

3DGence Support Dissolving System

manual

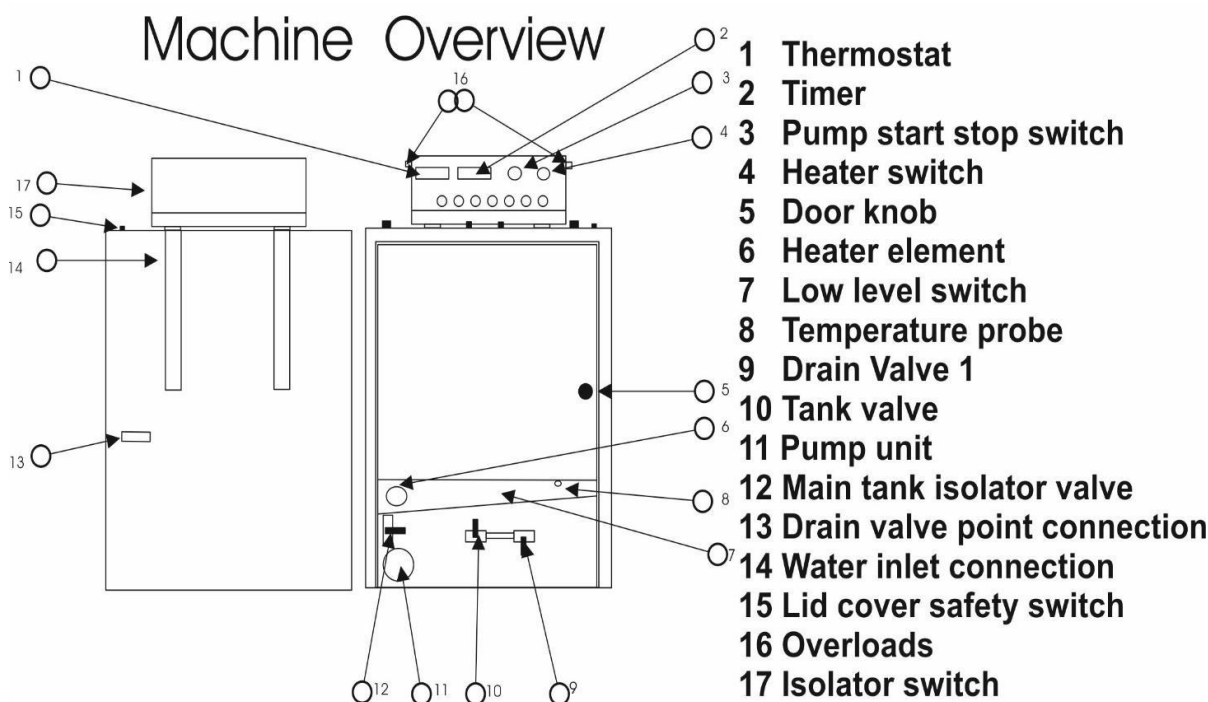


Please read and comply with these original manufacturer's instructions prior to using the equipment and safely store this document for future reference.

Contents of this operating manual:

- 1* Description of the essential parts of the machine
- 2* Safety instructions
- 3* Safety devices
- 4* Environmental protection
- 5* Intended use
- 6* Setting up your new machine
- 7* Using the chemicals
- 8* Before starting the machine
- 9* Starting/stopping
- 10* Loading/unloading the cage
- 11* Maintenance and care of the machine
- 12* Troubleshooting
- 13* Accessories & spare parts
- 14* Technical specifications
- 15* Warranty
- 16* E.C. declarations

1. Description of the essential parts of the dip Tank



Explanation of the symbols used within this operator's manual:



Danger

Immediate danger that may cause severe injury or even death to persons.



Warning

A Possible hazardous situation that could lead to severe injury to persons or property.



Caution

A Possible hazardous situation that could lead to mild injury to persons or damage to property.



Recycle

Always recycle old damaged or redundant parts or packaging materials.

2. Safety instructions

It is vital that you read and fully understand this operational /safety instruction leaflet before you use this machine. It is your sole responsibility as the end user of the equipment to ensure that the machine is used and operated solely for its intended purpose and comply with all relevant local regulations concerning work force safety, environmental conditions, and hazardous waste disposal.



Warning: Under no circumstances must the machine be operated with the lid open.



Warning: Under no circumstances must you use this machine without the specified PPE.



Warning: Only competent skilled persons may be employed in the installation process.



Warning: This machine is not intended to be used with flammable liquids.



Warning: Only trained personnel may operate this machine.



Warning: Under no circumstances can this machine be altered in any way without our written consent.



Danger: When in operation the contents will be HOT extreme caution must be taken not to splash the heated solution.



