



PACKAGED PUMPING STATIONS



PROUDLY MANUFACTURED AND MARKETED BY



GENERAL PUMP COMPANY
SINCE 1975

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What are Ultraflow Packaged Pumping Stations used for?

Draining sewage or stormwater from a residence or commercial building is not always simple. Draining to the sewer or stormwater main by gravity may be impossible – the connection maybe above the building or it might be just at the same level. In some situations draining to the sewer main or stormwater main by gravity maybe very difficult – concrete slabs, rock and other obstructions can make it difficult or very expensive to excavate for drainage pipework. These difficulties are not impossibilities. By installing an Ultraflow packaged pumping station it is possible to transfer sewage or stormwater to the desired connection point. General Pump Company manufactures and stocks a large range of Ultraflow packaged pumping stations for almost any application.

How does an Ultraflow Packaged Pumping Station work?

Sewage or stormwater from a residence or commercial building drains into the pumpwell (tank) by gravity. The liquid level rises in the pumpwell and when the liquid reaches a determined level, a float switch will start the submersible pump. The pump will continue to operate until the liquid level in the pumpwell falls to a determined level and will then shut down.

Where a second pump has been installed in the pumpwell, the system function is different. When the liquid level rises in the pumpwell to a determined level, one pump will start. If the liquid level continues to rise, the second pump will start. Both pumps will continue to operate until the liquid level in the pumpwell falls to a determined level and both pumps will shut down. Pumps will start alternately each time a pump is called for. If one pump fails, the second pump will start and operate immediately.

It is recommended that a high level alarm is fitted to a packaged pumping station. This ensures that when there is a high liquid level in the pumpwell due to a pipe blockage or pump failure, an alarm is activated.

What does an Ultraflow Packaged Pumping Station include?

A packaged pumping station consists of:

- Reinforced fibreglass pumpwell which can be installed in ground or above ground.
- Single, dual or triplex submersible pump/s mounted inside the tank / pumpwell complete with 'in-tank' pipework and valves.
- Pipework available in PVC, HDPE, ABS or Cast Iron.
- Valves available in bronze, cast iron, stainless or plastic. (Valves available in an Integral or separate valve chamber.)
- Pumps can be installed free standing or with a guide rail system with galvanised steel or stainless steel guide rail poles.
- An electrical control panel with alarms is available as an option for single pump systems but is mandatory for dual and triplex pump systems.
- Float level switches, probes or ultrasonic level controls

Easy handling & installation.

The use of reinforced fibreglass pumpwells makes handling, transportation and installation very easy. The pumpwell is rigid & tough but also lightweight. Smaller cranes and lifting equipment can be used compared to the heavy cranes required for lifting the sections of precast concrete pumpwells. This is very beneficial especially where there is limited access and steep terrain at the site. The reinforced fibreglass pumpwells are fully fitted out with plumbing and guide rails (if required). Also, the pumpwells are manufactured with a 'benched' base. All this provides a very significant reduction in installation time and cost.

Simple maintenance.

Not only are the Ultraflow packaged pumping stations easy to install, but they are simple to maintain. The maintenance schedule can be carried out by inexperienced persons by following the simple step by step procedures outlined in the service manual.

Taking responsibility for the environment.

Concrete pumpwells, either precast or poured on site, are commonly used for pumping stations. They are known to crack / fracture over a period of time due to ground movement and acidity in subsoils. This allows sewage to leak from the tank, contaminating the surrounding subsoil. Tree roots will venture into the concrete tanks creating further damage and thus contamination.

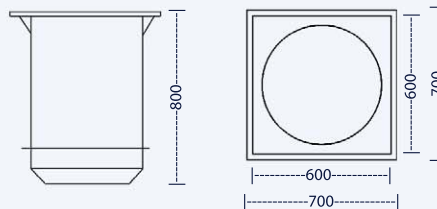
Reinforced fibreglass pumpwells are superior in strength and durability compared to concrete or polyethylene tanks. The use of reinforced fibreglass pumpwells almost eliminates the possibility of contamination occurring.

Standard Pumpwell Sizes:

General Pump Company stocks a range of standard sized pumpwells ranging from 250L to 5000L. This means an 'ULTRAFLOW' packaged pumping station can be quickly assembled with single or dual pumps, guide rails if required, plumbing and switchgear and delivered to site in the shortest possible time.

250 Litre Pumpwell:

Pumpwell Material:	Reinforced Fibreglass
Weight:	20kg (excluding pump)
Access Cover:	600mm x 600mm
Cover Types:	Reinforced Fibreglass Cast iron filled with concrete Galvanised steel grate
Pipework:	PVC pipe & fittings, bronze valves
Controls:	Optional with single pump systems
Pump Options:	Single pump
Liquids:	Raw sewage Trade waste Effluent Stormwater

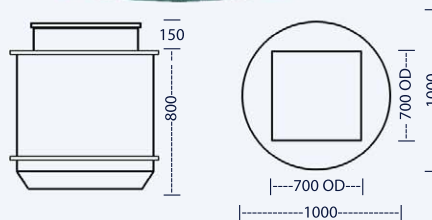


Side view.

