

Water and wastewater solutions

# Trusted expertise in domestic and commercial wastewater

Wastewater poses a complex challenge, no matter whether it originates in a family home, a commercial building or industrial complex. Whatever the property, Sulzer has the solution. sulzer.com/domestic-commercial



# Any project, any wastewater application

Wastewater poses a complex challenge, no matter whether it originates in a single house or a multifamily home, a commercial building or an industrial complex. Whatever the property, Sulzer is the ideal wastewater partner from the start of the project to its final sign-off.

We have vast experience in the handling of domestic and commercial wastewater. We are dedicated to helping professionals design, select, install and service any type of wastewater system. At our disposal are all the solutions needed to keep a building running smoothly. Our extensive range of products includes drainage pumps, sewage pumps with Contrablock and vortex hydraulics, prefabricated lifting stations for both internal and external installation, and solutions for monitoring and control. These are the result of advanced R&D, built on an engineering heritage comprising over 100 years of pump design and installation.

In total, Sulzer expertise means reliable and efficient pumping with minimized operating costs. Our solutions come with everything you need, ensuring easy, plug-and-play installation with a minimum of time and set-up.



# **Domestic applications**

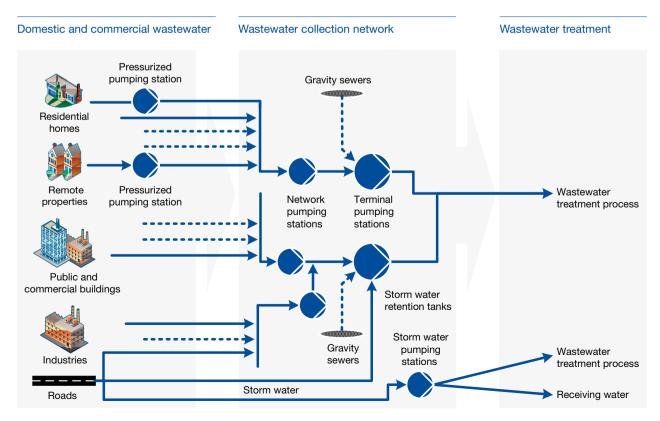
Domestic properties pose wastewater challenges both large and small. In addition to waste disposal from toilets, there are diverse sources of drainage and grey wastewater including not only sinks and showers, but also drainage from yards and gardens. The high reliability of Sulzer pumps and lifting stations offers security for metropolitan and remote properties alike.

# **Commercial applications**

Commercial properties share many challenges with domestic properties when it comes to pumping and lifting, but their more diverse uses can also mean special demands. Sulzer pumps and lifting stations reliably move not only wastewater with a high proportion of solid or fibrous matter, but also aggressive and even chemically contaminated wastewater. For installations with extreme solid particles, our two-shafted, low speed and high torque grinders will slice through rags and wipes that are loading the pumping stations.

# Trusted expertise in domestic and commercial wastewater

Sulzer offers solutions for quick and effective collection of wastewater from residential and public properties, and for transferring it to the municipal wastewater network. Small wastewater pumps, lifting stations, prefabricated pumping stations and equipment for monitoring and control are all a part of the process.



# Our comprehensive product portfolio

Product technology	Product name	Application			Motor-related		
		Domestic	Commercial	Without toilet waste	Waste disposal from toilets	High- efficiency (IE3)	Explosion- proof as standard
Submersible light and medium duty pumps	Light drainage pump type ABS Robusta						
	Light drainage pump type ABS Coronada						
	Light drainage pump type ABS IP						
	Light wastewater pump type ABS MF						
	Submersible wastewater pump type ABS AS				•		
	Submersible grinder pump type ABS Piranha 08-09						
	Submersible grinder pump type ABS Piranha S						
	Submersible grinder pump type ABS Piranha PE						
Submersible heavy duty pumps	Submersible sewage pump type ABS XFP 1.3 - 35 kW						
Lifting stations	Lifting station type ABS Piranhamat 100-120						
	Lifting station type ABS Sanimax						
	Lifting station type ABS Nirolift						
	Lifting station type ABS Sanisett						
	Lifting station type ABS Piranhamat 701-1002						
	Lifting station type ABS Sanimat						
	Lifting station type ABS Sanimat 4002			•		•	
	Lifting station type ABS Synconta						
Sewage grinders	Inline / open channel Muffin Monster™						
	Channel Monster™						
Monitoring and	control						

# **Product overview**

# Submersible light and medium duty pumps

# Light drainage pump type ABS Robusta

#### Features and benefits

The Robusta has been designed for pumping clear and wastewater from house, garden or yard and can pump down to a very low water level. It is supplied with built-in level control and check valve and is suitable for manual or automatic operation. A special (orange) version for lightly aggressive liquids is also available.

