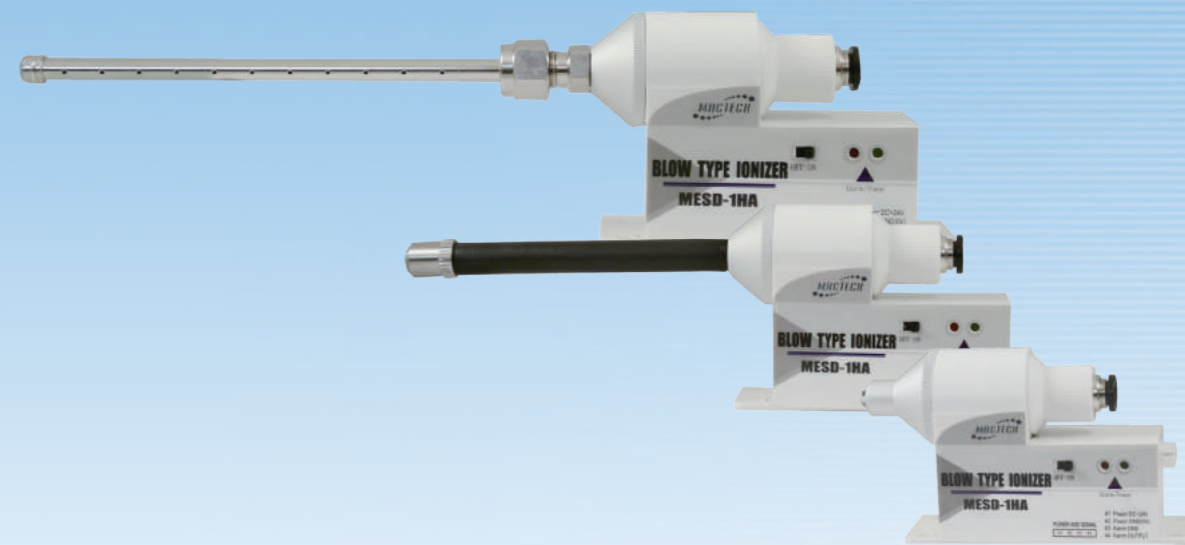


# 窄域定點型靜電消除器 MESD-HA Narrow Range Ionizer



▶ MESD-1HA

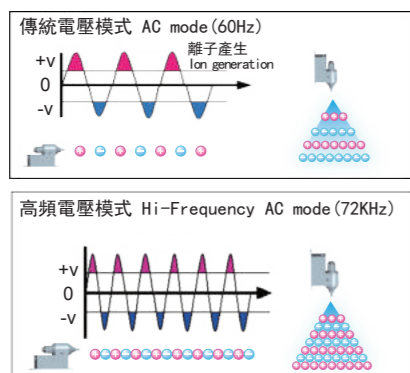
▶ MESD-2HA



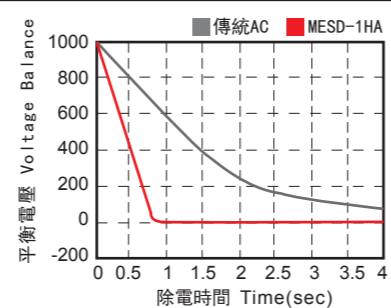
\*提供多樣噴嘴頭以適用於不同產業\*  
\*Provide different nozzles • Using in various industry\*

## 高頻電壓AC模式 High Frequency AC Mode

放電針正負快速交替，可以有效的產生大量正負離子，加快消除靜電能力。  
Electrode probe rapidly interflow, can effectively produce large of positive and negative ions, accelerate the elimination of capacity.



除電比較圖 Static Elimination Performance

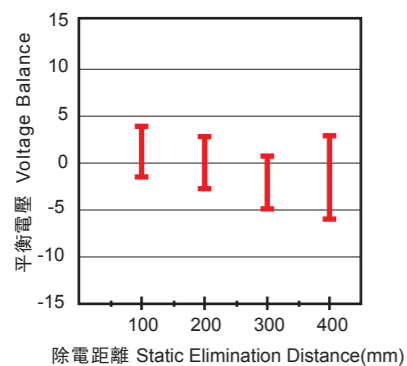


測試條件 距離 30cm Test Conditions Distance 30cm  
±1000V到±100V消除靜電所需時間 Elimination time : From ±1000V to ±100V  
使用150mm x 150mm CPM (20pF) Use 150mm x 150mm (20pF) CPM device

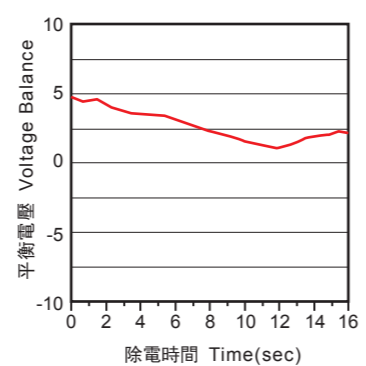
## 高精度低平衡電壓 High Precision Voltage Balance

利用高頻電壓模式，可有效提高離子平衡度到±15V。  
Using high voltage mode, can boost ions balance up to ±15V.

距離與離子平衡關係圖 Distance and Ion Balance Diagram



離子平衡電壓圖 Ion Balance and Voltage Diagram



## 產品特色 Features

### 檢視系統 Inspection System

內建LED顯示，綠燈亮起時表示電源入力正常，紅燈亮時表示異常輸出，以提供快速檢視系統狀態。  
When green light turns on, it means output normal. When red light turns on, it means output alarm. To provide inspecting status of system rapidly.



### 低電壓DC24V輸入 Input of DC24V Low Voltage

可有效避免放電所造成纜線老化與對週遭的裝置影響，建構高可靠性系統。  
Which can prevent cables gradually aging by the static discharge with high reliable system.

### 內建高壓電源系統 Mounted High Voltage System

無需使用專用高壓配線，無高壓配線困擾，並且可有效節省安裝空間，由於外觀尺寸很小，方便裝置於狹小空間，輕鬆應付各種系統安裝之需求。  
Without using a high-voltage cable, moreover can effectively save installation space. Due to the appearance of small size, convenient for small space, easy to cope with the demand of various system installation.

