

**SULZER**

Sulzer Pumps

# Pumping Solutions for the Water Industry



The Heart of Your Process



## Solutions for Your Pumping Requirements

As a global leader in pump design and manufacture, Sulzer Pumps is recognized for delivering the excellent product quality and performance reliability for the most critical applications in the Water and Wastewater industries. Based on our proven technology we help you transport and treat water and wastewater according to your needs. We share our expertise with you and create for you enduring, economical solutions.

### Water Transport and Supply

We are specialists in transporting large volumes of water over long distances and high geodetic heights. Based on our hydraulic knowledge we take our customer's specific needs and turn them into efficient pumping solutions.

### Desalination and Water Reuse

Sulzer Pumps is a full-range supplier of highly efficient pumps for seawater desalination plants using Reverse Osmosis (RO) or Multi Effect Distillation (MED) technologies. With our pumps for Water Reuse applications in industrial or municipal applications we assist our customers to optimize their water resources.

### Irrigation and Flood Control

Our comprehensive range of vertical pumps provides cost effective solutions for irrigation and drainage of agricultural lands. These pumps also provide high reliability when preventing floods caused by storm water.

### Wastewater

Sulzer Pumps is your best partner to supply tailor-made sewage pumps for large municipal wastewater plants offering the required non-clogging properties together with operational excellence.

### Mine Dewatering

A heavy duty, abrasive application as deep mine dewatering requires the most reliable pumps, rugged and easy to maintain. Our HPH/HPL ranges of pumps ensure at any moment dry and safe working conditions.

### About Sulzer Pumps

Sulzer Pumps is recognized for state-of-the-art product quality, performance reliability and technical innovation. We provide a full line of pumps, equipment and related technologies to the Oil and Gas, Hydrocarbon Processing, Power Generation, Pulp and Paper, Water and Wastewater and General Industries. Combining global capabilities, local market understanding and application expertise we support customers with more than 150 locations around the world, including manufacturing facilities, sales offices and service centers close to our customers.

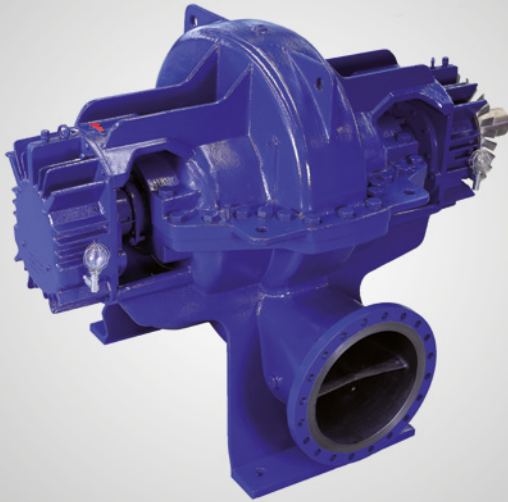




# Pumps for Your Most Critical Applications

Sulzer Pumps offers a broad range of pumps for the Water and Wastewater Industry. We have a solution for your pumping application.

Product Technology	Product Type	Water Intake	Water Transport	Water Treatment	Desalination	Water Supply	Irrigation Drainage	Mine Dewatering	Waste-water	Water Reuse
Axially Split Pumps	HPDM		•			•				
	SMD / SMN	•	•	•	•	•	•	•		•
	ZPP				•	•				
	MSD / MSD-RO		•		•					
Ring Section Pumps	MBN / MBN-RO				•	•				
	HPH / HPL					•		•		
Single Stage Pumps	ZE / ZF				•					•
	AHLSTAR / A Series	•		•	•	•				•
	CPT			•	•	•				•
Vertical Pumps	SJT	•	•	•	•	•	•	•		
	SJM	•	•	•	•	•	•			
	SJP	•				•	•			
	JTS	•		•		•	•	•		
	APV / NPV			•		•	•		•	



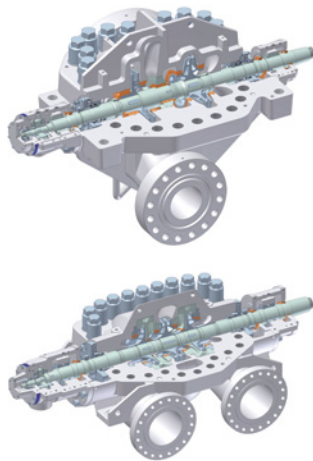
## Axially Split Casing Pumps

### HPDM

HPDM horizontal, single or multistage axially split casing pumps are designed for high volume, high pressure water transport applications. HPDM pumps are individually designed to provide class leading efficiency and are used to supply water for many major cities throughout the world.

