

# SULZER

Water and wastewater solutions

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## Municipal water treatment, supply and distribution

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Clean water is essential to people and environments all over the world. Sulzer provides efficient solutions throughout the water cycle, from the water intake to the clean water tap. [sulzer.com/municipal-clean-water](http://sulzer.com/municipal-clean-water)

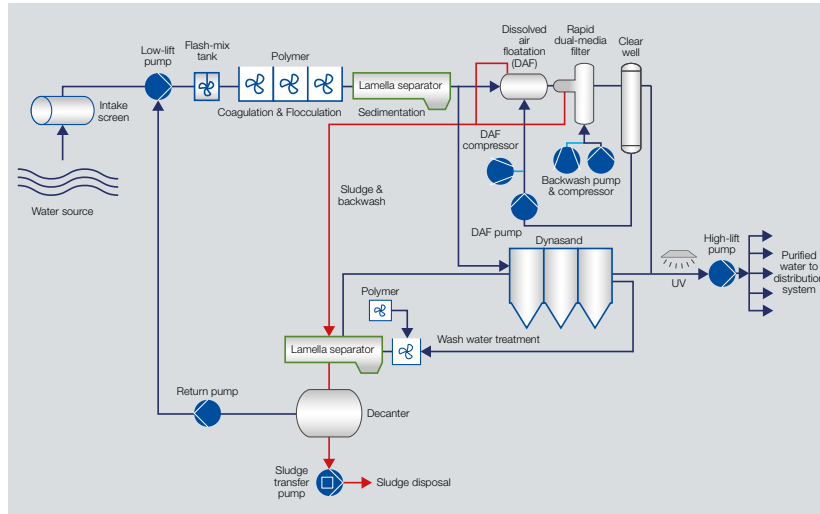


# Whatever the process, we have the solutions

## Municipal water treatment

When planning new water treatment plants or upgrading existing ones, operating costs are as important as investment costs. Sulzer's innovative pumps, mixers, compressors, screens and filters combine reliable treatment performance with superior energy efficiency.

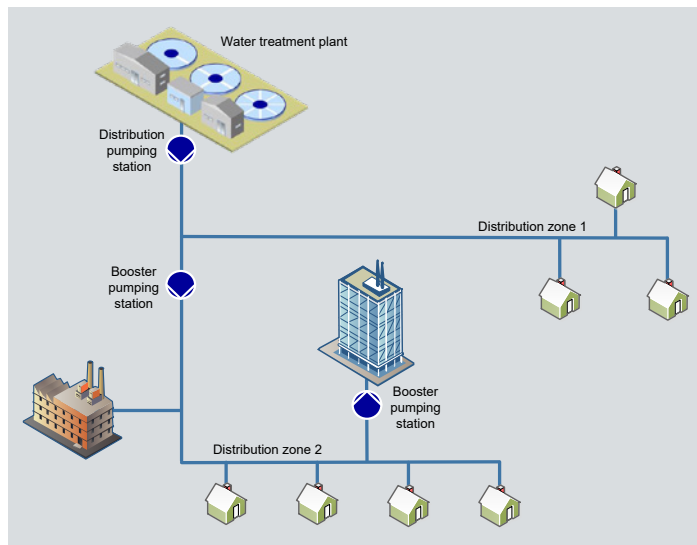
The Sulzer advantage is evident from the moment raw water is captured for your water treatment plant. No matter the process you apply in your water treatment plant, Sulzer will help you to ensure the most efficient and reliable operation, from the intake pumping station through the water treatment plant, including any service along the process.



## Municipal water supply and distribution

Getting drinking water to all parts of a distribution network involves many challenges along the way. From the water treatment plant through pumping stations and beyond, Sulzer pumps lift and move the drinking water to bring it to its destination at sufficient flow and pressure.

Our solutions are matched to each task for reliable performance and superior energy efficiency. From the water treatment plant to water tap, Sulzer makes the difference with innovative pumping solutions.



