Electrophoresis Systems & Laboratory Equipment

SERVA

Instruments for Life Sciences Research

- Vertical Electrophoresis
- Horizontal Electrophoresis
- Power Supplies
- Spot Picker
- Blotting Apparatus
- Gel Documentation and Analysis
- Centrifuges
- Thermoshakers
- 3D Shaker
- Aspiration Systems
SERVA Serving Scientists

Offering a portfolio of more than 2,500 products, SERVA Electrophoresis is a global leader in providing innovative solutions and technical support to life scientists in academic research and commercial organizations. Our products help to proceed in the laboratory and to simplify the day-to-day work flow for researchers – a comprehensive assortment covering cellular and protein analysis, biochemistry, enzymology, microbiology, microscopy, bioseparation and more.

SERVA Serving Scientists – technical competence and total quality management are our basis for continuous improvement and service. Our policy is to pursue the highest standards in product quality, workplace safety and responsibility for the environment we live in. We dedicate expertise and integrity to guarantee consistent product performance and continuity of supply. SERVA is ISO 9001:2008 certified.

Electrophoresis Made by SERVA

SERVA holds significant intellectual property – electrophoresis specialities are developed and produced at site in Heidelberg, Germany, we are well known for our ampholytes (SERVALYT™) and the wide range of precast gels for vertical and horizontal operation. Proprietary production processes and chemistries continue to be designed and implemented, fueled by many years of expertise to provide unique quality products.

Complimentary to the reagent line SERVA offers the unique range of BlueLine instrumentation – equipment of high-end quality to deliver best performance: the new PRiME™ electrophoresis tank and the submarine units, blotters, power supplies, gel documentation system and our unique HPE™ flat bed single- and multilevel systems – outstanding separation results are achieved in combination with SERVA’s film-based horizontal precast gels for 1D and 2D gel electrophoresis.

Trust in SERVA as a competent partner with many years of experience in development of solutions for your laboratory.
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BlueVertical™ PRiME™
- high quality mini gel tank system

The new BlueVertical™ PRiME™ electrophoresis chamber is a perfect instrument for vertical mini gel electrophoresis of proteins and nucleic acids. When applied in combination with SERVA Gel™ precast gels „Premium Resolution in Minigel Electrophoresis (=PRiME™)” will be guaranteed.

The BlueVertical™ PRiME™ electrophoresis mini tank system has been developed to run precast gels in SDS PAGE, native PAGE, IEF or nucleic acid PAGE applications. The unique innovative clamp system keeps the gel cassettes in their correct position at the inner core running module, leak-free and ready to start within seconds. Built-in convenient operation features result in improved daily work.

- Superb results
- Top resolution
- Easy and safe to handle
- Unique, leak-free clamp system
- Smart design – made in Germany
- For SERVA Gel™ precast gels

Convenient and easy to operate

It is fast and simple to run two slab gels in parallel using the BlueVertical™ PRiME™. Unpack the SERVA Gel™ PRIME™ precast gel, put it into the inner core unit and simply close the clamps. You will hear a soft „click” – the gel is firmly positioned, leak-free. The locating pegs of the inner core unit will ensure that the unit is placed correctly into the buffer tank. Load your samples, close the safety lid. It will fit in one orientation only – this ensures right and safe connection to the power supply.
BlueVertical™ PRiME™ is a highly developed instrument for versatile applications in vertical electrophoresis of proteins and nucleic acids:

### Running conditions using BlueVertical™PRiME™ in electrophoresis applications

<table>
<thead>
<tr>
<th>Type of electrophoresis</th>
<th>Type of SERVAGe™ Precast Gel</th>
<th>Running conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDS PAGE</td>
<td>SERVAGe™ TG PRiME™</td>
<td>$V_{\text{const.}}$ : 300 V Time: 35 min</td>
</tr>
<tr>
<td>SDS PAGE</td>
<td>SERVAGe™ HSE</td>
<td>$V_{\text{const.}}$ : 400 V Time: 20 min</td>
</tr>
<tr>
<td>Native PAGE</td>
<td>SERVAGe™ N</td>
<td>$V_{\text{const.}}$ : 200 V Time: 120 min</td>
</tr>
<tr>
<td>Isoelectric Focusing</td>
<td>SERVAGe™ IEF</td>
<td>$V_{\text{const.}}$ : 100 V for 60 min $V_{\text{const.}}$ : 200 V for 60 min $V_{\text{const.}}$ : 500 V for 30 min Time: 150 min.</td>
</tr>
<tr>
<td>DNA/RNA PAGE</td>
<td>SERVAGe™ TG PRiME™</td>
<td>$mA_{\text{const.}}$ : 35 mA Time: 40 min</td>
</tr>
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### Specifications

<table>
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<tr>
<th>Specification</th>
<th>Value</th>
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<tr>
<td>Inner buffer volume</td>
<td>200 ml</td>
</tr>
<tr>
<td>Outer buffer volume</td>
<td>450 ml</td>
</tr>
<tr>
<td>Voltage (max)</td>
<td>500 Volt</td>
</tr>
<tr>
<td>Current (max)</td>
<td>250 mA</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>4 °C - 65 °C</td>
</tr>
<tr>
<td>Electrodes</td>
<td>Platinum wire (0.2 mm, 99.99 %)</td>
</tr>
<tr>
<td>Dimensions (WxHxD)</td>
<td>160 x 156 x 95 mm</td>
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<tr>
<td>Weight</td>
<td>1.2 kg</td>
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### Ordering information

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<tbody>
<tr>
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<td>BV 104</td>
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<td>Dummy Plate</td>
<td>1 Piece</td>
<td>BV 104-7</td>
</tr>
<tr>
<td>BluePower™ 500 Power Supply</td>
<td>1 Unit</td>
<td>BP 500x4</td>
</tr>
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</table>

**SDS PAGE**
Separation of *E. coli* extract (lane 1, 3, 5, 7, 9, 11) and SERVA Protein Standard III (cat. no. 39215, lane 2, 4, 6, 8, 10) on SERVAGe™ TG PRiME™ 12 %.

**Native PAGE**
Separation of SERVA Native Marker Liquid Mix for BN/CN PAGE (cat. no. 39219, lane 1 to 10) by Clear Native PAGE on SERVAGe™/MN 4–16 % (cat. no. 43252).

