

# Subsea Pumps Market Report by Type (Centrifugal, Helico-Axial, Hybrid Pump, Twin Screw, Co-Axial, ESP (Electrical Submersible Pump)), Application (Subsea Boosting, Subsea Separation, Subsea Injection, Subsea Gas Compression), and Region 2024-2032

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# Abstracts

The global subsea pumps market size reached US\$ 1.8 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 3.0 Billion by 2032, exhibiting a growth rate (CAGR) of 5.8% during 2024-2032. The global market is primarily driven by continual technological advancements, the expansion and modernization of aging infrastructure, and a strong focus on cost efficiency and operational excellence, and the increasing global demand for energy and stringent safety and environmental standards.

# Subsea Pumps Market Analysis:

Market Growth and Size: The pumps market is experiencing significant growth, driven by the escalating demand for offshore oil and gas exploration and production. The market's expansion is supported by the depletion of onshore reserves and the consequent shift to more challenging offshore environments, necessitating advanced pumping solutions.

Major Market Drivers: Key drivers include the increasing offshore exploration activities, the need for efficient extraction from deep-water reserves, and the aging of offshore infrastructure. The rising global energy demand and the industry's focus on maximizing recovery from existing fields also significantly contribute to the market growth. Technological Advancements: Continuous innovations in subsea pump technologies are enhancing their efficiency and reliability. Advancements, such as improved materials for high-pressure and high-temperature conditions, and the development of multiphase pumps capable of handling the complex composition of extracted fluids, are pivotal in meeting the evolving demands of deep and ultra-deep-water operations.



Industry Applications: Subsea pumps are crucial in applications such as subsea boosting, separation, injection, and gas compression. Their versatility in handling various operational challenges, including maintaining reservoir pressure and optimizing production in mature fields, underscores their importance across different stages of offshore oil and gas extraction.

Key Market Trends: The market is trending towards the adoption of more energyefficient and environmentally sustainable pumping solutions. There's also a growing emphasis on developing pumps that can handle higher gas-to-liquid ratios, reflecting the changing nature of subsea reserves being exploited.

Geographical Trends: The Middle East and Africa dominate the market due to their extensive offshore reserves and large-scale projects. Regions, such as North America and the Asia Pacific are also showing significant growth, driven by deep-water explorations and the development of new fields, especially in the Gulf of Mexico and the South China Sea.

Competitive Landscape: The market is characterized by the presence of several key players engaging in strategic partnerships, R&D investments, and global expansion activities. Companies are focusing on innovative solutions to maintain competitiveness and meet the specific requirements of diverse offshore environments.

Challenges and Opportunities: The market faces challenges such as fluctuating oil prices, technical complexities in deep and ultra-deep-water operations, and stringent environmental regulations. However, these challenges present opportunities for innovation and development of more advanced, cost-effective, and environmentally friendly subsea pumping technologies. The increasing exploration of untapped reserves and the need for enhanced oil recovery in aging fields offer significant opportunities for market growth.

Subsea Pumps Market Trends: Increasing offshore oil and gas exploration

As conventional oil and gas reserves on land become scarcer, energy companies are shifting their focus to offshore reserves, which are often located in deeper and more challenging environments. The pumps play a pivotal role in maintaining the flow of hydrocarbons from these subsea wells to the surface. Their ability to handle high-pressure and high-temperature conditions in subsea environments makes them indispensable in ensuring the efficient extraction of oil and gas resources. With the global energy demand continuing to rise, the need for the pumps is expected to expand further, augmenting the market growth. Moreover, advancements in technology have led to the development of more reliable and efficient subsea pump systems, which



further enhance their attractiveness to the oil and gas industry.

Subsea field expansion and aging infrastructure

The expansion of existing subsea fields and the aging of infrastructure in offshore oil and gas production have contributed significantly to the demand for the pumps. As offshore reserves mature, the need to enhance production rates becomes imperative. Subsea pumps enable operators to optimize production by maintaining pressure levels in subsea wells, thereby extending the life of these fields. Additionally, many offshore installations have been in operation for decades, leading to the deterioration of older equipment. Subsea pump replacements and upgrades are often required to ensure the continued reliability and efficiency of subsea production systems. This modernization drive within the industry fuels the pumps market, as operators seek to maximize recovery from existing fields while adhering to stringent safety and environmental standards.

Focus on cost efficiency and operational excellence

In an era of fluctuating oil prices and increasing cost pressures, the pumps market benefits from the industry's relentless pursuit of cost efficiency and operational excellence. The pumps contribute to cost reduction efforts by minimizing the need for platform-based facilities and associated operational expenses. Their deployment allows for the transportation of hydrocarbons directly from the seabed to surface processing facilities, reducing the overall capital and operational expenditure of offshore projects. This emphasis on cost-effectiveness, coupled with the ability of the pumps to optimize production and reduce downtime, positions them as a strategic choice for oil and gas operators looking to enhance their competitiveness in the market.

