

TUVINDIA

ISO CERTIFIED

ISO 9001:2015 | ISO 14001:2015 | ISO 45001:2018

Since
2008



**PROVIDING THE BEST SOLUTIONS
IN STAINLESS STEEL**



www.moonlighttubes.com



About Us

MLTI PRIVATE LIMITED (MOONLIGHT) was founded in year 2008 and since then we have pursued an unstinted path of growth despite national and international competition with a manufacturing capacity of 400 MT per annum and have expanded to 6000 MT per annum in 2020. Growth with a social conscience has been our motto. Products supplied by us are accepted by Client's in various spheres of industries ranging from basic industries such as Paper, Textile, Sugar, Dairy, Cement, Engineering, to more complex such as Oil Refining, Petrochemical, Gas & Chemical Processing, Power Generation, Offshore, and Onshore & Nuclear Industries.

Our Sister concerns Industrial Metal Distributors (Since 1974) have helped us gain vast experience in the field and understand our product as well as customers better. We can fulfil Client's requirement from our comprehensive inventory which includes material from both indigenous & foreign manufactures, we have developed strong relationship with vendors throughout the country.

We have dedicated sources, expertise & full technical know-how to supply quality products as per Client's basic & special requirements. We follow strict norms of quality when it comes to resource management, production, services, commitment and working environment. We believe the quality-consciousness is a panacea for all economic and social ills. May it be quality of life or quality of business; we revere it in all spheres of our job. Read on more on the quality certificates and awards for various divisions

Our manufacturing facilities are supervised by technology experts and experienced people. Adherence to high level quality standard is monitored with the help of sophisticated inspection facilities available in-house. This include Hydro-testing, NDT using magnetic flux, ultrasonic & eddy current testing and laboratory testing of microstructure, tensile, impact, hardness etc.

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Our major advantage is our qualified workforce, we have pool of specialist in field of Technical, Sales & Logistic, who are fully committed to provide with best solution for your business & can help you solve all your procurement problems.

Our Vision

To attain leadership position in the industry by providing superior quality stainless steel pipes and tubes.

Our Mission

To create healthy working environment for our employees and to create value and excellent service for our client. To optimise the product and to use green technology.

PRODUCTS



Standards : ASTM A249, ASTM A269, ASTM A554, ASTM A312, ASTM A213

STAINLESS SEAMLESS & WELDED PIPES & TUBES:

Range (Inches) : 3/8NB" to 8NB"
 Wall thickness range : Range SCH 5S to SCH 80S
 Length : As per Requirement. Maximum up to 24 Meter long.
 GRADES : 300 Series / 400 series and as per customer requirement

STAINLESS STEEL BOX PIPES

Square Tube : Square 12 × 12 mm to 100 × 100 mm
 Rectangular : 13 × 25 mm to 100 × 50 mm
 Wall Thickness Range: 1.0 mm to 6.0 mm
 Length : As per Requirement. Maximum up to 12 Meter long.
 Grades : As per Requirement



