

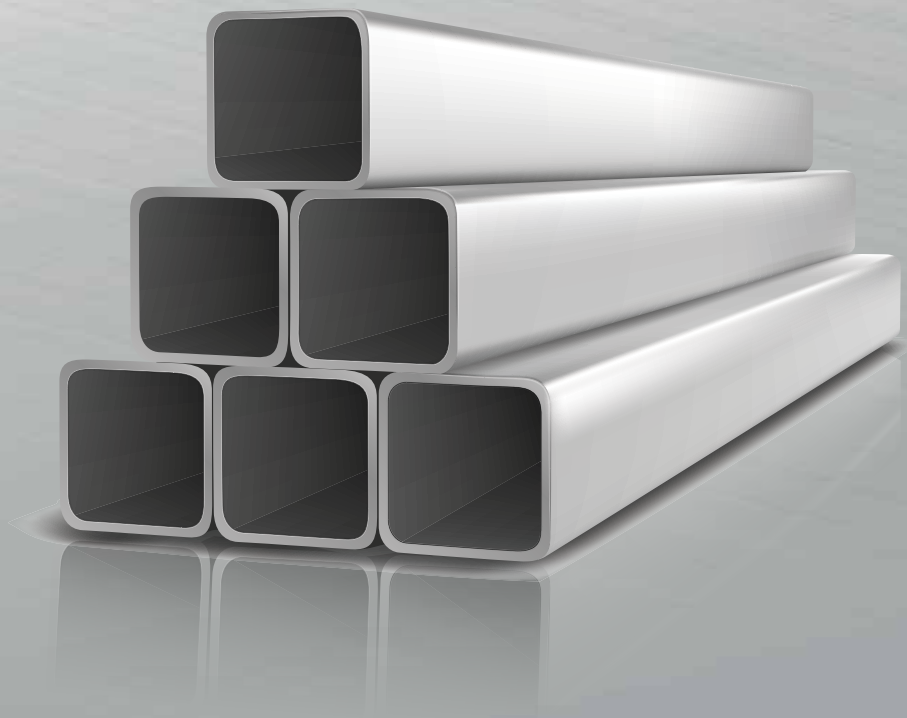


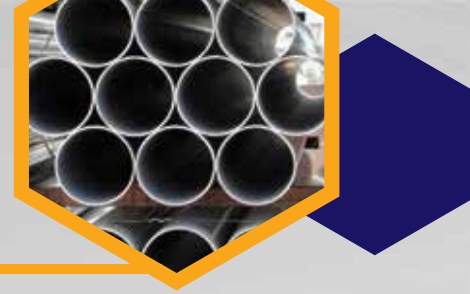
# HRINOX

*We build the nation with steel*



THE WORLD OF  
DECORATIVE  
**STAINLESS STEEL**  
PIPES & TUBES





## INTRODUCTION

**Hans Raj Tubes Pvt. Ltd.** is a leading manufacturer of stainless steel products in India. Driven by the “Make in India” initiative, the company will focus on setting new industry benchmarks with its world class products. A flagship brand of Hans Raj Tubes Pvt. Ltd. founded in 2019, **HR INOX** offers one-stop destination for the finest quality of Decorative Stainless Steel Pipes and Tubes. This ISO 9001:2015 certified company is built on a strong foundation of Trust and Transparency.

The company has a **State-of-the-Art** manufacturing facility in Amritsar, Punjab that is well equipped with ultra-modern technologies like High Frequency Induction Welding Mill (HF Mill), TIG Mills and Polishing Lines, which are capable of delivering a production capacity of over 15,000 MT per annum. The company will focus on offering an incredible range of stainless steel pipes and tubes along with various types of finishes (Mirror and Matte). Furthermore, to make sure that only the best grade products reach the customers the company stringently deploys a system of quality checks, testing and inspection.

