

Choosing the right pump for Chemical Dosing

At Madden Manufacturing we have been producing metering pumps for 60+ years and we would like to offer you some insight from our lengthy experience in choosing the right pump for your chemical dosing application.

Comparing brands to one another as well as comparing different pump types such as gear pumps, piston pumps, peristaltic pumps, and diaphragm type pumps are all things to consider when injecting chemicals. Please see below for several other factors to consider when choosing a Chemical Dosing system.

Positive Displacement offers precise amount of chemical discharge

There are many positive displacement pumps on the market that move chemicals or other liquids by trapping a precise amount of the chemical in a chamber, and then forcing out that precise amount of chemical into a discharge line. Positive displacement is consistent, with little to no variability in output. This leads to you knowing exactly how much chemical will be dosed into your system.

Choosing to dose chemicals with a positive displacement pump means that over the coming years, you can be confident knowing exactly how much chemical will be dosed thus knowing how much money you will need to spend on chemicals. Beware that other types of pumps can waste chemicals and therefore money. So choosing a pump that adds a precise amount of chemical out of the chamber and into the discharge line is essential.

Are the Chemicals compatible with the pump?

Once you know you're getting a pump that is accurate and consistent, the next thing needed is to make sure that you are using chemical compatible materials. Chemicals such as sulfuric acid, sodium hydroxide and sodium hypochlorite are very corrosive. Many available pump materials will not hold up against these chemicals. Make sure that the positive displacement pump's wetted end is completely compatible with the chemical you are pumping. Failure to do so will result in repeated pump replacement.

Consistent and Durable Pumps

Lastly, what is going to run all of these components? What will drive them? You want something that will hold up to strenuous conditions for a long service life. Some metering pumps are solenoid driven and those magnets can wear out quickly. Once worn out, these pumps are thrown away and new replacements are bought and installed. So you might consider a more rugged design using an electric or air operated motor. Positive displacement metering pumps using electric motors and chemically compatible materials, like Madden's diaphragm metering pump design, offer long service lives with little to no downtime for maintenance.

Our hope is the above information will help you make the right decision for your chemical dosing application.