



- Visual Inspection Knapp Kit
- Manual Visual Inspection Booth
- Vision System for Vial Counting
- Visual Inspection Booth Automation
- Tray Management System (TMS)
- Laser Drilling for Positive Samples
- Sterile Consumables
- Micro Consumables





Our Clients



Visual Inspection Knapp Kit & Booth

Manual Visual inspection kits (Liquid and Lyophilized formulation with pack style of Vial, Cartridges and PFS) , Knapp kits for Manual and Automatic visual inspection machines, Particulate matters of different micron size range at very competitive price.



Visual inspection booth is used during the inspection process which provide the environment to qualified visual inspectors to identify the particulate matters and other defects

Visual Inspection Booth Automation

Enhances inspection accuracy, operator comfort, and GMP compliance.

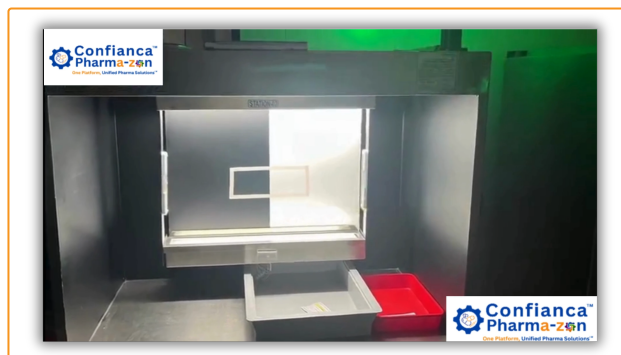
Features tower light, Auto Lux Control, easy start-stop control, Minimum of 5 Sec Inspection and auto eye-rest after

60 minutes to reduce operator fatigue.

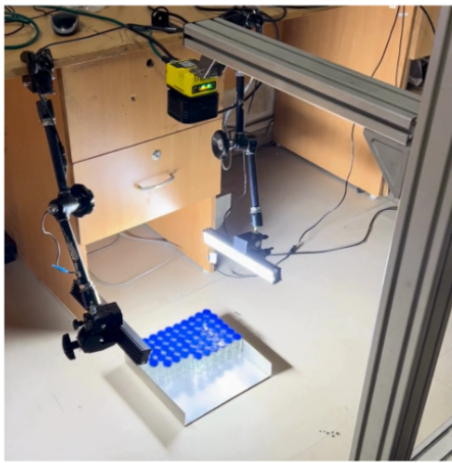
Key Highlights:

- ◆ LED & tower light inspection indicators
- ◆ Start/Stop with adjustable brightness
- ◆ Auto eye-rest for operator well-being

Smart, compliant, & operator-friendly visual inspection.



Vision System for Vial Counting



Enhances inspection accuracy, operator comfort, and GMP compliance.

Features LED/tower light cues, easy start-stop control, and auto eye-rest after 60 minutes to reduce operator fatigue.

Key Highlights:

- ◆ LED & tower light inspection indicators
- ◆ Start/Stop with adjustable brightness
- ◆ Auto eye-rest for operator well-being

Smart, compliant, and operator-friendly visual inspection.

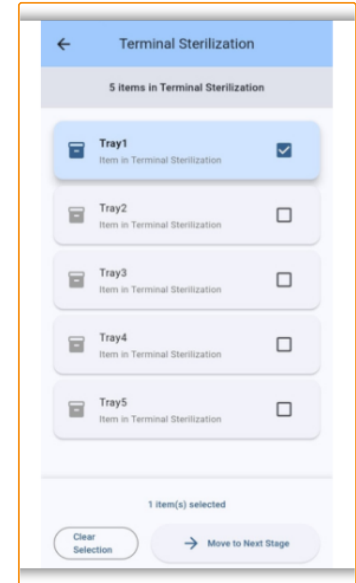
Tray Management System (TMS)

Tray Management System (TMS) — faster, smarter, compliant.

