

BABCOCK & WILCOX VØLUND DELIVER ADVANCED COMBUSTION TECHNOLOGY TO BIOETHANOL PLANT

While we are still waiting in Denmark, Babcock & Wilcox Vølund have started delivering equipment for a bioethanol plant in Belgium.



BABCOCK & WILCOX VØLUND APS IS AN INTERNATIONAL SUPPLIER OF PLANTS FOR INTEGRATED THERMAL TREATMENT OF WASTE AND COMBUSTION OF MULTIPLE FUELS.

IT IS A WHOLLY-OWNED SUBSIDIARY OF THE BABCOCK & WILCOX COMPANY (B&W), A UNIT OF McDERMOTT INTERNATIONAL, INC.

B&W DESIGNS, MANUFACTURES, INSTALLS AND PROVIDES PRODUCTS AND SERVICES FOR STEAM-GENERATING AND ENVIRONMENTAL EQUIPMENT FOR THE ELECTRIC UTILITY, PULP & PAPER AND INDUSTRIAL MARKETS WORLD-WIDE.

THROUGH INDUSTRIAL DEVELOPMENT AND RESEARCH BABCOCK & WILCOX VØLUND IMPLEMENTS THE LATEST COMBUSTION AND BOILER TECHNOLOGIES WHICH ENSURE HIGH EFFICIENCY AND LOW EMISSION PLANTS, DESIGNED WITH MINIMAL EFFECT TO THE ENVIRONMENT FOR SUSTAINABLE ENERGY PRODUCTION.



WATER-COOLED VIBRATING GRATE

Alternative fuels currently make up only a small percentage of the market for fuel for the transport sector, but the EU target is for bioethanol to make up 6% by 2010. As a result, a number of first-generation bioethanol plants are being constructed in the EU in order to keep up with demand on the market.

Production of bioethanol from wheat and other types of biomass is a very energy-demanding process. Before the grain can be used for such production, it is processed, and the waste product consists of husks and chaff. Babcock & Wilcox Vølund (BWV) have been working on and developing combustion technology for straw for many years, and it is this know-how that forms the basis for the new facility in Belgium. The combustion process will convert the waste products into energy, which is recycled for ethanol production. The facility will be capable of burning 20 tons per hour. This ensures optimum use of the grain, and the ethanol plant covers a large percentage of its energy consumption – almost 80% of the energy consumption of the plant – including 20 MW electricity.

REQUIREMENTS FOR SPECIAL BOILER TECHNOLOGY

BWV's technology has been developed for burning biomass on a water-cooled

vibrating grate. The fuel forms an ash that has a low melting point, and it requires very specific boiler technology in order to produce steam without major operating problems. This unique know-how is being used for a new bioethanol plant to be constructed in the Belgian town of Wanze. Once the plant is in full production by the end of 2008, it will produce 758,000 litres of alcohol per day.

EXPECTING GREAT DEMAND

The owner of the new plant is Biowanze SA, which is part of the German sugar group Südzucker AG. BWV's delivery consists of: fuel input system, combustion grate, boiler and flue gas purification system. The whole delivery of BWV has a value of approximately 200 million DKK. BWV is expecting great demand for such systems, as there are around 50 projects involving establishment of bioethanol plants at various stages in the EU aiming to fulfil the EU Commission's target.

In general, we are seeing increasing interest in energy production based on biomass. This is due to increasing interest in trading CO₂ certificates for electricity produced from biomass and a desire to reduce dependence on imported oil. BWV recently sold a licence for gasification technology to a German partner.

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Babcock & Wilcox Vølund

FALKEVEJ 2
DK-6705 ESBJERG Ø
DENMARK

TEL: +45 76 14 34 00
FAX: +45 76 14 36 00
WWW.VOLUND.DK