

# ON-SITE FILTRATION TESTS FOR GAS PROCESSING

IMPROVE OPERATIONAL EFFICIENCY  
ENHANCE PRODUCT QUALITY  
REDUCE DOWNTIME AND COSTS

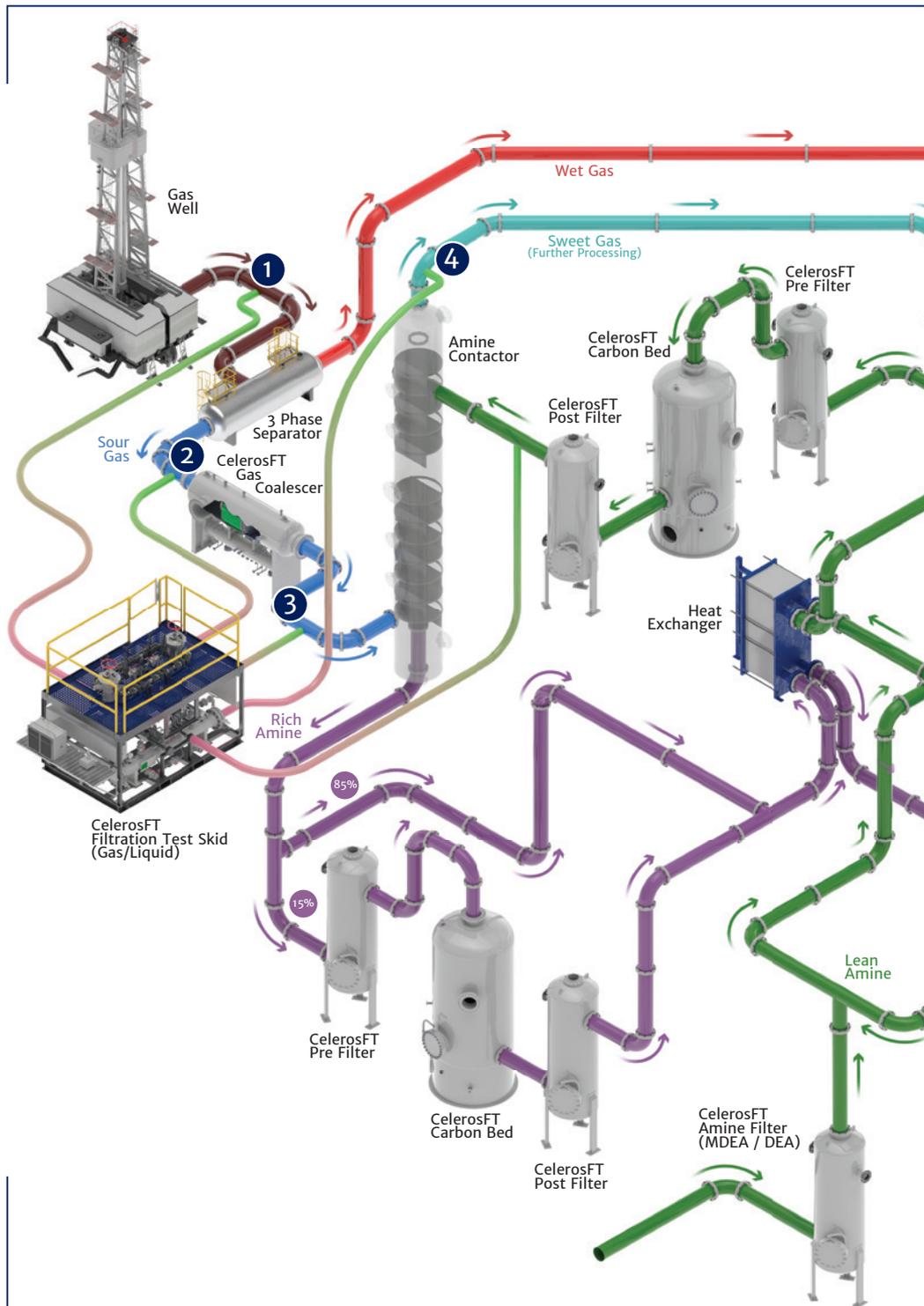
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Filtration plays a key role in ensuring that Oil & Gas / Petrochemical plants are operating efficiently: contributing to consistent product quality and preventing damage to equipment – which in turn reduces costs. But selecting the right filter for the job can be problematic: and where filters are incorrectly applied or not properly maintained, the knock-on effects can include reduced process efficiency, product contamination and unscheduled downtime – all of which affect profitability.

