

ParkProcess' inline polymer system is designed to be used with liquid polymer for the continuous delivery of a blended dilute polymer solution.

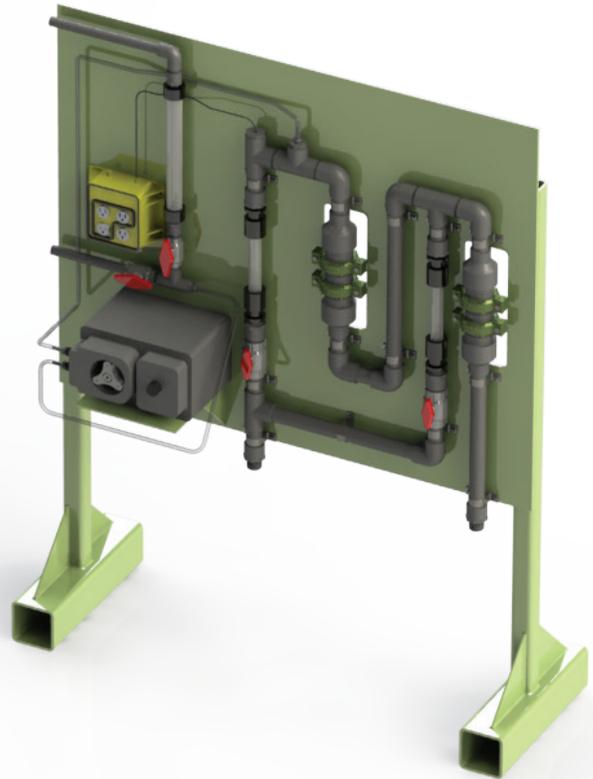
Neat polymer is pumped into the water stream (supplied by city water or pressurized water system), where it immediately passes through a series of static mixers which produce a thoroughly blended solution. A post dilution line installed in the system allows in-coming water to be sent into the mixed solution downstream of the first set of static mixers (to help enhance the blending of the polymer with water if necessary). A second set of static mixers further mixes and blends the solution prior to injection into the sludge stream.

A low-flow switch installed in the system will shut off the polymer pump if water pressure falls below a predetermined amount.

The polymer pump used in the MixCat system is a peristaltic type pump, which is relatively trouble free. This pump will pass polymer "fisheyes" that would plug up a diaphragm type metering pump, a typical problem with these kind of pumps. The pump is simple to maintain with only the peristaltic tube requiring periodic replacement.

A check valve is installed in the discharge line of the system to prevent fluid from backing up into the MixCat when the system is shut down.

The calibration tube allows the operator to determine the flow of neat polymer at various pump settings. These figures along with the flow rate of water (which is displayed on the water rotameters – adding both incoming and post dilution flows) will assist the operator in making up polymer solutions of varying strengths.



► Mixing Formula

The most common dilution for polymer solutions is 0.5%. This dilution is adequate for most sludge flocculation applications. Using this number- 0.5% - as the desired dilution amount and given the standard 3.96 gph polymer metering pump the following relationship will be generally true:

Pump Speed	Water Flow
100%	13.32 gpm
75%	10 gpm
50%	6.66 gpm
25%	3.33 gpm
10%	1.33 gpm

