# **ESTEEM AUTO**

Leading Manufacturer of : Cylinder Liners, Sleeves & Air Cooled Blocks



www.esteemauto.com





# **Company Overview**

Esteem Auto Pvt. Ltd. is an ISO/TS 16949:2016 certified leading manufacturer and exporter of Wet & Dry Cylinder Liners, Sleeves, Air – Water Cooled Blocks, Valve Guides and custom made casting parts for automobile and industrial engine applications. We are in this business since last 38 years and now produce over 1.8 million cylinder liners per year. We are proud of our more than 500 plus employees, who are well experienced and technically qualified to produce highest quality product.

Our manufacturing facility is strategically located at industrial area in Rajkot, India. Foundry consists of Induction Furnaces with 5 Automatic, 300 manual centrifugal casting machines and automatic shell molding with core shooter machines. We have proprietary process, developed in-house, to produce highest quality of centrifugal casting.

Our goal at Esteem Auto Pvt. Ltd is to ensure the highest quality of our products and to attain that we follow rigorous quality assurance process. Machine shop has CNCs (Horizontal and Vertical), special purpose boring, Plateau honing, Centre less grinding and custom made lathe machines for the precise job with strict tolerance. We have invested in equipments like various Special Gauges, Roughness Tester, Slip Gauges, Height Gauges, Ferro lab, Metallurgical Microscope, Spectrometer from Spectromaxx Germany, Tensile Tester, Hardness Tester, Equator from Renishow UK and Profile Projector etc to help our QA team to do the best job. On-site Spectrometer helps us to maintain our chemical composition for each casting batch conforming to the I.S.S., B.S.S. or ASTM specifications provided by our customers. We also have a state of the art Laser-Marking machine to facilitate proper part marking & identification.

FOUNDRY

MACHINE SHOP - 2

DESIGN, R&D

PROOF MACHINE

**6** MACHINE SHOP - 3

**10** OFFICE

**I** MACHINE SHOP - 1

**QUALITY CONTROL** 

CANTEEN

PACKING

INDUCTION HARDENING





# **Our Vision**



To become a preferred OEM and Aftermarket partner for all casting requirements, while adopting green manufacturing technologies and lean practices in all our processes.

#### **Bhavesh Limbasia** (Managing Director)

Esteem Auto Pvt. Ltd.

## Regd. Office:

G-1311, Metoda GIDC, Gate No. 3,

Kalawad Road, Rajkot - 360 021. Gujarat, INDIA

Phone : +91 2827 287361, 287372

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#### Works:

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#### **USA OFFICE:**

4 Jamieson Pl, Princeton Jct,

NJ 08550, USA

E-mail: sales@esteemauto.com Contact: Mr. Nilesh Limbasia (USA) (Director, International Sales)

#### Production Area:

| Description                           |   | Sq. Feet | Sq. Meter |
|---------------------------------------|---|----------|-----------|
| Total Area                            | : | 275,550  | 23,500    |
| Foundry (Division 1, 2 and 3)         | : | 40,600   | 3,750     |
| Semi Finished Machine Shop            | : | 16,500   | 1,600     |
| Finish, Turning, Boring & Honing Shop | : | 27,400   | 2,500     |
| Finish Grinding & Final Inspection    | : | 12,600   | 1,150     |
| Finish Goods Packing & Storage        | : | 16,500   | 1,600     |
| Office Area                           | : | 5,000    | 470       |

#### Manpower Employed:

Total : 500+

#### Plant Capacity:

Foundry shop : 2000 M. Ton per month Machine shop : 300,000 pcs. per month

#### Quality system:

IATF 16949:2016 Certified by URS Certificate No. 102745/A/0001/SM/EN Date 15-02-2019 ISO 9001:2015-Certified by URS ISO Certificate No. 102745/AA/0001/SM/EN Date 15-02-2019

#### Product Range in Size:

Internal Diameter : 40 mm to 325 mm Outer Diameter : 45 mm to 350 mm Length : Up to 600 mm

#### Products:

All type of Cylinder Liners and Sleeves

Air - Water Cooled Blocks All types of Casting Parts

Valve guides

#### Plant Location:

50 minutes from Mumbai by Air 225 Kms. from Ahmedabad City

#### Nearest Ports:

Kandla Port : 200 km. : 250 km. Mundra Port Pipavav Port : 150 km.

#### **❖ Import Export Code Number :** 2404002244

#### Membership:

Engineering Export Promotion Council (EEPC) Confederation of Indian Industry (CII)

Rajkot Engineering Association (REA)

Automotive Aftermarket Industry Association (AAIA-USA)

#### Achievements:

2004-05 Greenery Award from GIDC Metoda 2009-10 Star Performer Award From EEPC

2010-11 Special Contribution Award from EEPC

2010-11 Top Exporter Award from Central Excise and

Customs

2011-12 Star Performer Award From EEPC

2012-13 Special Contribution Award from EEPC

2012-13 Top Leading Exporter Award from Central Excise

and Customs

2013-14 Star Performer Award From EEPC 2014-15 Star Performer Award From EEPC



# We make over 5000

types of Cylinder Liners, Sleeves and Air/Water cooled Blocks for different types of engines.





