

# **Automotive Piston Market Report by Material Type (Aluminum, Steel), Vehicle Type (Passenger Cars, LCV, HCV), Piston Coating Type (Thermal Barrier Piston Coating, Dry Film Lubricant Piston Coating, Oil Shedding Piston Coating), Piston Type (Trunk Piston, Crosshead Piston, Slipper Piston, Deflector Piston), Distribution Channel (OEM, Aftermarket), and Region 2024-2032**

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## **Abstracts**

The global automotive piston market size reached US\$ 4.3 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 5.5 Billion by 2032, exhibiting a growth rate (CAGR) of 2.6% during 2024-2032.

A piston is a vital component of both internal and external combustion engine which works by generating mechanical energy and providing necessary force to a vehicle for running on the road. It helps in transferring the force from expanding gas in the cylinder to the crankshaft via a piston rod or connecting rod. It is used for forming a sliding gas and oil tight seal in a cylinder, transmitting the gas load to the small end of the connecting rod, and acting as a bearing for the gudgeon pin. The design of a piston is based on a conciliation between strength, weight, and thermal expansion control.

### **Market Trends:**

Due to growing population and rising disposable incomes, consumers are now spending more on their personal vehicles. This has increased the overall production of automobiles which, in turn, is strengthening the growth of the automotive piston market. Apart from this, automobile piston production is also influenced by the emerging trend of

high-end bikes. These bikes have double cylinders, requiring two pistons each, which is further augmenting the demand for automotive pistons across the globe. Other growth-inducing factors include constant innovations in technology, and growing demand for heavy and light commercial vehicles.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global automotive piston market report, along with forecasts at the global and regional level from 2024-2032. Our report has categorized the market based on material type, vehicle type, piston coating type, piston type and distribution channel.

#### Breakup by Material Type:

Aluminum  
Steel

On the basis of material type, the market has been segmented into aluminum and steel automotive pistons.

#### Breakup by Vehicle Type:

Passenger Cars  
LCV  
HCV

Based on vehicle type, the market has been segregated into passenger cars, LCV and HCV. Amongst these, passenger cars account for majority of the total global market.

#### Breakup by Piston Coating Type:

Thermal Barrier Piston Coating  
Dry Film Lubricant Piston Coating  
Oil Shedding Piston Coating

On the basis of piston coating type, the market has been divided into thermal barrier piston coating, dry film lubricant piston coating, and oil shedding piston coating.

#### Breakup by Piston Type:

Trunk Piston  
Crosshead Piston  
Slipper Piston  
Deflector Piston

Based on piston type, the automotive piston market has been classified into trunk, crosshead, slipper and deflector pistons.

Breakup by Distribution Channel:

OEM  
Aftermarket

On the basis of distribution channel, the market has been segmented into OEM and aftermarket.

Breakup by Region:

Asia Pacific  
North America  
Europe  
Middle East and Africa  
Latin America

Region-wise, the market has been divided into Asia Pacific, North America, Europe, Middle East and Africa, and Latin America. Presently, Asia Pacific accounts for majority of the market share.

Competitive Landscape:

The competitive landscape of the market has also been examined with some of the key players being MAHLE GmbH, Aisin-Seiki Co. Ltd., KSPG AG, Hitachi Automotive Systems, Federal-Mogul, India Pistons Limited, Arias Piston, Capricorn Automotive, Ross Racing Piston, and Shriram Pistons and Rings.

Key Questions Answered in This Report

1. What was the size of the global automotive piston market in 2023?
2. What is the expected growth rate of the global automotive piston market during 2024-2032?

3. What are the key factors driving the global automotive piston market?
4. What has been the impact of COVID-19 on the global automotive piston market?
5. What is the breakup of the global automotive piston market based on the vehicle type?
6. What is the breakup of the global automotive piston market based on the piston coating type?
7. What is the breakup of the global automotive piston market based on the piston type?
8. What are the key regions in the global automotive piston market?
9. Who are the key players/companies in the global automotive piston market?

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