38	246.76
	7/16	15.80	23.51	177.80	101.60	11.11	143.34	286.67
	1/2	17.90	26.64	177.80	101.60	12.70	162.39	324.78
	9/16	20.00	29.76	177.80	101.60	14.29	181.44	362.88
	5/8	22.10	32.89	177.80	101.60	15.88	200.49	400.98
	11/16	24.20	36.01	177.80	101.60	17.46	219.54	439.08
	3/4	26.20	38.99	177.80	101.60	19.05	237.68	475.37
	13/16	28.20	41.97	177.80	101.60	20.64	255.83	511.66
	7/8	30.20	44.94	177.80	101.60	22.23	273.97	547.95
	15/16	32.10	47.77	177.80	101.60	23.81	291.21	582.42
	1	34.00	50.60	177.80	101.60	25.40	308.45	616.89





AngleBars-
Unequal
Legs American Standard (Inches)

Hot Rolled
ASTM-A36 C1020 M1020

Angles can be furnished galvanized on short notice. Prices on request.

Also - High Strength Structurals in ASTM A-36, A-572, A-992, A-588

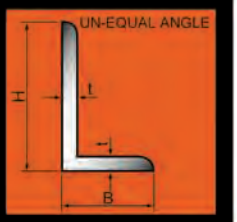
Size		Weight		Leg1, H	Leg2, B	Thickness, t	Weight per	
							20ft	40ft
in	Thickness, in	lbs/ ft	kg/ M	mm	mm	mm	kg	kg
8 x 4	7/16	17.20	25.60	203.20	101.60	11.11	156.04	312.07
	1/2	19.60	29.17	203.20	101.60	12.70	177.81	355.62
	9/16	21.90	32.59	203.20	101.60	14.29	198.68	397.35
	5/8	24.20	36.01	203.20	101.60	15.88	219.54	439.08
	11/16	26.50	39.44	203.20	101.60	17.46	240.41	480.81
	3/4	28.70	42.71	203.20	101.60	19.05	260.36	520.73
	13/16	31.00	46.13	203.20	101.60	20.64	281.23	562.46
	7/8	33.10	49.26	203.20	101.60	22.23	300.28	600.56
	15/16	35.30	52.53	203.20	101.60	23.81	320.24	640.48
	1	37.40	55.66	203.20	101.60	25.40	339.29	678.58
8 x 6	7/16	20.20	30.06	203.20	152.40	11.11	183.25	366.51
	1/2	23.00	34.23	203.20	152.40	12.70	208.65	417.31
	9/16	25.70	38.25	203.20	152.40	14.29	233.15	466.30
	5/8	28.50	42.41	203.20	152.40	15.88	258.55	517.10
	11/16	31.20	46.43	203.20	152.40	17.46	283.04	566.09
	3/4	33.80	50.30	203.20	152.40	19.05	306.63	613.26
	13/16	36.50	54.32	203.20	152.40	20.64	331.13	662.25
	7/8	39.10	58.19	203.20	152.40	22.23	354.71	709.43
	15/16	41.70	62.06	203.20	152.40	23.81	378.30	756.60
	1	44.20	65.78	203.20	152.40	25.40	400.98	801.96
	1 1/16	46.80	69.65	203.20	152.40	26.99	424.57	849.13
	1 1/8	49.30	73.37	203.20	152.40	28.58	447.25	894.49
9 x 4	1/2	21.30	31.70	228.60	101.60	12.70	193.23	386.46
	9/16	23.80	35.42	228.60	101.60	14.29	215.91	431.82
	5/8	26.30	39.14	228.60	101.60	15.88	238.59	477.18

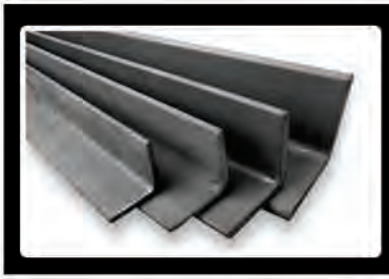
Hot Rolled
ASTM-A36 C1020 M1020

Angles can be furnished galvanized on short notice. Prices on request.

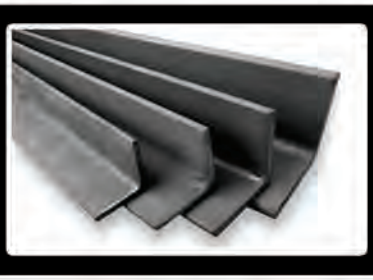
Also - High Strength Structurals in ASTM A-36, A-572, A-992, A-588

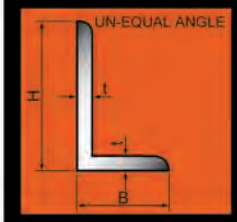
AngleBars-
Unequal
Legs (JIS) Metric





Size		Weight		Leg1, H	Leg2, B	Thickness, t	Weight per	
							6M	12M
mm	Thickness, mm	lbs/ ft	kg/ M	mm	mm	mm	kg	kg
65 x 50	5.0	2.93	4.36	65	50	5.0	26.16	52.32
	7.0	3.99	5.94	65	50	7.0	35.64	71.28
	9.0	5.03	7.49	65	50	9.0	44.94	89.88
75 x 50	6.0	3.81	5.67	75	50	6.0	34.02	68.04
	8.0	4.94	7.35	75	50	8.0	44.10	88.20
	10.0	6.07	9.03	75	50	10.0	54.18	108.36
75 x 65	6.0	4.29	6.38	75	65	6.0	38.28	76.56
	8.0	5.57	8.29	75	65	8.0	49.74	99.48
	10.0	6.85	10.20	75	65	10.0	61.20	122.40
90 x 75	6.0	5.08	7.56	90	75	6.0	45.36	90.72
	9.0	7.39	11.00	90	75	9.0	66.00	132.00
100 x 75	7.0	6.26	9.32	100	75	7.0	55.92	111.84
	8.0	7.37	10.65	100	75	8.0	63.90	127.80
	10.0	8.74	13.00	100	75	10.0	78.00	156.00
	13.0	11.10	16.50	100	75	13.0	99.00	198.00
100 x 90	7.0	6.79	10.10	100	90	7.0	60.60	121.20
	10.0	9.48	14.10	100	90	10.0	84.60	169.20
	13.0	12.16	18.10	100	90	13.0	108.60	217.20
120 x 80	8.0	8.20	12.20	120	80	8.0	73.20	146.40
	10.0	10.08	15.00	120	80	10.0	90.00	180.00
125 x 75	8.0	7.19	10.70	125	75	8.0	64.20	128.40
	8.0	8.43	12.25	125	75	8.0	73.50	147.00
	9.0	9.07	13.50	125	75	9.0	81.00	162.00
	10.0	10.00	14.90	125	75	10.0	89.40	178.80
	13.0	12.80	19.10	125	75	13.0	114.60	229.20
125 x 90	7.0	7.73	11.50	125	90	7.0	69.00	138.00
	9.0	9.81	14.60	125	90	9.0	87.60	175.20
	10.0	10.80	16.10	125	90	10.0	96.60	193.20
	13.0	13.80	20.60	125	90	13.0	123.60	247.20





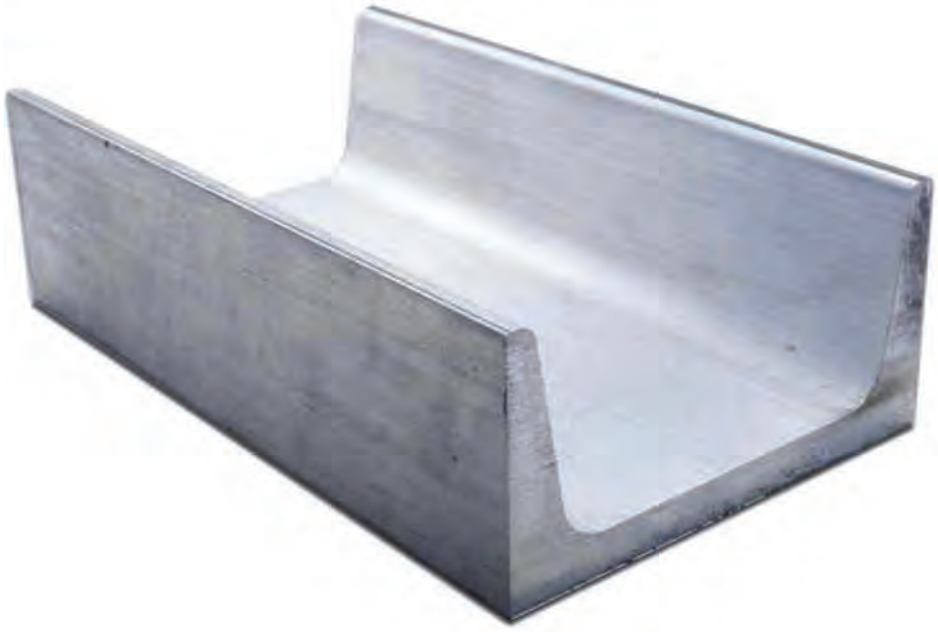
AngleBars-
Unequal
Legs (JIS) Metric

Hot Rolled
ASTM-A36 C1020 M1020

Angles can be furnished galvanized on short notice. Prices on request.

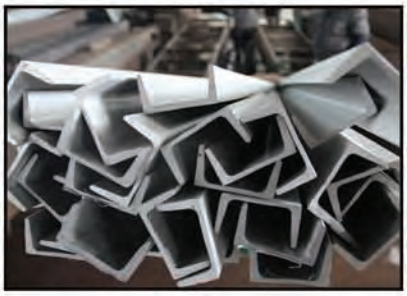
Also - High Strength Structurals in ASTM A-36, A-572, A-992, A-588

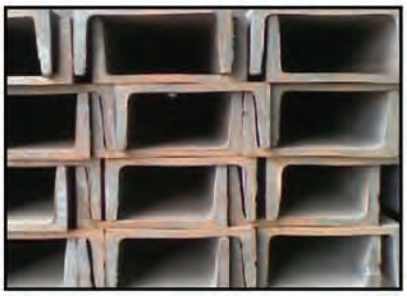
Size		Weight		Leg1, H	Leg2, B	Thickness, t	Weight per	
							6M	12M
mm	Thickness, mm	lbs/ ft	kg/ M	mm	mm	mm	kg	kg
130 x 65	8.0	7.93	11.80	130	65	8.0	70.80	141.60
	10.0	9.81	14.60	130	65	10.0	87.60	175.20
150 x 75	7.0	8.13	12.10	150	75	7.0	72.60	145.20
	9.0	10.28	15.30	150	75	9.0	91.80	183.60
	12.0	13.51	20.10	150	75	12.0	120.60	241.20
150 x 90	9.0	11.02	16.40	150	90	9.0	98.40	196.80
	10.0	12.23	18.20	150	90	10.0	109.20	218.40
	11.0	13.37	19.90	150	90	11.0	119.40	238.80
	12.0	14.45	21.50	150	90	12.0	129.00	258.00
	15.0	17.81	26.50	150	90	15.0	159.00	318.00
150 x 100	9.0	11.50	17.10	150	100	9.0	102.60	205.20
	10.0	12.77	19.00	150	100	10.0	114.00	228.00
	12.0	15.10	22.40	150	100	12.0	134.40	268.80
	15.0	18.60	27.70	150	100	15.0	166.20	332.40
160 x 80	10.0	12.23	18.20	160	80	10.0	109.20	218.40
	12.0	14.51	21.60	160	80	12.0	129.60	259.20
175 x 100	9.0	12.70	18.90	175	100	9.0	113.40	226.80
	12.0	16.70	24.80	175	100	12.0	148.80	297.60
	15.0	20.40	30.40	175	100	15.0	182.40	364.80
	19.0	25.50	38.00	175	100	19.0	228.00	456.00
200 x 90	9.0	15.66	23.30	200	90	9.0	139.80	279.60
200 x 100	10.0	15.45	23.00	200	100	10.0	138.00	276.00
	12.0	18.20	27.10	200	100	12.0	162.60	325.20
	14.0	21.23	31.60	200	100	14.0	189.60	379.20
	15.0	22.40	33.30	200	100	15.0	199.80	399.60
	19.0	28.00	41.70	200	100	19.0	250.20	500.40
250 x 90	10.0	19.75	29.40	250	90	10.0	176.40	352.80
	12.0	22.64	33.70	250	90	12.0	202.20	404.40
300 x 90	11.0	24.39	36.30	300	90	11.0	217.80	435.60
	13.0	27.75	41.30	300	90	13.0	247.80	495.60
350 x 100	12.0	30.44	45.30	350	100	12.0	271.80	543.60
400 x 100	13.0	36.15	53.80	400	100	13.0	322.80	645.60



Channel Bars

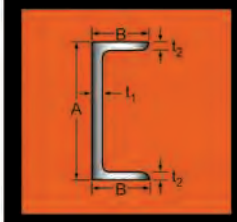
Nautical a flat timber or metal ledge projecting from the hull of a vessel above the chainplates to increase the angle of the shrouds.







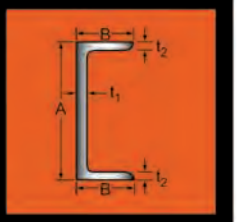




Channel Bars-
American Standard (Inches)

Size	Weight		Height, A	Flange		Web Thickness, t_1	Weight per	
				Width, B	Thickness, t_2		20ft	40ft
in	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
3 3 x 1 1/2	4.10	6.10	76.2	34.9	6.4	4.8	37.19	74.39
	5.00	7.44	76.2	38.1	6.4	6.4	45.36	90.72
	6.00	8.93	76.2	41.3	6.4	9.5	54.43	108.86
4 4 x 1 5/8	5.40	8.04	101.6	40.2	7.5	4.7	48.99	97.98
	6.25	9.30	101.6	41.8	7.5	6.3	56.70	113.40
	7.25	10.80	101.6	43.7	7.5	8.2	65.77	131.54
5 5 x 1 3/4	6.70	10.00	127.0	44.5	8.1	4.8	60.78	121.56
	9.00	13.40	127.0	47.9	8.1	8.3	81.65	163.29
	11.50	17.10	127.0	51.6	8.1	11.9	104.33	208.65
6 6 x 2	8.20	12.20	152.4	48.8	8.7	5.1	74.39	148.78
	10.50	15.60	152.4	51.7	8.7	8.0	95.26	190.51
	13.00	19.30	152.4	54.8	8.7	11.1	117.94	235.87
	15.50	23.10	152.4	57.9	8.7	14.2	140.62	281.23
7 7 x 2 1/8	9.80	14.60	177.8	53.1	9.3	5.3	88.91	177.81
	12.25	18.20	177.8	55.7	9.3	8.0	111.13	222.26
	14.75	22.00	177.8	58.4	9.3	10.6	133.81	267.62
	17.25	25.70	177.8	61.1	9.3	13.3	156.49	312.98
	19.75	29.40	177.8	63.7	9.3	16.0	179.17	358.34
8 8 x 2 1/4	8.50	12.65	203.2	47.6	7.9	4.8	77.11	154.22
	11.50	17.10	203.2	57.4	9.9	5.6	104.33	208.65
	13.75	20.50	203.2	59.5	9.9	7.7	124.74	249.48
	16.25	24.20	203.2	61.8	9.9	10.0	147.42	294.84
	18.75	27.90	203.2	64.2	9.9	12.4	170.10	340.20
	21.25	31.60	203.2	66.5	9.9	14.7	192.78	385.56

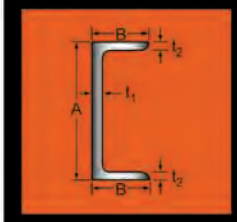
Channel Bars-
American Standard (Inches)





Size	Weight		Height, A	Flange		Web Thickness, t_1	Weight per	
				Width, B	Thickness, t_2		20ft	40ft
in	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
9 9 x 2 1/2	13.40	19.90	228.6	61.8	10.5	5.9	121.56	243.13
	15.00	22.30	228.6	63.1	10.5	7.2	136.08	272.16
	20.00	29.80	228.6	67.3	10.5	11.4	181.44	362.88
	25.00	37.20	228.6	71.4	10.5	15.5	226.80	453.60
10 10 x 2 5/8	15.30	22.80	254.0	66.0	11.1	6.1	138.80	277.60
	20.00	29.80	254.0	69.6	11.1	9.6	181.44	362.88
	25.00	37.20	254.0	73.3	11.1	13.4	226.80	453.60
	30.00	44.60	254.0	77.0	11.1	17.1	272.16	544.32
	35.00	52.10	254.0	80.8	11.1	20.8	317.52	635.04
12 12 x 3	20.70	30.80	304.8	74.7	12.7	7.2	187.79	375.58
	25.00	37.20	304.8	77.4	12.7	9.8	226.80	453.60
	30.00	44.60	304.8	80.5	12.7	13.0	272.16	544.32
	35.00	52.10	304.8	83.6	12.7	16.1	317.52	635.04
	40.00	59.50	304.8	86.7	12.7	19.2	362.88	725.76
15 15 x 3 3/8	33.90	50.40	381.0	86.4	16.5	10.2	307.54	615.08
	35.00	52.10	381.0	86.9	16.5	10.7	317.52	635.04
	40.00	59.50	381.0	89.4	16.5	13.2	362.88	725.76
	45.00	67.00	381.0	91.9	16.5	15.7	408.24	816.47
	50.00	74.40	381.0	94.4	16.5	18.2	453.60	907.19
	55.00	81.80	381.0	96.9	16.5	20.7	498.96	997.91
18 18 x 4	42.70	63.50	457.2	100.3	15.9	11.4	387.37	774.74
	45.80	68.20	457.2	101.6	15.9	12.7	415.49	830.99
	51.90	77.20	457.2	104.1	15.9	15.2	470.83	941.67
	58.00	86.30	457.2	106.7	15.9	17.8	526.17	1052.35

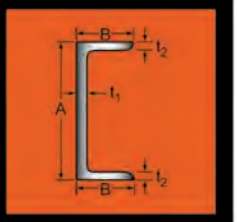




Channel Bars-
European Standard
(UAP Series)

Size	Weight	Height, A	Flange		Web Thickness, t_1	Weight per	
			Width, B	Thickness, t_2		6M	12M
mm x mm	kg/ M	mm	mm	mm	mm	kg	kg
150 x 75	17.90	150.0	75.0	10.0	5.5	107.40	214.80
180 x 75	20.30	180.0	75.0	10.5	6.0	121.80	243.60
200 x 75	23.40	200.0	75.0	12.5	6.0	140.40	280.80
203 x 89	29.80	203.2	88.9	12.9	8.1	178.80	357.60
230 x 75	25.70	230.0	75.0	12.5	6.5	154.20	308.40
254 x 89	35.70	254.0	88.9	13.6	9.1	214.20	428.40
300 x 90	41.40	300.0	90.0	15.5	9.0	248.40	496.80
381 x 102	55.00	381.0	101.6	16.3	10.4	330.00	660.00

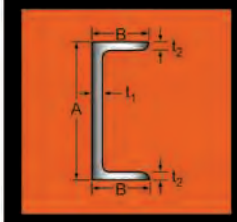
Channel Bars-
European Standard
(UPN Series)





Size	Weight		Height, A	Flange		Web Thickness, t_1	Weight per	
				Width, B	Thickness, t_2		6M	12M
mm	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
75 x 40	4.65	6.92	75	40	7.0	5.0	41.52	83.04
100 x 50	6.29	9.36	100	50	7.5	5.0	56.16	112.32
	5.82	8.66	100	50	7.0	5.0	51.96	103.92
	4.91	7.30	100	50	5.8	3.8	43.80	87.60
125 x 65	9.00	13.40	125	65	8.0	6.0	80.40	160.80
	8.20	12.20	125	65	7.3	5.3	73.20	146.40
	7.83	11.66	125	65	6.8	5.2	69.96	139.92
150 x 70	10.62	15.80	150	70	8.5	6.0	94.80	189.60
150 x 75	12.50	18.60	150	75	10.0	6.5	111.60	223.20
	16.10	24.00	150	75	12.5	9.0	144.00	288.00
	11.22	16.70	150	75	9.0	5.7	100.20	200.40
	9.85	14.66	150	75	7.0	5.5	87.96	175.92
180 x 75	14.40	21.40	180	75	10.5	7.0	128.40	256.80
200 x 70	14.18	21.10	200	70	10.0	7.0	126.60	253.20
200 x 80	16.50	24.60	200	80	11.0	7.5	147.60	295.20
200 x 90	20.40	30.30	200	90	13.5	8.0	181.80	363.60
230 x 80	19.08	28.40	230	80	12.0	8.0	170.40	340.80
250 x 80	20.29	30.20	250	80	12.5	8.0	181.20	362.40
250 x 90	23.30	34.60	250	90	13.0	9.0	207.60	415.20
	27.00	40.20	250	90	14.5	11.0	241.20	482.40
300 x 90	25.60	38.10	300	90	13.0	9.0	228.60	457.20
	29.40	43.80	300	90	15.5	10.0	262.80	525.60
	30.10	44.80	300	90	15.5	10.5	268.80	537.60
	32.70	48.60	300	90	16.0	12.0	291.60	583.20
380 x 100	36.60	54.50	380	100	16.0	10.5	327.00	654.00
	41.70	62.00	380	100	16.5	13.0	372.00	744.00
	45.20	67.30	380	100	20.0	13.0	403.80	807.60
425 x 100	39.11	58.20	425	100	16.0	10.5	349.20	698.40
	47.84	71.20	425	100	19.5	13.0	427.20	854.40
	56.85	84.60	425	100	23.5	15.5	507.60	1015.20

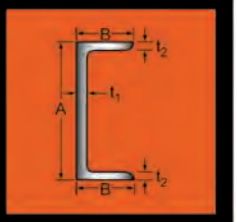




Channel Bars-
BS Standards (Metric)

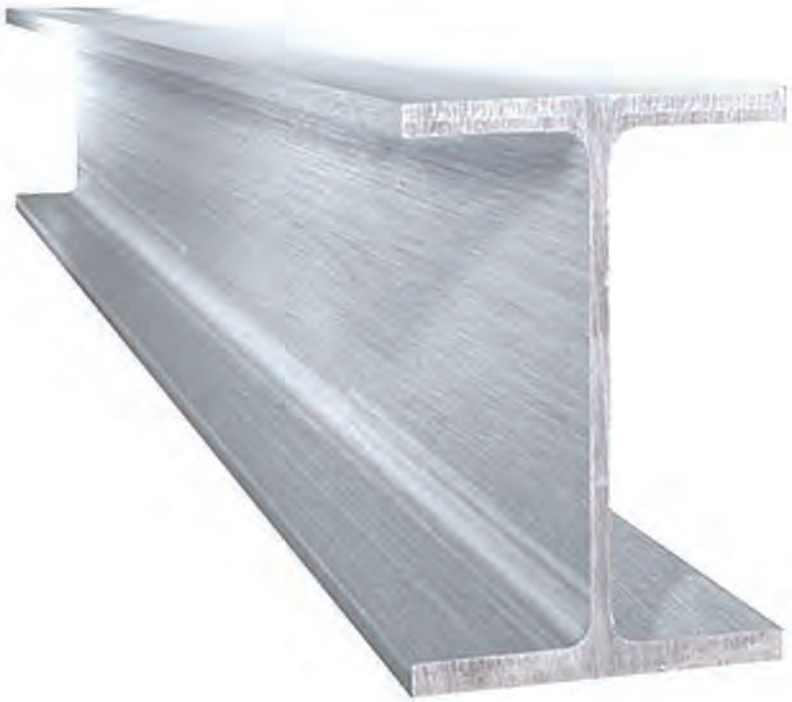
Size	Weight	Height, A	Flange		Web Thickness, t_1	Weight per	
			Width, B	Thickness, t_2		6M	12M
mm x mm	kg/ M	mm	mm	mm	mm	kg	kg
150 x 75	17.90	150.0	75.0	10.0	5.5	107.40	214.80
180 x 75	20.30	180.0	75.0	10.5	6.0	121.80	243.60
200 x 75	23.40	200.0	75.0	12.5	6.0	140.40	280.80
203 x 89	29.80	203.2	88.9	12.9	8.1	178.80	357.60
230 x 75	25.70	230.0	75.0	12.5	6.5	154.20	308.40
254 x 89	35.70	254.0	88.9	13.6	9.1	214.20	428.40
300 x 90	41.40	300.0	90.0	15.5	9.0	248.40	496.80
381 x 102	55.00	381.0	101.6	16.3	10.4	330.00	660.00

Channel Bars-
JIS (Metric)





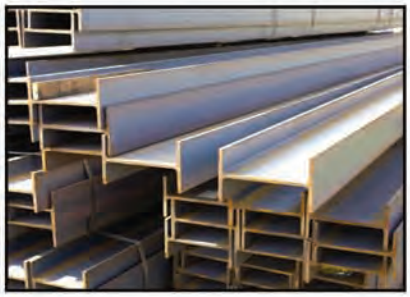
Size	Weight		Height, A	Flange		Web Thickness, t_1	Weight per	
				Width, B	Thickness, t_2		6M	12M
mm	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
75 x 40	4.65	6.92	75	40	7.0	5.0	41.52	83.04
100 x 50	6.29	9.36	100	50	7.5	5.0	56.16	112.32
	5.82	8.66	100	50	7.0	5.0	51.96	103.92
	4.91	7.30	100	50	5.8	3.8	43.80	87.60
125 x 65	9.00	13.40	125	65	8.0	6.0	80.40	160.80
	8.20	12.20	125	65	7.3	5.3	73.20	146.40
	7.83	11.66	125	65	6.8	5.2	69.96	139.92
150 x 70	10.62	15.80	150	70	8.5	6.0	94.80	189.60
150 x 75	12.50	18.60	150	75	10.0	6.5	111.60	223.20
	16.10	24.00	150	75	12.5	9.0	144.00	288.00
	11.22	16.70	150	75	9.0	5.7	100.20	200.40
	9.85	14.66	150	75	7.0	5.5	87.96	175.92
180 x 75	14.40	21.40	180	75	10.5	7.0	128.40	256.80
200 x 70	14.18	21.10	200	70	10.0	7.0	126.60	253.20
200 x 80	16.50	24.60	200	80	11.0	7.5	147.60	295.20
200 x 90	20.40	30.30	200	90	13.5	8.0	181.80	363.60
230 x 80	19.08	28.40	230	80	12.0	8.0	170.40	340.80
250 x 80	20.29	30.20	250	80	12.5	8.0	181.20	362.40
250 x 90	23.30	34.60	250	90	13.0	9.0	207.60	415.20
	27.00	40.20	250	90	14.5	11.0	241.20	482.40
300 x 90	25.60	38.10	300	90	13.0	9.0	228.60	457.20
	29.40	43.80	300	90	15.5	10.0	262.80	525.60
	30.10	44.80	300	90	15.5	10.5	268.80	537.60
	32.70	48.60	300	90	16.0	12.0	291.60	583.20
380 x 100	36.60	54.50	380	100	16.0	10.5	327.00	654.00
	41.70	62.00	380	100	16.5	13.0	372.00	744.00
	45.20	67.30	380	100	20.0	13.0	403.80	807.60
425 x 100	39.11	58.20	425	100	16.0	10.5	349.20	698.40
	47.84	71.20	425	100	19.5	13.0	427.20	854.40
	56.85	84.60	425	100	23.5	15.5	507.60	1015.20



Wide Flange

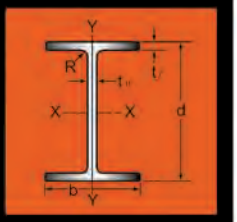
Wide Flange beams can also be used for water systems, which are designed for soil conditions that are less stable, such as C-60 and C-80 Soil Types, requiring tight or intermittent Sheet Piling. They offer protection and system flexibility needed to work around crossing utilities and repair points in addition to producing trenches.

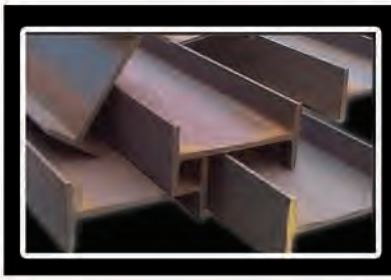




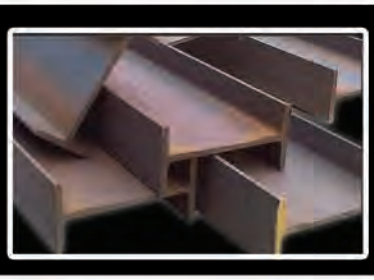


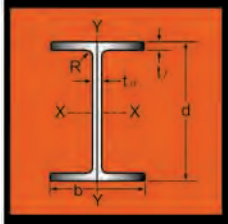
Wide Flange-
European Standard
(HD Series)





Size	Weight	Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
			Width, b	Thickness, t_f		6M	12M
	kg/M	mm	mm	mm	mm	kg	kg
HD 260 x 54.1	54.10	244	260	9.5	6.5	324.60	649.20
HD 260 x 68.2	68.20	250	260	12.5	7.5	409.20	818.40
HD 260 x 93.0	93.00	260	260	17.5	10.0	558.00	1116.00
HD 260 x 114.0	114.00	268	262	21.5	12.5	684.00	1368.00
HD 260 x 142.0	142.00	278	265	26.5	15.5	852.00	1704.00
HD 260 x 172.0	172.00	290	268	32.5	18.0	1032.00	2064.00
HD 260 x 225.0	225.00	309	271	42.0	24.0	1350.00	2700.00
HD 260 x 299.0	299.00	335	278	55.0	31.0	1794.00	3588.00
HD 320 x 74.2	74.20	301	300	11.0	8.0	445.20	890.40
HD 320 x 97.6	97.60	310	300	15.5	9.0	585.60	1171.20
HD 320 x 127.0	127.00	320	300	20.5	11.5	762.00	1524.00
HD 320 x 158.0	158.00	330	303	25.5	14.5	948.00	1896.00
HD 320 x 198.0	198.00	343	306	32.0	18.0	1188.00	2376.00
HD 320 x 245.0	245.00	359	309	40.0	21.0	1470.00	2940.00
HD 320 x 300.0	300.00	375	313	48.0	27.0	1800.00	3600.00
HD 320 x 368.0	368.00	395	319	58.0	33.0	2208.00	4416.00
HD 320 x 451.0	451.00	419	326	70.0	40.0	2706.00	5412.00
HD 360 x 134.0	134.00	356	369	18.0	11.2	804.00	1608.00
HD 360 x 147.0	147.00	360	370	19.8	12.3	882.00	1764.00
HD 360 x 162.0	162.00	364	371	21.8	13.3	972.00	1944.00
HD 360 x 179.0	179.00	368	373	23.9	15.0	1074.00	2148.00
HD 360 x 196.0	196.00	372	374	26.2	16.4	1176.00	2352.00
HD 400 x 187.0	187.00	368	391	24.0	15.0	1122.00	2244.00
HD 400 x 216.0	216.00	375	394	27.7	17.3	1296.00	2592.00
HD 400 x 237.0	237.00	380	395	30.2	18.9	1422.00	2844.00
HD 400 x 262.0	262.00	387	398	33.3	21.1	1572.00	3144.00
HD 400 x 287.0	287.00	393	399	36.6	22.6	1722.00	3444.00
HD 400 x 314.0	314.00	399	401	39.6	24.9	1884.00	3768.00
HD 400 x 347.0	347.00	407	404	43.7	27.2	2082.00	4164.00
HD 400 x 382.0	382.00	416	406	48.0	29.8	2292.00	4584.00
HD 400 x 421.0	421.00	425	409	52.6	32.8	2526.00	5052.00
HD 400 x 463.0	463.00	435	412	57.4	35.8	2778.00	5556.00
HD 400 x 509.0	509.00	446	416	62.7	39.1	3054.00	6108.00
HD 400 x 551.0	551.00	455	418	67.6	42.0	3306.00	6612.00
HD 400 x 592.0	592.00	465	421	72.3	45.0	3552.00	7104.00
HD 400 x 634.0	634.00	474	424	77.1	47.6	3804.00	7608.00
HD 400 x 677.0	677.00	483	428	81.5	51.2	4062.00	8124.00
HD 400 x 744.0	744.00	498	432	88.9	55.6	4464.00	8928.00
HD 400 x 818.0	818.00	514	437	97.0	60.5	4908.00	9816.00
HD 400 x 900.0	900.00	531	442	106.0	65.9	5400.00	10800.00
HD 400 x 990.0	990.00	550	448	115.0	71.9	5940.00	11880.00
HD 400 x 1086.0	1086.00	569	454	125.0	78.0	6516.00	13032.00

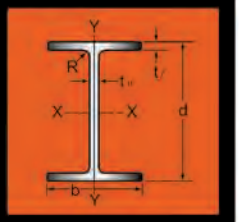


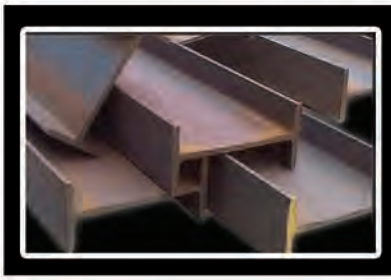


Wide Flange-
European Standard
(HE Series)

