

# Titan

## Compact Pumping Systems

Revision 1.0 - 17<sup>th</sup> September 2021

### INTRODUCTION

The *Newton Titan* is a compact sump chamber for the collection of surface and ground water. The unique octagonal sump shape ensures structural stability and provides eight large surfaces for inlets into the pump of up to 110 mm via an optional wall flange. The sump chamber also features a flared base to prevent flotation. The compact size means that the Titan is ideally sized for confined spaces such as light wells and small cellars. The Titan sump can be used with single pumps or twin pumps via a single discharge line. Please see below for details of the pumping systems built with the Newton Titan chamber.

### BENEFITS

- Suitable for use with [Newton CP pumps](#)
- Compact size allows installation to locations that are too tight for larger pumping systems
- Supplied with sealed and locked recessed lid. High end finish lids and frames are available as cost options (see page 4)
- Flat areas to side of chamber ready for wall flanges to receive incoming 110 mm drainage pipes. Wall flanges are available as cost options (see page 4)
- Large foot to base of chamber to prevent flotation

### TYPICAL APPLICATIONS

- Basements and cellars
- Light-wells
- Surface water pumping receiving water from gullies and surface slot drainage

### PRODUCT LIFE EXPECTANCY

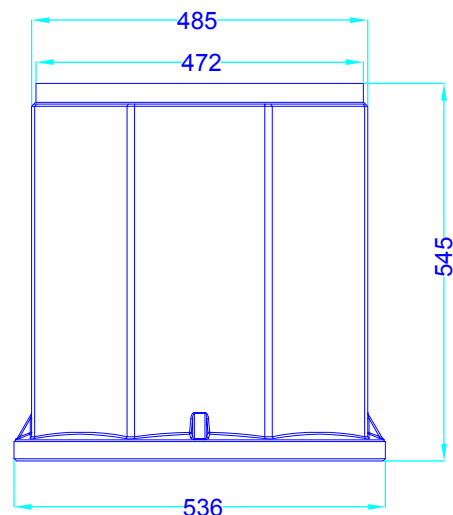
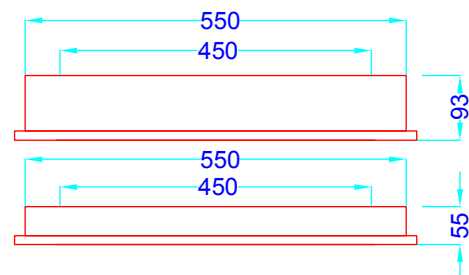
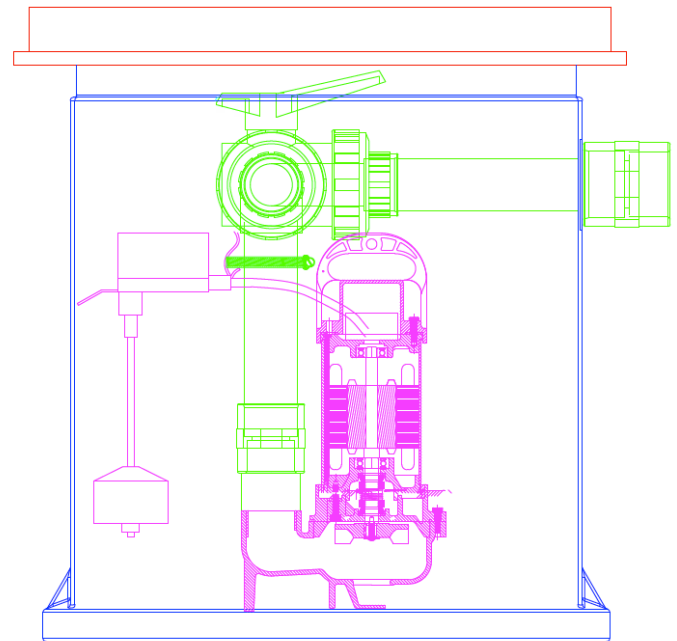
The Titan chamber is made from robust HDPE and should provide, under normal service conditions, a chamber for the life of the building. Please refer to the relevant data sheets for confirmation of the guarantees for the pumps and ancillaries used within the pumping systems confirmed below.

