



SCALING INDIA'S COMMERCIAL MOBILITY WITH STAINLESS LOGISTICS SOLUTIONS



Lightweight



Corrosion
Resistance



Lower
Life Cycle Cost



Lower Carbon
Footprint

For advisory, please contact:

Mr Ranit Rana
Associate Vice President

ranit.rana@jindalstainless.com

7042202268

A large industrial ladle is tilted, pouring a thick stream of bright orange molten metal into a container below. The scene is set in a dark industrial environment, likely a steel mill, with various pipes and structures visible in the background. The lighting is dominated by the intense glow of the molten metal.

A STAINLESS LEGACY

India's leading stainless steel manufacturer, Jindal Stainless, achieved a consolidated annual turnover of INR 38,562 crore (USD 4.7 billion) in FY24. The company is expanding its facilities to reach 4.2 million tonnes of annual melt capacity by 2026. Jindal Stainless operates 16 manufacturing and processing facilities across India, Spain, and Indonesia, with a global network of 12 locations as of March 2024.

Jindal Stainless remains focused on a greener, sustainable future fuelled by environmental responsibility. The company manufactures stainless steel using scrap in an electric arc furnace, which lowers greenhouse gas emissions and enables recyclability with no reduction in quality. The company aims to reduce carbon emission intensity by 50% well before FY35 and achieve Net Zero by 2050.

BUILT TO LAST

STAINLESS STEEL FOR LOAD BODIES



INTRODUCTION

The usage of stainless steel JT grade (N7 as per BIS 6911 specification) in the Trucks, Containers, and Trailer industry is a big breakthrough to increase payload along with durability. Its sterling features provide safety, aesthetics, weight reduction, fuel efficiency, and sustainability. Today stainless steel is increasingly being used in the construction of complete body, and structural parts as well as in the flooring of Heavy-duty Trucks, Containers, Tippers, and Trailers.

It is an established fact that the usage of stainless steel in load bodies guarantees better corrosion resistance and reduction in overall weight, offering substantial savings on fuel consumption or an increased revenue due to additional payload carrying capacity. From the environmental aspect, stainless steel being fully recyclable offers a 'green solution' and hence is the most preferred material for sustainable development for the future.

Owing to these amazing properties, JT has become the most preferred material of construction for the Truck & Trailer Industry.

BEYOND COMPARISON

STAINLESS STEEL FOR SAFETY & TRUST

WHY STAINLESS STEEL IS THE BEST CHOICE FOR LOAD BODIES

- EXCELLENT CORROSION RESISTANCE
- LOW MAINTENANCE COST
- EASE OF CLEANING
- SUPERIOR AESTHETICS
- FIRE RESISTANT
- EXCELLENT CRASH RESISTANCE
- HIGH STRENGTH TO WEIGHT RATIO
- LOW TARE WEIGHT
- HIGH PAYLOAD
- FUEL EFFICIENCY
- FASTER PAYBACKS
- LONGER LIFE
- HIGH PRODUCTIVITY



BEYOND EFFICIENCY

DRIVE AHEAD WITH 20% - 30% LIGHTER & 3X STRONGER
STAINLESS STEEL LOAD BODIES



- 
Lightweight
- 
Corrosion Resistant
- 
Maintenance Free Life
- 
Lower Life Cycle Cost
- 
Lower Carbon Footprint

PARAMETERS	JT STAINLESS STEEL
WEIGHT	Reduces weight by 20-30%
PAYLOAD	Increases by 800 to 1200 Kg
COST SAVINGS	Savings of INR 20-30 Lakhs
ADDITIONAL REVENUE (10 years)	20-24 Lakhs

In India, stainless steel is gaining traction with all the major commercial vehicle manufacturers.

COMPONENTS	SS GRADE
UNDERFRAME	JT Tubes and Bend Sections
SIDEWALLS & ROOF	JT Corrugated Sheets and Tubes
DOORS	JT Corrugated Sheets and Tubes
FLOOR	JT Chequered Sheets



TYPICAL LIFE CYCLE COST SAVINGS FOR 32 FEET SS (JT) CONTAINERS

AS PER FEEDBACK FROM LOGISTICS PROVIDERS, TYPICAL FREIGHT COST IS ₹ 2/MT/KM



THE JSL ADVANTAGE

While Stainless Steel gives you a material advantage, Stainless Steel from JSL, the largest manufacturer of Stainless Steel in India and a global player, gives you a distinct edge.



