+44 20 8123 2220
info@marketpublishers.com

Air-Cooled Heat Exchanger Market by Structure, Material (Stainless Steel, Carbon Steel), Type (Induced Draft, Forced Draft), Fin Design, Capacity, End-Use Industry (Oil & Gas, Power Generation, Data Center), and Region - Global Forecast to 2029

https://marketpublishers.com/r/A59FD9DD2CF6EN.html
Date: October 2024
Pages: 212
Price: US$ 4,950.00 (Single User License)
ID: A59FD9DD2CF6EN

Abstracts

The air-cooled heat exchanger market is projected to reach USD 5.69 billion by 2029, at a CAGR of 7.5% from USD 3.96 billion in 2024. The rapid industrialization and urbanization in countries like China, India, and various Southeast Asian nations have led to a significant rise in energy consumption and a heightened need for efficient cooling solutions. This demand is further supported by the growth of key industries, including oil and gas, power generation, and chemical manufacturing, which depend on reliable heat exchange systems to enhance operational efficiency. Moreover, government initiatives aimed at promoting energy conservation and sustainable practices are encouraging investments in cutting-edge heat exchanger technologies. The region's conducive climate, which requires effective cooling solutions, also plays a role in the increasing preference for air-cooled heat exchangers.

“Based on structure, non-ducted is expected to be the second fastest growing market during the forecast period, in terms of value.”

Non-ducted air-cooled heat exchangers are experiencing rapid growth and are recognized as the second fastest-growing structure in the air-cooled heat exchanger market due to their inherent advantages and increasing applications across various industries. Their design eliminates the need for ductwork, which simplifies installation and reduces overall system costs. This type of heat exchanger is particularly appealing for applications where space is limited or where installation flexibility is paramount. Additionally, non-ducted systems provide efficient heat transfer with lower pressure

+44 20 8123 2220
info@marketpublishers.com

drops, resulting in energy savings and improved performance.

Based on type, forced draft is expected to be the third fastest growing market during the forecast period, in terms of value."

Forced draft air-cooled heat exchangers are identified as the third fastest-growing type in the air-cooled heat exchanger market due to their efficient cooling capabilities and versatility in various industrial applications. This type utilizes fans to push ambient air over the heat exchange surface, enhancing heat transfer efficiency and ensuring effective cooling even in high ambient temperatures. Their design allows for a compact footprint, making them suitable for space-constrained environments. The growing demand for energy-efficient solutions in sectors such as oil and gas, chemical processing, and power generation has propelled the adoption of forced draft systems, as they help reduce operational costs and improve energy savings. Moreover, advancements in fan technology and control systems have further optimized the performance of forced draft air-cooled heat exchangers, increasing their appeal.

Based on material, carbon steel is expected to be the third fastest growing market during the forecast period, in terms of value."

Carbon steel air-cooled heat exchangers are emerging as the third fastest-growing material in the air-cooled heat exchanger market, primarily due to their favorable combination of strength, cost-effectiveness, and durability. Carbon steel offers excellent mechanical properties, making it suitable for a wide range of industrial applications where robust performance is essential. Its relatively low cost compared to other materials, such as stainless steel or titanium, makes it an attractive option for manufacturers seeking to optimize their budgets without compromising quality. Additionally, advancements in coating technologies have enhanced the corrosion resistance of carbon steel, enabling its use in more demanding environments, including those with harsh operating conditions. As industries increasingly focus on achieving a balance between performance and cost-efficiency, the demand for carbon steel air-cooled heat exchangers continues to rise, solidifying their position as a preferred choice in the market.

Based on capacity, 201-500 KW is expected to be the second fastest growing market during the forecast period, in terms of value."

The growth of air-cooled heat exchangers in the 201-500 kW capacity range is driven by several interconnected factors that enhance their attractiveness across various

+44 20 8123 2220
info@marketpublishers.com

industries. This capacity range is particularly well-suited for high-demand applications in sectors such as oil and gas, petrochemicals, and power generation, where efficient heat transfer is essential. Air-cooled heat exchangers are designed to operate effectively in high-temperature and high-pressure conditions, making them ideal for industries that require robust solutions to manage thermal loads efficiently.

“Based on end-use industry, power generation is the second fastest market during the forecast period, in terms of value.”

The power generation industry is the second fastest-growing end-use sector in the air-cooled heat exchanger market due to several compelling factors. One primary driver is the industry's need for efficient thermal management solutions, particularly as power plants seek to enhance their operational efficiency and reduce environmental impact. Air-cooled heat exchangers are increasingly favored because they eliminate the need for water, making them particularly suitable for regions facing water scarcity or stringent regulations regarding water consumption. Additionally, as the energy landscape shifts towards renewable sources, such as solar and wind, power generation facilities require cooling solutions that can operate effectively under varying temperature and pressure conditions. The technological advancements in air-cooled heat exchangers have further improved their performance and reliability, allowing them to meet the demanding requirements of modern power generation systems.

