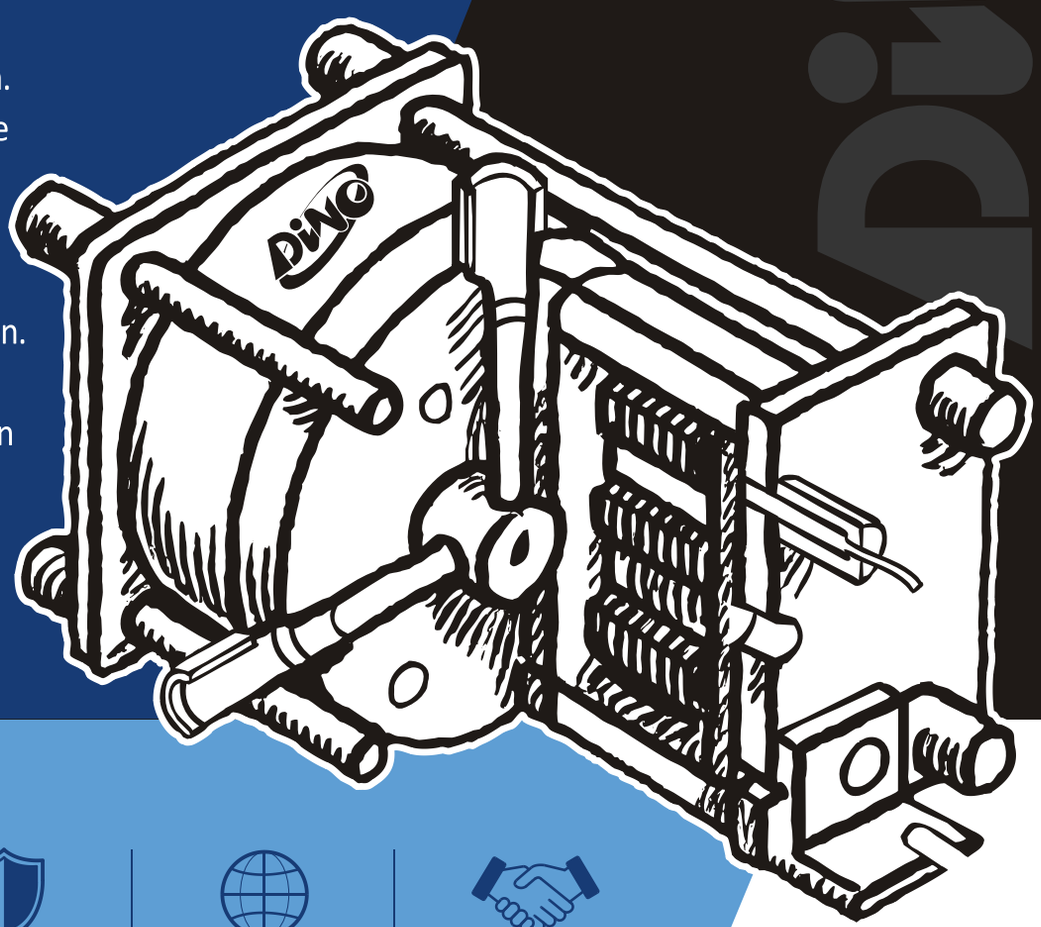
# Aerotronic
## Bellows Pump

Industrial Strength.
Process-Ready Precision.
Built to handle corrosive media with confidence.
Consistent flow, dependable actuation, and durable construction.
Helping manufacturers reduce risk and maintain efficiency. A smarter standard for fluid handling performance.




PRECISION ENGINEERED

CHEMICALLY ENDURED

GLOBALLY TRUSTED

LOCALLY SUPPORTED

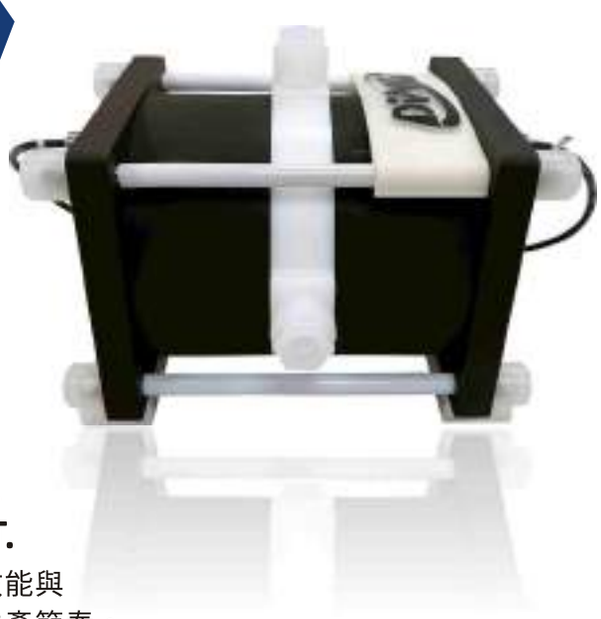
**PUMP precision DINO decision**

Aerotronic Bellows Pump

Eco-Pulse Pumps

# ENERGIZING INDUSTRY SUSTAINING LIFE

## 節能泵浦，為產業注入綠色心跳



**DECARBONIZING WITH DIGITAL PRECISION.**
**NEXT-GEN EFFICIENCY. SEAMLESS RETROFIT.**

融合空氣動力智能與數位精密控制，新一代泵浦實現卓越效能與可靠度。專為即插即用改造設計，驅動產業減碳無需犧牲生產節奏。

### Dedicated 專注．深耕

**Engineered for Semiconductor-Grade Demands. Refined Through Decades of Process Expertise.**
**多年技術淬練，專注半導體製程痛點**

The DTE series meets stringent semiconductor specifications for ultra-high purity fluid handling and chemical corrosion resistance. Featuring Daikin Japan's PTFE-TFM compound, the DTE series delivers superior chemical resistance over standard fluoropolymer materials.

