

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

## Installation, Operation & Maintenance

Green Machine Pro® automatic fertilizer injector 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 (GPM)	Gallons Flow to Empty
GM 1-50	1 gallon	1/2" FPT x 1/2" FPT	1/2	200
GM 1-75H	1 gallon	3/4" FHT x 3/4" MHT	2	200
GM 1-75	1 gallon	3/4" FPT x 3/4" FPT	2	200
GM 1-10	1 gallon	1" FPT x 1" FPT	5	200
GM 1-15	1 gallon	1-1/2" FPT x 1-1/2" FPT	10	200
GM 1-20	1 gallon	2" FPT x 2" FPT	20	200
GM 5-50	5 gallon	1/2" FPT x 1/2" FPT	1/2	1,000
GM 5-75H	5 gallon	3/4" FHT x 3/4" MHT	2	1,000
GM 5-75	5 gallon	3/4" FPT x 3/4" FPT	2	1,000
GM 5-10	5 gallon	1" FPT x 1" FPT	5	1,000
GM 5-15	5 gallon	1-1/2" FPT x 1-1/2" FPT	10	1,000
GM 5-20	5 gallon	2" FPT x 2" FPT	20	1,000
GM 5-40	5 gallon	4" Slip x 4" Slip	50	1,000
GM 10-50	10 gallon	1/2" FPT x 1/2" FPT	1/2	2,000
GM 10-75H	10 gallon	3/4" FHT x 3/4" MHT	2	2,000
GM 10-75	10 gallon	3/4" FPT x 3/4" FPT	2	2,000
GM 10-10	10 gallon	1" FPT x 1" FPT	5	2,000
GM 10-15	10 gallon	1-1/2" FPT x 1-1/2" FPT	10	2,000
GM 10-20	10 gallon	2" FPT x 2" FPT	20	2,000
GM 10-40	10 gallon	4" Slip x 4" Slip	50	2,000

A minimum of 10 PSI (pounds per square inch) of pressure in the irrigation system where the injector is to be installed.

Care must be taken in insuring 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 125 PSI. NEVER pressurize the Green Machine Pro® fertilizer injector without it being completely filled with water, fertilizer or additive.

### *Consult with Your Water District for Local 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 Scott's Miracle Gro®, Scott's 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 initially 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 injector 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 injector, 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.

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 injector. 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. During the winter months, if there is a possibility of freezing in your area, it is highly recommended that the tank be left drained and vented to atmosphere. You might also consider covering the tank to further protect it from the elements. Painting the unit with a water-based acrylic latex paint will also add to the longevity of the unit, especially if it is exposed directly to the elements.

Patent Pending  
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## *Strong Enterprises™*

308 Melville Court, Roseville, CA 95747

(916) 797-1056 phone/fax • addit123@aol.com • <http://www.fertilizerdispensers.com>