

Aperam Gueugnon - Ultra-resistant pumps for severe conditions

Former Arcelor Mittal subsidiary, Aperam produces and sells stainless steel. The Gueugnon site, specialist in flat stainless steels, is equipped with ultra-resistant, anti-corrosive, plastic SOMEFLU pumps for use on charged acids at high temperatures.

Electrical goods, construction and car industries are amongst Aperam Gueugnon's first clients and are challenging markets in which to operate. For this reason, the Bourgogne-based manufacturer of flat stainless steel (plates, sheets, bobbins etc) has invested in anti-corrosive plastic SOMEFLU pumps for their high resistance to corrosive and charged fluids and to high temperatures. Metallurgy, with its challenging processing requirements which are amongst the most difficult in terms of exploitation, is thereby positioning itself at the forefront of industrial innovation. Christian Dufour, project manager in the 1st annealing production department at Aperam Gueugnon says: *"The base material arrives from Belgium, initially as untreated bobbins (350,000 tonnes per year). The sheet metal processing is then carried out at Aperam Gueugnon. This consists of annealing and stripping the metal to give it the right structure before moving onto the final product. The anti-corrosive SOMEFLU pumps are used at the chemical stripping, or pickling, stage of steel processing. Strips are soaked in vats of acid in order to remove oxide. These robust pumps are used to fill the vats with this very corrosive acid."*



due to the highly corrosive nature of the fluids. The SOMEFLU pumps are in continuous operation in corrosive environments, 24h/24h, 365 days/year and no production downtime is possible. For stripping stainless steel, Aperam Gueugnon uses about thirty anti-corrosive SOMEFLU pumps, which adhere to NFE 44121-ISO 2858- ISO 5199 NP series standards, on various vats: five containing hydrochloric acid, one hydrofluoric acid and one nitric acid. "Since 2000, the use of technical plastic pumps has become essential", says Christian Dufour. Before adding: "No other material apart from plastic is sufficiently resistant to the fluids being transported". With acids that are sometimes heated to 70 degrees and charged with suspended matter, the thick-layered, solid polypropylene SOMEFLU pumps are equipped with a double seal for the most challenging of applications. Some of the technical specifications of the SOMEFLU pumps (type of seal, mechanical seals...) make them particularly robust. In the

future, in order to ensure the correct functioning of seals, a study into the working environment of a pump could be introduced at Aperam Gueugnon. By improving the quality of the water supply, the reliability of the innovative SOMEFLU pumping solution could be extended even further in the long term.



SOMEFLU: a reliable pumping solution
Given the difficult operating conditions that pumps are subjected to in the metal-working industry, a reliable pumping solution is absolutely essential

