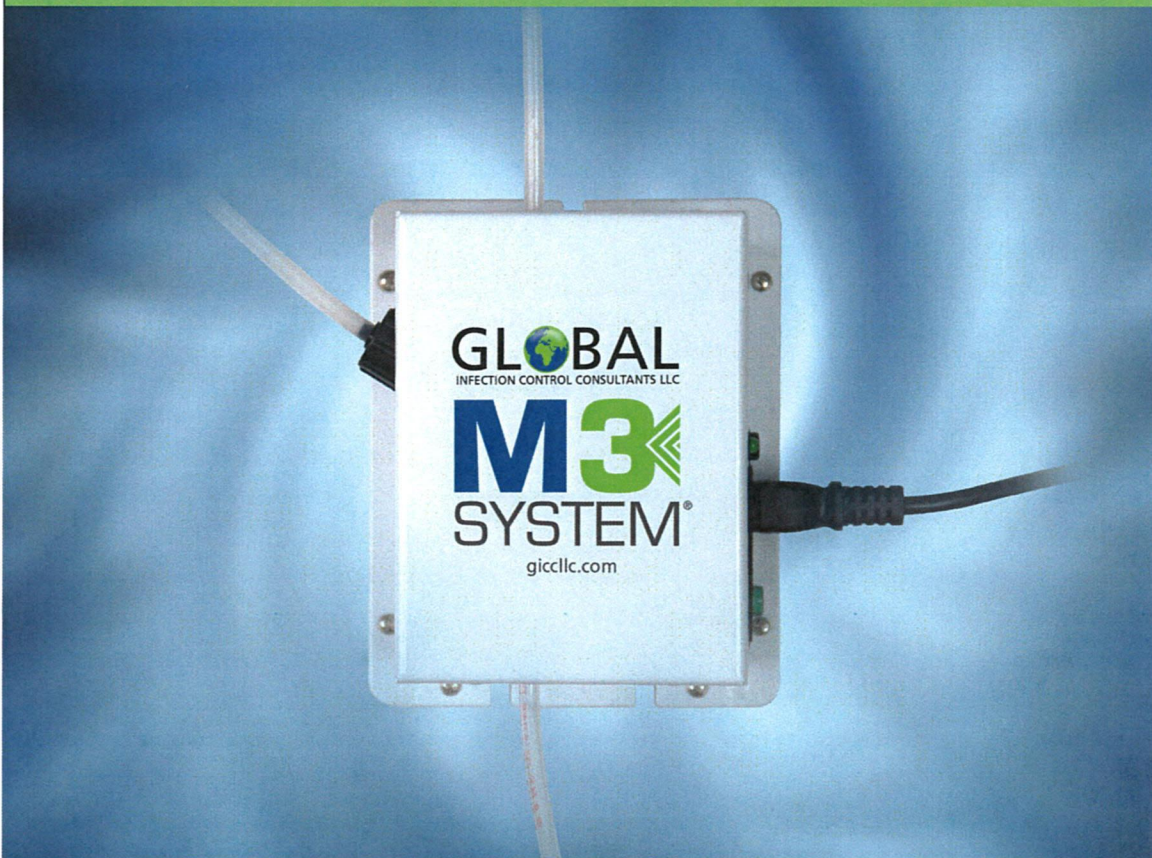




## OPERATING MANUAL

### The M3 System® Delivery Module



**Measure**

**Manage**

**Monitor**



PROVIDING A SAFE AND HEALTHY INDOOR ENVIRONMENT

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These operating instructions contain safety information that, if ignored, can endanger life or result in serious injury.

Read these instructions carefully before use and keep them for future reference.

Information and specifications in this manual could be incorrect or could have printing errors. Specifications are subject to change without notice.

Version: R1



## GENERAL SAFETY GUIDELINES

Operating, installing, or maintaining the unit in any way that is not covered in this manual could cause death, serious personal injury, or damage to the equipment.

This manual uses the following safety message icons:



### **Danger!**

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



### **Warning!**

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




### **Important!**


A practice not related to personal injury or additional information.

