堅·持·最·高·品·質·承·諾

ATMALINE RR3250/C

FPC Fully Automatic Roll-To-Roll Screen Printing Line



Inspection, Standstill Section, Dryer mentioned above are optional selection.

Above photo for reference only, the line will be made in according to actual specification

產品形象銀質獎　台灣精品成就獎　創新研究獎　國家磐石獎　國家品質獎　通過ISO9001 ISO14001　小巨人獎　歐洲安全規格認證通過

東遠精技工業股份有限公司
ATMA CHAMP ENT. CORP.
33383 桃園市華亞科技園區華亞二路58號
No.58, Huaya 2nd Rd., Guishan Dist., Taoyuan City 33383, Taiwan (R.O.C.)
TEL:+886-3-3278588　Web:www.atma.com.tw
FAX:+886-3-3278955　Email:atma@atma.com.tw

堅·持·最·高·品·質·承·諾

APPLICATION :

This automatic line is suitable for screen printing all type of flexible roll material, such as FPC flexible printed circuits, Flexible Displayer, Transfer Paper, Flexible Solar Cell, RFID antenna, PET film, etc.

CHARACTERISTIC :

Fully automatic connection / automatic unwind feeding → CCD visual registration → screen printing → inspection / standstill buffer → conveyor dryer (option) → automatic re-wind off-loading to attain fully automatic sustained production.

Brief Introduction of Function :

- Loading / off-loading mechanical structure is adopted inflation shaft to assure material non-slip, convenient loading material, there are 3 inch (standard) and 6 inch inflation shaft sleeve (option) selectable.
- Conveyor transport is adopted servo power re-winding to collocate with structural EPC, tension control is adopted self-developed vertical servo tension control.
- Servo drive printing, free error, solid printing torque, full digital control, full stroke extreme stable motion.
- Attached with 2 sets of CCD camera registration and four axis (XXXY) servo drive screen displacement, attains precise registration printing function. (optional 4 sets of CCD).
- Equalized air pressure control printing head : squeegee / flood coater with digital equalized air pressure system control, enable to set air pressure (3~62 kgf) digitally onto HMI.
- High leveling precision / table top thick Aluminum alloyed plate is machined precisely and hardness anode treatment, prevent scratching substrate, accuracy of table flatness leveling attains ±0.02mm.
- Quick operating / advanced IPC integrated control, colored HMI + LCD Display, provide to preset versatile function parameters and instant operating / monitoring, convenient operation to satisfy with digitalized, standardized and humanized perfect requirement.
- Safety protection / setting error diagnosis, safety restoration, E-stop button, three color warning lamp, etc. comprehensive safety protection.
- Complete line can add buffer / inspection section, provide the printed material standstill before drying, and handheld mobile manual visual inspection (option)
- Selectable various type of conveyor dryer (option).

SPECIFICATION :

1) Unwinding + Screen Printing

Item	Model	AT-RR3250/C
1	Machine Dimensions	3545*1725*2350mm
2	Machine Weight	2,220 kgs
3	Air Pressure Source	5～7 kg/c ㎡
4	Power Source	3 相 380V 60Hz
5	Air Exhaustion	60 L/min
6	Loading Direction	Left-in right -out
7	Loading Way	Vacuum Shaft Rolling
8	Loading Structure	3” inflation shaft x 3 (Loading and prpeartion, each per piece, film remove ×1)
		6” inflation shaft sleeve(option)
9	Transmission Methodology	adopt servo power winding
10	Edge Approach	Structural type EPC
11	Edge Approach Size	±10 mm
12	Tension Control	Vertical type, servo control
13	Winding Tension	0.5~3.0 kgf
14	Winding Speed	10~100 mm/sec
15	Cutting / Stick Configuration	Yes
16	Static Eliminator (option)	Anti-static bar (length340mm)
17	Cleaning Device	Configured cleaning roller + adhesive paper tape
18		Cleaning roller size：∮37.4X 355mm
19	Buffer Section	Vertical type, servo tension control
20	CCD camera	4 pcs
21	FOV scope	15 X 20mm
22	Image Capture Methodology	Up / down synchronous capture (target)
23	Camera Capture Scope	X=±75～±250mm
		Y=±100～±170mm

Item	Model	AT-RR3250/C
24	Working Table Size	380×570mm
25	Vacuum Area	320×480mm
26	Printing Area	340×500mm
27	Table Vacuum Mode	Ring Blower
28	Vacuum Holes Diameter	∮0.8 mm (20*20 Pitch)
29	Table Height	980+60mm
30	Printing Up Down Mode	Table Up Down (servo motor drive)
31	Screen Frame Size	（Max)950×950 mm～（Min)700×700 mm
32	Screen Frame Height	25~40 ㎜
33	Screen Fixation Way	Air locking + manual screw lock
34	Screen Registration Mode	XXYY 4-axis ±9.5mm (auto registration)
35	Screen Registration Drive	Servo Transmission
36	Peel-off Mode	Lateral servo motor peel-off
37	Peel-off Height	0～20 ㎜
38	Screen Cleaning Height	350mm
39	Printing Direction	Left to right printing
40	Printing Drive Mode	Servo transmission
41	Printing Speed	20～625 mm / sec
42	Max Printing Stroke	620 mm
43	Sq. / Flood Coater Pressure	3～62Kgf
44	Squeegee Skew Angle	20°± 5°
45	Flood Coater Skew Angle	45°± 5°
46	Printing Head Swivel Angle	±4°
47	Squeegee Depth Adjustment	Adjustable 12 mm
48	Operation Interface	HMI, setting parameters
49	Outlook Enclosure Style	Loading section : upper protective cover
		Printing section : enclosure full cover

