

# DYPL Series

## HYBRID COATING IN CHAMBER

### SAVE YOUR COST



產業概況 AUTOMOBILE MARKETING OVERVIEW



In view of global automobile market booming and the trend of environmental awareness, DAH YOUNG based on the concept of Energy Saving and Carbon Reduction to develop the new technology which named HVM™ (HVM™ = Hybrid Vacuum Metallizing Process) successfully. HVM™ is the combination of PVD and PECVD, and be certainly applied to our high quality vacuum coating equipment.

有鑒於全球汽車市場蓬勃發展及全球環境保護趨勢，大禾真空以節能減碳的概念為主導，推出了結合PVD及PECVD技術的全新HVM™ 製程(HVM™ = Hybrid Vacuum Metallizing Process)之DYPL-爐內塗佈專用真空爐設備。

在新一代的DYPL系列設計中，除了延續DYC系列超高溫點射外，更加入了底塗(Base Coating)及面塗(Top Coating)的功能，避免除了鍍層而後仍需的面層噴塗製程，可降低人力需求並大幅提高生產效率，同時避免大量噴塗所造成的污染與浪費。

The new design of DYPL Hybrid Coating in Chamber, in addition to the original advantages of DYC series, the protection layer (Top Coating) to be added, it does not only eliminate the process of top coating air spray to enhance the production efficiency, but avoid lacquer wasting and pollution to the environment.

### 設備特色 KEY FEATURES

- ▶ 嵌入式PECVD電極：提升Monomer附著率及鍍層均勻性，並有效縮短電極清潔維護時間。
- ▶ 最佳化排氣系統：縮短管線長度，搭配知名品牌Pump達到最佳排氣效果。
- ▶ 專業耐真空環境中之零件：免除污染物附著於零件表面，降低產管漏氣之機會。
- ▶ 符合UL電氣安全測試與認證：UL為美國第一家安全標準發展與認證機構，提供最具可信度的產品安全測試與認證。
- ▶ 嚴控電腦IPC：可儲存數種槍裝射參數及歷史紀錄，並能執行網際遠端控制，Trouble Shooting等時產。
- ▶ 靈活的模組化配置：框架/傘形架/單排氣/雙排氣系統，可依顧客戶常規性配置。



- ▶ PECVD Plasma Electrode (Outside-binding Design): Increase monomer deposition efficiency and good uniformity, less electrode clean up time required.
- ▶ Best Pumping System: shorten the pipe length, and collocate with well-known brand of pump.
- ▶ Special Valve Design: no valve rod exposed in reactive zone, less particle power created.
- ▶ UL Approval: UL for high standards in safety, performance and quality of the products.
- ▶ IPC Design: fully IPC computer control and software with one touch operation (immediately trouble shooting).
- ▶ Multi module layout: Frame/Non-frame/Signal Pumping System/Dual Pumping System, can be custom made.



DYPL



DYPL-Frame

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### 關鍵組件 KEY COMPONENTS



IPC



Special Valve Design



Outside bonding Electrode



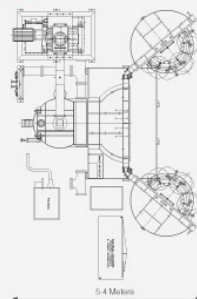
Rotary Pump



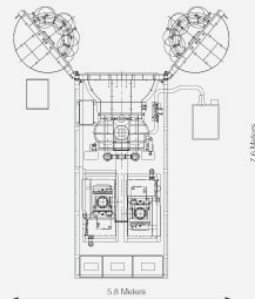
Polycoed

### 配置圖 LAYOUT

DYPL



DYPL-Frame



### 主要規格 SPECIFICATION

| Pumping System                  | Single Pump System                     |             | Dual Pump System                       |             |             |
|---------------------------------|--|-------------|--|-------------|-------------|
| Effective Chamber Size/Diameter | 1300mm(φ)                              | 1600mm(φ)   | 1900mm(φ)                              | 1600mm(φ)   | 1900mm(φ)   |
| Number of Planetary Axis        | 6 Axes                                 | 6 or 8 Axes | 6 or 8 Axes                            | 6 or 8 Axes | 6 or 8 Axes |
| Efficiency Diameter/Axis        | 350mm                                  | 480/400mm   | 560/600mm                              | 480/400mm   | 560/480mm   |
| Effective Chamber Size/High     | 1850mm(H)                              | 1500mm(H)   | 1500mm(H)                              | 1850mm(H)   | 1500mm(H)   |
| Useful Length/Axis              | 1500mm(H)                              | 1500mm(H)   | 1500mm(H)                              | 1500mm(H)   | 1500mm(H)   |
| Vacuum Disposition Method       | Thermal Evaporation                    |             | Thermal Evaporation                    |             |             |
| Number of Filament              | 18 ~ 28 (It Depends)                   |             | 18 ~ 28 (It Depends)                   |             |             |
| Filament Power Supplier         | 30kW                                   |             | 30kW                                   |             |             |
| Plasma Polymerization           | MF-PECVD Process                       |             | MF-PECVD Process                       |             |             |
| Ultimate Vacuum                 | 5 × 10 <sup>-5</sup> Torr              |             | 5 × 10 <sup>-5</sup> Torr              |             |             |
| Production Cycle Time           | 10 ~ 20 min/cycle (Depends on Product) |             | 10 ~ 15 min/cycle (Depends on Product) |             |             |
| Electrical Power/3 Phase, 380V  | 110kVA                                 |             | 145kVA                                 |             |             |

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