- 棒型  
Bar Type
- 區域型  
Area Type
- 扇型  
Fan Type
- 管型  
Tube Type
- 槍型  
Gun Type

### 功能解析 Functions Explanation



多樣式噴嘴，適用多種場合  
Different nozzles, using in various industry



簡易顯示，快速判別狀態  
Clear display status, easy to determine



快拆放電針組，保養容易  
Quick-release electrode probe, easy to maintain

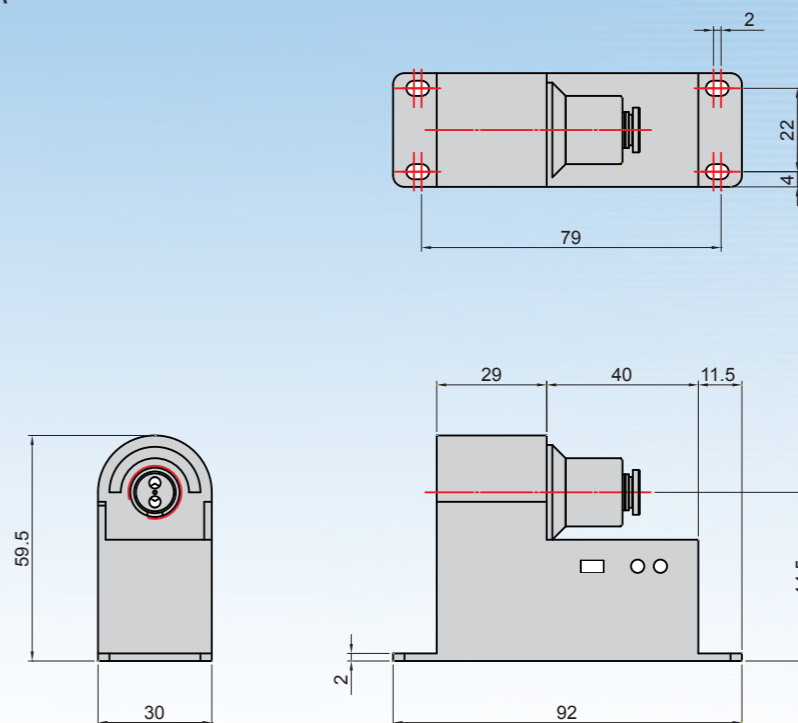
高精度離子平衡可達 ±15V  
High Precision Ion Balance up to ±15V

體積小，適合空間狹小場合  
Small device, easy to installation

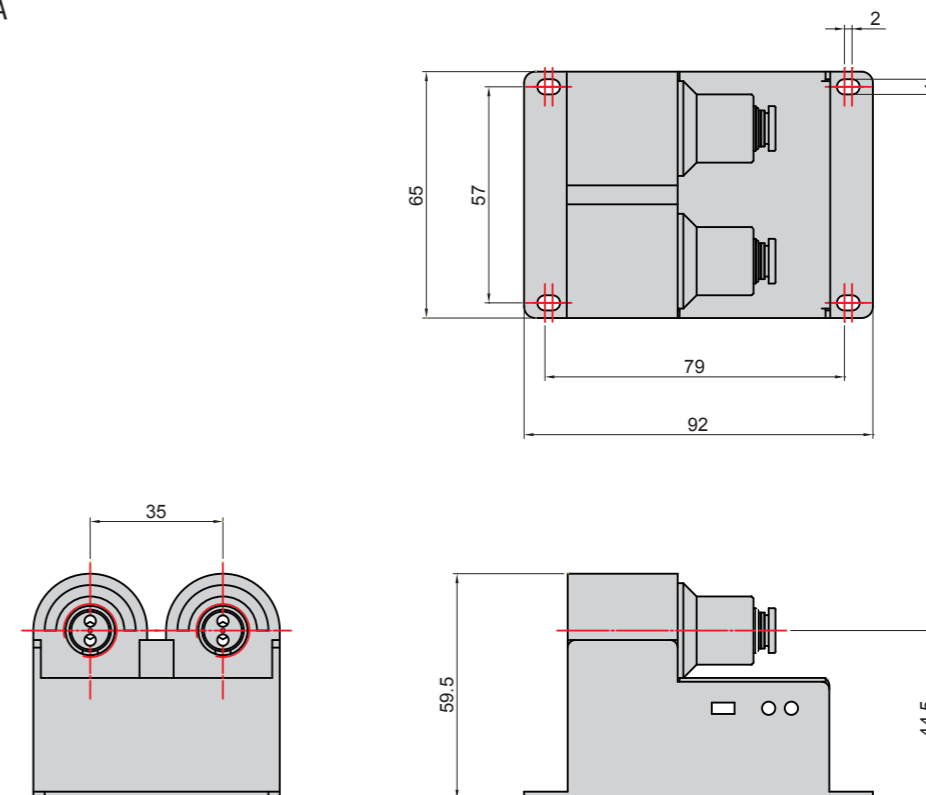
### 外觀尺寸 External Dimensions

單位 Unit: mm

#### ► MESD-1HA



#### ► MESD-2HA



### 規格 Specifications

| 產品型號 Model                  | MESD-1HA                                   | MESD-2HA  |
|-----------------------------|--|---|
| 使用流體 Air Flow               | 乾燥壓縮空氣 Compressed Dry Air                  |   |
| 輸入電源 Input Power            | DC 24V ±5%                                 |   |
| 消耗電流 Current Consumption    | Approximate 100 mA                         | Approximate 200 mA                                |
| 出力電源 Applied Voltage        | ±2.2KV 72 KHz (MAX)                        |   |
| 離子平衡 Ion Balance            | ±15V (距離 Distance 300 mm)                  |   |
| 建議設置距離 Operating Distance   | 50~500 mm                                  |   |
| 動作指示燈 LED Indicator         | 電源 Power Status                            | 電源入力時綠燈亮 When power input LED turn on green light |
|                             | 異常 Alarm Show                              | 異常時紅燈亮 When abnormal LED turn on red light        |
| 異常輸出接點 Power Safety Circuit | NPN電晶體出力 NPN Transistor output (Max. 24mA) |   |
| 臭氧量 Ozone Amount            | 0.03 ppm 以下 Under 0.03 ppm                 |   |
| 最大空氣流量 Max CDA Consumption  | Approximate 60 ℓ/min                       | Approximate 120 ℓ/min                             |
| 使用壓力範圍 Air Pressure Range   | 0.01~0.5 MPa                               |   |
| 使用環境溫度 Ambient Temperature  | 15~40°C (室內 Indoor)                        |   |
| 使用環境溼度 Ambient Humidity     | 35~65% RH (無冷凝 No condensation)            |   |

- 棒型  
Bar Type
- 區域型  
Area Type
- 扇型  
Fan Type
- 管型  
Tube Type
- 槍型  
Gun Type

配件 Accessories

管型標準配件  
Tube Type Package Content

- ▶ 管型電纜線 Power Cable (2 meter)  
MESD-CP024



噴嘴選購配件  
Nozzle Accessory Options

- ▶ 可撓管型噴嘴組 Flexible Tube Nozzle  
MESD-F100L~F500L



- ▶ 標準型噴嘴組 Standard Nozzle  
MESD-NSTA



- ▶ 120° 擴散型噴嘴組 Spread Nozzle  
MESD-N120A



耗材選購配件  
Consumable Options

- ▶ 管型放電針組 Electrode Probe  
MESD-HA303



(使用壽命：約6,000小時)  
(Life time: about 6,000 hrs)

