



# ClayTech B7X and B7XF Cast Iron Submersible Vortex Drainage Pumps

811526 / CLA-B7X (flexible float)

811527 / CLA B7XF (vertical fixed float)



# 1. Introduction

Congratulations on your purchase of a **ClayTech B7 Series** Submersible Vortex Drainage Pump.

ClayTech B7 pumps are vortex type drainage pumps with a cast iron, semi vortex impeller. Vortex type impellers allow for the free passage of soft solids making the pump suitable for small to medium dewatering, stormwater transfer and/or waters with non-abrasive solids or stringy material in suspension such as greywater pump out, sump emptying, greywater or septic transfer.

Intended for intermittent use the B7 is great for dewatering of cellars, ditches, pits, ponds, swimming pools etc.

# 2. Construction and key features

The B7 Vortex Drainage Pumps are characterised by:

- Cast Iron pump body and vortex type impeller for durability
- Can tolerate soft solids up to 15mm diameter






The pump features:

- 240V single phase motor with in-built auto reset overload
- Inbuilt lifting and carry handle
- Automatic float switch – Flexible float: B7X, Vertical fixed float: B7XF
- 10m H07RNF Neoprene chemical and oil resistant cable
- Dual mechanical seals - Graphite/Ceramic
- Supplied with a universal hose tail adapter









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## 4. ISO 7010 Symbols used in this manual

	Warning - Electrical safety
	Warning – Potential consequences of use outside of intended application(s). Includes environmental condition warnings.
	Mandatory warning
	Warning to disconnect power
	Read carefully

## 5. Warnings

	Read the manual carefully before starting and retain for future reference.
 	Prior to starting installation or any maintenance the pump must be disconnected from the power supply and pressure relieved from the system including pump and associated pipework.
	Any changes or modification to the wiring must be carried out by suitably qualified personnel.
	A qualified electrician should correctly size and install circuit breakers to protect the power supply. The fitment of additional surge protection is recommended.
	This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
	To avoid excessive thermal shock to the motor the pump should not start more than 20 times in any one-hour period.
	Ensure that the installation will comply with all applicable local regulations.

## 6. Cautions

Operating range 2°C - 35°C ambient.

Running the pump without water or allowing the pump to run dry will damage the mechanical seal and void the warranty.

The ClayTech B7 pumps rely on water for cooling of the motor. The pumps can operate partially submerged for up to 10 minutes. Operating these pumps at very low flow i.e. high head or restricted pipework may cause the motor to overheat and could cause catastrophic failure.

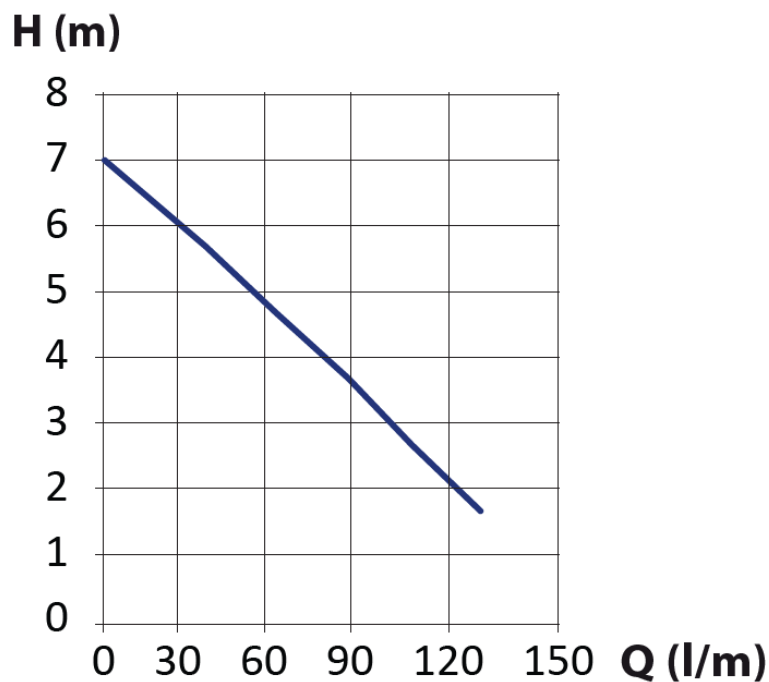


Avoid situations where the pump could be exposed to corrosive liquids or gasses, or to flammable materials, solvents etc.