- 1. Source Gas at Inlet to Plant**
  - Analysis of untreated gas from the well head
  - Determination of liquid loading, solid particulate content & gas composition
  - Assessment of requirement for particulate filtration upstream of high efficiency gas coalescers
  - 3 Phase separator optimisation
- 2. Sour Gas / Wet Gas Analysis – Upstream of existing or proposed coalescer installation**
  - Determination of 3 Phase Separator efficiency
  - Direct measurement of coalescer inlet liquid loading, solid particulate levels, dewpoint & gas composition analysis
  - Demonstration of CelerosFT coalescing/separator technology & suitability for application
  - Demonstration of solid particulate pre-filtration technology
- 3. Coalescer Outlet – Performance Analysis**
  - Liquid & Solid loading measurement – direct verification of coalescer performance & filtration efficiency
  - Analysis of key markers for Retrograde Condensation occurrence via liquid loading & dewpoint measurements
  - Demonstration of CelerosFT technology effectiveness in dealing with R.C. occurrences
  - Validation of existing CelerosFT equipment performance.
- 4. Processed Gas Condition**
  - Measurement of gas quality upstream of next process steps
  - Analysis of gas dehydration requirements
  - Verification of contaminant levels of sales gas at point of use e.g. gas turbine inlet
  - End User analysis of inlet gas condition