**Capacity up to 20,000 m<sup>3</sup>/h / 88,000 USgpm**

**Head up to 700 m / 2,300 ft**

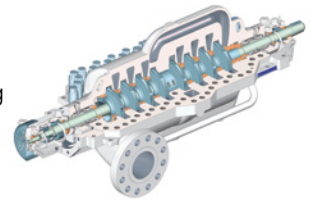


### MSD/MSD-RO

MSD/MSD-RO multistage, double volute, axially split casing pumps are used as high pressure pumps in reverse osmosis processes as well as in water transport applications. The broad range of standard hydraulics and mechanical design options ensures optimum fit to customers' duty requirements, using proven pre-engineered solutions.

**Capacity up to 3,200 m<sup>3</sup>/h / 14,000 USgpm**

**Head up to 2,900 m / 9,500 ft**

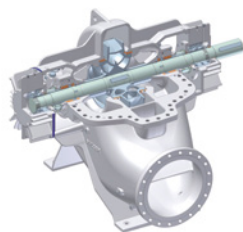


### SMD/SMN

The Sulzer family of single stage, double suction, axially split casing pumps is used across a broad range of industries mainly in Water Supply, Transport and Treatment and Desalination applications. Pre-engineered standard versions include the vertical configuration option.

**Capacity 23,000 m<sup>3</sup>/h / 100,000 USgpm**

**Head up to 230 m / 750 ft**

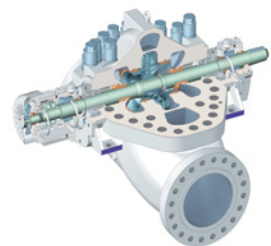


### HSB

HSB pumps are high speed, single stage, double suction pumps according to ISO 13709 (API 610) used in high head applications in reverse osmosis processes as medium pressure pumps as well as in water transport applications offering high efficiency and heavy duty design where it is required.

**Capacity up to 9,000 m<sup>3</sup>/h / 40,000 USgpm**

**Head up to 390 m / 1,300 ft**





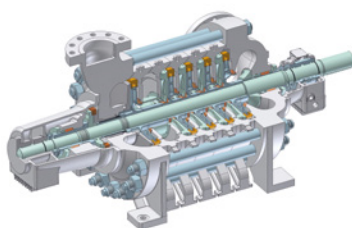
## Multistage Diffuser Pumps

### HPH/HPL

These multistage pumps are specifically designed for mine dewatering applications. Their robust construction is designed to combat the highly abrasive environment in which they operate. Extensive use of replaceable wear surfaces ensures the pumps can be rapidly refurbished to as-new condition without extensive replacement of core parts.

**Capacity up to 1,000 m<sup>3</sup>/h / 4,400 USgpm**

**Head up to 1,600 m / 5,250 ft**

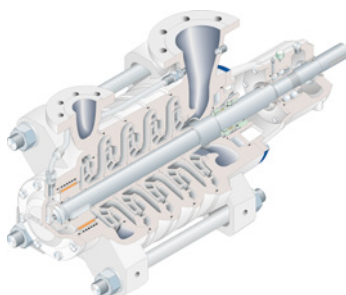


### MBN/MBN-RO

The MBN/MBN-RO ring section multistage pumps are ideal for medium pressure pumping applications in small to medium Seawater Reverse Osmosis Plants. The pumps are offered in duplex and super duplex stainless steel as standard.