## PURPOSE OF USE AND SAFETY


The M3 System® Delivery Module is intended for fluid dispersion of Path-Away Anti-Pathogenic Aerosol Solution®

- Do not use in explosive area
- Do not use with flammable chemicals
- Do not use with radioactive chemicals
- Use only after a proper installation


 Use the delivery module in accordance with the data and specifications printed on the label.


 Do not modify or use in a manner inconsistent with the provisions of the operating manual.


 Keep the delivery module protected from sun and water. Avoid water splashes.


 In emergencies, the delivery module should be switched off immediately. Disconnect the power cable from the power supply.

 When installing, always observe national regulations.

 Manufacturer is not liable for any unauthorized use or misuse of this product that may cause injury, or damage to persons or materials.

 The delivery module must be accessible at all times for both operating and servicing. Access must not be obstructed in any way.

 Adequate measures shall be taken to prevent cross connection of product with any chemicals.

 Pump and accessories must be serviced and repaired by qualified and authorized personnel only.

### **Before any operation:**

- always read product Material Safety Data Sheet (MSDS)
- always wear protective clothing
- always discharge the liquid end before servicing the pump
- empty and rinse the liquid end before working on a pump which has been used with hazardous or unknown chemicals

## ENVIRONMENTAL SAFETY

### Work area

Always keep the delivery module area clean to avoid and/or discover emissions.

### Recycling guidelines

Always recycle according to these guidelines:

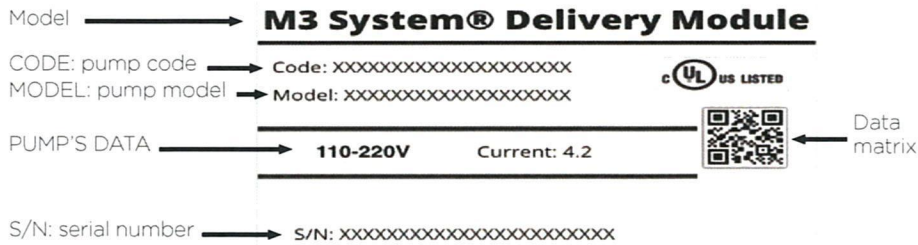
1. If the unit or parts are accepted by an authorized recycling company, then follow local recycling laws and regulations.
2. If the unit or parts are not accepted by an authorized recycling company, then return them to the nearest representative.

### Waste and emissions regulations

Observe these safety regulations regarding waste and emissions:

- Dispose appropriately of all waste
- Handle and dispose of the dosed product in compliance with applicable environmental regulations
- Clean up all spills in accordance with safety and environmental procedures
- Report all environmental emissions to the appropriate authorities

### LABEL (EXAMPLE)



### Spare parts


*For spare parts orders or any other communication, refer to the pump's label. Code (CODE) and serial number (S/N) uniquely identify the pump.*

Fig. 1. UL label.



THIS DELIVERY MODULE IS TESTED AND CERTIFIED BY UL FOR MATERIALS SAFETY.

## TRANSPORTATION AND STORAGE

 A non-suitable transportation or storage container can cause damages.

Use original box to pack the delivery module.

Observe storage conditions for transportation.

Although securely packed, always protect the unit against humidity and avoid direct contact of chemical agents not acceptable for use or contact with unit.

 Before returning the delivery module to the manufacturer for repair service, drain the product from pump head and rinse it.

 **DO NOT TRASH PACKAGING. USE IT TO RETURN THE DELIVERY MODULE.**

Transportation and storage temperature: 10 - 50°C (32 - 122°F)  
Humidity 95% relative humidity (not condensed)

### Included features

QUANTITY	CONTENT	M3 SYSTEM
n. 1	Main Unit	•
n. 1	Back Pressure Regulator w/Nozzle	•
n. 1	Axial Foot Filter (PVDF)	•
n. 1	Injection Valve (PVDF)	•
m 7.6	Delivery Hose	•
m 2.4	Suction Hose	•
m 3.0	Discharge Hose	•
m 1.8	Power Cable	•
n. 1	Operating Manual	•