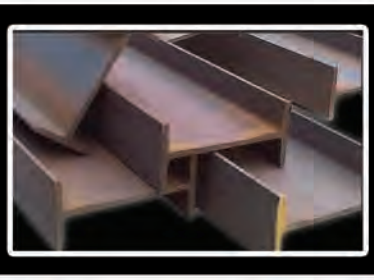
Size	Weight	Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
			Width, b	Thickness, t_f		6M	12M
	kg/M	mm	mm	mm	mm	kg	kg
HE 100 AA	12.20	91	100	5.5	4.2	73.20	146.40
HE 100 A	16.70	96	100	8.0	5.0	100.20	200.40
HE 100 B	20.40	100	100	10.0	6.0	122.40	244.80
HE 100 M	41.80	120	106	20.0	12.0	250.80	501.60
HE 120 AA	14.60	109	120	5.5	4.2	87.60	175.20
HE 120 A	19.90	114	120	8.0	5.0	119.40	238.80
HE 120 B	26.70	120	120	11.0	6.5	160.20	320.40
HE 120 M	52.10	140	126	21.0	12.5	312.60	625.20
HE 140 AA	18.10	128	140	6.0	4.3	108.60	217.20
HE 140 A	24.70	133	140	8.5	5.5	148.20	296.40
HE 140 B	33.70	140	140	12.0	7.0	202.20	404.40
HE 140 M	63.20	160	146	22.0	13.0	379.20	758.40
HE 160 AA	23.80	148	160	7.0	4.5	142.80	285.60
HE 160 A	30.40	152	160	9.0	6.0	182.40	364.80
HE 160 B	42.60	160	160	13.0	8.0	255.61	511.22
HE 160 M	76.20	180	166	23.0	14.0	457.20	914.40
HE 180 AA	28.70	167	180	7.5	5.0	172.20	344.40
HE 180 A	35.50	171	180	9.5	6.0	213.00	426.00
HE 180 B	51.20	180	180	14.0	8.5	307.20	614.40
HE 180 M	88.90	200	186	24.0	14.5	533.40	1066.80
HE 200 AA	34.60	186	200	8.0	5.5	207.60	415.20
HE 200 A	42.30	190	200	10.0	6.5	253.80	507.60
HE 200 B	61.30	200	200	15.0	9.0	367.80	735.60
HE 200 M	103.00	220	206	25.0	15.0	618.00	1236.00
HE 220 AA	40.40	205	220	8.5	6.0	242.40	484.80
HE 220 A	50.50	210	220	11.0	7.0	303.00	606.00
HE 220 B	71.50	220	220	16.0	9.5	429.00	858.00
HE 220 M	117.00	240	226	26.0	15.5	702.00	1404.00
HE 240 AA	47.40	224	240	9.0	6.5	284.40	568.80
HE 240 A	60.30	230	240	12.0	7.5	361.80	723.60
HE 240 B	83.20	240	240	17.0	10.0	499.20	998.40
HE 240 M	157.00	270	248	32.0	18.0	942.00	1884.00
HE 260 AA	54.10	244	260	9.5	6.5	324.60	649.20
HE 260 A	68.20	250	260	12.5	7.5	409.20	818.40
HE 260 B	93.00	260	260	17.5	10.0	558.00	1116.00
HE 260 M	172.00	290	268	32.5	18.0	1032.00	2064.00
HE 280 AA	61.20	264	280	10.0	7.0	367.20	734.40
HE 280 A	76.40	270	280	13.0	8.0	458.40	916.80
HE 280 B	103.00	280	280	18.0	10.5	618.00	1236.00
HE 280 M	189.00	310	288	33.0	18.5	1134.00	2268.00

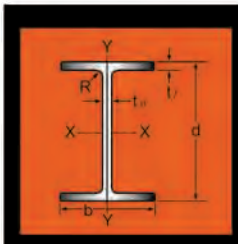
Wide Flange-
European Standard
(HE Series)





Size	Weight	Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
			Width, b	Thickness, t_f		6M	12M
	kg/M	mm	mm	mm	mm	kg	kg
HE 300 AA	69.80	283	300	10.5	7.5	418.80	837.60
HE 300 A	88.30	290	300	14.0	8.5	529.80	1059.60
HE 300 B	117.00	300	300	19.0	11.0	702.00	1404.00
HE 300 C	177.00	320	305	29.0	16.0	1062.00	2124.00
HE 300 M	238.00	340	310	39.0	21.0	1428.00	2856.00
HE 320 AA	74.20	301	300	11.0	8.0	445.20	890.40
HE 320 A	97.60	310	300	15.5	9.0	585.60	1171.20
HE 320 B	127.00	320	300	20.5	11.5	762.00	1524.00
HE 320 M	245.00	359	309	40.0	21.0	1470.00	2940.00
HE 340 AA	78.90	320	300	11.5	8.5	473.40	946.80
HE 340 A	105.00	330	300	16.5	9.5	630.00	1260.00
HE 340 B	134.00	340	300	21.5	12.0	804.00	1608.00
HE 340 M	248.00	377	309	40.0	21.0	1488.00	2976.00
HE 360 AA	83.70	339	300	12.0	9.0	502.20	1004.00
HE 360 A	112.00	350	300	17.5	10.0	672.00	1344.00
HE 360 B	142.00	360	300	22.5	12.5	852.00	1704.00
HE 360 M	250.00	395	308	40.0	21.0	1500.00	3000.00
HE 400 AA	92.40	378	300	13.0	9.5	554.40	1108.80
HE 400 A	125.00	390	300	19.0	11.0	750.00	1500.00
HE 400 B	155.00	400	300	24.0	13.5	930.00	1860.00
HE 400 M	256.00	432	307	40.0	21.0	1536.00	3072.00
HE 400 x 299	299.00	444	309	46.0	25.5	1794.00	3588.00
HE 400 x 347	347.00	458	313	53.0	29.5	2082.00	4164.00
HE 400 x 403	403.00	474	318	61.0	34.0	2418.00	4836.00
HE 400 x 468	468.00	492	323	70.0	39.0	2808.00	5616.00
HE 450 AA	99.70	425	300	13.5	10.0	598.20	1196.40
HE 450 A	140.00	440	300	21.0	11.5	840.00	1680.00
HE 450 B	171.00	450	300	26.0	14.0	1026.00	2052.00
HE 450 M	263.00	478	307	40.0	21.0	1578.00	3156.00
HE 450 x 312	312.00	490	310	46.0	26.5	1872.00	3744.00
HE 450 x 368	368.00	506	314	54.0	31.0	2208.00	4416.00
HE 450 x 436	436.00	526	319	64.0	35.5	2616.00	5232.00
HE 450 x 519	519.00	548	325	75.0	42.0	3114.00	6228.00
HE 500 AA	107.00	472	300	14.0	10.5	642.00	1284.00
HE 500 A	155.00	490	300	23.0	12.0	930.00	1860.00
HE 500 B	187.00	500	300	28.0	14.5	1122.00	2244.00
HE 500 M	270.00	524	306	40.0	21.0	1620.00	3240.00
HE 500 x 320	320.00	536	309	46.0	26.5	1920.00	3840.00
HE 500 x 379	379.00	552	314	54.0	31.0	2274.00	4548.00
HE 500 x 451	451.00	572	319	64.0	36.0	2706.00	5412.00
HE 500 x 534	534.00	594	325	75.0	42.0	3204.00	6408.00

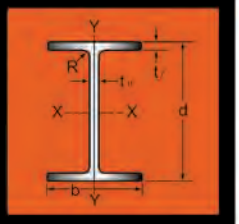


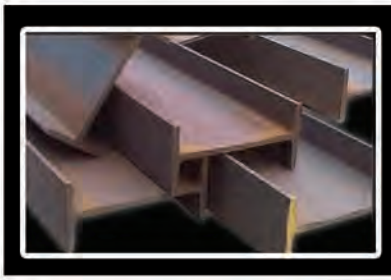


Wide Flange-
European Standard
(HE Series)

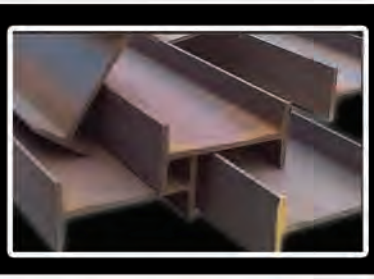
Size	Weight	Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
			Width, b	Thickness, t_f		6M	12M
	kg/M	mm	mm	mm	mm	kg	kg
HE 550 AA	120.00	522	300	15.0	11.5	720.00	1440.00
HE 550 A	166.00	540	300	24.0	12.5	996.00	1992.00
HE 550 B	199.00	550	300	29.0	15.0	1194.00	2388.00
HE 550 M	278.00	572	306	40.0	21.0	1668.00	3336.00
HE 550 x 330	330.00	584	309	46.0	26.5	1980.00	3960.00
HE 550 x 393	393.00	602	313	55.0	30.5	2358.00	4716.00
HE 550 x 466	466.00	620	319	64.0	36.5	2796.00	5592.00
HE 550 x 552	552.00	642	325	75.0	42.5	3312.00	6624.00
HE 600 AA	129.00	571	300	15.5	12.0	774.00	1548.00
HE 600 A	178.00	590	300	25.0	13.0	1068.00	2136.00
HE 600 B	212.00	600	300	30.0	15.5	1272.00	2544.00
HE 600 M	285.00	620	305	40.0	21.0	1710.00	3420.00
HE 600 x 340	340.00	632	308	46.0	26.5	2040.00	4080.00
HE 600 x 402	402.00	648	313	54.0	31.0	2412.00	4824.00
HE 600 x 477	477.00	668	318	64.0	36.0	2862.00	5724.00
HE 600 x 564	564.00	690	324	75.0	42.0	3384.00	6768.00
HE 650 AA	138.00	620	300	16.0	12.5	828.00	1656.00
HE 650 A	190.00	640	300	26.0	13.5	1140.00	2280.00
HE 650 B	225.00	650	300	31.0	16.0	1350.00	2700.00
HE 650 M	293.00	668	305	40.0	21.0	1758.00	3516.00
HE 650 x 347	347.00	680	307	46.0	26.0	2082.00	4164.00
HE 650 x 410	410.00	696	312	54.0	30.5	2460.00	4920.00
HE 650 x 487	487.00	716	317	64.0	35.5	2922.00	5844.00
HE 650 x 579	579.00	738	323	75.0	42.0	3474.00	6948.00
HE 700 AA	150.00	670	300	17.0	13.0	900.00	1800.00
HE 700 A	204.00	690	300	27.0	14.5	1224.00	2448.00
HE 700 B	241.00	700	300	32.0	17.0	1446.00	2892.00
HE 700 M	301.00	716	304	40.0	21.0	1806.00	3612.00
HE 700 x 356	356.00	728	306	46.0	26.0	2136.00	4272.00
HE 700 x 421	421.00	744	311	54.0	30.5	2526.00	5052.00
HE 700 x 500	500.00	764	316	64.0	35.5	3000.00	6000.00
HE 700 x 594	594.00	786	322	75.0	42.0	3564.00	7128.00
HE 800 AA	172.00	770	300	18.0	14.0	1032.00	2064.00
HE 800 A	224.00	790	300	28.0	15.0	1344.00	2688.00
HE 800 B	262.00	800	300	33.0	17.5	1572.00	3144.00
HE 800 M	317.00	814	303	40.0	21.0	1902.00	3804.00
HE 800 x 377	377.00	826	306	46.0	26.0	2262.00	4524.00
HE 800 x 448	448.00	842	311	54.0	31.0	2688.00	5376.00
HE 800 x 531	531.00	862	316	64.0	36.0	3186.00	6372.00
HE 800 x 627	627.00	884	322	75.0	42.0	3762.00	7524.00

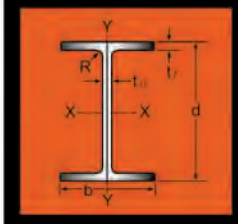
Wide Flange-
European Standard
(HE Series)





Size	Weight	Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
			Width, b	Thickness, t_f		6M	12M
	kg/M	mm	mm	mm	mm	kg	kg
HE 900 AA	198.00	870	300	20	15.0	1188.00	2376.00
HE 900 A	252.00	890	300	30	16.0	1512.00	3024.00
HE 900 B	291.00	900	300	35	18.5	1746.00	3492.00
HE 900 M	333.00	910	302	40	21.0	1998.00	3996.00
HE 900 x 396	396.00	922	305	46	26.0	2376.00	4752.00
HE 900 x 471	471.00	938	310	54	31.0	2826.00	5652.00
HE 900 x 557	557.00	958	315	64	36.0	3342.00	6684.00
HE 900 x 661	661.00	980	321	75	42.5	3966.00	7932.00
HE 1000 AA	222.00	970	300	21	16.0	1332.00	2664.00
HE 1000 A	272.00	990	300	31	16.5	1632.00	3264.00
HE 1000 B	314.00	1000	300	36	19.0	1884.00	3768.00
HE 1000 M	349.00	1008	302	40	21.0	2094.00	4188.00
HE 1000 x 415	415.00	1020	304	46	26.0	2490.00	4980.00
HE 1000 x 494	494.00	1036	309	54	31.0	2964.00	5928.00
HE 1000 x 584	584.00	1056	314	64	36.0	3504.00	7008.00
HE 1000 x 694	694.00	1078	321	75	42.5	4164.00	8328.00

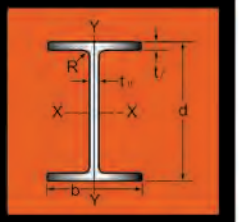


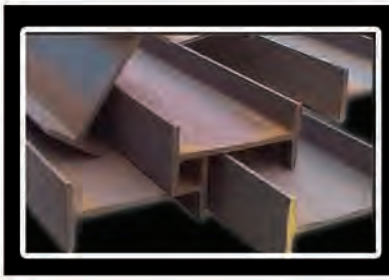


Wide Flange-
European Standard
(HE Series)

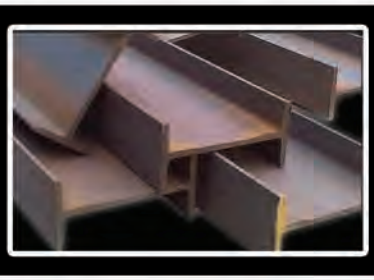
Size	Weight	Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
			Width, b	Thickness, t_f		6M	12M
	kg/M	mm	mm	mm	mm	kg	kg
HE 550 AA	120.00	522	300	15.0	11.5	720.00	1440.00
HE 550 A	166.00	540	300	24.0	12.5	996.00	1992.00
HE 550 B	199.00	550	300	29.0	15.0	1194.00	2388.00
HE 550 M	278.00	572	306	40.0	21.0	1668.00	3336.00
HE 550 x 330	330.00	584	309	46.0	26.5	1980.00	3960.00
HE 550 x 393	393.00	602	313	55.0	30.5	2358.00	4716.00
HE 550 x 466	466.00	620	319	64.0	36.5	2796.00	5592.00
HE 550 x 552	552.00	642	325	75.0	42.5	3312.00	6624.00
HE 600 AA	129.00	571	300	15.5	12.0	774.00	1548.00
HE 600 A	178.00	590	300	25.0	13.0	1068.00	2136.00
HE 600 B	212.00	600	300	30.0	15.5	1272.00	2544.00
HE 600 M	285.00	620	305	40.0	21.0	1710.00	3420.00
HE 600 x 340	340.00	632	308	46.0	26.5	2040.00	4080.00
HE 600 x 402	402.00	648	313	54.0	31.0	2412.00	4824.00
HE 600 x 477	477.00	668	318	64.0	36.0	2862.00	5724.00
HE 600 x 564	564.00	690	324	75.0	42.0	3384.00	6768.00
HE 650 AA	138.00	620	300	16.0	12.5	828.00	1656.00
HE 650 A	190.00	640	300	26.0	13.5	1140.00	2280.00
HE 650 B	225.00	650	300	31.0	16.0	1350.00	2700.00
HE 650 M	293.00	668	305	40.0	21.0	1758.00	3516.00
HE 650 x 347	347.00	680	307	46.0	26.0	2082.00	4164.00
HE 650 x 410	410.00	696	312	54.0	30.5	2460.00	4920.00
HE 650 x 487	487.00	716	317	64.0	35.5	2922.00	5844.00
HE 650 x 579	579.00	738	323	75.0	42.0	3474.00	6948.00
HE 700 AA	150.00	670	300	17.0	13.0	900.00	1800.00
HE 700 A	204.00	690	300	27.0	14.5	1224.00	2448.00
HE 700 B	241.00	700	300	32.0	17.0	1446.00	2892.00
HE 700 M	301.00	716	304	40.0	21.0	1806.00	3612.00
HE 700 x 356	356.00	728	306	46.0	26.0	2136.00	4272.00
HE 700 x 421	421.00	744	311	54.0	30.5	2526.00	5052.00
HE 700 x 500	500.00	764	316	64.0	35.5	3000.00	6000.00
HE 700 x 594	594.00	786	322	75.0	42.0	3564.00	7128.00
HE 800 AA	172.00	770	300	18.0	14.0	1032.00	2064.00
HE 800 A	224.00	790	300	28.0	15.0	1344.00	2688.00
HE 800 B	262.00	800	300	33.0	17.5	1572.00	3144.00
HE 800 M	317.00	814	303	40.0	21.0	1902.00	3804.00
HE 800 x 377	377.00	826	306	46.0	26.0	2262.00	4524.00
HE 800 x 448	448.00	842	311	54.0	31.0	2688.00	5376.00
HE 800 x 531	531.00	862	316	64.0	36.0	3186.00	6372.00
HE 800 x 627	627.00	884	322	75.0	42.0	3762.00	7524.00

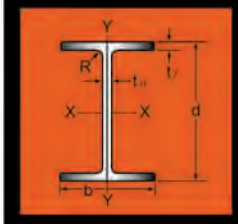
Wide Flange-
European Standard
(HE Series)





Size	Weight	Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
			Width, b	Thickness, t_f		6M	12M
	kg/M	mm	mm	mm	mm	kg	kg
HE 900 AA	198.00	870	300	20	15.0	1188.00	2376.00
HE 900 A	252.00	890	300	30	16.0	1512.00	3024.00
HE 900 B	291.00	900	300	35	18.5	1746.00	3492.00
HE 900 M	333.00	910	302	40	21.0	1998.00	3996.00
HE 900 x 396	396.00	922	305	46	26.0	2376.00	4752.00
HE 900 x 471	471.00	938	310	54	31.0	2826.00	5652.00
HE 900 x 557	557.00	958	315	64	36.0	3342.00	6684.00
HE 900 x 661	661.00	980	321	75	42.5	3966.00	7932.00
HE 1000 AA	222.00	970	300	21	16.0	1332.00	2664.00
HE 1000 A	272.00	990	300	31	16.5	1632.00	3264.00
HE 1000 B	314.00	1000	300	36	19.0	1884.00	3768.00
HE 1000 M	349.00	1008	302	40	21.0	2094.00	4188.00
HE 1000 x 415	415.00	1020	304	46	26.0	2490.00	4980.00
HE 1000 x 494	494.00	1036	309	54	31.0	2964.00	5928.00
HE 1000 x 584	584.00	1056	314	64	36.0	3504.00	7008.00
HE 1000 x 694	694.00	1078	321	75	42.5	4164.00	8328.00

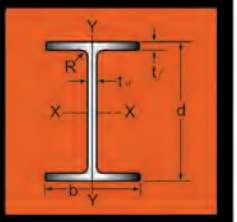


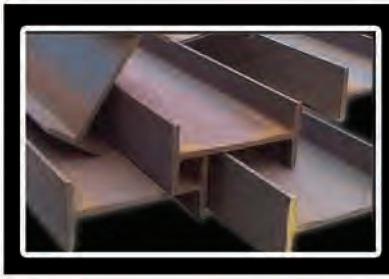


Wide Flange-
(Inch Series)

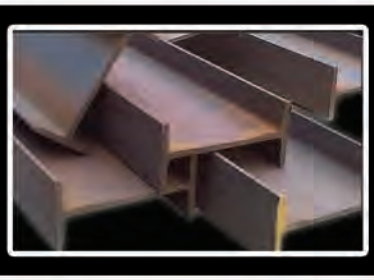
Size	Weight		Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
				Width, b	Thickness, t_f		20ft	40ft
in	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
W10 10 x 10	49	72.9	254.00	254.00	14.10	8.64	444.53	889.05
	54	80.4	257.05	254.71	15.70	9.35	489.88	979.77
	60	89.3	260.35	255.90	17.35	10.54	544.32	1088.63
	66	98.2	263.65	256.97	19.00	11.61	598.75	1197.50
	68	101.2	264.20	257.30	19.56	11.94	616.89	1233.78
	72	107.1	266.70	258.32	20.52	12.95	653.18	1306.36
	77	114.6	269.75	258.95	22.05	13.59	698.54	1397.08
	89	132.4	276.35	260.98	25.35	15.62	807.40	1614.81
	100	148.8	282.45	262.76	28.40	17.40	907.19	1814.39
	112	166.7	289.05	264.54	31.70	19.18	1016.06	2032.11
W12 12 x 4	14	20.8	302.51	100.79	5.69	5.03	127.01	254.01
	16	23.8	304.50	101.30	6.73	5.59	145.15	290.30
	19	28.3	308.86	101.78	8.86	6.02	172.37	344.73
	22	32.7	312.67	102.36	10.70	6.60	199.58	399.17
W12 12 x 6 $^1/_2$	27	40.2	303.78	165.02	10.10	6.02	244.94	489.88
	31	46.1	307.09	165.73	11.80	6.73	281.23	562.46
	36	53.6	310.90	166.75	13.70	7.75	326.59	653.18
W12 12 x 10	40	59.5	303.28	203.20	13.10	7.47	362.88	725.76
	45	67.0	306.32	204.27	14.60	8.53	408.24	816.47
	50	74.4	309.63	205.16	16.20	9.42	453.60	907.19
	53	78.9	306.32	254.00	14.60	8.76	480.81	961.63
	58	86.3	309.63	254.36	16.20	9.12	526.17	1052.35
W12 12 x 12	65	96.7	307.85	304.80	15.30	9.91	589.68	1179.35
	72	107.1	311.15	305.82	17.04	10.92	653.18	1306.36
	79	117.6	314.45	306.83	18.69	11.94	716.68	1433.37
	85	126.5	317.50	307.47	20.22	12.57	771.11	1542.23
	87	129.5	318.30	308.00	20.57	13.08	789.26	1578.52
	92	136.9	320.55	308.74	21.74	13.84	834.62	1669.24
	96	142.9	322.80	308.90	22.86	13.97	870.91	1741.81
	99	147.3	323.85	309.68	23.39	14.78	898.12	1796.24
	106	157.7	327.15	310.64	25.04	15.75	961.63	1923.25
	120	178.6	333.25	312.93	28.09	18.03	1088.63	2177.27
	133	197.9	339.85	314.07	31.39	19.18	1206.57	2413.14
	136	202.4	340.60	315.00	31.75	20.07	1233.78	2467.57
	152	226.2	348.20	317.00	35.56	22.10	1378.93	2757.87
	161	239.6	352.55	317.88	37.74	22.99	1460.58	2921.16
	170	253.0	356.40	319.30	39.62	24.38	1542.23	3084.46
	190	282.8	365.25	321.82	44.09	26.92	1723.67	3447.34
W14 14 x 5	22	32.7	348.49	127.00	8.51	5.84	199.58	399.17
	26	38.7	352.81	127.63	10.60	6.48	235.87	471.74

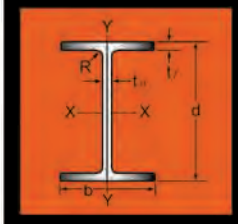
Wide Flange-
(Inch Series)





Size	Weight		Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
				Width, b	Thickness, t_f		20ft	40ft
in	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
W14 14 x 6 3/4	30	44.6	352.04	171.02	9.73	6.86	272.16	544.32
	34	50.6	355.60	171.45	11.50	7.29	308.45	616.89
	38	56.6	358.65	172.11	13.00	7.95	344.73	689.47
W14 14 x 8	43	64.0	347.47	203.20	13.40	7.82	390.09	780.19
	48	71.4	350.77	203.99	15.00	8.61	435.45	870.91
	53	78.9	354.08	204.77	16.70	9.40	480.81	961.63
W14 14 x 10	61	90.8	353.31	254.00	16.30	9.60	553.39	1106.78
	68	101.2	357.12	255.02	18.24	10.62	616.89	1233.78
	74	110.1	360.43	255.83	19.89	11.43	671.32	1342.65
	82	122.0	363.50	257.30	21.72	12.95	743.90	1487.80
W14 14 x 12	78	116.1	357.12	304.80	18.24	10.87	707.61	1415.22
	84	125.0	360.17	305.38	19.76	11.46	762.04	1524.09
W14 14 x 14 1/2	87	129.5	355.60	368.30	17.48	10.67	789.26	1578.52
	90	133.9	356.10	368.80	18.03	11.18	816.47	1632.95
	95	141.4	358.65	369.44	19.00	11.81	861.83	1723.67
	99	147.3	359.70	370.00	19.81	12.32	898.12	1796.24
	103	153.3	361.95	370.20	20.65	12.57	934.41	1868.82
	109	162.2	363.70	371.00	21.84	13.34	988.84	1977.68
	111	165.2	365.00	371.35	22.17	13.72	1006.99	2013.97
	119	177.1	368.30	372.11	23.83	14.48	1079.56	2159.12
	120	178.6	367.80	372.60	23.88	14.99	1088.63	2177.27
	127	189.0	371.35	373.13	25.35	15.49	1152.14	2304.27
	132	196.4	372.40	374.00	26.16	16.38	1197.50	2394.99
	136	202.4	374.65	374.40	27.00	16.76	1233.78	2467.57
W14 14 x 16	142	211.3	374.65	393.70	27.00	17.27	1288.22	2576.43
	145	215.8	375.40	393.70	27.69	17.27	1315.43	2630.86
	150	223.2	377.95	394.08	28.65	17.65	1360.79	2721.58
	159	236.6	380.50	395.40	30.23	18.92	1442.44	2884.88
	167	248.5	384.05	396.24	31.70	19.81	1515.01	3030.03
	176	261.9	387.35	397.26	33.35	20.83	1596.66	3193.32
	184	273.8	390.65	397.76	35.00	21.34	1669.24	3338.47
	193	287.2	393.70	399.03	36.53	22.61	1750.88	3501.77
	202	300.6	397.00	400.05	38.18	23.62	1832.53	3665.06
	211	314.0	400.05	401.32	39.70	24.89	1914.18	3828.36
	219	325.9	403.10	401.95	41.22	25.53	1986.75	3973.51
	228	339.3	406.40	402.97	42.88	26.54	2068.40	4136.80
	233	346.7	407.40	403.30	43.69	27.18	2113.76	4227.52
	237	352.7	409.45	404.11	44.40	27.69	2150.05	4300.10
	246	366.1	412.75	405.00	46.05	28.57	2231.70	4463.39
	257	382.5	416.10	406.30	48.01	29.84	2331.49	4662.98
	264	392.9	419.10	407.04	49.23	30.61	2394.99	4789.98
	283	421.1	425.20	409.20	52.58	32.77	2567.36	5134.72

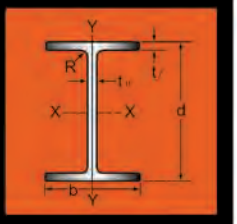


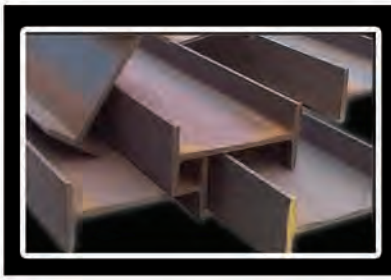


Wide Flange-
(Inch Series)

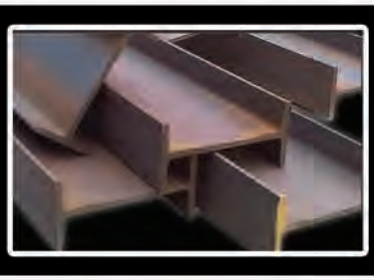
Size	Weight		Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
				Width, b	Thickness, t_f		20ft	40ft
in	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
W14 14 x 16	287	427.1	426.97	409.70	53.16	33.27	2603.65	5207.29
	311	462.8	434.80	412.20	57.40	35.81	2821.37	5642.75
	314	467.3	436.63	412.37	57.99	35.94	2848.59	5697.18
	320	476.2	426.97	424.43	53.16	48.01	2903.02	5806.04
	342	509.0	446.02	415.67	62.69	39.24	3102.60	6205.21
	370	550.6	455.68	418.46	67.51	42.04	3356.62	6713.24
	398	592.3	465.07	421.39	72.21	44.96	3610.63	7221.26
	426	634.0	474.73	424.05	77.04	47.62	3864.65	7729.29
	455	677.1	483.87	427.43	81.61	51.00	4127.73	8255.47
	500	744.1	498.60	432.00	88.93	55.58	4535.97	9071.94
	550	818.5	514.60	437.03	96.98	60.60	4989.57	9979.13
	605	900.3	531.88	442.42	105.50	65.99	5488.52	10977.05
	665	989.6	550.42	448.21	114.80	71.78	6032.84	12065.68
W16 16 x 5 1/2	26	38.7	397.51	139.70	8.76	6.35	235.87	471.74
	31	46.1	402.34	140.33	11.20	6.98	281.23	562.46
W16 16 x 7	36	53.6	402.59	177.60	10.80	7.59	326.59	653.18
	40	59.5	406.40	177.80	12.70	7.80	362.88	725.76
	45	67.0	409.45	178.79	14.30	8.79	408.24	816.47
	50	74.4	412.75	179.65	15.90	9.65	453.60	907.19
	57	84.8	417.30	180.80	18.16	10.92	517.10	1034.20
W16 16 x 8 1/2	58	86.3	402.84	214.99	16.38	10.34	526.17	1052.35
	64	95.2	406.40	215.90	18.16	11.25	580.60	1161.21
	71	105.7	410.46	216.99	20.19	12.34	644.11	1288.22
	78	116.1	414.53	218.08	22.22	13.44	707.61	1415.22
W16 16 x 10 1/4	67	99.7	414.80	260.00	16.89	10.03	607.82	1215.64
	77	114.6	419.60	261.50	19.30	11.56	698.54	1397.08
	89	132.4	425.40	263.30	22.22	13.33	807.40	1614.81
	100	148.8	431.00	264.80	25.02	14.86	907.19	1814.39
W16 16 x 11 1/2	88	131.0	410.46	292.15	20.19	12.80	798.33	1596.66
	96	142.9	414.53	292.94	22.22	13.59	870.91	1741.81
W18 18 x 6	35	52.1	449.83	152.40	10.90	7.57	317.52	635.04
	40	59.5	454.66	152.86	13.30	8.03	362.88	725.76
	46	68.5	458.70	153.90	15.37	9.14	417.31	834.62
W18 18 x 7 1/2	45	67.0	453.64	189.92	12.60	8.51	408.24	816.47
	50	74.4	457.20	190.50	14.40	9.09	453.60	907.19
	55	81.8	460.25	191.31	16.00	9.91	498.96	997.91
	60	89.3	463.55	191.97	17.65	10.57	544.32	1088.63
	65	96.7	466.10	192.80	19.05	11.43	589.68	1179.35
	71	105.7	469.10	193.90	20.57	12.57	644.11	1288.22

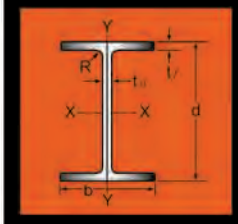
Wide Flange-
(Inch Series)