Hans Raj Tubes Pvt. Ltd. is a name in India’s Stainless Steel Industry to reckon with that radiates an unwavering commitment of excellence in serving both the present and future needs of the customers.

## OUR VISION

“To be recognised as a market leader in India’s Stainless Steel Tube industry for its design, manufacture and supply of top-notch **Decorative Stainless Steel Pipes and Tubes.**”

## OUR MISSION

“Our mission is to become a preferred steel partner for the Indian industrial circuit by consistently delivering the highest-quality of products to our customers, accompanied by personalised service and a promise of trust.”



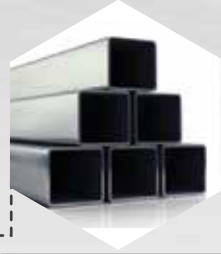
## PRODUCT RANGE



### SS Round Tubes /Pipes

SIZE : 12.70 mm to 127.00 mm  
 THICKNESS : 0.70 mm to 2.50 mm  
 GRADE : 202, 304, 304L, 310, 316, 316L.  
 FINISH : 2B, Mirror, Matte

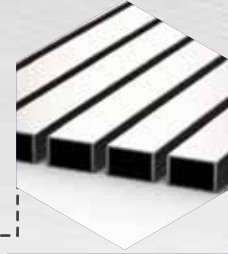
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### SS Square Tubes /Pipes

SIZE : 12x12 mm to 100x100 mm  
 THICKNESS : 0.60 mm to 2.50 mm  
 GRADE : 202, 304, 304L, 310, 316, 316L.  
 FINISH : 2B, Mirror, Matte

02



### SS Rectangular Tubes / Pipes

SIZE : 20x10 mm to 100 x 50 mm  
 THICKNESS : 0.60 mm to 2.50 mm  
 GRADE : 202, 304, 304L, 310, 316, 316L.  
 FINISH : 2B, Mirror, Matte

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## PLANT & MACHINERY

### HIGH FREQUENCY TUBE MILL



High frequency induction welding with solid state welder in one of latest technology used in production of stainless steel pipes & tubes. Our high speed HF mill produces tubes with avg. of 60 meter per minutes with superior finish quality for better welding strength.

### TIG MILL



The TIG welding system (Tungsten Inert Gas) is mainly indicated for production of high-quality pipes & tubes. We have eight no. of imported mill for production of quality pipes & tubes in which size range from 12.70 mm to 127.00 mm.

### POLISHING MACHINES



Our polishing machines are highly precise and sophisticated gives world class finishes from matte to very high gloss mirror finish in round, square or rectangle tubes. We have 9 heads grind master polish machine to polish round tubes and 36 heads fully automatic machine to polish square and rectangle tubes.

### MOULDS



Our rolls are specially designed for stainless steel pipes and tubes (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 comparison to others.

# WEIGHT CHART

Round, Square, and Rectangular Sizes

## ROUND TUBES

Wall Thickness	MM	2.00	1.50	1.20	0.95	0.80	0.60	0.50	0.40
	Gauge	14	16	18	20	22	24	25	26
Tube OD		Tube Weight in Kg ( Length of tube - 20 Feet)							
Inch	mm								
3/8	9.50			1.50	1.20	1.10	0.80	0.68	
1/2	12.70		2.50	2.10	1.70	1.40	1.10	0.92	
5/8	15.88		3.30	2.70	2.10	1.80	1.40	1.16	
3/4	19.05	5.15	4.00	3.20	2.60	2.20	1.70	1.40	
7/8	22.23	6.10	4.70	3.80	3.00	2.55	1.95	1.64	
1	25.40	7.10	5.40	4.40	3.50	3.00	2.20	1.90	
1 1/8	28.58	8.00	6.13	4.96	3.96	3.36	2.53	2.12	
1 1/4	31.75	9.00	6.90	5.50	4.40	3.70	2.83		
1 1/2	38.10	10.90	8.30	6.70	5.30	4.50	3.40		
1 3/4	48.00	13.91	10.55	8.50	6.76	5.70	4.30		
2	50.80	14.80	11.20	9.00	7.20	6.00	4.56		
2 1/2	63.50	18.60	14.10	11.30	9.00	7.60			
3	76.20	22.40	16.90	13.60	10.80	9.10			
3 1/8	79.38	23.30	17.70	14.20	11.20	9.50			
3 3/4	95.25	28.20	21.20	17.00	13.50	11.40			
4	101.60	30.10	22.70	18.20	14.43				
5	127	37.70	28.40	22.80					

