

JINDAL
D.P. JINDAL GROUP

Seamless

PIPES & TUBES



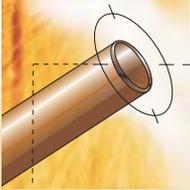
Engineered for diverse applications



MAHARASHTRA SEAMLESS LIMITED

An ISO 9001:2000 Company

T R U S T E D N A M E I N



The Company

We are

MAHARASHTRA SEAMLESS LIMITED (MSL) is the largest manufacturer of Seamless steel Pipes and Tubes in India, with a production capacity of over 100,000 metric tons per year.

The plant is situated at Raigarh, Maharashtra, and is equipped with latest plant and machinery capable of producing wide range of Seamless Pipes and Tubes both in HOT FINISHED and COLD DRAWN/ COLD PILGERED CONDITION.

A wide product range covers sizes & specifications catering to diverse application areas like Oil & Gas sector, Hydrocarbon Industry, Boilers & Heat Exchangers, Automotive, Bearing and General Engineering industries etc.

The Technology

We are proud of

Our state-of-the-art plant uses world renowned CPE Technology acquired through technical collaboration with German giant MANNESMANN DEMAG HUTTENSTECHNIK GmbH.

The CPE (Cross Roll Piercing and Elongation) process begins with the piercing of a hot billet on the piercer, followed by crimping and then elongation on the push-bench and finally, the dimensions are controlled within specified variation on the stretch reducing mill.

Seamless Tubes, unlike welded tubes, are preferred for applications where strength, resistance to corrosion, microstructure and product life are important. We have adequate heat treatment facility to make OCTG range in higher grade like N-80, L-80, C-95, P-110.

The Quality

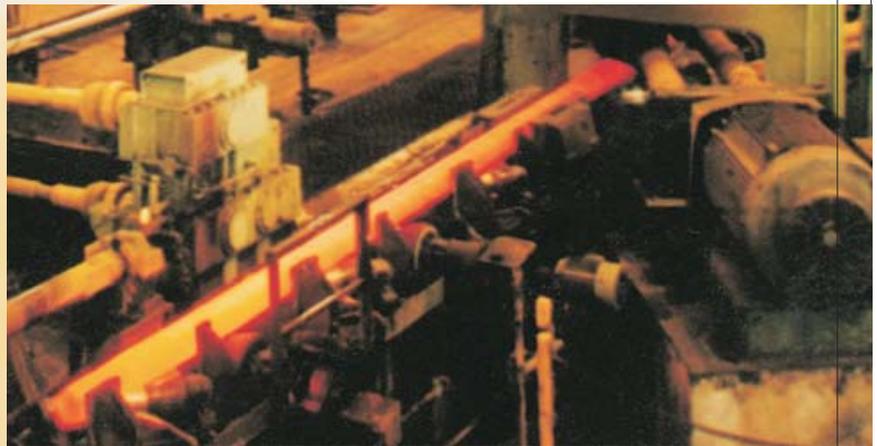
We are committed to

Our manufacturing facilities are supervised by technologically expert and experienced people and high level quality standards are adhered to, using the sophisticated inspection facilities available in house which includes Hydro testing, NDT using electro magnetic induction, ultrasonic & eddy current testing and laboratory testing of microstructure, tensility, impact, hardness etc.

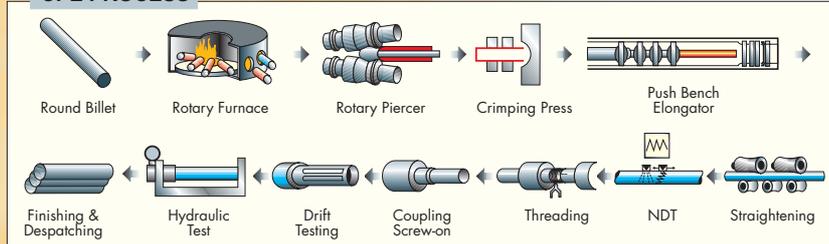
Our product and process quality have been recognized by INDIAN BOILER REGULATION (IBR) authorities and we are holding a valid certificate of WELL KNOWN TUBE & PIPE MAKERS.

We are holding quality certification of ISO 9002 and are approved by the AMERICAN PETROLIUM INSTITUTE (API). Moreover, we are licensed to use  certification mark on our pipes.