Size	Weight		Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
				Width, b	Thickness, t_f		20ft	40ft
in	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
W18 18 x 8 3/4	64	95.2	453.90	221.36	17.42	10.24	580.60	1161.21
	70	104.2	457.20	222.25	19.08	11.13	635.04	1270.07
	77	114.6	461.26	223.19	21.11	12.06	698.54	1397.08
	85	126.5	465.33	224.49	23.14	13.36	771.11	1542.23
W18 18 x 11	76	113.1	462.50	280.30	17.27	10.80	689.47	1378.93
	86	128.0	467.10	281.70	19.56	12.19	780.19	1560.37
	97	144.4	472.20	283.10	22.10	13.59	879.98	1759.96
	106	157.7	475.70	284.50	23.88	14.99	961.63	1923.25
	119	177.1	481.80	286.10	26.92	16.64	1079.56	2159.12
W18 18 x 11 3/4	96	142.9	461.26	298.45	21.11	13.00	870.91	1741.81
	105	156.3	465.33	299.52	23.14	14.07	952.55	1905.11
	114	169.7	469.39	300.56	25.17	15.11	1034.20	2068.40
W21 21 x 8 1/4	44	65.5	524.76	165.10	11.40	8.84	399.17	798.33
	49	72.9	528.83	165.61	13.50	9.35	444.53	889.05
	50	74.4	529.10	165.90	13.59	9.65	453.60	907.19
	55	81.8	528.32	208.66	13.20	9.52	498.96	997.91
	57	84.8	534.90	166.50	16.51	10.29	517.10	1034.20
	62	92.3	533.15	209.30	15.62	10.16	562.46	1124.92
	68	101.2	536.70	210.06	17.40	10.92	616.89	1233.78
	73	108.6	539.50	210.69	18.80	11.56	662.25	1324.50
	83	123.5	544.30	212.20	21.21	13.08	752.97	1505.94
	93	138.4	549.10	213.90	23.62	14.73	843.69	1687.38
W21 21 x 9	82	122.0	529.84	227.63	20.19	12.67	743.90	1487.80
	96	142.9	536.96	229.57	23.75	14.60	870.91	1741.81
W21 21 x 12 1/4	101	150.3	542.50	312.20	20.32	12.70	916.27	1832.53
	111	165.2	546.40	313.40	22.22	13.97	1006.99	2013.97
	122	181.6	550.70	314.70	24.38	15.24	1106.78	2213.55
	132	196.4	554.50	316.00	26.29	16.51	1197.50	2394.99
	147	218.8	560.30	317.80	29.21	18.29	1333.58	2667.15
W21 21 x 13	112	166.7	533.40	330.20	21.97	13.39	1016.06	2032.11
	127	189.0	539.50	331.75	25.02	14.94	1152.14	2304.27
	142	211.3	545.08	333.55	27.81	16.74	1288.22	2576.43
W24 24 x 7	55	81.8	598.17	177.80	12.78	10.06	498.96	997.91
	62	92.3	603.00	178.80	14.99	10.92	562.46	1124.92
W24 24 x 9	68	101.2	602.23	227.61	14.78	10.57	616.89	1233.78
	76	113.1	607.31	228.22	17.32	11.18	689.47	1378.93
	84	125.0	611.89	228.98	19.61	11.94	762.04	1524.09
	94	139.9	616.97	230.15	22.15	13.11	852.76	1705.52
	103	153.3	623.00	229.00	24.90	14.00	934.41	1868.82
W24 24 x 12	100	148.8	609.60	304.80	19.68	11.89	907.19	1814.39
	110	163.7	613.66	305.87	21.72	12.95	997.91	1995.83
	120	178.6	617.47	307.04	23.62	14.12	1088.63	2177.27

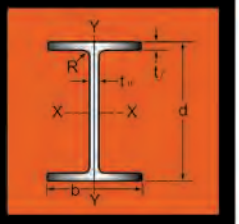


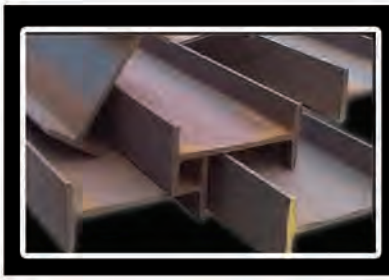


Wide Flange
(Inch Series)

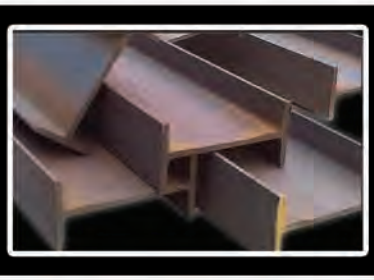
Size	Weight		Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
				Width, b	Thickness, t_f		20ft	40ft
in	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
W24 24 x 12 3/4	104	154.8	611.10	323.80	19.05	12.70	943.48	1886.96
	117	174.1	616.20	325.10	21.59	13.97	1061.42	2122.83
	131	194.9	621.80	326.50	24.38	15.37	1188.42	2376.85
	146	217.3	628.40	327.70	27.69	16.51	1324.50	2649.01
	162	241.1	635.00	329.10	30.99	17.91	1469.65	2939.31
W24 24 x 14	130	193.5	615.95	355.60	22.86	14.35	1179.35	2358.70
	145	215.8	622.05	356.69	25.91	15.44	1315.43	2630.86
	160	238.1	627.89	357.91	28.83	16.66	1451.51	2903.02
W27 27 x 10	94	139.9	683.51	253.75	18.97	12.45	852.76	1705.52
	102	151.8	687.58	254.46	21.01	13.16	925.34	1850.68
	114	169.7	692.91	255.78	23.67	14.48	1034.20	2068.40
	129	192.0	702.00	254.00	27.90	15.50	1170.28	2340.56
	84	125.0	677.93	253.06	16.15	11.76	762.04	1524.09
W27 27 x 14	145	215.8	682.75	354.71	24.76	15.24	1315.43	2630.86
	160	238.1	687.83	356.18	27.30	16.71	1451.51	2903.02
	177	263.4	693.67	357.89	30.23	18.41	1605.73	3211.47
W30 30 x 10 1/2	90	133.9	750.00	264.00	15.50	11.90	816.47	1632.95
	99	147.3	752.86	265.63	17.02	13.26	898.12	1796.24
	108	160.7	757.43	266.29	19.30	13.92	979.77	1959.54
	116	172.6	762.00	266.70	21.59	14.33	1052.35	2104.69
	124	184.5	766.06	267.23	23.62	14.86	1124.92	2249.84
	132	196.4	769.62	268.00	25.40	15.62	1197.50	2394.99
	148	220.2	779.00	266.00	30.00	16.50	1342.65	2685.29
W30 30 x 15	172	256.0	758.95	380.62	27.05	16.64	1560.37	3120.75
	190	282.8	765.05	382.02	30.10	18.03	1723.67	3447.34
	210	312.5	771.65	383.67	33.40	19.68	1905.11	3810.22
W33 33 x 11 1/2	118	175.6	834.64	291.69	18.75	14.07	1070.49	2140.98
	130	193.5	840.74	292.35	21.72	14.73	1179.35	2358.70
	141	209.8	846.07	292.99	24.38	15.37	1279.14	2558.29
	152	226.2	850.90	293.75	26.80	16.13	1378.93	2757.87
	169	251.5	859.00	292.00	31.00	17.00	1533.16	3066.32
W33 33 x 15 3/4	200	297.6	838.20	400.05	29.21	18.16	1814.39	3628.78
	220	327.4	844.55	401.57	32.38	19.68	1995.83	3991.65
	240	357.2	850.90	402.97	35.56	21.08	2177.27	4354.53

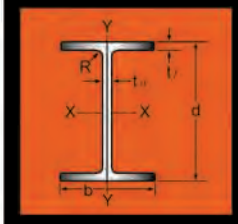
Wide Flange-
(Inch Series)





Size	Weight		Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
				Width, b	Thickness, t_f		20ft	40ft
in	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
W36 36 x 12	135	200.9	902.97	303.40	20.17	15.19	1224.71	2449.42
	150	223.2	910.34	304.09	23.88	15.87	1360.79	2721.58
	160	238.1	914.40	304.80	25.91	16.59	1451.51	2903.02
	170	253.0	918.46	305.49	27.94	17.27	1542.23	3084.46
	182	270.8	922.53	306.63	29.97	18.41	1651.09	3302.19
	194	288.7	926.59	307.77	32.00	19.56	1759.96	3519.91
	210	312.5	931.90	309.40	34.54	21.08	1905.11	3810.22
W36 36 x 16 $^1/_2$	230	342.3	911.35	418.36	32.00	19.33	2086.55	4173.09
	245	364.6	915.92	419.40	34.29	20.37	2222.63	4445.25
	260	386.9	920.50	420.40	36.58	21.36	2358.70	4717.41
	280	416.7	927.10	421.51	39.88	22.48	2540.14	5080.29
	300	446.4	932.69	423.04	42.67	24.00	2721.58	5443.16

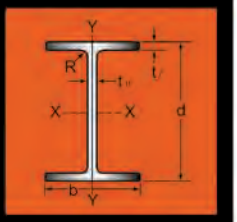


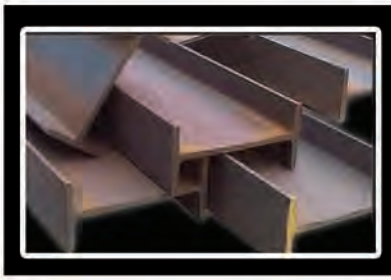


Wide Flange-
(Metric Series)

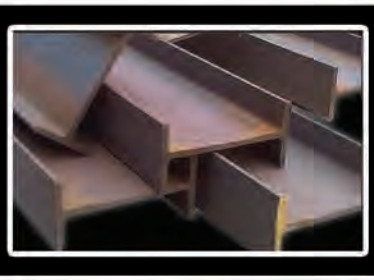
Size	Weight		Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
				Width, b	Thickness, t_f		6M	12M
mm	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
100 x 50	6.25	9.3	100	50	7	5.0	55.80	111.60
100 x 100	9.95	14.8	100	100	7	5.0	88.80	177.60
	11.56	17.2	100	100	8	6.0	103.20	206.40
125 x 60	8.87	13.2	125	60	8	6.0	79.20	158.40
125 x 125	12.43	18.5	125	125	7	5.0	111.00	222.00
	15.99	23.8	125	125	9	6.5	142.80	285.60
150 x 75	9.41	14.0	150	75	7	5.0	84.00	168.00
150 x 100	14.18	21.1	148	100	9	6.0	126.60	253.20
150 x 150	21.17	31.5	150	150	10	7.0	189.00	378.00
	25.13	37.4	154	151	12	8.0	224.40	448.80
175 x 90	12.16	18.1	175	90	8	5.0	108.60	217.20
	13.91	20.7	175	90	9	6.0	124.20	248.40
175 x 175	22.04	32.8	171	174	9	6.0	196.80	393.60
	27.15	40.4	175	175	11	7.5	242.40	484.80
200 x 100	12.23	18.2	198	99	7	4.5	109.20	218.40
	14.31	21.3	200	100	8	5.5	127.80	255.60
200 x 150	18.01	26.8	192	149	8	5.0	160.80	321.60
	20.56	30.6	194	150	9	6.0	183.60	367.20
	24.80	36.9	198	151	11	7.0	221.40	442.80
200 x 200	27.82	41.4	196	199	10	6.5	248.40	496.80
	33.53	49.9	200	200	12	8.0	299.40	598.80
	37.76	56.2	200	204	12	12.0	337.20	674.40
	38.84	57.8	204	201	14	9.0	346.80	693.60
	44.15	65.7	208	202	16	10.0	394.20	788.40
250 x 125	17.27	25.7	248	124	8	5.0	154.20	308.40
	19.89	29.6	250	125	9	6.0	177.60	355.20
	23.85	35.5	254	126	11	7.0	213.00	426.00
	25.20	37.5	256	126	12	7.0	225.00	450.00
250 x 175	29.63	44.1	244	175	11	7.0	264.60	529.20
	34.67	51.6	248	176	13	8.0	309.60	619.20
	39.71	59.1	252	177	15	9.0	354.60	709.20
250 x 250	43.27	64.4	244	252	11	11.0	386.40	772.80
	44.69	66.5	248	249	13	8.0	399.00	798.00
	48.65	72.4	250	250	14	9.0	434.40	868.80
	55.24	82.2	250	255	14	14.0	493.20	986.40
	55.24	82.2	254	251	16	10.0	493.20	986.40
	65.92	98.1	260	253	19	12.0	588.60	1177.20
300 x 150	16.80	25.0	294	148	6	4.5	150.00	300.00
	21.50	32.0	298	149	8	5.5	192.00	384.00
	24.66	36.7	300	150	9	6.5	220.00	440.00
	27.82	41.4	304	150	11	6.5	248.40	496.80
	31.05	46.2	306	151	12	7.5	277.20	554.40

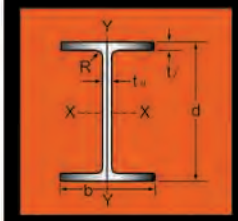
Wide Flange-
(Metric Series)





Size	Weight		Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
				Width, b	Thickness, t_f		6M	12M
mm	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
	46.37	69.0	318	154	18	11.0	414.00	828.00
300 x 158	21.50	32.0	298	149	8	5.5	192.00	384.00
	24.66	36.7	300	150	9	6.5	220.20	440.40
300 x 200	32.46	48.3	290	199	10	7.0	289.80	579.60
	38.17	56.8	294	200	12	8.0	340.80	681.60
	43.95	65.4	298	201	14	9.0	392.40	784.80
	51.94	77.3	304	202	17	10.0	463.80	927.60
300 x 300	55.44	82.5	300	300	12	11.0	495.00	990.00
	56.78	84.5	294	302	12	12.0	507.00	1014.00
	58.46	87.0	298	299	14	9.0	522.00	1044.00
	63.17	94.0	300	300	15	10.0	564.00	1128.00
	71.23	106.0	304	301	17	11.0	636.00	1272.00
	71.23	106.0	300	305	15	15.0	636.00	1272.00
	84.00	125.0	310	303	20	13.0	750.00	1500.00
	87.36	130.0	310	305	20	15.0	780.00	1560.00
	95.42	142.0	310	310	20	20.0	852.00	1704.00
	98.78	147.0	312	310	21	20.0	882.00	1764.00
350 x 175	27.82	41.4	346	174	9	6.0	248.40	496.80
	33.33	49.6	350	175	11	7.0	297.60	595.20
	38.84	57.8	354	176	13	8.0	346.80	693.60
	44.48	66.2	358	177	15	9.0	397.20	794.40
	48.25	71.8	360	178	16	10.0	430.80	861.60
	53.56	79.7	364	177	18	11.0	478.20	956.40
350 x 250	46.50	69.2	336	249	12	8.0	415.20	830.40
	53.56	79.7	340	250	14	9.0	478.20	956.40
	63.30	94.2	346	251	17	10.0	565.20	1130.40
	69.21	103.0	350	252	19	11.0	618.00	1236.00
	72.57	108.0	350	253	19	12.0	648.00	1296.00
	84.67	126.0	356	256	22	15.0	756.00	1512.00
	92.06	137.0	350	350	19	12.0	822.00	1644.00
	99.45	148.0	364	258	26	17.0	888.00	1776.00
	104.83	156.0	350	357	19	19.0	936.00	1872.00
350 x 350	71.23	106.0	338	351	13	13.0	636.00	1272.00
	77.28	115.0	344	348	16	10.0	690.00	1380.00
	88.03	131.0	344	354	16	16.0	786.00	1572.00
	91.39	136.0	350	350	19	12.0	816.00	1632.00
	103.48	154.0	350	357	19	19.0	924.00	1848.00
	104.83	156.0	350	357	19	19.0	936.00	1872.00
	106.84	159.0	356	352	22	14.0	954.00	1908.00
	116.92	174.0	360	354	24	16.0	1044.00	2088.00
	121.63	181.0	362	354	25	16.0	1086.00	2172.00
	135.74	202.0	368	356	28	18.0	1212.00	2424.00

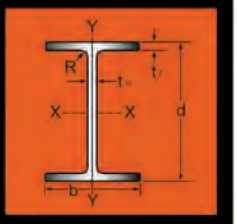


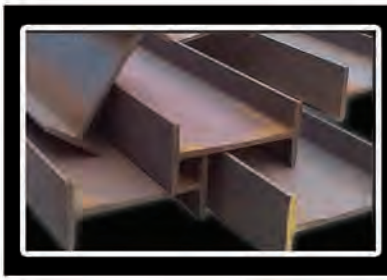


Wide Flange-
(Metric Series)

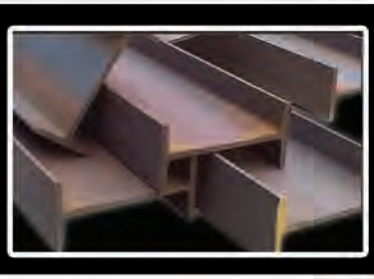
Size	Weight		Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
				Width, b	Thickness, t_f		6M	12M
mm	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
	158.58	236.0	378	358	33	20.0	1416.00	2832.00
	206.29	307.0	392	368	40	30.0	1842.00	3684.00
400 x 200	38.03	56.6	396	199	11	7.0	339.60	679.20
	44.35	66.0	400	200	13	8.0	396.00	792.00
	50.73	75.5	404	201	15	9.0	453.00	906.00
	59.27	88.2	410	202	18	10.0	529.20	1058.40
	94.08	140.0	430	208	28	16.0	840.00	1680.00
	125.66	187.0	446	214	36	22.0	1122.00	2244.00
400 x 300	63.37	94.3	386	299	14	9.0	565.80	1131.60
	71.90	107.0	390	300	16	10.0	642.00	1284.00
	85.34	127.0	396	302	19	12.0	762.00	1524.00
	94.75	141.0	400	304	21	14.0	846.00	1692.00
	96.76	144.0	402	303	22	13.0	864.00	1728.00
	118.94	177.0	410	308	26	18.0	1062.00	2124.00
	136.41	203.0	418	310	30	20.0	1218.00	2436.00
400 x 400	94.08	140.0	388	402	15	15.0	840.00	1680.00
	98.78	147.0	394	398	18	11.0	882.00	1764.00
	112.89	168.0	394	405	18	18.0	1008.00	2016.00
	115.58	172.0	400	400	21	13.0	1032.00	2064.00
	132.38	197.0	400	408	21	21.0	1182.00	2364.00
	134.39	200.0	405	403	24	16.0	1200.00	2400.00
	134.39	200.0	406	403	24	16.0	1200.00	2400.00
	155.90	232.0	414	405	28	18.0	1392.00	2784.00
	157.91	235.0	408	412	25	25.0	1410.00	2820.00
	190.17	283.0	428	407	35	20.0	1698.00	3396.00
	278.87	415.0	458	417	50	30.0	2490.00	4980.00
	406.54	605.0	498	432	70	45.0	3630.00	7260.00
	508.68	757.0	488	467	80	65.0	4542.00	9084.00
	610.82	909.0	568	447	105	60.0	5454.00	10908.00
	725.73	1080.0	598	462	120	75.0	6480.00	12960.00
	799.64	1190.0	608	477	125	90.0	7140.00	14280.00
450 x 200	44.48	66.2	446	199	12	8.0	397.20	794.40
	51.07	76.0	450	200	14	9.0	456.00	912.00
	59.81	89.0	456	201	17	10.0	534.00	1068.00
	66.46	98.9	460	202	19	11.0	593.40	1186.80
	73.92	110.0	460	205	19	14.0	660.00	1320.00
	79.29	118.0	466	205	22	14.0	708.00	1416.00
	117.59	175.0	482	213	30	22.0	1050.00	2100.00
	100.12	149.0	478	208	28	17.0	894.00	1788.00
	147.16	219.0	494	219	36	28.0	1314.00	2628.00
	177.40	264.0	502	227	40	36.0	1584.00	3168.00

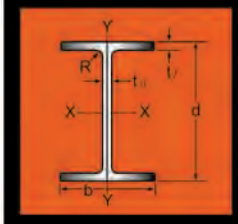
Wide Flange-
(Metric Series)





Size	Weight		Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
				Width, b	Thickness, t_f		6M	12M
mm	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
450 x 300	71.23	106.0	434	299	15	10.0	636.00	1272.00
	83.32	124.0	440	300	18	11.0	744.00	1488.00
	93.40	139.0	460	298	19	14.0	834.00	1668.00
	96.76	144.0	446	302	21	13.0	864.00	1728.00
	95.42	142.0	460	298	19	15.0	852.00	1704.00
	106.17	158.0	450	304	23	15.0	948.00	1896.00
	114.23	170.0	454	304	25	15.0	1020.00	2040.00
	124.31	185.0	458	306	27	17.0	1110.00	2220.00
	145.15	216.0	468	308	32	19.0	1296.00	2592.00
500 x 200	53.42	79.5	496	199	14	9.0	477.00	954.00
	60.28	89.7	500	200	16	10.0	538.20	1076.40
	69.21	103.0	506	201	19	11.0	618.00	1236.00
	78.62	117.0	512	202	22	12.0	702.00	1404.00
	92.06	137.0	518	205	25	15.0	822.00	1644.00
	110.88	165.0	528	208	30	18.0	990.00	1980.00
	125.66	187.0	536	210	34	20.0	1122.00	2244.00
	153.21	228.0	548	215	40	25.0	1368.00	2736.00
500 x 300	76.60	114.0	482	300	15	11.0	684.00	1368.00
	86.01	128.0	488	300	18	11.0	768.00	1536.00
	98.78	147.0	494	302	21	13.0	882.00	1764.00
	113.56	169.0	500	304	24	15.0	1014.00	2028.00
	118.27	176.0	502	304	25	15.0	1056.00	2112.00
	135.07	201.0	510	306	29	17.0	1206.00	2412.00
	158.58	236.0	518	310	33	21.0	1416.00	2832.00
	192.86	287.0	532	314	40	25.0	1722.00	3444.00
500 x 500	161.27	240.0	502	465	25	15.0	1440.00	2880.00
	224.44	334.0	522	470	35	20.0	2004.00	4008.00
	263.41	392.0	532	475	40	25.0	1014.00	4704.00
	327.92	488.0	552	480	50	30.0	2352.00	5856.00
	342.03	509.0	552	485	50	35.0	2928.00	6108.00
	408.56	608.0	572	490	60	40.0	3648.00	7296.00
	424.01	631.0	572	495	60	45.0	3786.00	7572.00
	438.80	653.0	572	500	60	50.0	3918.00	7836.00
550 x 200	57.45	85.5	546	199	14	10.0	513.00	1026.00
	65.85	98.0	550	200	18	10.0	588.00	1176.00
	85.34	127.0	564	203	23	13.0	762.00	1524.00
600 x 200	53.09	79.0	592	197	13	8.0	474.00	948.00
	63.57	94.6	596	199	15	10.0	567.60	1135.20
	71.23	106.0	600	200	17	11.0	636.00	1272.00
	80.64	120.0	606	201	20	12.0	720.00	1440.00
	90.04	134.0	612	202	23	13.0	804.00	1608.00
	89.37	133.0	600	200	24	12.0	798.00	1596.00

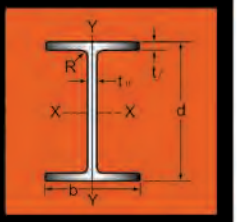


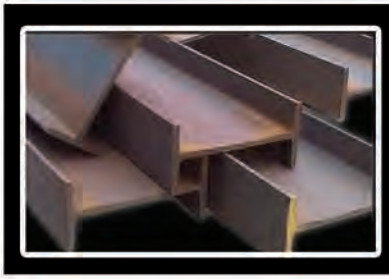


Wide Flange
(Metric Series)

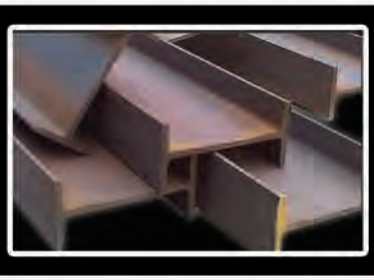
Size	Weight		Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
				Width, b	Thickness, t_f		6M	12M
mm	lbs/ ft	kg/ M	mm	mm	mm	mm	kg	kg
	104.83	156.0	618	205	26	16.0	936.00	1872.00
	116.25	173.0	600	200	34	15.0	1038.00	2076.00
	120.28	179.0	626	207	30	18.0	1074.00	2148.00
	135.74	202.0	634	209	34	20.0	1212.00	2424.00
	165.98	247.0	646	214	40	25.0	1482.00	2964.00
	86.01	128.0	582	298	17	10.0	768.00	1536.00
	92.06	137.0	582	300	17	12.0	822.00	1644.00
	101.47	151.0	588	300	20	12.0	906.00	1812.00
	117.59	175.0	594	302	23	14.0	1050.00	2100.00
600 x 300	130.36	194.0	600	304	26	16.0	1164.00	2328.00
	136.41	203.0	602	304	27	16.0	1218.00	2436.00
	145.82	217.0	608	304	30	16.0	1302.00	2604.00
	149.85	223.0	608	306	30	18.0	1338.00	2676.00
	169.34	252.0	616	308	34	20.0	1512.00	3024.00
	201.59	300.0	628	312	40	24.0	1800.00	3600.00
	111.55	166.0	692	300	20	13.0	996.00	1992.00
	116.92	174.0	700	298	24	11.0	1044.00	2088.00
	124.31	185.0	700	300	24	13.0	1110.00	2220.00
700 x 300	127.67	190.0	712	252	28	15.0	1140.00	2280.00
	144.47	215.0	708	302	28	15.0	1290.00	2580.00
	163.96	244.0	712	306	19	30.0	1464.00	2928.00
	180.76	269.0	718	308	21	33.0	1614.00	3228.00
	215.03	320.0	732	311	24	40.0	1920.00	3840.00
	128.35	191.0	792	300	22	14.0	1146.00	2292.00
	141.11	210.0	800	300	26	14.0	1260.00	2520.00
	161.94	241.0	808	302	30	16.0	1446.00	2892.00
800 x 300	177.40	264.0	816	303	34	17.0	1584.00	3168.00
	185.46	276.0	828	300	40	14.0	1656.00	3312.00
	190.17	283.0	816	306	34	20.0	1698.00	3396.00
	202.94	302.0	828	304	40	18.0	1812.00	3624.00
	218.39	325.0	828	308	40	22.0	1950.00	3900.00
	133.72	199.0	890	297	23	13.0	1194.00	2388.00
	143.13	213.0	890	299	23	15.0	1278.00	2556.00
900 x 300	163.29	243.0	900	300	28	16.0	1458.00	2916.00
	192.18	286.0	912	302	34	18.0	1716.00	3432.00
	204.28	304.0	918	303	37	19.0	1824.00	3648.00

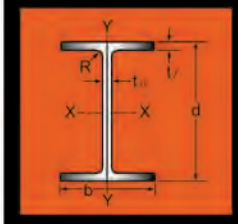
Wide Flange-
BS(Universal Beams and Universal Columns)





Size	Weight	Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
			Width, b	Thickness, t_f		6M	12M
mm	kg/ M	mm	mm	mm	mm	kg	kg
152 x 152 x 23	23.00	152.4	152.2	6.8	5.8	138.00	276.00
152 x 152 x 30	30.00	157.6	152.9	9.4	6.5	180.00	360.00
152 x 152 x 37	37.00	161.8	154.4	11.5	8.0	222.00	444.00
178 x 102 x 19	19.00	177.8	101.6	7.9	4.7	114.00	228.00
203 x 102 x 23	23.10	203.2	101.8	9.3	5.4	138.60	277.20
203 x 133 x 25	25.10	203.2	133.2	7.8	5.7	150.60	301.20
203 x 133 x 30	30.00	206.8	133.9	9.6	6.4	180.00	360.00
203 x 203 x 46	46.10	203.2	203.6	11.0	7.2	276.60	553.20
203 x 203 x 52	52.00	206.2	204.3	12.5	7.9	312.00	624.00
203 x 203 x 60	60.00	209.6	205.8	14.2	9.4	360.00	720.00
203 x 203 x 71	71.00	215.8	206.4	17.3	10.0	426.00	852.00
203 x 203 x 86	86.10	222.2	209.1	20.5	12.7	516.60	1033.20
254 x 102 x 22	22.00	254.0	101.6	6.8	5.7	132.00	264.00
254 x 102 x 25	25.20	257.2	101.9	8.4	6.0	151.20	302.40
254 x 102 x 28	28.30	260.4	102.2	10.0	6.3	169.80	339.60
254 x 146 x 31	31.10	251.4	146.1	8.6	6.0	186.60	373.20
254 x 146 x 37	37.00	256.0	146.4	10.9	6.3	222.00	444.00
254 x 146 x 43	43.00	259.6	147.3	12.7	7.2	258.00	516.00
254 x 254 x 73	73.10	254.1	254.6	14.2	8.6	438.60	877.20
254 x 254 x 89	88.90	260.3	256.3	17.3	10.3	533.40	1066.80
254 x 254 x 107	107.10	266.7	258.8	20.5	12.8	642.60	1285.20
254 x 254 x 132	132.00	276.3	261.3	25.3	15.3	792.00	1584.00
254 x 254 x 167	167.10	289.1	265.2	31.7	19.2	1002.60	2005.20
305 x 102 x 25	24.80	305.1	101.6	7.0	5.8	148.80	297.60
305 x 102 x 28	28.20	308.7	101.8	8.8	6.0	169.20	338.40
305 x 102 x 33	32.80	312.7	102.4	10.8	6.6	196.80	393.60
305 x 127 x 37	37.00	304.4	123.3	10.7	7.1	222.00	444.00
305 x 127 x 42	41.90	307.2	124.3	12.1	8.0	251.40	502.80
305 x 127 x 48	48.10	311.0	125.3	14.0	9.0	288.60	577.20
305 x 165 x 40	40.30	303.4	165.0	10.2	6.0	241.80	483.60
305 x 165 x 46	46.10	306.6	165.7	11.8	6.7	276.60	553.20
305 x 165 x 54	54.00	310.4	166.9	13.7	7.9	324.00	648.00
305 x 305 x 97	96.90	307.9	305.3	15.4	9.9	581.40	1162.80
305 x 305 x 118	117.90	314.5	307.4	18.7	12.0	707.40	1414.80
305 x 305 x 137	136.90	320.5	309.2	21.7	13.8	821.40	1642.80
305 x 305 x 158	158.10	327.1	311.2	25.0	15.8	948.60	1897.20
305 x 305 x 198	198.10	339.9	314.5	31.4	19.1	1188.60	2377.20
305 x 305 x 240	240.00	352.5	318.4	37.7	23.0	1440.00	2880.00
305 x 305 x 283	282.90	365.3	322.2	44.1	26.8	1697.40	3394.80

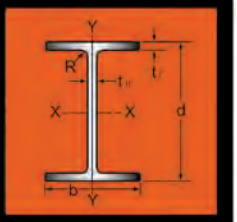


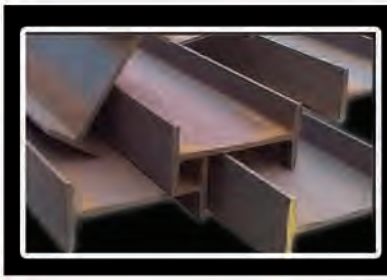


Wide Flange-
BS(Universal Beams and Universal Columns)

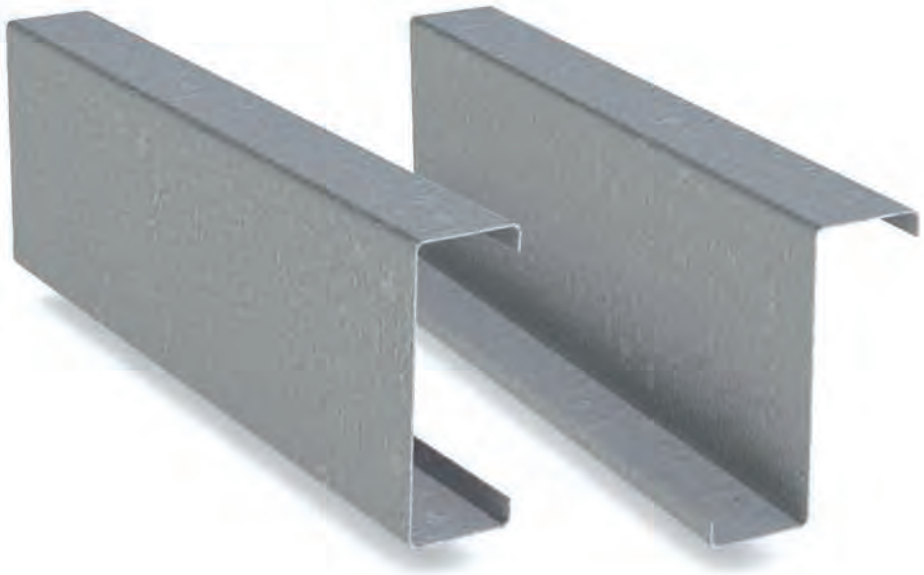
Size	Weight	Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
			Width, b	Thickness, t_f		6M	12M
mm	kg/ M	mm	mm	mm	mm	kg	kg
356 x 127 x 33	33.10	349.0	125.4	8.5	6.0	198.60	397.20
356 x 127 x 39	39.10	353.4	126.0	10.7	6.6	234.60	469.20
356 x 171 x 45	45.00	351.4	171.1	9.7	7.0	270.00	540.00
356 x 171 x 51	51.00	355.0	171.5	11.5	7.4	306.00	612.00
356 x 171 x 57	57.00	358.0	172.2	13.0	8.1	342.00	684.00
356 x 171 x 67	67.10	363.4	173.2	15.7	9.1	402.60	805.20
356 x 368 x 129	129.00	355.6	368.6	17.5	10.4	774.00	1548.00
356 x 368 x 153	152.90	362.0	370.5	20.7	12.3	917.40	1834.80
356 x 368 x 177	177.00	368.2	372.6	23.8	14.4	1062.00	2124.00
356 x 368 x 202	201.90	374.6	374.7	27.0	16.5	1211.40	2422.80
356 x 406 x 235	235.10	381.0	394.8	30.2	18.4	1410.60	2821.20
356 x 406 x 287	287.00	393.7	399.0	36.5	22.6	1722.00	3444.00
356 x 406 x 340	340.00	406.4	403.0	42.9	26.5	2040.00	4080.00
356 x 406 x 393	393.00	419.1	407.0	49.2	30.6	2358.00	4716.00
356 x 406 x 467	467.00	436.6	412.4	58.0	35.9	2802.00	5604.00
356 x 406 x 477	477.00	427.0	424.4	53.2	48.0	2862.00	5724.00
356 x 406 x 551	551.00	455.7	418.5	67.5	42.0	3306.00	6612.00
356 x 406 x 634	634.00	474.7	424.1	77.0	47.6	3804.00	7608.00
406 x 140 x 39	39.00	398.0	141.8	8.6	6.4	234.00	468.00
406 x 140 x 46	46.00	403.2	142.2	11.2	6.8	276.00	552.00
406 x 178 x 54	54.10	402.6	177.7	10.9	7.7	324.60	649.20
406 x 178 x 60	60.10	406.4	177.9	12.8	7.9	360.60	721.20
406 x 178 x 67	67.10	409.4	178.8	14.3	8.8	402.60	805.20
406 x 178 x 74	74.20	412.8	179.5	16.0	9.5	445.20	890.40
457 x 152 x 52	52.30	449.8	152.4	10.9	7.6	313.80	627.60
457 x 152 x 60	59.80	454.6	152.9	13.3	8.1	358.80	717.60
457 x 152 x 67	67.20	458.0	153.8	15.0	9.0	403.20	806.40
457 x 152 x 74	74.20	462.0	154.4	17.0	9.6	445.20	890.40
457 x 152 x 82	82.10	465.8	155.3	18.9	10.5	492.60	985.20
457 x 191 x 67	67.10	453.4	189.9	12.7	8.5	402.60	805.20
457 x 191 x 74	74.30	457.0	190.4	14.5	9.0	445.80	891.60
457 x 191 x 82	82.00	460.0	191.3	16.0	9.9	492.00	984.00
457 x 191 x 89	89.30	463.4	191.9	17.7	10.5	535.80	1071.60
457 x 191 x 98	98.30	467.2	192.8	19.6	11.4	589.80	1179.60
533 x 210 x 82	82.20	528.3	208.8	13.2	9.6	493.20	986.40
533 x 210 x 92	92.10	533.1	209.3	15.6	10.1	552.60	1105.20
533 x 210 x 101	101.00	536.7	210.0	17.4	10.8	606.00	1212.00
533 x 210 x 109	109.00	539.5	210.8	18.8	11.6	654.00	1308.00
533 x 210 x 122	122.00	544.5	211.9	21.3	12.7	732.00	1464.00