**Capacity up to 1,000 m<sup>3</sup>/h / 4,400 USgpm**

**Head up to 900 m / 2,900 ft**



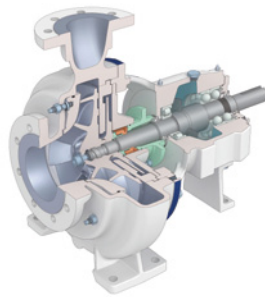


## Single Suction Pumps

### AHLSTAR

The A series is designed for pumping clean, abrasive or corrosive liquids. If the liquid contains gas or air the pump can be modified with either an internal or external gas removal system which stabilizes the operation.

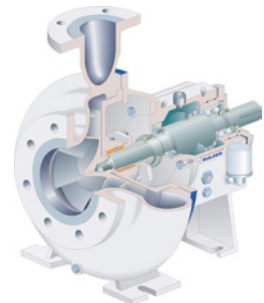
**Capacity up to 9,000 m<sup>3</sup>/h / 40,000 USgpm**  
**Head up to 160 m / 500 ft**



### CPT

The CPT process pump is designed for continuous operation in process industries for pumping clean, abrasive or corrosive liquids. The pump is designed to exceed ANSI (ASME B73.1M) pump standards.

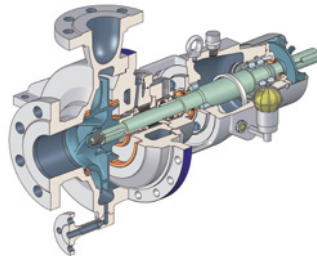
**Capacity up to 700 m<sup>3</sup>/h / 3,100 USgpm**  
**Head up to 250 m / 800 ft**

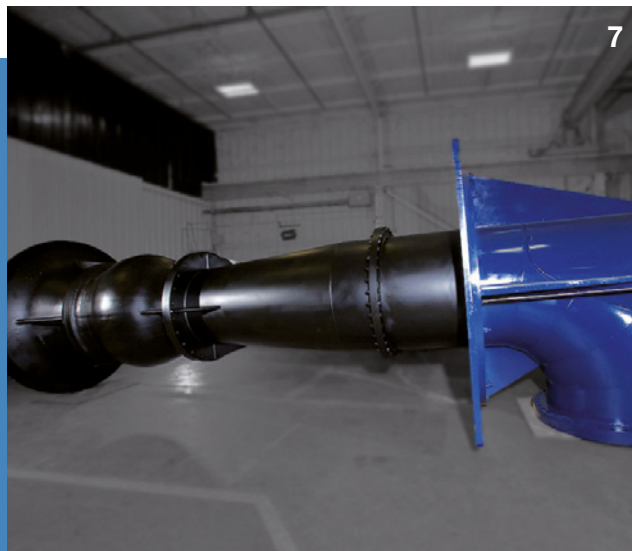


### ZE/ZF

The ZE/ZF heavy duty end suction overhung pumps use modular construction to provide maximum interchangeability of spares. Manufactured in two casing pressure ranges ZE/ZF pumps are ideal for arduous applications in a wide range of industrial processes.

**Capacity up to 3,500 m<sup>3</sup>/h / 15,000 USgpm**  
**Head up to 330 m / 1,000 ft**





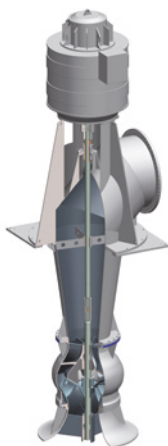
## Vertical Pumps

### SJT/SJM/SJTP

The Sulzer engineered vertical turbine range including the radial (SJT), mix flow (SJM) and propeller (SJP) pumps are ruggedly designed for years of trouble free operation in a wide variety of applications; typically in Water Intakes. The basic components of head, column pipe and bowl assembly are combined and customized to perfectly match individual duty needs. In addition, the standard range of material options ensures the materials of construction can be matched to individual installation needs.

**Capacity up to 54,300 m<sup>3</sup>/h / 240,000 USgpm**

**Head up to 115 m per stage / 370 ft per stage**



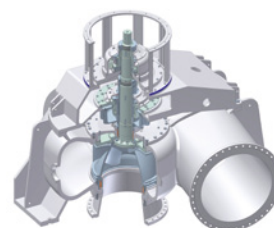
### APV/APH

APV/APH are non-clog volute pumps used in wastewater for pumping untreated sewage and other effluents.

