

## HRSG Design: Flue Gas Way

### P-319

Design of Flue Gas Way for Gas Turbines and HRSG Boilers:

- Diffuser – Correct Design for full recovery of Dynamic Pressure and Temperature Expansion.
- Dampers – By-pass Operation etc. with Seal Air Solutions for Health & Safety.
- Silencers – Traditional Absorption and special e.g. Helmholtz version.
- Additional Gas Burners Set for increased Steam Production

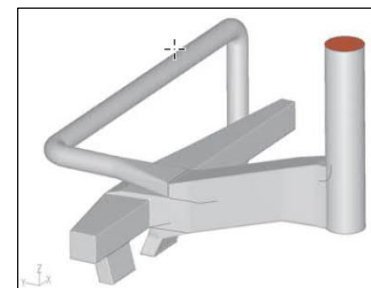
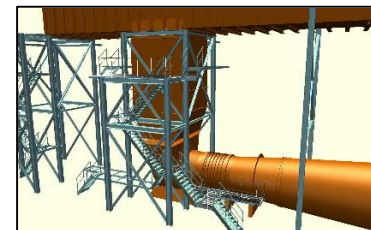
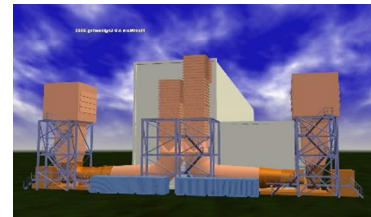
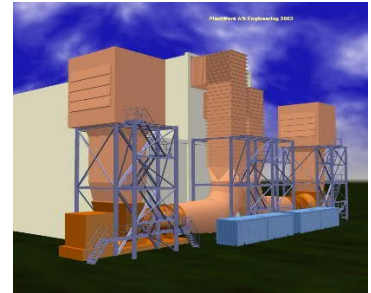
#### Special Options:

- Boosting the Air-intake for the Gas Turbine to increase Production at increased Outdoor Temperatures.
- Adding a 2 Stage Flow Fan downstream of the Boiler to enable continued Steam production with trip of Gas turbine. Developed for a Fertilizer Plant where the Gas Turbine directly operated an air compressor.

Energy Wise both Solution reduces Backpressure for the Gas Turbine and raises Efficiency with app. 1.0%-point making the solutions neutral Energy-wise.

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*Above pictures of Boosting the Air-intake for Gas Turbines – Fogging and Compression. Bottom picture is from CFD investigation into reducing backpressure for an add-on Gas Turbine to existing Flue Gas System, [Presbyterian Hospital](#) (NYC, NY).*