



**DASHANG WIRE MESH**  
INDUSTRIAL WIRE CLOTH SOLUTIONS

2023  
**CATALOG**

# One-Stop Wire Cloth Solution Designer

**for Sieving & Filtration**



**Premium Woven Wire Mesh  
for Sieving & Filtration**

[sales@Dashangmesh.com](mailto:sales@Dashangmesh.com)

[www.Dashangmesh.com](http://www.Dashangmesh.com)

Basic Information <small>(as of May 9th, 2022)</small>	
Name	Dashang Wire Mesh Products Co., Ltd.
Taxpayer Identification Number	91131125084995833K
Date of Establishment	December 13, 2013
Address	No.13 Hongqi West Street, Anping County, Hebei Province, China. 053600
Managing Director	Xinzhan Cao
Number of Employees	55
Number of Machines	55 wire drawing machines, 8 annealing lines, 42 weaving machines, dozens of strip cutters, mesh stretcher, welding machines, etc.
Products	<ul style="list-style-type: none"> <li>Stainless steel (304, 304L, 316, 316L, 321, 410, 430) woven mesh, carbon steel woven mesh, brass woven mesh, copper woven mesh, bronze woven mesh, nickel woven mesh, Monel woven mesh</li> <li>Stainless steel wires, stainless steel spring wires</li> <li>Fabricated mesh products: rotary vibrating screen mesh, shale shaker screen mesh, test sieve, filter element, EMI shielding mesh</li> </ul>
Annual Production Capacity	Metal woven mesh: 600,000 m2; stainless steel wire: 3,600 tons

Currently, we have 2 workshops:



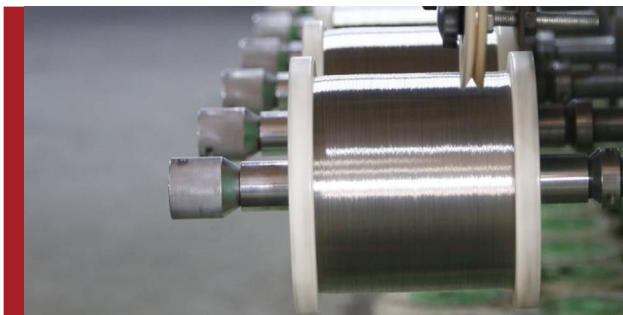
### Mesh Weaving Workshop

**Products:**  
stainless steel (304, 304L, 316, 316L, 321, 410, 430) woven mesh, carbon steel woven mesh, brass woven mesh, copper woven mesh, bronze woven mesh, nickle woven mesh, Monel woven mesh, etc.

**Weave type:**  
plain weave, twill weave, twill Dutch weave, reverse Dutch weave, etc.

**Production range:** 1–635 mesh

**Annual production capacity:** 600,000 m<sup>2</sup>



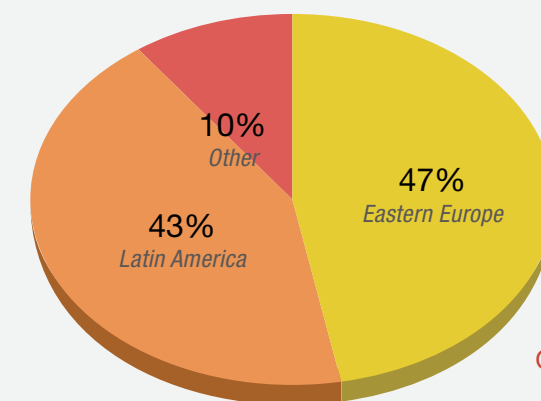
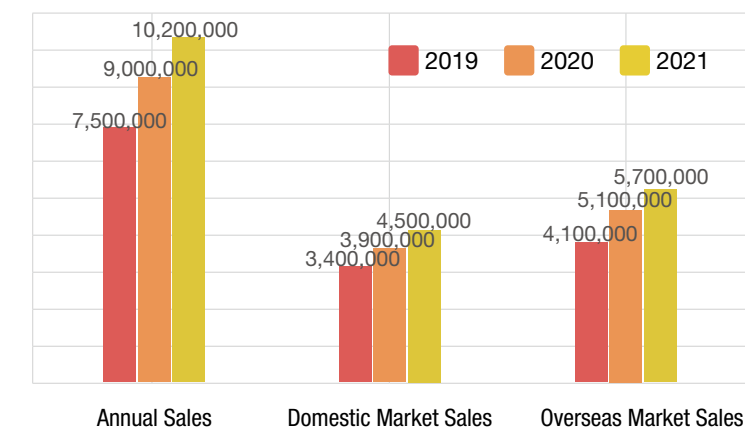
### Wire Drawing Workshop

**Products:**  
stainless steel wires, stainless steel spring wires

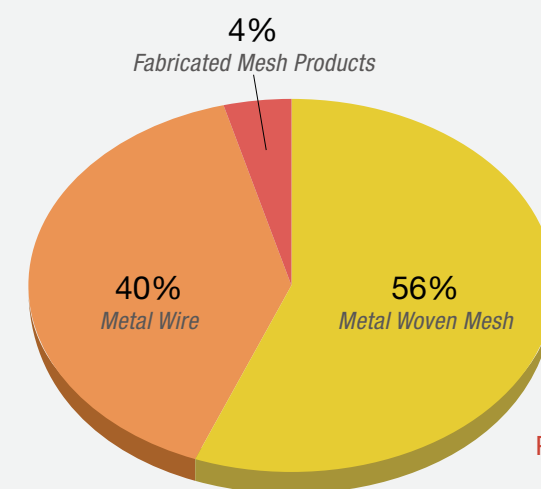
**Production range:** 0.025–6 mm

**Annual production capacity:** 3,600 tons

2019-2021 Sales Turnover (US Dollars)



Overseas Market Share Chart



Product Proportion Chart





# CONTENTS

5

GET CLOSE TO DASHANG

8

QUALITY CONTROL

Raw Material Inspection  
Carbon & Sulfur Content Inspection  
Wire Diameter Inspection  
In Process Inspection  
Opening Size Inspection  
Tensile Strength Inspection



12

MESH SELECTION

Aperture size selection  
Wire diameter selection  
Weave type selection  
Material selection

15

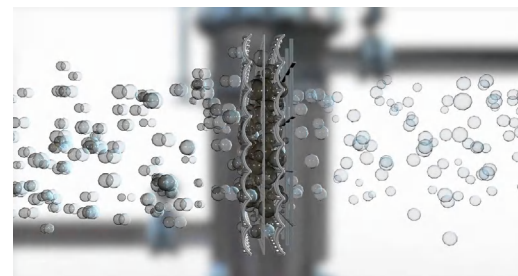
GLOSSARY



16

WOVEN WIRE MESH PRODUCTS

Square Weave Wire Mesh  
Woven Filter Cloth  
Nickel Woven Mesh  
Copper Woven Mesh  
Fabricated Mesh  
Stainless Steel Spring Wire

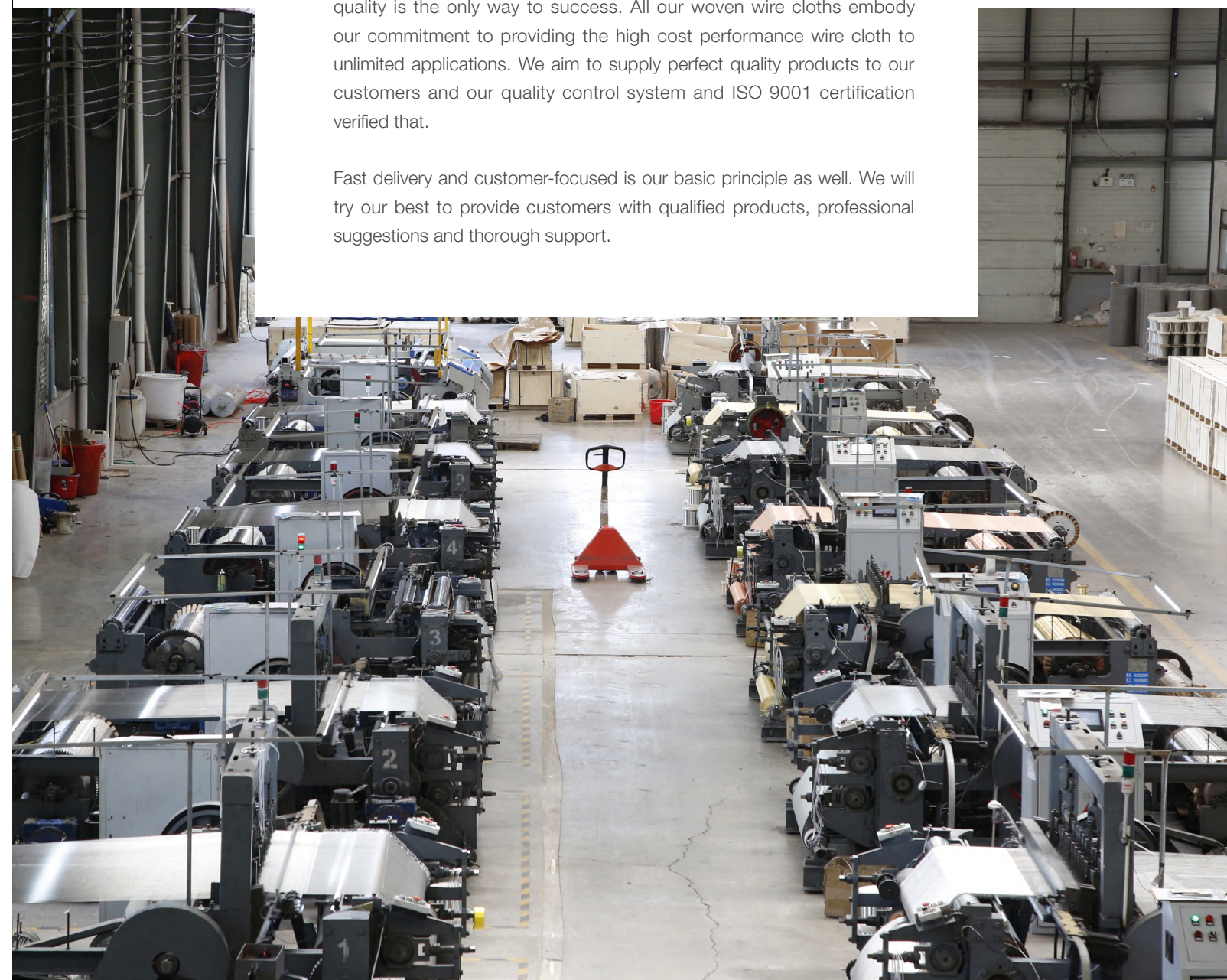


## GET CLOSE TO DASHANG ONE-STOP SOLUTION DESIGNER

With years development, Dashang has become your ideal solution designer to industrial woven wire cloth used in screening, sieving, filtration, shielding and printing applications.

