EZ-FLO 2024 Fertiliser Injection System





EZ-FLO 2024 Fertiliser Injection System Instruction Manual

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EZ-FLO 2024 Fertiliser Injection System



Specifications

Product: EZ-FLO-1 Injection System
Compatibility: Mainline Systems

• Max Pressure: 80 PSI

• Components: Tank Assembly, Connectors, Tubing, Valves

Product Usage Instructions

Tank Assembly & Parts List

Green Connector: # PCG
Blue Connector: # PCB
Agitation Valve: # DT-AV
Agitation Fitting: # AGT
Dip Tubes: # DT-SET
Screen Fitting: # PUF

Connecting Tubing

The EZ-FLO system uses push-connect fittings to connect clear and black 1/4 tubing to the cap.

1. To Insert:

- 1. Insert tubing into the appropriate side (Clear to Green/Out, Black to Blue/In)
- 2. Gently tug to ensure locked in place

2. To Remove:

1. Shut off pressure on the system

- 2. Apply gentle pressure to the Collet
- 3. Pull the tubing away from the fitting

System Installation

The EZ-FLO Mainline Injection Systems are installed after the backflow preventer in a valve box. This allows injection to any irrigation zone valve post-installation.

Step 1: Locate the installation point and pipe size. Use the correct size connection as indicated on the CBV box label.

FAQ

Q: Can I install the system without a backflow preventer?

A: No, do not connect to an irrigation system without an approved backflow prevention device.

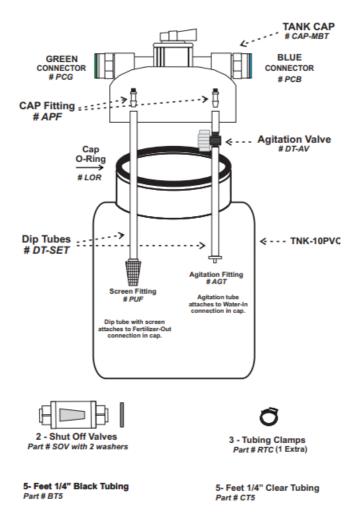
Q: What is the maximum pressure the system can handle?

A: Do not install if pressure exceeds 80 PSI.

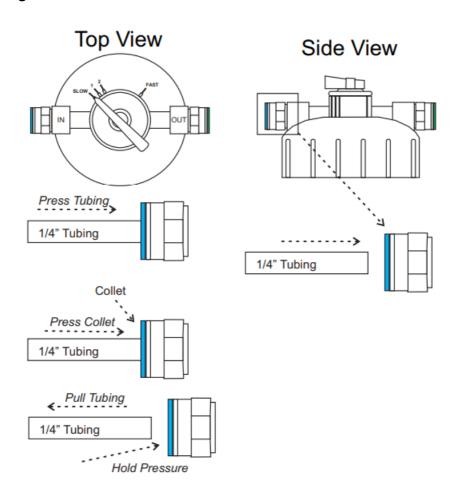
- **IMPORTANT** READ INSTRUCTIONS BEFORE INSTALLING THE SYSTEM TO ENSURE PROPER INSTALLATION.
- Do not connect to an irrigation system that is not protected by an approved backflow prevention device.
- · Use only with non-hazardous products
- Minimize exposure to direct sunlight to maximize service life
- · Do not install if water hammer is present
- Do not install if pressure exceeds 80 PSI

TANK ASSEMBLY & PARTS LIST

Replacement parts available through EZ-FLO & distributors



CAP Tubing Fittings Insert & Release



• The EZ-FLO system uses push-connect fittings to connect the clear and black 1/4" tubing to the cap.

To Insert:

- **Step 1.** Insert the end of the tubing into the appropriate side (Clear to Green/Out and Black to Blue/In) by pressing into the hole/Collet. Press gently until the tubing stops.
- Step 2. Gently tug the tubing to ensure it is locked into place.

To Remove:

- Step 1. Shut off pressure on the system.
- Step 2. Apply gentle pressure to the Green or Blue Collet with your fingers.
- Step 3. While holding pressure, gently pull the tubing away from the fitting to release.
- **Note:** Make sure to direct the fitting away from your face and body. A small amount of residual pressure may be in the tank and cause a momentary release of fluid.

