

Pumps, Pumping Systems and Ancillaries

NEWTON NP400

Clean Water Pump

Rev 5.0 - 10 October 2017

PRODUCT CODE - P2 & P3

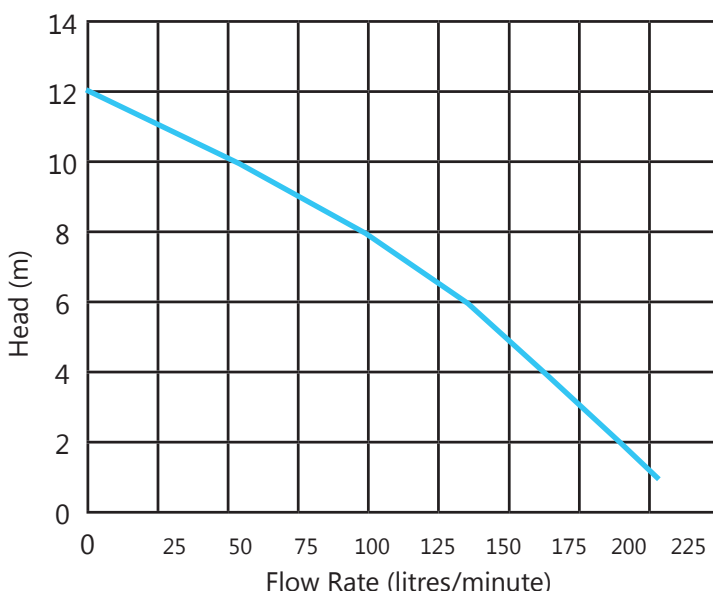
INTRODUCTION

The Newton [NP400](#) is a high quality clean water pump ideally suited for the removal of ground water from basements and cellars. The unique vertical operation float switch ensures that the pump operates within its own footprint, removing the possibility of the float snagging during operation and allowing the pump to be used within smaller sumps. The vertical float switch is also very flexible, allowing the pump switching height to be adjusted, both in terms of the height between the 'on' and 'off' positions, as well as the height relative to the pump.

The Newton NP400 is suitable for use with [Newton Victron Power Inverter 12/1200/50](#) to give continual pumping even during power outage. The NP400 is supplied with a one way check valve and is suitable for use with 50 mm or 63 mm (via an adapter) rising mains. For increased duty in a twin pump system, separate discharge lines should be used.

Newton NP Pumps are supplied with a 3-year manufacturers warranty or a 5-year back-to-base warranty if the pumps are serviced by a Newton approved service engineer.

The Newton NP400 is sold in both manual and automatic versions and can be purchased as pump only, or as a key component in our packaged pumping systems.



KEY BENEFITS

- 5-year warranty - see page 4
- Thermal overload protection against motor burnout
- Non-clogging vortex impeller
- Double mechanical seals ensure increased durability against particle abrasion and wear
- Anti-airlock impeller housing ensures that the pump is able to remove trapped air even when the sump was previously dry
- High performance and efficiency even with a low current
- Unique vertical float allows complete adjustment of the start and stop heights
- Continued pumping even during power cuts when used with Newton Power Inverters - see above



TYPICAL APPLICATIONS

Primarily designed to be used with Newton sump systems for the removal of ground water collected by [Newton System 500](#) basement waterproofing system, the Newton NP400 can also be used for the removal of water from:

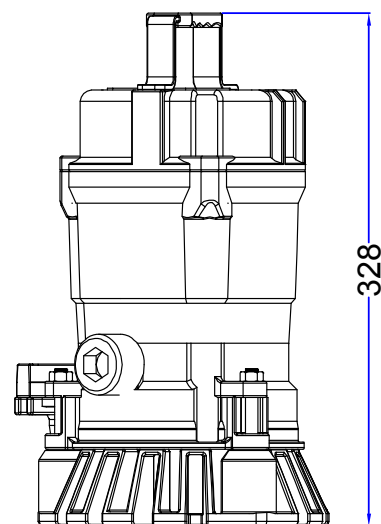
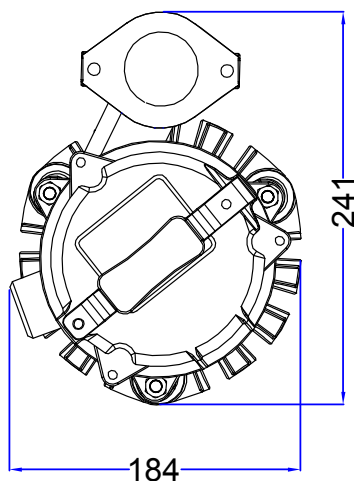
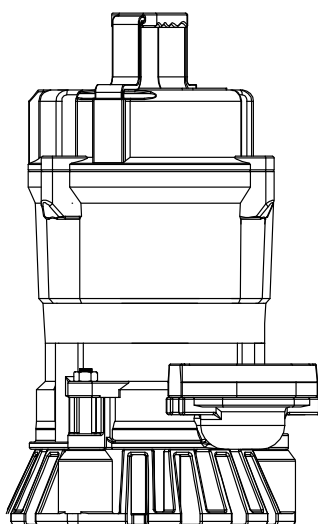
- Flooded basements and cellars
- Light-wells
- Surface drainage collection vessels
- Reservoirs and water holding vessels

