

**Waste Water Pumps**  
made in stainless steel and grey cast



**For water even with solids**



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## ZUWA-Zumpe GmbH

The family run enterprise ZUWA-Zumpe GmbH has been manufacturing high quality pumps and innovative pump systems for more than 65 years. The ample experience in designing and producing high end products enables us to offer a wide range of different devices.

The entire product range consisting of pumps, fuelling stations, plant protection systems as well as charging and flushing stations is in high demand all over the world.

ZUWA is working in accordance with the ISO 9001:2008 quality management system, regularly controlled by TÜV SÜD. Process safety and constant quality is guaranteed.

The close contact with our customers provides us with proposals and impulses to improve and further develop our products.

In house production and shop floor enable us to meet customer specific requirements, manufacture custom made products and complete repair jobs.

Competent contact persons and lean management make for quick and reliable service.

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## Waste Water Pumps



### **VORTEX:**

for waste water even with solids.  
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### **VORTEX NIRO:**

for aggressive waste water even with solids.  
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### **VORTEX EX:**

for application in biogas sector with ATEX approval.  
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### **SUPERSAND:**

for waste water and water containing sand.  
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### **VELO UP:**

Pump for waste water. For murky waters without fibers.  
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## Pump control



### **Pump control V 10 Plus:**

Reliable control unit for 230 or 400 Volt pumps up to 16 A.  
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### **Float Switch:**

Float switch suitable for nearly all pump types.  
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# VORTEX - Waste Water Pump

## Waste water even with solids

### VORTEX

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

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

#### Applications

- ▶ Draining of excavation pits and hoppers
- ▶ remove flood water
- ▶ dispose off domestic sewage

#### Agricultural applications

- ▶ pump down of milking parlours
- ▶ conveying of silage soakage and surface water
- ▶ irrigation in horticulture

#### Features

- ▶ pump housing, impeller made of grey cast iron
- ▶ motor in oil bath (with thermal motor protection for 230 V to 1.5 kW)
- ▶ shaft made of stainless steel
- ▶ rotary seal made of silicium carbide
- ▶ float switch (for 230 V models only)
- ▶ cable length 10 m



VORTEX 100

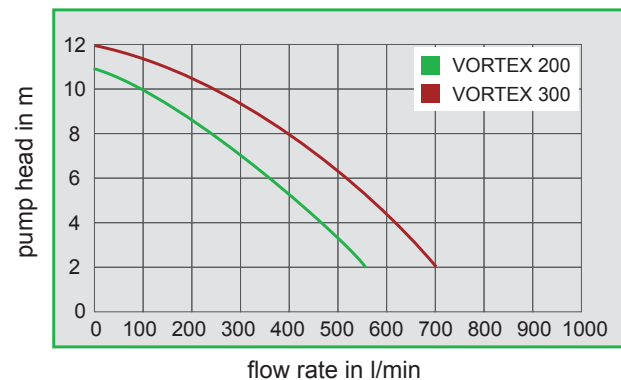
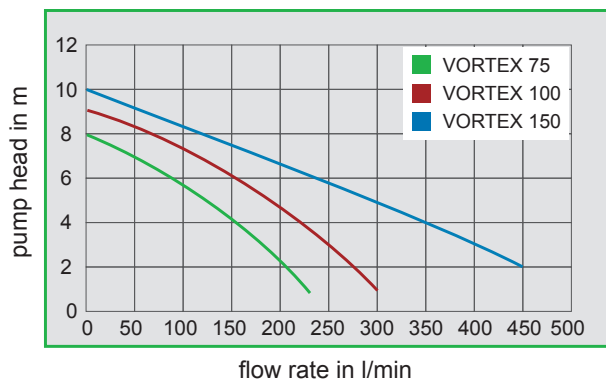