Our facilities and product quality have approval from all leading International Inspecting agencies such as LLOYDS,



CPE PROCESS



DNV, BVQI, EIL, PDIL, SGS and many other who are regularly inspecting our finished products for their esteemed clients.

Our product is in use by quality conscious sector of Indian Industry and regular clientele includes customer like TELCO, BHEL, THERMAX, ABB-ABL, IPCL, IOCL, ONGC, OIL, GAIL, EIL, LML, NTPC, SAIL, Indian Railways and Ordnance foundries.

Our products have exposure to International markets also and we enjoy confidence of large number of satisfied customers in MIDDLE EAST, ASIA, FAR EAST and USA including various oil companies worldwide.

The Application Areas

We cover

- ▶ OIL & GAS SECTOR
API Line Pipes, Casing and Tubing
- ▶ HYDROCARBON PROCESS INDUSTRY
Line Pipe/ Flow lines
- ▶ AUTOMOTIVE INDUSTRY
 - 2 WHEELER
 - * Steering Column Tube
 - * Starter Motor Housing
 - * Bearing Races
 - 3 WHEELER
 - * Main Beam Tube
 - * Steering Column
 - * Fork
 - 4 WHEELER
 - * Axle Shaft for LCV & HCV
 - * Link Rod Yoke Assembly for HCV
 - * ABC Basket
 - * Intermediate Shaft
 - * Propeller Shaft
 - * Tie Rod (tube)
- OTHERS
 - * Hydraulic Cylinder
 - * Fuel Line Pipes
 - * Gudgeon Pin
- ▶ GENERAL ENGINEERING
 - * Telescopic Hydraulic Cylinders for earth moving equipment.
 - * Hydraulic fuel lines.
 - * Bushes and bearing housings.
 - * Electric motor stator housings.
 - * Pipe fittings.
- ▶ BOILER, HEAT EXCHANGER, SUPER HEATER & CONDENSER
Pipe and Tubes both Hot & Cold Finished
- ▶ RAILWAYS
Tubes used in locomotive engines and braking system.
- ▶ BEARING TUBES
 - * Spheroidised annealed seamless tube.
 - * Hot finished and Cold Pilgered condition.
 - * Through hardened grade of steel conforming to SAE 52100

The Product

We manufacture

HOT FINISHED PIPES & TUBES

Carbon Steel & Alloy Steel	
Outside Diameter (O.D.)	: 26mm - 177.8mm
Wall Thickness (W.T.)	: 2.8mm - 22mm

COLD PILGERED/COLD DRAWN TUBES

Carbon Steel & Alloy Steel	
Outside Diameter (O.D.)	: 10mm - 101mm
Wall Thickness (W.T.)	: 1mm - 10mm



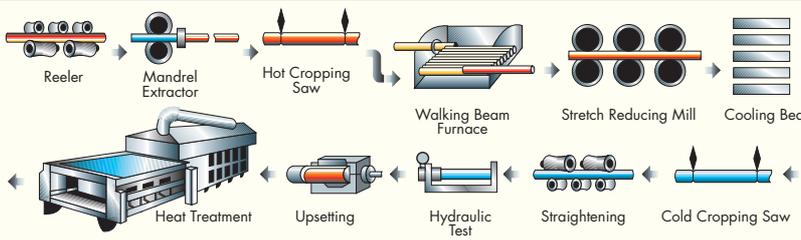
API OIL COUNTRY TUBULER GOODS (OCTG) RANGE

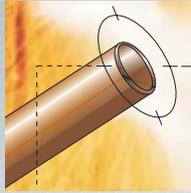
Seamless Steel casing as per API 5 CT	Upto 7" (177.8mm) O.D. Plain End or Threaded and Coupled with API Round threads (STC or LTC) or Buttress Threads (BTC) All grades including J-55, N-80, L-80, C-95, P-110
Seamless Steel Tubing as per API 5 CT	NUE upto 4-1/2" O.D. EUE upto 3 1/2" O.D. Non Upset (NUE) and external Upset (EUE) End Finish. Plain End or Threaded & Coupled with API Round Threads All grade including J-55, N-80, L-80, C-95, P-110.