# Our comprehensive product portfolio

The Sulzer advantage is shown in the design and innovative construction of our equipment, including state-of-the-art hydraulics as well as robust and reliable mechanical designs. Other features, like our Premium Efficiency IE3 motors in our submersible pump range, the superior magnetic bearings of our near-silent turbocompressors and the DynaSand continuous sand filtration, further enhance energy efficiency.

The advantage also comes from our extensive knowledge and innovative tools. Using both, we can analyze your existing plant or a new plant design to recommend the ideal solutions for a complete upgrade or tailored new equipment.

## Overview of products per application

	Microscreen filter	Mixers and agitators	Settler	Continuous sand filter	Sludge scraper	Turbo-compressors
	DynaDisc	various	Lamella	DynaSand	Zickert	HST, HSR
<b>Water treatment</b>						
Inlet screening	●					
Sand / grit separation					●	
Coagulation and flocculation		●				
DAF – Dissolved Air Flotation						●
In-line coagulation				●		
Sedimentation			●		●	
Biological water treatment				●		
Wash water treatment		●	●		●	
Backwash						●

## Overview of products per application

	Axially split pumps	Vertical turbine pumps	Vertical multistage pumps	End-suction pumps	Submersible pumps	Progressing cavity pumps
	SMD	JTS	VMS	various	various	PC
<b>Water treatment</b>						
Inlet PS / intake / low lift	●	●		●	●	
Flocculation and sedimentation	●			●	●	
DAF – Dissolved Air Flotation	●			●	●	
Filtration	●			●	●	
Backwash	●			●		
Outlet PS / high lift	●	●	●	●		
Sludge transfer						●
<b>Water supply and distribution</b>						
Supply and distribution	●	●		●	●	
Boosting			●	●		

Our main clean water pumps are certified for the use of drinking water.



# Product overview

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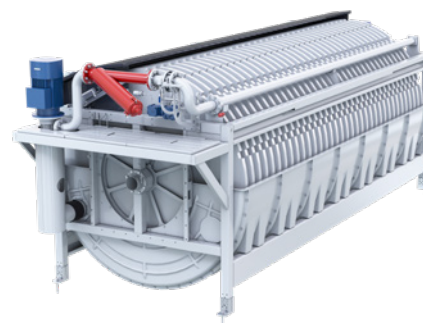
## DynaDisc microscreen filter by Nordic Water

### Features and benefits

- Well proven system for high filtration efficiencies
- Patented filter cassette for easy maintenance
- Integrated level tank increases lifetime of the filter cloths
- Already filtered water is used by the backwash system to protect the filter cloths
- Oscillating spray nozzles ensure an even and efficient cleaning and increases the lifetime of the filter cloth

### Key characteristics

Flow capacity	10- 50'000 m <sup>3</sup> /h
Filter area	up to 251 m <sup>2</sup> in a single unit
Filter cloth	10 µm and upwards



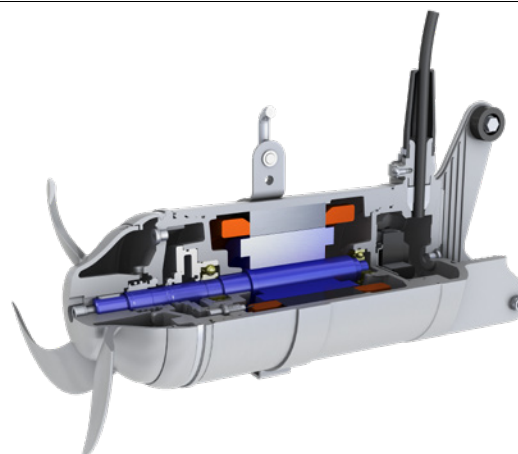
## Submersible mixer type ABS XRW

### Features and benefits

Very low energy consumption  
Easy upgrade of existing installations supported by a wide range of brackets and adapters  
Operational flexibility with variable speed to match the real mixing task and to manage changes throughout the year  
The robust design and the Premium Efficiency motor give superior reliability and long operating life