Environment temperature..... 5-50°C (23-113°F)  
 Chemical temperature ..... 0 - 50°C (32 - 122°F)  
 Transportation and storage temperature... 10 - 50°C (32 - 122°F)  
 Installation class..... II  
 Pollution level ..... 2  
 Audible noise ..... 71 dbA  
 Altitude ..... 1013 mbar  
 Dimensions ..... 159\*128.4\*139.1mm  
 Max installation height ..... 1.5 m

*Tab. 1. Capacity*

Model	FLOW				cc per STROKE	pulse / min	Maximum pressure		Hoses	
	min cc/h	max l/h	Min GPH	Max GPH			bar	PSI	delivery (PE)	suction (PE)



## INSTALLATION

### How to install M3 System

5 steps to install and start-up the delivery module:

1. Main unit mounting
2. Back pressure regulator mounting
3. Piping connections (hoses, injection valve, pick-up valve, back flow pressure regulator)
4. Wirings
5. Pump priming
6. Start-up

*The operator must be aware of safety precautions to prevent physical injury.*



#### POWER SUPPLY DISCONNECTION

Disconnect power supply before you perform any installation or maintenance tasks. Failure to disconnect power will result in serious physical injury.

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#### User health and safety



#### SAFETY EQUIPMENT

Use safety equipment according to the company regulations. Use this safety equipment within the work area:

- Helmet
- Safety goggles (with side shields)
- Protective shoes
- Protective gloves

#### The work area



#### THE WORK AREA

Observe these regulations and warnings in the work area:

- Always keep the work area clean
- Pay attention to the risks presented by outside gas and vapors in the work area
- Avoid all electrical dangers. Pay attention to the risks of electric shock or arc flash hazards
- Avoid water splashes and direct sun

Pump location

- ! Pump must be installed on a stable support at a max 2.0 mt height from tank's bottom.
- ! Injection point must be higher than tank to avoid accidental chemical injection.

INSTALLATION PUMP GUIDELINES

Install the pump

- in a safe place and fixed flat surface / wall to avoid vibration problems
- in an easy accessible place
- in vertical position

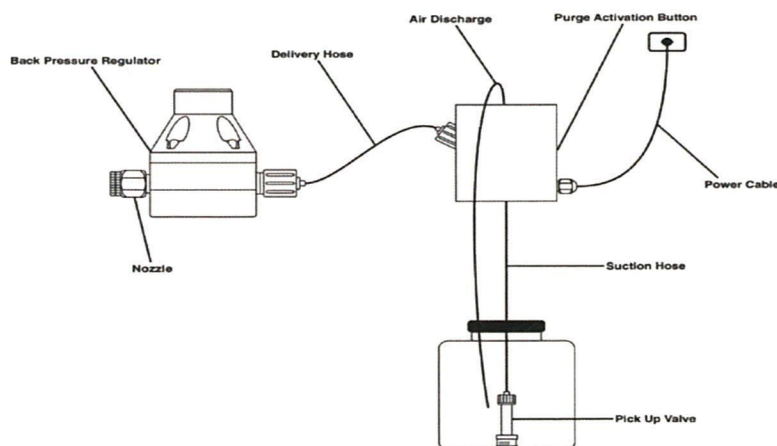
- ! Use only hoses compatible with product.

Requirements for product positioning

! REQUIREMENTS FOR PRODUCT POSITIONING

Only use fasteners of the proper size and material. Replace all corroded fasteners. Make sure that all fasteners are properly tightened and that there are no missing fasteners.

Fig. 2. Installation Overview



### Overview of Set-Up Assembly

The main unit has three screw locations for mounting. The top of the unit has a single screw location, whereas the bottom of the unit has two screw locations. Ensure that you are positioning the unit correctly, with the air discharge hose at the top, in vertical position. When mounting the unit, ensure the unit is fastened securely to the surface, able to withstand weight and vibration.

