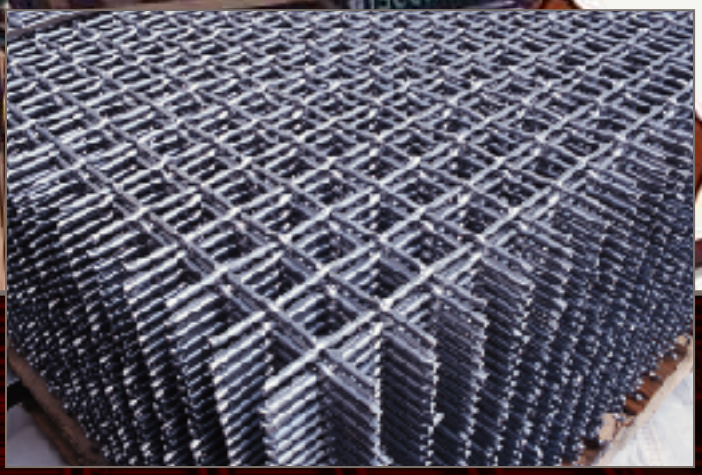
Grating Pacific

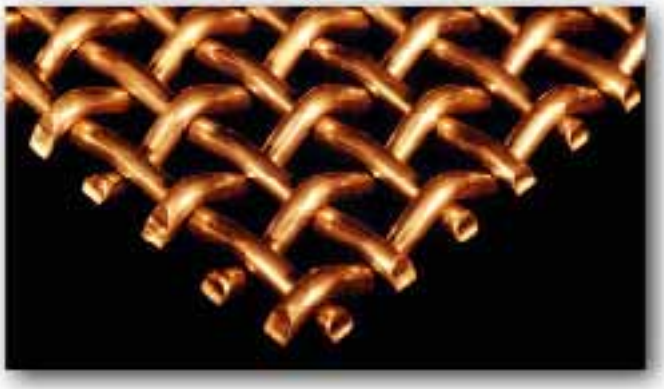


Wire Cloth

www.gratingpacific.com

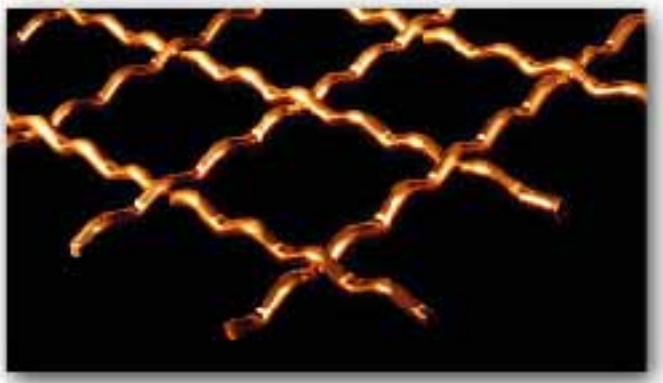
GRATING PACIFIC

WOVEN WIRE CLOTH & CRIMP STYLES



TYPE PC - PLAIN CRIMP

Square pattern wire cloth using warp and fill wires of equal size. Warp wires pass over and under fill wires in an alternating pattern at adjacent intersections.



TYPE IC - INTERCRIMP

Wire cloth manufactured with crimped warp wires filled at every other crimp with fill wires. The resulting cloth provides superior rigidity and greater stability. Popular for screens and architectural applications.

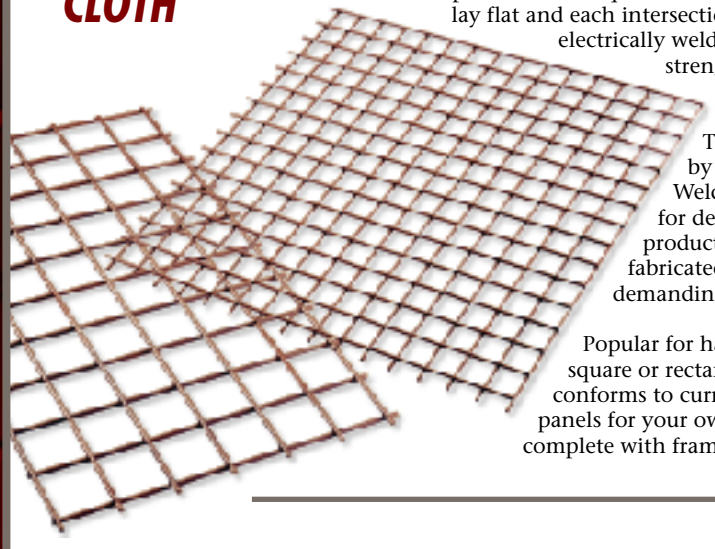
TYPE LC - LOCK CRIMP

Versatile wire cloth manufactured to hold accurate openings. Each intersection is formed with straight sections of fill wires woven within straight sections of warp wires. Fill wires are woven in an alternating pattern, top and bottom.

