

Oil and Gas: Application Focus

Condensate Stabilization/Fractionation

Ensure your stabilization reliably meets your daily production quotas and outlet quality needs.

Process Description

Natural gas condensate stabilization and fractionation processes reduce the vapor pressure of liquid hydrocarbon condensate to a value ensuring safety during transportation and storage, and perform an important separation of lighter from heavier ends. The natural gas condensate is either stabilized to remove C1-C4 hydrocarbons in a single column, or is fractionated in stages sequentially removing one or more of ethane (C2), propane (C3) and butane (C4) in multiple columns. The stabilized condensate has had the more volatile 'light ends' stripped out, making it less susceptible to spark ignition. The separated products are also more valuable as petrochemical feedstocks or other uses. Keeping the column(s) free from fouling and corrosion from salty water and solids ingress is critical to maintain process efficiency and reliability.



Gas Plant Needs

- Achieve or exceed condensate and lighter products production quotas via reliable stabilization/fractionation and separation of natural gas condensate
- Maintain process reliability for consistency of natural gas

and condensate production, minimization of downtime, and reduced maintenance

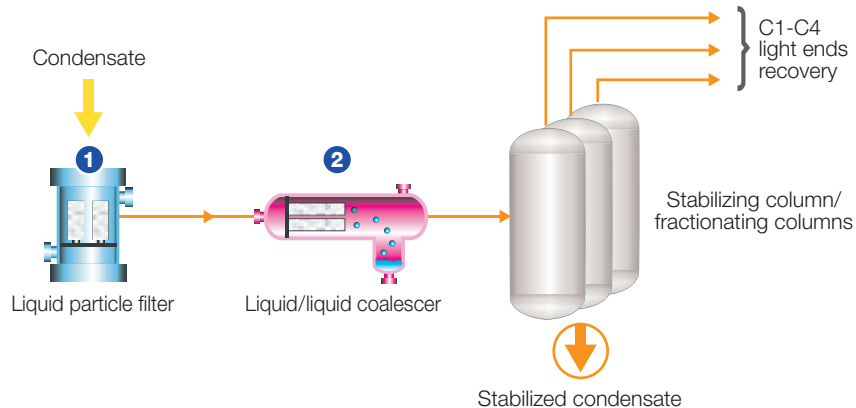
- Improve process safety by reducing the need for column and reboiler cleanouts and internals replacements
- Provide stable operation, consistent on-spec sales condensate

Production Challenge/Pall Solution

Challenge	Solution
<p>Increased downtime and maintenance, process upsets causing off-spec products due to deposits and corrosion in stabilizer columns and reboiler caused by salty water and particulate contaminants in the condensate that do not easily separate due to stable emulsions</p>	<p>Improve your stabilizer productivity and reliability with effective liquid water and solid removal upstream of the stabilizer to protect against deposits and corrosion.</p> <ul style="list-style-type: none"> • Solid particle contaminants in condensate are mostly very fine corrosion products that may not be adequately removed by filters that exhibit poor removal performance, unloading, media migration, channeling, or poor sealing. • A range of absolute and nominal rated filter elements is available to reduce suspended solids to <5 ppmw, keep the process equipment clean, and reduce related fouling issues. • High efficiency AquaSep® EL, XS or PhaseSep® liquid/liquid coalescers reliably meet 'clear and bright' product specification and <20 ppmw downstream per Aqua-Glo¹ measurement to maximize salt and water removal. Offering excellent process equipment protection from brine-initiated corrosion and fouling.

¹ Aqua-Glo is a trademark of Gammon Technical Products Inc.

Process Flow Diagram



Key Applications/Filter Recommendations (other applications not shown)

Application	Pall Product	Advantages	Customer Benefits
1 Prefiltration prior to liquid/liquid coalescer	Ultipleat® High Flow filters, Ultipleat High Flow HT filters, Profile® Coreless filters, Marksman™ filters	High filtration efficiency, reproducible performance, easy changeout, and long filter life	Ensure long life of the coalescers, eliminate particulate fouling of the stabilizer columns
2 Stabilizer column protection	AquaSep® XS, AquaSep EL or PhaseSep® liquid/liquid coalescers	High efficiency specially formulated coalescer media for the separation of stable liquid mixtures	Safe and reliable production of hydrocarbon liquids by protecting stabilizer columns from brine-initiated corrosion and fouling

For fast track upgrades, NO CAPEX:

Pall-Fit filter and coalescer retrofits enable a move to Pall quality without change to your existing filter housing
Pall filter and coalescer housing rentals enable a technology upgrade for rapid problem resolution

Experience Matters

Don't take our word for it. Just ask the thousands of oil and gas engineers around the world why Pall is their supplier of choice for filtration and separations solutions. Let them tell you how our extended filter life and simple maintenance protocols save them time that can be spent on value-add process improvements. Ask them about the reliability and consistent output from the Pall systems installed in their critical processes. You don't want to spend time worrying about your filters and coalescers, and we don't want you to either.

Contact Pall today and let us put our 50+ years of experience to work for you.



Pall Corporation

Fuels and Chemicals

25 Harbor Park Drive
 Port Washington, New York 11050
 +1 516 484 3600 telephone
 +1 888 873 7255 toll free US

www.pall.com/contact



Visit us on the Web at www.pall.com

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