

**MEST**  
SMART DISPENSING

# MEST Dispensing Solutions For Automotive Electronics

汽车电子智能涂胶方案



**MEST**

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# MEST

让点胶更简单 SMART DISPENSING

## 洞见未来, 智驭前行

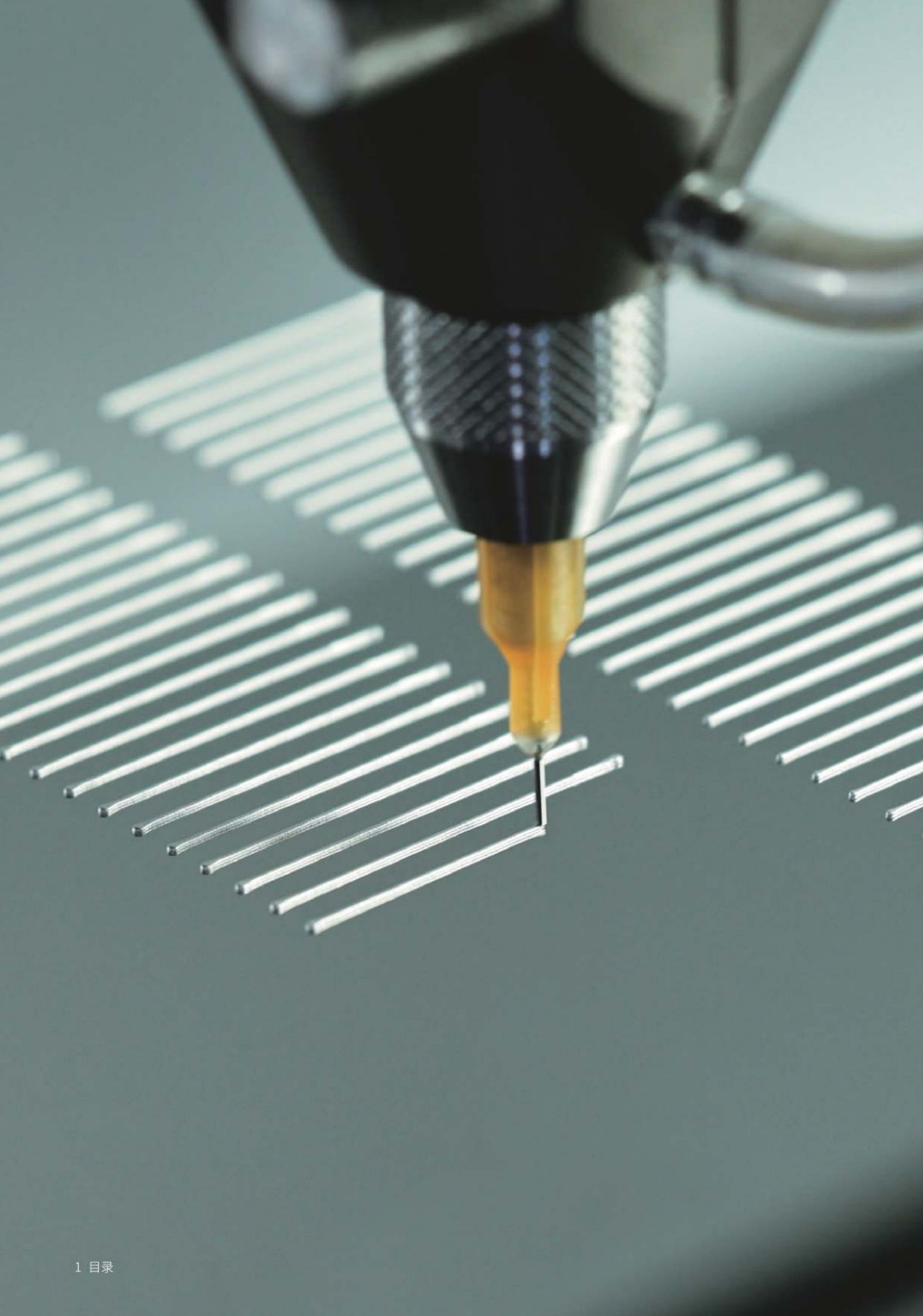
在汽车产业智能化与电动化浪潮中, 电子元器件愈发微型化、精密化。因而, 精密流体控制技术正成为电子系统可靠性的核心保障。从复杂电路的精准点胶, 到关键部件的密封防护。MEST以卓越品质为汽车电子的可靠性保驾护航, 助力汽车产业迈向智能化、高性能未来。

## Insight into the Future Intelligent Control for Progress

The growing tendency of the intelligence and electrification in the automotive industry make electronic components more and more miniaturized and sophisticated. Therefore, precision fluid control technology is becoming the core guarantee of the reliability of electronic systems.

From precise dispensing of complex circuits to sealing and protecting critical components. MEST Technology ensures the reliability of automotive electronics with excellent quality and put a new complexion on the automotive industry.





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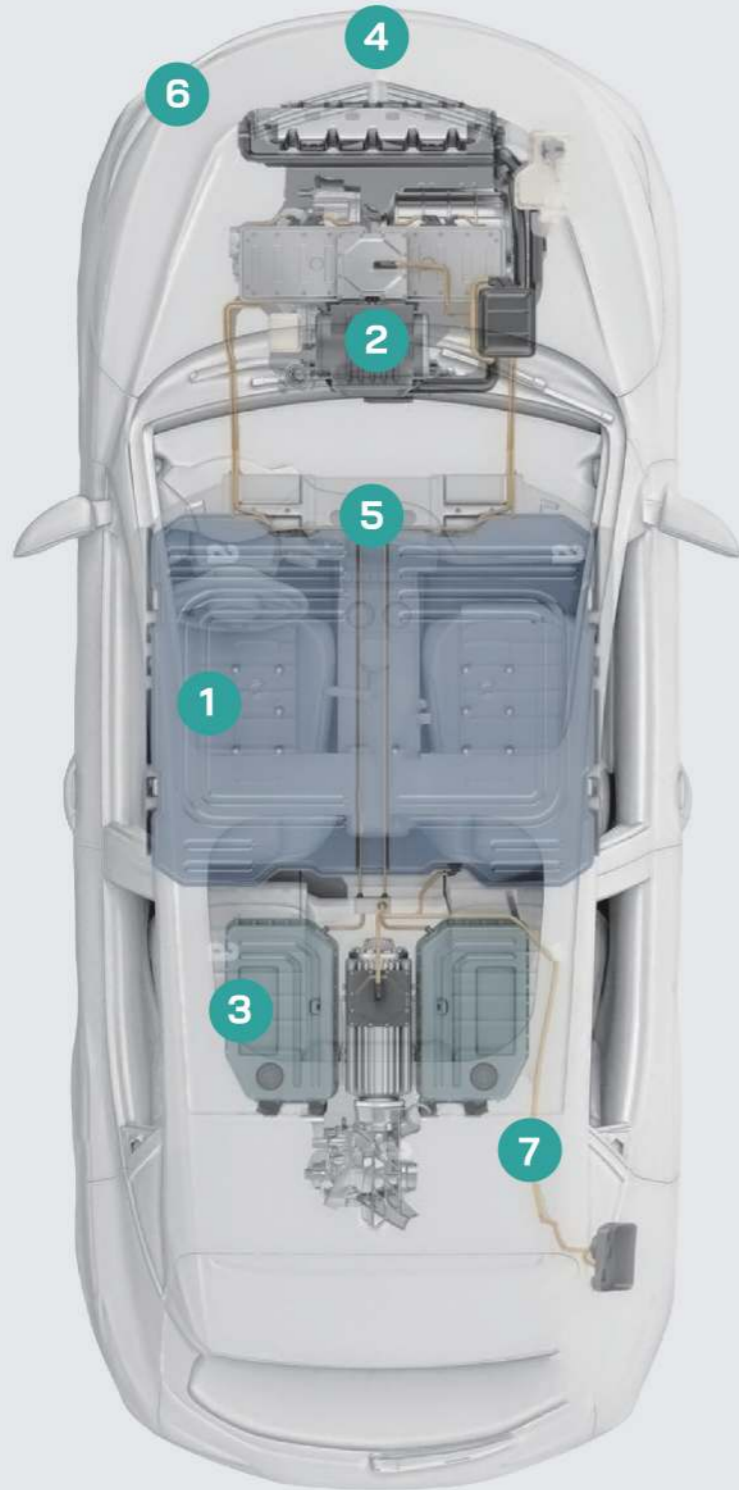
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# 汽车电子点胶应用