Caution: If for any reason the machine is sent back to us for service/repair you must give written guarantees and waste transfer notice that the machine has been fully cleaned out of ALL chemicals, if the machine is contaminated you will cover the FULL cost of disposal and cleaning costs.

Local water regulations:

If this machine is connected to the mains water supply, it has an electrical solenoid as well as a 50 mm air gap.

3. Safety devices

The safety devices fitted to this machine are there to protect the machine and the operator from injury or damage and under the machinery directive 2006/42/EC MUST NOT be interfered with in any way.

4. Environmental protection



Recycle: Most of the packaging material can be recycled. Please do not throw the packaging material in to the domestic household waste system. Send it for recycling.



Recycle: Old machines contain valuable materials that can be reused or recycled; please send your old machines to a suitable recycling centre at the end of its useful life.

5. Intended uses

This machine is intended to clean excess support material from 3d plastic printed items only.

6. Setting up your new machine for the first time



Remove all the packaging and where appropriate recycle it.

When siting the machine please give enough room around it for free air circulation.

1. Ensure that all the fluid control valves are in the normal operating position.



Pump inlet valve

pump outlet valve

tank drain valve

2. Connect the water supply to the water inlet point.



3. Connect the drain pipe into the drainage system, it is important that the pipe is securely fixed in position as during the drain cycle the solution can be pumped out under pressure.



It is advisable to do a test of the drainage system and its connections with water only to ensure that you have sufficient flow capabilities.

4. Connect the machine to a suitable mains power supply with an isolator, this machine requires a 10-amp 220v supply.

5. Switch on the power and you will see the low level white LED is on.



6. Press the fill button and the water will enter the tank and will stop when the water level reaches the full level switch.



7. Next you need to set the temperature you want to work at, this is done by pressing the set button on the temperature unit once,



then pressing either the up or down buttons you can alter the working temperature. The unit resets after 5 seconds.



Turn the heater selection switch to the on position and the heaters will be energised.



8. The timer is pre-set at the factory to hours and minutes

9. Next set the time you want the parts to be cleaned for.



This is done by pressing the set button once, simply press the up or down buttons to increase or reduce the time, then press the set button once and time mode is set.

Press and hold the start button for 2-3 seconds to start the pump.

7. using the chemicals

Dose the water with the Caustic product of your choice and follow the instructions provided by the manufacturer (the tank holds 55 It and it is recommended that you use a maximum of 5% solution in this machine).

1. Safety: an alkaline based chemical is used to remove the support materials, it has hazardous handling issues. It is vital that you read and understand the safety information within this document before you use the chemicals.

2. Personal Protective Equipment: the list below is the very minimum requirements you will need, it is recommended that you do your own in-depth risk assessment for your own working environment.

- * face shield preferably with chin guard (not safety glasses)
- * long rubber gauntlets
- * plastic apron
- * suitable foot wear
- * suitable dust mask
- * well ventilated room

3. Preparing the tank for the cleaning solutions:

3.1 It is important that the tank is clean and free form foreign objects'

3.2 you must ensure that the tank is filled to the required level set by the tank manufacturer.

run the machine to ensure the pump is working and you have full flow. Run the machine with the heater ON to raise the temperature to around 30°C.

4 Adding the chemicals: you must use all appropriate personal protective equipment

NEVER add the WATER to the chemicals it is vital that you add the chemicals to the water to prevent excess heat from the chemical reactions with the water.

4.1 with the pump running add the correct volume and run for 15 minutes

4.2 your tank is now active and ready to use

It is recommended that the solution is replace when you reach 10% saturation or when the solution is ineffective to remove the support material.

5 Neutralizing the cleaning solution:

You are strongly advised to contact your local water authority to ensure that you are abiding with their own local requirements

You must wear appropriate personal protective equipment during this operation.

5.1 It is important that you neutralize the solution before you dispose of it to the drain.

5.2 remove all prints from the tank.

5.3 check the PH level.

5.4 run the machine and add the PH reducer powder to the tank, try to get the PH level down to below 11. It is difficult to give exact ratios for this operation as there are just too many variables but start with 1000g adjust this up or down depending on your own very individual circumstances.

5.5 switch the machine OFF

5.6 it is advisable to allow the tank to cool down to ambient temperature before disposing it down the drain.

5.7 rinse out the tank and clean the filters

8. Before starting your machine



Danger of injury from electrical shock

This machine may only be connected to an electrical supply which has been installed in accordance with all relevant IEC regulations.

Please check the voltage and the current specifications on the machines technical plate before you connect it.

Never permanently connect this machine to the mains supply without an isolating switch as the main isolating point for this machine.

Always check the mains cable for damage prior to use.

Only authorized persons may replace damaged cable to this machine.

