

REINHOLD ENVIRONMENTAL Ltd.

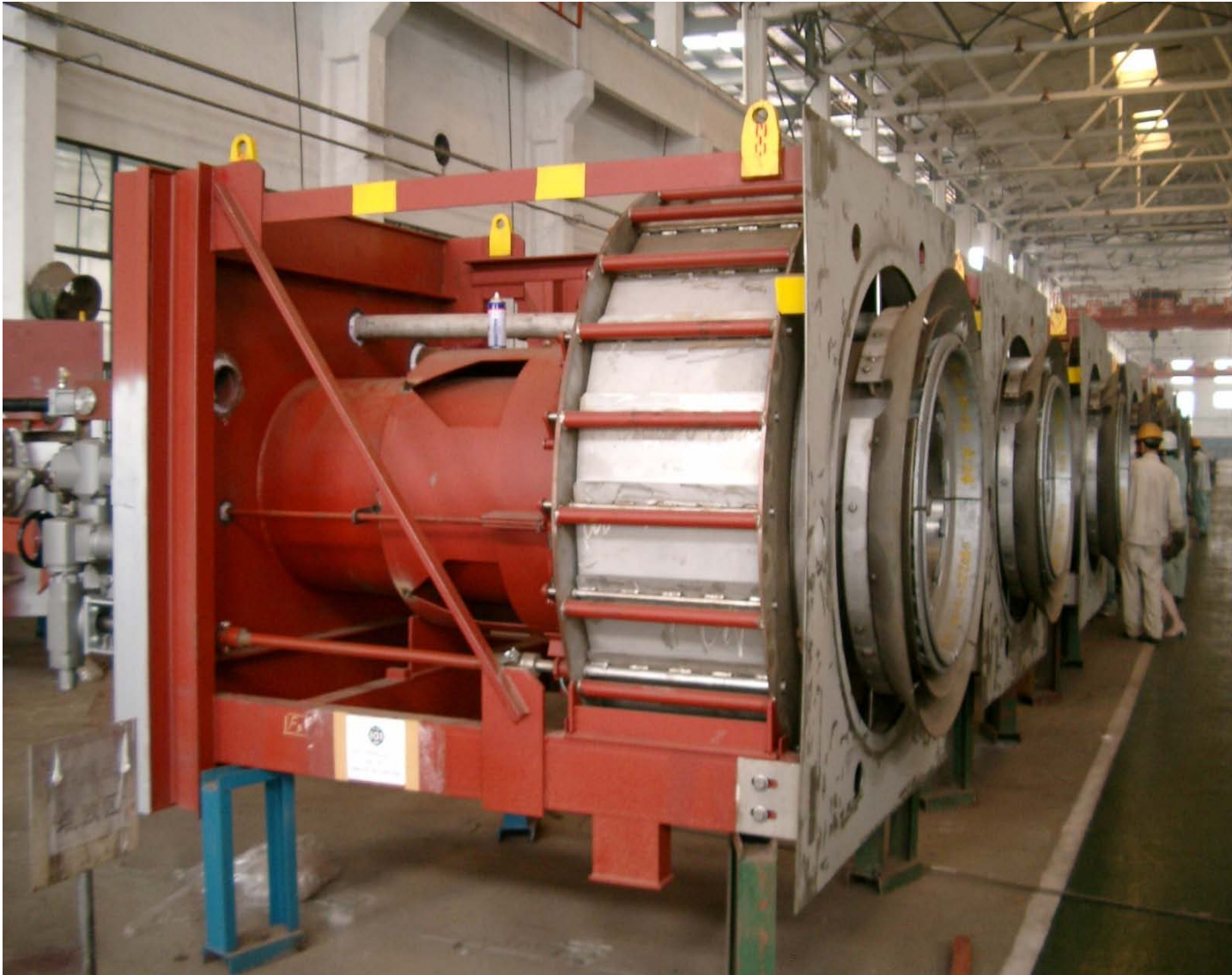


**2013 NO_x-Combustion Round Table
& Expo Presentations**

February 18 & 19, 2013, in Salt Lake City, UT / Hosted by PacifiCorp

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Low NOx Burners



- Furnace Analysis Program
- Register Controlled Secondary Air
- In-Flame NO_x Reduction
- Inner Coal Barrel Design Features
- Over Fired Air
 - Port Design for Penetration into the furnace for maximum distribution
 - Multi-port Design

- After 40 years of development, suppliers have ratcheted the emissions down to about as low as possible. LN Burner with Single OFA System
- Current Achievable Levels:

Coal Type	Guaranteed NOx
Bituminous	0.20 lb/MMBtu
PRB	0.13 lb/MMBtu
Sub-Bituminous	0.20 lb/MMBtu

- A Reducing Atmosphere in the Lower Furnace (Water Wall wastage on Super Critical Pressure Units)
- Increase in CO is Possible
- Increase in UBC is Possible
- Slagging
- Low Load Operation can be Problematic