・DTE系列針對半導體等級需求「高潔淨度、耐蝕需求」深度客製化。
・日本大金 PTFE -TFM原料超高耐蝕性較傳統材質大幅提升。

### Innovative 創新．突破

**Redefining Pneumatic Efficiency Through Proprietary Structural Engineering.**
**重新定義氣動效能：DINO特殊結構革新**

The exclusive R-type bellows geometry with optimized interconnection achieves three-dimensional stress distribution, significantly extending service life and reducing maintenance frequency.
The modular base mounting system enables flexible installation and direct brand-compatible replacement.

・專屬設計R型風囊結構與連結方式，透過立體應力分散，實現壽命延長大幅降低維護頻率。
・特殊腳座靈活安裝設計，可以自由替換自有品牌。

### Necessary 必要．信賴

**The Indispensable Taiwanese Solution for Semiconductor Manufacturing Processes.**
**半導體製程不可或缺的台灣方案**

Regional authorized distributors worldwide ensure rapid after-sales support with fast fault response times.
Vertically integrated domestic supply chain reduces lead times by 60% compared to imported brands.

・世界各地區專業代理商提供售後服務，故障排除反應時間快速。
・本土供應鏈垂直整合，交期較進口品牌縮短 60%。

### Outstanding 卓越．超群

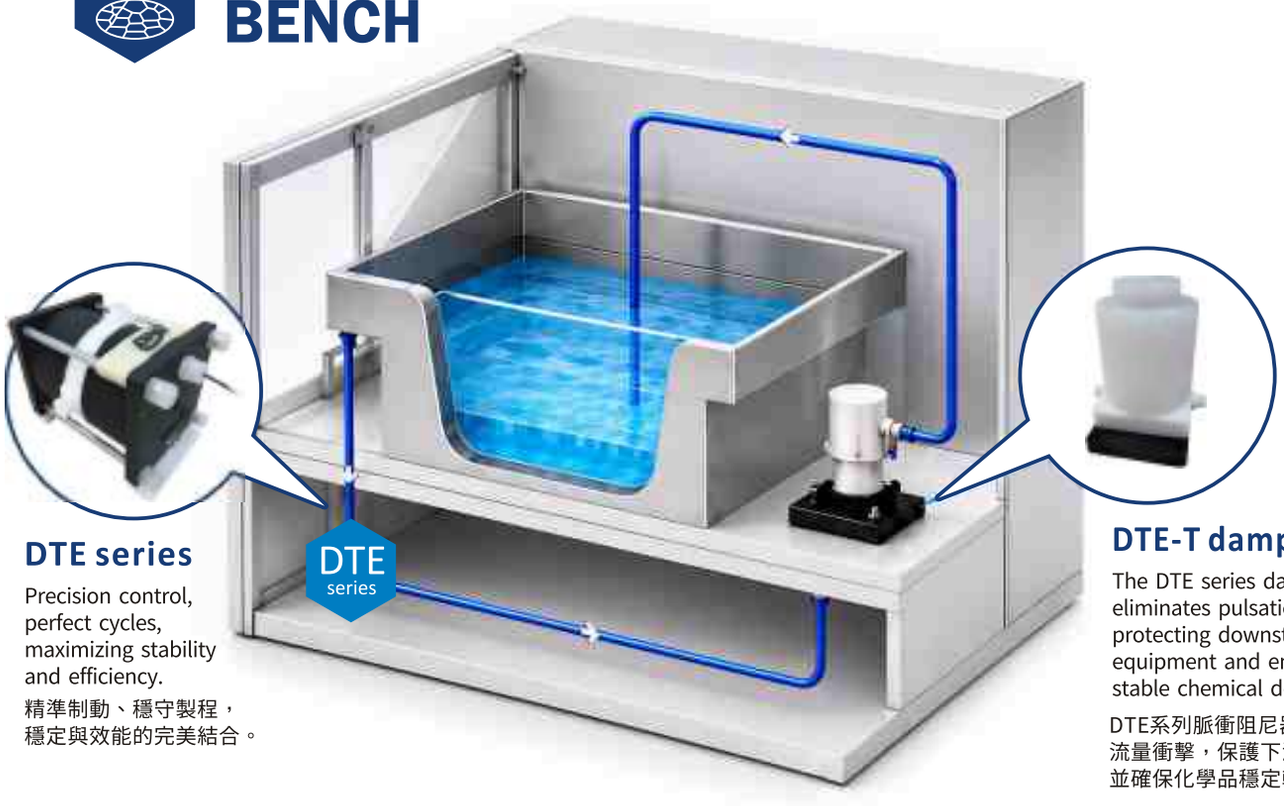
**MIT-Certified Global Performance, Redefining Industry Standards.**
**MIT的國際級性能，改寫產業規則**

Output efficiency exceeds Japanese equivalent-class products by 20%.
Validated through 10,000-hour continuous operation testing with performance degradation rate < 5%.

・輸出效率較日系同級產品提升 20%。
・10,000 小時連續運轉實測，效能衰減率 < 5%。

# EXAMPLE OF INSTALLATION 安裝示意圖

## WAFER WET BENCH




### DTE series

Precision control, perfect cycles, maximizing stability and efficiency.