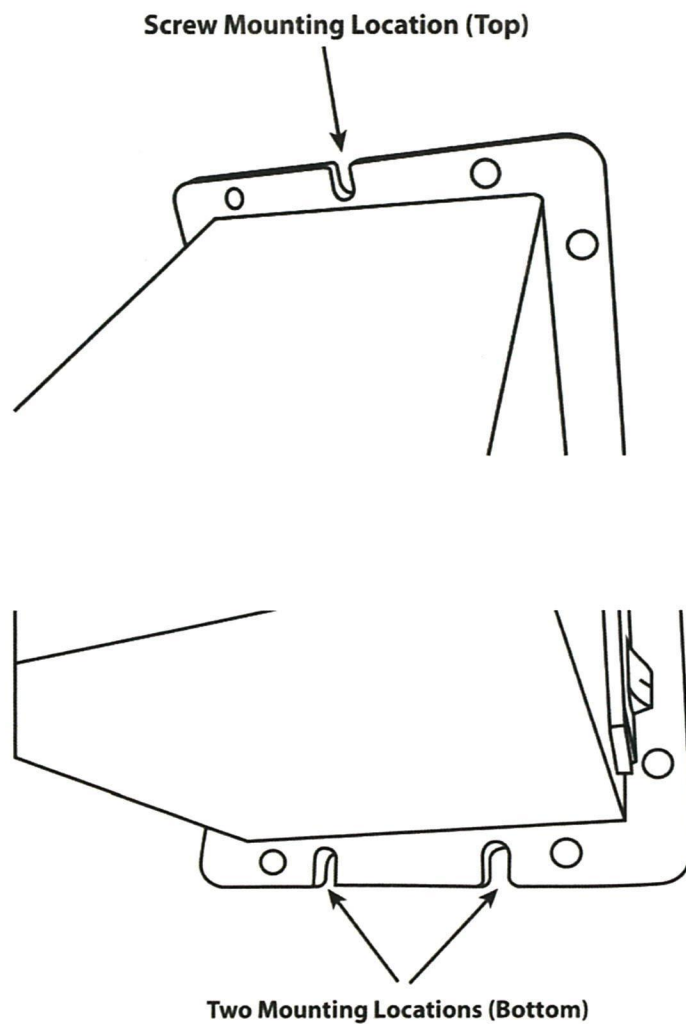


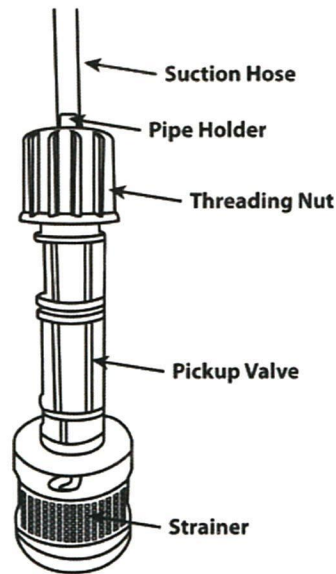
Fig. 3. Main Unit Mounting

## PIPING CONNECTIONS

### Pickup Valve & Strainer

Pick-up valve is assembled with a foot filter (strainer) that avoids sediment priming problems. Install pick-up valve on the bottom of the tank.

Fig. 4. Pickup Valve & Strainer



### Suction hose connection



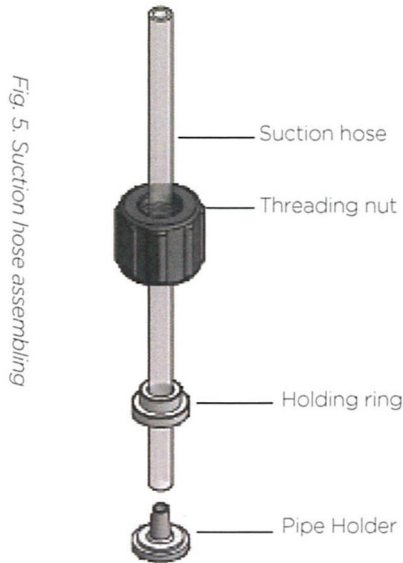
Suction piping should be as short as possible and installed in vertical position to avoid air bubbles when suctioning.

Completely unscrew tightening nut from pump's head and remove assembling components: tightening nut, holding ring and pipe holder.

Assembly as shown in fig. 5. Insert hose into pipe holder until it reaches the bottom. Lock hose on pump's head by screwing down the tightening nut.