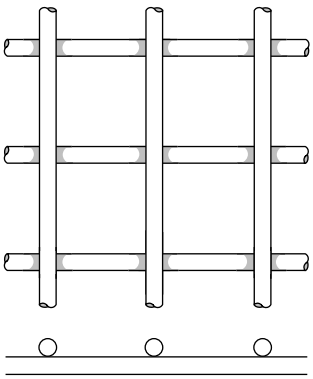
TYPE FT - FLAT TOP CRIMP

All crimping is offset to one side producing a wire cloth with all wire surfaces in a single plane on the top. This even surface allows for the smooth flow of materials over the top surface of the cloth.

WELDED WIRE CLOTH



Welded Wire Cloth is available in carbon steel and select stainless steel alloys. Manufactured in a wide variety of wire diameters, welded cloth is produced in a square or rectangular mesh. Warp and fill wires lay flat and each intersection of Welded Wire Mesh is electrically welded for maximum cross sectional strength. Welded Wire Mesh is available in roll or flat panel form.



The strength and versatility created by the all-welded construction make Welded Wire Cloth a preferred choice for designers and fabricators. This rigid product can be sheared, formed, fabricated and finished to the most demanding specifications.

Popular for handrail infill panels, Welded Wire Cloth is available with attractive square or rectangular mesh openings. Properly specified, Welded Wire Cloth conforms to current ADA requirements. Grating Pacific will promptly provide stock panels for your own fabrication, or, if desired, we will gladly fabricate infill panels complete with framing and connection plates. Just ask!

MATERIALS AVAILABLE

Wire Cloth is commonly available in the following materials:

CARBON STEEL – plain low carbon steel typically ranging from C1006 to C1012 alloy, drawn from rod. Combines strength and weld ability with economy.

GALVANIZED BEFORE WOVEN – Carbon steel coated with a light layer of zinc during the manufacturing process. Adequate corrosion resistance is provided for most indoor applications, but not recommended for outdoor installations.

GALVANIZED AFTER WOVEN – Carbon steel coated with a heavy layer of zinc after the manufacture of the mesh. Excellent for long term corrosion protection.

HIGH CARBON STEEL – Abrasion resistant steel used for applications facing significant wear such as media filtering or sorting. Abrasion resistant steel can be difficult to weld, consider mechanical fastening to supporting structure.

STAINLESS STEEL – Commonly manufactured in 300 series alloys. Type 304 is most popular, but also available in types 309, 310, 316, 321 & 347. Series 400 alloys are also available on special order.

ALUMINUM – Light weight and mildly resistant to corrosive, aluminum alloys are readily available. Alloy 1350 is most common and can be easily welded and anodized. Also available are alloys 5056 and 6061.

NICKEL BASED ALLOYS – Inconel 600, Monel 400, Nichrome V and Hastalloy C276 offer specific characteristics desirable in specialized environments.

SPECIALTY ALLOYS – Copper based alloys, bronze, brass and titanium are also available for all woven products. Contact our sales engineers for assistance in selecting the proper specialty alloy for your application.

WEIGHT PER SQUARE FOOT

Weight (lbs.) per square foot for square mesh wire cloth can be closely approximated using the following formula where DIAM is the wire diameter in inches and OPNG is the clear opening of the mesh. Common densities are give below.

$$\frac{226.2 \times DIAM^2 \times DENSITY}{OPNG + DIAM} = POUNDS\ PER\ SQ.\ FT.$$

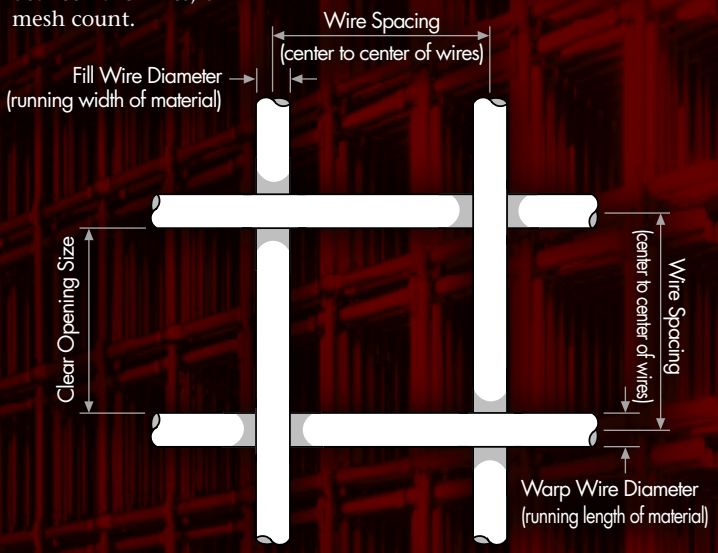
DENSITIES:			
Steel	0.283	Brass	0.305
Aluminum	0.098	Copper	0.321
Nickel	0.318	Titanium	0.162