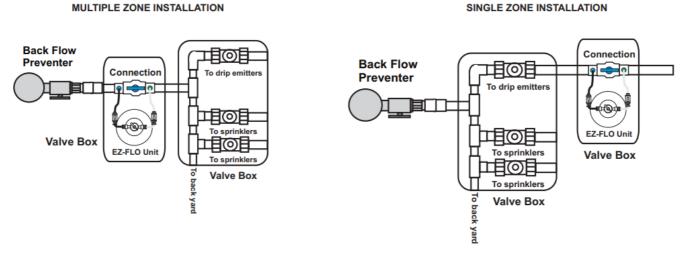
System Installation

Typical installation

• The EZ-FLO Mainline Injection Systems are normally installed in a valve box, connected to the main line of the irrigation system after the backflow preventer.

TOP VIEW

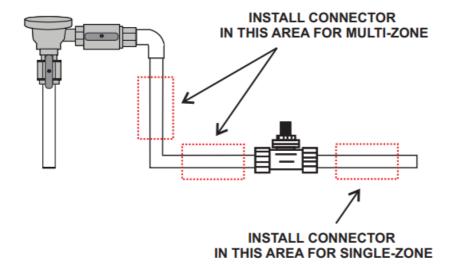
- This will allow the system to inject into any irrigation zone valve located after the installation point.
- · One unit will feed both drip and sprinkler zones automatically adjusting for pressure and flow.



• Step 1 – Locate the installation point and pipe size

TOP VIEW

- The connection must be made after an approved backflow prevention device.*
- The connection can be made either vertically or horizontally in the irrigation main line.
- The connection may be installed above or below the tank without issue.
- The connection may be any distance from the backflow prevention device.
- Multi-zone installation feeds all irrigation zones
- · Single zone feeds only one zone
- Use only the correct size connection for the installation as indicated on the CBV box label.

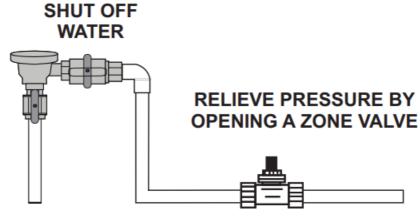


Part# Mainline Size

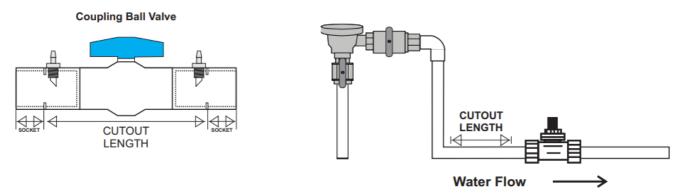
- CBV-100 3/4" & 1"
 - (CBV-100 is included w/ EZ FLO 1)
- CBV-125 1.25"
- CBV-150 1.5"
- CBV-200 2"
- Do not use reducing bushings on the CBV unless directed to by an EZ-FLO representative (does not apply to CBV-100).
- If your irrigation mainline has multiple diameters, such as a pump discharge to a larger mainline, it is best to install in the smallest diameter available to obtain the best performance.
- Installations on a mainline may only be used with a mainline-rated system. Installations after a zone valve or on a well may not be subject to the same backflow requirements.

Main Line Connection

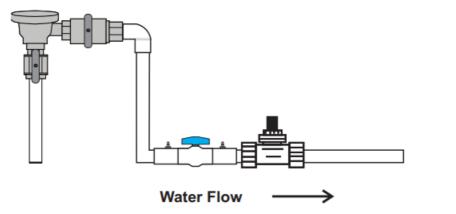
- Step 2 Shut off the water and relieve pressure
- You can use the valve on the backflow prevention device (pictured) or shut off your water main.



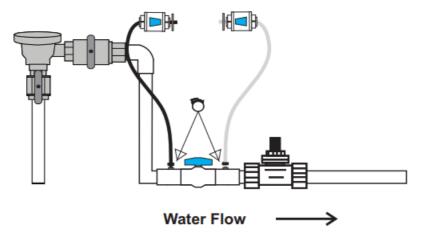
• Step 3 – Cut out a section of pipe slightly larger than the cut-out length of the coupling.



• Step 4 – Glue the coupling into the line.