Hand-tighten the nuts firmly. Do not use other tools to tighten nuts.



Pump head /  
delivery hose  
assembling  
procedure

- ⚠ Suction and delivery valves must be in vertical position.
- ⚠ Delivery hose must be firmly fixed to avoid suddenly movements that could damage near objects

Completely unscrew tightening nut from pump's head and remove assembling components: tightening nut, holding ring and pipe holder. Assembly as shown in fig.6.

Insert hose into pipe holder until it reaches the bottom. Lock hose on pump's head by screwing down the tightening nut.

- ⚠ **Hand-tighten the nuts firmly.**  
Do not use other tools to tighten nuts.  
Connect the other end of the hose to the injection valve using the same procedure.

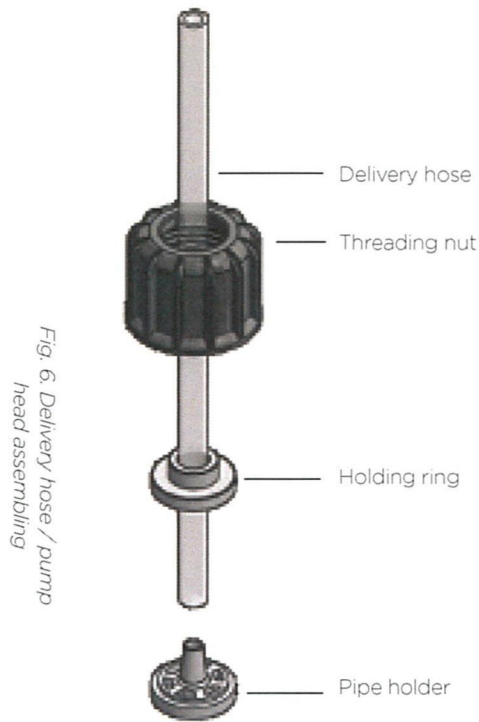


Fig. 6. Delivery hose / pump head assembling

M3 System self venting pump head connection

Refer to fig. 7 below for delivery and discharge hose. Assembling procedures are the same as described before.

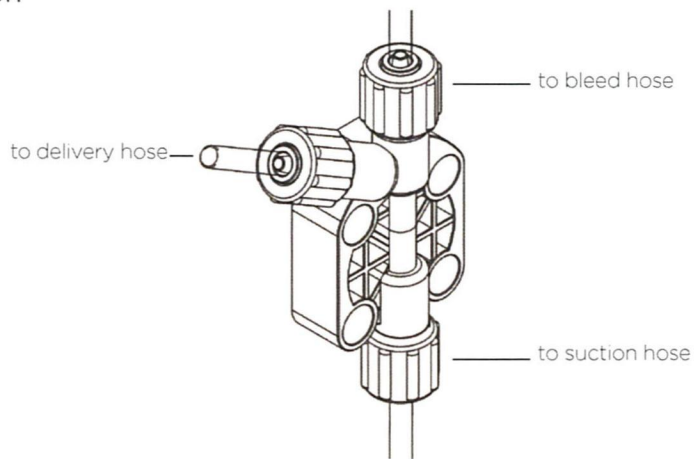
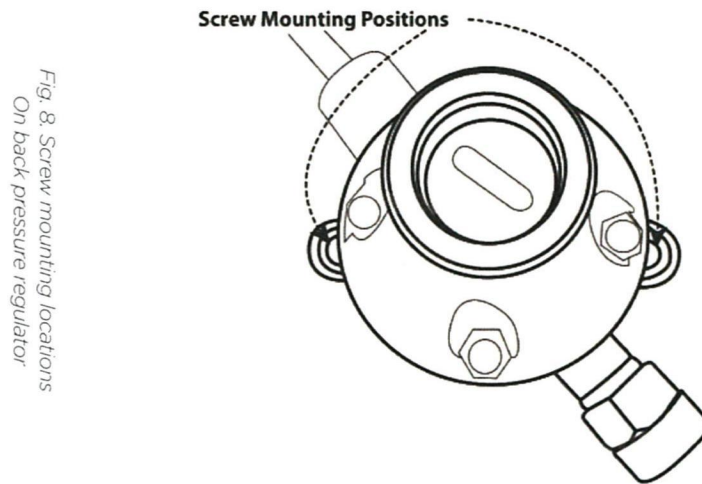


