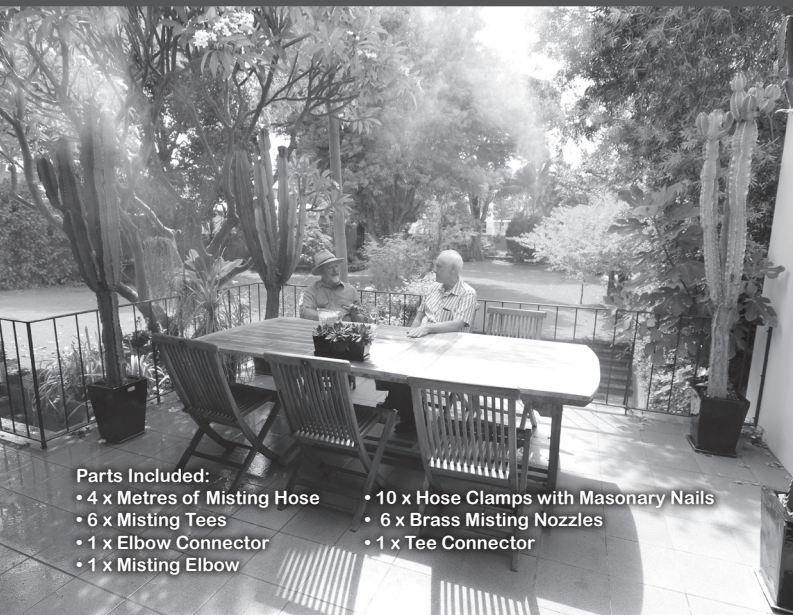


HOLMAN

4 Metre Expansion Kit

2
year
guarantee

Misting System



Parts Included:

- 4 x Metres of Misting Hose
- 6 x Misting Tees
- 1 x Elbow Connector
- 1 x Misting Elbow
- 10 x Hose Clamps with Masonary Nails
- 6 x Brass Misting Nozzles
- 1 x Tee Connector

Instruction Manual

Product Code: MK21014

Note: Flush Misting System thoroughly before attaching misting Nozzles to prevent blockages.

Scan the QR Code on the right to see more information on the Misting System - including a product guide video.



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Outdoor Cooling Misting System

PLEASE READ INSTRUCTION MANUAL BEFORE USE

The Holman Misting system features 7mm diameter high pressure tubing with “compression fittings” that are made to match this tubing. The compression fittings fit the pipe very precisely and simply push over the pipe and are very easy to assemble. No clamps are required. Please note that your misting system can be expanded with more Holman misting parts. These are available at your Holman stockist.

The Way It Works

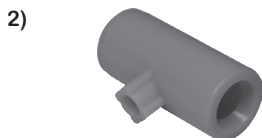
The misting system cools the air temperature by the evaporation of the fine particles of water emitted by the misting nozzles. The process of evaporation absorbs heat from the air and cools the area.

The misting nozzle emits very small amounts of water. It also breaks the water into very small droplets or a “mist”.

In hot conditions, the small water droplets evaporate almost instantaneously. In cooler or humid conditions the evaporation rate may be slower.

Generally, you will not want to run the misting systems continuously. If you do, the general environment may become damp and unpleasant. The simple way to solve this problem is to use a Holman Misting Timer. This timer can be programmed to suit the environmental conditions of the day. You can easily adjust the “ON” time (in seconds) and the “OFF” time (in seconds or minutes) and the misting system will automatically turn on and off as you desire.

Glossary



Parts Included:

- 1) 4 x Metres of Misting Hose
- 2) 6 x Misting Tees
- 3) 6 x Brass Misting Nozzle
- 4) 1 x Misting Elbow

- 5) 1 x Elbow Connector
- 6) 1 x Tee Connector
- 7) 10 x Hose Clamps with Masonry Nails

Misting System Assembly & Installation

A. Plan Your Misting Installation

Take 5 minutes to work out how you will run the misting pipework and where you should position the misting jets. Also, where your water source will come from and where the supply pipeline will run.

The general idea is to position the jets to create a “mist curtain” surrounding your outdoor entertainment area.

It is best to position the jets away from tables and chairs and where people may sit as the jets may at times drip water.

You do need to work out what you can attach the pipework to and plan a route that makes attaching the pipework easy.

B. Water Supply

The misting system uses very little water volume.

The misting system works best when you have a high pressure water supply. The higher the pressure the finer the water droplet and the quicker and more effectively the droplet evaporates and cools the area.

A normal household water supply is usually at an adequate pressure.

You can use a garden hose to bring water from a tap in the area to the start of the misting pipework. If the hose is running in the sun, please ensure it is a good quality hose that will be able to withstand the pressure when the water and hose may get heated.

