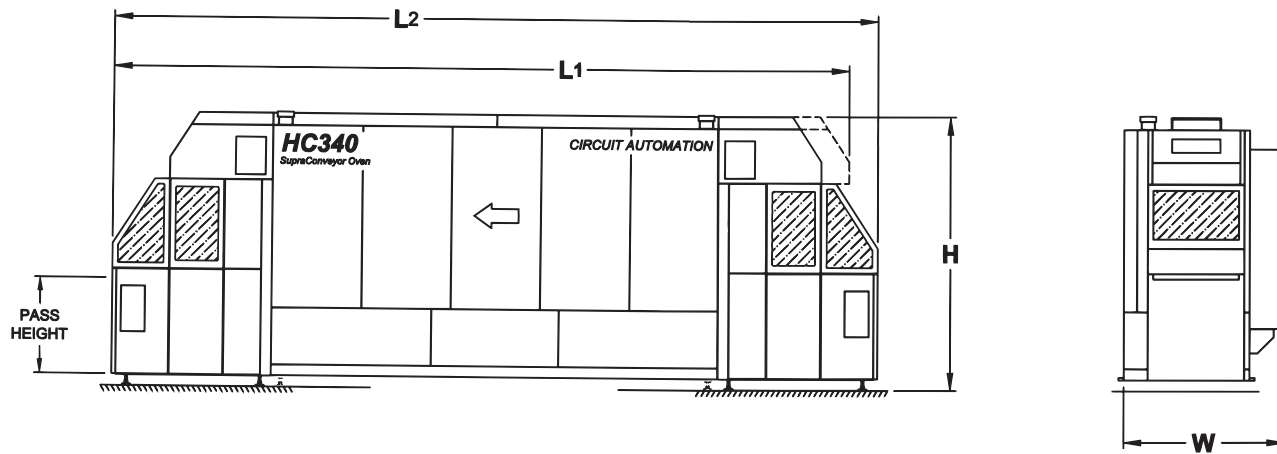


HC-340 SupraConveyor Oven

HC SERIES SUPRACONVEYOR OVENS



| Model | HC-340/100 | HC-340/200 | HC-340/HD |
|--|--|-----------------|--------------|
| Specifications | | | |
| Throughput - panels/hour [†] | 100 | 200 | 100 |
| Length of Heated Zone, Meters | 4 | | |
| Pitch | 1.5" / 38mm | 0.75" / 19mm | 1.5" / 38mm |
| Number of Heated Zones | 1 | | |
| Maximum Temperature | 375F - 190C | | |
| Maximum Panel Dimensions | 26" x 30" | | |
| | 660mm x 762mm | | |
| Panel Thickness | 0.004" - 0.187" | 0.004" - 0.500" | |
| | 0.10mm - 4.75mm | 0.10mm - 12.7mm | |
| Heater Capacity, kW | 48 | | |
| Heating Elements, Quantity | Incolloy / Six | | |
| Utilities | | | |
| Electrical Service | 480V / 3Φ / 60Hz / 100A 380-400-415V / 3Φ / 50Hz / 125A | | |
| Exhaust Requirement | 1500 cfm 2548 m ³ /hr | | |
| Number of Exhaust Ducts | Six | | |
| Pneumatic | 10 cfm@ 100 psi / 17 m ³ /hr @ 7 bar | | |
| Dimensions | | | |
| L1 = Length - Manual Load | 272" / 691cm | N/A | 272" / 691cm |
| L2 = Length - Automatic Load* | 285" / 724cm | | |
| H = Height | 103" / 262 cm | | |
| W = Width | 60" / 152cm | | |
| P = Minimum Pass Height | 35.5" / 90cm | | |
| Shipping | | | |
| Net Weight - Manual Load | 6550 lbs / 2970 kgs | | |
| Net Weight - Automatic Load | 6950 lbs / 3150 kgs | | |
| Gross Weight - Manual Load | 7100 lbs / 3220 kgs | | |
| Gross Weight - Automatic Load | 7500 lbs / 3400 kgs | | |
| Crated Dimensions | 40 ft. "High Cube" Container | | |
| [†] Throughput based on 60 minute cycle | | | |
| *Automatic load not suitable for tack-dry applications | | | |

This information is believed to be true and accurate based on our laboratory testing and experience. Since actual use is beyond our control, no warranties, express or implied, exist. Specifications and design are subject to change without notice.

Revision 3/01

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THE NEW STANDARD

Introduced in 1998, the HC-340 series ovens have become the new standard in drying and curing technology. Our HC-340 series feature the SupraConveyor design. Panels are held by spring clips and suspended from an overhead conveyor. This enables very thin panels to be processed without special fixtures. Downdraft air recirculation and laminar flow minimizes panel sway. In final cure applications, warp and twist is eliminated. The SupraConveyor also facilitates automation, as it has the flexibility to transport panels of various sizes without adjustment.

