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.

AVLON
Solutions Within...

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

AVLON
Solutions Within...

Avlon's Advanced FireMax – FMM Series Multi-Fuel Steam Boiler Technology

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

The FireMax FMM Series boilers are advanced three-pass fully wet-back steam boilers with an internal furnace design, engineered to deliver reliable steam generation for medium-capacity industrial applications. The integrated furnace configuration allows direct radiant heat transfer from the combustion zone to the surrounding water, significantly improving thermal efficiency and ensuring stable steam generation. The three-pass flue gas flow path maximizes heat recovery by allowing the hot combustion gases to transfer their energy through successive heating surfaces before exiting the boiler, resulting in improved fuel utilization and consistent performance.

AVLON
Solutions Within...

In the FireMax FMM Series design, combustion takes place within the internal furnace chamber where fuel is introduced through an automated top fuel feeding system connected to a storage bunker located above the boiler. The fuel transport system can be configured with gravity-fed gates, screw conveyors, scraper conveyors, or belt feeding mechanisms, depending on the fuel characteristics. A forced draft fan supplies controlled airflow into the furnace while the induced draft fan maintains negative pressure inside the combustion chamber, ensuring stable combustion conditions and safe operation.

Efficient combustion is achieved through the controlled distribution of primary and secondary combustion air. Primary air enters through specially designed openings beneath the grate, supporting initial fuel ignition and maintaining the combustion bed. Secondary air is introduced above the furnace to create a swirling flame pattern that enhances mixing between fuel gases and oxygen. This optimized combustion process ensures complete burning of volatile gases, minimizes unburned fuel losses, and significantly reduces the formation of clinker and ash deposits.

AVLON
Solutions Within...

Avlon's FireMax FMM Series boilers are equipped with comprehensive automation, safety interlocks, and auxiliary equipment to ensure reliable and efficient operation. The system includes components such as chain grate stokers, grit arrestors, feedwater pumps, soot blowers, automatic TDS control systems, and advanced control panels for monitoring critical operating parameters. Designed in compliance with Philippine National Standards (PNS) and Department of Labor and Employment (DOLE) safety regulations, the FireMax FMM Series provides industries with a durable, fuel-flexible, and safe steam generation solution capable of supporting continuous industrial processes.

AVLON
Solutions Within...