**Isoelectric Focusing**
Separation of marker proteins (cat. no. 39212, lane 1 to 10) by vertical IEF on SERVAGe™ IEF 3–10.

**DNA/RNA PAGE**
Separation of SERVA FastLoad DNA standards (lane 2 + 6: 50 bp DNA ladder cat. no. 39315.01; lane 3 + 8: 100 bp DNA ladder cat. No. 39316.01; lane 4 + 10 1 kb DNA ladder cat. No. 39317.01; lanes 1, 5, 7, 9, 11 are empty) on SERVAGe™ TG PRiME™ 8 % (cat. no. 39260.01) in 1 x TBE running buffer.
HPE™ Tower System
- enabling high performance electrophoresis

The SERVA HPE™ Tower System is a multilevel flatbed electrophoresis device providing unmatched resolution, reproducibility and sensitivity – the first true „High Performance Electrophoresis (HPE™)” system.

Up to four polyacrylamide gels can be operated simultaneously to conduct either 1- and 2-dimensional separations. Appropriate gels were developed especially for use with the HPE™ tower – a fine-tuned technology which features superb resolution and allows the researcher to achieve outstanding results. HPE™ outperforms any conventional 2D PAGE system.

The HPE™ Tower System is delivered with the following system components: HPE™ Tower, power supply with monitoring software to log the electrical parameters during gel electrophoresis, external cooling unit.

Unmatched resolution and reproducibility
Precast HPE™ 2D gels developed especially for use with the HPE™ tower (see below)
Up to 25 % more spots compared to traditional vertical 2D PAGE (Moche et al., Electrophoresis 2013, 34, 1510–1516)
Up to 4 gels per run
Easy and safe to handle
Smart design – made in Germany

The HPE™ Tower system is compatible to all kinds of flatbed gels both self-cast and precast. SERVA offers the following precast flatbed gel types:

- HPE™ 2D gels for 2nd dimension in 2D PAGE
- SERVA IPG BlueStrips for 1st dimension in 2D PAGE
- SERVALYT™ PRECOTES™/PreNets™ for IEF
- FocusGels for IEF
- CleanGels for 1D PAGE

HPE™ Tower System – superior performance in large format 2D gel electrophoresis
2D HPE™ Gels

- Film-backed, 0.65 mm thin gels
- Available in three formats:
  - 2D HPE™ Large Gels (255 x 200 mm) to run 1 x 24 cm IPG strip (plus 1 marker lane)
  - 2D HPE™ Double Gels (250 x 110 mm) to run 2 x 11 cm IPG strips (plus 1 marker lane)
  - 2D HPE™ Triple Gels (250 x 110 mm) to run 3 x 7 cm IPG strips (plus 2 marker lanes)

- All kits include running and equilibration buffers, wicks and cooling contact fluid

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage (max.)</td>
<td>1500 V</td>
</tr>
<tr>
<td>Current (max.)</td>
<td>40 mA</td>
</tr>
<tr>
<td>Electrophoresis platforms</td>
<td>4</td>
</tr>
<tr>
<td>Maximum gel size per drawer</td>
<td>260 x 205 mm</td>
</tr>
<tr>
<td>Electrode distance</td>
<td>270 mm</td>
</tr>
<tr>
<td>Temperature operating range</td>
<td>4 °C to 30 °C</td>
</tr>
<tr>
<td>Dimensions (WxHxD)</td>
<td>450 x 500 x 550 mm</td>
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<tr>
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Ordering information

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<th>Description</th>
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<th>Cat. no.</th>
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<tr>
<td>HPE™ Tower System</td>
<td>HPE™ Tower, Power Supply Package, Cooling Unit</td>
<td>1 System</td>
<td>HPE-TS2</td>
</tr>
<tr>
<td>HPE™ Tower</td>
<td>HPE™ Tower</td>
<td>1 Piece</td>
<td>HPE-T02</td>
</tr>
<tr>
<td>HPE™ Power Supply</td>
<td>1500 V, 400 mA, 300 W</td>
<td>1 Piece</td>
<td>HPE-PS1</td>
</tr>
<tr>
<td>BluePower™ Control Kit</td>
<td>Software, USB adaptor</td>
<td>1 Kit</td>
<td>BP-PCS01</td>
</tr>
<tr>
<td>HPE™ Power Supply Package</td>
<td>Power Supply, Control Kit</td>
<td>1 System</td>
<td>HPE-PSP</td>
</tr>
<tr>
<td>HPE™ Cooling Unit</td>
<td>Chiller</td>
<td>1 Piece</td>
<td>HPE-CU1</td>
</tr>
<tr>
<td>Paper Pool</td>
<td>For soaking electrode wicks</td>
<td>1 Piece</td>
<td>HPE-A02</td>
</tr>
</tbody>
</table>
HPE™ BlueHorizon™
- optimized performance in cooled flatbed gel electrophoresis

The HPE™ BlueHorizon™ is a flatbed system for horizontal electrophoresis using pre-cast gels, self-cast gels and gel strips. Main applications are isoelectric focusing (IEF) including the run of IPG strips (like SERVA IPG BlueStrips) in 2D PAGE and SDS PAGE, but also the separation of nucleic acids in polyacrylamide gels.

The unit consists of a stable metal housing and an integrated drawer. The drawer holds the cooling plate with connectors for the external refrigeration system (e.g. the circulatory refrigerator bath HPE™ Cooling Unit, cat. no. HPE-CU1). The cooling plate is made from special ceramic material (maximum gel size 260 x 205 mm) for efficient cooling. It provides even heat dissipation, allowing to run gels at a temperature as low as 4 °C. This is particularly important when applying high voltage to thin isoelectric focusing (IEF) gels.

