

71042 台灣台南市永康區正北一路168號 71042 No. 168 Cheng Pei First Road, Yong Kang District, Tainan City, Taiwan. TEL:+886-6-2532157, 2537211 FAX:+886-6-2533079, 2530277

http://www.fki.com Email:sales@fki.com

EXTRUSION SYSTEM Lamination Machine

LA-4-2012-09-1000E

EXTRUSION SYSTEM LAMINATION MACHINE>>> FOR FLEXIBLE PACKAGING FILM APPLICATIONS

Model FK/LAFP-125-1800



Model FK/LAFM-100-1400

Working line speed up to 250 M/min.



EXTRUSION SYSTEM LAMINATION MACHINE>>> FOR INDUSTRIAL APPLICATIONS

Model FK/LA-100-1800-MIG

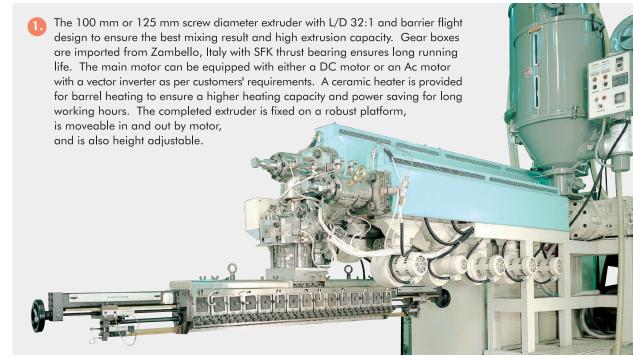
Working line speed, 200 M/min.



EXTRUSION SYSTEM LAMINATION MACHINE

FKI offers the most advanced and adaptable extrusion system lamination machines for various applications, such as for flexible packaging films like: BOPP, BOPET, CPP, Nylon and aluminum foil, or for craft paper, release paper, tissue paper, cardboard paper, woven fabric, etc. The workable coating materials that can be extruded are LDPE, PP, PEVA, EVA and Surlyn, etc.

Based on twenty years of experience, FKI is capable of offering extrusion lamination machines with reliability. and versatility to meet different requirements, from mono layer coating and co-extrusion lamination to tandem lamination. The working speed is available from 110 M/min. to 300 M/min. for both flexible packaging films and papers. The speed and tension control can be synchronized by DC drive or through digital drives to the PLC system.



1. The unwinder is of fully automatic design with auto splicing, auto cut and auto change functions. There is no need to lower down the working speed when a reel change is required. Adhesive tape is required to be wrapped over the paper core before the change over only. The air shaft is the standard attachment for the winding core.



SANDWICH UNWINDER

The sandwich unwinder is a standard device for flexible packaging film extrusion machines to unwind the second substrate, such as aluminum foil, with the main substrate at the same time, in one process. Manual adjustment by the handle wheel for the substrate width and the reel change over is the standard design.





The winder is of fully automatic design, with auto splicing; auto cut and auto change over. Taper tension is auto adjusted during the winding while the winding roller is being built bigger and bigger. An auto counter is provided as a standard attachment for pre setting for the required length with the alarm



The melt pressure adjusting valve is the standard device of manual adjustment for a proper melt flow pressure for a different kind of material.

Two kinds of screen changers are available. One is the circular tube type, which would last for 3-4 weeks of continuous production, and the other one is the plate type, complete with a hydraulic power pack, for which the screen pack can be changed over within a second by pressing the push button.

3. The T-die is of T-drop design to ensure an even flow of pressure. The internal deckle device is of a 3 rod design, ensuring a very thin neck in. There is a hand wheel attached to the internal deckle device for easy adjustment on the working width. An aluminum casting heater is our standard to give high and stable heating quality. The T-dies are imported from the USA or Japan, or even Auto Die with auto push/pull on the die bolts are all available as options.





LAMINATION UNIT

The lamination unit of 3 rolls arrangement, with the main chill roll of 450 mm, 600 mm and 800 mm diameters to give the best possible cooling result depending on the work line speed. The small diameter liquid coated silicon rubber roller gives the best release function, as well as the least cost for frequent replacement.

