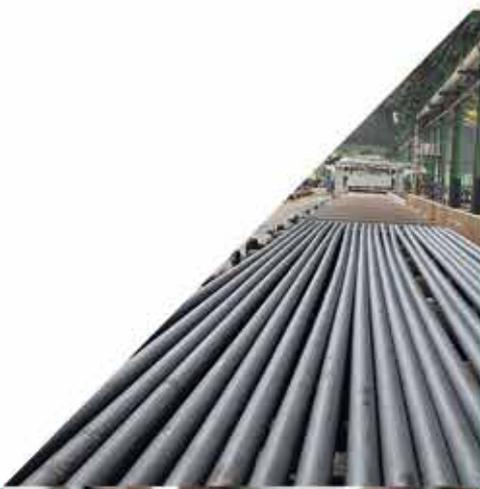


Lalbaba

Seamless Tubes



**SEAMLESS
SOLUTIONS.
DELIVERED.**



ABOUT LALBABA ENGINEERING GROUP

Founded by Mr. Murari Lal Dhanuka in 1964, Lalbaba Engineering comprises of heavy engineering business verticals with more than 50 years legacy in the domestic and export market. In addition to catering to the demands of Indian Railways and other PSUs like IOCL, BPCL, Braithwaite etc., we extend our Engineering products & solutions to US, Europe, Africa and Middle East countries in the area of Seamless Tubes, Brake Systems and Couplers to name a few. With continuous expansion and innovation, and with diversification into the rolling stock upgrade project, we have emerged as a key player in providing solutions with the help of an extremely dynamic team spread across the globe.

Under the leadership of Mr. Kishan Dhanuka, the group prospered as they ventured into the world of engineering, which paved the way for the emergence of entities like:

- ▶ Lalbaba Seamless Tubes
- ▶ Lalbaba Industrial Corporation
- ▶ PEW Engineering
- ▶ Lalbaba Projects

Vision

To create value through innovative solutions by delivering cost-effective products and services, the company strives towards upgradation of its system, as well as training the employees to create and deliver value to all stake holders.

Mission

Lalbaba Group aims to grow and become a INR 10 Billion company by being the customer's first choice, achieving operational excellence by implementing appropriate tools and technology for better data and documentation management, and be adjudged as the most rewarding workplace in the industry.

Values

- ➔ Adaptability to Change
- ➔ Problem Solving Attitude
- ➔ Knowledge Sharing & Transparency
- ➔ Leading by Example

LALBABA SEAMLESS TUBES PVT. LTD.

Lalbaba Seamless Tubes Pvt. Ltd. is a leading manufacturer of Cold Drawn Carbon Steel & Stainless Steel Seamless Tubes with an installed capacity of 72,000 Metric Tonnes per annum.

Tubes manufactured by Lalbaba Seamless Tubes are trusted in industries like Mining, Oil & Gas, Automobiles, Cranes, Hydraulics, Boilers, Power Plant, Cooling Towers, and Railways. The company's manufacturing facilities are spread across 700,000 square feet and coupled with the strategic proximity to Haldia port, makes it one of the dominant suppliers in the whole of Eastern India. Lalbaba Seamless Tubes Pvt. Ltd.'s unparalleled commitment towards rolling out pipes with international marks of quality has helped the company to sustain its supplies in intensely competitive environment in Europe & the USA. With a view of growth with sustainability, the company has introduced the usage of solar energy in the plant.

The reason Lalbaba Seamless Tubes Pvt. Ltd. is preferred in over 20 countries is that apart from being one of the

largest manufacturers of Seamless Tubes in India, it goes through unfaltering inspection from the input raw material stage to the final product. The company's NABL accredited lab is equipped with a full range of testing facilities ensuring uncompromising quality.

Apart from having a firm quality control system in place, Lalbaba Seamless Tubes Pvt. Ltd. also pays strict attention to the timely delivery of its products.

