



 **CHANDAN**
STEEL LIMITED
True Stainless Value





Contents

Company Overview	02
Milestones	03
Infrastructure & Capabilities	04
Grades	05
Products	06
Long Products	07
Forging Division	09
Seamless Tubes & Pipes	11
Quality Assurance	13
Corporate Social Responsibility	15
Key Market Sectors	17



“ Our mission is to promote high quality stainless steel products and services. We seek to grow our business with the same honesty and integrity we use to manufacture our products, while we contribute highest to the environment. ”



Our vision is to become one of the most preferred suppliers and leading manufacturer of stainless steel products and to retain confidence in our customers in terms of trust, satisfaction and sustainability. ”



Company Overview

Chandan Steel Ltd. (Chandan Steel) started as a trading company in 1969 to import stainless steel products. In 1985, with the principle of forward integration, pioneers of Chandan Steel passionately began to establish a private-owned stainless steel manufacturing enterprise. With the experience in production and marketing, the team now has an impressive range of work and product. Chandan Steel has a fully-integrated manufacturing set up in the south of Gujarat. Being an export house, it provides one stop solution for all stainless steel Long Products, Forgings and Seamless Tubes & Pipes.

Our state-of-art equipments operate to extremely close tolerances, delivering results that often surpass the required standards. Backed by extensive quality and health & safety management systems, our skilled and dedicated employees provide flawless products which our customers can put into use directly.

Based on the management principle of 'judicious, eminence and integrity', we provide the most competitive stainless steel products of high technological content. We meet customers' business demands through our comprehensive and considerate service.

Milestones

1969 - INCEPTION

Trading House

1985 - EVOLUTION

Installation of 1 ton Furnace for Stainless Steel Production

1992 - ADVANCE

Commission of Hot Rolling Mills

1995 - DISTINCT

Installation of AOD and Continuous Caster

1996 - FLUX

Production and Export of Bright Bars

1998 - EXCEL

Production of Profiles & Sections

2000 - RISE

Production of Stainless Steel Flanges

2002 - INDUCE

Installed 2 DG sets of 4.33 MW each

2004 - RESOLVE

Addition of fully automatic Rolling Mills

2007 - RESPONSIBLE

5.25 MW Windmills were successfully commissioned for captive consumption

2008 - POSITION

Installation of In-House Forging Facilities

2010 - INTEGRATION

Set up India's only fully integrated Stainless Steel Seamless Pipes and Tubes facilities

2011 - RECKON

Acquisition of Zapp Flanschenfabrik GmbH (Est. 1874)

2012 - TRANSITION

Enhancement of Melting & Forging capacities

2015- EXALT

Enhancement of Flange finishing capacity & integration of Enterprise Resource Planning



Infrastructure & Capabilities

The plant spreads across an extensive area of 2,50,000 square meters. Umbergaon was made the manufacturing base due to its proximity to Mumbai. Reachable within 2 hours of drive from Mumbai International Airport, Umbergaon is also known as the emerging town of possibilities in South Gujarat.

The plant is well equipped with top notch facilities and continues to stay at par with the principles of Chandan Steel.

Chandan Steel is the most preferred name for constant business as it serves customers, based on their demands. Future ready in every sense, the stainless steel plant in Umbergaon is a multi hub of sorts to deliver to the world.

- **20 ton Induction Furnace with 25 ton AOD vessel**
- **Ladle Refining facilities**
- **6/11 Double Strand Concast & Ingot pouring facilities**
- **State-of-the-art EMS**
- **4 Hot Rolling Mills**
- **Schumag Drawing machines, Peeling machines, Centerless grinding machines**
- **10 Open & Close Die Hammers & Ring Rolling machines**
- **More than 70 CNC machines**
- **Hot Piercing with high speed Pilger machines**
- **Chemical, Mechanical and Physical testing laboratories**



