

Our **EasyExhaust™** Gas Abatement Systems provide proper safety to plant and personnel in the handling of hazardous gases. We have taken extensive measures to provide fail-safe designs and combine them with forward thinking features in an effort to offer a safe, versatile product for specialty gas exhaust requirements.

## Burn Box



The **EasyExhaust™** Burn Box/Pyrolizer will thermally decompose the exhaust gases.

### Features:

- Maximum furnace operating Temperature - 900 °C
- Quartz reaction tube
- Internal baffles for increased reaction surface area.
- Thermocouple for temperature control and monitoring
- Integrated air flow switch

## Wet Scrubber



The **EasyExhaust™** Wet Scrubber removes particles and cools the exhaust gases prior to exiting the system.

### Features:

- Water spray packed tower exhaust
- Water recirculation system to conserve water usage
- pH monitor with closed loop control for water effluent usage
- Automatic pH neutralization of the recirculating fluid using a sodium hydroxide (optional)

## Pyrolizer/Wet Scrubber



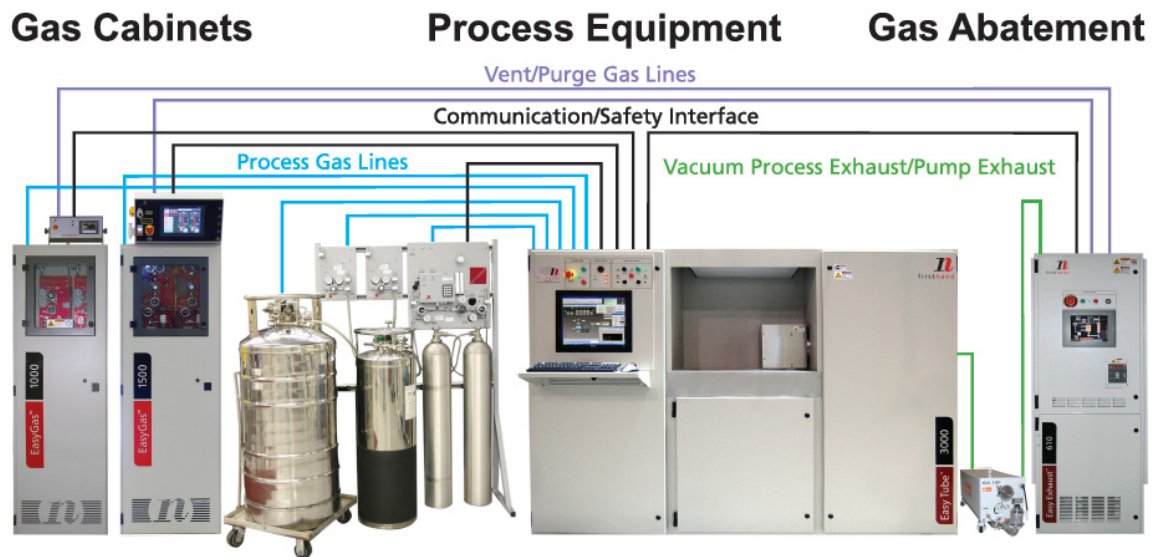
The **EasyExhaust™** Pyrolizer/Wet Scrubber will first thermally decompose/oxidize gases in a furnace, then pass the gases through a water spray packed tower to wet scrub, remove particles and cool the exhaust gases prior to exiting the system.

### Features:

- Maximum furnace operating temperature - 900 °C
- Digital temperature setpoint and readout
- Vertically mounted, inonel reaction tube with water cooled top flange
- Air flowmeter for oxidation
- Dry type air pump
- Water spray packed tower exhaust
- Pressure monitor interlocks out system and sounds an audible alarm if system clogs
- Automatic PLC system control

| Burn Box   | Wet Scrubber  | Pyrolyzer/Wet Scrubber  |
|--|---|---|
| <ul style="list-style-type: none"> <li>&gt; CO</li> <li>&gt; C<sub>2</sub>H<sub>2</sub></li> <li>&gt; C<sub>2</sub>H<sub>4</sub></li> <li>&gt; CH<sub>4</sub></li> <li>&gt; H<sub>2</sub></li> </ul> | <ul style="list-style-type: none"> <li>&gt; BBr<sub>3</sub>      &gt; HBr</li> <li>&gt; BCl<sub>3</sub>      &gt; HCl</li> <li>&gt; Cl<sub>2</sub>      &gt; HF</li> <li>&gt; F<sub>2</sub>      &gt; NH<sub>3</sub></li> <li>&gt; H<sub>2</sub>S      &gt; POCl<sub>3</sub></li> <li>&gt; H<sub>2</sub>Se</li> </ul> | <ul style="list-style-type: none"> <li>&gt; B<sub>2</sub>H<sub>6</sub>      &gt; H<sub>2</sub>      &gt; H<sub>2</sub>Se</li> <li>&gt; BBr<sub>3</sub>      &gt; HBr      &gt; NH<sub>3</sub></li> <li>&gt; BCl<sub>3</sub>      &gt; H<sub>2</sub>S      &gt; SiH<sub>4</sub></li> <li>&gt; Cl<sub>2</sub>      &gt; HCl      &gt; PH<sub>3</sub></li> <li>&gt; CO      &gt; HF      &gt; POCl<sub>3</sub></li> <li>&gt; F<sub>2</sub></li> <li>&gt; GeH<sub>4</sub></li> <li>&gt; Metalorganics (DEZ, TMA, SiCl<sub>4</sub>, TCS etc.)</li> <li>&gt; Hydrocarbons (CH<sub>4</sub>, C<sub>2</sub>H<sub>4</sub>, C<sub>2</sub>H<sub>2</sub>, etc.)</li> </ul> |

### R&D Turn-Key Equipment / Process Solutions



First Nano offers turn-key system capabilities with support equipment such as Gas Cabinets and Gas Abatement Systems. All major components from one vendor makes interfacing easy. The First Nano **EasyGas™** gas cabinet is capable of delivering a variety of toxic and hazardous gases. The **EasyExhaust™** System will thermally pyrolyze and/or wet scrub the process effluents.

Our field proven system performance and solid customer base establishes First Nano as the clear choice in leading edge nano-technology development equipment for the advanced research facility.

Call us at (631) 981-7081 to discuss a product solution for your project.

We can also be reached at [sales@firstnano.com](mailto:sales@firstnano.com) or visit our website at <http://www.firstnano.com>

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