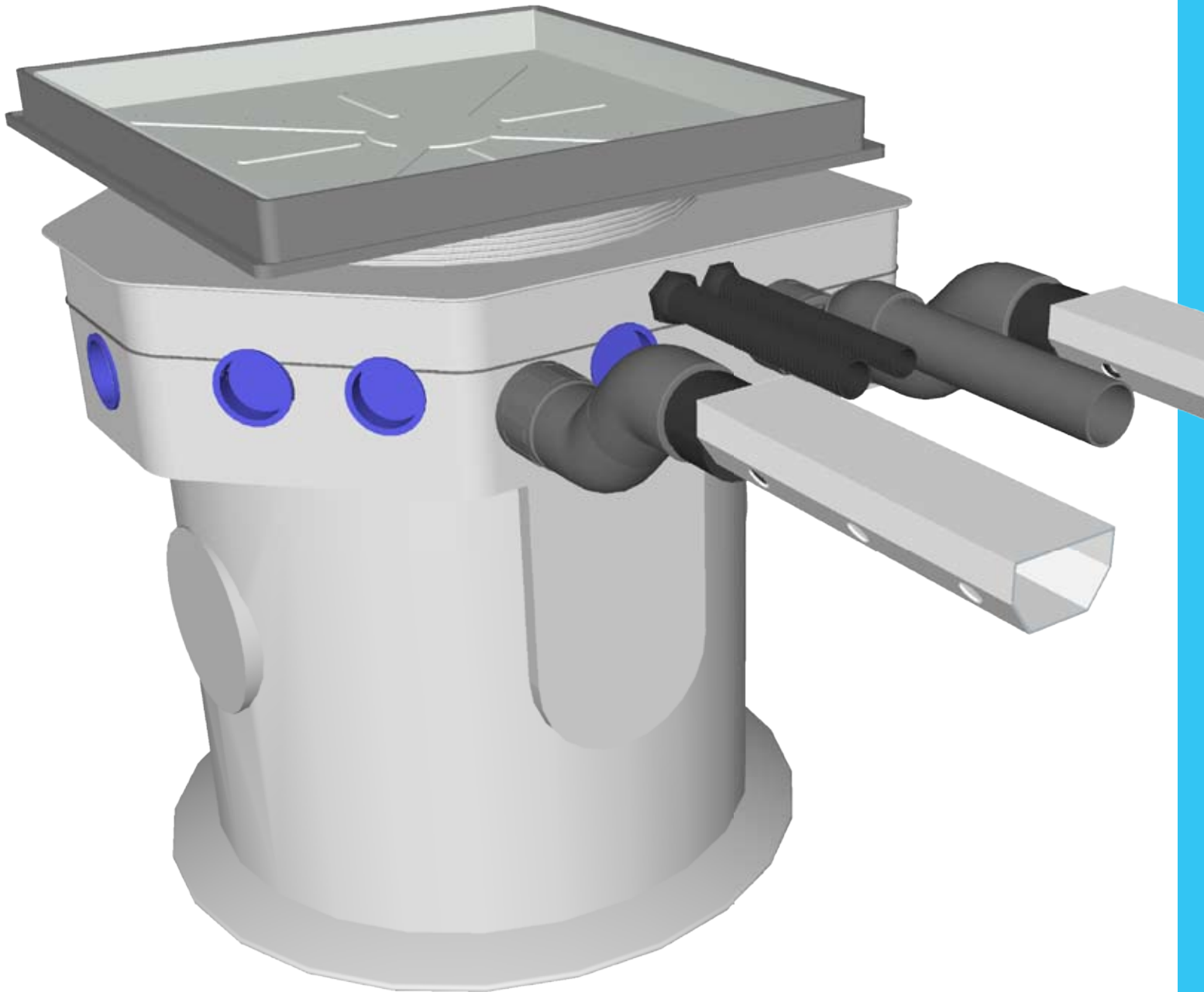




JOHN NEWTON
& COMPANY LIMITED (EST. 1848)



**TITAN-PRO WHITE - PUMPING SYSTEM FOR NEWTON SYSTEM 500
INSTALLATION MANUAL**

The Titan-Pro White Pumping System is designed to be used specifically with our Newton System 500 waterproofing system. It includes features and components for connection with Newton System 500 drainage products. The Titan-Pro Green, for general pumping, and the Newton Trojan, for sewage removal or where a deeper chamber is required, are available if the pumping system is not part of Newton System 500.

The unique design provides simple connectivity and ease of installation when used with the Newton drainage products; Newton Basedrain and Floordrain, as part of the Newton System 500 waterproofing system. The sump chamber is designed to have all inlet and outlet connections to be always at the same height relative to the Newton drainage products. This is achieved by the sump having a Fitting Line to ensure the sump is set at the correct height, and an adjustable neck allowing differences in floor finish height to be taken up by adjustment, and not by physically moving the whole sump up or down to suit.

The recommended discharge is dual outlets of 50mm, which fit within the 50mm of insulation above the concrete in most system floor builds. 63mm discharge is an option for the discharge line(s) if greater pump duty is required or where the pipe run is longer than usual.

As a waterproofing pumping system The Titan-Pro White is designed to be used with a range of Newton pumps:

- Newton NP150 - P1 - 150W pump for ground and surface water
- Newton NP400 - P2 & P3 - 400W pump for ground and surface water
- Newton NP750 P5 & P6 - 750W pump for ground and surface water

NOTE - EFFLUENT ADDED TO TITAN-PRO WHITE

If the chamber is also to receive waste water from washing machines and sinks etc, the float switches on the above pumps are not suitable and so the following pumps should be used:

- Newton NP400W - P4 - 400W pump for waste water & effluent
- Newton NP750S - P8 - 750W pump for waste water & effluent

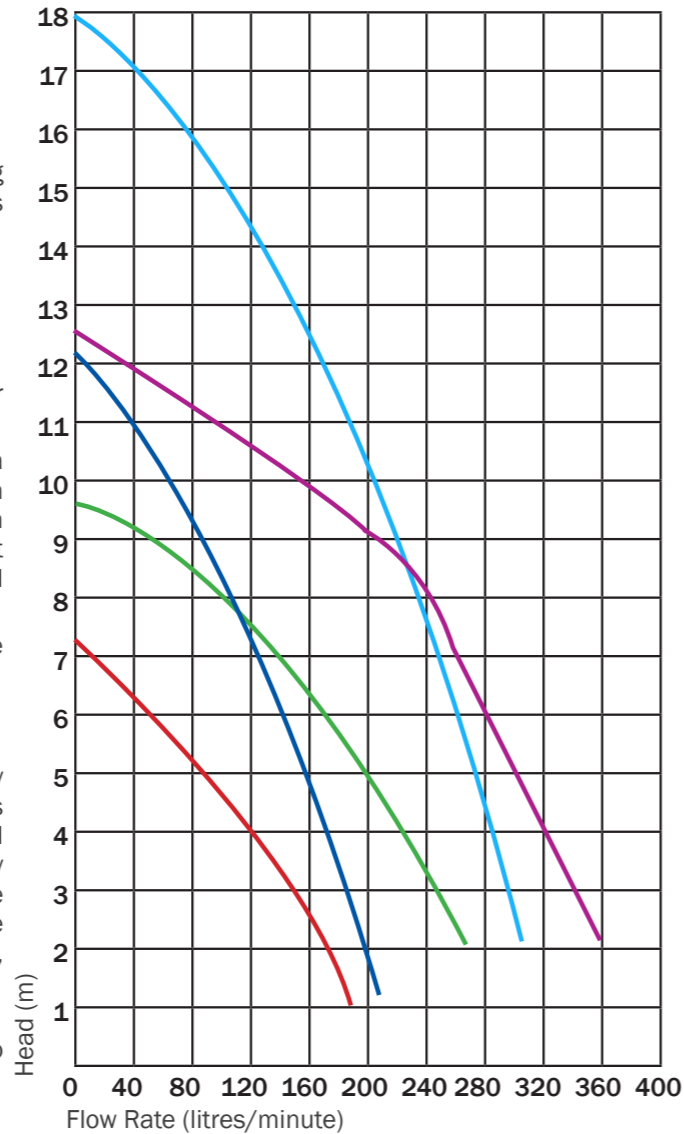
The system should also include:

- a) The normally supplied sealed and locked standard lid or other sewage rated lid is used
- b) The Newton Anti-Smell Kit - TPK7. This kit includes a valve to prevent smells from getting back to the Newton waterproofing system and a vent pipe to prevent a vacuum forming within the sump. Please note that the Anti-Smell Kit can not be used with the corner install option as described within page 14.
- c) The sump is serviced at least every 6 months or to the recommendation of the service engineer

NOTE - SEWAGE ADDED TO TITAN-PRO WHITE

Where the collection of foul and storm water is separated by the local authority, the combining of foul and storm water is normally prohibited. Where the local authority allows combined systems, we still recommend that the ground water collected by the Newton waterproofing system and the sewage should be received into separate collection sumps and we advise that the Newton Trojan Systems, available in 1m, 1.5m and 2m depths, are used as separate sewage pumping systems.

Note: 110mm inlet connections can be fitted to the Titan-Pro White on request. See ancillaries on page 5.