Since the beginning of the establishment, we adhere that excellent quality is the only way to success. All our woven wire cloths embody our commitment to providing the high cost performance wire cloth to unlimited applications. We aim to supply perfect quality products to our customers and our quality control system and ISO 9001 certification verified that.

Fast delivery and customer-focused is our basic principle as well. We will try our best to provide customers with qualified products, professional suggestions and thorough support.





# Development Course

## Factory

At the beginning of the 21st century, Hebei Dashang Wire Mesh Products Co., Ltd. entered the wire mesh field and started with production of metal wire and woven mesh products for customers. We adhere that excellent quality is the only way to success and always put product quality as our top priority



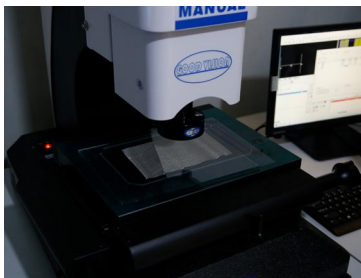
## Manufacturer

After years of production and development, we established a foreign trade department in 2010 and begun to export our products to surrounding foreign countries. With qualified products, fast response, professional sales and in-time delivery, our products were exported to Asia, Africa, America and Europe Areas and gained great reputation from local customers. We have established long term cooperation with thousands of customers and achieved win-win cooperation.



## Solution Designer

With the deep communication with customers and thorough comprehension of the products and the whole industry, we know customers need more than only products. As a result, we established professional R&D department and technical department, dedicated to solving customer problems and researching the latest technology and products to adapt to the development of the industry and meet customer needs.



Insisting on "Customer-Focused", we provide customers with professional solutions including product design, production, installation and maintenance guidance and technical support. Through our efforts, we have become your ideal solution designer and can help our customers create greater value and occupy greater market share. We will never stop and continue to innovate to maintain our vitality and development momentum and strive to become a leader in the global metal wire mesh industry.



# Core Competitiveness



## Customer Customer-Focused

Dashang is committed to saving costs for customers, optimizing the supply chain and enriching product categories. All products and services are designed to meet customer needs.



## Response Quick response

All sales representatives are online 24 hours a day to provide customers with professional answers and accurate quotations. All customer questions can be responded to within 2 hours.



## Custom Customized management

There is no standardized production, all production is customer-oriented to produce satisfied products based on customers' specific applications and market needs.



## Delivery Timely delivery

Dashang have advanced technical equipment and skilled technical workers to ensure the steady production progress, to ensure that timely and in advance delivery.



## Quality Strict Quality Control

Dashang have passed the ISO 9001 quality certification. Every link from raw materials to delivery is strictly in accordance with international standards to ensure that the products meet the market requirements and customer needs.



## Solution One-stop solution

Dashang can not only provide customers with qualified products, but also with a full range of solutions. From product design, production to installation guidance and maintenance, customers are relieved of worries.



# QUALITY CONTROL

At Dashang, quality assurance is always our primary concern. We adhere that excellent quality is the only way to success. That's why we monitor the quality of our products every step of the manufacturing process to achieve every inch of our product are perfect and free from any quality defect.

To this end, we pay great importance to following inspection steps to ensure all our raw materials and final products meet our rigorous standards for quality.



## Raw Material Inspection

When we receive the incoming raw materials, we will test the chemical components, physical properties and tolerance of the stainless steel wire to ensure that all materials meet or exceed the quality standard and requirements.



## Carbon & Sulfur Content Inspection

When we receive the incoming raw materials, we will test the carbon and sulfur contents of the stainless steel wire to ensure that its carbon and sulfur contents meet or exceed the quality standard and requirements.



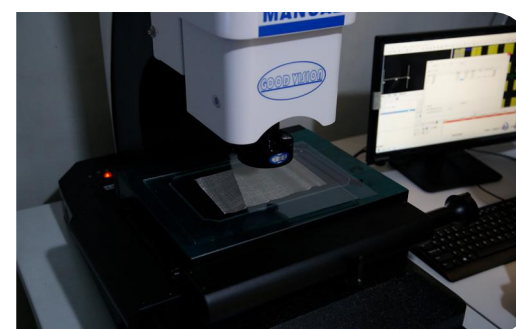
## Wire Diameter Inspection

After primary inspection, the incoming raw materials will be sent into the workshop for wire drawing. The drawing process will be stopped until the wire diameter is drawn into the desired size for weaving.



## In Process Inspection

Before weaving, our technicians will check if the CNC weaving machines are set and operated correctly. During the trial operation, our QC personnel will check if the flatness of the product meet corresponding requirements.



## Opening Size Inspection

When the trial production is finished, we will cut several pieces of samples from the woven wire mesh to conduct further test. We will put a piece of sample on the professional test machine to check if the opening size and uniformity of the product meet corresponding standards.



## Tensile Strength Inspection

When the inspections mentioned above are finished, we will take another piece of sample for tensile test. The sample will be placed between the pulling part and the clamping part of the tester for tensile test to check if the tensile strength of the product is qualified.



# MESH SELECTION

Choosing the right woven wire mesh for your application is never easy as it comes in so many types and sizes. Generally, we consider the following factors to decide what kind of woven wire mesh is the right one.

### Aperture size selection

Choosing the right aperture size is one of the most important thing you need to consider as it determines the size of particles to be passed or to be eliminated. Furthermore, it will directly impact the working efficiency of the whole mesh. For instant, in various sieving applications, if you choose a large aperture size, it will result in unwanted debris flowing into the screened materials and affect the quality of final products. If you choose a small aperture size, it can prevent desired particles from passing through, thereby lowering the flow rate and leading to longer filtration process.

### Wire diameter selection

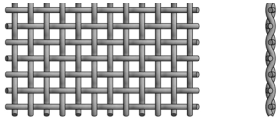
Wire diameter determines how much open space there is between wires and have a direct impact on the overall strength of the woven wire mesh. Typically, if you choose a thicker wire, the space between wires is smaller, the mesh will be stronger and more robust to withstand harsher conditions. If you choose a thinner wire, the space between wires is large, however, the mesh will be weaker and be easy to wear and break down. Besides, wire diameter also affects the performance of the following items.

	Thinner Wire	Thicker Wire
Screening efficiency	↑	↓
Flow	↑	↓
Open area	↑	↓
Number of apertures	↑	↓
Abrasion resistance	↓	↑
Strength	↓	↑
Weight	↓	↑

## Weave type selection

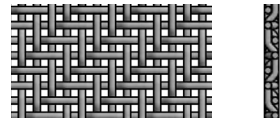
### Plain Weave

The simplest and most commonly used type with square openings. It is woven by alternating the weft wire over and under the warp wire and permits positive control of size of materials to be screened or filtered.



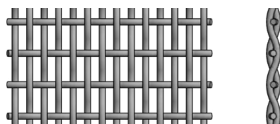
### Twill Weave

Each weft wire passes alternately over and under 2 warp wires, staggered on successive warps. It is used where fine mesh must carry a heavy load.



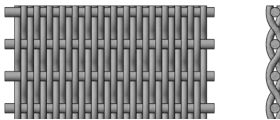
### Oblong Weave

Also known as broad weave, it is made preferably in plain weave with an opening ratio (length/width) of 3:1. Other ratios are possible. Triple warp weave is also available to provide large open areas. It is used for vibrating sieving screens or other architectural applications.



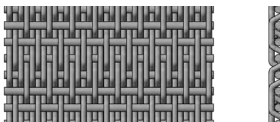
### Plain Dutch Weave

This simple dutch weave is the most common filter cloth. Generally, the diameter of warp wire is larger than the weft wire. Warp and weft wires are interwoven closely together at set intervals. It is ideally suited for filtration applications, as well as the separation of slurry and liquid materials.



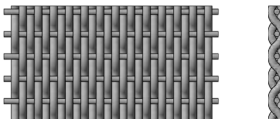
### Twill Dutch Weave

This weave type offers a significant upgrade in strength over plain dutch weave wire cloth. It actually combines the Dutch and twill weaving process to produce an extremely fine mesh filtering cloth that is created by passing weft wires over and under two warp wires. As a result, it is suitable for various liquid and gas filtration applications.



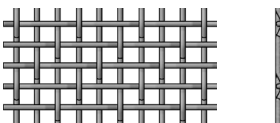
### Reverse Dutch Weave

This weave type is in a reverse of the plain dutch weave wire arrangement. The diameter of warp wire is smaller than the weft wire. Warp and weft wires are interwoven closely together at set intervals. It is well-suited for high pressure vertical and horizontal filter leaf applications where backwashing and filter cake removal are important.



