

ELECTROPHORESIS & BLOTTING

MINIGEL ELECTROPHORESIS SYSTEM

CONCERTOGEL HORIZONTAL ELECTROPHORESIS SYSTEM

SYMPHONYPAGE VERTICAL ELECTROPHORESIS SYSTEM

SYMPHONY 2D AND ISOELECTRIC FOCUSING

SYMPHONYBLOT BLOTTING SYSTEM

SYMPHONYDGE DENATURING GRADIENT GEL ELECTROPHORESIS

JAZZ CHILLER

POWER SUPPLIES

CONSORT POWER SUPPLIES



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LABWARE

X-BLU UHC
WESTERN BLOT FILM
DISPOSABLE
GEL CUTTING TIPS

TABLETOP

LIQUID HANDLING
VORTEX MIXER
GEL DOCUMENTATION
SAMPLE PRETREATMENT
ROCKER & SHAKER
STIRRER
DRY BATH INCUBATOR
STERILIZER
WATER BATH
THERMO SHAKER
SHAKING INCUBATOR
CENTRIFUGE
SAMPLE CONCENTRATOR



delivering
innovative laboratory
supply for advanced
scientific discoveries



NANO

NS-100 NANO SCAN
MICROPLATE READER

NC-100 NANO CLEAN
MICROPLATE WASHER

ND-2800-DDJ NANO DOT
NUCLEIC ACID ANALYZER

ND-3800-DD NANO DOT
MICROSPECTROPHOTOMETER

NP-500 NANO PROBE
FISH HYBRIDIZATION SYSTEM

GENE

GRADIENT
TOUCH THERMAL
CYCLER

PICO TRAVELLER
REAL-TIME PCR
SYSTEM



Welcome To HERCUVAN

Incorporated in 2011, **Hercuvan Lab Systems** is a company with solid experience in development, marketing, distribution and after sales service of laboratory equipment and scientific instruments. We focus in providing laboratory products and quality services to life science and biotechnology companies, academic institutions, government and private research labs worldwide.

Hercuvan Lab Systems is constantly developing and delivering wide spectrum of lab equipment such as the state of the art microvolume spectrophotometer for determination of DNA/RNA concentration, microplate reader for measurement of absorbance in ELISA plates and thermal cycler for amplification of DNAs, high precision pipettes and various of the most widely applied bench top-sized equipment for life science and general laboratory research field.

Our bench top lab equipment product line covers centrifuges, magnetic stirrers, rockers & shakers, thermo shakers, shaking incubators, liquid handling, dry bath incubators, vortex mixers, sample concentrators, sterilizers, homogenizers, water baths and transilluminator.

Our new product line - Electrophoresis and Blotting series comprise wide range of horizontal & vertical electrophoresis systems, blotting systems, power supplies, consort power supplies, DGGE, chiller and all required accessories to perform efficient gel electrophoresis and blotting applications every day.

The expansion of Nano series comes with Nano Probe FISH Hybridization System which is suitable for cytogenetic laboratories. Nano Clean Microplate Washer is launched to complement the Nano Scan Microplate Reader to enable a more convenient one-stop solution for users. Moreover, the GS-Q8 Pico Traveller Real-Time PCR System is a new addition in Gene series which aims to make field applications more handy with its portable feature while producing reliable and accurate results.

Furthermore, the new Labware series offers X-Blu UHC Western Blot Film and disposable gel cutting tips that can cater for users in fields such as molecular biology, biomedical, proteomics and more.

Hercuvan Lab Systems markets its products to end-user researchers via international distributors and dealer network worldwide. Our distribution business partners are strategically located to ensure constant delivery of high quality products, services and technical support to our customer globally.

With full commitment towards quality excellence, we work closely with business partners to serve our customers worldwide and partnering with scientist and experts around the world to ensure our products are constantly evolving to meet market needs with the ultimate goal to propel scientific discoveries.



Small . Mighty

For optimally streamlined research





TABLE TOP SERIES

LIQUID HANDLING

- TT-EP2 ElitePro 2.0 Single Channel Adjustable Volume Pipette
- TT-EP ElitePro Multi-Channel Adjustable Volume Pipette
- ElitePro FlexiStand

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STERILIZER

- TT-300-GBS/ TT-300L-GBS Glass Bead Sterilizer
- TT-825-S / TT-825-L Infrared Micro-Sterilizer

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SAMPLE PRETREATMENT

- TT-30K Digital Handheld Homogenizer
- TT-13K Mini Handheld Homogenizer

STIRRER

- TT-DMSM-25 CycloneSpin Mini Digital Magnetic Stirrer
- TT-DMS-18 CycloneSpin Digital Magnetic Stirrer
- TT-DMSH-350 CycloneSpin Digital Magnetic Stirrer Hotplate
- TT-DMSH-350S CycloneSpin Digital Magnetic Stirrer Hotplate
- TT-SSMS-200 CellaSpin Slow Speed Magnetic Stirrer
- TT-DOS-40 Twister Digital Overhead Stirrer

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SHAKING INCUBATOR

- TT-60-SI InQShake Shaking Incubator
- TT-60-MSI InQShake Microplate Shaking Incubator
- TT-60-RSI InQShake Refrigerated Shaking Incubator

THERMO SHAKER

- TT-100C/ TT-100H Thermo Shaker Incubator
- TT-70-2-S/ TT-60-4-S Microplate Thermo Shaker Incubator

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ROCKER & SHAKER

- TT-10-RS-1/TT-10-RS-2 2D Rocker-Shaker
- TT-20-NR 3D Mini Nutating Rocker
- TT-10/ TT-20/ TT-30 Orbital Shaker
- TT-1500 Microplate Shaker

