HIX ADVANTAGE INDUSTRIAL OVENS AND DRYERS

Training Manual

HIX Corporation, located in Pittsburg, KS, has been a pioneer in the design and manufacture of quality products for the Screen Print and Graphic Transfer Industries since 1963. HIX was a locally owned family business started by the Hix brothers to produce their Textile Conveyor Dryers, and since has grown into one of the top manufacturers of textile, industrial, and food equipment worldwide.

Purchased in 1989 by the current owners, HIX continued to expand the product line to include a full line of Heat Transfer Machines, Screen Printers, Screen Frames, Industrial Ovens, and Commercial Food Equipment including Pizza and Tortilla Presses. HIX products can be purchased worldwide through distribution and rep networks.

HIX is a world leader in the design, development, and distribution of equipment for the Screen Print, Industrial Dryer, and Commercial Food Equipment industries with it's 110,000 square foot manufacturing facility including integrated aluminum foundry, CNC mill operation, welding, metal forming, wiring, fabrication, assembly, and packaging departments.

The HIX Advantage is what a customer receives when buying a HIX product. The HIX Advantage falls into four distinct categories which are derived from understanding the customer's product, process, and needs. Those categories are: Expert Design, Energy Efficiency, Customization, and Production Standards

INDUSTRIAL OVEN AND DRYER DIVISION

HIX OVENS AND DRYERS are used in a wide range of applications from electronics, glass, chemical, and medical, to custom and other industrial processes requiring dried or heated products. All of our conveyor dryers are designed, engineered, & manufactured to your specifications. We manufacture electric infrared, infra-air, and hot air convection designs to efficiently meet the process requirements of the customer's product.

OUR DESIGN TEAM takes pride in our industrial heritage. Customers can buy from HIX with confidence knowing that our engineering team designs and develops their dryers and ovens with state of the art CAD systems. From the time we receive the specs, HIX engineers are involved in making sure the strictest process requirements are met from design to final testing. "Quality by Design" engineering assures the customer of many years of maintenance free operation. Some of our dryers are in operation since our beginning in 1963. We also offer installation and set up for most applications. HIX is the "QUALITY" choice. Many of our standard models are ETL listed (U.S. models), CE approved (European models), while custom electric powered models are built to UL-499 and gas fired ovens are build to the UL-795 standards.

HIX ovens
Industrial Ovens & Dryers
A Division of HIX Corporation

QUALITY BY DESIGN is our credo. Experienced HIX craftspeople utilizing rigid quality control standards, build the units one at a time. Having a completely integrated facility including an aluminum foundry, CNC mills, CNC lathes, welding, metal fabrication, painting and assembly capabilities, HIX can insure quality in all stages of the manufacturing process. To illustrate; we manufacture our own infrared heat panels to the size and watt density you need as to insure consistent curing temperature control and performance. Upon completion, the unit is fully tested before shipping, to insure years of trouble free service.

CUSTOMER SERVICE is a priority at HIX. We are only as good as our people. Our customer service reps are factory trained and have been in the field using and servicing HIX products. Their years of experience and commitment are the best in the business. We are ready to serve you before, during and after the sale.

OUR FOCUS is on Industrial Ovens and Dryers with temperature ranges 600F or less. At HIX we focus on designing our units around the customer's product and process.

Oven types:

- Conveyor
- Tower/Web
- Batch/Cabinet
- Gel Cure
- Custom (All Types)

Heat sources:

- Infra-Red
- Natural Gas/Propane/Butane
- Infra-Air
- Gas Fired Hot Air Convection
- Electric Hot Air Convection
- IR/Convection Combo

Target industries:

- Adhesives/Sealants
- Coatings/Paints/Finishing
- Industrial Equipment
- Packaging
- Process Equipment
- Automotive
- Electronics
- Laboratory/Medical
- Plastics
- Rubber
- Automation/Robotics
- Glass
- OEM
- Printing

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THE HIX ADVANTAGE

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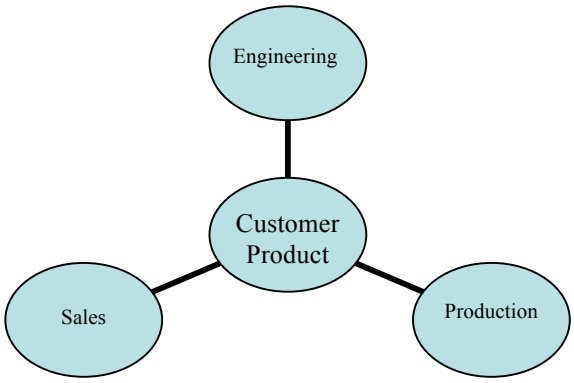
Design

HIX Ovens and Dryers have a distinct advantage over the competition, we can design our products specific to customer needs from 50 years of design innovation! Our ovens and dryers have design characteristics which are particularly beneficial. These characteristics include: custom manufactured IR heating elements, an extensive list of options, quality part selection, easy maintenance access, high energy efficiency and experience with modification and design for specific substrates. Most importantly, we design around your product!



We Design around your product!

Energy Efficiency

Energy savings equals money savings. Here is what HIX does that makes our ovens and dryers the best: IR heating elements (most efficient element material at converting electric energy to heat), customized heating elements to allow for an even higher efficiency rate than normal, up to 97% heated air recirculation, triple wall insulation construction, adjustable doors on oven openings, optional heat curtains over the oven door openings and gas ovens which can utilize outside air for combustion air.

Customization

True customization and design can be difficult to find. Many companies will add a few basic options to a standard unit and consider it customized. At HIX we design our ovens and dryers around the customer's product and process requirements regardless of heat type, size, or special requests. Whether it is modifying a standard unit or engineering a design from the ground up we can meet the customer's needs. We are able to modify as specifically as the wavelength range of our heaters to simply providing a wider belt. It is no secret why companies recommend HIX for specialty processes and designs, we are the best!

Production Standards

A well regulated production process is key to our ability to provide an oven or dryer which meets all design needs, provides a higher level of energy efficiency, is appropriately customized, and is reliable and consistent during substrate processing. We have a thorough information intake process, experienced engineers, a production staff which tracks and quality tests from the beginning of the build process to final product testing. Our strong production standards rely on a foundation of communication between departments during all phases from intake to final production.

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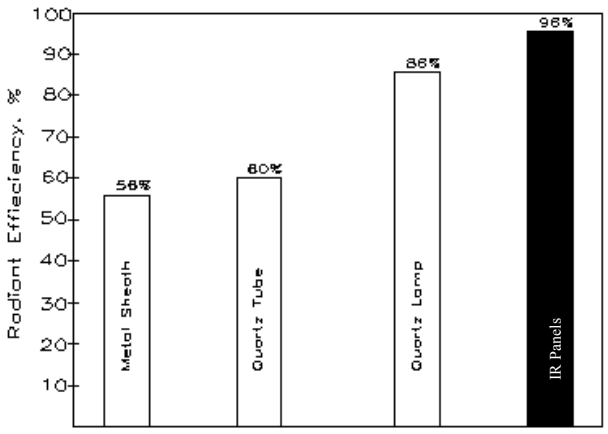
HEAT TYPES

Many heat sources can be used in industrial oven and dryer applications. In this section each heat source HIX uses will be defined and described. HIX utilizes four sources of heat: Infrared, Electric Hot Air Convection, Gas Hot Air Convection, and Quartz elements.

