

# **Municipal Water Treatment, Supply and Distribution**



# The Sulzer Advantage

## Innovative and proven solutions for clean water applications

As a global leader in pump and agitator design and manufacture, Sulzer is recognized for delivering the excellent product quality and performance reliability required for a wide range of applications in the water industry.

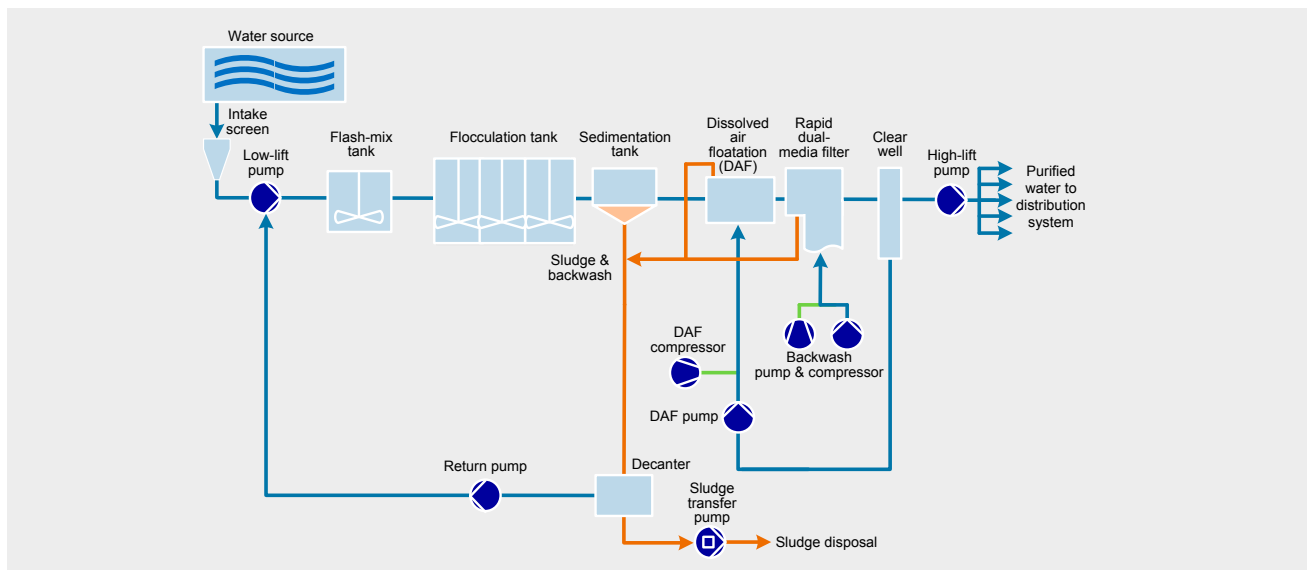


# Whatever the Process, We Have the Pumping Solutions

## 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 and compressors combine reliable treatment performance with superior energy efficiency.

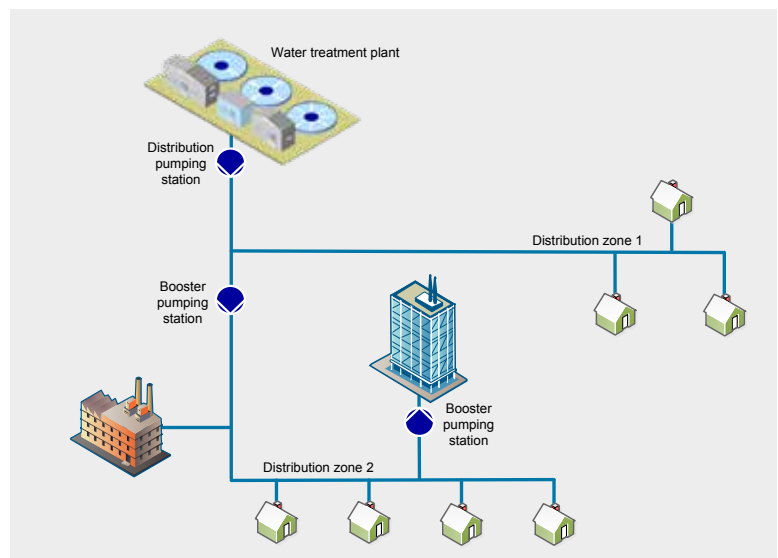
The Sulzer advantage is evident from the moment raw water is captured for your water treatment plant. No matter the process you apply in your water treatment plant, Sulzer will help you to ensure the most efficient and reliable operation, from the intake pumping station through the water treatment plant, including any pumping 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 and the superior magnetic bearings of our near-silent turbocompressors, 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.

