

# ADITYA STEELS STAINLESS STEEL TUBES AND PIPES

WHERE QUALITY SPEAKS...

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# THE COMPANY

Aditya Steel Industries is a part of Aditya Group, started operations in 1946 with the motto to serve the industrial circuit through providing quality products. The company is an ISO 9001: 2015 certified company and serves a clientele from all across the globe. The company excels in the industrial sphere for its visionary ideas producing state of the art stainless steel tubes and pipes.

Since, the group has been advancing firmly establishing itself on the industrial map of Kaithal district in Haryana state, 192 KM far from New Delhi, with a strong footprint and quality products.

Aditya group is promoted by brothers Ashok Bansal and Ajay Bansal lead the team of experienced employees who ensure that the best products with top-notch quality and performance are produced. "Aditya Polymer Industries" existing company of Aditya Group has been serving the plastic industry for 10 years. The group has recently entered the steel segment in the contemporary market. The occupied area of Aditya Steel Industries is 15,5000 sq. feet. The group caters to the increased demand for stainless steel tubes and pipes in different industries.

Aditya steels is based on the simple principle- provide better quality of stainless steel tubes and pipes and improve the planning method in all areas to deliver the finest products in the market.

A WORLD OF STAINLESS STEEL TUBE & PIPES

# **PRODUCT RANGE**

PRODUCT	SIZE RANGE (MM)	THICKNESS RANGE (MM)		
SS Round Tubes / Pipes	9.50mm to 127mm	0.50mm to 2.0mm		
SS Square Tubes / Pipes	10x10 to 100x100	0.50mm to 2.0mm		
SS Rectangle Tubes / Pipes	10x20 to 50x100	0.50mm to 2.0mm		
Slotted Tubes	40x40x15, 50x50x15, 60x40x15	0.88mm to 1.45mm		
SS Oval Tubes	13x33, 15x30	0.88mm to 1.45mm		

**Grades are available** – 202, 304, 304L, 316, 316L **Finished** – Mirror Finished & Matt Finished



# **OUR PLANT AND MACHINERY**

Aditya Steel Industries is committed to provide the best quality products through high technology machines as well as highly experienced employees.

### **TUBE MILL**

Our tube mills are fully automated, highly advanced & specially designed with Taiwan Technology to manufacture stainless steel tubes and pipes with high accuracy as well as high production with latest TIG welding TRICATHODE system of ITALY, EUROPE. These tube mills have inferred ray sensor system to examine the quality of welding and is the only one of its kind.

We have eight tube mills which can produce tube / pipe sizes from 3/8" to 5". These precision tube mills are capable to meet your requirement of low thickness précised tubes and pipes.

All the tube mills are equipped with latest on line finishing equipments as per international standards and industrial requirements.



# **ROLL SETS**

Our rolls are specially designed for stainless steel tubes and pipes (Round as well as Hollow section) imported from Taiwan with special material, Grade - Cr12MOV for forming & sizing and SKD61 for welding roll with required heat treatment and hardness that gives better quality of welding which is no compare to others.

These rolls provide better finishing quality and précised sizes of tubes and pipes which will make a different to others.



# **POLISHING MACHINES**

Our polishing machines have been imported from Taiwan. We have 8 heads polishing machine to polish round tubes and 32 heads polishing machine to polish hollow section. These polishing machines are also fully automated, highly advanced & specially designed with latest technology for better shining and mirror finish.

We also use imported polishing material for the best shining of tubes / pipes which makes our products different from others.

All our machines are driven by highly experienced engineers that's why no compare to others.





# TOTAL QUALITY MANAGEMENT

As you know that the ADITYA STEEL INDUSTRIES is quality oriented.

So, we have complete quality equipments in our premises and we have well qualified experienced team of engineers. They check each tube and pipe minutely.

Quality tests are as under.

### **FLARING TEST**

The flaring test serves to establish the forming behavior of tubes or pipes which is expanded to specific degree. This flaring test is carried out of conformity with the code requirements. The specimen to be tested is expanded in a press to the degree specified. Defects which occur as result of this process are not permissible.



# Manage - Man

# **HARDNESS TEST**

Samples from each lot are tested to ensure that the hardness of tube is within permissible limits.

# THE TENSILE TEST

The tensile test specimen serves to determine the strength and ductility characteristics i.e. yield strength, tensile strength and elongation. Tensile test are normally carried out at the room temperature according to DIN, ASTM, BS standards etc.





# **EDDY CURRENT TEST**

This test used to detect hidden flaws, inhomogeneties, cracks etc. using the test procedure described in ASTM E-426.

# **HYDROSTATIC TEST**

All tubes and pipes produced at Aditya Steel Industries are compulsorily subject to 100% hydro testing. Hydrostatic testing can be carried out at pressure up to 450 kg/cm sq. The test pressure is achieved using high pressure triple plunger pumps.



Visual Inspection- All tubes and pipes are subject to 100% visual inspection by highly experienced supervisors.



# **APPLICATIONS**

Today, Stainless steel is an essential material for a wide array of domestic & industrial applications. Stainless steel's strength, resistance to corrosion and low maintenance make it the ideal material for a wide range of applications. It also has a long life cycle and is 100% recyclable. It's consumption, therefore, is increasing day after day. Even the govt. has started using Stainless steel in it's projects due to it's low maintainence cost.

In countries such as USA and China, per capita consumption of Stainless Steel is 10 kg and 15 kg approximately but in India, it's 2 kg per capita only as per the data of ISSF in 2017. So there is a lot of scope of growth in India.