**Capacity up to 20,000 m<sup>3</sup>/h /**

**8,800 USgpm**

**Head up to 100 m / 330 ft**



### JTS

The JTS range of standard vertical turbine pumps is specifically designed for higher differential head water applications. It can be used in municipal and industrial plant water supply, drainage, flood control, pipeline and high pressure pumping. It can easily be modified for changing hydraulic conditions.

**Capacity up to 1,500 m<sup>3</sup>/h /**

**8,000 USgpm**

**Head up to 300 m / 1,000 ft**







## Major Reference Installations

### Fujairah 1 and 2 Water Pumping Stations Water Transport and Supply

Customer: Technip, Germany

Operator: Transco, United Arab Emirates

Country of installation: United Arab Emirates

Fresh water is pumped from desalination plants on the coast to cities about 180 km inland. Pumping stations along the water pipeline have a capacity of 1,000,000 m<sup>3</sup>/day. Sulzer supplied reliable and efficient, engineered pumping solutions.



Service	Quantity	Pump type	Capacity (m <sup>3</sup> /h)	Head (m)	Power (kW)
<b>Booster Fujairah 1</b>	4	SMN 602-900	6,314	57.5	1,090
<b>Transfer Fujairah 1</b>	4	HPDM 600-940 s+s	6,314	485.5	9,400
<b>Booster Fujairah 2</b>	5	SMN 602-900	6,216	60	1,118
<b>Transfer Fujairah 2</b>	5	HPDM 600-940 s+s	5,439	527	8,958





## Magtaa Sea Water Reverse Osmosis Plant

Customer: Hyflux Ltd. Singapore

Operator: Hyflux Operations and Maintenance Algeria

Country of installation: Algeria

The largest desalination plant using SWRO technology with a capacity of 500,000 m<sup>3</sup>/day required the top efficiency in all pump duties. The project's very tight time schedule for deliveries was met by using Sulzer Pumps global manufacturing network.



Service	Quantity	Pump type	Capacity (m <sup>3</sup> /h)	Head (m)	Power (kW)
Seawater Intake	5	SJM-BR 1200	15,900	35	2,000
RO High Pressure	25	HSB 14x14x20B	1,950	301.5	2,025
Treated Water Booster	4	ZPP 62-700	6,944	48	1,100
Treated Water Line 1	3	ZE 400-8728	2,917	106	1,050
Treated Water Line 2	5	SMN 402-800	3,750	222	2,700
Treated Water Line 3	7	ZE 400-7630	2,800	175	1,700
RO CIP	2	A 51-300	1,800	40	315
RO Flushing	4	A 51-300	1,000	40	160
RO Flushing	8	A 42-200	850	25	90
Ultrafiltration Backwash	12	A 51-250	1,200	25	135



## Tarragona and Vilaseca Water Reuse

Customer: Veolia Water Iberia, Spain  
 Operator: Agencia Catalana del Agua, Spain  
 Country of installation: Spain

Recycled water from a wastewater plant is additionally treated by means of Ultrafiltration (UF) and Reverse Osmosis (RO) technologies and pumped to industrial areas for reuse. The highly efficient pumps supplied are part of this sustainable water supply resources to this industrial area.



Service	Quantity	Pump type	Capacity (m <sup>3</sup> /h)	Head (m)	Power (kW)
Filter Backwash	3	A 41-400	1,788	22	120
Ultrafiltration/RO Feed	3	A 31-125	560	57	104
Ultrafiltration Backwash	3	A 31-150	525	30	52
First Pass High Pressure RO	2	ZE 200-5400	552	215	436
Second Pass High Pressure RO	2	A 32-125	414	124	175
Flushing and Cleaning	3	A 21-80	180	42	27
Product Water	3	A 31-100	400	95	128



