

# Selective Catalytic Reduction (SCR) of NOx

## Application Bulletin 31

### About SCR

A Selective Catalytic Reduction or SCR system is one of the most common processes for reducing Nitrogen Oxides (NOx) emissions during fossil fuel combustion. Regulated by the Environmental Protection Agency (EPA), Nitrogen Oxides, a contributor to acid rain and SMOG, may pose a health hazard to people in areas of high exposure. An SCR system can reduce the NOx emission levels by 80%-95%. The primary material used in NOx reduction is anhydrous or aqueous ammonia.

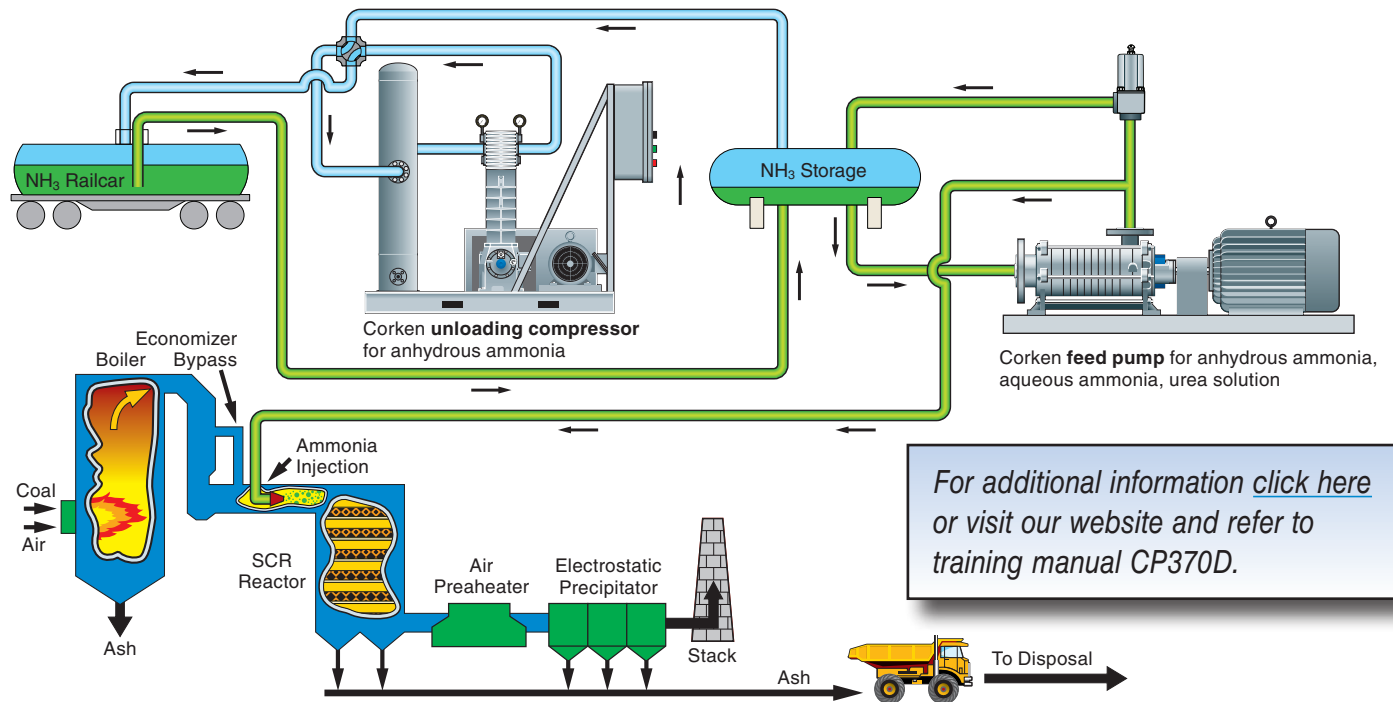
### Your Solutions Provider

Corken, your solutions provider for the safe and effective movement of hazardous materials, offers several pump and compressor options that meet SCR specifications across several applications.

### How it Works

An SCR system absorbs ammonia and NOx into a catalyst causing a chemical reaction that separates the nitrogen and oxygen. The results of this reaction allow the release of nitrogen and water into the atmosphere instead of Nitrogen Oxides.

### Coal-fired Power Plant Using Corken Products in an SCR System



### Compressor Benefits

- Designed for high pressure gases
- Double and triple packing controls harmful gas emissions
- Lower maintenance cost and power consumption
- Oil-free design eliminates contaminants from process gas
- Special coatings allow for reduced wear and corrosion

### Pump Benefits

- High differential pressure capability
- Eliminates harmful gas emissions
- Compatible with corrosive liquids
- Seal-less magnetic drive technology
- Continuous duty design

### Applications

- Coal combustion
- Oil & gas processing
- Refineries
- Utility companies
- Power plants
- Municipal waste

Solutions beyond products...

**CORKEN**  
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