In Sulzer, you have a single partner with comprehensive expertise. Our solutions live up to the highest standards related to drinking water applications, including the most recognized international certification standards, such as ACS, WRAS and NSF 61.

Application	Pump type						
	Split casing pumps SMD	Vertical turbine pumps JTS	End suction pumps SNS / A /CPT	Vertical multistage pumps VMS	Turbo-compressors HST	Progressing cavity pumps PC	Agitators Scaba
<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 &amp; distribution</b>							
Supply & distribution	✓	✓	✓				
Boosting			✓	✓			

## 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

### APPLICATIONS

- Water intake, transport, supply and distribution
- Desalination
- Municipal water treatment
- Irrigation



## 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 1,500 m <sup>3</sup> /h / 8,000 USgpm
Heads	up to 300 m / 1,000 ft
Pressures	up to 36 bar / 525 psi
Temperatures	up to 85°C / 185°F

### APPLICATIONS

- Water intake
- Municipal water supply and distribution
- Irrigation



## VMS VERTICAL MULTI-STAGE 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

### APPLICATIONS

- Municipal water treatment
- Municipal water distribution
- Pressure boosting
- Irrigation



## 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	11,000 m <sup>3</sup> /h / 48,400 USgpm
Heads	160 m / 525 ft
Pressures	16 / 25 bar, 230 / 360 psi, depending on material and size
Temperatures	180°C / 355°F

### APPLICATIONS

- Clean and lightly contaminated liquids
- Gas containing liquids and self-priming applications
- Desalination
- Municipal water treatment



## CPT END SUCTION SINGLE STAGE CENTRIFUGAL PUMP

### FEATURES AND BENEFITS

- Exceeds standard requirements of ANSI/ASME B73.1 standards
- Suitable for the most demanding industrial applications
- Unique, patented and superior design features minimize life cycle costs
- Quick and easy installation, safe operation, easy maintenance and service

### KEY CHARACTERISTICS

Capacities	up to 1,600 m <sup>3</sup> /h / 7,000 USgpm
Heads	up to 220 m / 720 ft
Pressures	up to 26 bar / 375 psi
Temperatures	up to 260°C / 500°F

### APPLICATIONS

- Clean and lightly contaminated liquids
- Desalination
- Municipal water treatment



## SNS END SUCTION SINGLE STAGE CENTRIFUGAL PUMP

### FEATURES AND BENEFITS

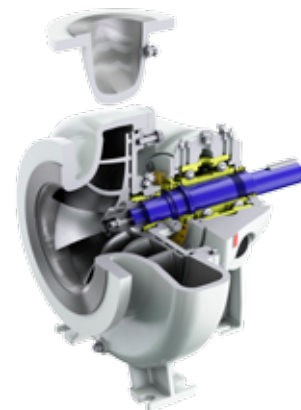
- Designed to meet the design requirement of EN ISO 5199 international standard
- Exceeding EU's (European Union) requirements for energy-related products (ErP)
- Highest efficiency across the whole pump range, exceeding the benchmark efficiency index MEI 0.7 (Minimum Efficiency Index)
- New, state-of-the 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

### APPLICATIONS

- Clean and slightly contaminated liquids
- Desalination
- Municipal water treatment
- Municipal water distribution



## SCABA TOP-MOUNTED GEAR OR BELT DRIVEN AGITATOR

### FEATURES AND BENEFITS

- The top-mounted series covers gear or belt driven agitators mounted vertically on the tank top or bottom flange
- 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

### APPLICATIONS

- Mixing in tank
- Clean and lightly contaminated liquids
- Municipal water treatment



## TURBOCOMPRESSOR TYPE ABS HST

### 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> /jh / 10,200 SCFM
Pressure rise	up to 125 kPa / 18 psi
Motor power	75 kW–400 kW / 100–500 hp

### APPLICATIONS

- Dissolved air floatation (DAF)
- Filter backwash by air



## PC TRANSFER PERFORM PUMP

### FEATURES AND BENEFITS

- Saves time with maintain in place (MIP) 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 up to 100°C / 14 up to 212°F

### APPLICATIONS

- Sludge handling and transfer (MIP)
- Municipal and industrial effluent (MIP)
- Shear sensitive processes (MIP)
- Shear thinning slurries (MIP)



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