Circulating Fluidized Bed (CFB) Boiler Market by Product (Subcritical, Supercritical, Ultra-supercritical), Capacity (Less than 100 MW, 100-200 MW, 200-300 MW, 300 MW and Above), Fuel Type (Coal, Biomass, and Others), Application (Energy and Power, Industrial, and Others), and Region 2024-2032

Market Report | 2024-01-30 | 141 pages | IMARC Group

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Report description:

The global circulating fluidized bed (CFB) boiler market size reached US$ 770 Million in 2023. Looking forward, IMARC Group expects the market to reach US$ 1,150 Million by 2032, exhibiting a growth rate (CAGR) of 4.45% during 2024-2032. The escalating demand for large-scale energy generation across the globe, favorable government initiatives promoting the production and usage of clean energy, and considerable growth in the oil and gas industry represent some of the key factors driving the market.

Circulating fluidized bed (CFB) boilers refer to industrial boilers which are designed to provide high gas velocity in the furnace and provide maximum flexibility in burning fuels of varying flammability. They are capable of combusting different fuel compounds such as bituminous coal, brown coal, sludge, RPF (refuse paper and plastic fuel), waste tires, wood biomass, anthracite, and petroleum coke. In addition to this, these boilers offer higher combustion efficiency than conventional bubbling fluidized bed (BFB) boilers. CFB reactors address the heat removal issues that affect a fixed bed reactor and are used for coal combustion to achieve low emission standards. Circulating fluidized bed boilers are therefore an environmentally friendly alternative to coal-fired boilers as they aid in reducing carbon emissions. As a result, CFB boilers are primarily used for power generation, which effectively reduces carbon emissions. In addition to this, they provide fuel flexibility by effectively using low-grade coal and other industrial waste products to generate power.

Circulating Fluidized Bed (CFB) Boiler Market Trends:
The escalating demand for large-scale energy generation across the globe is a significant factor that is driving the market. This

can be attributed to a considerable rise in investments for the upgradation of industrial facilities, particularly in the developing economies. In line with this, favorable government initiatives promoting the production and usage of clean energy are providing an impetus to the market. Also, the augmenting need for reduced NOx (oxides of nitrogen) and COx (oxides of carbon) emissions on the global level is resulting in a higher uptake of CFB boilers across numerous end-use industries. However, the high maintenance cost of CFB boilers, lower possibility of casting materials and the depletion of fossil fuels are acting as major growth-restraining factors for the market. On the contrary, the usage of lower amount of fuel as compared to the higher amount of high temperature materials present inside CFB boiler chambers is creating a positive outlook for the market. Apart from this, the market is further fueled by considerable growth in the oil and gas industry. Some of the other factors contributing to the market include rapid urbanization and industrialization, proliferation of the manufacturing industry, rising environmental concerns, and extensive research and development (R&D) activities conducted by the key players.

Key Market Segmentation:
IMARC Group provides an analysis of the key trends in each segment of the global Circulating Fluidized Bed (CFB) boiler market, along with forecasts at the global, regional, and country level from 2024-2032. Our report has categorized the market based on product, capacity, fuel type, and application.

Product Insights

Subcritical
Supercritical
Ultra-supercritical

The report has provided a detailed breakup and analysis of the Circulating Fluidized Bed (CFB) boiler market based on the product. This includes subcritical, supercritical, and ultra-supercritical. According to the report, subcritical represented the largest segment.

Capacity Insights

Less than 100 MW
100-200 MW
200-300 MW
300 MW and Above

The report has provided a detailed breakup and analysis of the Circulating Fluidized Bed (CFB) boiler market based on the capacity. This includes less than 100 MW, 100-200 MW, 200-300 MW, and 300 MW and above. According to the report, 100-200 MW represented the largest segment.

Fuel Type Insights

Coal
Biomass
Others

The report has provided a detailed breakup and analysis of the Circulating Fluidized Bed (CFB) boiler market based on the fuel type. This includes coal, biomass, and others. According to the report, coal represented the largest segment.

Application Insights

Energy and Power
Industrial
Others

A detailed breakup and analysis of the Circulating Fluidized Bed (CFB) boiler market based on the application has also been provided in the report. This includes energy and power, industrial, and others. According to the report, energy and power accounted for the largest market share.

Regional Insights:

North America
United States
Canada
Europe
Germany
France
United Kingdom
Italy
Spain
Russia
Others
Asia Pacific
China
Japan
India
South Korea
Australia
Indonesia
Others
Latin America
Brazil
Mexico
Others
Middle East and Africa

The report has also provided a comprehensive analysis of all the major regional markets that include Asia Pacific (the United States and Canada); Asia-Pacific (China, Japan, India, South Korea, Australia, Indonesia, and others); Europe (Germany, France, the United Kingdom, Italy, Spain, Russia, and others); Latin America (Brazil, Mexico, and others); and Middle East and Africa. According to the report, Asia-Pacific was the largest market for Circulating Fluidized Bed (CFB) boiler. Some of the factors driving the Asia-Pacific Circulating Fluidized Bed (CFB) boiler market include considerable growth in the oil and gas industry, rapid industrialization, growing environmental concerns, extensive research and development (R&D) activities focusing on infrastructure development, etc.

Competitive Landscape
The report has also provided a comprehensive analysis of the competitive landscape in the global Circulating Fluidized Bed (CFB) boiler market. Detailed profiles of all major companies have also been provided. Some of the companies covered include Andritz

AG, Babcock & Wilcox Enterprises Inc., Formosa Heavy Industries Corp. (Formosa Plastics Corporation), General Electric Company, Industrial Boilers America, JFE Engineering Corporation (JFE Holdings Inc.), Rafako S.A., Shanghai Electric, Sumitomo Heavy Industries Ltd., Valmet Oyj, Wuxi ZOZEN Boiler Co. Ltd., etc.

Key Questions Answered in This Report:
How has the global Circulating Fluidized Bed (CFB) boiler market performed so far and how will it perform in the coming years?
What are the drivers, restraints, and opportunities in the global Circulating Fluidized Bed (CFB) boiler market?
What are the key regional markets?
Which countries represent the most attractive Circulating Fluidized Bed (CFB) boiler markets?
What is the breakup of the market based on the product?
What is the breakup of the market based on the capacity?
What is the breakup of the market based on the fuel type?
What is the breakup of the market based on the application?
What is the competitive structure of the global Circulating Fluidized Bed (CFB) boiler market?
Who are the key players/companies in the global Circulating Fluidized Bed (CFB) boiler market?

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