Lalbaba Seamless Tubes Pvt. Ltd. has a nation-wide presence across both Eastern and Western India. Besides a full-fledged plant in Haldia, there is another unit at Ahmednagar to cater to our customers in the Western markets.

Business is divided into 2 main segments :

- ▶ Carbon & Alloy Seamless Tubes
- ▶ Stainless Steel Seamless Tubes

Certifications :



ISO 9001 : 2015



ISO 14001 : 2015



ISO 45001 : 2018



BIS LICENCE



EIL CERTIFICATE



IATF 16949



RDSO APPROVAL



PED CERTIFICATE



NABL CERTIFICATE



PRODUCTS APPLICATIONS AND SPECIFICATIONS



HEAT EXCHANGER TUBES & PIPES

ASTM : A-179, A-192, A-334,
A-213
EN : 10216



BOILER TUBES

ASTM : 213, 192, 210
DIN : 17175, ST.35.8/45.8
BS : 3059-i & 3059-ii



TAP HOLE DRILL BAR

SAE : 1045
AISI : C45



MINING DRILL ROD BAR & CASING

SAE : 1040, 1511, 4130
Conventional : AW - HW
Wire Line : AQ - HQ



HYDRAULIC CYLINDER TUBE

ASTM : A-519ST.52
DIN : 2391
EN : 10305-1, 10305-4
SAE : 1026, 1524



PRECISION TUBES

DIN : 2391, 17175
EN : 10305-1, 10305-4
SAE : 1524



MECHANICAL TUBING

ASTM : A-519, A-500
SAE : 1010, 1015, 1018, 1020,
1045



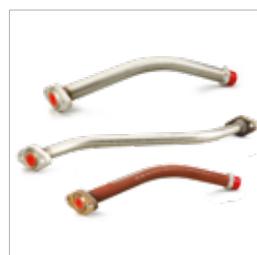
BEARING

SAE : 52100, SCM415,
100CR6, SUJ2, SUJ3



HYDRAULIC LINE PIPE

ASTM : A-106, A-333
IS : 1239
EN : 10210



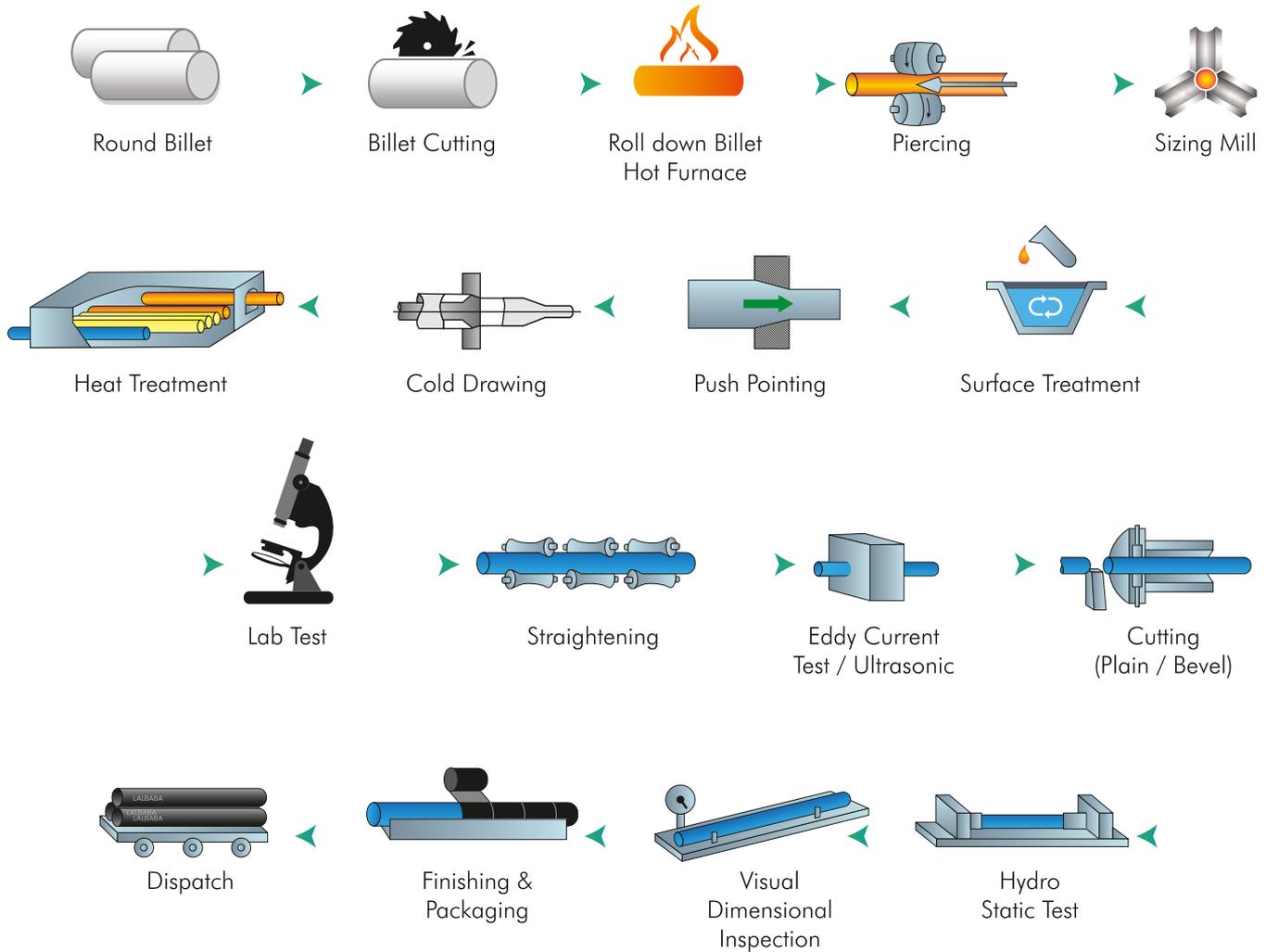
RAILWAYS

ASTM : A-106, A-312, A-269
DIN : 17456
IS : 1239-1, 1161
SAE : 1018

Note : For all, customized sizes are available