Grades

AISI / ASTM / ASME	UNS	EN	DIN
AUSTENITIC & SUPER AUSTENITIC STAINLESS STEEL			
303	S30300	1.4305	X8CrNiS18-9
304	S30400	1.4301	X5CrNi18-10
304L	S30403	1.4306 1.4307	X2CrNiS19-11 X2CrNiS18-9
310	S31000	1.4840	X15CrNi25-20
310S	S31008	1.4845	X8CrNi25-21
316	S31600	1.4401 1.4436	X5CrNiMo17-12-2 X3CrNiMo17-13-3
316L	S31603	1.4404 1.4432 1.4435	X2CrNiMo17-12-2 X2CrNiMo17-12-3 X2CrNiMo18-14-3
316Ti	S31635	1.4571	X6CrNiMoTi17-12-2
321	S32100	1.4541	X6CrNiTi18-10
317	S31700	-	-
317L	S31703	1.4438	X2CrNiMo18-15-4
347	S34700	1.4550	X6CrNiNb18-10
904L	N08904	1.4539	X1NiCrMoCu25-20-5
-	S31254	1.4547	X1CrNiMoCuN20-18-7
DUPLEX STAINLESS STEEL			
-	S32304	1.4362	X2CrNiN23-4
F51	S31803	1.4462	X2CrNiMoN22-5-3
F60 / 2205	S32205	1.4462	X2CrNiMoN22-5-3
F61 / 2507 Cu	S32550	1.4507	X2CrNiMoCuN25-6-3
F53 / 2507	S32750	1.4410	X2CrNiMoN25-7-4
F55 / Zeron 100	S32760	1.4501	X2CrNiMoCuWN25-7-4
		-	-
MARTENSITIC STAINLESS STEEL			
F6a/410	S41000	1.4006	X12Cr13
420	S42000	1.4021	X20Cr13
416	S41600	1.4005	X12CrS13
431	S43100	1.4057	X17CrNi16-2
FERRITIC STAINLESS STEEL			
409	S40900	1.4512	X2CrTi12
430	S43000	1.4016	X6Cr17
430F	S43020	1.4104	X14CrMoS17

Products

We are equipped with 4 Rolling mills, capable of rolling 1,00,000 Tons per annum. This in turn helps us in producing the widest range of stainless steel products under one roof.



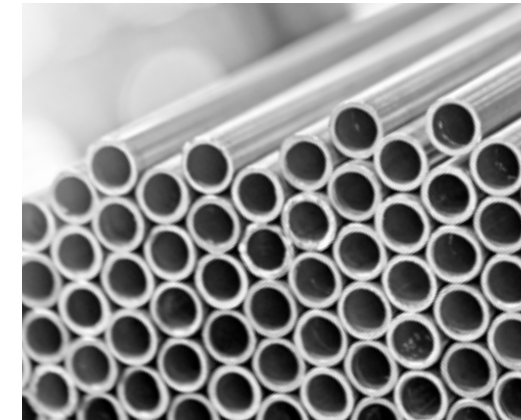
LONG PRODUCTS DIVISION

- Round Bars
- Hexagonal Bars
- Square Bars
- Flat Bars
- Equal & Unequal Angle Bars
- Channels
- T Sections
- I Beams
- Re Bars
- Wires & Threaded Bars



FORGING DIVISION

- Forgings
- Flanges
- Stub Ends
- Tube Sheets
- Specialised Forgings as per customers requirements



SEAMLESS TUBES & PIPES DIVISION

- Instrumentation Tubes
- Heat Exchanger Tubes & U-Tubes
- Boiler Tubes
- Hollow Bars & Mother Pipes
- Process Pipes
- Duplex & Super Duplex Pipes & Tubes
- High Nickel Alloy Pipes & Tubes

Long Products Division



Our integrated facility is capable of producing 40,000 tons of finished long products per annum and caters to a wide range of industries.

BRIGHT BAR:

With the capacity of 30,000 tons per annum, Chandan Steel offers high quality stainless steel bars with an elaborate stretch in terms of standards and size range.

PROFILES:

The profiles manufactured at our plant pass through strict tests at all stages which in turn allows us to offer unrivalled product with the shortest delivery time. Quality and innovation not only strengthen our position in the global market, but above all, motivates us to produce various special profiles like Flat Taper Bars and T Sections.