Subsea Pumps Industry Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the market, along with forecasts at the global and regional levels for 2024-2032. Our report has categorized the market based on type and application.

Breakup by Type:

Centrifugal Helico-Axial Hybrid Pump Twin Screw



Co-Axial ESP (Electrical Submersible Pump)

Helico-axial accounts for the majority of the market share

The report has provided a detailed breakup and analysis of the market based on the type. This includes centrifugal, helico-axial, hybrid pump, twin screw, co-axial, and ESP (electrical submersible pump). According to the report, helico-axial represented the largest segment.

Helico-axial pumps are dominating the market as they are particularly designed for subsea applications involving multiphase flows, where gas, oil, and water mixtures are present. Their unique design combines helical rotor blades and axial flow patterns, enabling them to efficiently handle high gas-to-liquid ratios. This capability is crucial in deep-water environments where gases are often present in extracted fluids. In addition to this, their robustness and reliability under challenging conditions, such as high pressures and varying flow rates make them the go-to choice in many offshore operations.

On the other hand, centrifugal pumps are fundamental in offshore operations, primarily due to their efficiency in transporting large volumes of fluid at steady rates. They operate on the principle of imparting velocity to the fluid using a rotating impeller, subsequently converting this velocity into flow. Ideal for low-viscosity fluids, these pumps are commonly used in applications where maintaining a constant flow rate is crucial.

Moreover, hybrid pumps, merging characteristics of both centrifugal and positive displacement pumps, offer a versatile solution adaptable to a range of fluid types and conditions. These pumps can efficiently manage varying viscosities and gas contents, making them suitable for complex subsea environments where fluid properties can change significantly. This adaptability is particularly useful in fields with varying production profiles or in applications where the pump needs to handle both steady and fluctuating flow conditions.

Additionally, twin screw pumps are a type of positive displacement pump favored for their ability to handle viscous fluids and those containing solid particles. The intermeshing screws create sealed chambers that transport the fluid, providing a steady flow unaffected by external pressure variations. This makes them ideal for heavy crude oil extraction, where maintaining a consistent flow rate and managing high-viscosity



fluids are key challenges.

Furthermore, co-axial pumps are designed to offer high-pressure capabilities in a compact form factor, making them suitable for deep-water applications where space and weight constraints are critical. Their coaxial design, where the motor and pump are aligned along the same axis, contributes to their compactness and efficiency. These pumps are often used in situations requiring high flow rates combined with high pressure, such as in some deep-sea boosting and injection applications.

Moreover, ESPs are integral to modern offshore operations, especially in wells with low natural reservoir pressure. By being submerged directly into the wellbore, these electrically driven pumps can lift significant volumes of fluid from great depths. Their ability to enhance production in challenging environments, such as ultra-deep water or reservoirs with declining pressure, makes them invaluable. Additionally, their flexibility in terms of deployment and scalability adds to their appeal in a wide range of subsea applications.

Breakup by Application:

Subsea Boosting Subsea Separation Subsea Injection Subsea Gas Compression

Subsea boosting holds the largest share in the industry

A detailed breakup and analysis of the market based on the application have also been provided in the report. This includes subsea boosting, subsea separation, subsea injection, and subsea gas compression. According to the report, subsea boosting accounted for the largest market share.

As the largest segment, subsea boosting involves increasing the pressure of the hydrocarbons extracted from subsea wells to ensure efficient transportation to the surface or processing facilities. This is particularly crucial in deep-water and ultra-deep-water environments where natural reservoir pressure is insufficient for lifting the oil to the surface. Subsea boosting systems use pumps to overcome these challenges, enhancing the flow rate and ensuring the economic viability of deep-water operations. They are essential in fields with long tiebacks to host facilities and in reservoirs with low pressure.



On the contrary, subsea separation refers to the process of separating oil, gas, and water at the seabed. This process reduces the need to transport large volumes of water to the surface and re-inject it, thereby optimizing the overall efficiency of production. Pumps in subsea separation systems are used to handle different phases of production fluids after separation, ensuring that each is transported efficiently to its respective processing or disposal route.

Moreover, subsea injection involves the use of pumps for injecting water or gas into the reservoir to maintain pressure and enhance oil recovery. Subsea injection pumps are designed to handle the high pressures required for injecting fluids into the reservoir. They are critical in fields where maintaining reservoir pressure is essential for sustained production rates, particularly in mature fields or those with declining natural pressure.

Additionally, subsea gas compression involves compressing gas at the seabed and is used to boost the transportation of gas from subsea fields to processing facilities or onshore terminals. This segment often integrates with pumping systems for the overall management of gas production. Subsea gas compression is essential in fields with lowpressure gas wells or long distances from the production site to the processing facilities, as it helps in maintaining the flow and energy efficiency of the gas during transportation.