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TECHNICAL DATA

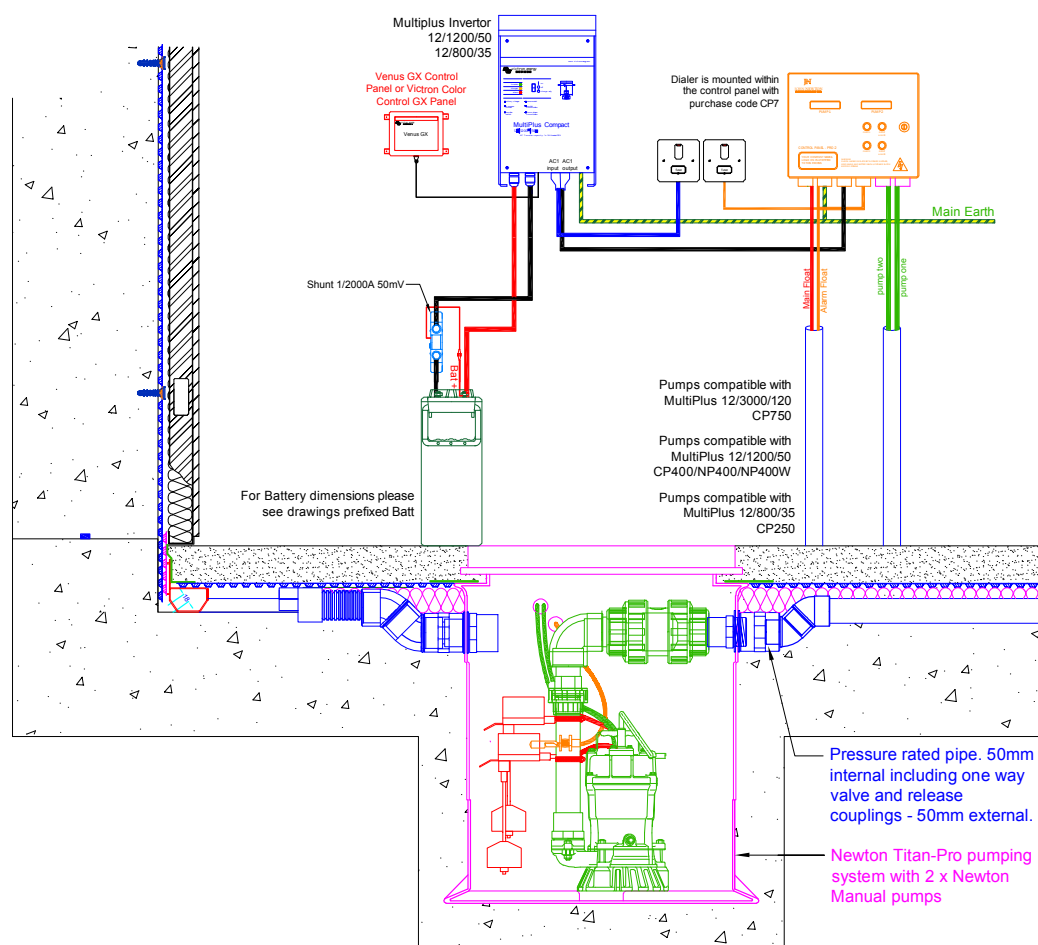
Features	Result	Units
Purchase Code - Manual Version	P3	
Purchase Code - Automatic Version	P2	
Pump Design	Semi-vortex	
Outlet	50	mm
Maximum Soft Solids Handling	7	mm
Recommended Discharge Pipe Size	50/63	mm
Maximum Pumping Head	12.2	m
Maximum Flow Rate	220	litres/minute
Flow Rate at 4m Head	160	litres/minute
Pump Switching	Automatic by pump float or by separate pump control	
Float Switch	Fully adjustable vertical operation	
Pump Start Level	Fully adjustable	
Lowest or Stop Water Level	90	mm
Length	241	mm
Width	185	mm
Height	328	mm
Dry Weight	11.3	kg
Fluid Suitability	Rain water, ground water	
Fluid Temperature Range	0 to 40	°C
Power Supply - Single Phase	230	Volts
Motor Output	400	Watts
Start Current	6.83	Amps
Rated Current	2.6	Amps
Body Material	Stainless Steel and Cast Aluminium	
Shaft Material	403 Stainless Steel	
Shaft Seals	Double Silicon Carbide	
Mechanical Seals	Carbon Ceramic	



