



# New Approach

>> Clinton Pinhole Detection Systems bring a cost-effective new approach to quality control in plastic materials-- they detect pinholes and flaws during the manufacturing process. By applying a non-destructive electrical current at high voltage to the surface of the product, minute defects can be instantly detected.

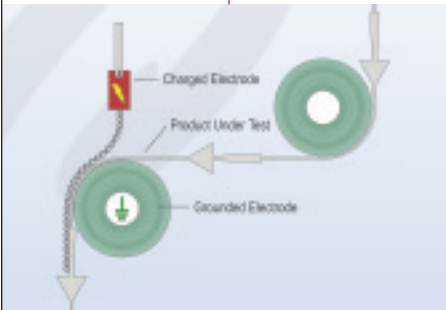
Many manufacturers currently use expensive optical systems that may not work well; others require operators to visually locate material flaws during the manufacturing process. Some have no in-process quality test at all, relying on tests performed on the finished product just before shipment to the customer, or worse yet, letting the customer find the flaws.

A 100% in-line test can insure product reliability and save time and money for manufacturers by finding faults consistently and early, during production, before additional processing occurs.

*Clinton*  
INSTRUMENT COMPANY

# Applications

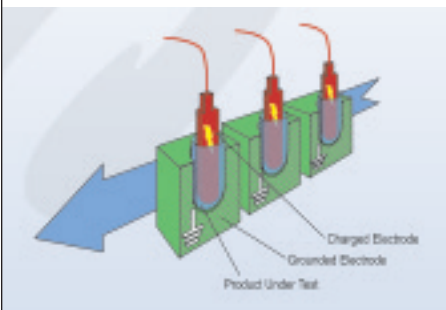
## Continuous Processes



Sheet and Film Testing

- >> Many plastic products that are manufactured in uninterrupted lengths by extrusion or another continuous process can be tested, often at high production line speeds. Typical test products include:
  - >> Plastic film, sheet and laminated fabrics
  - >> Insulated wire, catheters
  - >> Plastic tubing and profiles
  - >> Coated metal strips and bars

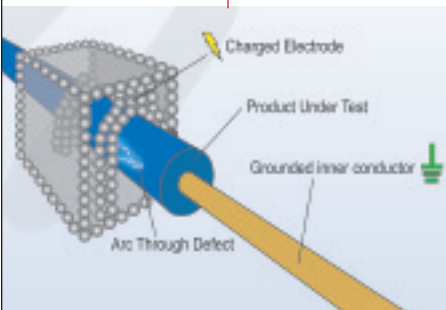
## High-Production Discrete Parts



High Production Parts Testing

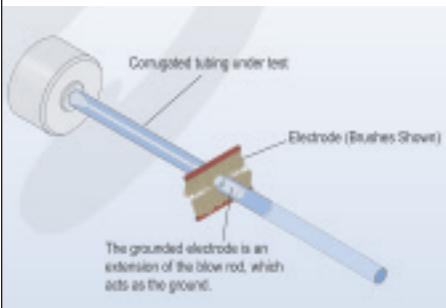
- >> Discrete parts can be tested individually or in groups with cycle times as low as one second. Electrodes for this application often share the same geometry as production tooling and the test is easily integrated into the production line. Typical test products include:
  - >> Test tubes, pipettes, medical vessels
  - >> Battery caps, battery cases
  - >> Baby bottle liners
  - >> Bottle caps, food storage bags

# How the Technology Works



Insulated Wire, Cable & Catheter Testing

- >> The test is performed by placing the material between two electrodes, one at ground potential, the other at a voltage potential sufficient to allow an arc to strike the grounded electrode.
- >> Sound material will isolate these two electrodes, allowing no arc to form. If, however, the material is defective, an arc will discharge to the grounded electrode through the fault site. The test equipment detects this discharge and the fault is indicated.
- >> Clinton Pinhole Detection Systems may be operated with local controls. Full remote control and monitoring functions are available for automated production line systems. All systems are current limited for operator safety and include interlock circuitry to remove voltage when safety enclosures are opened.



Corrugated Tubing Testing