MANUFACTURER OF

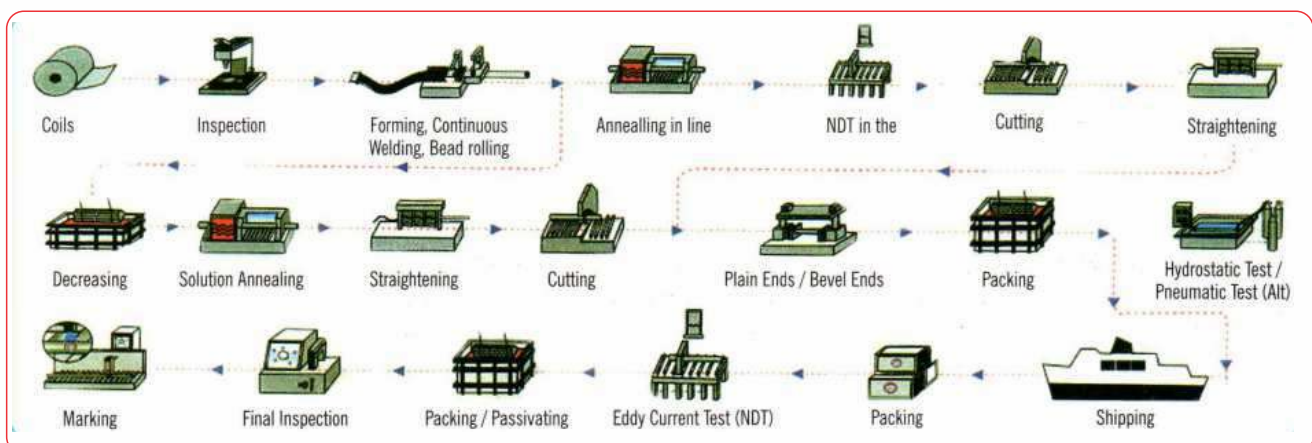
STAINLESS STEEL, WELDED TUBES & PIPES PROCESS FLOW CHART

Pipe manufacturing

The demand for stainless steel pipes and tubes increasing day by day, which requires products with quality standards and service vice stringent quality controls.

Moonlight Tube industries has put up modern plant for pipe manufacturing in Umbergaon(Gujarat) to ensure quality standards of manufacturing that can satisfy specifications like ASTM/ASME, DIN, BS, JIS, IS, GOST and AFNOR.

Process of welded stainless steel Tube/Pipe



PIPE SIZE CHART

Nominal Bore		Outside Diameter	Sch-5S		Sch-10S		Sch-40S		Sch-80S		Sch-160S		Sch-XXS	
MM	INCH	MM	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)
3	1/8	10.3	1.24	0.276	1.24	0.28	1.73	0.37	2.41	0.47	-	-	-	-
6	1/4	13.7	1.24	0.390	1.65	0.49	2.24	0.631	3.02	0.80	-	-	-	-
10	3/8	17.1	1.24	0.490	1.65	0.63	2.31	0.845	3.20	1.10	-	-	-	-
15	1/2	21.3	1.65	0.800	2.11	1.00	2.77	1.27	3.75	1.62	4.75	1.94	7.47	2.55
20	3/4	26.7	1.65	1.03	2.11	1.28	2.87	1.68	3.91	2.20	5.54	2.89	7.82	3.63
25	1	33.4	1.65	1.30	2.77	2.09	3.38	2.50	4.55	3.24	6.35	4.24	9.09	5.45
32	1 1/4	42.2	1.65	1.65	2.77	2.70	3.56	3.38	4.85	4.47	6.35	5.61	9.70	7.77
40	1 1/2	48.3	1.65	1.91	2.77	3.11	3.68	4.05	5.08	5.41	7.14	7.25	10.16	9.54
50	2	60.3	1.65	2.40	2.77	3.93	3.91	5.44	5.54	7.48	8.74	11.1	11.07	13.44
65	2 1/2	73.0	2.11	3.69	3.05	5.26	5.16	8.63	7.01	11.4	9.53	14.9	14.2	20.39
80	3	88.9	2.11	4.51	3.05	6.45	5.49	11.30	7.62	15.2	11.1	21.3	15.24	27.65
100	4	114.3	2.11	5.84	3.05	8.36	6.02	16.07	8.56	22.3	13.49	33.54	17.12	41.03
125	5	141.3	2.77	9.47	3.40	11.57	6.55	21.8	9.53	31.97	15.88	49.11	19.05	57.43
150	6	168.3	2.77	11.32	3.40	13.84	7.11	28.3	10.97	42.7	18.2	67.56	21.95	79.22
200	8	219.1	2.77	14.79	3.76	19.96	8.18	42.6	12.7	64.6	23.0	111.2	22.23	107.8
250	10	273.1	3.40	22.63	4.19	27.78	9.27	60.5	12.7	96.0	28.6	172.4	25.40	155.15
300	12	323.9	3.96	31.25	4.57	36.00	9.52	73.88	12.7	132.0	33.32	238.76	25.40	186.97
350	14	355.6	3.96	34.36	4.78	41.3	11.13	94.59	19.05	158.08	35.71	281.70	-	-
400	16	406.4	4.19	41.56	4.78	47.29	12.7	123.30	21.41	203.33	40.46	365.11	-	-
450	18	457.2	4.19	46.80	4.78	53.42	14.27	155.80	23.8	254.36	45.71	466.40	-	-
500	20	508.0	4.78	59.25	5.54	68.71	15.09	183.42	26.19	311.2	49.99	564.68	-	-
600	24	609.6	5.54	82.47	6.35	94.45	17.48	255.41	30.96	442.08	59.54	808.22	-	-

