

# MICROBASE<sup>®</sup>

Crafting  
**Tomorrow's**  
Innovative Solutions,  
**Today's**  
Engineering Excellence.



Precise Flow,  
Perfect Nozzle Plate



Respiratory  
Healthcare Companion



Revolutionizing  
with Microneedles

# MICROBASE<sup>®</sup>

## TECHNOLOGY CORP.

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Originating in Taiwan, Elevating healthcare standards

## About Us

### Vision

To be the preferred global provider of high-quality manufacturing solutions, setting the standard for innovation, reliability, and sustainability in the respiratory healthcare and nozzle plate industry.

### Mission

Our mission is to deliver pioneering manufacturing services that exceed customer expectations, drive industry advancements, and contribute to the growth and success of our partners and stakeholders.

### Values

We implement strict quality control measures at every stage of the manufacturing process. This includes thorough inspections, testing, and adherence to international quality standards. Our aim is to produce products that consistently meet or exceed customer expectations.

## Our Service

- Contract Development and Manufacturing Organization (CDMO)
- ISO/IEC 17025 Inhaled Product Analytic
- Polyimide Processing
- Microneedle Platform
- Nozzle Plate



**Founded in  
1997**



**Patents  
400+**



**Employees  
100+**



**Volume  
1M+**

## Certificates/Awards

2008: FDA certification.

2010: The 18th Taiwan Industrial Technology Advancement Award.

2012: The 2012 Taipei Biotech Awards Biotechnology Commercialization.

2013: Taiwan Medical Device Manufacturing License.

2014: CE and TFDA certification.

2016: Established the Shanghai branch.

2016: The Taiwan Excellence Award for the POCKET AIR® Portable Nebulizer.

2017: Cosmetic products obtained EU CPNP2 landing license.

2018: Cosmetic products obtained Chinese certification.

2020: The Halal Certificate and TFDA Class I medical device approval.

2021: ISO 13485:2016 & EN ISO 13485:2016 certification.

2022: Medical device certification in Australia and Brazil.

2023: Calibration laboratory achieved ISO/IEC 17025 certification.

2024: LoyalCare nebulizer system was awarded the Taiwan Excellence Award and has obtained the Taiwan Medical Device License.





# Respiratory Healthcare Companion



## Hands-Free Nebulizer

Experience the treatment without having to hold the nebulizer anymore. Reduce strain on your wrists and hands. The connector has passed the IEC 60601-1 certification. MB05009 is suitable for all ages, while MB05010 offers a gentler medication delivery, making it ideal for both the elderly and children. Its quiet operation only 37dB, allows toddlers to enjoy the treatment without disturbance.



Homecare



## Inline Nebulizer

LoyalCare, a global first in PI material inline aerosol drug delivery platform, is designed for use in intensive care units and long-term care facilities, specifically for patients requiring ventilators or other positive airway pressure, during invasive mechanical ventilation (IMV), non-invasive ventilation (NIV) and high-flow (HF) therapies.



ICU/Long-Term Care

## SILENTNEB Disposable Mesh Cup Nebulizer

Minimize medication cross-contamination, lower the risk of patient cross-infection, enhance aerosol performance, and address cleanliness concerns.

