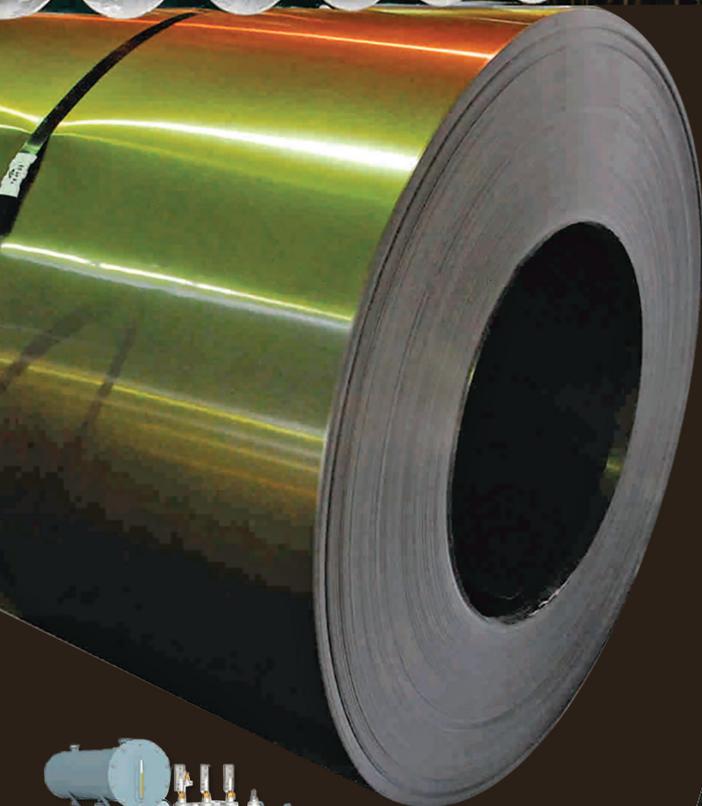




सेल SAIL



# PIPES and ELECTRICAL STEEL

There's a little bit of SAIL in everybody's life



# ELECTRICAL STEEL

## Various processing units are as follows:-

- a) **Build Up and Side Trim Line (BUST):** This unit receives coils from HSM. Side trimming & head / tail end dressing of HR coil are done in this unit for further processing of the HR coil.
- b) **Anneal & Pickle Line:** This unit receives coil from BUST line. This unit is used for Pickling of HR coils with Hydrochloric Acid for removal of surface oxide layer from HR coils surface.
- c) **Acid Treatment Plant:** The purpose of this unit is to treat the waste pickle liquor and pickle rinse water from A.P. Line with lime and caustic soda before discharging to drain.
- d) **4 High Reversing Mill:** This unit is used for cold reduction of Hot Rolled, pickle coils to final thickness of 0.5 mm with a tolerance of +/- 20 micron.
- e) **Repair & Side Trim Line:** This unit is used for cutting and removing defective material and off gauge portion of strip breakage coils from Rev Mill.
- f) **Tandem Anneal line:** This unit is used Decarburization and Full Annealing of cold rolled non- oriented strip and to provide insulation coating and drying.
- g) **Decarburizing Line:** This unit is used for Decarburization and Full Annealing of Cold rolled non- oriented strip and to provide insulation coating and drying.
- h) **Slitter Line:** This unit serves the purpose of side trimming and slitting the finished coil from T.A. & Decarb Line to final width as per customers requirement.
- i) **Cut to length Line:** This unit serves the purpose of shearing the CRNO coils into sheet form.
- j) **Packing & Shipping section :** The side trimming, slited and inspected coil from Slitter-I are received for packing and dispatch.

