Sniffer Probe

LP 503
LP 505
LP 510
Product Identification

In all communications with Pfeiffer Vacuum, please specify the information given on the product nameplate. For convenient reference transfer this information into the nameplate replica below.

Validity

This document applies to sniffer probes with the following part numbers:

- BG 449 207 -T (LP 503 L = 3 m)
- BG 449 208 -T (LP 505 L = 5 m)
- BG 449 209 -T (LP 510 L > 10 m)

The part number can be taken from the product nameplate.

We reserve the right to make technical changes without prior notice.

Intended Use

The LP 503, LP 505, LP 510 sniffer probes are used in conjunction with the following leak detectors

- SmartTest HLT 550
- SmartTest HLT 560
- SmartTest HLT 565
- SmartTest HLT 570
- SmartTest HLT 572
- SmartTest HLT 575

and the forerunner for locating gas leaks on test objects.

Note

Caution: risk clogging

Liquid can cause clogging of the sniffer tip and line.
Do not aspirate any liquids (e.g. water, adhesive substances).
1 Safety

1.1 General Safety Instructions

- Adhere to the applicable regulations and take the necessary precautions for the process media used.
- Before you begin to work, find out whether any vacuum components are contaminated. Adhere to the relevant regulations and take the necessary precautions when handling contaminated parts.

Communicate the safety instructions to other users.

1.2 Liability and Warranty

Pfeiffer Vacuum assumes no liability and the warranty becomes null and void if the custodian or third parties

- disregard the information in this document
- use the product in a non-conforming manner
- make any kind of changes (modifications, alterations etc.) to the product not listed in the corresponding product documentation
- use the product with accessories not listed in the corresponding product documentation

The custodian assumes the responsibility for the process media used.

STOP
DANGER

Caution: dangerous voltages.
Voltaged parts must not be touched with the sniffer tip.
Before leak testing electrically operated devices have to be switched off.
2 Technical Data

Sniffer Line Length

LP 503  $L = 3\ m$
LP 505  $L = 5\ m$
LP 510  $L = 10\ m$

Sniffer Tip

<table>
<thead>
<tr>
<th>Sniffer Tip</th>
<th>Length</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP 312</td>
<td>120 mm, stiff</td>
<td>standard</td>
</tr>
<tr>
<td>TF 312</td>
<td>120 mm, flexible</td>
<td>option</td>
</tr>
<tr>
<td>TP 385</td>
<td>385 mm, stiff</td>
<td>option</td>
</tr>
<tr>
<td>TF 385</td>
<td>385 mm, flexible</td>
<td>option</td>
</tr>
</tbody>
</table>

Gas Throughput

$\approx 20\ ...\ 30\ \text{sccm}$

Probe Connection

- Trigress type 20 (cast)
- Quick-release coupling

Electrical Connection

- Type RJ 45
- Pin 8 not used
- Pin 7 not used
- Pin 6 +24 VDC
- Pin 5 ready
- Pin 4 leak
- Pin 3 suppress
- Pin 2 VM–
- Pin 1 VM+
3 Design

Before unplugging, press the "STOP" key on the control unit of the leak detector.

4 Connection

Plugging In

Unplugging

Before unplugging, press the "STOP" key on the control unit of the leak detector.
5 Maintenance

Sniffer Probe Clogged

Clogging of the sniffer probe may be due to:

- Clogging of capillary filter: → section 5.1
- Clogging of sinter filter: → section 5.2
- Clogging of sniffer probe capillary: ⇒ replace sniffer tip
- Damage of sniffer tip: ⇒ replace sniffer tip
- Clogging / damage of sniffer line: ⇒ replace sniffer probe

5.1 Replacing the Felt Discs or the Capillary Filter

1. Press the "STOP" key on the control unit of the leak detector.

2. Remove dirty felt discs by means of tweezers and replace them
or
unscrew capillary filter and replace it (if using the metallic version, do not
forget the seal)

3. Press the "START" key on the control unit of the leak detector.

4. Hold finger against the capillary filter:
⇒ You should be able to feel the resulting vacuum.

5. Measure the gas throughput with the sniffer probe connected (→ Leak
detector):

- $\text{flow} = 20 \ldots 30 \text{sccm}$
- $\text{flow} \neq 20 \ldots 30 \text{sccm}$: ⇒ check sinter filter → section 5.2
  ⇒ re-check capillary filter
  ⇒ → Leak detector
5.2 Checking / Replacing the Sinter Filter

1. Press the "STOP" key on the control unit of the leak detector.

2. Remove the two Phillips screws

3. Remove the sinter filter with the seal

4. Visually check the filter for contamination:
   - not or only slightly contaminated: Continue to use the sinter filter together with the seal
   - severely contaminated: Replace sinter filter and the seal

5. Reinstall the sniffer tip

6. Press the "START" key on the control unit of the leak detector.

7. Hold finger against the capillary filter:
   ⇒ You should be able to feel the resulting vacuum

8. Measure the gas throughput with the sniffer probe connected (→ Leak detector):  
   - = 20 ... 30 sccm  
   - ≠ 20 ... 30 sccm: ⇒ check the capillary filter → section 5.1  
     ⇒ re-check the sinter filter  
     ⇒ → Leak detector
5.3 Replacing Capillary Filter

Remove the gasket of the metal filter before you change the metal filter to plastic capillary filter.

