

Self-contained Breathing Apparatus Cylinders Market Forecasts to 2030 – Global Analysis By Type Open-circuit SCBA and Closed-circuit SCBA), Cylinder Material, Application and By Geography

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Abstracts

According to Statistics MRC, the Global Self-contained Breathing Apparatus Cylinders Market is accounted for \$2.7 billion in 2024 and is expected to reach \$4.1 billion by 2030 growing at a CAGR of 6.9% during the forecast period. A Self-Contained Breathing Apparatus (SCBA) cylinder is a high-pressure gas cylinder designed to provide breathable air to users in hazardous environments. These cylinders are essential for fire-fighters, industrial workers, and emergency responders in situations with toxic gases, smoke, or oxygen-deficient atmospheres. They are made from materials like aluminum, steel, or composite materials and store compressed air at pressures ranging from 2,216 psi to 4,500 psi. They provide air for a limited duration, depending on the user's breathing rate and the cylinder's capacity.

Market Dynamics:

Driver:

Increasing incidents of industrial hazards

Industries are increasingly aware of the importance of Self-contained Breathing Apparatus (SCBA) cylinders in safeguarding workers against toxic fumes and hazardous environments. The growing emphasis on occupational health and safety regulations further propels the demand for SCBA cylinders. Additionally, the advancements in technology have made these devices more reliable and efficient, enhancing their adoption across various sectors. Consequently, companies are

investing heavily in safety equipment to mitigate risks and protect their workforce boosting the market growth.

Restraint:

Maintenance and replacement challenges

Self-contained Breathing Apparatus Cylinders require regular inspections and upkeep to ensure they function correctly in critical situations. The cost and complexity associated with maintaining SCBA cylinders can deter some organizations from widespread adoption. Furthermore, the need for specialized training and expertise to handle these maintenance tasks adds to the burden. The downtime required for servicing and replacing cylinders can also disrupt industrial operations. Addressing these issues is vital for ensuring the consistent and effective use of SCBA cylinders in high-risk environments.

Opportunity:

Expansion of firefighting & emergency services

The increasing incidence of fires and emergency situations, there is a growing demand for reliable and advanced breathing apparatuses. Governments and organizations worldwide are investing in enhancing their emergency response capabilities, leading to higher adoption of SCBA cylinders. The development of lightweight and user-friendly SCBA models further boosts their appeal among emergency responders. As these services continue to evolve and expand, the market for SCBA cylinders is expected to witness significant growth.

Threat:

Limited awareness in developing regions

Many industries in these areas may not prioritize the implementation of advanced safety equipment due to cost constraints and limited knowledge. The absence of regulatory frameworks mandating the use of SCBA cylinders further hinders market growth. Additionally, the challenges in accessing and distributing these devices in remote and underserved regions exacerbate the issue. Raising awareness and establishing strong regulatory standards are crucial to overcoming this threat and promoting the use of SCBA cylinders.

Covid-19 Impact

The COVID-19 pandemic has had a mixed impact on the SCBA cylinders market. On one hand, the heightened focus on health and safety during the pandemic has driven the demand for protective equipment, including SCBA cylinders. Industries have become more cautious about implementing safety measures to protect their workforce. However, disruptions in supply chains and manufacturing activities during the pandemic have posed challenges for the production and distribution of SCBA cylinders.

The open-circuit SCBA segment is expected to be the largest during the forecast period

The open-circuit SCBA segment is expected to account for the largest market share during the forecast period due to their ability to provide a continuous supply of breathable air, making them essential in hazardous environments. Open-circuit SCBAs are extensively used in industries such as fire fighting, chemical handling, and mining, where workers are exposed to toxic gases and particulates. The advancements in design and technology have improved the efficiency and user comfort of these systems, further driving their adoption. The growing awareness of workplace safety standards also contributes to the dominance of this market.

The fire services segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the fire services segment is predicted to witness the highest growth rate owing to increasing incidence of fire-related emergencies and the expansion of firefighting units across the globe drive the demand for SCBA cylinders. The development of advanced firefighting techniques and equipment enhances the effectiveness and efficiency of fire services. Additionally, the emphasis on training and equipping firefighters with state-of-the-art breathing apparatuses supports the growth of this segment. The commitment to ensuring the safety of firefighters and improving emergency response capabilities propels the market forward.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share attributed to region's well-established industrial base, stringent safety regulations, and high adoption rate of advanced technologies drive the demand for SCBA cylinders. The presence of major market players and significant investments in

research and development further contribute to North America's dominant position. Additionally, the focus on enhancing workplace safety and emergency response capabilities supports the widespread adoption of SCBA cylinders. The region's strong economic performance and robust infrastructure also play a crucial role in maintaining its market leadership.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR due to lightweight composites wrapped around an aluminum liner, reducing weight while maintaining strength. These cylinders can store air at pressures up to 4,500 psi, allowing longer breathing times and reducing the need for frequent tank changes in high-risk environments. They also offer improved mobility and reduced fatigue, making them easier to manoeuvre in confined or hazardous spaces. Composite materials provide greater resistance to impact, heat, and corrosion, enhancing longevity and performance in extreme conditions encouraging the market growth.

Key players in the market

Some of the key players in Self-contained Breathing Apparatus Cylinders market include Koken, Matisec, MSA, Shanghai Fangzhan Fire Technology Co., Ltd., Shigematsu Works Co Ltd, Sure Safety, Worthington Industries, Interspiro, Honeywell International Inc., Dragerwerk AG & Co. KGaA, Cam Lock, Bullard Limited, Axiom Manufacturing, Avon Protection, Afex Fire & Safety and 3M.

Key Developments:

In January 2025, 3M joins consortium to accelerate semiconductor technology in the US. The consortium drives research and development in next-generation semiconductor advanced packaging and back-end processing technologies anchored by a new cutting-edge facility in Silicon Valley.

In January 2025, Honeywell announced that it is joining forces with Verizon to bring a seamless technology experience to retail and logistics companies through the launch of a transformative bundled offering.

In December 2024, Honeywell and NXP ® Semiconductors N.V. announced at CES 2025 an expanded partnership that will accelerate aviation product development and chart the path for autonomous flight.

Types Covered:

Open-circuit SCBA

Closed-circuit SCBA

Cylinder Materials Covered:

Aluminum

Steel

Composite

Applications Covered:

Fire Services

Oil & Gas

Mining

Chemical/Petrochemical

Law Enforcement, Military, and Navy

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2022, 2023, 2024, 2026, and 2030
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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