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The heart of our Test Lab is a production-scale infrared oven system that can be configured for any part size. The lab also has a spray booth with application equipment for any coating. This allows us to accurately simulate your process. Before you buy any CIS system, it will have been tested, and proven successful, on your products.

Our Catalytic Alliance Partners
- Bruest Catalytic Heaters
- Catalytic Drying Technologies

Manufacturer and Assembly

Infrared Cure Ovens
CIS built 1 dry off oven and 4 cure ovens for America’s largest ship builder. The ovens were engineered to customer specifications regarding part dimensions, coating type, and throughput rate.

Combination Infrared /Convection Ovens
CIS Combination Ovens are equipped with manual shutoff valves, gas filters and pressure regulations, and exhaust and recirculation fans. Gas pipe, fittings and valves meet NFPA requirements. Heater zones are piped in loops for most uniform gas flow and pressure.

Convection Oven Systems
CIS Convection Ovens were designed and manufactured to cure powder coatings on steel bumpers for one of America’s most successful OEM contract manufacturers.

Powder Gel Ovens
CIS engineered and manufactured a heater and controls package that delivered substantial savings in both utility expense and maintenance for a leading OEM in the US southeast.

Please visit us at www.catalyticirovens.com
CIS is Industry’s Infrared Authority, Offering Advanced IR Technology For Every Cure Requirement

About Us
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Catalytic’s first priority is the development and manufacture of systems that deliver what customers want in terms of capital cost, ease and flexibility of use, operational expenses, maintenance, and environmental factors. Our ovens are easy to install and have a long track record of success in OEM facilities, job shops and military installations.

Catalytic ovens are engineered for decades of maintenance-free service. Many have been in continuous use for 25 years or more without requiring overhaul or repair. The Catalytic Team is committed to continuous improvement in every facet of our work, from development and engineering through manufacturing and installation.

CIS provides oven curing solutions for OEMs WORLDWIDE.

Infrared Cure Ovens
A Catalytic infrared curing oven provides exceptional process flexibility, and service life, and for any given task, has a faster cycle than convection. When infrared energy is emitted onto a coated part, the IR energy is absorbed directly by the coating. From an energy use standpoint, this contrasts favorably with convection, which requires the substrate to be heated in order to cure the powder.

CIS has more than a half-century of experience adapting advanced infrared curing technology to companies who need an efficient, highly uniform cure. Our engineering team can design a system that will generate the precise energy distribution necessary to achieve a uniform cure for all of the components you process, and all of the coatings you apply.

Later, if you introduce a new material, or change your coating, product weight or shape - or if you want to increase line speeds, we can show you how a Catalytic infrared curing oven can quickly adapt to new parameters.

Powder Coating Ovens: Combination Infrared / Convection
They are “the best of both worlds” for facilities that process a variable mix of parts.

In a combination oven, the infrared portion sets the powder coating, which accelerates the cure ahead of the convection soak portion that completes the cure. The infrared energy used in this ramp-up zone also prevents powder loss by setting the finish before it can be disturbed by the air turbulence in the convection section. And, it helps prevent cross-contamination in facilities that use multiple powders.

The use of infrared ahead of convection cure also reduces total energy use. Infrared energy heats just the coating and the product surface, to the temperature level where convection is effective, reducing cycle time and utility costs.

Infrared Retrofits
An infrared retrofit is a cost-effective alternative to a new system when an existing oven is unable to cure products properly due to increased production demands or a change in coating.

Convection Ovens
CIS convection ovens could be a leading choice for the uniform, efficient cure of solvent and waterborne coatings where floor space is not an issue. Catalytic convection ovens distribute heat evenly, and are well-suited to parts with complex shapes. Heat energy is moderate, rather than high intensity, so convection is compatible with most substrates.

Dry Off Ovens
Catalytic dry ovens efficiently dry parts, regardless of metal gauge. Infrared energy heats the substrate faster than other methods, and the infrared energy that is radiated matches the absorption spectrum of water. Catalytic dry ovens also have excellent safety characteristics. There are no lamps, quartz tubes, or flames - only clean catalytic infrared heat.

Dry Off Ovens
Catalytic dry ovens are ideally suited for hazardous areas. CIS manufactures them for paint rooms, facilities that use powdered metals, chemical storage areas, and areas where flammable or explosive materials are present.

CIS area heaters are a leading choice for transit heating and maintenance facilities (“bus barns”). They are approved for areas where fuels and fuel vapors require rated hazardous area heaters to protect workers and equipment.

Key Standard Features for CIS Ovens
- Duplex relief
- Safety design data sheets and working limits
- OSHA-compliant systems designed with NFPA 86
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- All areas marked for ease of contractor wiring
- Heater zone aligned to Koch for even gas flow and pressure
- Control panel systems are protected by circuit breakers.

- Full compliance with NFPA 61
- Gas trains are equipped with gas pressure regulators, high and low safety switches, modulating gas valves, gas purging, flanges and valves, and venting equipment for NFPA
- Purge cycle before startup
- Exhaust and recirculation fans

Area Heating
Flameless gas catalytic infrared heaters are ideally suited for hazardous areas. CIS manufactures them for paint rooms, facilities that use powdered metals, chemical storage areas, and areas where flammable or explosive materials are present.

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Key Standard Features for CIS Ovens
- Explosion relief
- Safety design data book and warning labels
- Thiokol stainless steel explosion-proof air ducts
- All zones marked for ease of contractor testing
- Heater zone plugs in loops for ease of flow and pressure
- Control panel systems are protected by circuit breakers.
- Full compliance with NFPA 68, Standard for Explosion Protection by Deflagration
- Fan boxes are equipped with gas pressure regulators, high and low safety switches, including any and other low pressure switches for high, low, or other low pressure switches.
- Purge cycle before startup
- Exhaust and recirculation fans

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