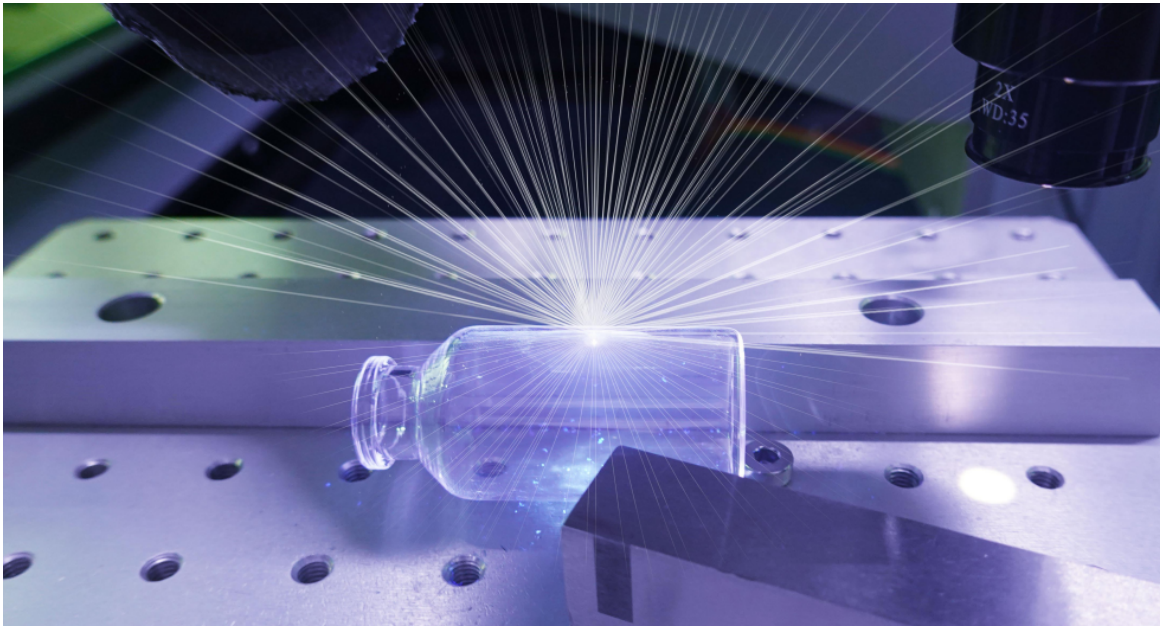
- ◆ Instant barcode scanning
- ◆ Quick production stage updates
- ◆ Real-time tray tracking

Benefits:

- ✓ No repeated label printing
- ✓ Reduced manual errors
- ✓ Full audit traceability
- ✓ Seamless, compliant operations



Positive Controls - Laser Drilling



In the field of pharmaceutical packaging, confidence in integrity is not only crucial but is required by international standards such as UPS 1207, CDE etc. The FDA recommends (USP 1207) C.C.I. (container closure integrity) testing regularly through a product's lifetime to avoid deterioration and/or weathering issues.

How to be sure that the machines responsible for detecting these imperfections are calibrated correctly to guarantee they will pick up every damaged part?

Positive controls with calibrated leaks ensure that your leak testers are working properly, and that the testers are able to find even the most challenging leak artifacts. so that pharmaceutical companies can monitor and verify that their inspection systems meet proper quality standards.

We are a leader in providing Positive Controls used for test method development and validation.



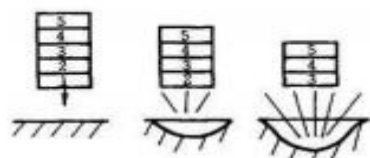
Preparation Methods of Positive Control Samples

The existing FDA and other regulations tend to adopt the deterministic method. The purpose of our laser drilling is to test the complete sealing of the packaging container by vacuum attenuation method in order to meet the testing requirements. The purpose is to help customers pass the EU certification and FDA review.

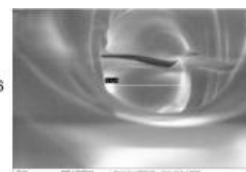
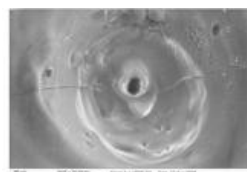
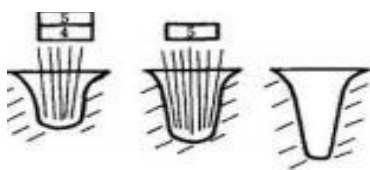


Advantages of laser drilled leak test holes include:

- Better resemble natural defects in glass (cracks) and polymers (pinholes).
- Tight tolerances can be achieved in most material and thicknesses.
- Hole diameter sets and calibration packages can be customized based on customer requirements.
- A Certificate of Conformance and Quality Data Sheet is included with each Leak Test Hole Drilling Order.
- Leak test holes as small as 1 micron
- Accurate leak hole placement
- Expedited delivery if required.
- Our measurement equipment is calibrated utilizing a NIST traceable standard



