

# UNIQ-FLOW LIQUID/LIQUID COALESCERS

PROVEN SUPERIOR PERFORMANCE  
LARGER DIAMETER, GREATER FLOW  
SMALLER VESSEL SIZE, LOWER COST



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©PLENTY®





### TYPICAL APPLICATIONS

- Condensate Cooling
- MEG Removal
- Water from Diesel
- Oil from Water
- Amine Gas Sweetening
- Water from Condensates
- Water from Kerosine
- Recovery of Hydrocarbons from Water
- Glycol Applications



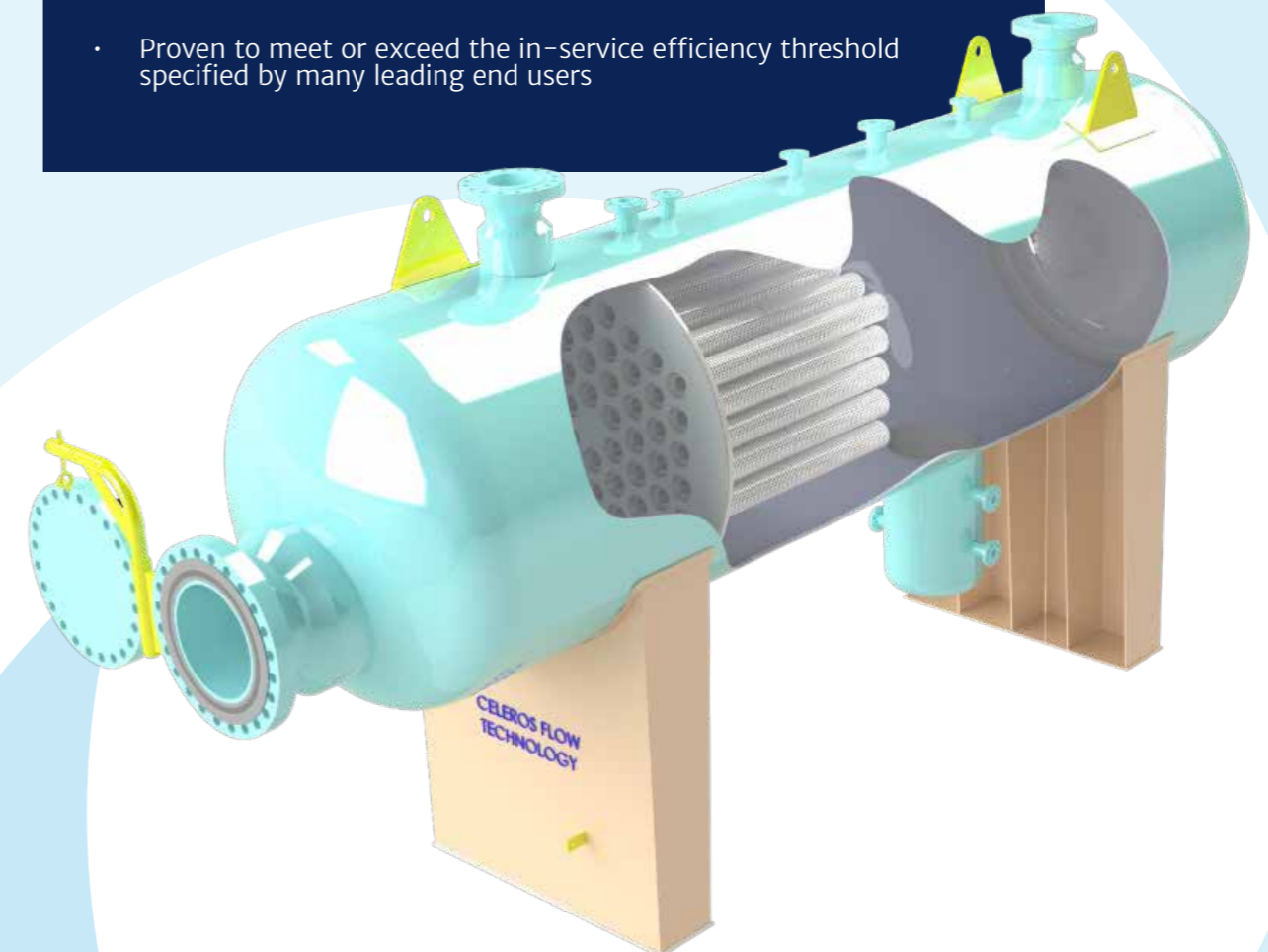
## Celeros Flow Technology offers a new range of Liquid/Liquid (L/L) Coalescers designed to separate hydrocarbons from water phases to >10ppm efficiency.

Based on the cumulative expertise of our Dollinger and Plenty brands, our UNIQ-FLOW Liquid/Liquid Coalescers, support customer efforts to improve product quality, reduce or remove unwanted haze and impurities, and recover other valuable products.

These new UNIQ-FLOW L/L Coalescers feature a unique pleated filter design to optimize liquid contaminant capture rates and extend time to maintenance. Their ability to form consistently larger droplet sizes results in shorter separation distances, which reduces vessel length to save space and reduce cost. Verified performance characteristics give further reassurance that UNIQ-FLOW L/L Coalescers from Celeros FT can deliver optimum results for a lower total cost of ownership.