Products Range

Product*	Size Range	Specification	Supply conditions	Tolerances
SS Cast Billets (Square)	100 mm upto 220 mm		Fully Ground or Spot Ground, Smooth Ends, Suitable for Rolling, Forging, Upsetting and various other applications.	
SS RCS (Rolled Billets)	40 mm to 100 mm		100% UT, Fully Ground or Spot Ground, Smooth Ends, Suitable for Re-Rolling, Forging, Upsetting, and various other applications.	
SS Ingots	11" x 13" x 52" 14" x 17" x 72" 17" x 21" x 72"		Fully Ground or Spot Ground, Smooth Ends, Suitable for Rolling, Forging, Upsetting and various other applications.	
SS Round Bar	3 mm upto 150 mm	EN, DIN, ASTM, AISI, ASME, JIS, NACE	Hot Rolled, Cold Drawn, Centreless Ground, Smooth Turned, Rough Peeled, Peeled and Polished, High Tensile, Chamfered	H9, H10, H11, K12, K13, EN 10060
SS Square Bar	5 mm upto 50 mm	EN, DIN, ASTM, AISI, ASME, JIS, NACE	Hot Rolled, Cold Drawn and Polished	H11, EN 10059
SS Hexagonal Bar	5 mm upto 50 mm	EN, DIN, ASTM, AISI, ASME, JIS, NACE	Hot Rolled, Cold Drawn and Polished	H11, EN 10059
SS Equal Angles	19x19x3 mm upto 150x150x15 mm	EN, DIN, ASTM, AISI, ASME, JIS, NACE	Hot Rolled Annealed and Pickled	ASTM A484, EN 10056
SS Un-Equal Angles	30x15x3 mm upto 150x100x15 mm	EN, DIN, ASTM, AISI, ASME, JIS, NACE	Hot Rolled Annealed and Pickled	ASTM A484, EN 10056 P1 & P2
SS Flat Bars	20x4 mm upto 150x30 mm	EN, DIN, ASTM, AISI, ASME, JIS, NACE	Hot Rolled Annealed and Pickled	ASTM A484, EN 10058
SS U-Channels	50.80 x 25.40 x 4.76 mm 50.80 x 25.40 x 6.35 mm 75 x 40 x 4.7 x 6.9 mm 76.20 x 38.10 x 6.35 mm 80 x 40 x 6 mm 80 x 45 x 6 x 8 mm 100 x 50 x 6 x 8.5 mm 101.60 x 40.13 x 4.57 mm 101.60 x 43.69 x 7.93 mm 101.60 x 44.45 x 6.35 mm 130 x 65 x 6 x 6 mm 152.40 x 48.77 x 5.08 mm	EN, DIN, ASTM, AISI, ASME, JIS, NACE	Hot Rolled Annealed and Pickled	ASTM A484, EN 10279
T-Profile	50x50x5 mm 50x50x6 mm	EN, DIN, ASTM, AISI, ASME, JIS, NACE	Hot Rolled Annealed and Pickled	ASTM A484, EN 10055
SS Wire	0.5 mm upto 6 mm	EN, DIN, ASTM, AISI, ASME, JIS, NACE	Soft Finish with Matt or Bright Condition, 1/4 Hard (Suitable for Electro Polish Quality), 1/2 hard, Full Hard with Coated or De-Coated Condition, Soft Annealed, Matt Finish, Bright Finish	H9,H11
SS Reinforcement Bars	8 mm upto 40 mm	BS 6744	Hot Rolled and Pickled	

*Also available in equivalent to Inch sizes
*Extended size range available on request

Forging Division

Our forging manufacturing facilities give Chandan Steel a distinction of having the highest capacity under one roof. With the help of State-of-the art and fully integrated facilities, Chandan Steel simultaneously meets different customers' demands and optimises production.

After the acquisition of the German flange manufacturing plant M/s ZappFlanschenfabrik GmbH (Est. 1874) in the year 2011, we have dismantled all the machineries & equipments and installed the same at Chandan Steel in India. Thus, enabling us to become one of the leading manufacturers of high quality Stainless Steel and Duplex Steel Forged Flanges & Stub Ends in the world.

