



# Waste Water Pumps



**New**

**For biogas plants:  
Pumps with ATEX approval**

# Waste Water Pumps VORTEX

## VORTEX for waste water – even with solids



VORTEX 100



VORTEX 75

VORTEX Pumps by ZUWA are particularly suitable for waste water with solid particles. Depending on pump type they transport solids of maximum 55 mm diameter.

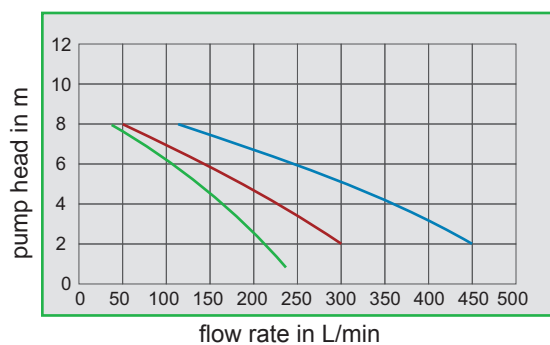
- » max. density of fluid: 1100 kg/m<sup>3</sup>
- » fluid temperature max. 50°C
- » pH value: 6 - 11

### ■ Application

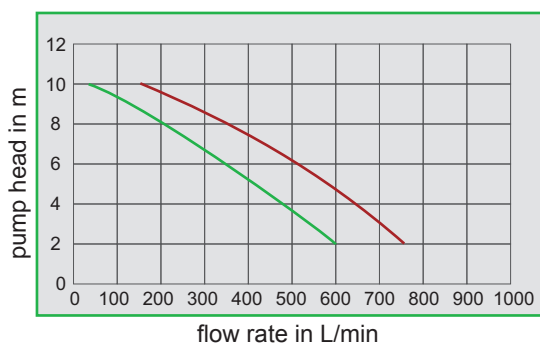
- » drain excavations and sump shafts
- » remove flood water
- » dispose of domestic sewage
- » irrigation in horticulture and agriculture

### ■ Features

- » pump housing and impeller of grey cast iron
- » motor in oil bath (with thermal motor protection for 230 V to 1.5 kW)
- » shaft of stainless steel
- » floating switch (models with 230 V only)
- » cable length 10 m



VORTEX 75  
VORTEX 100  
VORTEX 150



VORTEX 200  
VORTEX 300

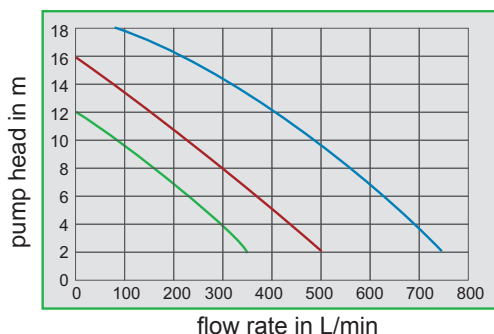
VORTEX NIRO Pumps are perfectly suitable for aggressive waste water in chemistry, pharmacy, metal finishing and also for sea water. Housing and all parts getting in contact with fluid are made of stainless steel AISI 316.



VORTEX NIRO 100



VORTEX NIRO 300



VORTEX NIRO 100  
VORTEX NIRO 200  
VORTEX NIRO 300

# Waste Water Pumps VORTEX EX

## VORTEX EX – ATEX approved



waste water pump  
VORTEX EX

**New**

**VORTEX Pumps now also ATEX approved for application in biogas plants and other areas with potentially explosive atmosphere – intended for use in zone 1 and 2**

- » max. density of fluid: 1100 kg/m<sup>3</sup>
- » fluid temperature max. 50°C

### ■ Application

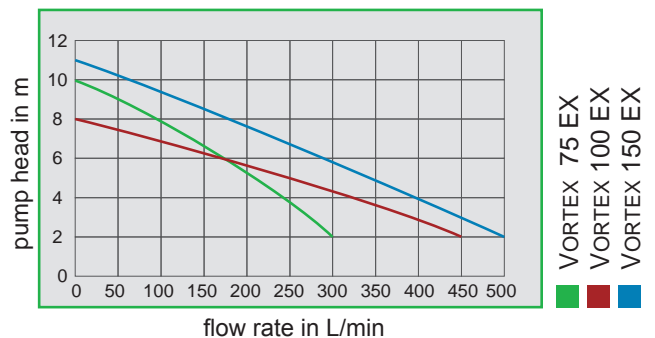
Submersible waste water pumps are frequently used in biogas plants to remove condensed water from the dead well and return it to the fermenter. Biogas plants are classified as areas with potentially explosive atmosphere. This is why VORTEX pumps are now launched meeting the health and safety requirements of the ATEX directive.