	PAGE
PUMPS	4
SUMP CHAMBER PARTS	5
ANCILLARIES & OPTIONS	6
INSTALLATION - HEALTH & SAFETY	7
INSTALLATION - REFURBISHMENT	8
INSTALLATION - NEW BUILD - CONCRETE BOX	10
INSTALLATION - NEW BUILD - WITHIN POURED CONCRETE	12
ALTERNATIVE INSTALLATIONS	14
INTERNAL INSTALLATIONS	15

The Titan-Pro White pumping system purchase code is TPW. The following table confirms the purchase codes when supplied with the following pumping options:

Pump Name	Number of Pumps	Discharge Lines	Product Code
NP150 P1	One	One	TPW-TP1
	Two	One	TPW-TP2
NP400 P2 & P3	One	One	TPW-TP3
	Two	One	TPW-TP4
	Two	Two	TPW-TP5
NP400W P4	One	One	TPW-TP15
	Two	One	TPW-TP16
	Two	Two	TPW-TP17
NP750 P5 & P6	One	One	TPW-TP6
	Two	One	TPW-TP7
	Two	Two	TPW-TP8
NP750S P8	One	One	TPW-TP12
	Two	One	TPW-TP13
	Two	Two	TPW-TP14

Notes:

1. Twin pump systems are matched pairs. In the main, the reason for the secondary pump is to provide continued pumping in the event of a failure of the first pump. It makes sense therefore that the pump taking over the work-load has the same duty as the pump it is taken over from.
2. Pumps of 400W and over have the option of twin discharge lines. Two pumps pumping through two separate discharge lines will pump approximately 50% more water than two pumps pumping through one discharge line. This is very much dependent though on the pumps and pipe size. If the NP150 requires twin discharge lines, the pump should be increased in size, and is therefore not offered as an option.
3. The Titan-Pro White pumping system is built with and designed to be used with pressure pipe which is tested for and supplied as suitable pipe medium for pumping. The internal pipe work is 2" and terminates to a socket of 63mm ready for uPVC pressure pipe. A 63mm to 50mm reducer is supplied to allow for discharge with 50mm pressure pipe, and this is the pipe size we recommend is used in the majority of cases as this size of pipe can be routed across the floor within the depth of the floor insulation adjacent to the Newton Basedrain. 63mm pressure pipe can be used to provide better flow rates for longer pipe runs.
4. The Titan-Pro White does not support 40mm ABS waste pipe.

The codes within the right hand column are for the full system complete with pumps, with the TPW part of the code pertaining to the Titan-Pro White sump and fittings, and the suffix of the code pertaining to the pumps and the pump fittings, alarm and pipe work.

The sump chamber, with fittings and alarm can be supplied separately from the pumps if required.

PUMP PARTS

Included within packaging supplied with each pump is:

1. 1 x Pump
2. 1 x threaded socket to screw into the pump
3. 1 x length of uPVC pipe
4. 1 x quick-release union with socket and male screw thread

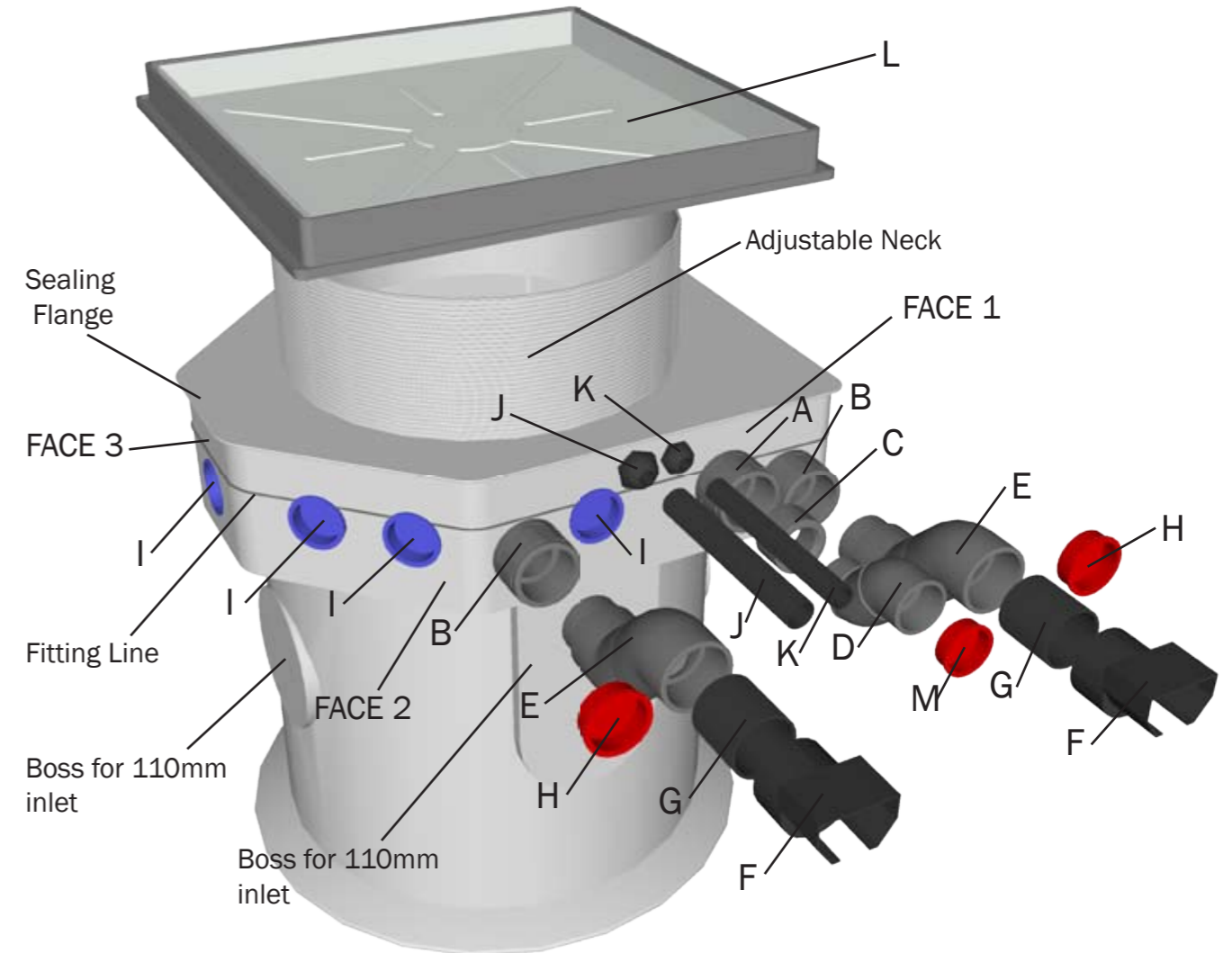
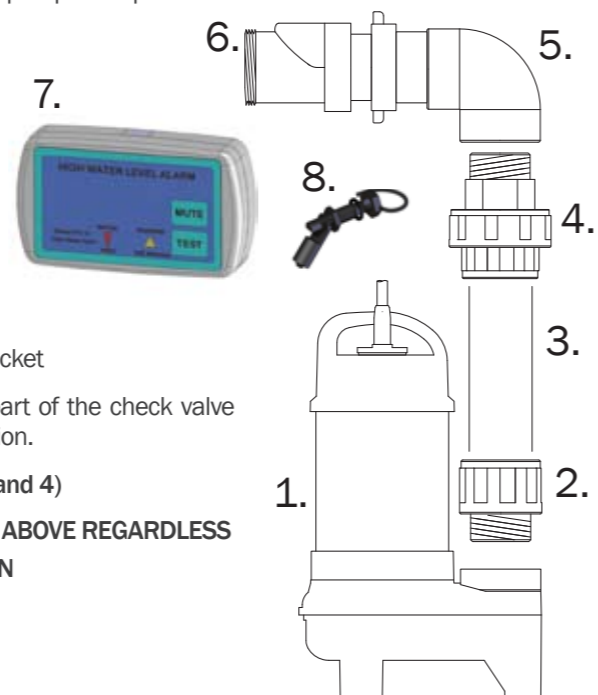
(ITEMS 2, 3 and 4 are glued together as one part)

5. 1 x 90 degree elbow with socket and female screw thread socket
6. 1 x 2" check valve with release union. **NOTE:** The female part of the check valve union is already attached to the sump wall ready for connection.

