

Robotic Welding Market by Component (Robots, End of Arm Tooling, Controllers), Welding Process, Payload (Less than 25 kg Payload, 25 kg to 100 kg Payload, More than 100 kg Payload), End-use Industry, and Geography—Global Forecast to 2029

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Abstracts

Robotic Welding Market by Component (Robots, End of Arm Tooling, Controllers), Welding Process, Payload (Less than 25 kg Payload, 25 kg to 100 kg Payload, More than 100 kg Payload), End-use Industry, and Geography—Global Forecast to 2029

The research report titled, 'Robotic Welding Market by Component (Robots, End of Arm Tooling, Controllers), Welding Process, Payload (Less than 25 kg Payload, 25 kg to 100 kg Payload, More than 100 kg Payload), End-use Industries, and Geography - Global Forecast to 2029,' provides in-depth analysis of the robotic welding market across five major geographies and emphasizes on the current market sizes, market shares, recent developments, and forecasts till 2029. The robotic welding market is expected to reach \$6.77 billion by 2029, growing at a CAGR of 6.2% during the forecast period of 2022 to 2029. By volume, this market is expected to reach 163.3 thousand units by 2029, at a CAGR of 11.2% from 2022 to 2029.

The growth of this market is driven by the increasing adoption of industry 4.0 principles and the rising adoption of welding robots in the automotive industry. However, the high initial cost of installing welding robots is expected to restrain the growth of this market.

Government initiatives to support digital transformation in Asia-Pacific and the emergence of laser & plasma welding technologies are expected to provide significant growth opportunities for stakeholders in this market. However, the lack of skilled workers for operating welding robots is expected to pose a major challenge to the

growth of this market.

The study offers a comprehensive analysis of the global robotic welding market based on component (robots, end of arm tooling (EOAT) devices, controllers, and software), welding process (resistance spot welding, arc welding, laser welding, plasma welding, ultrasonic welding, and other welding processes), payload (less than 25 kg payload, 25 kg to 100 kg payload, and more than 100 kg payload), end-use industry (automotive & transportation, oil & gas, electrical, construction, aerospace, mining, shipbuilding, heavy engineering equipment, defense, and other end-use industries). The study also evaluates industry competitors and analyses the market at the regional and country levels.

Based on component, the robotic welding market is segmented into robots, end of arm tooling (EOAT) devices, controllers, and software. The robots segment is further subsegmented into articulated robots, cartesian robots, cylindrical robots, SCARA robots, collaborative robots, delta robots, and other robots. Furthermore, the end of arm tooling (EOAT) devices segment is subsegmented into welding torches, vision systems, sensors, feeder systems, plasma flow controllers, and other EOAT devices.

In 2022, the robots segment is expected to account for the largest share of the robotic welding market. The large market share of this segment is attributed to the wide usage of robots across various industries, including automobile, oil & gas, manufacturing, and defense. These robots are highly flexible in their configurations, enabling users to adjust their speed, precision, stroke length, and size. Additionally, this segment is slated to register the highest CAGR during the forecast period.

Based on payload, the robotic welding market is segmented into less than 25 kg payload, 25 kg to 100 kg payload, and more than 100 kg payload. In 2022, the less than 25 kg payload segment is expected to account for the largest share of the robotic welding market. Robots with less than 25 kg payload are extensively used for arc and spot welding in the automotive & transportation, metals & machinery, and construction industries. Thus, the increased demand from these industries contributes to the large market share of this segment. However, the 25 kg to 100 kg payload segment is slated to register the highest CAGR during the forecast period.

Based on end-use industry, the robotic welding market is segmented into automotive & transportation, oil & gas, electrical, construction, aerospace, mining, shipbuilding, heavy engineering equipment manufacturing, defense, and other end-use industries. In 2022, the automotive & transportation segment is estimated to account for the largest share of

the robotic welding market. The large market share of this segment is attributed to the benefits offered by welding robots in the automotive industry's manufacturing process, such as cost-effectiveness, high efficiency, safety, and speed & precision, resulting in the increased adoption of these welding robots. Furthermore, using robots allows car & automotive component manufacturers to accelerate production, reduce costs, improve quality, and ensure workers' safety. Additionally, this segment is slated to register the highest CAGR during the forecast period.

Based on geography, the robotic welding market is segmented into North America, Europe, Asia-Pacific, Latin America, and the Middle East & Africa. In 2022, Asia-Pacific is estimated to account for the largest share of the robotic welding market. This regional market is also slated to register the highest CAGR during the forecast period. The high market growth in Asia-Pacific is attributed to the increasing labor costs, driving manufacturers to automate manufacturing processes to maintain their cost advantage.

The key players operating in the robotic welding market include ABB Ltd (Europe), FANUC Corporation (Japan), KUKA AG (Germany), Yaskawa Electric Corporation (Japan), Kawasaki Heavy Industries, Ltd. (Japan), DAIHEN Corporation (Japan), Stäubli International AG (Switzerland), EVS Tech Co., Ltd (China), Panasonic Corporation (Japan), Estun Automation Co., Ltd. (China), United ProArc Corporation (Taiwan), Nachi-Fujikoshi Corp. (Japan), igm Robotersysteme AG (Austria), and Universal Robots A/S (Denmark).

Key questions answered in the report:

Which are the high-growth market segments in terms of component, welding process, payload, end-use industry, and country?

What is the historical market for robotic welding market across the globe?

What are the market forecasts and estimates for the period of 2022–2029?

What are the major drivers, restraints, opportunities, challenges, and trends in the global robotic welding market?

Who are the major players in the global robotic welding market, and what are their market shares?

How is the competitive landscape?

What are the recent developments in the global robotic welding market?

What are the different strategies adopted by the major players in the global robotic welding market?

What are the geographical trends and high-growth countries?

Who are the local emerging players in the global robotic welding market and how do they compete with

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