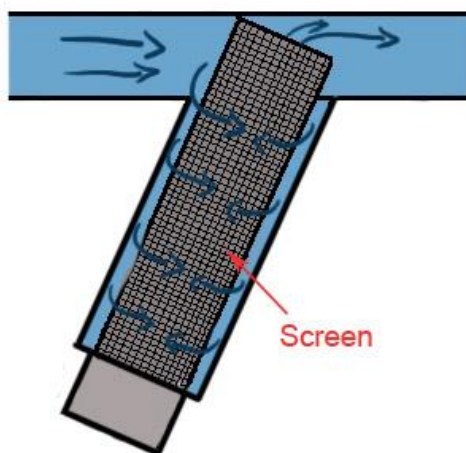


Greenhouse and Nursery Water Treatment Information System

School of Environmental Sciences, University of Guelph



Screen Filtration



Approximate particle size filtered: >37 micron (filters 400 mesh and lower), depending on the filter

Removes: Organic and inorganic debris, sand, silt, general soil particles

Screen filters can be used to filter out debris and larger particulate matter, and are available at different fineness for a wide range of flow rates. These filters are typically fitted into the pipe supplying water, and water passes through one or two cylindrical screens, leaving filtered particles deposited on the outside. Self-cleaning models are available, which may use brushes to wipe the screen or backflushing (sending water in reverse direction through the filter) to displace debris (Bartok, 2009). Otherwise, cleaning can be performed by manually removing and rinsing the filter with water, although a manual filter may not be practical if the water source is not very clean (Benham and Ross, 2009).

These filters are typically low cost, and may range from <\$500 to \$1,500 depending on filter size and whether the filter is automatic-cleaning. Most irrigation systems will use at least one screen filter. However, unless the water you are supplying is fairly clean, a screen filter is generally only the first step in a comprehensive filtration system.

REFERENCES

- Bartok, J.W. 2009. Protecting your water system with a good filter. *University of Massachusetts Amherst*: Amherst, MA. <http://extension.umass.edu/floriculture/fact-sheets/protecting-your-water-system-good-filter>
- Benham, B. and Ross, B. 2009. Filtration, Treatment, and Maintenance Considerations for Micro-Irrigation Systems. *Virginia State University*: Petersburg, VA.