

HIGH-CAPACITY FILTRATION FOR EFFICIENT SEPARATION OF SOLIDS & LIQUIDS

HIGH CONTAMINANT HOLDING CAPACITY
LARGE DIAMETER, HIGH FLOW
UNIQUE LAYERED CONSTRUCTION

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High solid loading within refinery & treatment process applications is becoming an increasing challenge for plant operations & maintenance teams. Conventional filtration systems, while correctly rated in terms of particulate efficiency, can rapidly become overloaded due to the sheer volume of contaminants in liquid process applications. This leads directly to rapid differential pressure increases across filter systems, which results in more frequent filter cartridge change-out intervals. The result is a rise in Total Cost of Ownership (TCO) due to increased downtime, increased manpower requirements & increased spare parts replacement.

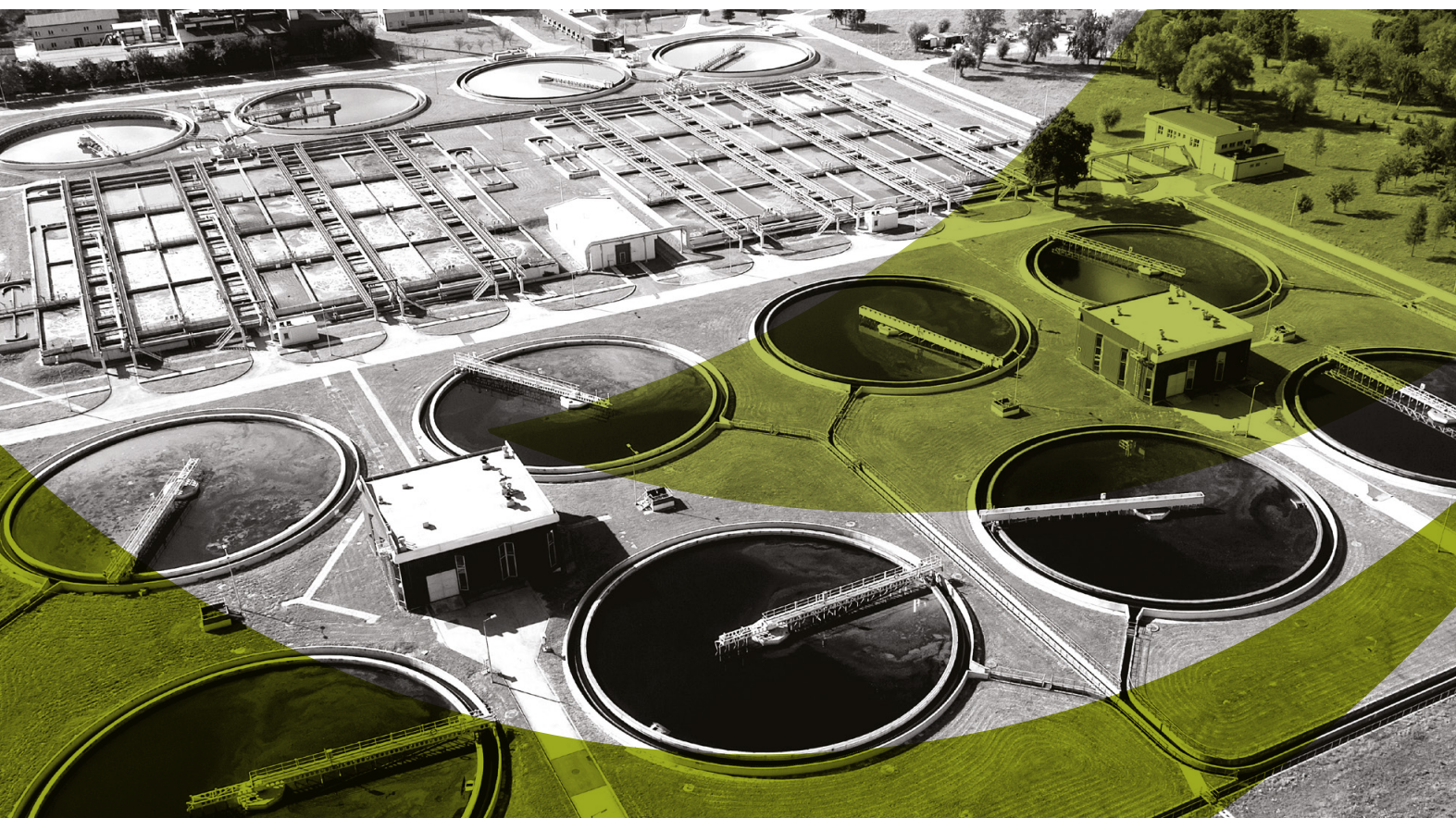
In response to the growing levels of contamination across a variety of process applications, **Celeros Flow Technology** has developed a new range of High-Capacity (HC) filtration solutions that deliver high contaminant retention efficiency with minimal impact on process parameters. Customers can select from a total system solution to match specific application needs or opt to upgrade their existing filter arrangement with a HC filter cartridge from our standard range.