EXAMPLE: To find the nominal weight per square foot of carbon steel 1/2" mesh, .120 wire:

$$\frac{226.2 \times .120^2 \times .283}{.380 + .120} = 1.84\ POUNDS\ PER\ SQ.\ FT.$$

WIRE MESH SPACINGS

Woven and Welded Wire Cloth are identified and manufactured based upon their mesh sizes (wire spacings). These mesh sizes are expressed in either center-to-center wire spacings, clear opening between the wires, or mesh count.

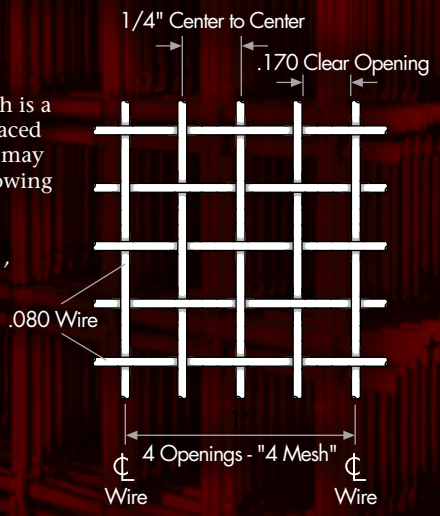


Wire Cloth with mesh sizes less than one inch can be clearly specified in one of three ways:

- *Center-to-Center Spacing: measuring the mesh from the center of one wire to the center of the next adjacent wire.*
- *Opening Size: Measuring the clear opening between the wires.*
- *Mesh Count: Measuring the number of openings in the mesh per lineal inch of material, expressed as a count.*

For the material at right, which is a Wire Cloth with .080 wires spaced at 1/4" on center, the product may be specified in any of the following manners:

- *Center-to-Center Spacing: 1/4" mesh, center-to-center, .080 wire*
- *Opening Size: .170 clear opening, .080 wire*
- *Mesh Count: 4 Mesh, .080 wire*

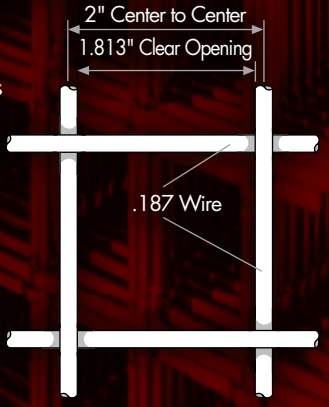


Wire Cloth with mesh sizes equal to or greater than one inch must be specified in one of two ways:

- *Center-to-Center Spacing: Measuring the mesh from the center of one wire to the center of the next adjacent wire.*
- *Opening Size: Measuring the clear openings between the wires.*

For the material to the right, which is Wire Cloth with .187 wires spaced at 2" on center, the product may be properly specified in either of the following manners:

- *Center-to-Center Spacing: 2" Mesh, .187 wire*
- *Opening Size: 1.813 clear opening, .187 wire*



PERCENTAGE OF OPEN AREA

Open area, expressed as a percentage, is the ratio of clear area to screen area for a specific wire cloth. This ratio is useful for comparing how readily various materials or elements will flow through the cloth.

To calculate the open area of square mesh wire cloth, use the following formula:

$$\frac{(\text{MESH SPACING} - \text{WIRE DIAM})^2}{(\text{MESH SPACING})^2} \times 100 = \%\ \text{OPEN AREA}$$

EXAMPLE: To find the open area for square mesh wire cloth using 1/2" mesh , .120 wire:

$$\frac{(.500 - .120)^2}{(.500)^2} \times 100 = 57.8\%\ \text{OPEN AREA}$$

HOW TO ORDER/SPECIFY:

CONSTRUCTION – Woven or Welded (For woven products, identify crimp style).

MATERIAL – Indicate material such as plain carbon steel, stainless steel or other alloy.

WIRE DIAMETER – In decimal, thousands of one inch.

WIRE SPACING – Specify square, rectangular or specialty configuration with wire spacing center-to-center, clear opening or mesh count.

SIZES – Indicate sheet or roll width and length, or width and length of cut-to-size pieces.

NOMENCLATURE

CALENDARED WIRE CLOTH – wire cloth that has been passed through heavy rollers to reduce the thickness of the material or flatten the wire intersections to produce a smooth surface.