VORTEX 75 with fixed level regulator\*



VORTEX 75

### Characteristic curves:



### Technical details

Typ	Flow rate max.	Pumping head max.	Engine power V / kW / A			Pressure port	Dimen- sions	Pump inlet	Wei- ght	Art. No.
VORTEX 75	225 l/min	8 m	230	0,55	4,2	1¼"	22 x 28 cm	30 mm	17 kg	1650130
VORTEX 75*	225 l/min	8 m	230	0,55	4,2	1¼"	24 x 28 cm	30 mm	17 kg	165051
VORTEX 100	300 l/min	9 m	230	0,75	7	2"	20 x 42 cm	45 mm	23 kg	165017
VORTEX 150	450 l/min	10 m	230	1,1	8,9	2"	23 x 52 cm	50 mm	33 kg	165020
	450 l/min	10 m	400	1,1	3,5	2"	23 x 52 cm	50 mm	33 kg	165033
VORTEX 200	550 l/min	11 m	230	1,5	10	2"	23 x 52 cm	50 mm	34 kg	165018
	550 l/min	11 m	400	1,5	5,0	2"	23 x 52 cm	50 mm	34 kg	165057
VORTEX 300	700 l/min	12 m	400	2,2	5,5	3"	27 x 53 cm	55 mm	38 kg	165019

\*for clean water

# VORTEX NIRO - Waste Water Pump

For aggressive waste water even with solids

## VORTEX NIRO

VORTEX NIRO Pumps are perfectly suitable for aggressive waste water in chemistry, pharmacy, metal finishing and sea water.

- ▶ max. density of fluid: 1100 kg/m<sup>3</sup>
- ▶ fluid temperature max. 50°C
- ▶ pH value: 3 - 14

### Applications

- ▶ biogas sector
- ▶ electrocoating processes
- ▶ chemical industry
- ▶ pharmacy
- ▶ seawater

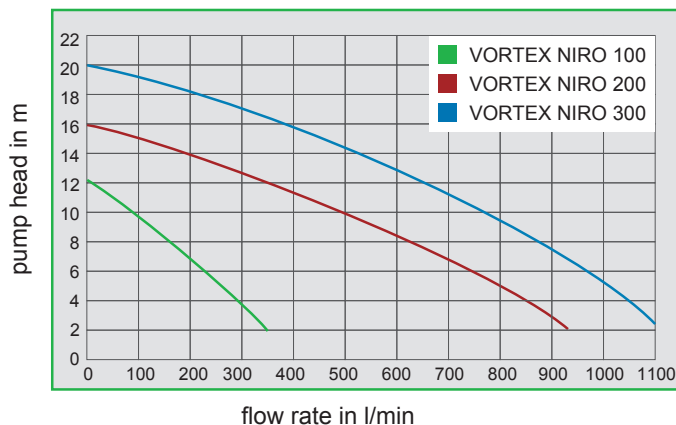
### Features

- ▶ pump housing and all parts in contact with fluid made of stainless steel (AISI 316)
- ▶ cable length 10 m



VORTEX NIRO 100

### Characteristic curves:



VORTEX NIRO 300

### Technical details

Typ	Flow rate max.	Pumping head max.	Engine power			Pressure port	Dimen- sions	Pump inlet	Wei- ght	Art. No.
			V	kW	A					
VORTEX NIRO 100	350 l/min	12 m	230	0,75	5,3	2"	23 x 41 cm	35 mm	16 kg	165024
VORTEX NIRO 200	600 l/min	16 m	400	1,5	3,2	3"	44 x 53 cm	37 mm	36 kg	165025
VORTEX NIRO 300	1120 l/min	20 m	400	2,2	5,0	3"	44 x 57 cm	40 mm	38 kg	165026

# VORTEX EX and SUPERSAND - Waste Water Pumps

## ATEX approved

### VORTEX EX

VORTEX Pumps now also ATEX approved for application in biogas sector 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. 40°C
- ▶ pH value: 6 - 11