This has also allowed us to continuously meet the growing demand of our customers globally.

Manufacturing Facilities

Raw Material Cutting :

Band Saw/Cold Shearing Machines

Forging :

Hammers (ranging up to size NB 24" by close die hammers and size NB 60" by Open die hammers with in-house die making facilities)
Fully Automatic Ring Rolling Mill

Heat Treatment :

Fully automated continuous type and Batch type furnaces

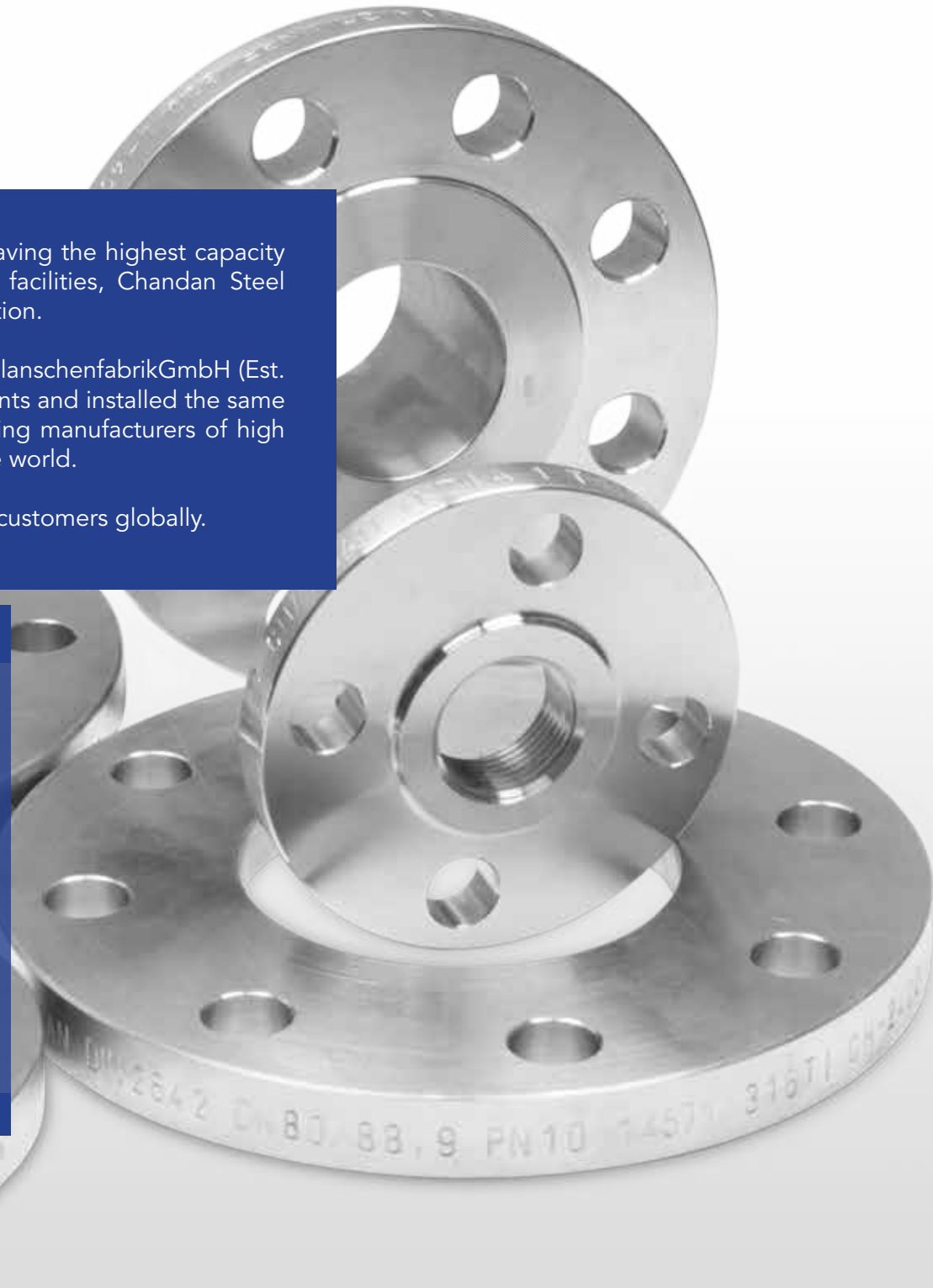
Machining:

CNC Lathes

Drilling :

Vertical Machining Center / SPM's

Annual Production Capacity : 36,000 MT of forgings and 15,000 MT of machined flanges.