### WHY SPECIFY CELEROS FT UNIQ-FLOW LIQUID/LIQUID COALESCERS?

- Reduced vessel size and cost
- Longer time between filter changes
- Verified performance characteristics
- Standard or custom build option
- Proven to meet or exceed the in-service efficiency threshold specified by many leading end users

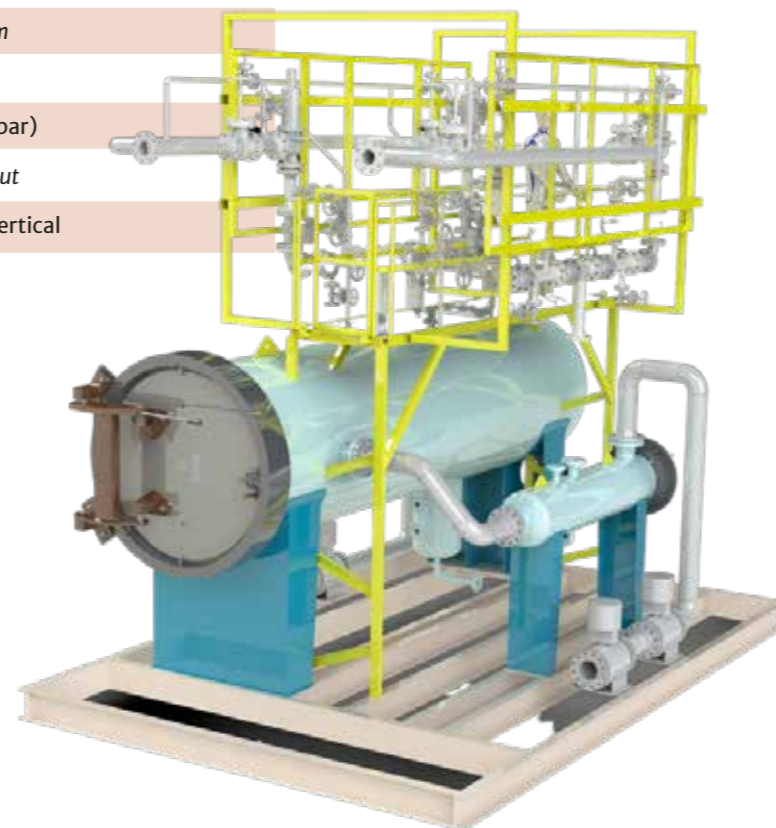


# TECHNICAL SPECIFICATIONS

Celeros FT UNIQ-FLOW L/L Coalescers are equipped with both pleated polymer and glass fibre filtration media with an absolute ratings at 10 microns. These filters are available in standard size ranges or can be custom designed specifically to individual process requirements for optimum performance.

Housing constructions are offered in carbon, stainless steel and duplex / super duplex stainless steel materials, with alloy 625 / 825 clad / overlaid materials also available. Each unit is designed specific to end user code requirements including ASME Div. 1 Div. 2, PED, GB-150 and PD5500.

Cartridge Diameter	Up to 6" (152mm)
Cartridge Length	Up to 60"
Rated Flow Rate (USgpm)	Typically to 3000
Filtration Media	Pleated Polymer PTFE Fibreglass
Maximum Service Temperature	200°C
Support Material	Polymer 316 Stainless Steel
End Caps	Polymer 316 Stainless Steel
O-Ring Material	Nitrile Viton PTFE Encapsulated <i>To suit process requirements</i>
Parts Per Million (ppm)	10 / 20 ppm
Retention Ratings	Absolute
Maximum Differential Pressure	100 mbar (1 bar)
Flow Direction	Inside-to-Out
Orientation	Horizontal or Vertical



## VESSEL SPECIFICATION

- Material of Construction:** Carbon Steel / Stainless Steel / Alloy Steels / Clad
- Design Code:** ASME VIII Div.1/2 (Latest) incl. U-1A
- Design Pressure:** Typically to 40 barg (ANSI 150/300) d
- Design Temperature:** Typically 80°C
- Access:** ANSI B16.5 / B16.47 as standard – QOC if specified

# VERIFIED PERFORMANCE

Market demand for higher quality products and prolonged periods of uptime mean that flow control equipment like coalescers has to work more accurately and more reliably for longer.

We tested our UNIQ-FLOW L/L Coalescers against their nearest rivals in the market to validate their performance, using ATEX test methods and jet fuel as the test medium. Three tests were performed on each coalescer to obtain the average efficiency.

The tests were conducted at our Newbury Test Facility. This facility has the capability to flow hydrocarbon liquids contaminated with secondary dispersions at a controlled rate, and to remotely monitor and record all physical characteristics.

## TEST RESULTS

Element Type	Flow l/h	Pump rpm	Dispersion ppm inlet	Temp. C	DP bar	Efficiency ppm	Dissolved water ppm	Final efficiency ppm
COMPETITOR A	4000	2800	2249.85	19.7	0.06	66.30	41.53	24.77
DOLLINGER	2100	1700	4066.27	19.4	0.05	63.96	41.53	22.43

Due to the high Flux rate (flow per cartridge) witnessed, a clear interface between water & fuel provided an increased stable droplet formation.

The droplet sizes formed during testing were larger than anticipated, so the Celeros FT R&D engineers were able to shorten the separation distance and significantly reduce the overall length of the vessel. This provides a more cost effective solution whilst meeting the required efficiency.



## EXCEEDING EXPECTATIONS

It is clear from the testing undertaken that Celeros FT UNIQ-FLOW Liquid/Liquid Coalescers not only meet, but can exceed, the in-service efficiency threshold specified by many of our customers and industry standards.



## GETTING THE MOST FROM YOUR UNIQ-FLOW LIQUID/LIQUID COALESCERS

### SELECTION

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

### INSTALLATION

Direction is critical to the operation and performance of Celeros FT UNIQ-FLOW Liquid/Liquid Coalescers. The filter elements 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

Generally pre-filtration is required to ensure long service life, however, replace filter cartridge elements when the maximum AP (Changeout differential pressure) across the filter has been reached. Failure to do so may cause damage to the element structure and allow contaminant to pass into the line downstream of the coalescer.

### 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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