BIANCO NXT pumps

FC Series Close-Coupled Cast Iron Centrifugal Pumps

Installation and Operation Manual



1. Introduction

Congratulations on your purchase of a **Bianco NXT FC Series** pump.

The FC range is a family of close-coupled, cast iron, end-suction centrifugal pumps suitable for clean water transfer applications. This range of pumps is often employed for Vat Wash or CIP (Clean in Place) duties with water up to 85°C.

2. Key Features

- Compact, simple design
- Close coupled 240V single phase TEFC motor with inbuilt auto-reset thermal overload
- Quiet and reliable
- Floating ring nose seal for higher efficiency
- Cast iron body with cataphoresis corrosion inhibitor treatment. 304-grade stainless steel impeller, seal support and pump shaft. Nitrile O-rings.

This pump is intended to transfer clean water or other liquids with physical and chemical properties similar to water. The pH must be between 6.5 and 8.5 and temperatures 3ºC to 60ºC.

It must only be used to transfer clean water and other non-corrosive liquids with low viscosity. It must not be used to transport inflammable, explosive, gasified liquids and liquids containing solid particles.

It can be used to pump clean water from lakes, rivers, tanks, small scale irrigation and for general water transfer. It must not be used to drain spas or swimming pools.

3. Contents

1. Introduction 2
2. Key Features 2
3. Contents 2
4. Warnings 3
5. Symbols used in this manual 3
6. Technical Specifications 4
7. Electrical Connections 5
8. General installation and startup notes ..... 6 - 7
9. Exploded View 8
10. Warranties – Terms and Conditions 9
11. Troubleshooting Guide 10

4. Warnings

	Read the manual carefully before starting
	Prior to starting installation or any maintenance the pump must be disconnected from the power supply and pressure relieved from the system including controller, 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.
	Never open the controller cover or pump terminal box cover while the pump is connected to electrical supply.
	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.

5. 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

6. Technical Specifications

SPECIFICATIONS - SINGLE PHASE			
	FC75M	**FC150M**	**FCT150M**
Maximum head	36m	22m	57.5 m
Maximum flow	110 l/min	550 l/min	160 l/min
Input power	230V Single Phase		
Motor	0.75 kW	1.5 kW	
IP Rating / Insulation	I.P. 44 Class F Insulation		
Motor Rating	Continuous.		
Max Amperage	5.5 A	10.0 A	11.5 A
Start Capacitor	20uF	40uF	40uF
Pump materials	Cast iron pump body. S/S 304 Impeller		
Mechanical Seal	Carbon / Ceramic		
Inlet Size	1" BSPF	2" BSPF	1 1/2" BSPF
Outlet Size	1" BSPF	2" BSPF	1" BSPF
Maximum pressure	8 bar		
Working temp range	Ambiant temp max 40ºC. Water temp 4 - 60ºC		
Power Cable	2m H07 with 3 pin plug		
Weight	13.0 kg	21 kg	28 kg
ITEM CODE	**802805**	**802806**	**802816**

SPECIFICATIONS - Three Phase			
	FC300T	**FC550T**	**FC750T**
Maximum head	28m	54m	56m
Maximum flow	450 l/min	500 l/min	900 l/min
Input power	415V Three Phase		
Motor	3.0 kW	5.5 kW	7.5 kW
IP Rating / Insulation	I.P. 44 Class F Insulation		
Motor Rating	Continuous		
Max Amperage	8.2	13	16.5
Pump materials	Cast iron pump body. S/S 304 Impeller		
Mechanical Seal	Carbon / Ceramic		
Inlet Size	2" BSPF		
Outlet Size	2" BSPF		
Maximum pressure	8 bar		
Working temp range	Ambiant temp max 40ºC. Water temp 4 - 60ºC		
Weight	42 kg	62 kg	67 kg
ITEM CODE	**802808**	**802809**	**802810**

7. Electrical Connections

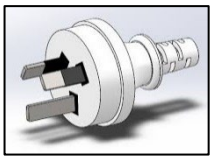
Always use an electrical outlet that is protected by Residual Current Device (RCD) safety switch with a trip current of 30mA or less.
A safety switch is required by Australian/New Zealand Standard AS/NZS 3000.