## AUTOMOTIVE ELECTRONICS DISPENSING APPLICATIONS




- 1







**Battery Management System (BMS)**  
电池管理系统 (BMS)




  
- 2








**Motor Control Unit (MCU)**  
电机控制单元 (MCU)




  
- 3








**Vehicle Control Unit (VCU)**  
整车控制系统 (VCU)





  
- 4








**Automotive Radars & Sensors**  
汽车雷达与传感器





  
- 5







**Displays & Intelligent Cockpit**  
智能座舱显示系统





  
- 6







**Automotive Lights**  
车灯




  
- 7



**Wire Harness**  
线束



# 汽车点胶工艺应用

## AUTOMOTIVE DISPENSING PROCESS APPLICATIONS



### 导热 THERMAL CONDUCTIVITY

提高材料散热性能, 确保产品正常运行  
Enhances heat dissipation to ensure optimal product performance.



### 密封 SEALING

作为连接元件, 隔绝敏感部位免受外部环境影响  
Acts as a barrier to protect sensitive components from external environmental factors.



### 粘接 BONDING

紧密连接两个或两个以上部件  
Permanently joins two or more components with high strength.



### 涂覆 COATING

保护材料免受腐蚀, 延长使用寿命  
Protects materials from corrosion, extending service life.



### 绝缘 INSULATION

绝缘层上实现精确的涂层和密封  
Enables precise coating and sealing on insulating layers.



### 灌封 POTTING

保护敏感材料不受外部影响  
Safeguards sensitive materials against external influences.





# 液体材料

## LIQUID MATERIAL

为满足日益多样化、微型化和高性能化的应用需求,点胶技术升级的同时,相关液体材料也不断更新换代。不同用途和种类的液体材料,其材质、粘度、固化条件方面也千差万别。了解液体能够帮助点胶机选型,从而最大限度发挥机器与液体材料的作用。

To meet the increasingly diverse, miniaturized, and high-performance application demands, dispensing technology has been upgraded, while related liquid materials have also evolved. Liquid materials for different purposes and types vary significantly in composition, viscosity, and curing conditions. Understanding the liquid properties helps in selecting the right dispensing equipment, thereby maximizing the synergy between the machine and the liquid material.

### ADH

#### ADHESIVE 粘合剂

环氧树脂胶粘剂、厌氧性粘合剂、热熔性粘合剂、丙烯酸酯胶粘剂、UV固化粘合剂等。  
Epoxy adhesives, anaerobic adhesives, hot melt adhesives, acrylic adhesives, UV-curable adhesives, etc.

### LUBE

#### LUBRICANTS 润滑剂

硅油、硅脂、工业用油、发动机润滑油、电动机润滑油等。  
Silicone oils, silicone greases, industrial oils, engine lubricants, motor lubricants, etc.

### RES

#### RESINS 树脂

UV树脂、LED密封树脂、环氧树脂、CIPG、乙烯基酯树脂等。  
UV resins, LED encapsulating resins, epoxy resins, CIPG (Cured-In-Place Gaskets), vinyl ester resins, etc.

### LM

#### LIQUID MATERIALS FOR PCB ASSEMBLY 印刷电路板贴装相关液体材料

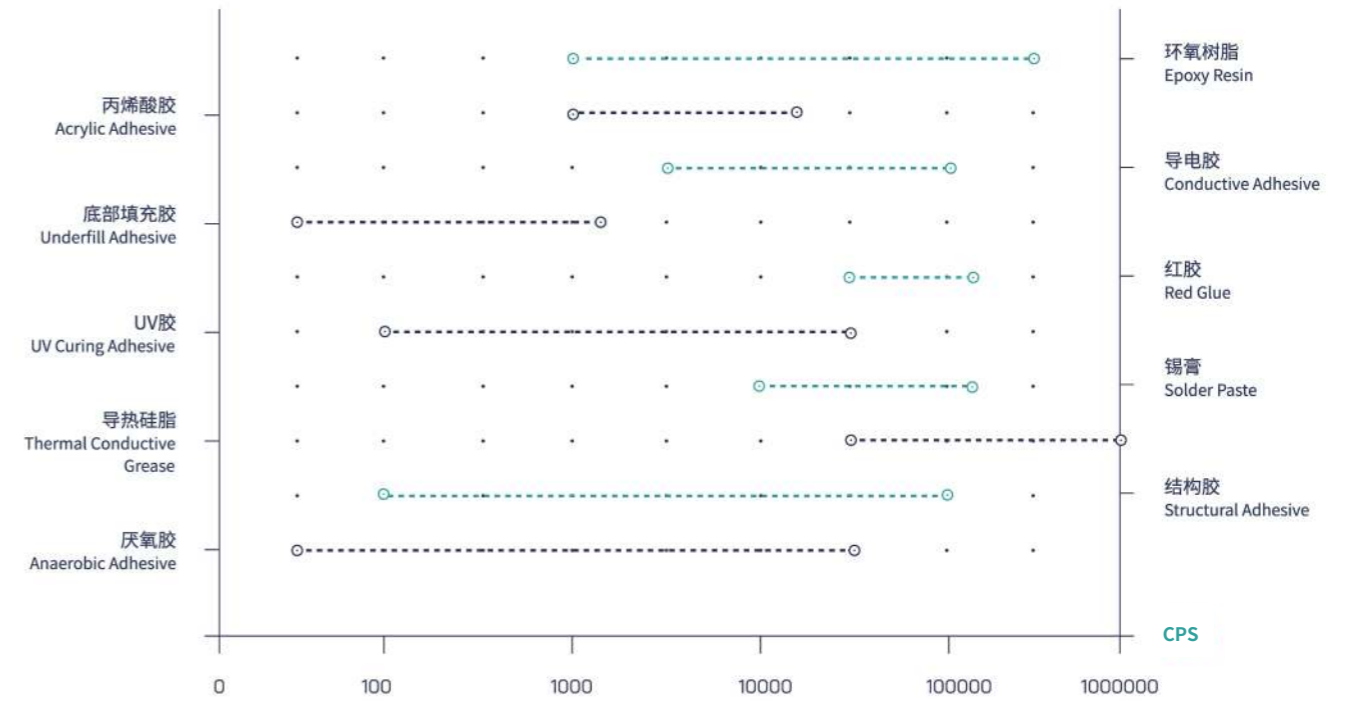
底部填充剂、焊剂、导电性粘合剂(银焊膏)、聚氨酯粘合剂、抗蚀剂、防湿剂等。  
Underfill materials, fluxes, conductive adhesives (silver pastes), polyurethane adhesives, photoresists, moisture barriers, etc.