The spiral-type water cooling circuit gives the best cooling efficiency to maintain the water in/out temperature at only 1°C. Quick joints provided for fast changes over both the chill roller and silicon rubber can be provided as an option. The edge trimming devices, score cutter or scissor blade is all available as per requirement and trimmed edge disposal by blower and piping are provided as standard.





OPERATION CONTROL PANEL

- 8. The primer anchor coating unit is required for those substrates needing primer to be applied for a proper bonding. Screen rollers with doctor blades or press rollers are all available as per your requirements. The heating oven is of an arch type design, combined with air knife, to ensure a proper and even heating function.
- The operation panel of an independent and upright type comes complete with a 10" color monitor for all the working parameters. It is programmed by Mitsubishi brand's PLC system. It not only sets the working temperature, but also the tension, the speed (whether synchronized or individually controlled), the alarm for any malfunctions and the memory saved for the working data for different job orders.

The infeed unit, with driving system, is a standard device when the working speed is 200 M/min. and up.

EXTRUSION SYSTEM LAMINATION MACHINE >>>

LAFM, LAFP series

Mainly designed for working on all kinds of flexible packaging films, such as: BOPP, BOPET, CPP, Aluminum foil, metallized films, nylon and etc...

Standard Parts:

- 125 mm extruder with 200 hp dc motor or ac vector inverter
- Ceramic heater for barrel heating
- Gear box imported from Europe with SKF thrust bearing
- Extruder forward, backward and height adjustable by motor
- Temperature controller of PID display with SSR output
- Melt pressure and thermo gauge, Dynisco brand
- Melt pressure adjustable adaptor
- Tube type manual system screen changer
- Aluminum heater for T-die
- In feed unit before the unwinder and lamination unit
- Japan made EPC for unwinder
- Unwinder with director drive control
- Main cooling roller of 800mm diameter
- Cooling rollers with fast changeover joint
- Prime anchor coater with 2200 mm x 2 heating length
- Powder spray for winder

Optional Device:

- Hydraulic screen changer
- Automatic T-die with gauge control system
- Top cutter for unwinder and winder
- Corona surface treater
- Water chiller
- Extra cooling roller of mirror finished or semi mat surface
- Extra silicon rubber roller
- Air conditioner for control panel
- Other special accessories