#### 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

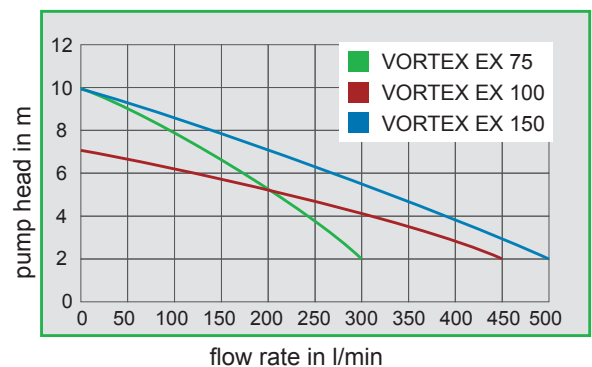
- ▶ pump housing and impeller made of grey cast iron
- ▶ motor in oil bath (with thermal motor protection for 230 V to 1.5 kW)
- ▶ ATEX certification number: Eexd-IIB-T3-II-2-G
- ▶ rotary seal made of silicon carbide
- ▶ shaft made of stainless steel
- ▶ cable length 10 m

ON OPTION:  
ATEX approved  
float switch



VORTEX EX

### Characteristic curves:



## for waste water and water containing sand

### SUPERSAND

For waste water and water containing sand. The clearance between motor and pump casing ensures motor cooling at low water level.

#### Application

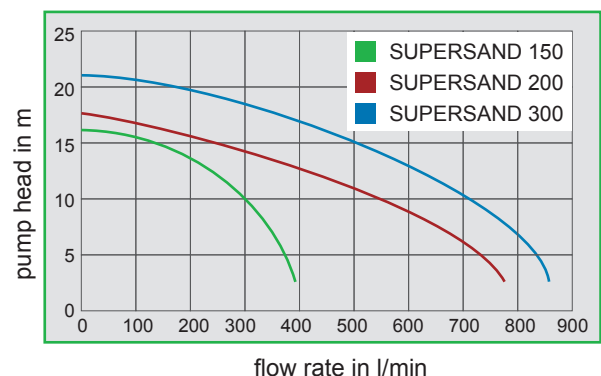
Designed especially for construction sites to drain foundation ditches, tunnels, galleries etc.

- ▶ maximum immersion depth: 10 m
- ▶ max. density of fluid: 1100 kg/m<sup>3</sup>
- ▶ fluid temperature max. 40°C
- ▶ pH value: 6 - 13

#### Features

- ▶ pumps and motor casing made of stainless steel (AISI 304)
- ▶ impeller constructed of abrasion resistant cast iron with chrome, hardness 60 RC
- ▶ Oil cooled dual rotary seal made of silicon carbide
- ▶ shaft made of stainless steel (AISI 410)
- ▶ cable length 10 m

### Characteristic curves:



SUPERSAND

# VELO UP - Waste Water Pump

for domestic use

## VELO UP

Electronic pump drainage with vertical adjustable (automatic or manual) with removable filter for suction up to 2/3 mm. The adjustment slider of the probes, allows you to vary the level of on-off of the pump, this feature increases the versatility of installation.

The vertical delivery and the electronic float make it a pump suitable for use in wells of small dimensions. Thermal-amperometersc protection incorporated and condenser permanently connected.

### Application

from 1 to 15 m<sup>3</sup>/h-with prevalence up to 10 meters.

- ▶ from 0° C to +35° C for domestic use
- ▶ maximum immersion depth: 7 m
- ▶ minimum depth of draft: 60 mm
- ▶ maximum containing solids: 10 mm

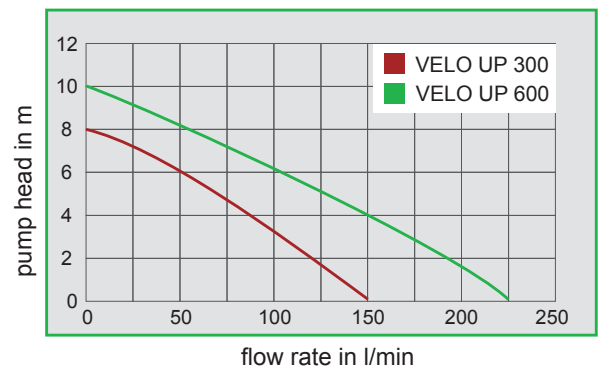
### Features

- ▶ motor, rotor shaft and screws in stainless steel
- ▶ triple O-ring seal with interposed oil chamber
- ▶ stator in a sealed stainless steel enclosure
- ▶ asynchronous submersible motor for continuous operation



