

# System Sump and Pump

## NEWTON TROJAN PUMPING SYSTEM

### Multi-Use Pumping System



Rev 5.0 - 16 February 2016

PRODUCT CODE - TR13 - TR49

### INTRODUCTION

The Newton Trojan is a specialist pumping system suitable for a variety of pumping tasks ranging from the lifting of sewage from basements to a higher level sewage system, to the removal of ground water and surface drainage. The sump is available in depths of 1m and 1.5m. Please see page 3 for dimensions.

When used for sewage, the system does not provide 24 hour storage capabilities and so is not capable of receiving all of the house sewage and one of our larger 'whole house' pumping systems should be specified instead.

### PUMP OPTIONS

#### CLEAN WATER

**Newton CP400 - P32** - The [Newton CP400](#) is a medium head and medium performance clean water pump.

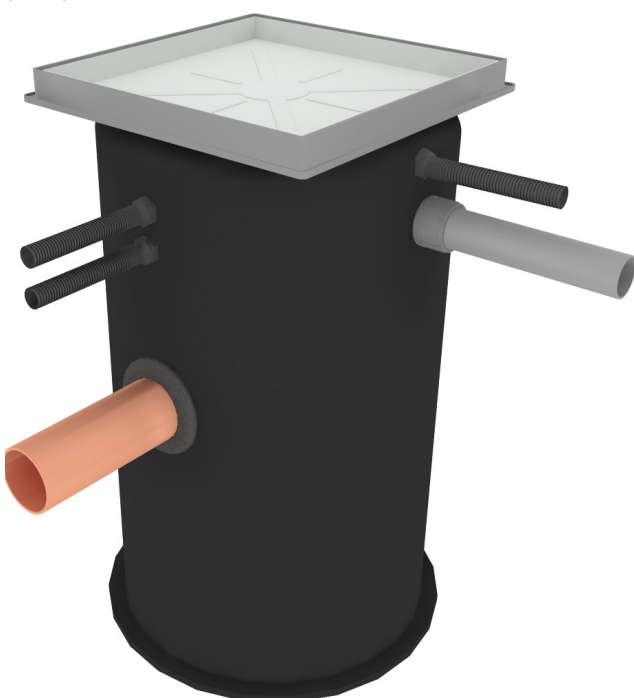
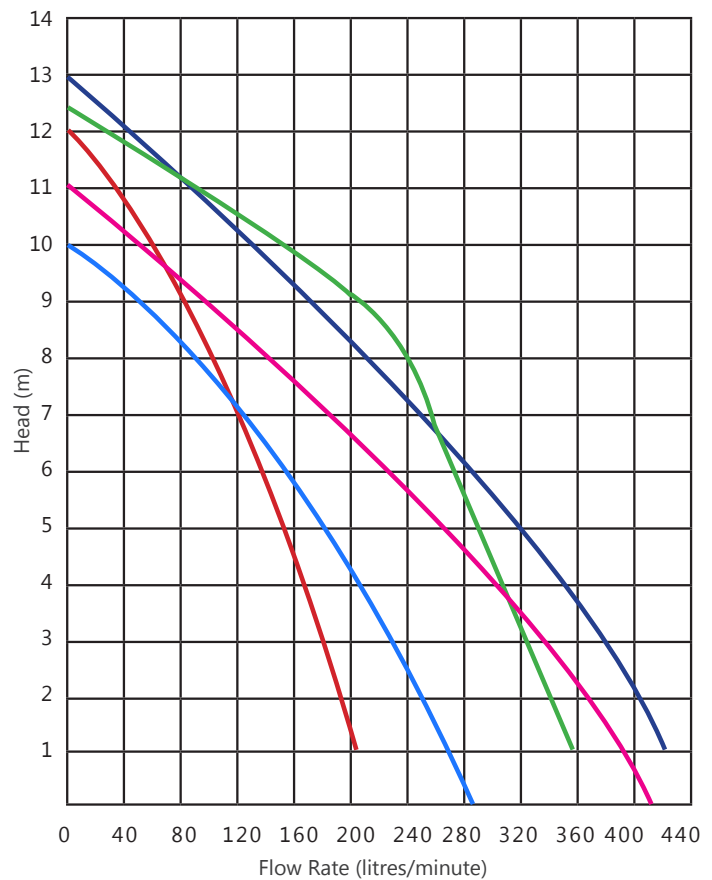
**Newton NP400 - P2 & P3** - The [Newton NP400](#) is a high head and medium performance clean water pump.

**Newton CP750 - P33** - The [Newton CP750](#) is a medium head and high performance clean water pump.

**Newton NP750 - P5 & P6** - The [Newton NP750](#) is a high head and high performance clean water pump.

#### SEWAGE

**Newton SP750 Cutter - P35 & P36** - The [Newton SP750 Cutter](#) is a high quality sewage pump incorporating a tungsten carbide tipped cutting impellor that rotates against a serrated suction cover in order to cut solid waste before pumping, resulting in a much lower risk of blockage than similar sized vortex impellor sewage pumps.



