

Asia-Pacific Explosion Proof Equipment - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

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Report description:

The Asia-Pacific Explosion Proof Equipment Market size is estimated at USD 3.01 billion in 2025, and is expected to reach USD 4.64 billion by 2030, at a CAGR of 9.06% during the forecast period (2025-2030).

In a variety of sectors, such as aeronautics and aircraft maintenance sites, construction sites, heating, ventilation, and air conditioning systems, manufacturing machines and processing units, mining, and oil and gas extraction, explosion-proof equipment is available. Some of the most common types of equipment in the industrial sector are lighting, surveillance, and signal systems.

Key Highlights

- The market for explosion-proof equipment is expected to be driven by the growth of industrialization in Asian countries, particularly China and India. In view of the growing presence of dangerous paints, chemicals, and other combustible dust in industrial environments throughout Asia-Pacific, there has been a rise in explosions.
- The oil and gas and chemical industries are expected to drive the growth of the market during the forecast period, as these industries are more prone to explosions. Explosion proofing has two requirements in the oil & gas industry: equipment must be built to the right standards and then installed and maintained in line with the further standards. The need for explosion-proof equipment is driven by increasing energy demands and demand for exploration of new mines and oil and gas reserves.
- Moreover, increasing demand for integrated systems, progress in the automation sector, growth in industrial sectors, and stringent government regulations in handling hazardous areas are projected to foster the market's growth. Various organizations are setting specific equipment standards to ensure the safety of the workforce and infrastructure. OSHA has been proactively working toward providing safe and conducive working conditions for employees by stipulating standards for workplaces.
- Although the hazardous area equipment industry has experienced growth, there are several factors that impede its further

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development. The significant expenses associated with the equipment and the necessity for qualified professionals to operate them are the primary obstacles affecting the expansion of the market.

Asia-Pacific Explosion Proof Equipment Market Trends

The Oil and Gas Industry to Show Significant Growth

- Workers in the oil and gas industry frequently have to work in dangerous conditions. In situations where significant quantities of flammable liquids, gases, vapors, or combustible dust are present, safety is of paramount importance.
- The probability of ignition from electric devices and machines that are close to flammable substances increases significantly in oil & gas facilities. The presence of dangerous chemical compounds, oil, and gas in oil & gas refining and processing facilities poses a risk of electrical sparks igniting such compounds. Hence, the industry commands a large share of the demand for regulations in such hazardous areas. In addition, the industry is highly regulated for worker safety, which further contributes to the demand.
- The advent of low-voltage IP cameras for housings is one of the most significant developments in explosion-proof camera technology. Compared to traditional high-power 110 V AC installations, which require additional infrastructure and personnel to install them, there are new opportunities for fixed PoE+ cameras that can significantly reduce costs. The advancement of PoE+ cameras is also in contrast to the conventional 24-volt system.
- Moreover, the discovery of oil reserves in countries such as India and China, in the Arabian Sea and Juggar Basin, respectively, is also projected to drive the segment's growth. According to the Petroleum Planning and Analysis Cell, by the end of FY2024, India's crude oil production is poised to recover as a result of upcoming investments in the exploration processes. Such developments are expected to drive the demand for explosion-proof equipment.

China to Hold the Highest Market Share

- China is one of the major producers and exporters of production equipment and machine tools globally. Equipment and tools production in the country has grown in the past decade as a result of an increase in manufacturing activities. Consequently, the rate of adoption of explosion-resistant equipment is influenced by this growth.
- The demand for explosion-proof solutions is anticipated to be driven by the growing use of automation in production processes. In addition, staff regularly carry out field inspections on a regular basis to keep facilities and equipment safe and in good working order at many industrial and manufacturing plants by patrolling the defined routes and checking inspection devices at selected points along the way.
- Allied pressures have led to changes in the underlying infrastructure, processes, and technologies of the manufacturing sector as a result of growing productivity requirements. The adoption of explosion-proof equipment is expected to increase as a result of these industry trends.
- According to the IEA, by 2040, China is expected to account for 280 billion cubic meters of global natural gas demand. With a projected net import of 13 million barrels per day by 2040, China is likely to overtake the United States as the world's largest oil consumer. The country has already set a 2030 carbon emission reduction target. By 2060, China wants to be carbon neutral. To that end, there is an urgent need to increase the use of clean energy and reduce emissions that are detrimental to China's reliance on fossil fuels. This shows that in the coming years, there will be a growing number of projects underway.
- The country is emerging as a growth engine due to the increasing exploration and production facilities and the introduction of new safety regulations. In the previous year, various miners in China's northeastern Shandong province had been trapped for almost two days following an explosion, where the blast damaged their communication systems, cutting off all contact. Mining

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accidents are pretty common in China, where enterprises have a poor protection record and regulations are not adequately enforced, which is driving the need for explosion-proof equipment in the region.