- ▶ 棒型不鏽鋼管噴嘴組 Stainless Steel Pipe Nozzle  
MESD-S100L~S500L



- ▶ 90° 擴散型噴嘴組 Spread Nozzle  
MESD-N90CA



- ▶ 90° 平式擴散型噴嘴組 Horizontal Spread Nozzle  
MESD-N90L



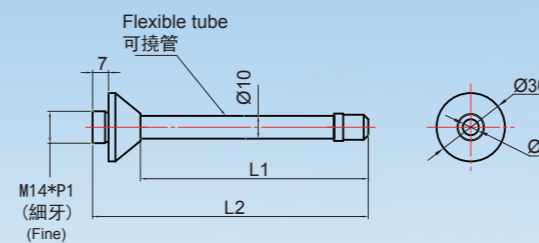
電源選購配件  
Power Supply Options

- ▶ 管型電源供應器 Power Supply 24W  
MESD-CP025C



單位 Unit: mm

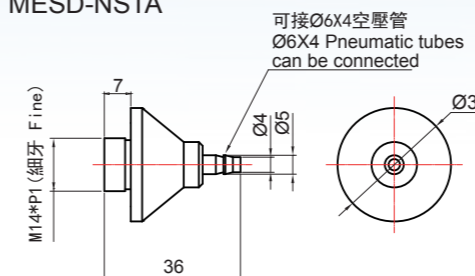
- ▶ 可撓管型噴嘴組 Flexible Tube Nozzle  
MESD-F100L~F500L



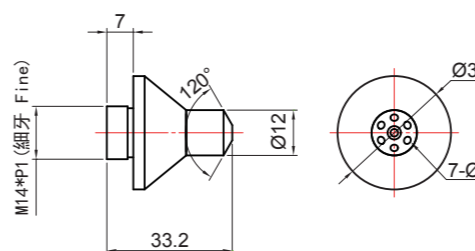
| 型號 Model   | L1  | L2  |
|------------|-----|-----|
| MESD-F100L | 100 | 121 |
| MESD-F200L | 200 | 221 |
| MESD-F300L | 300 | 321 |
| MESD-F400L | 400 | 421 |
| MESD-F500L | 500 | 521 |

\* 超過300L為訂單生產，建議選購BC系列  
The length of tube over 300mm is make-to-order;  
we recommend choosing BC series.

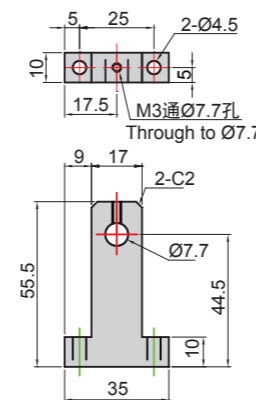
- ▶ 標準型噴嘴組 Standard Nozzle  
MESD-NSTA



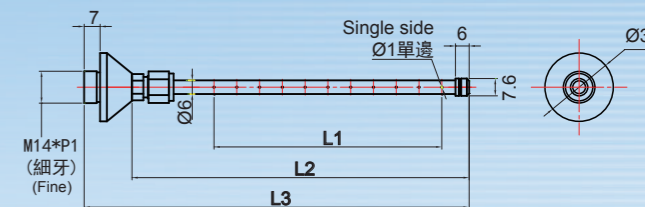
- ▶ 120° 擴散型噴嘴組 Spread Nozzle  
MESD-N120A



- ▶ 鋼管噴嘴固定架 Stainless Steel Pipe Fixture  
MESD-BA01



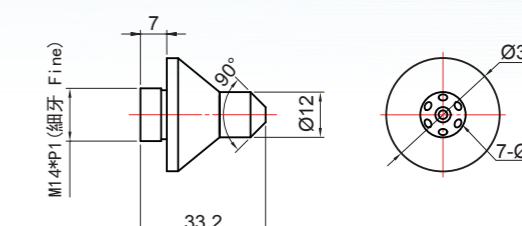
- ▶ 棒型不鏽鋼管噴嘴組 Stainless Steel Pipe Nozzle  
MESD-S100L~S700L



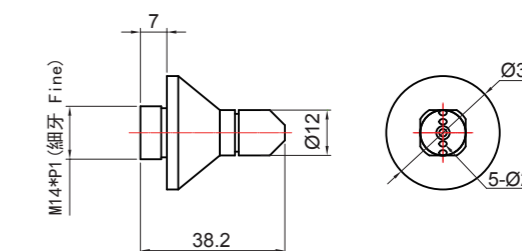
| 型號 Model   | 孔數 No. of hole | L1  | L2  | L3  |
|------------|----------------|-----|-----|-----|
| MESD-S100L | 10             | 100 | 148 | 169 |
| MESD-S200L | 20             | 200 | 248 | 269 |
| MESD-S300L | 30             | 300 | 348 | 369 |
| MESD-S400L | 40             | 400 | 448 | 469 |
| MESD-S500L | 50             | 500 | 548 | 569 |
| MESD-S600L | 60             | 600 | 648 | 669 |
| MESD-S700L | 70             | 700 | 748 | 769 |

\* 超過300L為訂單生產，建議選購BC系列  
The length of tube over 300mm is make-to-order;  
we recommend choosing BC series.

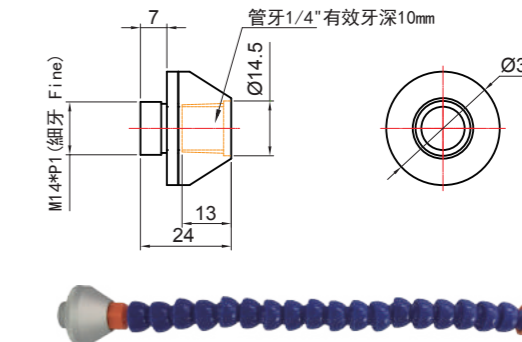
- ▶ 90° 擴散型噴嘴組 Spread Nozzle  
MESD-N90CA



- ▶ 90° 平式擴散型噴嘴組 Horizontal Spread Nozzle  
MESD-N90L



- ▶ 萬向軟管噴嘴 Adjustable Hoses Nozzle  
MESD-NSH



窄域定點型靜電消除器 Narrow Range Ionizer

- 棒型  
Bar Type
- 區域型  
Area Type
- 扇型  
Fan Type
- 管型  
Tube Type
- 槍型  
Gun Type