Increased Yields

In any process, handling is one of the primary sources of defects. The HC-340 enables automation of the curing and drying process, eliminating operators inadvertently damaging panels while loading or unloading panels from racks or magazines. Panels are unloaded automatically after the proper bake cycle and transported by horizontal conveyor to the next process. An automatic loader is also available for final cure applications.

High Productivity

The HC-340 Series ovens have a huge four meter heated zone. Rapid temperature ramp-up means that panels spend more time at setpoint temperature for a given heated zone length and conveyor speed. The HC-340/200, with 19mm pitch, is ideal for final cure applications. It can process 200 panels per hour at a one hour cycle time. The HC-340/100 with a 38mm pitch can process up to 100 panels per hour. The wider spacing prevents thin core materials from touching one another during the drying process. The HC-340/HD expands the range of formats that can be processed for even greater versatility.

SupraConveyor Design

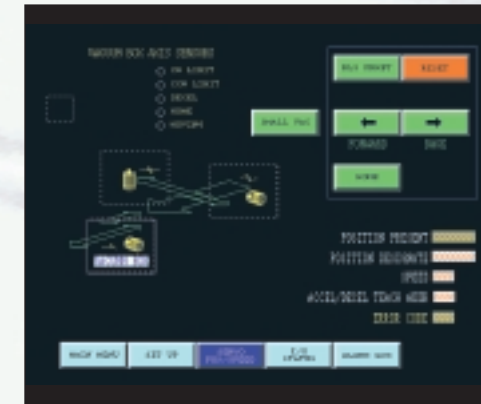
Drying thin substrates requires that panels be held in such a way as to prevent them from touching the carrier or one another. Suspending panels by the top edge is the only practical means of conveying very thin substrates. On thicker panels, an overhead transport system significantly reduces warpage and fracturing. Gravity induced distortion, which occurs as materials approach their t_g at final cure temperatures, is not a factor when a panel is suspended from the top edge. Special racks or fixtures that require adjustment for each panel size are not required. The SupraConveyor can handle a wide variety of panel formats, automatically, without operator adjustment.



WYSIWYG Controls

The HC-340 Series feature a touchscreen operator interface that serves as both the control panel and as an annunciator, simplifying operation of the oven. Cycle time, process temperature, and oven status indicators are all controlled and displayed from this panel.

As with all Taiyo Circuit Automation equipment, the HC-340 has been ruggedly built to be durable and safe. The PLC constantly monitors the oven operation and alarms system malfunctions. Constructed to meet the requirements of the European Committee for Standardization, the HC-340 carries the CE mark. Electrical control panels are assembled by our Underwriter's Laboratory certified panel shop.

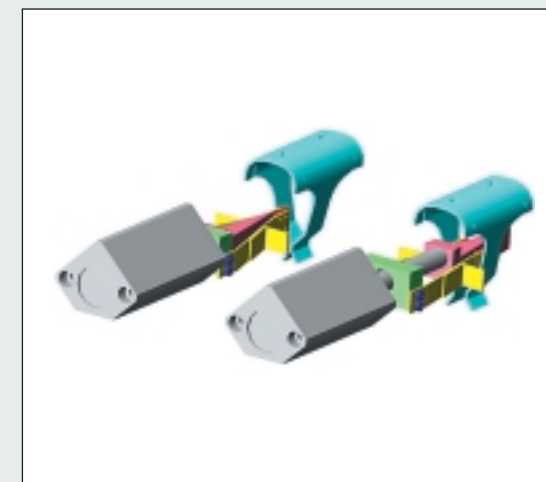


Better Quality

Taiyo Circuit Automation ovens have become synonymous with accuracy and precision. Our conveyorized ovens process each panel identically so that consistent, repeatable results are obtained. Panels are heated uniformly without wide variance in temperature from corner to corner or panel to panel. A repeatable process will yield repeatable results, and can make the difference between success or failure in critical applications such as tack-dry, nickel-gold, or dielectric.

Strong and Simple

Conveyor spring clips are made from annealed spring steel for long life. Knurled and hardened (45 RHC), they grip panels tenaciously regardless of surface finish. A wedge, the simplest tool known to man, is used as a unique and trouble-free clip opener. This clean, straight forward mechanism ensures faultless operation for years to come.



Fully Automatic

SupraConveyor design permits the HC-340 series to automatically load and unload panels. An edge gripper unloads panels from the conveyor and places them on the horizontal conveyor. In final cure or single sided applications an optional automatic loader uses a similar mechanism to load panels into the oven. In tack-dry applications, wet panels are manually loaded into a panel buffer which then loads them.

