

THE NEW

STEEL

WAVE...

Complete Steel Solution

ABOUT US

With an experience of more than 10 years, Mr. Harshal Waje has successfully curved his expertise in sourcing high quality metal and steel. By establishing a strong association with leading manufacturers, we provide a diverse range of boiler, vessels, and special and high quality tensile plates to our coveted customers. Our products are sourced from renowned vendors such as Duferco, Arcelormittal Steel, Jindal Steel, ESSAR, SAIL and Welspun. We also offer customized metal & steel solutions to a multitude of industries including energy, automotive, construction, HED, defense and other sectors. As a contribution of our value-add to customers, we provide steel solution to alternative industries such as high strength steel to energy, heavy equipment, non-ferrous steel to electronics, marine and other sectors.

We have sophisticated warehouse unit based at Talwade, Pune, which help us to stock nearly 10000 to 15000 metric ton of plates, coils, rounds, steel structural of different grades and thickness. We are specialized in keeping IBR(Indian Boiler Regulations) Certified plates of Boiler quality.



“I’m glad that our efforts have exhibited a Sustainable business model in today’s competitive environment. Complete Steel Solution has since been creating opportunities for its employees, customers and partners.

We endeavor excellence in our service and encourage a synergetic work culture.

I can say with confidence that Complete Steel Solution has become one of the most sought after destination for commercial and heavy duty metal requirements.”

- Harshal Waje, MD

Why choose

Complete Steel Solution

Over the years leading Indian Steel manufacturers have established strong partnerships with Complete Steel Solution for some very sound reasons:

1 SUPERIOR QUALITY PRODUCTS

You will get superior quality products and material according to your requirement at the minimum and competitive possible price.

2 STATE OF THE ART WAREHOUSING FACILITIES

We have our inventories stocked from 10,000 to 15,000 metric ton of plates, coils, rounds and steel structural of different grades and thickness. We have State of the Art Warehousing and cutting facilities at our warehouse at Talwade, Pune to provide you with undamaged material quality and best service.

3 TIMELY DELIVERIES

We simplify your logical requirement to help you procure the delivery in timely manner.

4 CUSTOMER FOCUSED APPROACH

We are fully dedicated to our customers. If it will not possible to meet your requirements after examining all options, we will not mislead you by making false promises.

5 SALES AND DISTIBUTION NETWORK

Our sales and distribution network in India is strong enough made by our distribution channel.

OUR PRODUCTS

At Complete Steel Solution, we have the proven skills and experience to virtually work with any metal and cater to every customer's needs. Acquire a range of products with uniform dimensional accuracy, grades & specifications, equipped with tight tolerance for robust operations .

1. HOT ROLLED COILS

Complete Steel Solution brings forth an impregnable range of hot rolled coils. These products primarily serve petrochemical, chemical, oil & gas, construction and shipbuilding industries.