Products Range

Specification (As per latest edition)	Item Type	Pressure Class	Size Range
ASME/ANSI B16.5	WNRF/SORF/BLRF/SWRF/ LJ/THDR/H-HB/RTJ	150, 300, 400, 600, 900, 1500, 2500LBS	1/2" to 12"
		150, 300, 400, 600, 900, 1500LBS	14" to 24"
ASME/ANSI B16.47	WNRF/BLRF (Series A & B)	75, 150, 300LBS	26" to 60"
		400, 600LBS	26" to 42"
		900LBS	26" to 30"
ASME/ANSI B16.36	WNRF/SORF/THDRF (ORIFICE FLANGES)	300, 400, 600, 900, 1500, 2500LBS	1" to 12"
BS EN 1092-1 Flanges	Type 01, Type 02, Type 04, Type 05, Type 11, Type 12, Type 13, Type 21, Type 32, Type 33, Type 34, Type 35, Type 36, Type 37	PN2.5, PN6, PN10, PN16,	DN 10 to DN 1500
		PN25	DN 10 to DN 1200
		PN40, PN63	DN 10 to DN 600
		PN100, PN160	DN 10 to DN 400
		PN250, PN320	DN 10 to DN 250
DIN Flanges	DIN2527, DIN2566, DIN2573, DIN2576, DIN2641, DIN2642, DIN2655, DIN2656, DIN2627, DIN2628, DIN2629, DIN2631, DIN2632, DIN2633, DIN2634, DIN2635, DIN2636, DIN2637, DIN2638, DIN2673	PN2.5, PN6, PN10, PN16,	DN 10 to DN 1500
		PN25	DN 10 to DN 1200
		PN40, PN63	DN 10 to DN 600
		PN100, PN160	DN 10 to DN 400
		PN250, PN320	DN 10 to DN 250
BS 4504 SEC 3.1	Code 111, Code 112, Code 113, Code 133, Code 101, Code 102, Code 104, Code 105	PN2.5, PN6, PN10, PN16,	DN 10 to DN 1500
		PN25	DN 10 to DN 1200
		PN40, PN63	DN 10 to DN 600
		PN100, PN160	DN 10 to DN 400
		PN250, PN320	DN 10 to DN 250
BS 10	Welding Neck, Slip-on, Blind, Bossed Slip-on, Bossed Blind	TABLE - A, D, E, F, H, J, K, R, S, T	DN 15 to DN 600
ASME/ANSI B16.9/MSS SP- 3	Stub end - Type: A, B, C	S10, S40, S80	1/2" to 24"

We can also manufacture according to customer specific drawings and specifications. Flanges can be manufactured to suit all Bore Schedules, Facing Types, and Surface Finishes required according to the customer or specified standards. We also manufacture the flanges as per the latest standards like JIS B2220/B2291, ANFOR NFE 29-230, AWWA, AS, MSS and other international standard with a maximum weight of 2 tons/single piece.

Seamless Tubes & Pipes Division

Being India's only fully Integrated SS Seamless Tubes plant, Chandan Steel has this advantage to perform orders with quicker deliveries and dictate control over quality right from the start.

Products

- **Instrumentation Tubes & General Service Tubes**

Instrumentation tubes are mainly used in Oil and Gas sector, Aerospace and Automotive industries. We offer either A & P (Annealed and Pickled) or BA (Bright Annealed) with excellent tolerance in diameter and wall thickness.