(ITEMS 5 and 6 are glued together as one part as are parts 2, 3 and 4)

TWIN PUMP SYSTEMS HAVE TWO OF EVERYTHING MENTIONED ABOVE REGARDLESS OF THE WHETHER ONE OR TWO DISCHARGE LINES ARE CHOSEN

7. Newton PA12 High Level Alarm Unit
8. Alarm water level switch



- A. 63mm uPVC Bulk-Head fitting ready for connection of the internal and external pump pipe work. Internally a union is ready for connection to the internal pipe work:
 - i Single pump has one union ready for connection of pump to Bulk-Head
 - ii Twin pumps with one external discharge line have one union ready for connection of both pumps to the Bulk-Head
 - iii Twin pumps with two separate external discharge lines have two unions connected to two separate Bulk-Head fittings
- B. 2 x 63mm uPVC Bulk-Head fittings ready for connection from the Basedrain or Floordrain drainage system

Included within packaging supplied with the sump are:

- C. 1 x 63mm to 50mm uPVC reducer (one for each discharge line)
- D. 50mm uPVC discharge line 'S' bend for the raising of the discharge line to the slab level (one per discharge line)
- E. 2 x 63mm uPVC Inlet line 'S' bends for the lowering of the drainage in line from the slab level to the sump
- F. 2 x Newton Drainage Adaptors for connection of Newton Floordrain to the 63mm drainage inlet
- G. 2 x 63mm connecting pipe for connection of the Drainage Adaptors to the 63mm 'S' Bends of the drainage inlets
- H. 2 x 63mm blanks for sealing the inlet to the 63mm 'S' Bends to protect from concrete ingress during installation
- I. 4 x 60mm blanks for the blanking off of unused inlet and outlet holes drilled to the sump
- J. 1 x 5m x 25mm conduit and connection to sump for Alarm cable (exploded showing connection separate to conduit)
- K. 1 x 5m x 32mm conduit pipe and connection to sump for pump power cables (exploded)
- L. 1 x 450 x 450mm Polypropylene Frame with Galvanised 46mm Recessed Lid - (alternative lids available - see page 6)
- M. 1 x 50mm blank for sealing to pump discharge line to protect from concrete ingress during installation

The Titan-Pro White is designed to be used with the Newton System 500 waterproofing system and receives water from the drainage system of System 500. You will need Newton Basedrain (Product Code D1) and Newton Floordrain (Product Code D3) to connect this sump pump system to the Newton System 500 waterproofing system.

A number of ancillaries are available for use with the Titan-Pro White:

ITEM	Product Code
uPVC Pressure Rated Discharge Pipe	
50mm Pipe - 2.5m lengths	PP1
50mm 90 degree elbows	PP2
50mm 45 degree elbows	PP3
50mm female-female sockets	PP4
50mm Tee	PP5
50mm wall mount clips	PP6
50mm Hosetail Spigot for flexi pipe	PP38
63mm Pipe - 2.5m lengths	PP10
63mm 90 degree elbows	PP11
63mm 45 degree elbows	PP12
63mm female-female sockets	PP13
63mm Tee	PP14
63mm wall mount clips	PP15
63mm Hosetail Spigot for flexi pipe	PP39
uPVC Solvent - 0.5 litre	G1
uPVC Weld-on WetR 0.24 litre	G2
Alternative Frame and Lid	
Polypropylene Frame - Galvanised Steel 80mm recess block paviour lid for external use	TPLS2
Polypropylene Frame - Polypropylene Flat Patterned Lid for external use	TPLS3
Galvanised Frame - Galvanised Steel 600x600x45mm lid for higher quality internal use	TPLS4
Galvanised Frame - Galvanised Steel 600x600x45mm lid with brass edging for very high quality internal use	TPLS5
Galvanised Frame - Galvanised Steel 600x600x45mm lid with stainless edging for very high quality internal use	TPLS6
General Options	
Anti-Drip Kit - extends the two drainage inlets to the bottom of the sump to prevent dripping noises - NOTE: Not suitable for corner installation	TPK1
Anti-Smell Kit - Includes two Newton Fountain Valves to prevent gasses from the sump getting back to the waterproofing system and a vent pipe to prevent a vacuum forming in the sump. - NOTE: Not suitable for corner installation	TPK7
Wet Install Kit - Included three shut of valves, Tremie Pipe and Water plug	TPK9
Wall flange for 63mm inlet - supply only	TPO1
Wall flange for 110mm inlet - supply only	TPO2
Fitting of wall flange to position confirmed by client	L1
Further information on the Anti-Drip Kit - TPK1 and the Sewage Kit - TPK7 is available on page 15	

HEALTH AND SAFETY AT WORK

The dangers of working with water and electricity pose severe threats to health if obvious and fundamental precautions are not taken. Therefore if you are in any doubt to any of the following, please do not hesitate to contact us.

The sump installation should be undertaken by a competent person with an understanding of the Newton System 500 waterproofing system and the interface of that waterproofing system with this sump system. We recommend that the Waterproofing Contractor be involved in the design of the waterproofing system including the design, installation and connection of this sump system to the waterproofing system.

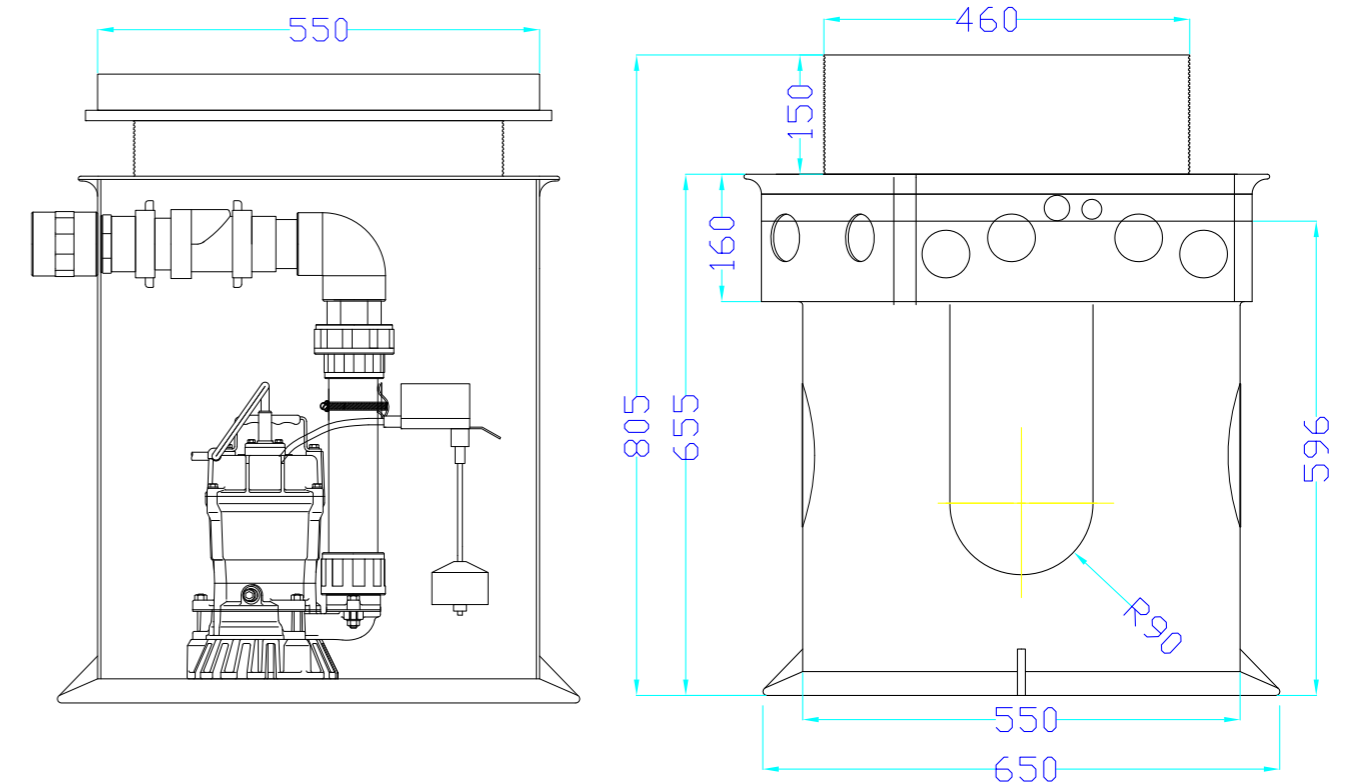
The pumps should be installed by a competent person in accordance with Part P of the building regulations.

SUMP INSTALLATION - GENERAL

VERY IMPORTANT NOTE: THIS HDPE CHAMBER IS A LINER AND MUST ALWAYS BE SUPPORTED BY A CONCRETE BASE AND CONCRETE SURROUND OF ADEQUATE THICKNESS FOR THE GROUND CONDITIONS. INSTALLATION MUST BE AS PER THE FOLLOWING INSTRUCTIONS.

THE CHAMBER REQUIRES A MINIMUM OF 100mm OF GOOD GRADE CONCRETE SURROUNDING IT TO PREVENT BUOYANCY. DECISIONS AS TO THE VOLUME AND MASS OF THE SURROUNDING CONCRETE MUST BE TAKEN BY A STRUCTURAL ENGINEER IF THE CHAMBER IS PLACED WITHIN A STRUCTURAL SLAB OR RAFT.

- 1) Select a suitable location for the chamber. Ensure that the sump lid is accessible once all the finishing works are complete. Pay particular attention to the proposed line of stud and block walls that may be built after the sump installation.
- 2) Check that no underground cables, pipes or service ducts lie beneath.
- 3) Ensure that sufficient space is available to receive the chamber, pipe work and surrounding concrete.
- 4) If water pressure exists during the installation, a method of dewatering will be required and a Wet Install Kit - TPK9 is available. Please contact John Newton for further information.



SUMP INSTALLATION - SPECIFIC

The Titan-Pro White can be installed in a number of ways and the following pages include specific instructions for each of the methods:

STEP 1.

A. Excavate a hole within the floor ready for the sump chamber. A hole that is at least 200mm larger diameter than the Titan-Pro White chamber will allow for sufficient concrete to surround the chamber to prevent flotation. Where the sump is to be installed within a structural slab, an engineer should advise on the volume and mass of concrete surrounding the chamber.

