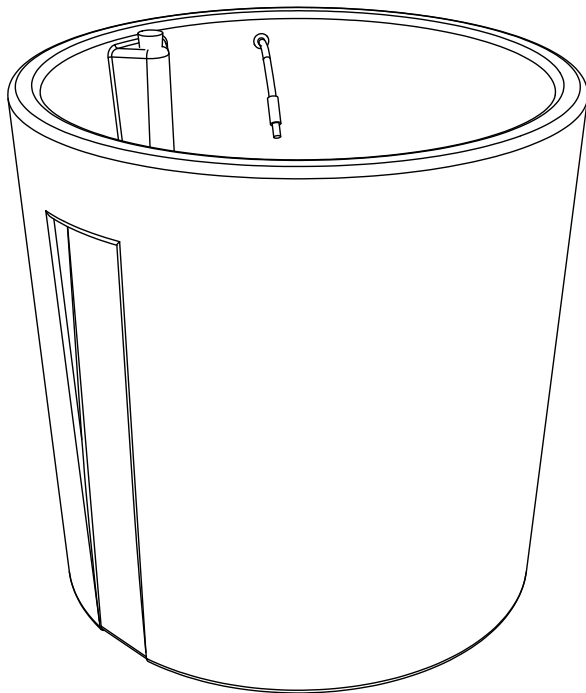


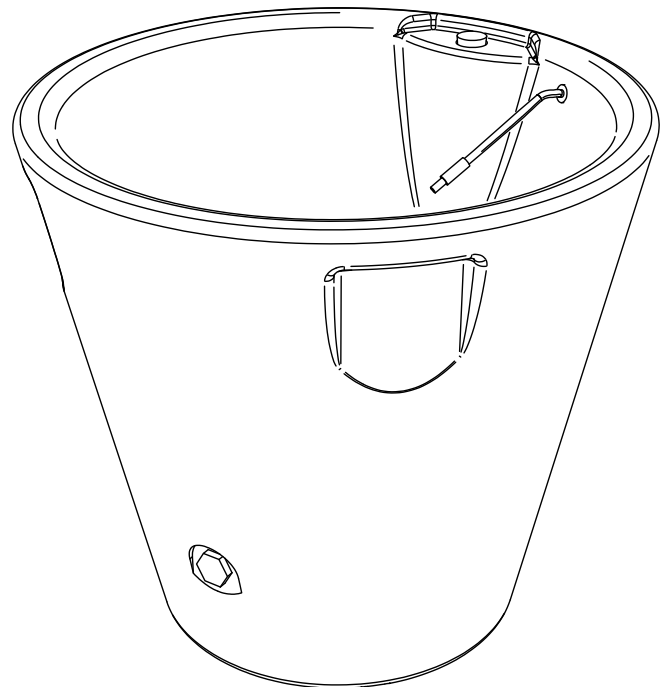
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You can find information about caring for Tournesol products and materials by visiting: <https://tournesol.com/care> where you can download Care & Maintenance documents.



CWI & CWI Exterior



CWC (CWI Classic)

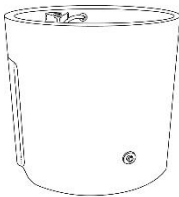
Unpacking CWC Inserts

Both types of units can be adapted for either exterior or interior use. A bag included in the insert contains a rubber stopper and an interior use plug.

System Contents

Check system contents prior to beginning assembly. Frequently accessories are packaged separately- check all boxes before starting.

CWI Container Irrigation

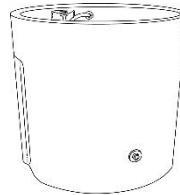


CWI Insert



Black #3 size stopper

CWI Exterior

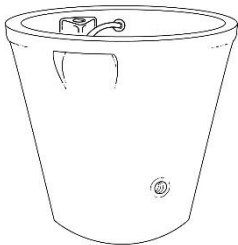


CWI Insert with exterior drain



Black #3 size stopper

CWI Classic (CWC)



CWC Insert



Black #6.5 size stopper

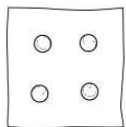


Interior Plug

Optional Accessories



Tamper-resistant Stopper and 5/32" hex wrench provides locking closure for CWC container irrigation inserts. Highly recommended for high-traffic locations.