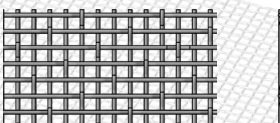
### 3-Heddle Weave

In this weave type, every warp wire alternately passes up and down each one and two weft wires alternately. Similarly, each weft wire goes alternately up and down of each and two warp wires. It is widely used in industry filters, filter discs and filter cylinders for filtration.



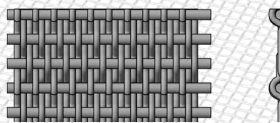
### 5-Heddle Weave

In this weave type, every warp wire alternately up and down each single and four weft wires and vice versa. It provides a rectangular opening and offers high flow rates. It is widely used in filtration of petroleum & chemical industries.



### 3-Heddle Twill Dutch Weave

Similar like 3-heddle weave, this type of weave has a larger diameter of warp wire than the weft wire. Besides, weft wires are closely arranged, leaving no gaps between weft wires. As a result, it is suitable for filtration applications that require high filtration accuracy and heavy load bearing capacity.



# Material selection

## STAINLESS STEEL



Stainless steel is an alloy of iron and chromium with remarkable heat & corrosion resistance. That's because the chromium in the stainless steel can produce an oxide layer on the surface to protect and prevent from further corrosion. Our most common types of stainless steel used for woven wire mesh include stainless steel 304, 304L, 316, 316L, 321, 314, 430 and 904L.

## BRASS



Brass is an alloy of copper and zinc with great workability, corrosion and wear resistance but poor electrical conductivity. The zinc in the brass provides added abrasion resistance and allows for higher tensile strength. Besides, it also provides higher hardness when compared with copper. Brass is the least expensive copper-based alloy and is also a common material for woven wire mesh. Our most common types of brass used for woven wire mesh include brass 65/35, 80/20 and 94/6.

It is important to choose the right material based on the demands and working environments of your application. That's because materials used determines the mesh's strength, chemical and corrosion resistance, hardness and electrical conductivity, thereby affecting the service life of the whole mesh. Typically, our woven wire mesh is mainly made of the following materials.



## COPPER



Copper is a soft, malleable and ductile metal with very high thermal and electrical conductivity. When exposed to the air for a long time, a slow oxidation reaction occurs to form a layer of copper oxide and further enhance the corrosion resistance of the copper. Due to its high price, copper is not a common material for woven wire mesh.

## NICKLE



Nickel is a hard, silvery-white metal with high tensile strength, great ductility and good heat and corrosion resistance. When exposed to the air, an oxide layer forms on the surface to prevent further corrosion. As a result, nickel alloy is another popular material for woven wire mesh. Our most common type of nickel used for woven wire mesh is nickel 200.



In addition to the materials mentioned above, we also offer plain steel, Inconel, Monel, Hastelloy and aluminium for woven wire mesh as shown below.

AISI	DIN	Weight Multiplier	Max.Temp	Acids	Alkalis	Chlorides	Organic Solvents	Water
Plain steel	1.0300	1.000	350	NOT	+	NOT	o	NOT
Stainless steel 304	1.4301	1.005	300	+/	+	NOT	+	+/
Stainless steel 304L	1.4306	1.005	350	+/	+	NOT	+	+/
Stainless steel 316	1.4401	1.011	300	+/	+	NOT	+	+/
Stainless steel 316L	1.4404	1.011	400	+/	+	NOT	+	+/
Stainless steel 321	1.4541	1.005	400	+/	+	NOT	+	o /
Stainless steel 314	1.4841	1.005	1150	+/	+	NOT	+	+/
Stainless steel 430	1.4016	0.979	300	+/	+	NOT	o	o /
Stainless steel 904L	1.4539	1.031	300	+	+	+	+	+
Incoloy 825	2.4858	1.030	540	o	+	+	+	+
Inconel 600	2.4816	1.081	1150	+	o	o	+	o
Inconel 625	2.4856	1.081	1050	+	o	o	+	*
Monel 400	2.4360	1.119	350	o	o	-	o	+
Nickel 200	2.4066	1.132	250	*	*	+		
Hastelloy C276	2.4819	1.141	700	*	*	*	*	*
Brass 65/35	2.0321	1.082	200	-	o	-	o	NOT
Brass 80/20	2.0250	1.102	200	-	+	-	+	*
Bronze 94/6	2.1020	1.125	250	-	o	-	+	o
Copper	2.0060	1.133	100	o	o	-	+	o
Aluminium (5056A)	3.3555	0.342	180	*	NOT	NOT	+	NOT

**NOT** — — not resistant  
**\*** — — resistant  
**+** — — moderate resistance  
**o** — — limited resistance  
**/** — — danger of intercrystalline corrosion



# GLOSSARY



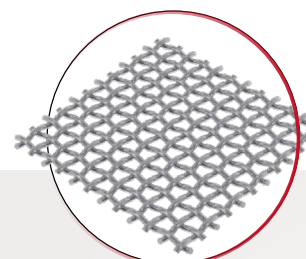
<b>Mesh</b>	The number of openings per lineal inch.
<b>SWG</b>	Standard wire gauge
<b>Aperture</b>	The distance between two adjacent wires
<b>Diameter</b>	The thickness of the wire before weaving
<b>Pitch</b>	The distance between the middle point of two adjacent wires or the sum of the aperture width and the wire diameter
<b>% open area</b>	The ratio of area of the aperture to the area of the mesh expressed in percentage terms
<b>Warp</b>	All wires running lengthwise of the cloth as woven
<b>Weft</b>	All wires running across the cloth as woven
<b>Tensile strength</b>	The ratio of maximum load to original load to original cross-sectional area.
<b>Square mesh</b>	Wire cloth having the same number of wires in both the warp and weft.
<b>Coarse mesh</b>	Openings that range from about the size of a pencil lead (2 mm) and downward to the size of a medium human hair (0.12 mm)
<b>Fine mesh</b>	Openings that range from about the size of a medium human hair (0.13 mm) and downward to the size of a large bacteria (0.02 mm)
<b>Type of weave</b>	Way in which the warp and weft wires cross each other.
<b>Plain weave</b>	Wire cloth in which the warp wires and weft wires pass over one and under one wire in both directions.
<b>Dutch weave</b>	Wire mesh or wire cloth with wrap wires larger than the weft wires.
<b>Twill weave</b>	Wire cloth in which the wrap wires and weft wires pass over two wires in both directions.
<b>Twill dutch weave</b>	Similar to plain dutch weave, except that the weave pattern is twill, that is a double layer of weft wires.
<b>Reverse dutch weave</b>	The same weave as plain dutch, except that the warp and weft wires are reversed, that is, the warp wires have a smaller diameter than the weft wires.
<b>Wire cloth</b>	A general term for material woven from metallic wires.
<b>Filter cloth</b>	Wire mesh used for filtering and straining
<b>Filter cake</b>	Material that is retained on the filter cloth during processing.
<b>Cloth thickness</b>	Overall thickness of the filter cloth, nominally estimated by adding the wrap wire diameter plus two times the weft wire diameter.
<b>Micron</b>	Common filtration reference to a particle size, properly defined as a micrometer.
<b>Shielding cloth</b>	Wire cloth (wire mesh) used for shielding radio frequency equipment and rooms.



## WOVEN WIRE MESH

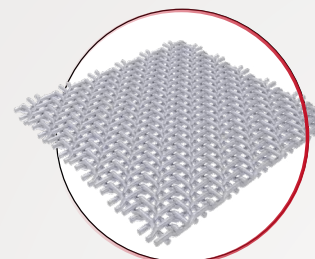
### Square Weave Wire Cloth

Square weave wire cloth, also known as industrial woven wire cloth, is the most widely used and common type. We offer a broad range of industrial woven wire cloth – coarse mesh and fine mesh in plain and twill weave. Since wire cloth is produced in such varying combinations of materials, wire diameters and opening sizes, its use has been widely accepted throughout the industry. It is extremely versatile in application. Typically, it is often used for screening and classifying, such as test sieves, rotary shaking screens as well as shale shaker screens.



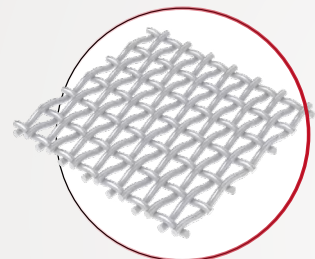
#### **PLAIN WEAVE**

The simplest and most commonly used type with square openings. It is woven by alternating the weft wire over and under the warp wire and permits positive control of size of materials to be screened or filtered.



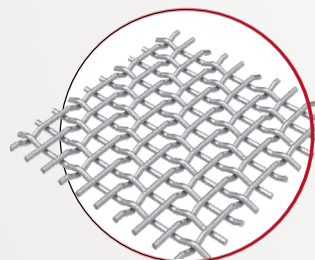
#### **TWILL WEAVE**

Each weft wire passes alternately over and under 2 warp wires, staggered on successive warps. It is used where fine mesh must carry a heavy load.



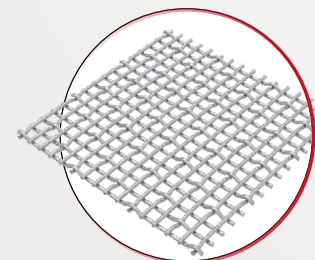
#### **OBLONG WEAVE**

Also known as broad weave, it is made preferably in plain weave with an opening ratio (length/width) of 3:1. Other ratios are possible. Triple warp weave is also available to provide large open areas. It is used for vibrating sieving screens or other architectural applications.



#### **3-HEDDLE WEAVE**

In this weave type, every warp wire alternately passes up and down each one and two weft wires alternately. Similarly, each weft wire goes alternately up and down of each and two warp wires. It is widely used in industry filters, filter discs and filter cylinders for filtration.