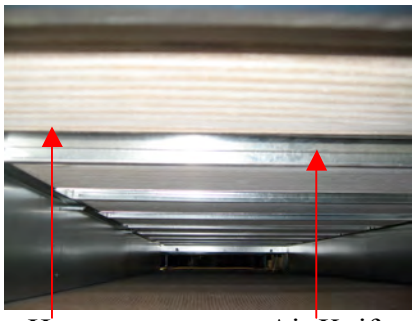
IR Panel Heaters are the most common heat source used in our ovens and dryers. Our panels have a specific set of attributes which make them preferable for many applications. Our in house manufactured panels also come in a variety of watt density ratings and sizes. These panels generate infra-red heat from the nichrome ribbon weaved throughout the panel and then efficiently radiate it out to the substrate via infrared wave lengths.

- ✓ Highly efficient at converting energy into radiant heat
- ✓ Highly efficient in utilizing provided energy
- ✓ Medium wavelength range (3-5 microns)
- ✓ Brings substrate to temperature quickly
- ✓ "Color Blind" elements
- ✓ Customized to match temperature needs, oven size, and micron range for each substrate.
- - Temperature variance up to +/- 20F
- - Moderate warm up time

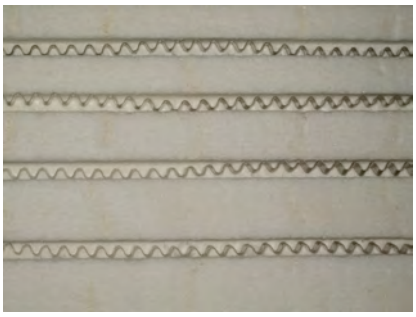


Efficiency Converting Energy to Heat

HIX IR panels are custom made in-house to provide us the ability to "fine tune" the element for a particular watt density or wavelength that is most receptive to any given substrate type for maximum energy transfer efficiency. This provides for a more efficient heating system because we are able to control the amount of resistance in each panel to ensure the lowest amount of energy possible is required to for a substrate to reach the required temperature. Air knives to circulate heated air and break up moisture and vapor barriers which are created around a product as moisture or vapors are released.



Heater Air Knife



Custom Engineered Nichrome Ribbon

Cera

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Electric Hot Air Convection systems provide a distinct set of advantages over IR panel heaters. Electric hot air convection ovens use Stainless Steel finned strips heaters that are heated to a set temperature. Air is then circulated across the finned strips to provide heat into the oven with a very low temperature variance.

- ✓ Even heat distribution around product
- ✓ Temperature variance +/- 5F
- ✓ Quick to reach set temperature
- ✓ Gentle on delicate substrates
- \- Less efficient than IR heating elements
- \- Slower at bringing product to temperature quickly than Infra-Red ovens

Finned Strip Heater

Gas Hot Air Convection systems provide a very similar set of attributes as electric hot air convection. A gas burner is installed and calibrated to provide a proper amount of BTUs based on the product and process needs. Gas burners come in various sizes and can be installed in multiple locations and quantities depending on the size of the oven or dryer. Gas types which are able to be utilized are natural gas, propane, butane, and blends.

- ✓ Even heat distribution around product
- ✓ Temperature variance +/- 5F
- ✓ Quick to reach set temperature
- ✓ Gentle on delicate substrates
- ✓ Provides long-term utility savings on oven chambers 48” wide x 11’ long or larger
- \- Most expensive in initial cost to install.
- \- Moderate at bringing product to temperature quickly
- \- Normal operating temperature is 200F or higher

Gas Oven Controls

Gas Burner

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Quartz Elements utilized in our Gel/Cure unit is designed for the narrow web and multi-color print industries. This unit is designed for gelling, pre-curing, and post-curing various types of inks and resins. The quartz elements allow the unit to reach temperature in a matter of seconds while gelling and curing the ink at a faster rate than tradition ink drying methods.

PICTURE OF ELEMENTS HERE

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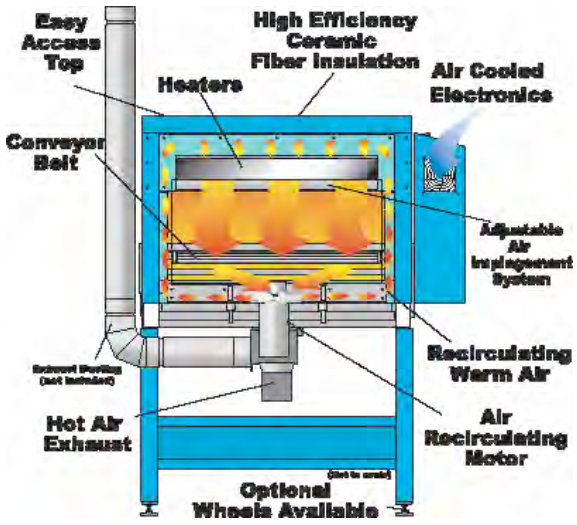
OUR PRODUCTS
We offer a variety of products and designs as standard units. Additionally, we offer unlimited designs due to our ability to customize for any need!

Conveyor Style Ovens and Dryers

NPII Series

The NPII electric line of ovens and dryers is our most popular design and are ETL certified to the UL-499 electrical safety standard. This particular line balances quality, cost, and versatility. The NPII line has a side mount control panel, corrosion resistant galvanized steel, easy access to the heater panels, and unlimited of sizes and options. The NPII models can be fabricated with Infrared, Infra-Air (IR with air circulation), or Electric Hot Air Convection heat options. The NPII series is insulated with ceramic wool insulation and air recirculation of up to 97% recycled air. This line offers a precise control system with variable belt speed, temperature controls, and air flow. An electronic file will be supplied with specifications and a production formula.

NPII OVEN/DRYER



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FEATURES	BENEFITS
Digital Auto Tuning PID temperature controls with dual thermocouple heat sensors	Maintains consistent oven temperature. Eliminates under/over cured products
Individual lighted operational monitors for each relay and heater elements	Monitors all relay contacts at a glance. Ensures all relays and heating elements are cycling properly.
HIX in-house manufactured infrared heating elements produced radiation in the 3-5 micron range. This is very efficient for resins and inks.	Most efficient and controllable heat source. HIX panels are perfectly matched to the oven chambers to eliminate cold spots. "color blind" elements ensure all colors are cured evenly and consistently.
Adjustable recirculating hot air system	Conserves energy. Full 97% of hot air is recirculated. Can be set to achieve optimal air flow as needed.
High velocity air jets HIX nozzles are ½" to ¾" wide and run across the entire width of the belt	Creates an air knife with sufficient velocity to disrupt vapor barriers that prevent proper dry/cure of solvent and water based products.
2" thick side and top wall insulation.	Minimizes heat escape from oven chamber increasing energy efficiency and keeping the work area cooler.
PTFE Coated Fiberglass belt	Fiberglass mesh belt for easy cleaning and long life.
One year warranty on HIX manufactured components	Non HIX manufactured parts will be subject to part manufacturer warranties.

The first generation models of our NP line are best when solvents are being removed from the product, operating temps are 400F or above, or when the weight of the substrate will cause a particularly heavy belt load. The NP series will have the exhaust and controls on top of the unit. Typically, we will evaluate the information on the quote form and any additional information, and then determine which unit is best suited for the customer's process. These units are certified to the UL-499 electrical safety standard.

NP DESIGN

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Gas BG & HG Series

The gas series of ovens and dryers provides distinct advantages and disadvantages to the NPII series. This particular line has tight temperature control, possible utility cost savings over electric ovens, and the same design versatility HIX ovens and dryers are known for. Advantages are further explained on page 13. The gas series has a side mount control panel, corrosion resistant galvanized steel, easy access for maintenance, and unlimited sizes and options. The gas series will have fixed airflow and air recirculation of up to 85% recycled air. Our BG & HG gas oven designs are based on larger models because we have found the balance between the additional cost of gas ovens and the energy savings being at this point in size. This line offers a control system with variable belt speed, temperature controls. The BG series is built and Certified by ETL to the UL-795 commercial gas fired safety standards. An electronic file will be supplied with specifications and a production formula.