GRADES

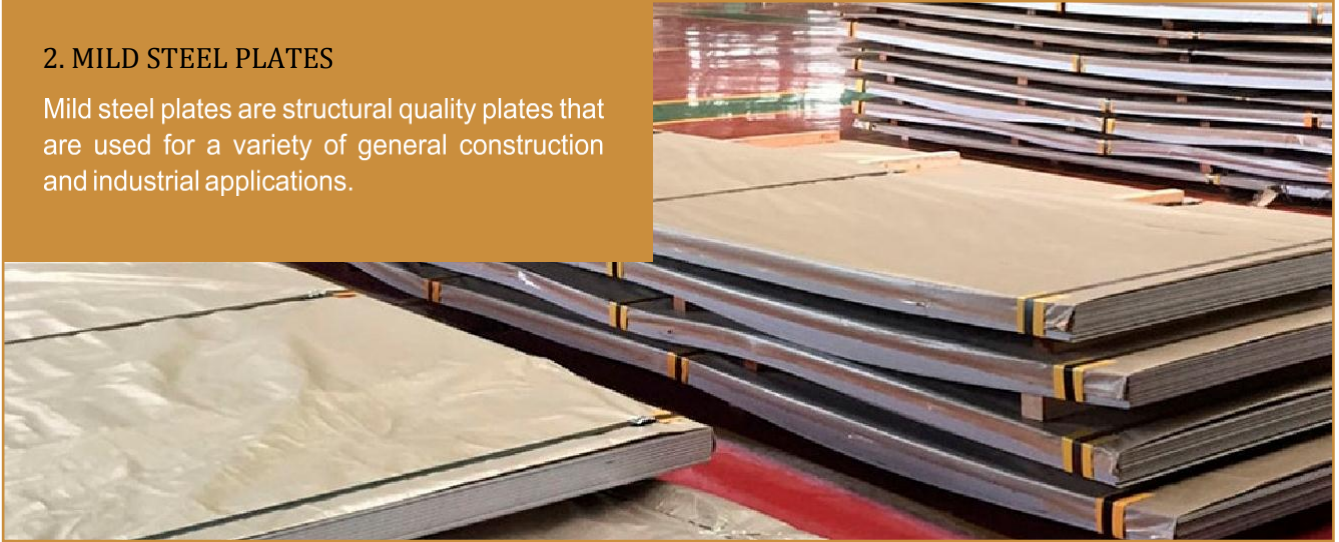
IS2062 E250 A/DR/BO | ASTM - A 36

SPECIFICATIONS

Specifications	Chemical						Mechanical					Mpa, min
	C Max	Min Max	Si Max	S Max	P Max	Micro Alloy	Tensile Min	Yield Min	%EL Max	Min 200GL	Bend	Impact
ASTM-A 36	0.26	1.2	0.15 0.40	0.05	0.04	—	400-550	250	21	18	2T	—
IS 2062												
E250A	0.23	1.5	0.4	0.045	0.045	—	410	250	23	—	2T	—
E250BR E250BO	0.22	1.5	0.4	0.045	0.045	—	410	250	23	—	2T	27 J at 25° C 27 J at 0° C 27 J at -20° C
E250C	0.20	1.5	0.4	0.040	0.040	—	410	250	23	—	2T	

2. MILD STEEL PLATES

Mild steel plates are structural quality plates that are used for a variety of general construction and industrial applications.



GRADES IS2062 E250 A/DR/BO / C | ASTM - A 36

Specifications	Chemical						Mechanical					Mpa, min
	C Max	Mn Max	Si Max	S Max	P Max	Micro Alloy	Tensile Min	Yield Min	%EL Max	Min 200GL	Bend	Impact
ASTM-A 36	0.26	1.2	<u>0.15</u> 0.40	0.05	0.04	—	400-550	250	21	18	2T	—
IS 2062												
E250A	0.23	1.5	0.4	0.045	0.045	—	410	250	23	—	2T	—
E250BR	0.22	1.5	0.4	0.045	0.045	—	410	250	23	—	2T	27 J at 25° C
E250BO	0.20	1.5	0.4	0.040	0.040	—	410	250	23	—	2T	27 J at 0° C
E250C						—						27 J at-20° C

3. HIGH TENSILE STEEL PLATES

Due to its high strength, it enables design of lighter, highly durable and efficient products and structures.



GRADES

EN10025 S355J2 +N / IS2062 E350C | IS2062 E 350 A

SA 572GR50

| EN10025 S355JR/ IS2062

E350BR EN10025 S355J0+ N / IS2062 E350B0

SPECIFICATION

Specifications	Chemical						Mechanical					Mpa, min
	C Max	Min Max	Si Max	S Max	P Max	Micro Alloy	Tensile Min	Yield Min	% EL 50 GL	% EL 200 GL	Bend	Impact
EN 10025												
S 355 JR	0.20	1.6	0.35/0.55	0.035	0.035	—	490/630	355	22	—	2T	+20° C/27J
S 355 JO	0.20	1.6	0.35/0.55	0.030	0.030	—	490/630	355	22	—		0° C/27J
S 355 J2G3/J2+N	0.20	1.6	0.55	0.025	0.025	—	490/630	355	20	—	2T	-20° C/27J
S 355 K2G3/K2+N	0.20	1.6	0.55	0.025	0.025	—	490/630	355	20	—	2T	-20° C/40J
IS 2062												
E 350 A	—	—	—	—	—	—	—	—	—	—	—	—
E 350 BR	0.20	1.55	0.45	0.045	0.045	—	490 Min	350 Min	22	—	2T	+25° C/27J
E 350 BO	—	—	—	—	—	—	—	—	—	—		0° C/27J
E 350 C	0.20	1.55	0.45	0.40	0.40	—	490 Min	350 Min	22	—	2T	-20° C/27J
SAILMA												
350 HI	0.20	1.5	—	0.04	0.04	0.30	490/610	350	21	—	3T	-20° C/30J
410 HI	0.20	1.5	—	0.04	0.04	0.30	540/660	410	20	—	3T	-20° C/25J
450 HI	0.20	1.5	—	0.04	0.04	0.30	570/720	450	19	—	3T	-20° C/20J

4. BOILER QUALITY PLATES

These products are primarily used for fabrication of boilers in industries like shipbuilding, petrochemical and manufacturing.



