

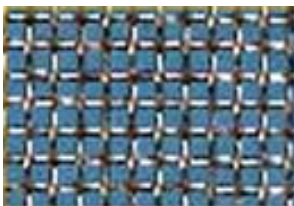
CROFT ENGINEERING SERVICES

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Characteristics of Weave Patterns

Percentage of Open or Screening Area

The percentage of open or screening area of woven wire is governed by the gauge of wire used for any particular mesh, and as the strength of the cloth increases, the percentage screening area decreases, therefore it is necessary to choose a gauge of wire which will effect a compromise between the strength of the wire cloth and the optimum screening area.



When considering the most suitable type of wire cloth to adopt for any specific screening purpose, please refer to our stock list, here customers can cross-reference using open area, aperture size, wire diameter and mesh count.

Plain Weave

Every second wire is interlocked, it as the same number and diameter of both warp and weft wires, woven in a simple over and under pattern.



Twill Weave

When it is desired to weave a fine mesh with a heavier gauge of wire than that which could be crimped by the action of plain weaving, it is usual to adopt a method called twilled weaving. This method produces a cloth in which the wires in both warp and weft go over two and under two, thereby decreasing considerably the severity of the crimping, and thus allowing a heavier gauge of wire to be used than would otherwise be possible. This method does not in any way alter the percentage screening areas apart from the decrease caused by the use of a heavier gauge of wire. This type of weave is recommended when fine mesh cloth is subjected to severe strain.



Hollander or Dutch Weave

The wires in the warp direction are fewer and have a larger wire diameter, when compared to those in the weft and the thinner weft wires are beaten closely together. It resembles a basket weave and does not have square apertures. High tensile strength means this type of weave is suitable for pressure filtration where a large open area is not required. Hollander cloth can be plain or twill woven.



Important Information

The combination of mesh count and wire diameter determines the aperture, the open area and the strength of the material. For any mesh, a thicker wire will provide a tougher weave, but the aperture and open area will be reduced, giving a slower flow rate to the material passing through. The reverse therefore applies when using a thinner wire. If a non-standard mesh is required then please contact our technical sales department.



Proprietors: R.N. Burns A.M. Burns



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