



A Tsurumi Pump Company

DOMESTIC/RESIDENTIAL



WASTEWATER LIFTING
STATIONS DOMESTIC
AND RESIDENTIAL

pump **BOX**

Do you need to reach a sewer system that's too far away or at a higher level? With **pumpBOX** you can.

pumpBOX is a pre-assembled lifting station certified in accordance with EN 12050-1 and 12050-2 standards for collecting and pumping wastewater from residential wash basins, toilets, showers and washing machines into the sewer system when a gravity feed is not available or it is too far away.

pumpBOX combines a robust polyethylene tank with a single or dual Zenit pump, resulting in a complete system for the collection and lifting of black and grey water from domestic and residential sources.

Compact, quiet and reliable, **pumpBOX** is ready to use and does not require any excavation or masonry work.

The different configurations, with one or two pumps, vortex or grinder, make the **pumpBOX** extremely versatile and allow it to be used in a wide range of situations, from individual homes to residential complexes.



Why choose the **pumpBOX**?



Time

pumpBOX is supplied pre-wired and pre-assembled. All electrical and hydraulic connections have been made in the factory and only need to be connected to the respective systems, significantly reducing installation times



Space

pumpBOX includes a tank, pump and fittings complete with check valves in a single, compact and rational system. No additional accessories are required thereby ensuring a limited footprint and optimal installation in any environment.



Costs

Opting for a single, complete product means optimising purchase costs, not only because you avoid additional costs, but also because of the advantages of having a single commercial point of reference. Reducing the impact of installation, maintenance and transport on the project results in significant savings without affecting the quality of the end result.

Easy to install



Scan the QR-code and watch the installation procedure!



Specifications

- Tank in PE, EN 12050-1, 12050-2 certified
- Rated volume 75 litres (GR version) or 115 litres (DG version)
- White, allowing immediate verification of the liquid level inside
- Strong one-piece construction with internal reinforcement feet
- Low noise levels (<70 dB), sealed against liquids and odours
- Large Ø 90 mm inspection window on top wall
- GR version (grinder pump) or DG version (vortex pump)
- Single or dual pump version
- Maintenance-free PVC fittings and check valves (GR version)
- Double check valve in UNI flanged cast iron (DG version)
- Float for maximum level alarm as standard
- Automatic start/stop system of the pump via a level sensor

Applications



Residential properties

Soiled wastewater containing fibres and filaments

pumpBOX-GR



Pump with cutting knife
 $P_2 = 1.1 - 1.5 \text{ kW} - 2 \text{ poles}$



Residential complexes

Liquids containing solid parts

pumpBOX-DG



Pump with vortex impeller
 $P_2 = 1.1 - 3.0 \text{ kW} - 2 \text{ poles}$
 $P_2 = 1.5 - 2.2 \text{ kW} - 4 \text{ poles}$

Construction details

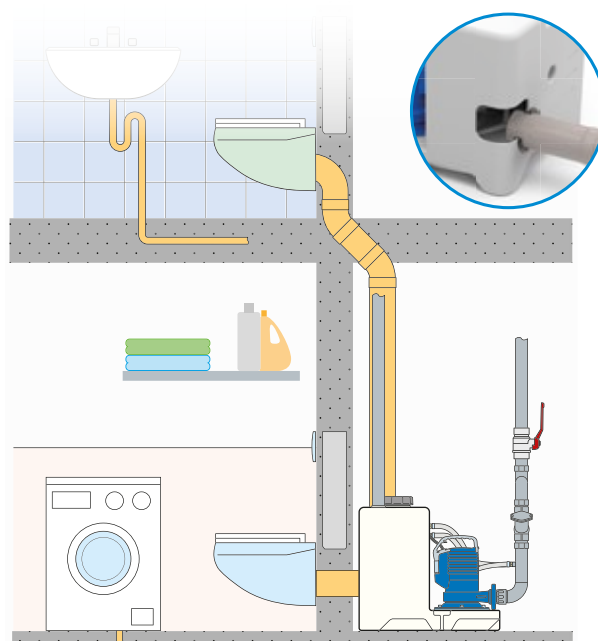


- ① Thick polyethylene tank, with a hermetic seal against odours and liquids.
Strong one-piece construction with internal reinforcement feet and slots for fastening to the floor integrated into the casing.
- ② Internally shaped bottom to facilitate the suction of solids and reduce the accumulation of sediment which can generate bad odours and reduce the useful volume of the tank.
- ③ Emergency emptying valve in a low position (ready for connection to an optional hand pump).
- ④ PVC check valves and outlet fittings (GR models)
Cast iron double check valve with UNI flange (DG models).
- ⑤ Air venting system with active carbon filter ready for connection to external pipe DN40.
The safety valve with a float ensures a tight seal of the pipe if the level rises and prevents possible liquid spillage.