GRADES

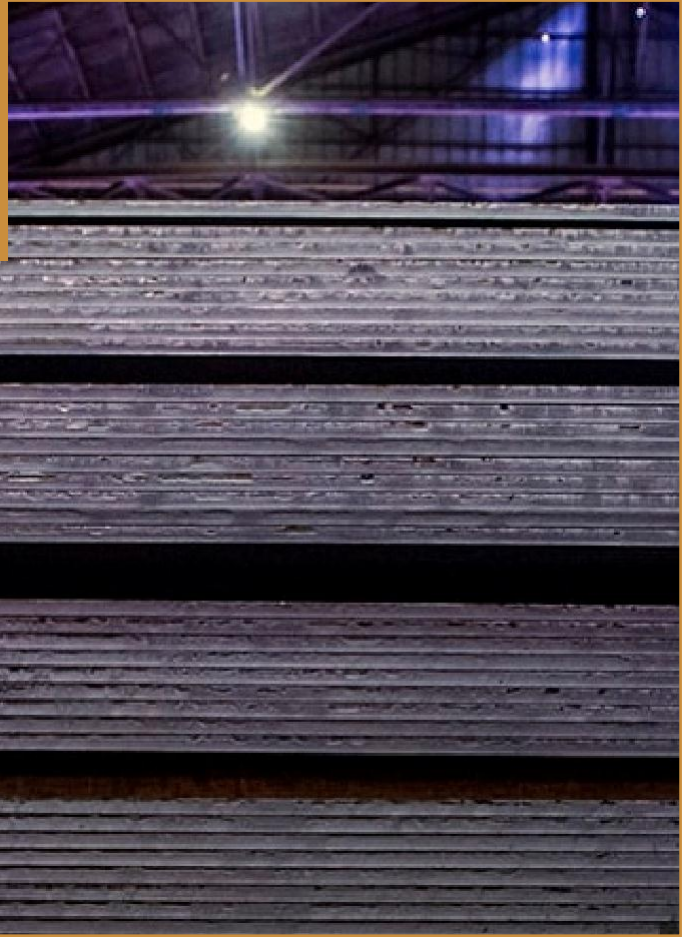
516GR70 / IS2041 R 260 | 516GR60 / IS2041 R 220 | 516GR70 / 60 (HIC NACE)
 515GR70 / IS2002 GR3 | ASTM - A 537 CL - 1

SPECIFICATIONS

Specifications	Chemical						Mechanical		Mpa, min			
	C Max	Mn Max	Si Max	S Max	PC Max	E	Tensile Min	Yield Min	% EL 50 GL	% EL 200 GL	Bend	Impact
ASTM - A516												
Gr - 60	0.23	0.85/1.2	0.15/0.40	0.04	0.035	0.42	415/550	415/550	25	21	1.5T	-46oC / 18J
Gr - 70	0.28	0.85/1.2	0.15/0.40	0.04	0.035	0.43	485/620	485/620	21	17	2T	-46oC / 20J
IS 2041												
R 220	0.21	0.60-1.5	0.15-0.35	0.035	0.035	—	415-540	415-540	21	—	3T	-20oC / 27J
R 260	0.25	0.85-1.5	0.15-0.35	0.035	0.035	—	490-620	490-620	21	—	3T	-20oC / 27J
R355	0.18	1.10-1.7	0.50 Max	0.015	0.025	—	490-640	490-640	21	—	—	-40oC / 40J
H 235	0.16	0.60-1.2	0.35 Max	0.015	0.025	0.025	360-480	360-480	24	—	—	—
H 265	0.20	0.80-1.4	0.40 Max	0.015	0.025	0.025	410-530	410-530	22	—	—	—
H 295	0.20	0.90-1.5	0.40 Max	0.015	0.025	0.025	460-580	460-580	21	—	3T	-20oC / 27J
H355	0.22	1.10-1.7	0.60 Max	0.015	0.025	0.025	510-650	510-650	20	—	—	—
ASTM-A 515												
Gr - 60	0.22	0.90	0.15/0.40	0.035	0.035	—	415/550	415/550	25	21	1.5T	
Gr - 70	0.31	1.20	0.15/0.40	0.035	0.035	—	485/620	485/620	21	17	2T	
IS 2002 Gr -1 & DIN 17155 Gr - H1	0.18	0.50/1.20	0.15/0.35	0.04	0.035	0.44	360/480	360/480	24	—	2T	—
IS 2002 Gr -2 & DIN 17155 Gr - H2	0.20	0.50/1.20	0.15/0.35	0.04	0.035	0.44	410/530	410/530	22	—	2T	—
IS 2002 Gr -3 & DIN 17155 Gr - H3	0.22	0.50/1.20	0.15/0.35	0.04	0.035	0.44	460/580	460/580	21	—	3T	—
ASTM-A 537 CL - 1	0.24	0.7/1.6	0.15/0.50	0.035	0.035	0.45	485/620	485/620	22	18	2T	-30oC / 20J