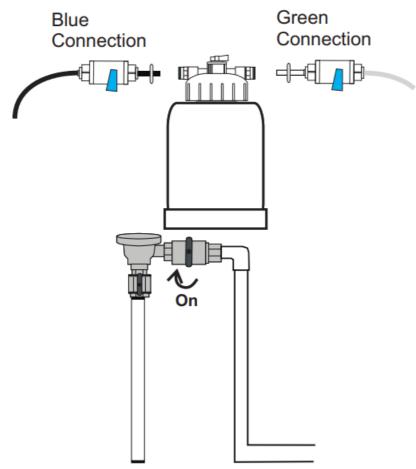


- CBV-100 ONLY
 - USE INCLUDED REDUCING BUSHINGS FOR 3/4" PVC INSTALLATION
- Step 5 Attach tubing to the coupling.
- ATTACH BLACK TUBING TO BLUE FITTING, CLEAR TUBING TO GREEN FITTING, AND SECURE WITH TUBING CLAMPS

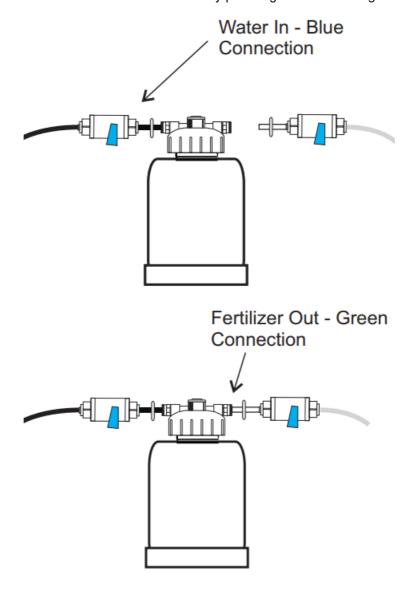


Connect Cap to Irrigation System

- Step 6 Turn shut-off valves to the off position (shown)
- Turn the water on at the backflow preventer



• Connect the blue connector to the water IN connection by pressing the black tubing into the blue fitting



- Connect the green connector to the fertilizer OUT connection by pressing the clear tubing into the blue fitting
- Refer to for a detailed tubing operation

Fill Tank with Product

- Step 6 The EZ-FLO system can be filled with any liquid or water-soluble product. EZ-FLO MAXX-PRODUCTS are specifically designed for use with fertigation and all irrigation systems.
- Fill the tank based on the product's coverage recommendations or capacity.

Fertilizer Typical Coverage Rates:

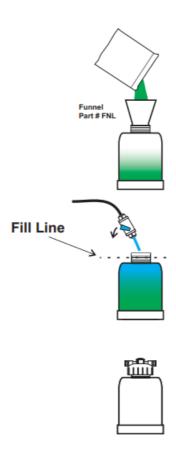
- Liquid- 1 Gallon per 10,000 sqft every 4 to 8 weeks
- Powder- 1 Pound per 1,000 sqft every 4 to 8 weeks
- Pour fertilizer directly into the tank and then top off with water until all air is gone from the tank.
- Allow the water to overflow slightly. If your fertilizer is not colored, add blue or green dye.

Model Tank Size Maximum Capacity

- EZ FLO 1 1 Gallon 8 lbs dry or 1 gal. liquid
- ALL TANK CAPACITIES ARE APPROXIMATE

Fill the tank with product

- Follow all product label precautions.
- Multiple products can be combined and applied all at one time.
- Base how much to put in the tank on each product's coverage recommendations.
- DO NOT LEAVE AIR IN THE TANK
- · Air will fracture the tank and is not covered by the warranty
- Fill with water from shut off valve or hose until full

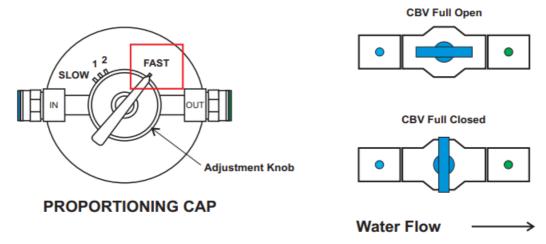


Step 7 - Screw on tank cap

• Check to make sure the o-ring is in place before screwing the cap back on.

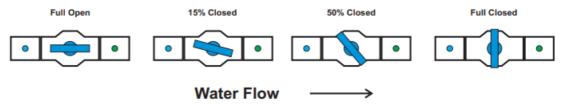
Connector Calibration – Coupling Ball Valve

- The CBV connection must be calibrated to the flow rate of your irrigation system. If the irrigation system is higher flow, primarily composed of spray heads or larger drip irrigation zones, adjustment to the CBV may not be required.
- The EZ-FLO system must be full of fertilizer which provides a color that can be used to indicate flow through the clear line. If your fertilizer is not colored, add blue or green dye to the tank.
- Start by setting the proportioning cap adjustment setting to the fast position and the CBV in the full open position.