BG SERIES

- Belt widths of 48", 60", or 72"
- Dual recirculation blowers
- Energy efficient 300,000 BTU burner (up to 500,000 BTU input optional)
- Maximum temperature of 400F
- Fixed speed recirculation air system
- Fresh air combustion blower lowers NOx and CO emission output
- Digital or Analog belt speed controls
- High resolution gas modulating valve allows temperature to stay within +/- 5 degrees Fahrenheit of set point
- Manual reset high temperature limit switch, combustion, recirculating, exhaust verifying switches, and flame safeguard control
- Easy access filters for cleaning and removable top panels make it convenient for maintaining
- Natural gas, propane, butane, and blends
- Built to and certified by ETL to UL-795 standard for commercial gas fired ovens and dryers

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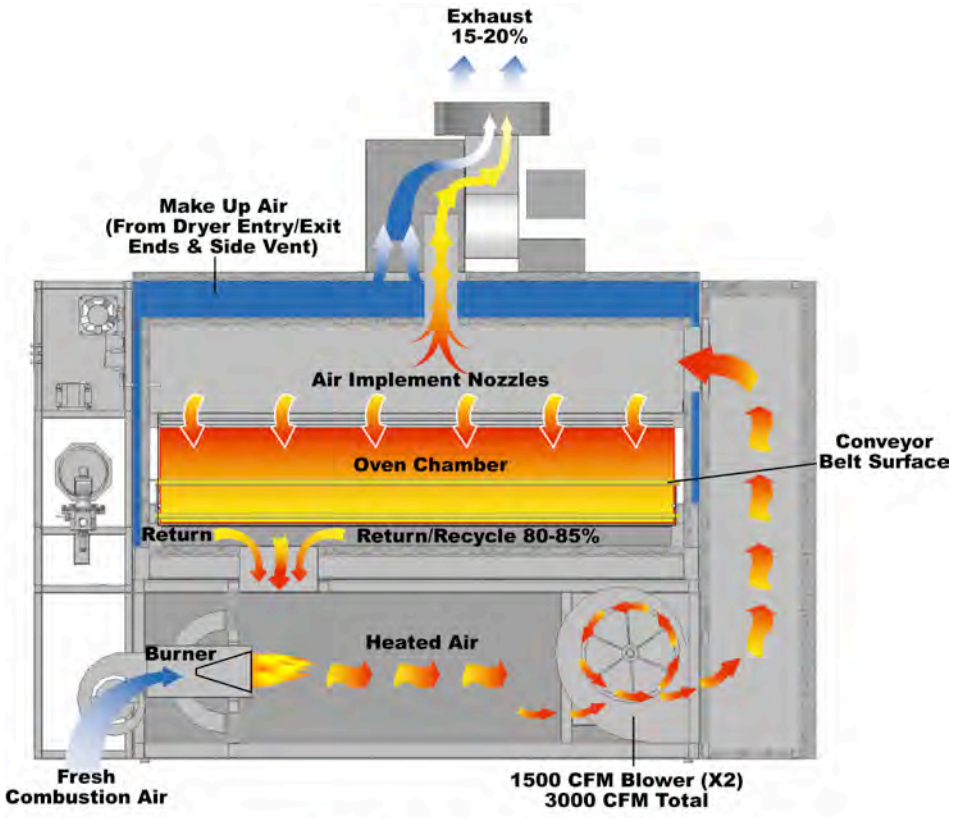
HG 3612 Model

- 36 inch wide by 12 foot conveyor area
- Energy efficient 85,000 BTU burner (up to 250,000 BTU input optional)
- Maximum temperature of 400F
- Fixed speed recirculation air system
- Fresh air combustion blower lowers NOx and CO emission output
- Digital or Analog belt speed controls
- High resolution gas modulating valve allows temperature to stay within +/- 5 degrees Fahrenheit of set point
- Combustion, recirculating, exhaust verifying switches, and flame safeguard control
- Easy access filters for cleaning and removable top panels make it convenient for maintaining
- Natural gas, propane, butane, and blends
- Manual reset high temperature limit switch
- Built to UL-795 standard for commercial gas fired ovens and dryers



HIX Gas Custom Series Conveyor Oven
Cross Section View

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BATCH/CABINET/TRUCK - GEL/CURE – WEB/TOWER OVENS

Custom Batch/Cabinet/Truck Ovens

Our custom batch/cabinet ovens can meet the needs of any process which calls for a long process time or where a conveyor design is not preferred. Our batch ovens can be designed for laboratory, manufacturing, heating, drying, or nearly any other specialty need. Counter top or walk-in models have been designed with the same HIX standards and versatility we are known for. Truck ovens can be designed for wheel, rail, or pallet loading and dual door models for inline process. These ovens can be designed with any of our heat types and nearly any control or design feature needed. This is where our years of expertise and quality design team come together to build what the customer needs to ensure a quality process.

Gel Cure Unit

HIX has developed an exciting new product for narrow web and multi-color print industries. This unit is designed for preheating, shrinking, gelling, pre-curing, and post-curing various types of inks and resins. The HIX Gel/Cure unit is designed to work in line with or replace vertical web dryers used between individual color print stations. It has been used with continuous roll to roll web printing or screen printing. Capital expenditures and operating costs are significantly lower than with conventional web ovens.

- Multiple zones of digital temperature control
- Operating temperatures of up to 350F
- Airflow directed from the top downward onto the web which provides quicker, more efficient curing operation
- Two HIX exclusive CritiSense non-contact sensors for accurate, instantaneous control of the process
- Compact size of 46”x25” for an 18” web on GC-4800 model
- Custom sizes, wattages, temperature capacities available
- Can accommodate web widths up to 6’
- 8” exhaust duct with bottom exit
- 240 or 480 volt, 3 Phase

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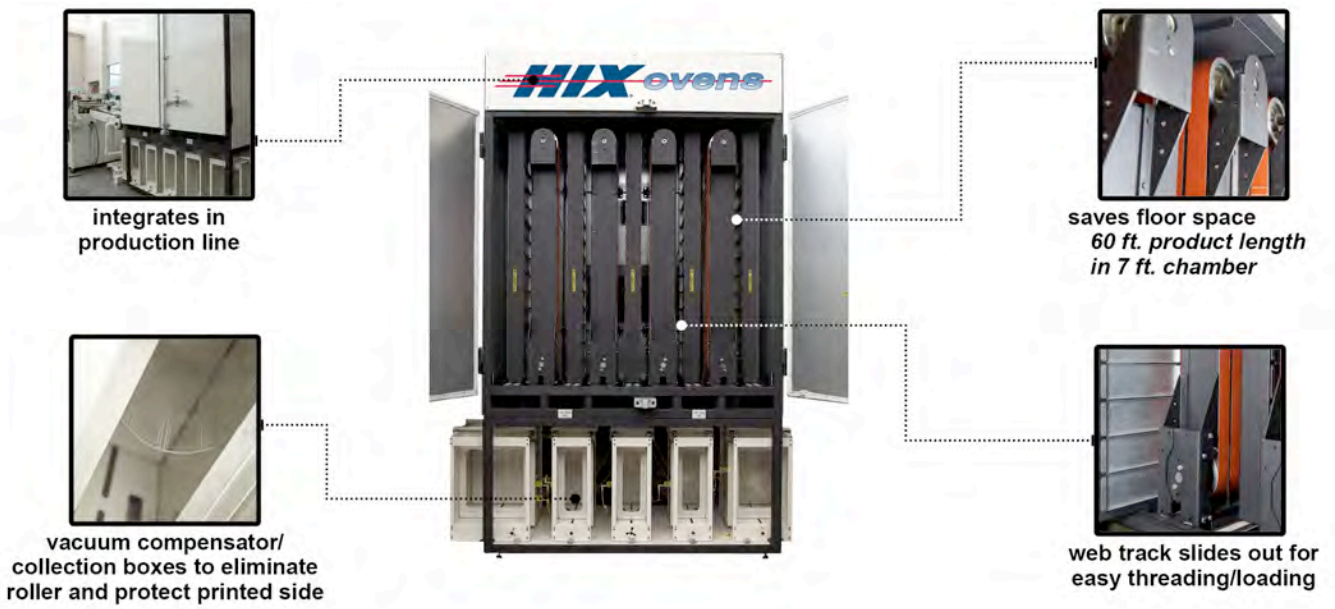
Continuous Web/Tower Oven