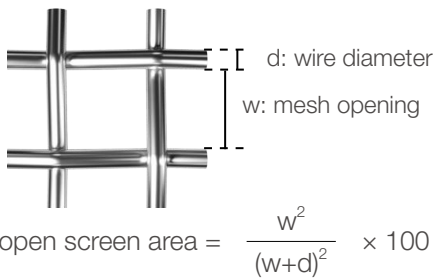
#### **5-HEDDLE WEAVE**

In this weave type, every warp wire alternately up and down each single and four weft wires and vice versa. It provides a rectangular opening and offers high flow rates. It is widely used in filtration of petroleum & chemical industries.



SPECIFICATIONS

**Material:** stainless steel 304, 304L, 316, 316L, 321, 430, 317L, 904L, etc..  
**Wire diameter:** 0.02–2 mm  
**Mesh count:** 2.1–635 mesh  
**Aperture width:** 0.02–10.1 mm  
**Open screening area:** 25% – 71%



Fine Mesh

Mesh Count	Wire Diameter		Aperture		Open Area %	Max. Width mm	Theoretical Weight kg/sqm
	Inch	mm	Inch	mm			
1 × 1	0.08"	2.03	0.92"	23.37	84.6	2000	2.06
2 × 2	0.063"	1.6	0.437"	11.1	76.4	2000	2.56
3 × 3	0.054"	1.37	0.279"	7.09	70.1	2000	2.82
4 × 4	0.063"	1.6	0.187"	4.75	56	2000	5.12
4 × 4	0.047"	1.19	0.203"	5.16	65.9	2000	2.83
5 × 5	0.041"	1.04	0.159"	4.04	63.2	2000	2.7
6 × 6	0.035"	0.89	0.132"	3.35	62.7	2000	2.38
8 × 8	0.028"	0.71	0.097"	2.46	60.2	2000	2.02
10 × 10	0.025"	0.64	0.075"	1.91	56.3	2000	2.05
10 × 10	0.02"	0.51	0.08"	2.03	64	2000	1.3
12 × 12	0.023"	0.584	0.06"	1.52	51.8	2000	2.05
12 × 12	0.02"	0.508	0.063"	1.6	57.2	2000	1.55
14 × 14	0.023"	0.584	0.048"	1.22	45.2	2000	2.39
14 × 14	0.02"	0.508	0.051"	1.3	51	2000	1.81
16 × 16	0.018"	0.457	0.0445"	1.13	50.7	2000	1.67
18 × 18	0.017"	0.432	0.0386"	0.98	48.3	2000	1.68
20 × 20	0.02"	0.508	0.03"	0.76	36	2000	2.58
20 × 20	0.016"	0.406	0.034"	0.86	46.2	2000	1.65
24 × 24	0.014"	0.356	0.0277"	0.7	44.2	2000	1.52
30 × 30	0.013"	0.33	0.0203"	0.52	37.1	2000	1.63
30 × 30	0.012"	0.305	0.0213"	0.54	40.8	2000	1.4
30 × 30	0.009"	0.229	0.0243"	0.62	53.1	2000	0.79
35 × 35	0.011"	0.279	0.0176"	0.45	37.9	2000	1.36
40 × 40	0.01"	0.254	0.015"	0.38	36	2000	1.29
50 × 50	0.009"	0.229	0.011"	0.28	30.3	2000	1.31
50 × 50	0.008"	0.203	0.012"	0.31	36	2000	1.03
60 × 60	0.0075"	0.191	0.0092"	0.23	30.5	2000	1.09
60 × 60	0.007"	0.178	0.0097"	0.25	33.9	2000	0.95
70 × 70	0.0065"	0.165	0.0078"	0.2	29.8	2000	0.95
80 × 80	0.0065"	0.165	0.006"	0.15	23	2000	1.09
80 × 80	0.0055"	0.14	0.007"	0.18	31.4	2000	0.78
90 × 90	0.005"	0.127	0.0061"	0.16	30.1	2000	0.73
100 × 100	0.0045"	0.114	0.0055"	0.14	30.3	2000	0.65
100 × 100	0.004"	0.102	0.006"	0.15	36	2000	0.52
100 × 100	0.0035"	0.089	0.0065"	0.17	42.3	2000	0.4
110 × 110	0.004"	0.1016	0.0051"	0.1295	30.7	2000	0.57
120 × 120	0.0037"	0.094	0.0064"	0.1168	30.7	2000	0.53
150 × 150	0.0026"	0.066	0.0041"	0.1041	37.4	2000	0.33
160 × 160	0.0025"	0.0635	0.0038"	0.0965	36.4	2000	0.32
180 × 180	0.0023"	0.0584	0.0033"	0.0838	34.7	2000	0.31
200 × 200	0.0021"	0.0533	0.0029"	0.0737	33.6	2000	0.28
250 × 250	0.0016"	0.0406	0.0024"	0.061	36	2000	0.21
270 × 270	0.0016"	0.0406	0.0021"	0.0533	32.2	2000	0.22
300 × 300	0.0051"	0.0381	0.0018"	0.0457	29.7	2000	0.22
325 × 325	0.0014"	0.0356	0.0017"	0.0432	30	2000	0.21
400 × 400	0.001"	0.0254	0.0015"	0.37	36	2000	0.13
500 × 500	0.001"	0.0254	0.001"	0.0254	25	2000	0.16
635 × 635	0.0008"	0.0203	0.0008"	0.0203	25	2000	0.13



Manufacturing & Test Standard

- + ASTM E2016 Standard Specification for Industrial Woven Wire Cloth
- + ASTM E2814 Standard Specification for Industrial Woven Wire Filter Cloth
- + ISO 9044 Industrial Woven Wire Cloth – Technical Requirements and Tests
- + ISO 4783-1 Industrial wire screens and woven wire cloth – Guide to the choice of aperture size and wire diameter combinations
- + ISO 3310 Test sieves – Technical Requirements and Testing

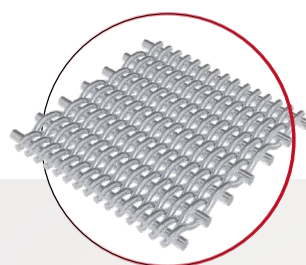
Stainless Steel Woven Mesh – Bolting Cloth

Mesh Count	Wire Diameter		Aperture		Open Area %	Max. Width mm
	Inch	mm	Inch	mm		
16 × 16	0.009"	0.229	0.0535"	1.36	73.3	1600
18 × 18	0.009"	0.229	0.0466"	1.18	70.1	1600
24 × 24	0.0075"	0.191	0.0342"	0.869	67.2	1600
28 × 28	0.0075"	0.191	0.0282"	0.716	62.3	1600
30 × 30	0.0065"	0.165	0.0268"	0.681	64.8	1600
36 × 36	0.0065"	0.165	0.0213"	0.541	58.7	1600
40 × 40	0.0065"	0.165	0.0185"	0.47	54.8	1600
50 × 50	0.0055"	0.127	0.0145"	0.368	55.3	1600
60 × 60	0.0045"	0.114	0.0122"	0.31	53.5	1600
70 × 70	0.0037"	0.094	0.0106"	0.269	54.9	1600
76 × 76	0.0037"	0.094	0.0095"	0.241	51.8	1600
80 × 80	0.0037"	0.094	0.0088"	0.224	49.6	1600
90 × 90	0.0035"	0.089	0.0076"	0.193	46.8	1600
94 × 94	0.0035"	0.089	0.0071"	0.18	44.8	1600
105 × 105	0.003"	0.076	0.0065"	0.165	46.9	1600
120 × 120	0.0025"	0.064	0.0058"	0.147	48.5	1600
130 × 130	0.0017"	0.043	0.0059"	0.152	60.8	1600
160 × 160	0.0014"	0.036	0.0048"	0.123	59.8	1600
180 × 180	0.0012"	0.03	0.0028"	0.205	76.1	1600
200 × 200	0.0016"	0.04	0.0034"	0.0864	46.7	1600
230 × 230	0.0014"	0.0356	0.0029"	0.0737	45.5	1600
250 × 250	0.0012"	0.03	0.0028"	0.0716	49.7	1600
325 × 325	0.0012"	0.03	0.0028"	0.048	37.9	1600
400 × 400	0.0009"	0.022	0.0016"	0.0415	42.7	1600



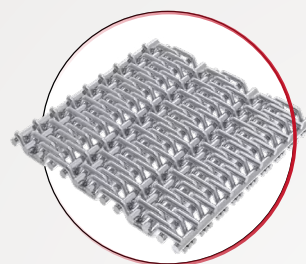
## Woven Filter Cloth

Woven filter cloth, also known as industrial metal filter cloth, generally is manufactured with closely spaced wires to offer enhanced mechanical strength for industrial filtration. We offer a full range of industrial metal filter cloth in plain dutch, twill dutch and reverse dutch weave. With filter rating ranges from 5 µm to 400 µm, our woven filter clothes are produced in a wide combinations of materials, wire diameters and opening sizes to adapt to different filtration demands. It is widely used in various filtration applications, such as filter elements, melt & polymer filters and extruder filters.



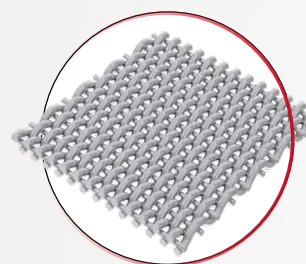
### PLAIN DUTCH WEAVE

This simple dutch weave is the most common filter cloth. Generally, the diameter of warp wire is larger than the weft wire. Warp and weft wires are interwoven closely together at set intervals. It is ideally suited for filtration applications, as well as the separation of slurry and liquid materials.