精準制動、穩守製程，穩定與效能的完美結合。

### DTE-T damperer

The DTE series dampener eliminates pulsation surges, protecting downstream equipment and ensuring stable chemical delivery.

DTE系列脈衝阻尼器可消除流量衝擊，保護下游設備，並確保化學品穩定輸送。

## CHEMICAL SUPPLY SYSTEM




### DT series

Reliable transfer for stable and clean chemical delivery.

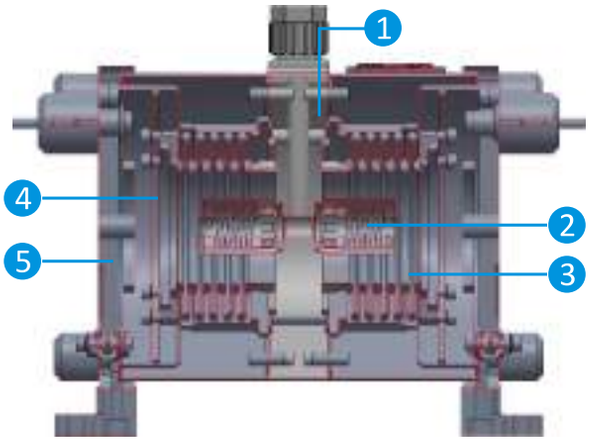
穩定可靠的輸送，確保化學品潔淨供應

### DT&DTE series

Pure flow for every critical process.

穩定純淨流體，確保製程零污染

## SECTIONAL VIEW 剖面圖




| No 編號 | Name 名稱 | Material 材質 |
|---|---|---|
| 1 | Body 主體 | TFM-PTFE |
| 2 | Check Valve 彈簧閥 | TFM-PTFE |
| 3 | Bellows | TFM-PTFE |
| 4 | Bellows Disk 圓盤 | SUS304 |
| 5 | Side Housing 側蓋 | Aluminum ( PTFE Coating) |

## SPECIFICATION 規格

| Model 型號 | DTE-15 | | | DTE-30 | | | DTE-60 | | |
|---|---|---|---|---|---|---|---|---|---|
| Max. discharge capacity 最大流量(LPM) | 15 | | | 40 | | | 67 | | |
| Max. air supply pressure 最大氣源壓力(MPa) | 0.15-0.5 | 0.15-0.3 | 0.15-0.2 | 0.15-0.5 | 0.15-0.3 | 0.15-0.2 | 0.15-0.5 | 0.15-0.3 | 0.15-0.2 |
| Liquid temperature rage 液體溫度(°C) | 5-50 | 51-100 | 101-180 | 5-50 | 51-100 | 101-180 | 5-50 | 51-100 | 101-180 |
| Max.air consumption 最大耗氣量($Nm^3/h$) | 17.5 | 10.2 | 6.5 | 39.5 | 23.7 | 15.6 | 46.2 | 29 | 19.2 |
| Max. stroke speed 最大衝程速度(SPM) | 192 | | | 202 | | | 158 | | |
| Pump connection size 接口尺寸 | 1/2" (Super 300 type) | | | 3/4" (Super 300 type) | | | 1"(Super 300 type) | | |
| Suction lift 自吸揚程(M) | 1 | | | 2 | | | 2 | | |
| Air source connection 氣源接口尺寸 (INCH) | Rc 1/4" | | | Rc 3/8" | | | Rc 3/8" | | |
| Ambient temperature 環境溫度 °C (°F) | 0~40 °C (32~104 °F) | | | | | | | | |
| Source voltage 電壓(V) | 10 ~ 60 | | | | | | | | |
| Drive system 驅動系統 | By proximity switch | | | | | | | | |
| Output type 輸出類型 | NPN / DC | | | | | | | | |
| Weight 重量(KG) | 8 | | | 19 | | | 35 | | |

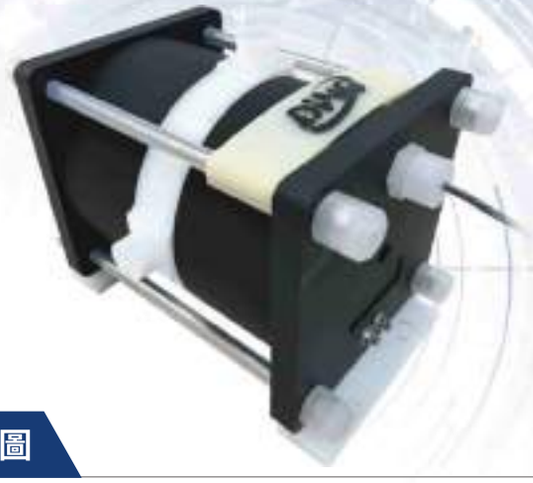
### NOTES 注意事項

1. Recommended operating condition: Air supply p ressure should be between 0.3 and 0.4 MPa.
   建議操作條件：氣源壓力操作介於0.3-0.4MPa之間。
2. Please read the product operation manual carefully before use.
   使用產品之前，請詳讀產品操作手冊。
3. The maximum discharge volume value is based on pure water at room temperature.
   最大排出量的數值是以室溫下的純水為基準測得。
4. The self-priming value is based on the maximum stroke speed with pure water at room temperature.
   自吸高度的數值是以室溫下的純水，
   在最大行程速度下測得。