#### Key characteristics

Capacity (max) Head (max) Temperatures Discharge sizes Speed (max) 50 Hz 13 m<sup>3</sup>/h 8.5 m 40°C, max. 60°C for 5 min G 1¼" + hose adaptor 2'900 rpm 60 Hz 13 m<sup>3</sup>/h 9 m 40°C, max. 60°C for 5 min G 1½" + hose adaptor 3'400 rpm



# Light drainage pump type ABS Coronada

#### Features and benefits

The Coronada is a submersible stainless steel pump for removing clear and aggressive wastewater from areas such as drainage pits, gullies and flooded cellars. Also for drainage of swimming pools, circulation in ponds, and for emptying and filling of containers. Available with KS float switch for automatic level control. A special SX version for particularly aggressive liquids is also available.

#### Key characteristics

50 Hz Capacity (max) 9 m<sup>3</sup>/r Head (max) 7 m Temperatures 40°C, Discharge sizes G 11/4" Speed (max) 2'900

9 m<sup>3</sup>/h 7 m 40°C, max. 60°C for 5 min G 1¼" + hose adaptor 2'900 rpm



# Light drainage pump type ABS IP

#### Features and benefits

The ABS light drainage pump IP is a stainless steel pump for corrosive media with vortex hydraulics. It is suitable for pumping aggressive media with a high proportion of solid or fibrous matter. The IP is also ideal for dewatering of chemically contaminated wastewater, industrial effluent, and for use in agriculture.

50 Hz
18 m³/h
11 m
40°C, max. 60°C for 5 min
G 2"
2'900 rpm



# Light wastewater pump type ABS MF / MF VO

#### Features and benefits

The MF is a compact submersible wastewater pump range with vortex impeller for troublefree operation. The pumps are used for dewatering of buildings and for pumping fluids from low lying locations. Level control switch is an option.

#### Key characteristics

Capacity (max) Head (max) Temperatures Discharge sizes Speed (max) **50 Hz** 58 m<sup>3</sup>/h 16 m 40°C, max. 60°C for 5 min G 1½"-1¼", G 2", DN 65 2'900 rpm

# SULZER

# Light wastewater pump type ABS MF 154 HW

#### Features and benefits

The MF 154 HW is a compact submersible pump for the removal of domestic and commercial high temperature wastewater that can contain solids up to 20 mm. The pump has been designed to cover a wide range of internal and external dewatering applications, but primarily where the temperature of the medium exceeds the standard upper limit (40°C) to a maximum allowable temperature of 80°C. Option without KS float switch available.

#### Key characteristics

Capacity (max)	
Head (max)	
Temperatures	
Discharge sizes	
Speed (max)	

50 Hz 9 m<sup>3</sup>/h 8 m 80°C G 1½"-1¼" 2'900 rpm



# Submersible wastewater pump type ABS AS

#### Features and benefits

The AS is a robust and reliable submersible pump for the removal of clear water, wastewater, and sewage from buildings and sites. The pump is suitable for portable as well as stationary installations. Hydraulics with Contrablock or vortex impellers ensure blockage-free operation.

#### Key characteristics

	50 Hz	60 I
Capacity (max)	110 m³/h	120
Head (max)	28 m	35 r
Temperatures	40°C, max. 60°C for 5 min	40°(
Discharge sizes	G 2", DN 65, DN 80	G 2
Speed (max)	2'900 rpm	3'40

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**60 Hz** 120 m<sup>3</sup>/h 35 m 40°C, max. 60°C for 5 min G 2", DN 65, DN 80 3'400 rpm



# Submersible grinder pumps type ABS Piranha

#### Features and benefits

Piranha sewage pumps with shredding action provide reliable and economical discharge of effluent under pressure in private municipal and communal schemes. They offer an economical alternative to gravity sewers, and improve environmental protection for pressurized sewer systems.

