

Card Lamination Machine YCY Series

Brief Introduction

1. Used for: Production of plastic smart cards.
2. Function: Heat press and then cool press plastic PVC sheets, Inlay sheets.
3. Applicable materials (sheets): PVC, ABS, TESLIN, PC(polycarbonate), PET, PETG sheets. PCB boards, FPC boards.
4. Pressure method: Hydraulic.
5. Heating method: Electric heating tube.
6. Cooling method: Water circulation cooling.
7. Lamination press plates size / Applicable sheet size: Different models different sizes.
8. Control method: According to different models, there are two types: (1). Normal electrical control, (2). PLC automatic control.
9. Lamination press plates material: No.45 steel or Aluminum alloy, Optional.

Choose The Correct Model According to:

1. Control Method

Normal Electrical Control	PLC Automatic Control
(1) Use temperature controller, time relay, pressure gauge, etc.; no PLC, no HMI.	(1) Use PLC, HMI, temperature sensor, pressure sensor, etc.
(2) The accuracy of pressure and temperature is lower.	(2) The accuracy of pressure and temperature is higher.
(3) Pressure cannot be graded in lamination process. Set a pressure value, this pressure value is always kept from the beginning to the end of lamination.	(3) Pressure can be graded in lamination process. Set how many grades and set pressure values of each grade in advance. During lamination, pressure is changing according to set grades and pressure values.
(4) There is no pressure buffer spring between the top press plate and the slab roof.	(4) There are pressure buffer springs between the top press plate and the slab roof. The moment when the material is pressed, they can buffer the pressure and better protect the chips.
(5) No PID temperature control function.	(5) With PID temperature control function (Temperature is more accurate).
(6) Can produce smart chip cards, but cannot produce Inlay.	(6) Can produce smart chip cards and, and can produce Inlay.

2. Heat and Cool Lamination Structure

Single Tower	Double Towers	Single Tower – Heat & Cool Combined
(1) ONE oil cylinder.	(1) TWO oil cylinders.	(1) ONE oil cylinder.
(2) Heat openings at upper, Cool openings at lower.	(2) Heat openings on the right, Cool openings on the left.	(2) Heat and cool openings combined together.
(3) Heat and cool lamination use same one pressure value.	(3) Heat and cool lamination can be set different pressures respectively.	(3) Heat and cool lamination work at same openings alternately. Cool lamination automatically start after heat lamination, no need to move materials.
		(4) Specially designed for the production of high-end Inlay and smart card such as ID card and passport.

3. Lamination Press Plate Size / Applicable Sheet Size

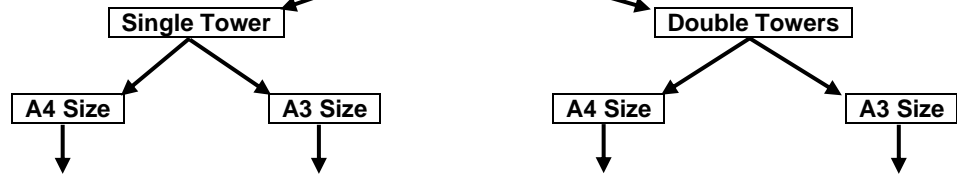
- (1) 250*350 mm: For sheet size A4, Cards print layout 2*5.
- (2) 350*500 mm: For sheet size A3, Cards print layout 3*7, 5*5, 3*8.
- (3) 420*520 mm: For sheet size A3, Cards print layout 4*8.
- (4) Other bigger size: 425*520, 450*655, 550*640, 550*75, For other print layouts 4*10, 5*10, etc.
- (5) Other custom sizes are customizable.

4. Openings Quantity

Our standard models: 3 heat + 3 cool, 5 heat + 5 cool.
Other openings quantity is customizable: 2 heat + 2 cool, 4 heat + 4 cool, 6 heat + 6 cool, 7 heat + 7 cool.