## Insulation and Applications

Insulation Designation	Type of Coating	Coating Thickness (Microns)	Applications
C-3	Organic	2-3	Air/Oil cooled medium sized power and distribution transformers, medium sized continuous duty, rotating electrical machinery.
C-6	Semi-Organic	1-2 micron	Applications requiring stress-relief anneal and burn-off treatment. Extremely useful for stamped laminations of hermetically sealed compressors used in refrigeration system
C-6	Semi-Organic	4-6 micron	Used for traction motors in locomotives by Indian Railways

**Standard Width:** The standard width of CRNO coils are 950 and 1000 mm. Other sizes are negotiable. We are also supplying in 1010 mm & 1050 mm widths.

**Coil Weight:** upto 6.6 tonnes.

No sheets are supplied at present.

## SIZE OF DIFFERENT GRADE CRNO STEEL-IS 648/2018

Grade BIS 50C	Max Watt loss at 50Hz 1.5 T W/kg	AC magnetization (50 Hz) Minimum values of B max Tesla			Anisotropy loss at 1.5T	Minimum No. of Bend	DENSITY KG/DM3
		2500 a/m	5000 A/M	10000 A/M			
330	3.3	1.49	1.6	1.7	± 14	3	7.65
350	3.5	1.5	1.6	1.7	± 12	5	7.65
400	4.0	1.53	1.63	1.73	± 12	5	7.7
470	4.7	1.54	1.64	1.74	± 10	10	7.7
530	5.3	1.56	1.65	1.75	± 10	10	7.7
600	6.0	1.57	1.66	1.76	± 10	10	7.75
630	6.3	1.58	1.68	1.75	± 10	10	7.75
700	7.0	1.6	1.69	1.77	± 10	10	7.8
800	8.0	1.6	1.7	1.78	± 10	10	7.8
900	9.0	1.61	1.7	1.78	± 10	10	7.8
940	9.4	1.62	1.72	1.81	± 10	10	7.85
1000	10.0	1.62	1.72	1.81	± 10	10	7.85