### COAT

#### COATINGS 涂料

油墨、燃料、油漆、溶剂类涂料、水型涂料等。  
Inks, dyes, paints, solvent-based coatings, water-based coatings, etc.

液体材料粘度表  
LIQUID MATERIALS VISCOSITY CHART





# 热管理

## THERMAL MANAGEMENT

据统计, 电子元器件温度每升高2°C其可靠性下降10%, 每升高10-15°C其寿命将降低50%。因而, 为保障电子系统和能量存储系统长期高效运行, 可靠的导热性能是汽车电子零部件制造中非常重要的一环。

According to statistics, for every 2°C increase in temperature, the reliability of electronic components decreases by 10%, and their lifespan is reduced by 50% for every 10-15°C rise. Therefore, to ensure the long-term and efficient operation of electronic systems and energy storage systems, reliable thermal conductivity is a crucial aspect in the manufacturing of automotive electronic components.

### 汽车电子应用 AUTOMOTIVE ELECTRONICS APPLICATIONS



整车控制系统  
Vehicle Control Unit



电池管理系统  
Battery Management System



换流器  
DC/AC Inverter



传感器  
Sensor

### 胶水 GLUE

导热胶的主要成分包括基体(如硅胶、环氧树脂等)和导热填料(如金属粉末、陶瓷颗粒等)。其目的是填充电子元件与散热器等之间的间隙, 实现热量的快速传导, 确保电子设备的正常工作。但研磨性的导热填料对点胶设备的挑战很大。

The main components of thermal conductive adhesives include a matrix (such as silicone, epoxy resin, etc.) and thermally conductive fillers (such as metal powders, ceramic particles, etc.). Their functions is to fill the gaps between electronic components and heat sinks, enabling efficient heat transfer to ensure the proper functioning of electronic devices. However, abrasive thermally conductive fillers pose significant challenges to dispensing equipment.



### 导热胶 THERMAL CONDUCTIVE ADHESIVE

有机硅导热胶  
Silicone Thermal Conductive Adhesive

环氧树脂AB胶  
Epoxy AB Adhesive

聚酯胺导热胶  
Polyamide Thermal Conductive Adhesive

丙烯酸导热胶  
Acrylic Thermal Conductive Adhesive

导热硅凝胶  
Thermal Conductive Silicone Gel

### 推荐 RECOMMENDED ADHESIVES

#### Loctite TLB 9300 APSi

一款双组份聚氨酯导热胶, 具有3W/mK的高导热率、适中的粘度和自流平特性。  
A two-component polyurethane thermal conductive adhesive with high thermal conductivity of 3W/mK, moderate viscosity, and self-leveling properties.

#### Bergquist Gap Filler 4000

一款双组份液态间隙填充导热材料, 导热系数4W/mK, 适温范围-60°C-200°C, 密度为3.1g/cc。

A two-component liquid gap-filling thermal interface material with a thermal conductivity of 4W/mK, operating temperature range of -60°C to 200°C, and density of 3.1g/cc.

### MEST方案 MEST SOLUTION

两者均适用于处理研磨性的单、双组份导热材料。G280能自动对胶桶表面的胶水进行真空脱泡, 胶水来自活塞式供料泵, 可不间断供胶。P20采用特殊金属材质的活塞和套缸, 适配带颗粒的胶水材料, 出胶定量更精准, 使用寿命更长。

Both are suitable for handling abrasive single or dual-component thermally conductive materials. The G280 can automatically perform vacuum defoaming on the adhesive surface in the barrel, with adhesive supplied continuously by a piston pump. The P20 features a piston and cylinder made of special metal material, making it compatible with particle-filled adhesives. It ensures more precise dispensing and offers a longer service life.



- 真空压盘泵 MEST-G280  
Piston Drum Pump

- 活塞注胶阀 MEST-P20  
Piston Metering Pump





# 粘接 BONDING

汽车制造的大多部件均会用到粘接技术,胶粘不仅有增强汽车结构、紧固防锈、隔热减振和内外装饰的作用,还可代替某些部件的焊接、铆接等传统工艺,完成相同或不同材料之间的连接,优化产品结构,实现车辆的轻量化升级。

Most components in automotive manufacturing utilize bonding technology. Adhesives not only enhance vehicle structure, provide fastening and rust prevention, offer thermal insulation and vibration damping, and serve interior/exterior decoration purposes, but can also replace traditional processes such as welding and riveting. They enable the joining of similar or dissimilar materials, optimize product design, and contribute to vehicle lightweighting upgrades.