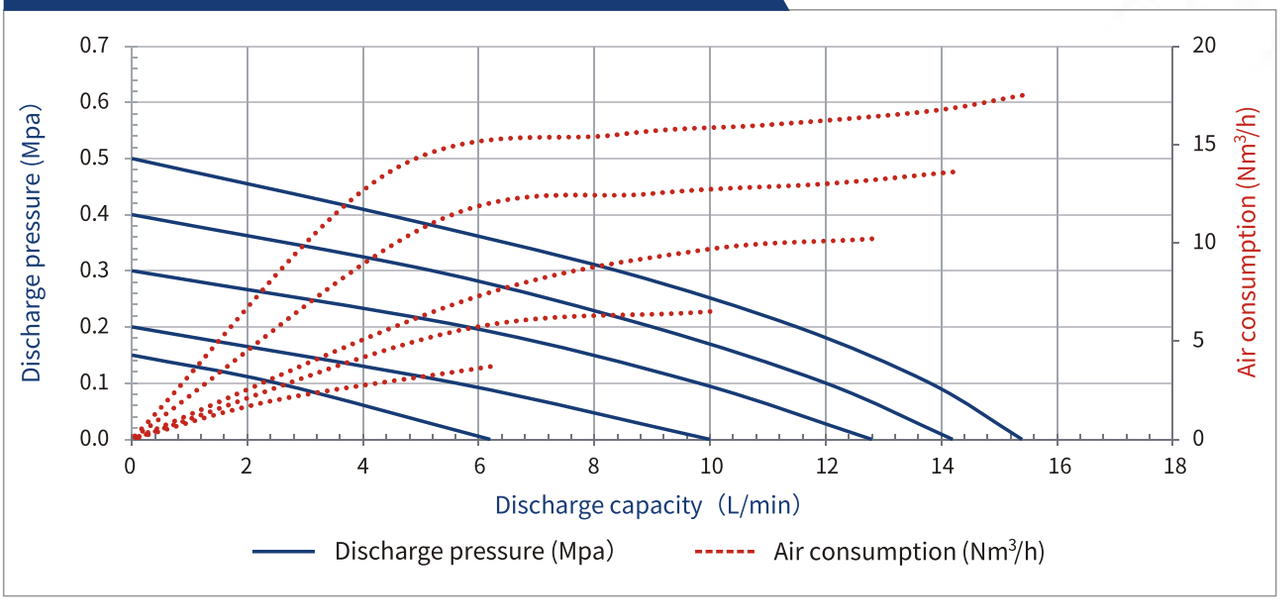
Aerotronic Bellows Pump

# DTE-15

## 1/2"



## PERFORMANCE CURVE 性能曲線圖

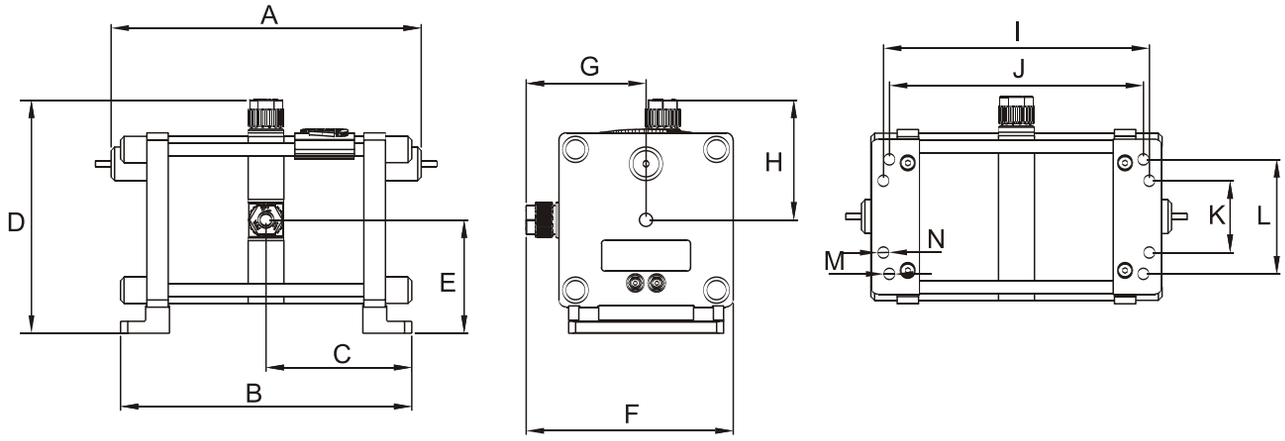



**TEST CONDITION 測試條件**

Piping size for air 空氣配管徑：Φ8 x Φ6 x 1m
Piping size for fluid 流體配管徑：Φ12.7 x Φ9.53 (1/2"PFA管)
Fluid 流體：Pure water

PURE WATER

## DIMENSIONS 尺寸圖



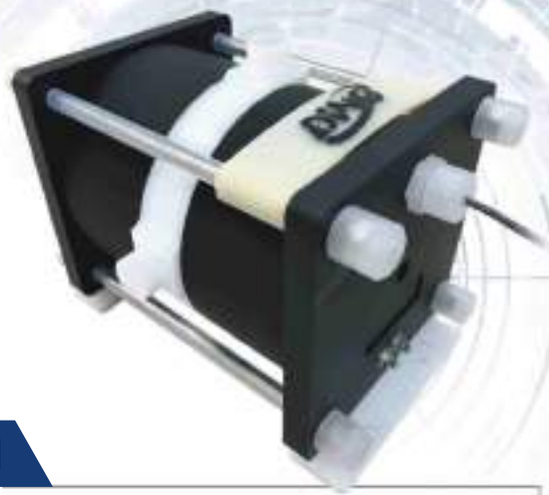

單位 mm

| Model 型號 | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DTE-15 | 260 | 244 | 122 | 195.5 | 95 | 173.5 | 100.5 | 100.5 | 223 | 213 | 60 | 96 |