### PUMPING SYSTEMS & PURCHASE CODES

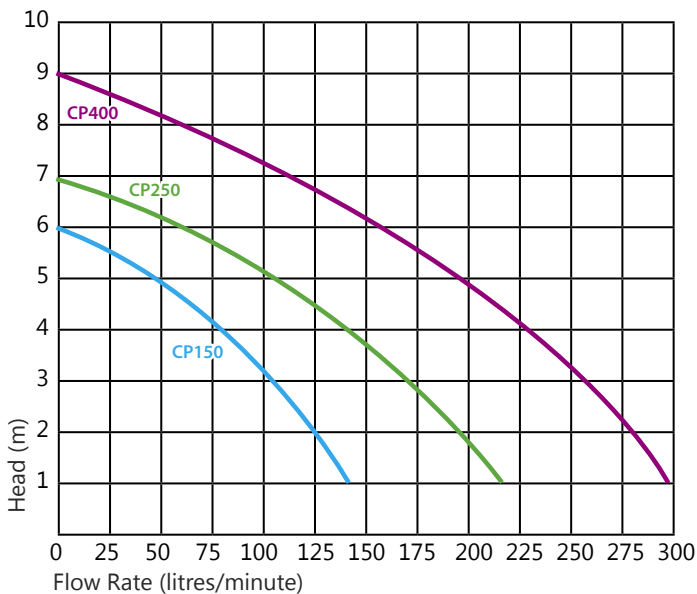
Titan Sump Chamber		
		Purchase Code
Chamber only		T2C
Chamber plus lid & frame		T2C&L

Built Pumping Systems		
Pump(s)	Number of pumps	Purchase Code
CP150	1	T1
CP250	1	T2
CP250	2	T3
CP400	2	T4



### PUMP PERFORMANCE CURVES



### PUMPING SYSTEM BENEFITS

- Fully built pumping system featuring high quality, stainless steel body, [Newton CP pumps](#)
- Includes all internal pipe and pipe fittings ready for connection to 50 mm rising main
- One-way valve for each pump included
- Quick release coupling for each pump for easy installation and removal for servicing
- Newton [PA50 High Water Level Alarm](#) included
- Automatic pumps are supplied with Vertical Float Switches that allow for very flexible pump switching, allowing for adjustment of the ON & OFF positions of each pump, as well as the overall height of the pump switching

### BATTERY BACK-UP SYSTEMS

The following battery back-up systems are available for to ensure continued pumping during power outage:

Matched Battery Back-up Systems			
Pumping System	Inverter	Battery	Battery Back-up Purchase Code
T1, T2, T3	12/500/20	40 Ah	BBS1
T1, T2, T3	12/500/20	60 Ah	BBS2
T4	12/800/35	60 Ah	BBS3
T4	12/800/35	100 Ah	BBS4

Please note that the Victron Inverters and batteries that make up the Newton Battery Back-Up systems can also be sized and purchased separately for systems that require enhanced protection provided by larger batteries or banks of batteries. Please see below or refer to the [Newton Victron MultiPlus TDS](#).

### Battery back-up systems

- For CP150 and CP250 pumps: [Newton Victron Inverter 12/500/20](#) - Code BB5
- For CP400, pumps: [Newton Victron Inverter 12/800/35](#) - Code BB1
- 40 Ah battery - Code BB23
- 60 Ah battery - Code BB20
- 100 Ah battery - Code BB21
- 200 Ah battery - Code BB22

### Telemetry

- Newton Text and Speech [Dialer](#) that can send either text or voice messages to up-to five designated phones should an alarm condition occur - Code PA5

### SYSTEM PARTS

Included within the system packaging is:

- 1 x Locked & Sealed Lid & Frame with 46 mm recess
- One or two Newton CP pumps as ordered
- 1 x check valve per pump. The valve has a BSP thread to the top and the bottom of the valve and screws directly into the pump. A 1 ½" BSP to 50 mm socket is supplied with each valve. This screws into the top of the valve to provide a socket ready for the supplied internal pipework
- 50 mm pressure-rated pipework including a shut-off valve. Single pump systems have a single 'in-line' shut-off valve and twin pump systems have a three way shut-off valve to allow for disconnection of one pump whilst the other is still operational
- 1 x sump wall discharge assembly that terminates to a 50 mm socket outside of the sump ready for 50 mm pressure rated pipe
- 1 x PA50 High Water Level Alarm

**Please note:** Conduit, vent, rising main pipe, fittings and solvent weld glue is not supplied but required for the installation. Details of conduit, drainage kits and their required wall flanges can be found on page 4 of this document.