# 窄域定點型靜電消除器 MESD-HB Narrow Range Ionizer

機械手臂產線適用  
Suitable for Robotic Arm



## 體積小效能高 Small Size and High Efficiency

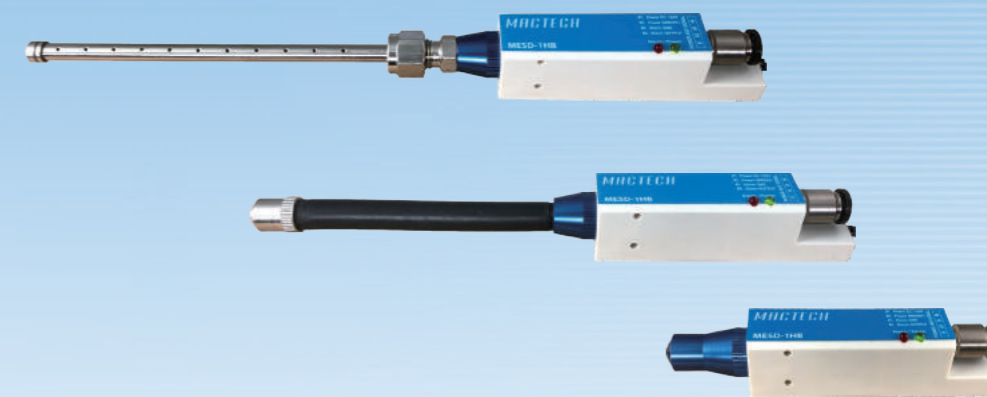
高度壓縮僅22mm，可安裝於狹小空間  
The height is only 22mm, which can be installed in small space.

## 安裝簡易好設定 Easy to Install and Set Up

安裝只需二根螺絲，設定只需調整風量  
Using two screws to install the product and only need to adjust air volume for setting.

## 規格 Specifications

| 項目 Items                    | 規格 Specifications   |
|-----------------------------|---|
| 使用流體 Air Flow               | 乾燥壓縮空氣 Compressed Dry Air   |
| 輸入電源 Input Power            | DC 24V ±5%  |
| 消耗電流 Current Consumption    | Approximate 100 mA  |
| 出力電源 Applied Voltage        | ±2.2KV 90 KHz (MAX)   |
| 離子平衡 Ion Balance            | ±15V (距離 Distance 300 mm)   |
| 建議設置距離 Operating Distance   | 50~500 mm   |
| 動作指示燈<br>LED Indicator      | 電源輸入時綠燈亮 When power input LED turn on green light<br>異常時紅燈亮 When abnormal LED turn on red light |
| 異常輸出接點 Power Safety Circuit | NPN電晶體輸出 NPN Transistor output (Max. 24 mA)   |
| 臭氧量 Ozone Amount            | 0.03 ppm 以下 Under 0.03 ppm  |
| 最大空氣流量 Max CDA Consumption  | Approximate 60 l/min  |
| 使用壓力範圍 Air Pressure Range   | 0.05~0.5 MPa  |
| 使用環境溫度 Ambient Temperature  | 15~40°C (室內 Indoor)   |
| 使用環境溼度 Ambient Humidity     | 35~65% RH (無冷凝 No condensation)   |

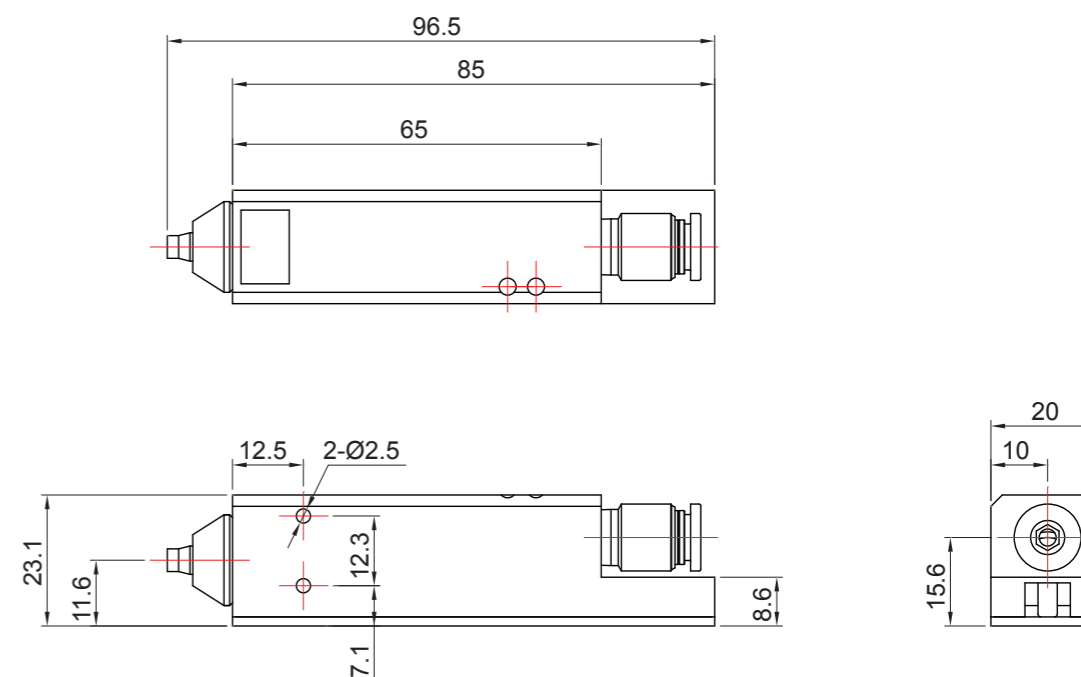


\*提供多樣噴嘴頭以適用於不同產業\*  
\*Provide different nozzles • Using in various industry\*

## 外觀尺寸 External Dimensions

單位 Unit: mm

### ► MESD-1HB



- 棒型  
Bar Type
- 區域型  
Area Type
- 扇型  
Fan Type
- 管型  
Tube Type
- 槍型  
Gun Type

## 配件 Accessories

### 管型標準配件 Tube Type Package Content

- ▶ 管型電纜線 Power Cable (2 meter)  
MESD-CP024



### 噴嘴選購配件 Nozzle Accessory Options

- ▶ 可撓管型噴嘴組 Flexible Tube Nozzle  
MESD-F100LB~F500LB



- ▶ 棒型不鏽鋼管噴嘴組 Stainless Steel Pipe Nozzle  
MESD-S100LB~S500LB



- ▶ 標準型噴嘴組 Standard Nozzle  
MESD-NSTB



- ▶ 120° 擴散型噴嘴組 Spread Nozzle  
MESD-N120B



- ▶ 90° 擴散型噴嘴組 Spread Nozzle  
MESD-N90CB



- ▶ 90° 平式擴散型噴嘴組 Horizontal Spread Nozzle  
MESD-N90LB



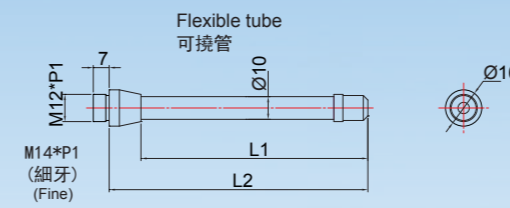
### 電源選購配件 Power Supply Options

- ▶ 管型電源供應器 Power Supply 24W  
MESD-CP025B



單位 Unit: mm

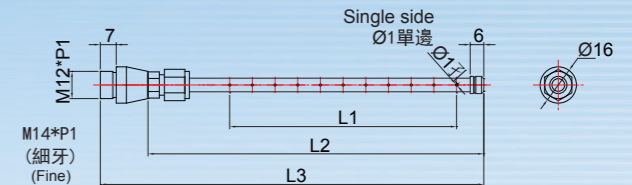
- ▶ 可撓管型噴嘴組 Flexible Tube Nozzle  
MESD-F100LB~F500LB