- ⑥ Maximum level alarm via stainless steel float switch.
- ⑦ Pump start/stop device via pressure sensor.
- ⑧ Prepared for inlet pipes from above or from side and rear walls (standard height: h 180, 250, 315 mm for direct connection to the WC). Gaskets Ø 75-110 mm, included.

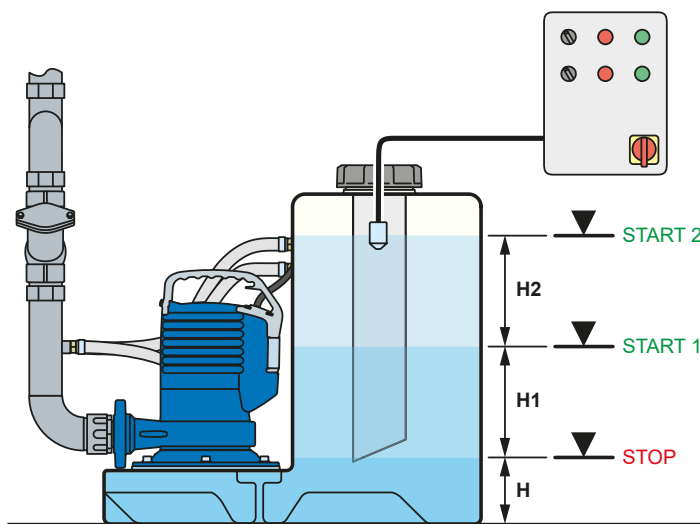


Electrical control panel for managing the lifting station (available separately)



Automatic start/stop device

The pump is started and stopped by an automatic device able to detect the level of the liquid in the tank. The system can use a **level sensor** which is connected to an electrical control panel. The device is housed inside the tank and can be removed through a large Ø 90 mm inspection window by unscrewing the tightly sealed ring nut of the cover.



Level sensor

For constant detection of the level of the liquid and for setting the start/stop thresholds for the main and the secondary pump (if installed).

Thanks to its wide reading range, it can use all the available volume while optimising operation.

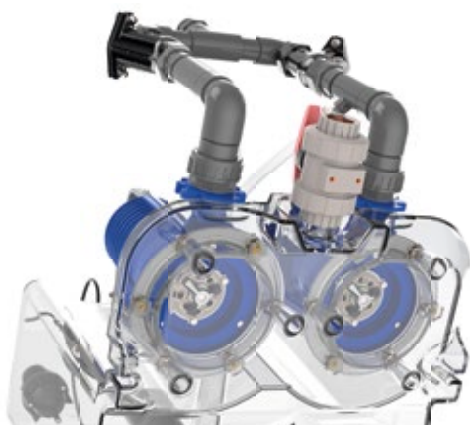
It uses a standard 4-20 mA sensor.

Pumping system

pumpBOX lifting stations can be equipped with grinder pumps or vortex pumps, in a single or dual configuration, depending on the type of wastewater and the workload to be carried out. All motors have two silicon carbide mechanical seals (SiC-SiC) in an inspectable oil chamber to ensure maximum system reliability.

GR bluePRO pumps

Pumps with **high head grinder impeller** suitable for wastewater containing fibres and filaments. Single-phase version supplied with overload protection and a circuit breaker to ensure high breakaway torque and effective cutting action even during start-up.



Rotary knife

With three blades made of specially treated chrome steel for greater reliability when cutting solids.

Grey DGG pumps

Vortex impeller pumps with full free passage suitable for use with wastewater with solids.



