



# ROBOT PUMPS



**BW - VORTEX**  
**BT - TURBOTEX**  
**BD - SLURRY**

## Dry pumps series design

## Sewage and Waste Water, Slurry

The Robot dry installed pumps are special developed to pump wherever solids handling is requested.

### Hydraulic versions available

- Best solids handling, BW vortex pumps
- Best efficiency, BT Turbotex pumps
- Wear resistant, BD slurry pumps

### Disign features

- Closed bearings, greased for life
- Stainless steel shaft and bolts & nuts
- Most pumps with 2 independent mechanical seals running in biologically degradable oil, allowing dry running, external oil tank
- Seal faces: silicon carbide vs ceramic and carbon vs ceramic
- All impellers with back vanes to keep the solids out and to reduce seal pressure for longer seal life
- No impeller adjustments required
- Flexible coupling, with spacer to allow back pull out for horizontal pumps
- Optional seal flushing
- Vortex series hydraulics in stainless steel and other special materials available

### BW-Vortex pumps

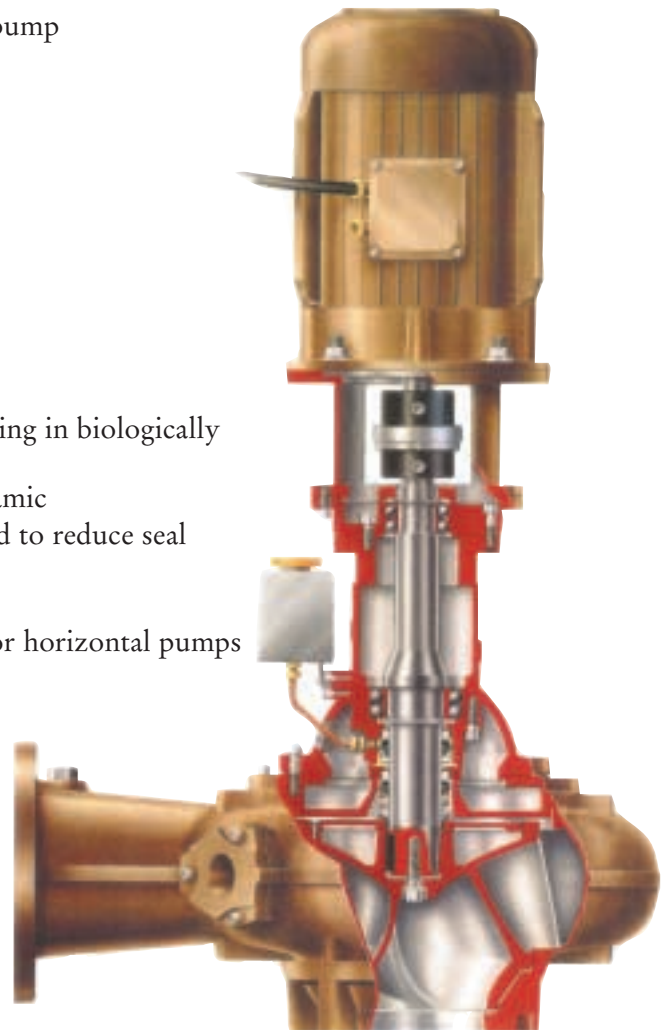
- Non-clog design, the recessed vortex impeller leaves a wide unobstructed passage through the volute in which a strong vortex is created that carries most of the solids.
- Realibility, no risk for jamming and low performance from faulty impeller adjustments and wear
- Large solids handling, the strong vortex prevents that solids are left behind even at low flow conditions
- Low wear, natural low wear is experienced for vortex pumps as most of the solids pass in front of the impeller without even touching it. Wear will only have limited effect on performance and evenly spread over the impeller it will not create high vibration levels
- Free choice of solids size, the Robot series of vortex pumps is available in a wide selection of solid series.

### BT-Turbotex pumps

- Self cleaning design, the unique closed design of the impeller together with the smooth passage in combination with the self cleaning action makes the Turbotex impeller superior to both channel and screw impeller pumps
- High efficiency, up to 80% hydraulic efficiency
- Low turbulence, the favourable shape of the empeller inlet ensures smooth passage of the solids, avoiding excessive turbulence and preventing damage of the pumped articles.