MANUFACTURING PROCESS

Process flow chart:



TOTAL MANUFACTURING CAPACITY: 72000 MT /ANNUM

Stainless Steel – 12,000 MT
Carbon and Alloy Steel – 60,000 MT

SIZE RANGE

STAINLESS STEEL

OD : 9.53 - 60.3 mm
WT : 0.89 - 6.00 mm

CARBON AND ALLOY STEEL

OD : 8.0 - 88.9 mm
WT : 0.9 - 11.0 mm

VALUE ADDED SERVICES

BENT PRODUCTS



U TUBES

In addition to the production of Straight Stainless Steel Tubes, LALBABA also manufactures 'U' Tubes for use in heat exchanger, condensers, pre-heaters & various other equipment.

The manufacturing of 'U' Tubes takes place in a separate shop, which is adjacent to the tube mill. This is done by utilizing Mandrel inserted bending equipment that is used exclusively for Carbon, Alloy & Stainless tube, ensuring Wall thinning & ovality of bend portion as per the drawings & specifications given by our customers. Furthermore, the U – Bend portion of the U-Tube is Stress Relieved by resistance heating. And to avoid oxidation in ID, argon gas is passed inside according to the required flow rate.

AIR BRAKE PIPES FOR ALL ROLLING STOCK APPLICATION

Carbon Seamless and Stainless Steel Seamless are supplied to both the Coach manufacturers as well as the Wagon industry. Depending upon the requirement of individual wagon/coach, the pipes are bent in special purpose CNC machines according to the Drawings and supplied in Ready-to-fit condition after inspection by RDSO.