LINE PIPE

Seamless Steel Line Pipe as per API 5 L	Upto 6-5/8" (168.3mm) O.D. Plain End or Threaded & Coupled with API Round Threads All grade upto X-60
---	---

PREMIUM THREADS Hydril Supreme CRA Connection





THE SIZE RANGE

DIMENSION AND WEIGHTS (Kg/m)

Normal Pipe Size mm/inch	OD mm	OD inch	WALL THICKNESS mm/S W G																			
			1.22	1.63	2.03	2.34	2.64	2.95	3.25	3.66	4.06	4.47	4.88	5.38	5.89	6.35	7.14	9.52	12.50	13.49	14.27	21.95
			18	16	14	13	12	11	10	9	8	7	6	5	4							
6 1/8	10.3	0.405	0.27	0.35	0.41	0.46	0.50	0.53														
	12.7	0.500	0.35	0.44	0.53	0.60	0.65	0.71														
8 1/4	13.7	0.540	0.38	0.49	0.58	0.66	0.72	0.78	0.84	0.91												
	15.88	0.625	0.44	0.57	0.69	0.78	0.86	0.94	1.01	1.10												
10 3/8	17.1	0.675	0.48	0.62	0.75	0.85	0.94	1.03	1.11	1.21												
	19.05	0.750	0.54	0.70	0.85	0.96	1.07	1.17	1.27	1.39												
15 1/2	21.3	0.840	0.60	0.79	0.96	1.09	1.21	1.33	1.45	1.59	1.73	1.86	1.98	2.11	2.24	2.34	2.49					
	25.4	1.000	0.73	0.96	1.17	1.33	1.48	1.63	1.78	1.96	2.14	2.31	2.47	2.66	2.83	2.98	3.22					
20 3/4	26.7	1.050	0.77	1.01	1.24	1.41	1.57	1.73	1.88	2.08	2.27	2.45	2.63	2.83	3.02	3.19	3.44					
	31.8	1.250	0.92	1.21	1.49	1.70	1.90	2.10	2.29	2.54	2.78	3.01	3.24	3.51	3.76	3.99	4.34	5.23				
25 1	33.4	1.315	0.97	1.28	1.57	1.79	2.00	2.22	2.42	2.68	2.94	3.19	3.43	3.72	4.00	4.24	4.62	5.61				
	38.1	1.500	1.11	1.47	1.81	2.06	2.31	2.56	2.79	3.11	3.43	3.71	4.00	4.34	4.68	4.97	5.45	6.71				
32 1 1/4	42.2	1.660	1.23	1.63	2.01	2.30	2.58	2.86	3.12	3.48	3.82	4.16	4.49	4.89	5.27	5.61	6.17	7.67				
	44.5	1.750	1.30	1.72	2.13	2.43	2.73	3.02	3.31	3.69	4.05	4.41	4.77	5.19	5.61	5.97	6.58	8.21				
40 1 1/2	48.3	1.900	1.42	1.88	2.32	2.65	2.97	3.30	3.61	4.03	4.43	4.83	5.23	5.69	6.16	6.57	7.25	9.10	11.04			
	51	2.000		1.98	2.45	2.81	3.15	3.50	3.83	4.27	4.70	5.13	5.55	6.05	6.55	6.99	7.72	9.74	11.87			
50 2	54	2.125		2.11	2.60	2.98	3.34	3.71	4.07	4.54	5.00	5.46	5.91	6.45	6.99	7.46	8.25	10.44	12.79			
	57.2	2.250		2.23	2.76	3.17	3.55	3.95	4.32	4.83	5.32	5.81	6.30	6.88	7.45	7.96	8.81	11.19	13.78			
60 2 1/2	60.3	2.375		2.36	2.92	3.34	3.75	4.17	4.57	5.11	5.63	6.15	6.67	7.29	7.90	8.45	9.36	11.92	14.74			
	63.5	2.500				3.53	3.96	4.41	4.83	5.40	5.95	6.51	7.05	7.71	8.37	8.95	9.92	12.67	15.72			
65 2 1/2	69.8	2.750					4.37	4.86	5.33	5.97	6.58	7.20	7.81	8.55	9.28	9.94	11.03	14.15	17.66			
	73	2.875					4.58	5.10	5.59	6.26	6.90	7.55	8.20	8.97	9.75	10.44	11.60	14.90	18.65			
70 2 1/2	76.2	3.000					4.79	5.33	5.85	6.55	7.22	7.91	8.58	9.40	10.21	10.94	12.16	15.65	19.64	20.86		
	82.5	3.250					5.20	5.79	6.35	7.12	7.85	8.60	9.34	10.23	11.13	11.93	13.27	17.13	21.58	22.96		
80 3	88.9	3.500							6.86	7.69	8.49	9.31	10.11	11.08	12.06	12.93	14.40	18.64	23.55	25.09	26.26	
	95.2	3.750								8.26	9.13	10.00	10.87	11.92	12.97	13.91	15.51	20.12	25.49	27.18	28.48	
90 3 1/2	101.6	4.000								8.84	9.77	10.71	11.64	12.77	13.90	14.92	16.63	21.62	27.47	29.31	30.73	
	108	4.250								9.42	10.41	11.41	12.41	13.62	14.83	15.92	17.76	23.12	29.44	31.44	32.98	
100 4	114.3	4.500								9.99	11.04	12.11	13.17	14.45	15.75	16.91	18.87	24.60	31.28	33.54	35.20	
	127	5.000								11.13	12.31	13.31	14.70	16.14	17.59	18.89	21.11	27.58	35.30	37.76	39.68	
110 4 1/2	133.4	5.250								11.71	12.95	14.21	15.47	16.99	18.52	19.90	22.23	22.23	37.27	39.89	41.92	
	139.7	5.500									13.58	14.91	16.23	17.82	19.44	20.88	23.34	30.56	39.21	41.99	44.14	
125 5	141.3	5.563									13.74	15.08	16.42	18.03	19.67	21.13	23.62	30.94	39.71	42.52	44.70	
	150 6	168.3	6.625								16.44	18.06	19.67	21.62	23.59	25.38	28.38	37.28	48.03	51.50	54.20	79.22
177 7	177.8	7.000									17.39	19.11	20.81	22.88	24.97	26.85	30.05	39.51	50.95	54.66	57.54	84.36

