



Precision Filtration (Shanghai) Co., Ltd.

Data Sheet • UMCF Vessel

Industrial Liquid Filtration Solutions



Mechanical Self Cleaning Filter Vessel

Design for high viscous and abrasive liquids

Durable performance with unique bridge actuator system

Mechanical Operation Principle

Raw liquid enters via the inlet and travels from the inside to the outside of the filter media, contaminants are retained on the inside, clean filtered liquid exits via the outlet. The cleaning disk travels down and then back up by the use of a pneumatic cylinder.




The flow pattern concentrates contaminants at the bottom of the filter housing and the concentrated solids are periodically purged. Purging lasts less than one second, releasing only the volume of the collection chamber and avoiding process interruptions. DF filters are ideal for continuous flow (and therefore batch) applications. In every case, these filters offer significant advantages over alternative filter designs.



UMCF Features

- Automatically cleaning, filtered fluid automatically exiting.
- Eliminated media disposal costs, no bag, no cartridge.
- Automatic mechanically operation, reduced or eliminated operator intervention.
- Pneumatic driven, no need of electric power, safe, reliable and economic.
- Multi-flow rate available, accommodate a vast range of your application.
- Wide applications, mainly for high viscosity, corrosive liquid, viscosity up to 1000000cp.

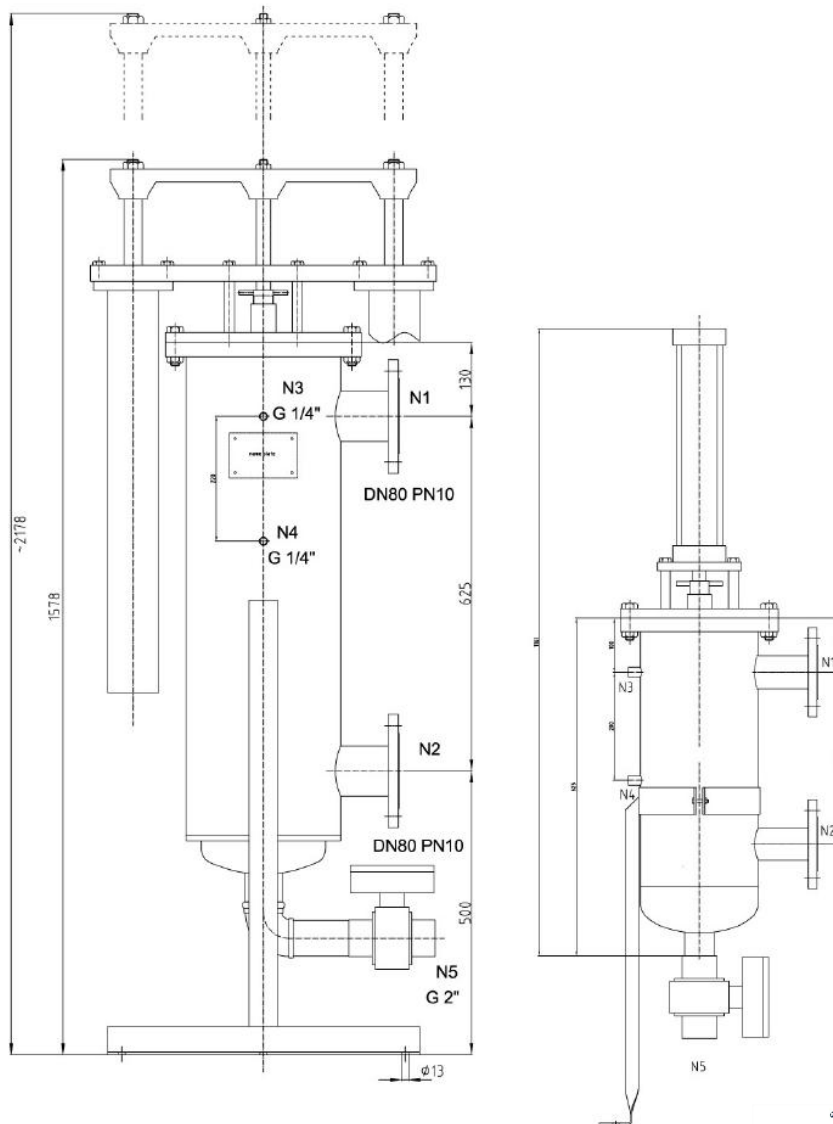
UMCF Engineering Specifications

Specification / Type	UMCF-4	UMCF-8	UMCF-16
UMCF Product Picture			
Filtration Precision	25um - 400um	25um - 400um	25um - 400um
Total Volumetric Capacity	3.5liters	14.8liters	41.6liters
Purge Chamber Capacity	119ml	0.74liters	6liters
Filtration Surface	722cm ²	1703cm ²	3935cm ²
100um Max flow rate (m ³ /hr)	0.45-6.8m ³ /hour	2.27-13.6m ³ /hour	6.8-45.4m ³ /hour
Temperature, maximum (°C)	160 °C	160 °C	160 °C
Pressure, maximum	21bar	10bar(standard)	10bar(standard)
Single Unit Weight	16kg	34kg	97.5kg
Service Height	1556mm	1760mm	2591mm
Air for Actuator Drive, min.	4bar@8.5 m ³ /hr	4bar@8.5 m ³ /hr	5bar@8.5 m ³ /hr
Material of Construction	All Wetted Parts	Type 304 or 316L stainless steel	
	Filter Element		
Standard Inlet/Outlet	1 1/2" BSP socket	2" Flange	3" Flange
Surface Finish	Glass bead blasted		

UMCF Selection reference

Liquid	Viscosity (cps)	UMCF-4	UMCF-8	UMCF-16
water	1	3	12	45
Glue	10,000-50,000	1	4	12
Edible Oil	10-100	3	12	45
Honey	50-100	3	12	45
Printing Ink	100-1,000	3	12	45
Ink	10-100	3	12	45
Coating	500-1,000	3	12	45
Resin	5,000-50,000	1	4	12

UMCF Vessel Engineering Drawing



Precision Filtration (Shanghai) Co., Ltd.

No.225, Hufa Road, Fengxian District, Shanghai 201415, P.R.China
 Tel.: +86-21-5923 8005
 Fax: +86-21-5923 8006
 Email: sales@precisionfiltrationsh.com
 Website: www.precisionfiltrationsh.com



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