## SQUARE TUBES

Wall Thickness	MM	2.00	1.50	1.20	0.95	0.80	0.60	0.50	0.40
	Gauge	14	16	18	20	22	24	25	26
Square Tubes		Tube Weight in Kg. (Length of tube - 20 Feet)							
mm									
10 x 10			2.5	2.1	1.70	1.4	1.10	0.92	
12 x 12			3.3	2.7	2.10	1.8	1.40	1.16	
15 x 15		5.15	4.0	3.2	2.60	2.2	1.70	1.40	
20 x 20		7.10	5.4	4.4	3.50	3.0	2.20	1.90	
25 x 25		9.00	6.9	5.5	4.40	3.7	2.83		
30 x 30		10.90	8.3	6.7	5.30	4.5	3.40		
40 x 40		14.80	11.2	9.0	7.20	6.0	4.56		
50 x 50		18.60	14.1	11.3	9.00	7.6			
60 x 60		22.40	16.9	13.6	10.80	9.1			
80 x 80		30.10	22.7	18.2	14.43				
100 x 100		37.70	28.4	22.8					

## RECTANGULAR TUBES

Wall Thickness	MM	2.00	1.50	1.20	0.95	0.80	0.60	0.50	0.40
	Gauge	14	16	18	20	22	24	25	26
Rectangular Tubes		Tube Weight in Kg. (Length of tube - 20 Feet)							
mm									
20 x 10		5.15	4.00	3.20	2.60	2.20	1.70	1.40	
26 x 13, 30 x 10		7.10	5.40	4.40	3.50	3.00	2.20	1.90	
30 x 15		8.00	6.13	4.96	3.96	3.36	2.53	2.12	
40 x 10		9.00	6.90	5.50	4.40	3.70	2.83		
40 x 20, 50 x 10		10.90	8.30	6.70	5.30	4.50	3.40		
50 x 25		13.91	10.55	8.50	6.76	5.70	4.30		
75 x 25, 60 x 40		18.60	14.10	11.30	9.00	7.60			
80 x 40		22.40	16.90	13.60	10.80	9.10			
100 x 25		23.30	17.70	14.20	11.20	9.50			
100 x 50		28.20	21.20	17.00	13.50	11.40			
33 x 13 (Ovall)			5.40	4.40	3.50	3.00			

## MECHANICAL PROPERTIES

GRADE	TENSILE STRENGTH (MPa)	YIELD STRENGTH (MPa)	% ELONGATION	HARDNESS HRB
	(MIN)	(MIN)	(MIN)	(MAX)
SS 304	515	205	40	92
316	515	205	40	95
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 % (MIN)	P % MAX	S % MAX	OTHER ELEMENTS %
SS 304	0.07	0.75	2.00 MAX	17.5 — 19.5	8	0.0045	0.03	-
SS 304 L	0.03	0.75	2.00 MAX	17.5 — 19.5	8	0.0045	0.03	-
316	0.08	0.75	2.0 Max	16 - 18	10	0.045	0.03	Mo 2-3
J4	0.1	0.75	8.5 — 10.0	15 — 16	01	0.08	0.01	Cu 1.5 - 2
JSL-T	0.1	0.75	9.0 — 10.0	14.5 — 16.5	0.25	0.1	0.01	-
JSL-DD	0.15	0.75	9.7 — 10.7	15.1 — 16.0	0.45	0.1	0.03	Cu 1.9 - 2.2
JSL-SD	0.15	0.75	9.7 — 10.3	13.25 - 14.25	0.45	0.1	0.03	Cu 1.25 - 1.75
409	0.03	1	1	10.5 — 11.7	0.5 Max	0.4	0.02	-
409 L	0.03	1	1	10.5 — 11.7	0.5 Max	0.4	0.03	-