• Step 9 – Turn on a sprinkler or drip zone with the closest to average gallons per minute flow rate and watch the clear, fertilizer-out tubing for color.

- If color is steadily flowing through the clear output tube, the CBV does not require adjustment. Please note the color in the tube will be lighter than the color in the tank due to the mixing.
- If color is not flowing through the clear tubing, slowly turn the CBV to the closed position in small increments, stopping once the color begins to flow.



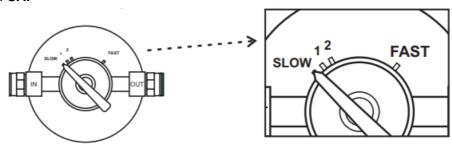
- Once the color is visible, you no longer have to adjust the CBV connection. You may leave it in position permanently.
- To prove the system is working, adjust the feed setting on the cap, back and forth. While the irrigation system is running, turn the knob from slow to fast, and fast to slow.
- Each time you adjust the knob to a new setting, the color of the tube will change. Slower settings are lighter and faster settings are darker.
- Once all is confirmed, leave the handle in the calibrated position, and set the proportioning cap feed rate to the desired setting per your system instructions.
- For additional information, please read the FAQ/ Troubleshooting in the CBV instruction manual.

Set Flow Adjustment

- Step 10 Set the flow rate by turning the adjustment knob to the proper setting.
- Slow Setting is used for normal and most common settings in regions with high watering requirements such as hot dry climates or sandy soils.
- **#1 Setting** is used for normal maintenance in regions with more moderate climates and moderate watering schedules where soils have good moisture retention.
- #2 Setting is used to encourage fast growth or to quickly improve the condition of a landscape in poor condition. The unit will empty more quickly and can be refilled more often.
- Fast Setting is used for periodic fertilization. The unit will empty more quickly and can be refilled more often.

| Setting | *Ratio | OZ. of fertilizer per gal. of water | Based on Watering Frequency* |
|---------|---------|-------------------------------------|---------------------------------|
| Slow | 15000:1 | .008 (1/20 tsp) | 4+ days per week |
| 1 | 8000:1 | .017 (1/10 tsp) | 3 days per week |
| 2 | 2000:1 | .064 (2/5 tsp) | 2 days per week |
| Fast | 400:1 | .320 (2 tsp) | 1 day per week |

PROPORTIONING CAP



• The ratio refers to the amount of water mixed with the fertilizer. For example, a 400:1 ratio means 400 gallons

of water will be mixed with 1 gallon of fertilizer.

- The adjustment knob can be set in between settings if desired.
- These ratios are approximate because feed rates can vary by the type of product being distributed. Ratios are provided as a general guideline only.
- The watering frequency guideline is general and for convenience only. Additional caution and care should be taken when using a feed setting faster than #1.

Gallons of Water Until Empty

• The following table shows the approximate gallons of water required to distribute the fertilizer from the EZ-FLO system at the various flow settings.

Model EZ FLO 1

- Slow 15,000
- #18,000
- # 2 2,000
- Fast 400

FAQ

How much product to put into the tank

Refer to the product label and tank capacity Additional information is on our website.

What fertilizer can I use

Almost any liquid or water-soluble powder product. Do not use dry broadcast fertilizers.

Can I use weed killer herbicide in the system

Typically no, hazardous products are not recommended for use in the EZ-FLO system.

What cap setting should I use

Slow and #1 are the most common cap settings. offers more details on each setting.

How often do I need to refill This will vary on landscape size and watering schedule but typically every 4 to 8 weeks. How do I know when to refill The system can be checked for color by in the clear output tubing during irrigation operation. If the fertilizer color is gone, you need to refill the system. Alternatively, you may let the system run without fertilizer (just water) and refill based on a set schedule. How do I know it is working When the irrigation system is running watch the clear output tube for color. You may adjust the cap from slow to fast to see the color change. You can use blue or green food dye to add color to the fertilizer. Will I over fertilize No, the EZ-FLO injection process micro doses products but we do recommend caution when using new products and faster feed settings. Will the system clog drip irrigation No. EZ-FLO and Maxx-Products can help clean drip systems and make them work effectively.