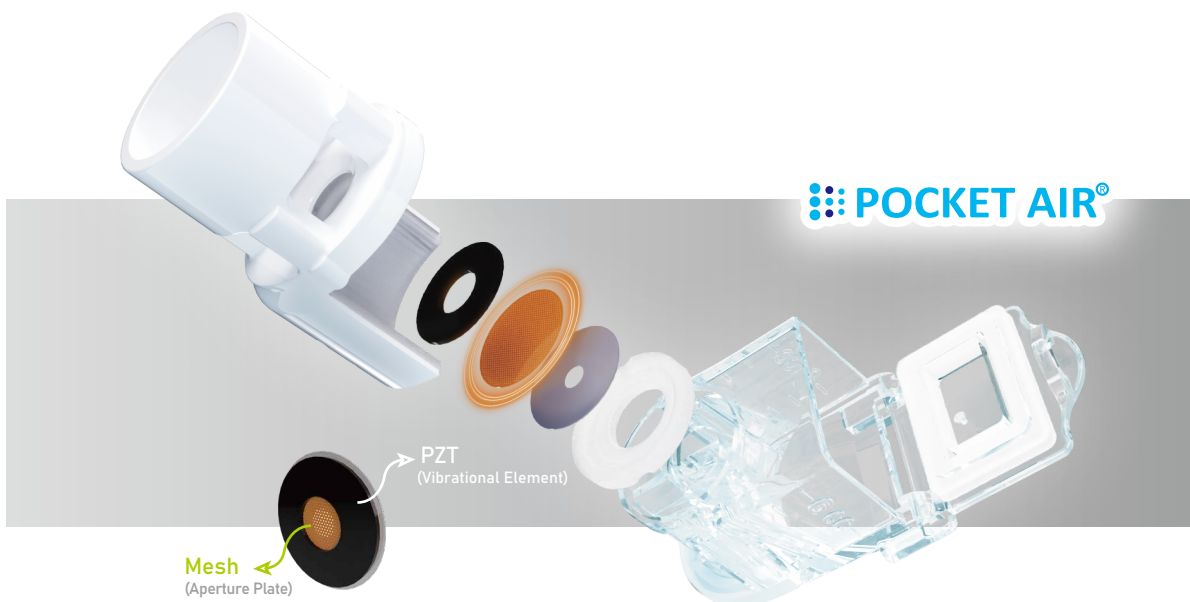


Hospital / Clinic

We utilize advanced science to develop our aerosol delivery technologies, offering optimal solutions for our business partners. Polyimide boasts outstanding biocompatibility, durability, and corrosion resistance, ensuring enhanced safety across various drugs and applications. POCKET AIR® comprises a series of vibrating mesh nebulizers showcasing our innovative polyimide mesh technology.

## Advantage technology

- Complete solutions for homecare, ICU, long-term care, and hospitals.
- The polyimide mesh module, with tiny particles arranged in an orderly manner, ensures superior atomization.
- Materials for medication cups have all passed biocompatibility safety tests, guaranteeing non-toxicity and high temperature resistance.





# Respiratory Healthcare Companion

**SOMIST<sup>®</sup>**

**Soft Mist Inhaler**

The inhaler is a medical device fill in aerosolization medicine or related formulation for respiratory treatments. It only needs twist, open and press while using the device.



**Propellant-Free Inhaler**

**POCKET AIR<sup>®</sup>**

*Breathe easily, live freely*

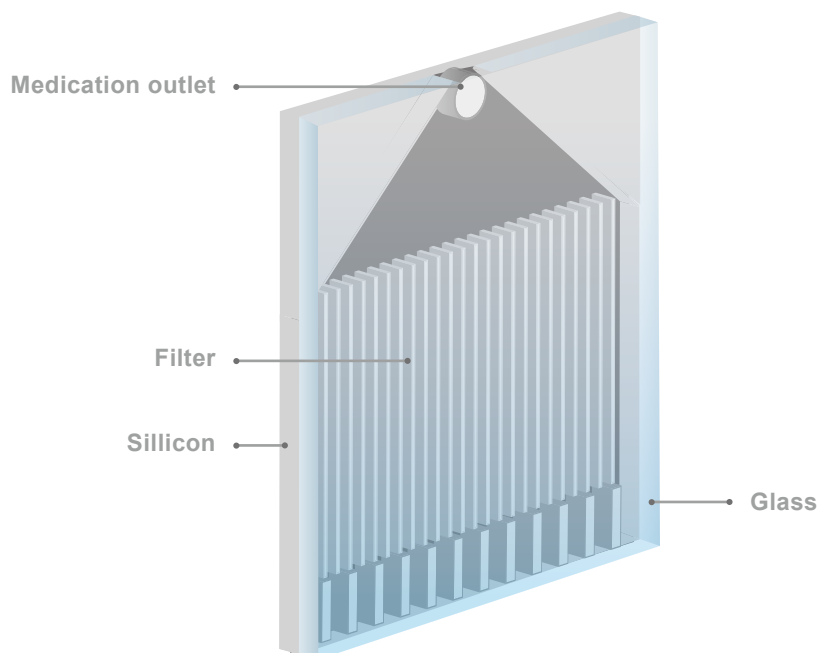
*Precision medication for pulmonary health.*



A key technical breakthrough was the microchip, a component combining filters and nozzles and made of silicon and glass, through which drug solution is forced using mechanical power. This allows two converging jets of solution to collide at a controlled angle, generating a fine aerosol of inhalable particle. The mechanical energy comes from a spring which is tensioned by twisting the base of the device.

## Advantage technology

- Cloudy velocity is 0.8 m/sec
- The spray duration approximately 1.5 seconds.
- Using semiconductor industry technology to deliver a fine, slow-moving mist, ensuring consistent and reliable dosage delivery to reduces the risk of overdosing.

