

Global Railway Braking System Market Size Study & Forecast, By Braking Type (Pneumatic Brake, Electrodynamic Brake, Mechanical Brake, and Electromagnetic Brake), By Train Type (Passenger Trains and Freight Trains), and Regional Analysis, 2023-2030

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Abstracts

Global Railway Braking System Market is valued at approximately USD XX billion in 2022 and is anticipated to grow with a healthy growth rate of more than XX% over the forecast period 2023-2030. The Railway Braking System is an essential safety feature in trains, responsible for slowing down and stopping moving trains safely. It comprises various components and technologies that work together to apply braking force to the train's wheels or axles, ensuring control over speed and stopping distance. These systems assist in maintaining safe railway operations, undergoing regular testing and maintenance to meet stringent safety standards. The Railway Braking System Market is expanding because of factors such as the growing focus on reducing carbon emissions and improving energy efficiency in transportation, growing demand for both passenger and freight transport by rail drives, along stringent safety regulations and focus on safety enhancements.

In addition, the rising emphasis on the expansion and modernization of railway infrastructure, including high-speed rail networks and urban transit systems, creates a demand for advanced braking systems capable of supporting faster speeds, heavier loads, and improved operational efficiency. For instance, in August 2023, Indian Railways announced its proactive efforts to implement a Production-Linked Incentive (PLI) program. This initiative is designed to boost domestic manufacturing of key components like wheels, brakes, and transmission systems used in Linke Hofmann

Busch (LHB) and Vande Bharat train sets. Thus, these aforementioned factors are propelling the growth of the Railway Braking System Market during the estimated period. Moreover, the rise of electronic braking systems with computer control and sensor technology, as well as the increasing urbanization and congestion reduction present various lucrative opportunities over the forecast years. However, the high installation and maintenance costs and the integration challenges with existing infrastructure are challenging the market growth throughout the forecast period of 2023-2030.

The key regions considered for the Global Railway Braking System Market study include Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. North America dominated the market in 2022 owing to the rising expansion and growing railway networks. The region's significant investment in rail infrastructure, including the development of new lines and expansions of existing networks, fuels the demand for advanced braking systems. Asia Pacific serves as a central hub for high-speed rail operations, with countries such as Japan, China, and South Korea expanding their networks and necessitating advanced braking technology. Governments in the region prioritize railway safety by implementing stringent regulations, which in turn escalate the demand for innovative braking solutions. Whereas North America is expected to grow at a substantial CAGR over the forecast years. The imperative to modernize older train braking systems presents avenues for market growth. The surge in demand for passenger and freight transport, coupled with the ongoing technological advancements, such as the development of electronic braking systems, regenerative braking, and automated braking systems are significantly propelling the market demand across the region.

Major market players included in this report are:

ABB Limited

Akebono Brake Industry Co. Ltd.

Alstom S.A

Amsted Rail

DAKO-CZ

Frimatrail Frenoplast S.A

Knorr-Bremse AG

Nabtesco Corporation

Sabre Rail Services Ltd.

Wabtec Corporation

Recent Developments in the Market:

In January 2024, Wabtec Corporation secured a substantial order worth USD 157 million (INR 1,300 crore) to provide brake systems to Siemens India for their production of 9000 horsepower (hp) locomotives destined for the Railways. This order is expected to improve operational performance, efficiency, and safety through advanced technology, benefiting a new series of 1,200 electric locomotives, as stated by the American company.

Global Railway Braking System Market Report Scope:

Historical Data – 2020 - 2021

Base Year for Estimation – 2022

Forecast period - 2023-2030

Report Coverage - Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered - Braking Type, Train Type, Region

Regional Scope - North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope - Free report customization (equivalent to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope*

The objective of the study is to define the market sizes of different segments & countries in recent years and to forecast the values for the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters to detailed information about the crucial aspects such as driving factors & challenges that will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with a detailed analysis of the competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Braking Type:

Pneumatic Brake

Electrodynamic Brake

Mechanical Brake

Electromagnetic Brake

By Train Type:

Passenger Trains

Freight Trains

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

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