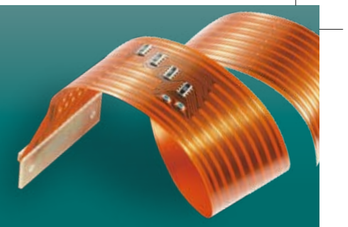
Darly Custom Technology, Inc. | R2R COATER

MultiWeb™



WIDE APPLICATION IN FLEXIBLE ELECTRONICS

產業概況 FLEXIBLE ELECTRONICS INDUSTRY OVERVIEW

真空鍍膜技術是軟性電子量產化中不可或缺的一環。近年來許多知名研究機構與企業爭相投入研究開發，以期成為真空鍍膜領域之佼佼者。傳統電子產業中普遍使用「矽」及「玻璃」為主要生產基材，隨著技術應用的演變，「矽、玻璃」已無法滿足柔軟且可調整的產品應用特性。Darly為因應電子技術的演進，創新研發出繞捲式鍍膜及多層鍍膜，並可應用於電子紙、ITO薄膜、軟性電路板，太陽能薄膜電池、醫療試片及RFID天線等各項產品，相信我們的設備可為鍍膜產業帶來極佳的生產效率及可靠的穩定性。

Vacuum coating and metallizing are key systems in the mass production of Flexible Electronics. Top research facilities and manufacturers throughout the world are studying the latest developments in this field.
With the traditional technologies in the electronics industry concentrated on silicon and glass substrates, manufacturers were unable to meet the standards necessary for quality production.
DARLY has developed roll-to-roll coating equipment with various applications, and hope to facilitate the worldwide merchants in E-paper, Flexible Display, TCO film, FCCL, Thin Film Solar Cell, IMD, RFID Antenna, and other new materials to have better standing in the international competition market.

設備特色 KEY FEATURES

+ 允許多個鍍膜源(金屬、合金、介電質)同時鍍膜，且無需破真空
+ 分離式腔體可進行不同壓力之各式蒸、濺鍍或電子槍等鍍膜方式
+ 可選配相容製程設備，如：前處理、後處理設備或塗佈印刷設備
+ 光學或電阻式線上即時膜厚監控系統，可確保鍍膜均勻性
+ 可迴轉式繞捲設計，多層鍍膜製程亦無須破真空
+ 使用AC伺服馬達增加製程穩定性
+ 最佳化設計適用於空間有限之廠房

+ Multiple source capability to enable deposition of a variety metals, alloys and dielectric materials in one pass.
+ Divided chamber allows for variable pressure in the deposition zone to accommodate thermo-resistance, sputtering or E-beam coating.
+ Precision web handling mechanism using A.C. motor drives for accurate control at line speeds up to 2200 fpm.
+ Reversible web enables multiple layer deposition without breaking vacuum.
+ In line detection monitors linked to the deposition controllers for precise deposition thickness.
+ Provisions for optional equipment such as pre-treatment, post-treatment or other optional devices.
+ Compact design for easy installation using minimal floor space.

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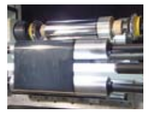
關鍵組件 KEY COMPONENTS & SUBSTRATE / DEPOSITION MATERIALS


Bi-directional Web Winding System


Computer Operation Station


Film Winding Drive System


Deposition Manager


Pumping System


Polycold

Substrate materials：PET, PEN, PI, PA, PC, TAC ...
Deposition materials：Ag, Al, AZO, Cr, Cu, ITO, IZO, Mo, Ni, NiCr, NiV, Stainless steel, Ti ..., Al2O3, AlN, Nb2O5, SiN, SiO2, SnO2, Ta2O5, TiN, TiO2, ZnO ..., polymers ...

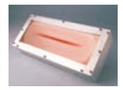
PRE-TREATMENT TOOLS


Plasma Treater


Ion Source

DEPOSITION SOURCE


Thermo Evaporation

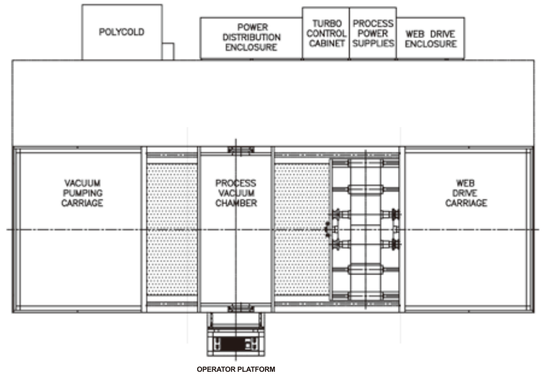

Sputtering

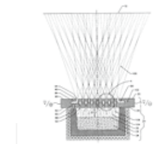

Co-Deposition E-beam Gun & Selenium Source

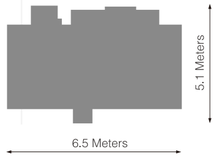

E-beam Curtain


Monomer Evaporator & Deposition Nozzle

配置圖 LAYOUT




MLC Deposition Source
U.S. Patent US 7339139 B2



主要規格 SPECIFICATION

Model	M-400	M-800	M-1200
Coating Width	400 mm	800 mm	1200 mm
Maximum Roll Diameter	600 mm	600 mm	600 mm
Maximum Web Speed	100 fpm	100 fpm	100 fpm
Minimum Web Speed	3 fpm	3 fpm	3 fpm
Deposition Zone	3 ~ 6	3 ~ 6	3 ~ 6
Pressure Zone	4 ~ 8	4 ~ 8	4 ~ 8