Mill Capability



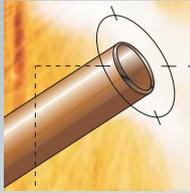
Regular Cold Drawn Range



Cold drawn & Hot finished



Hot Finished



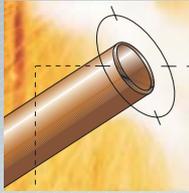
THE SIZE RANGE

ASTM SCHEDULED SIZES

DIMENSION AND WEIGHTS										
Normal Pipe Size mm/inch	OD mm	SCHEDULE WALL THICKNESS (in mm)								
		Sch 5	Sch 10	STD	Sch 40	XS	Sch 80	Sch 120	Sch 160	XXS
6	10.3		1.24	1.73	1.73	2.41	2.41			
1/8			0.28	0.37	0.37	0.47	0.47			
8	13.7		1.65	2.24	2.24	3.02	3.02			
1/4			0.51	0.63	0.63	0.80	0.80			
10	17.1		1.65	2.31	2.31	3.20	3.20			
3/8			0.63	0.84	0.84	1.10	1.10			
15	21.3	1.65	2.11	2.77	2.77	3.73	3.73		4.78	7.47
1/2		0.80	1.00	1.27	1.27	1.62	1.62		1.95	2.55
20	26.7	1.65	2.11	2.87	2.87	3.91	3.91		5.56	7.82
3/4		1.03	1.28	1.69	1.69	2.20	2.20		2.90	3.64
25	33.4	1.65	2.77	3.38	3.38	4.55	4.55		6.35	9.09
1		1.30	2.09	2.50	2.50	3.24	3.24		4.24	5.45
32	42.2	1.65	2.77	3.56	3.56	4.85	4.85		6.35	9.70
1 1/4		1.65	2.69	3.39	3.39	4.47	4.47		5.61	7.77
40	48.3	1.65	2.77	3.68	3.68	5.08	5.08		7.14	10.15
1 1/2		1.91	3.11	4.05	4.05	5.41	5.41		7.25	9.56
50	60.3	1.65	2.77	3.91	3.91	5.54	5.54		8.74	11.07
2		2.40	3.93	5.44	5.44	7.48	7.48		11.11	13.44
65	73.0	2.11	3.05	5.16	5.16	7.01	7.01		9.53	14.02
2 1/2		3.69	5.26	8.63	8.63	11.41	11.41		14.92	20.39
80	88.9	2.11	3.05	5.49	5.49	7.62	7.62		11.13	15.24
3		4.51	6.45	11.29	11.29	15.27	15.27		21.35	27.68
90	101.6	2.11	3.05	5.74	5.74	8.08	8.08		-	-
3 1/2		5.18	7.40	13.57	13.57	18.63	18.63		-	-
100	114.3	2.11	3.05	6.02	6.02	8.56	8.56	11.13	13.49	17.12
4		5.84	8.36	16.07	16.07	22.32	22.32	28.32	33.54	41.03
125	141.3	2.77	3.40	6.55	6.55	9.53	9.53	12.70	15.88	19.05
5		9.47	11.57	21.77	21.77	30.97	30.97	40.28	49.11	57.43
150	168.3	2.77	3.40	7.11	7.11	10.97	10.97	14.27	18.26	21.95
6		11.32	13.84	28.26	28.26	42.56	42.56	54.20	67.56	79.22

