Lifting Station Type ABS Sanisett 1 and 2

SULZER

Synthetic, single or twin pumping station, designed as a complete wastewater sump for above- or below-ground installation and for fitting with pumps from the Robusta, Coronada, IP, Piranha and MF ranges.

Application

For the effective dewatering of domestic and commercial wastewater (faecal-free), from buildings and areas below the sewer level in accordance with EN 12050-2.

In addition to the pumping of wastewater from washing machines, sinks, dishwashers, showers and bathtubs, the Sanisett is suitable also for the pumping of sewage containing faecal matter outside of areas covered by EN when installed using Piranha pump(s).

For applications where pumping cannot be interrupted the twin pumping station unit should be installed.

Features

- Globular shape for extra strength. Below-ground version has PP-30GF manhole cover with floor run-off and option of odour lock with aeration and venting. Above-ground version has a plastic lid (tank must be vented above roof level).
- Universally adjustable in height and can be swivelled, thus allowing easy alignment with floor levels and tiling patterns, independent of the inflow or direction of the discharge lines. A 150 mm sump extension kit is available as an accessory.
- Sanisett 1 is designed for one KS version pump (Coronada, IP, Piranha, MF) or pump with built-in level control (Robusta).
- Sanisett 2 is designed for two non-KS pumps and has a separate KS level control system, with support bracket for discharge line junction piece and KS float switches.
- Two inflow ports at 90° offset (DN 100/150) for DIN push-on connection. Two DN 70 inflow ports, one for venting and use as a cable duct (supplied as standard with plug / cable inlet seal). One discharge port DN 50 with R 1½" PVC female adaptor.
- Plastic cover for protection of the floor grating during installation work supplied as standard.
- Heads up to 20 m with Piranha 08/09 pumps.
- Suitable for use as a floor drain. Alternatively a stainless steel insert for fitting into the manhole cover to close and seal the run-off vent is available as an accessory.
- Maximum allowable temperature of medium 40 °C, short term to 60 °C (max. 5 minutes).

Pump type

- Light drainage pump type ABS Robusta 200 WTS, for pumping of ground and rain water, and water from hand-basins, and washing machines.
- Light drainage pump type ABS Coronada 250 WKS, for wastewater (as Robusta above), but suitable also for aggressive ground water thanks to the stainless steel pump housing and a mechanical seal for shaft sealing.
- Light drainage pump type ABS IP, high-grade stainless steel pump for aggressive media and for the pumping of fluids containing gaseous or abrasive particles. Up to 30 mm solids passage.
- Light wastewater pump type ABS MF 154 W to 804 D, for wastewater with large solid particles present. Up to 40 mm solids passage.
- Submersible grinder pump type ABS Piranha 08/09 with heads up to 20 m which can be used to cut up and pump wastewater containing solids.

Pump selection is determined by the intended application and by the volume of the medium.

Tank

Synthetic, corrosion-resistant, gas- and odour-tight tank, in accordance with EN 12050-2. Supplied as standard with cover, seals, junction piece, pipe adapters and support bracket. Pump(s) and installation kit not included.

Note: Where there is groundwater pressure present the tank must be installed as specified in the Installation and Operating Instructions.

Capacity: 180 litres

Weight: 14 kg (without pump)

Motor

Water pressure sealed, squirrel cage 2-pole induction motor.

Insulation: Class B (130 °C) for Robusta
Class F (155 °C) for Coronada, IP, MF and Piranha

