

CATASTAK™ SCR SYSTEM QUOTE REQUEST FORM FOR HEATERS

Thank you for your interest in CataStak™ SCR technology for the removal of NOx from flue gas streams. On the basis of the following process data and specific requirements, a technical evaluation and budget cost estimate can be prepared.

Date:

| | |
|---|---|
| Contact: <input style="width: 300px; height: 20px;" type="text"/> | Phone: <input style="width: 300px; height: 20px;" type="text"/> |
| Company: <input style="width: 300px; height: 20px;" type="text"/> | Fax: <input style="width: 300px; height: 20px;" type="text"/> |
| Address: <input style="width: 300px; height: 20px;" type="text"/> | Email: <input style="width: 300px; height: 20px;" type="text"/> |

PROJECT INFORMATION:

Project name: Location:

New or Retrofit: New Retrofit

Availability / space limitations:

VESSEL INFORMATION:

Vessel type: Fired Heater Thermal Oxidizer

| | | |
|---|--|--|
| Vessel rating (mmBtu/hr, LHV): | <input style="width: 150px; height: 20px;" type="text"/> | |
| If known, burner heat input (mmBtu/hr, LHV): | <input style="width: 150px; height: 20px;" type="text"/> | |
| Stack temperature at high fire (°F): | <input style="width: 150px; height: 20px;" type="text"/> | At low fire (°F): <input style="width: 150px; height: 20px;" type="text"/> |
| Stack O ₂ at high fire (by volume, %): | <input style="width: 150px; height: 20px;" type="text"/> | At low fire (%): <input style="width: 150px; height: 20px;" type="text"/> |

Specify O₂: Dry basis Wet basis

| | |
|---|--|
| If known, flue gas flow: | <input style="width: 150px; height: 20px;" type="text"/> |
| Stack diameter: | <input style="width: 150px; height: 20px;" type="text"/> |
| Turndown of burner (for example "8:1"): | <input style="width: 150px; height: 20px;" type="text"/> |

FGR? Yes No FGR amount (%)

Air heater? Yes No Stack temperature before air heater (F):

Fuels: Natural Gas Propane #2 Oil Other:

Please provide fuel analysis if available.

Waste streams or waste fuels in heater:

CATASTAK™ SCR DESIGN INFORMATION:

| | |
|---|----------------------|
| NOx from heater (ppm, ref. 3% O2, dry): | <input type="text"/> |
| NOx guarantee (ppm, ref. 3% O2, dry): | <input type="text"/> |
| CO from heater (ppm, ref. 3% O2, dry): | <input type="text"/> |
| CO guarantee (ppm, ref. 3% O2, dry): | <input type="text"/> |
| Ammonia slip (ppm, ref. 3% O2, dry): | <input type="text"/> |
| Maximum SCR pressure drop ("w.c.): | <input type="text"/> |

Flue gas flow configuration through SCR: Vertical up Vertical down Horizontal

Reactant preference: Anhydrous Ammonia Aqueous Ammonia Urea (ammonia free)

Please provide combustion setting data if available.

Any other comments:

Nationwide Environmental Solutions would be pleased to assist you with the CataStak™ data acquisition process. To schedule a no-cost site visit with a member of our team, please contact us at (800) 227-1966.

Nationwide Environmental Solutions