WATER TREATMENT

At Avlon Inc., we are driven by a singular vision — delivering smart, sustainable, and scalable engineering solutions that address the critical needs of water, energy, and environment. With a proven track record across the Philippines and Southeast Asia, we specialize in technologies that serve industries, communities, and the planet.

In the energy sector, we develop coal and biomass-based power plants with emphasis on low emissions and high performance. Additionally, our waste-to-energy (WtE) power plants convert municipal and industrial waste into valuable energy, promoting circular economy principles.

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Who We Are

About Us

With over 35 years of expertise in wastewater treatment plant, air pollution control equipment's, industrial steam boiler including power plants and oil refinery design, engineering, construction and commissioning, AVLON has been a trusted industry leader since 1980. Renowned for excellence, we have played a key role in pioneering projects across India's oil and refinery sector, setting new standards in quality and innovation.

In 2015, AVLON expanded its operations to the Philippines, establishing itself as a premier integration contractor in the Energy and Environmental Sector. We operate with a strong infrastructure, including state-of-the-art heavy lifting and construction tools, a full-scale fabrication shop, a vast warehouse, and an advanced design and engineering facility.

With a commitment to excellence and innovation, AVLON continues to lead the way in shaping the future of the Energy and Environmental Sector in Philippines.

Web: https://avlon-php.com

Email: hello@avloninc.com

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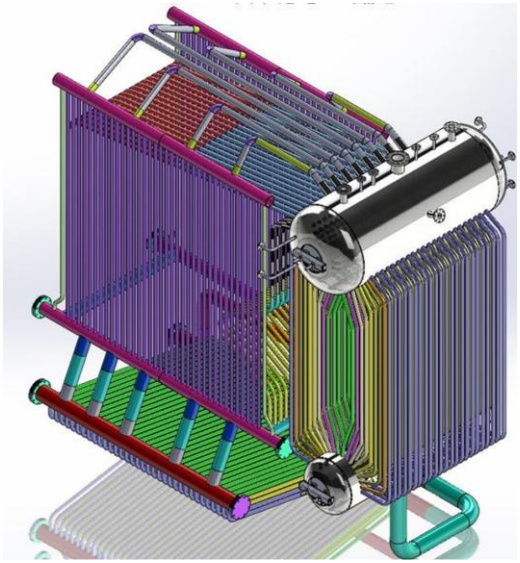
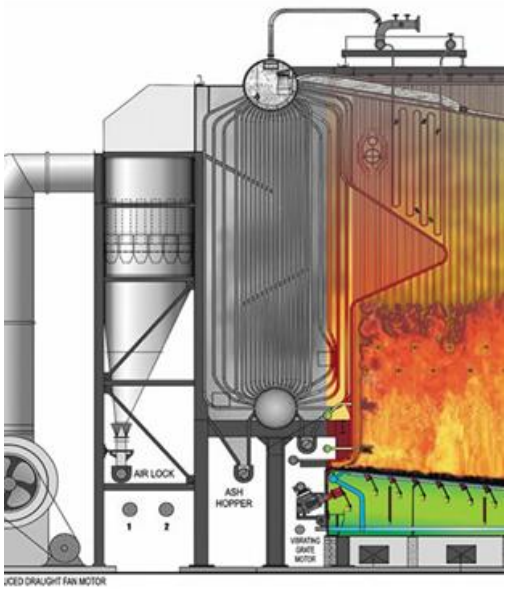


Avlon's Advanced FireMax – FMP Series High-Pressure Power Plant Boiler Technology

AVLON INC, UNIT 3B, KAVI BUILDING, E. RODRIGUEZ, JR. AVE, BAGUMBAYAN, QUEZON CITY, 1110 METRO MANILA, PHILIPPINES



The FireMax FMP Series boilers are advanced corner tube type high-pressure water tube boilers designed for power generation and large-scale industrial steam applications. This modern boiler configuration uses a single elevated steam drum combined with membrane wall furnace construction, which significantly improves structural integrity and reduces thermal stress compared to conventional multi-drum boiler designs. Because the drum is positioned outside the main flue gas path, the design minimizes direct heat exposure to the drum shell, allowing thinner shell construction, improved durability, and enhanced operational safety under high-pressure and high-temperature conditions.

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The boiler furnace is constructed using membrane wall tube panels, where closely spaced water tubes are welded together to form gas-tight walls around the combustion chamber. These membrane walls absorb radiant heat directly from the combustion process, rapidly converting circulating water into steam while maintaining efficient furnace cooling. The water circulation system operates through a network of downcomer pipes, bottom headers, and riser tubes, enabling fast water circulation and stable steam generation even during rapid load fluctuations. This design allows the boiler to respond quickly to varying steam demand while maintaining steady drum water levels and consistent steam pressure.

To maximize energy efficiency, the FireMax FMP Series incorporates advanced heat recovery systems, including pressurized economizers and air pre-heaters that utilize residual heat from the flue gases to preheat incoming feedwater and combustion air. This improves overall thermal efficiency and reduces fuel consumption. The boiler also integrates primary and secondary steam purification systems within the steam drum to ensure high steam purity, which is essential for protecting steam turbines and other high-precision industrial equipment from scaling and contamination.

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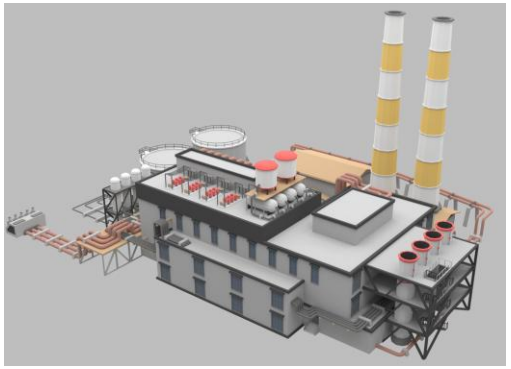

Avlon's FireMax FMP Series boilers are engineered with robust structural support systems, minimal drum connections, welded tube panel construction, and advanced automation controls to ensure reliable long-term operation. The design allows online cleaning and easy access for maintenance, reducing downtime and improving plant availability. With the capability to operate with a wide range of solid fuels and designed in compliance with Philippine National Standards (PNS) and Department of Labor and Employment (DOLE) regulations, the FireMax FMP Series provides a dependable and high-efficiency steam generation solution for power plants and large industrial facilities requiring continuous high-load performance.

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