Protection type: IP 68

Materials

Description		Material
	Tank	Polyethylene
Robusta	Pump housing	PP
	Rotor shaft	Stainless steel 1.4057 (AISI 431)
	Motor housing	Stainless steel 1.4301 (AISI 304)
	Impeller	PA
	Seals	NBR
	Cable	Neoprene
Coronada	Pump housing	Stainless steel 1.4301 (AISI 304)
	Motor housing	Stainless steel 1.4301 (AISI 304)
	Rotor shaft	Stainless steel 1.4305 (AISI 303)
	Impeller	PPO
	Cable	Neoprene
IP	Motor housing, volute, rotor shaft, impeller, fasteners	Stainless steel 1.4401 (AISI 316)
	Mechanical seal	Silicon carbide
	Static seals	Viton
	Cable	PVC
Piranha and MF	Upper lid	Stainless steel 1.4301 (AISI 304)
	Motor housing	Cast iron EN-GJL-250
	Rotor shaft	Stainless steel 1.4021 (AISI 420)
	Volute	Cast iron EN-GJL-250
	Impeller *	Polyamide
	Seal	Neoprene
	Fasteners	Stainless steel 1.4401 (AISI 316)

* Piranha 09: cast iron EN-GJL-250

Technical Data

Pump type	Robusta 200 TS/KS	Coronada 250 W/KS	Piranha 08 W/KS	Piranha 08 D/KS	Piranha 09 W/KS	Piranha 09 D/KS	MF 154 W/KS	MF 324 W/KS
Pump discharge internal thread	G 1¼"	G 1¼"	G 1¼"	G 1¼"	G 1¼"	G 1¼"	G 1½"	G 1½"
Solids passage [mm]	10	10	n.a. [1]	n.a. [1]	n.a. [1]	n.a. [1]	20	30
Motor power [kW] * P_1 / P_2	0.36 / 0.16	0.50 / 0.25	1.41 / 1.00	1.34 / 1.00	2.56 / 1.84	2.56 / 2.00	0.65 / 0.42	0.83 / 0.54
Rated current [A]	1.60	2.28	6.41	2.71	11.6	4.64	2.80	3.60
Rated voltage [V]	220-240 1~	220-240 1~	220-240 1~	400 3~	220-240 1~	400 3~	220-240 1~	220-240 1~
Speed [r/min]	2900	2900	2900	2900	2900	2900	2900	2900
Cable type **	3G 1.0	3G 1.0	3G 1.0	4G 1.0	3G 1.0	4G 1.0	3G 1.0	3G 1.0
Cable length [m] ***	10	10	5 [2], 10	5 [2], 10	5 [2], 10	5 [2], 10	3 [2], 10	3 [2], 10
Pump weight [kg]	3.8	4.5	18.0	18.0	23.0	23.0	8.5	8.5