3 Categories of Lamination Machines





Category 1: Normal Electrical Control, No PLC and HMI



1	Model No.	YCY-115FA4 250*350	YCY-115FA3 350*500	YCY-215MA4 250*350	YCY-215MA3 350*500
2	Machine photo				
3	Video link	https://youtu.be/EFPOuWofDKU https://youtu.be/bArmUoKakRI https://youtu.be/jdLB5uwd4QM	See 115FA4 Video	https://youtu.be/rvO5HMGKIEU https://youtu.be/xIH6QzhDqc4	See 215MA4 Video
4	Output per hour	900-1200 cards	2000-2500 cards	900-1200 cards	2000-2500 cards
5	Heat cool structure	Single tower: Upper heat, Lower cool		Double towers: Right heat, Left cool	
6	Control method	Normal Electrical Control, No PLC and HMI, No PID temperature control mode			
7	Press plate size	250*350 mm	350*500 mm	250*350 mm	350*500 mm
8	For cards layout	A4 2*5	3*7 or 3*8	A4 2*5	3*7 or 3*8
9	Press plate material	Default standard is No.45 steel, Optional aluminum alloy			
10	Opening QTY	Upper 3 heat + Lower 3 cool		Right 3 heat + Left 3 cool	
11	Opening space	40 mm	48 mm	40 mm	48 mm
12	Sheets in 1 opening	Normally 10 layers of sheet in 1 opening, maximum 15 layers, depend on sheets thickness.			
13	Pressure method	Hydraulic			
14	Cylinder QTY & diam.	1*100 mm	1*140 mm	2*100 mm	2*140 mm
15	Cylinder stroke	260 mm	320 mm	150 mm	180 mm
16	Oil tank capacity	35 L	50 L	35 L	50 L
17	Hydraulic Oil Grade	No. 46 anti-wear hydraulic oil			
18	Hydraulic pressure	2-15 MPa			
19	Pressure accuracy	±1.0 MPa			
20	Pressure grade	Only 1 grade, cannot set different grades			
21	Pressure buffer spring	No			
22	Heating method	Electric heating tube			
23	Heating temperature	≤200°C			
24	Temperature accuracy	±2.0°C			
25	Cooling method	Water circulation cooling			
26	Cooling tool	3 HP water chiller, or use water bucket			
27	Power	6.3 kW	11.1kW	6.3 kW	11.1kW
28	Power supply	AC 380V 50/60Hz 3 phase 5 wires; or AC220V 50/60Hz 1 phase 3 wires.			
29	Machine Dimension	720*550*1540 mm	800*700*1750 mm	1200*600*1400 mm	1500*800*1600mm
30	Machine weight	430 KG	800 KG	650 KG	1000 KG

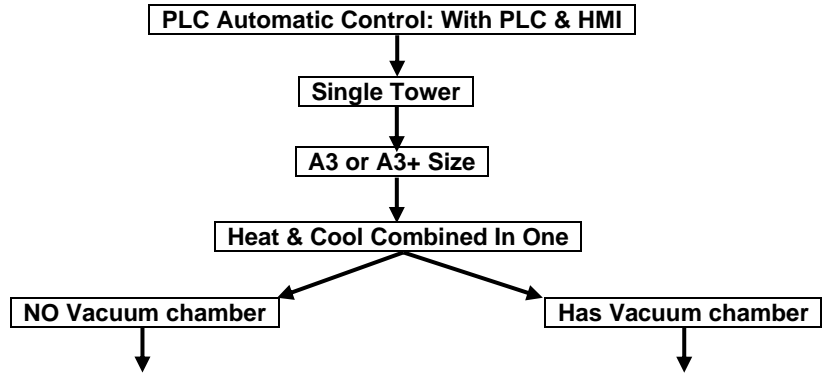
Category 2: PLC Automatic Control



1	Machine photo	YCY-115C 250*350	YCY-115B 420*520	YCY-215H 350*500 YCY-215A 550*640	YCY-215D 420*520 YCY-215B 450*655 YCY-215X 550*750	
						
2	Model No.	YCY-115C 250*350	YCY-115B 420*520	YCY-215H 350*500	YCY-215D 420*520	
3	Video link	https://youtu.be/pfV1blkPtTg	https://youtu.be/gddvooGh4C4	https://youtu.be/nSS6r7xMYEM		
4	Output per hour	900-1200 cards	1440-2000 cards (3*8 Layout) 1920-2600 cards (4*8 Layout)	3150-4500 cards (3*7 Layout) 3800-5000 cards (5*5 Layout)	3600-5000 cards (3*8 Layout) 4800-6500 cards (4*8 Layout)	
5	Heat cool structure	Single tower: Upper heat, Lower cool			Double towers: Right heat, Left cool	
6	Control method	PLC automatic control, have PLC and HMI, Have PID control temperature mode				
7	Press plate size	250*350 mm	420*520 mm	350*500 mm	420*520 mm	
8	For cards layout	A4 2x5	4x8, 3x8, 5x5	3x7, 3x8, 5x5	4x8, 3x8, 5x5	
9	Press plate material	Default standard is No.45 steel, Optional aluminum alloy				
10	Opening QTY	Upper 3 heat + Lower 3 cool	Upper 2 heat + Lower 2 cool	Right 5 heat + Left 5 cool (6+6, 7+7 customizable)		
11	Opening space	40 mm	50 mm	50 mm	50 mm	
12	Sheets in 1 opening	Normally 10 layers of sheet in 1 opening, maximum 15 layers, depend on sheets thickness				

