

A Single Source for All Screen Printing Needs.

SKYHILL

軟性電子網印之利器 The Cutting Edge for Flexible Electronics

MT-5070CCD 捲對捲(CCD視覺定位)網版印刷機
ROLL TO ROLL WEB-FED SCREEN PRINTING MACHINE
(CCD VISUAL POSITIONING CONTROL)

MT-5070/ MT-5070A 捲對捲網版印刷機
ROLL TO ROLL WEB-FED SCREEN PRINTING MACHINE



ISO 9001:2000



MT-5070A

MT-5070CCD

捲對捲(CCD視覺定位)網版印刷機

ROLL TO ROLL WEB-FED SCREEN PRINTING MACHINE (CCD VISUAL POSITIONING CONTROL)

*High Precision, Full Function-in One
State-of-the-Art Machine.
SKYHILL Roll to Roll Web-Fed Screen
Printing Machine*

選購配備
塔式烘箱
專利號碼 316380

Optional
TOWER DRYER
Patented NO. 316380

原料驅動引取輪 (專利號碼146116)
Web take up roller features vacuum suction
(patent number 146116)

選購配備 / Optional
UV乾燥機設備 / UV DRYER

塔式熱風烤箱

1. 採氣浮設計，全程不接觸滾輪，沒有刮傷問題。因無接觸，只需輕力即可驅動。可避免高溫下被拉延變型。
2. 採雙面加溫，加快乾燥速度，每一加熱段皆可調溫。
3. 採用超導體電熱，昇溫快速。
4. 烘乾段長，佔地小。
5. 有15, 25和35米烘乾段長三種機種可選擇。

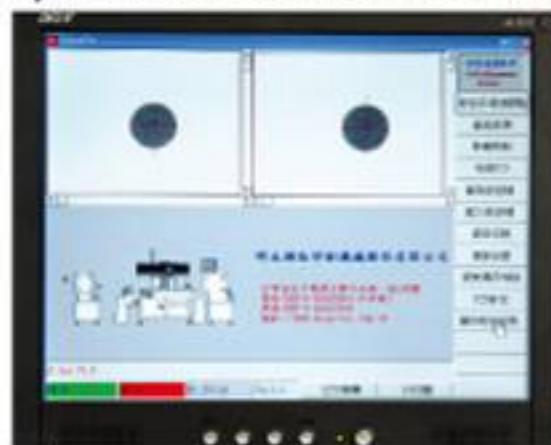
TOWER DRYER

1. Equipped with air cushion rollers, preventing any contact between web and rollers to eliminate scratching and keep the driving power to a minimum.
2. Heating on both sides of web to speed up the drying/curing. Every heating section is adjustable, giving operators an excellent heating profile.
3. Equipped with super conductive heater to shoot up the temperature.
4. Long heating length and takes up little space.
5. A total of three models with 15, 25 and 35 meters heating length, are available.

移動式自動CCD定位系統 (專利證號250806)
Traveling Automatic CCD Positioning System (Patent No. 250806)



CCD雙鏡頭視覺系統
Double lens CCD visual
positioning control system
features high accuracy.



CCD畫面採用TFT-LCD
液晶螢幕
The CCD system utilizes
a TFT-LCD monitor.



MT-5070CCD

特性：

1. 本機採用PC based控制器，配合觸控螢幕，操作簡易。
2. 印刷台X、Y、 θ 軸採用伺服系統驅動，印刷時經由CCD雙鏡頭視覺系統，做高速高精度定位運算(± 0.005) m/m，做精確定位控制。
3. CCD系統移動採用線性伺服馬達驅動，重複定位精度佳。
4. CCD畫面採用TFT-LCD液晶螢幕。
5. 所有移動之軌道，採用精密線性滑軌及滾珠螺桿。
6. 原料驅動引取輪(專利號碼146116)具真空吸附功能，採用伺服馬達驅動。
7. 網版對位後，印刷台可微調定位(最小微調值數 ± 0.005 m/m)，由觸控螢幕輸入X、Y、 θ 軸數值，做高速高精度補償。
8. 印刷機構為垂直昇起，方便網版及刮刀之維護。
9. 工作台具真空吸附及回吹功能。
10. 刮刀機構採恆壓裝置，永保刮刀之均勻壓力。
11. 網框用氣壓夾鎖定，裝卸網版便捷，附空油壓離版裝置。
12. 機體採CE安全防護罩，確保人機安全。
13. 收放料機構採用氣脹軸，確保原料不滑動，裝卸原料方便，收料機並附先進EPC對邊裝置，確保收料整齊。收放料機構附離型膜收放軸。
14. 先進聲納感測器，可精確感應透明或非透明印材。
15. 刮刀行程採用伺服馬達驅動。
16. 收料機構配備音波檢知器，當料卷增大時，可自動降低收料速度，確保料卷之齊邊。
17. 多種乾燥機供選擇(選購配備)。
18. 本機備有除塵輪(選購配備)，與靜電消除裝置，確保印刷無塵與精度。

