HIGH PRECISION KJELDAHL ANALYSING SYSTEM

VAPODEST® 500 - Automatic distillation, titration and immediate result calculation

PRECISE
High-precision titration unit with micro dosing pump

ROBUST
Designed for high sample throughput and long life

FLEXIBLE
Huge range of glass-ware options in the sample spectrum

COMFORTABLE
Easy operation and data integrity with CG Dashboard
C. Gerhardt presents the brand new flagship of its worldwide successful VAPODEST® line. VAPODEST 500® is the best option for professional labs emphasizing a safe, reliable and highly flexible instrument, which guides operators interactively through analyses and SOP’s and fulfils the highest data management requirements. Designed for results to fully conform DIN EN ISO, AOAC, EPA, ASTM, EC regulation, APHA, Ph. Eur. 2.5.33 method 7, procedure A.

**COMFORTABLE**
- Smart interactive communication concept
- Different user levels
- Quick start concept: pre-defined methods, favourite method on top
- Automatic data transfer of sample data via C. Gerhardt Dashboard from and to common peripheral devices like scales, printers, barcode scanners, LIMS etc.
- Data Logging according to ISO 9001, 17025, GLP
- Data export to LIMS
- Back-lit glass components for transparent analysis processes
- Programmable addition of NaOH, H₂O und H₃BO₃ and suction of chemical residues

**ROBUST**
- Designed for high sample throughput and long life
- Particularly resistant distribution head
- Maintenance-free steam generator and titrant dosing pump
- Chemical resistant, corrosion-free housing

**ECONOMIC**
- Simultaneous distillation and titration saves analysis time
- Stand-by mode saves energy – next analysis can start at any time
- Inbuilt workflow management
RELIABLE

- Dosing pump for titration can be calibrated acc. to ISO 8655
- Reagent pumps can be calibrated acc. to lab situation
- Traceable and transparent process with immediate result calculation

SAFE

- Intelligent supervision of vital functions: cooling water, sample tube, steam generator, tanks
- Components meet highest safety standards
- Steam Soft Start function to manage strong reactions and crystallized samples
- Overcurrent circuit breaker protects system

FLEXIBLE

- Huge range of glassware options: tubes 250 ml to 1,200 ml and Kjeldahl flasks 250 to 750 ml for maximum analytical flexibility
- Best for all established Kjeldahl methods, for ammonium, nitrate or TVBN analyses
- Tank level control set (option) fits standard tanks 5L, 10L and 20L, frees lab personnel from dangerous decanting of chemicals
- Additional sodium hydroxide can be manually added during distillation

C. Gerhardt Dashboard - EASY OPERATION AND DATA INTEGRITY

It is easy to enter sample data with the Dashboard and analyse it at a later stage. The data is transferred via network to the VAPODEST® 500.

- VAPODEST® 500 can be integrated into any network via LAN
- Connect an unlimited number of devices to the dashboard
- Simple data input and sample evaluation
- Clear user management with explicit authorizations
- Access to all network devices (printers, balances, LIMS, barcode scanners, etc.)
- Data can be exported to LIMS
- Data processing meets requirements of GLP, ISO 17025
**ACCESSORIES**

Tanks, level sensors for tanks, catalyst tablets, different sizes of glassware and many more accessories are available on request.

**APPLICATIONS**

Benefit from our analytical knowhow and our comprehensive C. Gerhardt Application Data Base.

**SERVICE**

Our authorized, well-trained, C. Gerhardt partners offer service and maintenance for your Gerhardt System according to our guidelines.

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**TITRATION = PRECISION WORK**

The integrated titration unit developed by C. Gerhardt evaluates the analysis by means of potentiometric, automatic end point detection using a pH combined electrode. The titration solution is metered by a high-precision, almost wear-free micro dosing pump made of ceramic that can be calibrated.

- Minimal flow rate deviation
- Virtually unlimited service life
- Flow rate can be calibrated
- Online titration for quicker analyses
- pH measurement for maximum accuracy and transparency
- Time saving: no daily calibration required
- Cost saving: no indicator or pH-adjustment of boric acid required

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**TECHNICAL INFORMATION**

<table>
<thead>
<tr>
<th>Technical Specifications</th>
<th>VAP 500</th>
</tr>
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<tbody>
<tr>
<td>Integrated titration</td>
<td>yes</td>
</tr>
<tr>
<td>Gerhardt Dashboard (Data management program for PC)</td>
<td>yes</td>
</tr>
<tr>
<td>Variable steam power</td>
<td>0 - 100 %</td>
</tr>
<tr>
<td>Size of Display</td>
<td>7”, 480x800 pixel, touchscreen</td>
</tr>
<tr>
<td>Stand-By-Mode</td>
<td>Yes</td>
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<tr>
<td>Distillation time / sample</td>
<td>2 - 4 min</td>
</tr>
<tr>
<td>Recovery</td>
<td>&gt; 99.5 %</td>
</tr>
<tr>
<td>Reproducibility</td>
<td>± 1 %</td>
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<tr>
<td>Detection limit</td>
<td>0.1 mg N absolute</td>
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<tr>
<td>Safety door</td>
<td>Yes</td>
</tr>
<tr>
<td>KJELDATHERM®-tube KTG 250/300 ml volume</td>
<td>Standard configuration</td>
</tr>
<tr>
<td>Digestion tubes 250, 400, 800 and 1.200 ml can be used</td>
<td>yes</td>
</tr>
<tr>
<td>Kjeldahl-flasks 250, 500 and 750 ml can be used</td>
<td>yes</td>
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<tr>
<td>Connection to level control</td>
<td>yes</td>
</tr>
<tr>
<td>Level sensors for tanks</td>
<td>optional</td>
</tr>
<tr>
<td>Cooling water pressure</td>
<td>0.5 - 6 bar</td>
</tr>
<tr>
<td>Nominal voltage*</td>
<td>230 V, 50 Hz</td>
</tr>
<tr>
<td>Nominal wattage</td>
<td>2200 W</td>
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<tr>
<td>Weight</td>
<td>approx. 44 kg</td>
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<tr>
<td>Dimensions (W x D x H)</td>
<td>527 x 390 x 697 mm</td>
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<td>Pre-defined methods</td>
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<td>Customer defined methods</td>
<td>Yes</td>
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<td>Pump calibration</td>
<td>Yes</td>
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<td>Order-no. VAPODEST® 500</td>
<td>12-0500</td>
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</tbody>
</table>

* Other voltages on request

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Since 1846
C. Gerhardt
EN ISO 9001:2015
Member of Gaia
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