



Controlled Pyrolysis® Cleaning Ovens

Product Features and Benefits

Patented Controlled Pyrolysis® System:

As the oven thermally breaks down the organic material on the parts, a large amount of volatile smoke is created. The oven has a detection system that automatically monitors the afterburner (stack) temperature. As smoke evolves from the parts, it enters the afterburner chamber where it is incinerated in the afterburner flame. The burning of this smoke creates heat, which causes the afterburner temperature to increase. When enough smoke is entering the afterburner to reach its set-point, the water sprays are activated to slow down the rate of smoke evolution.

Pyrolysis/Oxidation Control System:

The system maintains an oxygen-limited, inert atmosphere inside the furnace while the organic material vaporizes off the parts into combustible smoke and pyrolysis gases. This virtually eliminates the possibility of the parts catching on fire inside of the furnace. Once most of the organic material has vaporized off the parts, the control system automatically allows the oxygen level in the furnace to increase in order to completely oxidize any remaining carbon or char residues off of the parts.

5-Layer Wall Protection / Low Maintenance Floor:

A 1/8" thick corrosion-resistant barrier is applied to furnace walls prior to installing insulation, adding years to the useful life of the furnace. A Perforated Steel Liner protects the insulation. Walls are constructed of 16 GA steel and reinforced by structural angles. 10 GA steel on front door(s) and relief door(s). The floor is insulated with low maintenance castable refractory insulation.

Digital Temperature and Limit Controllers:

Two microprocessor-based digital controllers control operations by monitoring the furnace and afterburner temperatures. A microprocessor-based digital Limit Controller shuts off and locks out the bottom burner if the furnace temperature exceeds a pre-set limit.

Primary AND Back-Up Suppression Systems:

Two independent water suppression systems control temperatures in the oven and prevent over-heating the load.

Diagnostic Panel:

Monitors the furnace components and quickly alerts operators of any abnormalities.

Automatic Timing Cycle:

The oven self-adjusts cleaning times for varying load sizes. Just press the start button and walk away. During processing the furnace evaluates the amount of combustible material and determines the appropriate cleaning cycle length of each load. *This automated feature eliminates complicated ramp recipes, operator input, saves gas and saves time.*

UL Listed Industrial Control Panel:

Control panel UL Listed & marked in accordance with UL508A for Industrial Control Panels.

Lower Labor Costs and Elimination of Damaged Parts:

Eliminates slow and dangerous hand-cleaning methods.

Total Safety for Your People and Your Parts:

Our unique electronic design closely monitors temperature control and eliminates any possibility of overheating. Gravity-sealed top doors relieve excess pressure, preventing air from reacting with combustible material.

On-Going Customer Support:

Starting with installation and then maintenance, our technical support department's only job is to see your furnace working at full operating potential.

EPA Permitting Assistance:

At customer's request, we will fill out all permits required. Supplying all necessary stack test data and supporting documentation.

Pollution Free Cleaning:

Emissions are primarily harmless and invisible carbon dioxide and water vapor. All harmful pollutants and smoke are consumed completely within the furnace afterburner. Cleaning with heat eliminates the environmental hazards and landfill liabilities of dangerous chemicals, acids and abrasives and the physical risk to employees.

Pollution Control Products Co.

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For more information call Sales at (214) 358-1539
or go to www.pcpconline.com

CLEAN^{WITH}HEAT



Pollution Control Products Co.

Controlled Pyrolysis® Cleaning Furnaces

Controlled Pyrolysis®

Pollution Control's Controlled Pyrolysis® Cleaning Ovens (burn-off ovens) cover the entire field of thermal stripping and parts reclamation. They safely remove paints, powder coatings, oils, greases, plastics, waxes, resins, asphalts, tars, hot melt adhesives, carbonized residues and many other organic materials from industrial parts and tooling.

Controlled Pyrolysis® cleans with heat.

Heat thermally decomposes organic materials. The cleaning process consists of heating metal parts up to the process temperature and maintaining the process temperature long enough to clean the parts. Paint, powder coating, grease, oil, polymers, etc. are literally vaporized off. No flame ever touches the metal parts.

Digital Controllers monitor the temperature in the Primary Cleaning Chamber and the Afterburner exhaust stack. Should temperatures rise above a preselected point during processing, the Water Suppression System releases a fine water spray that quickly restores the furnace to a safe processing temperature.

Controlled Pyrolysis® is fully automated and easy to operate.

Simply load the furnace with parts, set the timer, push the start button and walk away. Digital Temperature Controllers and Pyrolysis/Oxidation Controls automatically manage the process, ensuring safe processing temperatures and prevention of any ignitions or fires that could damage the parts. Operating automatically, the furnace shuts off when the parts are clean. Metal parts come out clean and ready to go back online after processing.