FEATURES:

1. User-friendly PC based control, combined with touch screen monitor, for maximum operational convenience.
2. X, Y, θ - axis on the printing platen are driven by a servo system. Double-lens CCD visual printing positioning control system features high speed, high precision positioning calculation (± 0.005 mm), assuring superior positioning accuracy.
3. CCD system travel employs a linear motor drive for outstanding repetitive positioning accuracy.
4. The CCD system utilizes a TFT-LCD monitor.
5. Precision linear motion guides and ball screws on all axes.
6. Web take up roller features vacuum suction (patent number 146116) driven by a servomotor.
7. Once the screen plate has been positioned, the printing platen can be micrometrically adjusted (adjustment value of ± 0.005 mm.). High speed and high accuracy compensation can be made by simply entering values for X, Y, θ - axis through touch sensing monitor.
8. The printing head is raised vertically for convenient access to screen and squeegee.
9. Vacuum suction table for efficient workpiece fixing, with blow back function.
10. The squeegee mechanism has a pressure stabilizer ensuring constant pressure at all times.
11. Screen frame is fixed by air clamp for convenient screen mounting and dismantling and is equipped with a pneumatic/hydraulic peel-off device.
12. CE safety guard around the machine provides extra safety for the operator and machine.
13. Winding and unwinding mechanism employ an air shaft to prevent slippage and for convenient web loading and unloading. Also equipped with an advanced EPC for neat winding performance. The unwinder and winder are equipped with releasing film unwind / wind shafts.
14. Advanced sonar sensor for accurately sensing transparent and non-transparent film.
15. Squeegee travel is driven by a servomotor.
16. The winder is equipped with an ultrasonic sensor. When the film roll diameter increases to some degree, the winding speed will slow down automatically to ensure a smooth edge of the film roll.
17. Various drying machines to choose from (optional).
18. Equipped with a dust removing roller (optional) and electrostatic remover to ensure dust-free printing and high accuracy.

MT-5070 / MT-5070A

捲對捲網版印刷機

ROLL TO ROLL WEB-FED SCREEN PRINTING MACHINE

特性：

1. 本機採用PC based控制器，配合觸控螢幕，操作簡易。
2. 經緯線採伺服及步進驅動，並經電腦自動控制補償，確保印刷點精準。
3. 印刷機構為垂直昇起，方便網版及刮刀之維護。
4. 工作台具真空吸附及回吹功能。
5. 刮刀機構採恆壓裝置。永保刮刀之均勻壓力。
6. 網框用氣壓夾鎖定，裝卸網版便捷，附空油壓離版裝置。
7. 自動張力控制。(MT-5070A)
8. 機體採CE安全防護罩，確保人機安全。
9. 收放料機構採用氣脹軸，確保原料不滑動，裝卸原料方便，並附先進EPC對邊裝置，確保收料整齊。
10. 原料驅動引取輪(專利號碼146116)具真空吸附功能，採用伺服馬達驅動。
11. 先進聲納感測器，可精確感應透明或非透明印材。
12. 上下及左右行程，採用精密線性滑軌。
13. 刮刀行程，引取輪，採伺服馬達驅動。
14. 本機之收料機構配備超音波檢知器，當料卷增大時，可自動降低收料速度，確保料卷之齊邊。
15. 多種乾燥機供選擇 (選購配備)。
16. 沖孔裝置。MT-5070 (標準配備) / MT-5070A (選購配備)。

FEATURES:

