

Machine Safety - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019 - 2029

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Report description:

The Machine Safety Market size is estimated at USD 5.07 billion in 2024, and is expected to reach USD 8.15 billion by 2029, growing at a CAGR of 9.97% during the forecast period (2024-2029).

The need for industries and manufacturing facilities to comply with the standards and regulations across the region has been driving the market for machine safety. Several countries across the world are working towards the global harmonization of standards. This is especially evident in the area of machine safety.

Key Highlights

- Global safety standards for machinery are governed by the IEC and ISO organizations. Also, regional and country standards are still in existence and continue to support local requirements. Still, in various countries, there has been a move toward using the international standards produced by ISO and IEC.
- Industrialists are aiming to deploy advanced machinery to increase their productivity. They mainly focus on machine safety, not impairing the productivity of their machines. Though this is far from a new requirement, it has become far more critical in the age of Industry 4.0. In this regard, increasing numbers of machine builders seek cooperation from machine safety experts early on in the design of the new series, intending to integrate safety functions into machine functions in such a way that productivity is maximized alongside high levels of safety.
- Furthermore, the rapid growth of environmentally friendly electric vehicles has resulted in the formation of a new segment of automobiles, creating a huge demand for machine safety and propelling the machine safety market forward. Similarly, the increasing use of IIOT to ensure better management and improved performance of industrial assets, as well as the increasing acceptance of workplace safety standards in emerging economies, will provide ample new opportunities that will lead to the growth of the machine safety market during the forecasted period.

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- The establishment of new factories, fueled by the world's rapidly growing industrialization, has aided the market's growth. ABB India, for example, has expanded and upgraded its smart power factory in Nelamangala, Bengaluru, to meet the strong demand growth for its solutions. The smart facility makes use of advanced collaborative robotics technology to improve the human-machine interface, as well as artificial intelligence (AI) and advanced digitalization technologies.
- Governments, and manufacturers, across the world, are seriously pondering plans to decrease their overdependence on Chinese production. For instance, the Japanese government became the first to take steps in this direction by announcing a USD 2.2 billion in assistance to domestic companies to shift production from China. Such investments in establishing manufacturing facilities are anticipated to augment the demand for the machine safety market.
- The widespread use of digital technology to mitigate the impact of COVID-19 and promote organizational safety is also fueling the growth of the machine safety market. The increased emphasis on personnel and asset protection is also positively impacting the market growth. Furthermore, increased cases of accidents in various industries due to unsafe machine conditions, as well as rising demand for automobiles due to an increase in population with purchasing power globally, are acting as active growth drivers in the machine safety market.
- Furthermore, the COVID-19 outbreak has forced industries to halt almost every industrial operation globally. Also, amidst the pandemic spread of COVID-19, the market for machine safety equipment, which relies on the manufacturing sector and substantial adoption on the industrial front, is very likely to be impacted, as the pandemic has resulted in changes in the planned investments of various companies over the forecast period.

Machine Safety Market Trends

Oil and Gas Industry to Hold a Significant Share

- The growing demand for industrial automation products in the oil and gas industry is also expected to create opportunities for machine safety. It enables the upgradation of existing machinery, creating a demand for new machine safety equipment that can comply with the upgraded equipment.
- The US Department of the Interior, under the national outer continental shelf oil and gas leasing program (National OCS Program) for 2019-2024, is planning to enable offshore exploratory drilling in about 90% of the outer continental shelf (OCS) acreage. The oil and gas sector in the region is anticipated to open up new opportunities in the market.
- Further, in several cases, security factors also impact the demand for machine safety equipment, especially in the oil and gas industry. For instance, in countries like Mexico, where pipelines are often prone to insurgent attacks and theft, there is an increased need for automated and robust emergency stop systems and devices that support remote operations.
- In Asian countries such as India, in 2021, the Ahmedabad (Gujrat) rural police recovered almost 24,000 gallons of crude oil. They apprehended a man suspected of the Salaya Mathura pipeline (SMPL) project in Bareja village in Daskroi (Gujrat). The theft of the SMPL pipeline was first discovered in December 2020, when officials from the Indian Oil Corporation in Ahmedabad rural noticed low pressure in an SMPL pipeline section in Bareja village, Daskroi taluka. Officials discovered a breach in the pipeline with a valve attached and a two-inch-diameter, 50-meter-long pipe put through a hole in the ground.
- In such cases, the governments are increasingly spending on process automation related to pipeline security, which is expected to raise the demand for advanced emergency shutdown systems. The increasing adoption of innovative IoT solutions, including sensors in oil and gas, is creating considerable demand for automated safety systems, supporting the market's growth.
- With this technology, users can track the amount of oil in a truck and discover leaks in pipelines anywhere. It's an IoT-powered device that uses volume measuring sensors to detect even the tiniest change in gasoline levels and warn authorities quickly. It also allows users to monitor gas concentrations in real-time, assuring equipment safety and workers in hazardous industrial environments. Furthermore, it assists personnel working underground, particularly in mines, in maintaining proper oxygen levels through gas detection sensors.

