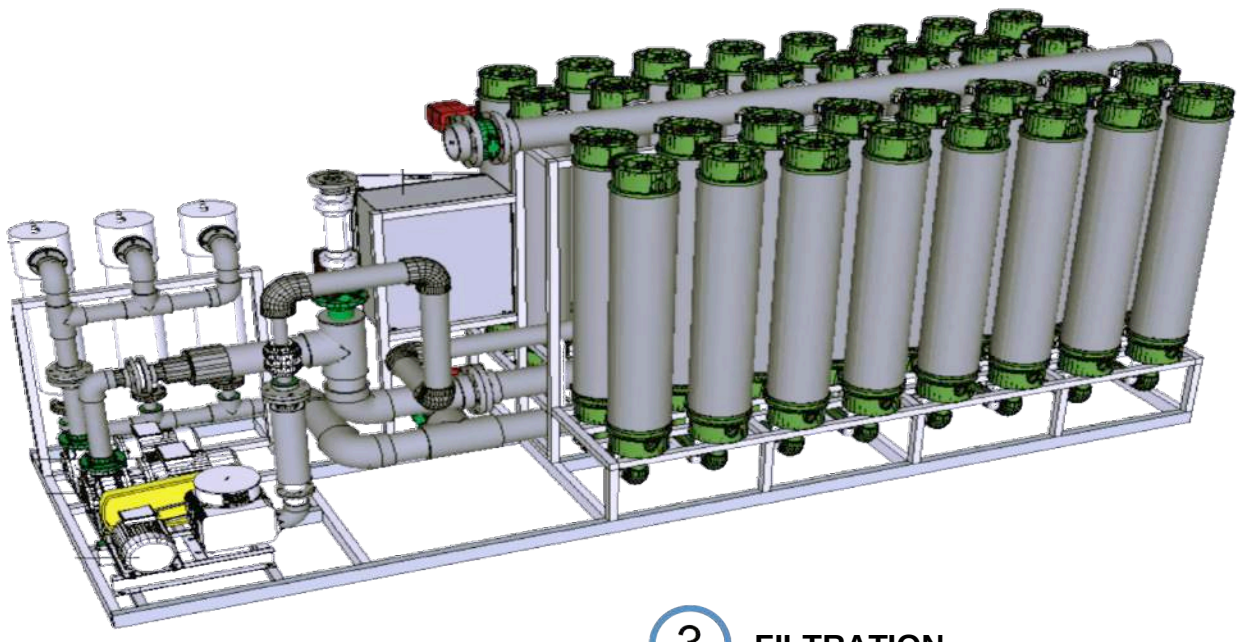
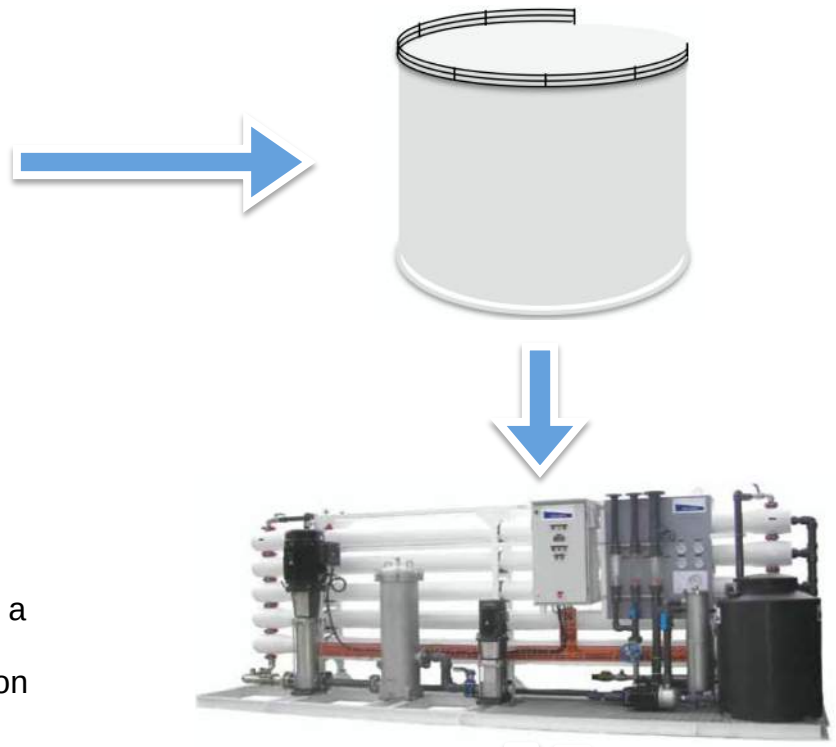
Reverse Osmosis Pretreatment with PoreLogix Ultrafiltration Systems

PoreLogix Ultrafiltration Systems with the K1060 PAN or PES Hollow Fiber membrane protects reverse osmosis membranes by removing particles, turbidity, bacteria, and large molecular weight organics.