- The sump is supplied with a 50 mm internal pipe and fittings already fitted, terminating to a 50 mm female uPVC socket at the chamber wall, ready to receive 50 mm uPVC rising main. Rising main pipe is not included and will need to be ordered - see page 4 for information on rising main pipe and fittings.
- Holes for connection of drainage pipes into the chamber and for connection of conduit and vent (if required) are not included and these should be cut on site by the installing technician.

### TYPE C - CDM WATERPROOFING SYSTEMS

The Newton CDM range of pumping systems are designed to be used with the Newton CDM, Type C, [cavity drain waterproofing system](#). The CDM pumping systems include everything needed to enable simple 'plug-and-play' connection of incoming drainage and outgoing rising main and electrical conduit, with all connections into and out of the sump always at the same height, regardless of the depth of the floor build.

To use the Titan pumping systems with the Newton CDM waterproofing system, the ancillaries listed in the CDM section on page 4 will need to be purchased separately.

### CONDUIT

Pumps power cables are high voltage. Alarm and float cables are low voltage.

**NOTE:** Low voltage and high voltage cables should not use the same conduit.

A conduit kit is available. If conduit is installed by other means, wall flanges and holes cutters are available, see page 4 for further details.

### VENT

In most cases, the incoming drainage connection acts as a vent and so additional vents are not required.

If the system is sealed, and air cannot enter the chamber via the drainage-in connections, a dedicated vent pipe will be needed. A convenient way to do this is to use the same 50 mm pipe and fittings as used by the rising main, passing through the wall of the chamber via a 50 mm wall flange. Please see page 4 for further information.

### OPERATING MANUAL

Please refer to the Operating Manual which is supplied in paper form with the product, or available from our website.

Please also refer to the Pump Operating Manual.

### LIMITATIONS

Suitable for ground water and surface water only. Please contact the Newton Technical Department for advice on pumping of sewage, grey or other water types.

### STORAGE

Store in dry conditions at temperatures between +5°C and +25°C with containers fully sealed. Do not expose to freezing conditions. Do not allow pumps to freeze.

### HEALTH & SAFETY

Use appropriate PPE for the environment the system is installed within. Product should only be used as directed. Pumps contain lubricating oil. The relevant pump TDS and SDS should be read carefully prior to installation of the pumping system.

All TDS and SDS are available upon request from Newton Waterproofing Systems or online via our website.

### ANCILLARIES

ITEM	Product Code
<i>uPVC Pressure Rated Discharge Pipe</i>	
50 mm Pipe - 2.5 m lengths	PP1
50 mm 90 degree elbows	PP2
50 mm 45 degree elbows	PP3
50 mm female-female sockets	PP4
50 mm Tee	PP5
50 mm wall mount clips	PP6
1½" BSP to 50 mm Hosetail	PP28
1½" BSP to 50 mm Socket	PP43
uPVC Solvent-on Wet 'R Dry - 240ml	G2
uPVC Pipe Primer - 473ml	G3
<i>Alternative Frame and Lid</i>	
Galvanised steel frame recessed lid with 450 x 450 mm opening	TPSL2
Stainless steel edged recessed lid with 450 x 450 mm opening	TPSL3
Brass edged recessed recessed lid with 450 x 450 mm opening	TPSL4
Aluminium edged, triple-sealed recessed lid with 450 x 450 mm	TPSL7
<i>Wall Flanges</i>	
Wall flange for 50 mm diameter vent and conduit pipe	WF50
Wall flange for 63 mm inlet	WF63
Wall flange for 110 mm inlet	WF110
<i>Hole Cutters</i>	
82 mm Hole Cutter for 50 mm wall flange	HC82
95 mm Hole Cutter for 63 mm wall flange	HC95
140 mm Hole Cutter for 110 mm wall flange	HC140
Arbor for hole cutter	PA33
<i>CDM</i>	
Basedrain Connection Kit - Basedrain Adaptor, 63 mm flexi-pipe and 63 mm wall flange	D21
<i>Conduit &amp; Vent</i>	
Conduit kit -32 mm & 40 mm - 50 m of each, including bulkhead connections	TPK5
50 mm wall flange - allows 50 mm O/D pipe to be used as conduit or Vent	WF50