

250 PSI Mid Pressure Mist Pump

Manual



Tech Support Page Link

<https://bit.ly/39uHPk0>

Manual Link

<https://bit.ly/3KZVufe>

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Table of Contents

Important and Safety Warnings	3
Important	3
Safety Warnings	3
Product Description	4
Part Description	4
Thermal Safety switch	5
Installation	6
Installation Checklist	6
Push-lock Fittings guide	7
Maintenance	8
Filter Change	8
Nozzle Cleaning	8
Winterization	8
To winterize	8
De-Winterization	9
Maintenance schedule	10
Maintenance Log	10
Troubleshooting	11
Warranty	12

Important and Safety Warnings

Important

- Filter and some fitting might be packed in the pump enclosure. Open the side mentioning **“OPEN THIS SIDE FOR MAINTENANCE”** to access filter and fittings.

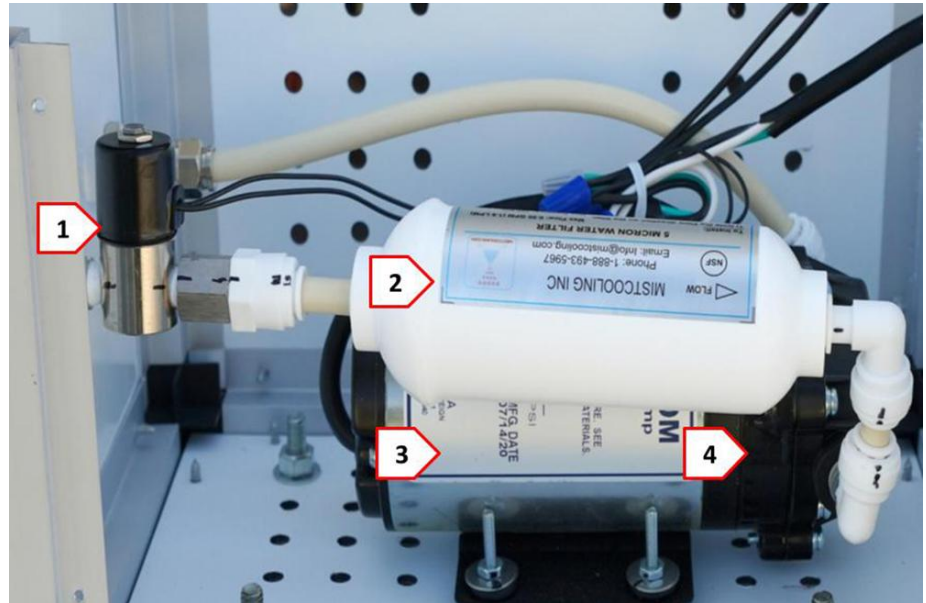
Safety Warnings

- **Oil-less pumps have built in thermal safety switch and may cycle off cool-off.**
- Pumps build heat and pressure during operation.
- Allow time for pumps to cool before handling or repairing the pump.
- To lift water from the tank, Contact your supplier. (*Lifting water from the tank requires some modification at the factory*).
- **Warranty does not cover damage to the pump if it is run without water for a longer period.**
- For pumping liquids other than water, contact your supplier.
- Do not pump hazardous materials (*flammable, caustic, etc.*), unless the pump is specifically designed and designed to handle them.
- To reduce the risk of electric shock, always disconnect the pump from the power source before handling or servicing.
- Any wiring of the pump should be performed by a qualified electrician.
- These pumps are not intended to be submerged.
- May cause water leaks. Install in a dry, flat, ventilated area with easy maintenance access.
- Install in a location where noise from the pump is not a concern. Pump can be placed up to 200ft. away from the 1st mist nozzle.
- **Mistcooling, Inc. is not responsible for losses, injury or death resulting from failure to observe these safety precautions, improper installation, lack of maintenance, misuse or abuse of pumps or other equipment.**

 **WARNING: Cancer and Reproductive Harm** www.P65Warnings.ca.gov

Product Description

1. Solenoid Valve
2. Filter
3. Pump
4. Motor



Part Description

1. Solenoid Valve

- Solenoid valve controls the flow of the water into the pump. You may leave the inlet water source on at all times. Water will enter the pump only when the main power switch is turned ON. Likewise, water flow will be cut off when the power switch is turned OFF. No adjustment is ever required for the solenoid valve.

2. Filter

- Filtration is very important for proper operation of misting systems. All our Mid-pressure systems have filters enclosed in the pump casing. This helps prevent any large particles from clogging up the nozzles.
- To maintain the proper flow in to the mist system, water filter should be changed every 3 to 6 months or earlier if water quality is bad.
- Scale free filters can also be added to mist systems to prevent clogging of nozzles due to hard water. TAC Scale Free filters (SKU: [MC65120](#)) are recommended for such locations hard water and lasts up to 2 years.