“Based on region, Middle East & Africa is the second fastest growing market for air-cooled heat exchanger in 2023, in terms of value.”

The Middle East and Africa (MEA) region is the second fastest-growing area in the air-cooled heat exchanger market, driven by a combination of environmental and economic factors. The region's climate, characterized by high temperatures and limited water resources, creates a pressing need for efficient cooling solutions that do not rely on water. As industries such as oil and gas, petrochemicals, and power generation expand in the MEA, the demand for air-cooled heat exchangers has surged due to their ability to operate effectively in harsh conditions while minimizing water usage. Additionally, increasing investments in infrastructure and energy projects, along with the region's focus on sustainability and environmental regulations, are encouraging the adoption of air-cooled technologies.

In-depth interviews were conducted with Chief Executive Officers (CEOs), marketing directors, other innovation and technology directors, and executives from various key organizations operating in the air-cooled heat exchanger market, and information was

+44 20 8123 2220
info@marketpublishers.com

gathered from secondary research to determine and verify the market size of several segments:

By Company Type: Tier 1 – 40%, Tier 2 – 30%, and Tier 3 – 30%

By Designation: C Level Executives– 20%, Directors – 10%, and Others – 70%

By Region: North America – 22%, Europe – 22%, APAC – 45% and RoW- 11%

The key players in this market are ALFA LAVAL (Sweden), Kelvion Holding GmbH (Germany), Kawasaki Heavy Industries, Ltd. (Japan), Xylem (US), Exchanger Industries Limited (Canada), SPX Cooling Tech, LLC (US), SNT Energy Co., Ltd. (South Korea), Thermax Limited (India), Baker Hughes Company (US), Chart Industries (US), Armstrong International Inc. (US), and KNM Group Berhad (Malaysia).

Research Coverage

This report segments the air-cooled heat exchanger market based on structure, material, type, fin design, capacity, end-use industry, and region, and provides estimations for the overall value of the market across various regions. A detailed analysis of key industry players has been conducted to provide insights into their business overviews, products and services, key strategies, new product launches, expansions, and mergers and acquisitions associated with the air-cooled heat exchanger market.

Key benefits of buying this report

This research report focuses on various levels of analysis, including industry analysis (industry trends), market ranking analysis of top players, and company profiles, which together provide an overall view of the competitive landscape, emerging and high-growth segments of the air-cooled heat exchanger market, high-growth regions, and market drivers, restraints, opportunities, and challenges.

The report provides insights on the following pointers:

Analysis of key drivers (Increasing industrialization in emerging economies, Rising energy efficiency regulations and stringent emission standards, Growing demand due to cost-effective nature and operational advantages, Rising

+44 20 8123 2220
info@marketpublishers.com

demand in HVAC, refining, and power generation industry), restraints (Fluctuation in raw material prices, High initial capital investment, Maintenance challenge for air-cooled heat exchanger), opportunities (Growing demand from data centers) and challenges (Noise generation from air-cooled heat exchanger, Competition from alternative technologies).

Market Penetration: Comprehensive information on the air-cooled heat exchanger market offered by top players in the global air-cooled heat exchanger market.

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product launches in the air-cooled heat exchanger market.

Market Development: Comprehensive information about lucrative emerging markets — the report analyzes the markets for air-cooled heat exchanger market across regions.

Market Diversification: Exhaustive information about new products, untapped regions, and recent developments in the global air-cooled heat exchanger market

Competitive Assessment: In-depth assessment of market shares, strategies, products, and manufacturing capabilities of leading players in the air-cooled heat exchanger market

+44 20 8123 2220
info@marketpublishers.com

Contents

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

13 AIR-COOLED HEAT EXCHANGER MARKET, BY REGION

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

16 APPENDIX

+44 20 8123 2220
info@marketpublishers.com

I would like to order

Product name: Air-Cooled Heat Exchanger Market by Structure, Material (Stainless Steel, Carbon Steel), Type (Induced Draft, Forced Draft), Fin Design, Capacity, End-Use Industry (Oil & Gas, Power Generation, Data Center), and Region - Global Forecast to 2029

Product link: https://marketpublishers.com/r/A59FD9DD2CF6EN.html

Price: US$ 4,950.00 (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/A59FD9DD2CF6EN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

**All fields are required

Custumer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html

To place an order via fax simply print this form, fill in the information below

+44 20 8123 2220
info@marketpublishers.com

and fax the completed form to +44 20 7900 3970