The electrode lid comes with one pair of platinum electrodes. Three fixed electrode positions allow the usage of a wide range of different sized gels. Optional, an electrode lid with a triple electrode arrangement for bi-directional gel run is available. The easy-to-clean housing allows placing the power supply on top of the unit saving valuable space on your bench.
HPE™ BlueHorizon™ is a highly developed instrument for versatile applications in horizontal electrophoresis of proteins and nucleic acids:

**Ordering information**

<table>
<thead>
<tr>
<th>Product</th>
<th>Qty</th>
<th>Cat. no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE™ BlueHorizon™</td>
<td>1 Unit</td>
<td>HPE-BH</td>
</tr>
<tr>
<td>BluePower™ 3000x4 Power Supply</td>
<td>1 Piece</td>
<td>BP-3000x4</td>
</tr>
<tr>
<td>HPE™ Cooling Unit (Chiller)</td>
<td>1 Unit</td>
<td>HPE-CU1</td>
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</table>

**Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage (max.)</td>
<td>3000 V</td>
</tr>
<tr>
<td>Current (max.)</td>
<td>25 mA</td>
</tr>
<tr>
<td>Maximum gel size</td>
<td>260 x 205 mm</td>
</tr>
<tr>
<td>Electrode distances at</td>
<td>270 mm, 195 mm and 115 mm</td>
</tr>
<tr>
<td>Temperature operating range</td>
<td>4 °C to 30 °C</td>
</tr>
<tr>
<td>Dimensions (WxHxD)</td>
<td>450 x 500 x 120 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>6 kg</td>
</tr>
</tbody>
</table>

**Serum/CSF analysis**

Comparison of CSF lanes (numbers) and serum lanes (S), separated on FocusGel 6–11, silver stained.

**Urinary protein analysis**

Urinary proteins separated on an SDS Urine Gel (M = Marker, S = Serum, 1,3 = Tubular proteins, 2 = Bence-Jones proteins, 4 = Non-selective glomerular and tubular proteins, 5,6 = Glomerular proteins; PMG 10 %, 25 slots; cat. no. 43391.01; Samples courtesy of: Dr. Christian Weber, Krankenhaus Reinkenheide, Bremerhaven, Germany)

**SDS PAGE on CleanGel**

Separation of urinary proteins by horizontal 1D SDS PAGE on CleanGel (see also below for more details)

**Native IEF on PRECOTES**

IEF of proteins isolated from different potato cultivars separated on SERVALYT™ PRECOTES™

**Native IEF on FocusGel**

Isoelectric Focusing of proteins on FocusGel 3-10

**Denaturing IEF on Blank PRECOTES**

Separation of proteins on SERVA Blank PRECOTES™ equilibrated with SERVA-LYT™ pH 3–10 in the presence of 8 M urea

**Horizontal Electrophoresis**

- Native IEF on PRECOTES
- Native IEF on FocusGel
- Denaturing IEF on Blank PRECOTES
- SDS PAGE on CleanGel
- Serum/CSF analysis
- Urinary protein analysis
- Native IEF on FocusGel
- Native IEF on FocusGel
- Denaturing IEF on Blank PRECOTES
- SDS PAGE on CleanGel
- Serum/CSF analysis
- Urinary protein analysis
- Native IEF on FocusGel
- Native IEF on FocusGel
- Denaturing IEF on Blank PRECOTES
- SDS PAGE on CleanGel
- Serum/CSF analysis
- Urinary protein analysis

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<td>HPE-BH</td>
</tr>
<tr>
<td>BluePower™ 3000x4 Power Supply</td>
<td>1 Piece</td>
<td>BP-3000x4</td>
</tr>
<tr>
<td>HPE™ Cooling Unit (Chiller)</td>
<td>1 Unit</td>
<td>HPE-CU1</td>
</tr>
</tbody>
</table>

**Specifications**

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<tr>
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<tbody>
<tr>
<td>Voltage (max.)</td>
<td>3000 V</td>
</tr>
<tr>
<td>Current (max.)</td>
<td>25 mA</td>
</tr>
<tr>
<td>Maximum gel size</td>
<td>260 x 205 mm</td>
</tr>
<tr>
<td>Electrode distances at</td>
<td>270 mm, 195 mm and 115 mm</td>
</tr>
<tr>
<td>Temperature operating range</td>
<td>4 °C to 30 °C</td>
</tr>
<tr>
<td>Dimensions (WxHxD)</td>
<td>450 x 500 x 120 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>6 kg</td>
</tr>
</tbody>
</table>
BlueMarine™
- robust submarine chamber for agarose gel electrophoresis

The BlueMarine™ electrophoresis units are applied to separation of nucleic acids in agarose gels. Most common applications are rapid screening of PCR fragments, analysis of restriction digests and plasmid preparations, checking *in vitro* transcripts etc.

BlueMarine™ units are designed for safe and easy handling and feature a rugged, most durable acrylic construction, ensuring a long-lasting lifetime. Double insulated cables are rated safe up to 3000 volts. Gold plated electrical connectors are corrosion-free. The recessed power connectors are integrated into the safety lid. The new designed platinum electrodes can be easily replaced by the user.

BlueMarine™ 100/200
- Robust acrylic construction
- UV transparent gel trays
- Casting gates for leak-free gel pouring
- Red contrasting strips for easy sample loading
- Broad range of accessories available
- Smart design – made in Germany

BlueMarine™ HTS
- Innovative system for high-throughput analysis
- Includes 6 aluminium combs with 17 sample wells each
- Includes 2 gel casting gates for leak-free gel casting
- For 102 samples, separation distance max. 6 cm
- For long runs of 17 single samples, distance max. 18 cm

### BlueMarine™: Accessories

<table>
<thead>
<tr>
<th>Combs</th>
<th>Gel Trays</th>
<th>Casting Gates</th>
<th>Electrodes</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Variety of combs for all purposes</td>
<td>■ UV transparent</td>
<td>■ Leak-free system</td>
<td>■ Easy to clean</td>
</tr>
<tr>
<td>■ For single- and multi-channel pipette</td>
<td>■ With lifting aids to avoid contact with buffer</td>
<td>■ Insert the gasket into the tray and pour the gel</td>
<td>■ Fast replacement if necessary</td>
</tr>
<tr>
<td>■ For analytical and preparative applications</td>
<td>■ Gels can be casted and run in the same tray</td>
<td>■ No extra sealing or taping step required</td>
<td></td>
</tr>
</tbody>
</table>
Specifications