5. ALLOY STEEL PLATES

These steels have been developed to possess critical properties like strength, hardness, toughness, wear and corrosion resistance.



GRADES

ASTM - A 387 GR 11 CL 1 / CL 2 |

ASTM - A 387 GR 22 CL 2 |

ASTM - A 387 GR 12 CL 1 / CL 2

SPECIFICATIONS

Specifications	Chemical									Mechanical		Mpa, min		
	C Max	Mn Max	Si Max	S Max	P Max	Cr Max	Mo Max	Ni Max	Cu Max	Tensile	Yield	%EL		Bend
												50GL	200EL	
ASTM-A 36														
Gr 11 - Cl 2	0.17	0.40/0.65	0.40/0.65	0.04	0.035	0.035	1.0/1.50	-	-	515/690	310	22	18	-
Gr 11 - Cl 2	0.17	0.40/0.65	0.40/0.65	0.04	0.035	0.035	0.80/1.15	-	-	450/585	275	22	19	-
Gr 11 - Cl 2	0.15	0.30/0.60	0.30/0.60	0.035	0.035	0.035	4.0/6.0	-	-	515/690	310	18	-	-
Gr 11 - Cl 2	0.15	0.30/0.60	0.30/0.60	0.035	0.035	0.035	2.0/2.5	-	-	515/690	310	18	-	-

6. WEAR RESISTANT STEEL PLATES

It is suitable for a variety of applications in areas such as mining/quarrying, conveyors, material handling and construction, and earthmoving.



GRADES

ROCK STAR 400 | DILLIDUR 400 | HARDOX 400 | QUARD 400
 ABREX 400 | ARNA PRO 500 | DILLIDUR 500 | HARDOX 500
 QUARD 500 | ABREX 500

SPECIFICATIONS

Specifications											Mechanical		Mpa, min	
	C Max	Mn Max	Si Max	S Max	P Max	Cr Max	Mo Max	Ni Max	B Max	CE Max	HARDNESS BHN	Tensile	Yield	%EL
HARDOX 400	0.12	1.25	0.47	0.002	0.011	0.035	0.60	.04	0.004	0.40	370/430	1200	1000	10%
HARDOX 500	0.30	1.6	0.7	0.01	0.02	0.035	0.6	1.5	0.005	0.43	470/530	1450	1250	12%
DILLIDUR 400	0.20	1.8	0.7	0.01	0.025	0.035	0.5	0.8	0.005	0.49	370/430	1200	800	12%
DILLIDUR 500	0.30	1.6	0.7	0.01	0.0025	0.035	0.5	1	0.005	0.57	470/530	1600	1100	9%
QUARD 400	0.17	1.6	0.6	0.01	0.025	0.035	0.3	0.1	0.005	0.45	370/430	1300	1160	10%
QUARD 500	0.30	1.6	0.8	0.01	0.025	.035	0.5	1	0.005	0.61	470/530	1700	1500	12%
ROCK STAR 400	0.18	1.6	0.7	0.01	0.025	0.035	0.25	0.25	0.004	0.48	370/430	1250	1000	12%
ARMA PRO	0.32	1.2	0.7	0.01	0.025	0.035	0.7	1.8	0.005	0.7	480/540	1450	1250	8%
ABREX 400	0.21	2	0.7	0.01	0.025	0.035	0.6	1	0.005	0.7	360/440	1290	1000	10%
ABREX 500	0.35	2	0.7	0.01	0.025	0.035	0.6	1	0.005	0.7	450/550	1705	1500	12%

7. CHEQUERED STEEL PLATES

These plates are extensively used in domestic as well as commercial and industrial purposes such as automobiles, structural application and fabrication structural