1. User-friendly PC based control combined with touch screen monitor for maximum operational convenience.
2. Longitudinal and latitudinal lines are driven by servo and stepping motor, automatically controlled and compensated by the computer to ensure printing position.
3. The printing head is raised vertically for convenient access to screen and squeegee.
4. Vacuum suction table for efficient workpiece fixing, with blow back function.
5. The squeegee mechanism has a pressure stabilizer ensuring constant pressure at all times.
6. Screen frame is fixed by an air clamp for convenient screen mounting and dismantling. It is also equipped with a pneumatic/hydraulic peel-off device.
7. Automatic tension control. (MT-5070A)
8. CE safety guard around the machine provides extra safety for the operator and machine.
9. Winding and unwinding mechanism employs an air shaft to prevent slippage and for convenient web loading and unloading. Also equipped with an advanced EPC for neat winding performance.
10. Web take up roller features vacuum suction (patent number 146116) driven by a servomotor.
11. The machine utilizes an advanced sonar sensor for accurately sensing transparent and non-transparent film.
12. Precision linear motion guides are provided on the vertical and horizontal slideways for extremely smooth and stable traverse.
13. Squeegee travel and take up roller are driven by a servomotor.
14. The winder is equipped with an ultra sonic sensor. When the film roll diameter increases to some degree, winding speed will slow down automatically to ensure a smooth edge of the film roll.
15. Various drying machines to choose from (optional).
16. Punching device MT-5070 (standard) / MT-5070A (optional).



- 選購配備
塔式烘箱
專利號碼 316380
- Optional
TOWER DRYER
Patented NO. 316380

- 選購配備 / Optional
UV乾燥機設備 / UV DRYER

- 原料驅動引取輪(專利號碼146116)
- Web take up roller features vacuum suction (patent number 146116)

The State-of-the-Art Screen Printing Machine Designed for Flexible Electronics Materials.

- 選購 CCD 檢知器
- Optional CCD SENSOR

● 單邊雙電眼對邊裝置 SINGLE SIDE DOUBLE PHOTOCELL WEB GUIDE

- 裝於左右框夾，可檢知材料的邊緣並分別調整網版至所須的位置。
- Installed on both screen clamps, that can sense the web edge and do the alignment separately.