Laser drilled-5um micro holes



Laser drilled-5um micro holes



Preparation Methods of Positive Control Samples

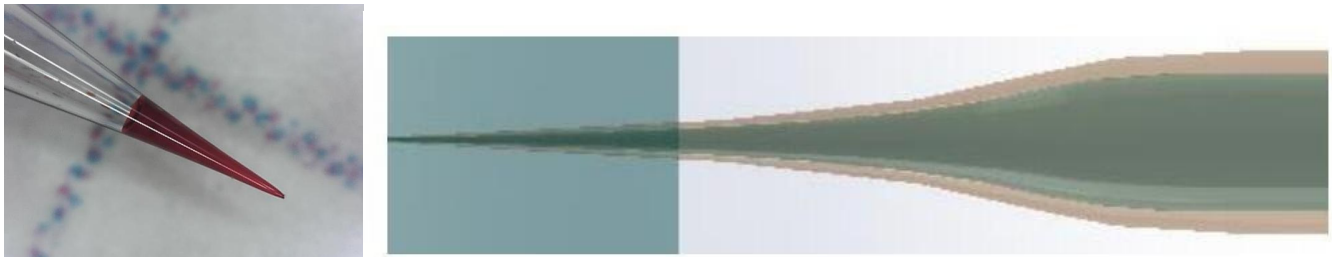
We can laser drill calibrated micro holes in many different types of containers including vials, syringes, pouches, and any type of bags. Common container conditions include whether it is open or closed and whether it is empty or pre-filled.



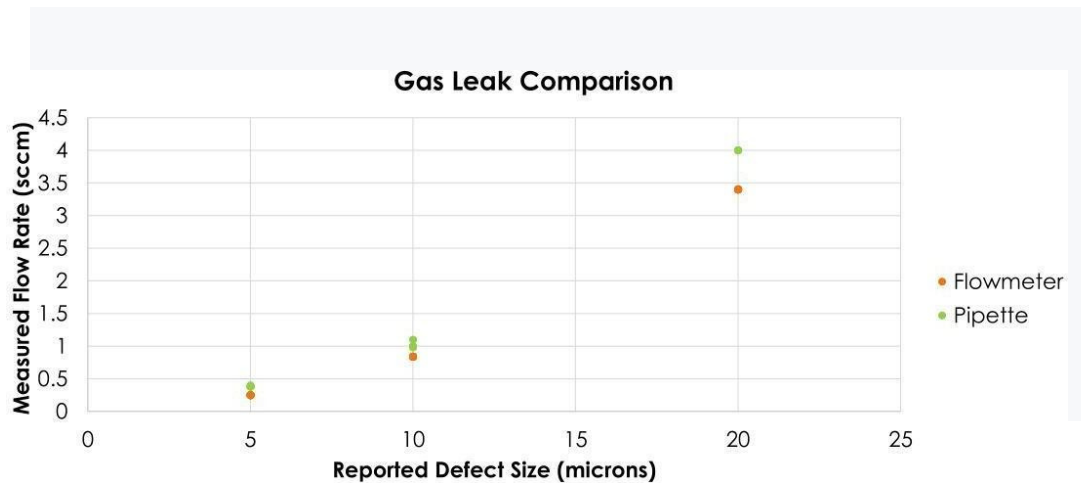
- Micropipette

The pipette's aperture can be as low as $0.1\mu\text{m}$, but the tip is very fragile, so it is easy to be damaged in the process of sample preparation. It is necessary to be careful of the tip damage when preparing, and ensure that the pipette's surrounding seal is intact after implantation. After the surrounding seal is completed with epoxy resin, the seal's integrity is verified by microscopic observation. Tolerance of taper tip diameter is usually $\pm 20\%$. For example, the channel length of the above $2\mu\text{m}$ glass microfiber is difficult to define. It is generally assumed that it is shorter than 0.5mm . In addition, residual air can interfere with the test results

