

Marcos Koyama: “Our equipment is efficient and reliable”



Sulzer Pumps is a leading supplier of centrifugal pumps. The product line ranges from standardized pumps through configured pumps to complex customized pumps. We spoke with Marcos Koyama—head of the Water and Wastewater business segment—about Sulzer pump technology and new opportunities after the acquisition of Cardo Flow Solutions.

Sulzer has been building centrifugal pumps since 1857. What are the current core competencies of Sulzer in the water and wastewater business?

To answer that, I have to go back in time. Since the beginning, we have had the unique ability to develop pumps optimized for specific applications, as, for example, for water transport. In the water transport business, it is very important that the equipment is highly efficient and robust and that it can provide reliable service for many years.

Additionally, when desalination became commercially feasible, we invested in one technology—called reverse osmosis—which today is the relevant technology for water desalination. We entered this business at the beginning, in the mid-1990s, and our talent to engineer highly efficient and reliable pumps allowed us to develop a strong presence there.

We were one of the first to use configured pumps in the desalination business and are now one of the market leaders. We recently also entered the market of large thermal desalination

plants (multieffect distillation, MED). This technology is now at a level to compete with advantages against the MSF (multistage flashing) technology.

In 2005, Sulzer acquired Johnston, a major player in the municipal business. Johnston has 100 years of experience in making vertical pumps. Already with this acquisition, we had an extensive product range and the talent to engineer products to solve unique challenges.

How does Cardo Flow Solutions enrich the product offering?

Sulzer was still not active in a big portion of the market because the wastewater market demanded submersible pumps. Sulzer did not have this technology and we only participated in the wastewater market with tailormade products. We have been looking for a way to penetrate this market for several years.

Now with the acquisition of Cardo Flow Solutions and its product brand ABS, we have integrated a company that is one of the leading companies in the market. It designs very efficient products, and it has a complete product portfolio specifically for the wastewater market,

such as aeration products, pumps, and agitators.

Where do you see great growth potential in the water and in the wastewater business?

The water and wastewater business is big and stable. There is approximately 5% growth per year on a global basis. Having solutions for both markets gives us very good opportunities to grow in the Americas and in Asia. Wastewater is driven by infrastructure projects, which are abundant in these geographical areas.

In Europe, the Middle East, and North Africa we expect to grow with desalination and water pipeline projects in addition to wastewater.

Sulzer Pumps manufactures standard and configured pumps, as well as engineered pumps—i.e., pumps that are optimized for a specific application. Which approach prevails in the water and wastewater business?

Standard pumps are already fully configured and are mass produced. Configured pumps are something in-between

a standard and an engineered pump. The pumps are configured using different standard elements such as casings, impellers, materials, accessories, etc., but you need to have experience to be able to do a smart configuration for a specific application.

Engineered pumps are specially designed pumps for a specific application. Before the acquisition of Cardo Flow Solutions, Sulzer only had configured and engineered pumps.

Coming back to your question: In general terms, engineered products account for ca. 15% of the market in terms of value. Looking at the specific segments, it varies significantly. For example, in the municipal wastewater business, where ABS is strong, nearly all pumps are standard pumps. In the municipal and industrial water business, a mix between configured products and a smaller portion of standard products is required.

How can customers from Sulzer and from the former Cardo Flow Solutions profit from the now extended offering?

Our product portfolio now contains all products from Sulzer, Johnston, and ABS. Together, we have more than 300 years of experience and know-how. Our customers can profit from our presence with products and service all over the world.

We can cover all processes in the water industry—from production through transportation to freshwater treatment and decontamination. We have a huge spectrum of products and services to meet all their requirements. Furthermore, we are committed to continuous improvement to being even more energy efficient.

Are there any technological or legislative developments to which you are paying increased attention?

We take water for granted. However, a huge infrastructure is needed to bring water to your tap. Water is essential for life and also for industry. There are no

major industrial processes that can take place without water.

The growing awareness of the environment leads to stronger regulations in terms of water quality, water treatment, and energy efficiency. These developments lead to major investments. For example, no products that have contact with drinking water should contaminate the drinking water. For that reason, they must be made of certified materials.

Moreover, energy consumption is the biggest expense for our customers. Therefore, increased efficiency and reduced consumption is very important for them.

On top of that, a lot of energy is dissipated from pressurized water. When the pressure of water in the pipe is too high to use directly in a process, the pressure must be reduced. We are looking at technologies with which we may be able to recover this energy.

One last question: How long is the lifetime of a pump, and what is usually done when the lifetime is over?

Customers specify the lifetime expectancy of a pump—typically 25–30 years. But, to be honest, the expectation is that it will last longer. For example, a few years ago, I got an inquiry from Argentina from a customer that owned a pump that had been operating since 1929!

There is always an increase in demand for water. When a customer needs to pump more water through a given pipeline, we have the competence to redesign the pumping infrastructure. Usually, the strategy is to keep as much as possible of the given infrastructure and only replace where necessary.

Interview: Gabriel Barroso

Marcos Koyama

studied in Brazil in the state of São Paulo. He specialized in mechanics with two majors—machine design and production processes—and he holds a masters degree in industrial business management. He has been working in the pump industry for 35 years, and he has been working for Sulzer in various positions and locations for 29 years. He moved to Switzerland six years ago, and his current position is Head of Business Segment Water and Wastewater.

Sulzer Technical Review

The *Sulzer Technical Review (STR)* is a customer magazine produced by the Sulzer Corporation. It is published periodically in English and German and annually in Chinese. The articles are also available at: www.sulzer.com/str

3/2011

93rd year of the STR
ISSN 1660-9042

Publisher

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8401 Winterthur, Switzerland

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Interserv AG, Zürich

Design Concept

Partner & Partner AG, Winterthur

Design

Typografisches Atelier
Felix Muntwyler, Winterthur

Printers

Mattenbach AG, Winterthur

© November 2011

Reprints of articles and illustrations are permitted subject to the prior approval of the editor.

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Circulation: 16 000 copies.



Magno Satin 135 g/m²
from sustainably managed forests.

For readers in the United States of America only
The *Sulzer Technical Review* is published periodically by Sulzer Management Ltd., P.O. Box, 8401 Winterthur, Switzerland. Periodicals postage paid at Folcroft, PA, by US Mail Agent – La Poste, 700 Carpenters Crossing, Folcroft PA 19032.

Postmaster: Please send address changes to Sulzer Technical Review, P.O. Box 202, Folcroft PA 19032.