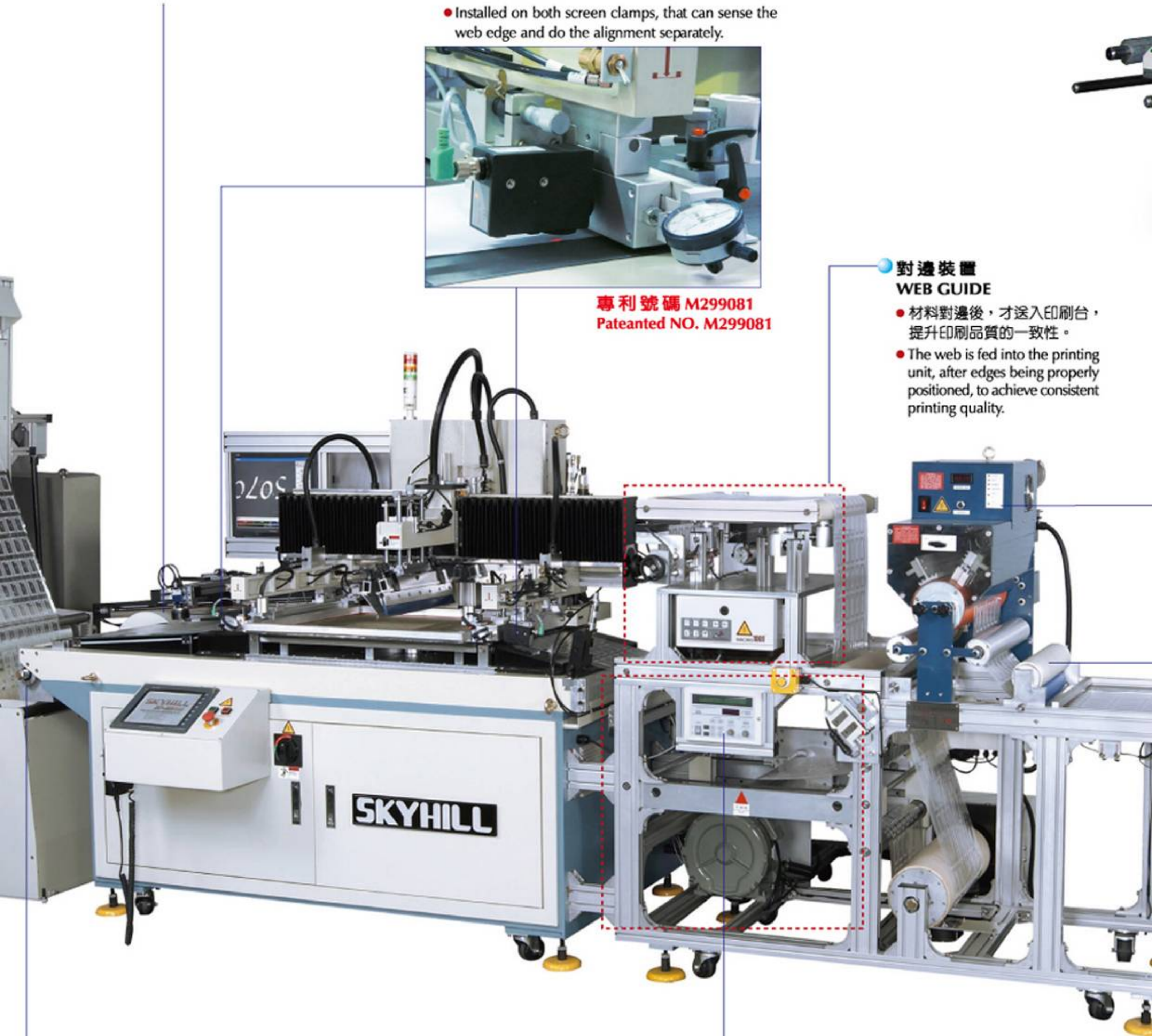
專利號碼 M299081
Patented NO. M299081

● 對邊裝置 WEB GUIDE

- 材料對邊後，才送入印刷台，提升印刷品質的一致性。
- The web is fed into the printing unit, after edges being properly positioned, to achieve consistent printing quality.

張力控制器 TENSION CONTROLLER

- 放料機構裝置張力控制器，可確保材料張力的一致性。
- 張力控制器為可調式，具張力檢知功能，且可設定為固定張力。
- The unwinding mechanism is available to equip with a tension controller to ensure consistent tension at all times.
- The tension controller is adjustable, features tension detection and allows for constant tension setting.



