



Dry Sorbent Injection

The Dustex® Dry Sorbent Injection (DSI) system is a cost effective solution for the reduction of SO_x (SO_2 , SO_3) and HCl. Critical advantages include its low capital cost and a smaller footprint compared to other technologies. With complete design-build, Dustex's experience and expertise provides for on-time, quality project completion.

DSI systems involve the injection of a dry sorbent into the flue gas ductwork following the boiler. Sulfur oxides react directly with the dry sorbent, which are collected in a downstream particulate control device. Because a separate scrubber vessel is not needed, capital costs are minimized. Low capital costs are partially offset by lower reagent utilization. In comparison to other systems, their lower capital costs result in higher operating costs for equivalent SO_2 removal rates.

Dry injection systems are generally applied when lower removal efficiencies are required, or on small plants where the capital cost for other scrubber types may not be justified. Dry injection systems typically have removal efficiencies ranging from 50-85%.

For Sorbent Injection, LDX Solutions offers all of the following in-house capabilities:

- Design and engineering
- Electrical design, panel building, and controls
- CFD Modeling
- Experience and expertise on SO_2 , SO_3 , and HCl mitigation
- Guarantees on stoichiometry
- Installation and start-up



Benefits

- Reliability
- Low Capital Cost
- Low Operating Costs
- Cost Effective
- Fuel and Process Flexibility
- Turnkey Solutions
- Flexible Systems

Our Experience

Experience and success mitigating SO_2 , SO_3 , and HCl through dry sorbent injection:

- Hydrated Lime injection testing
- Sodium Bicarbonate injection
- Sodium Sesquicarbonate injection
- Full scale permanent systems for hydrated lime injection
- Full scale permanent systems (milled and unmilled)

LDX Solutions Advantages

- Accuracy
 - Dual loss-in-weight measurement
 - 1% on 10:1 turndown
 - Assurance of material flow with hopper fluidization systems
- Reduced leakage
 - Venting
 - Slide gates and rotary valves
- Transport lines
 - Stainless steel
 - Long radius
 - Ceramic lined elbows
- Complete design responsibility
 - Injection array
 - Turning vanes
 - Baghouse

References available upon request.



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