DEFORMED BARS

We are producing deformed bar as per ASTM A615 standard. Deformed bars in grade 40 & grade 60 are being producing in all sizes as per customer requirement. The normal range of production is 10mm to 36mm dia as per ASTM standard. The deformed bar have the following normal Users:

- General purpose concrete reinforcement
- Structures
- Bridges
- Flyovers
- Dams
- High Rise Buildings
- Industrial Structures
- Concrete roads
- Underground Structures

Deformed bars possess a unique strength,ductility and bend-ability which is significantly higher than the stipulated requirements of conventional bars.

Deformed Bar Designation Numbers, Nominal Weights (Masses), Nominal Dimensions

	Nominal Weight,	Nominal Dimensions,	
Bar designation no. (mm)	ib-ft Nominal Mass, kg/m	Diameter in.(mm)	Cross Sectional Area in.(mm)
3 (10)	0.376 (0.560)	0.375 (9.5)	0.11 (71)
4(13)	0.668 (0.994)	0.500 (12.7)	0.20 (129)
5(16)	1.043 (1.552)	0.625 (15.9)	0.31 (199)
6(19)	1.502 (2.235)	0.75 (19.1)	0.44 (284)
7(22)	2.044 (3.042)	0.875 (22.2)	0.60 (287)
8(25)	2.670 (3.973)	1.000 (25.4)	0.79 (510)
9(29)	3.400 (5.060)	1.128 (28.7)	1.00 (645)
10(32)	4.303 (6.404)	1.270 (32.8)	1.27 (819)
11(36)	5.313 (7.907)	1.410 (35.8)	1.56 (1006)
14(43)	7.65 (1 1.38)	1.693 (43.)	2.25 (1452)
18(57)	13.60 (20.24)	2.257 (57.3)	4.00 (2581)

Bend Test Requirements

Pin Diameter for Bend Tests			
Bar designation no. (mm)	Grade 40 (300)	Grade 60 (420)	Grade 75 (520)
3,4,5 (10,13,16)	$3_{1/2}$d	$3_{1/2}$d	...
6 (19)	5d	5d	5d
7,8, (22,25)	...	5d	5d
9,10,11 (29,32,36)	...	7d	7d
14,18 (43,57)	...	9d	9d

We have recently installed 24 inches section modern mill for producing of quality MS Joist, MS Channel, MS Angle & MS Round in different sizes & weights in close tolerances as per customer requirements

MECHANICAL PROPERTIES

Tensile Requirements

	Grade 40 (300)	Grade 60 (420)	Grade 75 (520)
Tensile Strength,mine,PSI (Mpa)	70 000 (500)	90 000 (620)	100 000 (690)
Yield Strength, min,psi (Mpa)	40 000 (300)	60 000 (420)	75 000 (520)
Elongation in 8in.(203.2mm) Min, %			
Bar Designation No. (mm)			
3 (10)	11	9	...
4,5 (13,16)	12	9	...
6 (19) 7.8 22,25)	12	9	7
9,10,11 (29,32,36) 14,18 (43,57)	...	8	7
	...	7	6
	...	7	6

GIRDER

Girder of ITTEFAQ has no match in strength abd durability. Keeping in mind the demand and your convenience, we are introducing it in the following sizes.

GIRDER

Sr. #	Size		Weight Kg/ft
	Inches	mm	
1	8 x 4	200 x 100	5
2	8 x 4	200 x 100	4
3	8 x 4	200 x 100	3.5
4	8 x 4	200 x 100	3
5	8 x 4	200 x 100	2.75
6	8 x 4	200 x 100	2.5
7	7 x 4	175 x 100	2.4
8	7 x 4	175 x 100	2
9	6 x 4	150 x 100	2
10	6 x 4	150 x 100	1.6
11	6 x 3	150 x 75	2.3

T-IRON

Size		Weight
Inches		Ft / Kgs
2 x 2		600 gms
2 x 2		700 gms
2 x 2		800 gms
2 x 2		900 gms
2 x 2		1000 gms
2 x 2		1100 gms
2 x 2		1200 gms

