



flowpac compact[®]

1F.BLP Pump Manual

OPERATION AND MAINTENANCE MANUAL

First Publication Date: 01/09/2020

Revision:

Revision Date:

General

Information

These instructions are to assist in the installation of the flowpac compact 1F.BLP Pump please follow them carefully.

If, having read this Operation & Maintenance Manual, there is any doubt about any aspect of the installation please don't hesitate to contact our technical team.

Definitions of Safety Warnings and Precautions



WARNING!

Indicates a potentially hazardous situation which, if not avoided, can result in serious injury or death.



CAUTION!

Indicates a potentially hazardous situation which, if not avoided. Can result in minor to moderate injury, or serious damage to the product.

Safety

Information

It is essential that correct and safe working practices are adhered to at all times when installing, operating and/or maintaining any piece of equipment. Always consult safety data sheets, operating and maintenance manuals, Health & Safety legislation and recommendations and specific requirements of any equipment manufacturer, site controller, building manager or any other persons or organisation relating to the procurement, installation, operation and/or maintenance of any piece of equipment associated or in conjunction with any product provided by **flowtech** Water Solutions.

This document is intended for ALL installers, operators, users and persons carrying out maintenance of this equipment and must be kept with the equipment, for the life of the equipment and made available to all persons at all times. Prior to carrying out any work associated with the set it is essential that the following sheets are read, fully understood and adhered to at all times.

Equipment must only be installed, operated, used, and/or maintained by a competent person. A competent person is someone who is technically competent and familiar with all safety practices and all of the hazards involved.

Any damage caused to any equipment by misapplication, mishandling or misuse could lead to risk of Electrocutation, Burns, Fire, Flooding, death or injury to people and/or damage to property dependent upon the circumstances involved. **flowtech** Water Solutions accepts no responsibility or liability for any damage, losses, injury, fatalities or consequences of any kind due to misapplication, mishandling or misuse of any equipment, or as a result of failure to comply with this manual.

Failure to install, operate, use or maintain the equipment in accordance with the information contained within this document could cause damage to the equipment and any other equipment subsequently connected to it, invalidating any warranties provided by **flowtech** Water Solutions to the buyer.

Safety Warnings &

Precautions

These instructions should be read and clearly understood before working on the system. Please read this manual carefully and all of the warning signs attached before installing or operating the equipment keep this manual handy for your reference. This equipment should be installed, adjusted and serviced by trained and qualified personnel. Failure to observe this precaution could result in bodily injury.



WARNING! - Install an emergency stop key separately from the isolator. Rotating shafts can be hazardous.



WARNING! - This equipment has a high leakage current and must be permanently fixed to earth.



WARNING! - Do not attach or remove wiring or connectors when the power is applied. Do not check signals during operation. When the power is turned on and the running command is on, the motor will start rotating. The stop key is only effective when the function is set. If there is a power failure and an operation instruction is given the unit may start automatically when the power is reinstated.



WARNING! - Make sure that the input voltage is correct. Be sure to install the unit in a room that is not exposed to direct sunlight and is well ventilated.

Avoid environments which have a high ambient temperature, high humidity or excessive condensation. Avoid dust. Corrosive gas, explosive gas, inflammable gas, grinding-fluid mist and salt damage, etc.



WARNING! - Do not connect the power source to any terminals except power connectors.



WARNING! - Motor control equipment and electronic controllers are connected to hazardous line voltages. When servicing drives and electronic controllers, you may be exposed to components at or above the line potential. Extreme care should be taken to protect against shock. Dangerous voltage may exist after the power light is off.

Wait more than 5 minutes after turning off the power supply before performing maintenance or inspection. Hazard of electric shock. Disconnect incoming power before working on this unit.



WARNING! - The inverter should be protected separately against ground fault.

Observe the regional regulations for electrical installation!



CAUTION! - It is strongly recommended that all electrical equipment conforms to National Electrical Codes and local regulations. Only qualified personnel should perform installation, alignment and maintenance. The manufacturer reserves the right to alter the technical data in order to make improvements or update information.



CAUTION! - Failure to observe these rules will render the guarantee invalid. The same applies to repair jobs and/or replacement. Your legal rights are not affected.



CAUTION! - The manufacturer declines all responsibility in the event of damage or injury caused as a result of tampering with the equipment.



CAUTION! - Do not switch on/off power supply to run/stop the motor/system! Start the unit only by using run button or external run command.

Customer / Contractor

RESPONSIBILITIES

It is the responsibility of the customer and/or the contractor:

- To ensure that anyone working on the equipment is wearing all necessary protective gear and/or clothing.
- Is aware of appropriate health & safety warnings.
- Has read the information in this section of the manual.

Typical applications.

Designed to handle clean non-aggressive water free of dissolved gases.

Domestic water supply, irrigation, pressure boosting, liquid transfer.

Working Limits

- Max. operating pressure: 800 kPa (8 bar)
- Max. liquid temperature: 40°C
- Max. ambient temperature: 40°C
- Max. number of starts per hour: 40

Installation

Screw the electric pump to a stable base using the slots in the foot of the motor.

(*) The suction lift is determined by liquid temperature, altitude, flow resistance and

NPSH required by the pump.

As a general rule, the suction lift is 7 m for the BG models.