The chamber dimensions are shown on the previous page, but generally for a 100mm surround of concrete the excavation will need to be 750mm diameter x 700mm in depth from the top of the slab, **not the top of the floor finish**. A further small rebate of 20mm in depth 440mm wide to an extent of about 350mm out from the sump will need to be made to the surface of the slab for the connections into the sump.

B. Prepare the sump chamber: The chamber is delivered with all inlet and outlet connections fitted to FACE 1 (see diagram on page 4) ready for a side wall installation. The openings on Face 2 and FACE 3, used for a corner installation only (further information on Page 14), are closed off with blanks (Part I). If the system was ordered with dual pump discharge lines, there will be two Part A Bulk Head connections. Please note that Parts H & M are not used during an installation to an existing floor slab.

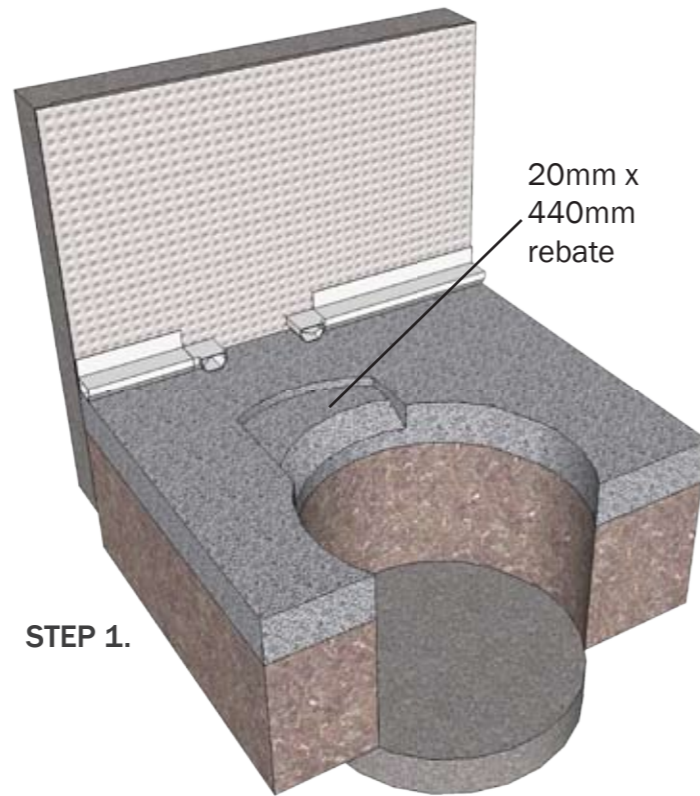
B1. Fit the two 63mm inlet 'S' Bends (Part E) into the two Bulk Head connections (Part B).

B2. Fit the discharge line 'S' Bend to the Bulk Head connection (Part A). If two discharge lines are to be used, one for each pump, fit the second 'S' Bend to the other Bulk Head connection. Do not glue at this stage.

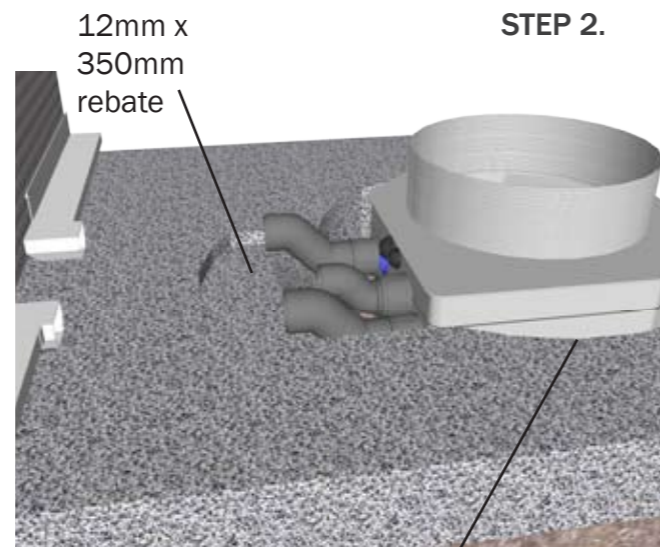
C. When you are ready to install the chamber, create a concrete supporting base with a minimum of 100mm of concrete which is of a consistency that will support the chamber during the levelling process. Once the concrete base is placed, go immediately to Step 2.

STEP 2.

D. Place the sump chamber into the excavation with the base directly on to the freshly laid concrete base. Rotate the chamber so that FACE 1 is perpendicular to the side wall you are installing to. Use a long builders level and adjust the chamber so it is level, ensuring that the Fitting Line is aligned with the top of the slab. Pour and then compact about 300mm of concrete to the sides of the chamber and the excavation. With each 100mm of concrete poured, place an equivalent depth of water into the sump chamber. Keep checking the level and height periodically and adjust if necessary. Let the concrete go off sufficiently so that the sump is locked in place and then go to Step 3.



STEP 1.



The Fitting Line of the sump chamber should be level with the top of the slab

STEP 3.

E. Fit the connecting parts to the sump ready for final concreting in of the sump chamber:

E1. Fit the two conduit pipes (Parts J & K) into the conduit wall connectors already fitted. Temporarily tape to the surface of the Newton wall membrane ready for the Pump(s) and Alarm cable. Run the Alarm cable through the 25mm conduit (Part K) ready for connection to the Alarm unit (Part M). It is advisable to run the Pump(s) cable through the 32mm conduit (Part J) at this stage if these are available having been supplied with the sump chamber. If the Pump(s) and Alarm are not on site, run a pull cable through the two conduits ready for pulling through the cables when they are ready to be fitted.

E2. Fit the two Newton Drainage Adaptors (Part F) to the inlet 'S' Bends (Part E) using the short lengths of ribbed 63mm pipe (Part G) to connect these two parts. This is a push fit - no glue required.

E3. Fit two cut lengths of Newton Floordrain to the Drainage Adapter and join to the Newton Basedrain drainage system via two Basedrain 90 degree corners.

E4. Connect 50mm pressure pipe to the outlet 'S' Bend (Part D). If two discharge lines are to be used repeat for the second discharge line. Use a 90 degree elbow at the wall if the pipe is to rise vertically at this point. Continue with pipe fitting to final connection if possible, but at a minimum the vertical pipe should extend higher than the finished floor level by about 100mm. Once all pipe work is cut to the correct size, glue the pipe parts with uPVC solvent weld glue.

F. Cut the neck of the sump chamber to the correct height so that the top of the supplied Lid and Frame (Part L) match the proposed finished floor level. Place Lid and Frame on to the sump chamber ready for final concreting.

G. Fill the sump with water and then concrete around the sump to match slab. Unless the concrete contains an additive, Newton Lime Inhibitor should be used within or above the new concrete surrounding the chamber. When the concrete is cured, drill a ring of 6mm holes around the chamber at 50mm intervals to capture water that may squeeze up between the sump and the concrete surround.

STEP 4.

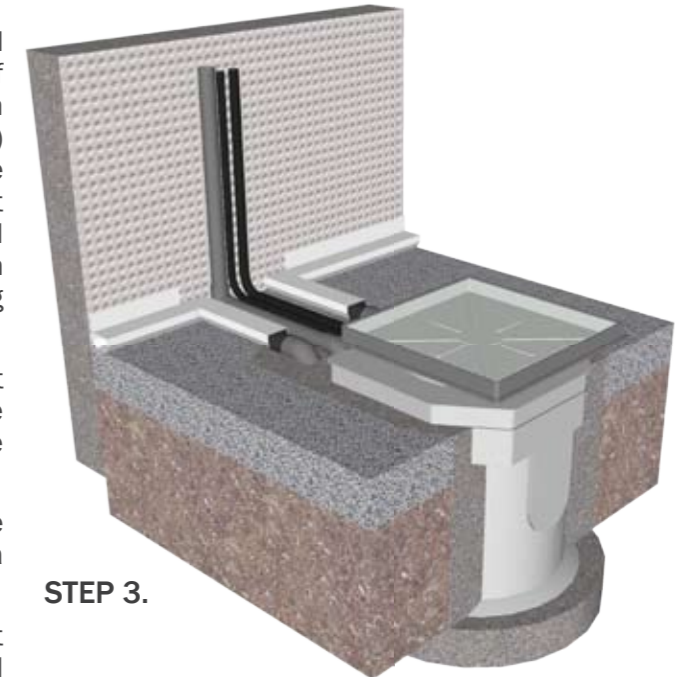
H. Continue with the installation of the Newton System 500 waterproofing system. Fill in between the inlet and outlet connections with shaped closed cell insulation. Fit the floor membrane as normal allowing the cut and shaped floor membrane to under sail the Sealing Flange of the sump chamber.