ClayTech B7 models are not designed to pump abrasive solids.

Fitment and replacement must be carried out by competent, skilled, qualified personnel.

## 7. Technical Specifications



Specifications								
Pump Model	P/N	P2 Motor Power	Full load current	Max head	Max Flow	Start Capacitor	Outlet	Max particle size
CLA B7X	811526	180W	1.6A	7.0 m	133lpm	8uF	1 ¼" BSPF out	15mm
CLA B7XF	811527							

## 8. Electrical Connections and data

Rated voltage	240V 50Hz Single Phase +/-10%
Motor duty	Continuous
Motor type	Asynchronous
Motor protection	In built thermal overload
Ingress protection	IP 68
Insulation class	B class
Power cable length	10m H07RNF

### WARNINGS:

- All electrical work must be performed by an authorized electrician, in compliance with Au/NZ Wiring Regulations. Never allow an unauthorized person to perform electrical work.
- Improper wiring can lead to current leakage, electrocution, fire or pump failure.
- Always use an electrical outlet protected by Residual Current Device (RCD) Safety Switch with a trip current of 30mA or less. A Safety Switch is required by Au/NZ Standard **AU/NZS 60335.1-2011**.

Exercise care with the power cord. Route the cord carefully to avoid potential snagging or chafing hazards.

Never lift the pump by the power cord



## 9. Installation & Operating Instructions

ClayTech B7 submersible pumps are suitable for small to medium clean water dewatering and or wastewater transfer applications including use in AWTS (septic) systems. These pumps should never be used to pump flammable or corrosive fluids.

### Installation

ClayTech B7 submersible pumps can be completely submerged to depths up to 5 meters.

Install on a level surface in a stationary position connected to fixed pipe work.

Flexible piping can be used but must not have kinks or blockages.

Never remove or lift a pump by its power cable.

A rope or lifting chain must be attached to the handle of the pump at the time of installation.

The pump relies on pit water for cooling of the motor however the pump can operate partially submerged for up to 10 minutes. Operating at very low flow i.e. high head or restricted pipework may cause the motor to overheat and could cause catastrophic failure.

The pump has an automatic reset thermal overload protection built in. This thermal overload will switch the motor off in an overload/overtemperature situation and will automatically reset when the motor has cooled down.



## 10. Float adjustment

Automatic pumps with a float switch should be installed in a sump or pit of suitable size for the float switch to operate correctly.

To avoid excessive thermal shock to the motor the pump should not start more than 20 times in any one-hour period.

Flexible floats operational heights are determined by the amount of float cable extending past the 'P' clip

The float switch must be installed so the ON and OFF operating points can be easily reached.

The float switch head must not be too close to the cable holder. Allow approx. 100mm of cable between cable holder and float head.

The float switch must also not touch the base of the sump or pit which could prevent the pump from switching off and causing it to run dry.



The operational heights of vertical 'fixed' floats are adjusting according to the position of the o-rings on the vertical shaft

The pump relies on the pit water to achieve motor cooling.

Ensure the pump does not run for longer than 10 minutes with the motor exposed



No pump should ever be allowed to run dry.

