

Since 1982



PARTS THAT POWER LIFE



www.advectautoparts.com



About US:

Leading Manufacturers, Exporters and Suppliers of

Dry and Wet Cylinder Liners, Cylinder Sleeves and Air Cooled Blocks

We are the **leading Auto Parts Manufacturer, Exporter and OEM Supplier of Cylinder Liners, Sleeves and Air Cooled Block**, with a proven history of over 41 years in the industry

With over 400+ employees across our 5 sites, we excel at producing Centrifugal **Cylinder Liners, Sleeves & Air Cooled Blocks** with variety of range conforming to the tailor-made specifications and parameters of the manufacturers in over 70+ countries, suitable to available models and Engines for Automobiles, **Marine, Diesel Engine, Truck Engine**, generator, Agriculture and other Heavy Equipment Machinery items.

Now known as "**ADVECT LINERS**" in 41 years the company has continually expanded its operations from moving into larger premises, setting up five units with advance technology machines, high tech laboratory and packaging facilities. Advect Liners has IATF 16949 & ISO 9001: 2008 certificate.

ISO 9001:2008 certification

IATF: 16949

Vision

Common vision and values makes our company stronger.

Enlightened vision of becoming the one-stop solution for engine spare parts serving with high quality standards of parts to OE/OEM /Aftermarket customers.

Steadfast Mission to provide **High Quality** and reliable engine spare parts still remains cost-effective, thereby ensuring customer satisfaction and enabling sustainable growth around the world. Strong Values of honesty, integrity, teamwork, respect and suitability in all dealings and supplies. We honour our commitments and provide the best value to customers through continuous improvements in all processes.

Our Values

Trust

ADVECT LINERS believe in earning your trust by:

- Timely Delivery.
- Working for win-win relationships.
- Ethics, Respect and Integrity.
- Stress free environment /communication.

Excellence

We strive for excellence by:

- Setting outstanding standards for quality products.
- Continuous improvement, innovation and pursuit of trust.
- A positive attitude
- Effective execution and services

Quality Standard:

Certified with ISO 9001: 2008 Company.
IAFT 16949 certified Company.

Employees

400 +

Supply Range

Advect offers an extensive range of engine spare parts suitable for
All Kind of Automobile Engines (Petrol I Diesel) Agricultural Engines
Construction Engine Power Generator Set Marine Engines Compressors
Diesel Engines
Motorcycle Engine
All Stationary Engines
The range covers spare parts for 1-12 cylinder engines.

Item Produced:

Cylinder liners, Cylinder sleeves, Air Cooled blocks, Valve guide, Valve seat, Fuel Injector sleeves, Anti polishing ring for marine application with Piston and rings in various grade for grey cast iron, Ductile Iron, Ni-resist, Steel and stainless Steel.



- 30 years of manufacturing experience and expertise with one roof manufacturing outlet.
- Original quality centrifugally casted Cylinder Liners with precise machining
- Wide range up to 1500 models suitable for worldwide cars, trucks, tractors and industrial engines
- Production capacity of 150000 pcs per month
- High profile plateau Honing and Cylindrical Grinding to match geometrical parameters
- Manufactured with BS4K6 material standard with chromium and nickel elements
- Stringent Material and microstructure analysis of each batch
- 100% dimensional inspection in process and finished components
- Random inspection of honing angle and structure and surface roughness
- Random periodic tests on profiles, tensile strength and crack detection

Cylinder Liners-Sleeves, made of grey cast-iron, ought to have desired casting and machining qualities, viz. strength, toughness, hardness and wear resistance. These are mainly of two types- Dry liner-sleeves and Wet liner-sleeves.

The liners-sleeves are 'cast-in fit', force (press) fit or slip fit. The interference between its outer diameter and bore-hole walls depends on fit-type from 0.050 to 0.075 mm. These are available in wide range suitable for light, medium and heavy duty application.



