



# Submersible Grinder Pumps

**BIA-B120GS2 (802770)**

(Auto Version)

**BIA-B120GMS2 (803150)**

(Manual Version)

**BIA-B120TMS2 (806084)**

(Manual Version)



# Installation & Operating Instructions

The Bianco B120 submersible grinder pump is suitable for small to medium wastewater applications in industry, agriculture. It is supplied with a primary cutter and secondary grinder which make it unique in the market and capable of dealing with a multitude of different items in a waste water application including soft string-like materials. Not suitable for sand or gravel in order to prevent abrasion on the cutter and grinder.

## VOLTAGE OPTIONS:

- 240V, 50Hz, Single Phase
- 415V, 50Hz, Three Phase

Pumps should never be used to pump flammable, combustable or corrosive liquids.

## GENERAL SAFETY

This appliance is not intended to be held in the hand during normal use.

Do not handle the pump when in operation and do not touch the liquid in which it is submerged.

Before performing any procedure (handling, inspection, installation, etc.) the power supply must be disconnected. The pump surface needs to be cooled to ambient temperature (wait at least 30 minutes)

Do not place your hands or objects near and/or insert them in the pump's intake or outlet

Always handle the electric pump while wearing individual protection devices in conformity with the law.

Do not allow the free end of the electric cable to come into contact with liquids of any kind.

This pump must not be used by children or infirm persons to prevent potential injury. The electricity supply must always be switched off prior to handling the pump as the cutting/grinding device is exposed and could cause injury if not handled properly.

If the supply cord is damaged, the pump should be returned to White International or one of its Authorized Service Agents (list available on request) for repair in order to avoid potential injury / electrical shock.

## INSTALLATION

The BIANCO B Series Grinder pumps are submersible up to 10m and can be installed on a level surface in a stationary position connected to fixed pipe work.

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. Automatic pumps with a float switch should be installed and a sump or pit of suitable size for the float switches to operate correctly. The float switch if fitted must be installed so the ON and OFF operating points can be easily reached i.e. the float switch head must not be too close to the latching holder. 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. Pumps should never be run dry.

The BIANCO B Series Grinder 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.

All electrical works connected to the mains must be performed by qualified personnel, in compliance with the local regulations.

The electrical connection of the models without plug must be performed by connecting first the yellow-green to the ground, then the other wires.

To ensure safety the pump is to be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA.

Appliances without plug are intended to be permanently connected to fixed wiring; a switch that ensure the all-pole disconnection incorporated in the fixed wiring is to be provided. The switch shall be directly connected to the supply terminals and shall have a contact separation in all poles, providing full disconnection under overvoltage category III (4000V).

The pump motor must be protected from overload by installing in the main control circuit or power line of pump an overload protection (motor protection breaker). The protection must be adequately dimensioned according to the rated pump data.

The starting current in direct-on-line start can be up to six times higher than the rated current.

## CHECKING THE IMPELLER ROTATION DIRECTION (three-phase models only)

Before making the three-phase electrical connection, make sure the rotation direction is correct. To check the rotation direction, proceed as follows:

1. Take the precautions detailed in the “General Safety” above;
2. Lay the pump horizontal on one side and leave it free
3. Temporarily connect the yellow-green wire to ground and then connect the power supply wires to the contactor;
4. Make sure there are no people or objects within a radius of at least 1 metre of the pump;
5. Turn on the start switch for a few moments;
6. Watch the impeller as it stops through the intake port and check that it turns anticlockwise.

If the pump is rotating in the wrong direction, invert two of the power supply wires in the contactor and try again. Once the correct rotation direction has been obtained, MARK the power supply wire connection positions, REMOVE the temporary electrical connections and install the pump in the planned position.

## Trouble Shooting

Fault	Cause	Remedy
Pump does not start	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 area
	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)
No or low flow	Strainer or 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 switches off after short period	Thermal overload has been activated	Disconnect power and make sure impeller is not clogged
		Ensure water temperature is below 40°C
		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

White International Pty Ltd  
Limited Product Warranties

**TERMS & 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.
- 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 At 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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