I. Seal the floor membrane to the Sealing Flange with 5 cut strips of Newton Overtape.

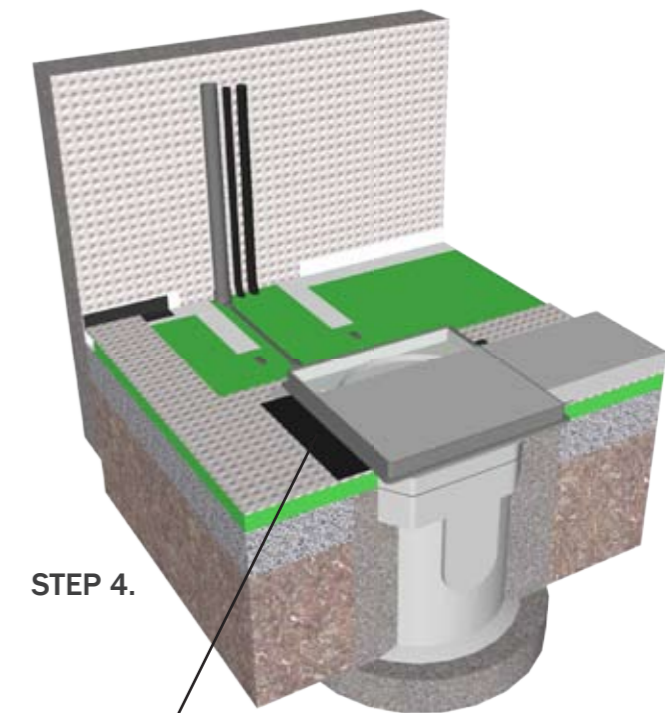
J. Match floor finish with the recessed Lid and Frame.

See Page 15 for pump installation instructions.

Note: Basedrain, Basedrain Corners, Floordrain, Overtape and pipe and pipe parts are not included as parts with the sump chamber but are cost options available from John Newton.



STEP 3.



STEP 4.

Newton Overtape sealing floor membrane to Sealing Flange

STEP 1.

A. Form a concrete box to the same structural integrity as the rest of the concrete slab or raft. The box should be at least 600mm deep x 800mm wide. The dimension perpendicular to the wall accommodates the connections to the sump and should be 1000mm as in Fig. 1. Alternatively create a recess 300mm towards the wall, 100mm deep and 800mm wide as shown in Fig. 2.

B. Prepare the sump chamber: The chamber is delivered with all inlet and outlet connections fitted to FACE 1 (see diagram on page 4) ready for a side wall installation. The openings on Face 2 and FACE 3, used for a corner installation only, are closed off with blanks (Part I). If the system was ordered with dual pump discharge lines, there will be two Part A Bulk Head connections. Please note that Parts H & M are not used during an installation within a concrete box.

B1. Fit the two 63mm inlet 'S' Bends (Part E) into the two Bulk Head connections (Part B).

B2. Fit the discharge line 'S' Bend to the Bulk Head connection (Part A). If two discharge lines are to be used, one for each pump, fit the second 'S' Bend to the other Bulk Head connection. Do not glue at this stage.

C. Place approximately 20mm of fine aggregate to the centre of the base of the box. More aggregate may be required if the box is deeper than 600mm.

STEP 2.

D. Place the sump chamber into the box with the base directly on to the fine aggregate base. Rotate the chamber so that FACE 1 is perpendicular to the side wall you are installing to. Use a long builders level and adjust the chamber so it is level, ensuring that the Fitting Line is aligned with the top of the slab.

Pour and then compact about 300mm of concrete to the sides of the chamber and the excavation. With each 100mm of concrete poured, place an equivalent depth of water into the sump chamber. Keep checking the level and height periodically and adjust if necessary. Let the concrete go off sufficiently so that the sump is locked in place and then go to Step 3.

STEP 3.

E. Fit the connecting parts to the sump ready for final concreting in of the sump chamber:

E1. Fit the two conduit pipes (Parts J & K) into the conduit wall connectors already fitted. Temporarily tape to the surface of the Newton wall membrane ready for the Pump(s) and Alarm cable.

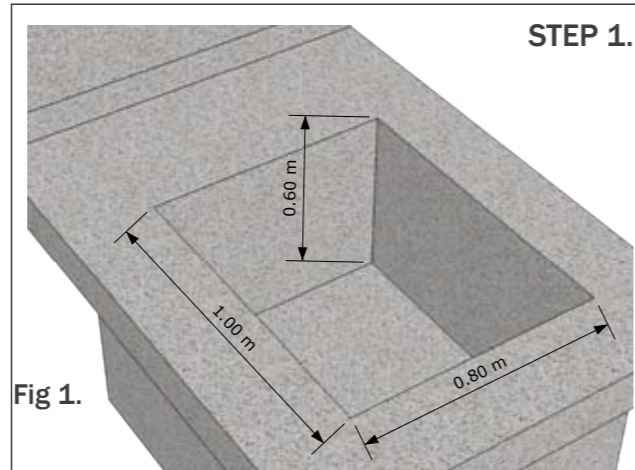


Fig 1.

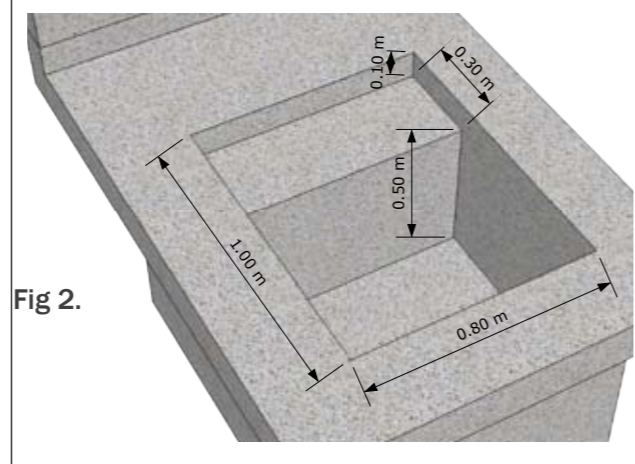
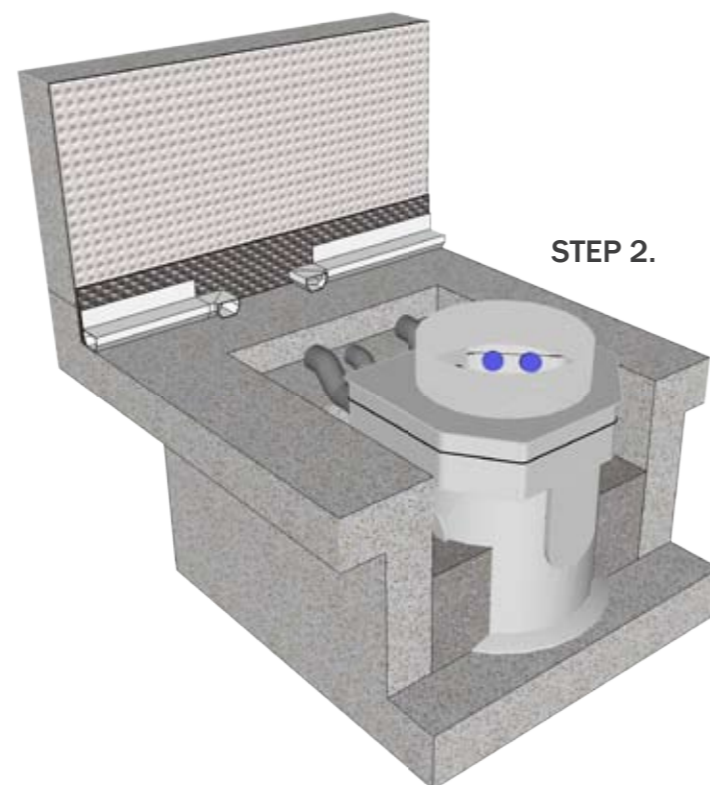


Fig 2.



STEP 2.

Run the Alarm cable through the 25mm conduit (Part K) ready for connection to the Alarm unit (Part M). It is advisable to run the Pump(s) cable through the 32mm conduit (Part J) at this stage if these are available having been supplied with the sump chamber. If the Pump(s) and Alarm are not on site, run a pull cable through the two conduits ready for pulling through the cables when they are ready to be fitted.

E2. Fit the two Newton Drainage Adaptors (Part F) to the inlet 'S' Bends (Part E) using the short lengths of ribbed 63mm pipe (Part G) to connect these two parts. This is a push fit - no glue required.

E3. Fit two cut lengths of Newton Floordrain to the Drainage Adapter and join to the Newton Basedrain drainage system via two Basedrain 90 degree corners.

E4. Connect 50mm pressure pipe to the outlet 'S' Bend (Part D). If two discharge lines are to be used repeat for the second discharge line. Use a 90 degree elbow at the wall if the pipe is to rise vertically at this point. Continue with pipe fitting to final connection if possible, but at a minimum the vertical pipe should extend higher than the finished floor level by about 100mm. Once all pipe work is cut to the correct size, glue the pipe parts with uPVC solvent weld glue.

F. Cut the neck of the sump chamber to the correct height so that the top of the supplied Lid and Frame (Part L) match the proposed finished floor level. Place Lid and Frame on to the sump chamber ready for final concreting.

G. Fill the sump with water and then concrete around the sump to match slab. Unless the concrete contains an additive, Newton Lime Inhibitor should be used within or above the new concrete surrounding the chamber. When the concrete is cured, drill a ring of 6mm holes around the chamber at 50mm intervals to capture water that may squeeze up between the sump and the concrete surround.

STEP 4.

H. Continue with the installation of the Newton System 500 waterproofing system. Fill in between the inlet and outlet connections with shaped closed cell insulation. Fit the floor membrane as normal allowing the cut and shaped floor membrane to under sail the Sealing Flange of the sump chamber.

