Perfect Solution for Digital Print on Demand Finishing Laminator

PROTOPIC Series

GMP

PROTOPIC III- 540
540 DUAL
540 DUAL PHOTO
540 DUPLEX

PROTOPIC III-540

PROTOPIC III-540 DUPLEX

PROTOPIC AUTO- 540
540 DUAL
540 DUAL PHOTO
540 DUPLEX

◀ *PROTOPIC AUTO-540*

Patented **Applied Patents for PROTOPIC Series**
  ▶ Laminator with paper device
  ▶ The method to form embossing pattern
  ▶ Film roll holder for laminators
  ▶ Laminator equipped with embossing roller

PROTOPIC Series Roll Laminator with household power supply (15 Amp.)
for Single Side Lamination (Max. 15m/min.)
  ▶ DUPLEX version is excluded from the household power supply application.

The World Leader in Laminating & Finishing Technologies

PROTOPIC Series

◑ Key points of invention for PROTOPIC series

1. Main device

- High glossy chrome roller with excellent durability
- Laminating roller with high pressure by pneumatic cylinder for strong adhesion lamination
- Dual perforating (film & in-line)
- Double slitting knives
- Air compressor & low noise vacuum pump included
- Automatic gap adjustment for feeding paper
- Equipped rewinder for various application of sleeking jobs
- Easy use with cantilever film shaft & bidirectional combi core adaptor

2. System control

- Whole functions adjustment with one master dial
- 13 Jobs memory function for automatic adjustment of temperature & Speed
- Super-precise temperature control by temperature sensor installed inside roller
- Film unwinder & rewinder tension adjustment

◑ Key features of PROTOPIC series

- Environmentally-friendly "Thermalami" system
- Perfect lamination for whole kinds of substrates without bubble.
- 6 Patterns of embossing rollers (for DUAL version)
- Space-effective design for office & small area
- Automatic paper feeding gap control system and automatic burst cutting system
- Film tension adjustment device and decurling device are equipped.
- Air cooling system with an air compressor for perfect Photo matting effect
  (for DUAL PHOTO version)
- Capacitive touch screen

◑ Application arragne of PROTOPIC series

- Poster, pop sign, menu
- Book cover
- Photo album & inner papers
- Photo-embossing lamination
- Name card
- Gift certificate
- Label
- New year's card / book
- Silver halide replacement system
- Digital media whole page sleeking - gloss, matt, hologram
- Digital media spot sleeking - gloss, hologram, metallic

◑ Jogging table : Optional

Automatic alignment for easy loading on pallet

- Model name : Jogging Table-700
- Max. paper size : 700mm x 700mm
- Paper pile height : 130mm
- Size (width x length x height) :
        795mm x 820mm x 410mm~545mm
- Power requirement : AC220~240V

◑ Auto Stacker : Optional

Automatic aligning & stacking device for perfect alignment.
No need for manually aligning & stacking on pallet

- Model name : ST-50
- Max. paper size : 540mm x 750mm
- Paper pile height : 500mm
- Size (width x length x height) :
        830mm x 1190mm x 950mm
- Power requirement : AC220V~240V

◑ Basic patterns of embossing roller

- Easy conversion to embossing lamination mode - 6 types of embossing rollers

Photo Texture	Fine Texture	Leather Texture	Sparkler Texture	Silky Texture	Linen Texture

◑ features of GMP digital sleeking solutions

- **Overcoming limitation**
  Create the synergy effect with mutual cooperation by overcoming the each print markets' limitation.

- **Cost reduction/fast delivery**
  Cost reduction by the one-stop service instead of the several processing steps.

- **Customer satisfaction**
  Various expressions possible by overcoming the existing limitation.
  Giving a variety of expressions makes it possible to produce the high-added-value product.

- **Easy installation and operation**
- **Low cost investment with extremely low production cost**

PROTOPIC III-540 Series

540
540 DUAL
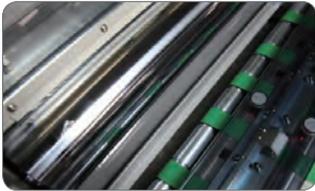## *540 DUAL PHOTO*
540 DUPLEX

Patented

Patents for PROTOPIC III-540 Series

- ▶ The method to form embossing pattern
- ▶ Film roll holder on laminators
- ▶ Laminator equipped with embossing roller
- ▶ Rotation- Fine-Bar Decurling Device

230V/15A Household Power

High glossy chrome roller

Automatic feeding gap adjustable device

Roller temperature sensor

Touch panel

Film perforator

In-line perforator

Decurling device

Cantilever type film shaft

Air cooling system

Air Compressor

◐ Key features of PROTOPIC III-540 series

- · Exchangeable/Commonized PCB
- · Automatic feeding paper gap adjustment
- · Slide type paper plate - easy to feed the papers
- · Air compressor (with light weight & lower noise) also can be placed in the lami-table with films and consumables
- · Strengthened laminating pressure for more stepped-up bonding power effecting perfect output quality
- · Ergonomic touch screen for enhancing operator-centric convenient control & quality output productivity
- · Air cooling system for perfect Photo matting effect (for DUAL PHOTO version)

PROFEEDER-5478 (Optional) ▶

Max. 3,500 sheets / hour
(for 250mm length substrates) can be laminated
by the PROFEEDER-5478 being able to cover large
volume lamination jobs.