GRADES

IS 3502

SPECIFICATIONS

Standard Specification		Chemical Composition (%)								
Equivalent Specification	Grade	C max	Mn max	S max	P max	Si max	Ai	N max	Micro alloys max	CE max
IS 3502	E250A	0.23	1.50	0.045	0.045	0.040		0.012	0.25	0.42
EN 10025	S275JR	0.21	1.50	0.035	0.035			0.012		0.40
ASTM A36	A36	0.25		0.050	0.040	0.040				

Mechanical Properties ('t' =thickness in mm & 'GL'='Gauge Length)						
Tensile Test Direction	YS (Mpa) min	UTS (Mpa)	%EL(min) GL:5.65\ (A)	Bend (180 Deg)	Temp C	Si max
T	250	410	23	21		
T	275	410-560	21		20	27
T	250	400-550				

8. CARBON STEEL PLATES

Due to its high thickness, carbon steel plate is used for products that require durability and applied for agricultural equipment , construction, forgings axes



GRADES

C45 - SAE1050

SPECIFICATIONS

C45 Plates Chemical Composition						
Grade	C	Mn	P	S	Cr	Si
C450	0.42 - 0.50	0.70-0.90	0.025 max	0.025 max	0.10-0.20	0.40max

C45 Sheets, Plates Mechanical Properties

Grade	Condition	Yield Strength R° (Mpa)	Tensile Strength (Mpa)	Elongation A5(%)	Hardness HRC	Quenching Temperature (°C)	Bendability	Nominal Thickness,t 1.95mm≤t≤10.0mm	
								Rolled	Annealed
C45	Rolled	460	750	18	58	820	Min.reco-mmended Bending radius (≤90°)	2.0xt	1.0xt
	Annealed	330	540	30	55	860			
	Water-quenched		2270						
	Oil quenched		1980						

9. COLD ROLLED COILS

Cold rolling increases strength, enhances the surface finish and offers uniform thickness. Automobile industry uses CR Sheets to produce car body panels.



GRADES

A 1008: DS type A & B, DDS, EDDS, EDDS+

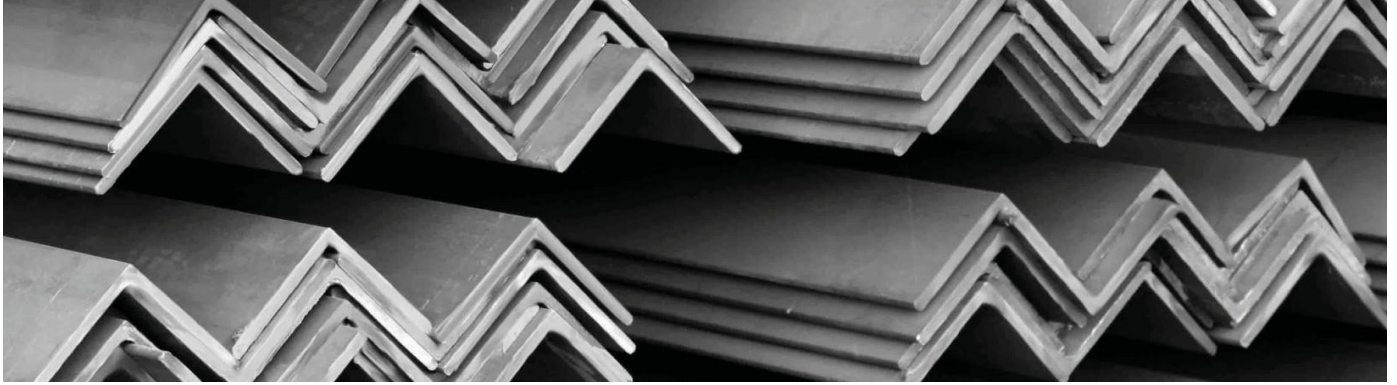
SPECIFICATIONS

Cold Rolled 1008/1010 Steel Physical Properties		
ASTM A1008/1010		
Temper	Designation	Alloy
Dead soft	DS Type - B	1008
Commercial Quality	CS Type - B	1008/1010
1/4 Hard		1008/1010
1/2 Hard		1008/1010
Full Hard		1008/1010