| 型號 Model    | L1  | L2  |
|-------------|-----|-----|
| MESD-F100LB | 100 | 114 |
| MESD-F200LB | 200 | 214 |
| MESD-F300LB | 300 | 314 |
| MESD-F400LB | 400 | 414 |
| MESD-F500LB | 500 | 514 |

\* 超過300LB為訂單生產，建議選購BC系列  
The length of tube over 300mm is make-to-order;  
we recommend choosing BC series.

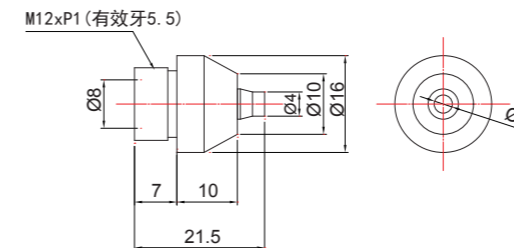
- ▶ 棒型不鏽鋼管噴嘴組 Stainless Steel Pipe Nozzle  
MESD-S100LB~S700LB



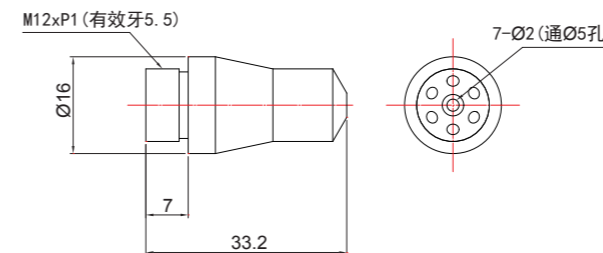
| 型號 Model    | 孔數 No. of hole | L1  | L2  | L3  |
|-------------|----------------|-----|-----|-----|
| MESD-S100LB | 10             | 100 | 148 | 169 |
| MESD-S200LB | 20             | 200 | 248 | 269 |
| MESD-S300LB | 30             | 300 | 348 | 369 |
| MESD-S400LB | 40             | 400 | 448 | 469 |
| MESD-S500LB | 50             | 500 | 548 | 569 |
| MESD-S600LB | 60             | 600 | 648 | 669 |
| MESD-S700LB | 70             | 700 | 748 | 769 |

\* 超過300LB為訂單生產，建議選購BC系列  
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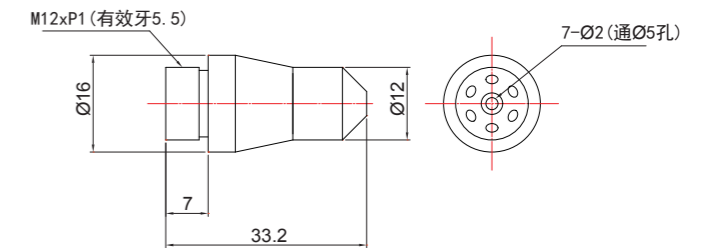
- ▶ 標準型噴嘴組 Standard Nozzle  
MESD-NSTB



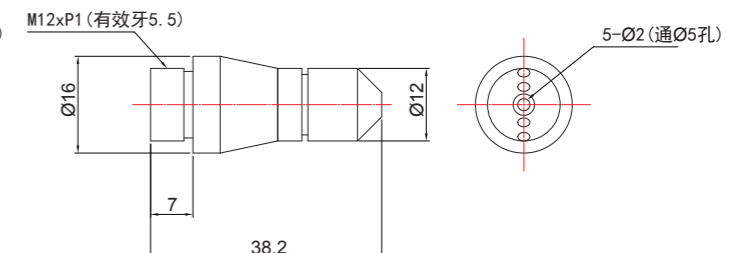
- ▶ 120° 擴散型噴嘴組 Spread Nozzle  
MESD-N120B