CLEAR OPENING – the space between adjacent parallel wires.

CRIMPS – corrugations placed in the wire which allow the wires to be woven together. The placement and style of the crimps determine the location of the intersections and permit tight locking of the wires.

FILL WIRES – wires running across the width or short way of the material as woven. (Also referred to as shute or cross wires.)

GAUGE – a measure of wire diameter commonly used by manufacturers. To avoid confusion between ferrous and non-ferrous gauge dimensions, always specify your desired wire diameter in decimal inches.

HARDWARE CLOTH – square mesh cloth, galvanized after assembly and available in either woven or welded construction.

MESH – the number of openings in a lineal inch measured from the center of one wire to a point one inch distant.

OPEN AREA – the proportion of open space as a percentage of the total material area.

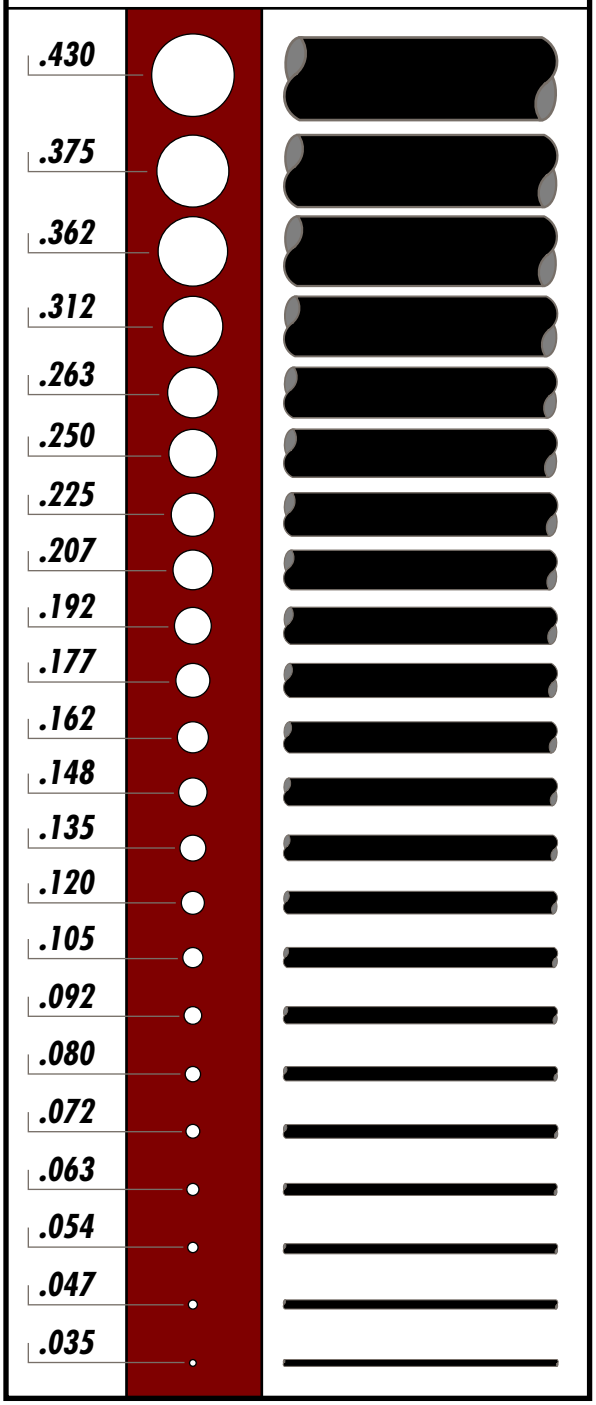
SELVAGE – a finished edge used to prevent fraying or unraveling of woven wire cloth.

WARP WIRES – wires running parallel to the length or long way of the material as woven.

w w w . g r a t i n g p a c i f i c . c o m

WIRE SIZE DIAMETERS

NOTE: WHEN ORDERING WIRE CLOTH, IT IS PREFERABLE TO STATE THE EXACT WIRE DIAMETER IN DECIMAL FRACTIONS OF AN INCH RATHER THAN WIRE GAUGE NUMBERS. CONFUSION BETWEEN STEEL WIRE GAUGE NUMBERS AND NON-FERROUS GAUGE NUMBERS CAN OFTEN LEAD TO IMPROPER OPENINGS BEING SPECIFIED.



GRATING PACIFIC

FIVE LOCATIONS FOR SUPERIOR SERVICE:

SOUTHERN CALIFORNIA
(800) 321-4314

NORTHERN CALIFORNIA
(800) 491-1212

CENTRAL CALIFORNIA
(800) 491-7999

SEATTLE, WA
(800) 243-3939

WOODBURN, OR
(800) 942-4041