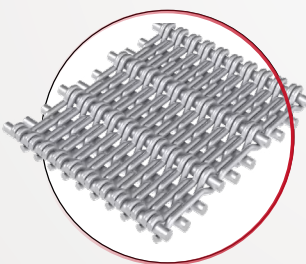
### TWILL DUTCH WEAVE

This weave type offers a significant upgrade in strength over plain dutch weave wire cloth. It actually combines the Dutch and twill weaving process to produce an extremely fine mesh filtering cloth that is created by passing weft wires over and under two warp wires. As a result, it is suitable for various liquid and gas filtration applications.



### REVERSE DUTCH WEAVE

This weave type is in a reverse of the plain dutch weave wire arrangement. The diameter of warp wire is smaller than the weft wire. Warp and weft wires are interwoven closely together at set intervals. It is well-suited for high pressure vertical and horizontal filter leaf applications where backwashing and filter cake removal are important.



### 3-HEDDLE TWILL DUTCH WEAVE

Similar like 3-heddle weave, this type of weave has a larger diameter of warp wire than the weft wire. Besides, weft wires are closely arranged, leaving no gaps between weft wires. As a result, it is suitable for filtration applications that require high filtration accuracy and heavy load bearing capacity.

## SPECIFICATIONS

**Material:** stainless steel 304, 304L, 316, 316L, 321, 430, 317L, 904L, etc.

**Filter rating:** 2–400 µm

### Stainless Steel Woven Mesh – Plain Dutch Weave

Mesh Count	Wire Diameter		Absolute Filter Rating	Nominal Filter Rating	Max. Width
	inch	mm	µm	µm	
8 × 85	0.0140" × 0.0126"	0.36 × 0.32	300–320	310	2000
12 × 64	0.0240" × 0.0165"	0.61 × 0.42	260–280	250	2000
12 × 90	0.0178" × 0.0120"	0.45 × 0.30	270–300	211	2000
14 × 88	0.0200" × 0.0130"	0.51 × 0.33	255–275	250	2000
14 × 100	0.0160" × 0.0110"	0.41 × 0.28	235–260	182	2000
16 × 80	0.0170" × 0.0135"	0.43 × 0.34	210–230	260	2000
16 × 100	0.0157" × 0.0110"	0.40 × 0.28	200–220	160	2000
16 × 120	0.0140" × 0.0094"	0.36 × 0.24	180–198	150	2000
20 × 150	0.0098" × 0.0070"	0.25 × 0.18	155–185	120	2000
24 × 110	0.0150" × 0.0100"	0.38 × 0.25	115–128	110	2000
30 × 150	0.0090" × 0.0070"	0.23 × 0.18	90–105	90	2000
30 × 280	0.0110" × 0.0037"	0.28 × 0.09	100–110	100	2000
40 × 200	0.0070" × 0.0055"	0.18 × 0.14	70–80	70	2000
40 × 340	0.0098" × 0.0030"	0.25 × 0.08	78–84	75	2000
50 × 250	0.0055" × 0.0045"	0.14 × 0.11	52–57	55	2000
50 × 280	0.0055" × 0.0040"	0.14 × 0.10	50–55	50	2000
50 × 460	0.0078" × 0.0023"	0.20 × 0.06	60–65	60	1300
60 × 500	0.0065" × 0.0020"	0.17 × 0.05	48–54	50	1300
70 × 350	0.0050" × 0.0030"	0.13 × 0.08	41–47	35	1300
70 × 620	0.0060" × 0.0018"	0.15 × 0.05	45–48	45	1300
80 × 300	0.0050" × 0.0035"	0.13 × 0.09	45–50	45	1300
80 × 400	0.0050" × 0.0028"	0.13 × 0.07	40–45	40	1300
80 × 700	0.0040" × 0.0013"	0.10 × 0.03	35–44	35	1300

### Stainless Steel Woven Mesh – Twill Dutch Weave

Mesh Count	Wire Diameter		Absolute Filter Rating	Nominal Filter Rating	Max. Width
	inch	mm	µm	µm	
20 × 250	0.0100" × 0.0080"	0.254" × 0.200"	100–118	100	2000
30 × 360	0.0100" × 0.0060"	0.254" × 0.152"	95–105	90	2000
40 × 560	0.0070" × 0.0040"	0.178" × 0.102"	75–83	65	2000
50 × 250	0.0100" × 0.0080"	0.254" × 0.200"	55–60	50	2000
80 × 700	0.0040" × 0.0030"	0.102" × 0.076"	35–38	35	1600
200 × 600	0.0024" × 0.0018"	0.061" × 0.046"	28–32	30	1600
165 × 800	0.0028" × 0.0020"	0.071" × 0.051"	25–39	25	1300
165 × 1400	0.0028" × 0.0016"	0.071" × 0.041"	16–18	15	1300
200 × 1400	0.0028" × 0.0016"	0.071" × 0.041"	12–14	10	1300
250 × 1400	0.0022" × 0.0016"	0.056" × 0.041"	11–13	9	1300
325 × 2300	0.0015" × 0.0010"	0.038" × 0.025"	8–9	5	1300
400 × 2800	0.0011" × 0.0008"	0.028" × 0.020"	4–5	2	1300
500 × 3600	0.0010" × 0.0006"	0.025" × 0.015"	2–3	1	1300

### Stainless Steel Woven Mesh – Reverse Dutch Weave

Mesh Count	Wire Diameter		Absolute Filter Rating	Nominal Filter Rating	Max. Width
	inch	mm	µm	µm	
130 × 30	0.0079" × 0.0177"	0.200" × 0.450"	100–110	100	1800
128 × 36	0.0079" × 0.0157"	0.200" × 0.400"	80–90	80	1800
175 × 50	0.0059" × 0.0118"	0.150" × 0.300"	60–70	60	1300
290 × 60	0.0035" × 0.0090"	0.090" × 0.230"	43–51	51	1300
290 × 74	0.0035" × 0.0079"	0.090" × 0.200"	38–45	40	1300
625 × 105	0.0016" × 0.0055"	0.042" × 0.140"	23–28	25	1300
630 × 134	0.0015" × 0.0051"	0.040" × 0.130"	18–23	17	1300
720 × 150	0.0013" × 0.0043"	0.035" × 0.110"	16–20	14	1300
48 × 10	0.0200" × 0.0200"	0.500" × 0.500"	350–450	400	1300
72 × 15	0.0200" × 0.0200"	0.500" × 0.500"	250–350	300	1300
132 × 16	0.0140" × 0.0180"	0.352" × 0.457"	210–260	250	1300
132 × 18	0.0140" × 0.0179"	0.355" × 0.455"	180–220	200	1300
152 × 24	0.0120" × 0.0140"	0.315" × 0.350"	115–130	165	1300
260 × 40	0.0059" × 0.0086"	0.150" × 0.220"	80–95	125	1300
325 × 39	0.0059" × 0.0120"	0.150" × 0.300"	45–75	55	1300
345 × 45	0.0055" × 0.0090"	0.140" × 0.230"	40–65	50	1300
400 × 120	0.0026" × 0.0040"	0.065" × 0.100"	60–70	60	1300



### Manufacturing & Test Standard

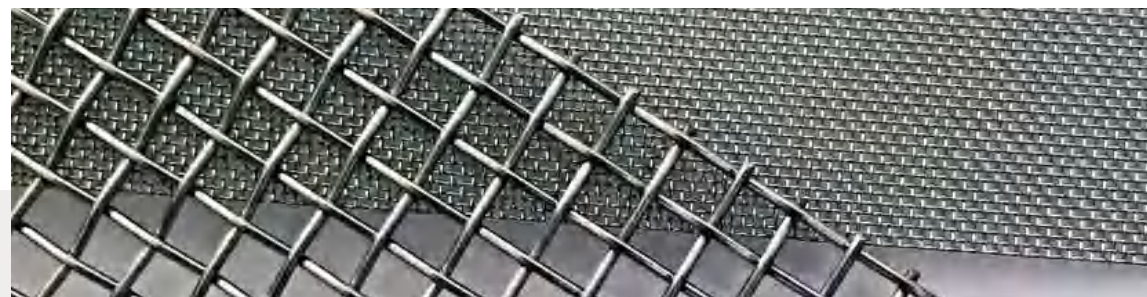
+ ASTM E2814-11 Standard  
Guide for Industrial Woven Wire  
Filter Cloth

+ ASTM E2814-18 Standard  
Specification for Industrial Woven  
Wire Filter Cloth

+ SAE ARP901 Bubble-Point  
Test Method-Filter Cloth Micron  
Testing

# Nickel Woven Mesh

Based on the chemical and physical properties of nickel wire, nickel woven mesh has good good electrical conductivity, corrosion resistance and acid-base resistance accordingly. It is suitable for gas, liquid filtration and other media separation under strong acid and alkaline conditions. It is also widely used in various renewable new energy industries such as hydrogen production, chlor-alkali and fuel cells.