選購配備
塔式烘箱
專利號碼 316380

Optional
TOWER DRYER
Patented NO. 316380



選購配備 / Optional
UV乾燥機設備 / UV DRYER

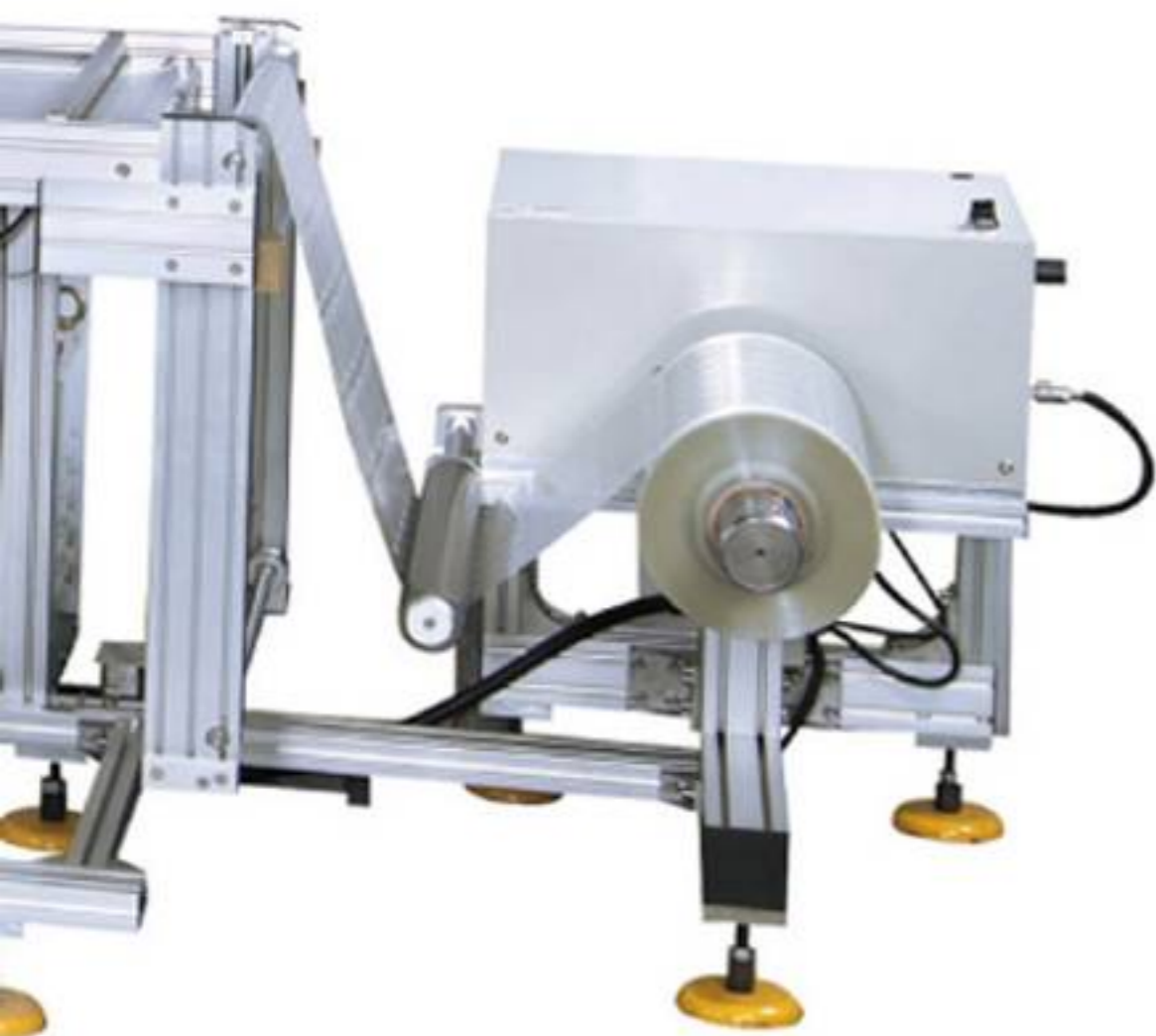
- 原料驅動引取輪(專利號碼146116)
- Web take up roller features vacuum suction (patent number 146116)

電極表面處理機 (選購配備)
WEB TREATER (optional)

- 可增加表面親水性。
- 電極適用導電及非導電材料。
- 一次可做單面或雙面處理。
- For upgrading wettability.
- Electrodes for both conductive and non-conductive materials.
- One- or two-sided treatment in one pass.

清潔輪
CLEAN ROLLER

- 轉粘式可清潔印材表面。
- Rotary adhesion design permits cleaning on web surface.



MT-5070A

● 單邊雙電眼對邊裝置
SINGLE SIDE DOUBLE PHOTOCCELL
WEB GUIDE

- 裝於左右框夾，可檢知材料的邊緣並分別調整網版至所須的位置。
- Installed on both screen clamps, that can sense the web edge and do the alignment separately.



● 適用範圍

本機適合於透明及不透明**OPP**，**MYLAR**，鋁箔等之軟性整捲材料之網版印刷。適用產品如下：

1. 熱轉印紙類。
2. 特殊標籤類。
3. **IMD**。
4. 銘牌和表面上光上色。
5. 軟性電子材料印刷：如**RFID**，智慧卡，電子書報，電子地圖，超薄手機，腕帶式數位錶，展示海報，弧形顯示器，擴散板，軟性電路板和薄膜開關等。



