

technical consulting services. Through its recent acquisition in engineering customized ceramic products and the growth of its COdiNOx® exhaust gas purifying system, Welna Trade has successfully expanded its technology base and product platform into new material applications and markets. Welna Trade is now also able to provide its customers with more complete industrial systems, since many of the products it distributes complement the FRP products manufactured by Welna Synthetics.

The markets

Pulp and paper market

The pulp and paper industry in Europe is concentrated primarily in Scandinavia and, to a lesser extent, Germany. Due to stringent regulations on the quality of air and water emissions from pulp and paper factories in these countries, high-end thermoplastic-lined FRP systems are already in wide use. The company believes that such stringent regulations will become the standard throughout Europe due to the requirements for admission into the European Union. This should increase demand for engineered FRP products in Europe, and Welna, through its operations in Poland and Latvia, is well-positioned to capitalize on this potential growth.

Chemical and petrochemical market

The demand for engineered FRP products in this market is driven by the need for corrosion-resistant materials for the containment and transmission of corrosive substances (e.g. chlorine) and acids. These are typically used in ultra-high purity processes for microelectronics, food and beverage, pharmaceutical, and biotechnology applications. This will be a growth market for the company.

Power generation market

Due to the historically strict and widely

implemented regulations on emissions controls in Western Europe, most coal and gas fuel plants in Germany, the United Kingdom, Belgium, and Scandinavia have installed complete flue gas desulphurization systems. Hence, the demand for FRP scrubbers, stacks, stack liners, and other environmental equipment in this market will likely be driven by the initial stages of new construction or “repowering.” Denali believes that repowering will account for the replacement of more than 50 percent of existing power generating equipment over the next 20 years, and such growth for the kind of engineered FRP products manufactured by the company will be driven by the increasing need for NO_x and SO₂ control systems in the emerging economies of Eastern Europe.

Water and wastewater market

As in the United States, Denali believes population growth, increased industrialization, and a global trend towards urbanization will be the primary growth drivers for the company’s fiberglass tanks and piping systems used by the water/wastewater market. With the exception of Eastern Europe, the European market for engineered FRP products used in water treatment applications is more developed than the United States, and continues to grow.



Fibercast's F-Chem large diameter filament wound piping, delivered to the Malitbog Geothermal Power Plant in the Philippines, the largest geothermal plant in the world. It is used in the plant's cooling water section.



Two oxy-generators and piping delivered to Hoogovens Steelwork in the Netherlands. These generators are used to treat wastewater.