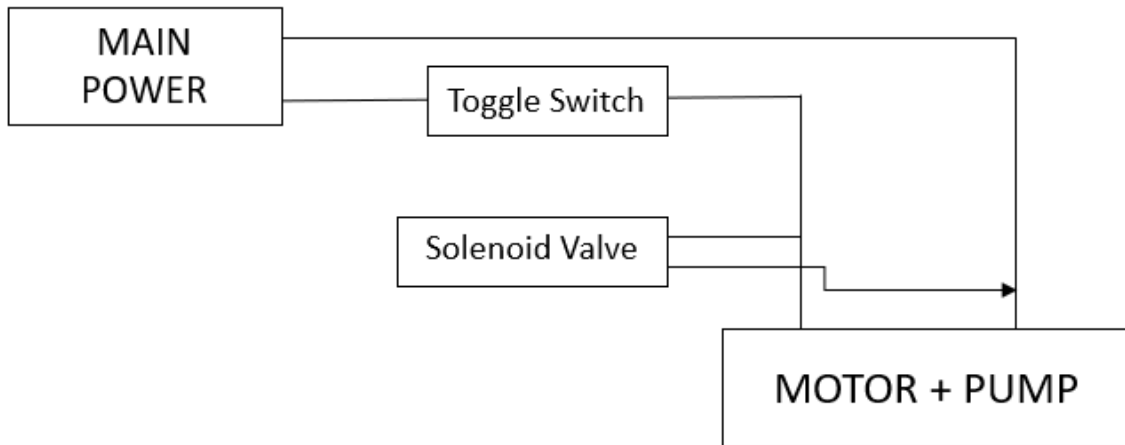
3. Pump

Mist Pump Specifications:

- Maximum Inlet Pressure: 100 PSI
- Minimum Inlet Pressure: Self- priming
- Maximum Outlet Pressure: 250 PSI (depends on line length and numbers of nozzles)
- Maximum Flow: 0.9 GPM
- Full load Amps. 110V AC: 0.7 Amps
12V DC: 4.0 Amps
- Voltage: 110V-220V AC/ 12V DC (Refer manufacturing label on the pump)
- Noise Level: 40 db
- Maximum Fluid Temperature: For Room Temperature / Cold Water applications only

4. Motor

Wiring Diagram:



Thermal Safety switch

- Oil-less Pumps may generate heat, motor manufacturers have installed built-in thermal safety switch to improve the longevity of pumps.
- When the internal temperature of the pump reaches 140F (62C). The pump will turn off and will not turn until the pump has cooled off at room temperature.
- It is advised to locate pump at a cool, ventilated and shaded area.

Installation

- Every 250 PSI pump comes with 5-micron filter (*built-in*) with
- Pump water supply is 3/4in to 3/8in GHT adapter and 3/8in mid-pressure feed line
- Built-in filter has a 1/4in push lock fittings
- Standard pump inlet: 3/8in push lock fitting
- Standard Pump outlet: 1/4in push lock fitting

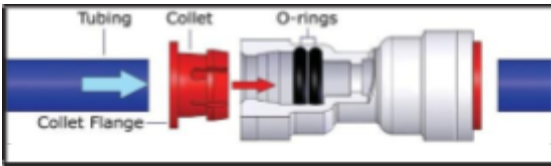
- **Note:** Mistcooling, Inc. offers various fitting and adapter options to choose:
 - Please visit our website: <https://bit.ly/3QkdzJ4>

Installation Checklist

Check	Installation Steps
	<ul style="list-style-type: none"> ● To begin, set the pump in a suitable location that is flat, dry, protected from elements and close to both a 120 GFCI outlet and a water spigot or hose.
	<ul style="list-style-type: none"> ● Next, attach the 3/4in hose adapter to any outdoor faucet or garden hose and the other end of 3/8in feed line into the pump inlet.
	<ul style="list-style-type: none"> ● Connect flexible tubing at the outlet of the pump.
	<ul style="list-style-type: none"> ● Continue building the line as per your systems design/ layout. (See push-lock/compression fittings guide page 7)
	<ul style="list-style-type: none"> ● Use the provided clamps to secure the Mist line to your structure. Clamps should be placed approximately 2" from the fitting joint.
	<ul style="list-style-type: none"> ● Install the nozzles one by one but, Before installing the last Nozzle, turn on the water and turn on the pump to flush out the entire line for 1-2 minutes to remove any debris from your installation.
	<ul style="list-style-type: none"> ● Turn off the pump and Install last nozzle.
	<ul style="list-style-type: none"> ● Turn on the pump and check the leaks, if there are any.

