

New booster pump for desalination plants based on reverse osmosis

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Sulzer's ZF-RO combines experience and expert engineering for improved reliability and efficiency

Seawater reverse osmosis (SWRO) plants are playing an important role in supplying freshwater to communities that are struggling to find sufficient supplies. Sulzer is supporting these vital facilities with purpose-built pumps that are designed to optimize efficiency and reliability in this challenging application. The new ZF-RO is designed to match the technical requirements of energy recovery device (ERD) booster pump service. It combines the reliable design used in the ZF range, with extensive references for excellent efficiency both in hydrocarbon and desalination industries.

Freshwater is a vital resource that is diminishing in many areas of the world. Reverse osmosis is being used to treat seawater and create a cost-effective water supply for local communities. The cost to the consumers for their water is directly related to the running costs of the desalination plant. Consequently, optimizing efficiency and keeping maintenance costs to a minimum means that plant operators can ensure an affordable water supply.

The launch of the ZF-RO pump complements Sulzer's range of pumps that are specifically designed for operation in the desalination industry. The latest addition is tailored for delivering seawater, or similar liquids, across a wide performance range. For flexible operations, ZF-RO pumps are designed to operate with variable speed

drives, enabling them to meet the process specifications as the booster pump for energy recovery devices.

Based on the ZF range that has delivered decades of service in the hydrocarbons industry, the ZF-RO pumps are fully configured designs to ensure minimal delivery times and extended service life. Improved efficiency has been achieved through state-of-the-art hydraulic and mechanical design making a direct contribution to lowering the cost of fresh water to the local population.

Manufactured from Super Duplex stainless steel, which offers excellent protection against erosion and corrosion, these pumps feature excellent reliability. The minimal footprint of the pumps makes for a compact installation, maximizing the available space within a processing plant.

The new ZF-RO range is just part of a Sulzer's portfolio of pumps specifically designed for seawater reverse osmosis. For more information, visit [our website](#).

Image captions:



Image 1: The new ZF-RO pumps are ideal as booster pumps in reverse osmosis applications, directly contributing to lower costs of fresh water.

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Sulzer is a global leader in fluid engineering and chemical processing applications. We specialize in energy-efficient pumping, agitation, mixing, separation, purification, crystallization and polymerization technologies for fluids of all types. Our solutions enable carbon emission reductions, development of polymers from biological sources, recycling of plastic waste and textiles, and efficient power storage. Our customers benefit from our commitment to innovation, performance and quality through our responsive network of 160 world-class manufacturing facilities and service centers across the globe.

Sulzer has been headquartered in Winterthur, Switzerland, since 1834. In 2023, our 13'130 employees delivered revenues of CHF 3.3 billion. Our shares are traded on the SIX Swiss Exchange (SIX: SUN). www.sulzer.com

The Flow Equipment division specializes in pumping solutions specifically engineered for the processes of our customers. We provide pumps, agitators, compressors, grinders, screens and filters developed through intensive research and development in fluid dynamics and advanced materials. We are a market leader in pumping solutions for water, oil and gas, power, chemicals and most industrial segments. www.sulzer.com

Through a network of over 100 service sites around the world, Sulzer provides cutting-edge parts as well as maintenance and repair solutions for pumps, turbines, compressors, motors and generators. We service our own original equipment, but also all associated third-party rotating equipment run by our customers, maximizing its sustainability and life cycle cost-effectiveness. Our technology-based solutions, fast execution and expertise in complex maintenance projects are available at our customers' doorsteps. www.sulzer.com

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