TUBE SIZE CHART

DIMENSION		10SWG (3.2MM)	12SWG (2.6MM)	14SWG (2.1MM)	16SWG (1.65MM)	18SWG (1.2MM)	19SWG (1.0MM)	20SWG (0.91MM)	22SWG (0.71MM)
Size	OD	Weight /MTR	Weight /MTR	Weight /MTR	Weight /MTR	Weight /MTR	Weight /MTR	Weight /MTR	Weight /MTR
1/2"	12.7	0.754	0.651	0.552	0.452	0.342	0.290	0.264	0.213
5/8"	15.875	1.006	0.856	0.718	0.582	0.437	0.369	-	-
3/4"	19.05	1.258	1.061	0.883	0.712	0.531	0.448	0.407	0.320
1"	25.4	1.762	1.470	1.214	0.972	0.720	0.605	0.549	0.432
1 1/4"	31.75	2.266	1.880	1.544	1.232	0.909	0.763	0.692	0.543
1 1/2"	38.1	2.770	2.289	1.875	1.492	1.098	0.920	0.820	0.634
2"	50.8	3.778	3.108	2.537	2.012	1.476	1.235	0.834	0.765
2 1/2"	63.5	4.786	3.928	3.198	2.531	1.854	1.550	-	-
3"	76.2	5.794	4.747	3.860	3.051	2.232	1.865	-	-
3 1/2"	88.9	6.802	5.566	4.521	3.571	2.610	2.180	-	-
4"	101.6	7.810	6.385	5.183	4.091	2.988	2.495	-	-

PHYSICAL PROPERTIES

Grade (TP)	Tensile Strength ksi (M pa)	Yield Strength ksi (M pa)	Elongation in 2 % inches Min	Max Hardness		Thermal Conductivity Cal/Sec Cm.°C At Temp. Range 20-500 °C	Co-efficient of expansion X 10 Cm/Cm./ °C at Temp. Range 200-870 °C
				Brinell	Rockwell QB		
304	75 (515)	30 (205)	35	200	90	0.051	19.8
304L	75 (485)	25 (170)	35	200	90	0.051	19.8
310	75 (515)	30 (205)	35	200	90	0.044	18.8
316	75 (515)	30 (205)	35	200	90	0.042	19.3
316L	75 (485)	25 (170)	35	200	90	0.042	19.3
316Ti	75 (540)	25 (205)	35	200	90	0.042	19.3
321	75 (515)	30 (205)	35	200	90	0.051	19.8
317L	75 (515)	30 (205)	35	200	90	0.049	17.5

CHEMICAL COMPOSITION CHART

CHEMICAL COMPOSITION (IN PERCENTAGE)

