



Cylinder Liners & Diesel Engine Spares

BLUESTAR SPARES

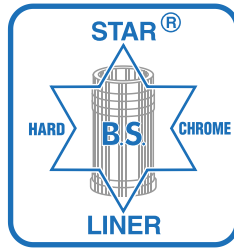
Company

Bluestar Spares is a professional company, Supplying and Exporting Centrifugal Cast Cylinder Liners for all types of Diesel Engines, Tractors, Automobiles, Generator Set, Marine, Earth moving Equipments etc and all its relating spare parts.

With more than 35 years of rich experience in supplying and exporting diesel engines spares, we get one of the top brand names “Bluestar” which is not only recognized in India but also known worldwide.

Our experienced technicians, “state of the art” machineries, advanced checking devices, strict quality control and rich experience make us one of the BEST in this industry.





Since 1969

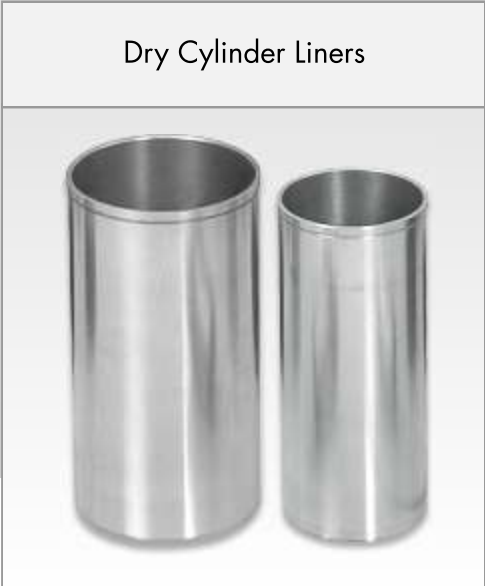
We do not compromise approach in constantly upgrading of Quality in accordance with customer desire. We are supplying our materials to many OEM customer such as Diesel Engine, Tractors, Marines etc and exporting the same to various countries.

We offer different solutions to different customers and we are committed to provide best of our products and services according to customers wants and their requirements.

We sincerely welcome customers at home and abroad to visit our office or our website for business operations and to establish long term business relationship which will result in a “Win – Win” situation for both.



Products



Product Range

Centrifugal Cast Cylinder Liners



Outer Diameter	70 mm to 500 mm
Inner Diameter	60 mm to 400 mm
Length	100 mm to 1200 mm
Weight	2 kgs to 250 kgs



Air Cool Blocks



Air Cool Blocks Shell Moulding



Weight : 2 Kgs to 30 Kgs

Production Process



Melting

Raw material, being scrap and alloying elements is melted in an induction furnace with a maximum capacity of about 500 kg molten weight per charge. Before casting, test samples of each charge are taken and checked in spectrometer to safeguard that the chemical analysis corresponds to the specification and the customers requirements.

Centrifugal Casting

Centrifugal casting utilizes gravitation and centrifugal forces.during solidification resulting in a hollow, rotation symmetric tubular blank, dense and free from pores, slag and other impurities.



Technical Specifications

Material

Our 'Bluestar' Cylinder liners are manufactured from standard quality close grained cast iron. Our casting is produced by centrifugal process. Commercial Cast Irons are alloys of Iron, Carbon and Silicon. We have achieved better hardness, machinability, tensile strength and wear-resistance by further alloying with Chromium Copper, Nickel, Molybdenum, Vanadium & Stresses Relieving to suit the specifications of our customers.

Hardness

Soft Cylinder Liners: According to ASTM 'Bluestar' liners maintain the hardness of 210 to 280 BHN and can give more as per specification of customers

Microstructures

By controlled manufacturing process, we have achieved on 'Bluestar' Liners ASTM standard type "A" of graphite flakes size 4 to 6, pearlitic structure with percentage of ferrite less than 5% and uniform distribution of phosphide eutectic as ASTM specification.

Chemical Analysis

Chemical composition confirms to the BIS, B.S.S., D.I.N., mm specifications. We maintain the specifications as given by our customers. In the absence of specifications received from customers, we generally maintain ASTM Standards.



Machining

With help of The Latest “State of the art” machines we produce highest quality product.

Honing

With help of plateau honing machine we produce plateau hone Surface Texture in bore of cylinder liners.



Constituents	(Material composition)
Total Carbon	3.0 to 3.3 %
Silicon	1.8 to 2.2 %
Manganese	0.6 to 1.2 %
Phosphorous	0.100 to 0.650 %
Sulphur	0.100 MAX.
Chromium	0.25 to 0.50 %

Tensile Strength

We are able to manufacture the materials of Bluestar liners with tensile strength 200 to 300 N/mm2

Surface Finish

The surface roughness on the finish machined liners are in accordance with the following: Outer surface fitment size (turned): Max. 6.00 Rz.

Plateau Honing Bore

Ra- 0.4 to 0.8 µm, Rz- 4.0 to 7.0 µm, Rt- 6.0 to 12.0, Bearing ratio at 2µm 70% to 85% all other parameters we maintain such as R3z, Rms, Rpk, Rvk, Mr1, Mr2, Vo etc as per customers specification.

Our 'Bluestar' Cylinder liners bores are 'Plateau' honed result into excellent wear-resistance & lubricating profile.

Quality Control



Spectrometer

Our liners are checked by Spectro Maxx, German made spectrometer, which analysis all chemical composition in 30 secs and every heat is monitored in spectro lab. After confirming all alignments, the process of pouring is performed. This process is important for quality control as per customer Specification and requirement.



Microscope

Microscope is used to analyze the metrography properties of the material. Each and every heat is analyzed by microscope.



Roundness & Cylindricity Tester

It is used to test cylindricity, roundness, concentricity, parallelism, co-axiality, squariness & flatness of the material.



“Quality & progress is never an accident. It is always result of high intention, Sincere efforts, intelligent high effective direction and skillful execution. It represents the wise choice of many alternatives.”



Surface Tester

Honing parameter is checked by Surface Tester, Mitutoyo, model SJ301 with the help of surface tester we check surface parameters such as Ra, Rz, Rt, R3z, Rms, Rpk, Rvk, Mr1, Mr2, Vo, Bearing ration etc as per customers specification.



Special Purpose Microscope Type VW SPM 4

VW SPM 4 is designed incident light microscope to view & photograph Honing texture. It gives us the report of honing Cross Angle, distance between two paralalled grooves





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