9. Starting /stopping draining of your machine

Starting

If the machine has initially been set up in accordance with section 6 and the tank has already been heated and the parts are loaded as per the instructions in section 10, simply ensure that the pump switch is in the ON position, press the start button on the timer and the cleaning cycle will start. The blue LED will come on at the end of the cleaning cycle and the pump will stop.

Stopping the pump

There are several ways to stop the pump.

You can stop the pump by turning the switch on the control panel to off.

press the stop button on the timer or lift the tank lid.

10. Loading/unloading the cage



Caution

Immediate danger that may cause severe injury

When the cleaning process has finished and before retrieving the cage YOU MUST USE ALL RELEVANT & SUITABLE PPE.

The cage is designed to sit inside the tank to contain the prints and it offers a suitable means of securing them so that the prints are always fully submerged during the cleaning process preventing distortion caused by irregular heat transfer due to portions of the of the print being out of the solution.

To load the prints, lift the cage out of the tank and locate the 4 pins onto the 2 top front support brackets



Allow the basket to drain for a short time, you can then load the prints into the cage. Do not allow old discarded zip ties or any other securing materials to drop into the tank.

Draining your machine.

Turn off the power and allow the tank to cool overnight. Open the drain valve and close the tank valve.



Tank valve

Drain valve

Then press and hold the pump override button and the drain cycle will operate, this will continue until most of the solution in the tank has been pumped out. You can stop the pump by releasing button.

It is recommended that you then re-fill the tank ½ way with water and then drain this out to dilute the chemicals in the drain system.

Frost protection



Warning

Frost will damage the pump inside this machine keep it in a warm place when frost is likely.

11. Maintenance and care of your machine



Danger

Risk of injury; unexpected start up and electrical shock.

Always disconnect the mains power supply before commencing ANY cleaning or maintenance on this machine.

Note

It is recommended that a responsible person carry out any safety/maintenance checks on this machine.

Daily checks

Check the water supply connections for any water leaks; all leaks must be repaired before using this machine.

Check the condition of the lid seal.

Open the door and check that the pump is leak free.



Warning

Never use the machine without the filters to protect the pump.



The filter is located on the left hand inside of the tank and it simply lifts out for the first few weeks you check it occasionally as each machine is used in a different way and this operation may be required depending on your own needs.

12. Trouble shooting



Danger

Risk of injury by unexpected start up and electrical shock

Always disconnect the mains power supply before commencing ANY maintenance on this machine.

Have any electrical problems checked by a qualified service engineer.

1. No lights on the control panel Check the mains supply.

If the mains supply is ok then you must call a service engineer.

2. You have power, but machine fails to operate

Ensure that the lid is closed, and the interlock is operating, also if the RED low level LED is ON check the level in the tank if the level is OK and the lids are closed call a service engineer.

3. Heater is ON but fails to work

Is the lid closed and the AMBER LED illuminated? If NO refer to section 2 above if yes continue to follow the checks bellow.

Assuming that you have correctly followed the instruction regarding the setting of the heater controls and no error code is showing on the heater display, the heater switch is in the on position and the heater ON LED is illuminated, on the left hand side of the control box you will find the re-set fuse for the heaters, if the external button has a white band showing it has tripped simply press the button in to re-set.

If an error code is showing on the heater display refer to the manufacturer's paperwork to re-set it this paperwork can be found at the end of this document.

If the trips, heater control unit and heater switches are OK you need to call a service engineer.

4. Pumps are on but fail to pump the solution

Is the lid closed and the starting is the yellow LED illuminated? If NO refer to section 2 above if yes continue to follow the checks below.

Assuming that you have correctly followed the instruction regarding the setting of the timer controls and no error code is showing on the timer display, the pump switches are in the on position and the pump ON LED's are illuminated, on the right hand side of the control box you will find the re-set fuse for the pumps, if the external button has a white band showing it has tripped simply press the button in to re-set.

If an error code is showing on the timer display refer to the manufacturer's paperwork to re-set it this paperwork can be found at the end of this document.

5. The pump is working but no fluid is flowing

Are all of the fluid control valves in the correct position for normal running?



Remove the filter and clean it. ←

If the pump is running and all of the above have been checked or if the pump making any unusual noises isolate the machine and call a service engineer.

