

Particulate Matter Monitoring Market by Type (Indoor Monitoring, Outdoor Monitoring), Technology (Light Scattering, Beta-Attenuation, Gravimetric, Opacity), Particle Size (PM1, PM2.5, PM4, PM10), Application and Region - Global Forecast to 2027

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Abstracts

The global particulate matter monitoring market size is estimated to grow from USD 1.3 billion in 2022 to USD 2.2 billion by 2027, at a CAGR of 10.8%. Most people spend around 90% of their time staying indoors; hence, to ensure a healthy environment, the indoor air quality and the air inhaled need to be cleansed from particulate matter. Indoor air quality monitoring is required in school, offices, hospitals, and other indoor areas. For instance, the performance, health, comfort, and well-being of students, teachers, and staff are necessary for schools. Poor indoor environment quality can cause short- and long-term health issues, impact cognitive abilities, and degrade teacher and students' performance. Hence, indoor air monitoring is a major opportunity for the growth of PM monitoring market

'Gravimetric technology is expected to hold a considerable share of the particulate matter monitoring market in 2021''

Gravimetric technology accounted for a considerable share of the particulate matter monitoring market in 2021. Government agencies and environmental standards organizations widely use gravimetric technology to collect accurate data related to particulate matter. This technology helps to determine the ambient concentrations of particulate matter and the amount of particulate matter in emission. The gravimetric method is considered the standard and reference method to achieve high-accuracy data regarding particulate matter. However, this method has some practical limitations, such as being expensive, bulky, and time-consuming. This method has a manual process,

which results in high operational costs. But, several companies are using this technology for particulate matter concentration measurement. Also, real-time monitoring is not possible with this technique. Due to these factors, the growth rate of this segment is slower than other technologies used in the global particulate matter monitoring market.

“Power generation application accounted for the significant share of the particulate matter monitoring market in 2021”

Power generation application accounted for the significant share of the particulate matter monitoring market in 2021. The combustion process in the power generation industry is responsible for toxic gases and particulate matter emissions. For this, accurate monitoring helps demonstrate that the process in the industry remains within the allowed emissions limits and helps to minimize the risks to human health and the environment. Measurements of opacity or particulate matter are required in power plants worldwide. The emission of smoke and dust from industrial plants, such as coal-fired power stations and industrial incinerators, poses a risk to the environment and creates a health hazard to humans. Consequently, these emissions are regulated by government agencies across the world. For instance, the US and the UK Environmental Protection Agencies (EPA) are responsible for regulating environmental protection.

“The market in Asia Pacific is expected to grow at the highest CAGR during the forecast period”

The market in Asia Pacific is expected to grow at the highest CAGR during the forecast period. Asia Pacific is one of the world's major industrial and manufacturing hubs for the power generation, oil & gas, chemical, and pharmaceutical industries. The scope of this regional market includes China, Japan, India, South Korea, and Rest of Asia Pacific (Australia, Thailand, Indonesia, Singapore, and Malaysia). Increasing industrialization, rising emissions from private vehicle motor vehicles, and transboundary haze pollution in various countries are responsible for the growth of the particulate matter monitoring market in Asia Pacific.

Breakdown of the profiles of primary participants:

By Company Type: Tier 1 -38%, Tier 2 -32%, and Tier 3 -30%

By Designation: C-level Executives -44%, Directors-38%, and Others -18%

By Region: North America - 37%, Europe-29%, Asia Pacific -26%, and RoW -8%

Major players profiled in this report are as follows: Thermo Fisher Scientific, Inc. (US), AMETEK (US), Spectris plc (UK), ACOEM Group (France), and Siemens (Germany) and others.

Research Coverage

In this report, the particulate matter monitoring market has been segmented based on particle size, type, technology, application, and region. The particulate matter monitoring market based on type has been segmented into indoor monitoring and outdoor monitoring. Based on technology, the market has been segmented into light scattering, beta-attenuation, gravimetric, opacity, and others. Based on particle size, the market has been segmented into PM1, PM2.5, PM4, PM10. Based on application, particulate matter monitoring market has been segmented into power generation, oil & gas, chemical & petrochemical, ambient air monitoring, indoor air monitoring, healthcare, and others. The study also forecasts the size of the market in four main regions—North America, Europe, Asia Pacific, and RoW.

Key Benefits of Buying the Report:

The report would help market leaders/new entrants in this market in the following ways:

This report segments of the particulate matter monitoring market comprehensively and provides the closest approximation of the overall market size and subsegments that include particle size, type, technology, application, and region.

The report would help stakeholders understand the pulse of the market and provide them with information on key drivers, restraints, challenges, and opportunities pertaining to the particulate matter monitoring market.

This report would help stakeholders understand their competitors better and gain more insights to enhance their position in the business.

The competitive landscape section includes the competitor ecosystem, as well as growth strategies such as product launches and acquisitions carried out by

major market players.

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*Business Overview, Products/Solutions Offered, Recent Developments, SWOT Analysis, Winning Imperatives, Current Focus and Strategies, Threat From Competition,

Right to Win might not be captured in case of unlisted companies.

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