### LIMITATIONS

- Order the correct pump for the water type, head and duty
- Not suitable as a whole house sewage system where 24 hour storage capability is required

### HEALTH & SAFETY

Use appropriate PPE for the environment the system is installed within.

### ANCILLARY PRODUCTS

Please refer to page 4.

NEWTON PUMPS, PUMPING SYSTEMS AND ANCILLARIES

# NEWTON TROJAN PUMPING SYSTEM

## Multi-Use Pumping System

### TECHNICAL DATA

Features	CP400	NP400	CP750	NP750	SP750 Cutter	Units
Pump Design	Vortex	Semi-Vortex	Vortex	Vortex	Cutter	
Discharge Bore	50	50	80	50	50	mm
Max Soft Solids Handling	10	7	15	35	20 (cut by pump)	mm
Recommended Discharge Pipe	50/63	50/63	63	63	63	mm
Pumping Head (Max)	10.0	12.2	11.0	12.5	13.0	m
Flow Rate (Max)	290	220	410	360	430	litres/min
Flow Rate at 4m Head	220	160	295	320	360	litres/min
Pump Switching	Auto	Auto or Panel	Auto	Auto or Panel	Auto or Panel	
Float Switch	Vertical	Vertical	Vertical	Vertical	Sewage Paddle	
Pump Start Level (auto)	Fully Adjustable	Fully Adjustable	Fully Adjustable	Fully Adjustable	675mm	
Min Stop Water Level (auto)	80	90	127	115	145	mm
Length	215	241	260	236	255	mm
Width	155	185	160	173	190	mm
Height	395	328	434	380	445	mm
Weight	12.0	11.3	15.0	8.5	19.9	kg
Clean Water Pumping	Yes	Yes	Yes	Yes	No	
Effluent Pumping	No	No	No	Yes <sup>1</sup>	Yes	
Sewage Pumping	No	No	No	No	Yes	
Fluid Temperature Range	0 to 40	0 to 35	0 to 35	0 to 35	0 to 35	°C
Motor Output	400	400	750	750	750	W
Power Supply	Single Phase	Single Phase	Single Phase	Single Phase	Single Phase	
Starter	Capacitor Type	Capacitor Type	Capacitor Type	Capacitor Type	Capacitor Type	
Body Material	Stainless Steel	Cast Aluminium	Stainless Steel	Stainless Steel	Stainless Steel	
Shaft Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	
Shaft Seals	Carbon Ceramic	Silicon Carbide	Carbon Ceramic	Silicon Carbide	Carbon Ceramic	

<sup>1</sup> Only with manual pumps with control panel and sewage type paddle floats.



### TRAINING AND COMPETENCY OF INSTALLER

The chamber is surrounded by concrete and so requires a builder/ground worker with experience of placing well compacted concrete.

The pumps should be connected to the electricity supply by a person suitably qualified for the type of connection being made.

Please refer to the Installation Manual at all times during installation of this pumping system.

# NEWTON TROJAN PUMPING SYSTEM

## Multi-Use Pumping System

Pump Model	Pump Type	Water Type	Number of pumps	Discharge Lines	Chamber Depth	
					1.0m Code	1.5m Code
CP400 P32	Auto 50mm Vortex	Clean	One	One	TR17	TR19
			Two	One	TR18	TR20
NP400 P2	Auto 50mm Vortex	Clean	One	One	TR21	TR23
			Two	One	TR22	TR24
NP400 P3	Manual 50mm Vortex	Clean	One	One	TR30	TR32
			Two	One	TR31	TR33
CP750 P33	Auto 80mm Vortex	Clean	One	One	TR34	TR36
			Two	One	TR35	TR37
NP750 P5	Auto 50mm Vortex	Clean	One	One	TR38	TR40
			Two	One	TR39	TR41
NP750 P6	Manual 50mm Vortex	Clean	One	One	TR42	TR44
			Two	One	TR43	TR45
SP750 Cutter P35	Auto 50mm Cutter	Sewage	One	One	TR13	TR15
			Two	One	TR14	TR16
SP750 Cutter P36	Manual 50mm Cutter	Sewage	One	One	TR46	TR48
			Two	One	TR47	TR49

- 1 x 110mm invert flange with hole cutter included. Additional 110mm or 63mm inlets available as cost option
- Large foot to base of chamber to prevent flotation
- Locked & sealed lid and frame supplied
- Lifting chain(s) supplied
- 2 x 32mm power conduits supplied
- 1 x 32mm vent pipe and pipe saddle ready for connection to stack pipe

### 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 website where a live NBS Feed is available at [NBS Plus Live Feed](#)

Our website has drawings available for download here [Technical Drawings](#) and a selection are also available via [FastrackCAD](#)