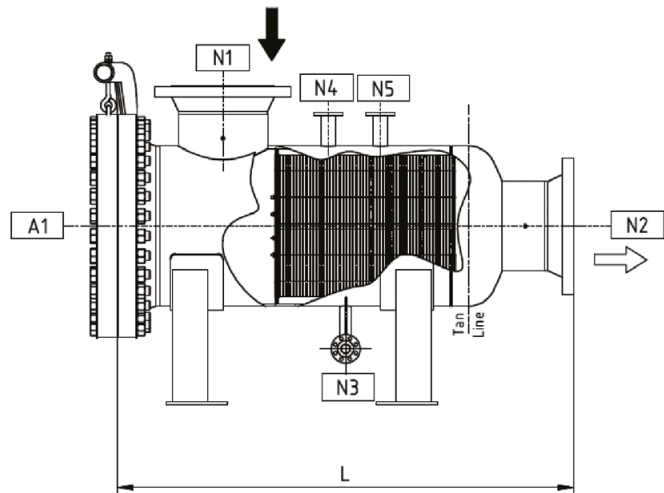
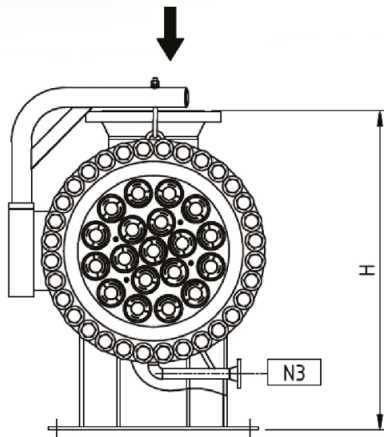
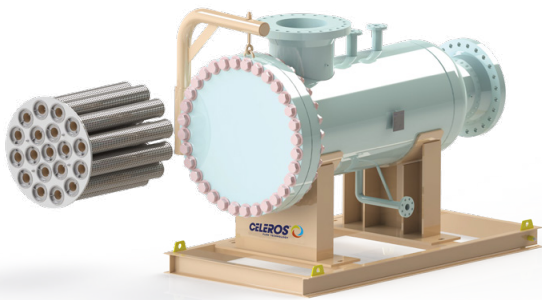
TYPICAL APPLICATIONS

- Amine/Glycol Systems
- Liquid Separation
- Pre-Filtration
- Process Water
- Power Generation
- Specialty Chemicals
- Water Treatment
- Seawater Systems
- Injection & Source Water
- Machining & CNC Coolant



HIGH-CAPACITY FILTRATION DESIGNED FOR YOU

Celeros Flow Technology offers a range of HC Filtration options, so customers can choose the best solution for their needs. Our OEM expertise means we can design, manufacture and deliver a bespoke HC filtration system to precisely match your operational parameters.



VESSEL SPECIFICATION

Material of Construction:	Carbon Steel / Stainless Steel / Alloy Steels
Design Code:	ASME VIII Div.1 (Latest) incl. U-1A
Design Pressure:	40 barg (ANSI 300) as standard
Design Temperature:	80°C as standard
Access:	ANSI B16.5 / B16.47 as standard – QOC if specified

Model	Vessel Diameter NB	Standard Process Connection	Cartridge Quantity	Max. Rated Flow (gpm)		Vessel Length L (mm)	
				40"	60"	40"	60"
HC-U080301XXYYZM	8"	3"	01	350	500	1690	2250
HC-U160602XXYYZM	16"	6"	02	700	1,000	1830	2520
HC-U180803XXYYZM	18"	8"	03	1,050	1,500	1890	2640
HC-U200805XXYYZM	20"	8"	05	1,750	2,500	1920	2640
HC-U241008XXYYZM	24"	10"	08	2,800	4,000	2150	2810
HC-U301212XXYYZM	30"	12"	12	4,200	6,000	2380	3060
HC-U321615XXYYZM	32"	16"	15	5,250	7,500	2460	3130
HC-U362019XXYYZM	36"	20"	19	6,650	9,500	2550	3250

Standard HC Filter sizes and ratings

Vessel details as listed are indicative. Please consult with the factory for application specific sizing based on actual process flowrates, fluid characteristics, contaminant loadings & filtration ratings.

