+357 96 030922
info@marketpublishers.com

Global Absorption Chillers Supply, Demand and Key Producers, 2026-2032

https://marketpublishers.com/r/GE755D863744EN.html
Date: April 2026
Pages: 129
Price: US$ 4,480.00 (Single User License)
ID: GE755D863744EN

Abstracts

The global Absorption Chillers market size is expected to reach $ 1087 million by 2032, rising at a market growth of 3.4% CAGR during the forecast period (2026-2032).

Absorption chillers are thermally driven chilled-water machines that use heat rather than electricity as the primary driving energy. Most commonly based on a lithium bromide solution as the absorbent and water as the refrigerant, they circulate working fluids through key heat-exchange components including the generator, condenser, evaporator, and absorber to convert steam, hot water, flue-gas waste heat, engine jacket water, or direct-fired gas heat into chilled water for comfort air-conditioning or industrial process cooling, and in some configurations can also support space heating or domestic hot water needs. Their core value lies in leveraging low-cost or otherwise wasted heat to reduce electrical consumption and peak demand, while using water as the refrigerant to deliver refrigerant-side benefits of zero ozone depletion potential and zero global warming potential. Commercial offerings are typically segmented by effect and heat source, including single-effect and double-effect units as well as steam-fired, hot-water-fired, direct-fired, and waste-heat-driven variants. Manufacturers differentiate through solution concentration management and anti-crystallization strategies, vacuum system design and maintainability, corrosion-resistant materials and flow-path layouts, and part-load controls to improve reliability and year-round efficiency. Typical customers include commercial buildings and district energy plants, hospitals and large public facilities, and industrial sites with stable steam or waste-heat availability, as well as combined heat and power systems. Deliveries commonly bundle equipment, project integration, and operations and maintenance services, with selection and acceptance based on quantifiable metrics such as cooling output, compatible steam pressure ranges, capacity coverage, and coefficient of performance (COP).

+357 96 030922
info@marketpublishers.com

Absorption chillers create value by ?using heat instead of electricity,? converting thermal inputs such as steam, hot water, direct-fired natural gas heat, flue-gas waste heat, and engine jacket water into measurable, dispatchable chilled-water capacity. For campus energy plants and district cooling systems, they can materially reduce peak electrical demand during high-tariff periods or when power capacity is constrained, easing transformer sizing and power-supply reliability pressure while improving overall energy utilization when integrated with combined heat and power (CHP) or boiler plants. For industrial users, an absorption chiller often functions as a ?waste-heat utilization asset,? turning surplus steam or hot water from continuous processes into steady process cooling and reducing compression-chiller electricity consumption and electrical expansion needs. Commercial products are typically stratified by effect and heat-source fit, with clear segments such as single-effect units that better tolerate lower-grade heat and wider operating boundaries, double-effect units that prioritize higher efficiency and lower steam consumption per unit of cooling, direct-fired units that emphasize energy independence and rapid deployment, and waste-heat-driven units that maximize heat-recovery depth and system integration. Selection and evaluation generally follow a year-round logic centered on cooling capacity coverage, heat-source conditions, cooling-water temperature, part-load control strategy, annual operating hours, and the local structure of electricity costs and carbon performance. In practice, delivery commonly bundles equipment, engineering integration, and operations and maintenance services, with contracts defining acceptance criteria such as cooling output, energy consumption, and availability.

From a technical and operational standpoint, absorption chiller competitiveness is not determined solely by nameplate COP, but more by long-term availability drivers such as solution management, vacuum system stability, corrosion control, and maintainability. In lithium bromide?water systems, water is the refrigerant and performance is sensitive to vacuum level and heat-transfer surface condition; even minor leakage, accumulation of non-condensable gases, or water-quality swings can cause efficiency decay and unplanned outages. There is a clear trade-off between efficiency and complexity across single- and double-effect designs. Double-effect units raise efficiency through staged generators and heat recovery, but demand steadier heat sources, more sophisticated controls, and higher requirements for material corrosion resistance, while also being more sensitive to crystallization risk and solution concentration control. Manufacturers typically improve life-cycle performance through closed-loop concentration management, anti-crystallization logic and bypass strategies, optimized heat-exchanger structures and spray distribution, corrosion-resistant materials and inhibitor systems, and designs that simplify vacuum pumping, leak detection, and servicing. On the engineering side, the cooling-water system and cooling-tower operating window are

+357 96 030922
info@marketpublishers.com

critical, because condensation and absorption are strongly influenced by cooling-water temperature; in hot and humid climates, stable output often depends on disciplined cooling-water control and water treatment. Operationally, routine vacuum maintenance, solution sampling and concentration checks, water-quality and corrosion monitoring, crystallization risk management, heat-exchanger cleaning, and spare-parts and outage-window planning together determine true life-cycle cost and realized efficiency. High-performing projects typically bake these requirements into commissioning and long-term service agreements rather than treating them as afterthoughts.