CYLINDER LINERS



AIR COOLED BLOCK

- Casted by shell moulding process, where in highly accurate moulded shells are assembled and casted.
- Barrels have excellent surface finish, ideal hardness and microstructure to combat against wear.
- Air cooled blocks for Car, Two and Three Wheeler, Stationary engine, Tractor, Compressor and Generators.
- Injector Sleeve (third place)- Change the image as in the poster 6. In description change the first line only as
- Premium grade Brass, Copper and Stainless Steel are used for manufacturing of injector sleeves.

- Premium grade i.e Brass and Copper tubes are used for manufacturing of injection sleeves
- Wall thickness accuracy is maintained with due care in order to avoid the problems of salvage .
- Degree and radius Profile is matched on the profile projector
- Can develop any type of injection sleeves as per customer drawings or samples
- Option of rubber seal is also provided for the types of injection sleeves with seals.



INJECTOR TUBES



Engine Valve, Valve Guide & Valve Seat

- Inlet and Exhaust engine valve are manufactured with high precision and accuracy, available in EN24, EN52-21-4N, Bi-metal, Nitride, Hard Chrome, Stellite (Seat & Tip) and Deflector.
- Valve Seats are one of the most important component in the cylinder head. We supply valve seats in material PL12MV, CA15, J96, J125, J120V and J100. Valve Seat are manufactured with the best quality as per the customer requirements and specifications.
- Valve Guide are manufactured from cast iron, aluminium bronze and brass material.
- Engine Valve, Valve Seat and Valve Guide for different application - Automotive, Locomotive, High Performance and Marine.

- The organization leading hi-tech brand packing guarantees that you have a genuine ADVECT LINERS product. ADVECT LINERS is a leading superior quality brand supplied to OEMs and aftermarket in over 70 countries worldwide.

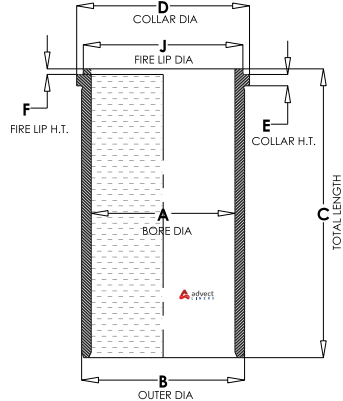


BRAND PACKING

About Types of Cylinder Liners

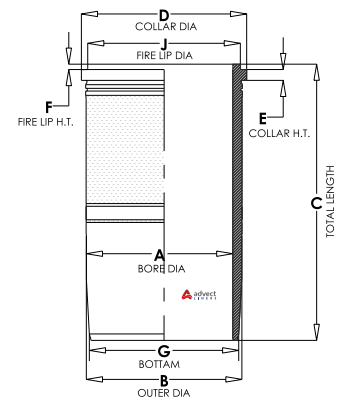


Dry Liners



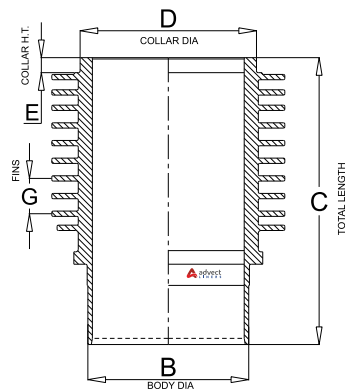
The dry liner does not come in contact with the coolant. Instead, it fits closely against the wall of the cooling jacket in the cylinder block. With the wet liner, the coolant comes in direct contact with the liner. Wet liners may have a cooling water space between the engine block and liner, or they may have integral cooling passages. Liners with integral cooling passages are sometimes referred to as water-jacket liners.

Wet Liners



In wet liners that do not have integral cooling passages, the water jacket is formed by the liner and a separate jacket which is a part of the block. A static seal must be provided at both the combustion and crankshaft ends of the cylinders to prevent the leakage of coolant into the oil pan sump, or combustion space. Generally, the seal at the combustion end of a liner consists of either a gasket under a flange or a machined fit. Rubber or neoprene rings generally form the seal at the crankshaft end of the liner. Liners of this type are constructed to permit lengthwise expansion and contraction. The walls of a wet liner must be strong enough to withstand the full working pressure of the combustion gases.