### BD-slurry pumps

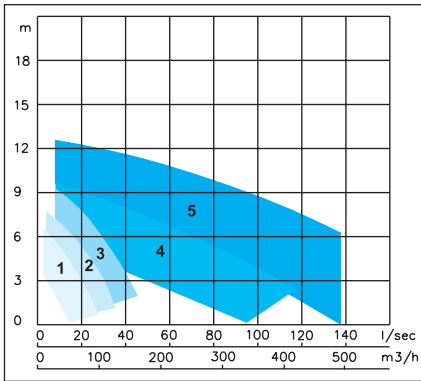
- Non clog design, vortex impeller
- Wear resistant Nihard 4, used for all hydraulic parts, which is harder than silica and quartz sand and can withstand shock impacts with rocks.



# Characteristics

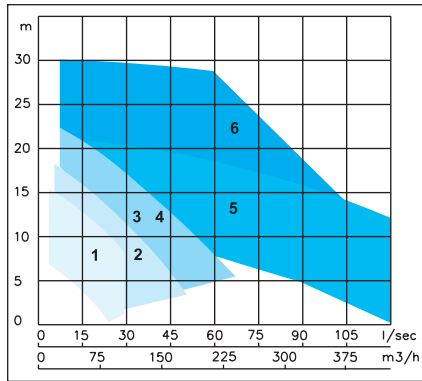
**BW series**

960 min<sup>-1</sup>



Nr	Model	Free passage [mm]	Discharge [mm]	Suction [mm]
1	BW2020/4020	65	80	80
2	BW2030/4030	80	100	100
3	BW2041/4041	100	100	125
4	BW5000	125	150	150
5	BW6000	150	200	200

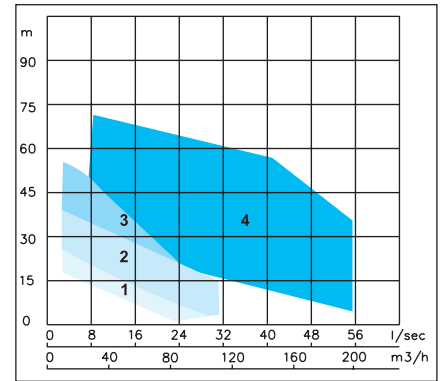
1450 min<sup>-1</sup>



Nr	Model	Free passage [mm]	Discharge [mm]	Suction [mm]
1	BW2020/4020	65	80	80
2	BW2030/4030	80	100	100
3	BW2040/4040	100	100	100
4	BW2041/4041	100	100	125
5	BW5000	125	150	150
6	BW6000	150	200	200

**BW series**

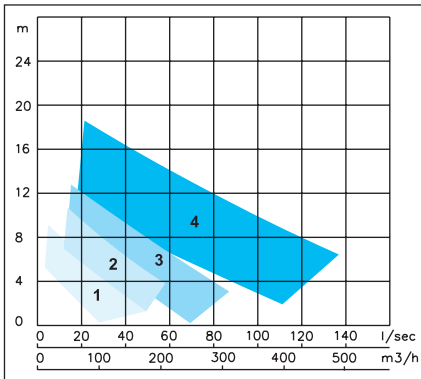
2900 min<sup>-1</sup>



Nr	Model	Free passage [mm]	Discharge [mm]	Suction [mm]
1	BW2021	65	80	80
2	BW4021	65	80	80
3	BW4020	65	80	80
4	BW6032	80	100	100

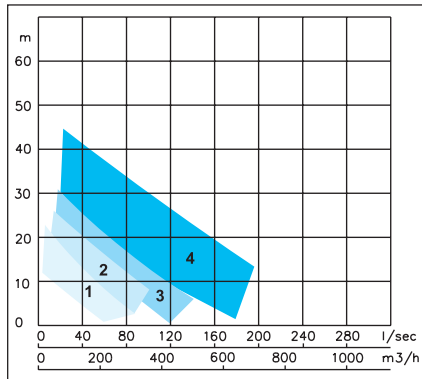
**BT series**

960 min<sup>-1</sup>



Nr	Model	Free passage [mm]	Discharge [mm]	Suction [mm]
1	BT2040/4040	100	100	125
2	BT4042	100	150	150
3	BT6040	110	150	200
4	BT6050	125	200	200

