

Wastewater

From wastewater to sludg

Egger is present in many areas of wastewater treatment from pumping raw sewage, sand and water mixtures, primary sludge, recirculation, recycle digested sludge to other secondary sludge such as lime water and activated carbon suspensions. The liquids involved in these processes may be strongly abrasive or corrosive, or they may be multi-phase mixtures with a high gas content. As a specialist in pumping fluids containing solid matter and gas we accept any challenge. Our Iris® diaphragm control valves also offer the perfect solution for precise control of liquids and gases.

Raw sewage

Over recent years, the composition of wastewater has changed and pumping raw sewage has become increasingly challenging. Problems and related pump failures have steadily increased. This is due to a decline in drinking water resources, accompanied by an increase in suspended solids and an increased concentration of organic matter in wastewater.

The problem is set to intensify further

Due to decreasing wastewater treatment capacity at many pump stations, the problem is set to intensify further. The decrease in velocity in the collector, combined with pumps and, in particular, the flow pattern also increases the risk of blockages. A further problem

New impeller tackles the clogging problem

For decades, Egger Turo® vortex pumps have proven successful in pumping wastewater. Changes to the composition of raw sewage present a particular challenge in itself. During extensive research and field trials, Egger developed an impeller which is specially designed to tackle clogging problems and thus added a new TA wastewater impeller to the tried and trusted range of Turo®



the modular system of our Turo® vortex pump. All types of design (submerged, dry mounted with vertical and horizontal configuration, close-coupled or bearing frame pumps, shaft or cantilever) are available.







plants to save energy.

Efficient control of air v

Over recent years, the Iris[®] diaphragm control valve has been tried and tested in hundreds of wastewater treatment plants where it is primarily used to efficiently control air volumes in activated sludge tanks. Through its unique design with a continuously variable cross section (similar to a camera aperture) and its central axis of flow, air volumes can be precisely controlled in a reproducible way. The virtually linear control characteristics across the valve's complete

activated sludge and also for coating centrifuges with digested sludge. Corresponding hard-wearing material combinations are available for abrasive fluids.

We support you with our experience

We would be delighted to show you how you too can save energy with our Iris[®] diaphragm control valves. Using our own i-valve calculation program, we would be happy to create system-dependent control characteristics for your appli-



Sludge treatment

Sludge handling plays a central role in wastewater treatment and also poses particular challenges in terms of space and energy consumption. Egger has extensive experience in this stage of treatment in the following areas:

- drawing off primary sludge during the treatment process
- conveying sludge across long distances
- sludge circulation in digestion towers
- coating digestion towers.

Trouble free operation than



Swiss Engineered Pumps
since 1947

Our products, our expertise

Each Egger pump is unique, custom-tailored and assembled on a modular basis or even designed individually and in our many years of practice, we have gained extensive experience with the most varied media. Our pump experts will be pleased to advise you on cost-effective solutions for your applications.

Turo® vortex pumps T

This range offers a completely open spherical channel as a result of the recessed impeller, with only 15% of the pumped medium coming into contact with the impeller. Turo® pumps are therefore used, vice-versa, for gentle pumping of sludge of all kinds, municipal and industrial waste water, high concentrations of fibrous suspensions, chemical and crystalline suspensions or viscous materials.

New development: Turo® TA impeller

Special impeller for pumping raw sewage in municipalities with high levels of textiles that tend to wrap around the blades. Fully integrated into our Turo® vortex pump's modular system, the impeller is hydraulically optimised for this requirement.

Process pumps EO/EOS

The high-performance pump for homogeneous liquids containing high concentrations of solids and high gas content. Different impellers for large and small particle sizes mean that this pump is also suitable for the conveying of demanding media in the chemical and petrochemical industries, from multi-phase mixtures for reactor loops or aerated fibrous suspensions in the paper and pulp industry. Process pumps are frequently used in waste water technology and with numerous abrasive and viscous media.

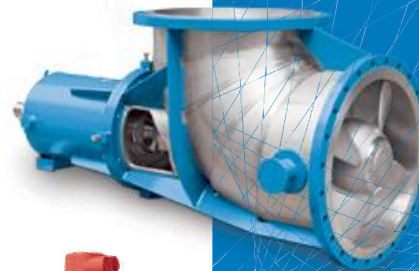
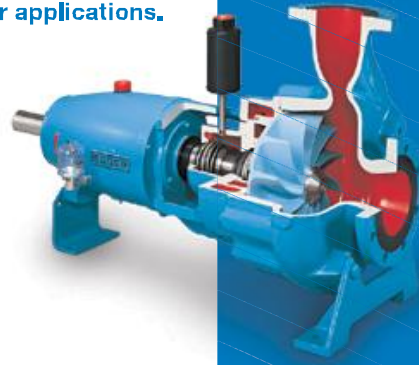
Elbow propeller pumps RPP/RPG

The ideal pump with excellent suction performance for large flow rates (up to 7,000 l/s) with low discharge heads available with a welded or cast design depending on requirements. The design eliminates seals or deposits in the medium. Egger has considerable experience in vaporisation plants, reactor loops, crystallisation plants, pumping stations and sludge recirculation.

Iris® diaphragm control valve BS

Patented control valve for the precise and cost-effective control of solids-laden or pure liquids and gases at low pressure drop. High-precision, energy-saving control of the flow through concentric Iris® diaphragms and a flow-optimised design. Iris® diaphragm control valves are suitable, vice-versa, for the control of air for aeration, gases in the chemical industry and in other industries and slurries and viscous materials, paper pulp and fibrous suspensions, bulk materials and drinking water.

There is an individual Egger solution for each medium, set of challenging operating conditions and critical environments. Tell us your specifications.



Emile Egger & Cie SA

Egger is a medium-sized independent Swiss company with subsidiaries in several countries. A key quality feature is that the whole production process – from development through to functional testing – is carried out under controlled conditions. 350 skilled employees represent the



Gradual development and internationalisation

Over the past 65 years, the company has developed from small beginnings to become a major manufacturer in the Swiss machine industry. As a result of careful expansion, the company has been able to preserve its independence and to this day remains a family business. We strive to stay close to our customers and, over the years, we have established subsidiaries in ten European countries, in Asia and in North America. A network of trading partners comple-



A corporate culture of ethical and social responsibility

Profit maximisation has never been central to the company's considerations and the attitude of the family owner is to a much greater extent characterised by a sense of responsibility as one of the



Focus on challenging media

A key focus of the company's operations to date has been to be at the forefront of the development and production of vortex pumps and process pumps for gas and solids-laden media. Other hydraulic solutions have also been produced for decades, including propeller pumps and special pumps for use in demanding environments as well as diaphragm control valves.

Quality pumps last longer

Parts and components undergo strict controls in the manufacturing process and the fully assembled pumps are also subjected to real operating conditions in our test area. The pumps have to show that they can operate with various technical parameters using water as the test medium. Egger tests its



The environment is our priority

The production of Egger pumps takes place in pristine surroundings near Neuchâtel. Contributing to the preservation of this remaining natural landscape is an important concern of the company.



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www.naef-werbung.ch - 1001.en - 10.2012



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