GENERAL NOTES:

1. Wall Thickness is specified in mm.
2. Weights are specified for Plain End Pipes in Kg/m.
3. The different grades of stainless steel permit considerable variations in weight. The ferritic stainless steels may be about 5% less, and the austenitic stainless steels about 2% greater than the values shown in this table, which are based on weights for carbon steel. (Ref ANSI B 36.19M)



API OCTG RANGE

API LINE PIPE

DIMENSIONS AND WEIGHTS

Outside Diameter		Plain-end Weight		wall Thickness		Outside Diameter		Plain-end Weight		wall Thickness		Outside Diameter		Plain-end Weight		wall Thickness	
In.	mm	lb/ft	Kg/m	In.	mm	In.	mm	lb/ft	Kg/m	In.	mm	In.	mm	lb/ft	Kg/m	In.	mm
0.84	21.30	0.85	1.28	0.11	2.80	2.7/8	73.00	7.67	11.39	0.28	7.00	4.1/2	114.30	10.80	16.02	0.24	6.00
0.84	21.30	1.09	1.61	0.15	3.70	3.1/2	88.90	3.95	5.95	0.11	2.80	4.1/2	114.30	11.36	17.03	0.25	6.40
1.05	26.70	1.13	1.70	0.11	2.90	3.1/2	88.90	4.51	6.76	0.13	3.20	4.1/2	114.30	12.67	18.77	0.28	7.10
1.05	26.70	1.48	2.19	0.15	3.90	3.1/2	88.90	5.06	7.57	0.14	3.60	4.1/2	114.30	13.97	20.73	0.31	7.90
1.32	33.40	1.68	2.52	0.13	3.40	3.1/2	88.90	5.58	8.38	0.16	4.00	4.1/2	114.30	15.00	22.42	0.34	8.60
1.32	33.40	2.17	3.21	0.18	4.50	3.1/2	88.90	6.12	9.17	0.17	4.40	4.1/2	114.30	19.02	28.25	0.44	11.10
1.66	42.20	2.27	3.43	0.14	3.60	3.1/2	88.90	6.66	9.96	0.19	4.80	4.1/2	114.30	22.53	33.56	0.53	13.50
1.66	42.20	3.00	4.51	0.19	4.90	3.1/2	88.90	7.58	11.31	0.22	5.50	5.1/2	141.30	7.27	10.90	0.13	3.20
1.90	48.30	2.72	4.07	0.15	3.70	3.1/2	88.90	8.69	13.02	0.25	6.40	5.9/16	141.30	9.02	13.54	0.16	4.00
1.90	48.30	3.63	5.43	0.20	5.10	3.1/2	88.90	9.67	14.32	0.28	7.10	5.9/16	141.30	10.80	16.16	0.19	4.80
2.3/8	60.30	2.64	3.97	0.11	2.80	3.1/2	88.90	10.26	15.24	0.30	7.60	5.9/16	141.30	12.51	18.74	0.22	5.60
2.3/8	60.30	3.01	4.51	0.13	3.20	4.00	101.60	4.53	6.82	0.11	2.80	5.9/16	141.30	14.63	21.92	0.26	6.60
2.3/8	60.30	3.37	5.03	0.14	3.60	4.00	101.60	5.18	7.76	0.13	3.20	5.9/16	141.30	15.87	23.50	0.28	7.10
2.3/8	60.30	3.66	5.42	0.15	3.90	4.00	101.60	5.82	8.70	0.14	3.60	5.9/16	141.30	17.51	25.99	0.31	7.90
2.3/8	60.30	4.05	6.07	0.17	4.40	4.00	101.60	6.41	9.63	0.16	4.00	5.9/16	141.30	19.19	28.45	0.34	8.70
2.3/8	60.30	4.40	6.57	0.19	4.80	4.00	101.60	7.04	10.55	0.17	4.40	5.9/16	141.30	20.80	30.88	0.38	9.50
2.3/8	60.30	5.03	7.43	0.22	5.50	4.00	101.60	7.66	11.46	0.19	4.80	5.9/16	141.30	27.06	40.28	0.50	12.70
2.3/8	60.30	5.68	8.51	0.25	6.40	4.00	101.60	9.12	13.48	0.23	5.70	5.9/16	141.30	32.99	49.17	0.63	15.90
2.3/8	60.30	6.29	9.31	0.28	7.10	4.00	101.60	10.02	15.03	0.25	6.40	6.5/8	168.30	17.04	25.55	0.25	6.40
2.7/8	73.00	3.22	4.85	0.11	2.80	4.00	101.60	11.17	16.55	0.28	7.10	6.5/8	168.30	18.99	28.22	0.28	7.10
2.7/8	73.00	3.67	5.51	0.13	3.20	4.00	101.60	12.52	18.68	0.32	8.10	6.5/8	168.30	21.06	31.25	0.31	7.90
2.7/8	73.00	4.12	6.16	0.14	3.60	4.1/2	114.30	5.85	8.77	0.13	3.20	6.5/8	168.30	23.10	34.24	0.34	8.70
2.7/8	73.00	4.53	6.81	0.16	4.00	4.1/2	114.30	6.57	9.83	0.14	3.60	6.5/8	168.30	25.05	37.20	0.38	9.50
2.7/8	73.00	4.97	7.44	0.17	4.40	4.1/2	114.30	7.24	10.88	0.16	4.00	6.5/8	168.30	28.60	42.67	0.43	11.00
2.7/8	73.00	5.40	8.07	0.19	4.80	4.1/2	114.30	7.96	11.93	0.17	4.40	6.5/8	168.30	32.74	48.73	0.50	12.70
2.7/8	73.00	5.80	8.69	0.20	5.20	4.1/2	114.30	8.67	12.96	0.19	4.80	6.5/8	168.30	36.43	54.31	0.56	14.30
2.7/8	73.00	6.14	9.16	0.22	5.50	4.1/2	114.30	9.32	13.99	0.20	5.20	6.5/8	168.30	40.09	59.76	0.63	15.90
2.7/8	73.00	7.02	10.51	0.28	6.40	4.1/2	114.30	10.02	15.01	0.22	5.60						