- ▶ 90° 擴散型噴嘴組 Spread Nozzle  
MESD-N90CB

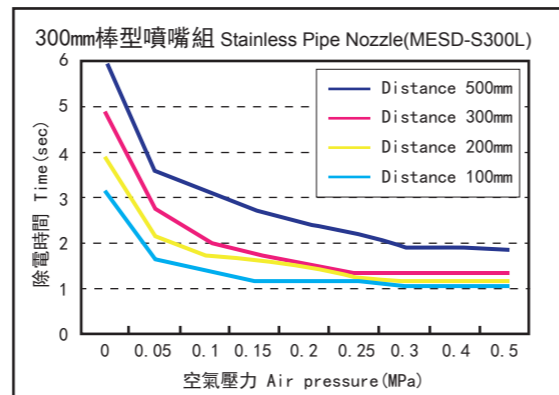
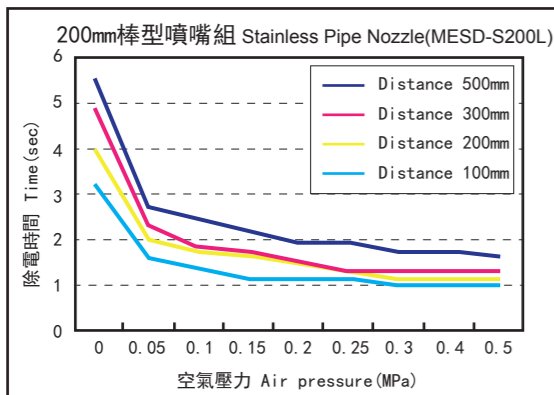
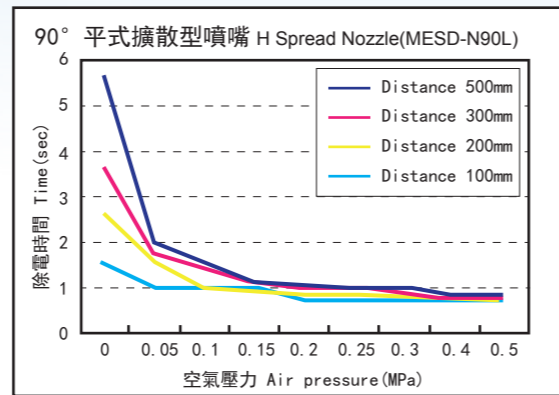
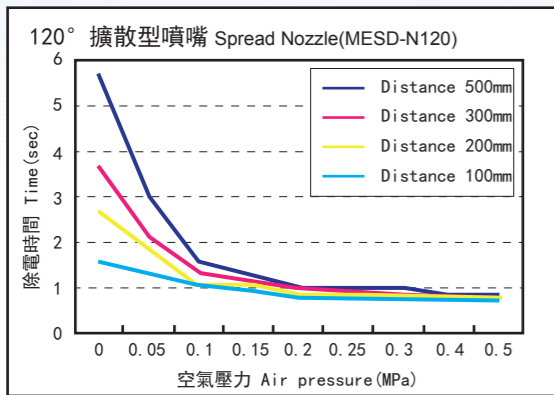
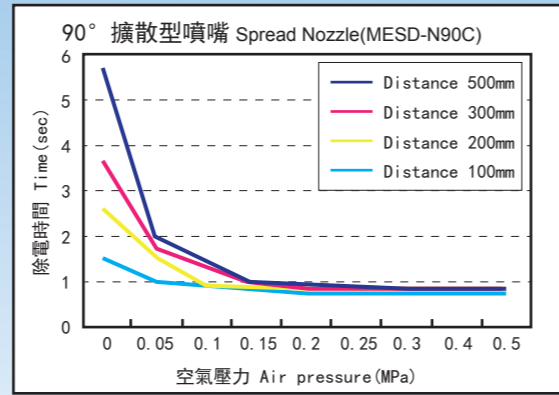
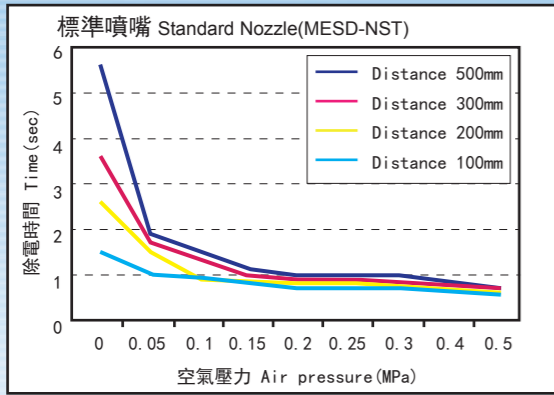


- ▶ 90° 平式擴散型噴嘴組 Horizontal Spread Nozzle  
MESD-N90LB



- 棒型  
Bar Type
- 區域型  
Area Type
- 扇型  
Fan Type
- 管型  
Tube Type
- 槍型  
Gun Type

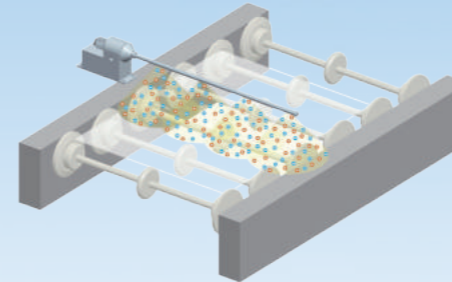
性能曲線圖 *Static Elimination Performance*



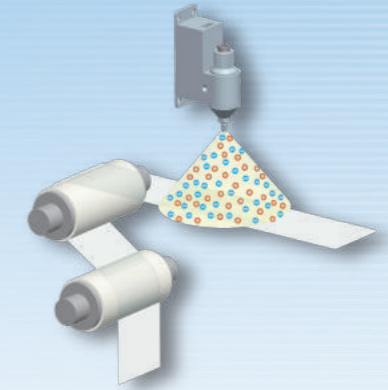
應用實例 *Applications*

- 棒型  
Bar Type
- 區域型  
Area Type
- 扇型  
Fan Type
- 管型  
Tube Type
- 槍型  
Gun Type

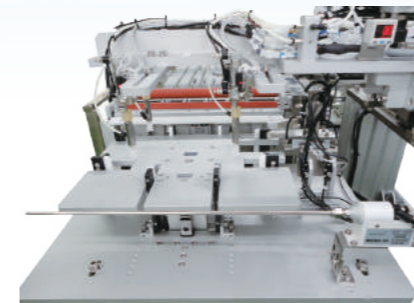
► 應用於滾輪輸送機構  
Conveyor Production Processes



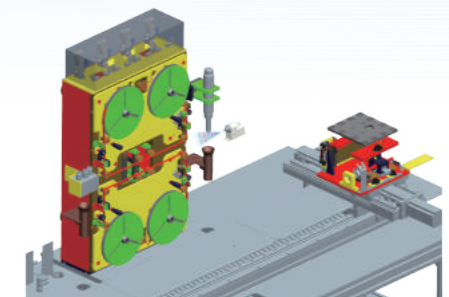
► 滾輪摩擦靜電消除  
Rewinding Machines



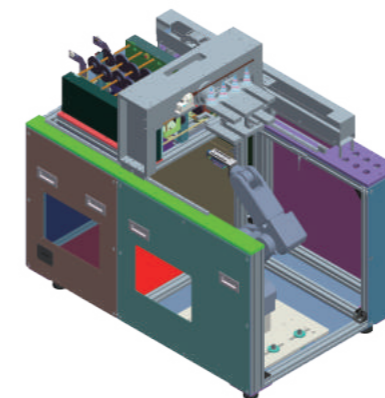
► 撕/貼膜機靜電消除  
Peeling Films & Lamination



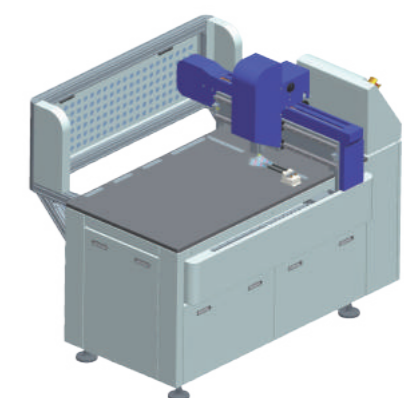
► 捲料機構靜電消除  
Operation Machines



► 機械手臂搬運靜電消除  
Robot Transferred



► 應用於玻璃切割時的靜電消除  
Glass Cutting Machines



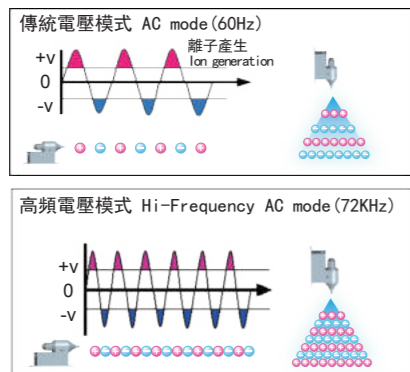
# 窄域定點型靜電消除器 MESD-GA Narrow Range Ionizer

