

9224x3FC FINAL CURE OVEN

The 9224x3FC Final Cure Oven is designed to dry coatings that have been applied to panelized parts. The system consists of three pairs of infrared sources that are independently temperature controlled to within 2° C providing highly uniform, repeatable drying to substrata. An additional drying element, convection heat is added via forced hot air system that simultaneously exposes the panelized substrata to convection heat an infrared radiation. A system exhaust is also supplied to provide the required air movement to remove any evaporated solvents.

The conveyor drive is a V-belt to minimize contact area between the panelized substrata and the drive belt. The conveyor speed is controlled to within 1% of full speed and is a direct drive DC motor control.

ELECTRICAL SERVICE REQUIREMENTS

Circuit Breaker service is 3-phase configuration with a good Ground.

ITEM	208/240V 50/60HZ	380/400/415V 50HZ	480V 50/60HZ	POWER
9224x3FC	200A	150A	100A	65kVA

Note: The 9224x3FC requires a main exhaust blower that must have its own Electrical Service for safety purposes. The machine has an interlock that will not allow activation of the heat sources without proper exhaust.

EXHAUST SYSTEM REQUIREMENTS

MAIN EXHAUST

ITEM	VOLUME	BLOWER POWER	DUCTING
9224x3FC	1000 cu ft/min (28 cu m/min)	1/3HP	8" (203 mm) Inside Diameter

Note: Exhaust, transition and ducting to be supplied by user.

WARNING

Make-up air to the installation area must be at least 1000 cu ft/min (28 cu m/min) for the **9224x3FC**. Insufficient make-up air will result in fumes and poor temperature distribution; therefore, causing the machine to operate improperly.

