

# Pollution Control Products DryCleaner™ Furnaces

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

PCPC's DryCleaner furnaces are designed to safely and economically remove small amounts (1 to 2% by weight) of varnish, insulation, epoxy, paint, oil, grease, plastics, etc. primarily from electric motor stators, transformers, end bells, engine blocks and other metal parts.



## Industrial Dry Cleaning Oven Process

DryCleaner Furnaces (industrial dry cleaning oven) clean metal parts by the process of pyrolysis, which is literally "burning without flame" or the chemical decomposition of organic material by the action of heat. The material on the metal parts must be cured, meaning no solvent vapors are present. During the industrial oven cleaning process, organic material is driven off as smoke leaving only a thin layer of ash, which can be easily removed with a water rinse. The smoke is then processed through a 1400°F afterburner, consuming the remaining pollutants and exhausting into the atmosphere primarily water vapor and CO<sub>2</sub> which is invisible, odorless and harmless. DryCleaner industrial drying ovens use a simple water spray "fire extinguisher" system based on furnace temperature to prevent ignition or over-heating.

## Key Features & Benefits of the Industrial Dry Cleaning Oven

<b>Damage Prevention</b>	The water spray system controls the rate of smoke emissions during the process to ensure ignition or over-heated based damage is prevented. The primary burner helps to drive off volatile materials as smoke and the flame never touches the parts
<b>Pollutant Removal</b>	The afterburner helps to burn the smoke and leaves only invisible, odorless and harmless water vapor and CO <sub>2</sub> to leave the exhaust
<b>Air Pressure Reduction</b>	Explosion relief doors in the furnace relieve excess pressure and closes to prevent air from reaching combustible materials

## DryCleaner Model Features

- **Patented Controlled Pyrolysis® Water Spray System** controls the rate of smoke emissions preventing damage due to ignition or over-heated in the furnace. **Standard**
- **Optional Burners available:**
  1. Natural Gas
  2. Propane Gas
  3. Number 2 Fuel Oil
- **The Primary Burner** heats the cleaning chamber to 800°F (427°C). Volatile materials are driven off as smoke. The burner flame is confined to the combustion chamber never touching the parts. **Standard**
- **The Afterburner** operating at 1400°F (760°C) for ½ second burns the smoke consuming the pollutants, leaving only invisible, odorless and harmless water vapor and carbon dioxide to exit the exhaust stack. **Standard**
- **Explosion Relief Door(s)** automatically opens to relieve excess pressure then closes preventing air from reaching combustible materials. **Standard**
- **Diagnostic Panel** indicator lights reflect the operational status of the oven and its controls. Indicator light failure pin-points the problem. **Standard**

## Specifications and Data

**Cabinet:** Heavy-gauge sheet steel supported by structural steel angles and channels. All-welded construction with sealed seams to prevent air leakage gives maximum fuel economy

**Floor:** Hard castable refractory, 3" thick, reinforced with structural steel channels. Allows easy removal of ashes.

**Explosion Relief:** Required on all furnaces and ovens. Unique gravity-sealed top relieve excess pressure, then closes, preventing air from reaching combustible material.

**Insulation:** Walls, ceiling, and doors are covered with 3" of a two-layered light-weight ceramic fiber blanket insulation anchored on stainless steel pins, stainless wire mesh, and stainless locking washers. Perforated Aluminized steel liner prevents mechanical damage to insulation. Contains no asbestos and has superior properties to asbestos or fiberglass. Hot face insulation rated at 2300°F (1275°C), one inch is equivalent to 9" conventional refractory or firebrick with one-tenth the weight making these furnaces much lighter in weight and much faster to heat with less fuel.

**Vent Stack:** Made in 36" long light-weight sections for easy installation. Stainless steel metal exterior lined with high-temperature ceramic fiber in hard form. Sections fit together. Adjustable pitch roof flashing, storm collar, and stainless steel rain cap furnished with stack. Supplied with 4 sections.

**Fuels:** Natural gas, propane gas, or #2 fuel oil. Maximum input 300,000 BTU per hour. Gas pressure required 7 inches water column (0.18m).

**Water Supply:** Minimum pressure 40 psi; maximum 100 psi for water injection system. Maximum flow rate 5-7gpm (liter/min.)

**Electrical Service:** 110-125 volts, 50-60 hertz, single-phase, 5 ampere draw. Optional transformers available for other voltages.

**Normal Cleaning Time:** 2 to 4 hours depending on load plus cooling time. Adjustable automatic timer.

**Normal Cleaning Temperature:** 600°F-800°F

**Pollution Standards:** Meets latest E.P.A. Environmental Standards.

**Safety and Health Standards:** Meets latest O.S.H.A. Federal Standards.

**Anit Corrosive Vapor Barrier:** Prevents corrosive vapors from condensing on inside furnace walls. Greatly extends useful life of furnace.

**Commercial Gas Burners:** Designed specifically for incinerator and other similar applications. Features include superior no clog nozzle design, easy maintenance, and heavy-duty construction. Burners are equipped with a patented automatic self-cooling system that inhibits burner damage.

## Authorized PCP Distributor Sales, Installation & Service



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