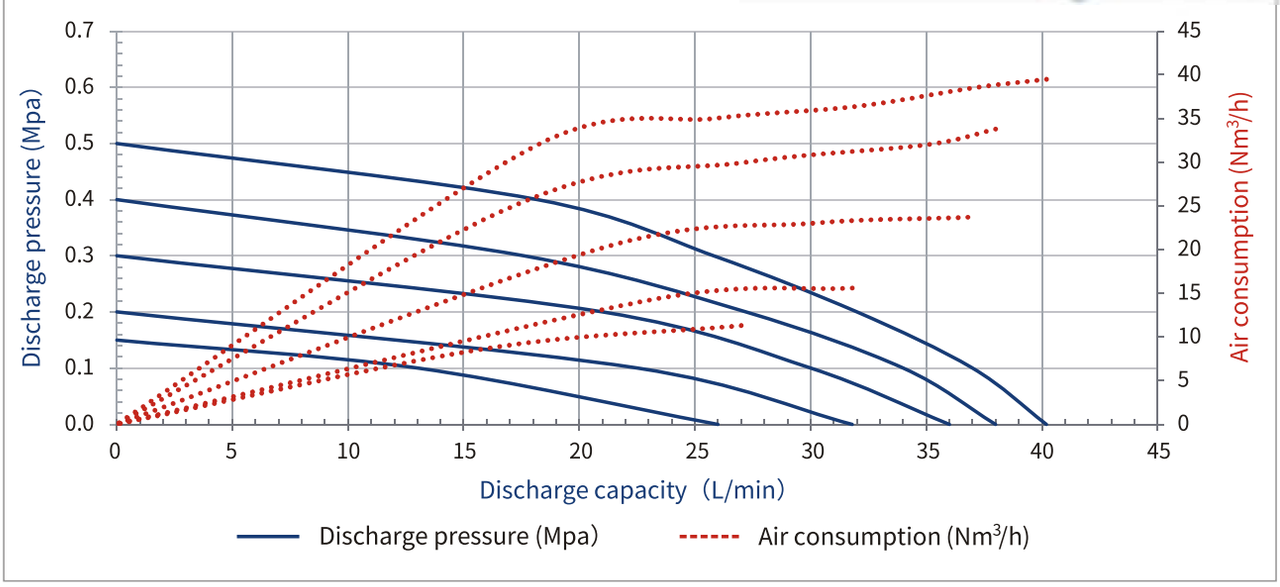
Aerotronic Bellows Pump

# DTE-30

## 3/4"



## PERFORMANCE CURVE 性能曲線圖

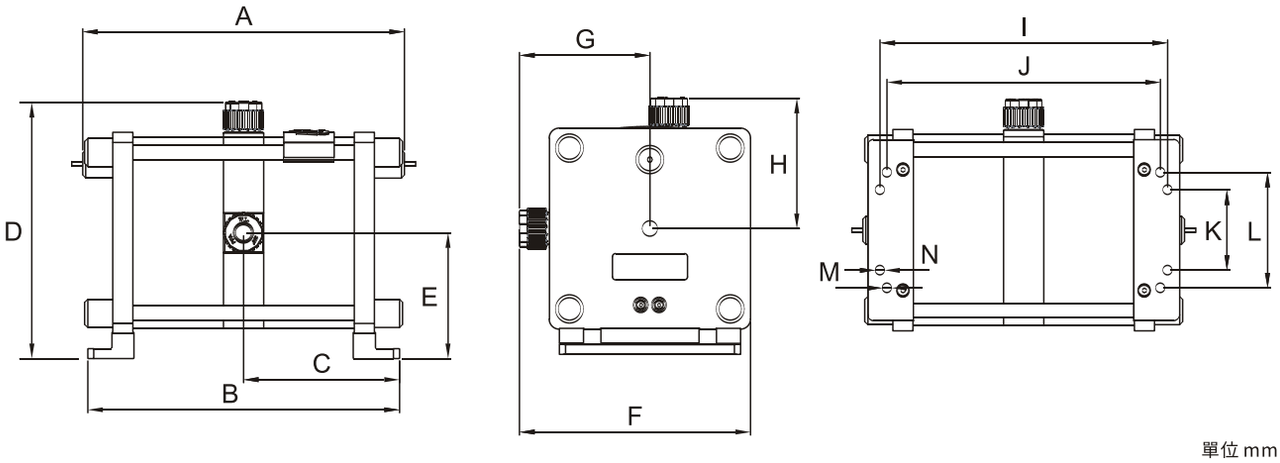



**TEST CONDITION 測試條件**

Piping size for air 空氣配管徑:Φ12 x Φ10 x 1m
Piping size for fluid 流體配管徑:Φ19.05 x Φ15.8 (3/4"PFA管)
Fluid 流體：Pure water

PURE WATER

## DIMENSIONS 尺寸圖




單位 mm

| Model 型號 | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DTE-30 | 320 | 310 | 155 | 254.7 | 125 | 229.7 | 129.7 | 129.7 | 286 | 272 | 80 | 115 |