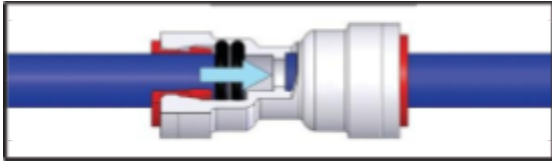
Push-lock Fittings guide

*YouTube Video: <https://bit.ly/3cdlhVC>



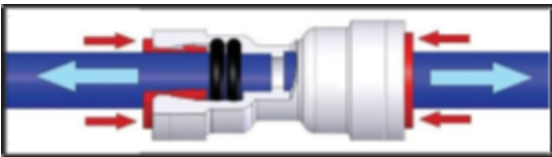
Cut the tube straight, ensure that the cut has not made the tube out of shape.

Also, ensure that the tube has a smooth outside diameter without any burrs or score marks before inserting it into the fitting.



Push the tubing through the collet and O-ring(s) until it bottoms out against the tube stop.

The collet holds the tube in place, and the O-ring(s) provide a leak resistant seal. Push and pull the tubing toward and away from the fitting to ensure that it has been installed properly.



TUBE REMOVAL

Relieve pressure from the tubing and fitting. Push uniformly around the collet flange against the fitting body while pulling the tubing away from the fitting to release it

Maintenance

Filter Change

To maintain the proper flow in to the mist system, water filter should be changed every 3 to 6 months or earlier if water quality is bad. Our TAC Scale Free filters are recommended for such locations and lasts up to 2 years.

- **Instructions:** turn off water supply.
- Unscrew pump casing mentioning “[Open this side for Maintenance](#)”
- Remove the used filter cartridge and discard. Rinse and clean the inside of the sump, if needed.
- Push the push lock on the both ends of the filter and remove the tube from it too.
- Take out the old filter.
- Flush out the new filter for a minute.
- Push the tube end into fitting until it bottoms.
- Turn on the water and check for leaks.

Nozzle Cleaning

- Nozzles over time do need cleaning or worst case - replacing. The time in-between cleaning or replacing nozzles can depend on water quality. Old nozzles or nozzles that have been sitting without use for an extended period may accumulate a dried liquid near the nozzle orifice that can block the spray from exiting.
- A current way to clean mist nozzles is to disassemble the nozzle and blow the housing out with compressed air or tapping the mist nozzle on a solid surface to free up the internal pin.
- However, we recommend use of our specially designed, industrial grade [Nozzle Cleaner \(SKU: MC46220\)](#), which instantly loosens rust, hard water deposits and other sediments.
- Old toothbrush or wire scrubber are good tools for scraping the build-up from the nozzle tip. Individual nozzle filters are also recommended to increase the life of the mist nozzles.

Winterization

- To help maintain the integrity of the mist system and to prevent unnecessary damage, it is important to winterize the mist pump and other components of the misting system BEFORE temperatures drop below freezing. As water becomes ice, it needs more room to expand. Even a one night of freeze can damage the mist pump, bust a misting line or break filter and mist fittings. Any damage to system or components due to freeze is not covered under warranty.

To winterize

- Turn off the water supply, Unplug the pump.
- Open filter housing and drain all water from the filter.
- Drain the inlet tubing going to and from the filter into the pump inlet.
- Remove tubing from outlet fitting on the pump and store the pump indoors, if possible.
- Otherwise, use compressed air to blow out water from the inlet/outlet of the pump and its internal components.
- Next, remove the last nozzle in your mist line. Attach a portable compressor on the outlet line (that was removed from the pump outlet) and blow out excess water from the mist line.
- If you do not have access to a compressor, simply remove all nozzles from the mist line. By doing so, the majority of excess water will drain itself.

- Now is an appropriate time to clean your mist nozzles so they will be ready for summer time.

De-Winterization

- Before putting the system back in operation for sizzling summer months, following system checks and maintenance should be performed to ensure trouble free operation.
- Check/Change Inlet Filter.
 - *Note: Clogged filter blocks water flow into the pump which can cause damage.*
- Reinstall any other fittings that were removed during winterization.
- Remove the last nozzle/end plug from the mist line.
- Turn on water and electric and flush out the system until a smooth stream of water comes out. This will remove any air and debris from the line.
- Reinstall the last nozzle/end plug.
- Check for non-working nozzles. Clean or replace if needed.