BioGuard Square

Placed over water outlets. Integrated Trifluralin herbicide prevents roots from growing into reservoir through and clogging system.

The Container Irrigation Cycle

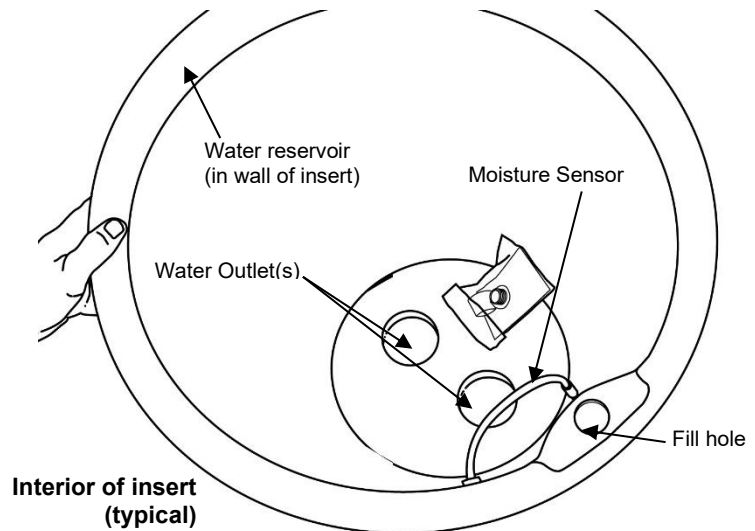
CWI container irrigation inserts are hollow, airtight double-wall reservoirs filled with water through a fill hole and sealed with a stopper to create an airtight vacuum above the water level.

Water in the reservoirs flows through tiny holes in the water outlet on the bottom of the insert. The size of the insert determines the number of outlets, so the larger the insert, the more water outlets there will be.

Water flow is controlled by the connected proprietary moisture sensor with a microporous tip that detects moisture levels in the potting media. The sensor works as a simple valve, closing and creating a vacuum when moisture levels are sufficient and opening when the potting media is dry, breaking the vacuum and releasing water through the water outlets.

Water wicks up through the media until it reaches the sensor, forming a watering cycle that is only interrupted when removing the stopper to refill the reservoir.

The system may include an overflow drain that allows excess water, typically stormwater, to escape without disrupting the watering cycle.

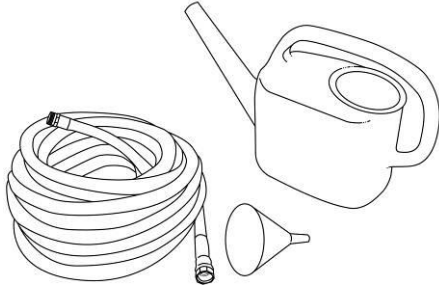


INSERT-STYLE CONTAINER IRRIGATION SYSTEMS Installation, Assembly & Operation

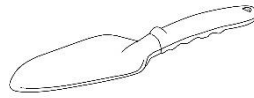


Preparation

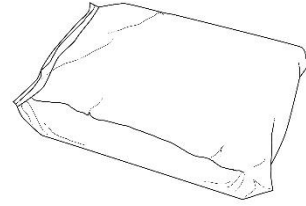
What You'll Need



Hose, or watering can and funnel



Trowel or shovel



*Potting Media

*Potting Media

We recommend using a high-quality potting media, typically a blend of approximately 1/3 peat, 1/3 composted organics, and 1/3 sand, expanded slate, or shale. The mix needs good capillary action for drainage but enough structure so it doesn't compact. *Do not use field soil with any pot or container planting!*

Exterior Use

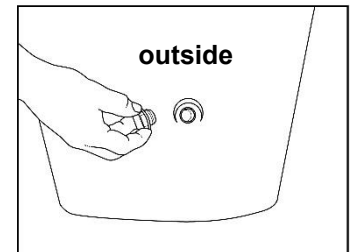
The CWI Exterior and CWI Classic (CWC) inserts deliver with an overflow drain covered with drainage fabric. Do not remove the drainage fabric. Remove the plug before planting when used outdoors in regions with heavy to moderate rain.