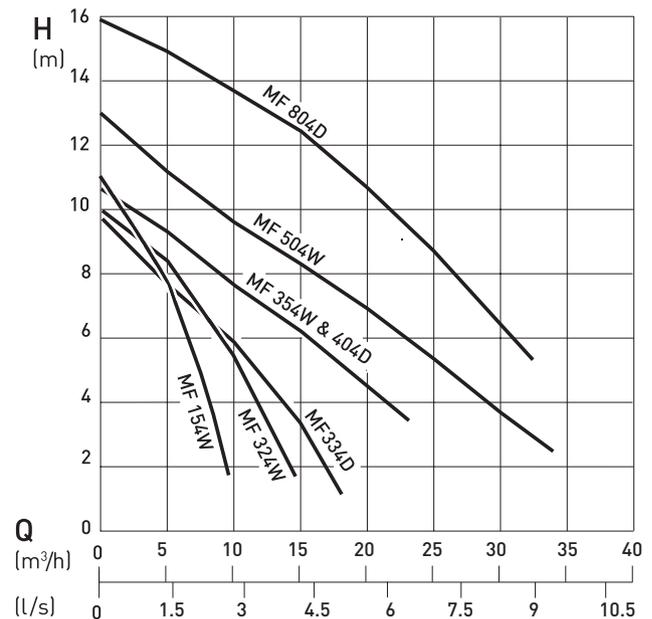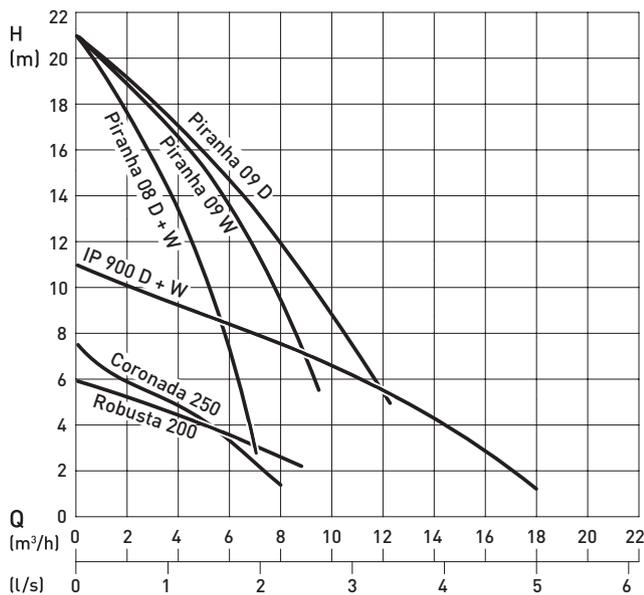| Pump type	MF 334 D/KS	MF 354 W/KS	MF 404 D/KS	MF 504 W/KS	MF 804 D/KS	IP 900 W/KS	IP 900 D/KS
Pump discharge internal thread	G 1½"	G 2"	G 2"	G 2"	G 2"	G 2"	G 2"
Solids passage [mm]	30	40	40	40	40	30	30
Motor power [kW] * P_1 / P_2	0.83 / 0.56	1.10 / 0.70	1.14 / 0.80	2.05 / 1.45	2.40 / 1.80	1.5 / 1.1	1.4 / 1.1
Rated current [A]	1.40	4.80	2.00	9.00	4.13	6.60	2.40
Rated voltage [V]	400 3~	220-240 1~	400 3~	220-240 1~	400 3~	220-240 1~	400 3~
Speed [r/min]	2900	2900	2900	2900	2900	2900	2900
Cable type **	4G 1.0	3G 1.0	4G 1.0	3G 1.0	4G 1.0	3G 1.0	4G 1.0
Cable length [m] ***	3 [2], 10	3 [2], 10	3 [2], 10	3 [2], 10	3 [2], 10	10	10
Pump weight [kg]	8.9	14.0	14.0	17.0	20.0	12.0	12.0

[1] Piranha shredding system.
[2] KS version only.

* P_1 = Power taken from mains. P_2 = Power at motor shaft.
** Robusta, Coronada, Piranha and MF: H07RN-F with Schuko plug on single phase or CEE plug on three phase.
    IP: H05V V-F with Schuko plug on single phase or without plug on three phase.
*** Other lengths available on request.

Performance Curves 50 Hz

H = Total head. Q = Discharge volume. Curves to ISO 9906.