- 棒型  
Bar Type
- 區域型  
Area Type
- 扇型  
Fan Type
- 管型  
Tube Type
- 槍型  
Gun Type

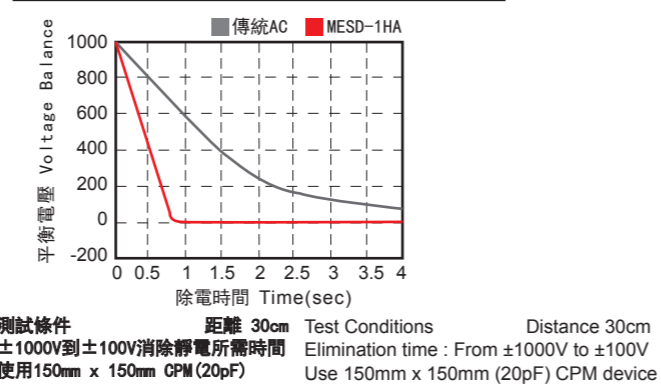


## 高頻電壓AC模式 High Frequency AC Mode

放電針正負快速交替，可以有效的產生大量正負離子，加快消除靜電能力。  
Electrode probe rapidly interflow, can effectively produce large of positive and negative ions, accelerate the elimination of capacity.



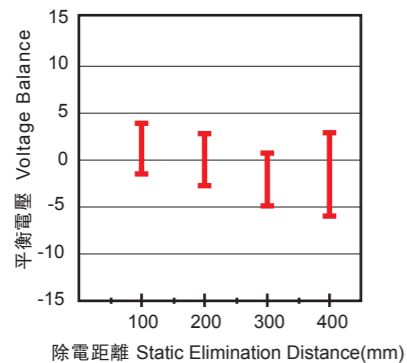
除電比較圖 Static Elimination Performance



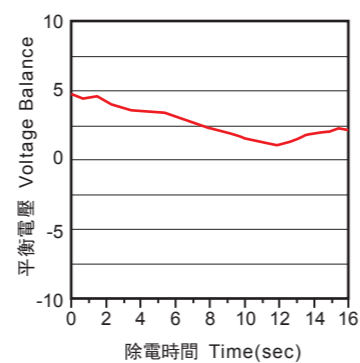
## 高精度低平衡電壓 High Precision Voltage Balance

利用高頻電壓模式，可有效提高離子平衡度到±15V。  
Using high voltage mode, can boost ions balance up to ±15V.

距離與離子平衡關係圖 Distance and Ion Balance Diagram



離子平衡電壓圖 Ion Balance and Voltage Diagram



- 棒型  
Bar Type
- 區域型  
Area Type
- 扇型  
Fan Type
- 管型  
Tube Type
- 槍型  
Gun Type



## 人體工學設計 Ergonomic Design

加強握把輕羽量設計，  
有效提升產品使用舒適度與便利性。  
Strengthen handle light feather design,  
effectively enhance product comfort and convenience.

## 防滑與快勾設計 Slip-proof and Hook Design

1. 皮革紋路流線造型，有效提升防滑效果與手握觸感。  
Leather texture streamlined shape, effectively enhance the slip-proof effect and hand touch.
2. 快速掛勾設計好收取。  
A hook design is good to take and keep.



## 產品特色 Features

### 顯示系統 Alarm System

內建LED顯示，綠燈亮起時表示電源入力正常，紅燈亮時表示異常輸出，  
以提供快速監視系統狀態。  
When green light truns on, it means output normal. When red light truns on,  
it means output alarm. To provide monitoring status of system rapidly.



### 低電壓 DC24V 輸入 Input of DC24V Low Voltage

可有效避免放電所造成纜線老化與對週遭的裝置影響，建構高可靠性系統。  
Which can prevent cables gradually aging by the static discharge with high reliable system.

### 一體成型設計 All In One Design

無需使用專用高壓配線，無高壓配線困擾，並且可有效節省安裝空間。由於外觀尺寸很小，  
方便裝置於狹小空間，輕鬆應付各種系統安裝之需求。  
Without the use of special high-voltage wiring, no high-voltage wiring problems, and can effectively save  
installation space. Due to the external a small size, therefore it is convenient to install in a small space,  
and easy to meet the needs of the various systems installation requirement.

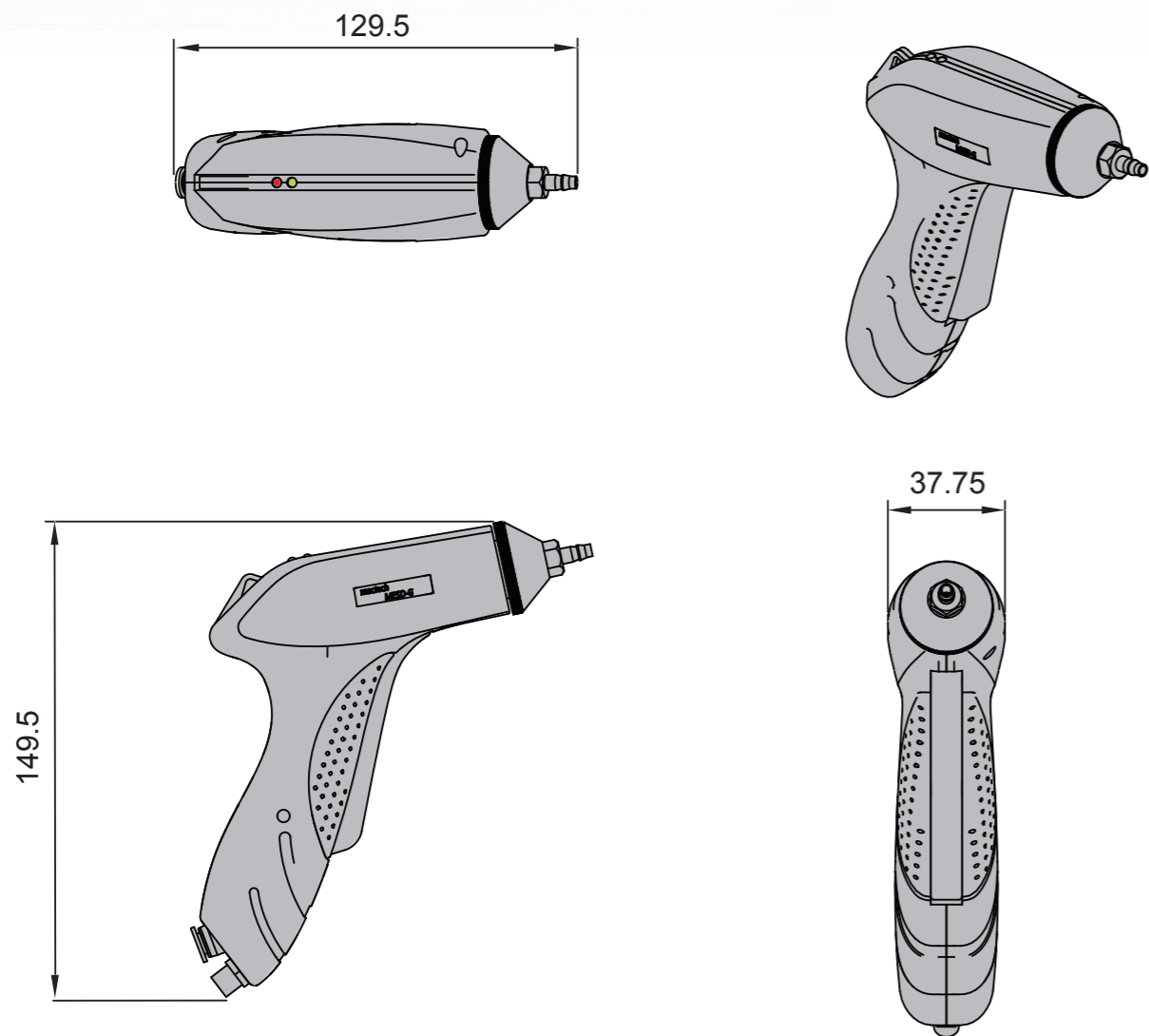
- 棒型  
Bar Type
- 區域型  
Area Type
- 扇型  
Fan Type
- 管型  
Tube Type
- 槍型  
Gun Type**