Of course, the misting pipe can be connected directly to a garden tap.

HINT: If you want to easily maintain the use of the garden tap for other uses, install a Holman 2 way or 4 way manifold and fit the misting system to one outlet.

Misting System Assembly & Installation

C. Positioning Misting Jets

Factors to consider are: -

- Spacing of jets.
- Location of jets over tables or chairs.
- How many jets in a particular area.

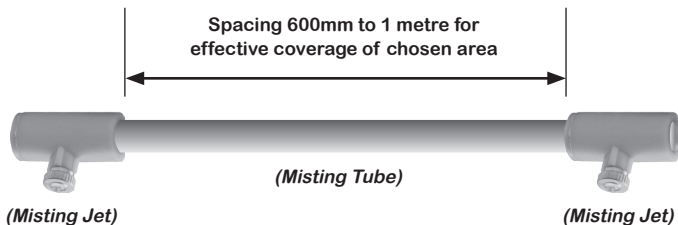
There are no fixed rules to how you position the jets.

The more jets you have, the more water you will use and potentially the cooler the space will become.

However, too much water can be a problem because the air can become saturated and even wet the people and objects in the space.

Holman recommend the following:

- Space jets between 600mm and 1 metre apart.



- Locate jets away from tables and sitting areas if possible.
- Try and create a curtain of mist at least on two sides of the area being cooled.
- Install a Holman misting timer. This will allow you to regulate the amount of water entering a space by adjusting the “ON” times and “OFF” times of the timer. You would have more “ON” time on a hot dry day than a cooler moister day. The HOLMAN misting timer allows you to make these settings in seconds, where other timers may not have this feature.

Misting System Assembly & Installation

D. Installing The Fittings

The Holman Misting System features “compression fittings”.

These fittings feature a compression ring that grips the tube and prevents it coming loose or leaking water.

The higher the pressure the better the compression fittings hold onto the tube.

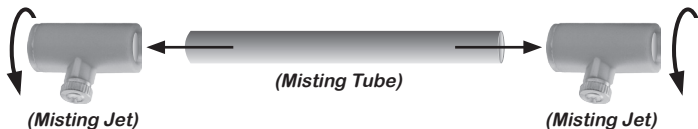
To ensure a good joint, the tube must be cut “square” and “burr free”.

The best way to achieve this result is to use the Holman misting tube cutter. This ensures a clean square cut. It is also very quick to use.

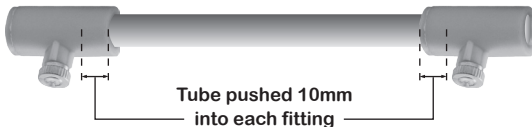
(Holman Misting Tube Cutter sold separately - Product Code: MS20011)

Once the tube is cut the compression fitting is very simply installed.

- Bring the 2 parts together, level and straight.



- Push the tube in while twisting the fitting a little.



- The tube should enter the fitting at least 10mm or until it hits the stop point.

Misting System Assembly & Installation

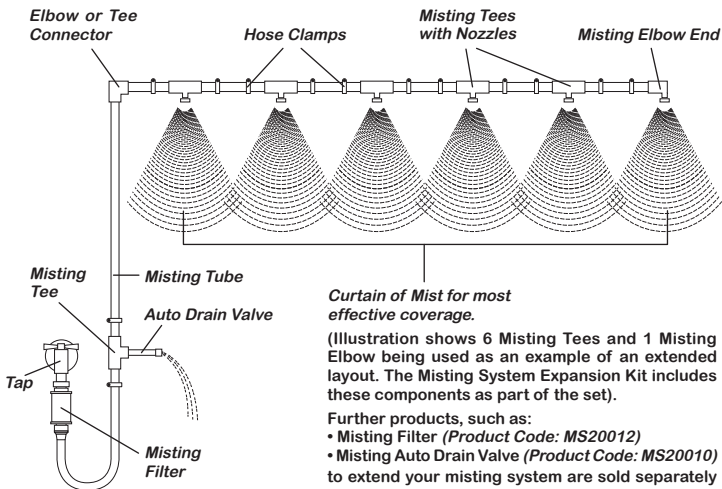
E. Installing The Misting System

We recommend that each section of pipework is connected together before you attempt to pin the pipework to walls or beams.

Start at the garden tap or water source point.

If you are using a garden hose to bring water to the area where your misting system is, it is recommended that you install a sprinkler adaptor into the Misting Universal tap adaptor. This leaves a male spigot “click on” point where your standard hose connector will simply click on.

Run the misting tube to the position where you want your first misting jet. Use Holman Misting Tee or Elbow connectors to go around corners or split the pipe runs.