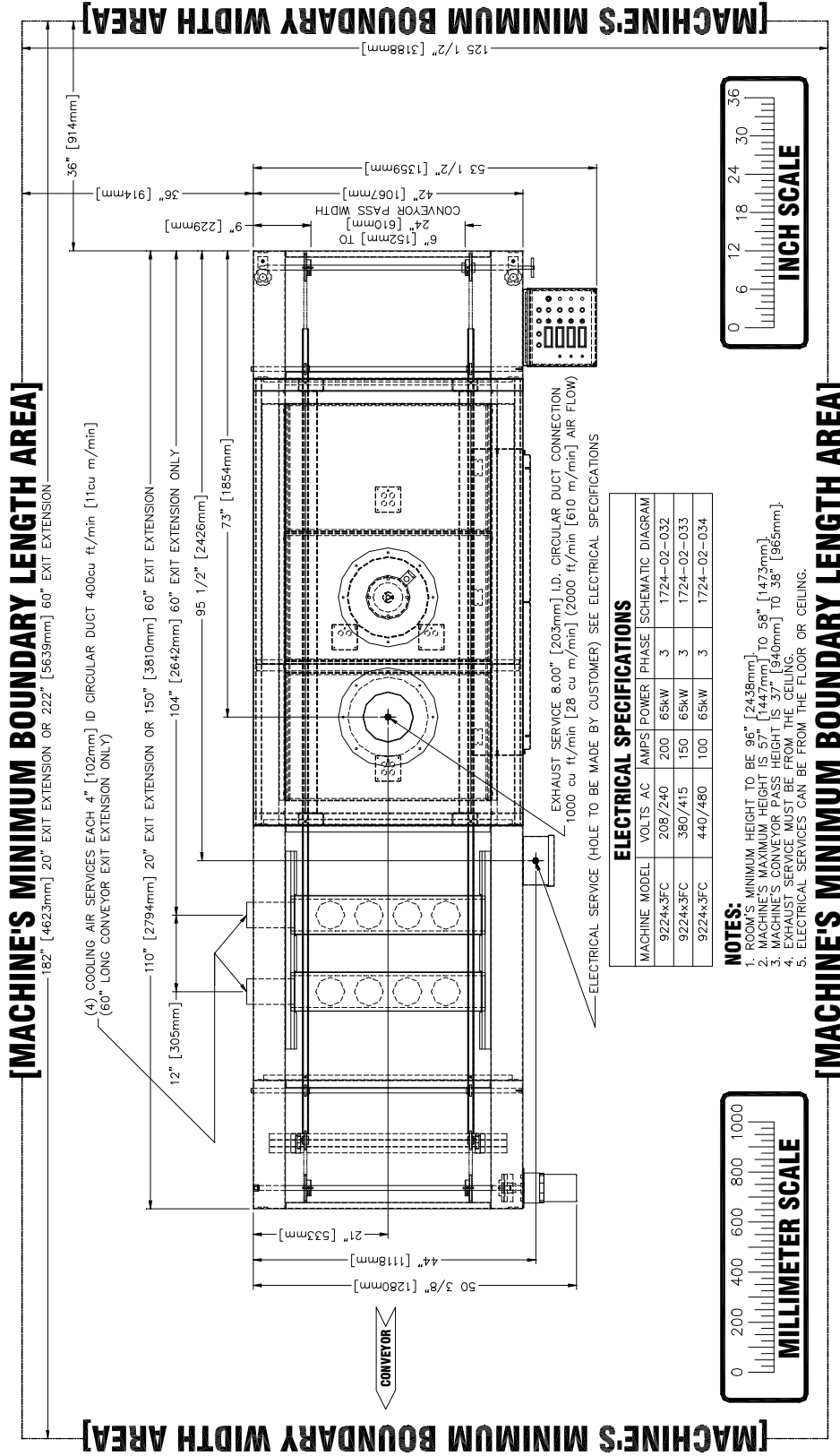
SHIPPING DATA

ITEM	CRATE SIZE	AIR FREIGHT CRATED WEIGHT	COMMON CARRIER CRATED WEIGHT
9224x3FC-20	102" x 63" x 63"	1,500 lbs.	1,700 lbs.
9224x3FC-60	188" x 63" x 63"	2,000 lbs.	2,200 lbs.

Note: Crating dimensions and weights are approximate and may vary within 10%.

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9224x3FC FACILITIES FLOOR PLAN – LEFT-HAND STANDARD CONTROLS AND OPTIONS, SHOWN