Fig. 7. Self-venting pump head

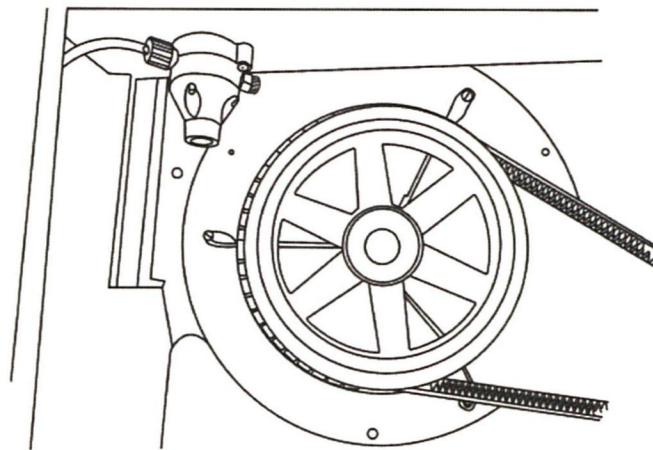
! Suction, delivery and discharge (bleed) valves are different.

## M3 System Back Pressure Regulator

Refer to figures below for mounting instructions of the Back Pressure Regulator and Nozzle.



*Fig. 8. Screw mounting locations  
On back pressure regulator*





*Suggested mounting location for back  
Pressure regulator / nozzle*

Optimal position is to mount the Back Pressure Regulator with the nozzle positioned facing the supply fan. If the nozzle injects into the supply fan, the delivery module will perform at peak, as it will propel the product into the system at maximum velocity. For additional mounting options please contact GICC LLC.

## PRIMING

### Warning

-  Pump should be shut-off when there is no flow.
-  Never operate any pumping system with a blocked suction and discharge. You must take all necessary measures to avoid this condition.

### SAFETY EQUIPMENT

Use safety equipment according to the company regulations. Use this safety equipment within the work area:

- Helmet
- Safety goggles (with side shields)
- Protective shoes
- Protective gloves

### Pump's priming

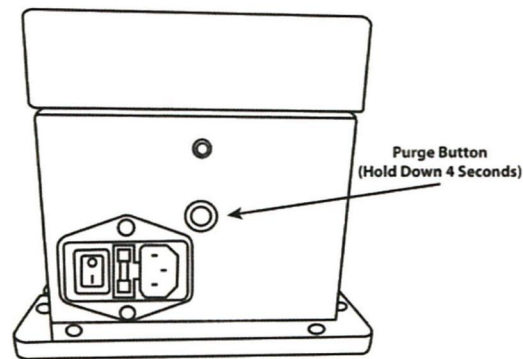
To prime the pump:

1. Ensure all piping is secure (delivery, suction and discharge hose);
2. Ensure the pick-up valve is fully submersed, and the bleed hose is also flowing back into pick-up basin;
3. Plug in the unit and turn on main power switch;
4. Press and HOLD purge button for four seconds to activate purge cycle;
5. Purge cycle will run continuously for three minutes, and nozzle will begin to disperse within the cycle time. Do not stop the purge cycle early, even if liquid has started to disperse through the nozzle, as there still could be air discharging through the purge valve;
6. After the purge cycle is complete, the system will enter "normal operation mode", activating 6 seconds per hour.