## 汽车电子应用 AUTOMOTIVE ELECTRONICS APPLICATIONS



电芯FPC粘接  
Battery Cell FPC Bonding



PCB板粘接  
PCB Bonding



车镜装配  
Rearview Mirror Assembly

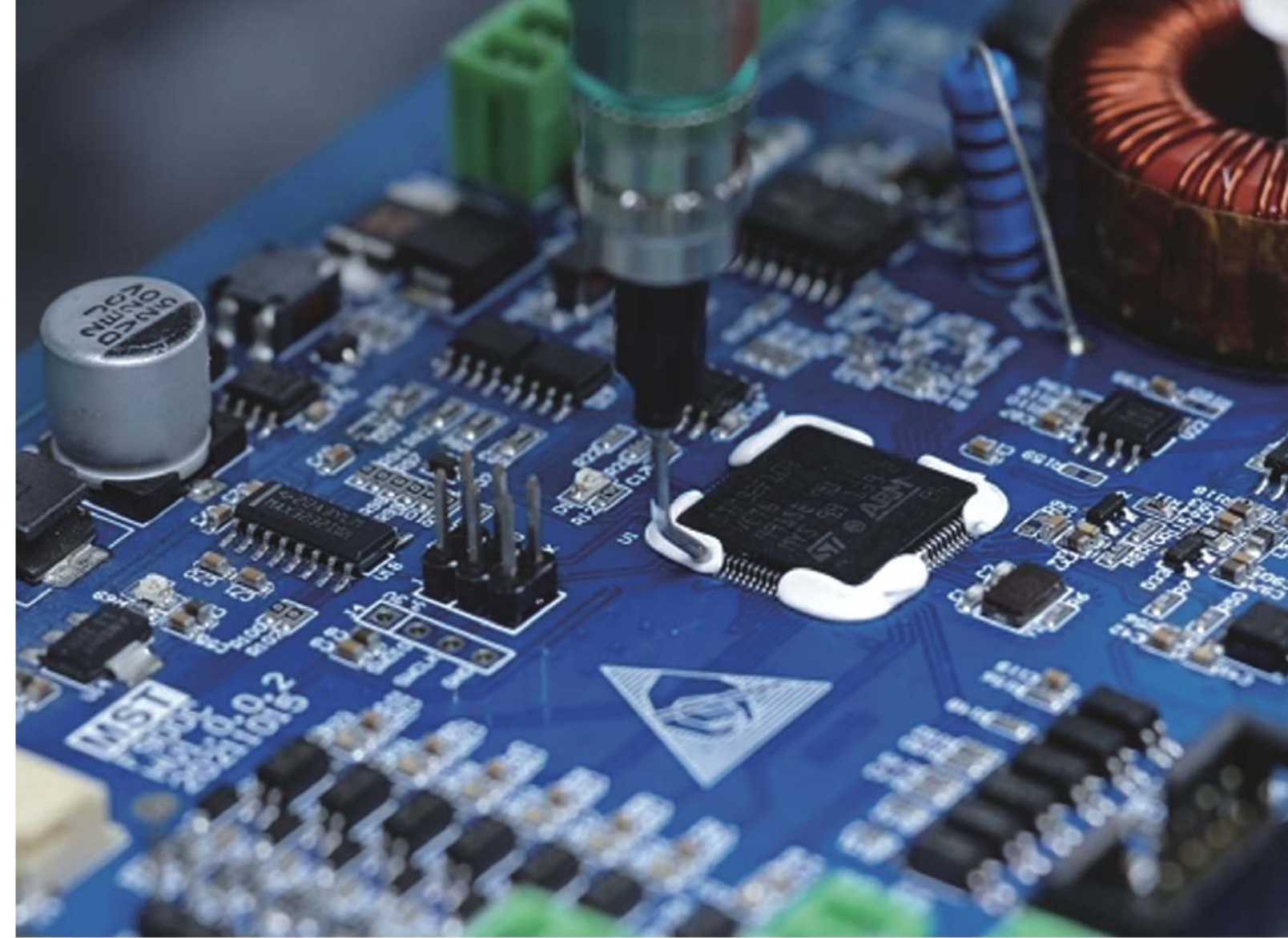


汽车内外饰固定  
Interior/Exterior Trim Attachment

## 胶水 GLUE

胶粘剂中应力分布十分均匀,可使被粘接物强度和刚性全部得以体现,具有强度高、成本低、质量轻的优势。不同类型的胶水用途、特性、固化条件千差万别,胶粘剂可分为热胶和冷胶。MEST综合考虑粘接部件与胶水性能,推出两款解决方案。

The stress distribution in adhesives is highly uniform, allowing the full strength and rigidity of bonded materials to be realized. This offers advantages such as high strength, low cost, and lightweight properties. Different types of adhesives vary significantly in application, characteristics, and curing conditions. They can be categorized into hot-melt adhesives and cold adhesives. MEST takes into account both the bonded components and adhesive performance, offering two tailored solutions for optimal results.



### 冷胶 COLD ADHESIVE

### 热熔胶 HOT MELT ADHESIVE

固化速度  
Curing Speed

慢  
Slow Cure

快  
Fast Cure

粘接强度  
Bonding Strength

最终强度高  
High ultimate strength

初始强度高  
High initial strength

环境适应性  
Environmental Adaptability

适应范围广  
Wide application range

高温下易软化  
Prone to softening at high temp

适配场景  
Application Scenarios

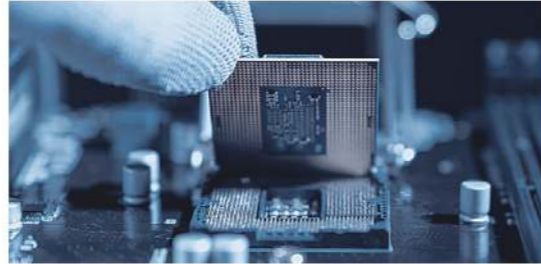
精密电子、热敏感元件  
Precision electronics  
Thermal-sensitive components

车身组装、内外饰固定  
Automotive body assembly  
Interior/Exterior trim fixing

## 冷胶 COLD ADHESIVES

在汽车电子制造中，冷胶更适合一些精密部件的粘接。其优势在于，冷胶在常温状态下即可自然凝固，能够避免加热对敏感元件的损坏。且随时间推移，冷胶的联接力会越来越强，其密封效果也优于热熔胶。

In automotive electronics manufacturing, cold adhesives are preferred for bonding precision components. Their key advantage lies in room-temperature curing, eliminating thermal damage risks to sensitive parts. Furthermore, cold adhesives demonstrate progressive bond strength enhancement over time, while delivering superior sealing performance compared to hot melt adhesives.



<p><b>粘接胶</b> BONDING ADHESIVE</p> <p>聚氨酯结构胶 Polyurethane Structural Adhesive</p> <hr/> <p>环氧结构胶 Epoxy Structural Adhesive</p> <hr/> <p>硅胶 Silicone</p>	<p><b>推荐</b> RECOMMENDED ADHESIVES</p> <p><b>3M™ Scotch-Weld™ DP105</b> 一款弹性好、固化快的双组份环氧胶粘剂，可粘接各种基材。 A fast-curing, flexible two-part epoxy adhesive for multi-substrate bonding.</p> <hr/> <p><b>Loctite Eccobond E3032</b> 低温固化、节能高效；高粘度配方确保胶体在垂直表面不流挂；耐腐蚀性强，粘接性能优异。 Features low-temperature curing for energy efficiency; high-viscosity formula prevents sagging on vertical surfaces; offers excellent corrosion resistance and bond strength.</p>
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### MEST方案 MEST SOLUTION

MEST-V系列实现自动视觉定位、轨迹自动编程、产品模块自适应，配合迈伺特自主研发的控制软件，能够完美适应深腔窄缝的点胶作业。FD2000可实现各类双组份胶粘剂的流量和混合比例控制，操作简单、输出控制精确，点胶精度高达±2%。

The MEST-V series integrates automated visual positioning, self-programmed dispensing paths, and adaptive product modules, working in synergy with MEST's proprietary control software to achieve exceptional performance in deep-cavity and narrow-gap dispensing applications. The FD2000 system provides precise flow rate and mixing ratio control for various two-component adhesives, offering user-friendly operation with highly accurate output control that achieves ±2% dispensing precision.