Specifications of each PROTOPIC III-540 series

Model name	PROTOPIC III-540	PROTOPIC III-540 DUAL	PROTOPIC III-540 DUAL PHOTO	PROTOPIC III-540 DUPLEX
Dimension (W*L*H, mm)	800*1580*670	800*1770*670	800*1770*670	800*1580*670
Net weight (kgs)	358	397	397	450
Laminating speed (m/min.)	15	15	15	15(5)
Max. Paper size (W*L, mm)	540*800	540*800	540*800	540*800
Laminating films	· Single Side : POLYNEX, PERFEX, NYLONEX · Sleeking foil : GLOSS, MATT, HOLOGRAM, METALLIC	Single Side: POLYNEX, PERFEX, NYLONEX FILM	Single Side: POLYNEX, PERFEX, NYLONEX FILM	· Single Side: POLYNEX, PERFEX,NYLONEX · Double Side: POLYNEX, PERFEX, NYLONEX
Substrate weight (g/㎡)	120~350	120~350	120~350	120~350
Front roller diameter (mm)	T: 100 / B: 80	T: 100 / B: 80	T: 100 / B: 80	T: 100 / B: 80
Rear roller diameter (mm)	55	55	55	55
Power requirement	AC 220~240V/15A	AC 220~240V/15A	AC 220~240V/15A	AC 220~240V/24A(15)
Power consumption (kw)	3.45	3.45	3.45	5.6(3.45)
Warm-up time (min)	7	7	7	7
Heating system	Infrared heater	Infrared heater	Infrared heater	Infrared heater
Laminating temp. (℃)	MAX.150	MAX.150	MAX.150	MAX.150
Temp. Control	Touch-screen	Touch-screen	Touch-screen	Touch-screen
Speed control	Touch-screen	Touch-screen	Touch-screen	Touch-screen
Display for temp. & Speed	LCD Panel	LCD Panel	LCD Panel	LCD Panel
Pressure control	Pneumatic cylinder	Pneumatic cylinder	Pneumatic cylinder	Pneumatic cylinder
Film core	77mm (3")	77mm (3")	77mm (3")	77mm (3")
Cooling device	Air blower	Air blower	Air cooling system	Air blower
Air compressor	1 HP, 89L/min	1 HP, 89L/min	1 HP, 89L/min 2 HP,116L/min(cooling)	1 HP, 89L/min

PROTOPIC III-540 with PROFEEDER-5478

FEATURES of PROFEEDER−5478

· Accurate paper−feeding gap by stream feeding system for perfect job results
· Available 3,500 sheets/hr for feeding
· Built−in low noise vacuum pump as one−unified type into feeder
· Available to use in office with Low−Noise operation
· Household power supply (AC 220~240V,50/60Hz−15Amps)
· Overlap Feeding for Automatic Feeding Distance Control on PROTOPIC II−540 Series.
· Connectivity to other various machines in the similar range

PROTOPIC AUTO-540 Series

540
540 DUAL
540 DUAL PHOTO
540 DUPLEX

Patented

Applied Patents for PROTOPIC AUTO-540 Series

▶ Laminator with paper device
▶ The method to form embossing pattern
▶ Film roll holder for laminators
▶ Laminator equipped with embossing roller
▶ Rotation- Fine-Bar Decurling Device

◑ Key features of PROTOPIC AUTO-540 series

- Air compressor & low noise vacuum pump included
- Stream feeder installed for auto paper-feeding
- Emotional-touching control system
- Perfect lamination without bubbles for all kinds of paper quality
- Capacitive touch screen
- High pressure of laminating roller for enhancing quality of laminating results
- Storage of air compressor & vacuum pump in the cabinet
- Well-streamlined function adjustment by use of capacitive type touch-screen
- Function of various information for user-friendly convenience
- One unified machine design including cabinet for easy storing air-compressor & vacuum pump
- Household power supply (ac 220~240v/50~60hz-15amp) used for speed 15/min.
  By this, no need for extra installation work to use additional power supply
- Swivel type control panel
- Air cooling system with an air compressor for perfect Photo matting effect (for DUAL PHOTO version)