Our continuous Web/Tower Oven was custom designed for a customer integrating it into their web printing line they offer to customers. This oven/dryer can process material as thin as .005 of an inch thick. It provides a distinct advantage by reducing floor space and by utilizing vacuum collector boxes which compensate in for starts and stops in production or indexing of the web between prints. This is a perfect unit for companies in the electronics or printing industries who require long runs of product but have limited horizontal space available.

- Can be customized to utilize vertical space as needed
- Accommodates product widths up to 24”
- Custom built based on product and process needs
- Operating temperatures up to 400F



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SELECTING A PRODUCT

The process of choosing the proper design requires many considerations on part of the customer, rep, and manufacturer. At HIX we have placed proper product design at our foundation. This commitment has generated many years of great customer relationships and repeat business. We find through customer conversations and investigative calls that many of our competitors will recommend a product without knowing the customers actual process.

At HIX we take the time to learn our customer's process and needs so we, as the experts, can recommend the proper design to meet their needs. This concept can be shown through the following illustration:

CUSTOMER: I am interested in a conveyor oven for curing the automotive epoxy on auto glass.
HIX: Wonderful to have the opportunity to speak with you, Tom, thank you for calling us! Please, tell me about your product and process.
CUSTOMER: We will be curing the epoxy on our parts, we are in the automotive industry. We are planning to cure the parts at 230F for 2-4 minutes. We don't have much room to work with so we are thinking under 15ft in total length.
HIX: I see. I think we can definitely help you with that! I do have a few questions to ensure we get the proper design for your product.
Have you done any testing to reduce the cure time? This will make a large impact on the size of unit required to meet your needed production. If not, we welcome customers to send their product in so we can test to for accurate temperatures, times, and results.
What is your desired throughput, and what is the LxWxH and weight of your product? We need these numbers to help estimate production of various size units.
How much, if any, solvents or vapors will be release by the epoxy during the curing process? We need to be sure to supply sufficient BTU's and airflow to avoid quality or safety issues.
CUSTOMER: Wow! No one else asked these questions. Here is the information you were looking for……..
HIX: Thank you. Based on your process we recommend a 48" wide belt on an oven with an over all length of 19ft. This will provide the production desired and even give a little room to grow! A unit the size you mentioned would not provide the production necessary.
CUSTOMER: Great! Can you send me a quote on that unit!

This HIX style conversation does not cover all questions and talking points, however, it provides an example of the standard with which we work. From these conversations, often comes the extra push needed to cause a customer to lean our direction when multiple quotes are being considered. We cannot provide a proper oven or dryer if we do not understand the customer's needs and processes. Oftentimes the customer has not considered all aspects of their needs. It is at that point where our service sets us apart! We, as the principle, welcome and encourage you to call prior to initiating contact with the customer to cover any important designs or talking points as they relate to similar customers we have served.

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Once fact finding has been completed we must then select a heat type, oven/dryer size, belt type and many other options listed on the Quote Form. Below are notes which correlate with the sections of the Quote Form and address common questions and considerations. This is not all encompassing but will cover the foundation of information needed.

QUOTE FORM NOTES

(Please review inline with the Custom Oven/Dryer Quote Form)

Dryer Configuration: This references the style of unit to be selected. In many cases a conveyor oven is desired. However, depending on the length of cure time, customer preferences, and product, another option may be best.

Heat Type: This is a very important selection as not all products react the same to each heat type. Some products are only being heated on one side while others are best to be heated on all sides. Some products do not transfer heat well while others tend to be "heat magnets" and absorb a disproportionate amount of heat from an included substrate material. Other products need a gentle heat type (gas or electric HAC) or are more durable and can handle the direct IR radiation. Utility availability, costs, and unit costs must also be taken into consideration. In most cases a gas unit will bring utility savings when the belt width reaches 48" and the chamber length reaches 11'or longer. Please see the chart below for more comparative information.

Heat Type Breakdown and Information

	When	Why	Benefits
Electric Infra-Air	- Most applications - Ample product spacing	- Lowest initial equipment cost - Combines IR heat and air circulation	- Customized elements for highest IR energy efficiency - Heats product quickly
Electric Hot Air Convection	- Temperature control +/- 5º - Sensitive substrates	- Gentle heat - Excellent heat circulation	- Superior heat regulation - Even heat distribution - Low warm-up time
Gas - Natural Gas or Propane	- Large unit - Temperature control +/- 5º - Sensitive substrates	- Gentle heat - Highly efficient (in ovens 48" wide and larger)	- Less energy consumption and cost - Very low warm-up time - Superior heat regulation

Belt Width: When considering belt width it is important to note that placing products 2-3" inside the belt edges from both sides is proper for most customers' products. As a result, in most cases if a product is 24" wide the customer would see the most consistent results with a 36" wide belt. Additionally, when considering options for meeting throughput requirements it is often less expensive to add width as a method of gaining extra throughput than adding length. Our standard sizes are 18", 24", 36", 48", 60", 72", however, we can built units with wider widths by placing belts side by side.

Multiple belts will typically leave approximately a 4" gap between belts if a fiberglass belt is selected. The width will be greater if a stainless steel belt is selected.

Belt Type: Note that a fiberglass belt has a 1 lb/sqft. maximum weight capacity. If the product weight surpasses this point the belt will begin to slip on the drive pulley. Although this can be compensated to an extent it is often less expensive to upgrade to a stainless steel belt. The fiberglass mesh works well for many applications (especially delicate substrates), however, it is not well suited for products with sharp edges or certain types of chemicals or metal parts at high temperatures which could cause accelerated wear. For heavier products a stainless steel belt is typically the best option. This belt type is available with a number of different spacing between the links and is selected based on the dimensions of the product. For example, if the product is tall and narrow it will likely have trouble standing on the moving belt. A narrower pitch (the distance between links) may be best in this case. An additional consideration would be to manufacture specialized fixtures to hold the product in place.

Incoming power source: We need to know the available incoming power source and limitations. An often over looked consideration is the cost of bringing in certain power capabilities if a justifiable amount can be saved in unit cost and energy savings over time. We can wire to from 120V-480V depending on the needs of the unit and power source. In regard to gas ovens, we need to be sure there is sufficient gas pressure and MCF to properly supply the unit.

Description of the customer's process: This is important to note as we can better evaluate any conflicts or make any recommendations which may have been missed. Some important areas to note are the steps in the processes before and after our oven/dryer, specifically what they need our oven/dryer to accomplish, interfacing with their current production line.

Description of materials being heated: Due to our vast experience in heating various products we know there are times when additional considerations arise and must be accounted for, such as, heat limitations, solvents, ability to absorb heat, among others. We have used this circumstance to reduce the cost of the unit and also to ensure consistency of the process.

Material Dimensions: We need this information. If multiple items will be processed we need to size the unit based on the largest part's production requirements. Or, in rare cases two products.

