

EFFECTIVE, ECONOMICAL

EMULSION AND FOULING

CONTROL

FOR ETHYLENE PLANTS

DORF KET  LTM

*Innovation isn't just what we do.
It's who we are.TM*

Superior Emulsion and Fouling Control at Lower Cost

Specifically Prescribed to Solve Your Problems in Your Quench Water Systems

We analyze your feed, conduct tests and prescribe highly customized treatments that deliver maximum performance two ways: by breaking quench water system (QWS) emulsions and by controlling the polymerization reactions that cause dilution steam generator (DSG) fouling.

Gasoline and condensate separation improve in the quench water tower and condensate is cleaner when it arrives at the DSG reboiler, making polymerization and fouling easier to control. Dorf Ketal's combination high-temperature antipolymerant-dispersant inhibits oxidation and blocks propagation of polymer chain reactions in DSG systems, dissolving some existing deposits and preventing further deposition.

Dosages are specifically tailored for maximum effectiveness in your system at the lowest total cost.

Customized Treatment Maximizes Effectiveness

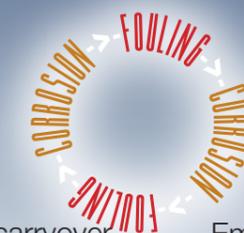
- Increases Quench Tower and DSG Performance
- Improves Oil / Water Separation
- Enhances Water Heat Recovery
- Reduces Maintenance Costs
- Increases Energy Efficiency
- Extends DSG Reboiler Run Length

Emulsions and Fouling Explained

Strong emulsions and hydrocarbon carryover are the primary causes of fouling in process water strippers and dilution steam generators.

Emulsions form as heavier hydrocarbons and steam condense along with tars, salts and oily contaminants in the quench tower or quench water separator. Heavier condensates tend to settle out, but lighter hydrocarbons and polymerized materials are more likely to emulsify.

Emulsions are especially troublesome in gas cracking systems, which lack quench oil towers to remove the coke fines and tars. Liquid crackers have quench oil towers (also called primary fractionators) that help separate these heavies, reducing the likelihood of emulsions. But serious emulsion problems can still occur in liquid crackers and mixed-feed crackers, especially those processing aromatic feedstocks.



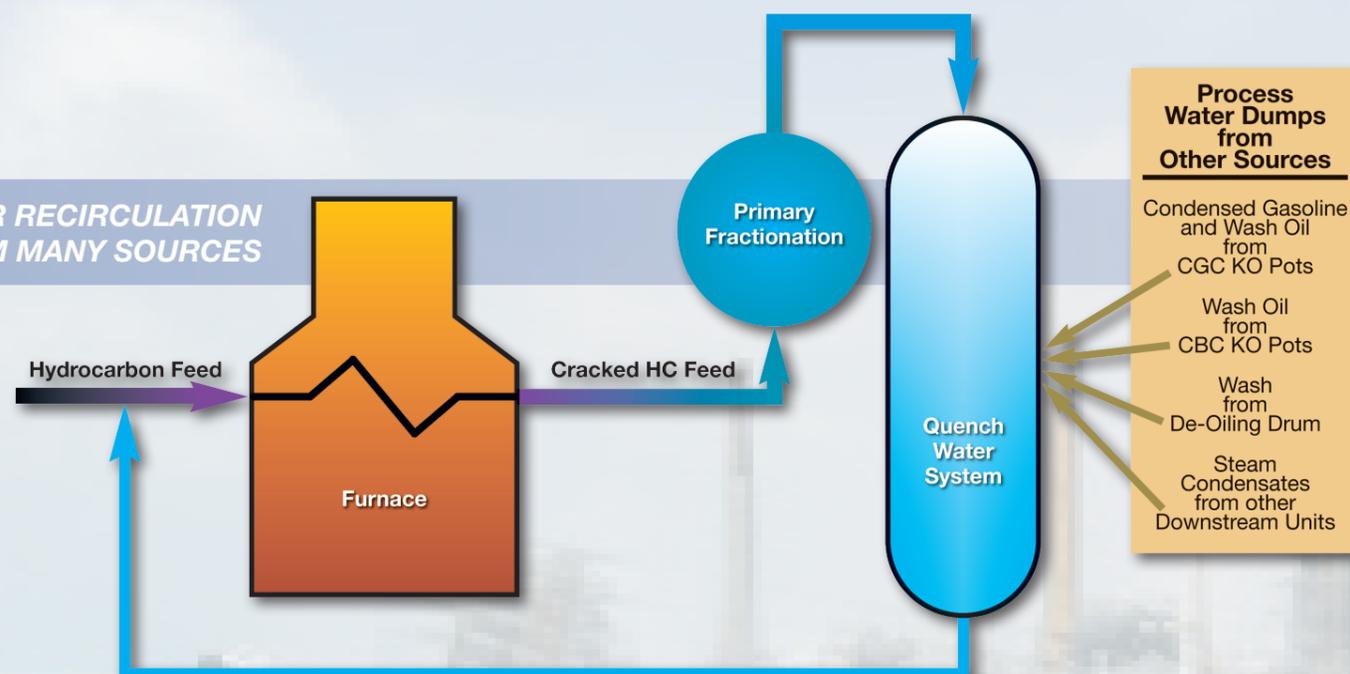
Emulsions become even harder to separate when pH is above 8, a condition often caused by high dosages of caustic, ammonia or neutralizing amines. A slightly acidic environment (pH 5.5-6.5) improves hydrocarbon-water separation, but acidity must be monitored carefully to prevent corrosion problems in preheat exchangers, circulation exchangers or DSG reboilers.

Every ethylene plant is unique.

Selection of the right treatment chemistry and proper dosing are critical, not just for pH control but also to prevent formation of insoluble salts that can make DSG fouling and corrosion worse. These precipitates can trap acids in low-velocity areas, causing localized corrosion "hot spots" even when overall system pH appears nominal.

With that in mind it pays to conduct a system-wide survey to address potential corrosion problems whenever emulsions and fouling occur.

QUENCH WATER RECIRCULATION CONTAINS FOULANTS FROM MANY SOURCES



Solve your QWS problems for less with emulsion control and antifoulant protection designed specifically for your ethylene plant.

Contact your Dorf Ketal representative today.

INNOVATIVE TREATMENT

CUSTOM-TAILORED FOR THE PROBLEMS YOU FACE

Discover what Dorf Ketal can do for you.



*Innovation isn't just what we do.
It's who we are.™*

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