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Asia Pacific to Hold Significant Share

- The Asia-Pacific is expected to witness significant growth over the forecast period, primarily owing to the region's significantly growing industrial sector investments. Furthermore, the gradual improvement of technical safety standards, the continuous strengthening of personal safety awareness, and the gradual participation of the state and enterprises in market promotion have all contributed to the country's machine safety market's rapid growth.
- Countries in the region are actively promoting the manufacturing of in-home products. For instance, the "Made in China 2025" policy encourages advanced manufacturing, increasing the focus on safety. China is expected to be the largest market in the Asia-Pacific for machine safety products by revenue. In addition, the continuous improvement of technical safety standards, the constant strengthening of personal safety awareness in the country, and the constant participation of the state and enterprises in market promotion accelerated the country's machine safety market.
- China is investing significantly in the automotive industry, increasing new projects. The development of electric vehicles considerably drove capital investment, with most of this focused on new machinery. Moreover, China's 13th five-year plan is expected to drive the development of Chinese safety standards and increase investment in safety products. The project emphasizes the overall safety of manufacturing, intending to reduce accidents in the workplace by adopting new technologies and enforcing regulations. The plan explicitly mentions the upgrade of agricultural machinery and specialized equipment to satisfy the safety requirements.
- The COVID-19 outbreak is anticipated to accelerate this process further, as South Korean and Japanese companies are looking to diversify their production and reduce their overdependence on Chinese manufactured products. Additionally, the construction output value growth associated with South and Southeast Asian manufacturing plants dropped in 2020, reflecting the significant disruption caused by COVID-19, impacting machine safety market growth.
- Governments and manufacturers worldwide are seriously pondering plans to decrease their over-dependence on Chinese production. The Japanese government, for example, was the first to take measures in this approach by unveiling a USD 2.2 billion aid package for domestic companies looking to move production away from China. The demand for machine safety is expected to increase due to such expenditures in establishing manufacturing facilities.

Machine Safety Industry Overview

The machine safety market is highly competitive by nature and appears to be fragmented due to the presence of several prominent players. Key strategies traced from the analysis of recent developments of the market players include agreements and partnerships, acquisitions, expansion, and product launches. These key players strive to deliver comprehensive safety solutions with adept technology and features. Growth in terms of product innovations and techniques in the market is also expected to create substantial investment opportunities for global players.

- September 2022 - NVIDIA unveiled the IGX edge AI computing platform for autonomous systems that are secure and safe. IGX combines hardware with programmable safety extensions, commercial operating-system support, and powerful AI software, allowing organizations to deliver AI in support of human-machine collaboration in a safe and secure manner. The all-in-one platform enables next-generation safety, security, and perception for healthcare and industrial edge AI use cases.
- October 2021 - OMRON Corporation announced the launch of its new inspection system, the VT-S10 Series. The new inspection system employs artificial intelligence and imaging technology to automate high-precision processes for PCB sub-assemblies, removing the need for specialized operator skills. The newly launched system will ensure the production's security and safety.
- May 2021 - IDEC Corporation added the safety port named as SX5E-HU085B 8-port unmanaged industrial Ethernet switch to its product portfolio. The switch supports QoS, IGMP snooping, and broadcast storm protection functionalities and is aligned with the

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expansion of Ethernet, IoT, and IIoT devices used in critical and challenging commercial and industrial locations.

Additional Benefits:

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

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