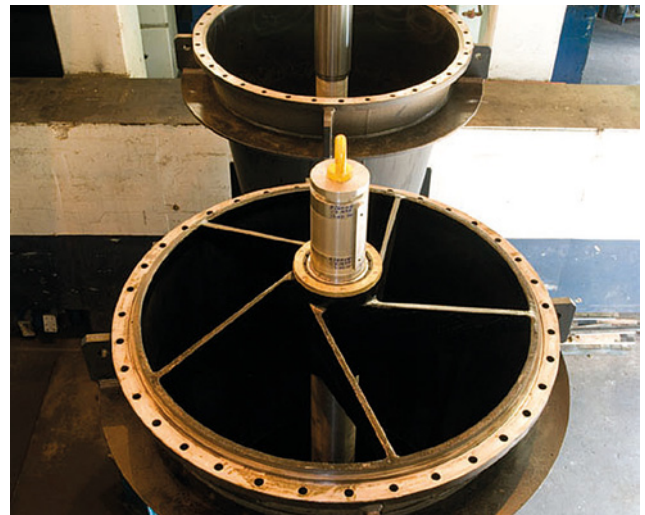
## São Francisco River Transfer Irrigation

Customer: Ministry of National Integration, Brazil

Operator: Ministry of National Integration

Country of installation: Brazil

The pumps equip three of the pumping stations of this water diversion project that has a final capacity of 360 m<sup>3</sup>/s (8,220 mgd) and transfers water from the São Francisco river to a 700 km long network of channels to deliver water for irrigation, municipal and industrial uses, transforming into reality a 150 year old dream to develop the fertile northeastern Brazilian region into its fullest potential.



Service	Quantity	Pump type	Capacity (m <sup>3</sup> /h)	Head (m)	Power (kW)
<b>Pumping Station EBI-1</b>	2	SJT-BKn 2000-1800-1s/030	44,550	36	5,036
<b>Pumping Station EBV-1</b>	2	SJT-BKn 1400-1470-1s/033	25,200	61.8	4,862
<b>Pumping Station EBV-2</b>	2	SJT-BKn 1400-1470-1s/030	25,200	43.1	3,409





## ETE Barra de Tijuca Wastewater

Customer: Companhia Estadual de Aguas e Esgotos of Rio de Janeiro (CEDAE)

Operator: CEDAE

Country of installation: Brazil

Wastewater needed to be lifted from the wet well to feed this treatment plant with a capacity of 600,000 m<sup>3</sup>/day and reliable, non-clogging pumps capable to give passage were selected to ensure trouble-free operation of this large wastewater treatment plant.



Service	Quantity	Pump type	Capacity (m <sup>3</sup> /h)	Head (m)	Power (kW)
Raw Sewage transfer	4	AP3V 700-9900/59	4,817	22	344



## Konkola Copper Mine Mine Dewatering

Customer: Vedanta, Zambia

Operator: KCM

Country of installation: Zambia

The Konkola mine is the wettest copper mine in the world. Reliable pumping services for dewatering are essential for the safe operation of the mines. Sulzer has delivered 53 HPH pumps that are in operation since decades reliably performing the challenging service of keeping the mine dry and safe. The HPH pump range is capable of dewatering water to heights in excess to 1,000 m.



