

Sieve Screen Specifications and Suppliers

Suggested screen size to sieve filtration sand for use inside the Biosand Filter:

0.7 mm (0.028") opening size wire mesh or perforated metal sheet

Wire mesh screen (also called metal screen, woven wirecloth, and wire mesh) has traditionally been designated by mesh number representing the number of holes per linear inch (for example, #24 mesh has 24 holes per inch). However to fully describe a specific size of wire mesh screen, or perforated metal sheet, it is necessary to state the size of the opening of the holes (which will be the largest grain size of the sand passing through that screen).

CAWST studied different sizes of sieve screens using different sand sources and found that the optimal screen, for the sand sources tested, was 0.7 mm (0.28") opening size:

Screen Specification:

- Stainless steel type 304 woven wire mesh
- #24 mesh (or 24 x 24)
- 0.7 mm opening size (0.28" or ~ 700 microns)
- 0.356 mm wire diameter (0.014")
- 44% open area (durable for sieving sand)
- Approx weight: 1.5 kg/m² (0.31 lb/ft²)

Availability:

Wire mesh or perforated metal sheet is generally available in developing countries for food processing (e.g. milling corn or wheat) and resource industries (e.g. mining). It may be found where other metal products are sold (e.g. in Bazaars). The best link that we've found, with 131 suppliers, is;

http://dir.yahoo.com/Business_and_Economy/Business_to_Business/Industrial_Supplies/Wire_and_Cable/Wire_Mesh/

Three suppliers that CAWST has used include:

Ferrier Wire Goods in Toronto, Canada. www.ferrierwire.com
Email: info@ferrierwire.com Fax: +1-416-769-2232. This company supplies screen to CAWST and is familiar with its use for the biosand filter.

TWC Inc. in Berkley, California, USA. www.twpinc.com TWP will distribute in small and large quantities. Purchases with VISA are possible.

Phoenix Wire Cloth www.phoenixwirecloth.com Another manufacturer that our alumni found and reported that an 18" x 25" piece cost \$33. They will also ship around the world.