



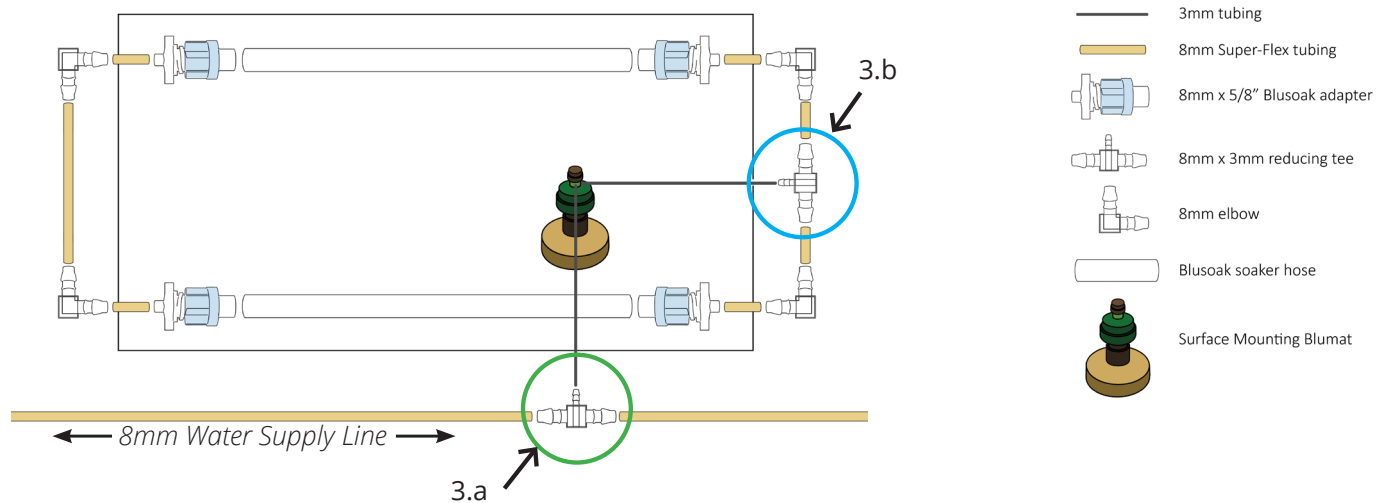
Blumat®

Instructions Guide

Surface Blumat and Capillary Mat Instructions

General Information

- ◆ Best to use with mixes of at least 50% peat.
- ◆ Ensure soil or growing medium is moist before irrigating with the Capillary Mat. For best results combine overhead watering and Capillary Mat irrigation for one week to ensure optimal capillary action throughout the system.
- ◆ The mat must be used on a level surface (slope must be less than 0.5%).
- ◆ Take extra precautions when laying mats directly on the ground--it should be clear of debris and gravel. Ideally, the ground should be covered by compacted sand or geotextile.
- ◆ If using plastic pots make sure they are 5 gallons or less with holes of at least 1/8" in diameter
- ◆ Water consumption with the Capillary Mat should be around 50-80% lower than overhead irrigation systems--runoff occurs when mats are filled for 25 minutes or more. As a result, reduce fertilization rates by 50% due to lack of run-off.



Setting up your Water Supply - All pieces sold separately*

- ◆ **Pressure System:** Attach Blumat Pressure Reducer* to your water supply (commonly a hose bibb or pump). Attach the 8mm supply tubing* to the end of the pressure reducer and run the tubing along the long side of Capillary Mat. You can have multiple Capillary Mats running off the same supply line. Insert either an 8mm Shut-off Valve* or an 8mmx8mm elbow* at the end of the line.
- ◆ **Gravity System:** Install one or two Bulkhead Fittings* with 8mm outputs into your reservoir*. *Please refer to our website for information on designing gravity systems.* Raise your reservoir 5 feet above the Capillary Mat and add an additional foot in height for every 10 horizontal feet your reservoir is from your mat (i.e. if your mat is 10 feet away you would raise the reservoir 5+1=6 feet). Attach the 8mm supply tubing* to the end of the Bulkhead Fitting and run the tubing along the long side of Capillary Mat. Insert either an 8mm Shut-off Valve* or an 8mmx8mm elbow* at the end of the line, or create a loop back to the reservoir (see website for details).

STEP BY STEP INSTRUCTIONS



Step 1: Preparing the Capillary Mat

Hand water the capillary mat with watering can or hose to achieve the desired moisture level you want the surface Blumat to keep constant. If you are familiar with our Tropf Blumats, this is a similar process but instead of watering the soil you are watering the capillary mat before installing the Surface Blumat. Wait a few minutes to let the water soak in and spread evenly through the process of capillary action.

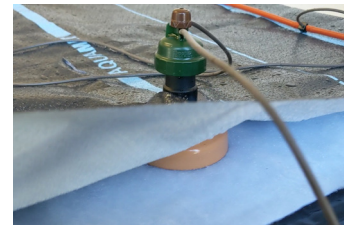


Step 2: Conditioning the Surface Blumat

Take the top off of the Surface Blumat and soak both the top and bottom in a bucket of water for at least 15 minutes. While the top is underwater press the inside with your thumb (or use a pipette) to eliminate all of the air bubbles. With Both pieces underwater screw the top onto the bottom. The goal is to have the Surface Blumat completely filled with water and no air. Soak for another minimum of 15 minutes.

Step 3: Connecting the Surface Blumat to 8mm supply line and Watering Array

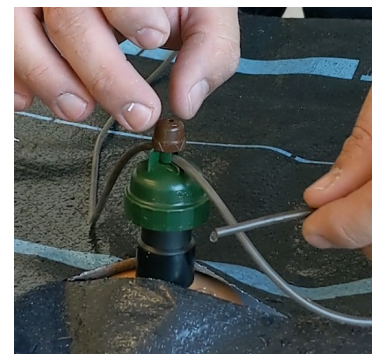
- Cut the 8mm superflex tubing and insert the 8mmx3mm tee. Attach the 3mm tubing to the tee and thread through the top of the Surface Blumat (see diagram on front page).
- Connect the other end of the 3mm tubing to the "watering array"
- Slide the Surface Blumat into the slot cut in the top layer so that it makes contact with the felt fabric.



Step 4: Dialing in your Surface Blumat

Dial in the Surface Blumat the same way you would dial in a regular Tropf Blumat.

- Ensure that your water supply is on (in a pressurized system) or your reservoir is raised 6 feet above the Capillary Mat (in a gravity system).
- Disconnect the 3mm tube from the watering array (keeping it attached to the supply line on the other end).
- Twist the brown top of the Surface Blumat open (counter clockwise) so that water starts flowing out of the 3mm tube. Start closing the cap (clockwise) until you get a "hanging drip" where the water droplet is hanging off the tubing but not falling.
- Once you have a hanging drip turn the top two triangles clockwise.
- Reattach the 3mm tubing to the watering array.



Step 5: Monitoring and fine-tuning your system

Now that your Capillary Mat system is set up and is being automatically watered by the Surface Blumat we recommend monitoring your system for at least 3 days to ensure that everything is working properly. Adjust in small increments, if necessary.

Step 6: Maintenance and Storage

Disinfect, sweep, and rinse after each crop. You can clean with water or a mixture of water and hydrogen peroxide.
Store below 105F (40C) and protect against UV rays
For short-term storage, clean the mats, roll them, and cover with a tarp.



Blumat
Installation video