We are a complete resource for woven wire cloth. All weaving and fabricating operations are done in our own plant.

At Cleveland Wire Cloth knowledge, skill and experience come together under one roof

Wire cloth offers many benefits including:

• Widest range of filtration & separation from over 6 inch (152.4 mm) aperture down to 1 micron nominal
• High open area/flow rate versus other media
• Closely-controlled, accurate apertures
• Smooth surface — screening surface has no sharp edges, burrs or acute angles
• Very high temperature tolerance (variable according to metal selected)
• Very durable, yet flexible — ideal for forming rigid concave/convex shapes
• Control of chemical/acid/corrosion resistance using different metals
• Short, custom runs are available
• Special aperture requirements can be met without high tooling costs
• Self-supporting, stays stable under tension and will hold up under high pressure
• Suitable as support for less rigid media
• Weaving process uses no punching, piercing or stretching operations that create stress-induced weaknesses

• Quality raw materials
• Custom weaving and fabricating of any metal, weave or mesh for every industrial and commercial application
• All orders, large or small, are manufactured to exacting specifications
• Large inventory for prompt delivery — one of the largest inventories of corrosion- and temperature-resistant metals in the industry
• Customer Sales and Service representatives who have the technical expertise to answer your questions quickly and accurately
Meeting our customers’ exacting requirements in a broad and diverse marketplace
**ENVIRONMENTAL CONTROL**
- Air and water filters
- Ground water testing
- Sound control
- Dewatering, solids/liquid control
- Waste treatment

**CONSUMER PRODUCTS**
- Filter and vent screens
- Heater and fan guards
- Infrared screens for ranges, microwaves and heaters
- Animal cages
- Heater and burner elements

**TRANSPORTATION**
- Filters and strainers for air, oil, fuel and hydraulic systems
- Grilles, trim, protective components
- Fuel Cells

**GAS, ENERGY, OIL REFINING AND CHEMICALS**
- Fuel Cells
- Mud screens
- Separator screens
- Cathode screens
- Catalysts

**SHIP BUILDING**
- Filters and strainers
- RFI and EMI shielding
- Vents and safety guards

**AEROSPACE AND AVIATION**
- Fuel filters
- RFI and EMI shielding
- Sound attenuation
- Wind tunnel flow screens
Computer design, engineering, quality control

Our design and engineering personnel have the knowledge and experience to answer product questions or help with technical information relating to mesh styles, types of material and chemical corrosion considerations. We can work from your drawings or sketches, or we can generate a design for you.

Wire Quality

Are quality raw materials important to you? Cleveland Wire Cloth uses only the finest quality weaving wire, made by select, proven suppliers. Chemical and Physical Certifications alone may not always guarantee overall product quality.

Our product certifications are only signed and notarized by Cleveland Wire Cloth corporate officers. Chemical certifications from vendor wire suppliers are thoroughly analyzed and checked for accuracy. All wire lot numbers are tracked within unique weaving runs.

Further, even when Chemical Certifications meet a particular specification, screen life and product quality may still be affected by the surface and grain characteristics of the wire itself. Poor quality wire drawing techniques or tools; improper solution annealing; inferior weaving looms; and other factors can all contribute to poor quality wire cloth.

These photographs show samples of a Stainless Steel wire, drawn in China, which had been improperly solution annealed resulting in chromium carbide precipitation. The precipitation of chromium carbide effectively reduces the localized chromium content, the element that most contributes to stainless steel’s corrosion behavior.

Annealing at too high a temperature creates grain boundary coarsening, exhibited by a well-defined, large equiaxed grain structure, which will increase the susceptibility to intergranular corrosion—yielding inferior wire cloth.

Since 1914, Cleveland Wire Cloth has worked with only select wire suppliers to assure you of a consistent, high quality, finished product.

Setting the Standard for Quality


Today’s high-tech uses for woven wire cloth demand the highest, most comprehensive standard ever. Our adherence to this standard reaffirms Cleveland Wire Cloth’s commitment to our customers’ critical needs and their complete satisfaction.