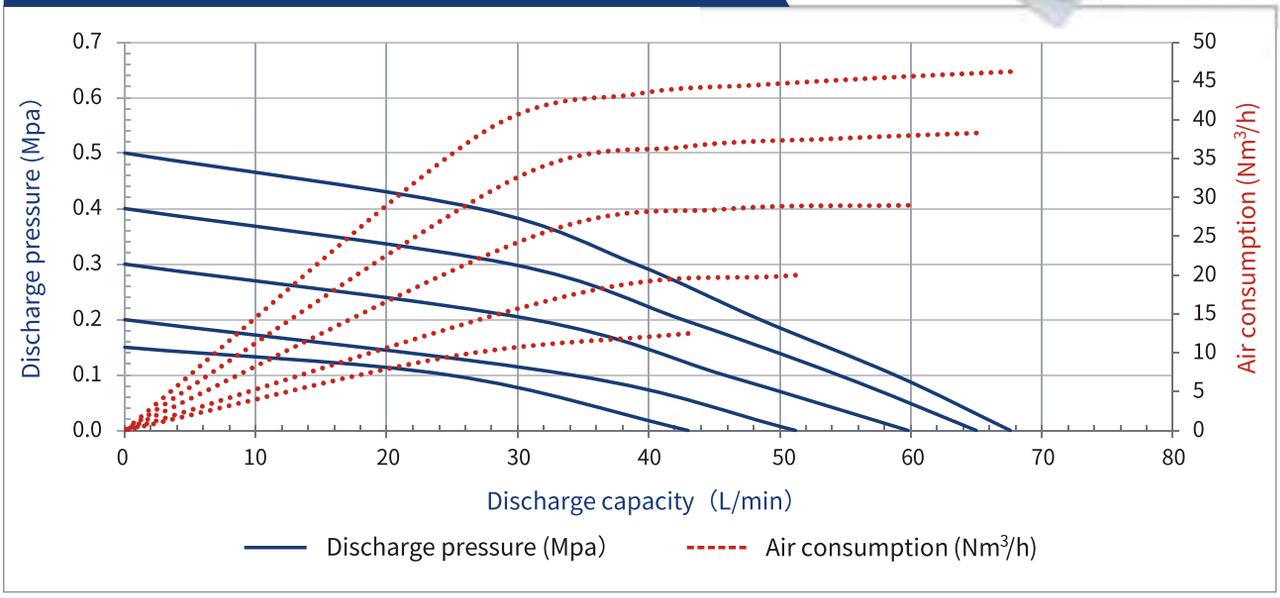
Aerotronic Bellows Pump

# DTE-60

## 1"



## PERFORMANCE CURVE 性能曲線圖

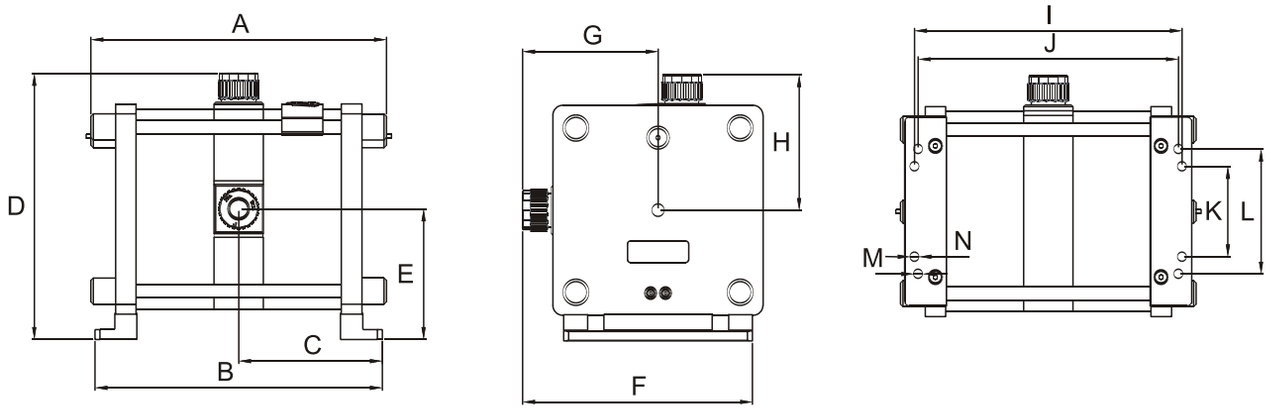



**TEST CONDITION 測試條件**

Piping size for air 空氣配管徑：Φ12 x Φ10 x 1m
Piping size for fluid 流體配管徑：Φ25.4 x Φ22.2 (1"PFA管)
Fluid 流體：Pure water

PURE WATER

## DIMENSIONS 尺寸圖




單位 mm

| Model 型號 | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DTE-60 | 360 | 350 | 175 | 324 | 159 | 280 | 165 | 165 | 326 | 317 | 110 | 152 |