Indigenous



Full Quality Control - Completely Made-in-House



Complete Stainless Steel Solutions - Sheet, Plates, Chequered Sheets, Pipes & Tubes



Support in Fabrication & Technical Training



Easy Availability and Faster Deliveries



BEYOND SUSTAINABILITY

LOWER CARBON FOOTPRINT FOR GREENER ROADWAYS



MATERIAL CHARACTERISTICS

CHEMICAL COMPOSITION

Grade	% C (max)	% Mn (max)	% P (max)	% S (max)	% Si (max)	% Cr	% Ni	% Mo	N (ppm)	%Others Cu:
JT	0.14	9.0 – 11.5	0.10	0.03	1.00	13.50-16.00	0.20-0.95	-	1000 - 2500	0.4 – 0.8

MECHANICAL PROPERTIES OF SHEETS

Property (Sheets)	JT	Mild Steel CRCA	Aluminium Annealed	Aluminium ½ hard
Yield Strength (MPa, min)	400	205	49	137
Ultimate Tensile Strength (MPa, min)	700	260	108	157
% Elongation (min)	40	16	43	12
Density (gm/cc)	7.8	7.8	2.7	2.7
Hardness (HRB, max)	100	70	Soft	Moderate

Note:

- When formed into tubes, stainless steel, due to its superior hardening property, exhibits a very high strength, coupled with excellent elongation.
- Typical mechanical properties of stainless steel tubes vis-à-vis MS tubes are tabulated as below:

MECHANICAL PROPERTIES OF TUBES

Property (Tubes)	JT	Mild Steel
Yield Strength (Mpa, min)	700	210 / 240 / 310
Ultimate Tensile Strength (Mpa, min)	900	
%Elongation (min)	30	12 / 10 / 8

SIZE RANGE COILS

Products	Max width (mm)	Thickness (mm)	
		Min	Max
CRAP Coil	1000	0.50	3.15
	1250	0.50	3.15

Note:

- We can also supply in sheet form in the standard size of 1250 X 2500 mm. However, we can also supply customized widths and lengths, if required.
- We can also supply in width of 1500 mm, for specific thicknesses and grades.

SHEETS, TUBES AND OTHER RANGE OF PRODUCTS



WEIGHT CHART - SQUARE PIPES

Dimension		Wall thickness (mm) Welded tubes according to ASTM A 554-DIN 2395-NFA 49647									
A mm	B mm	1	1.2	1.5	2	2.5	3	4	5	6	
12	12	0.358									
15	15	0.453	0.538	0.661							
16	16	0.485	0.576	0.709							
19	19	0.567	0.675	0.832	1.090						
20	20	0.613	0.729	0.901	1.176						
22	22	0.677	0.806	0.996	1.303						
25	25	0.772	0.921	1.140	1.495	1.837	2.167				
30	30	0.932	1.112	1.379	1.814	2.236	2.645				
32	32	0.960	1.150	1.420	1.870	2.310	2.740				
35	35	1.091	1.304	1.618	2.133	2.635	3.124				
40	40	1.251	1.495	1.859	2.452	3.033	3.602	4.703			
45	45	1.410	1.686	2.097	2.771	3.432	4.081				
50	50	1.878	2.336	3.090	3.831	4.559	5.979	7.349			
60	60		2.254	2.814	3.728	4.628	5.516	7.255	8.943		
70	70			3.293	4.366	5.426	6.473	8.531	10.538		
80	80			3.771	5.004	6.223	7.430	9.807	12.133	14.410	
100	100			4.728	6.279	7.818	9.344	12.359	15.323	18.237	
120	120				7.555	9.413	11.258	14.910	18.513	22.065	
140	140				8.831	11.008	13.172	17.462	21.703	25.893	
150	150				9.469	11.805	14.129	18.738	23.298	27.807	
200	200				12.659	15.793	19.913	25.118	31.272	37.376	

