ASEPTCONN AG

# Screen Gaskets



## About us

Aseptconn is a leading supplier of components, products, software, and systems for sterile liquid technology, primarily in the pharmaceutical and biopharmaceutical sectors. With innovative products and expert advice, Aseptconn helps to sustainably improve its clients' processes. Its extensive portfolio and diverse services make it the preferred supplier for many renowned international pharmaceutical companies.

## Product Description

The Screen Gaskets are equipped with high-quality sieves, ensuring fine and optimal particle filtration. These filtering seals not only guarantee the protection of your equipment but also the purity of your products. Aseptconn offers a range of high-performance Screen Gaskets, designed to provide effective filtration and maximum safety. Available in a variety of sizes and materials, these products are ideal for the pharmaceutical, food, and chemical industries, meeting the strictest requirements of each sector.

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# Screen Gaskets

## 1. Using screen gaskets

Screen Gaskets are much more than a simple gasket: they incorporate high-quality mesh for fine and efficient particle filtration, guaranteeing the protection of your equipment and the purity of your products. Designed for demanding environments, these gaskets offer a reliable and durable filtration solution suitable for a wide range of industrial applications.

The screen gaskets are defined by mesh sizes, expressed in mesh (for example mesh 20, 40, 100). The higher the mesh number, the smaller the size of the openings. The retention sizes of these meshes range from 10 microns to 11'000 microns.

## 2. Key benefits

**Equipment protection:**
Preserve the life of your pumps, filling needles and other critical equipment with fine filtration that blocks harmful particles before they cause damage.

**Efficient filtration :**
Our mesh efficiently captures particles of all shapes and sizes, protecting your products from potential contamination.

**Simplified cleaning :**
Screen Gaskets are easy to remove and clean, allowing quick maintenance and minimizing downtime.

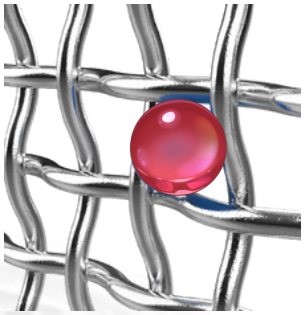
**Robustness and durability :**
Made from premium materials, including sintered versions for increased strength, our mesh withstands pressure conditions and is ideal for backwash cycles.

# Screen Gaskets

## 3. Composition and mesh types

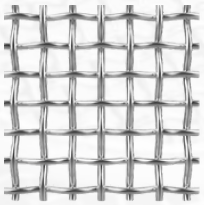
**Nominal retention :**

Mesh retention is calculated for spherical particles. However, in practice, particle shapes can vary, which can affect actual retention capacity. It is therefore important to consider the physical shape of the particles expected in your system when selecting mesh sizes.

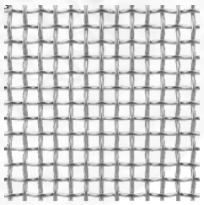


**Mesh :**

The mesh count describes the number of wires per inch in the length (warp) and width (weft) directions. The opening area is determined by the distance between these wires.



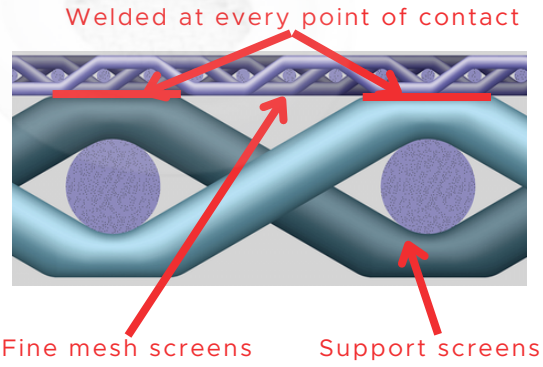
20 Mesh



60 Mesh

**Double mesh :**

Two layers of mesh can be used together to improve pressure resistance and are suitable for backwash cycles. In these configurations, the meshes are either superimposed or sintered together for better durability. Double-mesh sintered screens are recommended from 100 mesh upwards.