SPECIAL PRODUCTS



SHAPED TUBE

Lalbaba Seamless Tubes R&D team has successfully developed the process to directly manufacture Rectangular & Hexagonal finished shapes with excellent surface finish to provide a 'cost-effective' solution to ultimate users. It also reduces the ultimate wastage of the steel raw material, thus contributing to reduction in carbon footprint.



SDA (SELF DRILL ANCHOR)

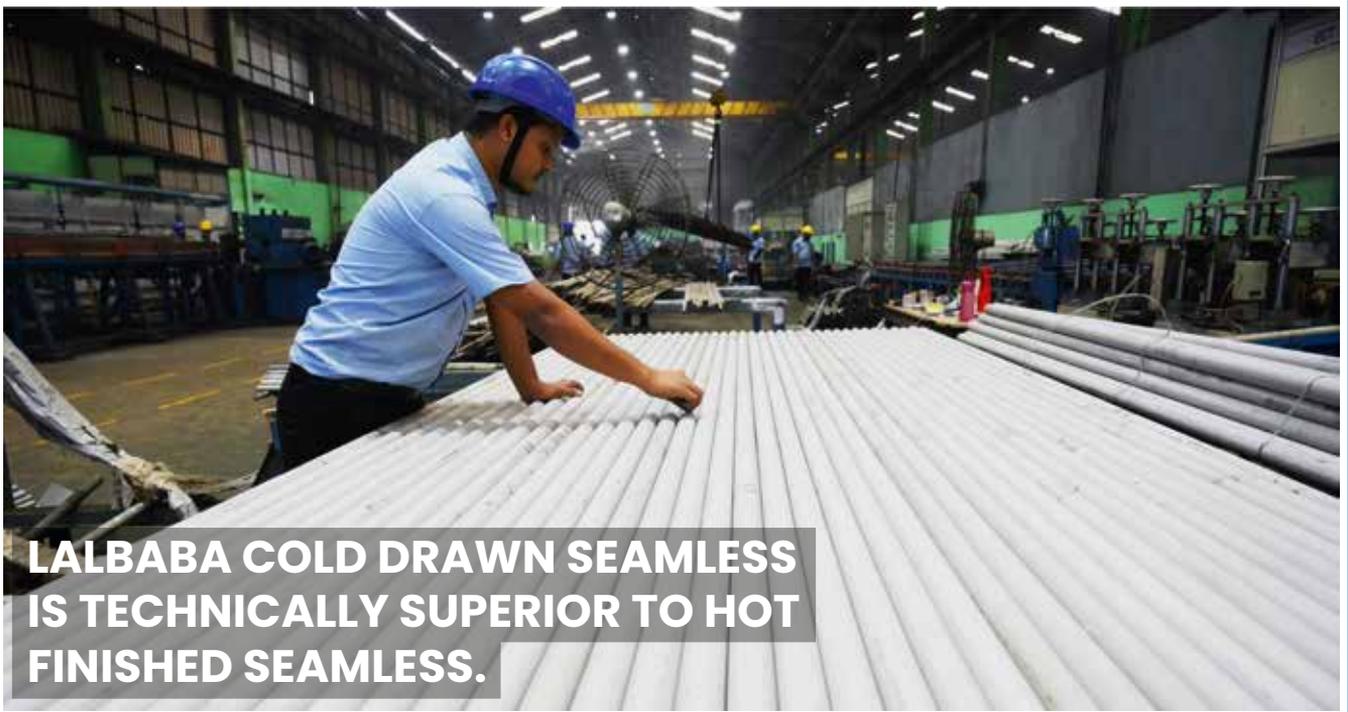
Lalbaba Seamless Tubes has a dedicated production system, where "Self Drilling Anchor Bar", can be manufactured to customers' requirement. In this process Seamless Tubes can be finished into the 'Self Drilling anchor bar', thus eliminating the requirement of one additional manufacturing process by the customer. Lalbaba SDA bar is available in steel grades 40CR, 41Cr, En8D manufactured in accordance with ISO 10208 Type R32 & R38.



