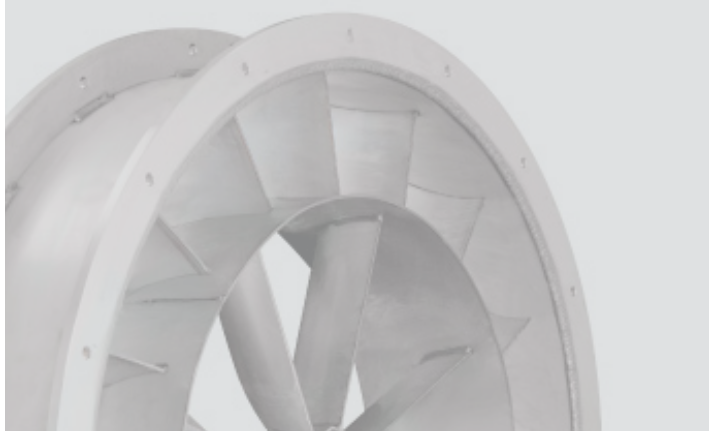




Blender INC.
Products



CASE STUDY:
**DESERT VIEW
POWER STATION**

DSI Sorbent Savings
with Gas Blender[®] Technology



CASE STUDY: DSI APPLICATION

GAS BLENDER® INSTALLATION FOR SORBENT REDUCTION

PLANT OVERVIEW

OUTPUT: 45MW
FUEL: Woody biomass
EQUIPMENT: 2 CFB boilers
Single turbine
2 baghouses
SORBENT: Hydrated lime

CASE BACKGROUND

- Boiler MACT resulted in significant HCL compliance challenge.
- Injection system modeling and analogous applications indicated 500#/hr (250#/boiler/hr) hydrated lime requirement
- Once operational, system required 900#/hr hydrated lime.
- Sorbent usage exceeded operating expense exceeded budget by 80%

CASE DATA

- 8 specialty hardened Gas Blender® mixers installed April 2017
- Significant savings realized immediately
- 600 #/hour (300 #/hr/boiler) sorbent usage (i.e., 33% sorbent reduction)
- Pressure drop within expected range
- Installation during scheduled outage. No installation issues.

PAYBACK ANALYSIS

- Equipment costs recouped in 71 days
- 2.3 months payback (does not include installation costs - plant installed units themselves)
- Logistics problems reduced significantly (i.e. truck traffic, material storage, etc.)



Demonstrated Performance in Large Scale Applications

- › Case 1: 43K ACFM Industrial Boiler
 - › Application: DSI for HCl removal
 - › Medical waste incinerator
 - › Baghouse
 - › Injection location >100' from baghouse
 - › Installation of mixer took 4 hours
 - › 25-30% reduction in sorbent usage
 - › Annual Saving > \$300K
 - › ROI < 6 months