Production required per hour: We must know their needs and expectations. Take into account minimums and possible future growth. Our goal is go find a proper balance which gives them some room for growth without over or under selling the unit.

Operating temp: A standard oven can retain a process temperature of up to 450F. Any process temperatures from 450F-600F requires special stainless steel parts among other component changes, and can add significant cost to the unit. A gas oven has a normal operating temperature of 200F to 400F. An IR oven can operate between 100F-450F.

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Retention time: We must account for the time the product takes to reach a set temperature and how long it needs to remain at the set temperature. We welcome the customer to send their product to us to gauge proper retention time.

Inks/Resins/Adhesives/Potting/Solvents: We need to know if any of these are present and how much is processed through the oven per hour. If solvents are being removed we also need to have MSDS sheets to ensure proper and safe oven design. *If only moisture we still need an indication of how much to ensure sufficient removal*

Additional information: If there are any special options, concerns, or needs please list them here.

Options: These are a good way to provide the customer with beneficial options and increase the sale value of the unit. See Below for a list of common options.

Common Options/Modifications

- Oven opening height
- Belt height
- Belt type
- Product interface device
- Additional air flow
- Eye stop sensors
- Belt Fixtures
- Indexing
- Post Cooler
- Robotic Pick and Place interface
- Heat Curtains
- High/Low Alarm Sensors (Limits?)
- Infeed/Exit feed length adjustment
- Fume Hoods
- Emergency Stops (Where?)
- Various auto shutdown features
- Digital belt speed control
- Spreaders
- Lock out controls
- Belt direction

Details/Placement Preferences: If any options are desired please list details here. Please be as specific as possible. For example, if the customer would like E-Stops, please list the desired location for each E-Stop and what aspects of the unit they wish to stop, heat only, belt only, full shutdown, etc.

Manufacturer arranged shipping: We do not include shipping in the quote unless specifically requested to do so, thus, leaving it the responsibility of the customer. We can ship crated, ISPM crated, dedicated or flatbed/low boy, assembled or broken down.

Other shipping information: Most units require a fork lift for minor assembly. If none are available or the unit is too large to crate we need to know about dock size, shop door limitations, and the availability of a loading dock.

--An electronic version of the quote form is below--

QUOTE, ORDER PROCESS, NOTES

1. Fill out the quote form completely while providing customer expectations. We may request additional information for consideration (please use and send to me for ALL quotes.)
2. We will ask any necessary clarifying information and provide thoughts as necessary
3. Upon receipt of information I will create a formal quote to be provided to the customer. *The heading can be modified to also represent your company if necessary*
4. After receipt of order please submit rep credit form.
5. Commissions are paid after all funds have been collected

POLICY AND PROCEDURES

- All unit quotes are good for 60 days, freight quotes good for 30 days
- We only quote freight and arrange shipping if requested. Many customers receive freight discounts, thus, prefer to arrange shipping themselves
- Payment terms for Custom units
    - 50% nonrefundable down payment required prior to beginning production.
    - 25% due within 30 days of order being released for production
    - 25% or remaining balance due prior to shipment

LEAD TIME PROJECTIONS

- Quotes have estimated lead times based on current production and orders
- Upon receipt (or immediately before) of initial payment lead time will be verified
- We provide an estimated projection, i.e. 6-8 weeks based on engineering time, part orders, and build time.
- Gas and Hot Air Convection ovens often have a longer lead time than IR ovens

PRICING STRATEGIES

- Standard Units – As stated on pricing sheet
- Slightly Modified – Addition of eye stop sensor or emergency stops or infeed/exitfeed length adjustment – A little above list
- Custom – Nearly any other modification to the unit or one which requires adjustment to unit body or frame – Significantly above list – We can give budget estimates

IMPORTANT CONTACTS – In my absence

- Andy Bishir – Customer Service Manager – 800-835-0606 ext 219 – abishir@hixcorp.com
- Phil Ward – Head of Engineering – 800-835-0606 ext 223 - pward@hixcorp.com

CUSTOM OVEN / DRYER QUOTE FORM

Company Name_____Date_____
Contact_____Title_____
Address_____
City_____State_____Zip_____Country_____
Phone_____ext_____Fax_____E-Mail_____

Dryer configuration: ☐ Conveyor ☐ Batch ☐ Tower ☐ Other_____
Heat Type: ☐ Infrared ☐ Infra-air ☐ HAC ☐ Gas (Natural or Propane)

Belt width: ☐ 18" ☐ 24" ☐ 36" ☐ 48" ☐ 60" ☐ 72" ☐ Other_____
Belt type: ☐ Fiberglass Mesh (1 lb/sqft) ☐ Stainless Steel (1/2"or 3/8" pitch – 10 lb/sqft)
☐ Other/Special Considerations_____

Incoming power source: Volts_____ Phase_____ Amps _____ Hertz_____

Description of customer's process_____
_____
_____
Description of materials being heated_____
_____

Material Dimensions (of largest item): Length_____Width_____Height_____Weight_____
Production required per hour_____Operating temperature (C or F)_____Retention time_____
Inks / Adhesives / Potting / Solvents* used_____
Solvents evaporated (required*): Type_____Gallons Per Hour_____
Attach MSDS for paints/solvents for flammability or explosion concerns and evaluation fumes or hood systems

Additional Information / Requirements / Limitations_____
_____
_____
_____

Options: ☐ Belt Fixtures ☐ Digital Belt Speed Control ☐ Emergency Stops
☐ Eye Stop Sensors ☐ Heat Curtains ☐ High/Low Alarm Sensor
☐ Shutdown features
Details/Placement preferences_____
_____
Manufacturer arranged shipping: ☐ Yes ☐ No Loading Dock: ☐ Yes ☐ No Forklift Available: ☐ Yes ☐ No Shop door opening or size limitations, if any_____

REPRESENTATIVE ACCOUNT CREDIT

In order to maintain an account, representative must be active with account as evidenced in paragraph # 3 of agreement.

DATE: _____

SPECIFYING REP:_____

CUSTOMER NAME: _____

CUSTOMER BILLING ADDRESS:

_____

_____

_____

CUSTOMER SHIP TO ADDRESS:

_____

_____

_____

HIX OFFICE USE ONLY	
CUSTOMER #	
ORDER #	
SHIP DATE	
CUSTOMER PO #	
Cross dept signoff waiver (if required)	
COMMISSION RATE	
FULL	
NAME AND %	
NAME AND %	
SUBMITTED BY	
Approved by	
B Stokes	
M Yerrick	

EXPECTED ORDER DATE: _____

EQUIPMENT SPECIFIED:_____ QUOTE NUMBER: _____

REPRESENTATIVE:_____DATE:_____

NOTE: SUBMISSION OF SPECIFICATION CREDIT FORM IS REQUIRED FOR EACH PROJECT.

Copies: Rep_____ Industrial Mgr_____ HIX Accounting_____

"Why HIX" Talking Points

- Building ovens for 50 years.
- Ovens/Dryers are Green Rated due to energy efficiency and insulation.
Ovens/Dryers are heavily insulated and designed to retain heat.
- You can put your hand in front of the oven opening and feel little heat escaping.
- We recommend and build each oven/dryer for a specific application. Many competitors know very little about the customers process when recommending an oven/dryer.
- Our customers experience a higher level of consistency with their oven/dryer as a result.
- Top of the line customer service. We recently had a customer call with a unit 40 years old and were able to identify his needed part with in 5 minutes.
- We intend to provide service and expertise when selecting a unit as we believe it is our primary function is to consider the customers best interests in selection or design.
- We manufacture many parts in house to ensure we abide to a strict quality standard.