Indoor Use

The CWI Classic (CWC) is delivered with a drain plug. Hand-tighten the plug into the outside thread on the CWC.



Interior Plug



The CWI is delivered without holes, so may be used indoors without concern for drainage.

INSERT-STYLE CONTAINER IRRIGATION SYSTEMS

Installation, Assembly & Operation

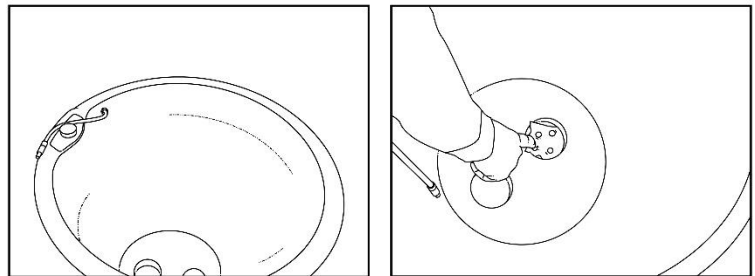


Planting

Tuck Sensor and Place Bioguard

Keep the sensor out of the way during planting by tucking it behind the stopper.

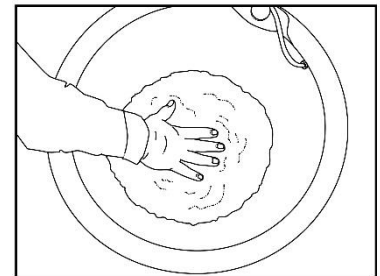
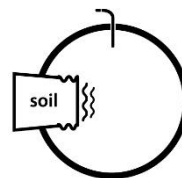
With gloved hands, insert BioGuard square in the water outlets. It doesn't matter which side goes up. The coating on the squares may cause yellow staining, so handle with care.



Fill Bottom with Potting Media and Pack

Fill the insert with potting media, up to where the bottom of the plant will sit.

Pack the potting media firmly with your fist.

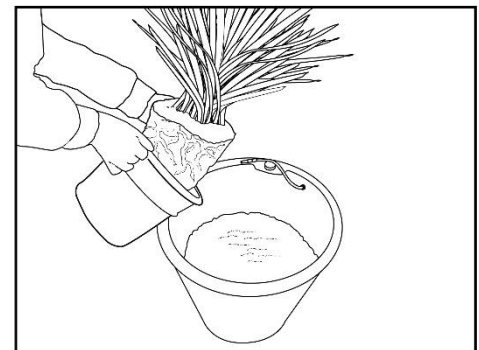


Set the Primary Plant

Remove the primary plant from its grower container, and rough up the root ball slightly.

Set the plant into the insert. Make sure that the crown of the root ball is above the final potting media level, and that the plant is oriented so the fill hole is at the back of the plant.

Note: For Hawaiian grown foliage plants (typically interior), shake off as much of the "lava rock" from the root ball as possible at this point. Replacing this with potting media will ensure efficient capillary action.

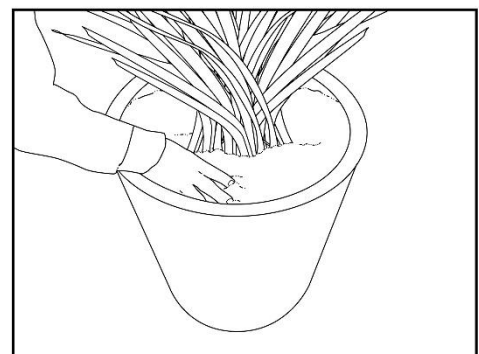
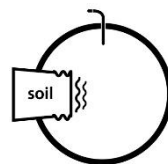


Backfill with Potting Media and Pack Well

Backfill around the main root ball with soil so there are no voids or potting media gaps in the insert.