#### Key characteristics

Piranha 08-09 Capacity (max) Head (max) Temperature Discharge sizes Speed (max)

Piranha S

Head (max)

Temperature

Speed (max) Piranha PE

Capacity (max)

Discharge sizes

Capacity (max)

Discharge sizes

Head (max)

Temperature

Speed (max)

40°C, max. 60°C for 5 min DN 32, G 1¼" 2'900 rpm **50 Hz** 16.5 m<sup>3</sup>/h

50 Hz

21 m

12.5 m<sup>3</sup>/h

16.5 m<sup>3</sup>/h 37 m 40°C, max. 60°C for 5 min DN 32, G 11⁄4" 2'900 rpm

**50 Hz** 22 m<sup>3</sup>/h 70 m 40°C, max. 60°C for 5 min DN 32, G 1¼", DN 50 2'900 rpm **60 Hz** 14 m<sup>3</sup>/h 33 m 40°C, max. 60°C for 5 min DN 32, G 1¼" 3'400 rpm

**60 Hz** 18 m<sup>3</sup>/h 42.5 m, 60 m HH 40°C, max. 60°C for 5 min DN 32, G 1¼" 3'400 rpm

60 Hz 27 m<sup>3</sup>/h 82 m 40°C, max. 60°C for 5 min DN 32, G 1¼", DN 50 3'400 rpm



# Submersible heavy duty pumps

# Submersible sewage pumps type ABS XFP 1.3 - 35 kW

#### Features and benefits

Submersible sewage pump type ABS XFP models PE1 to PE3 are designed for wet or dry installation in standard and network pumping stations. The XFP pumps use Premium Efficiency IE3 motors to offer significant energy savings, along with excellent rag handling, long-term reliability and a future-proof design.

#### Key characteristics

Capacity (max)
Head (max)
Discharge sizes
Motor range
Bearing life

50 Hz 760 m<sup>3</sup>/h 70 m DN 80 - DN 200 1.3 - 30 kW up to 100'000 h 60 Hz 792 m<sup>3</sup>/h 90 m DN 80 - DN 200 2.0 - 35 kW up to 100'000 h



# Lifting stations

# Lifting stations type ABS Piranhamat 100-120

#### Features and benefits

The Piranhamat 100-120 is designed for domestic wastewater removal from one WC located below the sewer backwash level. It is also possible to connect one wash-hand basin, one shower and one bidet to the unit. The Piranhamat 100-120 is gas- and odour-tight, plug-in-ready, and fitted with a Piranha grinder pump.

#### Key characteristics

Capacity (max) Head (max) Temperatures Discharge sizes Speed (max) 5.5 m<sup>3</sup>/h 9 m 40°C, max. 60°C for 5 min DN 25, DN 32 2'900 rpm



# Lifting station type ABS Sanimax

50 Hz

#### Features and benefits

The Sanimax is a compact lifting station suitable for installation at floor level near the wastewater source below the sewer backwash level. Flood-proof, with an odour-preventing vent system, Sanimax removes wastewater from wash-hand basins, washing machines and showers. Fitted with Robusta, Robusta C or MF pump.

#### Key characteristics

Capacity (max) Head (max) Temperature Discharge sizes Speed (max) Sanimax, 50 Hz 14 m<sup>3</sup>/h 11 m 40°C, max. 60°C for 5 min DN 40 2'900 rpm

# Sanimax MF HW, 50 Hz

9 m<sup>3</sup>/h 11 m 80°C DN 40 2'900 rpm



# Lifting station type ABS Nirolift

#### Features and benefits

The Nirolift is a synthetic, single pumping station for the pumping of faecal-free wastewater such as the discharge from washing machines, sinks, dishwashers, showers and bathtubs. For below-ground installation in buildings below the sewer level. Fitted with a Robusta, Coronada or MF pump.

	50 Hz
Capacity (max)	18 m³/h
Head (max)	11 m
Temperature	40°C, max. 60°C for 5 min
Discharge sizes	DN 40, R 1¼"
Speed (max)	2'900 rpm



# Lifting stations type ABS Sanisett

#### Features and benefits

The Sanisett is a synthetic, single or twin pumping station for the pumping of faecalfree wastewater such as the discharge from washing machines, sinks, dishwashers, showers and bathtubs. For above- or below-ground installation in buildings and areas below the sewer level. Fitted with Robusta, Coronada, IP, Piranha or MF pumps. For applications where pumping must not be interrupted the twin pumping station unit should be installed.