Installation

Attention to the backwash level is of vital importance for effective dewatering. All outflow points located below the backwash level must be protected against back flow according to standard EN 12056.
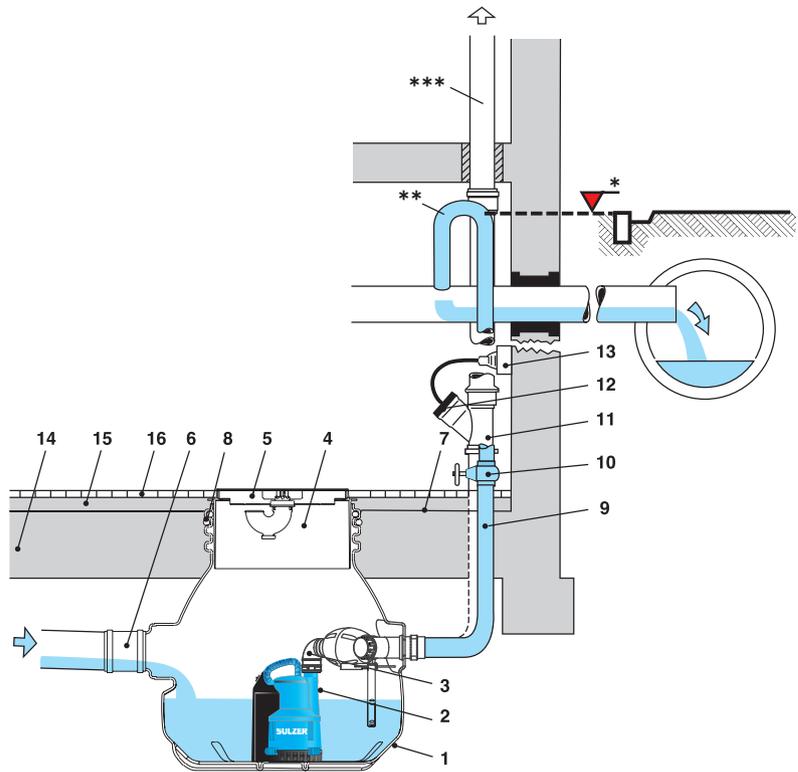
Example: Sanisett 1 underfloor

1. Polyethylene tank
2. Sulzer wastewater pump with TS level-control system
3. Bend with non-return valve
4. Upper fitting
5. Cover plate with floor run-off and odour lock
6. Inflow port
7. Damp-proof course
8. Seal
9. Discharge line
10. Shut-off valve
11. Vent/cable duct DN 70 brought to above roof level
12. Cable inlet, odour tight
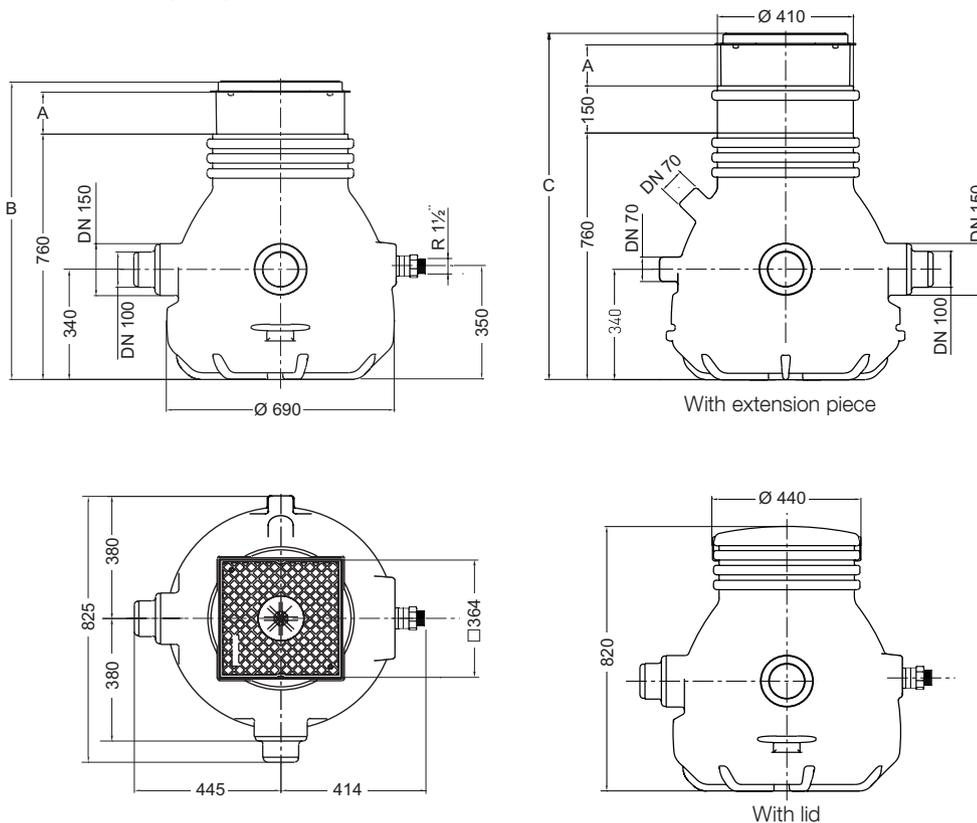13. Earthed socket
14. Concrete
15. Screed
16. Floor tiles

