

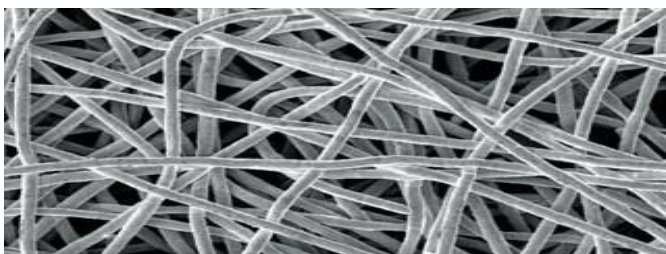
PLEATED SS316 SINTERED FIBER FELT FILTER ELEMENTS

Totally regenerable filter cartridge
Very tight filtration grades up to 0.5um
For high-temperature and high corrosion processing application

HYPROSTEEL

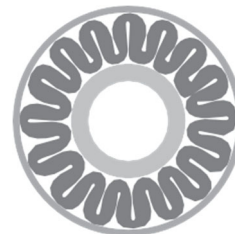
High mechanical strength and excellent chemical resistance

The HYPRO STEEL filter element is made with a special filter media consisting of sintered microfibres of 316 stainless steel (other alloys available on request) that form a 3-D structure, typical of depth filters. For superior mechanical strength, the filter media is bonded in a sandwich of two metal meshes. To maximise the filtration surface area, both the media and its support meshes are pleated around a central core, also made from 316 stainless steel, and welded to the base with pulsed micro-tig weld technology. HYPRO STEEL is a depth filtration cartridge that must not be mistaken for similar sintered powder or metal mesh based cartridges, classified as surface filters. Available in a variety of configurations and with filtration grades range from 0.5 to 75 microns, these cartridges ensure very accurately defined retention. The cartridge has an extremely favourable void/filled ratio, leaving a large volume of free space, increasing the contaminant particulate holding capacity, the flow rate by up to 4 times and facilitating regeneration. Additionally, the filter media is pleated to increase the effective filtration area. The HYPRO STEEL element is completely regenerable and inert, and no adhesives or resins are used in its assembly. The fibres are welded by a special sintering process, which bonds each fibre to the next without compacting them and preventing any fibre release. The entire cartridge is made from a single material: 316 stainless steel, or other alloys on request (Inconel® – Astelloy®).



STEEL SINTERED FIBER FELT

3D STEEL FELT MEDIA PLEATED HYPROSTEEL



A safe, high precision depth filter cartridge with exceptional chemical resistance

TECHNICAL SPECIFICATIONS

- depth 316 ssteel fiber felt, high retention efficiency (>99%)
- Flow rate up to 4 times higher than sintered powder cartridges
- Pulsed micro-tig welding; heat distortion, oxidation and sensitization are eliminated
- wide chemical compatibility, easily regenerated with strong chemical products
- low filtration costs by providing longer on-stream life and avoiding increasing disposable replacements
- all materials meet the requirements of FDA CFR Title 21 for food contact
- in compliance with EC Directive for food contact. Regulation (EU) No.10/2011+amendments;1935/2004-1895/2005

OPERATING CONDITIONS

Max operating temperature SS316 ICONEL® HASTELLOY®	360°C@1.5bar - 680°F@21psid 560°C@1.5bar - 1040°F@21psid 600°C@1.5bar - 1100°F@21psid
Suggested operating pressure range	0.1 to 2.5 bar – 1.5psid to 45psid

PORE SIZE RATING (efficiency 99.99% - multipass test)

1.0.µm – 3.0µm – 5.0µm – 10.0µm

Other grades on request

FLOW RATE

Water Flow 20°C @0.1 bar /10"	1.0µm	3.0µm	5.0µm	10µm
Typical Flow Rate (l/min)	30	34	40	50

Extrapolation for multiple housings and higher pressure drops is acceptable, but as flows increase the pressure drop of the housing becomes more apparent

FILTRATION AREA

0.13m²/10"

MATERIALS OF CONSTRUCTION (other alloys on request)

Filtering media	ss316 multi-layer wire mesh
Supports	ss316
Inner sleeve	ss316
Cage	ss316
Gaskets	Silicone (standard), EPDM, Viton, FEP

DIMENSION

Length	254mm (10")-508mm (20")-762mm (30")-1016mm (40")
Outer diameter	69mm
Inner diameter	26mm