- **Heat Exchanger Tubes & U-Tubes**

We offer various kinds of straight and U-bent Heat Exchanger Tubes including Low Pressure & High Pressure Heat Exchanger Tubes, Condenser Tubes, Feed Water Tubes and Superheater Tubes. These are utilized in power generation, oil refineries, chemical plants.

- **Duplex & Super Duplex Pipes & Tubes**

This is designed for more critical environment requiring high strength and excellent corrosion resistance. Main applications are in Oil & Gas, Refining, Petrochemical, Chemical, Food & Beverage, and Sea Water environment.

- **Boiler Tubes**

Boiler tubes are mainly used in critical and super critical boilers for power generation. The modern boilers have high temperature and pressure application to which we cater by providing tubes of higher quality.

- **Hollow Bars & Mother Pipes**

These being cost effective, are used widely for machining applications providing improved machinability characteristics.

- **Process Pipes**

Chandan Steel offer process pipes in fixed or random length based on customers' requirements. These are used in a diverse range of application because of its key features being low maintenance and corrosion free.

Annual Production Capacity : 10,000 MT piercing capacity and 3,600 MT of cold finishing capacity.



Products Range

Product	Specification	Size Range	Length*	Finish
SS Seamless Instrumentation Tubes Bright Annealed & Polished	ASTM A213 / A269 / ASME SA 213 / EN 10216 / 5	OD 6 to 25 mm WT 0.7 to 3 mm	Length upto 12 mtr	Cold Finish
SS Seamless Heat Exchanger & Feedwater Heater Tubes	ASTM A213 / A269 / A789 / ASME SA 213 / SA789/ EN10216-5	OD 15.88 to 38.10 mm WT 0.9 to 4 mm	Length up to 30 m & 'U' Tubes 1.5 D to 2.5 mtr	Cold Finish
SS Seamless Boiler Tubes	ASTM A213 / A789 / ASME SA 213 / SA789 / EN10216-5	OD 38.1 to 76.10 mm WT 3 to 10 mm	Length upto 12 mtr	Cold Finish
SS Seamless Hollow Bars	ASTM A 511 EN 10216-5	OD 32 to 80 mm ID 20 to 60 mm	Length upto 6 mtr	Cold Finish
SS Seamless Process Pipes	ASTM A 312 / A790 / ASME SA312 / SA790 / EN10216-5	½" to 6" NB Sch 10s, 40s, & 80s, 160s	Single Random Length 5 to 7 mtr or Double Random Length 10 – 12 mtr	Cold Finish

* Extended length available on Request



Quality Assurance

Chandan Steel has the privilege of being an ISO 9001-2015, AD 2000 Merkblatt, Pressure Equipment Directive - PED 2014/68/EU approved and certified corporate house. Equipped with modern machines and technical support of global nature, ensuring supreme quality is an everyday motto followed by the company.

The work atmosphere in all the plants of Chandan Steel inspires sincerity, dedication and responsibility. Everyone associated with Chandan Steel is a custodian of uncompromised quality in his own sphere.

**“QUALITY IS AN
UNCHANGED HABIT
THAT BUILDS &
STRENGTHENS
CHARACTER”**

List Of Tests



LONG PRODUCTS DIVISION

- Radioactivity test
- Spectro analysis test
- Wet analysis test for all ferro alloys, fluxes, carburisers, refractories
- Billet/Bloom macro test
- PMI test
- Mechanical properties test; YS, TS, Elongation, RA, hardness
- Impact test at RT & sub zero temperatures
- Rolled products dimensional test
- Ultrasonic soundness test
- Ferrite content test
- IGC test (A,E & C)
- Metallography test for microstructure, inclusion rating, grain size



FORGING DIVISION

- P.M.I test
- Spectro chemical analysis
- Dye penetrant test
- Hardness test
- Tensile test
- Impact test
- IGC test as per ASTM A 262 PR E
- Ferrite content test
- Microstructure Evaluation using Image Analyser
- Volume fraction of different phases
- Ultrasonic test



SEAMLESS TUBES & PIPES DIVISION

- PMI test
- Spectro analysis test
- Microstructure Evaluation Using Image Analyser
- Macro test
- Tensile test
- Hardness test
- Flaring test
- Flattening test
- Drift Expanding test
- Ring Expanding test
- Impact test at various temperature
- IGC test (Pr. A,E & C)
- Ultrasonic test
- Eddy Current test
- Hydrostatic test
- Air Leak test
- Liquid Penetrant test
- Visual Dimension Inspection
- Boroscope test
- Radioactivity test



Corporate Social Responsibility

Chandan Steel believes in responsible practices and procedures that every business is conducted with due respect to the environment. Chandan Steel also believe that it is very much necessary for a business conglomerate to contribute to social causes.