* Backwash level

** Backwash loop with base above the backwash level.

*** External ventilation pipe

Dimensions (mm)

With extension piece

With lid

Inlet diameters

Ø	(mm)
DN 70	Ø 75 +0.2 -1.0
DN 100	Ø 110 +0.3 -1.0
DN 150	Ø 160 +0.4 -1.5

A = 130 max

B = 790 min, 920 max

C = 940 min, 1070 max

Switching and Volume Levels

Tank / Pump	ON [1] [mm]	ON [2] [mm]	OFF [1 & 2] [mm]	Switching Volume [L]	Residual Volume [L]
Sanisett 1 / Robusta	145	n.a.	50	34	12
Sanisett 1 / Coronada	280	n.a.	120	76	33
Sanisett 1 / IP	290	n.a.	120	78	33
Sanisett 1 / MF 154-334	290	n.a.	90	84	25
Sanisett 1 / MF 354-804	290	n.a.	90	84	25
Sanisett 1 / Piranha 08/09	290	n.a.	90	84	25
Sanisett 2 / Robusta*	200	240	75	46	19
Sanisett 2 / Coronada	200	240	75	46	19
Sanisett 2 / IP	200	240	75	46	19
Sanisett 2 / MF 154-334	200	240	75	46	19
Sanisett 2 / MF 354-804	200	240	75	46	19
Sanisett 2 / Piranha 08/09	200	240	75	46	19

* HAND-AUTO switch must be set to HAND position when Robusta is installed in Sanisett 2.

Accessories

	Description		Part no.
General	**Installation kit:** Robusta, Coronada, MF 154-334	G 1¼" external thread	62665192
	MF 354-804	G 2" external thread	62665193
	IP 900	G 2" external thread	62665471
	Piranha 08/09	G 1¼" external thread	62665194
	Complete as discharge line with non-return valve and flexible connector. For Sanisett 2 an installation kit is required for each pump.		
	Sump extension one only to max. 150 mm may be used.		62665196
	Odour-lock kit		62665195
	Above-ground lid (included as standard with above-ground version tank)		62665197
	DPC connection kit cast iron ring with synthetic sealing and support rings for connecting top of tank to damp-proof course.		62665198
	Frank seal kit synthetic sealing and support rings for fitting to top of tank when embedded in waterproof concrete floor (max. groundwater pressure 0.2 bar).		62665231
	Lid insert (stainless steel) closes and seals run-off vent in manhole cover.		41025020
Electrical	**Plug-in alarm kits** Acoustic alarm with signalling unit for connection to 230 V (Schuko) socket. Acoustic alarm signal, potential-free NO (Normally Opened) contact (I max 12 A / V max 250 V). Optional rechargeable accumulators for mains-independent alarm signal. With KS float switch With NSM05 "broken finger" With humidistat		16025001 16025003 16025004
	WM-stop alarm kits Acoustic alarm with signalling unit for plugging in to a 230 V (Schuko socket), with integral 230 V Schuko socket into which the washing machine is plugged (I max 16 A). Optional rechargeable accumulators for mains-independent alarm signal. With KS float switch With NSM05 "broken finger" With humidistat		16025002 16025005 16025006
	NC-AKKU 9 V rechargeable battery for mains-independent alarm.		12820018
	Control panel (for Sanisett 2) - with plastic housing, fuses, selector switch Hand-O-Automatic, switching relays with over-current release, run and fault lights, direction of rotation indication (for three-phase versions), Alarm with horn potential-free fault signal operating, voltage 230 V or 400 V, 50 Hz, terminal block. Contact Sulzer for further information.		