

# Selecting an Injector

Mazzei® Injectors are of very high quality and are engineered for exact performance. Selecting the right injector simply requires that you refer to the Performance Tables in the Mazzei Injector Catalog or click on the link in this web site.

The performance tables are divided in two sections: liquid suction and gas suction. Using the guidelines below, you can select the injector that is right for your application.



## What you should know to properly select an injector:

- What do you want to inject (a liquid or a gas)?
- Injection Rate: How much do you want to inject per hour?
- Motive Flow Rate: How much water needs to run through the injector?
- Inlet Pressure: What is the water pressure available immediately upstream of the injector?
- Outlet Pressure: What pressure will the injector see downstream, after installation?

From your data above, use the [Mazzei Injector Performance Tables](#), which can be printed out from this website, to select an injector model able to exceed your desired injection (suction) rate.

The total water flow of the system must be greater than the injector's motive flow capacity (water through the injector).

Steps to finding the correct model Mazzei Injector for your system:

1. Locate the injector inlet pressure on the performance table which most closely corresponds to your maximum available water pressure.
2. Locate the injector outlet pressure which most closely corresponds to your system pressure downstream of the injector after installation.
3. Review the performance table to locate an injector model which has a suction capacity that is greater than your desired suction capacity. Use a metering valve or orifice assembly to adjust the injector's suction rate to obtain the precise suction required.

*Remember, for the injector to operate properly, it must experience a higher inlet pressure than outlet pressure (called the differential pressure). Our injectors are very efficient and begin to operate with as little as 20% differential pressure!*

There are several [installation methods](#) available to ensure the Injector operates properly.



## NOTES:

Using a metering valve on the suction line can accurately control the suction rate. Viscosity and weight of material will affect the suction rate.

The water flow (motive flow) listed in the Performance Tables indicates the amount of water that the Injector must see at a given pressure. Also, since the Injector acts as a flow restrictor, this is the total amount of water that will pass through at this pressure.



The Outlet Pressure is independent of the Inlet Pressure, which is usually delivered by a pump. For example, if pressurized water is flowing through an Injector and runs down a short pipe and simply falls on the ground, the Outlet Pressure (back-pressure) is nearly zero. Any restrictions downstream in the form of piping, filters, valves, sprinklers, emitters, etc. cause the Outlet Pressure (or back-pressure on the Injector) to change.

Should you have any questions, our experienced technical support staff is ready to help. Contact us with your requirements and allow us to assist you in designing your injection system.