Before beginning the weaving process, raw material (wire) is checked for consistent tensile, accurate gauge dimensions, and proper chemical make up.

During the weaving process, wire tension, opening size, and mesh count are continually checked for consistency and adherence to specification.

The quality standards are tight and easy to understand. For quality wire cloth products, this is the only standard needed. ASTM E2016-99 will assure a consistent, quality wire cloth product.

The American Wire Cloth Institute (AWCI) is made up of weavers, distributors, and fabricators of industrial wire cloth who recognized a need to replace obsolete standards such as RR-W-360 and other such standards that were needlessly complex. As a founding member of The American Wire Cloth Institute, Cleveland Wire Cloth made sure that ASTM E2016-99 could satisfy the most demanding technical requirements, yet be easily understood by personnel unfamiliar with wire cloth specifications.

ASTM E2016-99 sets tighter tolerances than those found in other international standards, and is much easier for quality control, engineering, design, and purchasing personnel to use. English and Metric dimensions are included for use around the world. The standard also provides specifications, technical definitions, and quality requirements. ASTM E2016-99 covers tolerances for mesh counts, wire diameters, and opening sizes. Inspection procedures and sampling methods for defects and blemishes are clearly defined. Commercial tolerances for quantity as well as roll width and length are also included.

If your company is using industrial wire cloth, Quality Control, Engineering, and Purchasing personnel should always reference this standard. Cleveland Wire Cloth subscribes to this standard and encourages all wire cloth users to do so as well.

Copies of this copyrighted standard are available through The American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA 19428, USA; 610-832-9555 (fax); service@astm.org (e-mail); or the ASTM website www.astm.org.
Our employees are dedicated to providing wire cloth products that meet or exceed our customers’ most demanding requirements. Working as a team, our continuing goal is to produce a consistent quality product at competitive prices.
Weaving capabilities: Our modern, specially-built looms are operated by dedicated and experienced weavers. Wire cloth may be ordered in any quantity, in widths up to eight feet (2.438 meters).

Mesh: 12" (304.8 mm) opening to 1 micron (.0000394") (.001 mm)

Wire diameter: 1" (25.4 mm) to .001" (.0254 mm)

Materials: Almost any metal or alloy, including carbon steels, stainless steel 300 and 400 series, copper, nickel, brass, bronze, Monel®, silver, titanium, molybdenum, aluminum, Inconels®, tantalum, Hastelloy®, galvanized and coated steels. Also synthetics such as polyester, nylon, PVC and many others. Complete materials list (see page 10) and certifications are available upon request.

Weaves: Square or rectangular openings, twills, dutch weaves and various combinations and custom weaves.
Any metal, size, weave or mesh

Our large inventory of raw materials allows us to weave wire cloth to your exact specifications and helps keep lead times to a minimum. Many items are available from stock — “cut to size” or by the roll. Rolls are available in a standard length of 100 lineal feet (30.48 meters) — and 36” (914.4 mm), 48” (1219.2 mm), or 60” (1524.0 mm) widths. Wider material or longer rolls can be manufactured to your specific requirements.
Quality-controlled production methods in our modern fabricating department help ensure that each manufactured part meets the customers’ specifications.

Custom-built, uniquely-designed baskets for thousands of applications such as heat treating, carburizing, annealing, nitriding, hardening, pickling, degreasing, washing, drying, plating and dichromating. Basket styles include rectangular, tilting, nesting, round, pivoting, compartment and dumping.

The same dedication to quality goes into our filters, strainers, burners, heating elements, flame guards and spark arresters, vent screens, machinery safety guards, screen sections for sizing and sifting equipment, shielding, sound control components, and a wide variety of other custom-fabricated OEM parts.
All fabricating is done in our plant: stamping, shearing, forming, rolling, blanking, extruding, calendering, soldering and spot and seam welding.
Ordering Wire Cloth

Rolls, sheets or coils
Most stock items are 36” (914.4 mm), 48” (1219.2 mm), or 60” (1524 mm) wide, but can be supplied in increments from 24” (609.6 mm) to 96” (2438.4 mm). See Ordering Rolls Sheets or Coils on page 12 for more information.

