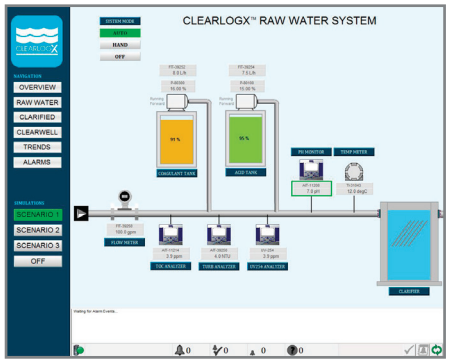
ClearlogX™

ENHANCED MEMBRANE PERFORMANCE

Clearlogx™ is an automation and control technology that regulates how coagulants are fed in ultra-filtration (UF) systems to prevent membrane fouling.

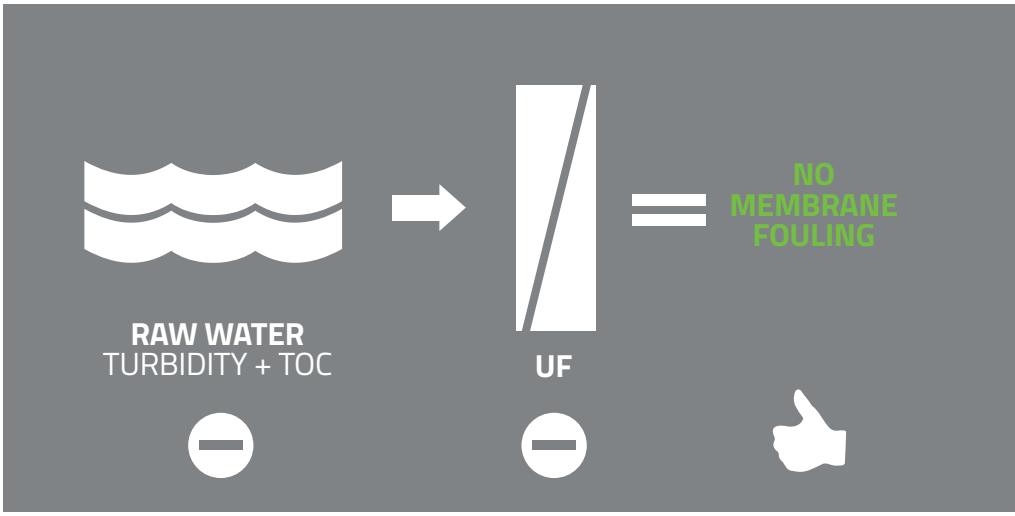


Clearlogx™ controls the dosing of coagulants by monitoring the streaming current & pH of the raw water. The technology analyzes the parameters of the water (pH, streaming current) to then dispense the appropriate amount of coagulant into the system.

1

IDEAL SITUATION

The raw water fed into the system has a negative charge. The organics and the turbidity in the water are negatively charged therefore they are effectively removed by the membrane by mean of filtration & repulsion.

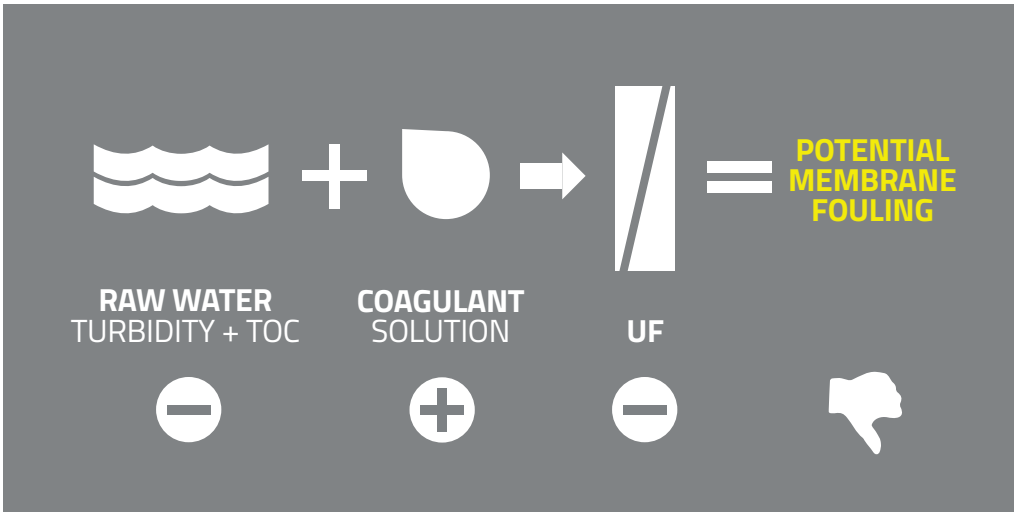


ClearlogX™

2

PROBLEMATIC SITUATION

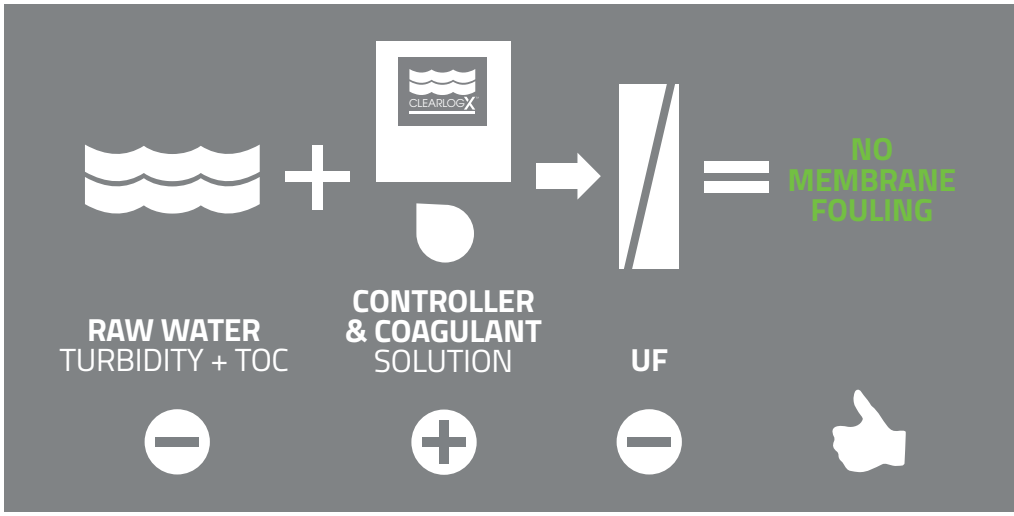
When the raw water fed into the system has a high level of TOC and turbidity, it may require the addition of coagulant to create flocs. If used in the right dosage, the coagulant will prevent membrane fouling. Overdose the coagulant and it will index a positive charge in the floc resulting in premature membrane fouling.



3

CLEARLOGX™ SITUATION

The situation is the same as previously except that Clearlogx™ introduces the control of the coagulant dosing. The coagulant is then dosed according to certain key water parameters (streaming current, pH, temperature) that are continuously monitored thus eliminating membrane fouling and coagulant overdosing.



The Clearlogx™ technology optimizes coagulant addition based on the level of turbidity & soluble organic to enhance their removal. The process also controls acid or base feed to regulate the pH. This control technology reduces particles & flocs attraction to the membrane surface and improves the overall treatment process.