FILTER CARTRIDGE

A unique filter design with a layered and pleated media pack construction is central to the success of our HC Filtration solutions. The filter is contained within a cartridge that features an inside-to-out flow pattern. This ensures that solid contaminants are trapped and held within the cartridge and cannot accidentally fall into the clean side of the filter housing during replacement.

- High volume contaminant removal to β 5000 efficiency
- Excellent particulate retention across a range of sizes
- Minimal impact on process parameters
- Quick and easy filter cartridge removal/replacement
- Extended service life

Designed for a maximum flowrate of 500 USgpm, HC Filter cartridges are available as standard in a range of lengths and particulate sizes.

Cartridge Diameter	6"	End Caps	Glass Filled Polypropylene Glass Filled Acetal	
Cartridge Length	20", 40", 60"	O-Ring Material	EPDM FKM	BUNA-N Neoprene
Rated Flow Rate (USgpm)	175, 350, 500	Micron Ratings (μ m)	1, 2, 5, 10, 20, 40, 70, 90	
Filtration Media	Polypropylene Glass Fibre w/ Polyester Polyester	Retention Ratings	B ₅₀₀₀ (99.98%)	
Maximum Service Temperature	Polypropylene – 82°C Glass Fibre w/ Polyester – 120°C	Maximum Differential Pressure	2.5 – 3.0 barg Changeout	
Support Material	Polypropylene Polyester / Nylon Stainless Steel	Flow Direction	In to Out	

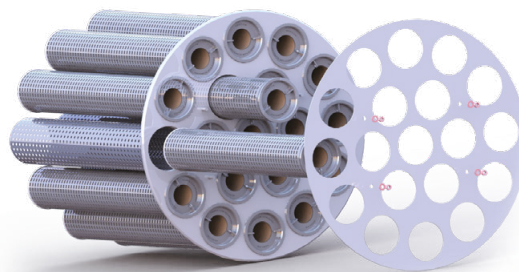
Standard HC Filter sizes and ratings

FILTER CONFIGURATIONS

The table below shows how to compile a standard HC Filter part number. Please consult with the factory for Series 600 applications.

HC - U	—	—	—	XX	YY	Z	M
Orientation	Vessel Diameter	Process Connection	Cartridge Quantity	Micron Rating	Cartridge Length	Flange Rating	Vessel Material
H Horizontal	08	03	01	01	20 20"	1 ANSI S150	A Alloy
V Vertical	16	06	02	02	40 40"	3 ANSI S300	C Carbon
	18	08	03	05	60 60"	6 ANSI S600*	S Stainless
	20	08	05	10			
	24	10	08	20			
	30	12	12	40			
	32	16	15	70			
	36	20	19	90			





GETTING THE MOST FROM YOUR CELEROS FT HIGH-CAPACITY FILTRATION SOLUTION

SELECTION

Discuss your requirements with the Celeros FT team to ensure that you are entirely satisfied with the suitability of the chosen filtration equipment for your intended application.

INSTALLATION

Direction is critical to the operation and performance of Celeros FT HC Filters. The filter cartridges must be fitted such that flow is from the inside of the element to the outside. Inlet and outlet connections are clearly identified on the equipment General Arrangement drawings.

OPERATION

Always observe the pressure and temperature limits, and make sure that the equipment is being used and operated correctly.

MAINTENANCE

Replace filter cartridge elements when the maximum ΔP (changeout pressure) across the filter has been reached. Failure to do so may cause damage to the filtration membrane and allow debris to pass into the process downstream of the filter.

UNSURE OF YOUR CONTAMINANT LOAD?

Consult with our Sales & Process Engineering teams regarding the benefits of the Filtration Testing services offered by Celeros Flow Technology. Accurate contaminant load analysis & determination allows for a more targeted & cost-effective filtration solution specific to your application.

Email our teams

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