# Screen Gaskets

## 3.1. Screen reference chart

| Approx. Retention in Microns | Opening in mm | Mesh (wire/inch) Plain WeaveØ | Open Area % | Filter Cloth Twilled Weave | Double Mesh Sintered + 24 Mesh @ PTFE seal |
|---|---|---|---|---|---|
| 11000µ | 11,00 | 2x2 | 66 | | |
| 5156µ | 5,16 | 4x4 | 65,9 | Laser cut holes in 316L plates 1,00 mm thick. | |
| 3340µ | 3,34 | 6x6 | 62,4 | | |
| 2464µ | 2,46 | 8x8 | 60,2 | | |
| 1905µ | 1,91 | 10x10 | 56,3 | | |
| 1617µ | 1,62 | 12x12 | 52,4 | | |
| 1414µ | 1,41 | 14x14 | 51,8 | | |
| 1218µ | 1,22 | 16x16 | 50,7 | | |
| 1061µ | 1,06 | 18x18 | 48,2 | | |
| 870µ | 0,87 | 20x20 | 46,2 | | |
| 703µ | 0,70 | 24x24 | 44,1 | | |
| 527µ | 0,53 | 30x30 | 37,2 | | |
| 415µ | 0,42 | 40x40 | 43 | | |
| 308µ | 0,31 | 50x50 | 30,3 | | |
| 233µ | 0,23 | 60x60 | 30,3 | | |
| 180µ | 0,18 | 80x80 | 31,4 | | |
| 140µ | 0,14 | 100x100 | 30,3 | | x |
| 118µ | 0,12 | 120x120 | 30,9 | | |
| 103µ | 0,10 | 150x150 | 37,2 | | x |
| 80µ | 0,08 | 200x200 | 33,6 | | x |
| 61µ | 0,06 | 250x250 | 36 | | x |
| 50µ | 0,05 | 300x300 | 34 | | x |
| 43µ | 0,04 | 325x325 | 30 | - | x |
| 30µ | 0,03 | | - | 165x800 | x |
| 21µ | 0,02 | | - | 165x1400 | x |
| 14µ | 0,01 | | - | 200x1400 | x |
| 10µ | 0,01 | | - | 325x2300 | x |

# Screen Gaskets

## 4. Materials

Standard screen gaskets are made of 316 stainless steel, while sintered versions are made of 316L, offering better weldability. The materials used for the gaskets include:

- EPDM (CDM-1004)
- FKM (CDM-1010)
- Platinum Silicone (CDM-1012)
- Steam-Flon® (CDM-1019)
- Virgin PTFE (CMD-1028)

## 5. Main Applications

**Pump protection:**
Prevents debris from damaging pumps, especially when starting up new piping systems.

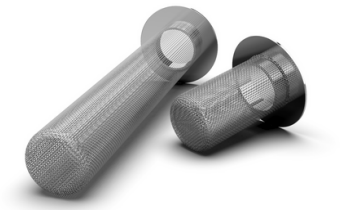
**Filling needles:**
Used as a fine filter upstream of the needles to prevent particles from contaminating vials or bags.



**Water for injection systems (WFI): :**
Used at the point of use with relatively low pressure loss (90 mbar at 6m$^3$/h for a 1.5" mesh of 100 mesh).

# Screen Gaskets

## 6. Different mesh configurations



Sock Screens
For high particle retention, these screens can accumulate 8 to 10 times more dirt than flat screens. Available in several lengths (25, 50, 150 mm) and mesh sizes (10 to 100 mesh).



Perforated screens:
Stainless steel plates with holes of various sizes, used to capture large debris.



Screens with tabs:
Allows easy identification of the installed screen size without disassembling the system, with the possibility of laser engraving for visible information on the outside.

## 7. Available options and standards

Screen Gaskets comply with numerous international standards:

- FDA CFR 177.2600
- USP 30, 35, 42, 44 for cytotoxicity tests and physicochemical testing
- EC1935/2004 for food contact materials (only for water and acids)

Available in various sizes and compliance with DIN32676, ISO1127 and SMS3017 standards.

## Why choose them?

Aseptconn offers a wide range of Screen Gaskets, available in different sizes and materials, meeting the strictest standards for pharmaceutical, food, and chemical industries. Optimize your processes with our reliable and durable solutions!