Wide Flange-
BS(Universal Beams and Universal Columns)



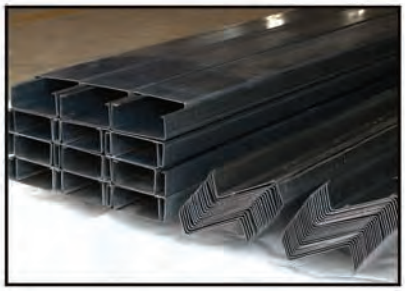


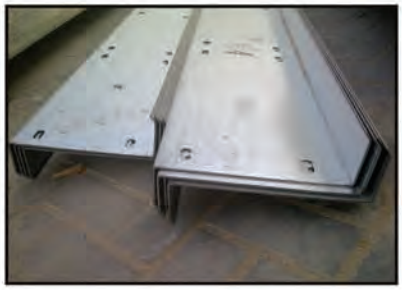
Size	Weight	Depth of Section, d	Flange		Web Thickness, t_w	Weight per	
			Width, b	Thickness, t_f		6M	12M
mm	kg/ M	mm	mm	mm	mm	kg	kg
610 x 229 x 101	101.20	602.6	227.6	14.8	10.5	607.20	1214.40
610 x 229 x 113	113.00	607.6	228.2	17.3	11.1	678.00	1356.00
610 x 229 x 125	125.10	612.2	229.0	19.6	11.9	750.60	1501.20
610 x 229 x 140	139.90	617.2	230.2	22.1	13.1	839.40	1678.80
610 x 305 x 149	149.10	612.4	304.8	19.7	11.8	894.60	1789.20
610 x 305 x 179	179.00	620.2	307.1	23.6	14.1	1074.00	2148.00
610 x 305 x 238	238.10	635.8	311.4	31.4	18.4	1428.60	2857.20
686 x 254 x 125	125.20	677.9	253.0	16.2	11.7	751.20	1502.40
686 x 254 x 140	140.10	683.5	253.7	19.0	12.4	840.60	1681.20
686 x 254 x 152	152.40	687.5	254.5	21.0	13.2	914.40	1828.80
686 x 254 x 170	170.20	692.9	255.8	23.7	14.5	1021.20	2042.40
762 x 267 x 134	133.90	750.0	264.4	15.5	12.0	803.40	1606.80
762 x 267 x 147	146.90	754.0	265.2	17.5	12.8	881.40	1762.80
762 x 267 x 173	173.00	762.2	266.7	21.6	14.3	1038.00	2076.00
762 x 267 x 197	196.80	769.8	268.0	25.4	15.6	1180.80	2361.60
838 x 292 x 176	175.90	834.9	291.7	18.8	14.0	1055.40	2110.80
838 x 292 x 194	193.80	840.7	292.4	21.7	14.7	1162.80	2325.60
838 x 292 x 226	226.50	850.9	293.8	26.8	16.1	1359.00	2718.00
914 x 305 x 201	200.90	903.0	303.3	20.2	15.1	1205.40	2410.80
914 x 305 x 201	201.00	903.0	303.4	20.2	15.2	1206.00	2412.00
914 x 305 x 224	224.00	910.3	304.1	23.9	15.9	1344.00	2688.00
914 x 305 x 224	224.20	910.4	304.1	23.9	15.9	1345.20	2690.40
914 x 305 x 253	253.00	918.5	305.5	27.9	17.3	1518.00	3036.00
914 x 305 x 253	253.40	917.4	305.5	27.9	17.3	1520.40	3040.80
914 x 305 x 289	289.00	926.6	307.8	32.0	19.6	1734.00	3468.00
914 x 419 x 343	343.00	911.4	418.5	32.0	19.4	2058.00	4116.00
914 x 419 x 388	388.00	920.5	420.5	36.6	21.5	2328.00	4656.00

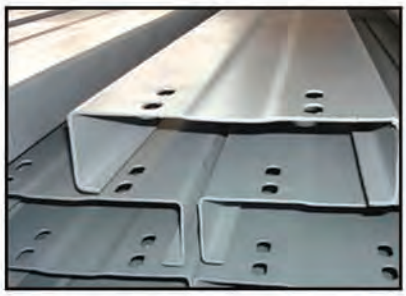


C / Z Purlins

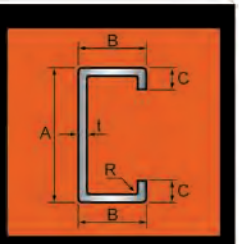
A traditional purlin strictly by definition is a horizontal structural member in a roof. Purlins traditionally support the roof deck / cladding / sheeting and are in turn supported by the principal rafters / steel beams etc.

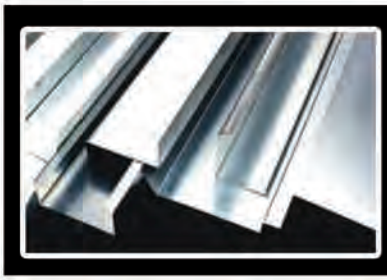




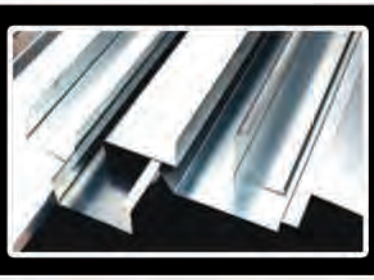


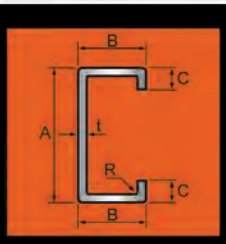
C-Purlins





Designation				Weight	
A	B	C	thk		
mm	mm	mm	mm	kg/ M	kg/ 6M
75	40	10	1.20	1.60	9.60
75	40	12	1.50	2.04	12.24
75	40	14	2.00	2.75	16.50
75	50	14	2.00	3.06	18.36
75	50	10	1.20	1.79	10.74
75	50	12	1.50	2.27	13.62
100	40	18	2.00	3.27	19.62
100	40	16	1.50	2.43	14.58
100	40	10	1.20	1.84	11.04
100	50	18	3.00	5.28	31.68
100	50	16	2.50	4.36	26.16
100	50	14	2.00	3.45	20.70
100	50	12	1.50	2.57	15.42
100	50	10	1.20	2.03	12.18
125	40	14	2.00	3.53	21.18
125	40	12	1.50	2.63	15.78
125	50	18	3.00	5.86	35.16
125	50	16	2.50	4.85	29.10
125	50	14	2.00	3.85	23.10
125	50	12	1.50	2.86	17.16
150	50	18	3.00	6.45	38.70
150	50	16	2.50	5.34	32.04
150	50	14	2.00	4.24	25.44
150	50	12	1.50	3.16	18.96
150	65	18	3.00	7.16	42.96
150	65	16	2.50	5.93	35.58
150	65	14	2.00	4.71	28.26
150	65	12	1.50	3.51	21.06
150	75	18	3.00	7.63	45.78
150	75	16	2.50	6.32	37.92
150	75	14	2.00	5.02	30.12
150	75	12	1.50	3.74	22.44
175	50	18	3.00	7.04	42.24
175	50	16	2.50	5.83	34.98
175	50	14	2.00	4.63	27.78
175	50	12	1.50	3.45	20.70
175	65	18	3.00	7.75	46.50
175	65	16	2.50	6.42	38.52
175	65	14	2.00	5.10	30.60
175	65	12	1.50	3.80	22.80
175	75	18	3.00	8.22	49.32
175	75	16	2.50	6.81	40.86
175	75	14	2.00	5.42	32.52

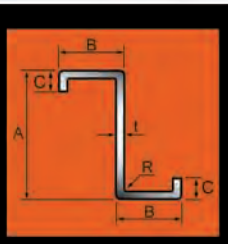


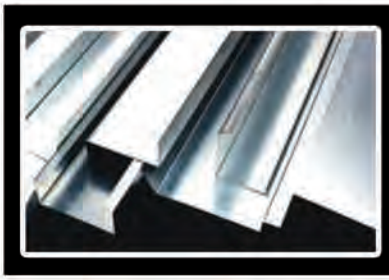


C-Purlins

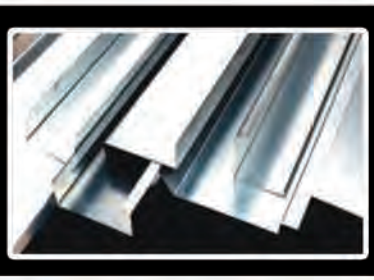
Designation				Weight	
A	B	C	thk		
mm	mm	mm	mm	kg/ M	kg/ 6M
175	75	12	1.50	4.04	24.24
200	50	18	3.00	7.63	45.78
200	50	16	2.50	6.32	37.92
200	50	14	2.00	5.02	30.12
200	50	12	1.50	3.74	22.44
200	65	18	3.00	8.34	50.04
200	65	16	2.50	6.91	41.46
200	65	14	2.00	5.50	33.00
200	65	12	1.50	4.10	24.60
200	75	18	3.00	8.81	52.86
200	75	16	2.50	7.30	43.80
200	75	14	2.00	5.81	34.86
200	75	12	1.50	4.33	25.98

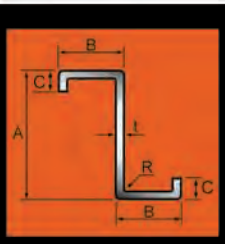
Z-Purlins





Designation				Weight	
A	B	C	thk		
mm	mm	mm	mm	kg/ M	kg/ 6M
75	40	10	1.20	1.60	9.60
75	40	12	1.50	2.04	12.24
75	40	14	2.00	2.75	16.50
75	50	14	2.00	3.06	18.36
75	50	10	1.20	1.79	10.74
75	50	12	1.50	2.27	13.62
100	40	18	2.00	3.27	19.62
100	40	16	1.50	2.43	14.58
100	40	10	1.20	1.84	11.04
100	50	18	3.00	5.28	31.68
100	50	16	2.50	4.36	26.16
100	50	14	2.00	3.45	20.70
100	50	12	1.50	2.57	15.42
100	50	10	1.20	2.03	12.18
125	40	14	2.00	3.53	21.18
125	40	12	1.50	2.63	15.78
125	50	18	3.00	5.86	35.16
125	50	16	2.50	4.85	29.10
125	50	14	2.00	3.85	23.10
125	50	12	1.50	2.86	17.16
150	50	18	3.00	6.45	38.70
150	50	16	2.50	5.34	32.04
150	50	14	2.00	4.24	25.44
150	50	12	1.50	3.16	18.96
150	65	18	3.00	7.16	42.96
150	65	16	2.50	5.93	35.58
150	65	14	2.00	4.71	28.26
150	65	12	1.50	3.51	21.06
150	75	18	3.00	7.63	45.78
150	75	16	2.50	6.32	37.92
150	75	14	2.00	5.02	30.12
150	75	12	1.50	3.74	22.44
175	50	18	3.00	7.04	42.24
175	50	16	2.50	5.83	34.98
175	50	14	2.00	4.63	27.78
175	50	12	1.50	3.45	20.70
175	65	18	3.00	7.75	46.50
175	65	16	2.50	6.42	38.52
175	65	14	2.00	5.10	30.60
175	65	12	1.50	3.80	22.80
175	75	18	3.00	8.22	49.32
175	75	16	2.50	6.81	40.86
175	75	14	2.00	5.42	32.52





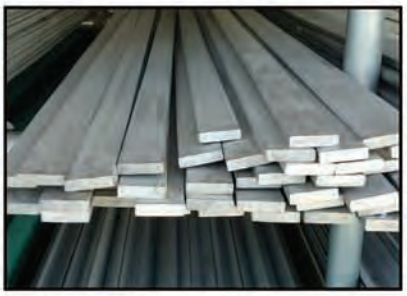
Z-Purlins

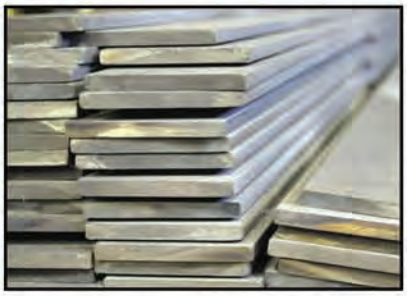
Designation				Weight	
A	B	C	thk		
mm	mm	mm	mm	kg/ M	kg/ 6M
175	75	12	1.50	4.04	24.24
200	50	18	3.00	7.63	45.78
200	50	16	2.50	6.32	37.92
200	50	14	2.00	5.02	30.12
200	50	12	1.50	3.74	22.44
200	65	18	3.00	8.34	50.04
200	65	16	2.50	6.91	41.46
200	65	14	2.00	5.50	33.00
200	65	12	1.50	4.10	24.60
200	75	18	3.00	8.81	52.86
200	75	16	2.50	7.30	43.80
200	75	14	2.00	5.81	34.86
200	75	12	1.50	4.33	25.98

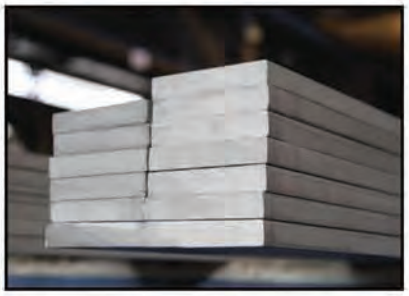


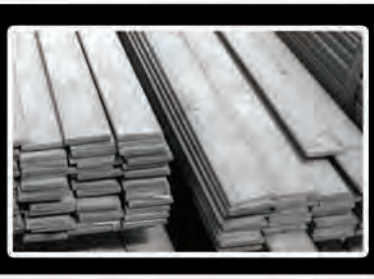
Flat Bars

Flat bar is a kind of steel product bearing rectangle section, with the range of width from 12 to 300 mm and that of thickness from 4 to 60mm. The specification can be described by the unit of thickness*width. Flat bar can be either used as hot-rolled finished product or billet cut from plate.











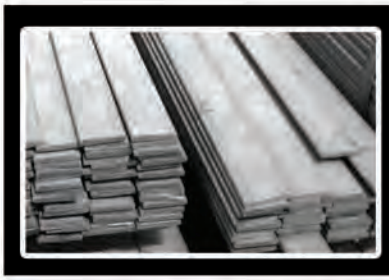
Flat Bars

American Standards

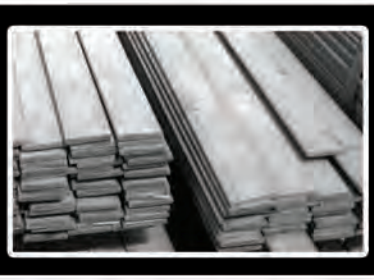
Dimensions		Weight		Thickness, t	Width, B	Weight per	
Thickness	Width	kg/ ft^2	kg/ M^2	mm	mm	20ft	40ft
in	in					kg	kg
3/16	1 1/4	3.47	37.38	4.76	31.75	7.24	14.47
	1 1/2	3.47	37.38	4.76	38.10	8.68	17.37
	2	3.47	37.38	4.76	50.80	11.58	23.15
	2 1/2	3.47	37.38	4.76	63.50	14.47	28.94
	3	3.47	37.38	4.76	76.20	17.37	34.73
	4 1/4	3.47	37.38	4.76	101.60	23.15	46.31
	5	3.47	37.38	4.76	127.00	28.94	57.89
	6	3.47	37.38	4.76	152.40	34.73	69.46
	8	3.47	37.38	4.76	203.20	46.31	92.62
	10	3.47	37.38	4.76	254.00	57.89	115.77
	12	3.47	37.38	4.76	304.80	69.46	138.93
1/4	1 1/4	4.63	49.84	6.35	31.75	9.65	19.30
	1 1/2	4.63	49.84	6.35	38.10	11.58	23.15
	2	4.63	49.84	6.35	50.80	15.44	30.87
	2 1/2	4.63	49.84	6.35	63.50	19.30	38.59
	3	4.63	49.84	6.35	76.20	23.15	46.31
	4	4.63	49.84	6.35	101.60	30.87	61.75
	5	4.63	49.84	6.35	127.00	38.59	77.18
	6	4.63	49.84	6.35	152.40	46.31	92.62
	8	4.63	49.84	6.35	203.20	61.75	123.49
	10	4.63	49.84	6.35	254.00	77.18	154.37
	12	4.63	49.84	6.35	304.80	92.62	185.24
5/16	1 1/4	5.79	62.30	7.94	31.75	12.06	24.12
	1 1/2	5.79	62.30	7.94	38.10	14.47	28.94
	2	5.79	62.30	7.94	50.80	19.30	38.59
	2 1/2	5.79	62.30	7.94	63.50	24.12	48.24
	3	5.79	62.30	7.94	76.20	28.94	57.89
	4	5.79	62.30	7.94	101.60	38.59	77.18
	5	5.79	62.30	7.94	127.00	48.24	96.48
	6	5.79	62.30	7.94	152.40	57.89	115.77
	8	5.79	62.30	7.94	203.20	77.18	154.37
	10	5.79	62.30	7.94	254.00	96.48	192.96
	12	5.79	62.30	7.94	304.80	115.77	231.55
3/8	1 1/2	6.95	74.76	9.53	38.10	17.37	34.73
	2	6.95	74.76	9.53	50.80	23.15	46.31
	2 1/2	6.95	74.76	9.53	63.50	28.94	57.89
	3	6.95	74.76	9.53	76.20	34.73	69.46
	4	6.95	74.76	9.53	101.60	46.31	92.62
	5	6.95	74.76	9.53	127.00	57.89	115.77
	6	6.95	74.76	9.53	152.40	69.46	138.93
	8	6.95	74.76	9.53	203.20	92.62	185.24
	10	6.95	74.76	9.53	254.00	115.77	231.55

Flat Bars
American Standards





Dimensions		Weight		Thickness, t	Width, B	Weight per	
Thickness	Width	kg/ ft^2	kg/ M^2	mm	mm	20ft	40ft
in	in					kg	kg
3/8	12	6.95	74.76	9.53	304.80	138.93	277.86
7/16	1 1/2	8.10	87.22	11.11	38.10	20.26	40.52
	2	8.10	87.22	11.11	50.80	27.01	54.03
	2 1/2	8.10	87.22	11.11	63.50	33.77	67.54
	3	8.10	87.22	11.11	76.20	40.52	81.04
	4	8.10	87.22	11.11	101.60	54.03	108.06
	5	8.10	87.22	11.11	127.00	67.54	135.07
	6	8.10	87.22	11.11	152.40	81.04	162.08
	8	8.10	87.22	11.11	203.20	108.06	216.11
	10	8.10	87.22	11.11	254.00	135.07	270.14
	12	8.10	87.22	11.11	304.80	162.08	324.17
	14	8.10	87.22	11.11	355.60	189.10	378.20
1/2	1 1/2	9.26	99.68	12.70	38.10	23.15	46.31
	2	9.26	99.68	12.70	50.80	30.87	61.75
	2 1/2	9.26	99.68	12.70	63.50	38.59	77.18
	3	9.26	99.68	12.70	76.20	46.31	92.62
	4	9.26	99.68	12.70	101.60	61.75	123.49
	5	9.26	99.68	12.70	127.00	77.18	154.37
	6	9.26	99.68	12.70	152.40	92.62	185.24
	8	9.26	99.68	12.70	203.20	123.49	246.99
	10	9.26	99.68	12.70	254.00	154.37	308.73
	12	9.26	99.68	12.70	304.80	185.24	370.48
	14	9.26	99.68	12.70	355.60	216.11	432.23
5/8	4	11.58	124.61	15.88	101.60	77.18	154.37
	5	11.58	124.61	15.88	127.00	96.48	192.96
	6	11.58	124.61	15.88	152.40	115.77	231.55
	8	11.58	124.61	15.88	203.20	154.37	308.73
	10	11.58	124.61	15.88	254.00	192.96	385.92
	12	11.58	124.61	15.88	304.80	231.55	463.10
	14	11.58	124.61	15.88	355.60	270.14	540.28
	16	11.58	124.61	15.88	406.40	308.73	617.47
3/4	4	13.89	149.53	19.05	101.60	92.62	185.24
	5	13.89	149.53	19.05	127.00	115.77	231.55
	6	13.89	149.53	19.05	152.40	138.93	277.86
	8	13.89	149.53	19.05	203.20	185.24	370.48
	10	13.89	149.53	19.05	254.00	231.55	463.10
	12	13.89	149.53	19.05	304.80	277.86	555.72
	14	13.89	149.53	19.05	355.60	324.17	648.34
	16	13.89	149.53	19.05	406.40	370.48	740.96
7/8	4	16.21	174.45	22.23	101.60	108.06	216.11
	5	16.21	174.45	22.23	127.00	135.07	270.14
	6	16.21	174.45	22.23	152.40	162.08	324.17





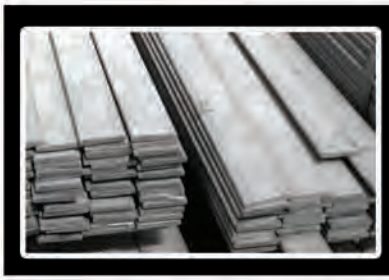
Flat Bars

American Standards

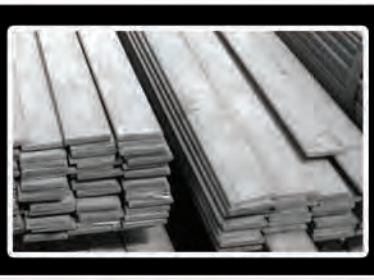
Dimensions		Weight		Thickness, t	Width, B	Weight per	
Thickness	Width	kg/ ft^2	kg/ M^2	mm	mm	20ft	40ft
in	in					kg	kg
7/8	8	16.21	174.45	22.23	203.20	216.11	432.23
	10	16.21	174.45	22.23	254.00	270.14	540.28
	12	16.21	174.45	22.23	304.80	324.17	648.34
	14	16.21	174.45	22.23	355.60	378.20	756.40
	16	16.21	174.45	22.23	406.40	432.23	864.45
1	4	18.52	199.37	25.40	101.60	123.49	246.99
	5	18.52	199.37	25.40	127.00	154.37	308.73
	6	18.52	199.37	25.40	152.40	185.24	370.48
	8	18.52	199.37	25.40	203.20	246.99	493.97
	10	18.52	199.37	25.40	254.00	308.73	617.47
	12	18.52	199.37	25.40	304.80	370.48	740.96
	14	18.52	199.37	25.40	355.60	432.23	864.45
	16	18.52	199.37	25.40	406.40	493.97	987.94

Flat Bars
Metric Series





Dimensions		Weight		Thickness, t	Width, b	Weight Per	
Thickness	Width					6M	12M
mm	mm	kg/ ft ^{2}	kg/ M ^{2}	mm	mm	kg	kg
3	25	2.19	23.55	3	25	3.53	7.07
	32	2.19	23.55	3	32	4.52	9.04
	38	2.19	23.55	3	38	5.37	10.74
	40	2.19	23.55	3	40	5.65	11.30
	50	2.19	23.55	3	50	7.07	14.13
	60	2.19	23.55	3	60	8.48	16.96
	65	2.19	23.55	3	65	9.18	18.37
	70	2.19	23.55	3	70	9.89	19.78
	75	2.19	23.55	3	75	10.60	21.20
	80	2.19	23.55	3	80	11.30	22.61
	100	2.19	23.55	3	100	14.13	28.26
	125	2.19	23.55	3	125	17.66	35.33
	150	2.19	23.55	3	150	21.20	42.39
	175	2.19	23.55	3	175	24.73	49.46
	200	2.19	23.55	3	200	28.26	56.52
	250	2.19	23.55	3	250	35.33	70.65
	275	2.19	23.55	3	275	38.86	77.72
	300	2.19	23.55	3	300	42.39	84.78
4	25	2.92	31.40	4	25	4.71	9.42
	32	2.92	31.40	4	32	6.03	12.06
	38	2.92	31.40	4	38	7.16	14.32
	40	2.92	31.40	4	40	7.54	15.07
	50	2.92	31.40	4	50	9.42	18.84
	60	2.92	31.40	4	60	11.30	22.61
	65	2.92	31.40	4	65	12.25	24.49
	70	2.92	31.40	4	70	13.19	26.38
	75	2.92	31.40	4	75	14.13	28.26
	80	2.92	31.40	4	80	15.07	30.15
	100	2.92	31.40	4	100	18.84	37.68
	125	2.92	31.40	4	125	23.55	47.10
	150	2.92	31.40	4	150	28.26	56.52
	175	2.92	31.40	4	175	32.97	65.94
	200	2.92	31.40	4	200	37.68	75.36
	250	2.92	31.40	4	250	47.10	94.20





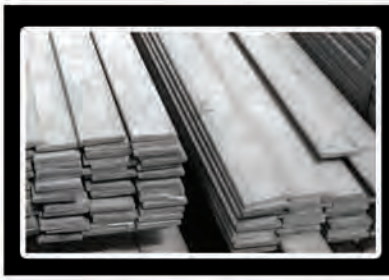
Flat Bars

Metric Series

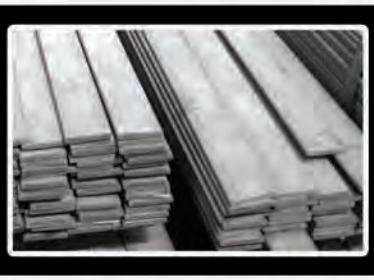
Dimensions		Weight		Thickness, t	Width, b	Weight Per	
Thickness	Width					6M	12M
mm	mm	kg/ ft ^{2}	kg/ M ^{2}	mm	mm	kg	kg
4	275	2.92	31.40	4	275	51.81	103.63
	300	2.92	31.40	4	300	56.52	113.05
4.5	25	3.28	35.32	4.5	25	5.30	10.60
	32	3.28	35.32	4.5	32	6.78	13.57
	38	3.28	35.32	4.5	38	8.05	16.11
	40	3.28	35.32	4.5	40	8.48	16.96
	50	3.28	35.32	4.5	50	10.60	21.20
	60	3.28	35.32	4.5	60	12.72	25.44
	65	3.28	35.32	4.5	65	13.78	27.55
	70	3.28	35.32	4.5	70	14.84	29.67
	75	3.28	35.32	4.5	75	15.90	31.79
	80	3.28	35.32	4.5	80	16.96	33.91
	100	3.28	35.32	4.5	100	21.20	42.39
	125	3.28	35.32	4.5	125	26.50	52.99
	150	3.28	35.32	4.5	150	31.79	63.59
	175	3.28	35.32	4.5	175	37.09	74.19
	200	3.28	35.32	4.5	200	42.39	84.78
	250	3.28	35.32	4.5	250	52.99	105.98
	275	3.28	35.32	4.5	275	58.29	116.58
	300	3.28	35.32	4.5	300	63.59	127.18
5	25	3.65	39.25	5	25	5.89	11.78
	32	3.65	39.25	5	32	7.54	15.07
	38	3.65	39.25	5	38	8.95	17.90
	40	3.65	39.25	5	40	9.42	18.84
	50	3.65	39.25	5	50	11.78	23.55
	60	3.65	39.25	5	60	14.13	28.26
	65	3.65	39.25	5	65	15.31	30.62
	70	3.65	39.25	5	70	16.49	32.97
	75	3.65	39.25	5	75	17.66	35.33
	80	3.65	39.25	5	80	18.84	37.68
	100	3.65	39.25	5	100	23.55	47.10
	125	3.65	39.25	5	125	29.44	58.88
	150	3.65	39.25	5	150	35.33	70.65
	175	3.65	39.25	5	175	41.21	82.43

Flat Bars
Metric Series





Dimensions		Weight		Thickness, t	Width, b	Weight Per	
Thickness	Width					6M	12M
mm	mm	kg/ ft ^{2}	kg/ M ^{2}	mm	mm	kg	kg
5	200	3.65	39.25	5	200	47.10	94.20
	250	3.65	39.25	5	250	58.88	117.76
	275	3.65	39.25	5	275	64.77	129.53
	300	3.65	39.25	5	300	70.65	141.31
6	25	4.38	47.09	6	25	7.07	14.13
	32	4.38	47.09	6	32	9.04	18.09
	38	4.38	47.09	6	38	10.74	21.48
	40	4.38	47.09	6	40	11.30	22.61
	50	4.38	47.09	6	50	14.13	28.26
	60	4.38	47.09	6	60	16.96	33.91
	65	4.38	47.09	6	65	18.37	36.74
	70	4.38	47.09	6	70	19.78	39.57
	75	4.38	47.09	6	75	21.20	42.39
	80	4.38	47.09	6	80	22.61	45.22
	100	4.38	47.09	6	100	28.26	56.52
	125	4.38	47.09	6	125	35.33	70.65
	150	4.38	47.09	6	150	42.39	84.78
	175	4.38	47.09	6	175	49.46	98.91
	200	4.38	47.09	6	200	56.52	113.05
	250	4.38	47.09	6	250	70.65	141.31
8	275	4.38	47.09	6	275	77.72	155.44
	300	4.38	47.09	6	300	84.78	169.57
	25	1.05	1.57	8	25	9.42	18.84
	32	1.35	2.01	8	32	12.06	24.12
	38	1.60	2.39	8	38	14.32	28.64
	40	1.68	2.51	8	40	15.07	30.15
	50	2.11	3.14	8	50	18.84	37.68
	60	2.53	3.77	8	60	22.61	45.22
	65	2.74	4.08	8	65	24.49	48.99
	70	2.95	4.40	8	70	26.38	52.75
	75	3.16	4.71	8	75	28.26	56.52
	80	3.37	5.02	8	80	30.15	60.29
	100	4.21	6.28	8	100	37.68	75.36
	125	5.26	7.85	8	125	47.10	94.20





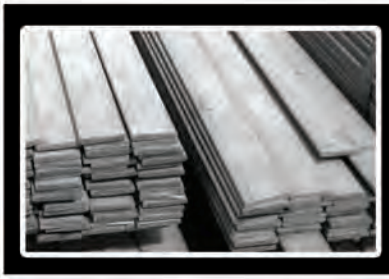
Flat Bars

Metric Series

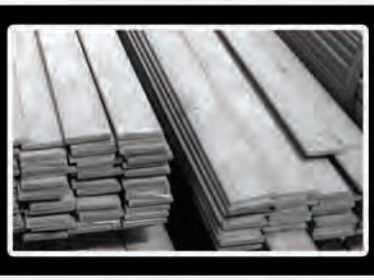
Dimensions		Weight		Thickness, t	Width, b	Weight Per	
Thickness	Width					6M	12M
mm	mm	kg/ ft ^{2}	kg/ M ^{2}	mm	mm	kg	kg
8	150	6.32	9.42	8	150	56.52	113.05
	175	7.37	10.99	8	175	65.94	131.89
	200	8.42	12.56	8	200	75.36	150.73
	250	10.53	15.70	8	250	94.20	188.41
	275	11.58	17.27	8	275	103.63	207.25
	300	12.63	18.84	8	300	113.05	226.09
9	25	1.18	1.77	9	25	10.60	21.20
	32	1.52	2.26	9	32	13.57	27.13
	38	1.80	2.68	9	38	16.11	32.22
	40	1.89	2.83	9	40	16.96	33.91
	50	2.37	3.53	9	50	21.20	42.39
	60	2.84	4.24	9	60	25.44	50.87
	65	3.08	4.59	9	65	27.55	55.11
	70	3.32	4.94	9	70	29.67	59.35
	75	3.55	5.30	9	75	31.79	63.59
	80	3.79	5.65	9	80	33.91	67.83
	100	4.74	7.06	9	100	42.39	84.78
	125	5.92	8.83	9	125	52.99	105.98
	150	7.11	10.60	9	150	63.59	127.18
	175	8.29	12.36	9	175	74.19	148.37
	200	9.47	14.13	9	200	84.78	169.57
	250	11.84	17.66	9	250	105.98	211.96
	275	13.03	19.43	9	275	116.58	233.16
	300	14.21	21.19	9	300	127.18	254.35
10	25	1.32	1.96	10	25	11.78	23.55
	32	1.68	2.51	10	32	15.07	30.15
	38	2.00	2.98	10	38	17.90	35.80
	40	2.11	3.14	10	40	18.84	37.68
	50	2.63	3.92	10	50	23.55	47.10
	60	3.16	4.71	10	60	28.26	56.52
	65	3.42	5.10	10	65	30.62	61.23
	70	3.68	5.49	10	70	32.97	65.94
	75	3.95	5.89	10	75	35.33	70.65
	80	4.21	6.28	10	80	37.68	75.36

