

# MIXMATE® SPECIFICATIONS

## SELECTION

The MixMate Polymer Feed System was designed to apply any polymer to a water supply for clarification purposes. We have designed the system so that it is simple to use, easy to clean, and flexible enough to adapt to a wide range of polymer choices and flow requirements. In general, the MixMate works well with solution or emulsion polymers of all types, and is unique in its ability to serve low flow applications. **Customers who require low flows, need versatility, portability, or even just a basic system with good economy in mind, will obtain excellent results with a MixMate.**

There are many thousands of polymers available for use in different applications. They are classified according to their type (solution, emulsion, Mannich), their charge (cationic, non-ionic, anionic), their charge density (low, medium, high), their molecular length (short, medium, long), and their molecular weight (low, medium, high). What will work best for you will depend upon the particular water or wastewater problems you have. Your chemical vendor will help determine this based on experience, trial and error, and specific jar testing. **Whatever that choice may be, there are bound to be alternative selections, so an adaptable system will be to your advantage.**

The MixMate will work most efficiently from the middle of the selected flow range up, since the greater the flow velocity through the system, the greater the blending and activation of the polymer. Too great a pressure drop, however, can affect your final delivery and even cause the polymer to shear. **Finding the balance between the highest possible velocity and the largest allowable pressure drop will result in the best performing system.** Knowing this, there are several key points to consider in correctly selecting a MixMate for your polymer application:

1. What is the part per million range of polymer solution you would like to apply to your water or wastewater stream for maximum effectiveness?
2. What will the minimum and maximum flow rates of that water stream be?
3. Is the polymer you're planning to use a solution or emulsion product?
4. What is the best concentration, in percent, of the neat polymer to put it into solution in the primary make-up water flow?
5. If secondary dilution water is needed to make down the polymer to its most cost effective application strength (as is often the case with emulsions), what is the best final concentration in percent?
6. What is the available pressure of the MixMate water supply?
7. How much pressure do you need after the MixMate to deliver the made-down polymer solution to your point of injection?

With the information above, we can determine the size and number of mixer elements to use, eductor nozzle size, and what number and size of flowmeters to employ in your system. **If you don't have all the answers to these questions, give us a call and we'll try to clarify things to select the most flexible MixMate for your service.**