

JOINING FORCES TO SOLVE PUMPING CHALLENGES IN THE MINERAL AND METAL PROCESSING INDUSTRY

Sulzer Pumps Equipment is a worldwide organization with an experienced team of product development and sales engineers specialized in demanding pumping processes. Through revolutionary methods, Sulzer has improved the performance and reliability of its pumps and equipment.

Sulzer's pumping expertise has been strengthened by the knowledge accumulated through mergers and acquisitions, the most recent being the acquisition of Ensival Moret, a part of Moret Industries, in February 2017. Ensival Moret is an innovations provider with more than a hundred years of experience in the design and manufacturing of pumps. The company offers reliable technical solutions and high-quality products. This acquisition brings two leading portfolios with complementary products together in one powerful offering.

More than 20 years of global experience in metals processing, in different applications and with different raw materials, and the thorough understanding of the processes and applications makes Sulzer a reliable pump supplier. Lx-Sx-Ew (leaching, solvent extraction, electro winning) processes are typically hot, corrosive and abrasive, and that is why the pump and seal types must meet the corresponding requirements. Understanding the application, the corrosive and abrasive characteristics of the fluid, and the flow demands combined with our leading material technology ensure an optimal solution for each plant.

The energy efficiency of Sulzer's pumping



Fig 2: Heavy duty slurry pump type Ensival Moret EMW with high abrasion and corrosion resistance

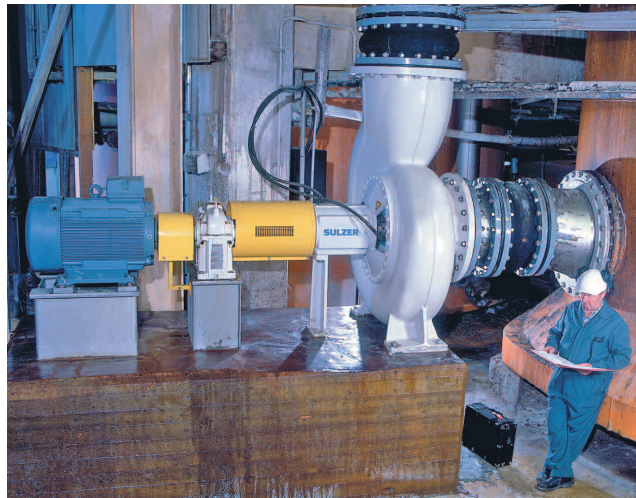


Fig 1: AHLSTAR WPP/T wear resistant pump range is tailor-made for abrasive and corrosive conditions

systems is high and, therefore, cost savings will occur whenever the plant is running. The most significant savings in the energy consumption of a pumping system can be achieved by selecting the most appropriate pump technology with premium efficiency for the specific application. This selection process starts by gaining a complete understanding of the application, the corrosive and abrasive characteristics of the fluid, and the flow demands. This information is then brought together with Sulzer's comprehensive knowledge of pumping technologies to deliver the most appropriate pump that will provide optimum performance and energy savings. Matching the most appropriate pump construction with the optimum impeller design will result in a cost-effective solution, both in terms of initial capital investment and long-term operating costs.

For slurry and minerals, Ensival Moret has supplied solids-handling pumps to various industries for several decades. Most recently, the company developed a new product line of heavy-duty solids-handling pumps. The design of this EMW pump is based on solid field experience coupled with the latest fluid flow modeling technology and finite element analysis. It offers high hydraulic efficiencies for optimized wear life performance in difficult solids-handling applications. To enable this level of performance, the hydraulic components of the EMW pump are available in both hard iron and replaceable rubber liners. In addition,

there are different sealing options: packed glands, dynamic seals, and mechanical seals.

The highest costs in mines are derived from the supply of water and power. When considering possible savings, one aspect is to try to reduce the individual equipment costs and another is to develop the mine's processes to be more economical as a whole. Dealing with pumping challenges plays an important role in both considerations. In mine dewatering applications where submersible drainage and sludge pumps are needed, reduced handling damage - even with advanced electronics inside the

pumps - can be achieved by selecting the right types of pumps. The electronic intelligence of Sulzer's submersible drainage and sludge pumps can put an end to capacity problems at the start-up by correcting for improper phase



Fig. 3. Sulzer submersible drainage and sludge pumps XJ/XJS for mines

order. Built-in intelligence incorporates control and monitoring functions into the pump's power line. It warns if a primary seal is showing signs of failing, which allows the customer to plan the pump change in time - before the leakage makes its way to the starter and causes a much more expensive repair.

Sulzer Pumps Finland Oy
P.O.Box 66, FI-48601 Kotka, Finland
Phone: +358 10234 3333
merja.parssinen@sulzer.com
www.sulzer.com