## QUALITY LABORATORY FACILITY

As Hans Raj Tubes Pvt. Ltd. strives for best in class quality product, we have committed ourselves to develop a state of the art laboratory in-house. This laboratory to be used for checking and controlling the in process quality and also for the Research and Development purpose. The current facilities available in-house are as follows:

- 1 Flange Test
- 2 Weld Flow Testing
- 3 Reverse Flattening Test
- 4 Flaring Test
- 5 Flattening Test
- 6 Eddy Current Tester
- 7 Grade Analysis
- 8 Universal Tensile Testing
- 9 Hardness Testing (Both Rockwell & Vickers)

# QUALITY STANDARD SPECIFICATION

## ASTM A554

<b>A</b>		<b>OD TOLERANCES (MM)</b>		
<b>Round Tubes</b>	Tube OD (mm)	Thickness (mm)	OD Tolerance (mm) +/-	
	Under 12.7	0.51 - 1.25	0.1	
	12.7 - 25.4	0.51 - 1.65	0.13	
	12.7 - 25.4	Over 1.65 - 3.4	0.25	
	Over 25.4 - 38.10	0.64 - 1.65	0.20	
	Over 25.4 - 38.10	Over 1.65 - 3.4	0.25	
	Over 38.10 - 50.8	0.64 - 1.24	0.25	
	Over 38.10 - 50.8	Over 1.24 - 2.11	0.28	
	Over 38.10 - 50.8	Over 2.11 - 3.78	0.30	
	Over 50.8 - 63.5	0.81 - 1.65	0.30	
	Over 50.8 - 63.5	Over 1.65 - 2.77	0.33	
	Over 50.8 - 63.5	Over 2.77 - 4.19	0.36	
	Over 63.5 - 88.9	0.81 - 4.19	0.36	
	Over 88.9 to 127	0.89 - 4.19	0.51	
<b>Section Tubes</b>	Specified OD (mm)	Thickness (mm)	OD Tolerance (mm) (+/-)	
	Upto 31.75	All	0.38	
	Over 31.75 - 63.5	All	0.51	
	Over 63.5 - 139.7	All	0.76	

<b>B</b>		<b>CORNER RADIUS TOLERANCE FOR SECTION TUBES (MM)</b>	
	Wall Thickness (mm)	Max Corner Radius (mm)	
	0.51 - 1.24	2.4	
	Over 1.24 - 1.65	3.2	
	Over 1.65 - 2.11	3.6	
	Over 2.11 - 2.42	4.8	
	Over 2.42 - 2.77	5.2	
	Over 2.77 - 3.40	5.6	

<b>C</b>		<b>TWIST TOLERANCE</b>	
	Tube OD (mm)	Tolerance (mm) / Meter	
	Under 12.7	1.4	
	Over 12.7 - 38.10	2.1	
	Over 38.10 - 63.5	2.6	
	Over 63.5 - 101.6	3.5	
	Over 101.6 - 152.4	6.9	

<b>D</b>		<b>WALL THICKNESS TOLERANCE</b>	
	+/- 10% of specified wall thickness		

## PRODUCT APPLICATION

The application of Stainless Steel Pipes produced by us are extensive and is virtually in every walk of life, the most popular uses of Stainless Steel Pipes of different grades are as follows:



We have the capacity and capability of producing the customer desired finish based on the end application of the pipe.



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## **HANS RAJ TUBES PVT. LTD.**

AN ISO 9001-2015 CERTIFIED COMPANY

### OFFICE AND WORKS

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