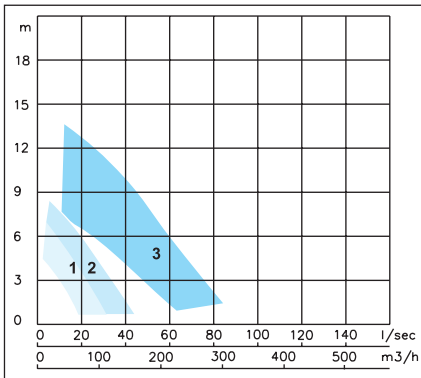
1450 min<sup>-1</sup>



Nr	Model	Free passage [mm]	Discharge [mm]	Suction [mm]
1	BT2040/4040	100	100	125
2	BT4042	100	150	150
3	BT6040	110	150	200
4	BT6050	125	200	200

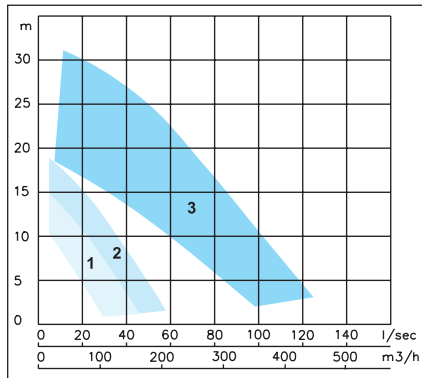
**BD series**

960 min<sup>-1</sup>



Nr	Model	Free passage [mm]	Discharge [mm]	Suction [mm]
1	BD4030	80	100	100
2	BD4041	100	100	100
3	BD6040	100	150	150

1450 min<sup>-1</sup>



Nr	Model	Free passage [mm]	Discharge [mm]	Suction [mm]
1	BD4030	80	100	100
2	BD4041	100	100	100
3	BD6040	100	150	150

## Options available

	Installation versions							Sealing system		Option pump unit st. steel	Option wear res. impeller
	H	HM	V	VM	SH	SV	K	1x Mech. seal 1x Lipseal	2 Mech. seals		
BW2020	●	●	●	●	●	●		●		●	●
BW2021	●	●	●	●	●	●		●		●	●
BW2030	●	●	●	●	●	●		●		●	●
BW2040	●	●	●	●	●	●		●		●	●
BW2041	●	●	●	●	●	●		●			●
BW4020	●	●	●	●	●	●	●		●	●	●
BW4021	●	●	●	●	●	●	●		●	●	●
BW4030	●	●	●	●	●	●	●		●	●	●
BW4040	●	●	●	●	●	●	●		●	●	●
BW4041	●	●	●	●	●	●	●		●		●
BW5000	●	●	●	●			●		●		
BW6000	●	●	●	●			●		●		
BW6032	●	●	●	●			●		●		●
BT2040	●	●	●	●					●		●
BT4040	●	●	●	●			●		●		●
BT4042	●	●	●	●			●		●		●
BT6040	●	●	●	●			●		●		●
BT6050	●	●	●	●			●		●		●
BD4030	●	●					●		●		
BD4041	●	●					●		●		
BD6040	●	●					●		●		

## Products from Robot Pumps B.V.:

### Submersible pumps



- RW Vortex Pumps
- RT Turbotex Pumps
- RS Grinder Pumps
- RC Channel Pumps
- RD Slurry Pumps
- RV Heavy Duty Slurry Pumps

**RoboSel®**

Upon request we have our in house developed program **RoboSel®** available. A handy tool for fast and easy friction loss calculations and alternative system dimensioning. With **RoboSel®** it is easy to select the best suitable pump for your specific application..

### Pumps for dry installation



- BW Vortex Pumps
- BT Turbotex Pumps
- BD Slurry Pumps

## Typical applications



Robot dry installed pumps, the ultimate solution for solids handling applications. Above two BT6050 pumps managing the sewage system at Amsterdam airport "Schiphol".



The compact design of the B pumps are making cellar applications possible.



For special transport of chicken feathers and other wastes, BW-pumps are extremely suitable.



B-pumps for sprinkler applications in greenhouses and (photo below) as flush pumps for plant bulbs.



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