

Filtration Solutions

Filtration, Separation and Adsorption Technologies

InterSeptor[®] Series Sweeper Jet Systems

Patent Pending



PEP introduces the newest sweeper jet designed specifically for cooling tower basins.

In order for cooling tower filters to do an effective job removing solids contaminants from the cooling tower basin, solids must be directed toward the filter inlet. PEP's new InterSeptor[®] Sweeper Jet nozzles have a uniquely designed elliptical discharge outlet that directs basin water toward the filter inlet in a flat fan pattern. The elliptical pattern sweeps a much greater path width, achieving a significant reduction in stagnant areas between nozzles. By directing solids toward the filter system suction intake, an InterSeptor[®] Sweeper Jet system is a cost effective method for preventing build-up of dirt, scale, airborne debris, sediment and other contaminants in cooling tower basins, sumps and machinery reservoirs.

Using the venturi principle, Interceptor Sweeper Jets create a negative pressure region at the nozzle outlet, thereby inducing ambient water into the elliptical discharge. For every gallon of water pumped through the nozzle, five gallons of water are produced at the sweeper jet's elliptical discharge. This permits use of a smaller pump to deliver the volume of water required for effective sweeping of solids to the filter inlet.

InterSeptor[®] Sweeper Jets are installed into a pipe

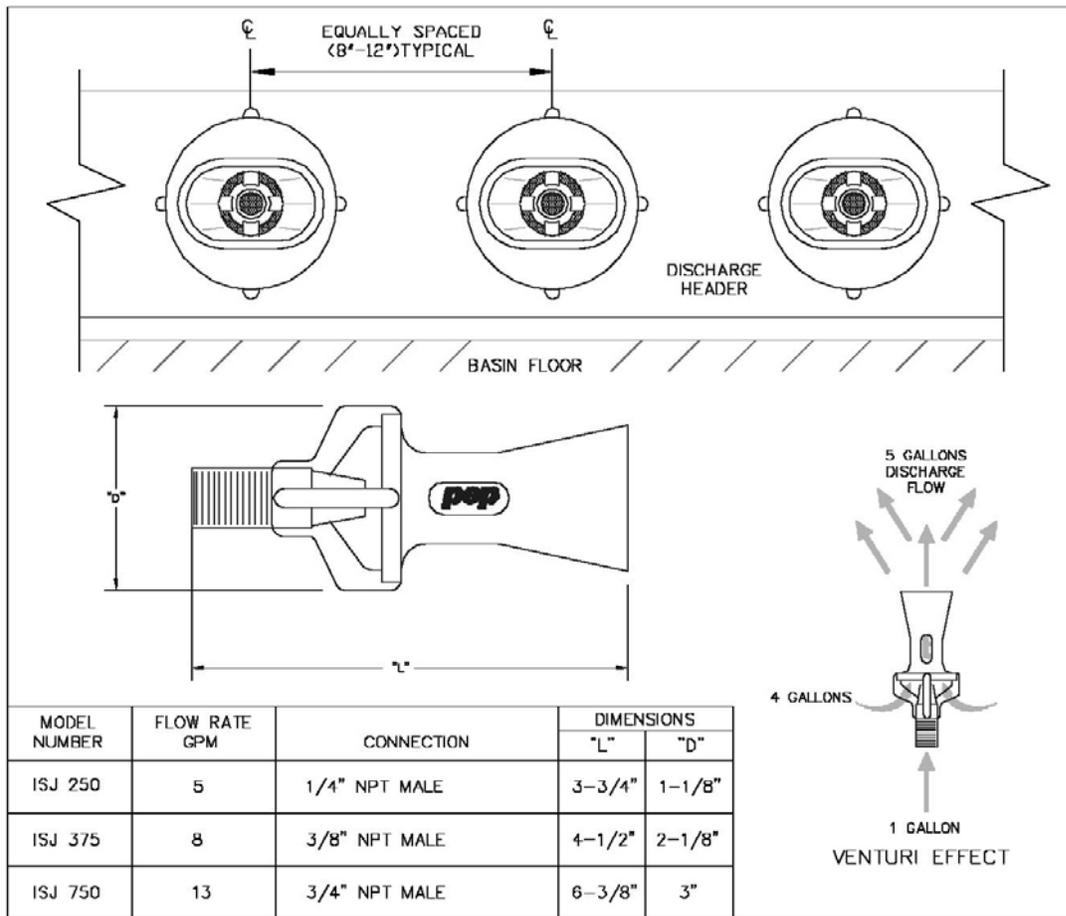
that runs along the cooling tower basin bottom. Clamp-on swivel mounts are available to direct the sweeping path into hard to reach areas and to accommodate irregular shaped basins.

PEP designs sweeper jet systems tailored to the given application. Basin size and shape, liquid depth, competing flow characteristics, solids loading and other site specific criteria are examined for optimal flow and cleaning results. From there, PEP determines the correct sweeper jet size, quantity and placement.

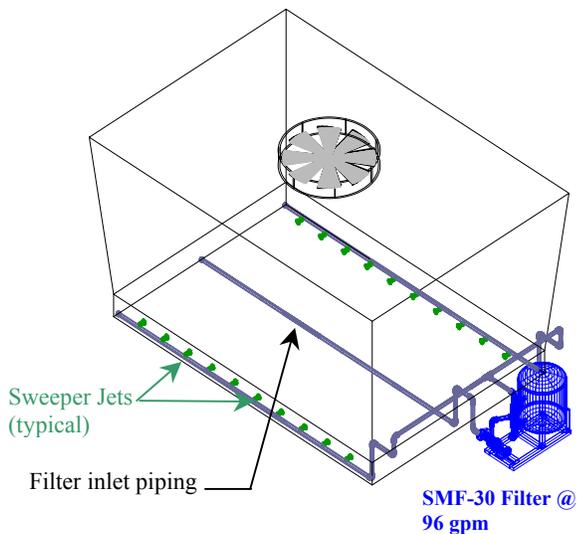
An InterSeptor[®] Sweeper Jet system combined with a properly sized and fully integrated filtration system will assure cleaner water, reduced plugging and fouling, and improved heat transfer efficiency. Suspended particulate removal also optimizes chemical usage.

With experience spanning over a quarter century, PEP Filters is a pioneer and industry leader in the design and manufacture of liquid / solids separation and filtration systems for commercial, industrial and municipal applications. PEP's product line includes a wide range of multimedia filter systems, bag and cartridge filter systems and centrifugal separators. Activated carbon, organo clay and other media specific materials are also available for specialized applications.

PEP ISJ Sweeper Jet Sizing



Typical Sweeper Jet Installation



**Cooling Tower Basin
(8 ft. long x 12 ft. wide)**

Sweeper Jet Selection Criteria

For effective solids sweeping to the filter inlet piping, typically allow one gallon per minute of flow to the sweeper jets for every one square foot of cooling tower basin area. Sweeper jet spacing is typically 8 to 10 inches.

Example: Basin area = 96 ft²
 96 ft² x 1 gpm/ft² = 96 gpm to sweeper jet nozzles.

For ISJ-250 sweeper jet rated at 5 gpm, 96 gpm/5 gpm per nozzle = 20 nozzles.

For ISJ-375 sweeper jet rated at 8 gpm, 96 gpm/8 gpm per nozzle = 12 nozzles.

Contact PEP for sweeper jet layout recommendations on a specific basin geometry.