

Sleeves

Cylinder Liners

Cylinder Liners

Sleeves
Air Cooled Blocks
Air Cooled Blocks

Casting Parts

Air-Cooled Blocks

Casting Parts



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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

27

countries around the globe



- | | | | | |
|---------------|------------|--------------|------------------|---------------|
| 1. Algeria | 7. England | 13. Malaysia | 19. Russia | 25. USA |
| 2. Australia | 8. France | 14. Mexico | 20. Romania | 26. UAE |
| 3. Bangladesh | 9. Germany | 15. Morocco | 21. South Africa | 27. Venezuela |
| 4. Brazil | 10. Iran | 16. Nigeria | 22. Saudi Arabia | |
| 5. Colombia | 11. Italy | 17. Panama | 23. Syria | |
| 6. Egypt | 12. Jordan | 18. Poland | 24. Turkey | |

Company Overview

Esteem Auto Pvt. Ltd. is an ISO-9001:2008 certified leading manufacturer and exporter of Wet & Dry Cylinder Liners, Sleeves, Air - Water Cooled Blocks and custom made casting parts for automobile and industrial engine applications. We are in this business for past 35 years and now produce over 1.5 million cylinder liners per year. We take great pride in our more than 250 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 four Induction Furnaces and a Cupola Furnace with more than 250 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 CNC, VMC, special purpose boring, honing, grinding and custom made lathe machines for the precise job our customers requires under 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 and Profile Projector etc to help our QA team do the best job. On-site Spectrometer helps us 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.

Products Range

We make over 3000 types of Cylinder Liners, Sleeves and Air-Cooled Blocks for engine variants suitable for:

- | | | | | | | |
|---------------|----------------|-----------------------|--------------|-------------------|---------------|--------------|
| ▪ ANDORIA | ▪ CHEVROLET | ▪ DAVID BROWN | ▪ JOHN DEERE | ▪ MACK | ▪ PETER | ▪ TOYOTA |
| ▪ ASIA | ▪ CHRYSLER | ▪ DETROIT DIESEL | ▪ KAMAZ | ▪ MAN | ▪ PEUGEOT | ▪ URSUS |
| ▪ AUSTIN | ▪ CITRON | ▪ DEUTZ | ▪ KARAZ | ▪ MASSEY FERGUSON | ▪ RENAULT | ▪ VAUXHALL |
| ▪ BEDFORD | ▪ CLYTON | ▪ FIAT IVECO | ▪ KIA | ▪ MAZDA | ▪ ROLLS ROYCE | ▪ VOLKSWAGEN |
| ▪ BELARUS | ▪ CUBOTA | ▪ FORD | ▪ KOMATSU | ▪ MERCEDES BENZ | ▪ ROVER | ▪ VOLVO |
| ▪ BENDIX | ▪ CUMMINS | ▪ HINO | ▪ KUBOTA | ▪ MITSUBISHI | ▪ RVI | ▪ WOLSELEY |
| ▪ BMC | ▪ DAF | ▪ HONDA | ▪ LADA | ▪ NAVISTAR | ▪ SAVIEM | ▪ YANMAR |
| ▪ BMW | ▪ DAIHATSU | ▪ HYUNDAI | ▪ LAND ROVER | ▪ NISSAN | ▪ SCANIA | ▪ ZETOR |
| ▪ CASE | ▪ DAIHATSU | ▪ INTERNATIONAL (IHC) | ▪ LEYLAND | ▪ OPEL | ▪ SUZUKI | |
| ▪ CATERPILLAR | ▪ DAIMLER BENZ | ▪ ISUZU | ▪ LISTER | ▪ PERKINS | ▪ TATRA | |





We make over
3000

types of Cylinder Liners,
Sleeves and Air-Cooled Blocks
for different types of engines.





Quality Assurance

We truly believe that the quality of product is the reflection of the process; to that extent we follow the best practices in the industry for all our manufacturing process. We also allow our customers to fine-tune the process to meet their needs. Our main goal is to supply the best quality parts at a very competitive price and our strategy revolves around that. Our engineers continuously look to improve the product quality by in-house R&D activities and tweaking our manufacturing processes from casting until packing to remain best in the industry in terms of cost and quality.

We at Esteem Auto Pvt. Ltd. are committed to enhance customer satisfaction by providing quality products, attractive price and timely delivery.