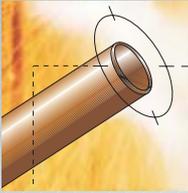
API CASING

DIMENSIONS, WEIGHT AND END FINISH

Outside Diameter		Nom. Wt.	Wall Thickness		TYPE OF FINISH						COUPLING	THREAD TYPES	
In.	mm		In.	mm	GRADE							OD	TPI
		H-40			J-55 K-55	L-80 C-95	N-80	C-90 T-95	P-110	MM	STC		BTC
4.1/2	114.30	9.50	0.205	5.21	PS	PS	-	-	-	-	127.00	8	-
4.1/2	114.30	10.50	0.224	5.69	-	PSB	-	-	-	-	127.00	8	5
4.1/2	114.30	11.60	0.250	6.35	-	PSLB	PLB	PLB	PLB	PLB	127.00	8	5
4.1/2	114.30	13.50	0.290	7.37	-	-	PLB	PLB	PLB	PLB	127.00	8	5
4.1/2	114.30	15.10	0.337	8.56	-	-	-	-	-	PLB	127.00	8	5
5	127.00	11.50	0.220	5.59	-	PS	-	-	-	-	141.30	8	-
5	127.00	13.00	0.253	6.43	-	PSLB	-	-	-	-	141.30	8	5
5	127.00	15.00	0.296	7.52	-	PSLBE	PLBE	PLBE	PLBE	PLBE	141.30	8	5
5	127.00	18.00	0.362	9.19	-	-	PLBE	PLBE	PLBE	PLBE	141.30	8	5
5	127.00	21.40	0.437	11.10	-	-	PLB	PLB	PLB	PLB	141.30	8	5
5	127.00	23.20	0.478	12.10	-	-	PLB	PLB	PLB	PLB	141.30	8	5
5	127.00	24.10	0.500	12.70	-	-	PLB	PLB	PLB	PLB	141.30	8	5
5.1/2	139.70	14.00	0.244	6.20	PS	PS	-	-	-	-	153.67	8	-
5.1/2	139.70	15.50	0.275	6.98	-	PSLBE	-	-	-	-	153.67	8	5
5.1/2	139.70	17.00	0.304	7.72	-	PSLBE	PLBE	PLBE	PLBE	PLBE	153.67	8	5
5.1/2	139.70	20.00	0.361	9.17	-	-	PLBE	PLBE	PLBE	PLBE	153.67	8	5
5.1/2	139.70	23.00	0.415	10.50	-	-	PLBE	PLBE	PLBE	PLBE	153.67	8	5
5.1/2	139.70	26.80	0.500	12.70	-	-	-	-	-	-	-	-	-
5.1/2	139.70	29.70	0.562	14.3	-	-	-	-	-	-	-	-	-
5.1/2	139.70	32.60	0.625	15.9	-	-	-	-	-	-	-	-	-
6.5/8	168.28	20.00	0.288	7.32	PS	PSLB	-	-	-	-	187.71	8	5
6.5/8	168.28	24.00	0.352	8.94	-	PSLBE	PLBE	PLBE	PLBE	PLBE	187.71	8	5
6.5/8	168.28	28.00	0.417	10.59	-	-	PLBE	PLBE	PLBE	PLBE	187.71	8	5
6.5/8	168.28	32.00	0.475	12.07	-	-	PLBE	PLBE	PLBE	PLBE	187.71	8	5
7	177.8	20.00	0.272	6.91	PS	-	-	-	-	-	194.5	8	-
7	177.8	23.00	0.317	8.05	-	PSLBE	PLBE	PLBE	PLBE	-	194.5	8	5
7	177.8	26.00	0.362	9.19	-	PSLBE	PLBE	PLBE	PLBE	PLBE	194.5	8	5
7	177.8	29.00	0.408	10.36	-	-	PLBE	PLBE	PLBE	PLBE	194.5	8	5
7	177.8	32.00	0.453	11.51	-	-	PLBE	PLBE	PLBE	PLBE	194.5	8	5

P= Plain End, S= Short Round Thread, L= Long Round Thread, B= Butress Thread, E= Extreme Line