Preparation Methods of Positive Control Samples



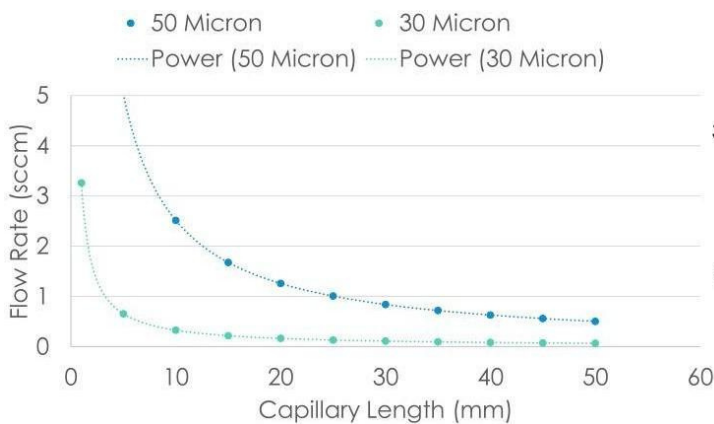
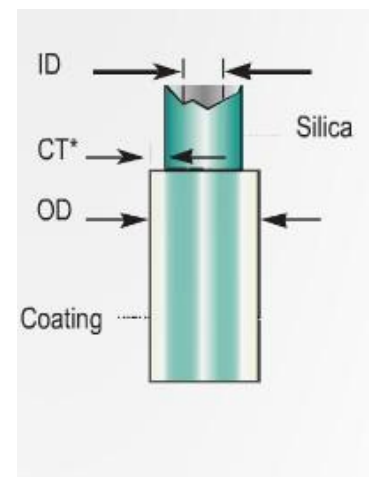
The tip of a Micro pipette is used to create defects of a certain diameter
Flow calibration is used to authenticate leaks
Geometry of tip defects



Preparation Methods of Positive Control Samples

- Capillary

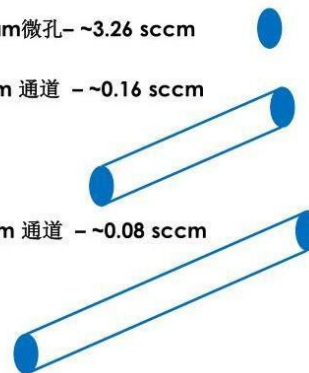
Capillaries are made of quartz material with a molten polymer coating. They are strong and flexible, and can be inserted into a variety of packaging materials, from plastic plugs to plastic glass, to simulate pores as small as $1\mu\text{m}$ or less. During capillary shearing, it is essential to be cautious that the opening is partly blocked by shearing debris, and to assure that the sealing of the surrounding capillary after implantation is intact. The disadvantages of this method are that the length of the method is greatly larger than the size of the leak hole, and the geometric shape is much different from the actual defects, leading to a comparatively low sensitivity for verification in microbial challenge tests.



30 μm 微孔 - ~3.26 sccm

30 μm 20mm 通道 - ~0.16 sccm

30 μm 40mm 通道 - ~0.08 sccm



Preparation Methods of Positive Control Samples

- Natural defects



Natural defect is a new type of positive sample that is the nearest to the actual glass crack prepared by artificial way. It is suitable for the packaging materials of conventional glass materials such as penicillin bottles and ampoule bottles. The aperture of natural defect can be less than 1 micron, and the minimum can be nano level, which is very suitable for the MALL value study of rigid packaging. Including microbial challenge sensitivity test and head-space protection studies. Thus, natural defects can be used for method validation of ultra-sensitive equipment.

Sterile Consumables



Sterile Forceps



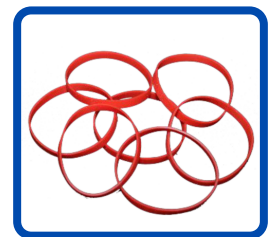
Sterile Zip Lock Bag



Cleanroom Duster



Sterile Sleeves



Autoclavable Rubber Band
(Gamma Sterile)



Sterile Consumables



Sterile Marker



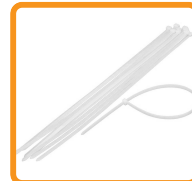
Sterile Pen



Antistatic Garment Bag



Microfiber Mop



Sterile Cable Ties



Thermal Paper Roll



Cleanroom Wipes



Indicating Tape



Vinyl Tape



Aseptic Garments

Micro Consumables



Micron Filter



Swab Tube



Petri plates



Dihydrated Media



Autoclvable
Wash Bottle



RVSEB 10ml



Sterile MCB



L-Roads



IPA Bottle



Syring Filters



M-Funnel



Centrifuge Tubes



BD Syringe



SCDA Plates



Inaculation Loop