The mains supply voltage matches the voltage indicated on the pump identification plate.

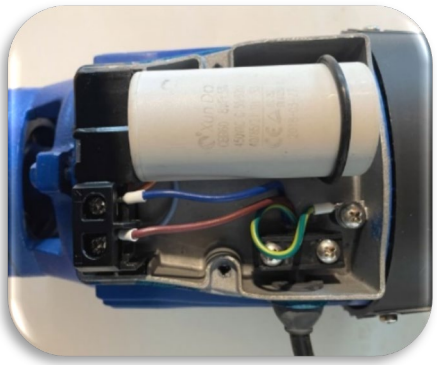
Exercise care with the power cord.
Route the cord carefully to avoid potential snagging or chafing hazards.
Never lift the pump by the power cord or disconnect from the power supply by pulling the cord.

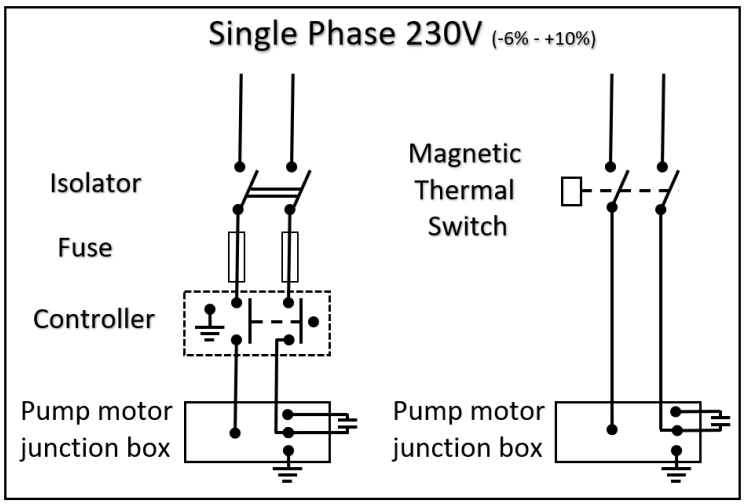
Single-phase pumps

Single-phase pumps are supplied with a 10A-rated lead and AS/NZS 3112 (Type 1) 3-pin male power plug for connecting to mains power.



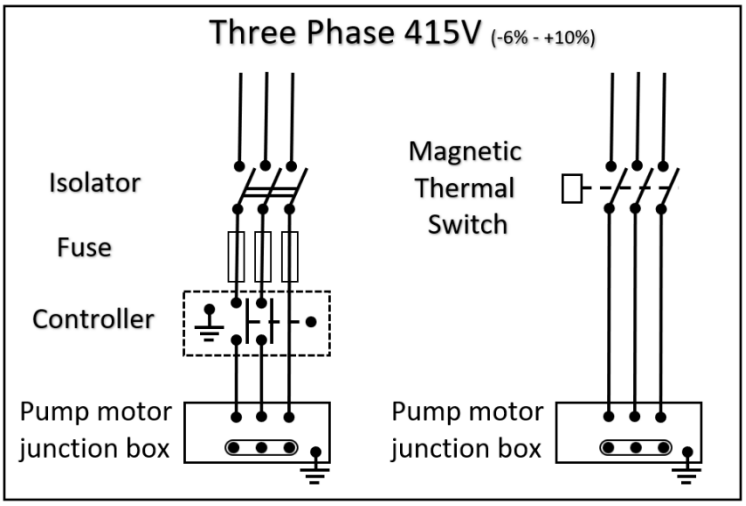
BIANCO FC Series	Capacitors	uF
FC75M	805962	20
FC150M	805967	40
FCT150M	805460	45





Three-phase pumps

Three-phase pumps must be installed by a licensed electrician and must have suitable overload protections installed.



Check rotation of the motor (three-phase motor). The motor fan should be spinning in a clockwise rotation. If the fan rotation is incorrect, isolate power to the pump and exchange the two supply wires.