<table>
<thead>
<tr>
<th></th>
<th>BlueMarine™ 100</th>
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<th>BlueMarine™ HTS</th>
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<tbody>
<tr>
<td>Voltage (max)</td>
<td>300 V</td>
<td>500 V</td>
<td>500 V</td>
</tr>
<tr>
<td>Current (max)</td>
<td>200 mA</td>
<td>300 mA</td>
<td>300 mA</td>
</tr>
<tr>
<td>Gel format</td>
<td>7 x 10 cm</td>
<td>15 x 15 cm; 15 x 20 cm</td>
<td>17.5 x 19.2 cm</td>
</tr>
<tr>
<td>Approx. gel volume (5 mm)</td>
<td>35 ml</td>
<td>115 ml; 150 ml</td>
<td>160 ml</td>
</tr>
<tr>
<td>Comb positions</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Maximum sample number</td>
<td>28</td>
<td>124</td>
<td>102</td>
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<tr>
<td>Electrode distance</td>
<td>180 mm</td>
<td>285 mm</td>
<td>285 mm</td>
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<tr>
<td>Volts per cm</td>
<td>14 - 140 V</td>
<td>20 - 200 V</td>
<td>20 - 200 V</td>
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<tr>
<td>Dimensions (WxHxD)</td>
<td>95 x 80 x 290 mm</td>
<td>175 x 95 x 390 mm</td>
<td>195 x 380 x 800 mm</td>
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<td>Weight</td>
<td>0.8 kg</td>
<td>1.6 kg</td>
<td>3.5 kg</td>
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Ordering information

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<tbody>
<tr>
<td>BlueMarine™ 100</td>
<td>1 Piece</td>
<td>BM 100</td>
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<tr>
<td>BlueMarine™ 200</td>
<td>1 Piece</td>
<td>BM 200</td>
</tr>
<tr>
<td>BlueMarine™ HTS</td>
<td>1 Piece</td>
<td>BM HTS</td>
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</table>
BluePower™ Power Supplies
- the force that drives your gel

Different power supplies are needed to cover the large variety of electrophoretic separations such as SDS and native PAGE electrophoresis of proteins, DNA electrophoresis in agarose and PAGE gels, isoelectric focusing, 2D electrophoresis and electrotransfer of proteins in Western-Blotting.

The BluePower™ Control Kit provides the communication between a SERVA power supply and a Windows® personal computer via a USB—Serial converter and a documentation software. It has basically two functions:

- Monitoring and documenting the voltage, voltage-hour integral, current and power during the time course of an electrophoresis run.
- Programming, loading, storage and documentation of multistep power supply settings

### Specifications

<table>
<thead>
<tr>
<th></th>
<th>BluePower™ 200</th>
<th>BluePower™ 500</th>
<th>BluePower™ 1500</th>
<th>BluePower™ 3000</th>
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<tbody>
<tr>
<td>Voltage (max)</td>
<td>200 V</td>
<td>500 V</td>
<td>1500 V</td>
<td>3000 V</td>
</tr>
<tr>
<td>Current (max)</td>
<td>2000 mA</td>
<td>1000 mA</td>
<td>400 mA</td>
<td>200 mA</td>
</tr>
<tr>
<td>Watt (max.)</td>
<td>200 W</td>
<td>200 W</td>
<td>600 W</td>
<td>300 W</td>
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<tr>
<td>Outlets</td>
<td>4 x 2</td>
<td></td>
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<tr>
<td>Programmable</td>
<td>Yes (9 programs, 9 steps each)</td>
<td></td>
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<tr>
<td>Timer</td>
<td>Yes</td>
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<tr>
<td>Regulation</td>
<td>const. voltage / const. current / const. output / programming</td>
<td></td>
<td></td>
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<tr>
<td>Compatible with BluePower™ Control Kit</td>
<td>Yes</td>
<td></td>
<td></td>
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<tr>
<td>Security measures</td>
<td>recognition of load / earthing output jackets / power error test</td>
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<tr>
<td>Dimensions (WxHxD)</td>
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Power Supplies for versatile applications in electrophoresis – highest standards in technology and workplace safety.
### Power Supply Selection Guide

#### Nucleic Acid Electrophoresis

<table>
<thead>
<tr>
<th>SERVA Electrophoresis System</th>
<th>Applied Technique</th>
<th>Gel type</th>
<th>Typical P.S. Settings (max)</th>
<th>Recommended Power Supply</th>
<th>Order no.</th>
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</thead>
<tbody>
<tr>
<td>Blue Marine™ HTS</td>
<td>Submarine electrophoresis</td>
<td>self-cast agarose gels</td>
<td>500 300 -</td>
<td>BluePower™ 500x4 Power Supply 500 V, 1000 mA, 200 W</td>
<td>BP-500X4</td>
</tr>
<tr>
<td>Blue Marine™ 200</td>
<td>Submarine electrophoresis</td>
<td>self-cast agarose gels</td>
<td>500 300 -</td>
<td>BluePower™ 500x4 Power Supply 500 V, 1000 mA, 200 W</td>
<td>BP-500X4</td>
</tr>
<tr>
<td>Blue Marine™ 100</td>
<td>Submarine electrophoresis</td>
<td>self-cast agarose gels</td>
<td>300 200 -</td>
<td>BluePower™ 500x4 Power Supply 500 V, 1000 mA, 200 W</td>
<td>BP-500X4</td>
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#### Vertical Protein Electrophoresis

<table>
<thead>
<tr>
<th>BlueVertical™ PriME™</th>
<th>SDS and Native PAGE</th>
<th>SERVAGel™ TG PRIME™ and all other mini Vertical SERVAGels</th>
<th>Power Supply</th>
<th>Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEF</td>
<td>SERVAGel™ IEF</td>
<td>500 10 10</td>
<td>BluePower™ 500x4 Power Supply 500 V, 1000 mA, 200 W</td>
<td>BP-500X4</td>
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</table>

#### Horizontal Protein Electrophoresis

<table>
<thead>
<tr>
<th>Blue Horizon™</th>
<th>IEF</th>
<th>FocusGel, PRECOTES™</th>
<th>Power Supply</th>
<th>Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDS &amp; Native PAGE</td>
<td>1D SDS Urea Gel</td>
<td>1000 50 60</td>
<td>BluePower™ 1500x4 Power Supply 1500 V, 400 mA, 300 W</td>
<td>BP-1500X4</td>
</tr>
<tr>
<td>HPE™ Tower</td>
<td>2D Electrophoresis</td>
<td>2D HPE™</td>
<td>1500 200 200</td>
<td>BluePower™ 1500x4 Power Supply 1500 V, 400 mA, 300 W</td>
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<tr>
<td>SDS PAGE</td>
<td>1D SDS, CleanGel</td>
<td>1500 200 200</td>
<td>BluePower™ 1500x4 Power Supply 1500 V, 400 mA, 300 W</td>
<td>BP-1500X4</td>
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<tr>
<td>IEF</td>
<td>FocusGel, PRECOTES™</td>
<td></td>
<td>BluePower™ 3000x4 Power Supply 3000 V, 200 mA, 300 W</td>
<td>BP-3000X4</td>
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</table>