## 11. Trouble Shooting Guide

Fault	Possible Cause	Remedy
Pump does not start and makes no noise	No mains supply	Check that power is available at the power socket and that it is switched on
	Blown fuse or tripped breaker	Replace fuse or reset breaker
	Impeller jammed	Disconnect power and clean impeller
	Thermal overload has been activated	Allow the switch to reset itself
	Float switch is in the down/off position	Free the float switch and change the position of the pump to prevent this in future
	Insufficient water level	Float switch must be in the up/on position (45° above horizontal)
Pump hums but doesn't start	Start capacitor failure	Replace the start capacitor. Note that a capacitor is considered a 'consumable' item and not cause for a warranty claim
No or low flow	Impeller blocked by debris	Disconnect from power and clean impeller area
	Damage caused by abrasive media	Pump may need to be serviced to replace worn parts
	Excessive friction loss or high delivery head	Reassess if the pipe size and pump is suitable for the application
Pump does not stop	Float switch is in the up/on position	Free the float switch and change the position of the pump to prevent this in future
	Possible faulty float switch	Pump may need to be serviced to replace faulty part
Pump runs but then switches off after short period	Thermal overload has been activated	Disconnect power and make sure impeller is not clogged Ensure the water temperature is below 35° Check the length of the power supply cable/extension. Possible voltage drop over long distance. Ensure the pump is not operating at a very low flow or very high head.

If the supply cord is damaged, the pump should be returned to White International or one of its Authorised Service Agents (contact [www.whiteint.com.au](http://www.whiteint.com.au) or [www.whiteint.co.nz](http://www.whiteint.co.nz)) for repair in order to avoid potential injury/electrical shock.

## 12. Warranties – Terms and Conditions

This warranty is given in addition to the consumer guarantees found within the Australian Competition and Consumer Act 2010 (Cth) for goods purchased in Australia and the Consumer Guarantees Act 1993 NZ for goods purchased in New Zealand:



1) White International Pty Ltd / White International NZ Ltd (White International) warrant that all products distributed are free from defects in workmanship and materials, for their provided warranty period as indicated on the top or opposite side of this document. Subject to the conditions of the warranty, White International will repair any defective products free of charge at the premises of our authorised service agents throughout Australia and New Zealand if a defect in the product appears during the warranty period. If you believe that you have purchased a defective product and wish to make a claim under this warranty, contact us on our Sales Hotline on 1300 783 601, or send your claim to our postal address or fax line below and we will advise you as to how next to proceed. You will be required to supply a copy of your proof of purchase to make a claim under this warranty.

2) This warranty excludes transportation costs to and from White International or its appointed service agents and excludes defects due to non-compliance with installation instructions, neglect or misuse, inadequate protection against the elements, low voltage or use or operation for purposes other than those for which they were designed. For further information regarding the suitability of your intended application contact us on our Sales Hotline on 1300 783 601. If you make an invalid claim under this warranty, the original product will be sent back to you unrepai red.

3) This warranty refers only to products sold after the 1st January 2012, and is not transferable to another product type and only applies to the original owner, purchaser or end user, and is in addition to the consumer guarantees found within the Competition and Consumer Act 2010 (Cth) for goods purchased in Australia and the Consumer Guarantees Act 1993 (NZ) for goods purchased in New Zealand.

4) Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. 2 YEAR WARRANTY.

5) To the fullest extent permitted by law, White International excludes its liability for all other conditions or warranties which would or might otherwise be implied at law. To the fullest extent permitted by law, White International's liability under this warranty and any other conditions, guarantees or warranties at law that cannot be excluded, including those in the Competition and Consumer Act 2010 (Cth), is expressly limited to: (a) in the case of products, the replacement of the product or the supply of equivalent product, the payment of the cost of replacing the product or of acquiring an equivalent product or the repair of the product or payment of the cost of having the product repaired, is at the discretion of White International or a 3rd party tribunal elected under the Competition and Consumer Act 2010 (Cth) for goods purchased in Australia and the Consumer Guarantees Act 1993 (NZ) for goods purchased in New Zealand; and

6) To the fullest extent permitted by law, this warranty supersedes all other warranties attached to the product or its packaging.

7) In the case of services, supplying the services again or the payment of the cost of having the services supplied again, is at the discretion of White International or a 3rd party tribunal elected under the Competition and Consumer Act 2010 (Cth) for goods purchased in Australia and the Consumer Guarantees Act 1993 (NZ) for goods purchased in New Zealand. 8) Our warranty commences from the date of purchase of the above mentioned pumps. Proof of purchase is required before consideration under warranty is given.

*Record your date of purchase in the space below and retain this copy for your records.*

**Date of Purchase** ..... **Model Purchased** .....





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