Cut to size lots
Wire cloth may be supplied cut to specific width and length, eliminating waste and reducing costly labor and handling expenses.

Wire cloth as a major component of a fabricated product
Baskets, trays, filters and strainers are the most common products. Complex or simple fabricated components using wire cloth are used in a wide variety of processing applications, including filtering, straining, heat treating, sizing and sifting. See pages 13-14 for specifications on ordering fabricated products.

Determining mesh or size of opening
An opening is defined as the clear space between adjacent, parallel wires. Usually, wire cloth with openings greater than 1/2-inch (12.7 mm) is referred to as “space cloth.” Wire cloth with openings of less than 1/2-inch (12.7 mm) is referred to by “mesh count.” Mesh count or opening size and wire diameter may be selected to meet customer design or application requirements. As mesh count or wire diameter increases, the opening size gets smaller.

Square mesh wire cloth
Mesh count is determined by the number of openings in a linear inch (25.4 mm) measured from the center of one wire to a point one inch distant. See the Square Mesh Wire cloth section in our specification booklet for the large variety of wire combinations available.

Square opening space cloth
Space between adjacent parallel wires, usually measured in inches or millimeters. See the Square Mesh Wire Cloth section in our specification booklet for available wire combinations.

Wire Diameter
The thickness of a single wire.

Filter cloth
Very strong, dense wire cloth with openings from about 250 microns down to only 5 microns (1 micron = .0000394" = .001 mm). Usually woven in a Dutch Style Weave, wires are driven very close to create a wire cloth that does not have straight-through openings as in a square weave, but instead creates a tortuous path through which very fine filtration can be achieved. Shute wires are usually of a smaller diameter than the warp wires to allow for a tighter, dense weave.

Filter cloth is identified by its “Absolute Filter Rating,” which is a measure of the largest hard spherical particle that can pass through the mesh. Typical uses for filter cloth are ultra-fine filtration and sound suppression, but it may also be used in a variety of structural, decorative or electronic applications.

Metal types and alloys
Wire cloth can be manufactured in a variety of metals, alloys, and materials to meet specific needs. Certain materials can provide resistance to certain corrosive environments or have the ability to withstand high temperatures. Others may offer abrasion resistance or other physical properties demanded for a customer application or process. Still others may have a color or appearance needed for architectural or design considerations.

Many of these materials are available from stock. Our engineering staff can provide expert design assistance. The Table on page 26 of our Technical Brochure can provide some additional material selection guidelines.