Flat Bars
Metric Series





Dimensions		Weight		Thickness, t	Width, b	Weight Per	
Thickness	Width					6M	12M
mm	mm	kg/ ft ^{2}	kg/ M ^{2}	mm	mm	kg	kg
10	100	5.26	7.85	10	100	47.10	94.20
	125	6.58	9.81	10	125	58.88	117.76
	150	7.89	11.77	10	150	70.65	141.31
	175	9.21	13.74	10	175	82.43	164.86
	200	10.53	15.70	10	200	94.20	188.41
	250	13.16	19.62	10	250	117.76	235.51
	275	14.47	21.59	10	275	129.53	259.06
	300	15.79	23.55	10	300	141.31	282.61
12	25	8.75	94.19	12	25	14.13	28.26
	32	8.75	94.19	12	32	18.09	36.17
	38	8.75	94.19	12	38	21.48	42.96
	40	8.75	94.19	12	40	22.61	45.22
	50	8.75	94.19	12	50	28.26	56.52
	60	8.75	94.19	12	60	33.91	67.83
	65	8.75	94.19	12	65	36.74	73.48
	70	8.75	94.19	12	70	39.57	79.13
	75	8.75	94.19	12	75	42.39	84.78
	80	8.75	94.19	12	80	45.22	90.44
	100	8.75	94.19	12	100	56.52	113.05
	125	8.75	94.19	12	125	70.65	141.31
	150	8.75	94.19	12	150	84.78	169.57
	175	8.75	94.19	12	175	98.91	197.83
	200	8.75	94.19	12	200	113.05	226.09
	250	8.75	94.19	12	250	141.31	282.61
	275	8.75	94.19	12	275	155.44	310.88
	300	8.75	94.19	12	300	169.57	339.14
15	75	10.94	117.74	15	75	52.99	105.98
	80	10.94	117.74	15	80	56.52	113.05
	100	10.94	117.74	15	100	70.65	141.31
	125	10.94	117.74	15	125	88.32	176.63
	150	10.94	117.74	15	150	105.98	211.96
	175	10.94	117.74	15	175	123.64	247.29
	250	10.94	117.74	15	250	176.63	353.27
	280	10.94	117.74	15	280	197.83	395.66





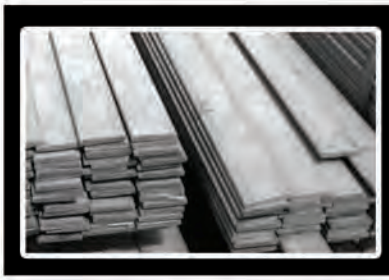
Flat Bars

Metric Series

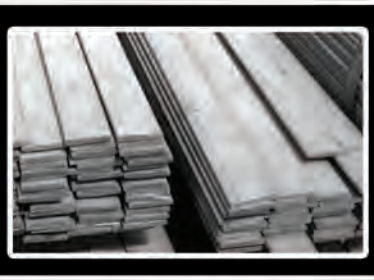
Dimensions		Weight		Thickness, t	Width, b	Weight Per	
Thickness	Width					6M	12M
mm	mm	kg/ ft ^{2}	kg/ M ^{2}	mm	mm	kg	kg
15	300	10.94	117.74	15	300	211.96	423.92
	330	10.94	117.74	15	330	233.16	466.31
	350	10.94	117.74	15	350	247.29	494.57
	380	10.94	117.74	15	380	268.48	536.97
	400	10.94	117.74	15	400	282.61	565.23
	430	10.94	117.74	15	430	303.81	607.62
	450	10.94	117.74	15	450	317.94	635.88
	480	10.94	117.74	15	480	339.14	678.27
	500	10.94	117.74	15	500	353.27	706.54
	520	10.94	117.74	15	520	367.40	734.80
16	75	11.67	125.59	16	75	56.52	113.05
	80	11.67	125.59	16	80	60.29	120.58
	100	11.67	125.59	16	100	75.36	150.73
	125	11.67	125.59	16	125	94.20	188.41
	150	11.67	125.59	16	150	113.05	226.09
	175	11.67	125.59	16	175	131.89	263.77
	250	11.67	125.59	16	250	188.41	376.82
	280	11.67	125.59	16	280	211.02	422.04
	300	11.67	125.59	16	300	226.09	452.18
	330	11.67	125.59	16	330	248.70	497.40
	350	11.67	125.59	16	350	263.77	527.55
	380	11.67	125.59	16	380	286.38	572.76
	400	11.67	125.59	16	400	301.46	602.91
	430	11.67	125.59	16	430	324.06	648.13
	450	11.67	125.59	16	450	339.14	678.27
	480	11.67	125.59	16	480	361.75	723.49
	500	11.67	125.59	16	500	376.82	753.64
	520	11.67	125.59	16	520	391.89	783.78
19	75	7.50	11.19	19	75	67.12	134.24
	80	8.00	11.93	19	80	71.60	143.19
	100	10.00	14.91	19	100	89.49	178.99
	125	12.50	18.64	19	125	111.87	223.74
	150	15.00	22.37	19	150	134.24	268.48
	175	17.50	26.10	19	175	156.62	313.23

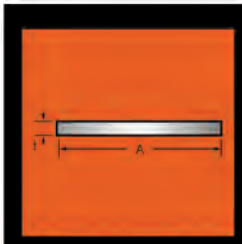
Flat Bars
Metric Series





Dimensions		Weight		Thickness, t	Width, b	Weight Per	
Thickness	Width					6M	12M
mm	mm	kg/ ft ²	kg/ M ²	mm	mm	kg	kg
19	250	25.00	37.28	19	250	223.74	447.47
	280	28.00	41.76	19	280	250.58	501.17
	300	30.00	44.74	19	300	268.48	536.97
	330	33.00	49.21	19	330	295.33	590.66
	350	35.00	52.20	19	350	313.23	626.46
	380	38.00	56.67	19	380	340.08	680.16
	400	40.00	59.65	19	400	357.98	715.96
	430	43.00	64.13	19	430	384.83	769.65
	450	45.00	67.11	19	450	402.73	805.45
	480	48.00	71.58	19	480	429.57	859.15
	500	50.00	74.57	19	500	447.47	894.95
	520	52.00	77.55	19	520	465.37	930.74
22	75	8.68	12.95	22	75	77.72	155.44
	80	9.26	13.81	22	80	82.90	165.80
	100	11.58	17.27	22	100	103.63	207.25
	125	14.47	21.59	22	125	129.53	259.06
	150	17.37	25.90	22	150	155.44	310.88
	175	20.26	30.22	22	175	181.34	362.69
	250	28.95	43.17	22	250	259.06	518.13
	280	32.42	48.35	22	280	290.15	580.30
	300	34.74	51.80	22	300	310.88	621.75
	330	38.21	56.98	22	330	341.96	683.93
	350	40.53	60.44	22	350	362.69	725.38
	380	44.00	65.62	22	380	393.78	787.55
	400	46.32	69.07	22	400	414.50	829.00
	430	49.79	74.25	22	430	445.59	891.18
	450	52.10	77.71	22	450	466.31	932.63
	480	55.58	82.89	22	480	497.40	994.80
	500	57.89	86.34	22	500	518.13	1036.25
	520	60.21	89.79	22	520	538.85	1077.70
28	75	11.05	16.48	28	75	98.91	197.83
	80	11.79	17.58	28	80	105.51	211.02
	100	14.74	21.98	28	100	131.89	263.77
	125	18.42	27.47	28	125	164.86	329.72





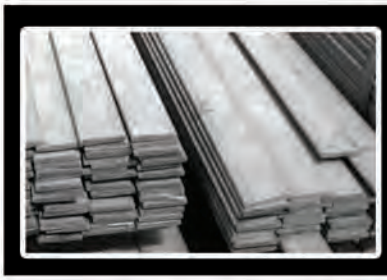
Flat Bars

Metric Series

Dimensions		Weight		Thickness, t	Width, b	Weight Per	
Thickness	Width					6M	12M
mm	mm	kg/ ft ^{2}	kg/ M ^{2}	mm	mm	kg	kg
28	150	22.10	32.97	28	150	197.83	395.66
	175	25.79	38.46	28	175	230.80	461.60
	250	36.84	54.94	28	250	329.72	659.43
	280	41.26	61.54	28	280	369.28	738.57
	300	44.21	65.93	28	300	395.66	791.32
	330	48.63	72.53	28	330	435.23	870.45
	350	51.58	76.92	28	350	461.60	923.21
	380	56.00	83.51	28	380	501.17	1002.34
	400	58.95	87.91	28	400	527.55	1055.09
	430	63.37	94.50	28	430	567.11	1134.23
	450	66.31	98.90	28	450	593.49	1186.98
	480	70.74	105.49	28	480	633.06	1266.11
	500	73.68	109.89	28	500	659.43	1318.87
	520	76.63	114.28	28	520	685.81	1371.62
32	75	12.63	18.84	32	75	113.05	226.09
	80	13.47	20.09	32	80	120.58	241.16
	100	16.84	25.12	32	100	150.73	301.46
	125	21.05	31.40	32	125	188.41	376.82
	150	25.26	37.68	32	150	226.09	452.18
	175	29.47	43.96	32	175	263.77	527.55
	250	42.10	62.79	32	250	376.82	753.64
	280	47.16	70.33	32	280	422.04	844.07
	300	50.53	75.35	32	300	452.18	904.37
	330	55.58	82.89	32	330	497.40	994.80
	350	58.95	87.91	32	350	527.55	1055.09
	380	64.00	95.45	32	380	572.76	1145.53
	400	67.37	100.47	32	400	602.91	1205.82
	430	72.42	108.00	32	430	648.13	1296.26
	450	75.79	113.03	32	450	678.27	1356.55
	480	80.84	120.56	32	480	723.49	1446.98
	500	84.21	125.59	32	500	753.64	1507.28
	520	87.58	130.61	32	520	783.78	1567.57
35	75	9.87	14.72	25	75	123.64	247.29
	80	10.53	15.70	25	80	131.89	263.77

Flat Bars
Metric Series



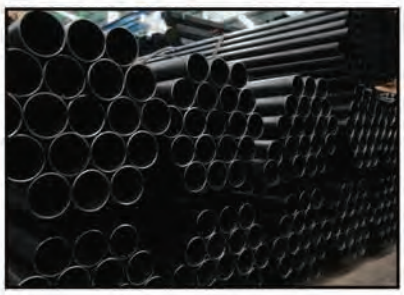


Dimensions		Weight		Thickness, t	Width, b	Weight Per	
Thickness	Width					6M	12M
mm	mm	kg/ ft ^{2}	kg/ M ^{2}	mm	mm	kg	kg
35	100	13.16	19.62	25	100	164.86	329.72
	125	16.45	24.53	25	125	206.07	412.15
	150	19.74	29.43	25	150	247.29	494.57
	175	23.03	34.34	25	175	288.50	577.00
	250	32.89	49.06	25	250	412.15	824.29
	280	36.84	54.94	25	280	461.60	923.21
	300	39.47	58.87	25	300	494.57	989.15
	330	43.42	64.76	25	330	544.03	1088.06
	350	46.05	68.68	25	350	577.00	1154.01
	380	50.00	74.57	25	380	626.46	1252.92
	400	52.63	78.49	25	400	659.43	1318.87
	430	56.58	84.38	25	430	708.89	1417.78
	450	59.21	88.30	25	450	741.86	1483.72
	480	63.16	94.19	25	480	791.32	1582.64
	500	65.79	98.11	25	500	824.29	1648.58
	520	68.42	102.04	25	520	857.26	1714.53



Pipes

A pipe is a tubular section or hollow cylinder, usually but not necessarily of circular cross-section, used mainly to convey substances which can flow- liquids and gases (fluids), slurries, powders, masses of small solids. It can also be used for structural applications; hollow pipe is far stiffer per unit weight than solid members.

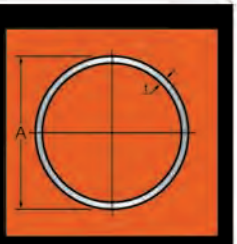






Seamless Black Iron Pipes

ASTM A-33 and API5L

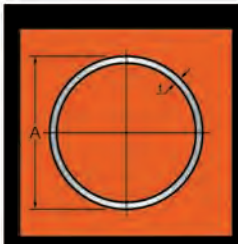




Size	Outside Diameter, A		Wall Thickness, t		Class	Sched No.	Plain End		
							Nominal Weight		
in	in	mm	in	mm			lbs/ ft	kg/ ft	kg/ M
1/8	0.405	10.3	0.068	1.73	std	40	0.24	0.11	0.36
			0.095	2.41	xs	80	0.31	0.14	0.46
1/4	0.540	13.7	0.088	2.24	std	40	0.42	0.19	0.63
			0.119	3.02	xs	80	0.54	0.24	0.80
3/8	0.675	17.1	0.091	2.31	std	40	0.57	0.26	0.85
			0.126	3.20	xs	80	0.74	0.34	1.10
1/2	0.840	21.3	0.109	2.77	std	40	0.85	0.39	1.26
			0.147	3.73	xs	80	1.09	0.49	1.62
			0.294	7.47	xxs	...	1.71	0.78	2.54
3/4	1.050	26.7	0.113	2.87	std	40	1.13	0.51	1.68
			0.154	3.91	xs	80	1.47	0.67	2.19
			0.308	7.82	xxs	...	2.44	1.11	3.63
1	1.315	33.4	0.133	3.38	std	40	1.68	0.76	2.50
			0.179	4.55	xs	80	2.17	0.98	3.23
			0.358	9.09	xxs	...	3.66	1.66	5.45
1 1/4	1.660	42.2	0.140	3.56	std	40	2.27	1.03	3.38
			0.191	4.85	xs	80	3.00	1.36	4.46
			0.382	9.70	xxs	...	5.21	2.36	7.75
1 1/2	1.900	48.3	0.145	3.68	std	40	2.72	1.23	4.05
			0.200	5.08	xs	80	3.63	1.65	5.40
			0.400	10.16	xxs	...	6.41	2.91	9.54
2	2.375	60.3	0.154	3.91	std	40	3.65	1.66	5.43
			0.218	5.54	xs	80	5.02	2.28	7.47
			0.344	8.74	...	160	7.46	3.38	11.10
			0.436	11.07	xxs	...	9.03	4.10	13.44
2 1/2	2.875	73.0	0.203	5.16	std	40	5.79	2.63	8.62
			0.276	7.01	xs	80	7.66	3.47	11.40
			0.375	9.53	...	160	10.01	4.54	14.90
			0.552	14.02	xxs	...	13.70	6.21	20.39
3	3.500	88.9	0.188	4.78	...	...	6.65	3.02	9.90
			0.216	5.49	std	40	7.58	3.44	11.28
			0.300	7.62	xs	80	10.25	4.65	15.25
			0.438	11.13	...	160	14.32	6.50	21.31
			0.600	15.24	xxs	...	18.58	8.43	27.65
3 1/2	4.000	101.6	0.188	4.78	...	...	7.65	3.47	11.38
			0.226	5.74	std	40	9.11	4.13	13.56
			0.318	8.08	xs	80	12.51	5.67	18.62

Note: Marks as std,xs and xxs indicate standard weight, extra strong and double extra strong, respectively





Seamless Black Iron Pipes

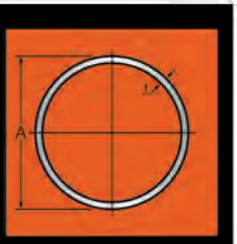
ASTM A-33 and API5L

Size	Outside Diameter, A		Wall Thickness, t		Class	Sched No.	Plain End		
							Nominal Weight		
in	in	mm	in	mm			lbs/ ft	kg/ ft	kg/ M
	4.500	114.3	0.156	3.96	...	...	7.24	3.28	10.77
			0.188	4.78	...	...	8.66	3.93	12.89
			0.219	5.56	...	...	10.01	4.54	14.90
			0.237	6.02	std	40	10.79	4.89	16.06
4			0.337	8.56	xs	80	14.98	6.79	22.29
			0.438	11.13	...	120	19.00	8.62	28.28
			0.531	13.49	...	160	22.51	10.21	33.50
			0.674	17.12	xxs	...	27.54	12.49	40.98
	5.563	141.3	0.258	6.55	std	40	14.62	6.63	21.76
			0.375	9.53	xs	80	20.78	9.43	30.92
5			0.500	12.70	...	120	27.04	12.27	40.24
			0.625	15.88	...	160	32.96	14.95	49.05
			0.750	19.05	xxs	...	38.55	17.49	57.37
	6.625	168.3	0.280	7.11	std	40	18.97	8.60	28.23
			0.432	10.97	xs	80	28.57	12.96	42.52
6			0.562	14.27	...	120	36.39	16.51	54.15
			0.719	18.26	...	160	45.35	20.57	67.49
			0.864	21.95	xxs	...	53.16	24.11	79.11
	8.625	219.1	0.250	6.35	...	20	22.36	10.14	33.28
			0.277	7.04	...	30	24.70	11.20	36.76
			0.322	8.18	std	40	28.55	12.95	42.49
			0.406	10.31	...	60	35.64	16.17	53.04
8			0.500	12.70	xs	80	43.39	19.68	64.57
			0.594	15.09	...	100	50.95	23.11	75.82
			0.719	18.26	...	120	60.71	27.54	90.35
			0.812	20.62	...	140	67.76	30.74	100.84
			0.875	22.22	xxs	...	72.42	32.85	107.77
			0.906	23.01	...	160	74.69	33.88	111.15
	10.750	273.0	0.250	6.35	...	20	28.04	12.72	41.73
			0.279	7.09	...	...	31.20	14.15	46.43
			0.307	7.80	...	30	34.24	15.53	50.95
			0.365	9.27	std	40	40.48	18.36	60.24
			0.500	12.70	xs	60	54.74	24.83	81.46
10			0.594	15.09	...	80	64.43	29.22	95.88
			0.719	18.26	...	100	77.03	34.94	114.63
			0.844	21.44	...	120	89.29	40.50	132.88
			1.000	25.40	xxs	140	104.13	47.23	154.96
			1.125	28.58	...	160	115.65	52.46	172.11

Note: Marks as std,xs and xxs indicate standard weight, extra strong and double extra strong, respectively

Seamless Black Iron Pipes

ASTM A-33 and API5L

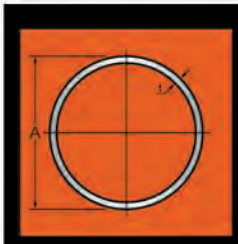




Size	Outside Diameter, A		Wall Thickness, t		Class	Sched No.	Plain End		
							Nominal Weight		
in	in	mm	in	mm			lbs/ ft	kg/ ft	kg/ M
12	12.750	323.8	0.250	6.35	...	20	33.38	15.14	49.67
			0.330	8.38	...	30	43.77	19.85	65.14
			0.375	9.52	std	...	49.56	22.48	73.75
			0.406	10.31	...	40	53.52	24.28	79.65
			0.500	12.70	xs	...	65.42	29.67	97.36
			0.562	14.27	...	60	73.15	33.18	108.86
			0.688	17.48	...	80	88.63	40.20	131.90
			0.844	21.44	...	100	107.32	48.68	159.71
			1.000	25.40	xxs	120	125.49	56.92	186.75
			1.125	28.58	...	140	139.68	63.36	207.87
			1.312	33.32	...	160	160.27	72.70	238.51
14	14.000	355.6	0.250	6.35	...	10	36.71	16.65	54.63
			0.312	7.92	...	20	45.61	20.69	67.87
			0.375	9.52	std	30	54.57	24.75	81.21
			0.438	11.13	...	40	63.44	28.78	94.41
			0.500	12.70	xs	...	72.09	32.70	107.28
			0.594	15.09	...	60	85.05	38.58	126.57
			0.750	19.05	...	80	106.13	48.14	157.94
			0.938	23.83	...	100	130.85	59.35	194.73
			1.094	27.79	...	120	150.79	68.40	224.40
			1.250	31.75	...	140	170.22	77.21	253.31
			1.406	35.71	...	160	189.11	85.78	281.43
16	16.000	406.4	0.250	6.35	...	10	42.05	19.07	62.58
			0.312	7.92	...	20	52.27	23.71	77.79
			0.375	9.52	std	30	62.58	28.39	93.13
			0.500	12.70	xs	40	82.77	37.54	123.18
			0.656	16.66	...	60	107.50	48.76	159.98
			0.844	21.44	...	80	136.62	61.97	203.31
			1.031	26.19	...	100	164.82	74.76	245.28
			1.219	30.96	...	120	192.43	87.28	286.37
			1.438	36.53	...	140	223.64	101.44	332.81
			1.594	40.49	...	160	245.25	111.24	364.97

Note: Marks as std,xs and xxs indicate standard weight, extra strong and double extra strong, respectively





Seamless Black Iron Pipes

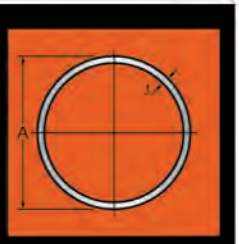
ASTM A-33 and API5L

Size	Outside Diameter, A		Wall Thickness, t		Class	Sched No.	Plain End		
							Nominal Weight		
in	in	mm	in	mm			lbs/ ft	kg/ ft	kg/ M
18	18.000	457.2	0.250	6.35	...	10	47.39	21.50	70.52
			0.312	7.92	...	20	58.94	26.73	87.71
			0.375	9.53	std	...	70.59	32.02	105.05
			0.438	11.13	...	30	82.15	37.26	122.25
			0.500	12.70	xs	...	93.45	42.39	139.07
			0.562	14.27	...	40	104.67	47.48	155.77
			0.750	19.05	...	60	138.17	62.67	205.62
			0.938	23.83	...	80	170.92	77.53	254.36
			1.156	29.36	...	100	207.96	94.33	309.48
			1.315	33.40	...	120	244.14	110.74	363.32
			1.562	39.67	...	140	274.22	124.38	408.08
			1.781	45.24	...	160	308.50	139.93	459.10
20	20.000	508.0	0.250	6.35	...	10	52.73	23.92	78.47
			0.375	9.53	std	20	78.60	35.65	116.97
			0.500	12.70	xs	30	104.13	47.23	154.96
			0.594	15.09	...	40	123.11	55.84	183.21
			0.812	20.62	...	60	166.40	75.48	247.63
			1.031	26.19	...	80	208.87	94.74	310.83
			1.281	32.54	...	100	256.10	116.16	381.12
			1.500	38.10	...	120	296.37	134.43	441.05
			1.750	44.45	...	140	341.10	154.72	507.61
			1.969	50.01	...	160	379.17	171.99	564.27
24	24.000	609.6	0.250	6.35	...	10	63.41	28.76	94.36
			0.375	9.53	std	20	94.62	42.92	140.81
			0.500	12.70	xs	...	125.49	56.92	186.75
			0.562	14.27	...	30	140.68	63.81	209.35
			0.688	17.48	...	40	171.29	77.70	254.91
			0.938	23.83	...	...	231.03	104.79	343.81
			0.969	24.61	...	60	238.85	108.34	355.45
			1.219	30.96	...	90	296.53	134.53	441.36
			1.531	38.89	...	100	367.39	166.65	546.74
			1.812	46.02	...	120	429.39	194.77	639.00
			2.062	52.37	...	140	483.12	219.14	718.96
			2.344	59.54	...	160	542.14	245.91	806.79

Note: Marks as std,xs and xxs indicate standard weight, extra strong and double extra strong, respectively

ERW Black and Galvanized Iron Pipes

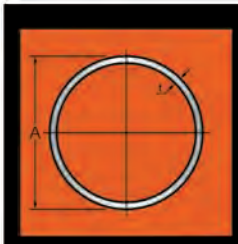
ASTM A-53





Size	Outside Diameter, A		Wall Thickness, t		Class	Sched No.	Plain End		
							Nominal Weight		
in	in	mm	in	mm			lbs/ ft	kg/ ft	kg/ M
1/8	0.405	10.3	0.068	1.73	std	40	0.24	0.11	0.36
1/4	0.540	13.7	0.088	2.24	std	40	0.42	0.19	0.63
3/8	0.675	17.1	0.091	2.31	std	40	0.57	0.26	0.85
1/2	0.840	21.3	0.109	2.77	std	40	0.85	0.39	1.26
3/4	1.050	26.7	0.113	2.87	std	40	1.13	0.51	1.68
1	1.315	33.4	0.133	3.38	std	40	1.68	0.76	2.50
1 1/4	1.660	42.2	0.140	3.56	std	40	2.27	1.03	3.38
1 1/2	1.900	48.3	0.145	3.68	std	40	2.72	1.23	4.05
2	2.375	60.3	0.154	3.91	std	40	3.65	1.66	5.43
2 1/2	2.875	73.0	0.203	5.16	std	40	5.79	2.63	8.62
3	3.500	88.9	0.216	5.49	std	40	7.58	3.44	11.28
4	4.500	114.3	0.237	6.02	std	40	10.79	4.89	16.06
5	5.563	141.3	0.258	6.55	std	40	14.62	6.63	21.76
6	6.625	168.3	0.280	7.11	std	40	18.97	8.60	28.23
8	8.625	219.1	0.322	8.18	std	40	28.55	12.95	42.49
10	10.750	273.0	0.365	9.27	std	40	40.48	18.36	60.24
12	12.750	323.8	0.406	10.31	...	40	53.52	24.28	79.65
14	14.000	355.6	0.312	7.92	...	20	45.61	20.69	67.87
			0.375	9.52	std	30	54.57	24.75	81.21
			0.438	11.13	...	40	63.44	28.78	94.41
16	16.000	406.4	0.312	7.92	...	20	52.27	23.71	77.79
			0.375	9.52	std	30	62.58	28.39	93.13
			0.500	12.70	xs	40	82.77	37.54	123.18
18	18.000	457.2	0.375	9.53	std	...	70.59	32.02	105.05
			0.438	11.13	...	30	82.15	37.26	122.25
			0.500	12.70	xs	...	93.45	42.39	139.07
			0.562	14.27	...	40	104.67	47.48	155.77
20	20.000	508.0	0.375	9.53	std	20	78.60	35.65	116.97
			0.500	12.70	xs	30	104.13	47.23	154.96
			0.594	15.09	...	40	123.11	55.84	183.21
24	24.000	609.6	0.375	9.53	std	20	94.62	42.92	140.81
			0.500	12.70	xs	...	125.49	56.92	186.75
			0.562	14.27	...	30	140.68	63.81	209.35
			0.688	17.48	...	40	171.29	77.70	254.91





ERW Black and Galvanized Iron Pipes

International Standard ISO

Heavy Series

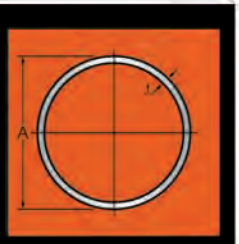
Size	Outside Diameter, A		Wall Thickness, t	Mass per length	Screwed and Socketed Tubes	TPI
	Maximum	Minimum		Plain End		
mm	mm	mm	mm	kg/ M	kg/ M	
6	10.6	9.8	2.65	0.493	0.496	28
8	14.0	13.2	2.90	0.769	0.773	19
10	17.5	16.7	2.90	1.02	1.03	19
15	21.8	21.0	3.25	1.45	1.46	14
20	27.3	26.5	3.25	1.90	1.91	14
25	34.2	33.3	4.05	2.97	2.99	11
32	42.9	42.0	4.05	3.84	3.87	11
40	48.8	47.9	4.05	4.43	4.47	11
50	60.8	59.7	4.50	6.17	6.24	11
65	76.6	75.3	4.50	7.90	8.02	11
80	89.5	88.0	4.85	10.10	10.30	11
100	115.0	113.1	5.40	14.40	14.70	11
125	140.8	138.5	5.40	17.80	18.30	11
150	166.5	163.9	5.40	21.20	21.80	11

Medium Series

Size	Outside Diameter, A		Wall Thickness, t	Mass per length	Screwed and Socketed Tubes	TPI
	Maximum	Minimum		Plain End		
mm	mm	mm	mm	kg/ M	kg/ M	
6	10.6	9.8	2.0	0.407	0.410	28
8	14.0	13.2	2.35	0.650	0.654	19
10	17.5	16.7	2.35	0.852	0.858	19
15	21.8	21.0	2.65	1.22	1.23	14
20	27.3	26.5	2.65	1.58	1.59	14
25	34.2	33.3	3.25	2.44	2.46	11
32	42.9	42.0	3.25	3.14	3.17	11
40	48.8	47.9	3.25	3.61	3.65	11
50	60.8	59.7	3.65	5.10	5.17	11
65	76.6	75.3	3.65	6.51	6.63	11
80	89.5	88.0	4.05	8.47	8.64	11
100	115.0	113.1	4.50	12.10	12.40	11
125	140.8	138.5	4.85	16.20	16.70	11
150	166.5	163.9	4.85	19.20	19.80	11

ERW Black and Galvanized Iron Pipes

International Standard





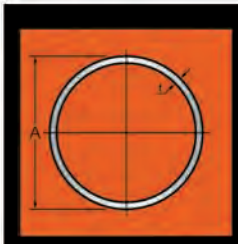
Light Series 1

Size	Outside Diameter, A		Wall Thickness, t	Mass per length	Screwed and Socketed Tubes	TPI
	Maximum	Minimum		Plain End		
mm	mm	mm	mm	kg/ M	kg/ M	
6	10.4	9.7	1.80	0.369	0.372	28
8	13.9	13.2	2.00	0.573	0.577	19
10	17.4	16.7	2.00	0.747	0.753	19
15	21.7	21.0	2.35	1.10	1.11	14
20	27.1	26.4	2.35	1.41	1.42	14
25	34.0	33.2	2.90	2.21	2.23	11
32	42.7	41.9	2.90	2.84	2.87	11
40	48.6	47.8	2.90	3.26	3.30	11
50	60.7	59.6	3.25	4.56	4.63	11
65	76.3	75.2	3.25	5.81	5.93	11
80	89.4	87.9	3.65	7.65	7.82	11
100	114.9	113.0	4.05	11.00	11.30	11

Light Series 2

Size	Outside Diameter, A		Wall Thickness, t	Mass per length	Screwed and Socketed Tubes	TPI
	Maximum	Minimum		Plain End		
mm	mm	mm	mm	kg/ M	kg/ M	
6	10.1	9.7	1.80	0.361	0.364	28
8	13.6	13.2	1.80	0.517	0.521	19
10	17.1	16.7	1.80	0.674	0.680	19
15	21.4	21.0	2.00	0.952	0.961	14
20	26.9	26.4	2.35	1.41	1.42	14
25	33.8	33.2	2.65	2.01	2.03	11
32	42.5	41.9	2.65	2.58	2.61	11
40	48.4	47.8	2.90	3.25	3.29	11
50	60.2	59.6	2.90	4.11	4.18	11
65	76.0	75.2	3.25	5.80	5.92	11
80	88.7	87.9	3.25	6.81	6.98	11
100	113.9	113.0	3.65	9.89	10.20	11





ERW Black and Galvanized Iron Pipes

PNS 26:2003

Heavy Gauge Pipes				
Size	Outside Diameter, A	Wall Thickness, t	Mass per length	TPI
			Plain End	
mm	mm	mm	kg/ M	
15	21.3	2.8	1.277	14
20	26.7	2.9	1.702	14
25	33.4	3.4	2.515	11.5
32	42.2	3.6	3.427	11.5
40	48.3	3.7	4.069	11.5
50	60.3	4.0	5.553	11.5
65	73.0	5.2	8.694	8
80	88.9	5.5	11.312	8
100	114.3	6.0	16.024	8
125	141.3	6.6	21.923	8
150	168.3	7.1	28.224	8
200	219.1	8.2	42.647	
250	273.0	9.3	60.476	
300	323.8	10.3	79.628	

NOTE: Screwed pipes apply only for sizes up to 150 mm.

