

ReGen™ off-line regeneration

Off-line cleaning can be a cost effective way for a fabric filter user to both avoid the blinding of the filter surface from fine particulate penetration and potentially meet more aggressive particulate emissions standards. This approach avoids the particulate penetration that typically occurs during on-line cleaning as a result of the expansion of the fabric during the short burst of energy used for filter regeneration while the gases are flowing through the filter. Although off-line cleaning is an efficient way to avoid particulate emissions and bag blinding, in applications where it is employed following acid gas removal systems, this practice can result in increased emissions of acid gases and accelerated corrosion rates of the filter media. BoldEco's patented ReGen™ heating and regeneration system maintains the temperature in the baghouse compartment and regenerates the lost filter cake, reducing cold spots and avoiding acid gas neutralization losses.

why acid gas efficiency is lost

Whether a reverse gas filter or simply a pulse-jet operating on a process with a large fraction of fine particulate, the result of off-line cleaning is the same: when the baghouse compartment is brought back on-line, the cleaned bag does not have sufficient amounts of sorbent on its surface to reduce the acid gas content and thus a spike in acid gas emissions occurs.

With the entire compartment thoroughly cleaned of all available sorbent material, there is nothing preventing the acid gases from releasing to atmosphere. Not only is there no sorbent remaining to neutralize the acid gases, but in the time required for cleaning the bags, the metallic surfaces within the compartment can cool down dangerously close to acid gas dew point and become sites for acid gas condensation once the process gases are re-introduced into the compartment for filtration.

To protect against potential surface corrosion, a heating system is typically installed in the recycle loop to maintain the temperature in the compartment during re-generation.

advantages of ReGen™

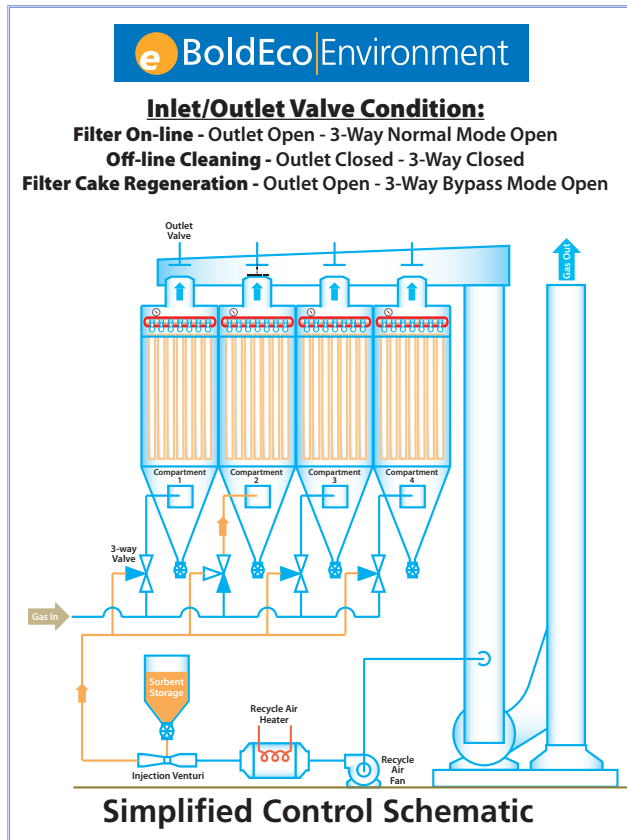
- reduces corrosion
- reduces particulate emissions during bag cleaning
- extends bag and cage life
- allows the use of low cost filter media
- lowers acid gas emissions
- reduces bag blinding
- reduces airlock corrosion
- reduces dirty compartment corrosion
- reduces clean-gas plenum corrosion
- reduces ductwork and stack corrosion
- decreases compartment cleaning time

exclusive header design



Our exclusive precoat/preheat header design is a low-cost way to improve emissions efficiencies while reducing corrosion and preserving bag and cage life.

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the BoldEco ReGen™ system

The basic BoldEco ReGen™ off-line regeneration system comes complete with off-line gas recycle and sorbent injection. An optional heating system is included to maintain compartment temperatures above dew point during filter regeneration or on-line maintenance. BoldEco's exclusive precoat/preheat header design is a low-cost way to improve emissions efficiencies while reducing corrosion and preserving bag and cage life. The system works completely in automatic mode, working the various operating modes in conjunction with the cleaning cycle.

With ReGen™, acid gas removal rates are sustained, even after compartment regeneration, and acid gas corrosion reduced by over 90%. By allowing for off-line cleaning where it was previously unacceptable due to high acid gas emissions, ReGen™ also enables the use of low cost, non-membrane filter media.

main benefits

- reduces corrosion
- reduces emissions
- extends bag and cage life

Available exclusively through:
Inquiries: JoAnn Pacinelli
email: pacinelli@ecapitalexchange.com • phone: 412.427.0133