Breakup by Region:

North America Europe Asia Pacific Middle East and Africa Latin America

Middle East and Africa leads the market, accounting for the largest subsea pumps market share

The market research report has also provided a comprehensive analysis of all the major regional markets, which include North America, Europe, Asia Pacific, the Middle East and Africa, and Latin America. According to the report, Middle East and Africa accounted for the largest market share.

Middle East and Africa, being the largest segment, enhances significant offshore oil and gas reserves, particularly in countries, such as Saudi Arabia, Nigeria, Angola, and the



UAE. The Middle East and Africa are known for their large-scale offshore projects and deep-water explorations, necessitating advanced subsea pumping technologies. The region's investment in enhancing oil recovery from mature fields, coupled with the development of new deep and ultra-deep-water projects, augments the demand for sophisticated subsea pumping systems. Additionally, the region's strategic focus on maintaining its dominance in the global oil market fuels continual investments in offshore technologies, including subsea pumps.

On the other hand, in North America there is a significant focus on deep-water and ultradeep-water exploration and production activities. The region's advanced technological capabilities, coupled with a well-established oil and gas industry, accelerate the demand for thepumps. The U.S. and Canada's focus on optimizing production from existing offshore fields and exploring new reserves also contribute to the market growth in this region.

Moreover, the Asia Pacific region is characterized by a mix of mature and emerging offshore oil and gas markets, with countries leading the way. The region's growing energy demand, coupled with the exploration of new offshore fields, particularly in the South China Sea and off the coast of Australia, is augmenting the demand for the pumps. Moreover, the need to improve recovery rates from aging fields in countries, including Indonesia and India further boosts the market in this region.

Furthermore, Europe's market is significantly influenced by activities in the North Sea, which has a long history of offshore oil and gas production. The region's focus is more on maintaining production from mature fields and on the development of marginal fields using advanced technologies. Countries, including Norway and the UK are leading in the adoption of subsea technologies to extend the life of existing fields and in exploring new frontiers in the Arctic region.

Additionally, Latin America, particularly Brazil and Venezuela, has been focusing on offshore oil and gas exploration, particularly in pre-salt and deep-water reserves. Brazil, with its significant offshore pre-salt fields, is a major driver for the market in this region. The region's focus on developing these challenging reserves, which require advanced subsea technologies for efficient exploitation, contributes to the demand for subsea pumping systems.

Leading Key Players in the Subsea Pumps Industry:

Key players in the market are actively engaged in a variety of strategic initiatives to strengthen their market positions. These include investments in research and



development to innovate and improve the efficiency, reliability, and longevity of their products, catering to the evolving needs of deep-water and ultra-deep-water operations. Many are forming strategic partnerships and collaborations with oil and gas companies to tailor their offerings to specific project requirements. Additionally, there's a significant focus on expanding global reach through mergers, acquisitions, and establishing new operational bases in strategic locations. Companies are also increasingly committing to sustainability, integrating environmental considerations into their product designs and operations to align with the broader industry shift towards cleaner and more responsible energy production.

The market research report has provided a comprehensive analysis of the competitive landscape. Detailed profiles of all major companies have also been provided. Some of the key players in the market include:

Aker Solutions ASA Baker Hughes Company TechnipFMC PLC Halliburton Company General Electric Company Flowserve Corporation Leistritz Pumps GmbH Schlumberger Limited Sulzer Ltd. SPX Corporation Hayward Tyler Group PLC National Oilwell Varco Oceaneering International Framo AS ITT Bornemann GmbH

(Please note that this is only a partial list of the key players, and the complete list is provided in the report.)

Latest News:

03 October 2023: Baker Hughes company had a collaborative venture that brings renewable wave power, flexible energy storage, and energy technology on an electrifying journey to the bottom of the sea.

30 August 2022: Aker Solutions ASA, Schlumberger and Subsea 7 have entered into agreements to form a Joint Venture to deliver a step change in subsea production



economics by helping customers unlock reserves, reduce time to first oil and lower development costs while simultaneously delivering on their decarbonization objectives. 20 June 2022: Leistritz Pumpen GmbH and KSB have embarked on a joint service future with the aim of becoming even more efficient and networked, providing an extended range of screw pump services. The aim of the service alliance is to raise customer service worldwide to a new, networked and especially fast level.

Key Questions Answered in This Report

- 1. What was the size of the global subsea pumps market in 2023?
- 2. What is the expected growth rate of the global subsea pumps market during 2024-2032?
- 3. What are the key factors driving the global subsea pumps market?
- 4. What has been the impact of COVID-19 on the global subsea pumps market?
- 5. What is the breakup of the global subsea pumps market based on the type?
- 6. What is the breakup of the global subsea pumps market based on the application?
- 7. What are the key regions in the global subsea pumps market?
- 8. Who are the key players/companies in the global subsea pumps market?



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