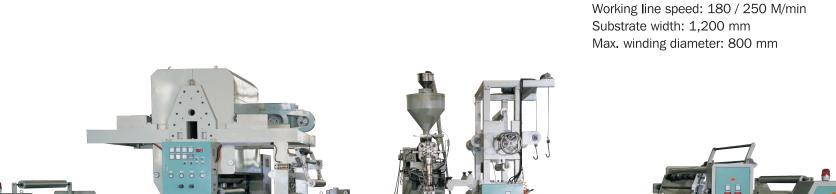




SPECIFICATIONS	
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MODEL	EV/LAED 405 4000	EV.// AEM 400 4400	371 B-5		
MODEL	FK/LAFP-125-1800	FK/LAFM-100-1400	型號		
Substrates	BOPP, BOPET, CPP, alum foil	, cellophone, metallized film	母材		
Dimensions	Ø1200 x 1600 mm	Ø800 x 1200 mm	母材規格		
Lamination width	1100 ~ 1600 mm	700 ~ 1200 mm	淋膜寬度		
Lamination thickness	0.012 ~ 0.06 mm	0.012 ~ 0.06 mm	淋膜厚度		
Mechanical speed designed	300 m/min	180 m/min	機械設計速度		
Extrusion output		250~280 kg/hr (PE), 180~250 kg/hr (PP)			
Extruder		ype 高壓式	押出機		
Screw diameter	125 mm	100 mm	螺桿直徑		
Screw L/D	32:1	32:1	螺桿長徑比		
Barrel heating	90 kw	67.5 kw	套筒加熱		
Barrel cooling	0.375 kw x 6 zone	0.375 kw x 5 zone	套筒冷卻		
Main drive	150 kw	75 kw	主傳動馬力		
T-die	Internal deckle bar	含内部寬度調整	↑型模頭		
Slit width	1900 mm	1500 mm	開口最大寬度		
Working width	1100 ~ 1600 mm	700 ~ 1200 mm	淋膜寬度		
Heating capacity	28 kw	22.2 kw	加熱容量		
Heating capacity Heating zone	7	7	加熱溫度點		
Unwinder		rret type	放台		
Substrate size	Ø1200 x 1600 mm		母材規格		
Turret reverse motor	2.25 kw with reducer	1.5 kw with reducer	翻轉馬力		
Drive motor	22.5 kw x 2	powder brake	傳動馬力		
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Anchor coater		fe type Ø210 x 1400 mm	AC披覆單元		
Coating roller	Ø210 x 1800 mm		塗佈輪		
Drying oven	2200 mm x 2	1200 mm x 2	乾燥烘箱		
Air knife number	24 pcs	16 pcs	風刀數量		
Drying capacity	60 kw x 2	34 kw x 2	乾燥能量		
Air blower	7.5 kw / 5.6 kw	3.75 kw / 3.75 kw	乾燥風車		
Drive motor	5.6 kw	3.75 kw	傳動馬力		
In-Feed Unit	Yes	Nil	導入裝置		
Pinch roller	Ø225 x 1800 mm	Ø225 x 1400 mm	引取導輪		
Rubber roller	Ø150 x 1800 mm	Ø150 x 1400 mm	引取膠輪		
Drive motor	5.6 kw	2.25kw	傳動馬力		
Lamination unit		er type	淋膜裝置		
Cooling roller	Ø600 x 1800 mm	Ø600 x 1400 mm	冷卻輪		
Silicon rubber roller	Ø260 x 1800 mm	Ø260 x 1400 mm	矽利康輪		
Back up roller	Ø250 x 1800 mm	Ø250 x 1400 mm	背壓輪		
Drive motor	15 kw	7.5 kw	傳動馬力		
Release roller	5.6 kw	PIV system	剝離 輪		
Sandwich Unwinder	Semi auto	三合一放台			
Substrate size	Ø500 x 1600 mm	Ø500 x 1200 mm	母材規格		
Turret reverse	manual	manual	翻轉控制		
Tension control	semi auto with powder brake	semi auto with powder brake	張力控制		
Out-Feed Unit	-Feed Unit 導出裝置				
Pinch roller	Ø225 x 1800 mm	Ø225 x 1400 mm	引取導輪		
Rubber roller	Ø150 x 1800 mm	Ø150 x 1400 mm	引取膠輪		
Drive motor	5.6 kw	2.25 kw	傳動馬力		
Winder	Auto tui	ret type	捲取裝置		
Winding range	Ø1200 x 1600 mm	Ø800 x 1200 mm	捲取規格		
Turret reverse drive	2.25 kw with reducer	1.5 kw with reducer	翻轉馬力		
Winding motor	22.5 kw x 2 sets	3.75 kw x 2 sets	捲取馬力		
Air shaft	3", ID:76 mm, OD:89 mm	3". ID:76 mm. OD:89 mm	捲取空氣軸		
Utilites	5 , 15.70 Hilli, 05.03 Hilli	5 , 15 . 1 6 Hilli, 65 . 65 Hilli	其他		
Machine dimensions (L x W x H)	15 x 13 x 5 m	13.5 x 13 x 5 m	機械尺寸 (LxWxH)		
Space required (L x W x H)	18 x 14 x 5 m	17.0 x 14 x 5 m	占地面積 (LxWxH)		
Total power consumption	385 kw	290 kw	總耗電量		
Average power consumption		200 kw/hr	平均耗電量		
	haracteristics shown above are subject to		1 20 1/15 电里		





Model FK/LAFM-100-1400

Standard Parts:

- 100 mm extruder with 100 hp dc motor or ac vector inverter
- Ceramic heater for barrel heating
- Gear box imported from Europe with SKF thrust bearing
- Temperature controller of PID display with SSR output Melt pressure and thermo gauge, Dynsico brand
- Melt pressure adjustable adaptor
- Tube type manual system screen changer
- Melt pressure adjustable adaptor
- Aluminum heater for T-die
- Taiwan made EPC for unwinder Unwinder with power brake control
- Main cooling roller of 600mm diameter Cooling roller with fast changeover joint
- Prime anchor coater with 1200 mm x 2 heating length
- Powder spray for winder
- Air shafts for both unwinder and winder
- Bottom cutter for unwinder and winder
- Auto loader and hopper dryer
- Total PLC control system with 10" touch screen color monitor