8. General installation and startup notes

Following the basics will ensure your **Bianco NXT FC** will perform reliably.

- Install the pump on a firm base as close to your water source as practical and close to a suitable power supply.
- Avoid the use of extension cords as they can result in voltage drop. If an extension cord must be used ensure it is correctly rated.
- Protect the pump and controller from rain and moisture and minimise exposure to extremes of heat and cold. Operating range 2 – 40°C.



- Install the pump in a weatherproof, free-draining, well-vented enclosure to protect it from the extremes of temperature, moisture, flooding, chemicals, vermin, insects, dust, etc.

If the pump is drawing water from a supply below the level of the pump (suction lift), the pump will need to reprime each time it starts or it may not prime at all. This can be mitigated by fitting a non-return valve to the end of the delivery line.

When the pump is controller with a pressure switch, always install a pressure tank on the delivery side of the pump to prevent excessive pump starts per hour.

The intake suction piping is the most critical part of the installation. Errors or air leaks will cause significant issues for performance and pump reliability.

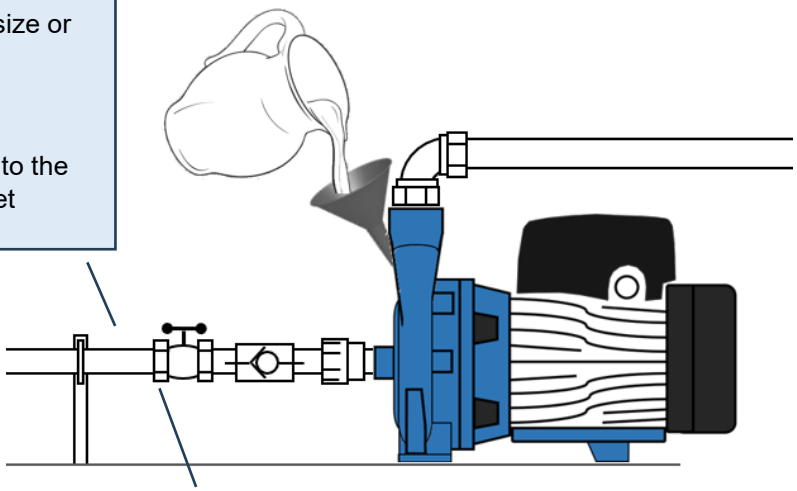
The pump and delivery line MUST be manually primed (filled) before the pump is started for the first time to ensure the mechanical seal is well lubricated. Dry operation causes irreparable damage to the mechanical seal.

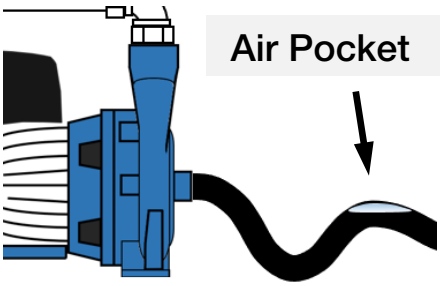
Never start a pump until the pump chamber is filled with water.

Reminders of best practice:

Inlet pipe

- The inlet pipe must be the same size or larger than the inlet port size
- As short and straight as practical
- At least 200mm of straight pipe into the inlet. Avoid bends directly on the inlet

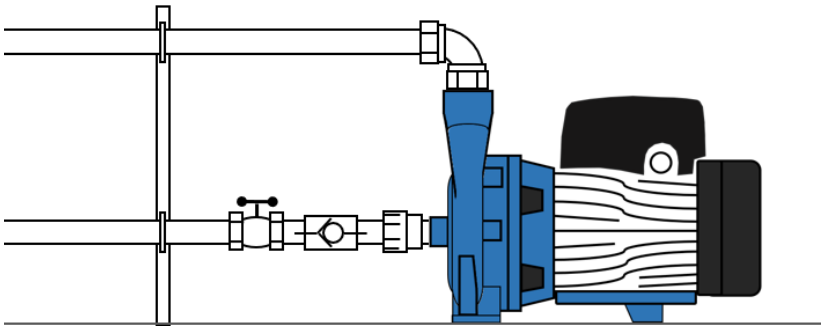




Inlet pipe

- Fit a non-return valve on the inlet piping
- An isolating valve on the inlet is recommended
- Unions allow for easy connection/disconnection
- Avoid piping which may result in air pockets