## 热熔胶 HOT MELT ADHESIVES

热熔胶在汽车部件中的应用更多侧重于车身、内外饰部件的粘接，例如汽车顶棚（塑料板之间的贴合）、汽车地毯及隔热垫、车镜装配等。热熔胶冷却速度快，支持滚涂、喷涂、刮涂等多种方式，在生产效率方面占有极大优势，适合大批量生产。

Hot melt adhesives are primarily used in automotive body and interior/exterior component bonding, including roof lining (plastic panel connecting), carpet/insulation pad installation, and mirror assembly. Their rapid cooling properties and compatibility with rolling, spraying, and coating methods offer significant productivity advantages for high-volume manufacturing.



<p><b>热熔胶</b> HOT MELT ADHESIVE</p> <p>PUR热熔胶 PUR Hot Melt Adhesive</p> <hr/> <p>PSA热熔胶 PSA Hot Melt Adhesive</p>	<p><b>推荐</b> RECOMMENDED ADHESIVES</p> <p>PA热熔胶 PA Hot Melt Adhesive</p> <hr/> <p>EVA热熔胶 EVA Hot Melt Adhesive</p>	<p><b>3M™ Scotch-Weld™ PUR TS230</b> 专业级可粘接木材、塑料、玻璃和金属等各种材料。4分钟开放粘接时间，2.5分钟凝固时间，能生成耐增塑剂的高强度粘接，适用于汽车电子中多种材料的粘接。 This multi-material adhesive bonds wood, plastic, glass, and metal with a 4-minute open time and 2.5-minute curing time, creating plasticizer-resistant high-strength bonds ideal for automotive electronics assembly.</p> <hr/> <p><b>TECHNOMELT PUR 7510</b> 具有较好的初粘力、粘性以及长的开放时间。固化后，可保持柔软的手感，耐热性和耐化学性好，可用于汽车内饰中电子部件与织物、薄膜等材料的粘接。 This adhesive offers excellent initial tack, strong viscosity and extended open time. After curing, it maintains a soft texture while demonstrating good heat and chemical resistance, making it suitable for bonding electronic components to fabrics and films in automotive interiors.</p>
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### MEST方案 MEST SOLUTION

MEST热熔胶机胶枪内层表面采用特氟龙涂层防止碳化，确保良好的胶质状态；整体采用精密活塞泵设计，精准控制胶量输出；PID智能控制分区，独立控制温度调节；且内置出胶启动保护，安全性能高。且胶管长度、胶枪类型均可根据客户具体需求个性化定制。

The MEST hot melt adhesive system features a Teflon-coated inner barrel to prevent carbonization and maintain optimal adhesive quality. Its precision piston pump ensures accurate dispensing control, while PID-controlled heating zones enable independent temperature regulation. The built-in dispensing safety mechanism enhances operational security. Customizable hose lengths and gun configurations are available to meet specific application requirements.



- 热熔胶机  
Hot Melter
- 定制胶枪  
Customized Glue Gun



# 密封 SEALING

电子元件中的水分、杂质会显著降低性能，甚至通过腐蚀造成损坏。有效密封能够保护电子元件免受外部环境干扰从而提升汽车电子设备的可靠性和使用寿命。同时，元件密封能够加强汽车部件的稳定性，防止因外界压力而结构变形。

Moisture and contaminants in electronic components can significantly degrade performance or even cause damage through corrosion. Effective sealing protects electronic components from external environmental interference, thereby enhancing the reliability and service life of automotive electronics. Additionally, component sealing improves the structural stability of automotive parts, preventing deformation due to external pressure.

## 汽车电子应用 AUTOMOTIVE ELECTRONICS APPLICATIONS



整车控制系统  
Vehicle Control Unit



仪表盘  
Instrument Panel



车载摄像头  
Automotive  
Camera Module



传感器  
Sensor

## 胶水 GLUE

密封胶是随密封面形状而变形、不易流淌、有一定粘结性的密封材料，分为弹性密封胶、液体密封垫料和密封腻子三大类。具有防泄漏、防水、防振动及隔音、隔热等作用，广泛用电子仪器仪表及零部件的密封。

Sealants are deformable sealing materials that conform to the surface profile of sealed components while exhibiting minimal flow and moderate adhesion. Classified into three main categories—elastomeric sealants, liquid gasketing compounds, and sealing putties—they provide critical functions including leak prevention, waterproofing, vibration damping, sound insulation, and thermal insulation. These materials are widely applied in the sealing of electronic instruments, meters, and precision components.



### 密封胶 SEALANT

硅酮密封胶  
Silicone Sealant

聚氨酯密封胶  
Polyesteramide Sealant

环氧密封胶  
Epoxy Sealant

### 推荐 RECOMMENDED ADHESIVES

#### LOCTITE SI 5091

一款双固化的密封胶，具有高挠性的胶层，能适应不同环境下汽车电子部件的伸缩和振动。A dual-cure sealant featuring a highly flexible adhesive layer that accommodates thermal expansion and vibration in automotive electronics under diverse environmental conditions.

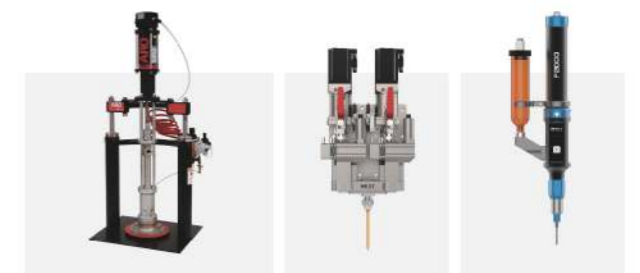
#### Loctite 518

一款厌氧型柔性密封胶，可填充0.25毫米的间隙，形成密封层。An anaerobic, flexible gasketing sealant capable of filling 0.25mm gaps to form reliable sealing barriers.

## MEST方案 MEST SOLUTION

该方案可保证胶水连续稳定输出，密封效果可靠。5加仑压盘泵采用柱塞供料原理实现连续不间断供料，同时防止胶水二次污染，双立柱气缸使升降更平稳；GP30作为连续灌封的体积式注胶头，保证胶水连续稳定输出。胶条较细则可搭配F2000，采用伺服电机驱动偏心螺杆送料，控制精确。

This solution ensures continuous, stable glue output and reliable sealing performance. The 5-gallon drum pump use a piston to achieve uninterrupted material supply while preventing secondary contamination of the glue. The dual-column cylinder ensures smoother lifting and lowering. The GP30, serving as a volumetric dispensing head for continuous potting guarantees consistent and stable glue discharge. For finer bead applications, it can be paired with the F2000 which utilizes servo motor-driven eccentric screw feeding for precise control.