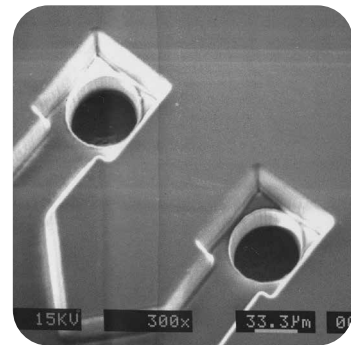
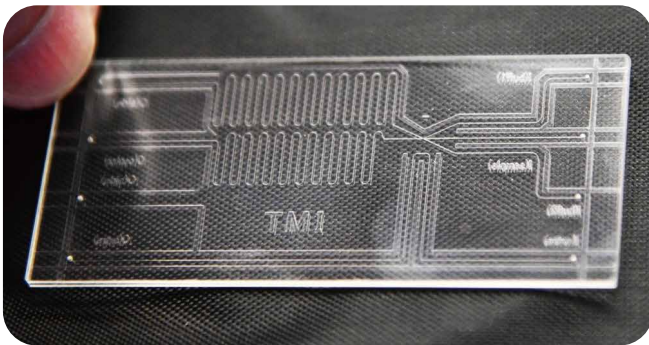




# Precise Flow Perfect Nozzle Plate

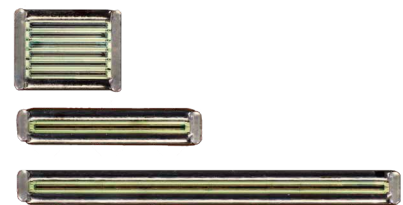
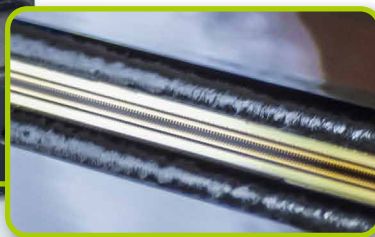
## Microfluidic Channel

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## Micro Holes

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MicroBase utilizes a stable laser source and precise alignment equipment in Laser-LIGA technology. We have extensive experience in laser drilling, laser cutting, and the measurement systems of automatic semi-automatic processes.

### Application

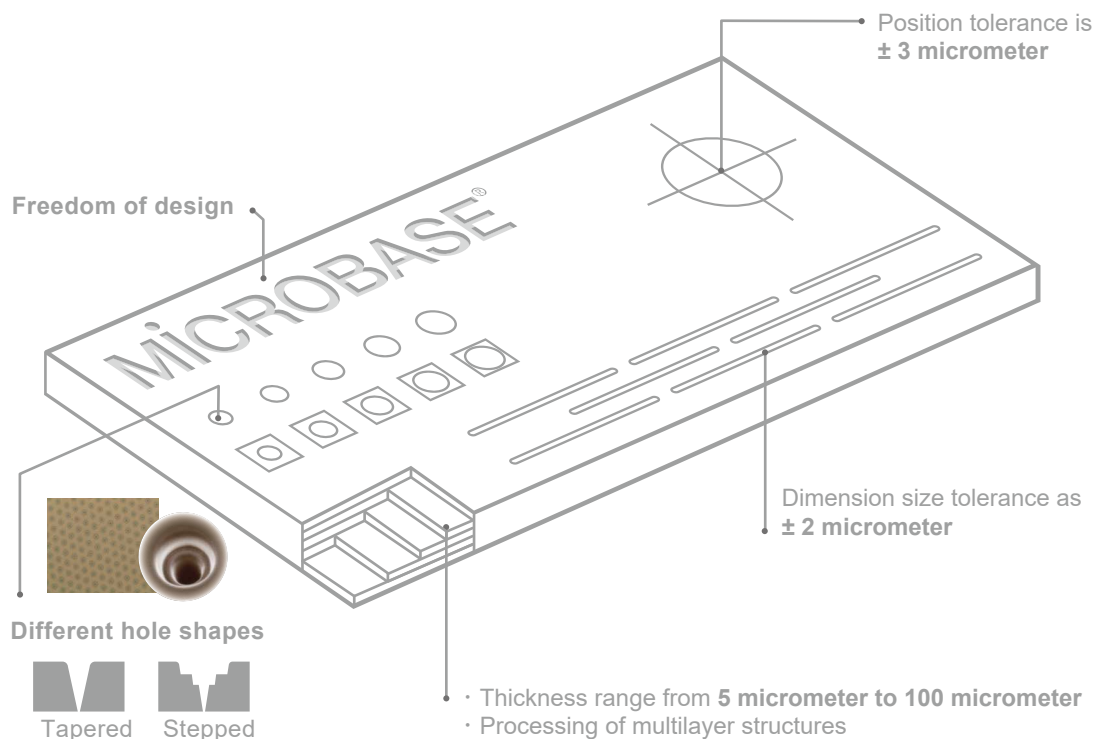
- Microfluidic Channel
- Inkjet Print head
- Ink cartridge
- Nebulizer