ELECTRICAL SPECIFICATIONS

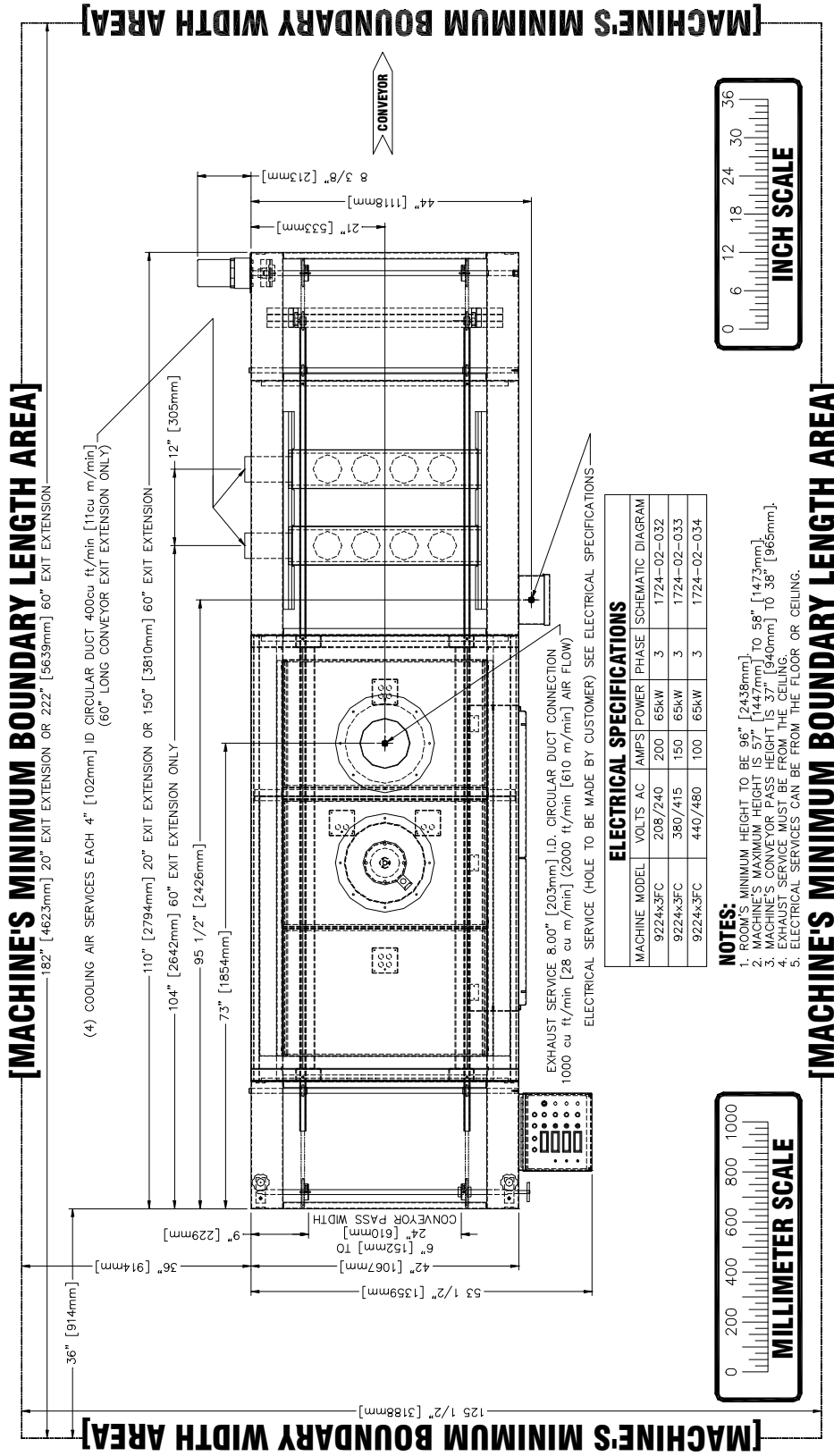
MACHINE MODEL	VOLTS AC	AMPS	POWER	PHASE	SCHEMATIC DIAGRAM
9224x3FC	208/240	200	65kW	3	1724-02-032
9224x3FC	380/415	150	65kW	3	1724-02-033
9224x3FC	440/480	100	65kW	3	1724-02-034

- NOTES:**
- ROOM'S MINIMUM HEIGHT TO BE 96" [2438mm]
 - MACHINE'S MAXIMUM HEIGHT IS 57" [1447mm] TO 58" [1473mm]
 - MACHINE'S CONVEYOR PASS HEIGHT IS 37" [940mm] TO 38" [965mm]
 - EXHAUST SERVICE MUST BE FROM THE CEILING.
 - ELECTRICAL SERVICES CAN BE FROM THE FLOOR OR CEILING.



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Operating Scheme

These are the 9224x3FC's major components. The following figures help identify specific elements of the machine for operation. The operator needs to be completely familiar with these elements prior to attempting to operate this equipment. Argus International will provide on site training for process, operation and maintenance upon request.

