



## **Industrial Ovens**

# **Drying Ovens**

Sahara Industrial Drying Ovens offer a range of sizes and heating arrangements to meet a variety of drying applications.

Benko Products is not restricted to industrial oven standard model sizes and, instead, will custom build an industrial oven to your specifications.

## **Standard Features**

The Sahara Industrial Drying Oven has many unique features:

- Custom-built to your specifications
- Precise temperature control, including a thermocouple actuated PID digital temperature controller and adjustable PID digital over temperature protection.
- Motor control push buttons
- On-off heat switch
- LED pilot lights
- · 2-year Manufacturer's warranty.

### **Materials of Construction**

Rugged, steel construction includes:

- 12 gauge interior walls and 14 gauge exterior walls
- Integrated framing and structural members ensure toughness
- 304 stainless steel construction available

### **Insulation**

3" to 6" thick, 6# density mineral wool

## **Heating Medium**

- Electricity or Gas
- Steam, hot oil, or hot water models available.

## **Temperature Range**

Room temperature to 500°F (Ratings for 650°F or 800°F optional)

### **Air Circulation**

- Air circulation with internal plenums for uniform airflow within the oven.
- Separate exhaust blower with adjustable damper

### **Finish**

- Exterior finished with acrylic enamel or corrosion resistant urethane system
- Interior finished with heat resistant silver
- Stainless steel available

### Installation

Shipped completely assembled.

Set in place and hook up power supply.

## **Engineering**

Custom engineered, computer designed units are available. Contact us for more information.

### **Options**

- Available with fixed or removable shelving, per customer specifications
- Interior door latch
- Outdoor use package
- Chart recorder
- Door switch
- · Adjustable timer
- Ethernet or serial bus communication
- Profile temperature control with ramp and hold capability
- Industrially hardened SCADA (supervisory control and data acquisition) system capable of controlling 20 ovens
- Integrated PLC controls with touch screen
- Class "A" oven controls with powered exhaust systems, which are readily available upon request

Designed and Manufactured by:



Benko Products Inc. · 5350 Evergreen Pkwy · Sheffield Village, Ohio • 44054 Phone (440) 934-2180 · Fax (440) 934-4052 · email: info@benkoproducts.com www.benkoproducts.com



## **Industrial Ovens**

**Drying Ovens** 

This oven was designed for a food manufacturer who needed a method to dry moisture from small pellets on removable trays. Gentle airflow was necessary to avoid product displacement, but temperature uniformity was critical.

Internal plenums with properly sized air circulation and properly placed heating elements provided the perfect solution.





This oven was designed to remove moisture from refurbished electric transformers. It's large interior chamber accommodates a variety of load sizes.

Heat is delivered via internal plenums from both sides of the oven for uniform operating temperatures. An exhaust blower, with adjustable damper, aids in removing moisture from the oven.





Contact us for more information on a custom solution for your application!

BENKO PRODUCTS
ENGINEERED TO BE MORE

**WARRANTY:** All products manufactured by Benko Products, Inc. have a two (2) year warranty (unless otherwise specified) from the date of shipment against defects in workmanship or material. Any part or component, except items covered by warranties of other manufacturers, returned to the factory or service center freight prepaid by the owner, found upon examination by Benko Products, Inc. to be defective or the result of improper workmanship by the factory will be repaired or replaced without charge and returned to the owner freight prepaid by Benko Products, Inc. Any alterations of Benko Products, Inc. products void any warranty or liability on the part of Benko Products, Inc. Benko Products, Inc. does not quarantee product capacity if alterations are made.



## **Industrial Ovens**

# **Additional Specifications**

Benko Product's innovative manufacturing process enables cost effective modification to basic oven designs so that the right oven is supplied every time.

### **Heating Mediums**

### **Electric:**

- 240 or 480 volt, 3 phase is standard voltage
- Alternate voltages available
- PID digital temperature controls with over temperature protection
- Housed in NEMA 12 or NEMA 4 enclosures

#### Gas:

- Direct fired gas systems with integrated controls
- Honeywell flame safety controls

#### Steam:

- Schedule 40 finned tube heating coils rated for saturated steam up to 200 psig
- Includes inverted bucket steam traps
- Temperature controlled via self-acting temperature control package or digital temperature control system with control valves.
- Can be made suitable for use in Class1, Div 1 areas

#### **Hot Oil or Hot Water:**

- Finned tube recirculating heating coils require a minimum of 5 gpm flow rate
- Temperature controlled via self acting temperature control package or digital temperature control system with control valves
- Can be made suitable for use in Class1, Div 1 areas

## **Temperature Uniformity**

The design of each Sahara Industrial Oven is centered around temperature uniformity:

- Temperature uniformity is critical to the proper operation of an oven
- Heating process and load placement will dictate the required airflow pattern
- All heaters, blowers, and exhaust systems will be custom designed and integrated to meet the customer's specific airflow requirements

## **Industry Standards**

- The National Fire Protection Association's Standard NFPA 86 discusses guidelines for the safe operation of industrial ovens and furnaces. All Sahara Industrial Ovens are built to meet these requirements
- Class A ovens are built to meet NFPA 70 and 79 standards for ovens and furnaces
- Ovens can be field-audited to satisfy CSA (via ESA) and UL 508 inspections and certifications

## Refrigeration

- Refrigeration systems are available to maintain temperatures from room temperature down to 35 degrees F
- Can be incorporated into any oven design

## **Spare Parts - Documentation**

- Spare and replacement parts can be easily matched to any oven
- Most spare parts are kept in stock.
- Detailed records are kept for each oven manufactured by Benko
   Products, Inc., which includes an "as-built" drawing, model number, and a list of accessory equipment

## **Testing and Inspection**

- Each oven is subjected to a stringent 20 point quality inspection
- Each oven is functionally tested for temperature control regularity and temperature uniformity
- All over-current devices are preset to proper load prior to shipping

## Warranty

- Additional years of warranty protection are available
- All products manufactured by Benko Products, Inc. have a two (2) year warranty (unless otherwise specified) from the date of purchase against defects in workmanship or material. Any part or component, except items covered by warranties of other manufacturers, returned to the factory or service center freight prepaid by the owner, found upon examination by Benko Products, Inc. to be defective or the result of improper workmanship by the factory will be repaired or replaced without charge and returned to the owner freight prepaid. Benko Products, Inc. does not guarantee product capacity if alterations are made.