#### Protein Blotting

| Tank Blotting | 200 2000 100 | BluePower™ 200x4 Power Supply 200 V, 2 A, 200 W | BP-200X4 |
| Semi-Dry Blotting | 30 500 30 | BluePower™ 200x4 Power Supply 200 V, 2 A, 200 W | BP-200X4 |

### Ordering information

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<tr>
<td>BluePower™ 500x4</td>
<td>1 Piece</td>
<td>BP-500x4</td>
</tr>
<tr>
<td>BluePower™ 1500x4</td>
<td>1 Piece</td>
<td>BP-1500x4</td>
</tr>
<tr>
<td>BluePower™ 3000x4</td>
<td>1 Piece</td>
<td>BP-3000x4</td>
</tr>
<tr>
<td>BluePower™ Control Kit</td>
<td>1 Kit</td>
<td>BP-PCS001</td>
</tr>
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</table>
SERVA HPE™ ScreenPicker
- semi-manual spot picking from fluorescent gels

Without automated picker, error-free manual spot picking from complex fluorescent stained 2D gels is a challenge. To visualize the spots, it usually requires post-staining (silver, Coomassie etc.) of the gel. But these staining methods are less sensitive than fluorescence detection and, in addition, post-stained protein spots may cause problems by interfering with subsequent analysis method (e.g. mass spectrometry).

The SERVA HPE™ ScreenPicker allows semi-manual spot picking from fluorescent gels without the need of visual post staining, sophisticated robotic equipment and software. The gel is placed on a horizontal flat screen which displays the fluorescence scanned 2D image 1:1. Spots to pick are visualized one at a time by crosshair on the image. The plugs are disposed error-free into 96 well plates by using the picking list and the integrated plate identifier control. The SERVA HPE™ ScreenPicker comes complete with PC, software and picker head.

Advantages of SERVA HPE™ ScreenPicker:

- Reads any image or pick list format
- Designed for HPE™ gels on non-fluorescent plastic backing and gels on glass plates
- Precise XY-carriage and robust picker head
- Maintenance-free

Specifications

<table>
<thead>
<tr>
<th>Dimensions (WxHxD)</th>
<th>550 x 360 x 80 mm</th>
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</thead>
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Ordering information

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<tr>
<td>SERVA HPE™ ScreenPicker</td>
<td>1 Unit</td>
<td>HPE-SP1</td>
</tr>
<tr>
<td>OneTouch 2D gel spotpicker head, 1.5 mm</td>
<td>1 Piece</td>
<td>P2-D15</td>
</tr>
<tr>
<td>OneTouch 2D gel spotpicker head, 3.0 mm</td>
<td>1 Piece</td>
<td>P2-D30</td>
</tr>
<tr>
<td>Protection Shield (500 x 200 x 400 mm)</td>
<td>1 Piece</td>
<td>PS-50</td>
</tr>
<tr>
<td>Fluorescent stickers (5 mm in diameter)</td>
<td>450 Pieces</td>
<td>HPE-FS05</td>
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</table>

HPE™ ScreenPicker – error-free spot picking from fluorescent 2D gels
BlueFlash™ Semi-Dry Blotter
- homogeneous protein transfer from gel to membrane

In tank blotting a large volume of buffer is required. To achieve a high electric field strength for rapid blotting, very high current volumes are needed. Consequently, this leads to high heat development. In semi-dry blotting, the closely spaced electrodes separated by filter papers permit electrotransfer of proteins without high current settings. Semi-dry blotting is faster, generates less heat and requires less materials than tank blotting.

Both discontinuous and continuous buffer systems can be applied. Discontinuous buffer systems are particularly recommended because transfer is very homogeneous for a wide range of molecular weights. Even larger proteins up to 200 kDa can be transferred with an efficiency of > 80%.

Specifications

<table>
<thead>
<tr>
<th></th>
<th>BlueFlash™ Small</th>
<th>BlueFlash™ Medium</th>
<th>BlueFlash™ Large</th>
<th>BlueFlash™ X-Large</th>
<th>BlueFlash™ XX-Large</th>
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</thead>
<tbody>
<tr>
<td>Blotting Area</td>
<td>100 x 100 mm</td>
<td>150 x 150 mm</td>
<td>260 x 280 mm</td>
<td>385 x 235 mm</td>
<td>385 x 385 mm</td>
</tr>
<tr>
<td>Operating range</td>
<td>0.8 - 3.5 mA/cm²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirements</td>
<td>200 V, 500 mA</td>
<td>200 V, 500 mA</td>
<td>200 V, 2000 mA</td>
<td>200 V, 2000 mA</td>
<td>200 V, 2000 mA</td>
</tr>
<tr>
<td>Buffer volume</td>
<td>0.2 ml/cm² x number of sheets + 1.0 ml/cm² of membrane + 1.5 ml/cm² of gel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>23 x 15 x 8.5 cm</td>
<td>28 x 20 x 8.5 cm</td>
<td>45 x 33 x 8.5 cm</td>
<td>43 x 37 x 8.5 cm</td>
<td>51 x 43 x 8.5 cm</td>
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<tr>
<td>Weight</td>
<td>1.5 kg</td>
<td>2.5 kg</td>
<td>5 kg</td>
<td>6.5 kg</td>
<td>6.5 kg</td>
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Ordering information

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<tbody>
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<td>BF-S</td>
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<tr>
<td>BlueFlash™ Medium</td>
<td>1 Piece</td>
<td>BF-M</td>
</tr>
<tr>
<td>BlueFlash™ Large</td>
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<td>BF-L</td>
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<tr>
<td>BlueFlash™ X-Large</td>
<td>1 Piece</td>
<td>BF-XL</td>
</tr>
<tr>
<td>BlueFlash™ XX-Large</td>
<td>1 Kit</td>
<td>BF-XXL</td>
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</table>

BlueFlash™ Semi-Dry Blotter – for fast and gentle electrotransfer of proteins
Digital Imaging and Analysis System III
- fast and convenient gel documentation

The Digital Imaging and Analysis System III from SERVA is the ideal solution to master the daily tasks of documentation and 1D gel analysis in the routine laboratory work. Solid hardware including a digital SLR camera and easy-to-grasp 1D analysis software GelScan 6.0 are combined to provide an excellent tool to meet your needs. UV-, blue- and white-light trans-illuminator or epi-UV- or white-light are optional.