## SPECIFICATIONS

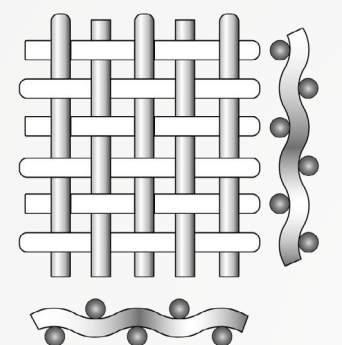
**Material:** N6/Nickel200/N02200  
**Mesh count:** 36–60  
**Standard:** ASTM B162

**Wire diameter:** 0.15–0.25 mm  
**Material:** N6/Nickel200/N02200  
**Width:** 700–2000 mm

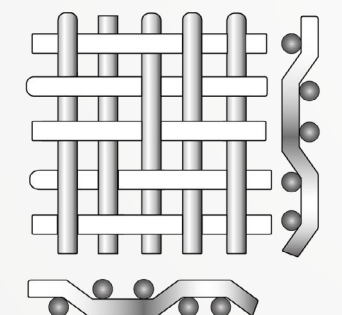
Mesh Size (mm)	Wire Diameter (mm)	Mesh Count	Width (mm)	Weave Type
0.485	0.15	40	700–2000	Square opening plain weave
0.546	0.16	36	700–2000	Square opening plain weave
0.491	0.16	39	700–2000	Square opening plain weave
0.475	0.16	40	700–2000	Square opening plain weave
0.455	0.18	40	700–2000	Square opening plain weave
0.445	0.19	40	700–2000	Square opening plain weave
0.362	0.19	46	700–2000	Square opening plain weave
0.173	0.25	60	700–2000	Square opening twill weave
0.385	0.25	40	700–2000	Square opening twill weave

## MANUFACTURING & TEST STANDARD

ASTM B612 Standard Specification for Nickel Plate, Sheet, and Strip



Square opening plain weave



Square opening twill weave

# Copper Woven Mesh

Copper woven mesh is made of copper wires with good ductility and forgeability, and has good electrical conductivity and thermal conductivity. It often comes in plain weave and twill weave. It is mainly used in pharmaceuticals, metal powder filtration and separation, ceramic printing, electromagnetic shielding, etc.



## BRASS WOVEN MESH

**Material:** H60-H90  
**Mesh count:** 2–200  
**Width:** 1.6 m  
**Properties:** non-magnetic, wear-resistant, and good ductility, and can be used for filtering or sifting gases, liquids, and powders.



## PHOSPHOR COPPER WOVEN MESH

**Material:** Phosphor copper wire (tin bronze wire)  
**Mesh count:** 2–400  
**Width:** 0.7–1.6 m  
**Properties:** non-magnetic, wear-resistant, acid-base resistant, and good ductility.



## RED COPPER WOVEN MESH

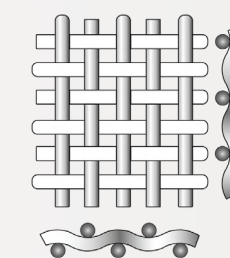
**Material:** red copper wires  
**Mesh count:** 2–120  
**Width:** 0.7–2 m  
**Properties:** non-magnetic, wear-resistant, soundproof, and can be used for electron beam filtering and electronic display screens.

## SPECIFICATIONS

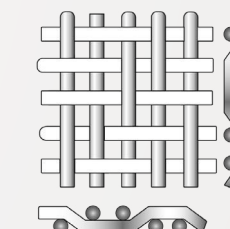
Mesh Count	Aperture		Wire Diameter		Size Roll Width × Length
	inch	mm	inch	mm	
10	0.08"	2.04	0.02"	0.5	1000 mm × 30 m
34	0.02"	0.497	0.01"	0.25	1000 mm × 30 m
36	0.022"	0.556	0.006"	0.15	1000 mm × 30 m
45	0.016"	0.404	0.006"	0.16	1000 mm × 30 m
80	0.008"	0.198	0.005"	0.12	1000 mm × 30 m
50	0.014"	0.348	0.006"	0.16	1000 mm × 30 m
53	0.013"	0.319	0.006"	0.16	1000 mm × 30 m
70	0.01"	0.243	0.005"	0.12	1000 mm × 30 m
100	0.006"	0.154	0.004"	0.1	1000 mm × 30 m
110	0.006"	0.141	0.004"	0.09	1530 mm × 30 m
110	0.006"	0.141	0.004"	0.09	1000 mm × 30 m
124	0.005"	0.125	0.003"	0.08	1000 mm × 30 m
160	0.004"	0.099	0.002"	0.06	1000 mm × 30 m
170	0.004"	0.089	0.002"	0.06	1000 mm × 30 m
190	0.003"	0.079	0.002"	0.055	1000 mm × 30 m
210	0.003"	0.071	0.002"	0.05	1000 mm × 30 m
249	0.002"	0.062	0.002"	0.04	1000 mm × 30 m
265	0.002"	0.056	0.002"	0.04	1000 mm × 30 m
279	0.002"	0.051	0.002"	0.04	1000 mm × 30 m
314	0.002"	0.046	0.001"	0.035	1000 mm × 30 m

## MANUFACTURING & TEST STANDARD

ASTM E2016 Standard Specification for Industrial Woven Wire Cloth



Square opening plain weave



Square opening twill weave



## Fabricated Mesh

Fabricated mesh, also known as fabricated parts or moulded parts, refers to woven wire cloth fabricated into semi-finished products after further processing. Our fabricated mesh is available in various materials, mesh openings and weave constructions. From simple cuts to complex and structurally efficient geometries, fabricated mesh can be cut into square, rectangular, circular or special shapes by cutting, punching and edging to meet the specific requirements of filter elements to be installed for filtration, separation and various industrial uses, such as test sieves, melt & polymer filters, leaf filters and extruder filters.

### CUT-TO-SIZE PIECES & ROUND PARTS



Single-piece or multi-part production takes place using various cutting processes. Depending on the requirement, mesh parts can be single- or multi-layered, or a pleated design with or without edge bordering.

### EDGED PARTS



A rolled edge ensures that parts can be easily separated; therefore, they are especially suitable for any subsequent automated processes. A solid border also guarantees that the edges are fixed.

### DEEP DRAWN PARTS



Single- or multi-layered mesh is manually or automatically formed into a three-dimensional shape. The domed shape gives a larger filter area compared to flat disks.

### PRESSED ARTICLES



The compression of edges enhances stability and prevents the migration of wires. Multiple layers can be pressed as required.

Cut-to-size pieces  
Round parts

Deep drawn parts

Edged parts

Pressed articles

Design mesh

### DESIGN MESH

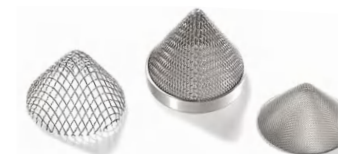
Metal mesh is back-molded and foil laminated to create an adhesi component. The part can then be deep-drawn, with the possibility of creative, illuminating backlight.



Cylinders  
Filter cartridges

Coned  
Tapered parts

### CONED & TAPERED PARTS



Single or multiple layers, pleated or smooth surface. These components can be produced as single parts or from partial segments and, if necessary, with supports and edge bordering.

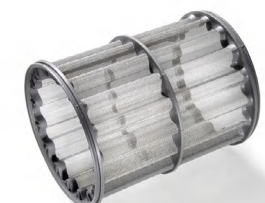


Single or multiple layers, smooth or pleated mesh in cylindrical form, joined together by spot or rolled joint welding. Support cores and connections as required.

### PACKING



### PLASTIC INJECTION MOULDED PARTS



Various designs of wire mesh combined with injection molding for edge protection, sealing, joining, support or assembly elements, or used for forming shapes.

Multi-layered, rolled cylinders of mesh, consisting of one or more mesh specification, as required. Edge bordering and face-side finishing as required.

SPECIFICATIONS

**Material:** stainless steel, brass, copper, nickel, etc.

**Wire diameter:** 0.02–2 mm

**Mesh count:** 2.1–635 mesh

**Aperture width:** 0.02–10.1 mm

**Open screening area:** 25% – 69.7%



Manufacturing & Test Standard

- + ISO 2194 Industrial Screens – Woven Wire Cloth, Perforated Plate and Electroformed Sheet – Designation and Nominal Sizes of Openings
- + ISO 4782 Metal Wire for Industrial Wire Screens and Woven Wire Cloth
- + ISO 4783-1 Industrial Wire Screens and Woven Wire Cloth – Guide to the Choice of Aperture Size and Wire Diameter Combinations – Part 1: Generalities
- + ISO 4783-2:1989 Industrial Wire Screens and Woven Wire Cloth – Guide to the Choice of Aperture Size and Wire Diameter Combinations – Part 2: Preferred Combinations for Woven Wire Cloth

Fine Mesh

Mesh Count	Wire Diameter	Aperture Width	Open Screening Area	Mass	Aperture Quantities 1 cm <sup>2</sup>
No.	mm	mm	%	kg/m <sup>2</sup>	
635	0.02	0.02	25	0.127	62500
508	0.025	0.025	25	0.159	40000
450	0.027	0.03	27.7	0.162	31388
400	0.027	0.036	32.7	0.147	24800
363	0.03	0.04	32.7	0.163	20424
325	0.035	0.043	30.4	0.199	16372
314	0.036	0.045	30.9	0.203	15282
265	0.04	0.056	34	0.212	10885
250	0.04	0.063	37.4	0.197	9688
210	0.05	0.071	34.4	0.262	6836
202	0.055	0.071	31.8	0.305	6325
200	0.053	0.074	34	0.281	6200
200	0.05	0.08	37.9	0.244	6200
188	0.055	0.08	35.1	0.285	5478
170	0.055	0.094	39.8	0.258	4480
150	0.071	0.1	34.6	0.366	3488
154	0.065	0.1	36.7	0.325	3676
200	0.03	0.1	61	0.078	6200
150	0.06	0.11	41.9	0.269	3488
130	0.08	0.112	34	0.423	2620
140	0.06	0.12	44.4	0.254	3038
120	0.09	0.12	32.7	0.49	2232
124	0.08	0.125	37.2	0.396	2383
110	0.09	0.14	37.1	0.447	1876
106	0.1	0.14	34	0.529	1742
100	0.11	0.14	31.4	0.615	1550
100	0.1	0.15	36	0.508	1550
100	0.1	0.16	37.9	0.488	1550
91	0.12	0.16	32.7	0.653	1284
80	0.14	0.18	31.6	0.784	992
84	0.1	0.2	44.4	0.42	1094
79	0.12	0.2	39.1	0.572	967
77	0.13	0.2	36.7	0.65	919
46	0.15	0.4	52.9	0.505	328
70	0.1	0.261	52	0.354	760
65	0.1	0.287	54.6	0.331	655
61	0.11	0.306	53.6	0.307	577
56	0.11	0.341	56.8	0.283	486
52	0.12	0.372	56.8	0.374	419
47	0.12	0.421	60.3	0.342	342
42	0.13	0.472	61.2	0.306	273

