

FHCSS High-Flow Ceramic Sintered Filter Cartridge



The FHCSS Ceramic Sintered Filter Cartridge is designed by using high-purity raw materials, including corundum sand, alumina, silicon carbide, cordierite, and quartz. Through precisely forming and high-temperature sintering, the cartridge forms a rigid, uniform porous structure. It offers high porosity, controlled pore size distribution, low filtration resistance, and excellent permeability. With superior resistance to high temperatures, high pressure, and chemical corrosion, coupled with high mechanical strength, this cartridge delivers a long service life and easy regeneration. It is widely utilized in solid-liquid separation, gas purification, noise reduction, and aeration across chemical processing, petroleum, metallurgy, food, electronics, pharmaceuticals, and water treatment industries.

Product Features

- ❖ **Precise Filtration:** Available in multiple pore sizes (0.2–10 μm) with high filtration efficiency, suitable for diverse liquid and gas media.
- ❖ **Exceptional Chemical Resistance:** Resistant to strong acids (H_2SO_4 , HCl), alkalis (NaOH), and organic solvents. Note: Avoid hydrofluoric acid (HF) exposure for quartz-containing variants.
- ❖ **Robust Construction:** High mechanical strength with a maximum operating pressure of 0.6 MPa (87 psi), designed for demanding industrial fluid systems.
- ❖ **Thermal Endurance:** Continuous operation up to 600°C ; short-term exposure up to 800°C , ideal for flue gas and high-temperature processes.
- ❖ **Extended Service Life:** Service life of 6–36 months (application-dependent). Fully regenerable, minimizing downtime and operational costs.
- ❖ **Hygienic & Sterilizable:** Non-toxic, odorless, and particle-free. Compatible with steam sterilization (121°C, 30 min) to meet stringent hygiene requirements.

Product Parameters

Parameters	Specification			
Length(inch/mm)	10(254)	20(508)	30(762)	40(1016)
Specifications	Sintered Ceramic / Alumina (Al_2O_3), Corundum, Silicon Carbide			

Connection	M12/M20/Custom Threaded/Bayonet
Filtration Accuracy (μm)	0.2/0.45/1/3/5/10
Diameter (mm)	30/40/50/60/70
Filtering Area (m ² /10")	≥0.15
Design Pressure (MPa)	0.1-0.3
Maximum Temperature (°C)	600

Applications



New Energy



Water Treatment



Iron and Steel
Metallurgy



Biomedicine



Food and Beverage



Precision Instruments



Equipment
Manufacturing



Daily Household Use



Farm Irrigation



Mining and Smelting

Precautions

Installation & Operation Guide

- ❖ Flow Direction: Strictly adhere to Outside-In flow. Reverse flow may cause structural damage to the brittle ceramic element.
- ❖ Pressure Control: Operate within the rated pressure (≤ 0.6 MPa). Gradually open valves to avoid water hammer and sudden pressure shocks.
- ❖ Cleaning & Regeneration:
 - Backwash: Recommended when differential pressure exceeds 0.1 MPa. Reverse flush for 1–3 minutes.
 - Chemical Cleaning: For organic/inorganic fouling, soak in 0.5% nitric acid (inorganic) or 2% sodium hydroxide (organic). Rinse thoroughly with clean water after cleaning.
 - Physical Cleaning: Gently scrub the surface with a soft brush if necessary (avoid abrasives).

Maintenance & Replacement

- ❖ Inspection: Clean when flow rate decreases or pressure differential increases significantly.
- ❖ Replacement: Replace every 6-12 months (adjust based on water quality and frequency of regeneration).

*For specialized applications or customized solutions, please contact FFM Inc. directly.