Grade	Carbon (Max)	Manganese (Max)	Phosphorus (Max)	Sulphur (Max)	Silicon (Max)	Chromium (Max)	Nickel	Molybdenum	Nitrogen (Max)	Cu/ Others
301	0.15	2.00	0.045	0.030	1.00	16.00-18.00	6.00-8.00	-	0.10	-
304	0.08	2.00	0.045	0.030	0.75	18.00-20.00	8.00-10.50	-	0.10	-
304L	0.030	2.00	0.045	0.030	0.75	18.00-20.00	8.00-12.00	-	0.10	-
310S	0.08	2.00	0.045	0.030	1.50	24.00-26.00	19.00-22.00	-	-	-
316	0.08	2.00	0.045	0.030	0.75	16.00-18.00	10.00-14.00	2.00-3.00	0.10	-
316L	0.030	2.00	0.045	0.030	0.75	16.00-18.00	10.00-14.00	2.00-3.00	0.10	-
317	0.08	2.00	0.045	0.030	0.75	18.00-20.00	11.00-14.00	3.00-4.00	0.10	-
317L	0.030	2.00	0.045	0.030	0.75	18.00-20.00	11.00-15.00	3.00-4.00	0.10	-
321	0.08	2.00	0.045	0.030	0.75	17.00-19.00	9.00-12.00	-	0.10	Ti5 (C + N) Min or 0.70 max
347	0.08	2.00	0.045	0.030	0.75	17.00-19.00	9.00-13.00	-	-	Cb= 10x (C Min) or 1.00 Max
409	0.08	1.00	0.040	0.010	1.00	10.50-11.75	0.50	-	-	Ti= 6x (C+ N) Min or 0.70 Max
409M	0.03	0.81.2	0.030	0.030	0.40.75	11.00-12.00	1.5 max.	-	-	Ti= 6x (C) Min or 0.70 Max
410S	0.08	1.00	0.040	0.030	1.00	11.50-13.50	0.60	-	-	-
410	0.15	1.00	0.040	0.030	1.00	11.50-13.50	0.75	-	-	-
420	0.35	0.50	0.035	0.015	0.50	12.00-13.00	0.20.3	-	-	-
430	0.12	1.00	0.040	0.030	1.00	16.00-18.00	0.75	-	-	-
JSL AUS	0.08	7.08.0	0.070	0.030	0.75	15.50-16.50	4.25-4.75	-	-	0.9 - 1.10
JS- 203	0.08	9.2510.25	0.070	0.030	0.75	14.25-15.25	2.25-2.75	-	-	1.60- 2.0
301M	0.10	4.55.5	0.060	0.030	0.75	14.50-15.50	6.0-7.0	-	-	1.70- 1.90

QUALITY CONTROL

INSPECTION & TESTING FACILITIES

We at **MLTI PRIVATE LIMITED (MOONLIGHT)** Pipes & Tube are manufactured on most modern production, Equipment, whereby the applied production method assured highest possible standard quality. Our independent testing department is equipped with most modern testing facilities.

All our pipes & tubes are manufactured as per approved quality manual. We strongly believe in the principle that "quality is profit, quality is the life of the enterprise." we follow up production as per approved QAP which include checking right from the issue of purchase order, Raw material, incoming materials, stage wise inspection during production till inspection & Dispatch

SOME OF THE QUALITY TESTS CARRIED OUT BY US INCLUDES

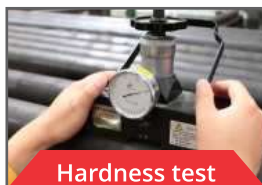
Corrosion Test	This is test Signifies the corrosion rate per annum which help to know the life of stainless still material to test.it is carried as a practise A 262-A763 if demanded by client.
Chemical Analysis	Test done as per required quality standards
Destructive / Mechanical Testing	Tensile Hardness Flattening Flare Flange
Reverse-bend and Re. flat tests	Carried out in full compliance with relevant standards & ASTM A-450 and A-530 norms, which ensures trouble-free expansion, welding & use at customers end
Eddy Current Testing	Done to detect homogeneities in subsurface by using Digital Flaw-mark Testing System
Hydrostatic Testing	100% Hydrostatic Testing carried out according to ASTM-A 450 norms for checking tube leakage
Air Under Pressure Test	To check any evidence of air leakage
Visual Inspection	After passivating, every single length of tubes & pipes is subjected to thorough visual inspection by trained staff for detecting surface flaws & other imperfections

Supplementary Testing : Apart from the above mentioned tests, we also carry out on the manufactured products supplementary testing. The tests conducted under this include:

- Eddy Current Testing
- O.P Testing
- Liquid Penetrate testing
- Radiography Testing
- Micro Testing
- PMI Testing
- Macro Testing
- IGC Testing
- Ultrasonic testing