### Some of the applications of Stainless Steel are:

### 1. Building and Construction

- (i) Gates and Grills
- (ii) Stair railings

### 2. Furniture industry

- (i) Modern furniture
- (ii) Modular Kitchen

### 3. Industrial Purposes

- (i) Pharmaceutical industry
- (ii) Milk Plants
- (iii) Edible Oil plants

### 4. Architecture

- (i) Govt. projects Barriers, Bus shelters etc.
- (ii) Roof
- 5. Sanitary Fittings















# **WEIGHT CHART**

Round, Square, Rectangle and Oval Sizes

# Our Tubes Product Range as well as Weight Per Length in Both Grades-304 and 202

Wall Thickness GAUGE		ММ	2.00	1.45	1.18	0.88	0.78	0.68	0.58	0.50	
		14	16	18	20	22	24	25	26		
Size in mm and inches											
	ROUND	HOLL	OW SECTION				Weight in Kg.				
Inch	mm	Square	Rectangle								
3/8	9.50			-	-	1.50	1.15	1.00	-	-	-
1/2	12.70	10x10		-	2.50	2.00	1.57	1.40	1.24	1.10	0.90
5/8	15.88	12x12		4.20	3.20	2.70	2.00	1.80	1.60	1.40	1.16
3/4	19.05	15x15	10x20	5.15	3.85	3.20	2.50	2.20	1.90	1.65	1.40
7/8	22.23			6.15	4.55	3.75	2.85	2.55	2.25	2.00	1.65
1	25.40	20x20	13x26, 10x30	7.00	5.30	4.40	3.30	2.90	2.50	2.25	1.90
1¼	31.75	25x25	10x40	9.00	6.70	5.50	4.20	3.65	3.20	2.85	2.40
1½	38.10	30x30	20x40, 10x50	11.00	8.00	6.60	5.00	4.40	3.90	3.40	2.85
	47.62		25x50	13.80	10.20	8.30	6.25	5.55	-	-	-
	49.53		26x52	14.40	10.60	8.70	6.50	5.75	-	-	-
2	50.80	40x40		14.90	11.00	9.00	6.70	6.00	5.20	4.60	3.80
21/2	63.50	50x50	25x75, 35x65	18.60	13.60	11.20	8.40	_	-	-	-
3	76.20		40x80, 60x60	22.40	16.40	13.40	10.00	-	-	-	-
31/4	79.38		25x100	23.40	17.00	14.00	10.50	-	-	-	-
3¾	95.25		50x100	28.20	20.60	16.80	12.60	-	-	-	-
4	101.60	80x80		30.00	22.00	18.00	13.50	-	-	-	-
5	127.00	100x100		37.80	28.00	22.50	17.00	-	-	-	-
SLOTTED	58.00	40X40X15		-	12.40	10.15	7.60	-	-	-	-
TUBES	70.50	50X50X15	60X40X15	-	15.20	12.40	9.25	-	-	-	-
OVAL	OVAL TUBES 15x30, 13x33		-	5.30	4.40	3.30	2.90	2.50	2.25	1.90	

Note- The Tube length will be 20 feet long. Weight Formula (OD-TH)\*TH.\*.02475\*6.1=Weight Per Length, (All Dimensions are in MM)

# **WEIGHT CHART - NB Sizes**

# Our Pipes Product Range as well as Weight Per mtr. in Both Grades-304 and 202

NB Pipe Sizes	Sched	l. 10 S	Sched. 20 S		
NB Pipe Sizes	OD in (mm)	Spess	Kg./m	Spess	Kg./m
1/2"	21.30	-	-	2.70	1.29
3/4"	26.70	-	-	2.78	1.71
1"	33.40	2.77	2.12		
1¼	42.20	2.77	2.74		
1½	48.30	2.77	3.17		
2"	60.30	2.77	4.01		
21/2	73.00	3.05	5.36		
3"	88.90	3.05	6.57		
4"	114.30	3.05	8.52		



# **MECHANICAL PROPERTIES**

GRADE	Tensile Strength(MPA) (min)	% Yield Strength MPA (min)	% Elongation (min)	Hardness HRB (max)
SS 304	515	205	40	92
SS 304 L	485	170	40	92
J4	650	325	40	100
JSL-T	650	325	40	100
JSL-DD	650	325	40	100
JSL-SD	650	325	40	100
409	380	170	20	88
409 L	380	170	20	88

# **CHEMICAL COMPOSITION**

GRADE	C % MAX	SI % MAX	MN %	CR. %	NI %	P % MAX	S % MAX	OTHER ELEMENTS %
SS 304	0.07	0.75	2.00 MAX	17.5 – 19.5	8 – 10	0.045	0.03	-
SS 304 L	0.03	0.75	2.00 MAX	17.5 – 19.5	8 – 12	0.045	0.03	-
J4	0.10	0.75	8.5 - 10.0	15 – 16	1-2	0.08	0.01	Cu 1.5-2
JSL-T	0.10	0.75	9.0 - 10.0	14.5 – 16.5	0.25 - 0.35	0.1	0.01	-
JSLU-DD	0.15	0.75	9.7 – 10.7	15.1 - 16.0	0.45 - 0.60	0.1	0.03	Cu 1.9 - 2.2
JSLU-SD	0.15	0.75	9.7 – 10.3	13.25-14.25	0.45 - 0.50	0.1	0.03	Cu 1.25 – 1.75
409	0.03	1	1	10.5 - 11.7	0.5	0.04	0.02	Ti = 6x(C+N) Min.
								0.5 Max.
409 L	0.03	1	1	10.5 - 11.7	0.5	0.04	0.03	Ti = 6x(C+N) Min.
								0.75 Max.













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