If product is mixed with water, will it dilute

No, the patented process and agitation valve control dilution of compatible products.

Will the fertilizer stain

Not if using EZ-FLO recommended products. Check other manufacturers' labels if not using EZ-FLO brands.

How do I winterize the system

Simply close the shut-off valves, disconnect them from the irrigation system and drain the tank.

The system did not inject any fertilizer

Refer to the Connector Calibration and set the CBV to a further closed position.

The system is emptying too fast

Confirm you used the correct cap setting check the Connector Calibration" page and adjust the CBV to a more open position.

My system is always full of water, is it working

Yes This is part of our patent and you can review the videos on our website to see how it works.

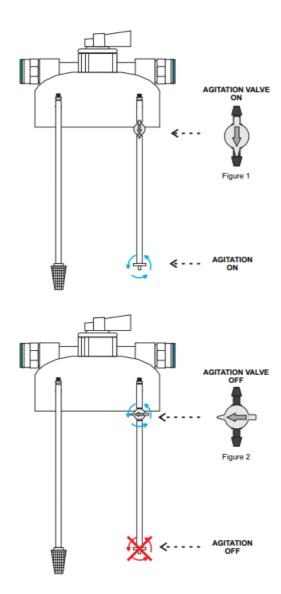
Troubleshooting

I cannot see color when closing the ball valve:

- Confirm you have set the knob to fast.
- Check to see that both shut off valves on the tubing are open.
- Confirm you have a zone of irrigation running (water flowing).
- Confirm you have added enough fertilizer and that it has a color.

For more information and videos





- When using fully concentrated water-soluble powders, it is recommended to have the Agitation Valve ON.
- In the ON position, the agitation continues to stir and dissolve the concentrated product at the bottom.
- Significant dilution of the solution does not occur until the powder has fully dissolved.
- If only liquid is used, a slow steady dilution can occur at faster feed rates.
- The ON position is illustrated by the image in figure 1.
- When using fully concentrated liquid, diluted liquid, or dissolved powder products, it is recommended to have the Agitation Valve OFF.
- In the OFF position, the agitation no longer mixes at the bottom.
- · Significant dilution of the solution does not occur*
- The OFF position is illustrated by the image in figure 2.

How it works



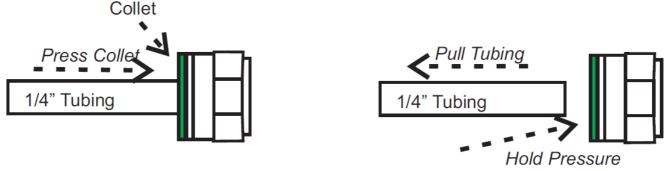
• EZ-FLO tested the Agitation Valve with standard mineral fertilizers, micronutrients, and acids. Observed variations are +/- 5%. Some products, primarily organic supplements, and humic acids, will leave residue and cloud the solution

Quick Refill Guide

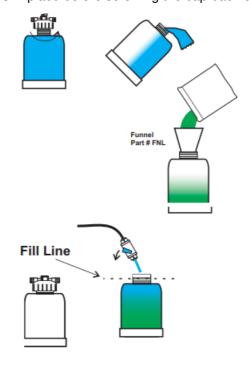
1. Step 1 - Turn off the water using the shut-off valves, both valves must be closed.



2. Step 2 - Disconnect tubing from both sides



- 3. Step 3 Unscrew the cap & pour out water
 - The system will be full of fresh water when fertilizer is gone.
 - Some products may leave a slight residual. This may be left in the tank or flushed out.
- 4. Step 4 Fill the tank with product
 - Reference Fill Section for maximum capacities Results depend on product quality, use MAXX-PRODUCTS for best performance
- 5. Step 5 Fill the tank with water by opening shut off valve or hose until full
 - DO NOT LEAVE AIR IN THE TANK
- 6. Step 6 Screw on tank cap, replace washers, attach valves & turn on both shutoff valves
 - Check to make sure the o-ring is in place before screwing the cap back on.



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- www.ezfloinjection.com

Documents / Resources



EZ-FLO 2024 Fertiliser Injection System [pdf] Instruction Manual 2024 Fertiliser Injection System, 2024, Fertiliser Injection System, Injection System

References

- **<u>SVideos | EZ-FLO™ Injection Systems</u>**
- User Manual

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