



Industrial Ovens Preheat Ovens

Sahara Industrial Preheat Ovens offer a range of sizes and heating arrangements to meet a variety of heating 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 Preheat 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.

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

- Exhaust vent with damper
- 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**



Industrial Ovens

Preheat Ovens

Preheating large steel cores of varying sizes (some up to 80' long) posed a few challenges- namely how to load the fragile cores into the oven and how to ensure temperature uniformity.

This custom designed top loading oven with counterbalanced doors made loading easy while electric zone heating made oven operation efficient and temperatures uniform.



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 guarantee product capacity if alterations are made.



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

Industrial Ovens Additional Specifications

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 Class 1, 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 Class 1, 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.

Designed and
Manufactured by:

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