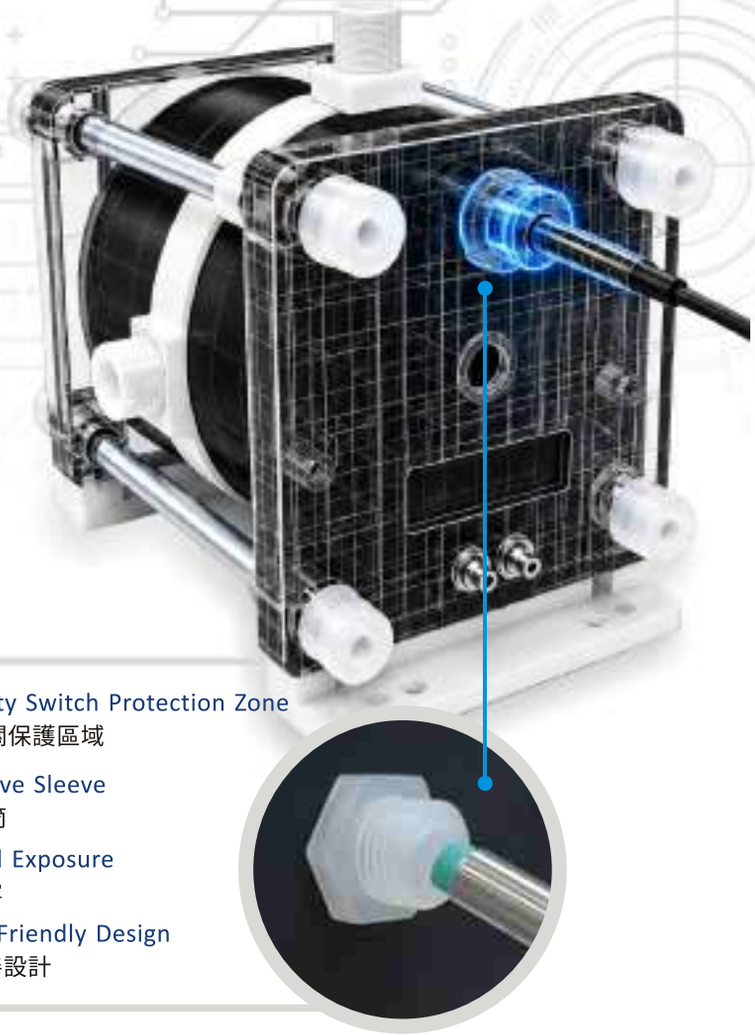
**Patented Advanced Switch Sleeve**
**專利進階開關套筒**

# ENGINEERED FOR HARSH ENVIRONMENTS. REFINED FOR LONG-TERM RELIABILITY.

## 為嚴苛環境而設計
## 為長期可靠而進化

The patented advanced switch sleeve is built with a higher level of structural protection to address acid corrosion, maintenance efficiency, and long-term system reliability.

專利設計進階開關套筒，以更高層級的結構保護思維，回應酸氣腐蝕、維修效率與設備長期穩定的核心需求。




### COMPLETE PROTECTION, BEYOND ACCESSORIES.
### 提供完整防護，超越單一配件

In semiconductor manufacturing, product value is defined by long-term stability and trust not just installation. The DTE Advanced Switch Sleeve redefines structural protection, delivering the durability and operational efficiency that demanding processes require.

在半導體製程中，產品價值不只在於安裝，更在於長期穩定、可靠的持續表現。DTE進階開關套筒以更成熟的結構保護思維，突破傳統金屬外露的限制，回應設備對耐久性與維護效率的核心需求。

### STRUCTURAL OPTIMIZATION, LASTING PERFORMANCE.
### 結構全面優化，成就長期績效。

The advanced switch sleeve delivers enhanced corrosion resistance, easier maintenance, and improved long-term reliability. More than a structural upgradeit reflects a complete industrial design philosophy and a commitment to enduring value.

不只是結構改良，更是完整工業設計哲學的體現，也是對長期價值的承諾。

# REDEFINING PROTECTION
## 重新定義保護邏輯




## DESIGNED AROUND SAFETY. BUILT FOR CONTINUITY.
## 以安全為界，為穩定延續

**FULL-COVERAGE PROTECTION**
**全包覆防護設計**

**PRECISION RAPID ALIFNMENT**
**快速定位與安裝**

**EFFORTLESS MAINTENANCE**
**高效拆卸與更換**

### VALUE COMPARISON 價值對照表

| ITEM 項目 | CONVENTIONAL SLEEVE 傳統設計 | ADVANCED SWITCH SLEEVE 進階開關套筒 |
|---|---|---|
| PROTECTION<br>保護邏輯 | Large exposed metal areas<br>外露金屬面積大，易受環境侵蝕 | Full Patented Enclosure<br>專利包覆結構，完美阻絕環境侵蝕 |
| MAINTENANCE<br>維護需求 | Frequent disassembly due to corrosion<br>腐蝕造成拆卸頻率高，維護成本高 | Rapid Disassembly & Auto-Alignment<br>拆卸簡易，具備自動精準定位 |
| CORROSION RISK<br>腐蝕風險 | High corrosion risk<br>高腐蝕風險，影響元件壽命 | Lower corrosion risk, extended component life<br>降低腐蝕風險，延長元件壽命 |
| DOWNTIME<br>停機時間 | Higher failure rate, longer downtime<br>故障率較高，停機時間長 | Streamlined Replacement<br>更換元件高效快捷，大幅縮短停機時間 |
| OVERALL VALUE<br>整體價值 | Higher total cost, limited reliability<br>總體擁有成本較高，可靠性受限 | Plug-and-Play Low TCO<br>無需特定安裝技術，維修快捷且總體成本低 |

# ALL-ROUND PTFE REINFORCED SIGNAL CABLE 100% ACID-PROOF PROTECTION FROM CONNECTOR

## 全方位PTFE強化訊號線
## 從接頭到線纜，實現100%酸氣屏障




### 01 Industry-Leading Cable Selection 業界領先線材選型

Moving beyond the common PUR or PVC cables found in standard sensors, DINO has developed specialized Full-PTFE encapsulated signal cables specifically for high-concentration acid and base environments.