Optional Device:

- Hydraulic screen changer
- In feed unit in between unwinder and lamination unit
- Prime anchor coater with 1800 mm x 2 heating length Additional unwinder before lamination unit
- Top cutter for unwinder and winder
- Japanese made or American made T-die
- Corona surface treater
- Water chiller
- Extra cooling roller with mirror finished or semi mat surface treatment
- Extra silicon rubber roller
- Air conditioner for control panel
- Other special accessories

EXTRUSION SYSTEM LAMINATION MACHINE >>>

LA-MIG, LA series

Mainly designed for working on all kinds of paper, such as craft paper, release paper, tissue paper, and non-woven fabric, woven fabric, etc...

Model FK/LA-100-1800-MIG

Standard Parts:

- 100 mm extruder with 100 hp dc motor or ac vector inverter
- Gear box imported from Europe with SKF thrust bearing
- Ceramic heater for barrel heating
- Temperature controller of PID display with SSR output
- Melt pressure and thermo gauge, Dynisco brand
- Melt pressure adjustable adaptor
- Tube type manual system screen changer
- Aluminum heater for T-die
- Japan made EPC for unwinder
- Unwinder with direct drive system
- Pre-heating rollers before lamination unit
- In feed unit before the unwinder and lamination unit
- Main cooling roller of 600 mm diameter
- Cooling roller with fast changeover joint Air shafts for both unwinder and winder
- Bottom cutter for unwinder and winder
- Auto loader and hopper dryer
- Total PLC control system with 10" touch screen color monitor

Optional Device:

- Hydraulic screen changer
- Top cutter for unwinder and winder
- Corona surface treater
- Water chiller
- Extra cooling roller with mirror finished or semi mat surface
- Extra silicon rubber roller
- Air conditioner for control panel
- Other special accessories

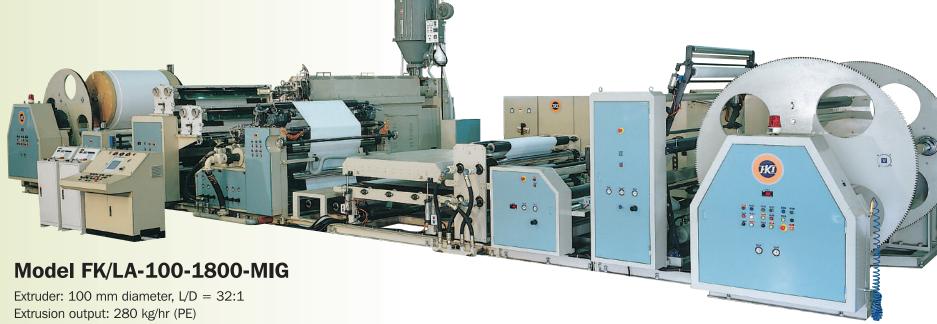
Model FK/LA-100-1500

Standard Parts:

- 100 mm extruder with 75 hp dc motor or ac vector inverter
- Electric heater for barrel heating
- Gear box imported from Europe with SKF thrust bearing
- Temperature controller of PID display with SSR output
- Melt pressure adjustable adaptor
- Tube type manual system screen changer
- Taiwan made EPC for unwinder
- Unwinder with powder brake drive
- Cooling roller of 450 mm diameter
- Unwinder and winder with manual cut
- Auto loader and hopper dryer

Optional Device:

- Hydraulic screen changer
- Melt pressure and thermo gauge of Dynisco brand
- Unwinder and winder with bottom auto cutter
- Extra cooling roller with mirror finished or semi mat surface treatment
- Extra silicon rubber roller
- Cooling roller with fast changeover joint
- Silicon rubber roller with fast changeover joint
- Pre-heating roller before lamination unit
- Corona surface treater
- Water chiller
- Total PLC control system with 10" touch screen color monitor
- Air conditioner for control panel
- Other special accessories