Regionally, supply tends to exhibit a pronounced ?Asian manufacturing belt? pattern, with East Asia and China offering comparatively complete industrial foundations that span core machine design and fabrication, project integration ecosystems, and service networks; India and South Korea also contribute meaningful supplier capacity with local channels and service advantages in domestic projects. Because absorption chillers are highly engineering-intensive to manufacture and deliver, success depends not only on core heat-exchanger and pressure-vessel capability, but also on project experience, commissioning competence, and a durable maintenance footprint. As a result, cross-border deliveries coexist with localized execution models, often through regional subsidiaries, distributors, and service teams that close the delivery-and-support loop. On the demand side, consumption is shaped by climate, grid constraints, and energy structure: hot and humid regions tend to value district cooling and peak shaving more strongly, while industrial clusters with abundant steam and waste heat can form stable application bases. In Asia-Pacific, large volumes of new campuses and public buildings combine with widespread industrial waste-heat conditions, making absorption chillers easier to scale in both district energy and industrial heat-recovery deployments. In the Middle East and similar markets, where district cooling penetration can be high and peak power pressure is acute, systems that also feature natural gas and CHP infrastructure are more likely to adopt thermally driven cooling as a system-optimization tool. Overall, incremental growth is most likely to come from three project types: new builds and expansions of campus-scale energy plants and district cooling networks, industrial waste-heat retrofit programs, and integrated energy projects coupled with CHP or boiler plants, which together drive regional differences in demand intensity and product mix.

This report studies the global Absorption Chillers production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for Absorption Chillers and provides market size (US$ million) and Year-over-Year (YoY) Growth,

+357 96 030922
info@marketpublishers.com

considering 2025 as the base year. This report explores demand trends and competition, as well as details the characteristics of Absorption Chillers that contribute to its increasing demand across many markets.

Highlights and key features of the study

Global Absorption Chillers total production and demand, 2021-2032, (K Units)
Global Absorption Chillers total production value, 2021-2032, (USD Million)
Global Absorption Chillers production by region & country, production, value, CAGR, 2021-2032, (USD Million) & (K Units), (based on production site)
Global Absorption Chillers consumption by region & country, CAGR, 2021-2032 & (K Units)
U.S. VS China: Absorption Chillers domestic production, consumption, key domestic manufacturers and share
Global Absorption Chillers production by manufacturer, production, price, value and market share 2021-2026, (USD Million) & (K Units)
Global Absorption Chillers production by Effect, production, value, CAGR, 2021-2032, (USD Million) & (K Units)
Global Absorption Chillers production by Application, production, value, CAGR, 2021-2032, (USD Million) & (K Units)

This report profiles key players in the global Absorption Chillers market based on the following parameters - company overview, production, value, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Johnson Controls (YORK?), Kawasaki Thermal Engineering (Kawasaki Heavy Industries Group), Yazaki Corporation, Hitachi, LG Electronics, EBARA Corporation, Thermax Limited, BROAD Group, Shuangliang Eco-Energy Systems / Shuangliang International, Hope Deepblue Air Conditioning Manufacture Corp., Ltd., etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Stakeholders would have ease in decision-making through various strategy matrices used in analyzing the World Absorption Chillers market

Detailed Segmentation:

Each section contains quantitative market data including market by value (US$ Millions), volume (production, consumption) & (K Units) and average price (USD/Unit)

+357 96 030922
info@marketpublishers.com

by manufacturer, by Effect, and by Application. Data is given for the years 2021-2032 by year with 2025 as the base year, 2026 as the estimate year, and 2027-2032 as the forecast year.

Global Absorption Chillers Market, By Region:

- United States
- China
- Europe
- Japan
- South Korea
- ASEAN
- India
- Rest of World

Global Absorption Chillers Market, Segmentation by Effect:

- Single-Effect
- Double-Effect
- Multi-Effect

Global Absorption Chillers Market, Segmentation by Working Pair:

- Lithium Bromide?Water
- Ammonia?Water (NH??H?O)

+357 96 030922
info@marketpublishers.com

Global Absorption Chillers Market, Segmentation by Driving Heat Source:

Steam-Fired

Hot-Water-Fired

Direct-Fired

Exhaust/Flue-Gas Waste Heat

Multiple Heat Sources

Global Absorption Chillers Market, Segmentation by Application:

District Cooling Network

Single-Facility Comfort Cooling

Industrial Process Cooling

Low-Temperature Refrigeration/Freezing

End-Use Cooling + Heating Delivery

Companies Profiled:

Johnson Controls (YORK?)

Kawasaki Thermal Engineering (Kawasaki Heavy Industries Group)

Yazaki Corporation

Hitachi

LG Electronics

EBARA Corporation

+357 96 030922
info@marketpublishers.com

Thermax Limited

BROAD Group

Shuangliang Eco-Energy Systems / Shuangliang International

Hope Deepblue Air Conditioning Manufacture Corp., Ltd.

Sonyo Refrigeration (Dalian) Co., Ltd.

Shanghai Shenglin M&E Technology Co., Ltd.

World Energy Co., Ltd.

Trane

Carrier

Key Questions Answered:

1. How big is the global Absorption Chillers market?
2. What is the demand of the global Absorption Chillers market?
3. What is the year over year growth of the global Absorption Chillers market?
4. What is the production and production value of the global Absorption Chillers market?
5. Who are the key producers in the global Absorption Chillers market?
6. What are the growth factors driving the market demand?

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

4 UNITED STATES VS CHINA VS REST OF THE WORLD

+357 96 030922
info@marketpublishers.com

5 MARKET ANALYSIS BY EFFECT

6 MARKET ANALYSIS BY WORKING PAIR

+357 96 030922
info@marketpublishers.com

7 MARKET ANALYSIS BY DRIVING HEAT SOURCE

8 MARKET ANALYSIS BY APPLICATION

9 COMPANY PROFILES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Global Absorption Chillers Supply, Demand and Key Producers, 2026-2032
Product link: https://marketpublishers.com/r/GE755D863744EN.html
Price: US$ 4,480.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/GE755D863744EN.html