<table>
<thead>
<tr>
<th>Metal Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td></td>
</tr>
<tr>
<td>Brass</td>
<td></td>
</tr>
<tr>
<td>Bratite</td>
<td></td>
</tr>
<tr>
<td>Bronze, Commercial (90-10)</td>
<td></td>
</tr>
<tr>
<td>Bronze, Phosphor</td>
<td></td>
</tr>
<tr>
<td>Carpenter 20* (Carpenter Technology Corp.)</td>
<td></td>
</tr>
<tr>
<td>Columbium</td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td></td>
</tr>
<tr>
<td>Galvanized Steel</td>
<td></td>
</tr>
<tr>
<td>Gold</td>
<td></td>
</tr>
<tr>
<td>Hastelloy B, C, and X* (Haynes International, Inc.)</td>
<td></td>
</tr>
<tr>
<td>Haynes 25* (Haynes International, Inc.)</td>
<td></td>
</tr>
<tr>
<td>Hoskins 815*</td>
<td></td>
</tr>
<tr>
<td>Inconel 600, 610, 625, 718 and X-750* (Inco Companies)</td>
<td></td>
</tr>
<tr>
<td>Incoloy 800 and 825* (Inco Companies)</td>
<td></td>
</tr>
<tr>
<td>Kanthal* (Kanthal Furnace Products)</td>
<td></td>
</tr>
<tr>
<td>Manganese</td>
<td></td>
</tr>
<tr>
<td>MP35N* (GPS Technologies, Inc.)</td>
<td></td>
</tr>
<tr>
<td>Molybdenum</td>
<td></td>
</tr>
<tr>
<td>Monel 400* (Inco Companies)</td>
<td></td>
</tr>
<tr>
<td>Nichrome* (Driver-Harris Co.)</td>
<td></td>
</tr>
<tr>
<td>Nickel 200</td>
<td></td>
</tr>
<tr>
<td>Niobium</td>
<td></td>
</tr>
<tr>
<td>Nitronic 50</td>
<td></td>
</tr>
<tr>
<td>Nylon</td>
<td></td>
</tr>
<tr>
<td>PTFE</td>
<td></td>
</tr>
<tr>
<td>PVC</td>
<td></td>
</tr>
<tr>
<td>Plastic</td>
<td></td>
</tr>
<tr>
<td>Platinum</td>
<td></td>
</tr>
<tr>
<td>Polyester</td>
<td></td>
</tr>
<tr>
<td>Polypropylene</td>
<td></td>
</tr>
<tr>
<td>Silver</td>
<td></td>
</tr>
<tr>
<td>Stainless Steel 304 and 316 (also Low-Carbon and ELC, Extra-Low Carbon)</td>
<td></td>
</tr>
<tr>
<td>305, 310, 314, 317, 321, 330, 347</td>
<td></td>
</tr>
<tr>
<td>410 and 430 (Magnetic)</td>
<td></td>
</tr>
<tr>
<td>Steel</td>
<td></td>
</tr>
<tr>
<td>1008</td>
<td></td>
</tr>
<tr>
<td>1010</td>
<td></td>
</tr>
<tr>
<td>1042</td>
<td></td>
</tr>
<tr>
<td>Oil-Tempered</td>
<td></td>
</tr>
<tr>
<td>Stellite* (Haynes Intl.)</td>
<td></td>
</tr>
<tr>
<td>Tantalum</td>
<td></td>
</tr>
<tr>
<td>Titanium</td>
<td></td>
</tr>
<tr>
<td>Tungsten</td>
<td></td>
</tr>
<tr>
<td>Waspalloy* (United Technologies Corp.)</td>
<td></td>
</tr>
<tr>
<td>Zinc</td>
<td></td>
</tr>
</tbody>
</table>

*Registered Trademark Names
**Crimps Available**

**Conventional Double Crimp**
Most common type. Used where the opening is relatively small in comparison to the wire diameter.

**Lock Crimp**
Used only in coarse specifications to maintain the accuracy of weave throughout screen life, where the opening is large with respect to wire diameter.

**Inter Crimp**
Used in coarse weaves of lighter-gauge wire to provide greater stability, tightness of weave and maximum rigidity. Very common in mesh openings larger than 1/2" (12.7mm).

**Flat Top**
Usually starts at 5/8" (15.875 mm) opening and larger. Provides long abrasive resistant life, since there are no projections on top to wear. Offers least resistance to flow. Also very popular in certain architectural and structural applications where a smooth surface on one side is desirable.

**Common Weave Styles**

**Plain Square**
The most common weave, with the same diameter warp and shute wires woven in a simple over and under pattern. It produces screens with the same mesh count in both directions.

**Twill Square**
Each shute wire typically passes over two warp wires and under two, producing square openings. Twill weave can be made from larger-diameter wires than would be possible in plain square weave to obtain greater strength, density, or corrosion resistance.

**Reverse Dutch Weave**
The same weave as Plain Dutch except the warp and shute wires are reversed; i.e., the warp wires have a smaller diameter than the shute wires. The larger shute wires are woven closer together than would usually be seen in a Plain Dutch weave.