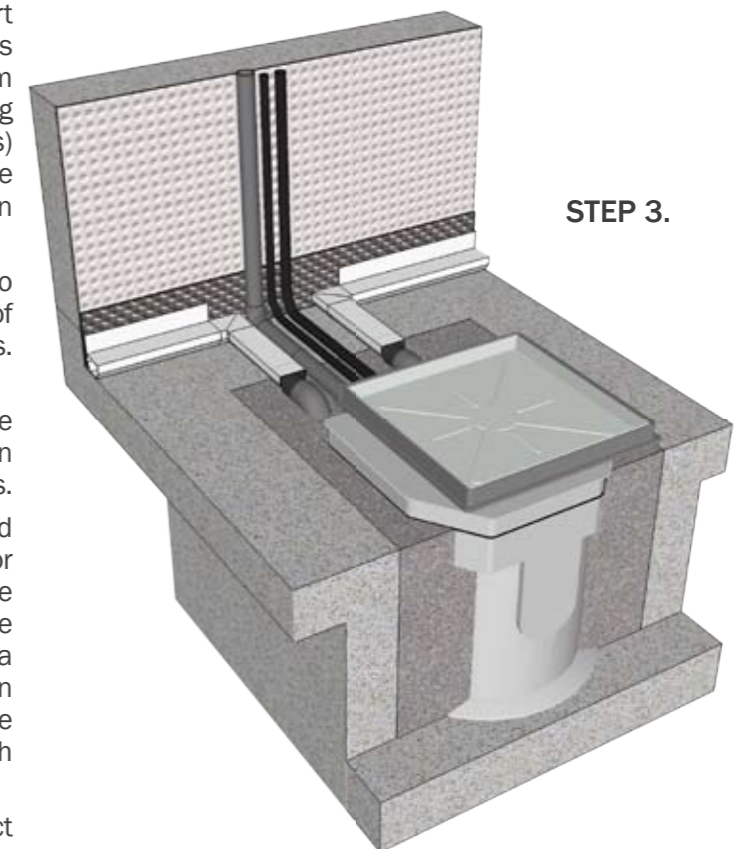
I. Seal the floor membrane to the Sealing Flange with 5 cut strips of Newton Overtape.

J. Match floor finish with the recessed Lid and Frame.

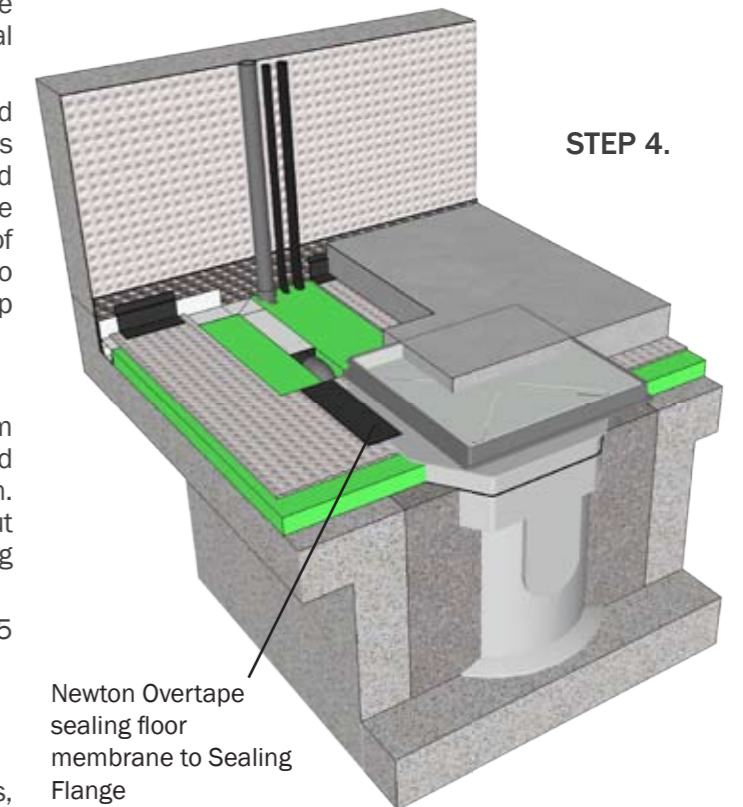
See Page 15 for pump installation instructions.

Please note that Basedrain, Basedrain Corners, Floordrain, Overtape and pipe and pipe parts are not included as parts with the sump chamber but are cost options available from John Newton.

For alternatives to this installation where the installation is to the corner of converging walls or where the Newton drainage system is sat within a rebate, please see Page 14 below.



STEP 3.



STEP 4.

Newton Overtape sealing floor membrane to Sealing Flange

STEP 1.

A. During the preparation of the reinforcing steel for the slab or raft, form a cage of steel of sufficient size to take the sump chamber, calculating that the Fitting Line should be level with the top of the soon to be poured slab or raft. The structural Engineer should be involved in specification of the reinforced concrete surrounding the sump chamber does not present a weakness to the structural integrity of the slab or raft.

B. Prepare the sump chamber: The chamber is delivered with all inlet and outlet connections fitted to FACE 1 (see diagram on page 4) ready for a side wall installation. The openings on Face 2 and FACE 3, used for a corner installation only, are closed off with blanks (Part I). If the system was ordered with dual pump discharge lines, there will be two Part A Bulk Head connections.

B1. Fit the two 63mm inlet 'S' Bends (Part E) into the two Bulk Head connections (Part B). Please note that Part H is required for this installation. Fit the two Blanks (Part H) into the ends of the two S Bends as shown in the two Figures adjacent.

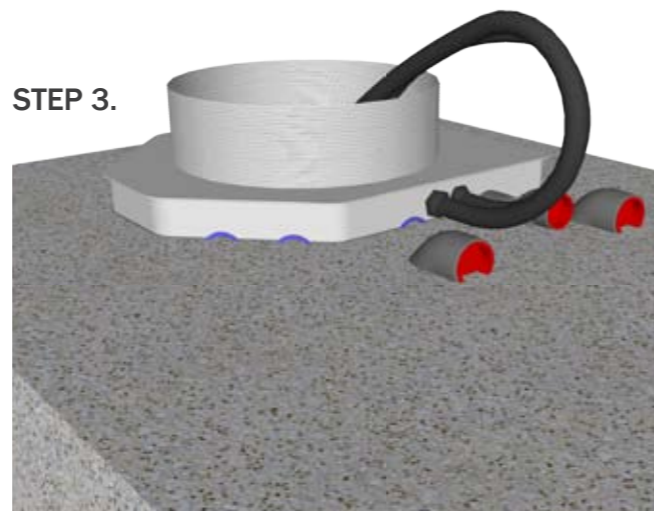
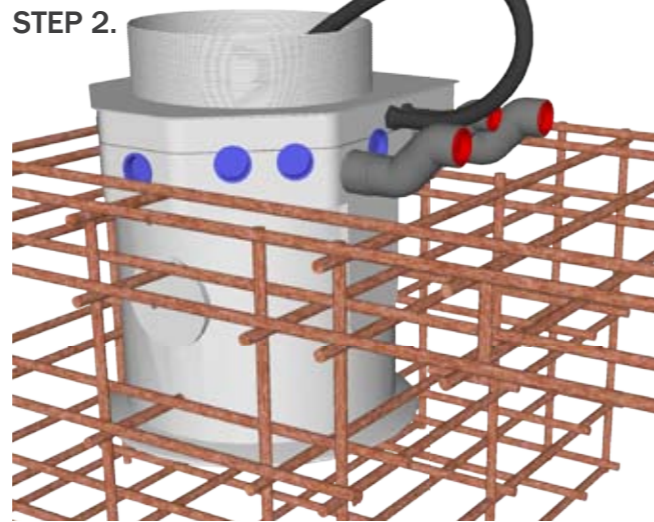
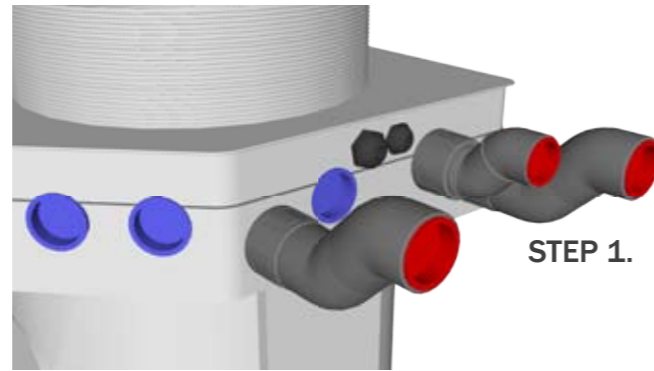
B2. Fit the discharge line 'S' Bend to the Bulk Head connection (Part A). If two discharge lines are to be used, one for each pump, fit the second 'S' Bend to the other Bulk Head connection. Ensure the 'S' Bend is straight so that the outlet is at its highest possible position and glue into the Bulk Head connection. Fit the Blank(s) Part M to the outlet(s) S bend (Part D) See Fig 1. adjacent. Fix the two conduit pipes Parts J & K) to the sump wall connectors. Route the two lengths on conduit back into the sump as shown in drawing adjacent.

STEP 2.

C. Place the sump chamber and fix securely within the reinforcing steel, paying particular attention that the sump is set up so that FACE 1 is perpendicular to the wall you are fitting to, and that the Fitting Line is exactly at the height of the top of the slab or raft yet to be poured.

STEP 3.