Oven/Dryer Specifications

ELECTRIC DRYER MODELS **NP Series**	NP-1806	NP-2410	NP-3610	NP-3616	NP-3619	NP-4819	NP-6019
Features/Specs.							
Service Voltage	208-240V or 120 V Note: Not Dual Volts	208-240V 1-Ph Single Phase Only	208-240V 3/1-Ph	208-240V 3/1-Ph	208-240V 3-Ph	208-240V 3-Ph	208-240V 3-PH Three Phase Only
Amps per phase	30 Amps 120 V 15 Amps 1-Ph 220V	45 Amps 1-Ph	32 Amps 3-Ph	50 Amps 3-Ph	70 Amps 3-Ph	95 Amps 3-Ph	115 Amps 3-Ph
KW / BTU @ 220 Volts	2.8 KW / 9,700 BTU	8.0 KW / 27,280 BTU	55 Amps 1-Ph 10.8 KW / 36,825 BTU	88 Amps 1-Ph 17.0 KW / 57,970 BTU	3-Phase Only 22.9 KW / 78,000 BTU	3-Phase Only 32.2 KW / 110,000 BTU	3-Phase Only 39.6KW / 135,000 BTU
Power Cord Supplied?	Optional	Optional	No	No	No	No	No
Unit Length Total	6' (183cm)	10' (305cm)	10' (305cm)	16' (488cm)	19' (579cm)	19' (579cm)	19' (579cm)
Unit Width Total	24" (61cm)	32" (81cm)	44" (112cm)	44" (112cm)	44" (112cm)	57" (145cm)	69" (175cm)
Unit Height Total	47" (119cm)	47" (119cm)	47" (119cm)	47" (119cm)	47" (119cm)	47" (119cm)	47" (119cm)
Belt Width	18" (46cm)	24" (61cm)	36" (91cm)	36" (91cm)	36" (91cm)	48" (122cm)	60" (152cm)
Oven Length	38 Inches	60 Inches	60 Inches	96 Inches	132 Inches	132 Inches	132 Inches
Conveyor Entrance Length	12 Inches	24 Inches	24 Inches	42 Inches	36 Inches	36 Inches	36 Inches
Conveyor Exit Length	12 Inches	24 Inches	24 Inches	42 Inches	36 Inches	36 Inches	36 Inches
Fume Hood	5” each end	6” each end	6” each end	6” each end	12” each end	12” each end	12" each end
Oven Throat / Door Openings	4" adjustable	6" Adjustable	6" Adjustable	6" Adjustable	6" Adjustable	6" Adjustable	6" Adjustable
Belt Speed Control	Analog 0-10	Analog 0-10	Analog 0-10	Analog 0-10	Analog 0-10	Analog 0-10	Analog 0-10
Belt Type	Fiberglass TCF	Fiberglass TCF	Fiberglass TCF	Fiberglass TCF	Fiberglass TCF	Fiberglass TCF	Fiberglass CG 9010
Conveyor Pulleys	Flat	Flat	Flat	Flat	Flat	Flat	Flat

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	NP-1806	NP-2410	NP-3610	NP-3616	NP-3619	NP-4819	NP-6019
Belt Motor Outlets	N/A	N/A	N/A	One	One	One	One
Belt Direction Facing Control Box	Right to Left	Right to Left	Right to Left	Right to Left	Right to Left	Right to Left	Right to Left
Temperature Control - Type	Digital - West 6100	Digital - West 6100	Digital - West 6100	Digital - West 6100	Digital - West 6100	Digital - West 6100	Digital - West 6100
Number of Temp Control Zones	1 Zone	1 Zone	1 Zone	1 Zone	2 Zones	2 Zones	2 Zones
High / Low Temp Alarm?	No	No	No	No	No	No	No
Relay Lights	Yes - 1	Yes – 3	Yes – 6	Yes – 6	Yes – 6	Yes – 6	Yes - 9
Heater Lights	Yes - 2	Yes – 3	Yes – 6	Yes – 6	Yes – 9	Yes – 12	Yes - 12
Heater Oveload Protection	P&B W28 Series	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker
Control Overload Protection	P&B W28 Series	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker
Number of Heaters	2 - 16x16 8.5OHM	3 - 12x24 18OHM	6 - 9x36 27OHM	6 - 9x36 17OHM	9 - 9x36 19 OHM	12 - 12x24 18OHM	18 - 9x30 22 Ohm
Recirculating Airflow	None	Yes - Variable	Yes - Variable	Yes - Variable	Yes - Variable	Yes - Variable	Yes - Variable
Number of Recirculating Air Zones	N/A	1 Zone	1 Zone	1 Zone	2 Zones	2 Zones	2 Zones
Recirculating Airflow speed	N/A	1300 CFM	1300 CFM	1500 CFM	3000 CFM	3000 CFM	3000 CFM
Exhaust Duct Size	6"	8"	8"	10"	10"	10"	10"
Exhaust CFM @ 60 Hz	140 CFM	350 CFM	350 CFM	450 CFM	1200 CFM	1200 CFM	1,200 CFM
Exhaust Motor / Blade	4C442(120) / 2C915(220)	2C917	2C917	4C870	4C831	4C831	4C831
Chimney None/Fixed/Variable	None	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Backdraft Flapper?	None	Yes	Yes	Yes	Yes	Yes	Yes
Wheels on Legs	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Insulation under top skin	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Certifications ETL/CE/CSA	None	None	None	None	None	None	None

ELECTRIC DRYER MODELS **NPII Series**	NPII-1806	NPII-2410	NPII-3610	NPII-3616	NPII-3619	NPII-4819	NPII-6019
Features/Specs.							
Service Voltage	208-240V Single Phase Only	208-240V 1-Ph Single Phase Only	208-240V 3/1-Ph	208-240V 3/1-Ph	208-240V 3-Ph	208-240V 3-Ph	208-240V 3-ph
Amps per phase @ 240V	15 Amps 1-Ph 240V	45 Amps 1-Ph	27 Amps 3-Ph 47 Amps 1-Ph	50 Amps 3-Ph 88 Amps 1-Ph	70 Amps 3-Ph 3-Phase Only	95 Amps 3-Ph 3-Phase Only	120 Amps 3-Ph 3-Phase Only
KW / BTU @ 208 Volts	2.5 KW / 8,678 BTU	7.2 KW / 24,588 BTU	9.0 KW / 30,523 BTU	15.3 KW / 52,069 BTU	20.5 KW / 69,883 BTU	28.8 KW / 98,353 BTU	34.6KW / 118,024 BTU
KW / BTU @ 220 Volts	2.8 KW / 9,708 BTU	8.1 KW / 27,507 BTU	10.0 KW / 34,147 BTU	17.1 KW / 58,251 BTU	22.9 KW / 78,179 BTU	32.3 KW / 110029 BTU	38.7KW / 132,035 BTU
KW / BTU @ 240 Volts	3.3 KW / 11,123 BTU	9.6 KW / 32,736 BTU	11.9 KW / 40,638 BTU	20.3 KW / 69,323 BTU	27.3 KW / 93,039 BTU	38.4 KW / 130,944 BTU	46.1KW / 157,133 BTU
Power Cord Supplied?	Optional	Optional	No	No	No	No	No
Unit Length Total	6' (183cm)	10' (305cm)	10' (305cm)	16' (488cm)	19' (579cm)	19' (579cm)	19' (579cm)
Unit Width Total (body + control panel)	24" + 5" (61cm + 13cm)	32" + 5" (81cm + 13cm)	44" + 5" (112cm + 13cm)	44" + 5" (112cm + 13cm)	44" + 8" (112cm + 20cm)	57" + 8" (145cm + 20cm)	69" + 8" (175cm + 20cm)
Unit Height Total	47" (119cm)	47" (119cm)	47" (119cm)	47" (119cm)	47" (119cm)	47" (119cm)	47" (119cm)
Belt Width	18" (46cm)	24" (61cm)	36" (91cm)	36" (91cm)	36" (91cm)	48" (122cm)	60" (152cm)
Oven Length	42" (107cm)	60" (152cm)	60" (152cm)	96" (244cm)	132" (355cm)	132" (355cm)	132" (355cm)
Conveyor Enterance Length	15" (38cm)	30" (76cm)	30" (76cm)	48" (122cm)	48" (122cm)	48" (122cm)	48" (122cm)
Conveyor Exit Length	15" (38cm)	30" (76cm)	30" (76cm)	48" (122cm)	48" (122cm)	48" (122cm)	48" (122cm)
Fume Hood	None	None	None	None	None	None	12" each end
Oven Throat / Door Openings	4" adjustable	6" Adjustable	6" Adjustable	6" Adjustable	6" Adjustable	6" Adjustable	6" Adjustable
	NPII-	**NPII-**	**NPII-**	**NPII-**	**NPII-**	**NPII-**	**NPII-**