**Rectangular or “Off-Count” Weave**
A Plain weave wire cloth, woven in an over and under pattern with a different number of wires in the warp and shute direction, which yields a rectangular opening wire cloth. Rectangular openings are often used in sifting and sizing operations to increase product “through” capacity with minor sacrifices in accuracy. To reduce material costs, off-count mesh may be substituted for square mesh in some applications that do not require a high level of accuracy. Some wire cloth vendors will substitute off-count wire cloth when certifications are not specified by the manufacturer, e.g. a 90 x 100 mesh may be substituted for 100 x 100.

**Dutch Twill Weave**
Similar to Plain Dutch except woven in the Twill style. Each wire passes over two wires then under two wires, still utilizing a smaller-diameter shute wire, allowing an even tighter weave and even finer filtration than Plain Dutch weave.

**Stranded Weave**
Usually woven in the Plain Square style, each warp and shute “wire” is composed of a “bunch” or “group” of small-diameter wires, which are woven into a finished product.
Standard rolls are understood to be 100 linear feet (30.48 meters), but may vary in length by 10%. Upon request, rolls longer than 100 feet can be woven to meet your special requirements. “Partial” rolls up to 99 lineal feet (30.18 meters) available.

**Widths**
Most stock materials are 36” (914.4 mm), 48” (1219.2 mm) or 60” (1524.0 mm) wide, but many items can be supplied in increments from 24” (609.6 mm) to 96” (2438.4 mm). Widths less than 24” (609.6 mm) are generally slit from wider stock. However, widths narrower than 24” with selvage edges can be manufactured.

If rolls are to be cut prior to use, select lengths or widths from stock can often be used, reducing delivery times and costly waste. Clearly specify loop selvage if required.

**Ordering wire cloth cut to size**
We can cut wire cloth to specified lengths and widths before shipment, thus saving you time, labor and waste.

**Orders should include...**
1. Number of standard rolls and their widths, or lengths of a partial roll and its width. (When ordering wire cloth cut to size, number of pieces, exact part size and required cutting tolerances.)
2. Mesh (number of openings per linear inch or 25.4 mm) or space opening (clear opening between adjacent wires).
3. Wire diameter in decimals of an inch or millimeters.
4. Metal type (see page 10 for availability).
5. Crimp type preferred on space cloth.
6. Use of wire cloth (optional).
7. For rectangular opening — state direction the slot is to run.
8. Delivery date, shipping instructions.
9. Type of certification required.
For basket products where wire cloth is a major component, each order should be accompanied by current blueprints or a sketch giving complete dimensional details. In some instances, a template or prototype may be appropriate. If you require assistance, our engineering group can help with design, metal selection or weave type.

**When ordering fabricated product please include...**

1. Quantity to be shipped.
2. Current blueprint or sketch including dimensional tolerances
3. Mesh (number of openings per lineal inch or 25.4 mm) or clear opening between adjacent wires.
4. Wire diameter in decimals of an inch or millimeters.
5. Metal type (see page 10 for availability).
6. Use of wire cloth (optional).
7. Whether production samples are needed for approval.
8. Details such as maximum weight, handle type, finish or coating required.
9. Date when needed and shipping instructions.
10. Type of certification required.
Fabricated products
Each order or quotation request should detail any critical dimensions, tolerances or other specifications. Samples and prototypes can be made to help refine designs. Our engineering staff can provide recommendations to optimize production and reduce design costs.

Fabricated product orders should include...

1. Quantity to be shipped.
2. Current blueprint or sketch.
3. Mesh (number of openings per lineal inch or 25.4 mm) or clear opening between adjacent wires.
4. Wire diameter in decimals of an inch or millimeters where possible.
5. Metal type (see page 10 for availability).
6. Crimp type preferred on space cloth.
7. Use of wire cloth (optional).
8. Details and specifications for any flanges or other components to be included as part of the finished product or assembly.
9. Whether production samples are needed for approval.
10. For rectangular opening — state direction the slot is to run.
11. Finish or coating required.
12. Delivery date and shipping instructions.
13. Type of certification, if required.
Other Applications
- Filter Media
- Architectural and Structural Components
- Vibrating Screen Sections
- Traveling Water Screens
- Cathode and Other Processing Applications
- Art

Other Products:
- Welded Mesh
- Hardware and Insect Screening
- Wire Cloth Inspection and Evaluation Supplies; i.e., mesh counters, calipers, and micrometers.