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Metal capillary filter</td>
</tr>
<tr>
<td>2</td>
<td>Taper gasket (can be black or white)</td>
</tr>
<tr>
<td>3</td>
<td>Plastic capillary filter</td>
</tr>
</tbody>
</table>

Take a small pin or needle (about Ø 0.5 mm) and press the capillary from the top out off the tip (Fig. 10-76). Then the taper gasket (Fig. 10-73,3) at the tip can drop out.

Take out the capillary and remove the taper gasket at the top of the sniffer tip.
## 6. Spare Parts

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Quantity</th>
<th>Ordering Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capillary Filter</td>
<td>Plastic standard version</td>
<td>5 pcs.</td>
<td>BN 846 392 -T</td>
</tr>
<tr>
<td></td>
<td>Felt discs for capillary filter</td>
<td>50 pcs.</td>
<td>BN 846 099 -T</td>
</tr>
<tr>
<td>Sinter Filter</td>
<td>Sinter filter, with seal</td>
<td>5 pcs.</td>
<td>BN 845 979 -T</td>
</tr>
</tbody>
</table>

## 7. Options

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Quantity</th>
<th>Ordering Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capillary Filter</td>
<td>Metal version for rough duty, with seal</td>
<td>1 piece</td>
<td>BG 449 140 -T</td>
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<tr>
<td>Sniffer Tip, stiff</td>
<td>TP 312 120 mm</td>
<td>1 piece</td>
<td>BG 449 215 -T</td>
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<tr>
<td></td>
<td>TP 385 385 mm</td>
<td>1 piece</td>
<td>BG 449 216 -T</td>
</tr>
<tr>
<td>Sniffer Tip, flexible</td>
<td>TF 312 120 mm</td>
<td>1 piece</td>
<td>BG 449 217 -T</td>
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<td></td>
<td>TF 385 385 mm</td>
<td>1 piece</td>
<td>BG 449 218 -T</td>
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</table>
8 Returning the Product

**WARNING**

Caution: forwarding contaminated products

Products returned to Pfeiffer Vacuum for service or repair should preferably be free of harmful substances.

Units which are contaminated microbiologically, explosively or radioactively cannot be accepted as a matter of principle!

Do not return any units which are microbiologically, explosively or radioactively contaminated!

Adhere to the forwarding regulations of all involved countries and forwarding companies and enclose a completed contamination declaration.

Products that are not clearly declared as "free of harmful substances" are de-contaminated at the expense of the customer.

9 Disposal

**DANGER**

Caution: contaminated parts

Contaminated parts can be detrimental to health.

Before you begin to work, find out whether any parts are contaminated. Adhere to the relevant regulations and take the necessary precautions when handling contaminated parts.

**Separating the Components**

After disassembling the product, separate its components according to the following criteria:

**Components Exposed to Process Gases**

Components which have been exposed to radioactive, toxic, caustic, or microbiological process gases must be disposed of in accordance with the relevant national regulations.

Components which have been exposed to other process gases must be separated according to their materials and recycled.

**Components Not Exposed to Process Gases**

Such components must be separated according to their materials and recycled.
Appendix

Log Sheet

Use a copy of this page for making your entries

<table>
<thead>
<tr>
<th>Date</th>
<th>Operating hours of the leak detector</th>
<th>Measured gas throughput [sccm]</th>
<th>Comments (e.g. change of sinter filter)</th>
<th>Initials</th>
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Declaration of Contamination

The repair and/or service of vacuum equipment and components will only be carried out if a correctly completed declaration has been submitted. Non-completion will result in delay.

This declaration can only be completed and signed by authorised and qualified staff.

1. Description of product
   - Type
   - Article No.
   - Serial No.

2. Reason for return
   ___________________________________________________________
   ___________________________________________________________
   ___________________________________________________________

3. Operating fluid(s) used
   ___________________________________________________________

4. Process related contamination of product:
   - toxic no ☐ yes ☐
   - corrosive no ☐ yes ☐
   - biological hazard no ☐ yes ☐ *)
   - explosive no ☐ yes ☐ *)
   - radioactive no ☐ yes ☐
   - other harmful substances no ☐ yes ☐

   *) Products thus contaminated will not be accepted without written evidence of decontamination!

5. Harmful substances, gases and/or by-products
   Please list all substances, gases and by-products which may have come into contact with the product:

<table>
<thead>
<tr>
<th>Trade/Product name</th>
<th>Chemical name (or symbol)</th>
<th>Dangerous material class</th>
<th>Measures if spillage</th>
<th>First aid in case of human contact</th>
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6. Legally binding declaration:
   I hereby declare that the information supplied on this form is complete and accurate. The dispatch of the contaminated product will be in accordance with the appropriate regulations covering packaging, transportation and labelling of dangerous substances.

   Name of organisation or company
   ___________________________________________________________
   Address
   ___________________________________________________________
   Phone
   ___________________________________________________________
   E-Mail
   ___________________________________________________________
   Name
   ___________________________________________________________
   Date and legally binding signature
   ___________________________________________________________
   Company stamp

Copies: Original to manufacturer or representative - 1 copy attach to consignment packaging - 1 copy for file of sender
Vacuum is nothing, but everything to us!

Turbo Pumps
Rotary Vane Vacuum Pumps
Roots Pumps
Dry Vacuum Pumps
Leak Test Units
Valves
Flanges, Feedthroughs
Vacuum Measurement
Gas Analysis
System Technology
Service