Free passage

The recessed vortex impeller and the internal shape of the tank ensure a wide free passage and smooth operation even in the presence of large solids

Technical data and performance

pumpBOX DG 115S 150/2 M

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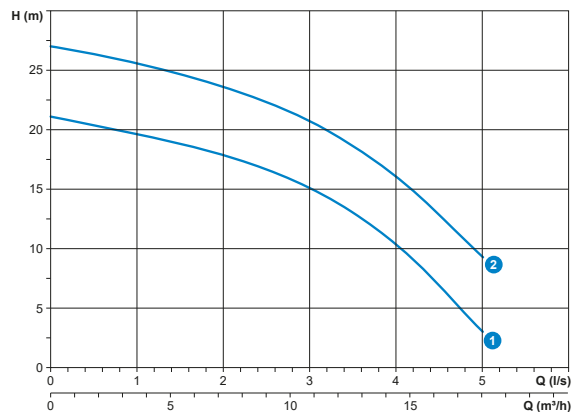
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- 1 Product name
- 2 Installed pump type V= vortex, GR= grinder
- 3 Rated tank capacity (litres)
- 4 No. of pumps installed S= 1 (single), D= 2 (dual)
- 5 Power (HPx100)/poles
- 6 Motor phases M= Single-phase, T= Three-phase

pumpBOX-GR

impeller with cutting knife

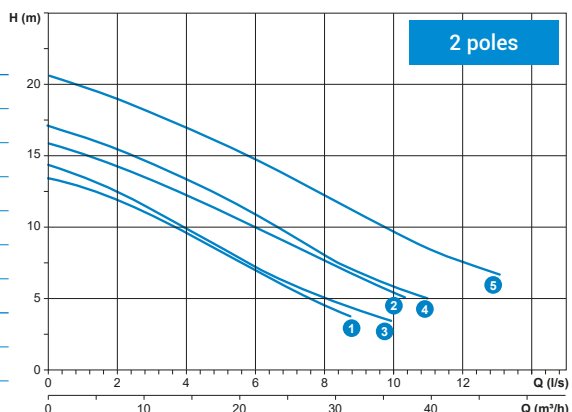
Model	no. / pumps	V/~ (50 Hz)	P ₂ (kW)/ poles	Current (A)	Free flow (mm)	kg
1 pumpBOX GR 75S 150/2 M	1	230/1	1.1/2	7.5	-	59
1 pumpBOX GR 75S 150/2 T	1	400/3	1.1/2	3.2	-	59
2 pumpBOX GR 75S 200/2 M	1	230/1	1.5/2	10	-	61
2 pumpBOX GR 75S 200/2 T	1	400/3	1.5/2	4.3	-	61
1 pumpBOX GR 75D 150/2 M	2	230/1	1.1/2	7.5	-	84
1 pumpBOX GR 75D 150/2 T	2	400/3	1.1/2	3.2	-	84
2 pumpBOX GR 75D 200/2 M	2	230/1	1.5/2	10	-	88
2 pumpBOX GR 75D 200/2 T	2	400/3	1.5/2	4.3	-	88



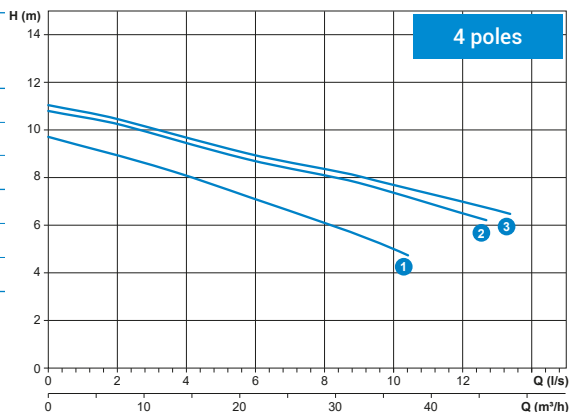
pumpBOX-DG

vortex impeller

Model	no. / pumps	V/~ (50 Hz)	P ₂ (kW)/ poles	Current (A)	Free flow (mm)	kg
1 pumpBOX DG 115S 150/2 M	1	230/1	1.1/2	6.6	50	60.9
2 pumpBOX DG 115S 200/2 M	1	230/1	1.5/2	9.3	50	61.3
1 pumpBOX DG 115S 150/2 T	1	400/3	1.1/2	2.4	50	60.9
2 pumpBOX DG 115S 200/2 T	1	400/3	1.5/2	3.3	50	61.3
3 pumpBOX DG 115S 250/2 T	1	400/3	1.8/2	3.7	50	57.9
4 pumpBOX DG 115S 300/2 T	1	400/3	2.2/2	4.6	50	70.3
5 pumpBOX DG 115S 400/2 T	1	400/3	3.0/2	6.4	50	72.1
1 pumpBOX DG 115D 150/2 M	2	230/1	1.1/2	6.6	50	91.0
2 pumpBOX DG 115D 200/2 M	2	230/1	1.5/2	9.3	50	98.8
1 pumpBOX DG 115D 150/2 T	2	400/3	1.1/2	2.4	50	91.0
2 pumpBOX DG 115D 200/2 T	2	400/3	1.5/2	3.3	50	98.8
3 pumpBOX DG 115D 250/2 T	2	400/3	1.8/2	3.7	50	92.0
4 pumpBOX DG 115D 300/2 T	2	400/3	2.2/2	4.6	50	116.8
5 pumpBOX DG 115D 400/2 T	2	400/3	3.0/2	6.4	50	120.4