* Specifications to change without prior Notice



API OCTG RANGE



TUBING

DIMENSIONS, WEIGHTS AND END FINISH

Outside Diameter		NOMINAL WEIGHT			Wall Thickness		Coupling OD		Thread Type		TYPE OF END FINISH			
In.	mm.	Non Upset T&C	External Upset T&C	Integral Joint	In.	mm.	NUE	EUE	API Round		GRADE			
									NUE	EUE	H-40 J-55	N-80	L-80 C-90 C-95	P-110
1.900	48.3	-	-	2.40	0.125	3.18			10	10	P	-	-	-
1.900	48.3	2.75	2.90	2.76	0.145	3.68			10	10	PNU	PNU	PNU	-
1.900	48.3	3.65	3.73	-	0.200	5.08			10	10	PU	PU	PU	PU
1.900	48.3	4.42	-	-	0.250	6.35			10	10	-	-	P	-
1.900	48.3	5.15	-	-	0.300	7.62			10	10	-	-	P	-
2.063	52.4	-	-	3.25	0.156	3.96					P	P	P	-
2.063	52.4	-	-	-	0.225	5.72					P	P	P	P
2.3/8	60.3	4.00	-	-	0.167	4.24	73.03	77.80	10	8	PN	PN	PN	-
2.3/8	60.3	4.60	4.70	-	0.190	4.83	73.03	77.80	10	8	PNU	PNU	PNU	PNU
2.3/8	60.3	5.80	5.95	-	0.254	6.45	73.03	77.80	10	8	-	PNU	PNU	PNU
2.3/8	60.3	6.60	-	-	0.295	7.49	73.03	77.80	10	8	-	-	P	-
2.3/8	60.3	7.35	7.45	-	0.336	8.53	73.03	77.80	10	8	-	-	PU	-
2.7/8	73.0	6.40	6.50	-	0.217	5.51	88.90	93.17	10	8	PNU	PNU	PNU	PNU
2.7/8	73.0	7.80	7.90	-	0.276	7.01	88.90	93.17	10	8	-	PNU	PNU	PNU
2.7/8	73.0	8.60	8.70	-	0.308	7.82	88.90	93.17	10	8	-	PNU	PNU	PNU
2.7/8	73.0	9.35	9.45	-	0.340	8.64	88.90	93.17	10	8	-	-	PU	-
2.7/8	73.0	10.50	-	-	0.392	9.96	88.90	93.17	10	8	-	-	P	-
2.7/8	73.0	11.50	-	-	0.440	11.18	88.90	93.17	10	8	-	-	P	-
3.1/2	88.9	7.70	-	-	0.216	5.49	107.95	114.3	10	8	PN	PN	PN	-
3.1/2	88.9	9.20	9.30	-	0.254	6.45	107.95	114.3	10	8	PNU	PNU	PNU	PNU
3.1/2	88.9	10.20	-	-	0.289	7.34	107.95	114.3	10	8	PN	PN	PN	-
3.1/2	88.9	12.70	12.95	-	0.375	9.52	107.95	114.3	10	8	-	PNU	PNU	PNU
3.1/2	88.9	14.30	-	-	0.430	10.92	107.95	114.3	10	8	-	-	PN	P
3.1/2	88.9	15.50	-	-	0.476	12.09	107.95	114.3	10	8	-	-	P	-
3.1/2	88.9	17.00	-	-	0.530	13.46	107.95	114.3	10	8	-	-	P	-