Controlled Pyrolysis® is Pollution-Free.

The smoke and pyrolysis gases created during processing are drawn through the afterburner operating at 1400-1600°F and are completely consumed leaving only harmless and odorless carbon dioxide and water vapor to discharge into the atmosphere. Cleaning with heat eliminates health concerns and physical risks to employees, the environmental hazards and landfill liabilities of chemicals, acids and abrasives and the cost of their disposal.

The history of "burn-off" ovens is the history of Pollution Control.

Developed in 1971 to help manufacturers comply with the Clean Air Act of 1970, Pollution Control today is the leading manufacturer of industrial cleaning ovens. With Sales, Service and Manufacturing operations located in Dallas, Texas, the company has over 9,000 installations worldwide serving a broad spectrum of domestic and international markets and industries, including:

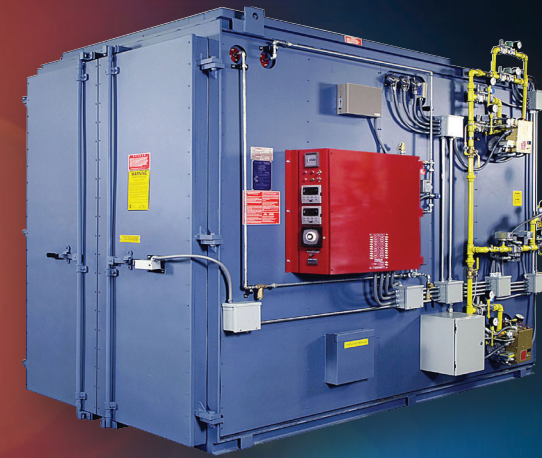
Paint and Powder Coating Operations,
Plastics, Fiber and Chemical Manufacturers,
Electric Motor & Automotive Engine & Parts Rebuilders,
Oil and Gas Production Equipment and Parts
Commercial Contract Cleaners,
Heavy Equipment Remanufacturers

FREE TEST CLEAN: The best way to test the effectiveness of Controlled Pyrolysis®.



To set up your Free Test Clean, call Sales at (214) 358-1539 or email sales@pcpconline.com.

**SAFELY CLEANS: Polymer Extruder Hardware • Manufacturing Dies • Filters & Nozzles • Polymer Melt Pumps
Spinnerettes • Die Screws • Screens • Paint Hooks & Grates • Painted Metal Parts • Engine Blocks & Parts
Metal or Ceramic Catalysts • Production Piping • Heat Exchangers • Transformers • Oil Filters
...and 100s of other metal parts and equipment**



RateControlled™ Burn-Off Ovens

For parts with up to 25% combustibles
Maximum 800°F (427°C)

Designed to clean loads with heavier coatings and loads with varying amounts of highly volatile combustibles. *Unique features include:*
1) 1650° Rapid Heat Afterburner, 2) faster over-heat response times and
3) the Automatic Time Cycle and Pyrolysis/Oxidation Controls which optimize processing and automatically shut down when the parts are clean.

[More info at pcpconline.com.](http://pcpconline.com)



InertGas™ Burn-Off Ovens

For parts with up to 50% combustibles
Maximum 900°F (482°C)

Designed by a polymer chemist, IGG Models are specifically designed to clean plastic residues from metal parts, many unique to the Chemical, Fabric and Plastics Industries. These parts include breaker plates, dies, filter screen packs, screws, spinnerets, polymer pumps, etc. Virtually any contaminant organic in nature can be cleaned by these ovens including hydrocarbon plastics and polymers such as PEEK and ALTEM. [More info at pcpconline.com.](http://pcpconline.com)



Controlled Pyrolysis® Ovens

For parts with up to 15% combustibles
Maximum 800°F (427°C)

Controlled Pyrolysis® Oven models are designed to clean metal parts that are consistent in size and type and have highly predictable processing times from load to load. A typical load might be paint hooks and racks used in paint and powder coating operations or engine blocks and motor stators used by a rebuilder or any standard sized metal parts used in manufacturing operations. [More info at pcpconline.com.](http://pcpconline.com)



DryCleaner® Burn-Off Ovens

For parts with up to 2% combustibles
Maximum 800°F (427°C)

Also equipped with the Controlled Pyrolysis® System, these models are designed to remove small amounts (1 to 2% by weight). Developed initially for use by the Electric Motor Rewinding industry and Automotive Engine Rebuilders, they are primarily used to clean small amounts of grease, oil, epoxy, paint and insulation from electric motor stators, transformers, end bells, engine blocks and other metal parts. [More info at pcpconline.com.](http://pcpconline.com)