Coarse Mesh

Mesh Count	Wire Diameter	Aperture Width	Open Screening Area	Mass	Aperture Quantities 1 cm <sup>2</sup>
No.	mm	mm	%	kg/m <sup>2</sup>	
2.1	2	10.1	69.7	3.95	0.68
3	1.6	6.87	65.8	3.61	1.4
3.6	2	5.06	51.3	6.77	2.01
4	1.2	5.15	65.8	2.71	2.48
4	1.6	4.75	56	4.81	2.48
5	1.2	3.88	58.3	3.38	3.88
5	1.6	3.48	46.9	6.02	3.88
6	0.9	3.33	62	2.28	5.58
6	1.2	3.03	51.3	4.06	5.58
8	0.7	2.48	60.8	1.84	9.92
8	1	2.18	46.9	3.76	9.92
8	1.2	1.98	38.7	5.41	9.92
10	0.4	2.14	71	0.75	15.5
10	0.5	2.04	64.5	1.18	15.5
10	0.6	1.94	58.3	1.69	15.5
12	0.4	1.72	65.8	0.9	22.32
12	0.5	1.62	58.3	1.41	22.32
12	0.65	1.47	48	2.38	22.32
14	0.5	1.31	52.5	1.65	30.38
16	0.4	1.19	56	1.2	39.68
16	0.5	1.09	46.9	1.88	39.68
18	0.4	1.01	51.3	1.35	50.22
18	0.5	0.91	41.7	2.12	50.22
20	0.3	0.97	58.3	0.85	62
20	0.35	0.92	52.5	1.15	62
20	0.4	0.87	46.9	1.5	62
20	0.5	0.77	36.8	2.35	62
24	0.36	0.7	43.5	1.46	89.28
30	0.25	0.6	49.7	0.88	139.5
30	0.3	0.55	41.7	1.27	139.5
35	0.25	0.5	44.4	1.03	189.9
40	0.2	0.44	46.9	0.75	248
40	0.25	0.39	36.8	1.18	248
45	0.25	0.31	31	1.32	313.88
50	0.18	0.33	41.7	0.76	387.5
50	0.2	0.31	36.8	0.94	387.5
50	0.23	0.28	29.9	1.24	387.5
60	0.12	0.3	51.3	0.41	558
60	0.16	0.26	38.7	0.72	558
60	0.18	0.24	33	0.91	558
70	0.12	0.24	44.8	0.48	759.5
80	0.12	0.2	38.7	0.55	992

Woven Filter Cloth

Mesh No.	Wire Diameter mm	Mass kg/m <sup>2</sup>	Filter Rating μm
6 × 45	0.10 × 0.60	5.3	400
12 × 64	0.60 × 0.40	4.2	200
14 × 88	0.50 × 0.35	2.1	150
12 × 90	0.45 × 0.30	2.6	135
13 × 100	0.45 × 0.28	2.58	125
14 × 100	0.40 × 0.28	2.5	120
16 × 125	0.35 × 0.22	2	110
22 × 150	0.30 × 0.18	2	100
24 × 110	0.35 × 0.25	2.65	80
25 × 170	0.25 × 0.16	1.45	70
30 × 150	0.23 × 0.18	1.6	65
40 × 200	0.18 × 0.12	1.3	55
50 × 230	0.18 × 0.12	1.23	50
80 × 400	0.12 × 0.07	0.7	35
50 × 250	0.14 × 0.11	0.9	40
20 × 250	0.25 × 0.20	2.8	100
30 × 330	0.25 × 0.16	2.55	80
50 × 400	0.20 × 0.14	2.14	70
50 × 600	0.14 × 0.080	1.3	45
80 × 700	0.11 × 0.076	1.21	25
165 × 800	0.07 × 0.050	0.7	15
165 × 1400	0.07 × 0.040	0.76	10
200 × 1400	0.07 × 0.040	0.8	5
325 × 2300	0.035 × 0.025	0.48	2
400 × 125	0.065 × 0.10	0.7	50
260 × 40	0.15 × 0.25	2.15	65
130 × 35	0.20 × 0.40	3.1	90
152 × 24	0.30 × 0.40	3.6	190
132 × 17	0.30 × 0.45	4.1	240
72 × 15	0.45 × 0.45	4.5	350



Wire



## Stainless steel spring wire

Stainless steel spring wire is a kind of steel wire produced by cold drawing process, and often works as the raw material for producing various kinds of springs.

As a professional stainless steel spring wire manufacturer, all our stainless steel spring wires are produced by high quality standards to deliver high tensile strength, high elasticity and fatigue resistance.

We supply a wide range of stainless steel spring wires and all our products are manufactured in accordance with JIS and ASTM standards.

### Specification

- Material: stainless steel.
- Wire diameter: 0.30–6.00 mm.
- Surface: bright finish, dull finish.

Table 1: Raw Materials & Chemical Components

Grade	Chemical Components (%)										Tensile Strength N/mm <sup>2</sup> (MPa)
Type	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Other	
SUS302	0.15	1.00	2.00	0.045	0.030	8.0–10.0	17.0–19.0	–	–	–	JIS standard
SUS304	0.08	1.00	2.00	0.045	0.030	8.0–10.0	18.0–20.0	–	–	–	JIS standard
SUS316	0.08	1.00	2.00	0.045	0.030	10.0–14.0	16.0–18.0	2.0–3.0	–	–	JIS standard
321	0.08	1.00	2.00	0.045	0.030	9.0–13.0	17.0–19.0	–	–	Ti≥5×C%	ASTM standard
347	0.08	1.00	2.00	0.045	0.030	9.0–13.0	17.0–19.0	–	–	Nb≥10×C%	ASTM standard
SUS631(J1)	0.09	1.00	1.00	0.040	0.030	6.50–8.50	16.0–18.0	–	–	Al: 0.75–1.5	JIS standard

**Note:** The single value represents the maximum value in the table above.

Table 2: SUS302, SUS304, SUS316 & SUS631(J1)  
Stainless Steel Spring Wires –JIS Standard

Wire Diameter	Tensile Strength N/mm2 (MPa)			
D (mm)	Class A	Class B	Class C	Class D
	SUS302-WPA SUS304-WPA SUS316-WPA	SUS302-WPB SUS304-WPB SUS304-WPBS <sup>a)(c)</sup>	SUS631J1-WPC <sup>b)</sup>	SUS304-WPDS <sup>c)</sup>
0.29 ≤ D ≤ 0.40	1600–1850	2050–2300	1930–2180	1700–2000
0.40 < D ≤ 0.60		1950–2200	1850–2100	1650–1950
0.60 < D ≤ 0.70	1530–1780	1850–2100	1800–2050	1550–1850
0.70 < D ≤ 0.90				1550–1800
0.90 < D ≤ 1.00				1500–1750
1.00 < D ≤ 1.20	1450–1700	1750–2000	1700–1950	1470–1720
1.20 < D ≤ 1.40				1420–1670
1.40 < D ≤ 1.60	1400–1650	1650–1900	1600–1850	1370–1620
1.60 < D ≤ 2.00				–
2.00 < D ≤ 2.60	1320–1570	1550–1800	1500–1750	
2.60 < D ≤ 4.00	1230–1480	1450–1700	1400–1650	
4.00 < D ≤ 6.00	1100–1350	1350–1600	1300–1550	

### Notes:

<sup>a)</sup>: Range of applicable wire diameter of SUS304-WPBS shall be 0.29 mm to 1.6 mm.

<sup>b)</sup>: In the case of evaluating the tensile strength of SUS631J1-WPC after precipitation hardening treatment upon agreement between the manufacturer and the purchaser, the test piece taken from the production shall be heat treated by heating at 470 °C ± 10°C for 1h followed by air cooling, and the increase of tensile strength of the test piece due to this heat treatment shall be not less than 250 N/mm<sup>2</sup>.

<sup>c)</sup>: The letter “S” at the tail of the symbols indicates wires requiring straightness.

### Applicable Wire Diameter D (mm)

- WPA: 0.080 ≤ D ≤ 8.00
- WPB: 0.080 ≤ D ≤ 12.00
- WPC: 0.10 ≤ D ≤ 6.00
- WPBS, WPDS: 0.29 ≤ D ≤ 1.60

Table 3: 321 & 347<sup>d)</sup>

### Stainless Steel Spring Wires – ASTM Standard

Wire Diameter D (mm)	Tensile Strength N/mm <sup>2</sup> (MPa)
0.25 < D ≤ 0.38	1655–1860
0.38 < D ≤ 0.61	1620–1825
0.61 < D ≤ 1.04	1620–1825
1.04 < D ≤ 1.19	1585–1790
1.19 < D ≤ 1.37	1550–1760
1.37 < D ≤ 1.57	1515–1725
1.57 < D ≤ 1.83	1480–1690
1.82 < D ≤ 2.03	1450–1655
2.03 < D ≤ 2.34	1415–1620
2.34 < D ≤ 2.67	1380–1585
2.67 < D ≤ 3.05	1345–1550
3.05 < D ≤ 3.76	1275–1480
3.76 < D ≤ 4.22	1240–1450
4.22 < D ≤ 4.50	1170–1380
4.50 < D ≤ 5.26	1105–1310
5.26 < D ≤ 5.72	1070–1275
5.72 < D ≤ 6.35	1035–1240

### Note:

<sup>d)</sup> When wire is specified in straightened and cut lengths, the minimum tensile strength shall be 90 % of the values listed in the table.