### ■ Features

- » pump housing and impeller of grey cast iron
- » motor in oil bath (with thermal motor protection for 230 V to 1.5 kW)
- » shaft of stainless steel
- » on option: ATEX approved float switch
- » cable length 10 m



ATEX float switch



## SUPERSAND for waste water and water containing sand



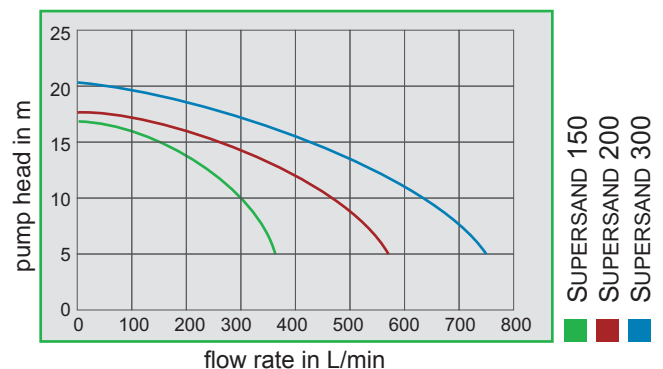
SUPERSAND

### ■ Application

Designed especially for construction sites to drain foundation ditches, tunnels, galleries etc.  
Maximum immersion depth: 10 m

### ■ Features

- » pumps and motor casing of stainless steel (AISI 304)
- » impeller constructed of abrasion resistant stainless steel, hardness 60° RC
- » shaft of stainless steel (AISI 410)
- » cable length 10 m



The clearance between motor and pump casing ensures motor cooling at low water level.

# Technical Data

Type	Article no.	Max. flow rate in L/min	Max. delivery height	Volt	KW	A	Pressure connection	Dimensions in cm	Particle size in mm	Weight in kg
VORTEX 75	165013	225	8 m	230	0.55	3.9	1¼"	22 x 28	30	14
VORTEX 100	165017	285	9 m	230	0.75	5.4	2"	20 x 42	38	23
VORTEX 150	165020	450	10 m	230	1.1	8.9	2"	23 x 52	50	33
VORTEX 150	165033	450	10 m	400	1.1	2.75	2"	23 x 52	50	33
VORTEX 200	165018	570	11 m	230	1.5	10	2"	23 x 52	50	34
VORTEX 300	165019	700	12 m	400	2.2	5.5	3"	27 x 53	55	38
VORTEX 75 EX	165013 ATEXOS	300	9 m	230	0.55	4.7	1½"	37 x 18	38	17
VORTEX 100 EX	165017 ATEXOS	450	7 m	230	0.75	7.0	2"	46 x 22	42	31
VORTEX 150 EX	165020 ATEXOS	502	10 m	230	1.1	8.0	2"	46 x 22	42	32
VORTEX NIRO 100	165024	340	12 m	230	0.75	5.3	2"	23 x 41	35	16
VORTEX NIRO 200	165025	600	16 m	400	1.5	3.2	3"	44 x 53	37	38
VORTEX NIRO 300	165026	900	20 m	400	2.2	4.6	3"	44 x 57	40	41
SUPERSAND 150	165029	380	16 m	230	1.1	7.3	2"	50 x 21	8	29
SUPERSAND 200	165032	580	17 m	230	1.5	3.4	3"	55 x 24	8	38
SUPERSAND 200	165030	580	17 m	400	1.5	3.4	3"	55 x 24	8	38
SUPERSAND 300	165031	750	21 m	400	2.2	4.7	3"	55 x 24	8	42

Larger pumps available on request.

## Accessories



### Pump control V 10 Plus

Reliable control unit for 230 and 400 Volt pumps up to 16 A. Key pad and signal lights on the front side.

Article no. 169013

#### Features:

- integrated level control
- programmable dry run protection
- electronic over-/underload protection
- excess voltage, phase failure and lightning protection
- storage of startings and working hours



### Float switch New

Float switch with 5 m cable and adapter plug, suitable for nearly all pump types

Article no. 131066