



Municipal Water and Wastewater Applications for Acme Automatic Scraper Strainers

Background

The market niche for ACME scraper-strainers is for screen openings from .003 inches (75 microns) up to 6 inch (150mm) particles.

The following is a summary of proven municipal applications for our units:

River and lake water intakes-water treatment

Water intakes on lakes and rivers serve many purposes, from process to cooling tower applications. The water is contaminated by leaves, plants, bark, sand, gravel, and pollutants from upstream facilities. An ACME scraper-strainer will remove the above, either acting as a main filter or a pre-filter for finer filtration processes which would quickly clog up if exposed to the full spectrum of contaminants.

Discharges prior to wastewater treatment

Many local, state and federal regulations prohibit the discharge of contaminated wastewater into sewer systems, lakes or rivers. As well, many waste water treatment plants are now requiring polluters to perform some kind of pretreatment on-site prior to discharge, regardless of the volume involved. An ACME scraper-strainer will automatically remove all particles down to 75 microns or larger prior to discharge.

“Grey water” recirculation applications

As plants seek to re-use as much water as possible, applications that used to be supplied by a potable-water source are being changed over to grey water sourcing. This pretreated water must be properly filtered for many applications, otherwise clogging or bio-fouling will result.

Some of these “grey water” applications include:

- Pump seals;
- Cooling tower water;
- Wash down water;
- Spray nozzles for foam suppression;
- Spray nozzles for belt dewatering.



Membrane filter pre-screening

All membrane filter manufacturers recommend that all influent be pre-screened to 500 microns in order to maintain membrane filter efficiency. An automatic scraper strainer installed after the supply pumps, prior to the membrane filter's intake plenum will perform this function. Since this is one of the fastest growing technologies in the water and wastewater industry, this is one of the most promising markets for our scraper strainers.

Stormwater screening

Municipal stormwater collection systems can exceed their design capacities under heavy rain or upset conditions. Very large solids can then enter the system such as twigs, branches, construction debris and garbage that would overwhelm the wastewater treatment system. Acme has a special strainer design with a large collector system under the strainer. This collector is bracketed by two gate valves to allow the collected debris to be de-watered prior to disposal into a dump truck. Acme is the only automatic strainer manufacturer to have devised a completely automated package of this type.