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	1806	2410	3610	3616	3619	4819	6019
Belt Speed Control	Analog 0-10	Analog 0-10	Analog 0-10	Analog 0-10	Analog 0-10	Analog 0-10	Analog 0-10
Belt Type	Fiberglass TCF	Fiberglass TCF	Fiberglass TCF	Fiberglass TCF	Fiberglass TCF	Fiberglass TCF	Fiberglass CG 9010
Conveyor Pulleys	Flat	Flat	Flat	Flat	Flat	Flat	Flat
Belt Motor Outlets	N/A	N/A	N/A	One	One	One	One
Belt Direction Facing Control Box	Right to Left	Right to Left	Right to Left	Right to Left	Right to Left	Right to Left	Right to Left
Temperature Control - Type	Digital - West 6100	Digital - West 6100	Digital - West 6100	Digital - West 6100	Digital - West 6100	Digital - West 6100	Digital - West 6100
Number of Temp Control Zones	1 Zone	1 Zone	1 Zone	1 Zone	2 Zones	2 Zones	2 Zones
High / Low Temp Alarm?	No	No	No	No	No	No	No
Relay Lights	Yes - 1	Yes – 3	Yes – 3	Yes – 6	Yes – 6	Yes – 6	Yes - 9
Heater Lights	Yes - 2	Yes – 3	Yes – 3	Yes – 6	Yes – 9	Yes – 12	Yes - 12
Heater Overload Protection	P&B W28 Series	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker
Control Overload Protection	P&B W28 Series	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker	Snapax-Rocker
Number of Heaters	2 - 18x18" 1631 watt	3 - 12x24" 18Ohm	3 - 12 x 36" 14.5 Ohm	6 - 9x36" 17Ohm	9 - 9x36" 19 Ohm	12 - 12x24" 18Ohm	12 - 12x30" 15 Ohm
Recirculating Airflow	No	Yes - Variable	Yes - Variable	Yes - Variable	Yes - Variable	Yes - Variable	Yes - Variable
Number of Recirculating Air Zones	N/A	1 Zone	1 Zone	1 Zone	2 Zones	2 Zones	2 Zones
Recirculating Airflow speed	N/A	1300 CFM	1300 CFM	2000 CFM	4000 CFM	4000 CFM	4000 CFM
Exhaust Duct Size	4" - Side Mounted	3" Type B	3" Type B	4" Type B	5" Type B	5" Type B	5" Type B
Exhaust CFM @ 60 Hz	49 CFM	136 CFM	136 CFM	216 CFM	326 CFM	326 CFM	326 CFM
Exhaust Motor / Blade	1TDN8	4C941	4C941	4C942	4YJ33	4YJ33	4YJ33
Chimney None/Fixed/Variable	None	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Backdraft Flapper?	None	No	No	No	No	No	No
Wheels on Legs	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Insulation under top skin	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	NPII-	**NPII-**	**NPII-**	**NPII-**	**NPII-**	**NPII-**	**NPII-**

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	1806	2410	3610	3616	3619	4819	6019
Certifications ETL/CE/CSA	ETL / CSA	ETL / CSA	ETL / CSA	ETL / CSA	ETL / CSA	ETL / CSA	ETL / CSA
Shipping Weight (in kg and lbs)	167 kg - 370 lbs	360 kg - 800 lbs	457 kg - 1015 lbs	644 kg - 1431 lbs	876 kg - 1945 lbs	972 kg - 2160 lbs	1148 kg - 2550 lbs
Shipping size (in cm)	170 x 84 x 101 cm	330 x 122 x 100 cm	333 x 155 x 99cm	333 x 158 x 112 cm	468 x 158 x 122 cm	468 x 173 x 122 cm	470 x 203 x 122 cm
Shipping size (in inches)	67 x 33 x 40"	130 x 48 x 39"	131 x 61 x 39"	131 x 62 x 44"	184 x 62 x 48"	184 x 68 x 48"	185 x 80 x 48"

GAS DRYER MODELS	BG-4820	BG-6020	BG-7220
Features/Specs.			
Overall Length	20 feet (609 cm)	20 feet (609 cm)	20 feet (609 cm)
Heated Oven Length	11 feet (335 cm)	11 feet (335 cm)	11 feet (335 cm)
Conveyor Infeed	4 feet (122 cm)	4 feet (122 cm)	4 feet (122 cm)
Conveyor Delivery	3 feet (91 cm)	3 feet (91 cm)	3 feet (91 cm)
Fume Hoods – each end	1 foot (30.5 cm)	1 foot (30.5 cm)	1 foot (30.5 cm)
Frame Width	60 Inches (152 cm)	72 Inches (183 cm)	84 Inches (213 cm)
Overall Width (control box and air plenum box installed)	89 Inches (226 cm)	101 Inches (256 cm)	113 Inches (287 cm)
Height (floor to top of exhaust)	83-1/2 Inches (212cm)	83-1/2 Inches (212 cm)	83-1/2 Inches (212 cm)
Belt Height from floor	34 inches (86 cm)	34 inches (86 cm)	34 inches (86 cm)
Belt Width	48 Inches (122 cm)	60 Inches (152 cm)	72 Inches (183 cm)
Belt Type	TCF (Teflon coated Fiberglass)	TCF (Teflon coated Fiberglass)	TCF (Teflon coated Fiberglass)
Belt Speed	0 - 17 FPM (0 - 5 m/min)	0 - 17 FPM (0 - 5 m/min)	0 - 17 FPM (0 - 5 m/min)
Belt Speed Control	Analog Knob 0-10	Analog Knob 0-10	Analog Knob 0-10
	BG-4820	**BG-6020**	**BG-7220**
Temperature Control	West 6100 Digital (with Hi/Low	West 6100 Digital (with Hi/Low	West 6100 Digital (with Hi/Low