不同於標準型感測器常見的 PUR 或 PVC 電纜 ，DINO專門為高濃度酸鹼環境開發出全PTFE(聚四氟乙烯)包覆訊號線。

### 02 Weather & Chemical Resistance 耐候與抗化學侵蝕

Offering superior corrosion resistance, chemical solvent tolerance, and high thermal stability, effectively preventing cable embrittlement, electrical leakage, or signal anomalies caused by acid vapor infiltration.

具備卓越的抗腐蝕性、耐化學溶劑性與極高的熱穩定性，有效防止因環境酸氣滲透導致的線材脆化、漏電或訊號異常。

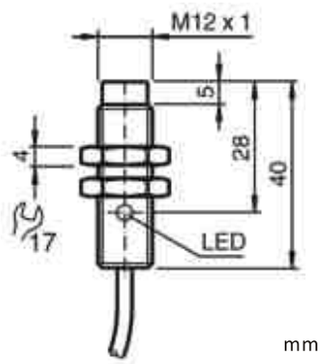
### 03 Technical Upgrade & Compatibility 技術升級與兼容

By integrating premium sensor specifications with DINO's specialized PTFE cables and patented housings, we deliver the most durable sensing modules for the most demanding environments.

結合感測器本身優異的技術規格，再加乘上DINO的特製線材與專利套筒，打造出最為耐用的感測模組。

| Sensor Size 規格 | |
|---|---|
| Overall Length 線長 | 40mm |
| Thread 接線頭 | M12x1 |

Dimension 尺寸圖




100% PTFE Encapsulation
**100%PTFE封裝**

Acid-Proof Protection
**全面抗酸保護**

Chemical Resistance
**耐化學腐蝕**

High Thermal Stability
**高熱穩定性**

# OPTIONAL ACCESSORIES 配件



| Models 型號 | Connection Size接頭尺寸 | Applied Pumps 適用泵浦機型 |
|---|---|---|
| VEQ-1 | 1/4" NPT | DTE-15 |
| VEQ-2 | 3/8" NPT | DTE-30、DTE-60 |

## QUICK EXHAUST VALVE 快速排氣閥

Positioned at the critical interface between the pump flank and solenoid valve, this device blocks gas backflow to eliminate solenoid corrosion. Its optimized exhaust flow path slashes actuation resistance, delivering ultra-stable stroke consistency under high-cycle semiconductor process demands.

精密介接泵浦側與電磁閥之間，阻斷氣體回流路徑，從根本消除電磁閥腐蝕風險。優化排氣流道大幅降低作動阻力，確保高頻製程下每一次行程穩定如初。



## DAMPENER 脈衝吸收器

The DTE-T2 pulsation dampener absorbs pressure fluctuations to ensure stable processes. It utilizes PLC linkage for real-time pressure compensation to handle variable flow.

DTE-T2 脈衝吸收器主動吸收泵浦壓力波動，確保製程穩定。

透過 PLC 聯動實現即時智能壓力補償，從容應對各種變流量工況。

| Models 型號 | Liquid contact materials 液體接觸材質 | Max. temperature range 最高耐溫溫度 | | Max. air supply pressure 最大氣源壓力 | Air connection size 氣源接口尺寸 |
|---|---|---|---|---|---|
| | | Standard Version 一般款 | High-Temp Version 高溫款 | | |
| DTEP-15 | PTFE、TFM | 100 °C | 180 °C | 0.15 - 0.5MPa | Rc 1/4" |
| DTEP-30 | | | | | |
| DTEP-60 | | | | | |

## Flexible foot-base options 腳座選擇

Cross-Brand Footprint Compatibility: Precision-engineered to match the mounting patterns of the two leading Japanese brands. Achieve a true "painless replacement" with no need for re-drilling or bracket modification, ensuring a seamless upgrade in seconds.

跨品牌腳座相容設計：完美適配市面上兩大日系品牌之安裝孔位，實現真正的「無痛替換」，無需重新鑽孔或安裝架治，讓您的設備升級在轉瞬之間無縫銜接

## EX Signal Cable options 防爆線材選配




Versatile Wiring Solutions: 2M high-spec EX-signal cable comes standard, with 5M and 10M options available. Flexible configurations to overcome on-site wiring challenges and ensure uncompromised signal integrity regardless of distance.

多樣化配線方案：防爆線標配2M高規訊號線，並同步提供5M與10M長度選配，彈性應對各現場線的現場佈線需求，確保訊號傳輸不受空間限制

# SAME DIMENSION.
# DIFFERENT LIMITS.

# 相同次元
# 不同極限




## SEAMLESS RETROFIT.
## BORN FOR EXTREMES.
### 無縫升級，為極端環境而生

The DINO EX-Series preserves the same external dimensions and installation rhythm as the standard model，while delivering key upgrades in base material and signal-cable design.

DINO EX-Series 防爆款，延續標準型一致的外型尺寸與安裝節奏，卻在底座材質與訊號線設計上完成關鍵升級。

> When seeking higher safety standards, you shouldn't have to changeyour habits. The same quiet operation, the same performance, the same installation rhythm. t is only in moments of extreme crisis that this invisible protection reveals its true value.

**A**

**Zero-Resistance Integration**
**零阻力整合**

100% mechanical compatibility with existing process setups.

**B**

**Reinforced Foundation**
**特殊強化底座**

Enhanced physical stability, chemical resistance, and static dissipation.

**C**

**Specialized EX-Signal Wiring**
**特製化防爆線材**

Pressure, temperature, and chemical-resistance wiring for reliable signal integrity.

帝隆科技事業有限公司 DINO TECHNOLOGY CO., LTD.
http://www.dino.com.tw