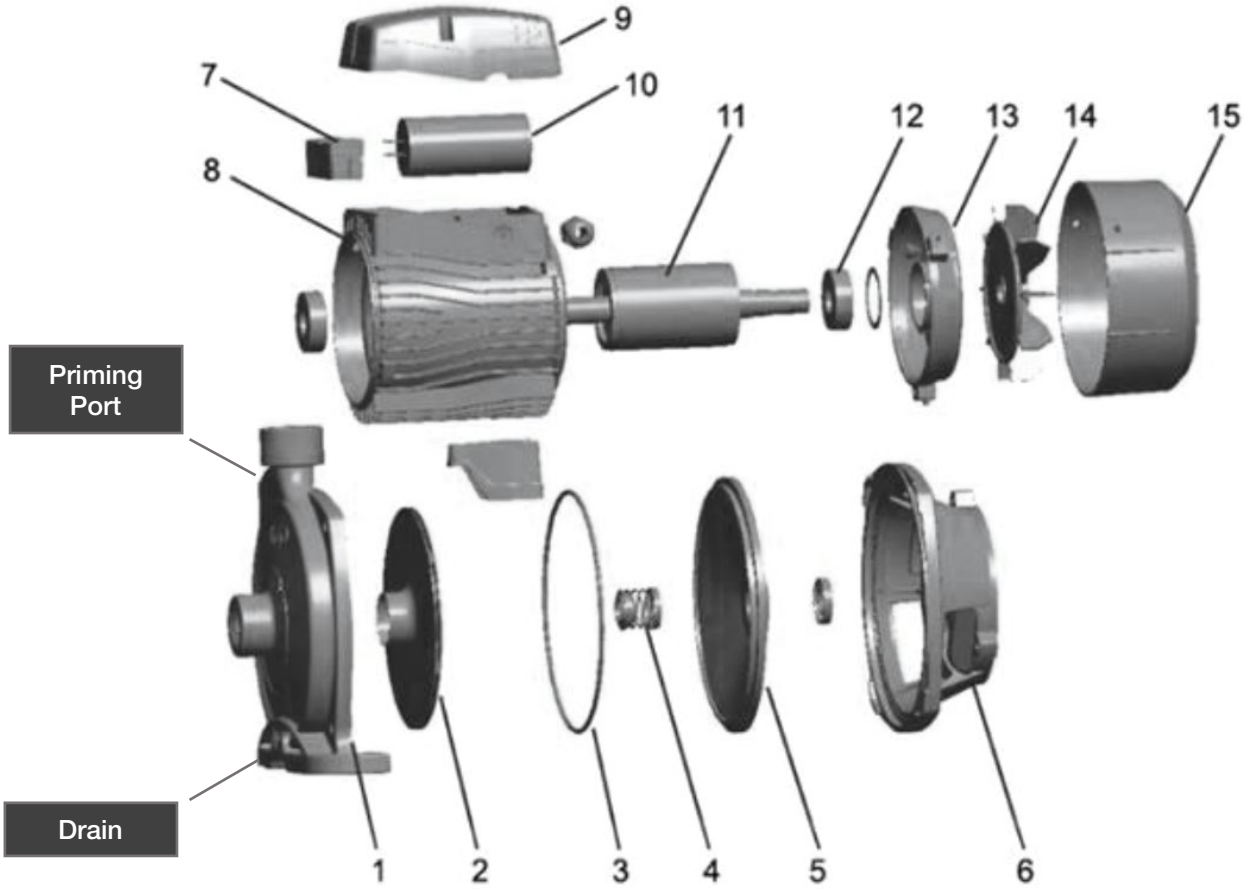
Avoid strain on the pump casing by supporting your pipework.