### Key characteristics

Capacities	up to 1.79 m <sup>3</sup> /s / 28'300 USgpm
Diameters	up to 900 mm / 35 in.
Temperatures	up to 40°C / 104°F



## Scaba top-mounted gear or belt driven agitator

### Features and benefits

- The top-mounted series covers gear or belt driven agitators
- Dry installed agitators rely on a deep process knowledge, which enable us to tailor-make the agitators to meet your specific need. This ensures the required process result with a minimum energy input
- Versatile impeller options
- High efficiency SHP propellers
- Good axial flow

### Key characteristics

Impeller diameter	up to 8'000 mm / 316 in.
Shaft length	up to 30 m / 100 ft.
Power	up to 450 kW / 600 hp



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## Lamella settler by Nordic Water

### Features and benefits

- Maximized settling efficiency with a reduced footprint at 10% of a traditional sedimentation tank
- Unique flow control system
- Inlet openings on the sides for uninterrupted settling
- Efficient separation of solids with basically no energy consumption
- Cleaning of lamella plates without water by the use of automatic cleaning robot CleanBot

### Key characteristics

Flow capacity 3 – 50'000 m<sup>3</sup>/h

Sedimentation area: Free-standing versions up to 165 m<sup>2</sup>, plate pack design for concrete basin to meet request



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## DynaSand™ continuous sand filter by Nordic Water

### Features and benefits

- Continuous filtration builds up secondary filter bed layer for better turbidity removal rates
- “Contact filtration”, in-line dosing and precipitation with coagulation and separation inside the filter
- Turbidity, color, COD as well as hygienic barrier to meet stringent drinking water standards
- Possibilities for mechanical, chemical and biological processes within the same filter unit
- Save up to 75% of energy and wash water usage with DynaSand wash water reduction
- Continuous operation sand filters – higher flows and loading capacities per unit than backwash operating filters

### Key characteristics

Flow capacity 3 – 50'000 m<sup>3</sup>/h

Filter area From 0.7 – 7 m<sup>2</sup> for a single free-standing / tank version unit

Concrete basin design as high as requested

Contact filtration saves up to 70% of footprint and 40% coagulation chemicals compared to conventional designs



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## Zickert sludge scrapers by Nordic Water

### Features and benefits

- Designed for continuous sludge transport in rectangular or circular shaped sedimentation tanks
- Hydrodynamically designed profiles provides sludge thickening effect
- Lowest part of sludge layer is removed while the more diluted sludge above remains, provides a dryer sludge which will facilitate dewatering, leading to efficiency improvement and energy savings
- Flexible design facilitating adaption to tanks with pillars or other obstructions inside

### Key characteristics

Bottom tank dimensions: Rectangular tanks max 100 m in length, max 12 m in width per scraper, parallel scrapers for wider tanks

Circular tanks up to Ø 50 m





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## HST™ turbocompressor

### Features and benefits

High efficiency, guaranteeing optimal life cycle costs  
Low noise: no need for additional soundproofing  
Wear-free, requiring minimal maintenance  
Simple design with integrated components  
Accurate flow measurement  
Vibration-free, ensuring less stress for pipe work  
Fully certified  
Operates alongside all types of conventional blowers

### Key characteristics

Flow	up to 16'000 Nm <sup>3</sup> /h / 10'200 SCFM
Pressure rise	up to 130 kPa / 18.9 psi
Motor power	75 to 400 kW / 100 to 500 hp



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## HSR turbocompressor

### Features and benefits

100% oil-free, environmentally friendly and safe  
Premium efficiency, low life cycle costs  
Wear-free, low maintenance costs  
Real-time monitoring secures the trouble-free operation  
Vibration-free, low machine noise  
Advanced liquid cooling system enables energy recovery

### Key characteristics

Flow	up to 56 m <sup>3</sup> /min / 2'000 CFM
Pressure rise	2 to 9 bar (g) / 43 to 139 psig
Motor power	115 to 325 kW / 154 to 436 hp



