



# Parylene Asia Technologies

An ISO 9001-2015 Certified (QMS) | AS9100D (Aviation & Defence) Certified  
ESD Compliant Environment

COMPANY  
INTRODUCTION

## ABOUT PARYLENE ASIA TECHNOLOGIES

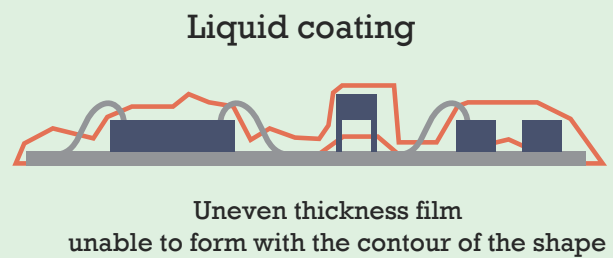
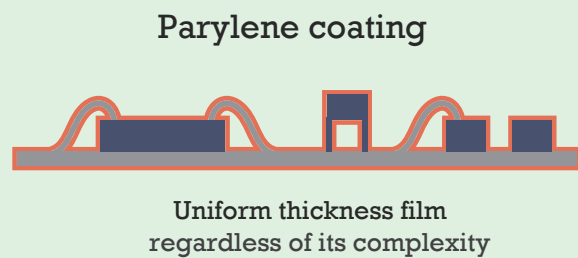
Parylene Asia Technologies (PAT) is a specialised provider of a unique conformal surface coating based on a family of paraxylylene derivatives (dimers), which undergo a vapourisation and polymerisation process to form what is commonly known in industry as 'Nano coating'. Nano coating is a generic name for a proven class of polymer-based conformal coating which has been widely deployed in Europe and North American in a variety of high-value sectors such as the electronics, automotive, aerospace, medical, museum, association and industrial industries.



# PRODUCT FEATURES

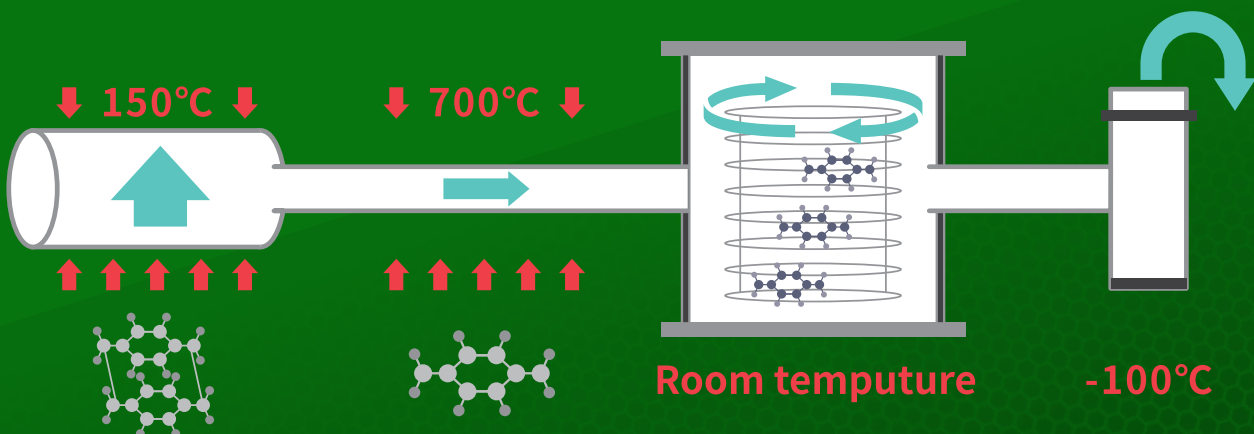
## Parylene Coating Introduction

Parylene Coating is the Modern Technology in Conformal Coating, utilized to uniformly protect any component configuration on such diverse substrates as metal, glass, paper, resin, plastic, ceramic, ferrite & silicon. Widely deployed in Europe and North America in a variety of high-value sectors.



## Parylene Coating Process

Through vapor deposition in a vacuum chamber, parylene coating shows excellent characteristics and solves the defects of traditional coating of conformal process.



### Vaporization stage

- Raw material dimer is vapourised under controlled temperature
- Temperature setting depends on amount of dimer used and coating thickness

### Pyrolysis stage

- Gas dimer undergoes pyrolysis under high heat to break down into reactive monomers which then flows into the vacuum chamber

### Deposition stage

- Reactive monomers flows into chamber under high vacuum state and cools to form polymer layer
- Necessary for products to be in vacuum and rotated for uniform coating

### Cold Trap stage

- The excess monomer is cooled through the cold trap and dispose Environmentally friendly

# International Certification



**INTRAMUSCULAR  
IMPLANTATION TEST**



**Singapore ISO 9001**



**Malaysia Aerospace ISO 9100**



**Parylene Coating Machine  
SGS CE-Mark Cert**

## Green Features

Environmental and non-toxic, the process is simple without air pollution and water-wasting problem in the process. Technicians can rely on the setting to control the uniformity of the product film thickness, coating efficiency and adhesion.