		YCY-115C 250*350	YCY-115B 420*520	YCY-215H 350*500	YCY-215D 420*520
13	Pressure method	Hydraulic			
14	Cylinder QTY & diam.	1*100 mm	4*100 mm	8*90 mm	8*100 mm
15	Cylinder stroke	200 mm	240 mm	280 mm	280 mm
16	Oil tank capacity	35 L	150 L	150 L	150 L
17	Hydraulic Oil Grade	No. 46 anti-wear hydraulic oil			
18	Hydraulic pressure	0.8-15 MPa			
19	Pressure accuracy	±0.3 MPa			
20	Pressure grade	1-4 grades	1-4 grades	Heat pressure can set 1-8 grades; Cool pressure can set 1-4 grades	
21	Pressure buffer springs	Yes			
22	Heating method	Electric heating tube			
23	Heating temperature	≤250°C			
24	Temperature accuracy	±1.0°C			
25	Cooling method	Water circulation cooling			
26	Cooling tool	3 HP water chiller, or use water bucket	5 HP water chiller	8 HP water chiller	8 or 10 HP water chiller
27	Power	6.7 kW	13 kW	22 kW	22 kW
28	Power supply	AC380V or 220V 50/60HZ	AC380V or 220V 50/60HZ	AC380V 50/60HZ	AC380V 50/60HZ
29	Machine Dimension	850*700*1500 mm	1600*1000*1400 mm	2200*1000*1500 mm	2400*1000*1500 mm
30	Machine weight	480 KG	1800 KG	3000 KG	3500 KG

Category 3: PLC Automatic Control & Heat Cool combined



1	Model No.	YCY-115Y 425*520 (Heat Cool Combined Laminator)	YCY-115Z 425*520 (Heat Cool Combined + Vacuum Laminator)
2	Machine photo		
3	Video link	https://youtu.be/8aWFBliOnX4 https://youtu.be/NvrFn3ZS5tI	https://youtu.be/HTNavHSX07M
4	Output per hour	2400-3800 cards (3*8 layout); 3200-5000 cards (4*8 layout)	
5	Heat cool structure	Heat openings and cool openings combined	
6	Control method	PLC automatic control, have PLC and HMI, Have PID control temperature mode	
7	Press plate size	425*520 mm	
8	For cards layout	4*8, 3*8, 5*5, etc.	
9	Press plate material	Aluminum alloy	
10	Opening QTY	5 heat and cool combined openings	
11	Opening space	50 mm	
12	Sheets in 1 opening	Normally 10 layers of sheet in 1 opening, maximum 15 layers, depend on sheets thickness	
13	Pressure method	Hydraulic	
14	Cylinder QTY & diam.	4*100 mm	
15	Cylinder stroke	300 mm	
16	Oil tank capacity	150 L	
17	Hydraulic Oil Grade	No. 46 anti-wear hydraulic oil	
18	Hydraulic pressure	1-16MPa	
19	Pressure accuracy	±0.2 MPa	
20	Pressure grade	Can set 1-8 grades	
21	Pressure buffer springs	Yes	
22	Heating method	Electric heating tube	
23	Heating temperature	≤250°C	
24	Temperature accuracy	±1.0°C	
25	Maximum heating speed	15°C/Minutes. Temperature rise slope adjustable	
26	Cooling method	Water circulation cooling	
27	Cooling speed	20°C/Minutes	
28	Cooling tool	8 or 10 HP water chiller	
29	Power	42.5 kW	
30	Power supply	AC380V 50/60HZ 3 phases 5 wires	
31	Machine Dimension	1650*1000*1600 mm	1800*1200*1600 mm
32	Machine weight	2000 KG	2500 KG
33	Maximum vacuum degree	- No vacuum chamber -	5kPa

34	Heat Cool combined laminator features	<p>(1). Heat lamination and Cool lamination combined in one. Heat lamination and cool lamination are performed in the same position. The heat lamination is switched to the cool lamination while maintaining the pressure, don't need to move the materials.</p> <p>So, It is Easy to operate, Save manpower, Save time, Increase output. And the sheets very little deformation after lamination. Designed for making high end smart cards and high end Inlays. It is used for making national ID cards in China.</p> <p>(2). Press plates material is aluminum alloy. Good temperature conduction performance, fast heating and cooling speed.</p> <p>So, It Save time, Increase output, and machine is lighter.</p>
35	Heat Cool combined and vacuum laminator features	<p>Vacuum laminator:</p> <p>(1). There is vacuum chamber, lamination in a vacuum environment.</p> <p>(2). It can be used in PCB printed circuit boards, FPC flexible circuit boards and other electronic products that require lamination in a vacuum environment.</p>

Export Package

Use aluminum foil bag for inner packaging and vacuum, and use plywood case for outer packaging.



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