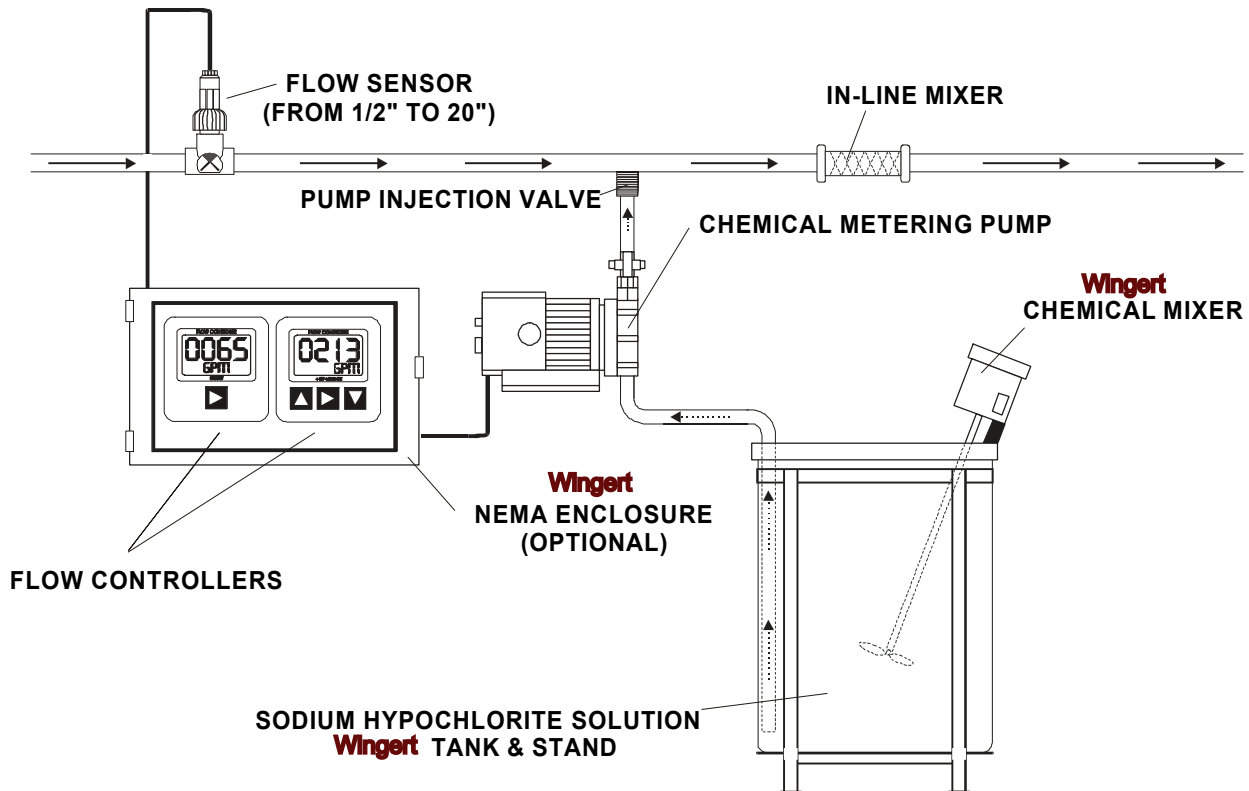


# HYPOCHLORINATION

The use of sodium hypochlorite (liquid) or calcium hypochlorite (powder) for chlorine disinfection of water is becoming increasingly popular over chlorine gas injection systems. If you're considering replacing your obsolete chlorine gas system, or need to install a new disinfectant system, you can benefit from J.L. Wingert's years of experience with hypochlorination systems.

Gas chlorination is on the decrease because of the safety risks involved in handling large volumes of extremely toxic chlorine gas. Additionally, the corrosiveness of chlorine gas demands constant and expensive system maintenance. The initial cost of hypochlorite injection systems are less than that of gas systems, and they have a much lower maintenance and operating cost as well. Sodium hypochlorite, commonly known as bleach, is readily available in 5.25% solution (sold as bleach in markets) and 12-1/2% solutions (sold at pool supply shops). Calcium hypochlorite, with available chlorine content of 70% by weight, is also an effective bactericide. However, care must be used with calcium hypochlorite. When precipitation occurs in the hypochlorite solution tank, the resulting sludge can plug feeder lines. When using this disinfectant, it is best to use only soft water to mix the solution as this helps prevent precipitation. A floating intake assembly is also helpful.

Many factors affect the ability of a chlorination system to effectively control bacteria. High turbidity decreases the effectiveness of the chlorine dosage, and turbid water should be filtered before chlorination. Temperature increases enhance the efficiency of the chlorine. pH increases, on the other hand, reduce chlorine effectiveness and require additional chlorine injection. Retention time is also an important factor. The system must keep the chlorine in solution long enough to be effective. For example, pipes have a much higher retention value than tanks; therefore the injector should be located near the start of a long pipe run.



Hypochlorite is fed in many ways including: continuous feed at a constant rate, on-off injection, proportional feed based on flow rate or other measured parameter, and injection by instrument signal. J.L. Wingert has the equipment in stock to handle all these applications. Our customer service staff can assist in recommending the proper metering pumps, tanks, injectors, and instrumentation.