Capture a quick image of your protein or DNA gel for your records in the lab book and perform an advanced analysis conforming to GLP standards by applying GelScan 6.0. Export pre-formatted data sets into MS Word™, MS Excel™ or MS PowerPoint™ for further analysis or publication. Advanced versions of GelScan (RFLP-, cluster-analysis or HTS) are available on request.

The Hardware
- For UV-, blue- and white-light applications EtBr, SERVA DNA Stain Clear G, Silver, Coomassie® etc.
- UV filter/holder included
- Stable metal housing
- Large door for easy gel handling
- Digital SLR camera system

Specifications

<table>
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<tr>
<th>Dimensions (WxHxD)</th>
<th>420 x 520 x 550 mm</th>
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<td>12 kg</td>
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</table>

The Software GelScan 6.0
- Highly sophisticated 1D analysis
- Determination of molecular weight
- Determination of isoelectric point
- Quantification of bands
- Analysis of expression patterns
- Database for pictures, project, results
- Includes GelScript for easy image annotation

Ordering information

<table>
<thead>
<tr>
<th>Product</th>
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<th>Cat. no.</th>
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<td>Digital Imaging and Analysis System III</td>
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<td>DIAS-III</td>
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<tr>
<td>GelScan 6.0 1 D Analysis Software</td>
<td>1 Software</td>
<td>GS-V60</td>
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LabImage 1D Gel Analysis Software

- your tool in 1D gel analysis

LabImage 1D gel analysis (LabImage 1D) is a flexible solution with strong image analysis algorithms, applicable also for DNA or protein testing and western blotting techniques. Due to its workflow-based concept, this application has become a prime example of software usability. Based on the latest technology, this application works with both Mac and the latest Windows versions and requires no special user training.

LabImage 1D L-320 is the basic version for standard 1D analysis of protein and nucleic acid gels. It allows import of common image types or import of images from scanner or camera, automatic lane and band detection, manual lane and band correction, calculation of MW, Rf, area, band volume, background reduction, creation of own MW or pl standard as well as multiple standards for one gel and has many different report and export functions.

The L-340 version includes grimace correction, Rf calibration and correction of multiple standards, can normalize not only single band but group of bands and has an additional export report to RFT and XLS. An additional module allows FDA 21 CFR Part 11 compliance.

Moreover, the L-360 version could detect multiple regions of interest (ROIs) and is fully automatable (create and edit macros for automation, apply macros to single image or image stack).

Ordering information

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<td>LabImage 1D L-360 Gel Analysis for academic</td>
<td>1 License</td>
<td>L-360-A</td>
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<tr>
<td>LabImage 1D L-360 Gel Analysis for corporate</td>
<td>1 License</td>
<td>L-360-C</td>
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* Network licenses (a minimum of 3 licenses is required) are available on request. For network database, macro+module as well as L-340 21 CFR Part 11 and L-360 21 CFR Part 11 please inquire.
SERVA BlueSpin Mini Microcentrifuge
- now you can spin!

The SERVA BlueSpin Mini is a small benchtop microcentrifuge for all kinds of sample preparations and molecular biology experiments such as spin-down of pro- and eucaryotic cells, phenol extraction etc.

The SERVA BlueSpin Mini is a compact and quiet instrument. The centrifuge is operated easily and the digital LED display shows time and speed (RPM, RCF). The SERVA BlueSpin Mini speed can be adjusted up to 13,500 rpm or 12,300 g. The unit has a small footprint and a secure stand. It comes with a fixed angle microtube rotor with plastic lid for 12 microtubes and 12 adaptors for 0.5 ml tubes and 0.2 ml tubes, respectively. A fixed angle cryotube rotor with plastic lid for 8 cryotubes (capacity: 8 x 1.8 ml) as well as a PCR rotor for 4 x 8-tube PCR strips can be ordered separately.

- Max. 13,500 rpm with 12-hole microrotor
- Max. 12 microtubes or 32 PCR tubes
- Automatic RPM / RCF conversion
- „PULSE“ key for quick runs
- Blue LCD display
- Very low noise level

Specifications (with 12 hole rotor / PCR tube rotor)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Max. RPM</td>
<td>13,500 rpm / 6,000 rpm</td>
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<tr>
<td>Max. RCF</td>
<td>12,300 xg / 1,850 xg</td>
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<tr>
<td>RPM / RCF conversion</td>
<td>Yes</td>
</tr>
<tr>
<td>Max. capacity</td>
<td>12 x 2.0 ml tubes / 8 x 1.8 ml cryotubes / 4 x 8-tube PCR strips</td>
</tr>
<tr>
<td>Time control</td>
<td>Pulse or timed ≤ 30 min</td>
</tr>
<tr>
<td>Noise level</td>
<td>≤ 56 dB</td>
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<tr>
<td>Acc / Dec</td>
<td>≤ 12 / &lt; 16 s</td>
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<tr>
<td>Automatic door release</td>
<td>Yes</td>
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<td>Dimensions (WxHxD)</td>
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Ordering information

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<td>1 Piece</td>
<td>BS-Mini</td>
</tr>
<tr>
<td>12 Tube Microtube Rotor</td>
<td>1 Piece</td>
<td>BS-MRM</td>
</tr>
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<td>8 Tube Cryotube Rotor</td>
<td>1 Piece</td>
<td>BS-MCR</td>
</tr>
<tr>
<td>4 x 8 Tube PCR Strip Rotor</td>
<td>1 Piece</td>
<td>BS-MRP</td>
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</table>
**SERVA BlueSpin Cryo Microcentrifuge**
- refrigerated centrifuge with small footprint!