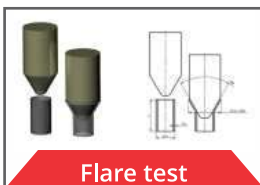
Tensile test



Hardness test



Flattening test



Flare test



Flange test



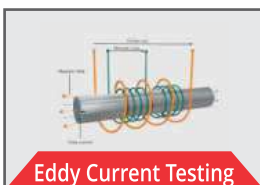
Corrosion Test



Hydrostatic Testing



PMI Testing



Eddy Current Testing

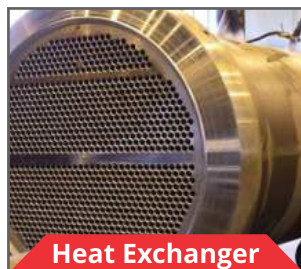


Visual Inspection

SPECIFICATIONS

Specification	Allowable outside Diameter variations in MM			Allowable wall Thickness Variations		Specification Exact length Tolerances In mm		Testing
	Nominal Diameter	Over	Under	Over %	Under %	Over %	Under %	
ASTM A -213 Seamless Boiler Super heater and Heat Exchanger Tubes	Under 25.4	0.10	0.10	+20	-0	3.17	0	Tension Test
	25.4-38.1 Incl.	0.15	0.15	+20	-0	3.17	0	Flattening Test
	38.1-50.8 excel.	0.20	0.20	+22	-0	3.17	0	Flare Test
	50.8-63.5 excel.	0.25	0.25	+22	-0	3.76	0	Hardness Test
	63.5-76.2 excel.	0.30	0.30	+22	-0	4.76	0	100% Hydrostatic Test
	76.2-101.6 Incl.	0.38	0.38	+22	-0	4.76	0	Refer to ASTM A - 450
ASTM A -249 Welded Boiler Super heater, Heat Exchanger and Condenser Tubes	Under 25.4	0.10	0.10	+10	-10	3.17	0	Tension Test
	25.4-38.1 Incl.	0.15	0.15	+10	-10	3.17	0	Flattening Test
	38.1-50.8 excel.	0.20	0.20	+10	-10	3.17	0	Flare Test/Flange Test
	50.8-63.5 excel.	0.25	0.25	+10	-10	4.76	0	*Reverse Bend Test
	63.5-76.2 excel.	0.30	0.30	+10	-10	4.76	0	Hardness Test
	76.2-101.6 Incl.	0.36	0.36	+10	-10	4.76	0	100% Hydrostatic Test * Reverse Flattening Test Refer to ASTM A - 450 *Wherever Applicable
ASTM A-269 Seamless & Welded Tubing for General Service	Upto 12.7	0.13	0.13	+15	-15	3.2	0	Flare Test
	12.7-38.1 excl.	0.13	0.13	+10	-10	3.2	0	Flange Test (Welded Only)
	38.1-88.9 excl.	0.25	0.25	+10	-10	4.8	0	Hardness Test
	88.9-139.7 excl.	0.38	0.38	+10	-10	4.8	0	Flattening Test, Reverse Flattening
	139.7-203.2 excl.	0.76	0.76	+10	-10	4.8	0	100% Hydrostatic
ASTM A -312 Seamless & Welded Pipe	13.70-48.3 incl.	0.40	0.79	+12.5	-12.5	6.4	0	Tension Test
	48.3-114.3 incl.	0.79	0.79			6.4	0	Flattening Test
	114.3-220 incl.	1.60	0.79			6.4	0	100% Hydrostatic Test Refer to ASTM A-530
(Normally Random Lengths Ordered)(Normally Random Lengths Ordered)								
ASTM A -554 Mechanical Steel Tubing	Up to 5" 127 mm	0.1 to 0.5	to 0.5	+10	-10	1.6 to 4.88	0	As per Customer Requirement

APPLICATION



Heat Exchanger



Refineries



Power Plant



Chemicals Industries



Pharmaceuticals



Oil & Gas



Engineering



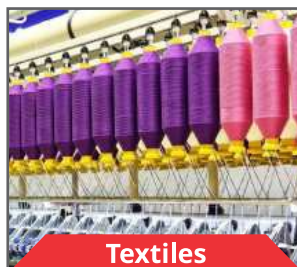
Automobile



Aerospace



Food Processing



Textiles



Paper & Pulp

CERTIFICATE



Directorate Industrial
Safety & Health
(Gujarat State)



ISO 9001:2015 Certificate



ISO 14001:2015 Certificate



ISO 45001:2018 Certificate



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