UNIT WT. = KG/METRE

WEIGHT CHART - RECTANGULAR PIPES

Dimension		Wall thickness (mm) Welded tubes according to ASTM A 554-DIN 2395-NFA 49647									
A mm	B mm	1	1.2	1.5	2	2.5	3	4	5	6	
15	10	0.370	0.440	0.540							
20	10	0.453	0.538	0.661							
20	15	0.533	0.634	0.781	1.016						
25	10	0.533	0.634	0.781							
25	10	0.613	0.729	0.901	1.176						
25	20	0.693	0.825	1.020	1.335						
26	13	0.613	0.729	0.901	1.176						
30	10	0.613	0.729	0.901	1.176						
30	15	0.693	0.825	1.020	1.335						
30	20	0.772	0.921	1.140	1.495	1.837	2.167				
30	25	0.840	1.000	1.240	1.630						
35	15	0.760	0.910	1.130	1.480						
35	20	0.852	1.017	1.259	1.654	2.036	2.406				
40	10	0.760	0.910	1.130	1.480						
40	15	0.852	1.017	1.259	1.654	2.036	2.406				
40	20	0.932	1.112	1.379	1.814	2.236	2.645				
40	27	1.044	1.246	1.547	2.037	2.515	2.980				
40	30	1.091	1.304	1.618	2.133	2.635	3.124				
45	15	0.910	1.090	1.350	1.780						
45	20	0.990	1.180	1.460	1.920						
50	10	0.910	1.090	1.350	1.780						
50	20	1.091	1.304	1.618	2.133	2.635	3.124				
50	25	1.171	1.399	1.738	2.292	2.834	3.363				
50	30	1.251	1.495	1.858	2.452	3.033	3.602				
50	40	1.410	1.686	2.097	2.771	3.432	4.081				
60	20	1.251	1.495	1.858	2.452	3.033	3.602				
60	30	1.410	1.686	2.097	2.771	3.432	4.081				
60	40		1.878	2.336	3.090	3.831	4.559				
70	20		1.650	2.050	2.710	3.340	4.000				
70	30			2.290	3.030	3.760	4.480				
70	40			2.575	3.409	4.229	5.038				
75	25		1.878	2.336	3.090	3.831	4.559				
80	20			2.290	3.030	3.760	4.480				
80	30			2.530	3.350	4.160	4.960				
80	40		2.254	2.814	3.728	4.628	5.516	7.255	8.943	10.582	
80	50			3.010	4.000	4.960	5.920	7.790	9.620	11.390	
80	60			3.293	4.366	5.426	6.473	8.531	10.538	12.496	
100	20			2.760	3.650	4.540	5.410				
100	30			3.010	4.000	4.960	5.920				
100	40			3.293	4.366	5.426	6.473	8.531	10.538	12.496	
100	50			3.532	4.685	5.824	6.952	9.169	11.336	13.453	
100	60			3.771	5.004	6.223	7.430	9.807	12.133	14.410	
100	80			4.250	5.641	7.021	8.387	11.083	13.728	16.324	
120	40			3.771	5.004	6.223	7.430	9.807	12.133	14.410	
120	60			4.250	5.641	7.021	8.387	11.083	13.728	16.324	
120	80			4.728	6.279	7.818	9.344	12.359	15.323	18.237	
140	80						10.301	13.635	16.918	20.151	
150	50						9.344	12.359	15.323	18.237	
150	100						11.736	15.548	19.310	23.022	
160	80						11.258	14.910	18.513	22.065	
200	100						14.129	18.738	23.298	27.807	