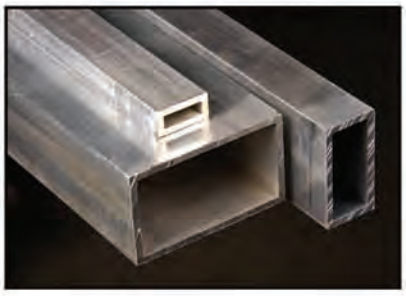
Heavy Gauge Pipes				
Size	Outside Diameter, A	Wall Thickness, t	Mass per length	TPI
			Plain End	
mm	mm	mm	kg/ M	
15	21.3	2.0	0.947	14
20	26.7	2.3	1.380	14
25	33.4	2.6	1.98	11.5
32	42.2	2.6	2.54	11.5
40	48.3	2.9	3.23	11.5
50	60.3	2.9	4.08	11.5
65	73.0	3.2	5.71	8
80	88.9	3.2	6.72	8
100	114.3	3.6	9.75	8
125	141.3	5.0	16.806	8
150	168.3	5.0	20.135	8
200	219.1	5.8	30.508	
250	273.0	6.6	43.358	
300	323.8	6.9	53.922	

NOTE: Screwed pipes apply only for sizes up to 150 mm.

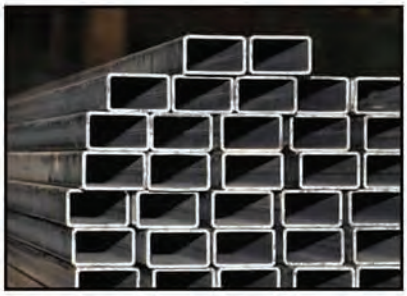


Rectangular Tubing

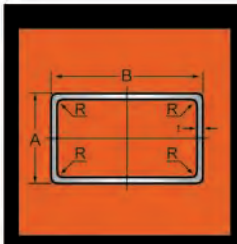
Rectangular Tube is commonly used in welded steel frames where members experience loading in multiple directions. Due to its strength to weight ratio it is used extensively for a range of applications in industrial, construction, automotive, marine, appliance, furniture, and agriculture industries.











Rectangular Tubing

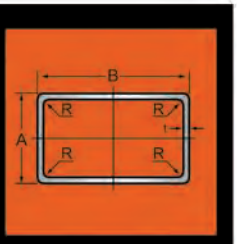
Special Sizes

Designation			Weight	
Size		Thickness, t		
A	B	mm	kg/ M	kg/ 6M
13	25	1.20	0.67	4.02
13	25	1.50	0.82	4.92
15	32	1.20	0.84	5.04
15	32	1.50	1.04	6.24
19	25	1.50	0.97	5.82
19	25	2.00	1.26	7.56
20	30	1.20	0.91	5.44
20	30	1.60	1.19	7.14
20	40	0.90	0.82	4.92
20	40	1.20	1.09	6.54
20	40	1.50	1.34	8.04
20	40	1.60	1.44	8.64
20	40	2.00	1.76	10.56
20	50	1.20	1.27	7.62
20	50	1.60	1.63	9.78
20	50	2.30	2.25	13.50
20	75	1.60	2.25	13.50
20	75	2.30	3.16	18.96
20	100	1.60	2.88	17.28
20	100	2.30	4.06	24.36
25	50	1.20	1.37	8.22
25	50	1.50	1.70	10.20
25	50	2.00	2.23	13.38
25	50	2.50	2.75	16.50
25	75	1.60	2.44	14.64
25	75	2.00	3.01	18.06
30	50	1.60	1.94	11.64
30	50	2.30	2.62	15.72
30	60	1.60	2.13	12.78
30	60	2.30	2.98	17.88
30	60	3.20	3.99	23.94
30	70	1.60	2.44	14.64
30	90	1.80	3.31	19.86
33	63	1.60	2.32	13.92
40	50	1.50	2.05	12.30
40	50	2.00	2.70	16.20
40	50	2.50	3.34	20.04
40	50	3.20	4.20	25.20
40	80	1.50	2.76	16.56
40	80	1.60	2.88	17.28
40	80	1.80	3.31	19.86
40	80	2.00	3.64	21.84
40	80	2.30	4.06	24.36
40	80	2.50	4.51	27.06

Special Sizes

Designation			Weight	
Size		Thickness, t		
A	B	mm	kg/ M	kg/ 6M
40	80	3.20	5.71	34.26
40	80	4.00	7.03	42.18
40	100	1.60	3.38	20.28
40	100	2.30	4.78	28.68
40	100	4.20	8.32	49.92
40	125	1.60	4.01	24.06
40	125	2.30	5.69	34.14
45	75	1.60	2.88	17.28
45	75	2.30	4.06	24.36
45	75	3.20	5.50	33.00
45	90	2.30	4.60	27.60
45	90	3.20	6.25	37.50
50	75	1.50	2.87	17.22
50	75	2.00	3.80	22.80
50	75	2.50	4.71	28.26
50	75	3.20	5.96	35.76
50	75	4.00	7.35	44.10
50	100	1.50	3.46	20.76
50	100	1.60	3.64	21.84
50	100	2.00	4.58	27.48
50	100	2.30	5.14	30.84
50	100	2.50	5.69	34.14
50	100	3.20	7.21	43.26
50	100	4.00	8.92	53.52
50	100	4.50	9.55	57.30
50	100	6.00	13.00	78.00
50	125	1.50	4.05	24.30
50	125	2.00	5.37	32.22
50	125	2.50	6.67	40.02
50	150	2.00	6.15	36.90
50	150	3.20	9.73	58.38
50	150	4.00	12.06	72.36
50	150	4.50	13.49	80.94
50	150	6.00	17.71	106.26
75	100	3.20	8.47	50.82
75	100	5.00	12.95	77.70
75	125	2.30	6.95	41.70
75	125	3.20	9.52	57.12
75	125	4.00	11.70	70.20
75	125	4.50	13.10	78.60
75	125	6.00	17.00	102.00
75	150	3.20	10.80	64.80
75	150	4.50	14.90	89.40
80	150	4.50	15.20	91.20

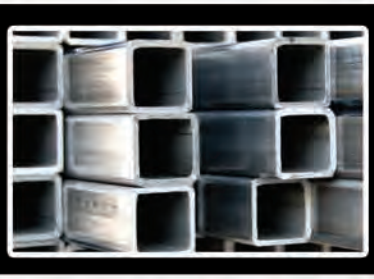
Rectangular Tubing

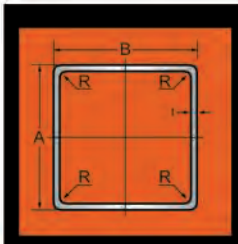




Special Sizes

Designation			Weight	
Size		Thickness, t		
A	B	mm	kg/ M	kg/ 6M
80	150	5.00	16.80	100.80
80	150	6.00	19.80	118.80
100	150	3.20	12.00	72.00
100	150	4.50	16.60	99.60
100	150	6.00	21.70	130.20
100	150	9.00	31.10	186.60
100	200	4.50	20.10	120.60
100	200	6.00	26.40	158.40
100	200	9.00	38.20	229.20
150	200	4.50	23.70	142.20
150	200	6.00	31.10	186.60
150	200	9.00	45.30	271.80
150	250	6.00	35.80	214.80
150	250	9.00	52.30	313.80
150	250	12.00	67.90	407.40
150	350	6.00	45.20	271.20
150	350	9.00	66.50	399.00
150	350	12.00	86.80	520.80
200	300	6.00	45.20	271.20
200	300	9.00	66.50	399.00
200	300	12.00	86.80	520.80
200	400	6.00	54.70	328.20
200	400	9.00	80.60	483.60
200	400	12.00	106.00	636.00





SquareTubing

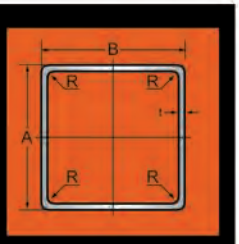
Special Sizes

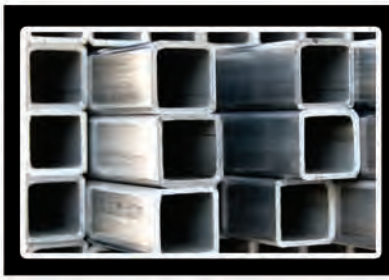
Designation			Weight	
Size		Thickness, t		
A	B	mm	kg/ M	kg/ 6M
10	10	0.90	0.26	1.56
12	12	1.20	0.44	2.62
13	13	0.90	0.34	2.04
13	13	1.20	0.44	2.64
19	19	0.60	0.35	2.10
19	19	0.70	0.40	2.40
19	19	0.80	0.46	2.76
19	19	0.90	0.51	3.06
19	19	1.10	0.62	3.72
19	19	1.20	0.67	4.02
19	19	1.50	0.82	4.92
21	21	1.20	0.72	4.30
21	21	1.60	0.94	5.63
23	23	1.20	0.81	4.87
23	23	1.60	1.07	6.42
25	25	0.90	0.68	4.08
25	25	1.20	0.90	5.40
25	25	1.50	1.11	6.66
25	25	1.60	1.19	7.14
25	25	2.00	1.44	8.64
25	25	3.20	2.19	13.14
26	26	1.20	0.91	5.44
26	26	1.60	1.19	7.14
30	30	0.90	0.82	4.92
30	30	1.20	1.09	6.54
30	30	1.50	1.34	8.04
30	30	2.00	1.76	10.56
31	31	1.20	1.09	6.54
31	31	1.60	1.44	8.64
35	35	0.90	0.96	5.76
35	35	1.20	1.27	7.62
35	35	1.50	1.58	9.48
35	35	2.00	2.07	12.42
38	38	0.90	1.05	6.30
38	38	1.20	1.39	8.34
38	38	1.50	1.72	10.32
38	38	2.00	2.26	13.56
40	40	1.60	1.92	11.52
40	40	2.30	2.62	15.72
41	41	1.60	1.94	11.64
45	45	1.50	2.05	12.30
45	45	2.00	2.70	16.20
45	45	2.50	3.34	20.04
45	45	3.20	4.20	25.20

Special Sizes

Designation			Weight	
Size		Thickness, t		
A	B	mm	kg/ M	kg/ 6M
45	45	4.00	5.15	30.90
50	50	1.20	1.84	11.04
50	50	1.50	2.28	13.68
50	50	1.60	2.38	14.28
50	50	2.00	3.01	18.06
50	50	2.30	3.34	20.04
50	50	2.50	3.73	22.38
50	50	3.20	4.70	28.20
50	50	4.00	5.78	34.68
50	50	6.00	8.29	49.74
60	60	1.50	2.76	16.56
60	60	1.60	2.88	17.28
60	60	2.00	3.64	21.84
60	60	2.30	4.06	24.36
60	60	2.50	4.51	27.06
60	60	3.20	5.71	34.26
60	60	4.00	7.03	42.18
75	75	1.50	3.46	20.76
75	75	1.60	3.64	21.84
75	75	2.00	4.58	27.48
75	75	2.30	5.14	30.84
75	75	2.50	5.69	34.14
75	75	3.20	7.21	43.26
75	75	4.00	8.92	53.52
75	75	4.50	9.55	57.30
80	80	2.30	5.50	33.00
80	80	3.20	7.51	45.06
80	80	4.50	10.30	61.80
90	90	2.30	6.23	37.38
90	90	3.20	8.51	51.06
100	100	2.30	6.95	41.70
100	100	3.20	9.73	58.38
100	100	4.00	11.70	70.20
100	100	4.50	13.49	80.94
100	100	6.00	17.71	106.26
100	100	9.00	24.10	144.60
100	100	12.00	30.20	181.20
125	125	3.20	12.00	72.00
125	125	4.50	16.60	99.60
125	125	5.00	18.30	109.80
125	125	6.00	21.70	130.20
125	125	9.00	31.10	186.60
125	125	12.00	39.70	238.20
150	150	4.50	20.10	120.60

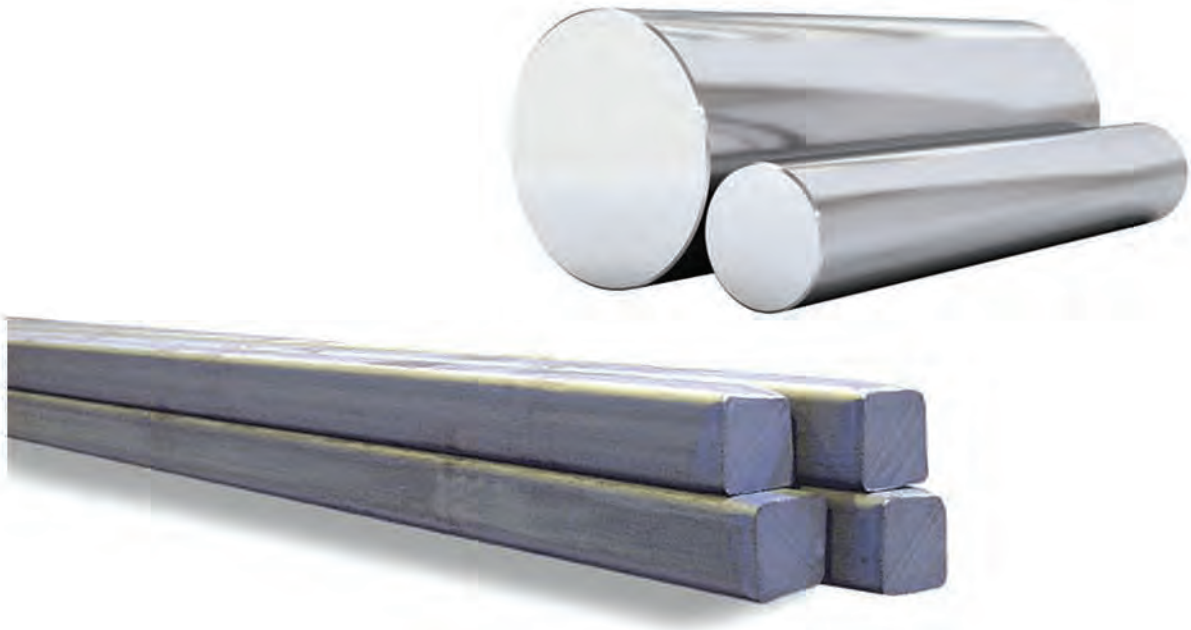
Square Tubing





Special Sizes

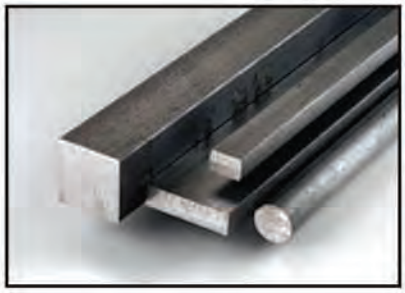
Designation			Weight	
Size		Thickness, t		
A	B	mm	kg/ M	kg/ 6M
150	150	5.00	22.30	133.80
150	150	6.00	26.40	158.40
150	150	9.00	38.20	229.20
175	175	4.50	23.70	142.20
175	175	5.00	26.20	157.20
175	175	6.00	31.10	186.60
200	200	4.50	27.20	163.20
200	200	6.00	35.80	214.80
200	200	8.00	46.90	281.40
200	200	9.00	52.30	313.80
200	200	12.00	67.90	407.40
250	250	5.00	38.00	228.00
250	250	6.00	45.20	271.20
250	250	8.00	59.50	357.00
250	250	9.00	66.50	399.00
250	250	12.00	86.80	520.80
300	300	4.50	41.30	247.80
300	300	6.00	54.70	328.20
300	300	9.00	80.60	483.60
300	300	12.00	106.00	636.00
350	350	9.00	94.70	568.20
350	350	12.00	124.00	744.00

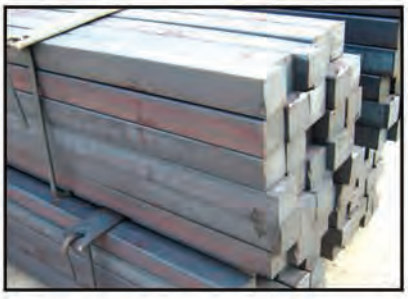


Square and Round Bar

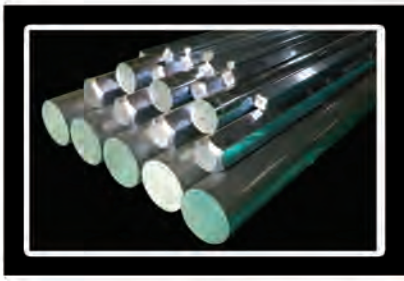
Square bars are made from very high quality raw material which ensures high durability at its use r end. These steel square bars are widely finds its applications in various industrial and commercial sectors. Range :10 mm - 50 mm. Round bars are ideal for Pump Shafts, Scaffolding, Cold Drawing and Fastener applications.







Square and Round Bar



Square Bar Specification and Properties

Description	Standard Length	Dimensions	Weight per Metre	External Surface Area per Metre
		mm	kg/m	m²/m
SQUARE BAR 12MM	6 metres	12 x 12 mm	1.13	0.048
SQUARE BAR 16MM	6 metres	16 x 16 mm	2.01	0.064
SQUARE BAR 20MM	6 metres	20 x 20 mm	3.14	0.08
SQUARE BAR 25MM	6 metres	25 x 25 mm	4.91	0.1
SQUARE BAR 40MM	6 metres	40 x 40 mm	12.6	0.16

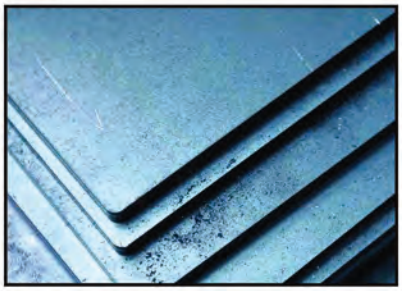
Round Bar Specification and Properties

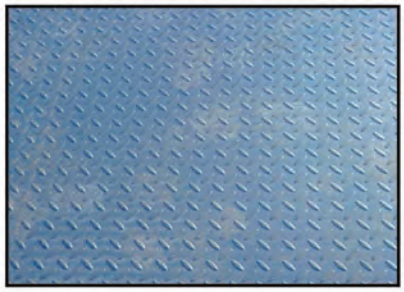
Diametre (d)	Weight/Metre (w)	Sectional Area (a)	Permetre (p)
8.00	0.39	0.50	2.51
9.00	0.50	0.64	2.83
10.00	0.62	0.79	3.14
11.00	0.75	0.95	3.46
12.00	0.89	1.13	3.77
14.00	1.21	1.54	4.40
16.00	1.58	2.01	5.03
18.00	2.00	2.54	5.65
20.00	2.47	3.14	6.28
22.00	2.98	3.80	6.91
25.00	3.85	4.91	7.85
28.00	4.83	6.16	8.80
32.00	6.31	8.04	10.05
36.00	7.99	10.18	11.31
40.00	9.86	12.57	12.57
45.00	12.50	15.90	14.14
46.50	13.33	-	-
48.00	14.21	-	-
50.00	15.41	19.64	15.71
56.00	19.34	24.63	17.59
63.00	24.47	31.17	19.79
71.00	31.08	39.59	22.31
80.00	39.46	50.27	25.13

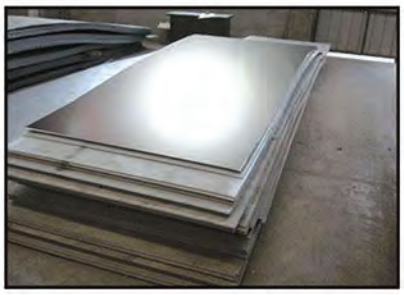


Plates

Mild Steel Plate is known for its rust resistance characteristic, as we make sure that the best quality steel is used to add to its durability and strength. Our Wholesale M S Plates remain in ample demand by the Railways, Window Grills Manufacturers, Collapsible Gate Manufacturers, Automobile Manufacturers etc.





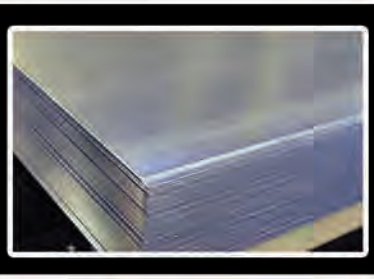


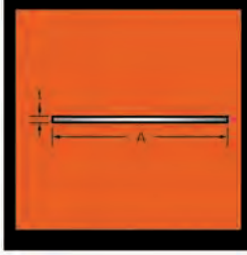
Checkered Plates





Size	Thickness, t		Width x Length		Unit Weight	
			4' x 8'	4' x 20'		
			1.219 M x 2.438 M	1.219 M x 6.096 M		
Fraction	mm	in	Weight, kg		kg/ ft ^{2}	kg/ M ^{2}
1/8"	2.3	0.091	58.68	146.69	1.834	19.743
	2.6	0.102	65.68	164.19	2.052	22.099
	3.0	0.118	75.01	187.53	2.344	25.240
	3.2	0.126	79.68	199.20	2.490	26.811
3/16"	4.0	0.157	98.35	245.87	3.073	33.093
	4.3	0.169	105.35	263.38	3.292	35.449
	4.5	0.177	110.02	275.04	3.438	37.019
1/4"	5.0	0.197	121.69	304.22	3.803	40.945
	5.5	0.217	133.36	333.39	4.167	44.872
	6.0	0.236	145.02	362.56	4.532	48.798
5/16"	7.5	0.295	180.03	450.07	5.626	60.577
3/8"	9.0	0.354	215.04	537.59	6.720	72.356

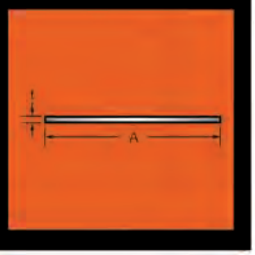


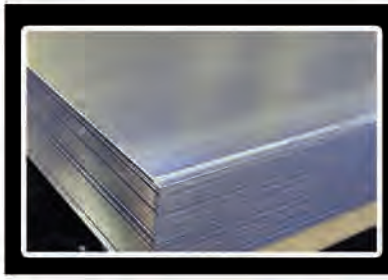


Mild Steel Plate

Size	Thickness, t		Width x Length				Unit Weight	
			4' x 8'	4' x 20'	5' x 20'	6' x 20'		
			1.219 M x 2.438 M	1.219 M x 6.096 M	1.524 M x 6.096 M	1.829 M x 6.096 M		
Fraction	mm	in	Weight, kg				kg/ ft ^{2}	kg/ M ^{2}
1/16"	1.20	0.047	28.00	70.01	87.51	105.02	0.875	9.423
	1.40	0.055	32.67	81.68	102.10	122.52	1.021	10.994
	1.50	0.059	35.01	87.51	109.39	131.27	1.094	11.779
	1.60	0.063	37.34	93.35	116.69	140.02	1.167	12.564
1/14"	1.80	0.071	42.01	105.02	131.27	157.53	1.313	14.135
	1.90	0.075	44.34	110.85	138.57	166.28	1.386	14.920
	2.00	0.079	46.67	116.69	145.86	175.03	1.459	15.705
1/8"	2.50	0.098	58.34	145.86	182.32	218.79	1.823	19.631
	2.80	0.110	65.34	163.36	204.20	245.04	2.042	21.987
	3.00	0.118	70.01	175.03	218.79	262.54	2.188	23.558
	3.175	0.125	74.10	185.24	231.55	277.86	2.315	24.932
	3.20	0.126	74.68	186.70	233.37	280.05	2.334	25.128
3/16"	4.00	0.157	93.35	233.37	291.72	350.06	2.917	31.410
	4.30	0.169	100.35	250.88	313.59	376.31	3.136	33.766
	4.50	0.177	105.02	262.54	328.18	393.82	3.282	35.337
	4.763	0.188	111.16	277.89	347.36	416.83	3.474	37.402
1/4"	5.00	0.197	116.69	291.72	364.65	437.57	3.646	39.263
	5.30	0.209	123.69	309.22	386.52	463.83	3.865	41.619
	5.50	0.217	128.36	320.89	401.11	481.33	4.011	43.189
	5.60	0.220	130.69	326.72	408.40	490.08	4.084	43.974
	5.80	0.228	135.36	338.39	422.99	507.59	4.230	45.545
	6.00	0.236	140.02	350.06	437.57	525.09	4.376	47.116
	6.30	0.248	147.02	367.56	459.45	551.34	4.595	49.471
5/16"	7.00	0.276	163.36	408.40	510.50	612.60	5.105	54.968
	7.30	0.287	170.36	425.91	532.38	638.86	5.324	57.324
	7.50	0.295	175.03	437.57	546.97	656.36	5.470	58.894
	8.00	0.315	186.70	466.75	583.43	700.12	5.834	62.821
3/8"	8.50	0.335	198.37	495.92	619.90	743.88	6.199	66.747
	9.00	0.354	210.04	525.09	656.36	787.63	6.564	70.673
	9.50	0.374	221.70	554.26	692.83	831.39	6.928	74.600
7/16"	10.00	0.394	233.37	583.43	729.29	875.15	7.293	78.526
	11.00	0.433	256.71	641.78	802.22	962.66	8.022	86.378
1/2"	12.00	0.472	280.05	700.12	875.15	1050.18	8.751	94.231
	12.70	0.500	296.38	740.96	926.20	1111.44	9.262	99.728

Mild Steel Plate





Size		Thickness, t	Width x Length				Unit Weight	
			4' x 8'	4' x 20'	5' x 20'	6' x 20'		
			1.219 M x 2.438 M	1.219 M x 6.096 M	1.524 M x 6.096 M	1.829 M x 6.096 M		
Fraction	mm	in	Weight, kg				kg/ ft ^{2}	kg/ M ^{2}
5/8"	14.00	0.551	326.72	816.80	1021.01	1225.21	10.210	109.936
	15.00	0.591	350.06	875.15	1093.94	1312.72	10.939	117.789
	16.00	0.630	373.40	933.49	1166.86	1400.24	11.669	125.641
3/4"	17.00	0.669	396.73	991.83	1239.79	1487.75	12.398	133.494
	18.00	0.709	420.07	1050.18	1312.72	1575.27	13.127	141.347
	19.00	0.748	443.41	1108.52	1385.65	1662.78	13.857	149.199
7/8"	21.00	0.827	490.08	1225.21	1531.51	1837.81	15.315	164.904
	22.00	0.866	513.42	1283.55	1604.44	1925.33	16.044	172.757
1"	24.00	0.945	560.09	1400.24	1750.30	2100.36	17.503	188.462
	25.00	0.984	583.43	1458.58	1823.23	2187.87	18.232	196.315
1-1/8"	28.00	1.102	653.44	1633.61	2042.01	2450.41	20.420	219.872
1-1/4"	30.00	1.181	700.12	1750.30	2187.87	2625.44	21.879	235.578
	32.00	1.260	746.79	1866.98	2333.73	2800.47	23.337	251.283
1-3/8"	35.00	1.378	816.80	2042.01	2552.52	3063.02	25.525	274.841
1-1/2"	38.00	1.496	886.82	2217.04	2771.30	3325.56	27.713	298.398
1-5/8"	40.00	1.575	933.49	2333.73	2917.16	3500.59	29.172	314.104
1-3/4"	45.00	1.772	1050.18	2625.44	3281.81	3938.17	32.818	353.366
2"	50.00	1.969	1166.86	2917.16	3646.45	4375.74	36.465	392.629
2-1/2"	63.00	2.480	1470.25	3675.62	4594.53	5513.43	45.945	494.713
3"	75.00	2.953	1750.30	4375.74	5469.68	6563.61	54.697	588.944
4"	100.00	3.937	2333.73	5834.32	7292.90	8751.48	72.929	785.259

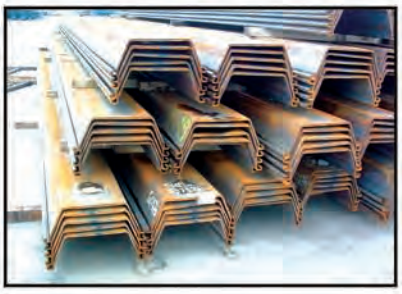


Sheet Pile

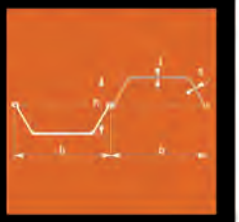
Sheet piles are an earth retention and excavation support.These are long structural sections with a vertical interlocking system that creates a continuouswall. The walls are commonly used to retain either soil or water.







-U Type Sheet Pile



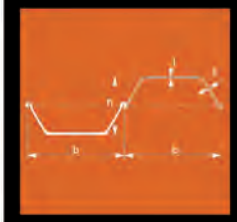


U Type Sheet Pile

Hot rolled "U" type trapezoidal profile that is commonly used and accept in construction sites all around the world. The profiles can be used in many building construction and many other applications where strong and reliable steel is seen as the most economical and best solution.