2) Inspection (visual inspection) –option

Item	Model	AT-RI3250 Inspection
1	Machine Size	1475×870×1840mm
2	Machine Weight	700 kgs
3	Air Pressure Source	5~7
4	Rated Power	1.1kw 2.15A
5	Power Source	3-phase 220V 60Hz
6	Process Direction	From left to right
7	Process Height	980+60 mm
8	Quality Inspection Function	Manual mobile CCD inspection + monitor (12.1 inch)
9	No of Inspection CCD camera	1pc (including color camera)
10	Camera Lens FOV	12.5x17 mm
11	Inspection Area	340x500 mm
12	CCD camera Inspection Height	91mm
13	Conveyor Speed	10~100mm/sec (adjustable)
14	Conveyor Mode	Vacuum roller conveyor, servo motor drive
15	Vacuum Mode	Ring Blower
16	Operation Interface	Press button operation
17	Cutting / Stick Configuration	Yes
18	Air Float Type Inspection Platform	Yes
19	Material Connected Structure	Yes, (3” inflation shaft)
20	Outlook Enclosure	Upper cover

堅·持·最·高·品·質·承·諾

3)Standstill Section --option

Item	Model	AT-RB3250　Standstill
1	Machine Dimensions	3495×995×2410mm
2	Machine Weight	1150 kgs
3	Rated Power	0.8kw 2.88A
4	Power Source	3 相 220V 60Hz
5	Process Direction	From left to right
6	Conveyor Speed	10~100mm/sec　(adjustable)
7	Conveyor Mode	Vacuum roller conveyor, servo drive
8	Vacuum Roller Height	1780+60 mm
9	No of Vacuum Roller	6 sets (Inductive motor drive)
10	Vacuum Mode	Ring Blower
11	Outlook Enclosure	Enclosure protective cover

堅·持·最·高·品·質·承·諾

4) Dryer -- option

Item	Model	AT-RIO4032 Dryer
1	Machine Dimension L×W×H	4300×1500×2100mm (heat up length ： 3760mm)
2	Machine Weight	3,270 kgs
3	Power Source	3-phase 380V 60Hz
4	Power Exhaustion	102.9kw
5	Conveyor Mode	Vacuum roller
6	Effective Conveyor Width	250、300、320、340mm
7	Transmission Mode	Vacuum roller transmission
8	Conveyor Height	1750+60mm
9	Conveyor Direction	Left-in right-out
10	Conveyor Speed	0.5～6 M/min
11	Heating Model	IR + hot air circulation
12	Heating Section	4 sections
13	Conveyor Length	Total 16M
14	Air Supply Mode	Ring blower
15	Air Supply Direction	From top to bottom
16	Material	Insulation inner layer adopts SUS 430 Insulation external layer adopts SS41 lacquer
17	Heating System	Hot air + IR
18	Temperature Control System	Adopts SCR control IR Adopts SSR control hot air circulation
19	Temperature Range	Room temperature +20℃ ~200℃
20	Circulation System	10.5inch fan circulation
21	Temperature Uniformity	Setting temperature within ±3%
22	Operation Interface	Proface 7inch HMI, setting parameters
23	General Public Facility	Heat row 16CMM (adjustable mechanical valve flow volume)
24	Protection Device	(1) Temperature controller over heat setting, electro-thermal is cut off when the preset temperature is over 10℃ (2) Electric over temperature protector (temperature can be set, generally highest temperature is +20℃), electro-thermal is cut off when the preset temperature is over. (3) Based on HMI error message, three color warning lamp + buzzer warning. E-stop button.

堅·持·最·高·品·質·承·諾

5) Re-winding Section

Item	Model	AT-RW3250 Re-winder
1	Machine Dimensions	1250×1195×1390mm
2	Machine Weight	650 kgs
3	Air Pressure Source	5～7 kg/c ㎡
4	Power Source	3-phase / 220V / 60Hz
5	Process Direction	From left to right
6	Unloading Structure	3” inflation shaft x 3 (each per collecting and prepared collecting , lamination x1)
7	Protective Film Lamination (option)	6” inflation shaft sleeve (option) 3” inflation shaft (option)
8	Re-winding Mode	90° vacuum roller conveyor (servo motor drive)
9	Vacuum Roller Diameter	ϕ 164mm
10	Re-winding Speed	10～100 mm/sec
11	Vacuum Mode	Ring Blower
12	Edge Approach Mode	Guided Corrector + Structural EPC ±10mm
13	Tension Control Mode	Load cell + Servo control
14	Re-winding Tension	0.5～3 kgf
15	Operation Interface	Proface 7 inch HMI, setting parameters
16	Outlook Enclosure	Upper cover

3) Three-view Drawing (ATMALINE RR3250)