Efficiency is essential for our economic success and lasting profitable growth. We consistently compare ourselves with the best in the industry and strive to achieve continuous efficiency improvements not only on our daily work, but also in dealing with natural resources.

## **Global Presence**

To underline this fact that, from last few decades, we have been exporting to more than



countries around the globe

**Africa** Algeria Angola Egypt Libya Morocco Nigeria South Africa Tanzania Tunisia

Asia Afghanistan

Zambia

Bangladesh Iran Iraq Jordan Malaysia Philippines Russia Saudi Arabia South Korea Syria UAE Uzbekistan

Australia

**North America** Australia Costa Rica

Dominic Republic

Gutemala

Mexico

Panama

USA

Europe France Germany Greece Itly

Lithuania Netherland Poland Romania Turkey United Kingdom

**South America** 

Argentina Bolivia Brazil Chile Colombia Equador Paraguay Peru Uruguay Venezuela





#### :: We shall achieve this by ::

Continual Improvement in Product Quality & Customer satisfaction.

Process refinement and automation to improve efficiency

Effective implementation of ISO/TS 16949:2015 QMS Involvement of Employees

Continuously reducing Non - value added activities



#### 1 Induction Melting



Induction melting is done by induction furnaces. The advantage of the induction furnace is that, it is a clean, energy-efficient and well-controllable melting process compared to most other means of metal melting. Material is added during the melting process to bring the final chemistry within a specific range specified by industry and/or internal standards. Melting process is carried out as per the customer requirements. -We have Seven [3x300 Kg., 1x500 Kg., 1x900 Kg, (Dual Track). 1x700 Kg. (Dual Track) and 1x500 Kg. (Tri Track)] induction Furnaces.

## Carousel Centrifugal Casting Machine



This is a Multi Station Heavy Duty Indexing Machine used for Centrifugal casting. It consists of a set of 8 spinning molds/dies mounted on a Rotary indexing table with heavy load capacity and other associated robots. These eight molds pass through different stations like Pouring, Cooling, Extraction, Cleaning and Coating. After all these operations mold comes again to the Pouring Station. The whole operations are controlled by a control panel.

### **Automatic Centrifugal Casting Machines**





3 Shell Mold Casting



4 Core Shooter



5 Shell Molding



Shell molding, is an expendable mold casting process that uses a resin covered sand to form the mold. As compared to sand casting this process has better dimensional accuracy, a higher productivity rate and lower labour requirements. This process provides customer with the best quality Air-Water cooled blocks. Specially designed Core Shooter machine to shoot the sand in the complicated shape of core box.

## Machine Shop

We perform outer diameter of liner on CNC machine, which gives high accuracy in dimensional, surface roughness and geometrical parameters. Main benefits of final OD CNC Turning are minimizing of cycle time, repeatability of quality and consistency product.





# 1 SPM for Vertical ID / OD with CNC Programing

ID and OD can be proof machined in single reference. Wall thickness variations can also avoided. Productivity and accuracy is higher than conventional lathes. After this operation, product can be finished in CNC

#### **Gantry System**

Gantry system for CNC's to increase productivity





## 3 CNC Turning Machine

To achieve the productivity and quality the final machine of all the Liners are in CNC turning centers. They are designed to use modern carbide tooling and fully utilize modern processes. The part may be designed and the tool paths programmed by the CAD/CAM process







## 4 Centerless Grinding

Our centerless OD grinding process guarantees a part that is perfectly round and to exact size specifications.

## Plateau Honing Machine (NAGEL)

This generate a rough surface and remove the high areas in a controlled manner. The Surface texture through this has the benefits of a smooth surface and benefits of a rough surface. This can be measure Ra, Rz, Rk, Rpk, Rvk etc.



Hardness Tester

**Profile Projector** 





Metal Analyzer (SPECTROMAXx Germany)



**Renishaw Equator** 

5 Roundness Tester (Taylor Hobson)





8 Microscope



**Ultrasonic Cleaning Machine** 

**Material Spec** 

| Nos | Class      |
|-----|------------|
| 1.  | Class 35   |
| 2.  | Class 40   |
| 3.  | Class 45   |
| 4.  | Class 50   |
| 5.  | Ductile/SG |
| 6.  | Boron      |
| 7.  | Bainitic   |
| 8.  | CGI        |
| 9.  | N20        |

| Hardness (BHN)* | Tensile Strength      |
|-----------------|-----------------------|
| Minimum 190     | 220 N/mm <sup>2</sup> |
| Maximum 285     | -                     |

# Micro Structure\*

Graphite Type Distribution Type 'A' & 'B' Flake Size 4 to 8 'D' & 'E' permitted to max. 20% Free Ferrites Max. 5%

<sup>\*</sup> Above details are for reference only and this will very as per the technical standards and customer requirements.



# Air Cooled Blocks



# ♣ Dry Liners



# Customized Castings



# **Tractor Applications**



# Heavy Commercial Applications









# Generator Applications



# Earth Moving Applications



Our Brand Packing



Container Factory Stuffing



- Green Energy We are using 70% of green energy at our plant.
- **2021-2.1 MW Windmill**



# 2018-1 MW Solar Project





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