Asia-Pacific Explosion Proof Equipment Industry Overview

The Asia-Pacific explosion-proof equipment market is fragmented and consists of several players. In terms of market share, few major players currently dominate the market. However, with innovation and technological development, many companies are increasing their market presence by securing new contracts and by tapping new markets. For instance,

- In December 2023, R. STAHL introduced the Ex e switching and power distribution boards, which shall be protected by new 8530 and 8550 explosion-resistant components. The design of the new 8530 and 8550 series, which has been extended to 63 A from 40 A with an operating current of up to 125 A in both versions, is a major feature.
- In October 2023, Pepperl+Fuchs took digitization processes in hazardous areas to a new level with the launch of the new SmartEx 03 high-performance 5G smartphone. It is equipped with a wide range of features that meet all industry requirements, including voice over IP, programmable buttons, Wi-Fi only mode, remote diagnostics, and remote support for the implementation of the most diverse applications of Industry 4.0.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

Table of Contents:

1 INTRODUCTION

1.1 Study Assumptions and Market Definition

1.2 Scope of the Study

2 RESEARCH METHODOLOGY

3 EXECUTIVE SUMMARY

4 MARKET INSIGHTS

4.1 Market Overview

4.2 Industry Value Chain Analysis

4.3 Industry Attractiveness - Porter's Five Forces Analysis

4.3.1 Bargaining Power of Suppliers

4.3.2 Bargaining Power of Buyers

4.3.3 Threat of New Entrants

4.3.4 Threat of Substitute Products

4.3.5 Intensity of Competitive Rivalry

4.4 Industry Regulation

4.5 Assessment of the Impact of COVID-19 on the Market

5 MARKET DYNAMICS

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5.1 Market Drivers

5.1.1 Stricter Regulations for Handling Hazardous Areas and Substances

5.1.2 Increasing Energy Requirements Driving the Demand for Exploration of New Mines and Oil and Gas Resources

5.2 Market Restraints

5.2.1 Pricey Investments Due to High Costs of Installation of the Equipment

6 MARKET SEGMENTATION

6.1 By Type

6.1.1 Explosion Proof

6.1.2 Explosion Prevention

6.1.3 Explosion Segregation

6.2 By Zone

6.2.1 Zone 0

6.2.2 Zone 20

6.2.3 Zone 1

6.2.4 Zone 21

6.2.5 Zone 2

6.2.6 Zone 22

6.3 By End User

6.3.1 Pharmaceutical

6.3.2 Chemical and Petrochemical

6.3.3 Energy and Power

6.3.4 Mining

6.3.5 Food Processing

6.3.6 Oil & Gas

6.3.7 Other End Users

6.4 By System

6.4.1 Power Supply System

6.4.2 Material Handling

6.4.3 Motor

6.4.4 Automation System

6.4.5 Surveillance System

6.4.6 Other Systems

6.5 By Country***

6.5.1 China

6.5.2 India

6.5.3 Japan

7 COMPETITIVE LANDSCAPE

7.1 Company Profiles*

7.1.1 R. Stahl Group

7.1.2 Marechal Electric Group

7.1.3 Adalet

7.1.4 Bartec GmbH

7.1.5 Rae Systems (Acquired By Honeywell)

7.1.6 Pepperl+Fuchs

7.1.7 Alloy Industry Co. Ltd

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- 7.1.8 Cordex Instruments
- 7.1.9 ABB Limited
- 7.1.10 G. M. International SRL
- 7.1.11 Eaton Corporation PLC
- 7.1.12 Warom Technology Inc.
- 7.1.13 Phoenix Mecano
- 7.1.14 MAM Explosion-proof Technology (Shanghai) Co. Ltd
- 7.1.15 CZ Electric Co. Ltd

8 INVESTMENT ANALYSIS

9 FUTURE OF THE MARKET

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