The SERVA BlueSpin Cryo is a refrigerated compact benchtop microcentrifuge for all kinds of molecular and cell biology experiments such as ethanol precipitation, phenol extraction, nucleic acid preparation, cell-down and spin-down of other temperature sensitive reaction mixtures.

The SERVA BlueSpin Cryo is a solid and quiet instrument. The centrifuge with automatic rotor identification is operated easily and the digital LED display shows time, speed (RPM, RCF) and temperature. The temperature can be set from -20 °C to +40 °C. The centrifuge is delivered without rotor. A selection of four rotor types as well as microtube rotor adaptors for 0.2 and 0.5 ml tubes are available.

- Max. 17,000 rpm / 27,237 g with 24-hole microrotor
- Max. 30 microtubes, 64 PCR tubes (8 x 8-tube strip)
- Temperature range from -20 °C to +40 °C
- FAST COOL button
- „PULSE“ key for quick runs
- Blue LCD display
- Automatic rotor identification
- Programmable (100 programs)
- Very low noise level

### Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td>Max. RPM</td>
<td>17,000 rpm (rotor dependent)</td>
</tr>
<tr>
<td>Max. RCF</td>
<td>27,237 xg (rotor dependent)</td>
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<tr>
<td>RPM / RCF conversion</td>
<td>Yes</td>
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<tr>
<td>Max. capacity</td>
<td>30 x 2.0 ml tubes / 8 x 8-tube PCR strips</td>
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<tr>
<td>Time control</td>
<td>Pulse, timed &lt; 100 min or continuous</td>
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<td>Noise level</td>
<td>≤ 56 dB</td>
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<tr>
<td>Acc / Dec</td>
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<td>Safety lid lock</td>
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<td>FAST COOL button</td>
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### Ordering information

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<td>24 Tube Microtube Rotor</td>
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<td>BS-MRR24</td>
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<td>30 Tube Microtube Rotor</td>
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<td>BS-MRR30</td>
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<td>BS-MTR18</td>
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<tr>
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SERVA BlueThermo H/HC
- temperature control on your bench!

The SERVA BlueThermo H and HC shaker are precise heating (H) and heating & cooling (HC) thermostashakers. The instruments deliver highest temperature accuracy due to a 10-point-calibration (+/- 0.1°C), fastest temperature control and even temperature distribution.

The stable construction as well as the latest technology guarantees reliability. The smart touch control panel for different operation modes is perfectly adapted to laboratory setups. Use up to 9 programs with 30 program steps in total. Adjustable functions are timer, interval shaking, short mix and shaking frequencies. Surfaces of housing and touch panel are easy to clean. Units will be delivered without thermoblock. Blocks have to be ordered separately. More than 30 exchangeable blocks are available. Please inquire for a 2-block Thermoshaker or a suitable block for your application.

Stable metal housing for high reliability
Precise temperature control by 10-point-calibration (+/- 0.1 °C) with large temperature range
9 programs
Flexible with over 30 exchangeable blocks
Unique touch control panel
Large temperature range
Smart design - made in Germany

Specifications

<table>
<thead>
<tr>
<th></th>
<th>BlueThermo H</th>
<th>BlueThermo HC</th>
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<tbody>
<tr>
<td>Temperature operation range</td>
<td>Amb. +3 °C ...+130 °C</td>
<td>Amb. -16 °C ... +100 °C</td>
</tr>
<tr>
<td>Temperature adjustable range</td>
<td>0 °C...+135 °C</td>
<td>-10 °C ... +105 °C</td>
</tr>
<tr>
<td>Average heating time</td>
<td>11.5 °C / min</td>
<td>6 °C / min</td>
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<tr>
<td>Maximum cooling time</td>
<td>n.a.</td>
<td>12 °C / min</td>
</tr>
<tr>
<td>Shaking frequency / orbit</td>
<td>200 - 1500 rpm / 3 mm</td>
<td>200 - 1500 rpm / 3 mm</td>
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<tr>
<td>Dimensions (WxDxH)</td>
<td>220 x 330 x 109 mm</td>
<td>220 x 330 x 109 mm</td>
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<td>9 kg</td>
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Ordering information

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<td>BT-H</td>
</tr>
<tr>
<td>SERVA BlueThermo HC</td>
<td>1 Piece</td>
<td>BT-HC</td>
</tr>
<tr>
<td>Exchangeable Thermoblocks for SERVA BlueThermo</td>
<td>Qty</td>
<td>Cat. no.</td>
</tr>
<tr>
<td>Block 96 x 0.2 ml tubes</td>
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<td>BT-B96-0.2</td>
</tr>
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<td>Block 38 x 0.5 ml tubes</td>
<td>1 Piece</td>
<td>BT-B38-0.5</td>
</tr>
<tr>
<td>Block 24 x 1.5 ml tubes</td>
<td>1 Piece</td>
<td>BT-B24-1.5</td>
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<tr>
<td>Block 24 x 2.0 ml tubes</td>
<td>1 Piece</td>
<td>BT-B24-2.0</td>
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<tr>
<td>Block 24 x 0.5 ml und 1.5 ml tubes</td>
<td>1 Piece</td>
<td>BT-B24-MIX</td>
</tr>
<tr>
<td>Block 24 x 1.5 - 2.0 ml cryo tubes</td>
<td>1 Piece</td>
<td>BT-B24-CRYO</td>
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<td>Block for 96 well PCR plates</td>
<td>1 Piece</td>
<td>BT-BPCR-96</td>
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<tr>
<td>Block for 96 well microtiter plates</td>
<td>1 Piece</td>
<td>BT-BMTP-96</td>
</tr>
<tr>
<td>Block for microtiter plates, flat bottom</td>
<td>1 Piece</td>
<td>BT-BMTP-FLAT</td>
</tr>
</tbody>
</table>
SERVA BlueShake 3D
- smooth motion on your bench!

The SERVA BlueShake 3D works with a rotational 3D motion and is flexible applicable in various incubation and preparation techniques (e. g. staining/destaining procedures). Due to the large incubation platform of 350 x 350 mm and the smooth 3D motion (including start and stop) even large sized gels can be stained/destained without breaking the gel.