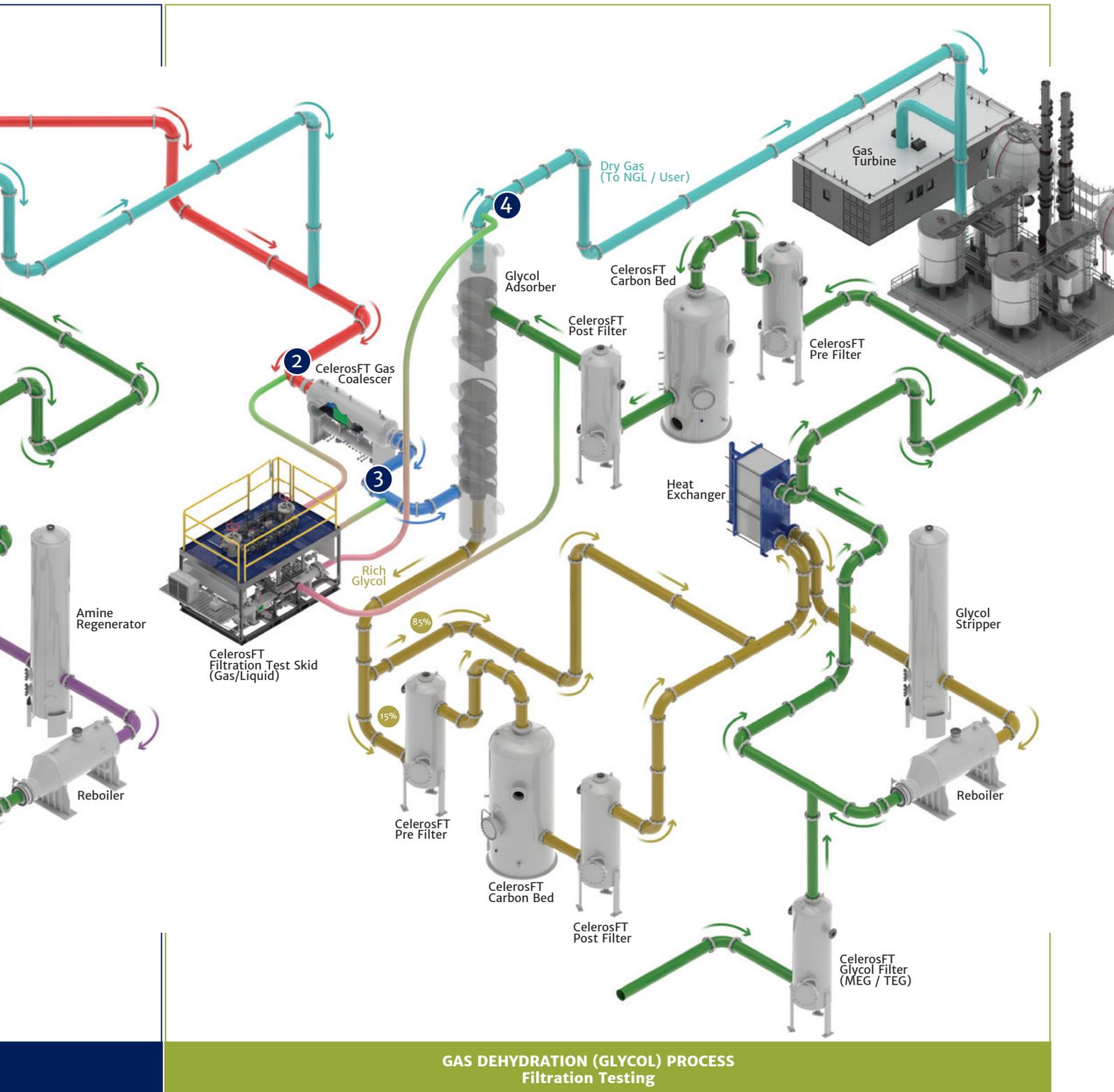


**ACID GAS SWEETENING (AMINE) PROCESS**  
Filtration Testing

Celeros Flow Technology (Celeros FT) can undertake a comprehensive series of tests using its proprietary on-site Gas Filtration Test Rig to give customers a better understanding of their gas process and filtration requirements. Using data gathered during the test, it is possible to accurately gauge the actual liquid & particulate levels in the process flow and select the best filters for the application – boosting throughput and optimizing production.

## BENEFITS OF ON-SITE FILTRATION TESTING

- Improved operational efficiency
- Reduced use of Anti-Foaming additive
- Enhanced product quality
- Extended element lifetime
- Longer maintenance intervals
- Reduced shutdowns
- Lower TCO



**GAS DEHYDRATION (GLYCOL) PROCESS**  
Filtration Testing

## TECHNICAL CAPABILITIES

Supporting a 9,000Nm<sup>3</sup>/hr flow rate, the Celeros FT on-site gas filtration test skid is suitable for midstream and downstream process gas applications. It can be used to undertake tests on coalescing efficiency at actual gas process conditions, covering pressures of up to 75 bar and temperatures reaching 65°C.

Key capabilities include:

- Support for the testing of liquid aerosol coalescing to 99.97% at 0.3µ efficiency.
- Absolute solid particulate loading measurement down to 0.45µ particle sizes.
- Fully digital data acquisition to facilitate subsequent analysis work.
- Delivery of full flow testing capabilities up to 200 Am<sup>3</sup>/hr.
- Compatibility with an extensive range of different filter element sizes that are available through Celeros FT Dollinger and Plenty brands.

Celeros Flow Technology test skids are suitable for deployment in both Amine-based and Glycol-based processing systems, as well as being of value in protecting gas turbo compressors, gas separation membranes, molecular sieves, turbines and NOx burners. Their ATEX Zone 1 rating means they can deal with even the most hazardous of application environments.

To discuss your project requirements or book a test, contact our Filtration team today.



E: plentyfilters@celerosft.com  
E: dollinger.sales@celerosft.com

### MIDDLE EAST

Dubai, U.A.E. P: +971 4 5289 555

### US

Houston, TX P: +1 800 344 2611

### EUROPE

Killarney, Ireland P: +353 64 6633322

Newbury, UK P: +44 1635 42363

[www.celerosft.com](http://www.celerosft.com)

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