- 5加仑压盘泵  
5-gallon Drum Pump
- 齿轮注胶阀 MEST-GP30  
Gear Metering Pump
- 单液螺杆阀 MEST-F2000  
1C Progressive Caving Pump



# 涂覆 COATING

即便电子元件具备一定的防水、防尘性能，也很难做到滴水不漏，还是需要点胶工艺来提升其产品的质量。涂覆工艺是指在电子元件或电路板表面涂上一层保护材料，从以提供防护功能，主要有点、线、面三种点胶涂覆技术。

Even when electronic components possess inherent water and dust resistance, achieving complete impermeability remains challenging. Thus, dispensing processes are essential to enhance product reliability. Coating technology involves applying a protective layer over electronic components or PCBs to provide critical safeguards, primarily implemented through three dispensing techniques: dot, line, and area coating.

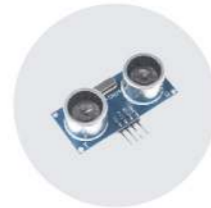
## 汽车电子应用 AUTOMOTIVE ELECTRONICS APPLICATIONS



电路板  
Circuit Board



雷达  
Radar



超声波传感器  
Ultrasonic Sensor



线束  
Wire Harness

## 胶水 GLUE

涂覆胶具有良好的粘附性、流动性和可操作性，牢固的附着在电子元件表面的同时，易于操作和控制涂覆厚度，实现均匀覆盖。将涂覆材料尽可能薄的、均匀的、无气泡的涂覆在电子元件表面上是考验点胶设备性能的一大要素。

The coating adhesive exhibits excellent adhesion, flowability, and workability, enabling strong bonding to electronic components while allowing precise control over coating thickness for uniform coverage. Achieving a thin, even, and bubble-free application of the coating material on electronic surfaces is a critical benchmark for evaluating dispensing equipment performance.



### 涂覆材料 COATING MATERIAL

溶剂型丙烯酸  
Solvent-Based  
Acrylic Adhesive

环氧树脂胶  
Epoxy Resin Adhesive

聚氨酯树脂  
Polyurethane  
Resin Adhesive

丙烯酸酯胶  
Acrylate Adhesive

### 推荐 RECOMMENDED ADHESIVES

#### Loctite SF 7000

是一种单组分、低粘度的硅酮涂覆胶，能在室温下快速固化，形成一层柔软且有弹性的保护膜。

A single-component, low-viscosity silicone conformal coating that cures rapidly at room temperature to form a soft, flexible protective film.

#### 3M™ Novec™ 1904电子氟化液

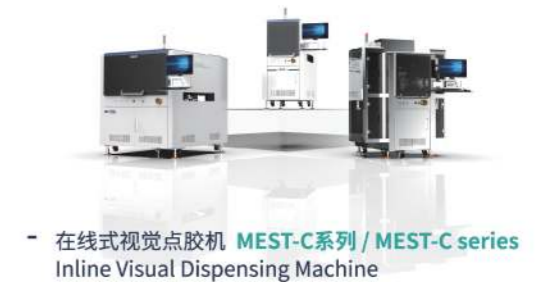
专为印刷电路板和电子元件的防潮和防腐蚀而设计，干燥后形成超薄透明涂层。无需固化、干燥迅速。

Specifically engineered for moisture and corrosion protection of PCBs and electronic components. Forms an ultra-thin, transparent coating that requires no curing and dries rapidly.

## MEST方案 MEST SOLUTION

MEST-C系列具备视觉定位与自动视觉抽检系统，同时能与上下板轨道简单集成、双轨运输，提升效率。F910是一款非接触式的点胶阀，可实现光滑/不平整/柔性基材表面点胶。非接触式能在有效涂覆的同时，减少对电子元件的接触磨损。

The MEST-C series features vision positionina and an automated visual sampling inspection system.It can be easily integrated with upstream/downstream board conveyors and utilizes dualtrack conveying to enhance efficiency. The F910 is a non-contact dispensing valve capable of depositing material onto smooth, uneven, or flexible substrates.Its non-contact operation ensures effective coating while minimizing contact wear on electronic components.





# 灌封 POTTING

灌封可强化电子元器件的整体性,提高对外来冲击的抵抗力、内部元器件之间绝缘性,有利于元器件小型化、轻量化;避免元器件和线路直接暴露,改善元器件的防水、防潮性能,提高稳定性。

Potting enhances the structural integrity of electronic components by improving impact resistance and internal insulation, while enabling miniaturization and weight reduction. By encapsulating components and circuits, it effectively upgrades waterproofing, moisture resistance, and overall stability.

## 汽车电子应用 AUTOMOTIVE ELECTRONICS APPLICATIONS



整车控制系统  
Vehicle Control Unit



车载充电机 (OBC)  
On-Board Charger



电机控制单元  
Motor Control Unit



接触器感应开关  
Contactor Proximity Switch

## 胶水 GLUE

灌封胶主要成分有基础树脂、填料等,是一种液态复合物。灌封胶在常温或加热条件下会固化成性能优异的热固性高分子绝缘材料,能够对电子元器件起到防护、绝缘等效果。但研磨性的灌封填料对点胶阀的要求很高。

Potting compound is a liquid composite primarily composed of base resin, fillers, and other components. It cures at room temperature or under heating to form a high-performance thermosetting polymer insulation material, providing protection and insulation for electronic components. However, highly abrasive potting fillers impose stringent requirements on dispensing valves.



### 灌封胶 POTTING COMPOUND

### 推荐 RECOMMENDED

环氧树脂灌封胶  
Epoxy Potting Compound

有机硅灌封胶  
Silicone Potting Compound

聚酯胺灌封胶  
Polyesteramide Potting Compound

#### LOCTITE PE 8086

一款专为电子部件封装保护而设计的灌封材料,具有高导热性、低混合粘度,在极端温度下能保持优异性能。

A potting material specifically designed for electronic component encapsulation, featuring high thermal conductivity and low mixing viscosity while maintaining excellent performance under extreme temperatures.

#### 3M™ Scotchcast™ 281

一款耐高温、电气性能稳定以及良好的柔韧性灌封胶。支持低温固化,具备高导热性。A high-temperature-resistant potting compound with stable electrical properties and flexibility. Supports low-temperature curing while offering high thermal conductivity.

## MEST方案 MEST SOLUTION

该方案确保从备料到供料灌封全程处于真空环境,实现多角度灵活点胶。真空备料单元G380对胶水进行加热、搅拌等预处理;真空注胶站GV334将灌胶体置于真空中,由堆叠式三轴将胶水输送至P20进行灌胶作业。

This solution maintains a complete vacuum environment throughout the entire process from material preparation to feeding and potting, enabling multi-angle flexible dispensing. The Vacuum Feeder G380 performs pretreatment procedures including adhesive heating and mixing, while the vacuum potting station GV334 positions the potting assembly under vacuum where a stacked three-axis system precisely delivers the adhesive to the P20 unit for potting operations.