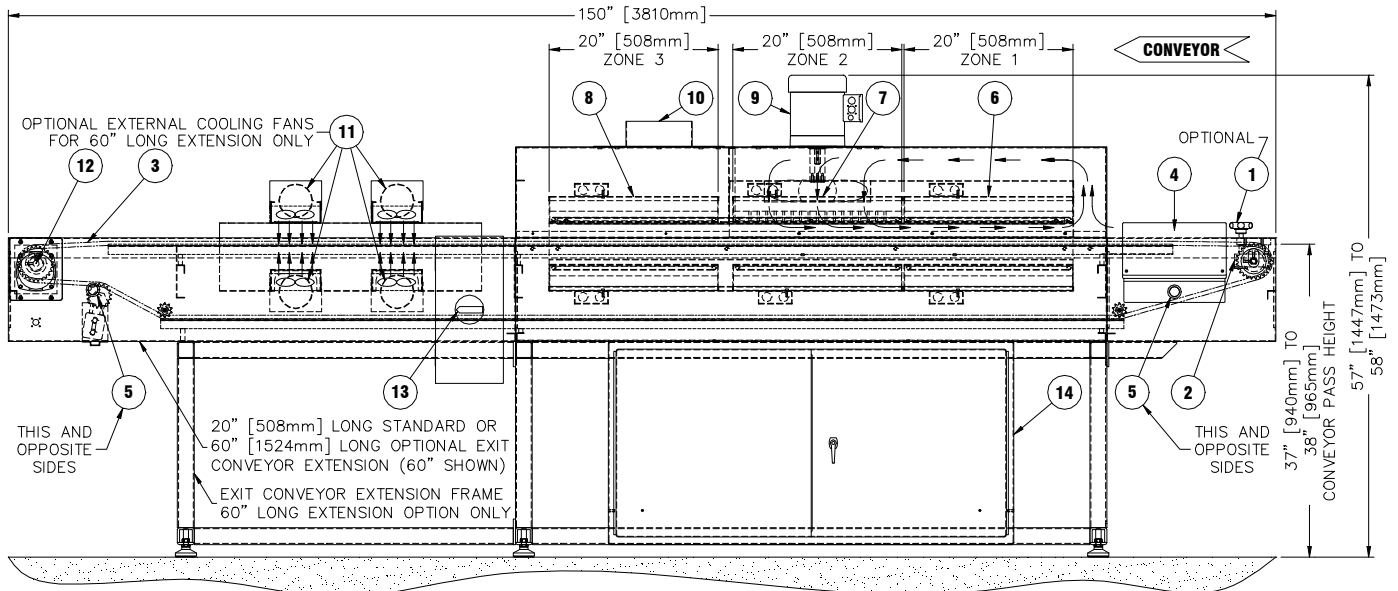


Figure: Major Components of the 9224x3FC Left-Hand Controls (Standard controls with options, shown)