TAP HOLE DRILL BAR

LALBABA manufacture wireline (Q) & British Standard (W) series drill rods manufactured from the highest quality steel tubes SAE 1040 / 1541 / 4130 The physical and chemical properties as per BS 4019, DCDMA & Swedish Standard.

Type: AQ/AW, BQ/BW, NQ/NW, HQ/NW



LALBABA COLD DRAWN SEAMLESS IS TECHNICALLY SUPERIOR TO HOT FINISHED SEAMLESS.

OUR COLD FINISHED TUBES PERFORM MUCH BETTER AND DELIVER ADDITIONAL FEATURES AND BENEFITS.



Appearance

Superior surface finish



Tolerance

- Higher Dimensional accuracy
- Wall Thickness Uniformity



Properties

- Consistent and reliable mechanical properties
- High yield strength
- An ordered and consistent microstructure.
- Improved and consistent toughness
- Improved structural integrity and ductility
- Higher pressure integrity.



Corrosion

Improved performance against corrosion.



Application

- Ability to be bent to tight radii without splitting, creasing or collapsing
- Tight tolerances, resulting in reduced machine time
- Enhanced machinability



INFRASTRUCTURE

BARREL TYPE CROSS ROLL PIERCING PROCESS

This is a modified version of the Original Mannesmann's Cross Rolling Process and is implemented at the Lalbaba Seamless Tubes, Haldia plant.



SIZING MILL

Additionally, Induction Heating Furnace with Sizing mill installed for better dimension accuracy of HFS product.



COLD DRAWN BENCH

The prime reasons behind cold drawing are:

- Achievement of closer wall thickness and diameter tolerance
- Improvement in surface finish
- Enhancement of serviceability
- Prevention of premature failure
- Suitability for critical forming, such as 180° bends
- Enhancement of mechanical properties of the tube
- Expansion of the product mix towards the lower end of the OD and wall thickness scales

PILGER FACILITY

A cold-rolling process is used in the shaping of metal tubes and pipes. By pilgering process, we can achieve precise OD and wall thicknesses. The roughness value of the finished tube is usually less than any other drawn process.

Cold pilgering helps to achieve a good surface finish for stainless steel tubes. After pilgering of Stainless-Steel tubes and pipe when followed by the solution annealing heat treatment process, it forms a uniform austenite microstructure.



BRIGHT ANNEALING FURNACE

This superior process eliminates the pickling cleaning process required to remove the scale from Heat Treated tubes. This in turn ensures that the tubes supplied by us are free from exposure to any acids or harmful chemicals thereby increasing the life of the tubes considerably. It also increases the shelf life of the tubes and enhances aesthetics.

TESTING FACILITIES

We at Lalbaba Seamless Tubes Pvt. Ltd. are committed to uphold our reputation for providing quality seamless tubes at a competitive price by incorporating the latest technology. Our In-House testing Laboratory is accredited by NABL



Spectrometer for Chemical Analysis



Brinell Hardness Tester



Universal Tensile Testing Machine



Hydro Tester



Impact Tester



Ultrasonic Tester



Eddy Current Tester

TESTING FACILITIES	
Destructive Testing Facilities	Non-Destructive Facilities
Chemical Spectrometer	Positive Material Identification (PMI) Test
Tensile Test	Online Eddy Current Test
Hardness Test (Rockwell/Brinell/Vickers)	Ultrasonic Test for Flaw Detection
Flattening Testing	Portable Ultrasonic Machine
Flaring Test	Surface Roughness
Flange Test	Microscope with photograph facility
Bend Test	Hydro Test-Straight Tubes & Pipes & U Bend Tubes
Impact Test at Controlled Temperature	Die Penetrant Test
Microstructure Examination Test / Analysis	Magnetic Particle Testing



THE NEW FACILITY AT HALDIA

With the addition of a new manufacturing capacity at Lalbaba Seamless Tubes Plant in Haldia, we have tried to breach the conventional barriers of productivity & quality in carbon steel pipe manufacture. The new facility is a first of its kind assembly line, fully automated manufacturing facility which will allow Lalbaba Seamless Tubes to double the capacity and achieve new standards in productivity and quality in the entire pipe making industry in the country. The new facility will set a benchmark in customer response and quality standard achievable.

