

Makor Line Modification

Substrate Specifications

Substrates having the following approximate maximum and minimum dimensions can be transported through the equipment offered:

Length	maximum	Not applicable	
	minimum	305 mm	(12")
Width	maximum	1300 mm	(51")
	minimum	25 mm	(1")
Thickness	maximum	40 mm	(1-9/16")
	minimum	3 mm	(1/8")

Notes:

Edge coverage may vary when part thickness exceeds 40mm (1-9/16").

We suggest that testing be performed in our laboratory to demonstrate the actual results obtainable with your product and coating material.

Line Parameters

- designed line speed is 3.0 m/min (9.8 fpm) for production calculations

Scope Of Delivery

- Oven System, Makor Models FastDry 09/LA, NIR 2 & FastDry 09/WJ, IRM 3

Item 2**Linear Oven System,
Makor Model FastDry 09/LA, NIR 2 &
FastDry 09/WJ, IRM 3****Oven Configuration**

Two (2) independent oven sections enable flexibility in flash off and drying process

- 1st section – Laminar Zone (LA)
- 2nd section – High Velocity Zone (WJ)

Laminar Zone

- oven system provides an environment of laminar flow hot air movement for use in the flash off process for applied coating materials
- two (2) banks of NIR lamps – 6 kW power each with variable power as a group
- section length 9,000mm (29' 6")

High Velocity (Jet) Zone

- oven system provides an environment of high velocity jetted hot air movement for use in the flash off/drying process for applied coating materials
- section length 9,000mm (29' 6")
- three (3) banks of IRM lamps – 5 kW power each with variable power as a group

Structure and Transport System

- equipped with access doors along the side to provide easy access
- oven tunnels are insulated to save energy
- conveyor consists of zinc rollers motorized by a double row of parallel chains
- transport speed is fully adjustable through a potentiometer
- conveyor length 18,000 mm (59' 1")

Air Flow Management

- heated air flows thru tunnel in the opposite direction of the panel feed
- separate intake and exhaust ports provide flexibility in operation
- replaceable filters are located at the entrance of the intake air system (excluding cooling zone)
- air is heated by a hot water heat exchanger (heat source by customer)

Options Included

Automatic Temperature Control

- a sensor detects the air temperature inside the oven and automatically optimises the heat exchanger that warms up the air
- this system allows using the maximum potential of the heating system when the machine is started up and saving energy once the set temperature is reached

Infrared Curing

- two (2) banks of NIR lamps – 6 kW power each with variable power as a group
- three (3) banks of IRM lamps – 5 kW power each with variable power as a group

Technical Specifications

max. working width	1300 mm	(51")
working height $\pm$ 50 mm	900 mm	(35-1/2")
feed speed $\pm$ 5%	2 to 8 m/min	(6.6 to 26.2 ft/min)
feed motor power	0.75 kW	
intake motor power (2)	3 kW	
exhaust motor power (2)	3 kW	

Utility Requirements

Electrical		
operating voltage	480 V/3-phase/60 Hz	
total connected load	40 kW	
Air		
intake air volume	14,000 m ³ /hr	(8,240 cfm)
exhaust air volume	14,000 m ³ /hr	(8,240 cfm)
Heat source (hot water)	80,000 kcal/hr	320,000 BTU/hr

Electrical equipment installed according to UL regulations. Voltage supplied must not fluctuate in excess of $\pm$ 5% of its stated value.



Item 3

