LeakTEC - Electronic Leak Detection
Leak Detection of Non-Conductive Parts

LeakTEC is a powerful electronic tool for non-destructive leak detection of non-conductive single layer materials. The LeakTEC measures a leak between a high-voltage electrode (DC) and counter electrode which can either be grounded or running opposed polarity. The LeakTEC ensures full process control and traceability.

FEATURES:

- Easy to install and use
- Fast detection times
- Dual polarity detection (patented)
- Full integration
- High precision test electrodes
- Non-destructive testing
- Single or multiple part detection
- No corona discharge

LeakTEC is a powerful electronic tool for non-destructive leak detection of non-conductive single layer materials. The LeakTEC measures a leak between a high-voltage electrode (DC) and counter electrode which can either be grounded or running opposed polarity. The LeakTEC ensures full process control and traceability.

Leak detection is a common practice among manufactured or plastic parts to verify integrity of molded parts and welded joints. Tantec’s electronic leak detection systems (LeakTEC) have been used in various industries such as medical, automotive, and product closures. We excel in finding small holes in products such as tubes, caps/closures, cannulas, pipettes, connectors, containers, films, and various other plastic parts.

This fully automatic test is capable of detecting pin holes even smaller than 3 microns by introducing an electrical potential between a detecting electrode and an electrical ground, (i.e. metal jig or mandrel holding the part) while the plastic part itself acts as the insulator. In the event of detecting a crack or pin hole in the plastic material, an electrical contact is established between electrode and ground. This pass/fail contact is processed via the integral generator module interfaced with the main machine control. The machine control can either enable a downstream ‘part-reject’ function or track trends in the manufacturing process, which can be fed back for early process adjustment or maintenance.

Electrode measurement monitoring is to ensure that all electrodes are fully working. Each electrode will then give out individual signal to be processed by the machine PLC unit. To limit the high-voltage and minimize generation of static electricity Tantec also offers its dual polarity system (patented).
Easy to install and use
Uncomplicated operation into the production line.

Fast detection times
Pin hole detection is done either in-line or during stop at index movement. Typical test times from 0.03 seconds.

Dual polarity detection (patented)
Limits high-voltage and minimizes generation of static electricity.

Full integration
Must be fully integrated into existing production lines.

High precision test electrodes
For testing small fragile parts.

Non-destructive testing
Tested parts remain undamaged allowing for zero waste.

Single or multiple part detection
Adding counter electrode measurement allows for testing of multiple parts.

No corona discharge
Use of DC voltage eliminates corona discharge.

---

### Technical Specifications

<table>
<thead>
<tr>
<th>LeakTEC Plasma Treater</th>
<th>Technical Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mains Voltage and Frequency</td>
<td>230 VAC 50/60 Hz</td>
</tr>
<tr>
<td>Output voltage/plasma power</td>
<td>Max. 40 kv/max. 2000 Watt</td>
</tr>
<tr>
<td>Power supply</td>
<td>HV-X plasma generator series</td>
</tr>
<tr>
<td>Detection times</td>
<td>From 0.03 sec. (other on request)</td>
</tr>
<tr>
<td>Number parts per batch</td>
<td>Customized</td>
</tr>
<tr>
<td>Electrode design</td>
<td>Customized to application</td>
</tr>
<tr>
<td>Treatable materials</td>
<td>Non-conductive only</td>
</tr>
<tr>
<td>Part thickness</td>
<td>From 0.1-5.0 mm others on request</td>
</tr>
<tr>
<td>Control and connectivity</td>
<td>Complete with touch panel (Standard-Proface)</td>
</tr>
<tr>
<td>Regulation compliance</td>
<td>CE - ROHS - WEEE</td>
</tr>
</tbody>
</table>