Air Cooled Liners



Air cooled block are cast by shell moulding process. Air-cooled engines rely on the circulation of air directly over heat dissipation fins or hot areas of the engine to cool them in order to keep the engine within operating temperatures.

In all combustion engines, a great percentage of the heat generated (around 44%) escapes through the exhaust, not through the metal fins of an air-cooled engine (12%). About 8% of the heat energy is transferred to the oil, which although primarily meant for lubrication, also plays a role in heat dissipation via a cooler. Air-cooled engines are used generally in applications which would not suit liquid cooling.

Cylinder Liner, Cylinder Sleeve

Dimension	Range (MM)
Bore Diameter	40 to 350
Outer Diameter	45 to 385
Length	65 to 600
Wall Thickness	2 to 35

Finish	Semi Finished
	Fully Finished

Surface Treatment	Phosphating
	Nitriding
	Chrome Plating

Air Cooled Blocks

Dimension	Range (MM)
Bore Diameter	77 to 150

Quality Management



We define 'Quality is to achieve the utmost customer satisfaction through satisfying identified and silent requirements of customers' Being certified IATF 16949 & ISO 9001:2008, reflects our company's working system of global standards with challenging international work environment.

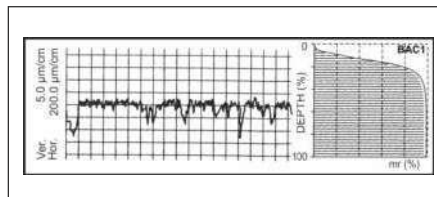
Advect Liners work with TQM (Total Quality Management) approach that emphasis on process control rather than nonconformities detection. We are concentrating on process control to enhance the strength of the process. The directed control at each stage of the process allows reducing the amount of rejection continuously. We analyze the records to downsize the lapses in process.

Modern machinery and optimal utilization helps to justify the capability of the organization and embarks to cope with technological paradigm shift.

The defined process sequence along with the latest instruments with mechanical control removes the drawback of human error in areas of measurements, material analysis, mechanical and physical properties of the products.

Our highly trained staff uses the most advanced measuring equipment and instrumentation both during and after production to assure accuracy and production dependability. By eliminating production discrepancies, we save valuable time and resources.

This translates to just-in-time delivery and lower costs.



Quality Standard:

Certified with ISO 9001: 2008 Company.
IAFT 16949 certified Company.

Standards / Designations

DIN 1691 (DE) – GG25
ASTM A48 - Class 35

Chemical Composition: Default Chemistry

Element	Minimum	Maximum
Carbon	3.00%	3.50%
Silicon	1.80%	2.50%
Manganese	0.60%	1.00%
Sulphur		0.15 % MAX
Phosphorus		0.50 % MAX
Chromium		0.50 % MAX

MECHANICAL PROPERTIES

Hardness 220 -250 BHN
Ultimate tensile strength – Min. 250 MPa

MICROSTRUCTURE

The microstructure shall consist of graphite flakes in a pearlitic matrix.

Free ferrite –5% max

Minor amount of other distributions is permissible (except the type c distribution)

Typical flake size

Type A and type B is 3 -5 and

Type D and type E is 5-7.

The type and size of graphite flake is a function of chemistry, inoculation section size and cooling rate. Graphite flake size shall not be large enough to adversely affect machined surface finish.



CYLINDER LINER
CYLINDER SLEEVE
AIR COOLED BLOCK
SPINY LINERS
ENGINE VALVE
VALVE GUIDE
VALVE SEAT
FUEL INJECTOR SLEEVE
ANTI POLISHING RING



ADVECT LINERS

30,000 SQUARE METERS



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