Type	Effective Width (mm)	Effective Height (mm)	Thickness t (mm)	Sectional Area (cm2)	Moment of Inertia (cm4)	Section Modulus (cm3)	Unit Mass (kg/m)	Sectional Area (cm2/m)	Moment of Inertia (cm4/m)	Section Modulus (cm3/m)	Unit Mass (kg/m2)
JSP-IA	400	85	8.0	45.21	598	88	35.5	113.0	4500	529	88.7
JSP-II	400	100	10.5	61.18	1240	152	48.0	153.0	8740	874	120.1
JSP-III	400	125	13.0	76.42	2220	223	60.0	191.0	16800	1520	149.9
JSP-IIIA	400	150	13.1	74.4	2790	250	58.4	186.0	22800	1520	146.0
JSP-IV	400	170	15.5	96.99	4670	362	76.1	242.5	38600	2270	190.4
JSP-VL	500	200	24.3	133.8	7960	520	105.0	267.6	63000	3150	210.1
JSP-VIL	500	225	27.6	153.00	11400	680	120.1	306.0	86000	3820	240.2
JSP-IIw	600	130	10.3	78.70	2110	203	61.8	131.2	13000	1000	103.0
JSP-IIw	600	180	13.4	103.90	5220	376	81.6	173.2	32400	1800	136.0
JSP-Ivw	600	210	18.0	135.30	8630	539	106.2	225.5	56700	2700	177.0





-Steel Grades of Sheet Pile Sections

Steel Grades of Sheet Pile Sections

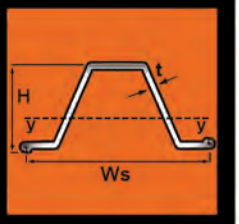
Standard	Steel Grade	Chemical Component %										
		C ≤	Si ≤	Mn ≤	P	S	Nb	V	Ti ≤	Cu	N	Free Nitrogen
JIS A5528	SY295	–	–	–	0.040	0.040	–	–	–	–	–	–
	SY390	–	–	–	0.040	0.040	–	–	–	–	–	–
JIS A5523	SYW295	0.18	0.55	1.50	0.040	0.040	–	–	–	–	–	0.0060
	SYW390	0.18	0.55	1.50	0.040	0.040	–	–	–	–	–	0.0060
GB1591	Q345B	0.20	0.50	1.70	0.035	0.035	0.07	0.15	0.20	0.30	0.012	–
GB 20933	Q295bz	0.16	0.55	1.50	0.040	0.040	0.06	0.15	0.20	–	–	–
	Q390bz	0.20	0.55	1.60	0.040	0.040	0.06	0.20	0.20	–	–	–
	Q420bz	0.20	0.55	1.70	0.040	0.040	0.06	0.20	0.20	–	–	–

S, D: Considered neutral axis y-y

-Average of both sides (excl inside of interlocks)
-Available within short period

Cold Formed Sheet Piling

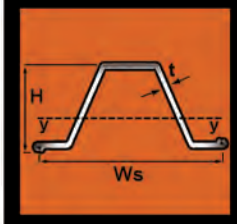
- Omega Sections





Type	S = Single D = Double	Thickness (mm)	Single Pile c/c Width (mm)	Inner Height (mm)	Cross Section Area(cm2)	Surface Coating Area(m2/m2)	Weight(kg/m)	Moment of Inertia(cm4)	Section Modulus(cm3)
OΩ500/730**	Per S	4.00	730	235	49.70		39.00	4705	392
	Per D						78.00	9410	784
	Per m of wall					1.57	53.40	6446	537
OΩ600/730**	Per S	4.50	730	235	55.80		43.80	5285	440
	Per D						87.60	10570	880
	Per m of wall					1.57	60.00	7240	602
OΩ650/730**	Per S	5.00	730	235	61.90		48.60	5862	488
	Per D						97.20	11724	976
	Per m of wall					1.57	66.60	8031	668
OΩ700/730**	Per S	5.50	730	235	68.00		53.40	6438	535
	Per D						106.80	12876	1070
	Per m of wall					1.57	73.10	8819	733
OΩ800/730**	Per S	6.00	730	235	74.00		58.10	7012	581
	Per D						116.20	14024	1162
	Per m of wall					1.57	79.60	9605	796
OΩ850/730**	Per S	6.50	730	235	80.10		62.90	7584	626
	Per D						125.80	15168	1252
	Per m of wall					1.57	86.10	10388	857
OΩ900/730**	Per S	7.00	730	235	86.10		67.60	8153	670
	Per D						135.20	16306	1340
	Per m of wall					1.57	92.60	11169	918
OΩ950/730**	Per S	7.50	730	235	92.10		72.60	8721	714
	Per D						144.60	17442	1428
	Per m of wall					1.58	99.10	11947	979
OΩ1000/730**	Per S	8.00	730	235	98.10		77.00	9287	758
	Per D						154.00	18574	1516
	Per m of wall					1.58	105.50	12722	1038
OΩ600/600	Per S	5.00	600	232	54.60		42.90	4703	361
	Per D						85.80	9406	721
	Per m of wall					1.69	71.50	7838	600
OΩ650/600	Per S	5.50	600	232	60.10		47.20	5171	396
	Per D						94.40	10342	791
	Per m of wall					1.69	78.60	8618	660
OΩ725/600	Per S	6.00	600	232	65.60		51.50	5639	430
	Per D						102.90	11277	860
	Per m of wall					1.69	85.80	9398	720
OΩ775/600	Per S	6.50	600	232	71.10		55.70	6106	465
	Per D						111.50	12211	929
	Per m of wall					1.69	92.90	10176	780





Cold Formed Sheet Piling

- Omega Sections

S, D: Considered neutral axis y-y

-Average of both sides (excl inside of interlocks)
-Available within short period

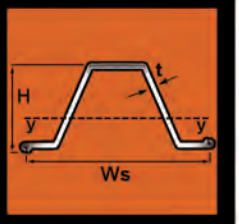
Type	S = Single D = Double	Thickness (mm)	Single Pile c/c Width (mm)	Inner Height (mm)	Cross Section Area(cm2)	Surface Coating Area(m2/m2)	Weight(kg/m)	Moment of Inertia(cm4)	Section Modulus(cm3)
OΩ825/600	Per S	7.00	600	232	76.40		60.00	6572	499
	Per D						120.00	13145	998
	Per m of wall					1.69	100.00	10954	830
OΩ900/600	Per S	7.50	600	232	81.90		64.30	7039	533
	Per D						128.60	14078	1066
	Per m of wall					1.69	107.10	11732	890
OΩ950/600	Per S	8.00	600	232	87.30		68.60	7505	567
	Per D						137.10	15010	1133
	Per m of wall					1.69	114.30	12508	950
OΩ625/650	Per S	5.00	650	232	57.10		44.90	5094	408
	Per D						89.70	10188	816
	Per m of wall					1.63	69.00	7837	630
OΩ675/650	Per S	5.50	650	232	6.90		49.30	5602	448
	Per D						98.70	11204	895
	Per m of wall					1.63	75.90	8618	690
OΩ750/650	Per S	6.00	650	232	68.60		53.80	6109	487
	Per D						107.60	12218	974
	Per m of wall					1.63	82.80	9398	750
OΩ800/650	Per S	6.50	650	232	74.20		58.30	6616	526
	Per D						116.60	13233	1052
	Per m of wall					1.64	89.70	10179	810
OΩ875/650	Per S	7.00	650	232	79.90		62.80	7123	565
	Per D						125.50	1426	1129
	Per m of wall					1.64	96.50	10958	870
OΩ925/650	Per S	7.50	650	232	85.60		67.20	7630	603
	Per D						134.40	15259	1206
	Per m of wall					1.64	103.40	11738	930
OΩ975/650	Per S	8.00	650	232	91.30		71.70	8136	642
	Per D						143.40	16272	1283
	Per m of wall					1.64	110.30	12517	990
OΩ650/700	Per S	5.00	700	232	59.60		46.80	5453	456
	Per D						93.60	10905	911
	Per m of wall					1.59	66.90	7789	650
OΩ700/700	Per S	5.50	700	232	65.60		51.50	5997	500
	Per D						103.00	11993	999
	Per m of wall					1.59	73.60	8566	720
OΩ775/700	Per S	6.00	700	232	71.60		56.20	6541	544
	Per D						112.30	13081	1087
	Per m of wall					1.59	80.20	9344	780

S, D: Considered neutral axis y-y

-Average of both sides (excl inside of interlocks)
-Available within short period

Cold Formed Sheet Piling

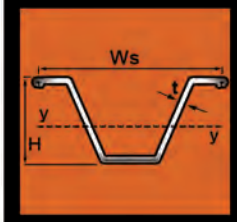
- Omega Sections





Type	S = Single D = Double	Thickness (mm)	Single Pile c/c Width (mm)	Inner Height (mm)	Cross Section Area(cm2)	Surface Coating Area(m2/m2)	Weight(kg/m)	Moment of Inertia(cm4)	Section Modulus(cm3)
OΩ825/700	Per S	6.50	700	232	77.50		60.80	7084	587
	Per D						121.70	14068	1174
	Per m of wall					1.59	86.90	10120	840
OΩ900/700	Per S	7.00	700	232	83.40		65.50	7628	630
	Per D						131.00	15255	1261
	Per m of wall					1.59	93.60	10896	900
OΩ950/700	Per S	7.50	700	232	89.40		70.20	8171	673
	Per D						140.30	16342	1347
	Per m of wall					1.59	100.20	11673	960
OΩ7025/700	Per S	8.00	700	232	95.30		74.80	8714	716
	Per D						149.70	17428	1433
	Per m of wall					1.59	106.90	12448	1030





Cold Formed Sheet Piling

- U section

S: Considered neutral axis y-y
D: considered neutral axis y'-y'

Shear transfer in the interlock must be assured in order to guarantee the given value of moment of inertia
-Average of both sides (excl inside of interlocks)
-Available within short period

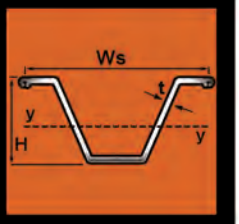
Type	S = Single D = Double	Thickness (mm)	Single Pile c/c Width (mm)	Inner Height (mm)	Cross Section Area(cm2)	Surface Coating Area(m2/m2)	Weight (kg/m)	Moment of Inertia(cm4)	Section Modulus (cm3)
OT11A	Per S	8.00	600	197	79.1		62.1	4736	384
	Per D						124.2	24918	1384
	Per m of wall					1.47	103.5	20765	1160
OT12	Per S	8.50	600	197	84.1		66	5034	407
	Per D						132	26374	1465
	Per m of wall					1.47	110	21978	1220
OT13	Per S	9.00	600	197	89		69.9	5332	431
	Per D						139.7	27818	1545
	Per m of wall					1.45	116.4	23182	1290
OT13A	Per S	9.50	600	197	93.9		73.7	5631	454
	Per D						147.4	29250	1625
	Per m of wall					1.48	122.9	24375	1360
OT14**	Per S	10.00	600	197	98.9		77.6	5928	478
	Per D						155.3	30671	1704
	Per m of wall					1.48	129.4	25559	1420
OT18	Per S	8.00	6000	260	90.2		70.8	9278	577
	Per D						141.7	52106	2141
	Per m of wall					1.70	118	43422	1790
OT19	Per S	8.50	600	260	95.8		75.2	9869	612
	Per D						150.5	55185	2268
	Per m of wall					1.71	125.4	45988	1890
OT20	Per S	9.00	600	260	101.5		79.7	10452	648
	Per D						159.3	58244	2394
	Per m of wall					1.71	132.7	48537	2000
OT21	Per S	9.50	600	260	107.1		84.1	11035	683
	Per D						168.1	61283	2518
	Per m of wall					1.71	140.1	51069	2100
OT22**	Per S	10.00	600	260	112.7		88.5	11618	719
	Per D						176.9	64301	2642
	Per m of wall					1.71	147.4	53584	2200
OT23	Per S	10.50	610	265	122.4		96.1	13441	839
	Per D						192.3	68440	2793
	Per m of wall					1.72	157.6	56098	2290
OT24	Per S	11.00	610	265	128.3		100.7	14082	879
	Per D						210.4	71471	2917
	Per m of wall					1.72	165.1	58583	2390
OT25**	Per S	11.50	610	265	134.1		105.3	14724	918
	Per D						210.6	74482	3040
	Per m of wall					1.72	172.6	61051	2490

S: Considered neutral axis y-y
D: considered neutral axis y'-y'

Shear transfer in the interlock must be assured in order to guarantee the given value of moment of inertia
-Average of both sides (excl inside of interlocks)
-Available within short period

Cold Formed Sheet Piling

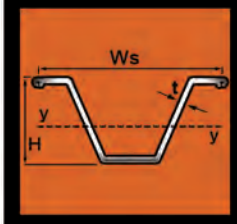
- U section





Type	S = Single D = Double	Thickness (mm)	Single Pile c/c Width (mm)	Inner Height (mm)	Cross Section Area(cm2)	Surface Coating Area(m2/m2)	Weight (kg/m)	Moment of Inertia(cm4)	Section Modulus (cm3)
OT26	Per S	12.00	610	265	140		109.9	15366	959
	Per D						219.7	77474	3162
	Per m of wall					1.72	180.1	63503	2590
OT13-625	Per S	9.50	625	196.5	96.1		75.3	5754	718
	Per D						150.6	30512	1699
	Per m of wall					1.46	120.5	24409	1359
OT14-625	Per S	10.00	625	197	101.4		79.3	6075	754
	Per D						158.6	32042	1784
	Per m of wall					1.46	126.9	25634	1427
OT23-625	Per S	10.50	625	265.5	124.5		98.1	13547	1191
	Per D						196.2	69181	2839
	Per m of wall					1.70	156.9	55345	2271
OT24-625	Per S	11.00	625	265	130.6		102.8	14215	1244
	Per D						205.5	72248	2965
	Per m of wall					1.70	164.4	57798	2372
OT25-625	Per S	11.50	625	265.5	136.8		107.4	14898	1300
	Per D						214.9	75430	3095
	Per m of wall					1.70	171.9	60344	2476
OT26-625	Per S	12.00	625	265	143.1		112.1	15583	1355
	Per D						224.2	78604	3225
	Per m of wall					1.70	179.4	62883	2580
OT23-650	Per S	10.50	650	265.5	124.1		100.2	13849	1242
	Per D						200.3	72167	2961
	Per m of wall					1.67	154.1	55513	2278
OT24-650	Per S	11.00	650	265	133.4		104.9	14534	1298
	Per D						209.8	75370	3093
	Per m of wall					1.68	161.4	57977	2379
OT25-650	Per S	11.00	650	265.5	139.7		109.7	15232	1356
	Per D						219.4	78688	3229
	Per m of wall					1.68	168.7	60529	2484
OT26-650	Per S	11.50	650	265	146.1		114.5	15932	1413
	Per D						228.9	81996	3365
	Per m of wall					1.68	176.1	63074	2588
OT24-675	Per S	11.00	675	265	136.1		107.1	14840	1351
	Per D						214.1	78493	3221
	Per m of wall					1.65	158.6	58143	2386
OT25-675	Per S	11.50	675	265.5	142.6		111.9	15552	1411
	Per D						223.9	81945	3363
	Per m of wall					1.65	165.8	60700	2491





Cold Formed Sheet Piling

- U section

S: Considered neutral axis y-y
D: considered neutral axis y'-y'

Shear transfer in the interlock must be assured in order to guarantee the given value of moment of inertia
-Average of both sides (excl inside of interlocks)
-Available within short period

Type	S = Single D = Double	Thickness (mm)	Single Pile c/c Width (mm)	Inner Height (mm)	Cross Section Area(cm2)	Surface Coating Area(m2/m2)	Weight (kg/m)	Moment of Inertia(cm4)	Section Modulus (cm3)
OT26-650	Per S	11.50	650	265	146.1		114.5	15932	1413
	Per D						228.9	81996	3365
	Per m of wall					1.68	176.1	63074	2588
OT24-675	Per S	11.00	675	265	136.1		107.1	14840	1351
	Per D						214.1	78493	3221
	Per m of wall					1.65	158.6	58143	2386
OT25-675	Per S	11.50	675	265.5	142.6		111.9	15552	1411
	Per D						223.9	81945	3363
	Per m of wall					1.65	165.8	60700	2491
OT26-675	Per S	12.00	675	265	149.1		116.8	16268	1471
	Per D						233.6	85388	3504
	Per m of wall					1.65	173.1	63251	2595
OT26-700	Per S	12.00	700	265	152.1		119.2	16590	1529
	Per D						238.3	88781	3643
	Per m of wall					1.63	170.2	63415	2602
OT31-700N	Per S	11.50	700	311.5	155.8		122.1	23090	1780
	Per D						244.1	125696	4342
	Per m of wall					1.75	174.4	89783	3101
OT32-700N	Per S	12.00	700	311	162.4		127.2	24051	1853
	Per D						254.3	131474	4534
	Per m of wall					1.75	181.7	96910	3238
OT33-700N	Per S	12.00	700	323	167		131.9	26749	1938
	Per D						263.8	139018	4665
	Per m of wall					1.79	188.4	99298	3332
OT35-700N	Per S	12.70	700	323.3	177.5		139.6	28564	2058
	Per D						279.1	147888	4951
	Per m of wall					1.79	199.4	105634	3536
OT36A-700N	Per S	13.00	700	324	182.3		142.9	29393	2115
	Per D						285.7	152119	5008
	Per m of wall					1.80	204.1	108656	3634
OT39-700N	Per S	14.00	700	325	196.5		153.9	31887	2265
	Per D						307.7	163373	5446
	Per m of wall					1.80	219.8	116695	3890

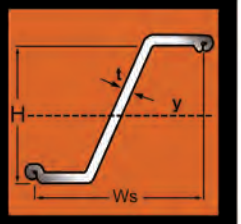
S, D: considered neutral axis y-y

-Average of both sides (excl inside of interlocks)

-Available within short period

Cold Formed Sheet Piling

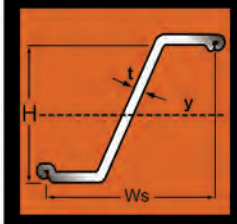
- Z section





Type	S = Single D = Double	Thickness (mm)	Single Pile c/c Width (mm)	Inner Height (mm)	Cross Section Area(cm2)	Surface Coating Area(m2/m2)	Weight (kg/m)	Moment of Inertia(cm4)	Section Modulus (cm3)
OZ 13A**	Per S	6.50	675	392	70.7		55.50	18388	909
	Per D						111.00	36789	1847
	Per m of wall					1.46	82.20	27251	1370
OZ 14A	Per S	7.00	675	392	76.1		59.70	19758	976
	Per D						119.50	39529	11981
	Per m of wall					1.46	88.50	29281	1470
OZ 15A	Per S	7.50	675	392	81.5		64.00	21137	1042
	Per D						128.00	42289	2117
	Per m of wall					1.46	94.80	31325	1570
OZ 16A**	Per S	8.00	675	392	86.9		68.20	22504	1109
	Per D						136.50	45023	2251
	Per m of wall					1.46	101.10	33350	1670
OZ 17A	Per S	8.50	685	392	92.1		72.30	24350	1199
	Per D						144.70	48715	2433
	Per m of wall					1.46	105.60	35558	1780
OZ 18A	Per S	9.00	685	392	97.6		76.60	25735	1266
	Per D						153.20	51485	2568
	Per m of wall					1.46	111.80	37580	1880
OZ 19A	Per S	9.50	685	392	102.9		80.80	27115	1333
	Per D						161.70	54245	2702
	Per m of wall					1.46	118.20	39595	1970
OZ 20A**	Per S	10.00	685	392	108.4		85.10	28488	1398
	Per D						170.20	56994	2836
	Per m of wall					1.46	124.20	41601	2070
OZ 20	Per S	8.00	650	429	90.2		70.80	28151	1285
	Per D						141.60	56303	2574
	Per m of wall					1.57	108.80	43293	1980
OZ 21	Per S	8.50	650	429	95.6		75.10	29854	1361
	Per D						150.20	59709	2727
	Per m of wall					1.57	115.50	45912	2100
OZ 22	Per S	9.00	650	429	101.1		79.40	31551	1436
	Per D						158.70	63102	2878
	Per m of wall					1.57	122.10	48521	2220
OZ 23A	Per S	9.50	650	429	106.5		83.60	33240	1511
	Per D						167.00	66482	3029
	Per m of wall					1.57	128.60	51120	2330
OZ 24A**	Per S	10.00	650	429	112		87.90	34924	1586
	Per D						175.80	69848	3179
	Per m of wall					1.57	135.20	53709	2450
OZ 26	Per S	10.50	675	429	122.2		95.90	38733	1869
	Per D						191.80	77504	3527
	Per m of wall					1.58	142.10	57410	2620





Cold Formed Sheet Piling

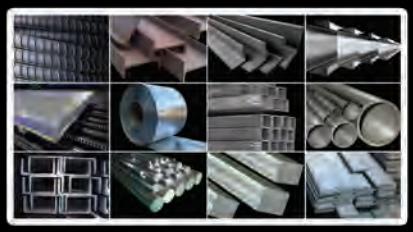
- Z section

S, D: considered neutral axis y-y

-Average of both sides (excl inside of interlocks)

-Available within short period

Type	S = Single D = Double	Thickness (mm)	Single Pile c/c Width (mm)	Inner Height (mm)	Cross Section Area(cm2)	Surface Coating Area(m2/m2)	Weight (kg/m)	Moment of Inertia(cm4)	Section Modulus (cm3)
OZ 27	Per S	11.00	675	429	127.7		99.80	40509	1809
	Per D						199.70	81058	3684
	Per m of wall					1.58	147.90	60013	2730
OZ 28A**	Per S	11.50	675	429	133		104.40	12279	1886
	Per D						208.70	84600	3841
	Per m of wall					1.58	154.60	62667	2850
OZ 29A	Per S	12.00	675	429	138.7		108.90	44043	1962
	Per D						217.80	88130	3997
	Per m of wall					1.58	161.30	65281	2960
OZ 31A	Per S	12.70	675	429	146.8		115.20	46502	2068
	Per D						230.40	93052	4213
	Per m of wall					1.58	170.70	68927	3120
OZ 32	Per S	11.00	675	476	138		108.30	52.29	2037
	Per D						216.70	104446	4289
	Per m of wall					1.66	160.50	77967	3180
OZ 33	Per S	11.50	675	476	144		113.10	54302	2124
	Per D						226.10	109012	4472
	Per m of wall					1.66	167.50	80750	3320
OZ 34A	Per S	12.00	675	476	150.1		117.80	56135	2273
	Per D						235.70	113563	4654
	Per m of wall					1.66	174.60	84121	3450
OZ 36	Per S	12.50	675	476	156.1		122.50	58953	2340
	Per D						245.10	118089	4835
	Per m of wall					1.66	181.50	87473	3580
OZ 37	Per S	13.00	675	476	162.1		127.30	61210	2426
	Per D						254.50	122621	5015
	Per m of wall					1.66	188.50	90830	3720
OZ 38A	Per S	13.50	675	476	168.1		132.00	63462	2514
	Per D						263.90	127125	5194
	Per m of wall					1.66	195.50	94167	3850
OZ 40	Per S	14.00	675	476	174.1		136.60	65703	2600
	Per D						273.30	131615	5372
	Per m of wall					1.66	202.40	97493	3980



Conversion Table

Inches	MM
1	25
1-1/8	28.58
1-1/2	38.1
2	50
2-3/8	60.33
3	75
4	100
5	125
6	150
7	175
8	200
9	225
10	250
4-1/2"	115 mm
12"	300 mm
14"	350 mm
16"	400 mm
18"	450 mm
20"	500 mm
24"	600 mm
26"	660 mm

GAUGE	MM
10	3.57
11	3.18
12	2.78
13	2.38
14	1.98
15	1.79
16	1.59
17	1.43
18	1.27
19	1.11
20	0.95
21	0.87
22	0.79
23	0.71
24	0.64
25	0.56
26	0.48
27	0.44
28	0.40
29	0.36
30	0.32
31	0.28
32	0.26
33	0.24
34	0.22

Meter	FEET
1	3.28
6M	20'
12M	40'

FRACTION TO MM SIZE

Guage	Standard	Commercial
1/8	3.18 - 3mm	2.8mm - 2mm
3/16	4.76 -4.5mm	4mm
1/4"	6.35 - 6mm	5.5mm - 5mm
5/16	7.93	
3/8	9.52 - 9mm	8.5mm - 8mm
7/16	11.113	
1/2	12.7 - 12mm	11mm
9/16	14.29	
5/8	15.87 - 15mm	14mm
3/4		
7/8	22.225	
1	25.4	

COMMONLY USED GAUGES

Guage	Standard	Commercial
14	2mm	1.7mm
16	1.5mm	1.35mm
18	1.2mm	1mm
24	0.6mm	.5mm
26	0.4mm	.3mm

FEET	Meter	INCHES
4' x 8'	1.219M x 2.438M	48" X 96"
4' x 20'	1.219M x 6.096M	48" X 240"
5' x 20'	1.524M x 6.096M	60" X 240"
6' x 20'	1.829M x 6.096M	72" X 240"

Guage	Standard
14	2mm
16	1.5mm
18	1.2mm
20	0.95mm
22	0.79mm
24	0.6mm
26	0.4mm

Inches	MM
1/16	1.59mm
1/8	3mm
3/16	4.7mm
1/4	6mm
3/8	9mm
1/2	12mm
3/4	19mm
1	25mm

MAP OF IRON AND ST

Prepared by South East Asia Iron and





EEL INDUSTRY IN ASEAN

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SEAISI

List of Major Mills in ASEAN

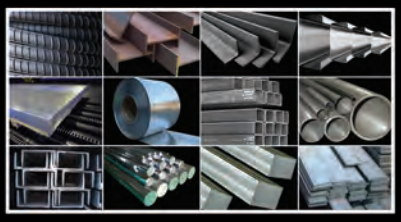
"Singapore" "Philippines" "Thailand" "Indonesia" "Malaysia" "Vietnam"

LUZON
Baguio
MANILA
PPINES
Iloilo
Cebu
Puerto Princesa
MINDANAO
Cagayan de Oro
Zamboanga
Davao
General Santos
Sardakan
Manado
Palu
SULAWESI
Parepare
Kolaka
Makassar
Ende
Waingapu
Kupang
Tual
Arafura Sea

