

BluSoak

Instructions Guide

BluSoak Set-up Tips

- The best time to set up and adjust BluSoak systems is when the moisture level in your bed or large pot is where you would like it to stay. If you adjust when it's too dry, it will stay too dry; if too wet, it will stay too wet. You can open the Blumat adjustment valve more or less to compensate for this but you will need to check it again several times for at least a few days to adjust. The ideal way is to use a digital moisture meter and adjust when soil moisture content is just right (normally between 80-120 mbar).
- If using a gravity system, make sure you have at least 2 psi (water in reservoir at least 5' above plants if close), use a BluSoak manometer to make sure.
- With a pressure system, the maximum psi is much less than with a regular Blumat set-up: max 7 psi rather than 15. It's good to use the Blumat 7 psi regulator (if not using flow restrictor) but best pressure for these systems is only about 3 psi.
- Make sure the bed is flat or has a maximum 1% slope away from the beginning of the system.



BluSoak Bed Install Instructions:

1. Use the BluSoak in a spiral or row, buried or under mulch, with 1 sensor at the beginning or 2 – one on each end. Install the sensors where you want the soil to be judged.

2. Place stakes to keep BluSoak in place. A moisture meter is optional but almost essential in monitoring and setting up your system. With Super Soils, it's best to stay between 80-120 mBar but this differs depending on the media used, growing style, and type of plant or strain.

3. Make sure the soaker hose or distribution dripper is 3" or less away from sensor. The further away, the moister your planting mix will stay; the closer, the drier. Make sure to monitor how wet your bed is and adjust accordingly.

4. To connect BluSoak soaker hose to a Blumat sensor, use BluSoak fitting to 3mm adapter (product number IG16085). Install your Blumat sensor into the ground. Connect a distribution dripper before going into the BluSoak fitting or use extra 3mm tubing to place sensor next to drip tape (if not using a dripper in between).

5. For the BluSoak fitting, make sure to place the hard-plastic black rod, found inside of the Soaker hose, into the fitting. Insert the rest of the white Soaker Hose into the fitting and twist until it tightens and locks. Use plug if needed and done!



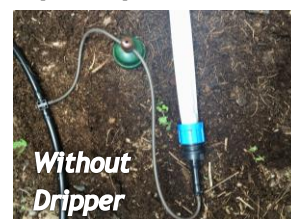
BluSoak Pressure & Pressure Reducers

BluSoak doesn't like pressure above 8psi and can split at 10 psi. The regular Blumat pressure reducer is 15 psi but we have a special one designed for BluSoak that's only .5 bar, 7.5psi (IG16242). The minimum pressure to use with BluSoak is about 2psi, you should not use the 7.5psi Pressure Reducer with a flow restrictor.



Do I need to use a Distribution Dripper?

For soil that has good capillary action (has lots of peat, cocoa, or humus) and spreads moisture evenly, you most likely will NOT need to add a dripper in between the sensor and the BluSoak tape. However, if your soil has lots of perlite, volcanic rock, sand and/or quickly drains water, a dripper may be necessary to make sure the Blumat turns off in time and doesn't dry out. The main thing you need to think about is; will water be able to make its way to the ceramic cone and stop the carrot from dripping? If you decide not to use a dripper, it's a good idea to loop the 3mm tubing to allow the carrot to be close to the tape. Example's below:



Flow Restrictors

Blumat sensors do the same thing as flow restrictors but redundancy comes into play. If for any reason (animals or people knocking them loose, water running out and them drying out, etc.) the Blumat "runs away," the flow restrictor limits maximum flow rate to 0.5GPH, or more, based off the Flow Controller you use. See our master chart below to figure out which you may need. You can also use the Flow Restrictors without the Blumats (aka EasySoak) but will use more water.



On large farms and economy outdoor systems that have large water resources, use the BluSoak without a Blumat sensor (EasySoak System). For indoor grows, better to use both but be careful not to restrict the flow too much, use chart below to see flow rates.

		Flow Restrictor Chart				
			A	B	C	
Product Code		Flow rate	Gal/24 hours	Length for pt./ft/24	for qt./ft/24	for 1/2 gal./ft/24
IG16326	Green	Insert Only (ring)	0.5GPH	12	100'	25'
IG16329		Assembled 8mm	"	"	"	"
IG16327	Blue	Insert Only (ring)	1GPH	24	200'	50'
IG16330		Assembled 8mm	"	"	"	"
IG16328	Red	Insert Only (ring)	2GPH	48	400'	100'
IG16331		Assembled 8mm	"	"	"	"
IG16371	Black	Insert Only (ring)	0.15GPM	216	1700'	425'
IG16374		Assembled 8mm	per minute	"	"	"
IG16372	Silver	Insert Only (ring)	0.35GPM	504	4000'	1000'
IG16375		Assembled 8mm	per minute	"	"	"
IG16373	Gold	Insert Only (ring)	0.5GPM	720	6000'	1500'
IG16376		Assembled 8mm	per minute	"	"	"

Flow restrictors determine the maximum amount of water your system will use
They need at least 10 psi but can't handle much more than 50 psi (if over, use pressure reducer or turn down valve)

BluSoak Manometer

These manometers let you easily know if you have enough pressure in gravity systems (you don't need in a pressure system). They install at the end of a loop or row. Water should go up 4'-5' in the clear tube with carrots all the way open.