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TYPICAL DETAIL



SPECIFICATION

Newton Waterproofing Systems are in partnership with RIBA NBS who publish details of our products and systems within their specification clause library to allow Architects ease of specification through their NBS Plus interface. NBS clauses can be accessed via the technical resources area of the web site where a live NBS Feed is available at [NBS Plus Live Feed](#)

Our website has drawings available for download in [Technical Drawings](#). A selection are also available via [FastrackCAD](#), as well as a range of BIM objects on the [NBS National BIM Library](#)

SUPPLIED PIPE AND PIPE FITTINGS

The Newton NP400 is supplied with:

- 1 x 2" BSP threaded male to 1 1/2" BSP threaded female reducing bush
- 1 x 1 1/2" BSP threaded male to 1 1/2" BSP threaded male check-valve
- 1 x 1 1/2" BSP threaded female to 50 mm female socket adapter, ready for 50 mm pressure pipe

This leaves the pump ready to receive 50 mm pressure rated pipe. Please confirm the required pipe and fittings from the section adjacent.

uPVC PRESSURE RATED PIPE AND FITTINGS

- 50 mm Pipe - 2.5m lengths - Newton Code PP1
- 50 mm 90 degree elbows - Newton Code PP2
- 50 mm 45 degree elbows - Newton Code PP3
- 50 mm female-female sockets - Newton Code PP4
- 50 mm Tee - Newton Code PP5
- 50 mm wall mount clips - Newton Code PP6
- 1 1/2" BSP to 50 mm Hosetail - Newton Code PP28
- 1 1/2" BSP to 50 mm Socket - Newton Code PP43
- uPVC Pipe Primer - 473 ml - G3

WARRANTY

Newton NP Pumps are supplied with a 3-year manufacturers warranty from the proven date of installation or the date of purchase if this cannot be verified. A 5-year warranty is available if the pumps are serviced at intervals agreed by a Newton approved service engineer. In all cases, the warranty is 'back-to-base'. Newton Waterproofing Systems have a returns policy and any issues regarding pumps under warranty should in the first instance be referred to our Head Office by contacting 01732 360 095. Please see our Terms & Conditions of Sale for further information.

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ELECTRICAL SUPPLY

The Newton NP400 requires a single phase 230V AC power supply. It is advisable that all pumps are connected to their own individual power supply directly from the consumer board so that with a twin-pump system, each of the pumps does not share a consumer board supply with the other pump or with any other electrical circuit or device. In reality, this is normally only achievable with new-build properties or where fundamental refurbishment of the whole property or the electrical supply is to be undertaken.

Where it is not planned or possible to have each pump connected to a separate supply from the consumer board, it is preferable that each pump is supplied from a separate circuit. If this is not possible, each pump should be connected to a separate fused and switched spur or socket.

Each separate circuit should have its own RCD protection as required by the 17th Edition Wiring Regulations. The RCD should be correctly sized at 30mA so as not to trip during normal pump start or pump run parameters.

It is preferable for the pumps to be wired to the rear of a spur. The spur should be switched and have a neon light confirming the 'on' position. Pumps may be plugged into wall sockets and again these should be switched and have neon light notification of the 'on' position. It is recommended that the spur or socket have a label confirming that the switch must not be switched off unless in an emergency.

The spur or socket should be fitted with a 10 amp fuse.

INSTALLATION INSTRUCTIONS

Please see pump Operational Manual supplied within pump packaging (also available from our website).

SERVICING

Newton pumps should be serviced by trained and qualified pump engineers only. It is recommended that pumps are serviced within 6 months of installation and then at service engineers discretion, but with at least one inspection or service every 12 months. Please call Newton Waterproofing for an approved service engineer in your area.

PACKAGING & HANDLING

Pumps are supplied in reinforced and protective cardboard boxes. Please handle with care.

STORAGE

Store in dry conditions at temperatures between 5°C and 35°C. Do not expose to freezing conditions.

LIMITATIONS

Not suitable for:

1. Effluent or washing machine waste (use [NP400W](#) or [SP750 Cutter](#))
2. Sewage (Use SP750 Cutter)
3. Continuous pumping above 40°C. Pumps can be used to excavate hot water from boiler leaks etc, but only for a maximum of 10 minutes pumping in one hour (use hot water capable pumps - please contact Newton Waterproofing Systems for further information).
4. Water with pH value above 10 or below 4 (use pumps suitable for corrosive water - please contact Newton Waterproofing Systems for further information)
5. Sea water (use sea water pumps - please contact Newton Waterproofing Systems for further information)

HEALTH & SAFETY

Product should only be used as directed. Pumps contain lubricating oil. We always recommend that the Material Safety Data Sheet (MSDS) is carefully read prior to use of the pump. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The MSDS is available upon request from Newton Waterproofing Systems or online via our website. Please see contact details below.