**Anti-Mildew  
Antibacterial**



**Waterproof  
Moisture-proof**



**Antistatic**



**Insulation  
Non-Conductive**



**Preservative**



**Strong  
Malleability**



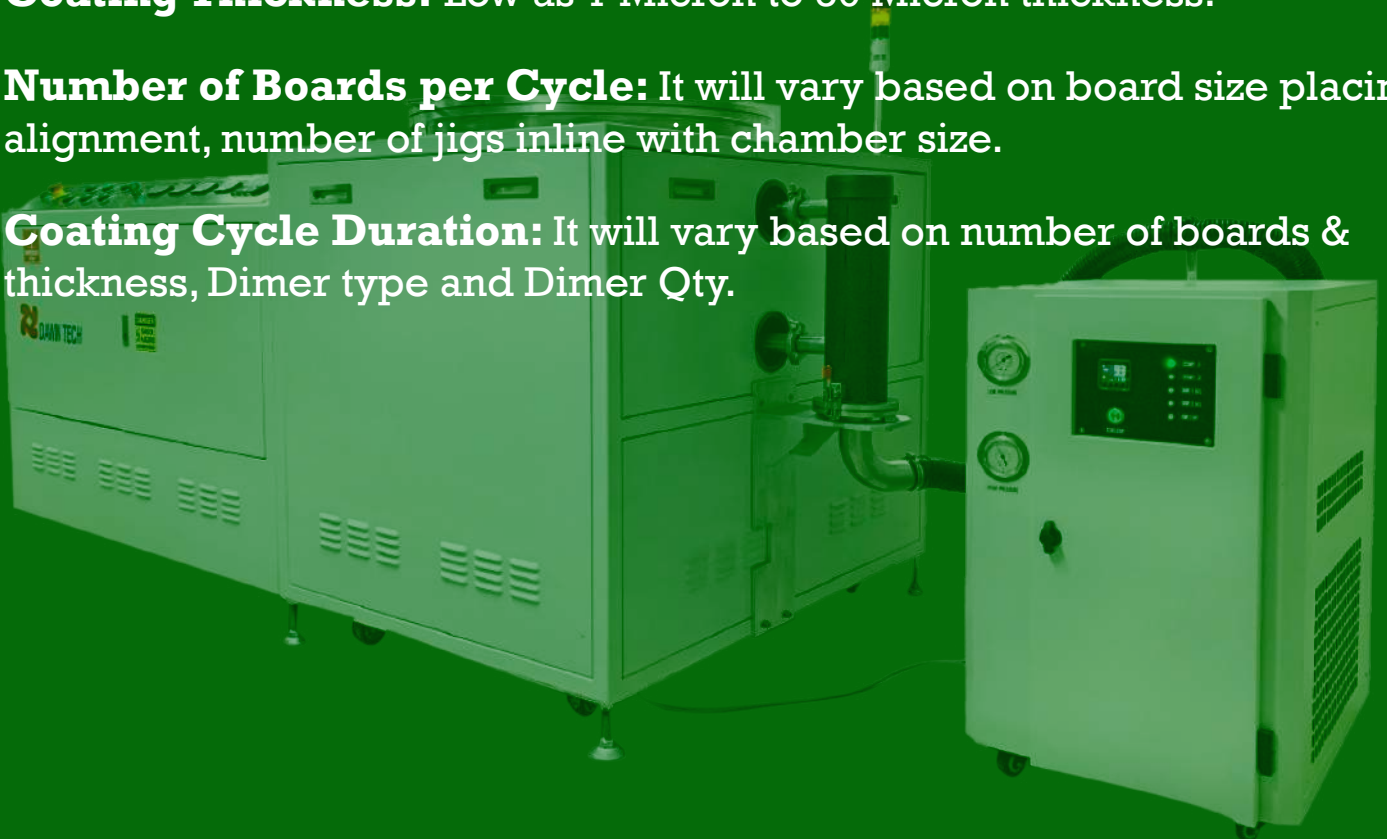
# GREEN HIGHLIGHTS

## Machine Specifications

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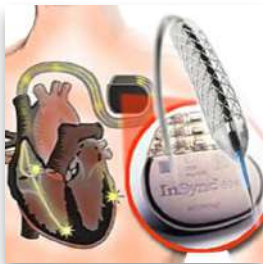
Parylene Coating Machine	DT-750-900
Chamber Size	Dia 750mm X H960mm
Ultra Chiller	DT-U100
Ulvac Vacuum Pump	VDN-902
Auto Open/Close Chamber System and Safety Sensor	T300
Dimer Boat (L405xW80xH65)mm	DB-L1000
Quartz Tube (L1290xT3xDia90)mm	QT-1190
Jig Holder (4 pole Dia12 x L870, Base Dia650 x H8)mm	JH90
Jig Tray - 10Pcs (Dia 655mm)	JT-650-10
Jig Spacer - 40Pcs (H 30mm)	JS-30-40

- **Coating Thickness:** Low as 1 Micron to 50 Micron thickness.
- **Number of Boards per Cycle:** It will vary based on board size placing alignment, number of jigs inline with chamber size.
- **Coating Cycle Duration:** It will vary based on number of boards & thickness, Dimer type and Dimer Qty.



# Parylene Applications

- **Medical, Silicon:** US FDA certification, biocompatibility, inhibit the growth of bacteria.
- **Military, Aerospace:** Extreme tolerance in harsh environment, blocking dust, sand, moisture chemical and biological agents.
- **Electronics, Communications, Automotives, Semiconductors:** Acid and alkali resistance waterproof, moisture-proof, insulation protection, thinner coating can help components to dissipate heat.
- **Museum:** For old books, silks and documents, protection can be formed on the surface of the fiber for long-trem preservation.



# FUTURE APPLICATION

Looking forward to expanding the market for electric vehicles and 5G products in response to trends in the future and continuing to work with customers to create high-value, **high-efficiency, economical and environmental products.**

Product	Parylene Coating Machine		
Green features	Simple process, Environmental Friendly		
Origin	India		
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