## 規格 Specifications

| 項目 Items                    | 規格 Specifications  |                 |   |               |  |
|-----------------------------|--|-----------------|---|---------------|--|
| 使用流體 Air Flow               | 乾燥壓縮空氣 Compressed Dry Air  |                 |   |               |  |
| 輸入電源 Input Power            | DC 24V ±5%   |                 |   |               |  |
| 消耗電流 Current Consumption    | Approximate 100 mA   |                 |   |               |  |
| 出力電源 Applied Voltage        | ±2.2KV 72 KHz (MAX)  |                 |   |               |  |
| 離子平衡 Ion Balance            | ±15V (距離 Distance 300 mm)  |                 |   |               |  |
| 建議設置距離 Operating Distance   | 50~500 mm  |                 |   |               |  |
| 動作指示燈 LED Indicator         | <table border="0"> <tr> <td>電源 Power Status</td> <td>電源入力時綠燈亮 When power input LED turn on green light</td> </tr> <tr> <td>異常 Alarm Show</td> <td>異常時紅燈亮 When abnormal LED turn on red light</td> </tr> </table> | 電源 Power Status | 電源入力時綠燈亮 When power input LED turn on green light | 異常 Alarm Show | 異常時紅燈亮 When abnormal LED turn on red light |
| 電源 Power Status             | 電源入力時綠燈亮 When power input LED turn on green light  |                 |   |               |  |
| 異常 Alarm Show               | 異常時紅燈亮 When abnormal LED turn on red light   |                 |   |               |  |
| 異常輸出接點 Power Safety Circuit | NPN電晶體出力 NPN Transistor output (Max. 24 mA)  |                 |   |               |  |
| 臭氧量 Ozone Amount            | 0.03 ppm 以下 Under 0.03 ppm   |                 |   |               |  |
| 最大空氣流量 Max CDA Consumption  | Approximate 60 l/min   |                 |   |               |  |
| 使用壓力範圍 Air Pressure Range   | 0.01~0.5 MPa   |                 |   |               |  |
| 使用環境溫度 Ambient Temperature  | 15~40°C (室內 Indoor)  |                 |   |               |  |
| 使用環境溼度 Ambient Humidity     | 35~65% RH (無冷凝 No condensation)  |                 |   |               |  |

## 外觀尺寸 External Dimensions

單位 Unit: mm



## 配件 Accessories

- 棒型  
Bar Type
- 區域型  
Area Type
- 扇型  
Fan Type
- 管型  
Tube Type
- 槍型  
Gun Type**

### 槍型標準配件 Gun Type Package Content

- 槍型電纜線 Power Cable (3 meter) MESD-CP025



### 電源選購配件 Power Supply Options

- 槍型電源供應器 Power Supply 24W MESD-CP025G



### 噴嘴選購配件 Nozzle Accessory Options

- 槍型標準型噴嘴組 Standard Nozzle MESD-NSTA



- 90° 擴散型噴嘴組 Spread Nozzle MESD-N90CA



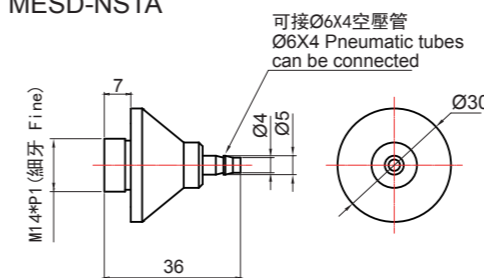
- 120° 擴散型噴嘴組 Spread Nozzle MESD-N120A



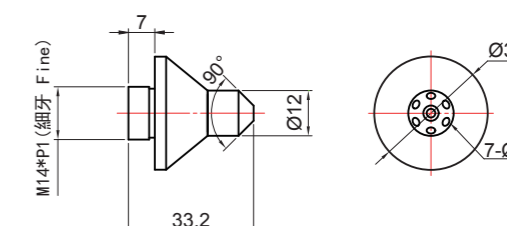
- 90° 平式擴散型噴嘴組 Horizontal Spread Nozzle MESD-N90L



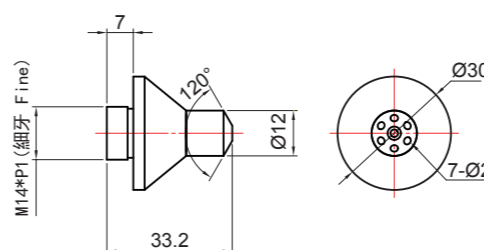
- 標準型噴嘴組 Standard Nozzle MESD-NSTA



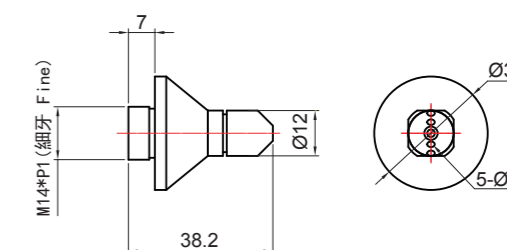
- 90° 擴散型噴嘴組 Spread Nozzle MESD-N90CA



- 120° 擴散型噴嘴組 Spread Nozzle MESD-N120A



- 90° 平式擴散型噴嘴組 Horizontal Spread Nozzle MESD-N90L



窄域定點型靜電消除器 Narrow Range Ionizer