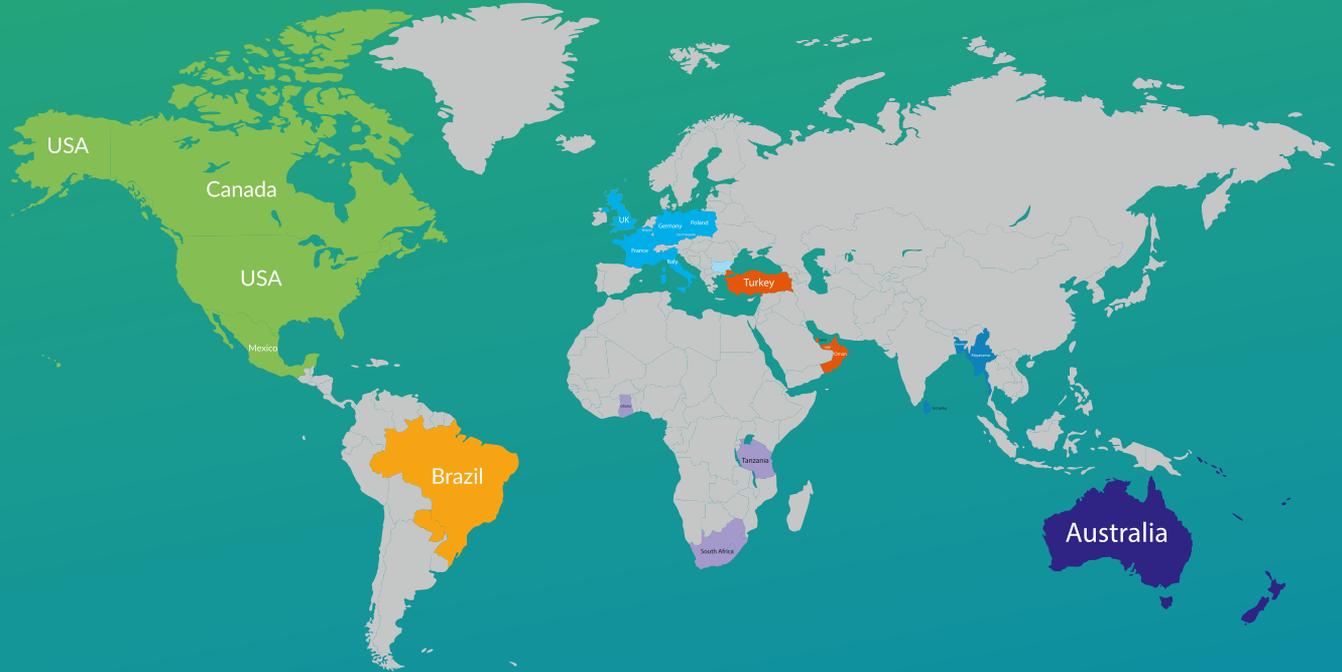
This expansion has enhanced our annual production capacity to 72000MT making us **THE LARGEST PRODUCER OF COLD DRAWN SEAMLESS TUBES IN INDIA**



MAJOR CLIENTS



GLOBAL FOOTPRINTS



NORTH AMERICA Canada Mexico USA	SOUTH AMERICA Brazil	EUROPE Belgium Czech Republic France Germany Italy Poland UK	MIDDLE EAST Oman Qatar Turkey UAE	ASIA Bangladesh Myanmar Sri Lanka	AFRICA Ghana South Africa Tanzania	AUSTRALIA Australia



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