Most plant root balls are somewhat tapered, so packing the potting media down the sides of the insert is critically important!

Pack the potting media firmly throughout. If you can easily stick your fingers into the potting media past the second knuckle, keep packing.



INSERT-STYLE CONTAINER IRRIGATION SYSTEMS Installation, Assembly & Operation



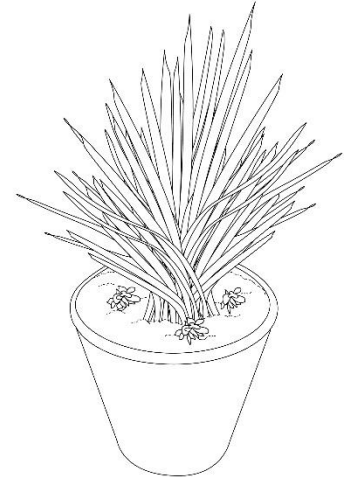
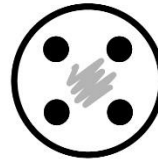
Set Underplantings

Determine the location for underplantings in the insert, should there be any.

For best results, start with larger (4" or 1 gal.) plants, rather than liners or flats.

Using a trowel, dig out a hole, place the underplanting in and firmly repack with potting media.

Top water the underplantings until their roots reach the moisture zone, typically 1-2 months.



Sensor Height

The location of the moisture sensor in the potting media controls the moisture level in the planter. The deeper the sensor is planted, the faster a vacuum forms, stopping water flow for drier potting media.

The higher the sensor is planted, the longer the vacuum remains broken, allowing water flow for wetter potting media.

Adjust the moisture sensor after the system is in use to alter the potting media's average moisture level.

Placing the Sensor

Prior to planting or filling the reservoirs with water, soak the tip of the moisture sensor to form the vacuum required to function optimally.

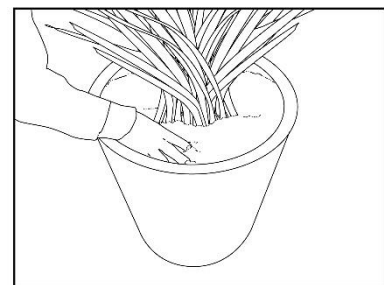
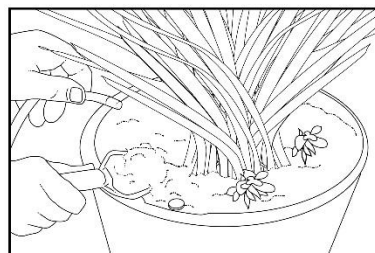
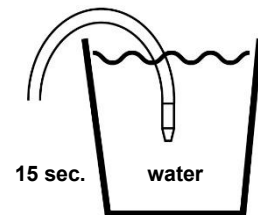
Using a trowel or a sharp dowel, dig a trough or hole into the potting media for the sensor.

Place the sensor into the trough or hole approximately 1/3 to 1/2 down the major rootball, ensuring the tube is not kinked or bent, and the white tip is in direct contact with the potting media.

The exact orientation of the sensor is not crucial, but it should be packed well into the potting media.

If the main plant is in coarse lava rock, the sensor area should be dug out and replaced with potting media. Good potting media/sensor contact is critical for long-term success.

Repack the potting media around the sensor, making sure there aren't voids or air gaps around the sensor area.



INSERT-STYLE CONTAINER IRRIGATION SYSTEMS

Installation, Assembly & Operation



Setting the Insert

The insert can now be set into a pot or planter. It will be significantly heavier once it is filled with water.

Ideally, an insert will sit 1" below the lip of the planter. If need be, stage the area below the insert with expanded polystyrene foam, gravel, or other clean fill material.