1 **WATER USE**
Industrial reverse osmosis systems have become the norm for the treatment of water for nearly every industrial process. PoreLogix Ultrafiltration Systems provide the best method of pretreatment for reverse osmosis systems.



2 **PRETREATMENT**
PoreLogix Ultrafiltration Systems replace all traditional filtration methods including clarification, gravity filtration and particle filters.



3 **FILTRATION**
PoreLogix Ultrafiltration Systems provide a skid-based Ultrafiltration System that will consistently provide .01 micron prefiltration to protect your RO membranes.

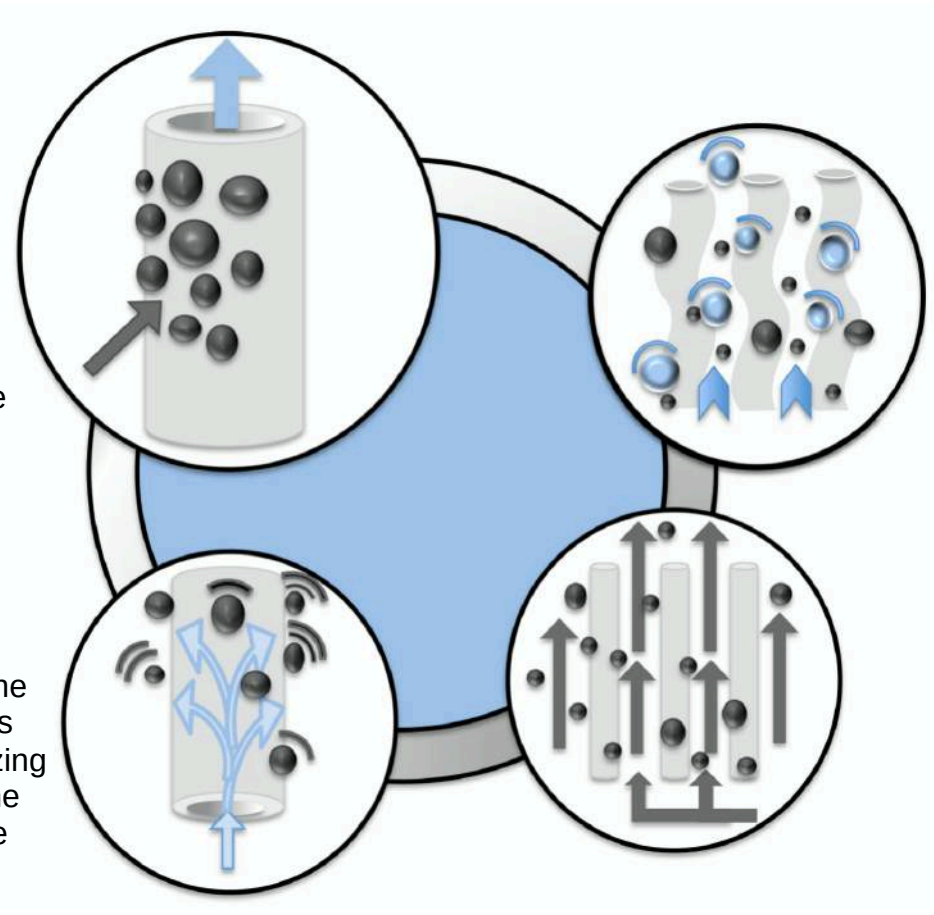
4 **MAINTENACE**
PoreLogix Ultrafiltration Systems eliminate expensive cartridge & bag filtration as well as the maintenance required for these systems.

5 **ADVANTAGES**
PoreLogix Ultrafiltration Systems allow for the reverse osmosis systems to operate with a higher recovery percentage thus saving water, energy, and operating expenses.

PORELOGIX ULTRAFILTRATION SYSTEMS FILTRATION PROCESS

FILTRATION PROCESS (OUT – IN FLOW)

Filtration process is via an Out-In flow configuration where feed water is in contact with the exterior of the fibers and the filtrate (product water) is drawn from the inside of the hollow fibers (lumen). This configuration has the distinctive advantage of a larger membranes surface area, which translates to a higher flow.



AIR SCOURING

During both the Forward Flush and Back Flush process, air bubbles are injected into the cartridge dislodging suspended solids from the hollow fiber membrane. This enables the Forward and Back Flush process to effectively remove the solids from the cartridge to prevent build-up.

BACK FLUSH

After the Forward Flush process has removed the majority of the solids from the cartridge, Porelogix Ultrafiltration systems will engage in a Back Flush process utilizing filtrate to Back Flush from the inside of the hollow fibers, hence dislodging any of the remaining solids attached to the outer surface of the fiber.

FORWARD FLUSH

On a preset time frame or upon reaching a predetermined transmembrane pressure (TMP), Porelogix Ultrafiltration systems will engage in a regeneration process. Beginning with the Forward Flush process, 95% of the solids are removed with the feed water without TMP constriction.

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