WEIGHT CHART - ROUND PIPES

Outside Diameter (mm)	Weight (kg/metre)										Wall Thickness (mm)								
	0.40	0.45	0.50	0.60	0.70	0.75	0.80	0.90	1	1.2	1.5	1.6	2	2.5	2.6	3	3.2	3.6	4
6.00	0.056	0.063	0.069	0.081					0.125										
7.20	0.068	0.076	0.084	0.100															
7.50	0.072	0.080	0.088	0.104															
8.00	0.077	0.085	0.094	0.112	0.128	0.137	0.145	0.161	0.175										
9.50	0.091	0.102	0.113	0.134	0.155	0.165	0.175												
10.00	0.097	0.108	0.119	0.142	0.164	0.175	0.185	0.206	0.225										
12.00	0.117		0.145	0.172	0.199	0.212	0.225	0.251	0.275	0.325	0.394								
12.70	0.124		0.153	0.182	0.211	0.225													
13.30	0.130		0.161	0.192	0.222	0.237	0.251	0.280											
13.50	0.132		0.163	0.195	0.225	0.240	0.255	0.285											
14.00	0.137		0.170	0.202	0.234	0.250	0.265	0.296	0.326	0.385	0.470								
14.80	0.145		0.180	0.214	0.248	0.265													
15.00	0.147		0.182	0.217	0.252	0.269	0.286	0.319	0.351	0.415	0.507								
15.70	0.154		0.191	0.228	0.264	0.282	0.300	0.335											
15.88	0.155		0.193	0.230	0.266	0.284	0.302	0.338											
16.00	0.157		0.195	0.232	0.269	0.287	0.306	0.342	0.376	0.445	0.545	0.577	0.701						
17.00	0.167		0.207	0.247	0.287	0.306	0.326	0.364											
17.20	0.168		0.209	0.249	0.289	0.309	0.327	0.406	0.481	0.590	0.625	0.761							
18.00	0.177		0.220	0.262	0.304	0.325	0.345	0.387	0.426	0.505	0.620	0.657	0.801	0.970					
19.00	0.187		0.232	0.277	0.322	0.344	0.366	0.409	0.452	0.536	0.659	0.699	0.854	1.036					
19.05	0.187		0.232	0.277	0.322	0.344	0.366	0.409	0.452	0.536	0.659	0.699	0.854	1.036					
20.00	0.197		0.245	0.293	0.340	0.363	0.386	0.432	0.476	0.565	0.695	0.737	0.901	1.096	1.133	1.277			
21.00	0.207		0.258	0.308	0.357	0.382	0.406	0.455											
21.30	0.210		0.261	0.312	0.362	0.387	0.412	0.461	0.508	0.604	0.714	0.789	0.967	1.177	1.217	1.375			
22.00			0.270	0.323	0.375	0.401	0.426	0.477	0.526	0.625	0.770	0.817	1.002						
22.23			0.272	0.325	0.377	0.403	0.429	0.481	0.532	0.632	0.779	0.827	1.013						
23.00			0.283	0.338	0.392	0.419	0.446	0.500											
24.00			0.295	0.353	0.410	0.438	0.466	0.523											
25.00			0.308	0.368	0.428	0.457	0.487	0.545	0.601	0.715	0.883	0.937	1.125	1.409	1.458	1.653			
25.40			0.317	0.378	0.440	0.470	0.501	0.561	0.611	0.727	0.898	0.954	1.172	1.434	1.484	1.683			
26.00			0.320	0.383	0.445	0.476	0.507	0.568											
26.90			0.333	0.396	0.463	0.495	0.527	0.590	0.649	0.772	0.954	1.014	1.247	1.527	1.582	1.795			
27.00			0.333	0.398	0.463	0.495	0.527	0.590											
28.00			0.346	0.413	0.480	0.514	0.547	0.613	0.676	0.805	0.995	1.058	1.302						
28.58			0.352	0.420	0.489	0.523	0.556	0.624	0.691	0.823	1.017	1.081	1.331						
30.00			0.371	0.443	0.515	0.551	0.587	0.658											
31.75								0.770	0.918	1.136	1.208	1.490	1.831	1.898	2.160				
31.80			0.396	0.474	0.551	0.589	0.627	0.703											
32.00			0.396	0.474	0.551	0.589	0.627	0.703	0.776	0.925	1.146	1.218	1.502	1.847	1.914	2.178			
33.00								0.956	1.183	1.258	1.552								
33.40								0.811	0.968	1.198	1.274	1.573	1.934	2.005	2.284				
33.70								0.819	0.977	1.209	1.286	1.588	1.953	2.025	2.306	2.444			
34.00								0.826	0.966	1.221	1.298	1.603	1.972						
34.99								0.850	1.014	1.256	1.335	1.649	2.030						
35.00								0.851	1.016	1.258	1.338	1.653	2.035						
38.10								0.929	1.109	1.375	1.462	1.808	2.229	2.311	2.637				
40.00								0.977	1.166	1.446	1.538	1.903	2.348	2.435	2.779				
41.30								0.999	1.193	1.481	1.574	1.944	2.406		2.850				
42.00								1.226	1.521	1.819	2.003								
42.40								1.037	1.238	1.536	1.635	2.023	2.498	2.591	2.960	3.141	3.498	3.446	

