ProTreat ®

The only true mass and heat transfer rate-based simulator specifically for gas treating

ProTreat is the industry's most advanced simulation tool for gas treating. Because it is rigorously mass-transfer rate-based, it offers the ultimate in accuracy, reliability, and truly predictive power. ProTreat offers you unparalleled capabilities in design, plant optimization, and troubleshooting. A ProTreat model of your facility creates a virtual plant.

Design

Can anyone design a column without considering internals? Of course not, and column internals impact **treating performance**, not just hydraulics.

ProTreat uses detailed internals to accurately **predict** the treating performance of the column.

- Is your current simulator really **predictive**?
- Does it use or ask for residence times or efficiencies in an attempt to translate ideal stages to real internals?


Theoretical stages are just that—they're theoretical. Whether you're designing a new contactor or revamping an existing one, it's important to recognize that…

- Your internals vendor doesn't supply theoretical or ideal stages.

- Vendors supply steel trays and structured packing in wooden crates, and random packing in bags!

How can you be confident the translation from theoretical to real is accurate? The inputs required for translation are often just a best guess.

- ProTreat removes the guesswork and allows you to **guarantee** performance with complete confidence.
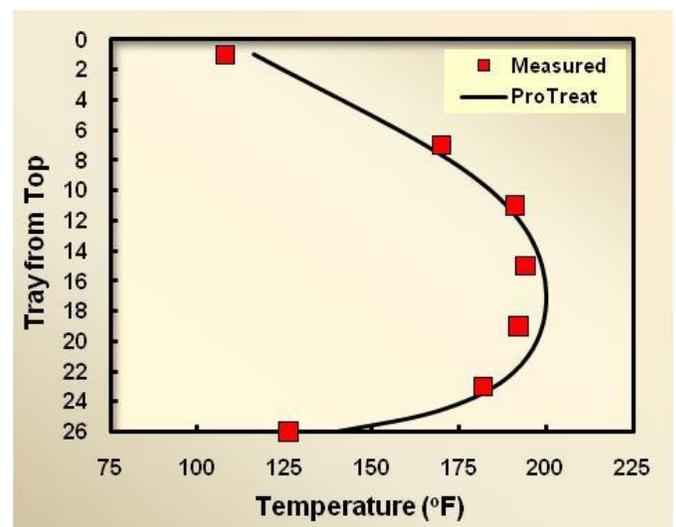
In selective treating, over- and under-design can be equally fatal. Avoid uncertainty.

Use ProTreat®** !**

Optimization

Many parameters can be adjusted in an operating plant to optimize performance. Amine strength, temperature, and solvent circulation rate significantly impact energy consumption. Because of its remarkably high accuracy and its intimate connection with tower internals, ProTreat very closely predicts plant performance. A ProTreat simulation is a virtual plant.

This makes ProTreat the ideal tool for optimization both in the design phase and afterwards, when the plant may be running at other-than-design rates and may be processing gas with other-than-design composition. After awhile, the condition of your treating solvent will likely not remain pristine, and ProTreat can also help with reclaiming decisions.

- ProTreat can accurately model the effect of sodium and heat stable salts (HSS), allowing you to decide the extent of reclaiming or replacement needed.

Using a blend or a specialty amine? No problem. ProTreat lets you simulate mixtures with up to three amines. ProTreat also offers the full INEOS$^{®}$ GAS/SPEC$^{®}$ solvent suite, the solvent in SELEXOL™ and Genosorb$^{®}$, glycols, caustic treating, and corrosion prediction, too. Most solvent vendors use ProTreat or a ProTreat-like model for selecting the best solvent for your application — it's simply the best tool available.

Shouldn't you use ProTreat$^{®}$ too?

Troubleshooting

You are the process engineer for an amine unit. Since coming out of a turnaround, performance has not been as promised. With margins at an all-time high, you estimate that on the present course the plant manager will be breathing down your neck in 10 days! Sound familiar?

Of course, you'll use data and a simulation tool rather than speculation to troubleshoot. However,

- if your tool idealizes certain critical unit operations of the amine system, how can you be confident in its output?

ProTreat models are based on what's actually in your plant and its columns. It asks only for information you can read from a process flow diagram and vendor data sheets. In the words of more than one ProTreat user,

- "If there's a discrepancy between plant data and what ProTreat says, the first thing I do is find out **what's wrong with the plant !**"

For example, troubleshooting via ProTreat simulation pointed to a leaking exchanger as the cause of poor treating. Although not as bad as shown in the photograph, when the exchanger was

taken out of service it was indeed found to have several small tube-sheet leaks. That's precision!

ProTreat's main advantage over other process simulation tools is its extremely close connection to reality. When there's minimal uncertainty in the simulation results, there's much less uncertainty in the deductions made in troubleshooting.

In troubleshooting,

ProTreat's authenticity is king!