:: We shall achieve this by ::

Continual Improvement in Product Quality & Customer satisfaction.

Process refinement and automation to improve efficiency

Effective implementation of ISO 9001 : 2008 QMS

Involvement of Employees

Continuously reducing Non - value added activities



D-U-N-S®: 65-026-6187



Our Vision

To be the preferred OEM and after Market Manufacturer and supplier of Quality Cylinder Liners, Sleeves and Air Cooled Blocks capable of catering to customers requirement from various facts of the Automobile, Marine, Agriculture & Earth Moving Equipment industry.

Esteem Auto Pvt. Ltd.

■ Regd. Office:

11, Bhaktinagar Station Plot,
Gondal Road, Rajkot - 360 002.
Gujrat, INDIA
Phone : +91 281 6450275, 6450276
Fax : +91 281 2464012

■ Works:

G-1311, Metoda GIDC,
Kalawad Road, Rajkot - 360 021.
Gujarat, INDIA.
Phone : +91 2827 287361 / 287372
Fax : +91 2827 287122
E-mail : exports@esteemauto.com
Web : www.esteemauto.com

■ USA OFFICE:

101 O'Neill Ct., Lawrenceville, NJ 08648, USA
E-mail : sales@esteemauto.com
Contact : Mr. Nilesh Limbasia (USA)
(Director, International Sales)

■ Production Area

Total Area	: 15,500 sq. mtrs.
Foundry Division 1	: 8,550 sq. feet
Foundry Division 2	: 8,550 sq. feet
Foundry Division 3	: 7,650 sq. feet
Semi Finished Machine Shop	: 10,000 sq. feet
Finish, Turning, Boring & Honing Shop	: 16,600 sq. feet
Finish Grinding & Final Inspection	: 7,650 sq. feet
Finish Goods Packing & Storage	: 10,000 sq. feet
Office Area	: 3,000 sq. feet

■ Manpower Employed

Total	: 340
Administrative Staff (office)	: 15
Administrative Staff (plant)	: 25
Workers	: 300

■ Plant Capacity:

Foundry Shop	: 800 M.T. per month
Machine Shop	: 150,000 pcs. per month

■ Quality System:

ISO 9001:2008 Certified by TUV Nord,
Certificate No. 04100 2005 7193 - E 3 / Date 08-09-2005

■ 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

■ Plant Location

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

■ Nearest Ports

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

■ Manufacturing Product

Esteem Auto Pvt. Ltd.
All type of Cylinder Liners and Sleeves
Air Cooled Blocks
All types of Casting Parts

■ Membership:

Import Export Code Number 2404002244
Engineering Export Promotion Council
Confederation of Indian Industry
Rajkot Engineering Association
AAIA, USA

■ Bankers

Central Bank of India

Infrastructure Machine Shop

We perform outer diameter of liner on CNC machine, which gives high accuracy in dimensional parameters, surface roughness parameters and geometrical parameters. A main benefit of final OD CNC Turning is to minimize cycle time, repeatability of quality and consistency product.



1 Plateau Honing Machine

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 benefit of a rough surface. This can be measure Ra, Rz, Rk, Rpk, Rvk etc.



2 SPM for Vertical ID / OD

In this machine ID and OD can be proof machined in single reference. Wall thickness variations can be avoided in this. Productivity and accuracy is higher than the conventional lathes. The product can be directly machined in CNC after this operation.



3 SPM for Vertical Final Boring

This machine used to maintain the roundness within the specified parameters. This is special purpose machine with higher accuracy .



4 Centerless Grinding

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



5 CNC Turning Machine

To achieve the productivity and quality the final machining 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

Infrastructure

Induction Melting



1 Induction Melting

Induction melting to be done by induction furnaces. The advantage of the induction furnace 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 4 induction Furnaces as 2 Nos of 300 Kg, 1 No of 500 Kg, and 1 No of 900 Kgs.