	temp alarm)	temp alarm)	temp alarm)
Oven temperature accuracy	+/- 5°F (2°C) of set point	+/- 5°F (2°C) of set point	+/- 5°F (2°C) of set point
Maximum Oven Temperature	400F	400F	400F
Minimum Oven Temperature	250F	250F	250F
BTU Input Minimum	100,000 BTU	100,000 BTU	100,000 BTU
BTU Input Maximum	300,000 BTU	300,000 BTU	300,000 BTU
Exhaust Airflow	1,300 CFM – 14" duct (36,400 l/min – 35 cm duct)	1,300 CFM – 14" duct (36,400 l/min – 35 cm duct)	1,300 CFM – 14" duct (36,400 l/min – 35 cm duct)
Exhaust Motor	½ H.P. direct drive	½ H.P. direct drive	½ H.P. direct drive
Recirculating Airflow	2,600 CFM Fixed	2,600 CFM Fixed	2,600 CFM Fixed
Recirculating Air Motors	Two 1 H.P. direct drive AC 3-phase motors	Two 1 H.P. direct drive AC 3-phase motors	Two 1 H.P. direct drive AC 3-phase motors
Air Filters	Fume Hood (4) Combustion Air (1) Recirculation Air (2)	Fume Hood (4) Combustion Air (1) Recirculation Air (2)	Fume Hood (4) Combustion Air (1) Recirculation Air (2)
Minimum Distances to other surfaces for installation (suitable for use on Non-Combustible flooring only)			
Back	18 inches (46 cm)	18 inches (46 cm)	18 inches (46 cm)
Ends	40 inches (102 cm)	40 inches (102 cm)	40 inches (102 cm)
Front	48 inches (122 cm)	48 inches (122 cm)	48 inches (122 cm)
Flue to surface	18 inches (46 cm)	18 inches (46 cm)	18 inches (46 cm)
Indicator Lamps	Interlocks Proven Purging Burner On	Interlocks Proven Purging Burner On	Interlocks Proven Purging Burner On
Interlocks	Emergency Stop **BG-4820** High Gas Pressure	Emergency Stop **BG-6020** High Gas Pressure	Emergency Stop **BG-7220** High Gas Pressure

	Low Gas Pressure Exhaust Purge Proving Recirculation Proving (2) Combustion Air Proving High Temp Limit	Low Gas Pressure Exhaust Purge Proving Recirculation Proving (2) Combustion Air Proving High Temp Limit	Low Gas Pressure Exhaust Purge Proving Recirculation Proving (2) Combustion Air Proving High Temp Limit
Flameguard (flame proving)	Eclipse flame pack	Eclipse flame pack	Eclipse flame pack
Safety Standards	Built to UL-795	Built to UL-795	Built to UL-795
Electrical Requirements	220V, 3-Ph, 10 Amps	220V, 3-Ph, 10 Amps	220V, 3-Ph, 10 Amps
Hz	60 Hz	60 Hz	60 Hz
Minimum Circuit Amps	20 Amps	20 Amps	20 Amps
Maximum Fuse Size	20 Amps	20 Amps	20 Amps
Gas Type Requirements	Natural Gas	Natural Gas	Natural Gas
Gas Pressure Requirements	1.0–5.0 PSI (0.1-0.3 bar)	1.0–5.0 PSI (0.1-0.3 bar)	1.0–5.0 PSI (0.1-0.3 bar)
Gas Service Inlet	¾" NPT	¾" NPT	¾" NPT
Gas Pressure Propane	0.5 – 3.0 PSI	0.5 – 3.0 PSI	0.5 – 3.0 PSI
(Units made for Propane Gas available on special order)	(0.05 – 0.22 bar)	(0.05 – 0.22 bar)	(0.05 – 0.22 bar)
Per Hour Consumption estimate (at 175C / 350F)			
Electric	2.5kW	2.5kW	2.5kW
Natural Gas	0.12 MCF/H	0.13 MCF/H	0.15 MCF/H
Propane	.052 MCF/H	.056 MCF/H	.065 MCF/H
in US$ (electric @ $0.10/kWh; gas @ $6.50/MCF)	1.03	1.15	1.28
Shipping Weight (in kg and lbs)			
Shipping size (L x W x H in inches)	uses dedicated 20' container	uses dedicated 40' container	special truckload only

Note: Continuous improvements require that specifications may be subject to change without notice.

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EXAMPLE OF A QUOTE

Date: January 23, 2013

RFQ-0272_RevB
Great Glass Company
328 Windshield Parkway
South Bend, IN
Attn: Cory Williams
111-222-3333, ext 234
cwilliams@greatglass.com

Rep: Your Company

Dear Cory,

The following oven specifications and quotation is for your process of glass preheating after robotic application of the primer. The oven uses two 20" wide wire belts with silicone tipped glass support fixtures. This quote is basically a repeat of the previous custom ovens supplied to Great Glass Company in February of 2010 and April of 2011 without any belt conveyor drive or control system. This quote is also similar to quote number RFQ-0267 supplied to GGC on August 30, 2012 but is being quoted with silicone tipped glass support fixtures, special glass separators and some sheet metal walls between the belts to keep glass from falling off the glass support fixtures, falling down between the belts and collecting in the bottom of the oven.

Customer Specifications:

Oven Model Number:	EC4819.75
Dryer Configuration:	Electric Conveyor
Overall Length:	19.75 Feet (approximately)
Oven Length:	13.75 Feet
Overall Width	57 Inches
Overall Height:	47" Measured from the floor to the top of oven.
Belt Height:	36 Inches. Measured from the floor to the top of the conveyor
Conveyor Infeed:	41.8 Inches
Conveyor Delivery:	24.3 Inches
Fume Hoods:	3 Inches, one on each end of oven chamber
Oven Openings:	6" maximum with adjustable doors on each end of oven chamber
Heat Type:	Infra-Air
Heat Input:	Eighteen 12"x24" 16 Ohm heater elements
Temperature Control:	Two zones, West 6100 series digital PID temperature controller
Operating Temp.:	200-400°
Max. Oven Temp.:	450° F

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Recirculating Airflow:	Two zones with variable 0-10 air speed setting, top delivery (directed down towards the belt) with bottom recovery (below the conveyor belt)
Belt Width:	Two 20” wide belts
Belt Type:	Stainless steel wire mesh belts, 0.092” dia. wire x ½” pitch
Belt Loading:	6 lbs per square foot
Belt Speed Control/Drive:	Customer to supply all belt drive motors and controls
Belt Direction:	Right to Left when facing the front of the control panel
Casters:	Heavy Duty locking casters
Exhaust System:	One 10” duct, 1200 CFM, top exhausting
Power Requirements:	One 220-240 VAC, 160 Amp, 3 Phase connection

Special Requirements:

1. Special Color Paint - "Coastal Blue" Sherwin William
2. Temp controllers provided with “Process Ready Outputs”
3. Silicone tipped glass supports supplied attached to conveyor belt. There will be 3 glass supports for support of each piece of glass.
4. Four glass separators provided (positioned between the leading and trailing edge of each piece of glass).
5. Two sheetmetal walls provided between the belts to prevent the glass from falling between the belts and into the bottom of the oven.

Oven Price (USD$):_____$9,999.99

Crating / Shipment Condition (USD$):

- ☒ Standard enclosed / slotted wood crate with plastic (dust) wrap OR pallet with plastic (dust) wrap (Standard Fright Line)_____$999
- ☐ Non-Crated Oven: chocked / blocked and strapped in a dedicated truck
  Note: Includes loading, blocking and tying down the unit to the truck trailer floor (Shipped On Dedicated Truck)_____$999
- ☐ ISPM: Similar to standard, however, built with certified ISPM treated wood_____$999

Options (Not included in Price Above):

- ☐ Manufacturer arranged shipping **See Freight Policy Below** Price if selected: N/A

Total Price of Oven plus checked items:_____$_____

****Some Options Standard or Unavailable Based On Model****

Freight:
All transportation is customer's responsibility, Ex Works (EXW) Pittsburg, KS unless otherwise noted. Unless crated oven much ship in dedicated truck with enclosed trailer.

Lead Time: **???? weeks**, After Receipt of Purchase Order & 50% down payment. Lead time will be confirmed after receipt of order and down payment.

Terms & Conditions:
A 50% payment is required before design or construction begins. 25% is due 30 days after prepayment, and the balance is due before shipment.
This quote is good for 60 days.

Should you have any questions or if I can be of further assistance, please contact me.

Best Regards,

Byron Stokes
Director of Industrial Sales & Marketing
800-835-0606 ext. 210
bstokes@hixcorp.com