Chandan Steel is dedicated to the current mission initiated by the Government of India - Swachh Bharat. The company wishes to take this thought ahead by supporting sanitation and hygiene initiatives in the surrounding areas of Gujarat.

Since children are the torchbearers of future, Chandan Steel has been associating itself with developments that matter to the blossoming generation. From developing play areas to presenting them with academic initiatives such as sponsored scholarship for deserving students; the cause of building a sound future is an everyday process.

A blueprint is also under process to develop hospitals, which will comprise best healthcare facilities and instant help for the needy. At the same time, the company arranges for regular health checkup

**“BEING RESPONSIBLE
IS THE FIRST SIGN
OF BEING SENSITIVE
SUPPORTIVE &
SUCCESSFUL”**



of the employees within the company and addresses every concern they share related with.

Being responsible to the surrounds is a motto for Chandan Steel. Therefore 100% filtered air is emitted into the atmosphere and modern effluent treatment plant has been set up to treat the waste acid. Treated water is used for construction of bricks and developing green plantation.

Also to promote self sustained energy resourcing, 4 windmills have been erected, which contribute to 20% of the plant's power supply.

A specially appointed committee meets on constant basis to evolve environmentally safe technology; the aim is to go completely 'green' in the near future.

Chandan Steel regards safety to be superior of all. To ensure the same, fire fighting systems and air pollution controlling equipments are kept well maintained. The size of deeds doesn't matter. But what matters is the intent, the motive to contribute positively towards community development and progress of the human race.

A black and white photograph of an industrial refinery at night. The scene is filled with complex structures, including tall distillation columns, a network of pipes, and various tanks. Numerous lights are illuminated throughout the facility, creating a stark contrast against the dark sky. In the foreground, there are several long, parallel metal walkways or railings that recede into the distance, leading the eye towards the more intricate parts of the plant. The overall atmosphere is one of industrial scale and activity.

Key Market Sectors

- Aerospace
- Agriculture/Fertiliser
- Architecture
- Automotive
- Chemical
- Consumer Goods
- Defence
- Energy and Power
- Food & Beverage
- Heavy Engineering
- LNG
- Machine Building
- Nuclear
- Offshore/Onshore
- Oil & Gas
- Petrochemical
- Pharmaceutical
- Railways
- Shipbuilding/Marine
- Waste Incineration



LONG PRODUCTS DIVISION

Tel: +91 260 308 9879 / +91 260 308 9878
E-mail: exports@chandansteel.net

FORGING DIVISION

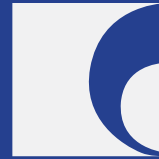
Tel: +91 260 308 9860
E-mail: flanges@chandansteel.net

SEAMLESS TUBES & PIPES DIVISION

Tel: +91 260 308 9850 / +91 260 308 9851
E-mail: exports.smls@chandansteel.net

CORPORATE OFFICE

504, Sukh Sagar, N S Patker Marg (Hughes Road),
Chowpatty, Mumbai - 400 007, India.
Tel: (+91) 22 6629 0600 (Board)
Fax: (+91) 22 6629 0633 / 34
E-mail: exports@chandansteel.net



www.chandansteel.net

PLANT

31, 32, 33B, 35, 36 & 142 GIDC,
& Plot No. 102/2, Dehri Road,
Umbergaon, Valsad District,
Gujarat - 396 171, India.
Tel: (+91) 260 308 9999
Fax: (+91) 260 256 0103
E-mail: exports@chandansteel.net