230V/15A Household Power

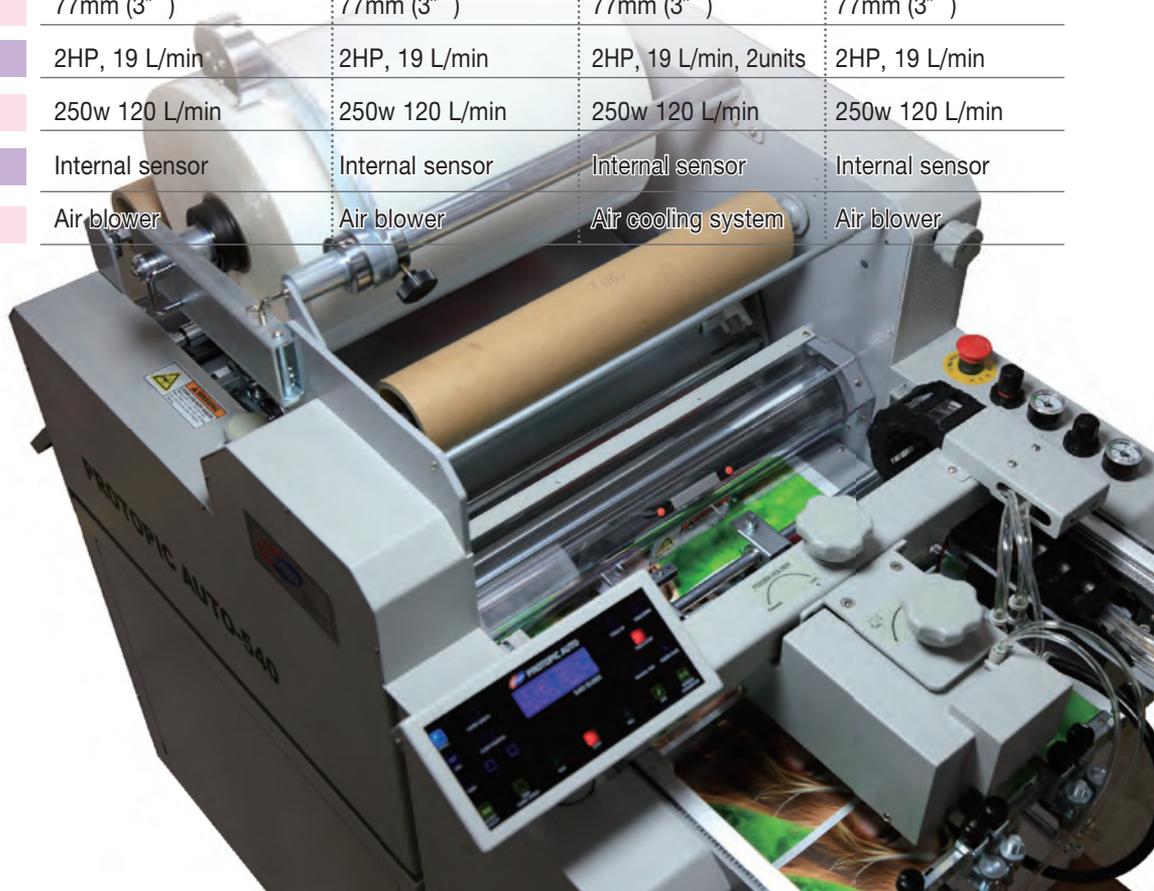|				
High glossy chrome plated roller	Automatic gap adjustment for feeding paper	Film perforator	In-line perforator	Auto paper-feeding device
Built-in temperature sensor inside roller	Capacitive type touch-screen	Decurling device	Air cooling system	Air Compressor / Vacuum Pump