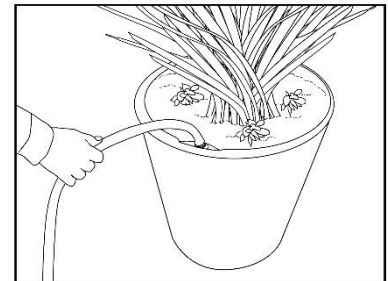
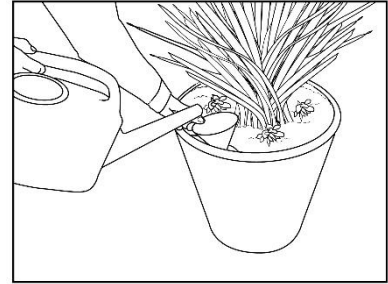
Inserts in exterior locations will drain, so using staging material that doesn't absorb water works best.

Filling the Reservoir for the First Time

When filling the reservoir for the first time, only fill halfway to confirm that the insert is planted correctly and the vacuum is functioning.

Use a bucket and funnel, or garden hose to fill CWC insert reservoirs. If filling with a hose, stick the head of a water hose deep into the fill hole for best results. Begin filling with water and have a shutoff nearby to avoid messy overspill.

Once filled, plug the fill hole with the rubber stopper, turning it with a slight twist for an airtight fit. Avoid plant material getting in between the insert and the stopper. See the next page for instructions on using tamper-resistant stoppers.



INSERT-STYLE CONTAINER IRRIGATION SYSTEMS Installation, Assembly & Operation



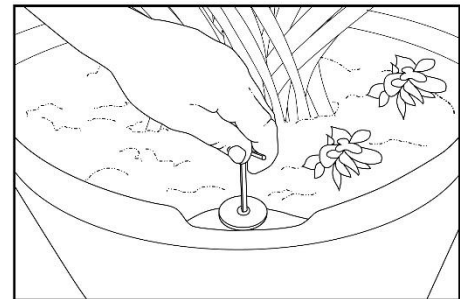
Maintenance

Using the Tamper-Resistant Stopper

The CWI Classic (CWC) inserts feature a fill hole that will accept a garden hose. They deliver with a standard #6.5 black rubber stopper to plug the fill hole.

For high-traffic locations, a tamper-resistant stopper is recommended. The tamper-resistant stopper expands and contracts as you turn the hex bolt on the stopper using a 5/32" hex wrench.

To loosen, turn the hex bolt counterclockwise 3 turns using the hex wrench and pull the stopper from the fill hole. To reseal, reinsert the tamper-resistant stopper and turn the hex bolt clockwise 3 turns.



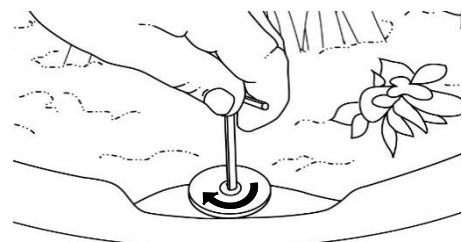
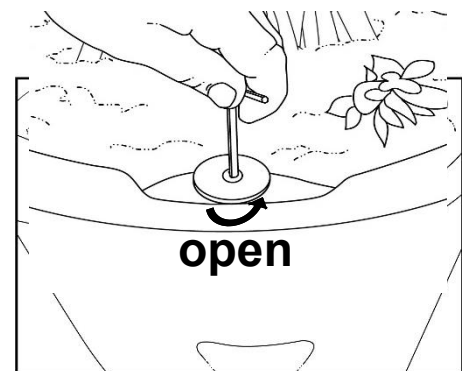
Filling the Reservoir

It is important not to break the vacuum by pulling the stopper more frequently than necessary, especially with interior plants. Most systems have a refill schedule for once a week, once every two weeks, etc. Establish your schedule by regularly checking the potting media moisture levels to determine how often to refill the reservoir.

With normal use, fill the reservoir up to the top, and do not worry if some extra water spills out of the fill hole when refilling; it should end up in the potting media.