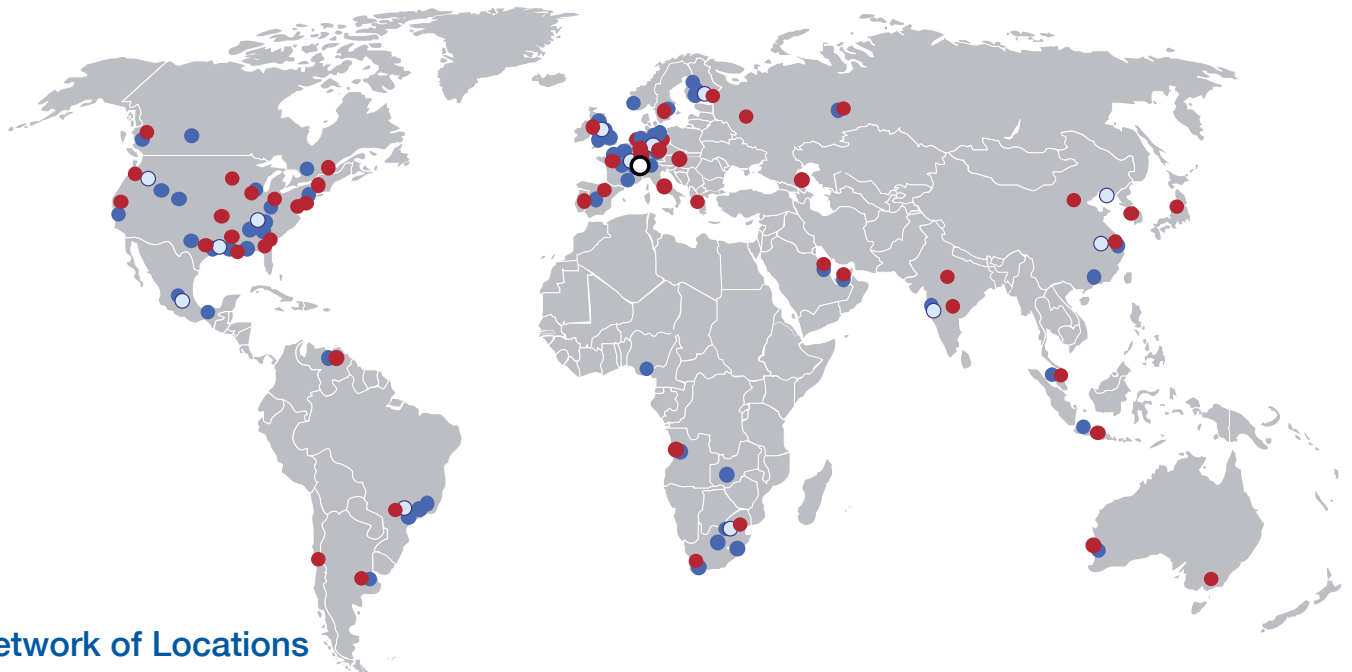
Service	Quantity	Pump type	Capacity (m <sup>3</sup> /h)	Head (m)	Power (kW)
<b>Mine Dewatering</b>	6	HPH 58-225-27/9	749	1,030	2,692
<b>Mine Dewatering</b>	6	HPH 58-225-27/7	749	710	1,859
<b>Mine Dewatering</b>	6	HPH 58-225-27/4	803	445	1,244



## Close to the Customer

With a global network of strategically located, modern facilities (including two foundries), over 60 service centers and numerous regional locations, we are positioned to support our customers from the first exploration through customized selection to operations. Our global presence and culture help us achieve our ultimate goal: making our customers more competitive.

Sulzer Pumps combines the advantages of being a global company with the ability to be your local partner. Control of the entire manufacturing process allows us to maintain the highest quality standards.



### Network of Locations

- Headquarters
- Manufacturing Facility
- Customer Support Service Center
- Sales Office





## Your Partner for Performance

When pumps and rotating equipment are critical to your operations, you need a service partner you can trust to support you with:

- Reliability
- Responsiveness
- Rapid turn around
- Innovative solutions

Sulzer Pumps' Customer Support Service professionals deliver these qualities and more to customers from all industry sectors around the globe. With services ranging from spare parts to trouble shooting, we can maintain your rotating equipment and help improve your processes.

### Service Partner

Delivering customized service solutions that improve your operations is our top priority. We measure our performance in your success and in long-term customer relationships.

### Reliability

Reliability depends on the longevity of replacement parts and the quality of repair of damaged or worn equipment. You can count on our expertise and commitment to deliver what you need and to do the job right first time.

### Responsiveness

You have specific needs and priorities, and schedules to maintain. Sulzer Pumps service teams are known for their extreme dedication. Around the clock, 365 days per year, you can rely on us when urgent and unexpected problems occur.

### Rapid Turn Around

Timely quotations help you keep projects on schedule and rapid equipment repair minimizes disruption and costs. Through our continuous investment in effective shop floor and administrative processes, we work to exceed your expectations and keep your operations running.

### Innovative Solutions

Sulzer Pumps is renowned in the industry for its innovative technology and application know-how. We work with you from diagnostics through technical optimization to define the best possible solutions for your business. Our service teams and state-of-the-art Sulzer Pumps hydraulics can help you achieve increased throughput, greater lift efficiency and improved reliability.

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