#### Key characteristics

	50 Hz
Capacity (max)	34 m³/
Head (max)	21 m
Temperature	40°C, I
Discharge sizes	DN 50
Speed (max)	2'900

34 m<sup>3</sup>/h 21 m 40°C, max. 60°C for 5 min DN 50, R 1½" 2'900 rpm



# Lifting station type ABS Piranhamat 701

#### Features and benefits

The Piranhamat 701 is a flood-proof lifting station for automatic sewage removal from areas below the backwash level. This unit is fitted with one ABS Piranha submersible grinder pump suitable for pumping domestic wastewater. This lifting station is ideal for locations where the diameter of the discharge line is restricted.

#### Key characteristics

Capacity (max) Head (max) Temperatures Discharge sizes Speed (max) 50 Hz 9 m<sup>3</sup>/h 30 m 40°C, max. 60°C for 5 min G 1¼" 2'900 rpm



# Lifting station type ABS Piranhamat 1002

#### Features and benefits

The Piranhamat 1002 is a two-pump version of the Piranhamat 701 for applications where the additional security of a second pump is required. This unit is fitted with two ABS Piranha submersible grinder pumps.

50 Hz
9 m³/h
30 m
40°C, max. 60°C for 5 min
G 1¼"
2'900 rpm



# Lifting stations type ABS Sanimat 1000-2002

40°C, max. 60°C for 5 min

47 m<sup>3</sup>/h

1'450 rpm

50 Hz

50 Hz

9.5 m

#### Features and benefits

Sanimat is a flood-proof lifting station for automatic removal of domestic wastewater from areas below the backwash level. Sanimat 1000 for one pump and 1002 and 2002 for two pumps. Robust, synthetic (PE), easy to transport collection tanks of compact design.

DN 80, plus flanged socket with 4" sleeve and clips (for discharge pipe DN 80/100)

#### Key characteristics Sanimat 1000 50 Hz

Sanimat 1000 Capacity (max) Head (max) Temperature Discharge sizes

Speed (max)

Sanimat 1002

Capacity (max) Head (max) Temperature Discharge sizes

Speed (max)

55 m<sup>3</sup>/h 9.5 m 40°C, max. 60°C for 5 min DN 80, plus flanged socket with 4" sleeve and clips (for discharge pipe DN 80/100) 1'450 rpm

Sanimat 2002 Capacity (max) Head (max) Temperature Discharge sizes

Speed (max)

55 m<sup>3</sup>/h 18 m 40°C, max. 60°C for 5 min DN 80, plus flanged socket with 4" sleeve and clips (for discharge pipe DN 80/100) 2'900 rpm



# Lifting station type ABS Sanimat 4002

#### Features and benefits

The Sanimat 4002 is a flood-proof lifting station for automatic removal of domestic and commercial wastewater from areas below the backwash level. Designed for large buildings, multi-family housing units, hotels, hospitals, etc. Compact design but large storage capacity. Fitted with XFP sewage pumps up to 6 kW.

#### Key characteristics

Capacity (max) Head (max) Temperatures Discharge sizes Speed (max) 50 Hz 165 m<sup>3</sup>/h 18 m 40°C, max. 60°C for 5 min DN 80 - DN 100 1'450 rpm



# Lifting stations type ABS Synconta 700/700L

#### Features and benefits

The Synconta is a synthetic prefabricated sump. Designed as a single pumping station for the effective dewatering of buildings, and pumping of sewage containing faecal matter from areas below the sewer level.

#### Key characteristics

Capacity (max) Head (max) Temperature Discharge sizes Speed (max) **50 Hz** 12.5 m<sup>3</sup>/h 30 m 40°C, max. 60°C for 5 min R 1¼" 2'900 rpm



# Lifting stations type ABS Synconta 801

#### Features and benefits

A synthetic prefabricated sump, the Synconta 801 is a single pumping station for the automatic pumping of wastewater and sewage from locations and areas below the backwash level.

#### Key characteristics

	50 Hz
Capacity (max)	38 m³/h
Head (max)	37 m
Temperature	40°C, max. 60°C for 5 min
Discharge sizes	R 1¼" - R 2"
Speed (max)	2'900 rpm



# Lifting stations type ABS Synconta 901B and 902B

#### Features and benefits

Synthetic prefabricated sump, designed as a single or double pumping station for the automatic pumping of wastewater and sewage from locations and areas below the backwash level in accordance with EN 12050-1. Designed as a complete wastewater sump for below-ground installation and for fitting with pumps from the Piranha, AS and MF ranges.