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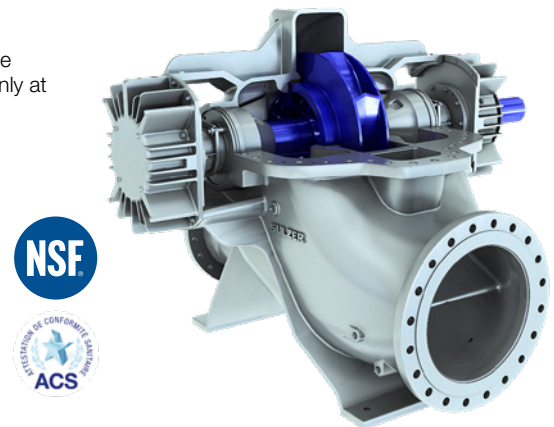
## SMD axially split casing double suction pump

### Features and benefits

- Optimum hydraulic fit with high efficiency maintained over a wider flow range
- Exceptionally low Net Positive Suction Head Required (NPSHR) value not only at the best efficiency point but also on overload
- Maintenance-friendly features; excellent interchangeability of parts
- Horizontal and vertical constructions

### Key characteristics

Capacities	up to 16'000 m <sup>3</sup> /h / 70'000 USgpm
Heads	up to 260 m / 850 ft.
Pressures	up to 34 bar / 490 psi
Temperatures	up to 140°C / 280°F



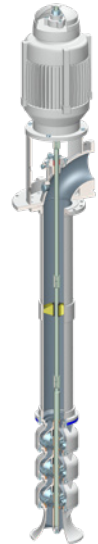
## JTS standard vertical turbine pump

### Features and benefits

- Reliable vertical turbine pump with standard configurations for short lead time that meets market demands
- Packed stuffing box for reliable sealing and simple maintenance, mechanical seal is optional
- Rubber-lined product-lubricated bearing in bowls and columns for long maintenance-free periods, other bearing materials are also available
- Suction bell provided with anti-vortex ribs, tail bearing, and replaceable wear rings or bowl liner
- Axial thrust bearing in pump or in motor

### Key characteristics

Capacities	up to 1'580 m <sup>3</sup> /h / 25'000 USgpm
Heads	up to 300 m / 1'000 ft.
Pressures	up to 36 bar / 524 psi
Temperatures	up to 85°C / 185°F



## VMS vertical multistage pump

### Features and benefits

- The reliable range VMS vertical multistage pumps offers state-of-the-art efficiency meeting Ecodesign ErP guideline requirements
- The modular construction makes the VMS range easy to select and adjust to the required application
- The low NPSHr, the high durability of selected materials, and maintenance free electric motors ensures high cost effectiveness throughout the entire pump life cycle

### Key characteristics

Capacities	1.90 - 160 m <sup>3</sup> /h / 8 - 705 USgpm
Heads	3 - 400 m / 10 - 1'312 ft.
Pressures	up to 40 bar / 363 psi
Temperatures	-20°C to +40°C / -4°F to +104°F



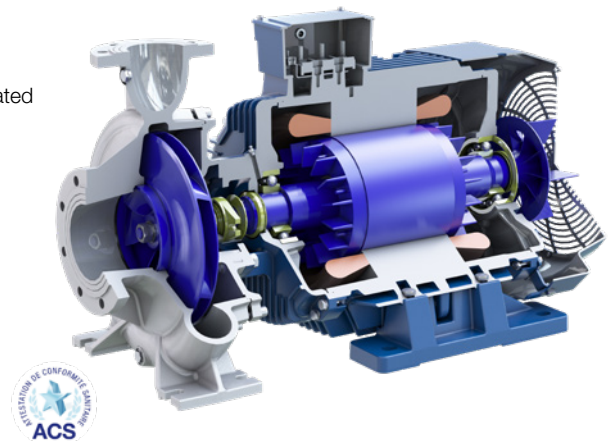
## End-suction centrifugal pumps SKS

### Features and benefits

- Designed to meet and exceed the EN733 international standard
- In conformity with EU's (European Union) requirements for energy-related products (ErP)
- Minimum installation footprint through monoblock design