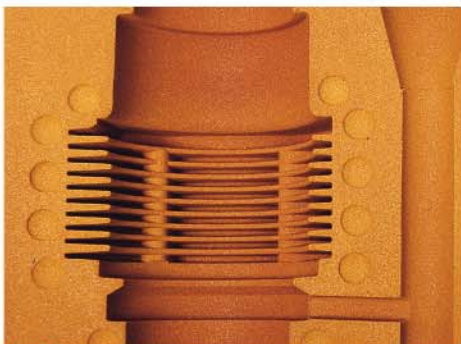
2 Metal Pouring

Molten metal is poured into centrifugal die which is rotating at 1400-1500 rpm. Pouring process is done in two stages, big ladle pouring and industrial pouring according to product weight. Some additives are also added during pouring to get defect free casting.

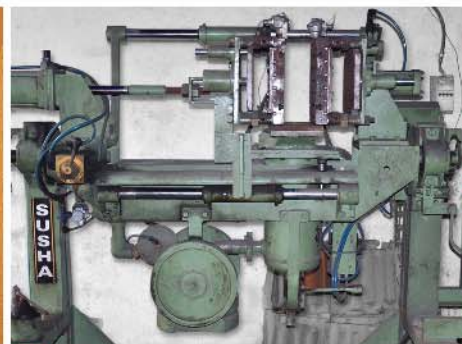


3 Centrifugal Process

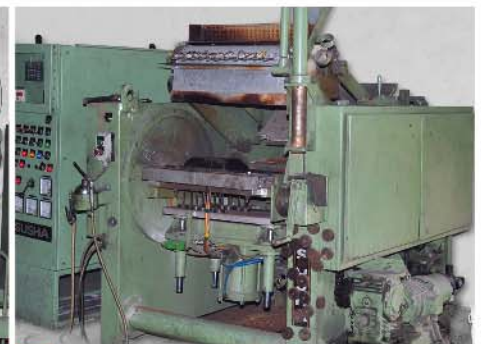
Centrifugal casting Process is a casting technique that is typically used to cast Cylinder Liners. It is noted for the high quality of the results attainable, particularly for precise control of their metallurgy and crystal structure. Centrifugal casting has greater hardness and reliability than static casting.



4 Shell Mould Casting



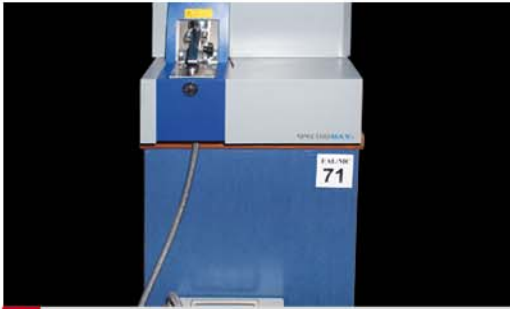
5 Core Shooter



6 Shell Moulding

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

Infrastructure



1 SPECTROMAXx Germany (Metal Analyser)



2 Microscope



3 Profile Projector



5 Hardness Tester



6 Laser Marking Machine

Chemical Composition

Chemical	Minimum	Maximum
Carbon	3.00	3.50
Silicon	1.90	2.40
Phosphorus	--	0.40
Sulphur	--	0.12
Manganese	0.60	0.90
Chromium	0.20	0.50
Moly	--	0.50
Copper	--	0.50
Nickel	--	0.50

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



4 Surface Roughness Tester

Hardness (BHN)	Tensile Strength
Minimum 190	220 N/mm ²
Maximum 285	

Laser Marking Machine

Is used for all type of Markings, Logos & Part Nos. as per customer requirements.

Our Products



Air Cooled & Water Cooled Block :



Liners, Sleeve & Block Manufacturing Facility:



No.	Description	Manufacturing Equipment / Toolings
01	Melting	Induction Furnace
02	Metal Analysis	SPECTROMAX Germany
03	Sand Casting	Shell Moulding Machine
04	Moulding	Shell Moulding Machine
05	Shot Blasting	Cleaning (Block)
06	Micro Structure	Microscope, Japan
07	Centrifugal Casting	Centrifugal Die Machine
08	Semi Finish Turning	SPM for Vertical ID/OD
09	Finish Boring	SPM for Vertical Boring
10	Finish Turning	CNC / Lathe Machine
11	Honing	Plateau / Hydraulic Vertical Honing Machine
12	Grinding	Centerless Grinding Machine
13	Final Inspection	Drawings / Customers Specification
14	Cleaning	Cleaning Machine
15	Marking	Laser Marking Machine
16	Packing	Export Worthy Packing