- 真空注胶站 **MEST-GV334**  
Vacuum Potting Station
- 真空备料单元 **MEST-G380**  
Vacuum Feeder
- 活塞注胶阀 **MEST-P20**  
Piston Metering Pump



P20 GP30 F1000 F2000 FD2000 F600 F700 F800 F910

单组份 Single-Component	✓	✓	✓	✓		✓	✓	✓	✓
双组份 Two-Component	✓+	✓+			✓+	✓			
真空 Vacuum	✓+	✓+		✓	✓				
研磨性 Abrasive Filler Applicability	✓+		✓	✓	✓	✓			
适用粘度 Applicable viscosity	○	○	△	○	○	○	▽	▽	▽

备注：“+”性能极佳；“○”适用范围广；“△”适合中高粘度；“▽”适合中低粘度。  
 Note: “+”Excellent Performance; “○”Universal Compatibility; “△”Medium-High Viscosity; “▽”Medium-Low Viscosity



MEST-T系列 MEST-T Sreies MEST-V系列 MEST-V Sreies MEST-C系列 MEST-C Sreies MEST-GV系列 MEST-GV Sreies MEST-GM系列 ① MEST-GM Sreies

速度 Speed	✓	✓+	✓+	✓	✓
重复精度 Repeatability	✓+	✓	✓+		✓+
有效载荷 ② Payload		✓	✓	✓+	✓+
CCD	✓	✓+	✓+		✓
整线 Integration into Production Line		✓③	✓+	✓+	✓
真空 Vacuum				✓+	

备注：“+”性能极佳；“①”GM系列为定制项目；“②”更大的有效负载意味着能够承载更大容量的点胶阀；“③”生产线的输送带可以安装在工作台上。  
 Note: “+”excellent performance; “①”GM series are customized projects; “②” higher payload capacity allows for larger dispensing valves; “③” the conveyor belt of the production line can be mounted on the workbench.

# MEST点胶系列

## DISPENSING MACHINE SERIES

### 全景视觉点胶机 Panoramic Dispensing Machine MEST-V系列 / V series

一款大平台视觉点胶机，采用高清工业相机，自动精准识别位置；可选配双视觉系统，二次视觉定位产品位置，捕捉更高精度产品轮廓；采用大理石底板，结构稳定、平滑顺畅。



A large-platform vision dispensing system featuring high-definition industrial cameras for automatic precision positioning. Optional dual-vision configuration enables secondary visual alignment to capture higher-accuracy product contours. The marble baseplate ensures ultra-stable construction and smooth motion performance.

### 在线式视觉点胶机 Inline Visual Dispensing Machine MEST-C系列 / C series

一款适合自动化整线作业的点胶设备，可与上下板轨道集成、也可双轨运输，具备高效、智能、高精度等特点。配备CCD视觉定位系统与自动视觉抽检系统，自动检测点胶效果；整机与精密大理石平台结合，安装精度高。



An automated dispensing system designed for full production line integration, featuring dual-conveyor compatibility for seamless upstream/downstream connectivity. This high-efficiency intelligent system delivers micron-level precision with integrated CCD vision alignment and automated optical inspection (AOI) for real-time dispensing quality verification. The machine's granite baseplate ensures superior vibration damping and installation accuracy.

### 桌面式点胶机 Desktop Dispensing Unit MEST-T系列 / T series

该款设备采用底图示教，包含三轴联动、四轴联动、双平台等；设备小巧、操作简单，具备良好的人机交互体验；程序容量大，胶量大小、涂胶速度、点胶时间、停胶时间皆可设定。



This model features bottom-vision programming and supports triaxial/four-axis synchronized motion with dual-platform operation. Its compact design combines user-friendly operation with superior human-machine interaction. The system offers expansive program capacity with fully adjustable parameters including dispense volume, dispensing speed, dispensing duration, and pause intervals.

# MEST真空灌胶系统

## VACUUM POTTING SYSTEM

### 真空压盘泵 Piston Drum Pump MEST-G280

用于处理高粘度研磨性与非研磨性的单、双组份散热密封材料。可自动对胶桶表面的胶水进行真空脱泡，双活塞式供料泵，可不间断供料。

### 真空备料单元 Vacuum Feeder MEST-G380

用于处理会与水分发生反应或需要在真空中准备的敏感材料，具备加热、搅拌、抽真空等胶水预处理功能。

### 真空注胶站 Vacuum Dispensing Station MEST-GV334

适用于对气泡要求极高、需要在真空环境下点胶的产品。与真空备料单元、活塞注胶阀P20配合，可实现单头或多头定量灌封，确保产品灌封无气泡。



The MEST-G280 is designed for processing highly viscous abrasive or non-abrasive single/double-component thermal interface and sealing materials. It features automatic vacuum degassing for bubble removal from material surfaces in containers, along with a dual-piston feeding mechanism to ensure continuous and uninterrupted material supply.

The MEST-G380 handles moisture-sensitive materials that require vacuum environment, integrating heating, stirring, and vacuum degassing functions for comprehensive material pretreatment. This ensures optimal material consistency and prevents premature curing caused by air or moisture exposure.

For applications demanding ultra-low bubble contamination, the MEST-GV334 Vacuum Dispensing Station enables precision potting in a controlled vacuum environment. When combined with the MEST-G380 and the P20, it supports single or multi-nozzle quantitative dispensing, guaranteeing completely bubble-free encapsulation for critical components in industries such as consumer electronics and automotive electronics.

# MEST热熔胶机系列

## HOT MELTER SERIES

### > 热熔胶机 MEST Hot Melter



一款高效、便捷的自动化粘合设备，其固化速度快，安全性能高，广泛应用车身、顶棚等汽车内外饰粘接，可实现刮胶、滚胶、涂布、发泡等多种工艺，粘度稳定、粘性亲和。

A highly efficient and user-friendly automated bonding equipment featuring fast curing and superior safety performance. Widely applied in automotive interior and exterior trim bonding (e.g., body panels, roof linings), it supports multiple processes including dispensing, rolling, coating, and foaming. Delivers stable viscosity and excellent adhesive affinity.

### > 新款热熔胶机 Next-Gen MEST Hot Melter



该机型创新整合多种智能化技术，能够无缝集成主机并支持远程连接，实现超高精度的喷胶。以数据为驱动，可确保喷胶量始终均匀、准确。同时，采用模块化设计、灵活便捷，满足您的个性化需求。

This model innovatively integrates multiple intelligent technologies, enabling seamless integration with the host system and supporting remote connectivity to achieve ultra-high-precision dispensing. Data-driven control ensures consistently uniform and accurate adhesive application. Additionally, its modular design offers flexibility and convenience, catering to your customized needs.