### Key characteristics

Capacities	up to 825 m <sup>3</sup> /h (50 Hz) up to 800 m <sup>3</sup> /h / 3'522 USgpm (60 Hz)
Heads	up to 129 m (50 Hz) up to 113 m / 371 ft. (60 Hz)
Temperatures	-15°C / +90°C (+120°C on request) +5°F / +194°F (+248°F on request)
Motor power	up to 90 kW / 148 hp





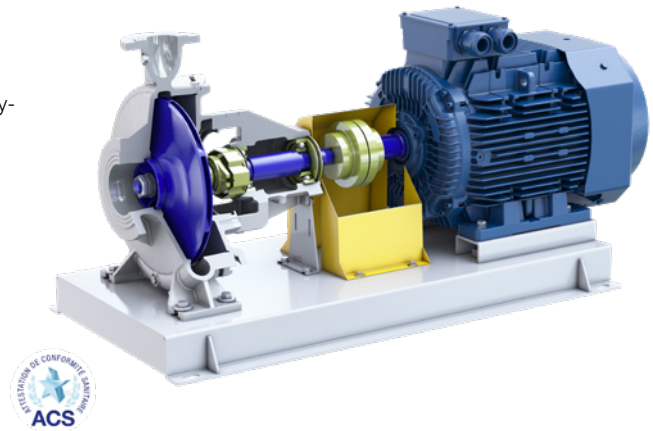
## End-suction centrifugal pumps SES

### Features and benefits

- Designed to meet and exceed the EN733 international standard
- In conformity with EU's (European Union) requirements for energy-related products (ErP)
- Easy maintenance with "back pull-out" design

### Key characteristics

Capacities	up to 2'000 m <sup>3</sup> /h (50 Hz) up to 2'700 m <sup>3</sup> /h / 11'889 USgpm (60 Hz)
Heads	up to 130 m (50 Hz) up to 120 m / 394 ft. (60 Hz)
Temperatures	-15°C / +90°C (+120°C on request) +5°F / +194°F (+248°F on request)
Motor power	up to 400 kW / 536 hp



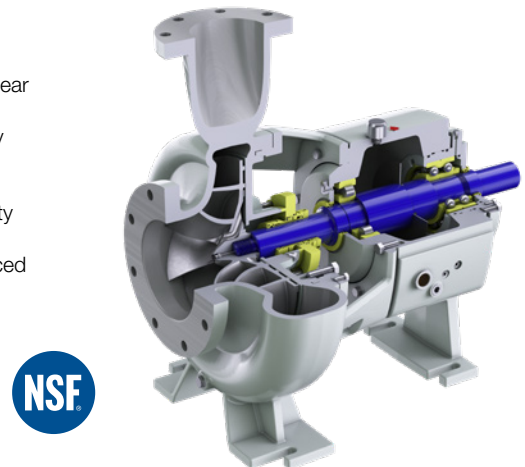
## CPE end-suction single-stage centrifugal pump

### Features and benefits

- The highest available efficiency on the ANSI process pump market providing clear savings in energy consumption:
- with optimal impeller selection, the CPE process pumps fulfill the Pump Energy Index (PEI) values set by the U.S Department of Energy (DOE) regulations and even achieve record-breaking PEI 0.83
- Maximized reliability thanks to improved shaft sealing conditions and heavy duty bearing unit
- High standardization, easy installation and robust construction equate to reduced maintenance and operating costs

### Key characteristics

Capacities	up to 1'650 m <sup>3</sup> /h / 7'000 USgpm
Heads	up to 275 m / 900 ft.
Pressures	up to 27.5 bar / 400 psi
Temperatures	up to 260°C / 500°F