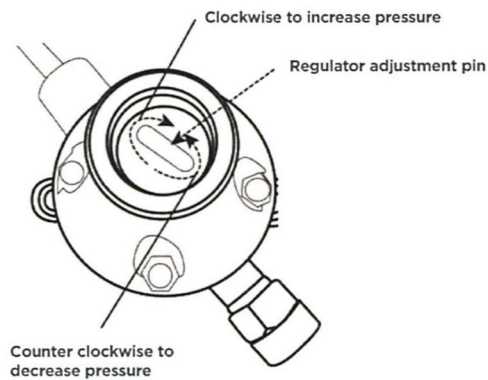
## Pump's Wiring / Switch / Indicators

Fig. 10. Main unit switches and indicators



## Back Flow Pressure Regulator Adjustment

Fig. 11. Back pressure regulator pressure adjustment




The back pressure regulator can be adjusted to control the pressure, thus allowing the flow output from the nozzle. If the unit is not flowing, it could be encountering pressure lock. In this situation, during priming mode, rotate the adjustment pin counter clockwise until pin is level with black surface. Once liquid starts to disperse from the nozzle, start to screw the pin clockwise, which will then raise the pressure and begin to allow the nozzle to disperse correctly.


## TROUBLESHOOTING

Refer to figures below for mounting instructions of the Back Pressure Regulator and Nozzle


PROBLEM	CAUSE	REMEDY
Pump does not start	<ul style="list-style-type: none"> <li>• Pump not powered</li> <li>• Protection fuse</li> <li>• Main board</li> </ul>	<ul style="list-style-type: none"> <li>• Connect to main power source</li> <li>• Replace fuse</li> <li>• Replace main board</li> </ul>
Pump does not feed but solenoid runs	<ul style="list-style-type: none"> <li>• Foot filter obstruction</li> <li>• Pump head empty (suction pipe empty)</li> <li>• Air bubbles into pump head or into suction pipe</li> </ul>	<ul style="list-style-type: none"> <li>• Clean the foot filter</li> <li>• Prime the pump</li> <li>• Check valves, pipes and fittings</li> <li>• Adjust the Back Pressure Regulator Pin</li> </ul>
Pump does not feed, solenoid does not run or slightly run	<ul style="list-style-type: none"> <li>• Valves and/or ball valves blocked</li> <li>• Injection valve obstruction</li> </ul>	<ul style="list-style-type: none"> <li>• Clean valves and ball valve. Feed 2-3 litres of water to wash valves and pump head</li> <li>• Change valves</li> </ul>


 If the problem cannot be solved, please contact after-sales service or return the delivery module to the manufacturer.

Repair service

 Before returning the delivery module to the manufacturer for repair, drain the product from pump head and rinse it.

Fuse replacement procedure


 Make sure that the product is isolated from the power supply and cannot be powered by mistake.


 This procedure **SHOULD BE CARRIED OUT BY AUTHORIZED AND QUALIFIED PERSONNEL**

In order to replace fuse, you need these tools:

- A flathead screwdriver
- Fuse
- Unplug power supply and piping
- Remove fuse cover near main power switch
- Pull back cover until it's completely separated
- Locate the fuse and replace with a new one
- Reassemble fuse cover

Main board  
replacement  
procedure

 Make sure that the product is isolated from the power supply and cannot be powered by mistake.

 This procedure **SHOULD BE CARRIED OUT BY AUTHORIZED AND QUALIFIED PERSONNEL**

In order to replace main board, you need these tools:

- A 3x16 screwdriver
- New main board
- Unplug power supply and piping
- Remove screws around base of the main unit
- Pull back cover until it's completely separated from main unit
- Remove board
- Completely disconnect wires from main board and replace it
- Reconnect wires to the main board
- Reassemble the back cover
- Reinsert screws

## MAINTENANCE

### Maintenance schedule



In order to ensure proper working order as declared by the manufacturer, this equipment must be checked at least once a month.



#### OPERATOR PROTECTION

Use safety equipment according to the company regulations.

Use this safety equipment within the work area during installation, service and when handling chemicals:

- Protective mask
- Protective gloves
- Safety goggles
- Ear plugs or hear muffs
- Further security device, if necessary



#### POWER SUPPLY DISCONNECTION

Always disconnect power before you perform any installation or maintenance tasks. Failure to disconnect power will result in serious physical injury.



Installation and maintenance tasks should be carried out by **AUTHORIZED AND QUALIFIED PERSONNEL** only in accordance with local regulations.

Use original spare parts.