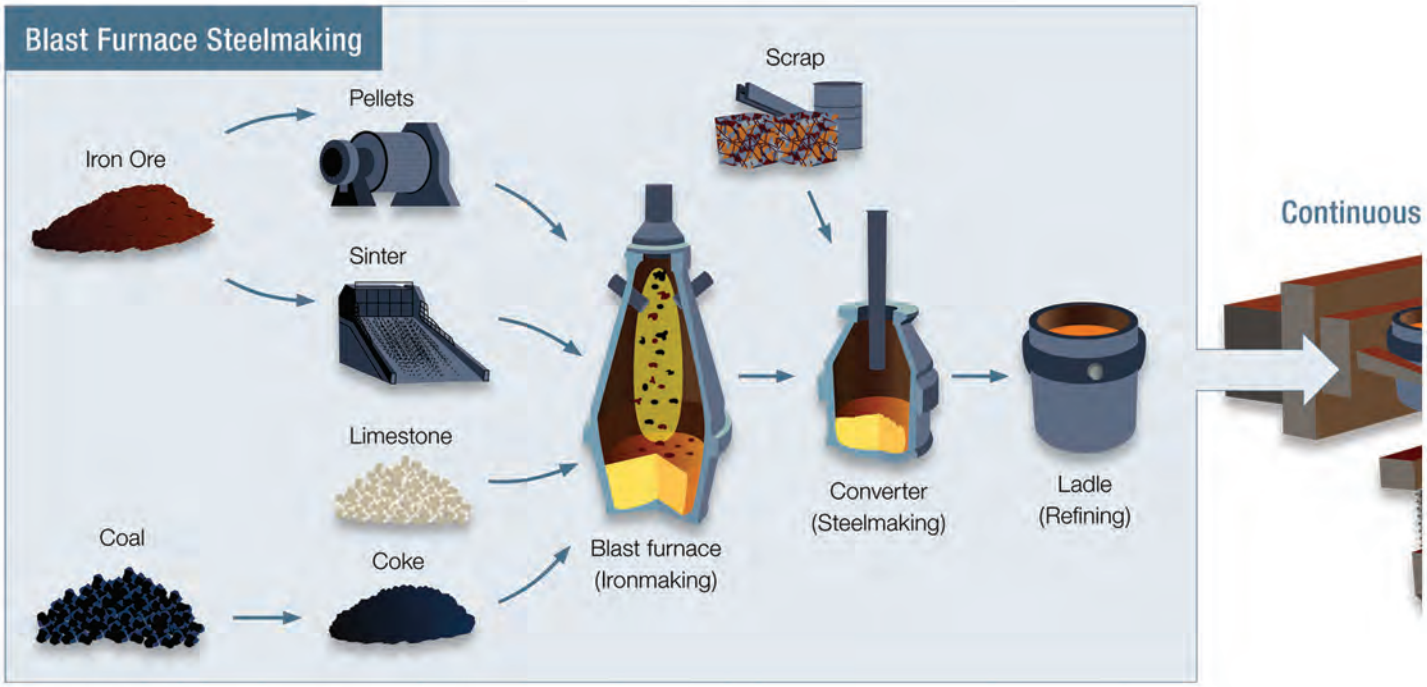
List of Major Ports in Philippines

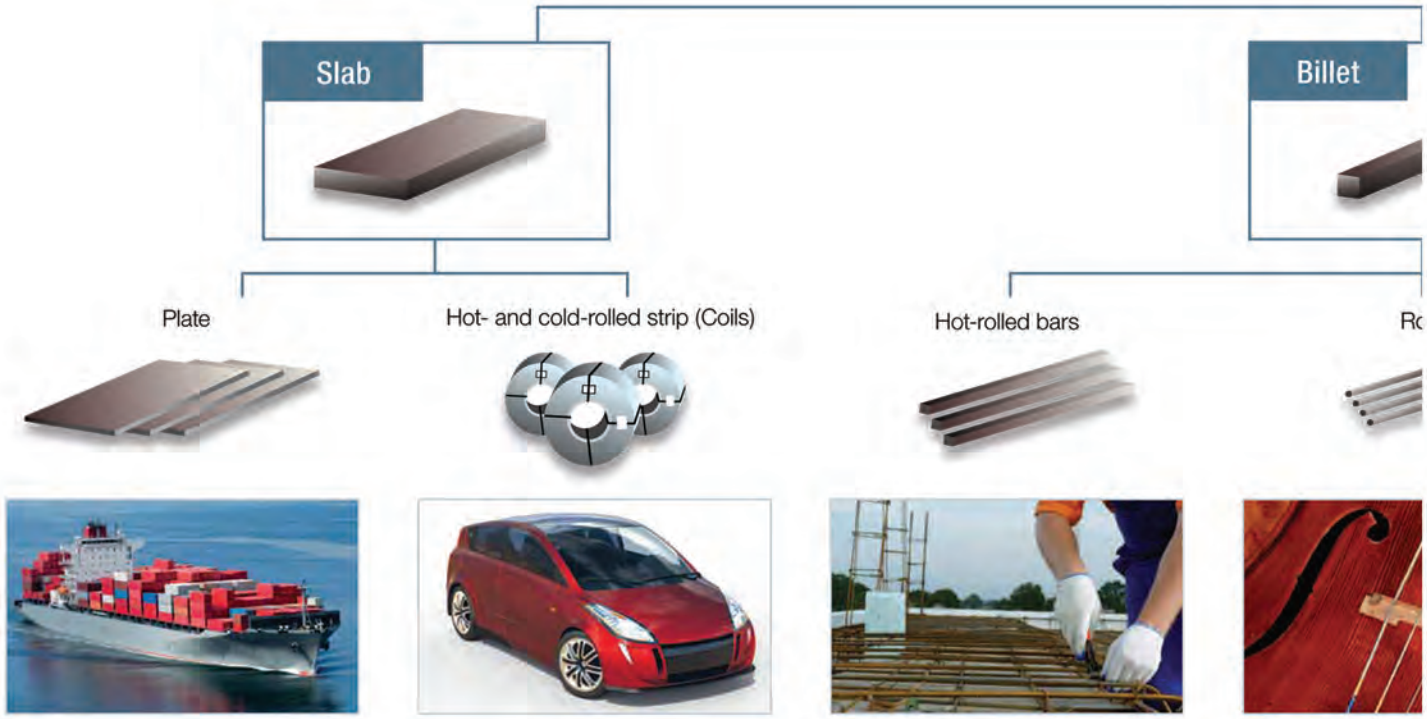
List of Major Ports in Indonesia

List of Major Ports in Malaysia

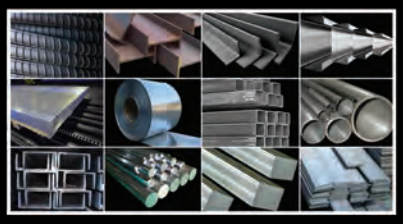


OVERVIEW OF THE STEELMAKING PROCESS

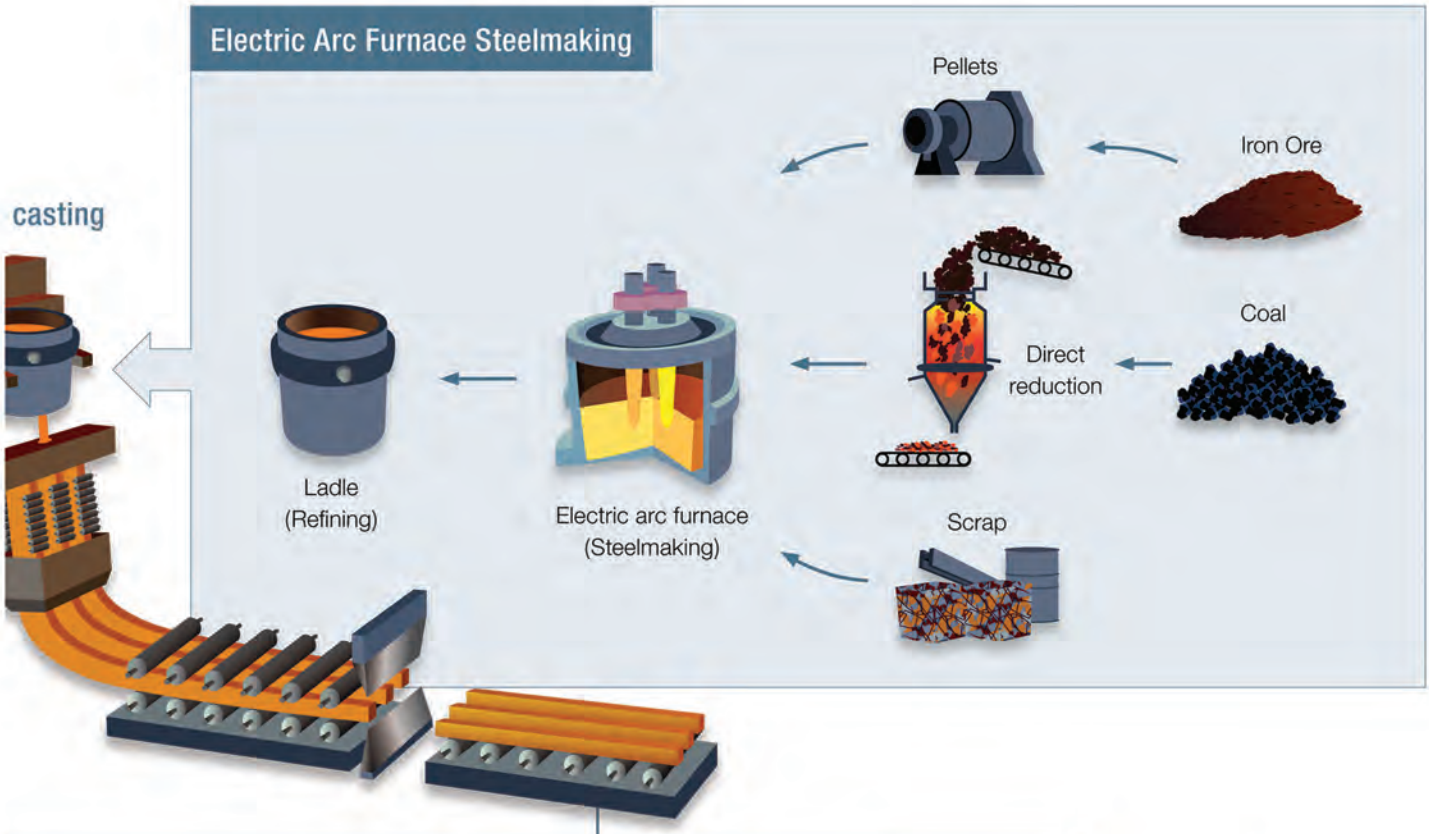


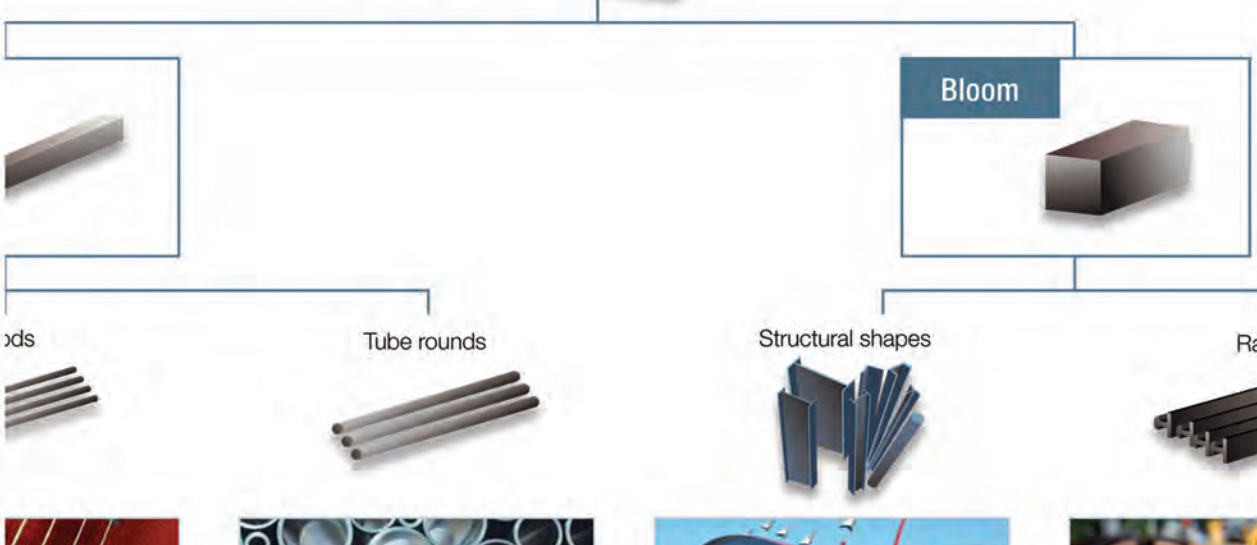


OVERVIEW OF THE STEELMAKING PROCESS

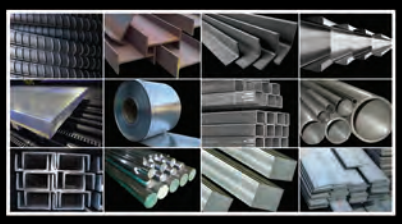


Electric Arc Furnace Steelmaking



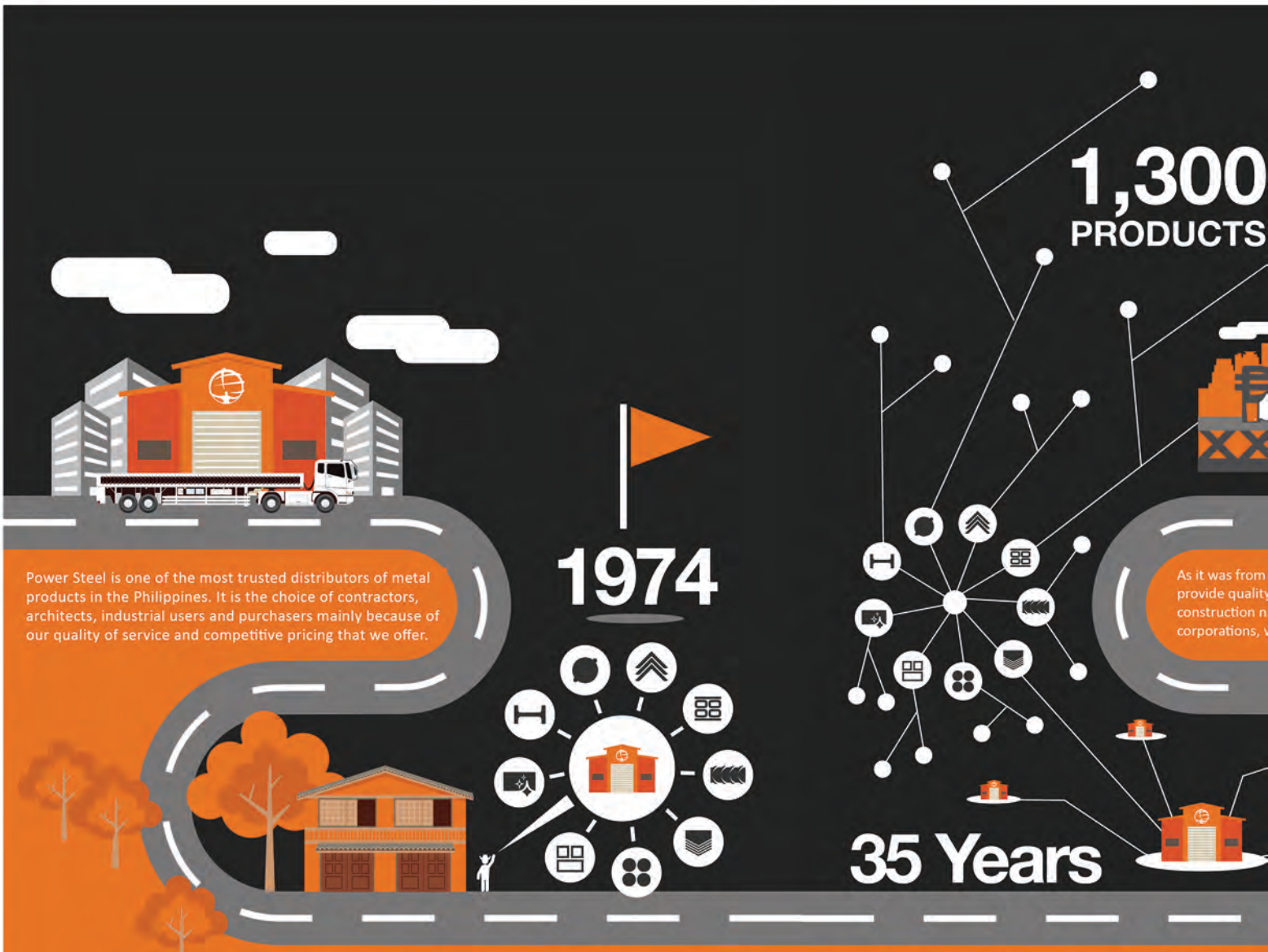






POWERSTEEL

The No.1 Steel Supplier in the Philippines



Power Steel is one of the most trusted distributors of metal products in the Philippines. It is the choice of contractors, architects, industrial users and purchasers mainly because of our quality of service and competitive pricing that we offer.

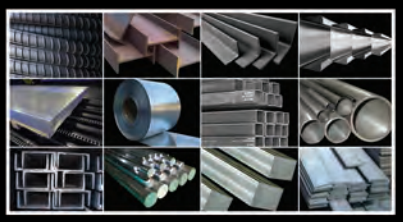
As it was from
provide quality
construction n
corporations, v

Great things start with humble beginnings. In 1974 a man in a small office in Binondo had a dream to provide quality steel products at an affordable price. This dream has become a reality now known as Power Steel.

Through the years, the Power Steel team strives to ho
best quality steel products at an affordable price. Due
and sustainable pace, now offering over 1,300 produc
we look at the industry with the boldness of the new
personalized customer service heritage.

POWERSTEEL

The No.1 Steel Supplier in the Philippines



300
DUCTS





POWERSTEEL

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As it was from the very beginning, the vision of Power Steel is to provide quality steel products at a competitive price to meet the construction needs of our customers. From households to large corporations, we aim to be the top of mind steel company.

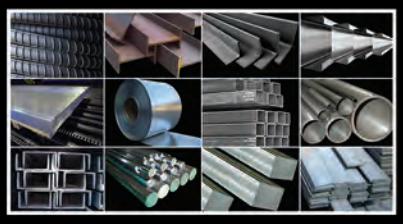
Power Steel exists to provide one thing – customer satisfaction and that is why we offer personalized service. Unlike other companies that are focused on shareholders, ours is a family operated business. Hence, we remain committed to the values instilled to us by our forefathers and that is to provide total customer satisfaction.





strives to hold true to its promise to provide
le price. Due to this, the company grew at a steady
1,300 products to supply the needs of the customers. Today,
s of the new generation yet still carrying over 35 years of

Power Steel Manila is consist of professionals in the industry. Being part of Power Steel Corporation needs to pass the requirements of being critical thinker, hardworking, passionate,multi-tasker and loyal. We assure that our employees will received the right treatment and recognition, these appreciation will drive the employees to work harder and to give out the best in them. So, if you wanted to be successful in the future, it will be an advantage if you become part of Power Steel Corporation.



POWERSTEEL
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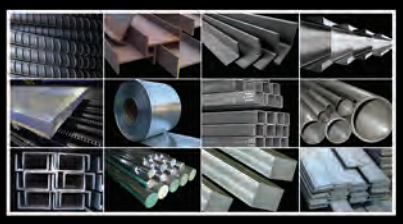
WHICH GRADE OF STAINLESS STEEL SHOULD I CHOOSE FOR MY FASTENER?

TYPES OF STAINLESS	STAINLESS GRADE	FEATURES/ BENEFITS	USEFUL FOR	IN ACTION
AUSTHENITIC	304	A general purpose grade. It is commonly used because it offers reasonable corrosion resistance, and is reasonably priced.	A variety of applications, including interior, and non-coastal exterior, or coastal ex-exterior applications which are hidden from sight (as may teastain).	
AUSTHENITIC	316	Sometimes referred to as the "marine grade" because of it's excellent corrosion resistance (better than 304).	Boat and marine applications, and exterior use near the coast (within 5km).	
AUSTHENITIC	BUMAX	A 316 grade with extra Molybdenum added. Usually made to high strength classes 80 and 100 and has excellent corrosion resistance.	Where high strength and excellent corrosion resistance is required.	
AUSTHENITIC	310	Used for high-temperature applications.	Furnaces and locations of extreme heat.	
MARTENSITIC	410	A Martensitic grade that can be hardened by heat treatment.	Self Drilling (into metal) screws in non-coastal and less corrosive environments (e.g. interior use).	
MARTENSITIC	420	A nickel-free grade with high carbon. It is stronger than 410.	Spring Pins in less corrosive environments.	
MARTENSITIC	HARDTEC	A Martensitic alloy like 410 so can be hardened with heat treatment, but has Molybdenum added and so oftersmuch better corrosion resistance (similar to 304 grade).	Self Drilling (into metal) screws.	
DUPLEX	2205	Duplex Stainless Steel - high strength properties and high corrosion resistance.	Situations requiring high strength and corrosion resistance - such as Keel Bolts.	
DUPLEX	2507	Super Duplex Stainless Steel - high strength properties and extremely high corrosion re-sistance.	Situations requiring high strength and very high corrosion resistance such as constant salt water immersion.	
PRECIPITATION HARDENED	17-4PH	Chromium-copper precipitation hardening stainless steel used for applications requiring high strength and a moderate level of corrosion resistance.	High strength applications.	

WARNING! BEWARE OF LOW NICKELSTAINLESS STEEL

SOME STAINLESS ALLOYS WITH LITTLE OR NO NICKEL, SUCH AS GRADE 201, HAVE FOUND THEIR WAY ONTO WORLD MARKETS AND ARE BEING SOLD AS 304 OR 316 - THEY MAY EVEN BE STAMPED AS SUCH. THESE ALLOYS ARE NOT SUITABLE FOR AUSTRALIA'S OR NEW ZEALAND'S HARSH CONDITIONS - ESPECIALLY COASTAL ENVIRONMENTS.

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STEEL MAKES OUR WORLD A BETTER PLACE

Each Day we create enough steel to build **548 Eiffel Towers**





IN 2013 **STEEL COMPANIES** provided each employee with **7.8** TRAINING DAYS

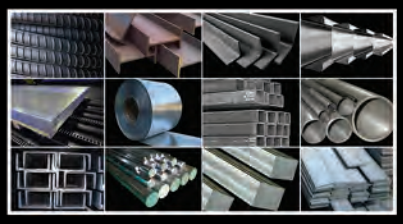
8 MILLION equivalent to the population of **Switzerland** work in our **INDUSTRY**





The $100 Billion
Paid in Tax, equates to putting **10 million** Students Through School each year or building 5000 NEW **HOSPITAL**

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COOL FACTS ABOUT STEEL

THE HISTORY OF STEEL

The earliest known production of steel is a piece of ironware excavated from an archaeological site in **ANATOLIA and is about 4,000 years old.**

The forth Bridge took **7 YEARS** and **1600 TONNES** of metal to complete.

Steel was produced in large quantities in **SPARTA** around 650 BC.

Basic oxygen steel making also known as LINZ-DONAWITZ-VERFAHREN steelmaking replaced the standard for making steel in 1950.

600 STEEL/TIN CANS ARE RECYCLED EVERY SECOND

RECYCLING STEEL SAVES THE EQUIVALENT ENERGY TO POWER ABOUT **18,000,000** HOUSEHOLDS FOR A YEAR

For every ton of steel reeyeled..

1200 kg of IRON ORE
650 kg of COAL *and*
55 kg of LIMESTONE
are conserved!

IT TAKES MORE THAN 40 TREES TO BUILD A WOOD FRAMED HOME..

IT TAKES 4 RECYCLED CARS TO FRAME A TYPICAL 2000 SQ. FT. HOUSE

WHY USE STEEL?

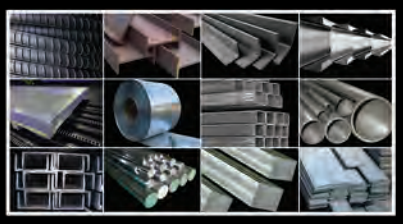
In 2006, the steel industry recycled enough steel from old cars to produce nearly **13.5 million** new ones

Time related savings from steel construction can easily amount to between 3% and 5% of the overall project value

Steel can be recycled endlessly with no detrimental effect on its properties.

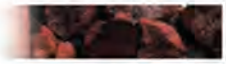
IN THE UK, 94% of steel construction components are reused or recycled

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Ingredients of Steel

Iron Ore



Iron ore is a rock that contains iron combined with oxygen. It is sourced from mines around the world. Some of the world's highest quality iron ore comes from Australia.

Coke



Coke is made from coal. Once mined, the coal is crushed and washed. Coal is then baked in coke ovens for about 18 hours. During this process, by-products are removed and coke is produced.

Flux



Flux is a term which describes minerals used to collect impurities during iron and steelmaking. Fluxes used by BlueScope Steel include limestone and dolomite. The flux causes a chemical reaction and the elements not needed for steelmaking combine to form slag.

Molten Iron



Iron is the main ingredient needed to make steel in the Basic Oxygen Steelmaking process. Molten iron is made from iron ore and other ingredients in a blast furnace.

Scrap Steel

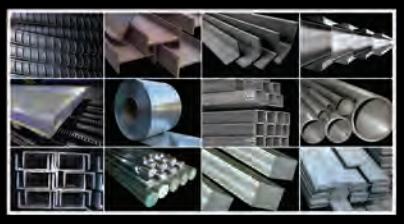


Scrap steel comes from many different sources because it is very easily recycled. Some scrap comes from within the Steelworks, where it might have been damaged or is at the end of a batch of one type vof steel.

Alloying Materials

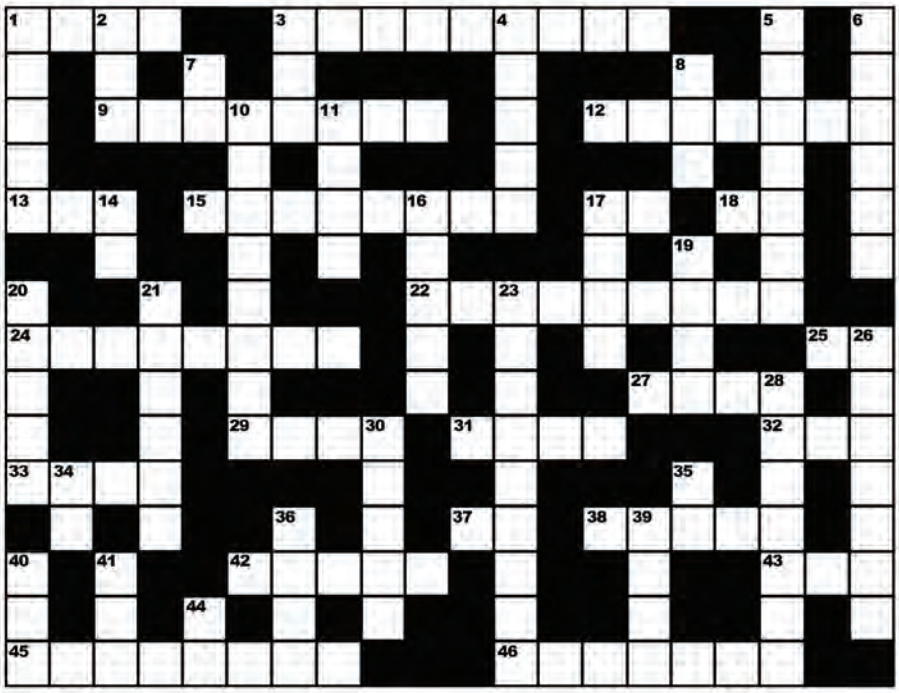


Alloying materials can be added as elements, like manganese, aluminium and nickel, or as compounds of iron. Alloying materials are used to give the steel special properties and make different types of steel.



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Iron and Steel Crossword Puzzle



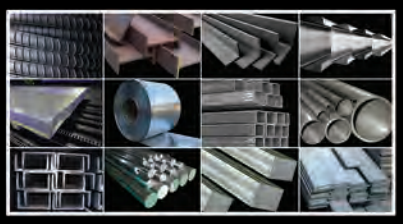
Across Clues

1. Main Ingredient Of Steel
3. Caused When Impurities Are Released Into Air And Water
9. Furnace Used For Making Specialty Steel Such As Stainless Steel
12. Element Or Compound Found In The Earth
13. Coating For Cans
15. Molecular Structures Which Form When Molten Iron Hardens
17. Carbon Monoxide
18. Calcium (Chemical Symbol)
22. Formed From Skeletons And Shells In Ancient Seabeds
24. Compound of Iron
25. Iron is Made In A Bl__t Frunace
27. Melted Impurities
29. Steelmaking Plant
31. Shape Which Is Rolled Into Sheets or Plates
32. Long Period Of Time In Geological History
33. Making Steel In A Basic Oxygen Furnace Takes Much Less___ Than In An Open Hearth Furnace
37. Reusable Iron: Sc__p
38. Strong Metal Made From Iron Mixed With Carbon And Other Elements
42. Iron Product Which Is Hammered
43. Not New
45. Main Characteristic of Steel
46. Concern of Environmentalists

Down Clues

1. Molten Steel Is Poured Into ____ Molds
2. Mineral Containing Iron
3. Hole Made By Mining The Surface
4. Quality Checks
5. Steel Is Made In A ____
6. Melted By Heating
7. Pure Iron (Chemical Symbol)
8. Before Two
10. Element In Stainless Steel
11. Iron Oxide, Makes Iron "Red"
14. Is Our Coal Supply Unlimited?
16. Mixture of Metals
17. Shape in A Mold
19. Formed Over Millions Of Years From Decaying Plants
20. Vertical Passageway In A Mine
21. Attracts Iron
23. Can Be Rolled Or Beaten Into Different Shapes
26. Where Limestone Was Formed
28. Study Of The Earth
30. Holds And Pours Molten
34. Not Out
35. You and I
36. Pepper and ____
39. Steel Product Like Saw Or Pliers
40. Light Substance Like Air
41. Helps Coke Burn
44. A Steel P___ Is A Common Fastener





Trivia



Hot Rolled Plate

Hot rolled plate is produced by hot rolling a steel slab to form a plate. Typical thickness is between 2 to 20mm and maximum width is 1860 mm.

The material is used in the shipbuilding, pressure equipment and construction industries.



Cold Rolled Sheet

Flat rolled products for which the required final thickness has been obtained by rolling at room temperature. To meet the various end use requirements, cold-rolled sheet products are metallurgically designed to provide specific attributes such as high formability, deep drawability, high strength, high dent resistance, good magnetic properties, enamelability and paintability.

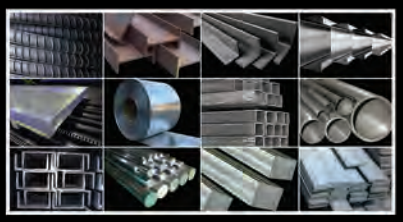
Cold rolled steel sheet is used in a wide variety of end applications such as appliances refrigerators, washers, dryers and other small appliances, automobiles - exposed as well as unexposed parts - electric motors, and bathtubs.



Reinforcing Bar

Reinforcing bar (or Rebar) is formed from a steel billet, normally having surface deformations for use in reinforcing concrete. The bar can be produced in straight lengths as well as coiled.

Rebar is used in the construction industry to reinforce concrete.



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Trivia



Merchant Bar

Merchant bar is a range of commodity carbon steel long products including round, square and hexagonal bars, angles, channels and flats. Maximum diameter or width is usually 80-100mm, although flats up to 150mm wide are included.

These are a staple item for many steel stockholders, large or small. Merchant bar is widely used in the manufacture and fabrication of a broad range of engineered products.



Structural Sections

Heavy or structural sections are steel products such as beams or columns which are usually formed with a specific cross section shape e.g. H, I or U.

Used to build large structures such as multi-storey buildings and bridges.

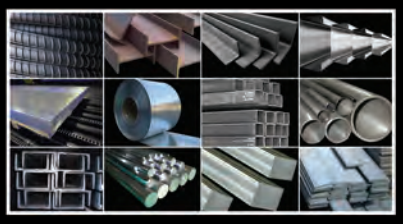


Stainless Steel

Stainless steel is the generic name for a number of different steels used primarily for their resistance to corrosion. The one key element they all share is a minimum percentage of chromium: 10.5%. Although other elements are added to improve corrosion resistance, chromium is always present. The principal grades are austenitic (typically 16-26%Cr, 6-22Ni); ferritic (10.5-28%Cr with no/low Ni); martensitic (higher carbon content than ferritic and typically 12-19% Cr with low/no Ni); and duplex, a dual-phase austenitic/ferritic steel (Cr>21%, Ni <8%).

Its many varied applications include food production and storage equipment, pumping and storage of oils, gases and acids, specialist components in the automotive industry, cutlery, surgical instruments and fasteners.

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VICINITY MAPS

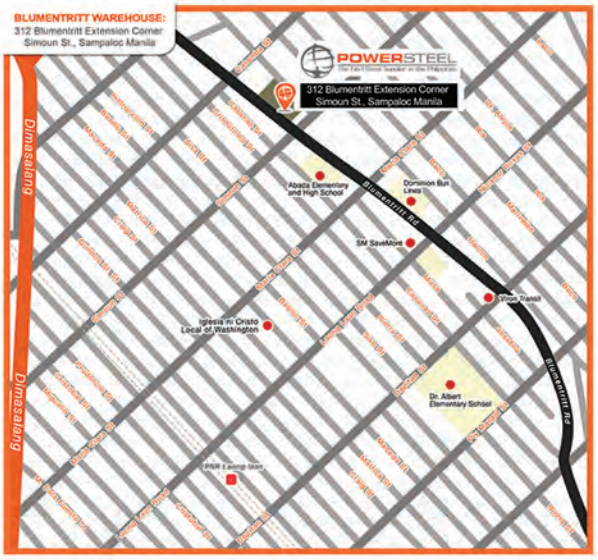
MANILA

1714 Maria Clara St. corner
M. Dela Fuente St. Sampaloc, Manila



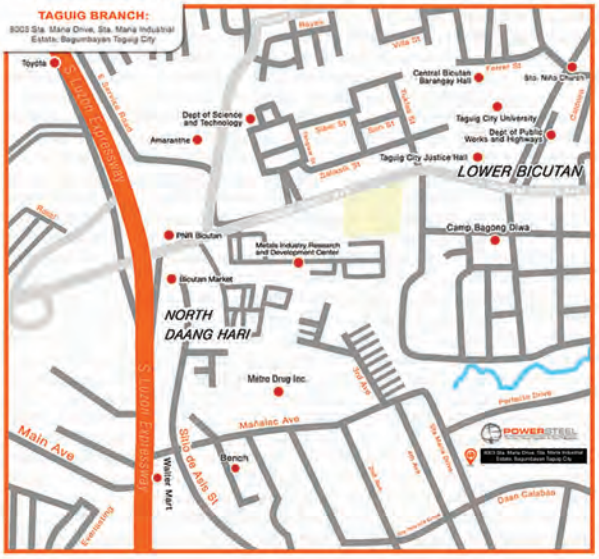
BLUMENTRITT

312 Blumentritt Extension Corner
Simoun St., Sampaloc, Manila

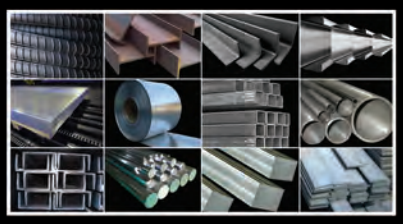


TAGUIG

8003 Sta. Maria Drive, Sta. Maria
Industrial Estate, Bagumbayan Taguig City



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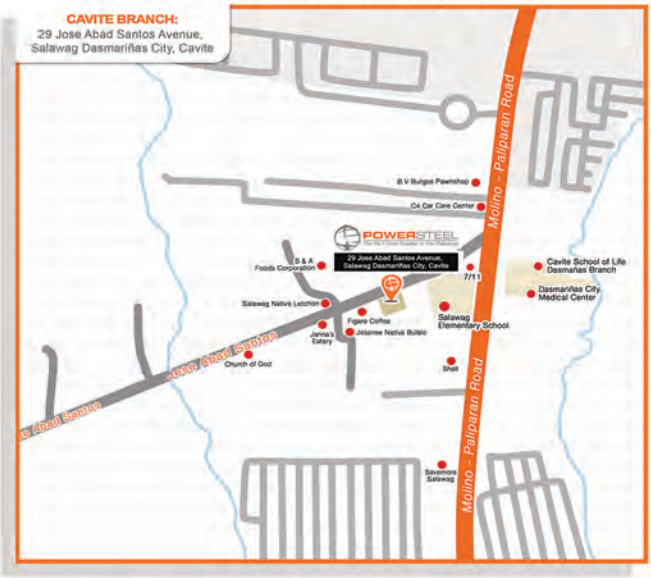


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VICINITY MAPS

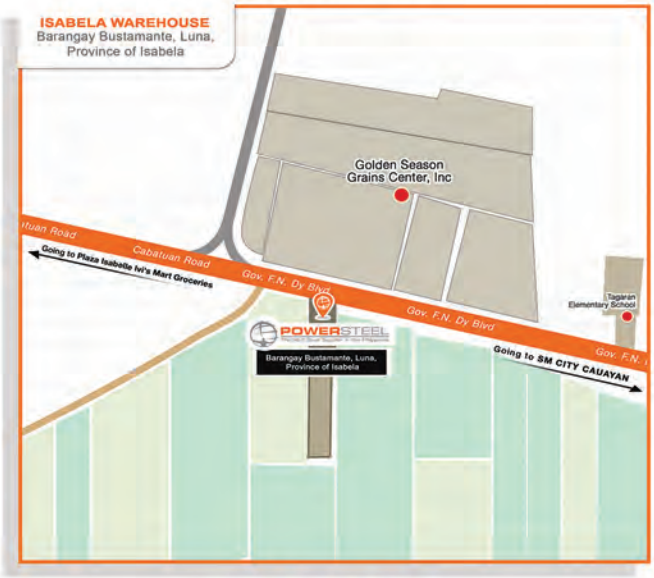
CAVITE

29 Jose Abad Santos Avenue,
Salawag Dasmariñas City, Cavite



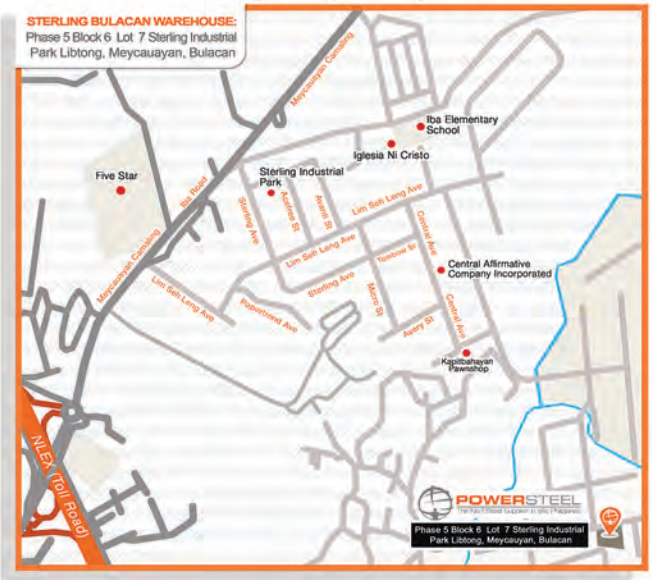
ISABELA

Barangay Bustamante, Luna
Province of Isabela



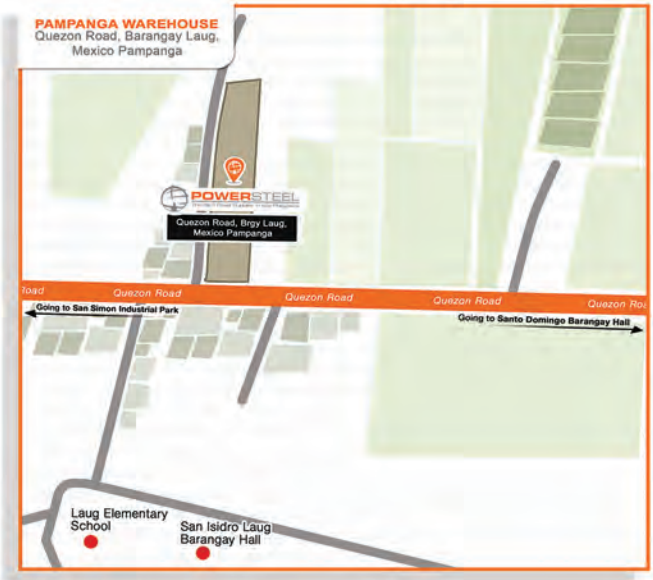
STERLING BULACAN

Phase 5 Block 6 Lot 7 Sterling Industrial
Park Libtong, Meycauayan, Bulacan

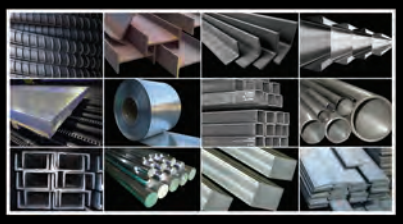


PAMPANGA

Quezon Road, Barangay Laug,
Mexico Pampanga



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VICINITY MAPS

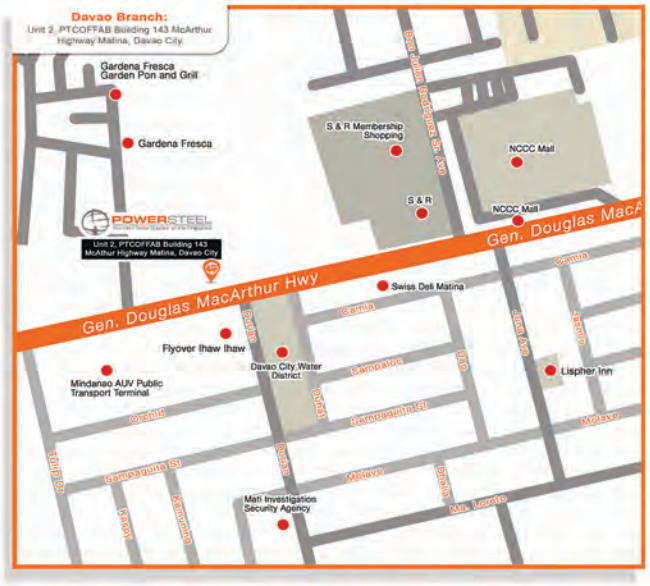
CEBU

M.C Briones St.,
Highway Mandaue City, Cebu



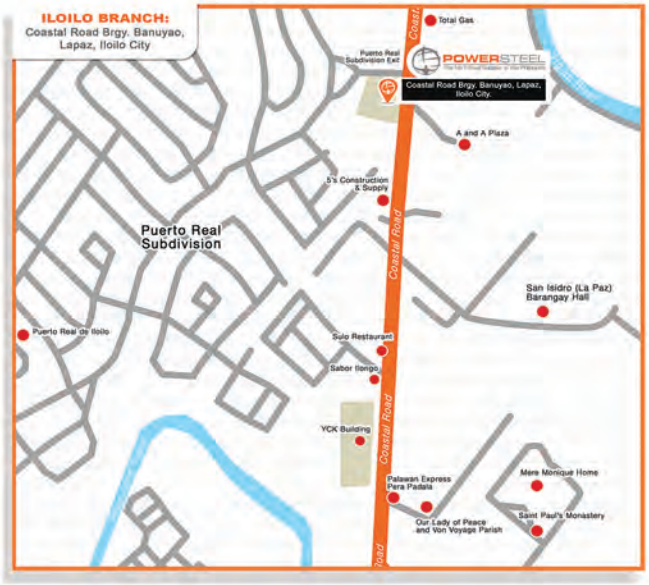
DAVAO

Unit 2, PTCOFFAB Building 143
McArthur Highway Matina, Davao City



ILOILO

Coastal Road Brgy. Banuyao,
Lapaz, Iloilo City



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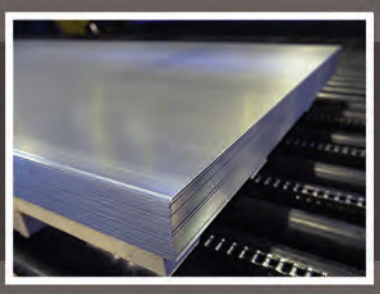
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