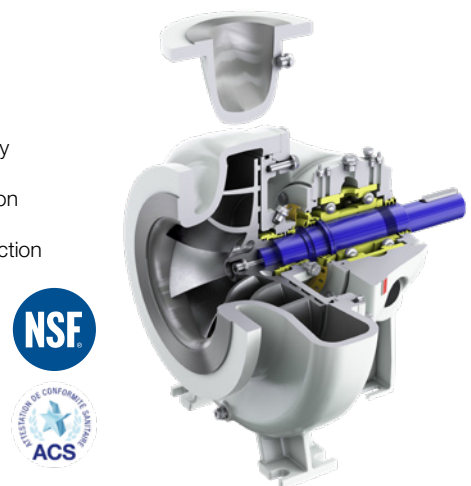
## SNS end-suction single-stage centrifugal pump

### Features and benefits

- Designed to meet the design requirement of EN ISO 5199 international standard
- Exceeding EU's (European Union) requirements for energy-related products (ErP)
- Highest efficiency across the whole pump range, exceeding the benchmark efficiency index MEI 0.7 (Minimum Efficiency Index)
- New, state-of-the art hydraulics ensure optimum capacity with low net positive suction head required (NPSHr)
- Low energy consumption, high standardization, easy installation and unique construction also equate to lower maintenance and operating costs

### Key characteristics

Capacities	up to 1'400 m <sup>3</sup> /h / 6'000 USgpm
Heads	up to 160 m / 525 ft.
Pressures	up to 16 bar / 230 psi
Temperatures	up to 120°C / 250°F



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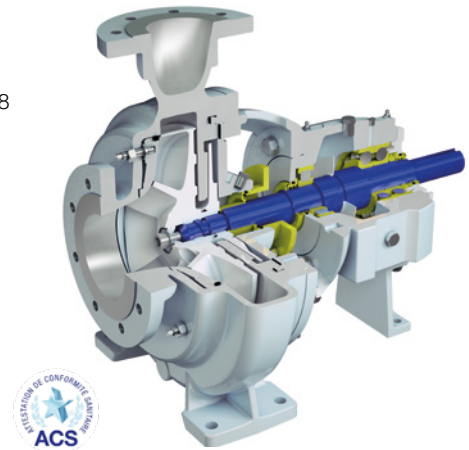
## AHLSTAR A end-suction single-stage centrifugal pump

### Features and benefits

- AHLSTAR pumps save energy, sealing water and environment
- Designed to meet the EN ISO 5199 standard, these pumps also comply to EN 22858 (ISO 2858) standard
- The modular interchangeability of parts and components enables low spare parts inventory
- The pump range offers the lowest total cost shaft seal concept, with dynamic seal, mechanical seals and packing
- Every AHLSTAR is designed for fast and easy installation, maintenance and service

### Key characteristics

Capacities	up to 11'000 m <sup>3</sup> /h / 48'400 USgpm
Heads	up to 160 m / 525 ft.
Pressures	up to 16 / 25 bar, 230 / 360 psi
Temperatures	up to 180°C / 356°F



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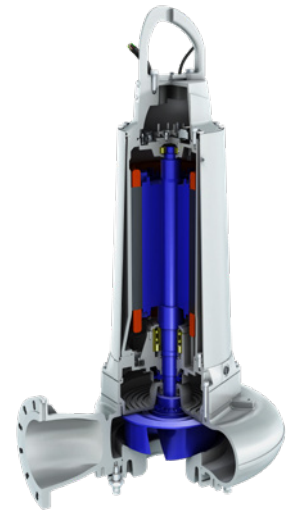
## Submersible sewage pumps type ABS XFP

### Features and benefits

- Premium Efficiency IE3 motor in accordance with IEC 60034-30
- Excellent rag handling
- Specially designed impellers for reliable delivery of wastewater containing solids and fibrous material
- Hazardous locations: Approval for ATEX (Ex II 2G Ex h db IIB T4 Gb), FM and CSA available
- Quick and easy installation, safe operation, easy maintenance and service