Model FK/LA-100-1500

Extruder: 100 mm diameter, L/D = 32:1Extrusion output: 220 kg/hr. (PE) Working line speed: 120 M/min. Substrate width: 1,300 mm Max. winding diameter: 1,200 mm



SPECIFICATIONS:				
MODEL	FK/LA-100-1500	FK/LA-100-1800-MIG	型號	
Substrate		en, Worven Fabric	母材	
Dimensions	Ø1200 mm x 1300 mm	Ø1200 mm x 1600 mm	母材規格	
Lamination width	800 mm ~ 1300 mm	1100 mm ~ 1600 mm	淋膜寬度	
Lamination thickness	0.012 mm ~ 0.06 mm	0.012 mm ~ 0.06 mm	淋膜厚度	
Mechanical speed designed	120 m/min	200 m/min	機械設計速度	
Extrusion output		250 - 320 kg/hr (PE), 180 - 250 kg/hr (PP)	押出量	
Extruder	High base ty		押出機	
Screw diameter	100 mm	100 mm	螺桿直徑	
Screw L/D	32:1	32:1	螺桿長徑比	
Barrel heating	67.5 kw	67.5kw	套筒加熱	
Barrel cooling	0.375 kw x 5 zone	0.375 kw x 5 zone	套筒冷卻	
Main drive	56 kw	75kw	主傳動馬力	
T-die	Internal deckle bar		T型模頭	
Slit width	1600 mm	1900 mm	開口最大寬度	
Working width	800 ~ 1300 mm	1100 ~ 1600 mm	淋膜寬度	
Heating capacity	24 kw	28 kw	加熱容量	
Heating zones	7	7	加熱溫度點	
Unwinder	Auto tur	放台		
Substrate size	Ø1200 x 1300 mm	Ø1200 x 1600 mm	母材規格	
Turret reverse motor	2.25 kw with reducer	3.75 kw with reducer	翻轉馬力	
Drive motor	Powder brake	30 kw x 2 sets	傳動馬力	
In-Feed Unit			導入裝置	
Pinch roller	Ø225 x 1500 mm	Ø225 x 1800 mm	引取導輪	
Rubber roller	Ø150 x 1500 mm	Ø150 x 1800 mm	引取膠輪	
Drive motor	3.75 kw	5.6 kw	傳動馬力	
Lamination unit	3 rolle	er type	淋膜單元	
Cooling roller	Ø450 x 1500 mm	Ø600 x 1800 mm	冷卻輪	
Silicon rubber roller	Ø310 x 1500 mm	Ø260 x 1800 mm	矽利康輪	
Back up roller	Ø150 x 1500 mm	Ø310 x 1800 mm	背壓輪	
Drive motor	7.5 kw	11 . 25 kw	傳動馬力	
Pre-heating roller	Ø350 x 1500 mm	Ø350 x 1800 mm	預熱輪	
Out-Feed Unit			導出裝置	
Pinch roller	Ø225 x 1500 mm	Ø225 x 1800 mm	引取導輪	
Rubber roller	Ø150 x 1500 mm	Ø150 x 1800 mm	引取膠輪	
Drive motor	3.75 kw	5 . 6 kw	傳動馬力	
Winder 捲取裝置				
Winding range	Ø1200 x 1300 mm	Ø1200 x 1600 mm	捲取規格	
Turret reverse drive	2.25 kw with reducer	3.75 kw with reducer	翻轉馬力	
Winding motor	18.75 kw x 2 sets	30 kw x 2 sets	捲取馬力	
Air shaft	3", ID:76 mm, OD:89mm	3", ID:76 mm, OD:89mm	捲取空氣軸	
Utilities	, -,		其他	
Machine dimensions (L x W x H)	13.5 x 13 x 5 m	13.5 x 13 x 5 m	機械尺寸(LxWxH)	
Space required (L x W x H)	17.0 x 14 x 5 m	17.0 x 14 x 5 m	佔地空間(LxWxH)	
Total power consumption	250kw	250kw	總耗電量	
Average power consumption	175 kw/hr	175 kw/hr	平均耗電量	

All specifications, design and characteristics shown above are subject to change without prior notice.

Working line speed: 200 M/min.

Substrate width: 1,600 mm Max. winding diameter: 1,200 mm