Mount the pump on a firm base in a dry, free draining area

Protect the pump from weather, dust, insects and extremes of temperature

9. Exploded View



1	Pump Body (Volute)	8	Stator
2	Impeller – SS304	9	Terminal Box – ABS
3	O-ring	10	Capacitor (single-phase models only)
4	Mechanical Seal	11	Rotor
5	Rear housing / seal support	12	Deep Groove Bearings
6	Spacer section	13	Rear housing – Aluminium alloy
7	Terminal board	14,15	Fan and Fan Cover

DANGER OF FROST: When the pump remains inactive for a long time at temperatures of less than 0°C, the pump body must be completely empty to prevent possible cracking of the hydraulic components.

Draining the pump is advisable even in the event of prolonged inactivity at normal temperature. When starting after long periods of inactivity, the startup operations listed above must be repeated.

10. 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 unrepaired.

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.

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 products. Proof of purchase is required before consideration under warranty is given.

Print a copy of this page and record your date of purchase in the space below.
Retain the printed copy along with your purchase receipt for your records.

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

11. Troubleshooting Guide

	POSSIBLE CAUSE	POTENTIAL SOLUTIONS
The pump won't start and makes no noise	1. No electricity 2. Fuses or RCD tripped 3. Internal motor fault	1. Check the power supply. 2. Fuses or RCD tripped may indicate more serious problems 3. Contact an expert to check the motor
The pump doesn't start but makes a noise	1. Motor not free to turn, i.e. internal jamming 2. Faulty capacitor	1. Check whether pump can rotate freely 2. Contact an expert to check/replace capacitor
The pump runs but there is no flow or only poor flow	1. Valves closed 2. Air entering suction line (loss of prime) 3. The water lavel may be too low 4. Pump may be worn or damaged 5. Blockages in the pump, suction or discharge lines 6. In-line filters blocked (if fitted) 7. The piping may be too long or too small	1. Check suction and discharge isolating valves 2. Check for leaks and ensure all joins or fittings are sealed 3. Check water availability 4. Contact your service agent for repair 5. Contact your service agent for repair 6. Clean any filters/strainers in the system 7. Contact your pump professional
The pump runs. There is flow but poor pressure	1. Excessive flow demand 2. Total head requirement too great for the pump 3. Pump may be worn or damaged 4. Air entering suction line reducing performance	1. Check that the pump selected is correct for the application 2. Check the pump specification 3. Contact your service agent 4. Ensure the suction line is sealed correctly
Pump cycling on and off	1. Small water draw off or leak 2. Leak in suction or discharge line 3. Contamination in the controller	1. Check for small leaks, i.e. taps or cistern 2. Check for leaks including suction line non return valve 3. Contact your service agent to inspect
Pump runs intermittently	1. Overheating and thermal protection tripping	1. Ensure the water temp is less than 40°C. Ensure sufficient airflow to cool the motor. *Note that low voltage can cause the motor to overheat.*
Pump vibrates and is noisy	1. Incorrectly mounted/fixed 2. Internal blockage causing impeller imbalance 3. If the flow requirement is greater than the pump is capable of it will cavitate. *Cavitation sounds like gravel inside pump.*	1. Ensure the pump is solidly attached to a base 2. Contact your service agent 3. Reduce the water demand to see if the noise disappears. Ensure the suction pipe is sized correctly. A different pump model may be required Contact your service agent
Water leaking from the centre of the pump	1. The mechanical seal is leaking	1. Contact your service agent for repair

Distributed By:
WHITE®
INTERNATIONAL

www.whiteint.com.au

www.whiteint.co.nz

Please always refer to our website for further technical information & new product innovations

Disclaimer: Every effort has been made to publish the correct information in this manual. No responsibility will be taken for errors, omissions or changes in product specifications.

© 2026 Copyright White International Pty Ltd

TM ® - WARNING: Please be aware that various brands & products depicted within this document are subject to trademark, patent or design registrations. Infringement of any intellectual property contained within this document without express written authority by the appropriate intellectual property holder may result in further legal action to be taken. For any queries regarding use of the contained information please feel free to contact White International Pty Ltd.