Traceability
To ensure total quality, certification is available on any shipment. Products are traceable to the specific heat (melt) of metal used during the manufacturing process.

Samples
A wide variety of free samples are pre-cut and available for immediate shipment for evaluation, review or lab testing. Sample inventory includes most mesh sizes in steel and stainless as well as many of the specialty alloys and metals. Our sales engineers can help you with selection and availability.

Standard samples are approximately 2" x 3" (50.8 mm x 76.2 mm). Larger samples, pre-production runs and prototypes are also available. You may request “express air shipment” for next-day sample delivery.

Visit Our Website
www.wirecloth.com

www.wirecloth.com includes a wealth of valuable information, including interactive functions for identifying wire cloth specifications, calculating weights and open area percentages, and more. Product images and ideas for a variety of new applications are also included. For specific information or to request a quotation, send your e-mail to cleveland@wirecloth.com.
Glossary

The following glossary of wire cloth terms should prove useful to persons involved in the important task of specifying or purchasing wire cloth.

**ABSOLUTE FILTER RATING:** A term used to specify Dutch weave filter cloth. A measurement of the largest, hard spherical particle that can pass through a specific screen under certain test conditions, usually a bubble point test.

**BOLTING CLOTH:** A group of specifications that calls for smaller wire diameters, producing a relatively light mesh. Bolting Cloth is principally used in sifting and screen printing; however, its relatively high percentage of open area makes it desirable in other applications.

**CALENDERED WIRE CLOTH:** A wire cloth that has been passed through a pair of heavy rolls to reduce its thickness or to flatten the intersections of the wires and provide a smooth surface. The term “Rolled” is also used.

**COATINGS:** The wire used for weaving wire cloth can be coated, plated, or in some other way finished prior to weaving. Wire cloth may also be coated after weaving (Also see Surface Condition).

**CRIMP:** Corrugations in wires to lock them in place.

**DOUBLE CRIMP:** Corrugations in both warp and shute wires to lock wires in position.

**DUPLEX WEAVE:** Similar to a Plain Dutch Weave except that two warp wires are used rather than one. (See Filter Cloth Section.)

**DUTCH TWILL WEAVE:** Similar to Plain Dutch except woven in the Twill style. Each wire passes over two wires then under two wires, still utilizing a smaller diameter shute wire, allowing an even tighter weave and even finer filtration than Plain Dutch weave.

**INTERMEDIATE CRIMP:** Extra crimps in warp and fill wires between intersections. Generally used in wide-mesh, light-wire combinations to stiffen fabric and assure accurate mesh.

**LOCK CRIMP:** Pre-crimped wire cloth with deep crimps at points of intersection to lock the wires securely in place.

**MARKET GRADE:** An older term referring to an arbitrary group of wire cloth specifications — usually lower-quality imported goods — designated for general-purpose, low-technology applications where consistent dimensions and material traceability are not critical.

**MESH:** The number of wires per linear inch or 25.4 millimeters, counted from the center of any wire to a point exactly one inch or 25.4 millimeters distant — including the fractional distance between wires thereof.

**MICRON:** A unit of length in the metric system. One micron is equivalent to 0.00003937 of one inch (.001 mm).

**OFF COUNT:** A mesh that has a greater number of wires per inch in one direction — usually the warp direction—than the other. Sometimes referred to as rectangular mesh (100 x 90, 50 x 40).

