Hospital operating rooms are specially designed to avoid contaminations and therefore additional infections of patients during operations. To assure a low level of particle contaminations a laminar air flow is applied to the operating table. To verify the retention efficiency of this flow regime a verification with a defined test aerosol is required according to the standards DIN 1946-4 and SWKI 99-3. For that reason a total particle rate of $6.3 \times 10^9$ P/min has to be distributed to six different positions and emitted with a reliable long term stability. From the standards it is also required that this total particle rate is continuously monitored and controlled by a particle counter. The Topas Aerosol Distribution and Dilution system ADD 536 meets all these required demands for providing a defined test aerosol with the following features:

- Internal generation of a total nominal flow (free of particles) for supplying the six aerosol ejectors
- Homogeneous mixing of the test aerosol coming from an external aerosol generator with this total transportation flow
- Internal adjustable aerosol dilution ratio for direct connection of a particle counter used for controlling a stable particle rate
- Uniform aerosol distribution to six aerosol ejectors

### Special Features

- Designed to comply with the requirements of the German standard DIN 1946-4 and the Swiss guideline SWKI 99-3
- Reliable particle generation rate with an excellent long term stability (particles/time)
- Status information on dilution ratio and total flow rate integrated at the front

### Applications

- Protection grade measurement of operating rooms/theatres according to German DIN 1946-4 and Swiss SWKI 99-3 and VDI 2167 Part 1
- Generation of test aerosols by providing a reliable, reproducible, long term constant, but concentration variable particle stream in connection with a high-concentration particle source e.g. for verification or calibration of particle counters (dilution series with PSL aerosols)
Specifications

Details
- By an external particle counter continuously controlled particle production rate
- Compact portable design, easy to setup
- Internal generation of particle free transportation flow without requesting a compressed air source
- Integrated, highly efficient aerosol dilution, with a wide range of adjustable dilution ratios with excellent reproducibility to be directly connected to particle counter
- Electronically controlled and adjusted dilution ratio adapted to particle counter in use

Necessary Accessories
- Optical Particle Counter (flow rate: 0.1…1 cfm, lower detection limit >0.3 µm, e.g. Topas LAP 340, Lighthouse Solair)
- Aerosol Generator, (flow rate <300 l/h, particle rate >6.3·10⁹P/min, particle output adjustable, e.g. Topas ATM 226)

Technical Data

<table>
<thead>
<tr>
<th>Dilution Ratio</th>
<th>Adjustable to the used particle counter, &gt; 1:10000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Rate of the Particle Counter</td>
<td>2.83 l/min (0.1 cfm) … 28.3 l/min (1 cfm)</td>
</tr>
<tr>
<td>Flow Rate of the Aerosol Generator</td>
<td>max. 5 l/min</td>
</tr>
<tr>
<td>Internal additional carrier airstream</td>
<td>100 l/min</td>
</tr>
<tr>
<td>Aerosol Ejectors</td>
<td>6 pieces, diameter 65 mm</td>
</tr>
<tr>
<td>Power Supply</td>
<td>230 V AC</td>
</tr>
<tr>
<td>Dimensions</td>
<td>250 x 340 x 330 mm</td>
</tr>
<tr>
<td>Hose Connector</td>
<td>10 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>8.5 kg</td>
</tr>
</tbody>
</table>

Complementary Accessories
- Software package CREWin for automated data acquisition and printout protocol as result according to current standards or guidelines of protection grade measurements
- Software package PASWin for automated data acquisition and device control of optical particle counters

For more information please visit our website at www.topas-gmbh.de

Specifications are subject to change without notice.

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