Electrical Connection

To connect, proceed as shown on the back of the terminal board cover (anticlockwise rotation).

Use standard 3-wire cables (2+ground) for single-phase versions, 4-wire cables (3+ground) for three-phase versions.

The reference characteristics (voltage, frequency, and input current) are shown on the pump rating plate.

The single-phase pumps have built-in, automatic reset thermo amperometric protection; the three-phase pumps must always be supplied through a magneto-thermal overload cut-out set to the rated current.

For ambient temperatures of 40 to 45°C, supply cables with temperature characteristics of at least 95°C and minimum wire gauge of 1.5 mm² must be used.

Check the direction of rotation {three-phase models only}

Clockwise rotation when looking at pump from the motor side.

Check by looking at the fan or by observing the pump's performance.

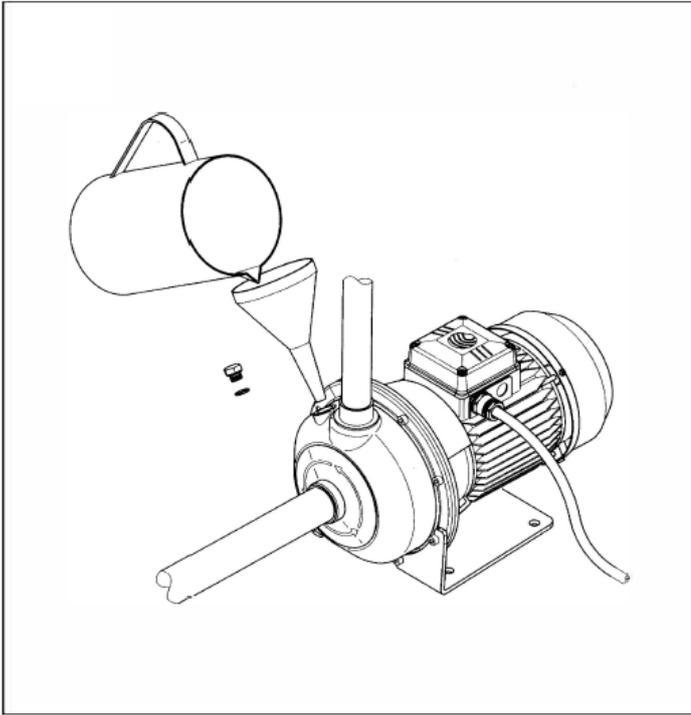
The correct direction of rotation is the one that generates the highest Q/H performance. In the event of incorrect rotation, switch two supply wires.

Noise

Acoustic pressure dB(A) <70

Priming

Fill the pump body and suction pipe through the fill plug, bleeding off all the air. For the SP-BG models, self-priming without the foot valve may require up to 3-4 minutes.



We therefore recommend that you always use a foot valve.

The pump should be serviced by qualified personnel only, after having been disconnected from the power mains. maintenance is required.

Warning: the motor can reach a temperature of 70°C.

Troubleshooting

THE PUMP DOES NOT START:

- Check the power supply. Reset the ground fault interrupter or circuit breaker if it has triggered.
- The thermo amperometric protection incorporated in the single-phase versions may have activated: it will reset automatically once the motor has cooled.

THE MOTOR STARTS BUT THE PUMP DOES NOT DELIVER:

The pump is sucking in air: check the liquid level, the tightness of the suction pipe and the operation of the foot valve.

THE PUMP'S DELIVERY IS REDUCED:

- Check for throttling and direction of rotation in three-phase models.

THE PUMP STOPS OCCASIONALLY:

- Triggering of thermo amperometric protection (single-phase version) or of temperature relay due to excessive current input



flowtech[®]
WATER SOLUTIONS

flowzone[®]

MEMBERS AREA

This section of the **flowtech**[®] website holds information exclusively for members. Members will need to log in to gain access to these pages.

Our member's will be granted exclusive access to our technical resource library. Within this resource is a wide range of product information including data sheets, technical drawings, O&M Manuals and training videos



flowcare[®]

AFTER SALES SERVICE

At **flowtech**[®] we operate a network of Service Engineers located throughout the UK who are supported by our offices located in and Greater Manchester. The distribution of engineers means that in the majority of cases we are less than 4 hours away from attending a customer call out.

We place great emphasis on providing technical back up to support our Service Engineers in resolving some difficult operational and technical issues. We pride ourselves on completing a project on time, within budget and never leaving a problem unresolved, or a customer waiting. This quality of service has made us the first choice for our customers.

FOR FURTHER INFORMATION OR ASSISTANCE

contact us

Flowtech Water Solutions are experts in water services and water booster sets. We have continuously supplied a wide range of standard and custom products since being founded in 1996.

MANUFACTURE & SUPPLY

TELEPHONE : 0333 200 1756

EMAIL: info@flowtech.org.uk

SERVICE & MAINTENANCE

TELEPHONE : 0333 200 1813

EMAIL: service@flowtech.org.uk

WEBSITE: www.flowtech.org.uk

ADDRESS : Unit 1 Lock Flight Buildings, Wheatlea Industrial Estate,
Wigan, Greater Manchester WN3 6XP United Kingdom



Membership No. 700106



Certificate No. 185352020