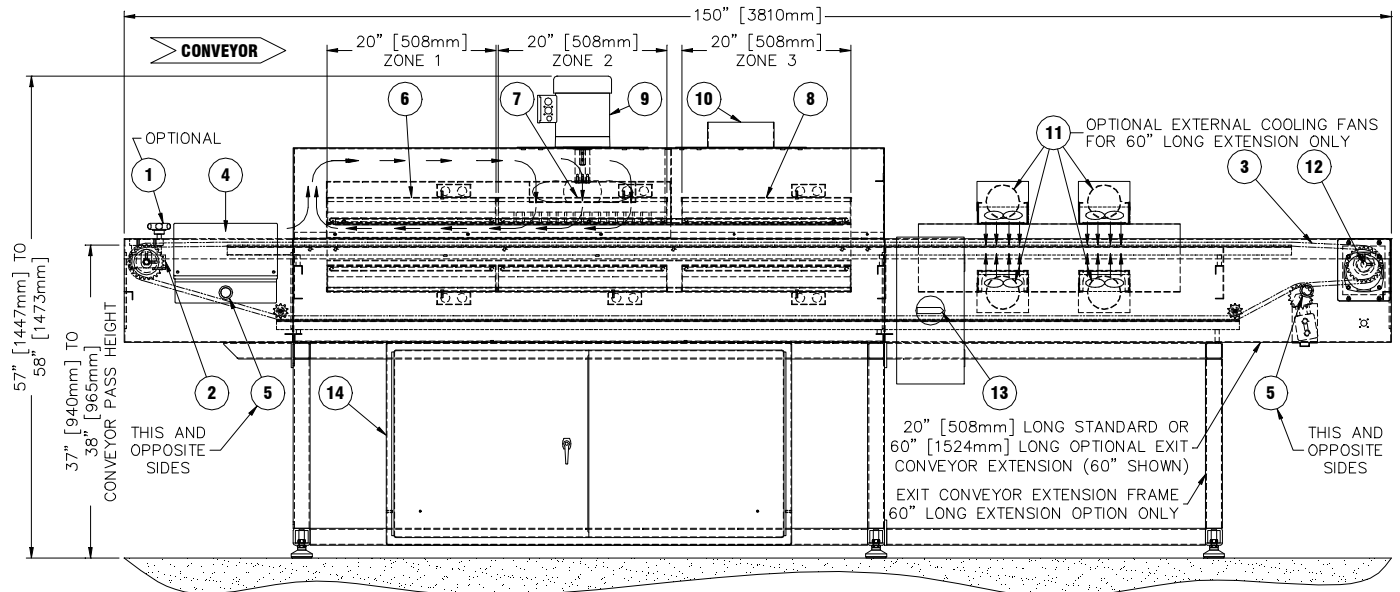


Figure: Major Components of the 9224x3FC Right-Hand Controls (Nonstandard controls with options, shown)

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1. **Adjustable Entrance Conveyor:** An up and down adjustment for smooth transfer from other conveyor systems to the 9224x3FC. *The 9224x3FC comes standard without an Adjustable Entrance Conveyor; contact an Argus Sales Representative to have this feature installed.*
2. **Conveyor Stop Sensor:** The sensor (1SEN) sends a signal to sound an alarm if the conveyor fails or falls below .80 feet [.24 meters] per minute. The Conveyor Stop Alarm Board cuts power to heater contactor (1CON) and auxiliary contacts (AUX1 and AUX2) disabling power to the Heaters and Temperature Control Boards.
3. **V-Belt Conveyor:** The materials coming into the 9224x3FC may still wet with LPISM. It is necessary to provide a means to convey the part without touching the surface. The V-belt conveyor design allows conveyance without touching the panel surface. If the panel weight exceeds 4-lbs/sq ft [19.5-kgs/sq m], then the heavy board feature must be installed; contact an Argus Sales Representative to have this feature installed. Do not exceed 8-lbs/sq ft [39-kgs/sq m] when the heavy board option installed.
4. **Control Panel:** User's interface to communicate with the machine. Panel contains: indicators, meters, pushbuttons, switches, and potentiometers. See section 1.3 in the manual for the breakdown for the control panel.
5. **Emergency-Stop Switches:** Used to cut power to the system controls such as: conveyor, heaters, convection fan, and cooling fans (if installed). These switches do not cut off main power on the machine (see Circuit Breaker).
6. **Zone 1 Heaters:** Heater panels emitting energy between 5 and 8-micron wavelength provide the ideal preheating stage for tack drying or curing without skinning over the liquid coating.
7. **Zone 2 Heaters & Convection:** Includes the same 5 to 8-micron heating source that Zone 1 employs with the added capability of sending high velocity air movement to break down the vapor barrier that forms on the surface of the PCB during drying.
8. **Zone 3 Heaters:** The final heater zone provides some additional dwell time allowing completion of the tack-dry or curing process.
9. **Convection Fan:** High velocity air for Zone 2 is supplied via convection fan. All ductwork is internal.
10. **Exhaust Outlet:** The 9224x3FC disposes the evaporated solvents through the exhaust. An external blower rated at 1000 cu ft/min (28 cu m/min) and proper size ducting must be connected to this outlet.
11. **Additional Cooling Fans:** An extended cooling zone outside the heater cabinetry used to reduce the panel temperature. Air ducts can be attached to four individual 4" [102mm] outside diameter openings integrated to the fan banks, so cooler air can be introduced into the cooling section. Contact an Argus Sales Representative to have this feature installed.
12. **Conveyor Drive Motor:** The conveyor can be adjusted from 1.70 to 7.00 feet per minute. The drive end is equipped with a 90VDC clutch. When the "System ON" indicator is not lit, the operator can move the conveyor manually using the hand-wheel located near the control panel.
13. **Circuit Breaker:** Where the main and control power of the machine can be switched ON or OFF.
14. **Electrical Component Enclosure:** This cabinet contains the electrical wiring, components, and control boards.