### Materials

- Polyimide
- Polymer
- PEEK
- PET

### Advantage technology

- Product size up to 20 X 3000 mm.
- Minimal feature size down to below 3 micrometer.
- Burr-free, stress-free components with ultra smooth surface and clear edges.





# Revolutionizing Skincare with Microneedles



Utilizing yellow light and a non-silicon-based electroplating molding process alongside microneedles, a cutting-edge cosmetic technology, the MicroBase features microneedles typically measuring under 3 microns in diameter and 1-100 microns in length. Its distinctive hypercube microcrystalline structure enhances skin penetration through rapid vibrations, oscillating ten times per second in both upward and downward directions, creating micro-channels in the skin. This facilitates the effective penetration of tough cuticles, enabling a deeper and more efficient delivery of skincare products, effectively doubling the skin's absorption capacity.

## Features

- Non-stimulating
- Non-heated
- Non-invasive
- High-safety

## Product

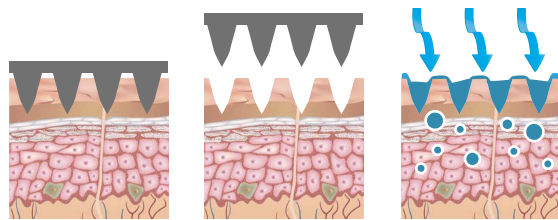
- 3D Micro-infusion Professional
- 3D Micro-Crystalline Eye Mask
- Refreshing 3D Micro-infusion

## Advantage technology

With MicroBase's uniquely patented design, we guarantee a painless experience for users. Our innovative approach distinguishes us from others, prioritizing your comfort above all else.

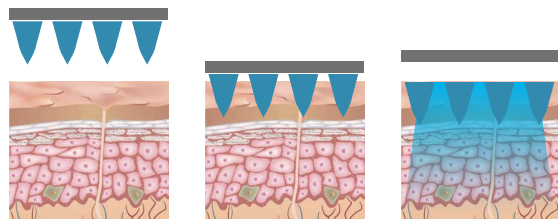
### 01 Insoluble microneedles

The use of insoluble micro tips, coupled with machine vibration, generates thousands of infiltration channels within the cuticle layers. This results in excellent performance in promoting hair growth and enhancing skin care.



### 02 Soluble microneedles

This highly potent moisture supplement delivers essential nutrients such as Hyaluronic Acid (HA) and Vitamin C to enhance and nourish your skin. It's designed to effectively combat issues like dullness on the face, in the female triangle area, and underarms.





# In-Vitro Performance Testing Services and Calibration Services



## 01 ISO/IEC 17025 Inhaled Products In-vitro Performance Testing Services

- Product Development
- Droplet Size by Laser Diffraction
- Aerodynamic Particle Size Distribution
- Breath Simulation
- Delivered Dose Uniformity
- Spray Pattern and Plume Geometry
- NGI / ACI Stage Mensuration

## 02 ISO/IEC 17025 Accredited Calibration Services

- Video Measurement System
- Weight
- Balance
- Volumetric Flask
- Micro pipette
- Measuring Cylinder
- Dispensers

## Advantage technology

- Expert in Inhaled Product Testing Service
- Regulatory Experience Around the World
- Bringing Your Inhaled Product to Marke



## Equipment

- Spraytec
- Next Generation Impactor (NGI)
- Andersen Cascade Impactor (ACI)
- BRS1100 Breathing Simulators
- ASL 5000 Breathing Simulator
- Facemask Testing (Adult/Child/Infant)
- Ventilation System
- SprayVIEW
- Dosage Unit Sampling Apparatus (DUSA)
- High Performance Liquid Chromatography (HPLC)
- Viscometer

# MICROBASE<sup>®</sup>

TECHNOLOGY CORP.

| Innovate | Impact | Inspire |



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