### Manufacturing & Testing Standards

- JIS G 4314 Stainless steel wires for springs.
- ASTM A313 Standard specification for stainless steel spring wire.

### Application

- Torsion spring
- Extension spring
- Compression spring
- Mattress spring
- Mechanical spring
- Aerosol valve spring



### SIEVING & SCREENS

Food industry  
Ceramic industry  
Chemical industry  
Pharmaceutical industry  
Metallurgy  
Pollution abatement



### SHALE SHAKER SCREENS

Oilfield drilling  
Drilling mud solids control  
Drilling rigs  
Mine screening  
Coal cleaning  
Mining



### TEST SIEVES

Industrial rocks & minerals  
Food  
Soils  
Glass  
Ceramic  
Granulates  
Powders  
Pharmaceuticals



### FILTERING

Water treatment  
Food  
Beer brewing  
Beverage  
Petroleum & chemical industry  
Pharmaceutical industry



### MELT & POLYMER FILTERS

Textile  
Rubber  
Plastic  
Food  
Beverage  
Pharmaceutical  
Petroleum  
Chemical



### LEAF FILTERS

Edible oil industry  
Beverage industry  
Chemical industry  
Pharmaceutical industry  
Petrochemical industry  
Lube oil re-refining.  
Sulphur filtration  
Bleaching earth  
Brine manufacturing  
Glucose industry



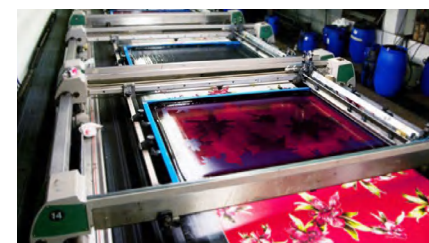
### EXTRUDER FILTERS

Plastic & rubber reclamation  
Plastic profile extrusion  
Blown film extrusion  
Plastic & rubber processing  
Melt filtration process  
Chemical & Pharmaceutical processing



### SHIELDING MESH

Laboratory  
Computer room  
Data center  
Electronic equipment  
Information industry  
Power sector  
hospital  
Aerospace  
Buildings  
Military installations  
Anti-electromagnetic interference  
Special facilities for radiation protection



### PRINTING SCREENS

Solar panel printing  
PCB printing  
Electronics printing  
Textile printing  
Glass printing  
Ceramic printing  
Electronics printing



### INSECT SCREEN

Windows  
Doors  
Balconies  
Porches

## APPLICATIONS



***METAL ALLOYS CHEMICAL COMPOSITION AND STANDARDS***

Alloy	Standard	Carbon (C)	Manganese (Mn)	Phosphorus (P)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)	Nitrogen (N)	Molybdenum (Mo)
Stainless steel 304 S30400	ASTM A580 ASTM A478 ASTM A313	≤ 0.08	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	18.0-20.0	8.0-10.5	≤ 0.10	
Stainless steel 304L S30403	ASTM A580	≤ 0.03	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	18.0-20.0	8.0-12.0	≤ 0.10	
Stainless steel 316 S31600	ASTM A580	≤ 0.08	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	16.0-18.0	10.0-14.0	≤ 0.10	2.0-3.0
Stainless steel 316L S31603	ASTM A580	0.03	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	16.0-18.0	10.0-14.0	≤ 0.10	2.0-3.0

Alloy	Standard	Carbon (C)	Manganese (Mn)	Phosphorus (P)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)	Copper (Cu)	Others
Stainless steel 302HQ S30430	ASTM A493 QQ-S-763	≤ 0.03	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	17.0-19.0	8.0-10.0	3.0-4.0	
Stainless steel 310 S31000	ASTM A580	≤ 0.25	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.50	24.0-26.0	19.0-22.0		
Stainless steel 314 S31400	ASTM A580	≤ 0.25	≤ 2.00	≤ 0.045	≤ 0.03	1.5-3.0	23.0-26.0	19.0-22.0		
Stainless steel 321 S32100	ASTM A580 ASTM A313	≤ 0.08	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	17.0-19.0	9.0-12.0		Titanium (Ti): 5xC

Alloy	Standard	Carbon (C)	Manganese (Mn)	Phosphorus (P)	Sulfur (S)	Silicon (Si)	Chromium (Cr)
Stainless steel 410 S41000	ASTM A580	≤ 0.15	≤ 1.00	≤ 0.04	≤ 0.03	≤1.00	11.5-13.5
Stainless steel 430 S43000	ASTM A580	≤ 0.12	≤ 1.00	≤ 0.04	≤ 0.03	≤ 1.00	16.0-18.0

Alloy	Standard	Carbon (C)	Manganese (Mn)	Phosphorus (P)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)	Nitrogen (N)	Molybdenum (Mo)	Copper (Cu)
Stainless steel 904L N08904	ASTM A240	≤ 0.02	≤ 2.00	≤ 0.045	≤ 0.035	≤ 1.00	19.0-23.0	23.0-28.0	≤ 0.10	4.0-5.0	1.0-2.0
Duplex stainless steel 2205 S32205	ASTM A240	≤ 0.03	≤ 2.00	≤ 0.03	≤ 0.02	≤ 1.00	22.0-23.0	4.5-6.5	0.14-0.20	3.0-3.5	
Super duplex stainless steel 2507 S32750	ASTM A240	≤ 0.03	≤ 1.2	≤ 0.035	≤ 0.02	≤ 0.8	24.0-26.0	6.0-8.0	0.24-0.32	3.0-5.0	≤ 0.5
Duplex stainless steel 2209 S39209	AWS A5.9	≤ 0.03	0.5-2.0	≤ 0.03	≤ 0.03	≤ 0.9	21.5-23.5	7.5-9.5	0.08-0.20	2.5-3.5	≤ 0.75

Alloy	Standard	Copper (Cu)	Lead (Pb)	Iron (Fe)	Zinc (Zn)	Phosphorus (P)	Tin (Sn)	Other each	Other Total
C24000 80-20 Low Brass	ASTM B134	78.5-81.5	≤ 0.05	≤ 0.05	Balance	-	-	-	-
C27000 65-35Yellow Brass	ASTM B134	63.0-68.5	≤ 0.09	≤ 0.07	Balance	-	-	-	-
C51000 Phosphor Bronze 5% Grade A	ASTM B159	Balance	≤ 0.05	≤ 0.1	≤ 0.3	0.03-0.35	4.2-5.8	≤ 0.5	≤ 0.5
C51900 Phosphor Bronze 6% Grade A	ASTM B103	Balance	≤ 0.05	≤ 0.1	≤ 0.3	0.03-0.35	5.0-7.0	≤ 0.5	≤ 0.5

Alloy	Standard	Copper (Cu)	Oxygen (O)
C10200 CDA 102 Copper	ASTM B68 ASTM B111	≥ 99.95	≤ 0.001
C11000 CDA 110 Copper	ASTM B3	≥99.9 Copper (Cu)+ Silver (Ag)	

Alloy	Standard	Carbon (C)	Manganese (Mn)	Phosphorus (P)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)	Iron (Fe)	Tungsten (W)	Cobalt (Co)	Vanadium (V)
N10276 Hastelloy C-276	ASTM B574	≤ 0.01	≤ 1.00	≤ 0.04	≤ 0.03	≤ 0.08	14.5-16.5	Balance	15.0-17.0	4.0-7.0	3.0-4.5	≤ 2.5	≤ 0.35



Alloy	Standard	Carbon (C)	Manganese (Mn)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)	Titanium (Ti)	Copper (Cu)	Iron (Fe)	Aluminum (Al)
N08825 Incoloy 825	ASTM B425	≤ 0.05	≤ 1.00	≤ 0.03	≤ 0.5	19.5-23.5	38-46	2.5-3.5	0.6-1.2	1.5-3.0	≥ 22.0	≤ 0.2

Alloy	Standard	Carbon (C)	Manganese (Mn)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)	Copper (Cu)	Iron (Fe)	Aluminum (Al)
N06600 Inconel 600	ASTM B166	≤ 0.15	≤ 1.00	≤ 0.015	≤ 0.5	14.0-17.0	≥72	≤ 0.5	6.0-10.0	
N06601 Inconel 601	ASTM B166	≤ 0.1	≤ 1.00	≤ 0.015	≤ 0.5	21.0-25.0	58-63	≤ 1.0	Balance	1.0-1.7

Alloy	Standard	Carbon (C)	Manganese (Mn)	Phosphorus (P)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)	Titanium (Ti)	Limits %	Iron (Fe)	Cobalt (Co)	Niobium+Tantalum (Nb)+(Ta)	Aluminum (Al)
N06625 Inconel 625	ASTM B446	≤ 0.1	≤ 0.5	≤ 0.015	≤ 0.015	≤ 0.5	20-23	≥ 58	8.0-10.0	≤ 0.4	Max	≤ 5.0	≤ 1.0	3.15-4.15	0.4

Alloy	Standard	Carbon (C)	Manganese (Mn)	Silicon (Si)	Chromium (Cr)	Iron (Fe)	Aluminum (Al)
Kanthal A-1 FeCrAl Alloy	ASTM B603	≤ 0.08	≤ 0.4	≤ 0.7	20.5-23.5	Balance	2.75-6.0

Alloy	Standard	Carbon (C)	Manganese (Mn)	Silicon (Si)	Chromium (Cr)	Iron (Fe)	Copper (Cu)	Nickel (Ni)
N04400 Monel 400	ASTM B164	≤ 0.3	≤ 2.00	≤ 0.024	≤ 0.5	≤ 2.5	28-34	≥63

Alloy	Standard	Carbon (C)	Manganese (Mn)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)	Iron (Fe)
N06003 Nichrome V 80-20 Chromel A	ASTM B344	≤ 0.15	≤ 1.00	≤ 0.01	0.75-1.75	19-21	Balance	≤ 1.0



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