Top view.

500 Litre Pumpwell:

Pumpwell Material:	Reinforced Fibreglass
Weight:	35kg (excluding pump/s)
Access Cover:	600mm x 600mm
Cover Types:	Reinforced Fibreglass Cast iron filled with concrete Galvanised steel grate
Pipework:	PVC pipe & fittings, bronze valves
Controls:	Optional with single pump systems Necessary with dual pump systems
Pump Options:	Single pump or dual pumps
Liquids:	Raw sewage Trade waste Effluent Stormwater



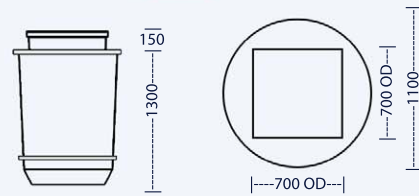
Side view.

Top view.

Standard Pumpwell Sizes:

1000 Litre Pumpwell:

Pumpwell Material:	Reinforced Fibreglass
Weight:	45kg (excluding pump/s)
Access Cover:	600mm x 600mm
Cover Types:	Reinforced Fibreglass Cast iron filled with concrete Galvanised steel grate
Pipework:	PVC pipe & fittings, bronze valves
Controls:	Optional with single pump systems Necessary with dual pump systems
Pump Options:	Single pump or dual pumps
Liquids:	Raw sewage Trade waste Effluent Stormwater

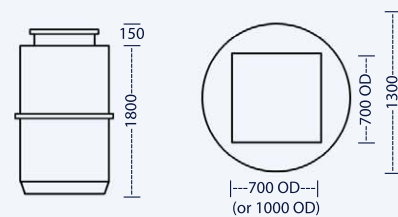


Side view.

Top view.

2000 Litre Pumpwell:

Pumpwell Material:	Reinforced Fibreglass
Weight:	150kg (excluding pump/s)
Access Cover:	600mm x 600mm/900mm x 600mm
Cover Types:	Reinforced Fibreglass Cast iron filled with concrete Galvanised steel grate
Pipework:	PVC pipe & fittings, bronze valves
Controls:	Optional with single pump systems Necessary with dual pump systems
Pump Options:	Single pump or dual pumps
Liquids:	Raw sewage Trade waste Effluent Stormwater



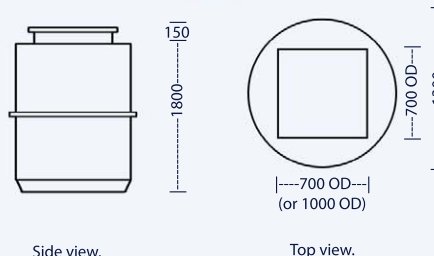
Side view.

Top view.

Standard Pumpwell Sizes:

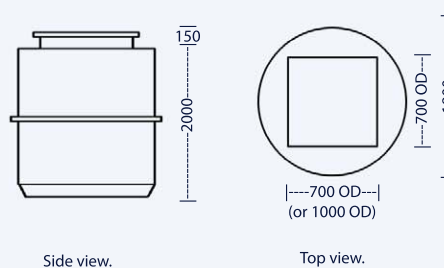
3000 Litre Pumpwell:

Pumpwell Material:	Reinforced Fibreglass
Weight:	180kg (excluding pump/s)
Access Cover:	600mm x 600mm/900mm x 600mm
Cover Types:	Reinforced Fibreglass Cast iron filled with concrete Galvanised steel grate
Pipework:	PVC pipe & fittings, bronze valves
Controls:	Optional with single pump systems Necessary with dual pump systems
Pump Options:	Single pump or dual pumps
Liquids:	Raw sewage Trade waste Effluent Stormwater



5000 Litre Pumpwell:

Pumpwell Material:	Reinforced Fibreglass
Weight:	250kg (excluding pump/s)
Access Cover:	600mm x 600mm/900mm x 600mm
Cover Types:	Reinforced Fibreglass Cast iron filled with concrete Galvanised steel grate
Pipework:	PVC pipe & fittings, bronze valves
Controls:	Optional with single pump systems Necessary with dual pump systems
Pump Options:	Single pump or dual pumps
Liquids:	Raw sewage Trade waste Effluent Stormwater



Custom Pumpwell Sizes:

The Ultraflow reinforced fibreglass pumpwells can be manufactured as vertical or horizontal pumpwells. Below is an overview of the range of diameters, depths and lengths available.