**OPEN AREA:** Expressed as a percent that indicates the proportion of a total screen area that is open space.

**OPENING:** The dimension between two parallel adjacent wires, usually in decimal parts of an inch. The theoretical width of an opening is a direct function of the mesh count and wire diameter.

**PERCENT OPEN AREA:** The ratio of the area of the openings to the total area expressed as a percentage. See our specifications booklet, page 22, for an example of how to calculate.

**PLAIN DUTCH WEAVE:** Woven in a plain, over-and-under pattern. A thinner, smaller diameter shute wire is used; these are driven very close together creating a very tight weave. Dutch weaves do not have a straight-through, clear opening as do most Plain weave styles. Instead the weave style creates a tortuous path through which very fine filtration and particle retention can be achieved. Dutch weaves may be specified by “mesh count” or “absolute filter rating.”

**PLAIN WEAVE, PLAIN SQUARE WEAVE:** Wire cloth in which each warp wire and each shute wire passes over and under the next adjacent wire in both directions.

**PRECRIMP:** Wire cloth woven with both the warp and shute wires cramped before weaving.

**REVERSE DUTCH WEAVE:** The same weave as Plain Dutch except the warp and shute wires are reversed; i.e. the warp wires have a smaller diameter than the shute wires. The larger shute wires are woven closer together than would usually be seen in a Plain Dutch weave.

**SELVAGE:** The edge or border of wire cloth, finished off so as to prevent unraveling. Where a “selvage edge” as opposed to a raw or cut edge is a specific requirement, it should be specified as well as the type (looped, folded, welded).

**SHUTE WIRES:** The wires running the short way of, or across the width of the cloth as woven. (Also referred to as the shoot, fill, or weft wires.)

**SIEVE CLOTH:** Wire cloth specified by width of opening based approximately on the fourth root of 2 Series. Sieve cloth is generally used for the determination of particle size as opposed to the separation of particles.

**SMOOTH TOP:** Wire cloth with deep crimps, as in lock crimp, except that all crimps are on the underside of the cloth, leaving the top surface all in one plane.

**SPACE CLOTH:** Wire cloth that is designated by the width of the open spaces between the inside faces of adjacent parallel wires, expressed in inches or the metric equivalent.

**SQUARE MESH:** Wire cloth having the same number of wires and the same wire diameters in both the warp and shute.

**SQUARE WEAVE:** See “Plain Weave.”

**SURFACE CONDITION:** Woven wire cloth may be covered with a film of oil or other lubricant as a result of the manufacturing process. The wire may show traces of products used in the drawing process. Depending on the material, there may be traces of corrosion.

**TWILL DUTCH WEAVE:** Similar to Plain Dutch except woven in the Twill style. Each wire passes over two wires then under two wires, still utilizing a smaller-diameter shute wire, allowing and even tighter weave and even finer filtration than Plain Dutch weave.

**TWILL WEAVE:** A pattern where each wire goes alternately over two wires and then under two successive wires. Herringbone twill is a special type in which the direction of the twilled weave is reversed at regular intervals to produce a striped or herringbone effect.

**TWIN WARP:** See “Duplex Weave.”

**TYPES OF WEAVES:**
- **Plain:** Wire cloth in which the warp wires and shute wires pass over one and under one wire in both directions.
- **Twill:** Wire cloth in which the warp wires and shute wires pass over two and under two wires in both directions.
- **Filter Cloth:** A special type of wire cloth woven with a greater number of wires in one direction than the other, and utilizing two different wire diameters. (also referred to as Dutch Weave.)

**WARP WIRES:** The wires running the long way of the cloth as woven.

**WIGHT WIRES:** See “Shute Wires.”

**WEIGHT PER UNIT AREA:** The weight per square foot for wire cloth can be approximated (without consideration for crimp). See our specifications booklet, page 23, for more information.

**WIDTH OPENING:** The distance between two parallel adjacent warp or shute wires, measured in the projected plane.

**WIRE DIAMETER:** The measurement of the thickness of an individual wire. See the drawing on page 10.