Cold Rolled 1008/1010 Chemical Properties															
ASTM A1008/1010															
Designation	C	Mn	P	S	Al	Si	Cu	Ni	Cr	Mo	V	Cb	Ti	N	B
CS Type - A	0.10	0.60	0.030	0.035	-	-	0.20	0.20	0.15	0.06	0.008	0.008	0.025	-	-
CS Type - B	0.02 -0.015	0.60	0.030	0.035	-	-	0.20	0.20	0.15	0.06	0.008	0.008	0.025	-	-
CS Type - C	0.08	0.60	0.010	0.035	-	-	0.20	0.20	0.15	0.06	0.008	0.008	0.025	-	-
DS Type - A	0.08	0.50	0.020	0.030	0.01 min	-	0.20	0.20	0.15	0.06	0.008	0.008	0.025	-	-
DS Type - B	0.02-0.08	0.50	0.020	0.030	0.02 min	-	0.20	0.20	0.15	0.06	0.008	0.008	0.025	-	-
DDS	0.06	0.50	0.020	0.025	0.01 min	-	0.20	0.20	0.15	0.06	0.008	0.008	0.025	-	-
EDDS	0.02	0.40	0.020	0.020	0.01 min	-	0.10	0.10	0.15	0.03	0.10	0.10	0.15	-	-

10. ANGLES

Hot rolled equal leg angles which are available in a variety of grades and sizes, making it ideal for structural applications, general fabrication, machining and repairs



SPECIFICATIONS

MS ANGLES (EQUAL)		
Size	Average Weight	
	mm	kg/mtr
25X3	1.1	0.3
25X5	1.8	0.5
25X6	2.1	0.6
30X3	1.4	0.4
35X3	1.6	0.5
35X4	2.1	0.6
35X5	2.6	0.8
37X3	1.7	0.5
40X4	2.4	0.7
40X5	3	0.9
40X6	3.5	1.1
45X4	2.7	0.8
45X5	3.4	1
50X4	3	0.9
50X5	3.8	1.2
50X6	4.5	1.4
60X5	4.5	1.4
65X4	4	1.2
65X5	4.9	1.5
65X6	5.8	1.8
65X8	7.7	2.4
65X10	9.4	2.9
75X5	5.7	1.7
75X6	6.8	2.1
75X8	8.9	2.7
75X10	11	3.4
75x12	13	3.94
90X6	8.2	2.5
90X7	9.5	2.9
90X8	10.8	3.3

MS ANGLES (EQUAL)		
Size	Average Weight	
	mm	kg/mtr
90X10	13.4	4.1
100X6	9.2	2.8
100X7	10.7	3.3
100X8	12.1	3.7
100X10	14.9	4.5
100X12	17.7	5.4
110X8	13.8	4.18
110X10	16.6	5.03
110X12	20.8	6.3
130x10	19.7	5.97
130x12	23.5	7.12
MS ANGLES (UNEQUAL)		
Size	Average Weight	
	mm	kg/mtr
45X30X4	2.2	0.67
45X30X5	2.8	0.85

11. CHANNELS



11. SQUARE BARS



SPECIFICATIONS

MS CHANNELS		
Size	Average Weight	
<i>mm</i>	<i>kg/mtr</i>	<i>kg/ft</i>
70X35	4.2	1.3
75X40 ST	7.1	2.2
75X40 MD	6.5	2
75X40 LT	5.7	1.7
100X50 ST	9.6	2.9
100X50 MD	9.2	2.8
100X50 MD	8.7	2.6
100X50 LT	7.9	2.4
120x55	12.5	3.1
125X65	13.1	4
150X75	16.8	5.1
200X75	22.3	6.8

MS SQUARE BARS		
Size	Average Weight	
<i>mm</i>	<i>kg/mtr</i>	<i>kg/ft</i>
10X10	0.8	0.2
12X12	1.1	0.3
14X14	1.5	0.5
16X16	2	0.6
20X20	3.1	1
25X25	4.9	1.5
32X32	8	2.4
40X40	12.6	3.8
42X42	13.85	4.2

MS ROUND BARS		
Size	Average Weight	
	<i>mm</i>	<i>kg/mtr</i>
10	0.62	0.19
12	0.9	0.3
14	1.2	0.4
16	1.6	0.5
18	2	0.6
20	2.5	0.8
22	3	0.9
25	3.9	1.2
28	4.8	1.5
32	6.3	1.9
34	7.14	2.16
36	8	2.42
40	9.9	3
45	12.5	3.79
50	15.4	4.7
56	19.36	5.87
60	22.2	6.8
63.5	19.36	7.55
65	26.08	7.9
70	30.2	9.2
73	32.9	9.97
75	34.72	10.52
78	37.56	11.38
80	39.5	12
85	44.6	13.51
90	50	15.2
93	53.39	16.18
95	55.71	16.88
100	61.5	18.8
105	68.06	20.62
110	74.6	22.75
115	81.64	24.74
125	96.45	29.23



Complete Steel Solution



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