

UV HIGH GLOSS VARNISHING MACHINE COLIBRI 74

Machine for varnishing of paper and board and subsequent drying by UV.



Production Specifications

Max. sheet size		L 1040 x W 740	mm	40.94" x 29.13"
Min. sheet size		L 280 x W 210	mm	11.0" x 8.3"
Single stream operation				
Total energy requirement (3 UV lamps)	approx.	52	kVA	65 A
Total air exhaust	approx.	4000	m ³ /h	235.4 cfm
Sheet weight	min.	70	g/m ²	50 lbs
	max.	600	g/m ²	30 pt. stock
Max. output at sheet length 1020 mm	approx.	6400	sph	
Max. output at sheet length 520 mm	approx.	11000	sph	
Max. output without air knife (without "up/down" movement)	approx. or	11000 120	sph m/min.	395 fpm
Max. output with air knife and sheet blowing system in stacker (without up/down movement) or	approx.	9000 90	sph m/min.	295 fpm
Output with "up/down" movement	approx.	3800	sph	

GRAPHIC

Working height	1100	mm	43.2"
Stack height (standard pallet)	950	mm	37.4"
Stack weight	620	kg	1366.85 lbs
Varnish type	UV		
Viscosity	40 sec. at 20° C DIN Cup 4 approx. 180 CPS at 68° F		

Pos. 1

SHEET FEEDER

Length of feeder	approx.	2080	mm	81,9"
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The feeder works underlapped, length of underlapping 223 mm (**8.8"**)

Pos. 2

SHEET CLEANING UNIT

Length of sheet cleaner	610	mm	24"
Diameter calendering roller	180	mm	7"
Diameter counter pressure roller	180	mm	7"
Min. sheet weight	120	g/m ²	80 lbs.
Heating	1,5	kW	

The calendering unit with a joint drive with the roller coater consists of a chrome plated and polished calendering roller as well as the counter pressure roller with hard rubber layer installed in an extremely sturdy frame.

The counter pressure roller is adjustable in height to match different thickness of substrates.

The calendering pressure can be set by an air pressure gauge and manometer. A special doctoring system cleans the chrome roller from the anti set-off powder.

GRAPHIC

Pos. 3

ROLLER COATER RC-P

Length	1510	mm	59.45"
Diameter of applicator roller	242	mm	9.5"
Diameter of metering roller	180	mm	7"
Diameter of counter pressure roller	180	mm	7"
Flow-type heater	0,5	kW	
Speed range conveyor system	25 - 120	m/min.	82 - 394 fpm
Number of doctor blades for counter pressure roller	1		
Compressed air container	50	l	13 gal

The machine works without grippers nor blanket on the counter pressure roller. The coating unit consists essentially of three rollers:

- Metering roller made from steel and chrome plated with reversible drive. The metering roller is provided with a parallel adjustment and handwheel for the control of the varnish quantity.
- Large diameter rubber coated applicator roller, to prevent splashing of varnish at high speed.
- Counter pressure roller polished and hard chrome plated with doctor blade for perfect cleaning of the surface.

The counter pressure roller is of such design that it can be switched to open and close the gap between applicator and counter pressure roller for every sheet. This is an advantage if for gluing purposes a varnish free strip is required at the front and/or rear edge of the sheets. Further it facilitates cleaning and extends life of the counter pressure roller.

The sheet thickness can be set by handwheel.

The conveyor speed is infinitely adjustable. The speed is indicated on a tachometer.

The infeed conveyor system is composed of parallel running narrow tapes which are easily exchangeable.

The varnish circulation system includes pump, varnish distribution pipe as well as varnish return trays and guide plates.

AIR KNIFE SYSTEM FOR PAPER

This unique device is used to run paper having a weight of less than approx. 200 gsm. It prevents sticking of the varnished sheets to the applicator roller without the need of using a gripper system.

Specification for air compressor (oil- and waterfree)

(Compressor is **not** included in our delivery)

Output		85	m ³ /h	50 cfm
Tank capacity		500	l	130 gal
Pressure		8	bar	116 psi
Power requirement	approx.	11	kW	

Pos. 4

UV DRYER

Total length	4650	mm	183"
Length flow-out section	2290	mm	90.16"
Length cooling section (cooling option)	1450	mm	57.09 "
Number of UV lamps 30" at 9 kW each	3		
Production speed per lamp	40 - 45	m/min.	131 - 148 fpm
Max. production speed with 3 lamps	120	m/min.	393 fpm

The suction table is made from sturdy profile steel and heavy side plates. A hood fitted underneath the conveyor with fan provides vacuum control and holds the sheets.

The conveyor system consists of a number of flat, perforated tapes which are individually tensioned and guided. They can easily be replaced.

The UV radiators are integrated in a housing with a protective shielding. In case of work stops and paper jam in the dryer or stacker the reflector automatically turn by 180° and the lamps switch to half power to prevent fire or overheating of the conveyor belt. A suction fan provides vacuum and cooling of the UV lamps.

Separate suction fan for hold-down of the sheets and air extraction complete with piping, air control and air flow supervision are included.

GRAPHIC

Pos. 5

SHEET STACKER

Length 1860 mm 73.23"

With sheet profiling device for paper below 180 g/m², sheet slow down system and supporting air blow system for long sheets.

Pos. 6

TOUCH PANEL OPERATION

The coating line will be operated by means of a touch panel. All values such as speed, sheets per hour, blow-off impulses, etc. are indicated and can be changed on the display. For sheet feeder and stacker two sheet counters each are installed. The actual working hours of the UV lamps are indicated on the appropriate hour counters and can be reset individually when UV lamps are being replaced.

A text indication leads the operator through the production process. The automatic monitoring system indicates irregularities or errors and brings the machine into a safe status.

Specific assistance text can be called up for fast localization of any errors.

(ELECTRICAL
VOLTAGE MACHINE
3 X 460 V, 3-PHASE, 60 CYCLE)
HOUSE PANEL
(480 V, 3 PHASE 100 AMP)