Curtain of Mist for most effective coverage.

(Illustration shows 6 Misting Tees and 1 Misting Elbow being used as an example of an extended layout. The Misting System Expansion Kit includes these components as part of the set).

Further products, such as:

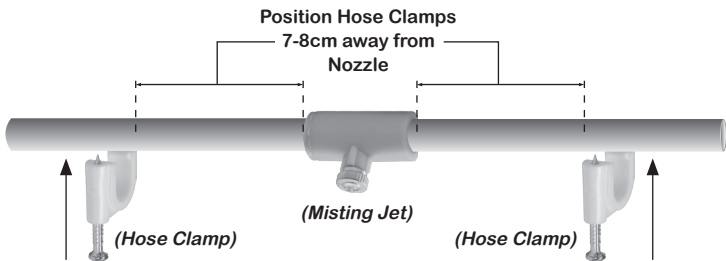
- Misting Filter (Product Code: MS20012)
 - Misting Auto Drain Valve (Product Code: MS20010)
- to extend your misting system are sold separately and are individually available at your local HOLMAN stockist)

Misting System Assembly & Installation

Work out the spacing of the misting jets and cut the misting hose to length and install the relevant misting tees. Finish each line with a misting elbow.

*(Extra Misting Elbows are available at your nearest HOLMAN stockist
Product Code: MS20003)*

Use the hose clamps to attach the misting hose to the wall or beams.



The Holman hose clamps use a very strong masonry nail that should not bend when you hammer it into timber or masonry.

HINT 1: Run pipework along mortar joints in brickwork.
Hammer the hose clamps into the mortar for a reliable result.

HINT 2: Use a hose clamp on each side of a misting tee to ensure the tee is firmly positioned and misting in the correct direction.

Misting System Assembly & Installation

F. Flushing The System

Perhaps the most important part of the installation process is to properly flush the system.

Remove ALL JETS and then connect the water and run for 4 or 5 minutes. This will ensure that all dirt and pipe swarf is flushed from the system. If this is not done, the brass jets will clog up and then they will not work correctly.

The hole size in the brass jets is extremely small. It is like this to ensure that the water particle is very small – like a mist.

G. Water Filter (Sold Separately - Product Code: MS20012)

Because the principle of evaporative cooling relies on very small volumes of water evaporating and absorbing the ambient heat, it is critical that the water entering the misting system is very clean and free of all particles that will not pass through the very small hole in the misting jet.

It is highly recommended that the filter be installed immediately after the connection to the water source.

From time to time it may be necessary to clean the filter. This is best done by using cleaning solution like CLR. This is available at your hardware store.

This will not only assist clean solid particles away, but it will dissolve calcium and iron deposits that build up as water evaporates in the filter (and jets).

H. Auto Drain Valve

(Sold Separately - Product Code: MS20010)

This is a very important component in your misting system.

This should be installed at a low point in the system.

This valve will automatically release the pressure in the line and then “dump” the water in the misting hose “above” the level of the auto drain valve when the water is turned off. *It is important to note that the Auto Drain Valve should be positioned where water can run freely. ie. into a drain or garden area.*

This is important to stop the misting jets from “dripping” and “dribbling” and also stops the build up in precipitated salts (like calcium and iron) from the water.

5. Maintenance Of Your Misting System

Please use these hints to keep your misting system operational and prevent unnecessary clogging of the misting jets: -

1) *Drain Water from your System*

When your system is not in use, drain all water from your system. If you use an automatic draining valve, this job will happen automatically.

2) *Clean Nozzles*

Periodically clean all nozzles by soaking them in a solution of CLR, or similar calcium and iron remover.

3) *Flush System*

Periodically remove all nozzles and flush the system by running water through it for 4 or 5 minutes.

4) *Clean Filter*

Periodically clean the filter by soaking in a solution of CLR to remove calcium and iron build up.

6. Troubleshooting

1) *Dis-assemble System*

If you need to dis-assemble the system this can be done.

The best way to remove compression fittings from the misting hose is to “wobble” them from side to side while pulling them apart

If the misting hose is damaged in this action, cut it off before the compressor fitting is re-installed.

2) *Clean Nozzles*

If nozzles are “dripping” or not “misting” properly, they must be removed and soaked in cleaning solution like CLR. If this fails to clean the jet, it is highly recommended to purchase replacement jets and replace all jets as require.

Warranty

Should you have any questions about this product or its operation please telephone our customer service helpline on 1300 716 188.

Holman offer a 2 year replacement warranty from the original date of purchase.

To claim warranty the product must be returned with a copy of the original receipt.

We will honour all statutory guarantees that this product is of acceptable quality (including that it is fit for purpose).



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