

## **Ball Valve - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)**

Market Report | 2025-07-01 | 120 pages | Mordor Intelligence

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### **Report description:**

Ball Valve Market Analysis

The Ball valve market reached USD 13.09 billion in 2025 and is forecast to advance at a 3.7% CAGR, lifting revenue to USD 15.69 billion by 2030. The outlook confirms a steady, demand-backed expansion that mirrors the pace of global infrastructure upgrades rather than boom-cycle growth. Widespread liquefied natural gas (LNG) build-outs in Asia, regulatory pressure to cut fugitive emissions in hydrocarbon economies, and accelerated digitalization of water utilities are the principal forces reinforcing long-term valve demand. Project owners are prioritizing component integrity, safety compliance, and low lifetime emissions, which amplifies preference for premium ball valves over lower-cost substitutes. At the same time, supply-chain bottlenecks in specialty forgings and volatile stainless-steel prices are tempering near-term profit margins, especially for mid-tier Asian fabricators.

Global Ball Valve Market Trends and Insights

Accelerated LNG Infrastructure Expansion in Emerging Asia Pacific

Asian governments view LNG as an immediate route to strengthen energy security and cut coal reliance. An 18% rise in global LNG export capacity in 2025, mainly aimed at Asian import terminals, magnifies demand for cryogenic ball valves rated to -162 C. These units must guarantee methane-tight sealing throughout liquefaction, transport, and regasification duty, which favors vendors with deep metallurgical expertise and validated low-temperature testing records. Import-dependent markets such as Vietnam and the Philippines, lacking pipeline grids, are rolling out floating storage and regasification units that specify premium

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trunnion-mounted cryogenic valves. This requirement lifts average selling prices and insulates leading suppliers from substitution risk, reinforcing profitable growth for the Ball valve market.

#### Rising Adoption of Severe-Service Ball Valves in Hydrogen & CCS Projects across Europe

The EU's plan to generate 10 million t of renewable hydrogen by 2030 requires pipelines and storage networks that can withstand pressures above 700 bar while avoiding hydrogen-induced cracking. Duplex and super-duplex alloys are moving into mainstream production to meet these mechanical demands and the corrosion challenges of supercritical CO<sub>2</sub> in carbon capture and storage (CCS) lines. Manufacturers that certify materials under evolving hydrogen standards enjoy a first-mover advantage, because plant owners seek proven safety documentation before awarding contracts. This trend cements Europe's role as a technology test bed and enlarges the premium tier of the Ball valve market.

#### Prolonged Lead-Times due to Global Forging Capacity Constraints

A decade of supplier consolidation has left only a handful of open-die forges capable of producing large-diameter, nickel-alloy blanks. Simultaneous demand from aerospace and energy increases capacity strain, with delivery cycles stretching to 24-32 weeks versus the historical 12-16 week window. Project owners now embed buffer inventories or accept alternate valve styles if schedule risk outweighs technical benefit. Some OEMs pursue vertical integration, but capital needs and qualification timelines delay relief until late decade.

Other drivers and restraints analyzed in the detailed report include:

North American Mid-stream Asset Modernization Mandates Driving Replacement Demand / Rapid Digitalization of Water Utilities Spurs Smart Ball Valve Retrofit in Nordics / High Capital Outlay for Metal-Seated Valves in Abrasive Mining Applications /

For complete list of drivers and restraints, kindly check the Table Of Contents.

#### Segment Analysis

The Ball valve market size for floating designs logged 27% revenue in 2024, driven by their adaptability across refinery, water, and general-purpose services. Cryogenic ball valves, though niche, are rising at a 6.4% CAGR as LNG terminals and hydrogen export hubs demand guaranteed sealing down to -162 C. End users emphasize zero-leakage seats and blow-out-proof stems validated by helium mass-spectrometer testing, a standard that raises entry barriers and sustains premium price realization.

Additive-manufactured flow paths, now field-proven in subsea pilots, reduce weight and pressure drop in fully welded bodies. Meanwhile, orbit and rising-stem variants preserve seat life where throttling duty would damage conventional floating valves. Together, these developments diversify product portfolios and extend the functional scope, preserving relevance of ball valves even in markets exploring butterfly or plug alternatives.

Carbon steel held 32% share of the Ball valve market size in 2024 thanks to its favorable strength-to-cost ratio across pipelines and industrial utilities. Hydrogen projects now favor alloy-based bodies with super-duplex or austenitic grades to resist embrittlement, raising alloy demand at a 5.2% CAGR. Duplex grades also unlock higher allowable pressure ratings, enabling pipeline engineers to downsize schedules and shave capex.

Stainless-steel price volatility pushes OEMs to qualify dual-certified grades that meet both 304L and 316L requirements, streamlining procurement flexibility. Additive manufacturing introduces functionally graded materials where high-nickel matrices reinforce seat zones, while carbon-steel dominates outer shells, optimizing total cost.

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The Ball Valve Market Report is Segmented by Valve Type (Floating, Trunnion-Mounted, Rising-Stem, Top-Entry, Fully-Welded, Cryogenic), Material (Carbon Steel, Stainless Steel, Cast Iron, and More), Valve Size (Up To 1", 1"-6", 6"-25", and More), Actuation (Manual, Electric, Pneumatic, and More), End-User (Oil & Gas, Chemicals, Water, and More), and Geography. The Market Forecasts are Provided in Terms of Value (USD).

## Geography Analysis

Asia accounted for 31% of Ball valve market revenue in 2024, propelled by Chinese industrial growth and Southeast Asian LNG import terminals. Government policies that mandate cleaner energy mix underpin sustained valve procurement. India's "Make in India" scheme fosters domestic valve production yet still relies on imported severe-service trims for hydrogen pilots. Japan and South Korea prioritize high-performance alloys for niche chemical processes, maintaining a technology premium in regional trade.

The Middle East is the fastest-growing cluster, projecting 5.1% CAGR to 2030 as operators retrofit low-emission valves in legacy fields and build green-field LNG mega-trains. Qatar's North Field expansion alone calls for thousands of cryogenic units, while Saudi Aramco deploys smart actuators across gas gathering networks to satisfy methane-intensity goals. Turkey's transit ambitions also translate into large-bore pipeline valve orders.

North America retains sizable share owing to mid-stream replacement mandates. Shale-gas gathering systems need high-pressure ball valves resistant to acid gases. Canadian oil sands lines demand hard-faced seats to manage bitumen abrasion. Mexico, opening its energy market, imports API 6D-certified valves for export-class pipelines. Climate regulation stimulates adoption of ISO-15848-1 certified products, adding incremental requirements that favor established brands.

## List of Companies Covered in this Report:

Emerson Electric Co. / Flowsolve Corporation / Schlumberger (Cameron) / IMI plc / Kitz Corporation / Crane Co. / Baker Hughes (Valves and Process Solutions) / Honeywell International Inc. / Alfa Laval AB / Curtiss-Wright Corporation / SAMSON AG / Velan Inc. / CIRCOR International Inc. / AVK Holding / Mueller Water Products Inc. / Neway Valve Co., Ltd. / Bonney Forge Corp. / Metso Corporation (Valmet) / Hitachi Ltd. / Valvitalia S.p.A. / Georg Fischer Ltd. / Danfoss A/S / Castel SRL / Sanhua Holding Group /

## Additional Benefits:

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

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