D. Once the sump chamber is fixed securely and supported by the reinforcing steel, fill the sump chamber with water to the Fitting Line. This is an important part of the installation as the water helps support the sump chamber against the weight of the concrete. Use the Fitting Line as a datum so that the top of the concrete pour is exactly matching the Fitting Line of the Sump. Once the concrete is cured sufficiently to walk upon, go to Step 4.



STEP 4.

E. Unless the concrete infill contains a poor blocking additive, Newton Lime Inhibitor should be used above the new concrete surrounding the chamber. When the concrete is cured, drill a ring of 6mm holes around the chamber at 50mm intervals to capture water that may squeeze up between the sump and the concrete surround.

Remove a small amount of concrete in front of the two inlet connections to allow for removal of the two Blanks and allow for the Basedrain Drainage Adapter (Part F) to be inserted. Approximately 15mm depth x 65mm width and 90mm out from the inlet connection should be sufficient.

STEP 5.

After the Newton wall membrane and Basedrain is fitted it is time to make the connections in and out of the sump chamber.

G1. Fit the two Newton Drainage Adaptors (Part F) to the inlet 'S' Bends (Part E) using the short lengths of ribbed 63mm pipe (Part G) to connect these two parts. This is a push fit - no glue required.

G2. Fit two cut lengths of Newton Floordrain to the Drainage Adapter and join to the Newton Basedrain drainage system via two Basedrain 90 degree corners.

G3. Connect 50mm pressure pipe to the outlet 'S' Bend (Part D). If two discharge lines are to be used repeat for the second discharge line. Use a 90 degree elbow at the wall if the pipe is to rise vertically at this point. Continue with pipe fitting to final connection if possible, but at a minimum the vertical pipe should extend higher than the finished floor level by about 100mm. Once all pipe work is cut to the correct size, glue the pipe parts with uPVC solvent weld glue.

H. Cut the neck of the sump chamber to the correct height so that the top of the supplied Lid and Frame (Part L) match the proposed finished floor level. Place Lid and Frame on to the sump chamber ready for final concreting.

STEP 6.

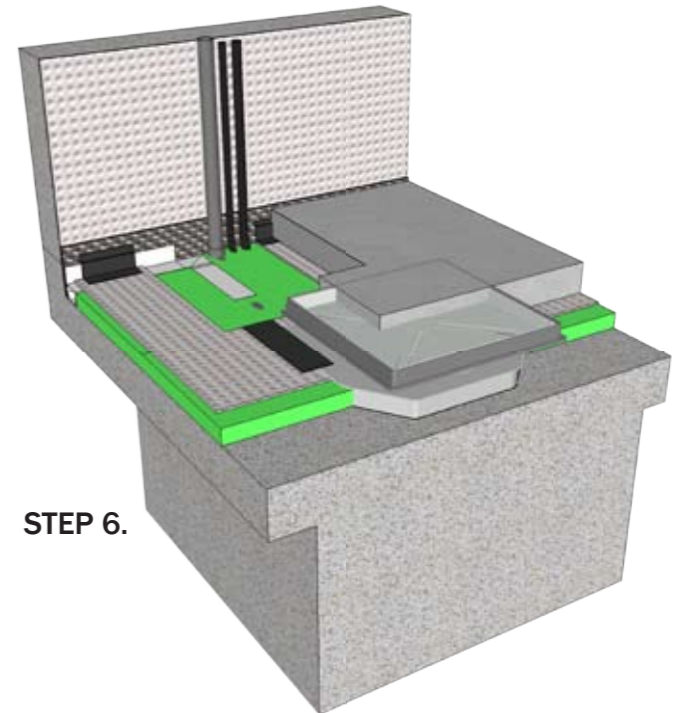
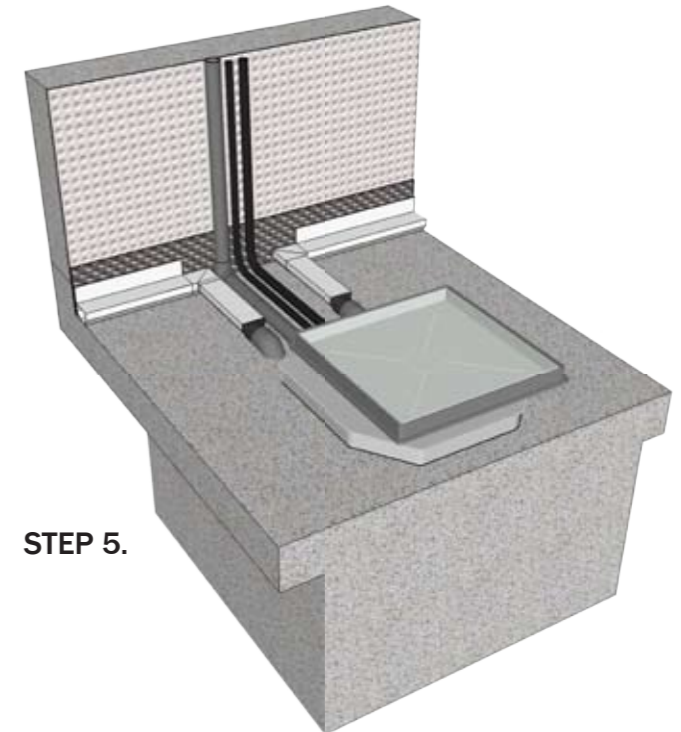
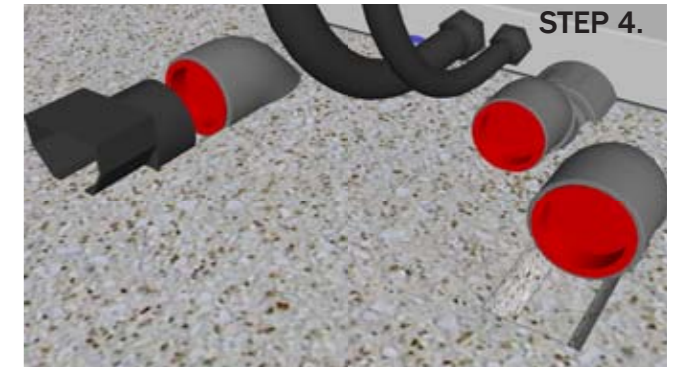
I. Continue with the installation of the Newton System 500 waterproofing system. Fill in between the inlet and outlet connections with shaped closed cell insulation. Fit the floor membrane as normal allowing the cut and shaped floor membrane to under sail the Sealing Flange of the sump chamber.

J. Seal the floor membrane to the Sealing Flange with 5 cut strips of Newton Overtape.

K. Match floor finish with the recessed Lid and Frame.

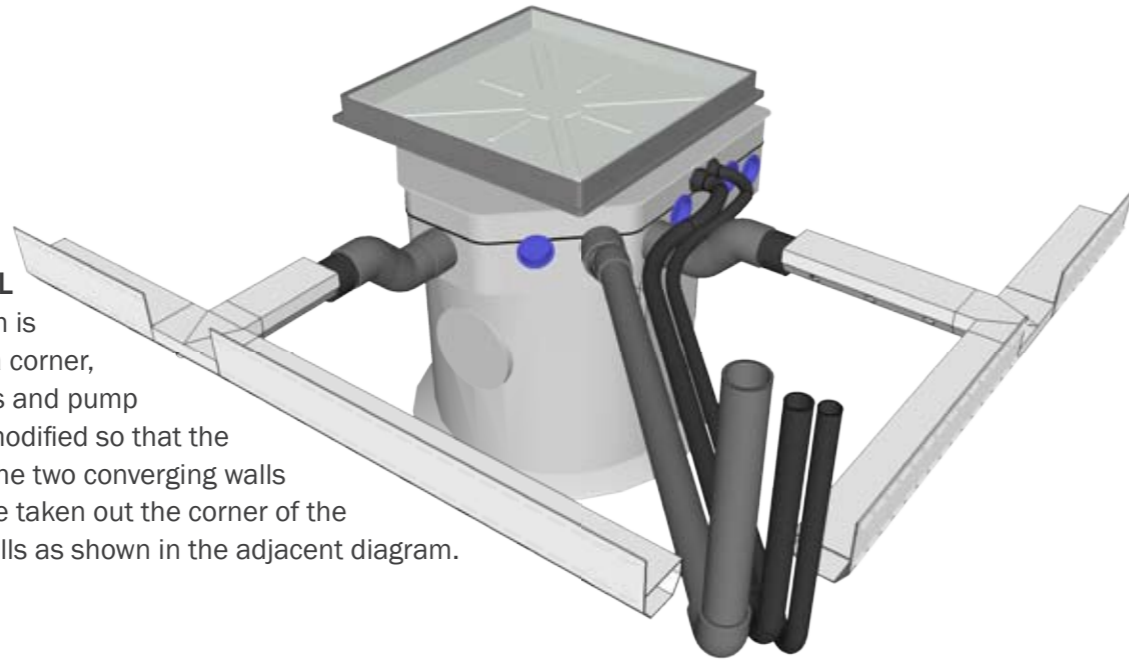
See Page 15 for pump installation instructions.

Please note that Basedrain, Basedrain Corners, Floordrain, Overtape and pipe and pipe parts are not included as parts with the sump chamber but are cost options available from John Newton.



CORNER INSTALL

If the sump system is to be installed in a corner, the drainage inlets and pump outlet(s) can be modified so that the inlets enter from the two converging walls and the outlets are taken out the corner of the two converging walls as shown in the adjacent diagram.