VELO UP

### Characteristic curves:



## Technical details

Typ	Flow rate max.	Pumping head max.	Engine power			Pressure port	Dimensions	Pump inlet	Weight	Art. No.
			V	kW	A					
VORTEX 75 EX	300 l/min	10 m	230	0,55	4,7	1½"	37 x 18 cm	30 mm	17 kg	165013 ATEXOS
VORTEX 100 EX	450 l/min	7 m	230	0,75	7,0	2"	46 x 30 cm	45 mm	31 kg	165017 ATEXOS
VORTEX 150 EX	502 l/min	10 m	230	1,1	8,0	2"	46 x 30 cm	50 mm	32 kg	165020 ATEXOS
SUPER-SAND 150	380 l/min	16 m	230	1,1	8,2	2"	50 x 21 cm	8 mm	29 kg	165029
SUPER-SAND 200	723 l/min	17 m	230	1,5	10	3"	55 x 24 cm	10 mm	38 kg	165032
	723 l/min	17 m	400	1,5	3,5	3"	55 x 24 cm	10 mm	38 kg	165030
SUPER-SAND 300	870 l/min	21 m	400	2,2	5,1	3"	55 x 24 cm	10 mm	39 kg	165031
VELO UP 300	150 l/min	8 m	220-240	0,38	1,5	1¼"	30 x 16 cm	-	5,6 kg	165300
VELO UP 600	225 l/min	10 m	220-240	0,77	3,5	1¼"	33 x 16 cm	-	7,3 kg	165600

# Accessories

## Pump control

### 1. Pump control V 10 Plus:

Reliable control unit for 230 and 400 Volt pumps up to 16 A.

Article no. 169013

#### Functions:

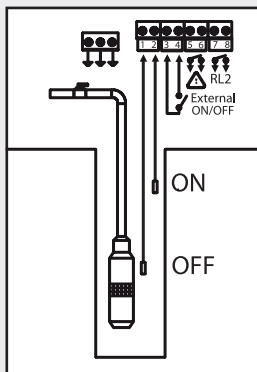
- ▶ integrated level control
- ▶ programmable dry run protection
- ▶ electronic over-/underload protection
- ▶ records starts and operation time
- ▶ excess voltage, phase failure and lightning protection
- ▶ automatic restart after interruption

#### Features:

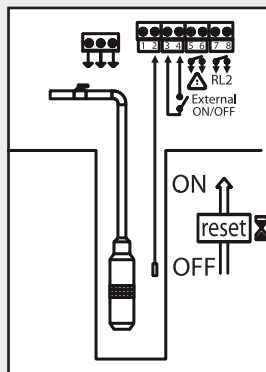
- ▶ easy installation, simple handling
- ▶ key pad, signal lights and amperage display
- ▶ on front side
- ▶ signal output to activate an alarm
- ▶ protection rating IP 54



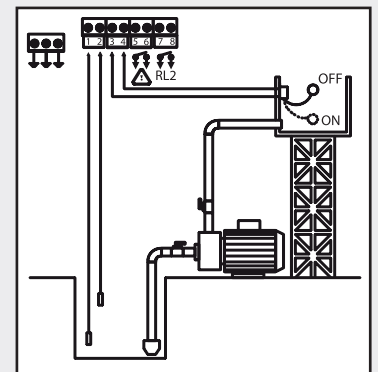
#### Water supply



#### Pressure boosting



#### Irrigation



further applications: sewage disposal, rain water harvesting, dry run protection for impeller pumps

### 2. Float switch:

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

Article no. 131066



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