Additional BluSoak Tips and Tricks

Is it okay to bury this soaker hose?

Yes, it actually works better if buried. That's when the root demand action kicks in. The root exudates pull on the water supply when the plant needs water, stops pulling when they have enough. Also being buried prevents UV from making the tubing crack and split. If buried, it can last over 25 years. Burying it also lets you plough or rototill over it in the spring. Don't bury more than about 8" deep unless only covered with mulch, not soil. If installing under athletic grass, make sure it's at least 4" under to prevent sogginess.

How can such low pressure and such a low water flow go so far and water so much?

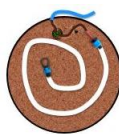
It's the power of time. Like investment charts that show how compounding a small interest rate over time can produce a huge return, a very small flow of water at low pressure over a long period of time can water a surprisingly large area.

How much water will the BluSoak soaker hose use?

For the first several hours while the soaker hose is "conditioning the planting or potting mix", it can use quite a bit of water – much more than normal. After that, if it's hot and the plants are growing fast, at 2 psi it can use up to 1 pint of water per foot of tubing per 24 hours, at 4 psi a quart per foot, and at 8 psi, ½ gallon per foot. These are only rough estimates though and many other variable influence these rates: temperature, plant growth rates, type of soil, if buried or not, length of tape, etc.

What is the best pressure to use?

The minimum pressure is about 2 psi, so be careful if using gravity. If over 8 psi, sediment can be forced in the hose and cause clogging. If over 10 psi, the tubing can split. If adjusting with a Blumat sensor without a pressure gauge, squeeze the tubing and adjust so that it's full of water but the tubing is not hard. You should be able to pinch it together.



Can I combine systems, use both Blumats with distribution dripper and BluSoak?

Yes, but it gets more complicated if using a flow restrictor because our ratings for which one to use don't take into account the extra, highly adjustable Blumats. The only way to know which flow restrictor to use would be by trial and error. In combination systems, probably best to use the 7 psi pressure reducer without a flow restrictor or the 15 psi reducer and the flow restrictor after a tee going only to the BluSoak.

What are your pressure reducing flow controllers and how should they be used?

Blumats perform this function and in a much more efficient and accurate way. In pressure systems though, when the pressure is between 8 and 15 psi and the rows are 50' and more, we like to include these as a safety precaution. In case an animal or empty water tank disturbs the Blumat, you won't get a flood and water use will only be the standard designed for this soaker hose. Just be sure to specify how long your rows are, we install different controllers based on the row length.

- Ideal pressure for small systems 3-5 psi; for systems over ¼ acre 4-6 psi.
- Friction loss with Mega W – 25% psi drop at 500'

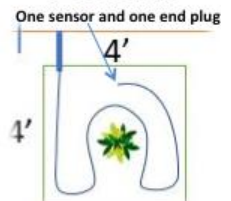
Good, Better, Best? What's the difference?

We designed our systems to be more affordable and offer different levels of moisture coverage, redundancy, and to overall account for the different inherent values of plants. An economy system consist of just the soaker hose and a single point where moisture is being sensed, while a deluxe system is for more expensive crops that need more precise moisture level control and monitoring (will usually consist of more Blumat sensors, distribution drippers, and a moisture meter).

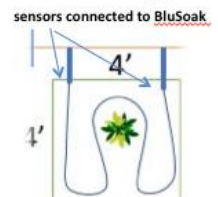
BluSoak in Large Fabric Pots?

BluSoak also works in large fabric pots and does a great job in making sure you are maximizing the amount of potting mix being watered. Although this is an advantage economically, you also need to make sure to not allow the BluSoak to drown the pot with excessive water. To avoid this, make sure to adjust your Blumat sensors accordingly and add a distribution dripper before going into the BluSoak. This way, the distribution dripper is saturating the soil close to the sensor. This allows the sensor to stop emitting water before the Soaker Hose becomes too full and adds an excessive amount of water into the pot.

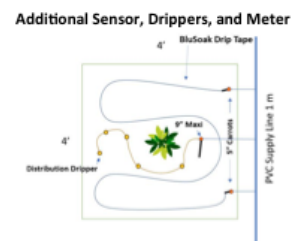
Economy



Mid-Range



Deluxe



Need Help or Have Questions? Contact Us!

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