4	101.6	9.50	-	-	0.226	5.74	120.65	127.0	8	8	PN	PN	PN	-
4	101.6	-	11.00	-	0.262	6.65	120.65	127.0	8	8	PU	PU	PU	-
4	101.6	13.20	-	-	0.330	8.38	120.65	127.0	8	8	-	-	P	-
4	101.6	16.10	-	-	0.415	10.54	120.65	127.0	8	8	-	-	P	-
4	101.6	18.90	-	-	0.500	12.70	120.65	127.0	8	8	-	-	P	-
4	101.6	22.20	-	-	0.610	15.49	120.65	127.0	8	8	-	-	P	-
4.1/2	114.3	12.60	12.75	-	0.271	6.88	132.08	141.3	8	8	PNU	PNU	PNU	-
4.1/2	114.3	15.20	-	-	0.337	8.56	132.08	141.3	8	8	-	-	P	-
4.1/2	114.3	17.00	-	-	0.380	9.65	132.08	141.3	8	8	-	-	P	-
4.1/2	114.3	18.90	-	-	0.430	10.92	132.08	141.3	8	8	-	-	P	-
4.1/2	114.3	21.50	-	-	0.500	12.70	132.08	141.3	8	8	-	-	P	-
4.1/2	114.3	23.70	-	-	0.560	14.22	132.08	141.3	8	8	-	-	P	-
4.1/2	114.3	26.10	-	-	0.630	16.00	132.08	141.3	8	8	-	-	P	-

P= Plain End N/NUE= Non- upset T&C U/EUE= External upset T&C



For further information, please contact:



MAHARASHTRA SEAMLESS LIMITED

CORPORATE OFFICE:

Plot no.30, Institutional Area , Sector -44, Gurgaon-122002
Tel: 91 124 2574325/26 , 4624000 , Fax: 91 124 2574327
e-mail: contact@mahaseam.com
Website: www.Jindal.com

REGD. OFF. & WORKS:

Pipe Nagar, Village Sukeli, Taluka Roha., N.H.-17, B.K.G. Road , Distt Raigad-402126 (Maharashtra) India
Tel: 91 2194 238511 /12 /16 Fax: 91 2194 238513

BRANCH OFFICES:

Mumbai

402, Sarjan Plaza, 100 Dr. Annie Besant Road, Opp. Telco Show Room , Worli, Mumbai-400018 (India)
Tel: 91 22 24902570 /72 /74 Fax: 91 22 24925473
e-mail: mslmum@mtnl.net.in

Chennai

3A , Royal Court, No-44, Venkatanarayana Road, T.Nagar, Chennai-600017 (India)
Tel: 91 44 24342231, 24328747 Fax: 91 44 24347990
e-mail: chennai@mahaseam.com

Kolkata

Sukh Sagar Apartment , Flat No. 8 A&B, 8th Floor, 2/5 Sarat Bose Road ,Kolkata -700020 (India)
Tel: 91 33 24559982, 32588626 Fax: 91 33 24742290
e-mail: kolkata@mahaseam.com