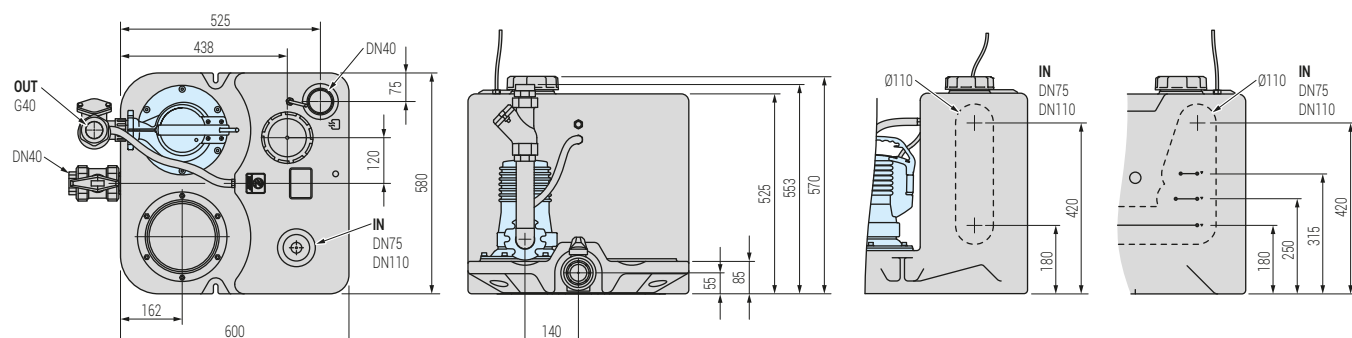


Model	no. / pumps	V/~ (50 Hz)	P ₂ (kW)/ poles	Current (A)	Free flow (mm)	kg
1 pumpBOX DG 115S 200/4 T	1	400/3	1.5/4	3.4	45	72.8
2 pumpBOX DG 115S 250/4 T	1	400/3	1.8/4	4.3	45	75.6
3 pumpBOX DG 115S 300/4 T	1	400/3	2.2/4	5.2	45	75.6
1 pumpBOX DG 115D 200/4 T	2	400/3	1.5/4	3.4	45	121.3
2 pumpBOX DG 115D 250/4 T	2	400/3	1.8/4	4.3	45	126.9
3 pumpBOX DG 115D 300/4 T	2	400/3	2.2/4	5.2	45	126.9