I-BEAM

Sr. #	Size			Thickness		Weight
	Inches	Web (mm)	Flange (mm)	Web (mm)	Flange (mm)	Kgs/Ft
1	4 x 2	100	50	6	7	3
2	6 x 3	150	75	6	8	5.25
3	6 x 3	160	75	6	8	5.75
4	8 x 4	200	100	6	8	7
5	8 x 4	200	100	7	9	8
6	10 x 5	250	125	8	12	12
7	12 x 5	300	125	10	12	15
8	12 x 6	300	150	10	12	16
9	14 x 6	300	150	13	17	24
10	16 x 6	400	150	15	18	28
11	18 x 7	450	175	15	21	35
12	20 x 8	500	200	10	15	27
13	24 x 8	600	200	11	17	32

H-BEAM (WIDE FLANGE)

Sr. #	Size			Thickness		Weight
	Inches	Web (mm)	Flange (mm)	Web (mm)	Flange (mm)	Kgs/Ft
1	4 x 4	100	100	6	7	6
2	5 x 5	125	125	7	8	10
3	6 x 6	150	150	8	9	10
4	8 x 8	200	200	12	13	15.5
5	10 x 10	250	250	13	14	23
6	12 x 12	300	300	11	13	29
7	14 x 14	350	350	12	15	41

M.S. CHANNEL

Size		Size		Weight
Web (mm)	Flange (mm)	Web (mm)	Flange (mm)	Kgs/Ft
75	38	5	6	1.5
75	38	6	7	2
100	50	5	6	2.5
100	50	6	7	3
125	63	6	7	3.5
125	63	7	9	5
150	75	6	7	4.5
150	75	8	9	6
175	75	6	7	4.8
200	75	6	7	5.5
200	75	8	10	8
250	88	8	10	8.5
250	88	9	12	10
250	88	10	13	11.5
250	88	11	14	12.25
300	100	10	15	15

All other sizes are also produced as per customer requirements

M.S. ANGLE (EQUAL)

SIZE				Weight
Leg (mm)	Thickness(mm)	Leg (mm)	Thickness(mm)	Kgs/Ft
19	3	%	1/8	0.30
25	3	1	1/8	0.40
25	4	1	3/32	0.45
25	5	1	3/36	0.50
31	3	1 1/4	1/8	0.45
31	4	1 1/4	3/32	0.50
31	5	1 1/4	3/16	0.55
38	3	1 1/2	1/8	0.60
38	4	1 1/2	3/32	0.65
38	5	1 1/2	3/16	0.75
38	6	1 1/2	1/4	1.00
43	3	1 3/4	1/8	0.80
43	4	1 3/4	3/32	0.95
43	5	1 3/4	3/16	1.10
43	6	1 3/4	1/4	1.20
53	2	2	1/8	1.00
50	4	2	3/32	1.10
50	5	2	3/19	1.20
50	6	2	1/4	1.40
50	9	2	3/8	1.80
63	5	2 1/2	3/16	1.30
63	6	2 1/2	1/4	1.70
63	8	2 1/2	5/16	2.00
63	9	2 1/2	3/8	2.50
75	5	3	3/16	1.80
75	6	3	1/4	2.20

SIZE				Weight
Leg (mm)	Thickness(mm)	Leg (mm)	Thickness(mm)	Kgs/Ft
75	8	3	5/16	2.80
75	9	3	3/8	3.40
75	12	3	1/2	4.20
88	6	3 1/2	1/4	2.70
88	8	3 1/2	5/16	3.40
88	9	3 1/2	3/8	4.10
88	12	3 1/2	1/2	5.30
100	6	4	1/4	3.10
100	8	4	5/16	3.80
100	9	4	3/8	4.60
100	12	4	1/2	6.20
125	6	5	1/4	3.90
125	8	5	5/16	4.80
125	9	5	3/8	5.80
125	12	5	1/2	7.80
150	9	6	3/8	7.00
150	10.5	6	7/16	8.20
150	12	6	1/2	9/40
150	21	6	3/4	14.20
150	25	6	1	19.00
175	12	7	1/2	11.00
175	21	7	3/4	16.20
175	25	7	1	21.40
200	21	8	3/4	18.90
200	25	8	1	25.80
200	32	8	11/4	28.70