The 3D Shaker is equipped with a digital LED display which shows rotational speed and timer function. Via the user-friendly control panel the rotational speed and time can be manually set. Due to its very low noise level the device is suited for continuous operation.

Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>BlueShake 3D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature operation range</td>
<td>+5 °C ...+ 65 °C</td>
</tr>
<tr>
<td>Shaking frequency</td>
<td>5 - 50 rpm</td>
</tr>
<tr>
<td>Angle of platform</td>
<td>4°</td>
</tr>
<tr>
<td>Timer</td>
<td>0 - 120 min</td>
</tr>
<tr>
<td>Maximum load</td>
<td>5 kg</td>
</tr>
<tr>
<td>Dimension platform (WxDxH)</td>
<td>350 x 350 mm</td>
</tr>
<tr>
<td>Dimensions outside (WxDxH)</td>
<td>340 x 400 x 140 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>7.7 kg</td>
</tr>
</tbody>
</table>

Ordering information

<table>
<thead>
<tr>
<th>Product</th>
<th>Qty</th>
<th>Cat. no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERVA BlueShake 3D</td>
<td>1 Piece</td>
<td>BS-3D</td>
</tr>
</tbody>
</table>

Highest flexibility: large platform for individual customer needs
- Quiet operation, suitable for long term work
- Excellent price / performance ratio
- Via touch panel programmable interface
- Rock solid metal housing
- Smart design - made in Germany

BlueShake 3D – smooth start and stop to avoid gel break
SERVA BlueCell Aspiration System
- aspiration system for cell biology applications

The SERVA BlueCell aspiration system is a cell culture aspiration device with autoclava-
bile 4 l bottle. The housing is made of easy-care, wear-resistant and specially hard ano-
dised aluminium with a powerful integrated membrane vacuum pump, vacuum controller
and mounted safety bottle holder as a compact and space saving unit.

The membrane vacuum pump is noise reduced and perfectly adapted to cell culture lab
requirements. It is integrated in the housing and gently aspirates 25 l liquid per minute.
By default, a pasteur pipette can be slipped on, but a variety of suction adaptors can be
ordered. The fast-lock clutches, integrated to the 4 l polypropylene bottle, ensures an
easy removal for cleaning. The safety filter prevents leaking of liquids. A recommended
option is the footoperated switch (cat. no. BC-SFO).

- Stable aluminium housing
- Integrated, noise-reduced vacuum pump
- Quickly aspiration of liquids
- Autoclavable 4 l bottle with fast-lock clutches and
  integrated safety filters
- Includes handle for flow control

Additional features for SERVA BlueCell Vario:
- Multi-user system
- Handle-regulated automatic start / stop function

SERVA BlueCell Vario Aspiration Systems
- multi-user automatic aspiration systems

Additionally for SERVA BlueCell Vario, suction start / stop is regulated by turning the
swivel of the handle. By turning the swivel, the suction rate is continuously adjustable.
If the system is closed, the pump shuts down at reaching the max. vacuum. If the vac-
umum is reduced during the aspiration, the pump turns on to reach the max. vacuum
again.

The SERVA BlueCell Vario acts as multi-user system and is extendable by connecting
more bottles, handles or complete collection units. The maximum per single pump is 4
bottles with single handle or 2 bottles with double handles.
SERVA BlueCell Basic Aspiration Systems
- easy handling in aspiration!

The BlueCell Basic is a simple but complete aspiration system with autoclavable 4 l bottle. It is ready to use immediately. The small and low-noise membrane vacuum pump aspirates 8 l liquid per minute.

A handle with flow control (cat. no. BC-HFC) can be attached and connected with different suction system devices. The fast-lock clutches, integrated to the 4 l polypropylene bottle, ensures an easy removal for cleaning. The safety filter prevents leaking of liquids.

Specifications

<table>
<thead>
<tr>
<th></th>
<th>BlueCell Basic</th>
<th>BlueCell</th>
<th>BlueCell Vario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final vacuum</td>
<td>700 mbar abs.</td>
<td>250 mbar abs.</td>
<td>100 mbar abs.</td>
</tr>
<tr>
<td>Suction capacity</td>
<td>8 l / min (air)</td>
<td>25 l / min (air)</td>
<td>17 l / min (air)</td>
</tr>
<tr>
<td>Bottle volume</td>
<td>4 l</td>
<td>4 l</td>
<td>4 l</td>
</tr>
<tr>
<td>Integrated safety filter</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Multi user system</td>
<td>no</td>
<td>no</td>
<td>4 x 1 bottle with single handle or 2 x 1 bottle with double handle</td>
</tr>
<tr>
<td>Dimensions (WxHxD)</td>
<td>75 x 100 x 60 mm</td>
<td>170 x 220 x 155 mm</td>
<td>170 x 220 x 155 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>0,8 kg</td>
<td>5,5 kg</td>
<td>5,5 kg</td>
</tr>
</tbody>
</table>

Ordering information

<table>
<thead>
<tr>
<th>Product</th>
<th>Qty</th>
<th>Cat. no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERVA BlueCell Basic</td>
<td>1 Piece</td>
<td>BLUECELL-B</td>
</tr>
<tr>
<td>SERVA BlueCell Standard</td>
<td>1 Piece</td>
<td>BLUECELL</td>
</tr>
<tr>
<td>SERVA BlueCell Vario</td>
<td>1 Piece</td>
<td>BLUECELL-V</td>
</tr>
<tr>
<td>Accessories for SERVA BlueCell</td>
<td>Qty</td>
<td>Cat. no.</td>
</tr>
<tr>
<td>Bottle Holder</td>
<td>1 Piece</td>
<td>BC-BH4</td>
</tr>
<tr>
<td>Safety Filter</td>
<td>1 Piece</td>
<td>BC-SF</td>
</tr>
<tr>
<td>Handle with flow control</td>
<td>1 Piece</td>
<td>BC-HFC</td>
</tr>
<tr>
<td>Yellow pipette tip aspiration adaptor</td>
<td>1 Piece</td>
<td>BC-SAPT</td>
</tr>
<tr>
<td>8-channel aspiration rake adaptor</td>
<td>1 Piece</td>
<td>BC-SAR8</td>
</tr>
<tr>
<td>Switch, footoperated</td>
<td>1 Piece</td>
<td>BC-SFO</td>
</tr>
</tbody>
</table>