specification of each PROTOPIC AUTO-540 series

Model name	PROTOPIC AUTO - 540	PROTOPIC AUTO - 540 DAUL	PROTOPIC AUTO - 540 DUAL PHOTO	PROTOPIC AUTO - 540 DUPLEX
Dimension (W*L*H, mm)	800*1675*1320	800*1865*1320	800*1865*1320	800*1675*1320
Laminating speed (m/min.)	15	15	15	15 (5)
Max. Paper size (W*L, mm)	540*750	540*750	540*750	540*750
Paper pile height (mm)	350	350	350	350
Laminating films	· Single Side : POLYNEX, PERFEX, NYLONEX · Sleeking foil : GLOSS, MATT, HOLOGRAM,METALLIC	Single Side: POLYNEX PERFEX NYLONEX	Single Side: POLYNEX PERFEX NYLONEX	· Single Side: POLYNEX, PERFEX, NYLONEX · Double Side: POLYNEX, PERFEX, NYLONEX
Substrate weight (g/㎡)	120~350	120~350	120~350	120~350
Front roller diameter (mm)	T: 100 / B: 80	T: 100 / B: 80	T: 100 / B: 80	T: 100 / B: 80
Rear roller diameter (mm)	55	55	55	55
Power requirement	AC 220~240V/15A	AC 220~240V/15A	AC 220~240V/15A	AC 220~240V/15A
Power consumption (kw)	3.45	3.45	3.45	5.6(3.45)
Warm-up time (min.)	7	7	7	7
Heating system	INFRARED HEATER	INFRARED HEATER	INFRARED HEATER	INFRARED HEATER
Laminating temp. (℃)	MAX.150	MAX.150	MAX.150	MAX.150
Temp. Control	Touch-screen	Touch-screen	Touch-screen	Touch-screen
Speed control	Touch-screen	Touch-screen	Touch-screen	Touch-screen
Display system	LCD Panel	LCD Panel	LCD Panel	LCD Panel
Roller pressure	Pneumatic cylinder	Pneumatic Cylinder	Pneumatic Cylinder	Pneumatic Cylinder
Film core size	77mm (3")	77mm (3")	77mm (3")	77mm (3")
Air compressor	2HP, 19 L/min	2HP, 19 L/min	2HP, 19 L/min, 2units	2HP, 19 L/min
Vacuum pump	250w 120 L/min	250w 120 L/min	250w 120 L/min	250w 120 L/min
Temp. Sensing method	Internal sensor	Internal sensor	Internal sensor	Internal sensor
Cooling device	Air blower	Air blower	Air cooling system	Air blower

Thermal laminating films

POLYNEX Gloss	POLYNEX Matt	PERFEX	NYLONEX	SLEEKING FOIL	MICRO NEX
[Bopp base]	[Bopp base]	[Pet base]	[Nylon base]	[Fusing foil]	
Gloss 25	Matt 26/28	Gloss high speed-29	Gloss-38	Gloss sleeking foil	MicronexGloss
Gloss Emboright-40	Matt supermelt-28	Gloss-38	Gloss supermelt-40	Matt sleeking foil	Micronex Matt
Gloss Supermelt-25	Matt supermelt-43	Gloss UltraBond-38	Gloss UltraBond-40	Hologram sleeking foil - Spectrum - Milkyway - Crystal - Star - Mosaic - Sparkle - Hyper plaid	Micronex Label-Gloss
Gloss Supermelt-40	Matt UltraBond-28	Matt-32	Matt antiscuff-41		Micronex Label-Matt
Gloss UltraBond-25	Matt UltraBond-43	Matt-38	Matt antiscuff supermelt-44		Micronex Label-Hologram
Gloss UltraBond-40	Matt Hard coat-43	Matt UltraBond-38	Matt antiscuff UltraBond-44		
	Matt hard coat supermelt-43	Silver-25	Silkfeel-41		
	Silkfeel-28		Silkfeel Supermelt-44		
	Silkfeel-36		Silkfeel Ultrabond-44	Metallic sleeking foil -Gold,Silver	
	Silkfeel supermelt-43				
	Silkfeel UltraBond-28				
	Silkfeel UltraBond-43				

Comparison of each model

Name	PROTOPIC III-540 series				PROTOPIC AUTO-540 series			
	540	540 DUAL	540 DUAL PHOTO	540 DUPLEX	540	540 DUAL	540 DUAL PHOTO	540 DUPLEX
Single side lamination	O	O	O	O	O	O	O	O
· Polynex 25~43mic	O	O	O	O	O	O	O	O
· Perfex (pet) 29~38mic	O	O	O	O	O	O	O	O
· Nylonex 38~44mic	O	O	O	O	O	O	O	O
Double side lamination	x	x	x	O	x	x	x	O
Embossing lamination	O embossing roller is required	O	O	x	O embossing roller is required	O	O	x
Spot sleeking	O	O	O	O	O	O	O	O
Hologram sleeking	O	O	O	O	O	O	O	O
Sleeking	O	O	O	O	O	O	O	O

Recommendable films for each job

FILMS	Print		Sleeking (fusing)		Hologram sleeking	
	Indigo	Toner	Indigo	Toner	Indigo	Toner
POLYNEX MATT · Silkfeel-28 · Silkfeel-36 · Silkfeel Supermelt-43 · Silkfeel Ultrabond PT-28 · Silkfeel Ultrabond PT-43	O 165℃	O Oil Fusing	O 125℃	O 130℃	O 125℃	O 130℃

* Application of job, temp. & Speed in the above table might be changed.

RoHS   UL-WTDP, CB-TMP Lab, Certificate   CE

GMP CO.,LTD.