

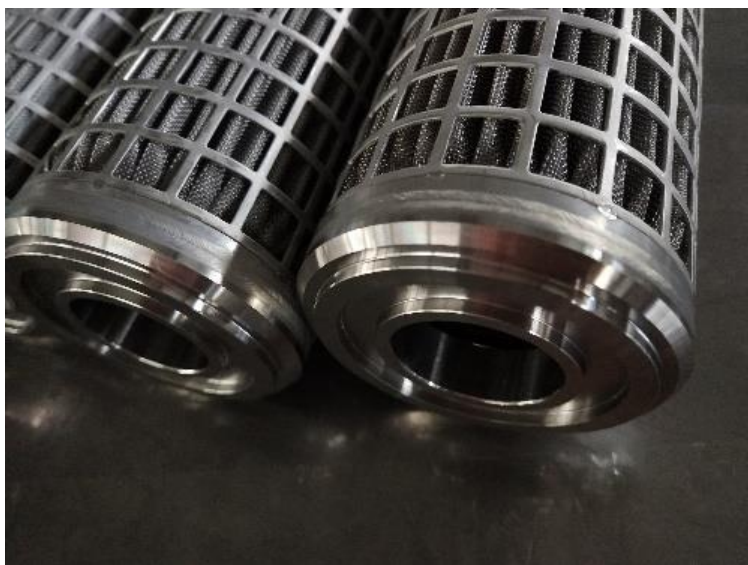
### CSS - CFL - CFP SINTERED METALLIC FILTER ELEMENTS

#### DESCRIPTION

The **CSS, CFP, and CFL filter elements**, entirely made of stainless steel, are manufactured through a sintering process that allows the joining of the metal particles that make up the porous septum. At temperatures below the melting point and under pressure, the particles bond at contact points, creating a septum with excellent mechanical properties. This process can achieve a void/full value of 60% in filter septa with larger porosities. The starting material for the production of sintered cartridges is a 316L stainless steel powder of appropriately selected dimensions.

**CSS elements** are made of sintered metal powders and are suitable for filters requiring specific features such as high-temperature filtration (up to 450°C), resistance to high differential pressures, chemical stability, backwashing, and cleaning with ultrasound or chemical agents. CSS elements are also suitable for gas dispersion in the form of microbubbles in liquids (sparger) or to facilitate contact between two fluids in many chemical or physical processes; typical examples include direct steam heating and CO2 dispersion in beverages.

**CFL elements** are made of sintered metal fibers, which allow for an even higher void/full ratio, with low pressure drops, while ensuring excellent thermal, chemical, and mechanical resistance. Finally, CFP elements are made of sintered metal fibers with a pleated construction.



#### TECHNICAL SPECIFICATIONS

- Standard outer diameter: 59 mm
- Maximum temperature: 400-500°C, subject to the choice of suitable gaskets and the type of fluid.
- Reinforced versions and special models with single-opening connections are available.
- Filter elements in other metals such as Hastelloy® X, Inconel® 600 are available upon request.

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#### APPLICATIONS

Typical applications of sintered elements include:

- Filtration of many process fluids
- High-temperature polymer filtration
- Saturated steam filtration for sterilization
- Solvent filtration in ultrasonic cleaning machines
- Catalyst powder recovery
- Support for pre-coat filtration.

#### FILTER ELEMENT CODING

Construction	Removal rating( $\mu\text{m}$ )	Sealing End-cap	Material	Length (")	Configuration	Gaskets
<b>CSS = sintered powders</b>	<b>05 = 5 <math>\mu\text{m}</math></b>	<b>S = welded</b>	<b>S = SS 316 L = SS 316/316L</b>	<b>10 = 250 mm</b>	<b>A = DOE 3 = cod. 3 7 = cod. 7 8 = cod. 8 X = special</b>	<b>E = EPDM B = Nitrile S = Silicone V = Viton P = PTFE</b>
	<b>10 = 10 <math>\mu\text{m}</math></b>			<b>20 = 500 mm</b>		
	<b>15 = 15 <math>\mu\text{m}</math></b>			<b>30 = 750 mm</b>		
	<b>25 = 25 <math>\mu\text{m}</math></b>			<b>40 = 1000 mm</b>		
<b>CFL = smooth sintered fiber</b>	<b>40 = 40 <math>\mu\text{m}</math></b>					
	<b>75 = 75 <math>\mu\text{m}</math></b>					
	<b>100 = 100 <math>\mu\text{m}</math></b>					
<b>CFP = pleated sintered fiber</b>	<b>150 = 150 <math>\mu\text{m}</math></b>					
	<b>250 = 250 <math>\mu\text{m}</math></b>					
	<b>500 = 500 <math>\mu\text{m}</math></b>					
<b>1000 = 1000 <math>\mu\text{m}</math></b>						
<b>CSS</b>	<b>10</b>	<b>S</b>	<b>L</b>	<b>- 10</b>	<b>A</b>	<b>E</b>

Example: *CSS10 SL10AE* - CSS elements in sintered powder, 10 $\mu\text{m}$ , 10", DOE

#### ORDER INFORMATION

To order: [perdomini-ioc.com](mailto:perdomini-ioc.com)