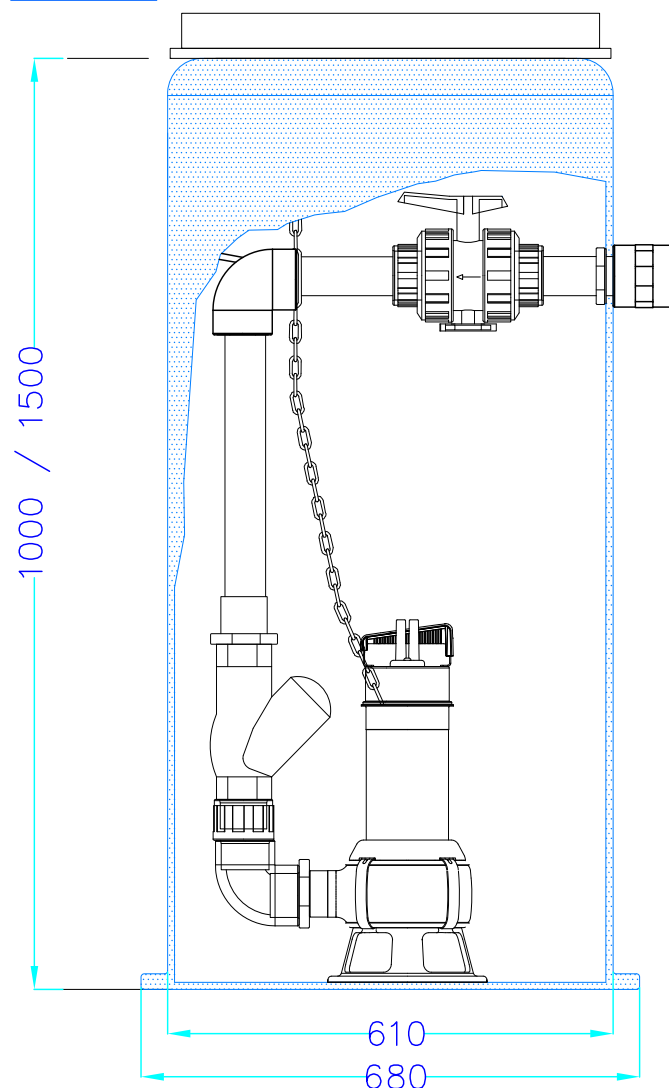
### APPLICATIONS

The Trojan Packaged Sump System is ideally suited as a sewage lifting station for when the sewage invert is below the height of the main sewage system. When used for sewage the Newton Trojan should only be used where the other toilet facilities are pumped to gravity. When storage of sewage is required to accommodate the requirement of Drainage and Waste Disposal Building Regulations 2000 Part H (150 litres per person per day), full size sewage systems are available - please speak to our Technical Department.

The Trojan is also clean water and effluent capable when supplied with the correctly specified pump and so is suitable for the large volume removal of ground and surface water delivered by gullies and surface drains. Confirmation of the water type capability of each pump is confirmed in the table above.

### PRODUCT HIGHLIGHTS

- Choice of clean water pumps of 400 & 750 watts or a Sewage Cutter Pump of 750 watts
- All internal pipe work supplied terminating in 63mm uPVC socket or 50mm uPVC socket ready for discharge pipe
- System supplied with cast iron Y-type neoprene ball sewage non-return valve for sewage systems, and cone or flap valves for clean water. Two quick release couplings per pump for easy installation and removal for servicing



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## Multi-Use Pumping System

### ANCILLARIES & OPTIONS

ITEM	Product Code
<i>uPVC Pressure Rated Discharge Pipe</i>	
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 Wet 'R Dry solvent for wet conditions & quick pipe use - 240ml	G2
uPVC Pipe Primer 473ml	G3
<i>Alternative Frame and Lid</i>	
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
<i>Sump Options</i>	
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
<i>Power back-up</i>	
800W Vicron MultiPlus Battery Back-up System for pumps up to 250W	BB1
1200W Vicron MultiPlus Battery Back-up System for pumps up to 400W	BB2
3000W Vicron MultiPlus Battery Back-up System for pumps up to 750W	BB3
3000W Vicron Quattro Generator Battry Back-up System for pumps up to 750W	BB4
<i>Alarm Options</i>	
9V battery alarm - Clean water alarm	PA50
Sewage Alarm - Alarm with sewage float	CP5
Sewage Alarm with Beacon - Alarm with sewage float	
Newton Control Panel-Pro - Sophisticated twin pump control with alarm	CP2 & CP7
Sewage Control Panel - Twin pump panel with alarm for sewage systems	CP8
Newton Pump Controller - Twin pump panel with weekly start cycle and alarm	CP9

Newton Waterproofing Systems reserve the right to update product literature at any time. Please always refer to our [website](#) for the latest versions.