

The *welded wire filter* is made from stainless steel and can be used in various sectors and products.

The filter can be manufactured cylindrical with an inward or outward radial flow, or else flat with a round, square or rectangular cross-section.

The filter is made from wire with a triangular cross-section, with the smooth side facing outward and the angular side facing inward. The calibrated metallic wire is wound in a spiral around a series of metallic support bars with a square cross-section, to which the angular part is electrically welded, point-by-point, while maintaining the spiral's spacing constant: this ensures a constant level of filtration over the entire surface area.

Structurally, the filter is extremely robust and can be used in place of traditional wire mesh filters, The percentage of open area is high,

The structure is extremely resistant even when subjected to counter-flow cleaning, and good results can be obtained by cleaning with blades,

Thanks to its exceptional durability, strength and versatility, the filter can be used in various sectors for the filtration of air and gases, liquids (such as fuels, oils and industrial water), and even granular products,

Since the filter is entirely metallic and is manufactured without the use of bonding agents, it is extremely resistant to high and low temperatures,

The operating principle is mechanical, and is based on surface filtration. The filtration takes place because the size of the open area only allows for the passage of particles smaller than the spaces present in the filter, while the larger particles are blocked outside the filter, where they either accumulate or fall,

Thanks to its filtration consistency, low maintenance requirements, low cost and long service life, this filter is an indispensable solution for all projects of high technological content,

The dimensional characteristics are as follows:

For **tube filters** with inward radial flow

Degree of filtration starting at 25 microns

Outer diameter: minimum 23 mm, maximum 914 mm

Length : minimum 25 mm, maximum 2700 mm

For **tube filters** with outward radial flow

Degree of filtration starting at 50 microns

Outer diameter: minimum 23 mm, maximum 914 mm

Length : minimum 25 mm, maximum 2700 mm

For **flat filters** (with a square, rectangular or round cross-section)

Degree of filtration starting at 30 microns

Minimum and maximum length to be determined based on the degree of filtration and strength, maximum 3000 mm

Minimum and maximum width to be determined based on the degree of filtration and strength, maximum 3500 mm

Height based on the thicknesses of the wires and supports utilized

This structure allows for the creation of filters in sizes and with degrees of filtration tailored to the user's requirements

The material normally utilized is AISI 316 L stainless steel. Other types of alloys can be used for special applications

No minimum quantities are required for production

In order to design a *welded wire filter*, the following information is necessary:

Filter type:   Cylindrical with inward radial flow,  
                  Cylindrical with outward radial flow,  
                  Flat with a round cross-section,  
                  Flat with a square cross-section,  
                  Flat with a rectangular cross-section,

product to be filtered, percentage of open area, degree of filtration, flow rate, maximum allowed pressure difference, maximum operating pressure, operating temperature, minimum usage temperature,  
maximum usage temperature, dimensions, any other pertinent notes,

With this information, or part thereof, the relative filter can be produced. As there are a number of variables in play, however, the results are to be considered indicative and non-binding.

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