When finished filling, insert the rubber stopper back into the fill hole with a firm twist to create an airtight seal and prevent air from entering the system.

When replacing a tamper-resistant stopper, tighten the hex bolt 3 turns clockwise.



Maintaining Plants in Inserts

Refilling the inserts should be a regular part of plant maintenance. In the initial establishment period, monitor the moisture levels in the potting media often. If the potting media appears dry, increase the filling frequency. If it is too wet (or if excess water leaks from the bottom of the container), decrease the filling frequency. Watch the relative health of the main plant for signs of stress. Top water the underplantings until their roots reach the moisture zone, typically 1-3 weeks. After a few weeks, the plant's water needs and potting media moisture levels should stabilize, and a regular refill schedule should be established. Remember that watering needs may change with seasons or the weather, affecting refill intervals.

INSERT-STYLE CONTAINER IRRIGATION SYSTEMS

Installation, Assembly & Operation



Troubleshooting

Like any system, you may encounter issues when using container irrigation. Here are some frequently asked questions that may help diagnose problems.

If the system is too wet:

Is someone (something) else watering the plant? It sounds funny, but frequently someone is “helping” by top watering the system, rather than filling the reservoir.

Is the soil dry or wet on top? For interior applications, the soil should usually be dry. If it’s wet, don’t open the stopper!

How frequently are you opening the stopper? The system only stops watering when the vacuum forms – opening the stopper too often gives the plant too much water.

Check the sensor and stopper. The sensor should be attached to the reservoir and the stopper must be clean and make a good seal.

Check the potting media. Repack down the potting media (perhaps lowering the sensor), making sure there are no air gaps.

If the system is too dry:

Has the water level changed from the previous visit? The potting media at the surface will usually be dry with an insert, and if the water level is dropping, it’s probably working. Also, check the sensor. Lowering the sensor may be necessary to allow for longer watering periods.

Is it just the underplantings, or the main plant, too? The smaller plants usually require some top watering to help their roots get down to the moisture layer. Keep top watering the underplanting.

If I leave the stopper off for an hour or two, does the level drop? When the vacuum is released, water is released, causing the water level to drop. If it doesn’t, liberally top water the plant. Sometimes that’s enough to restart the system. If not, the roots may have clogged the holes in the water outlets, and plant roots may need pruning.

Ongoing Maintenance – Replacing Parts

Keep the insert in good working order by replacing the parts every 3-5 years. The moisture sensor, rubber grommet holding the sensor into the insert, and the stopper are all available from Tournesol Siteworks distributors. The sensor lengths vary by the size of the insert, and the stopper for the CWI product is different than that for the CWC products.

Winterizing (Exterior Systems)

The reservoir acts as an insulator for the plants in the insert. However, all water from the inserts must be emptied before the first hard freeze.

As fall approaches, decrease the filling frequency and stop filling entirely before the first hard frost. Due to the nature of the materials used in constructing the inserts, having the reservoirs completely empty is necessary.



Tournesol Siteworks Limited Three-Year Warranty

Tournesol Siteworks LLC warrants to the initial purchaser of its products that they will repair or replace product that contains a defect in material or workmanship for a period of three years from the date it is delivered to the initial purchaser.

This limited warranty does not include those parts which fall under standard regular maintenance, including but not limited to parts which are subject to periodic replacement. The warranty does not apply to conditions resulting from misuse, abuse, failure to follow directions for use, unauthorized modifications, neglect, accident or other hazard or the like. ***The remedy under this warranty is limited to repair or replacement, at Tournesol Siteworks' option, of the defective parts of the warranted product.*** Repair or replacement of a part does not extend the warranty beyond the initial warranty period.

This is the only written warranty applicable to the product. The duration of the implied warranty on the product is limited to the duration of this express warranty. ***In no event shall Tournesol Siteworks be liable for any incidental or consequential damages, including but not limited to damage to any plants which may have been planted in the product.*** Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

For service or if you have any questions or problems, please contact:

Tournesol Siteworks LLC

Union City, CA
800.542.2282

www.tournesol.com