● Applications

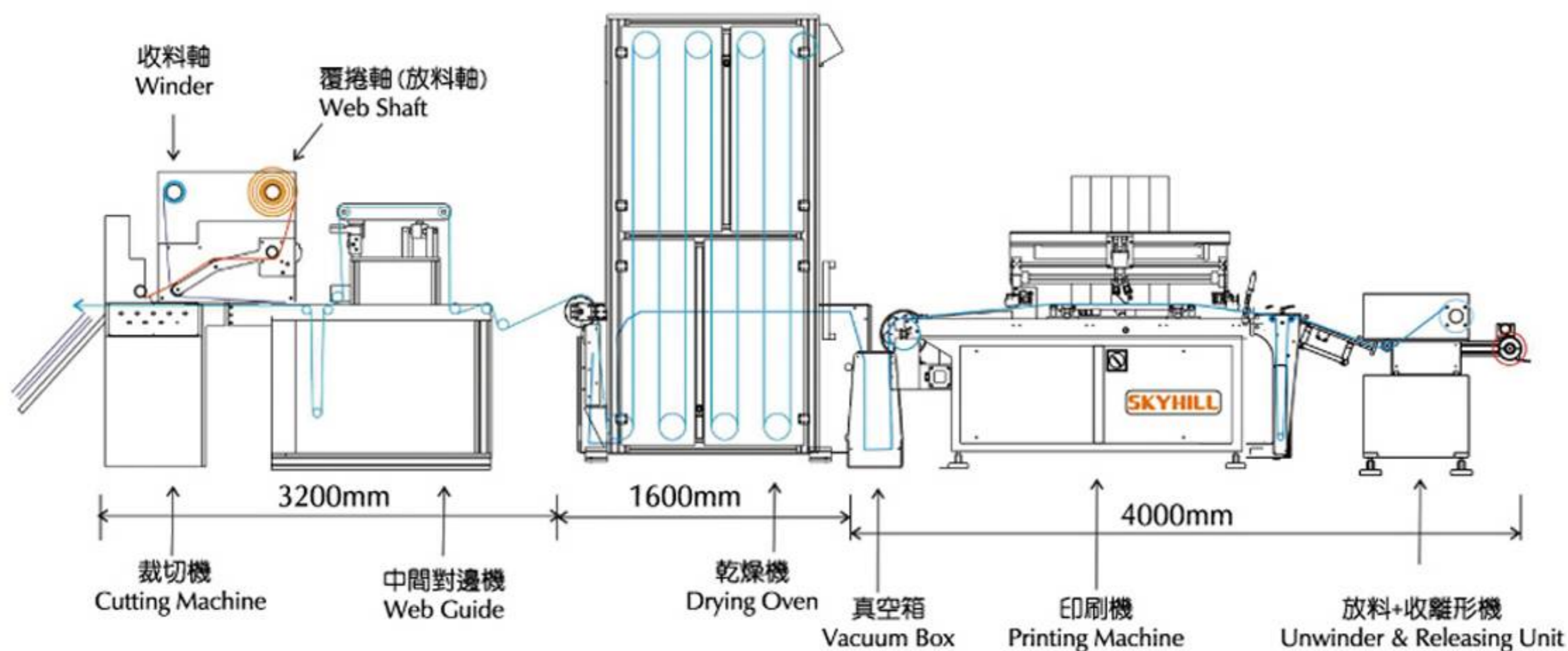
This is a specially-designed web-fed screen printing machine for both transparent and non-transparent materials in rolls such as MYLAR, OPP, aluminum and so on. Suitable for following products:

1. Heat transfers.
2. Specialized labels.
3. **IMD**.
4. Nameplates and graphic overlays.
5. For Printing Flexible Electronic Materials. For example: **RFID**, smart cards, e-books, e-maps, cellphones, digital watches, e-posters, arches displayers, diffusers, flexible circuits (FPC) and membrane switches, etc.

MT-5070

MT-5070 連續式網版印刷機及其他設備組合圖

MT-5070 ROLL TO ROLL SCREEN PRINTING MACHINE WITH OTHER PERIPHERAL EQUIPMENTS.



SPECIFICATIONS:

