

ASAE Award-Winning **Green Machine Pro®** Proportioning Fertilizer Injector

Installation, Operation & Maintenance

Green Machine Pro® automatic fertilizer injectors can be installed in any irrigation system where controlled application is desired. Through its unique hydraulic design, the existing water flow forces water into the additive tank. And then, that same flow forces the mixture back into the main line. It's amazing, yet simple!

There must be a minimum flow rate of water passing through the injector for it to function:

Model	Capacity	Inlet/Outlet	Minimum Flow Rate Flow Rate (GPM)	Gallons of Flow to Empty
GM 1-50	1 gallon	½" FPT x ½" FPT	½	200
GM 1-75-H	1 gallon	¾" FHT x ¾" MHT	½	200
GM 1-75	1 gallon	¾" FPT x ¾" FPT	½	200
GM 1-10	1 gallon	1" FPT x 1" FPT	1	200
GM 1-15	1 gallon	1½" FPT x 1½" FPT	2	200
GM 1-20	1 gallon	2" FPT x 2" FPT	5	200
GM 3-50	3 gallon	½" FPT x ½" FPT	½	200
GM 3-75-H	3 gallon	¾" FHT x ¾" MHT	½	200
GM 3-75	3 gallon	¾" FPT x ¾" FPT	½	200
GM 3-10	3 gallon	1" FPT x 1" FPT	1	200
GM 3-15	3 gallon	1½" FPT x 1½" FPT	2	200
GM 3-20	3 gallon	2" FPT x 2" FPT	5	200
GM 5-50	5 gallon	½" FPT x ½" FPT	½	1,000
GM 5-75-H	5 gallon	¾" FHT x ¾" MHT	½	1,000
GM 5-75	5 gallon	¾" FPT x ¾" FPT	½	1,000
GM 5-10	5 gallon	1" FPT x 1" FPT	1	1,000
GM 5-15	5 gallon	1½" FPT x 1½" FPT	2	1,000
GM 5-20	5 gallon	2" FPT x 2" FPT	5	1,000
GM 10-50	10 gallon	½" FPT x ½" FPT	½	2,000
GM 10-75-H	10 gallon	¾" FHT x ¾" MHT	½	2,000
GM 10-75	10 gallon	¾" FPT x ¾" FPT	½	2,000
GM 10-10	10 gallon	1" FPT x 1" FPT	1	2,000
GM 10-15	10 gallon	1½" FPT x 1½" FPT	2	2,000
GM 10-20	10 gallon	2" FPT x 2" FPT	5	2,000

FPT - female pipe thread

FHT - female hose thread

MHT - male hose thread

A minimum of 10 PSI (pounds per square inch) is required for the injector to function.

Care must be taken to ensure that anything that is placed into the fertilizer tank cannot flow back into the potable water system. An approved backflow device, such as a check, anti-siphon valve, or reduced pressure backflow preventer, must be installed upstream from the fertilizer injector. The inlet/outlet manifold of the Green Machine Pro® should **always** be installed higher than the additive tank. This will prevent siphonage of additive when the irrigation system is not in operation. The injector should be mounted lower than the backflow prevention device and higher than the irrigation system. Do not operate at pressure exceeding 80 PSI.

NEVER pressurize the Green Machine Pro® fertilizer injector without it being completely filled with water, fertilizer, or additive! Always drain unit if there is a chance of freezing.

Strong Injectors™

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***A Leading Manufacturer of Proportioning Fertilizer Injectors for the Irrigation Industry!
CONSULT WITH YOUR WATER DISTRICT FOR LOCAL INSTALLATION CODES AND REGULATIONS!***

Fertilizer must be in liquid form when it's poured into the Green Machine Pro® fertilizer injector. If using a premixed liquid, you can pour it in full strength. If using dry, totally water soluble granular fertilizer, such as Scotts Miracle Gro® or Peters Professional®, Bandini Pro Choice®, or Grow More® premix with water at a ratio of 1 pound of dry formula to 1 gallon of water. Fish emulsion or any petroleum based additives can only be used in the injector if they have been premixed with water at a 1 to 1 ratio. Read and follow the directions printed on the container of fertilizer. Usually, 1 gallon of liquid fertilizer will cover approximately 1,000 square feet.

Apply Teflon tape to the male pipe threads before inserting them into the injector for installation. Usually 2 to 3 wraps will be sufficient. Hand tighten the fittings when installing, except for the last full turn, when you may use a wrench or pliers. Be careful not to over tighten.

To fill the injector, remove the top fill cap. Insert a fill funnel into the opening and pour in liquid solution. Fill the unit *completely*. Replace the cap and the injector is ready for operation. Turn on the irrigation system. Consult chart on back to determine how many gallons of water passing through the irrigation system it will take to empty the Green Machine Pro® fertilizer dispenser completely. For example, let's say that you've installed the Model GM 1-10 and the irrigation system is operating at a flow rate of 3 gallons per minute. Knowing that it takes 200 gallons of water to empty the dispenser, divide this number by the flow rate of 3 GPM. You now know that it will take you a little over an hour, or 67 minutes, to not only water your lawn or trees, but also fertilize. Before pressurizing the injector, always be sure that the unit is completely full.

When time comes to refill the injector before you have completed watering, simply turn off the water by closing the control valve, and remove both the drain cap on the bottom and the fill cap on the top. Allow all of the water to drain from the tank, and replace the bottom drain cap. Place the fill funnel in the top fill opening and refill the dispenser. Replace cap and turn the irrigation system back on. Once you have completed watering, there is no need to drain the fertilizer tank, unless you want to refill it to have it ready for your next irrigation cycle. It will not harm the unit to have water running through it when you are not fertilizing. On the contrary, the clear water passing through the injector will help keep it clean. Fertilize as recommended during the growing season.

Once you have completed watering, there is no need to drain the fertilizer tank unless you want to refill it to have it ready for your next irrigation cycle. It will not harm the unit to have water running through it when you are not fertilizing. To the contrary, the clear water passing through the injector will help keep it clean. Fertilize as recommended during the growing season. **NEVER** pressurize the Green Machine Pro® fertilizer injector without it being completely filled with water, fertilizer, or another additive!

NOTE: During the winter months, if there is a possibility of freezing in your area, the tank should be drained and left vented to atmosphere to prevent the injector from being damaged. Also, if installing the injector in direct sunlight, it is imperative that you totally cover the injector to protect it from the elements, especially the sun's damaging ultraviolet light. Painting the tank with a water-based acrylic latex house paint, or most spray paints, will also add to the protection. Always drain unit if there is a chance of freezing and leave the unit vented to atmosphere to prevent damage.

Care must be taken to ensure that anything that is placed into the fertilizer tank cannot flow back into the potable water system. An approved backflow device, such as a check, anti-siphon valve, or reduced pressure backflow preventer, must be installed upstream from the fertilizer injector. The injector should be mounted lower than the backflow prevention device and higher than the irrigation system. Do not operate at pressure exceeding 80 PSI.

Warranty

The Green Machine Pro® fertilizer injector is guaranteed for a period of one year from the date of purchase against defective materials and workmanship when installed and operated per instructions and used in a normal manner. Buyer assumes all responsibility for safety and use not in accordance with instructions and directions.

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