### > 热熔胶机 MEST-8805P/8810P MEST Hot Melter

	MEST-8805P	MEST-8810P
主机尺寸(mm) Dimensions	680*395*500	750*520*590
温控方式 Temperature Control Method	触摸屏(PT100/NI120) Touch Screen (PT100/NI120)	触摸屏(PT100/NI120) Touch Screen (PT100/NI120)
主机功率(W) Power	3500	4000
主机电源 Power Supply	AC220V/50Hz/15A	AC220V/50Hz/15A
加热温度(°C) Heating Temperature	≤220	≤220
熔缸容量(kg) Melting Tank Capacity	5	10
主机泵浦 Pump Type	活塞泵(气压控制) Piston Pump (Pneumatic Control)	活塞泵(气压控制) Piston Pump (Pneumatic Control)
预置输胶 Pre-set Adhesive Delivery	2组(MAX) 2 Groups (MAX)	2-4组 2-4 Groups
电气连接 Electrical Connections	标准工业航空插头 Standard Industrial Aviation Connector	标准工业航空插头 Standard Industrial Aviation Connector

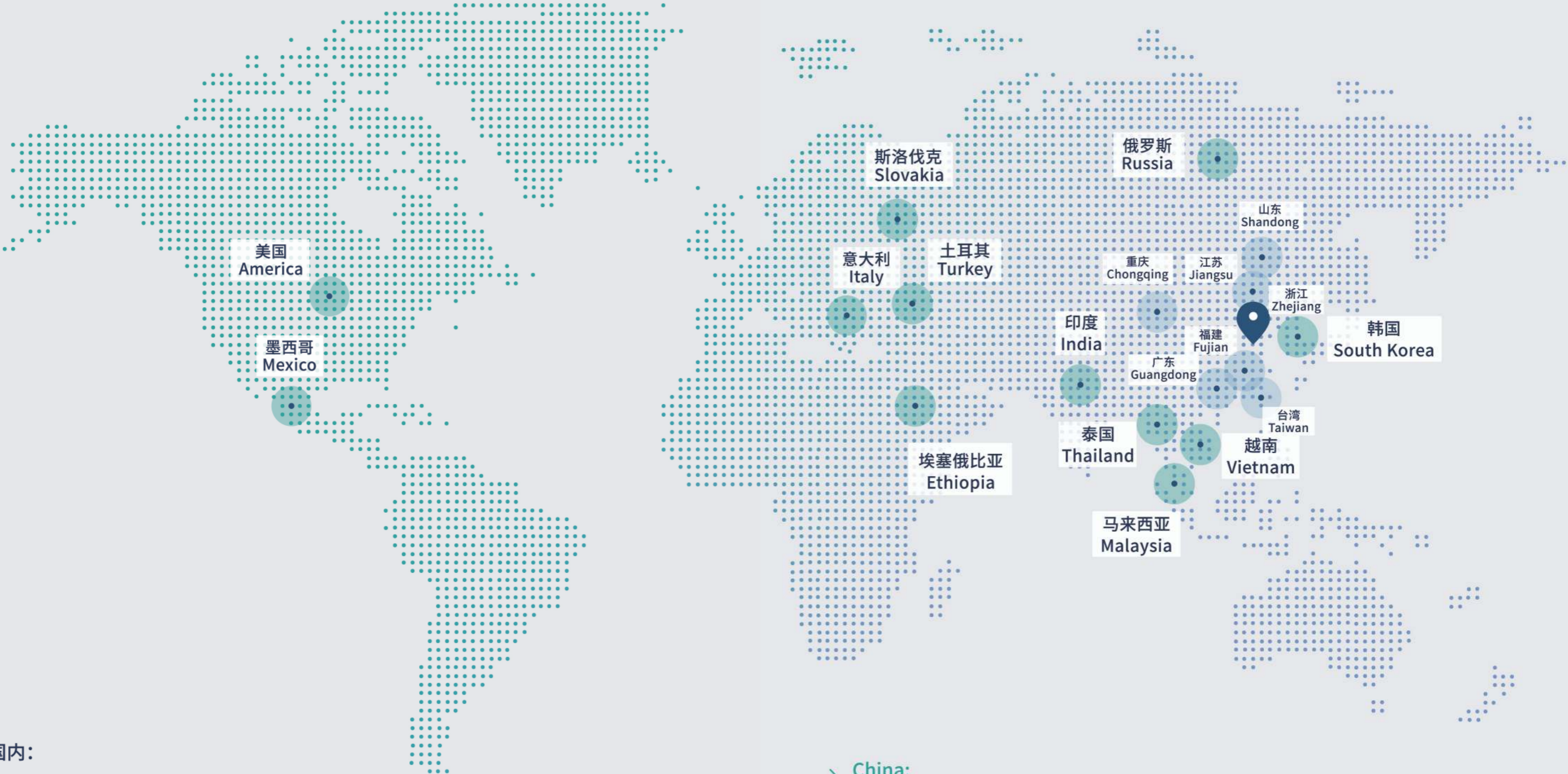
### > 新款热熔胶机 Next-Gen MEST Hot Melter

主机尺寸(mm) Dimensions	607*377*521
温控方式 Temperature Control Method	触摸屏(PT100/NI120) Touch Screen (PT100/NI120)
主机功率(W) Power	2500
主机电源 Power Supply	(AC110V/AC220V/AC380V) (50/60Hz) (20A)
加热温度(°C) Heating Temperature	40~230
熔缸容量(kg) Melting Tank Capacity	4
主机泵浦 Pump Type	活塞泵(气压控制) Piston Pump (Pneumatic Control)
预置输胶 Pre-set Adhesive Delivery	2-6组 2-6 Groups
电气连接 Electrical Connections	标准工业航空插头 Standard Industrial Aviation Connector



# MEST业务版图

## Global Business Layout



> 国内:

浙江、江苏、福建、广东、广西、重庆、山东

> 海外:

韩国、越南、马来西亚、泰国、印度、俄罗斯、土耳其、斯洛伐克、意大利、埃塞俄比亚、美国、墨西哥

> China:

Zhejiang, Jiangsu, Fujian, Guangdong, Guangxi, Chongqing, Shandong

> Overseas:

South Korea, Vietnam, Malaysia, Thailand, India, Russia, Turkey, Slovakia, Italy, Ethiopia, America, Mexico

MEST迈伺特以十余年流体控制的技术沉淀, 携手全球顶尖汽车电子企业。从动力电池模组的热管理, 到车载传感器的精密封装, 我们与众多合作伙伴共拓智能出行新方案。

MEST, with over a decade of technological expertise in fluid control, collaborates with global leaders in automotive electronics. From thermal management of power battery modules to precision encapsulation of vehicle sensors, we work alongside numerous partners to pioneer innovative solutions for smart mobility.



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MEST Technology