### Key characteristics

Capacities	up to 2'400 l/s (50 Hz) / 2'500 l/s / 39'600 USgpm (60 Hz)
Heads	up to 80 m (50 Hz) / 95 m / 310 ft. (60 Hz)
Temperatures	up to 40°C / 104°F
Motor power	up to 550 kW (50 Hz) / up to 620 kW / 830 hp (60 Hz)



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## Submersible mixed-flow column pump type ABS AFLX

### Features and benefits

- Premium Efficiency IE3 motor in accordance with IEC 60034-30
- Highly efficient three- to five-blade open-type mixed-flow impellers
- Low-vibration design and low-NPSH design
- Automatic self-centering of the pump and column pipe with a conical coupling ring
- Hazardous locations: Certification for ATEX (Ex II 2G Ex h db IIB T4 Gb), FM and CSA available as an option

### Key characteristics

Capacities	up to 3'100 l/s / 49'000 USgpm
Heads	up to 35 m (50 Hz) / 33 m / 108 ft. (60 Hz)
Temperatures	up to 40°C / 104°F
Motor power	up to 500 kW (50 Hz) / up to 468 kW / 628 hp (60 Hz)



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## Submersible propeller pump type ABS VUPX

### Features and benefits

- Premium Efficiency IE3 motor in accordance with IEC 60034-30
- Versatile range of axial-flow propellers
- Low-vibration design and Low-NPSH design
- Automatic self-centering of the pump and column pipe with a conical coupling ring
- Hazardous locations: certification for ATEX (Ex II 2G Ex h db IIB T4 Gb), FM and CSA available as an option

### Key characteristics

Capacities	up to 7'000 l/s (50 Hz) / 8'500 l/s / 134'700 USgpm (60 Hz)
Heads	up to 10 m / 33 ft.
Temperatures	up to 40°C / 104°F
Motor power	up to 650 kW (50 Hz) / up to 750 kW / 1'005 hp (60 Hz)



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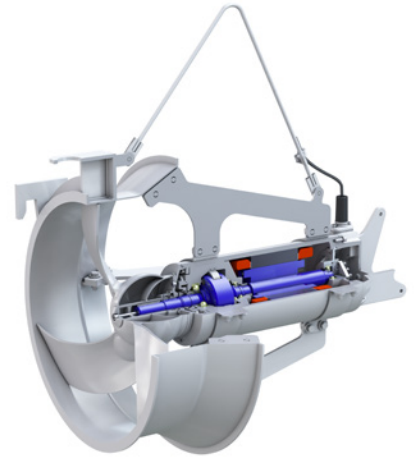
## Submersible recirculation pump type ABS XRCP

### Features and benefits

- Strongly designed for high reliability
- Premium Efficiency motor ensures lowest possible energy consumption
- No maintenance – lubricated for life
- Hydraulic-optimized stainless steel propeller ensures highest possible mixing performance

### Key characteristics

Capacities	up to 1.68 m <sup>3</sup> /s (50 Hz) / 1.62 m <sup>3</sup> /s / 25'680 USgpm (60 Hz)
Heads	up to 1.44 m / 4.7 ft.
Temperatures	up to 40°C / 104°F
Motor power	25 kW (50 Hz) / 25 kW / 33.5 hp (60 Hz)



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## PC transfer perform pump

### Features and benefits

- Saves time with maintain in place features, easy to de-rag and no need to disconnect the pipework
- Designed for use in sludge plants, where high reliability is essential and downtime is kept to a minimum
- An extension of the PC transfer pump with material variants for a wide range of process applications
- Robust drives and gearboxes with low running speeds form an integral part of the unit design

### Key characteristics

Capacities	up to 225 m <sup>3</sup> /h / 990 USgpm
Pressures	up to 12 bar / 170 psi
Temperatures	-10 to 100°C / 14 to 212°F



**Making water go around. Water and wastewater solutions by Sulzer.**

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Sulzer offers a broad range of pumps and related equipment for water production and transportation as well as wastewater collection and treatment for municipalities and industries. Our expertise also includes separation technologies, and services on rotating equipment.

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