## Maintenance inspection



### Shutdown the system before any maintenance operation

A maintenance schedule includes these types of inspections:

- Routine maintenance and inspections
- Three-month inspections
- Annual inspections

### Routine maintenance and inspections

Perform these tasks whenever you perform routine maintenance:

- Inspect the seal. Ensure that there are no leaks from the mechanical seal
- Check electrical wiring
- Check for unusual noise and vibration (noise allowed 73 dbA;  $\pm 5$  dB)
- Check the piping for leaks
- Check for corrosion on hoses

## Shutdown procedure



This procedure **SHOULD BE CARRIED OUT BY AUTHORIZED AND QUALIFIED PERSONNEL**




### OPERATOR PROTECTION

Use safety equipment according to the company regulations.


Use this safety equipment within the work area during installation, service and when handling product:

- Protective mask
- Protective gloves
- Safety goggles
- Ear plugs or hear muffs
- Further security device, if necessary

Shutdown the pump system **before any maintenance operation** or **before long downtimes**. Disconnect power and ensure it cannot be restarted.

 **Depressurize the system.** The liquid may leak. Drain the product from pump head. Release the pressure and disconnect the discharge pipe from the discharge valve.

#### System Fluid Requirements

 **There are only two fluids acceptable and approved for use in The M3 System Delivery Module:**  
Both products supplied in finished or concentrated version for local dilution as approved by GICC LLC. Use of any other product will immediately void all warranties.  
**Both products effective against Covid-19.**

## GICC LLC Limited Warranty

GICC LLC will repair or replace, for a period of one year from date of purchase, to the original retail client who purchased The M3 System Diffuser from an authorized dealer, distributor or directly from GICC LLC under the following conditions:

- a. Only products certified for use in The M3 Diffuser are utilized.
- b. Warranty registration must be submitted with name of purchaser, date purchased, name of installation location, installing contractor, unit serial number and date of system startup.
- c. The warranty does not transfer to subsequent owners.

Any parts replaced under warranty will be considered as part of the original product, and any warranty on those parts will expire coincident with the original product warranty. To the fullest extent permitted by applicable law, the limited warranty is exclusive and expressly in lieu of any and all other warranties, including, without limitation, any implied warranties or merchantability or fitness for a particular purpose or any other implied warranties that from the course of dealing or usage of trade. GICC LLC hereby disclaims and excludes all other warranties. To the extent that GICC LLC's products provided are consumer products under applicable federal and state law with respect to any customer, the duration of any implied warranties including but not limited to warranties of merchantability or fitness for a particular purpose are limited to the shortest duration permitted by applicable law or the Limited Warranty period provided herein, whichever is longer.

GICC LLC shall not be liable to customer, or anyone claiming under customer, for any other obligations or liabilities, including but not limited to, obligations or liabilities arising out of breach of contract or warranty, negligence or other tort or any theory of strict liability, with respect to the M3 System Diffuser acts or omissions or otherwise. To the fullest extent permitted by applicable law, GICC LLC shall not, in any event, be liable for incidental, compensatory, punitive, consequential, indirect, special or other damages, including but not limited to loss of use, loss of income, loss of time, loss of sales, injury to personal property, or liability customer incurs with respect to any person, or any other type or form of consequential damage or economic loss.

This limited warranty shall not apply to, and does not cover accessories, nor does it cover products that are in any way subject to any of the following: improper setup, installation or storage; lack of proper maintenance and service; accident, damage abuse or misuse; abnormal operating conditions or applications; repair or modification by customer or any third party without written consent of GICC LLC; use under operating conditions or in applications not recommended by GICC LLC; normal wear; the use of accessories or attachments not recommended by GICC LLC including any fluid not specified for use by GICC LLC; acts of God. The applications of these exclusions will be determined at the sole discretion of GICC LLC.

**For all customer service inquiries visit:**

[www.m3systemprotection.com](http://www.m3systemprotection.com)

Tel: In the USA +1-843-368-7063



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*When dismantling a pump please separate material types and send them according to local recycling disposal requirements.*

*We appreciate your efforts in supporting your local Recycle Environmental Program.*

*Working together we will form an active union to assure the world's invaluable resources are conserved.*