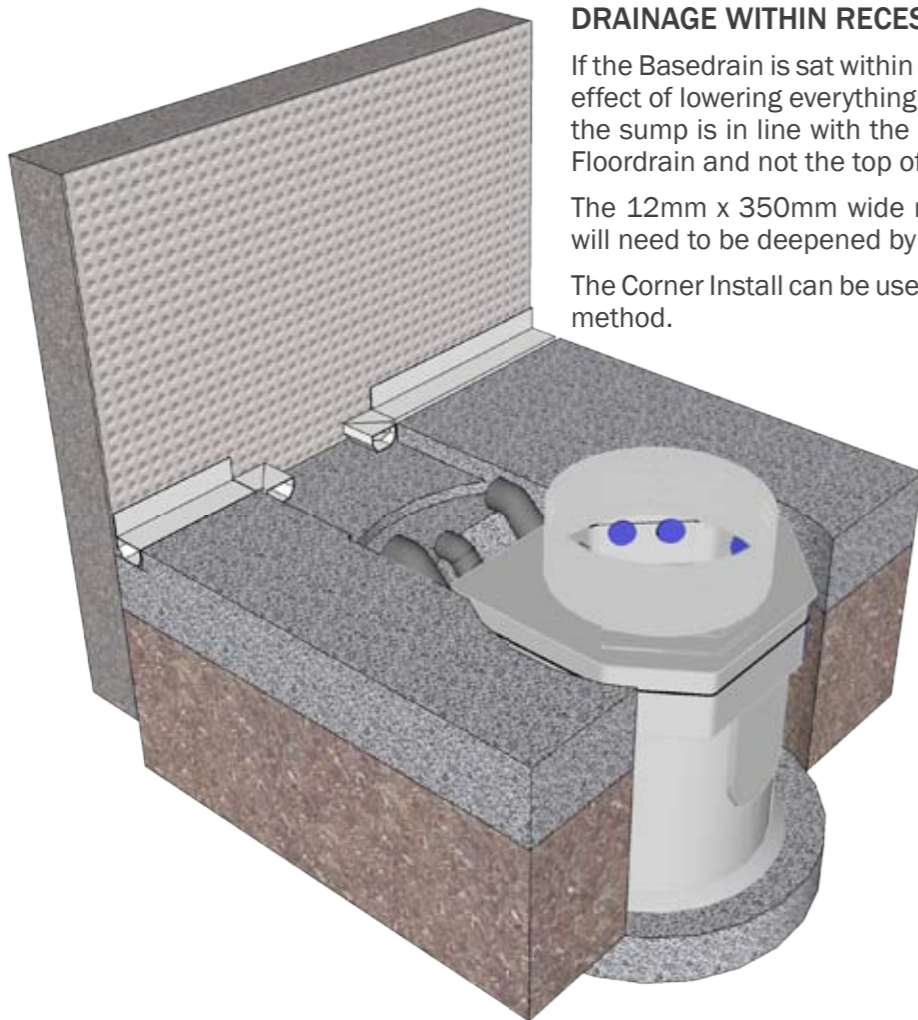
Please be aware that the Anti-Drip Kit - TPK1 and the Sewage Kit - TPK7 can not be used with a corner install of the Titan-Pro White. With the corner installation, Basedrain 'T' Pieces are used to create the interface to the sump instead of Basedrain Corners as with the side wall installation.

DRAINAGE WITHIN RECESS

If the Basedrain is sat within a formed or cut recess, this has the effect of lowering everything by 50mm so that the Fitting line of the sump is in line with the bottom surface of the Basedrain / Floordrain and not the top of the slab.

The 12mm x 350mm wide recess mentioned in Step 2 above will need to be deepened by 50mm to about 62mm.

The Corner Install can be used with the Basedrain Within Recess method.



PUMP(S) INSTALLATION

Three methods of connections are available regardless of the model of pump(s) to be installed:

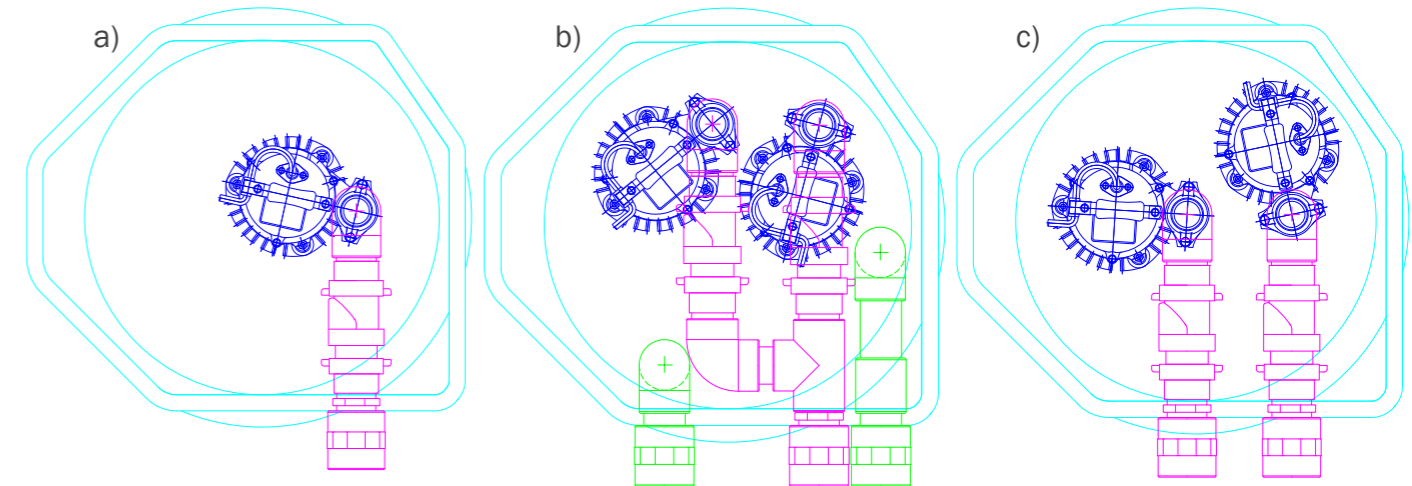
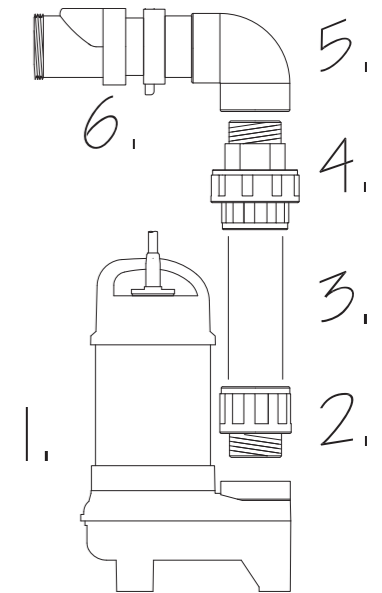
a) With single pump installations, the check valve female union is connected directly to the inside wall of the sump ready for a screw connection to the check valve (Part 6).

b) With twin pump installations terminating to one discharge line, two check valve female unions are fitted to the inside wall of the sump chamber via a two into one manifold.

c) With twin pump installations terminating to twin discharge lines, two check valve female unions are connected separately to the inside wall of the sump chamber.

In all cases, the installation of each pump is the same.

Simply screw the glued parts 2, 3 and 4 into the pump via the mail thread of part 2, and screw part 4 into the glued parts 5 and 6 via the female thread of part 5. Use the threaded union of part 4 to allow for rotation of the pumps within the sump for optimum position and spacing. Tighten all unions and proceed to fit the pumps as per the pump instructions.

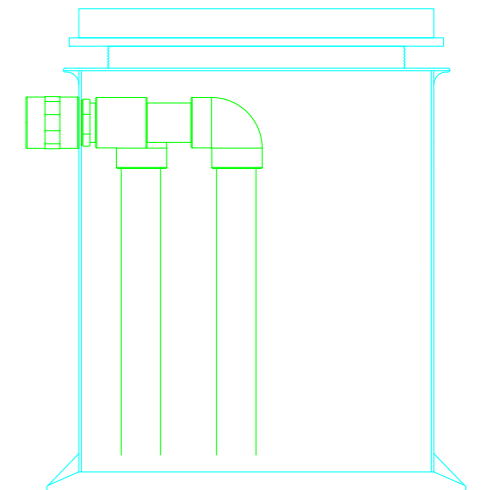


ANTI-DRIP KIT (Option)

The Anti-Drip Kit - TPK1 extends the two drainage inlet lines further into the sump chamber and then, via a 90 degree bend, vertically to nearly the bottom of the sump to prevent water from the drainage channels creating a dripping sound which can be the case when the water falls directly from the two inlets.

The two parts extensions, shown in green in the diagram b) above and adjacent are of different sizes so as to accommodate the unique shape of the sump chamber. Please fit as indicated. Each of the two extensions simply fit to the inner connection of the two drainage inlets. The connections should be push fitted (not glued) so that they can easily be removed for servicing.

Please be aware that the Anti-Drip Kit can not be used with a corner install of the Titan-Pro White.





JOHN NEWTON

& COMPANY LIMITED (EST. 1848)

John Newton & Company Ltd.

12 Verney Road, London SE16 3DH

Tel 020 7237 1217 Fax 020 7252 2769

email info@newton-membranes.co.uk

www.newton-membranes.co.uk