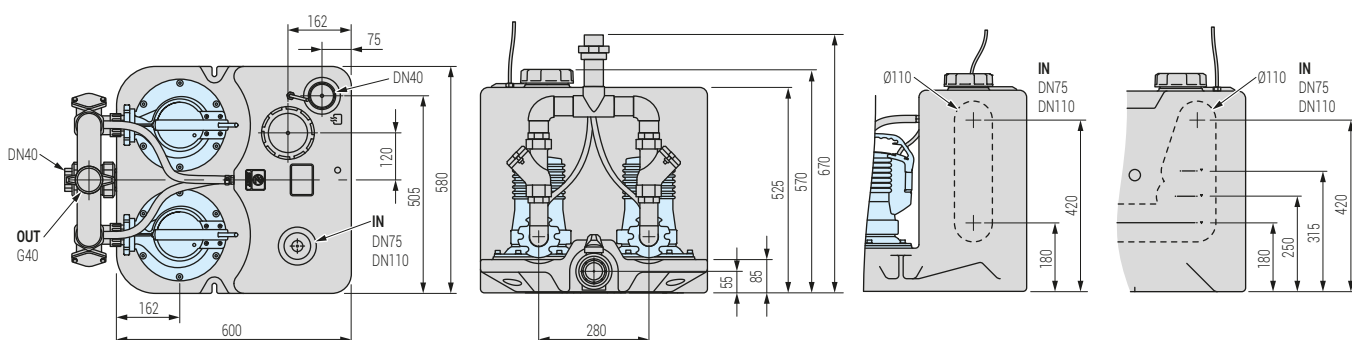


Dimensions

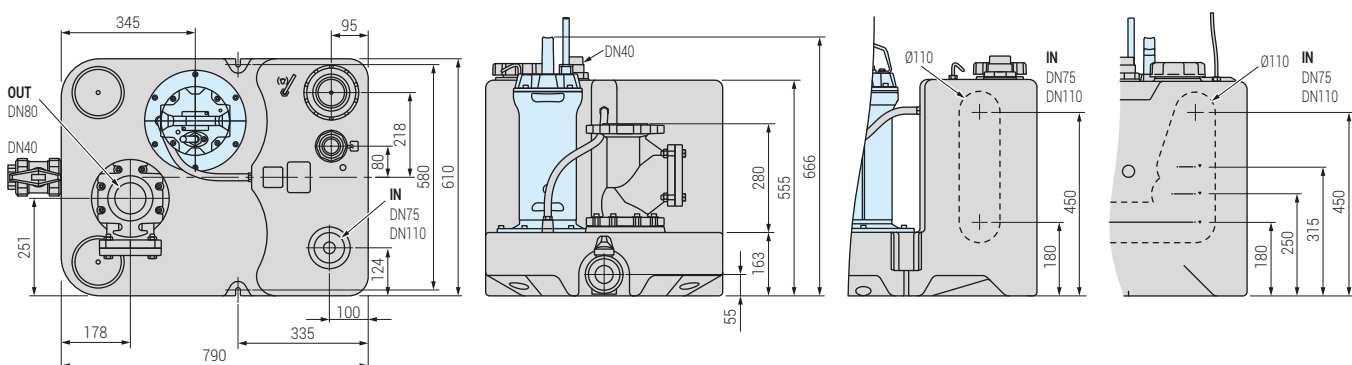
pumpBOX-GR - impeller with cutting knife - single pump version



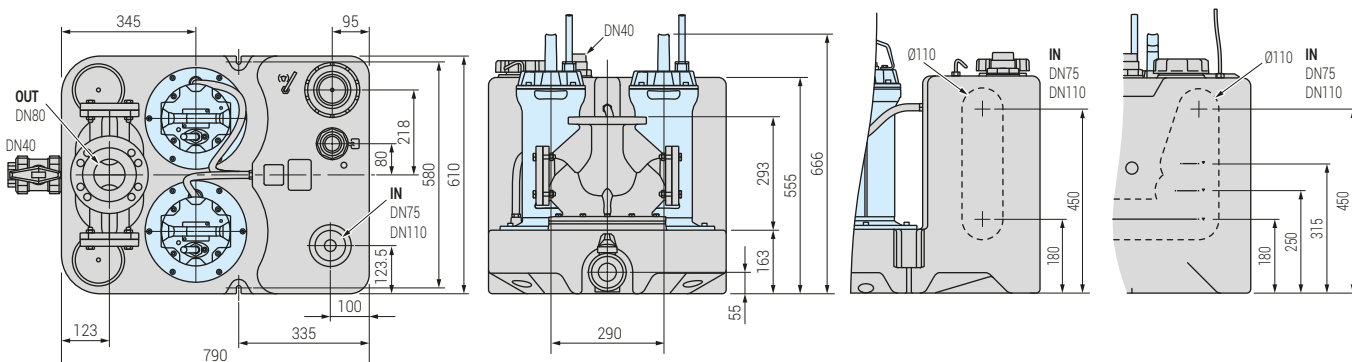
pumpBOX-GR - impeller with cutting knife - dual pump version

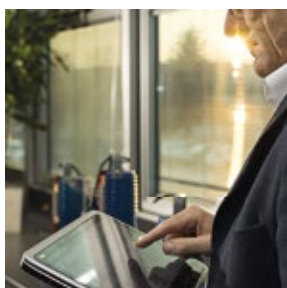


pumpBOX-DG - vortex impeller - single pump version



pumpBOX-DG - vortex impeller - dual pump version





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For further information, visit www.zenit.com