MODEL	型 式	MT-5070	MT-5070A	MT-5070CCD
Max. Printing Area	最大印刷面積	500 x 700 mm	500 x 700 mm	350 x 400 mm
Max. Screen Frame Sizes	最大網框尺寸	800 x 1100 mm	800 x 1100 mm	700 x 700 mm
Infeed Web Width	入料寬度	200 - 520 mm	200 - 520 mm	200 - 350 mm
Max. Unwinding Diameter	放料座最大捲徑	Ø500 mm	Ø500 mm	Ø500 mm
Unwinding Air Shaft Diameter	放料氣壓軸外徑	Ø75 mm	Ø75 mm	Ø75 mm
Max. Winding Diameter	收料座最大捲徑	Ø500 mm	Ø500 mm	Ø500 mm
Winding Air Shaft Diameter	收料氣壓軸外徑	Ø75 mm	Ø75 mm	Ø75 mm
Printing Speed	印刷速度	420 - 600 m/hr	420 - 600 m/hr	120 m/hr
Travel	行程	800 mm	800 mm	420 mm
Thickness of Material	原料厚度	0.025 - 0.25 mm	0.025 - 0.25 mm	0.02 - 0.2 mm
Repetitive Positioning Accuracy	重複定位精度	-	-	±0.005 mm
Positioning Accuracy	定位精度	±0.03 mm	±0.03 mm	-
Web Guide Accuracy	對邊機對位精度	±0.05 mm	±0.05 mm	-
Unwinder Drive Motor (Servo)	送料引取驅動馬達 (伺服)	-	0.75 kw	-
Squeegee Drive Motor (Servo)	印刷驅動馬達 (伺服)	0.6 kw	0.6 kw	0.6 kw
Take Up Drive Motor (Servo)	引取驅動馬達 (伺服)	0.5 kw	0.75 kw	0.5 kw
X-axis Drive Motor (Servo)	X軸驅動馬達 (伺服)	-	-	0.4 kw
Y-axis Drive Motor (Servo)	Y軸驅動馬達 (伺服)	-	-	0.4 kw
Z-axis Drive Motor (Servo)	Z軸驅動馬達 (伺服)	-	-	1.0 kw
θ-axis Drive Motor (Servo)	θ軸驅動馬達 (伺服)	-	-	0.4 kw
CCD Drive Motor (Linear)	CCD驅動定位馬達(線性)	-	-	0.6 kw
Unwinding Motor	放料座馬達	1HP	90w	1/4HP x 2
Winding Motor	收料座馬達	1HP	1HP	1/4HP x 2
Platen Vacuum Motor	工作台真空馬力	1HP	1HP	1/2HP
Take Up Roller Vacuum Motor	引取輪真空馬力	1HP	1HP x 2	1/2HP
Vacuum Chamber Motor	真空箱馬達	1/4HP	1/4HP	1/4HP x 2
Working Air Pressure	空氣壓力	5-7 kg/cm ²	5-7 kg/cm ²	5-7 kg/cm ²
Machine Weight/Dimensions	主機 重量/尺寸	1350 kgs / L3200 x W1300 x H2000(mm)	1350 kgs / L4650 x W1300 x H2000(mm)	1400 kgs / L2380 x W1300 x H2000(mm)
Unwinder Weight/Dimensions	放料機 重量/尺寸	350 kgs / L630 x W1170 x H1050(mm)	-	350 kgs / L770 x W1100 x H1640(mm)
Winder Weight/Dimensions	收料機 重量/尺寸	350 kgs / L700 x W1170 x H1400(mm)	350 kgs / L700 x W1170 x H1400(mm)	350 kgs / L1000 x W1100 x H1330(mm)
Rewinder Weight/Dimensions	複捲機 重量/尺寸	300 kgs / L660 x W1100 x H1050(mm)	300 kgs / L660 x W1100 x H1050(mm)	-
Web Treater (Length)	電暈處理機段(長度)	-	350 mm	350 mm
Rated Power Source	額定電力	220V - 50/60Hz - Ø3 -20A	220V - 50/60Hz - Ø3 -20A	220V - 50/60Hz - Ø3 -25A

- 本數值隨時不段研究改進，僅供參考，若變更恕不另行通知。
- All specifications and designs are subject to change without prior notice.

明太網版印刷機械股份有限公司
MING TAI SCREEN PRINTING MACHINE CO., LTD.
 42745台灣省台中縣潭子鄉中山路一段218號
 NO. 218, SEC. 1, CHUNG SHAN RD.,
 TAN TZU HSIANG, TAICHUNG HSIEN 42745, TAIWAN.
 TEL: +886-4-2532-7901 (REP) FAX: +886-4-2532-7916
 E-mail: sales@ms.ming-tai.com.tw / sales@screenprinting.com.tw

上海敏太印刷機械材料有限公司
 上海市蓮花路1283號 郵編201102
 電話：021-5480-6465 / 5480-6466
 傳真：021-5480-6458
 手機：1390-1937163
Email: screen1283@126.com

<http://www.ming-tai.com.tw>

www.screenprinting.com.tw

www.skyhill.com.tw