



LACQUER CURING OVENS

SERIES - LCO

Introduction

COSMIC offers an extensive range of Industrial Lacquer Curing Ovens for curing lacquer before and after metallising on glass, plastic and metal articles. These ovens are specially designed for Vacuum Metallising Industry and comprehensively engineered to incorporate the latest features.

Who else, than a Vacuum Metallising Plant manufacturer, making plants for more than 40 years, can design and fabricate an oven for metallising industry.

Process of Lacquer Curing

All plastic and metal articles and some glass articles require a base coat of lacquer to provide adhesion of metallising. Lacquer can be done by dipping the substrate in a tank of lacquer or by spraying the same with a spray gun. After applying lacquer, it is dried in an oven at a suitable temperature, depending on the lacquer used, for particular time-period.

Load the articles on trolleys/trays, transfer the trolley/tray in the oven, and close the door of the oven. Select the temperature required on digital temperature indicator cum controller provided in the control panel. Select the time to cure the lacquer on the digital timer provided. Press fan-ON button to start the fans then press heaters- ON button to start the heaters of the oven. After the selected time elapsed, heaters will OFF. Same process will apply for curing the top-coat.

Features

- Digital Temperature Indicator cum Controller
- Digital Timer, 0-999 minutes
- Door Limit Switch
- Heaters - standard 1000 W rating, strip type
- Switches, latching type with illuminating front
- Fan Motors - 0.5 HP, 2880 RPM, Direct Driven
- Inter locking for safe operation

Typical Application

COSMIC series - LCO ovens can be used in various industries but these ovens are specially designed to be used in Vacuum Metallising Industry for curing base-coat and top-coat of lacquer on glass, plastic and metallic articles.

Design

COSMIC series-LCO ovens are double walled with inner and outer shells made of thick mild-steel sheet. The outer boundaries are protected with angle-iron structure and reinforced with thick mild-steel strips. The gap of two shells is filled with best quality mineral wool for proper insulation to reduce the heat loss through the body. Strip type heaters, 1000 W, of best quality suitable for continuous 24 hours operation are provided on both sides of oven. Each heating element is independent and can be easily replaced in the event of damage/ failure.



Forced air circulation is provided with suitable number of fans in the inner working space, which are driven by 1/2 H.P., 2880 RPM, Direct Driven motor fixed outside the oven. Circular opening is provided at the top of the oven to exhaust the fumes, out of the working area, produced by the lacquers.



Temperature of the oven is controlled by a digital temperature indicator cum controller. This temperature controller can control the temperature from 50°C to 400°C with 5°C accuracy. A suitable thermocouple is introduced inside the oven to measure the temperature.



A control panel is provided on right side of the oven. It contains contactor, MCBs etc. for mains, fans and heaters, digital temperature indicator/controller, digital timer 0-999 min., relays and other required items.

COSMIC ovens in series - LCO works on 440 Volts, 50 Hz, 3 phase, A.C., supply.

Smaller ovens are fully assembled and can be transported as a single unit. Bigger ovens are de-mountable type. All six sides can be separated for transportation and re-assembled in your factory.

These ovens can be supplied with trolley, made of mild steel stock or with trays, made of mild-steel sheets. The number of trolleys/trays and size depends on a particular application. Our expert advice is always available to suggest you the most suitable configuration.

Safety Interlocks

- Heaters will ON only when Fans are ON.
- In case of power failure, oven will restart only after pressing the mains ON button.
- Direct Driven fan motors thus no open moving parts.
- Exhaust pipe is circular, to fix pipe on it to remove hot fumes out from the working area.
- All 3 phase indicators are provided.

Specification

Model	Suitable with Plant-Model	Inner Dimensions (HxWxD) mm (feet)	Fans (Nos.)	Heater Rating (KW)		Trolleys for spoils (Nos.)	Type
				Plastic	Glass		
LCO 444	IVC-30 H	1220 x 1220 x 1220 (4 x 4 x 4)	2	6	12	2	Assembled
LCO 646	IVC-36 H	1830 x 1220 x 1830 (6 x 4 x 6)	2	9	12	1	Assembled
LCO 656	IVC-42 H IVC-42 V	1830 x 1525 x 1830 (6 x 5 x 6)	2	9	12	1	Assembled
LCO 666	IVC-48 H IVC-48 V	1830 x 1830 x 1830 (6 x 6 x 6)	2	9	12	1	Assembled
LCO 668	IVC-54 H IVC-54 V IVC-62 H IVC-62 V	1830 x 1830 x 2440 (6 x 6 x 8)	4	9	15	2	De-Mountable
LCO 6710	IVC-72 H IVC-72 V	1830 x 2135 x 3050 (6 x 7 x 10)	4	12	15	2	De-Mountable

Specification may change without notice.
Oven can be used with trolley/trays.
Trolleys/trays are not included.



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