13. Technical specifications

Power supply – 220-240v ac

Power rating 10 amp

Control circuits are 24v DC

Heaters 1 X 240v 2000 watts

Pump mag drive unit 220v .7 kw .7 amps

External dimensions

Height of the machine is 1270 mm

Length of the machine is 530 mm

Depth of the machine is 640 mm (including rear connections)

Internal tank capacity

Tank capacity is 55.2 litres

Dimensions of the internal basket

Height 360 mm

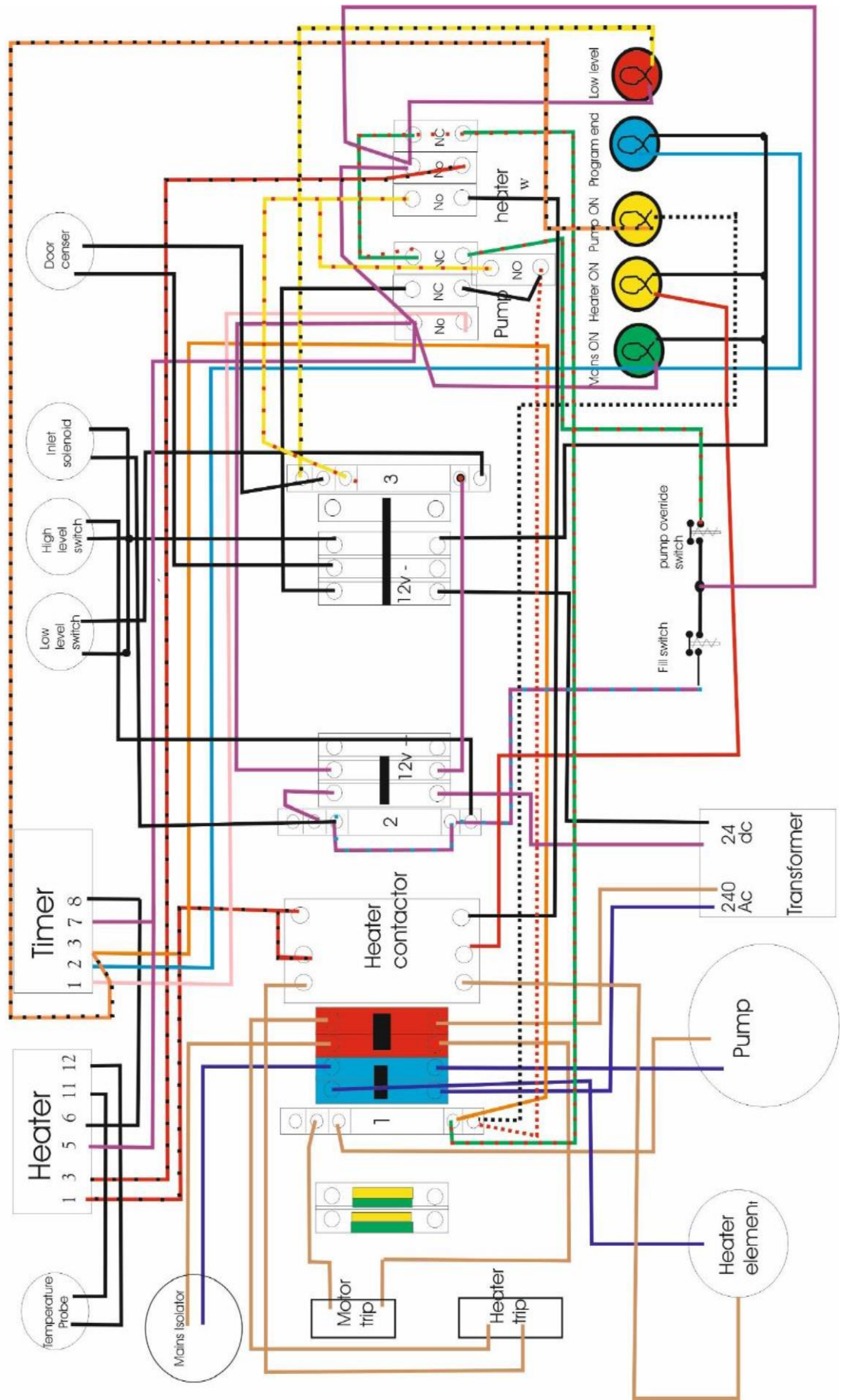
Length 360 mm

Depth 280 mm

14. Warranty

The warranty for this machine is covered by your distributor and all correspondence regarding any fault must be directed to them.

3D Gence 320 Wire diagram 11/18



E C Declaration of conformity

We hereby declare that the machinery described within this declaration complies with the basic health and safety requirements of the relevant EU directives in its design/construction and intended safe use.

This declaration will cease to be valid if the machine is modified in any way without our prior approval.

Product Description	Encapsulated parts cleaning system.	
Model type	Genie EFT-320	
Serial number	G-----	
Date of manufacture	-----	
Relevant EU directives	machinery directive	2006/42/EC
	Specifications for electromagnetic -	
	-Compatibility	2004/108/EC
	Noise directive	2005/88/EC

The full technical file is available from the manufacturer and its nominated person named below.

The undersigned nominated person acts for the manufacturer and his authorised distributors.

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