	50 Hz
Capacity (max)	38 m³/h
Head (max)	37 m
Temperature	40°C, max. 60°C for 5 min
Discharge sizes	R 1¼" - R 1½"
Speed (max)	2'900 rpm



# Sewage grinders

# Muffin Monster<sup>™</sup> – Inline/open channel grinders

#### Features and benefits

Inline and open channel Muffin Monster grinders are designed to protect pumps and other critical equipment from clogs and damage. They shred tough solids in wastewater and rags. The dual-shafted, slow speed and high-torque grinders give a wide grinder capability. The grinders are available with Wipes Ready<sup>™</sup> technology which prevents materials from forming long stripes and reweaving.

#### Key characteristics

Capacity (max) Connections Pressure (max) Cutting chamber (max) 1'558 m<sup>3</sup>/h 100 to 500 mm 10.3 bar max dry working 1'500 mm



### Channel Monster™

#### Features and benefits

High-flow Channel Monster grinders protect inlet works and treatment plants from damaging solids. The rotating screening drums allow fluid to pass through while capturing solids and diverting them to the powerful dual-shafted grinder for shredding. Channel Monsters can protect equipment in commercial wastewater pump stations. The grinders are available with Wipes Ready<sup>™</sup> technology which prevents materials from forming long stripes and reweaving.

#### Key characteristics

Capacity (max) Cutting chamber (max) Bearing life 9'305 m<sup>3</sup>/h 2'250 mm 100'000 h



# Monitoring and control equipment

# Pump controller type ABS PC 111 and 211

The PC 111 and 211 are easy-to-use single (PC 111) and dual-pump (PC 211) controllers designed mainly for use in either gravitation or pressurized municipal wastewater pumping stations. Their numerous features improve pumping station functionality and reliability throughout its life-cycle.

# Control panel type ABS CP 112-212

This compact control panel is used with either one (CP 112) or two pumps (CP 212) conforming to ATEX. The panel is connected directly to pumps up to 5.5 kW (10 A), 3-phase and single-phase versions, and provides LED indication of power, pump run and alarm. The choice of water level control includes float switches, an analog (4-20 mA) sensor and built-in pressure sensor for closed or open air systems.

# Control panel type ABS CP 114

The CP 114 is a compact control panel including Variable Frequency Drive (VFD). This panel is used for a single pump in single-phase power applications such as tanks, small pits or standard commercial applications.

# Control panel type ABS CP 116-216

This compact control panel is used with either one (CP 116) or two pumps (CP 216) conforming to ATEX. An optional modern allows communication with an AquaWeb or SCADA system. The graphic color display enables intuitive menu navigation with arrow buttons. It has an analog data logger and provides a one-week history on counters and accumulators (run time, start count and flow), as well as a time stamp on up to 4'000 pump and alarm events. The choice of water level control includes float switches, analog (4-20 mA) sensor and built-in pressure sensor for closed or open air systems.









# Accessories and software

## Float switch type ABS KS

The KS float switch, used in liquids for control or signal activation, operates in response to the liquid level. It is also suitable for use in sewage and for automatic level control. The KS float switch is impact- and shock-resistant, mercury-free, and environmentally friendly.

# ABSEL – Sulzer's wastewater pump selection program

With ABSEL, you can select specific pumps by configuring the application area, pump series and duty point using the "Hydraulic selection" function. Alternatively, you can navigate through our pump offering by using the "Pump browser".

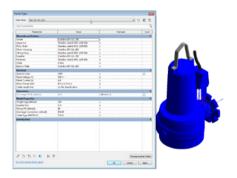
Once you have selected a pump, you have the option to download complete product information in PDF format with pump and motor performance curves, a product description, dimensional drawings, operational cost calculations and data sheets.

You can also run a friction loss calculation on dry or wet well applications using the "PipeCalc" function. The "PipeCalc" database contains a wide variety of predefined pipes and fittings such as elbows, valves, transition pieces, inlets and outlets. To provide a first calculation in seconds, the "PipeCalc" function offers you a predefined piping arrangement in a pumping station.



# The easy way to navigate in building information modeling (BIM)

Building information modeling (BIM) is an intelligent process for improving collaboration between end users and suppliers in terms of OPEX costs. We have collected the BIM models you need for our lifting stations and submersible pumps in a single location, BIM search at www.sulzer.com/bim. Use the filter to find your product of interest or make a direct entry of the product name.





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

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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