Troubleshooting

Issue/s	Possible cause	Action
Pump Not Running	GFCI Tripped or No Power	Check circuits and power source
	Water not Turned on	Turn on water faucet
	No water cut Off Switch Activated	Provide 40-60 psi water source
	Air locked	Bleed air from filter and lines Remove last nozzle and purge line
	Filter clogged	Replace filter cartridge
	Thermal Safety switch activated	Allow pump to cool off
Pump on but No Mist	Leaks or air entering the line	Check for leaks and stop drips
	Air locks	Remove last nozzle and purge line
	Clogged Nozzles	Clean or replace nozzles
	Solenoid not powering on	Replace inlet solenoid valve
Blow out in the line	Excessive pressure	Install recommended number of nozzles
	Bypass valve setting	Turn the bypass valve counter clockwise
Not enough Pressure	Bypass valve setting	Turn the bypass valve clockwise to increase
	Filter clogged	Replace filter cartridge
	Worn seal	Replace seal kit
	Improper system expansion	Run recommended number of nozzles

Warranty

MistCooling, Inc warrants its products to be free of defects in material and workmanship for a period of following time from the date of purchase:

LIFETIME WARRANTY: Stainless Steel Mist Rings, Stainless Steel Tubing and Stainless-Steel Fittings

2 YEAR WARRANTY: Mid Pressure Pumps - 250PSI, Commercial Ac Pre-Cooling Kits, All high-pressure brass fittings, high pressure tubing and Pool Coolers.

1 YEAR WARRANTY: All High-Pressure Mist Pumps -1500PSI, High Velocity Mist Fans 14", 18", 24" and 30", Mosquito Control Systems, Odor Control Systems, Dust Control Systems, Timers and Controls, 160psi mid pressure pumps, All Fan based portable units.

6 MONTH WARRANTY: Low Pressure mist kits, 300PSI portable units, All low and mid pressure push lock and compression fittings and tubing.

90 DAY WARRANTY: All other parts.

The warranty does not cover damage or broken parts due to misuse of the system or damage to the system due to the growth of trees, floods, falling tree limbs, power surges or faulty electrical connections, internal/external water damage, action of customer or of third parties. The warranty does not cover modifications to or replacement of any parts of the system required by changes in federal, state, or local laws, regulations, or ordinances. Furthermore, warranty does not cover normal wear and tear, appearance, accident, fire, external freezing, hot water damage, overuse or misapplication. Issues such as noise level, clogging of the nozzles and leaks arising from improper installation are not considered defects. Issues arising from poor maintenance and failure to change filter and oil at specified intervals (every 500 hours) does not qualify for warranty replacement. Oil seal wear on high pressure pumps may be limited to 1000 hours or less. Warranty does not cover damage to the pump when it is run dry.

If the system is not maintained by MistCooling, Inc., or if any person other than an authorized MistCooling, Inc., representative services, and/or modifies the system, the warranty will be void, and any repairs will be charged to the customer. MistCooling Inc.'s obligation under this warranty shall be limited to replacing or repairing at MistCooling Inc.'s discretion, any such product or part which must be returned to MistCooling Inc with a Return Authorization Number (RMA), transportation charges prepaid, and which upon examination, is found to MistCooling Inc's satisfaction to have been defective under the terms of this warranty. No credit will be allowed against future purchases for items returned as defective under the terms of MistCooling Inc's warranty.

This warranty does not extend to any products, which have been altered or modified after shipment from MistCooling Inc, nor does it apply to units that are returned in an unassembled condition. This is a Limited Warranty. It covers the product only and the extent of the coverage is limited to the cost of the product itself. As the manufacturer has no control over shipping, handling and improper installation. MistCooling, Inc is not liable for damages or any expenses incurred using its products. The warranty will be considered violated if the products are used for other than the criteria described in each product 's guidelines for use. This warranty is non-transferable. Labor charges may apply. Nozzles and Filters are excluded from this warranty.

NO IMPLIED WARRANTIES; LIMITATION OF LIABILITY. THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. EXCEPT FOR THE WARRANTY HEREIN, IN NO EVENT SHALL MISTCOOLING INC. BE LIABLE TO CUSTOMER OR ANY OTHER PARTY FOR LOSS OF PROFITS, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, OR PUNITIVE DAMAGES ARISING OUT OF USE OF ITS PRODUCTS. IN NO EVENT SHALL MISTCOOLING INC.'s MONETARY DAMAGES EXCEED THE PURCHASE PRICE OF THE SYSTEM. THIS LIMITATION OF LIABILITY SHALL APPLY REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT OF TORT, INCLUDING MISTCOOLING INC'S PRICING REFLECTS THE ALLOCATION OF RISK AND LIMITATIONS ON LIABILITY CONTAINED IN THIS AGREEMENT. ANY CUSTOMER PURCHASING AND/OR USING MISTCOOLING INC'S PRODUCTS HEREBY AGREES TO ABOVE TERMS.

If you wish to make a warranty claim, please contact us via email Info@mistcooling.com or 1-888-493-5967. Original proof of purchase is required for any warranty claim.