WEIGHT CHART - ROUND PIPES

Outside Diameter (mm)	Weight (kg/metre)										Wall Thickness (mm)								
	0.40	0.45	0.50	0.60	0.70	0.75	0.80	0.90	1	1.2	1.5	1.6	2	2.5	2.6	3	3.2	3.6	4
42.70									1.044	1.247	1.547	1.647	2.038	2.517	2.611	2.982	3.165	3.525	3.876
43.00									1.052	1.256	1.559	1.659	2.053	2.535					
44.45									1.088	1.300	1.613	1.717	2.126	2.626	2.725	3.114			
44.50									1.089	1.301	1.615	1.719	2.128	2.629	2.728	3.117			
45.00									1.102	1.316	1.634	1.739	2.153	2.661					
48.30									1.184	1.415	1.758	1.871	2.319	2.867	2.975	3.403	3.614	4.029	4.437
48.60									1.192	1.424	1.769	1.883	2.334	2.886	2.995	3.425			
50.00									1.227	1.466	1.822	1.939	2.404	2.974	3.086	3.531	3.750	4.183	4.607
50.80									1.247	1.490	1.852	1.971	2.444	3.024	3.138	3.591	3.814	4.255	4.687
51.00									1.252	1.496	1.859	1.979	2.454	3.036	3.151	3.606	3.830	4.273	4.708
52.00									1.277	1.526	1.897	2.019	2.504	3.099					
53.00									1.302	1.556	1.934	2.059	2.554	3.161	3.281	3.756	3.990		
54.00									1.327	1.587	1.972	2.099	2.604	3.224	3.346	3.831	4.071		
55.50									1.365	1.632	2.028	2.159	2.679	3.318	3.444	3.944			
57.00									1.402	1.677	2.085	2.220	2.754	3.412	3.542	4.056	4.311	4.814	5.308
60.30									1.485	1.776	2.209	2.352	2.920	3.618	3.757	4.304	4.575	5.111	5.639
63.50									1.565	1.872	2.329	2.480	3.080	3.819	3.965	4.545	4.832	5.400	5.960
70.00									1.728	2.067	2.573	2.740	3.405	4.226	4.388	5.033	5.353	5.986	6.611
73.50									1.815	2.172	2.704	2.881	3.581	4.445	4.616	5.296	5.633	6.301	6.961
76.10									1.881	2.251	2.802	2.985	3.711	4.607	4.785	5.491	5.841	6.535	7.222
76.20									1.883	2.254	2.806	2.989	3.716	4.614	4.792	5.499	5.849	6.544	7.232
80.00									2.368	2.948	3.141	3.906	4.852	5.039	5.784	6.154	6.887	7.612	
83.00									2.458	3.061	3.261	4.056	5.039	5.234	6.010	6.394	7.157	7.913	
84.00									2.488	3.099	3.301	4.107	5.102	5.299	6.085	6.474	7.248	8.013	
85.00									2.518	3.136	3.341	4.157	5.165	5.365	6.160	6.554	7.338	8.113	
88.90									2.635	3.283	3.498	4.352	5.409	5.618	6.453	6.867	7.689	8.504	
95.00									3.512	3.742	4.657	5.791	6.016	6.911	7.356	8.239	9.115		
101.60									3.760	4.006	4.988	6.204	6.445	7.407	7.885	8.834	9.776		
103.00									3.812	4.062	5.058	6.291	6.536	7.512	7.997	8.960	9.916		
104.00									3.850	4.103	5.018	6.354	6.602	7.587	8.077	9.050	10.016		
108.00									4.000	4.263	5.308	6.604	6.862	7.888	8.397	9.411	10.417		
114.30																			