Vertical Pumpwell size options:

"d" Internal Diameter Metres	"D" Overall Diameter Metres	"H" Overall Height Metres
0.6	0.7	0.6 - 1.0
1.0	1.2	0.9 - 4.0
1.2	1.4	1.0 - 10.0
1.4	1.6	1.5 - 10.0
1.5	1.8	1.5 - 10.0
1.9	2.2	2.0 - 10.0
2.1	2.4	2.0 - 10.0
2.4	2.7	2.5 - 10.0
2.8	3.1	3.0 - 10.0

VOLUME IN LITRES = $(d' \div 2)^2 \times 3.14 \times H' \times 1000$

Horizontal Pumpwell size options:

"d" Internal Diameter Metres	"D" Overall Diameter Metres	"L" Overall Length Metres
0.6	0.7	0.6 - 1.0
1.0	1.2	0.9 - 4.0
1.2	1.4	1.0 - 10.0
1.4	1.6	1.5 - 10.0
1.5	1.8	1.5 - 10.0
1.9	2.2	2.0 - 10.0
2.1	2.4	2.0 - 10.0
2.4	2.7	2.5 - 10.0
2.8	3.1	3.0 - 10.0

VOLUME IN LITRES = $(d' \div 2)^2 \times 3.14 \times L' \times 1000$

* The above tank options are available for above ground or water charged applications.

Pumps for Ultraflow Packaged Pump stations:

The Ultraflow packaged pumping stations are mostly supplied with Ultraflow submersible pumps – a range of pumps manufactured to the stringent specifications of General Pump Company. General Pump Company maintains a huge stock of the Ultraflow submersible pumps ensuring prompt deliveries of packaged pumping stations. These pumps have been proven to operate reliably and efficiently in the harshest installations for more than fifteen (15) years.



General Pump Company can also provide pumps of your choice and specification. General Pump Company has been supplying and servicing pumps since 1975 and now represents more than 240 pump manufacturers from around the world. Some well known brands include:-

- ULTRAFLOW • FLYGT • GRUNDFOS • DAVEY • EBARA • TSURUMI • LOWARA • CALPEDA • ZENIT • PENTAIR • HOMA
- SARLIN • FORRERS • ROBOT • KSB AJAX • E.I.M • SAKURAGAWA • ORANGE • And many other brands.

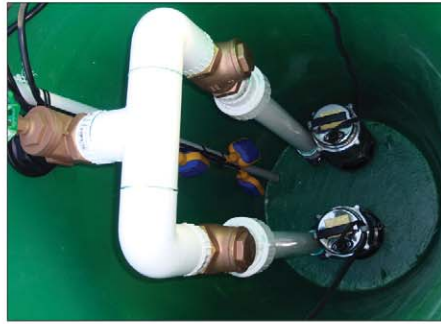
General Pump Company is also able to offer submersible pumps which are approved for Class 1 Zone 2 installations.

Options and Accessories for Ultraflow Packaged Pump Stations:

Pump Configurations:



Single Pump



Dual Pump



Guide Rail System

Pump Controllers:



Single Pump Controllers



Dual Pump Controllers



High Level Alarms

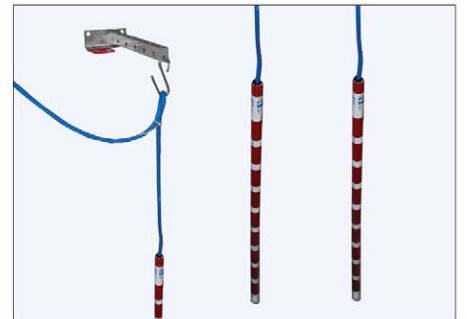
Level Switches:



Float Level Switches

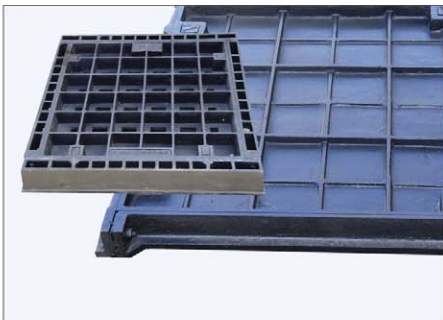


Level Probes



Multitrode probes

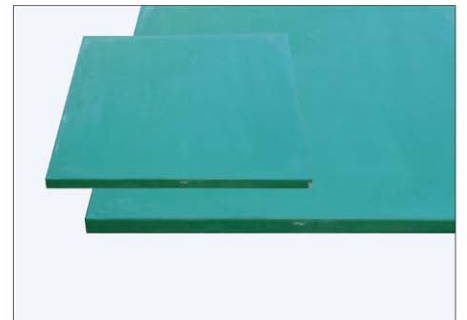
Access Covers:



Concrete Infill Gatic Lids



Metal Grate



Standard Fibreglass

* Available in Classes A, B, C, D, E, F and G.