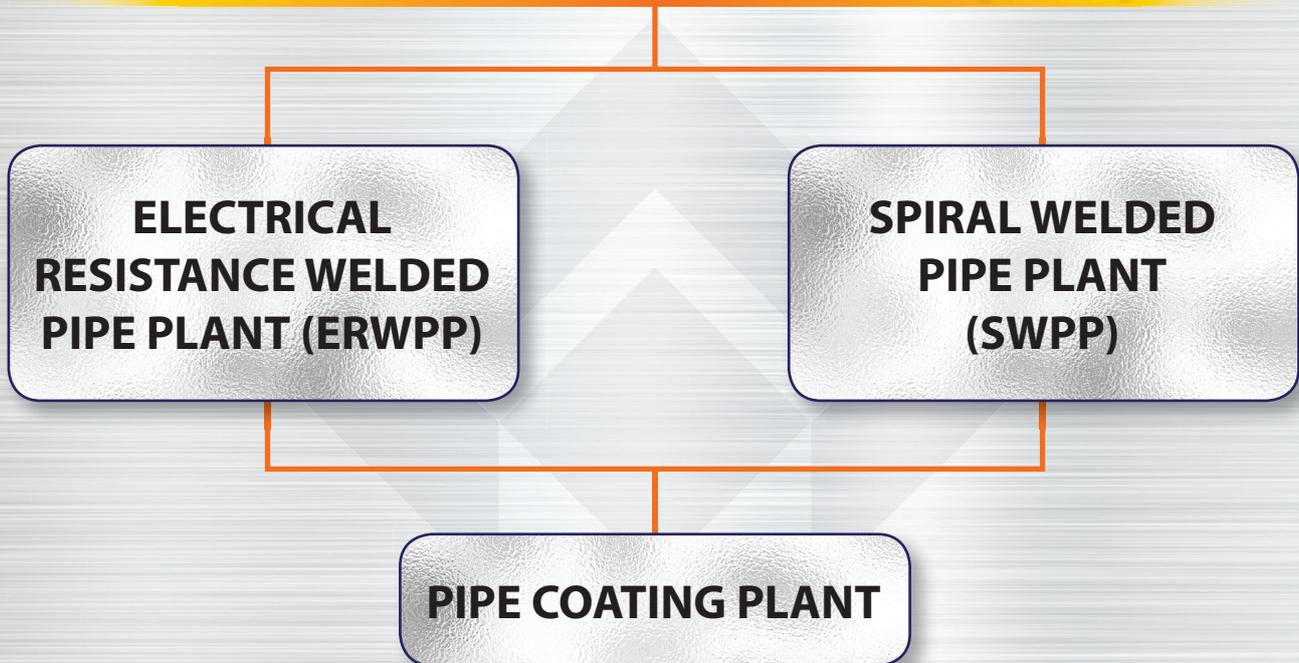
## Tolerance of Dimension & shape

Width mm	Nominal thickness mm	Thickness tolerance %	thickness deviation in transverse direction	Width tolerance mm No negative	Camber per 2 m of length	Flatness % max
≥ 300-600	0.50	± 4	0.02 or less	+ 0.5	2	2
≥ 600-1000				+ 1.0		
≥ 1000-1250				+ 1.5		

Burr height- maximum 50 micron



# PIPE PLANTS OF ROURKELA STEEL PLANT (RSP)



## PRODUCT PROFILE

### ERWPP

**DIAMETER** : 8<sup>5</sup>/<sub>8</sub>" TO 18" OD

**THICKNESS** : 4.3 mm to 12 mm

**LENGTH** : 6.2 to 12.4 mtr

**GRADES** :

- API 5L GR-A, GR-B, X-42 to X-70 PSL 1
- IS 3589 grade Fe 330, 410 & 450
- IS 4270 & 1161 Grades
- ASTM A53
- CRLA (Corrosion Resistant Low Alloy)

### SWPP

**DIAMETER** : 20" TO 64" OD

**THICKNESS** : 5.8 to 14.5 mm

**LENGTH** : 7.5 mtr to 13 mtr

**GRADES** :

- IS 3589 grade
- IS 5504 Grade
- CRLA (Corrosion Resistant Low Alloy)

# PRODUCT RANGE-ERWPP

Length Range: 6.2 mtr to 12.4 mtr

Outer Diameter	Thickness (mm)											
	4.3	5.2	5.6	6.0	6.4	7.1	7.9	8.7	9.5	10	11	12
219 mm/8 <sup>5</sup> / <sub>8</sub> "	4.3	5.2	5.6	6.0	6.4	7.1	7.9	8.7	9.5	10		
273 mm/10 <sup>3</sup> / <sub>4</sub> "	4.3	5.2	5.6	6.0	6.4	7.1	7.9	8.7	9.5	10		
323 mm/12 <sup>3</sup> / <sub>4</sub> "	4.5	5.2	5.6	6.0	6.4	7.1	7.9	8.7	9.5	10	11	
356 mm/14"	4.5	5.2	5.6	6.0	6.4	7.1	7.9	8.7	9.5	10	11	
406 mm/16"	4.8	5.2	5.6	6.0	6.4	7.1	7.9	8.7	9.5	10	11	12
457 mm/18"	4.8	5.0	5.6	6.0	6.4	7.1	7.9	8.7	9.5	10	11	12

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## PRODUCT RANGE-SWPP

SL. NO.	DESCRIPTION	RANGE
1	<b>STANDARD OUTER DIAMETERS</b>	20", 22", 24", 28", 30", 32", 34", 36", 38", 40", 42", 44", 46", 48", 52", 56", 60" & 64" (Any non standard diameter can be produced)
2	<b>THICKNESS RANGE</b>	5.8mm min (20"-24"), 6.3 mm min (up to 36"), 8.0mm min (up to 48"), 9.5 mm min (up to 64") & Max 14.5 mm
3	<b>LENGTH RANGE</b>	in random length from 7.5 to 13 mtrs.

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स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED

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