CENTRIFUGE

- TT-6000/TT-3K-10K Mini Centrifuge
- TT-2500 Microplate Centrifuge
- TT-14500 PRO Microcentrifuge
- TT-4500 Low Speed Centrifuge
- TT-15000 High Speed Centrifuge
- TT-15000R Refrigerated High Speed Centrifuge

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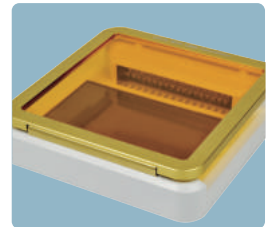
VORTEX MIXER

- TT-254-VM VeloTEX Vortex Mixer
- TT-2500-VM Multi-Tube Vortex Mixer
- TT-3000 Smart Mixer
- TT-2800-VVM Mini Vortex Mixer

GEL DOCUMENTATION

- TT-BLT-470 SafeViewer Blue Light Transilluminator

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DRY BATH INCUBATOR

- TT-100F/HT/HL/CL/CTL Mini Dry Bath Incubator
- TT-100-DHT/TT-100-DHC Dry Bath Incubator
- TT-200BI Biological Indicator Incubator
- TT-70-2/ TT-60-4 Microplate Incubator

WATER BATH

- TT-TWB-2L/4L/5L and 6L Marina Thermostatic Water Baths

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SAMPLE CONCENTRATOR

- TT-200-1-SC/TT-200-2-SC Sample Concentrator
- TT-200-96SC 96-Well Sample Concentrator
- TT-200-VSC Visible Sample Concentrator



NANO SERIES

- ND-2800-ODJ Nano DOT Nucleic Acid Analyzer
- ND-3800-OD Nano DOT Microspectrophotometer
- NS-100 Nano Scan Microplate Reader
- NC-100 Nano Clean Microplate Washer
- NP-500 Nano Probe FISH Hybridization System

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GENE SERIES

- GS-96/ 60/ 9677/ 384/ 2x48/ 4830/ 322/ 96 PRO Gradient Touch Thermal Cycler
- GS-16 myGenix Personal Thermal Cycler
- GS-Q8 Pico Traveller Real-time PCR System



ELECTROPHORESIS & BLOTTING SERIES

- TT-HES-1 MiniGEL Electrophoresis System
- ConcertoGEL Midi/ Classic/ Classic XL/ Maxi/ Horizontal Electrophoresis System
- ConcertoGEL Combs Selection Guide
- ConcertoGEL Package Deals
- SymphonyPAGE Mini Vertical Electrophoresis System
- SymphonyW Maxi Vertical Electrophoresis System
- SymphonyW Maxi 2D System
- SymphonyPAGE Combs Selection Guide
- SymphonyIEF Isoelectric Focusing
- SymphonyBLOT Mini/Maxi Blotting System
- SymphonyW Maxi Modular System
- SymphonyPAGE Package Deals
- SymphonyDGGE Denaturing Gradient Gel Electrophoresis
- Jazz Chiller
- Rhythm300/ 500 Power Supply
- Melody300/ 500/ 3000 Power Supply
- HarmonyCS Consort Power Supply

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LABWARE SERIES

- X-Blu UHC Western Blot Film
- Disposable Gel Cutting Tips

TABLE TOP SERIES | Stirrer

TT-DMSM-25



TT-DMSM-25 CycloneSpin Mini Digital Magnetic Stirrer Series is a compact and reliable magnetic stirrer, suitable for small capacity samples that can accommodate up to 250 ml. The strong magnetic stir range from 0-2,500 rpm provides smooth and consistent operation. The platform is made of non-slip silicone mat.

TT-DMSH-350



TT-DMSH-350 is a digital magnetic stirrer with hotplate function. It is equipped with PID for precise temperature control and chemical resistant ceramic working surface for rapid heating. Featuring a control panel with 30° slope and easy-to-read LED display and convenient control knob, the stirring time and speed can be quickly, easily and precisely set. Speed can be adjusted from 0-1800 rpm which renders low speed to powerful mixing capability. The stirring begins slow to avoid splashing followed by a smooth and steady speed increase.

TT-DMSH-350S



TT-DMSH-350S is a digital magnetic stirrer hotplate with an optional external temperature sensor for temperature monitoring and detachable stand for various sensor probes (temperature, pH and others). Speed range of 80-1800 rpm provides powerful mixing for various samples. The ergonomic design makes it a suitable companion in research labs.

TT-DOS-40 Twister Digital Overhead Stirrer



TT-DOS-40 Twister Digital Overhead Stirrer is a robust, general purpose stirrer for medium to high viscosity liquid or solid-liquid mixture, up to 40L. It offers flexible speed range from 50 – 2200 rpm. The controls are easy to operate and enable user to set required speed and torque, with real-time LED display. The anti-spill feature prevents sample spill by implementing a smooth and steady start up. Speed precision is guaranteed by the microprocessor to ensure reliable and reproducible performance. The unit comes with a standard stainless steel stirrer rod of choice.

TABLE TOP SERIES | Shaking Incubator

TT-60-MSI



TT-60-MSI InQShake Microplate Shaking Incubator is ideal for mixing cultures or samples on microplates, with speed action between 200-1200 rpm and tight horizontal orbit 3mm. This feature enables efficient mixing for small vessels such as microplates. The platform will safely accommodate up to 4 microplates in secure positions.

TT-60-RSI



TT-60-RSI InQShake Refrigerated Shaking Incubator is a refrigerated shaking incubator for cultures and applications that require lower temperature. The temperature can be controlled from 4-60°C with low noise to avoid disturbance in the lab.

TABLE TOP SERIES | Water Bath

TT-TWB-2L/TT-TWB-4L/ TT-TWB-5L/ TT-TWB-6L Marina Thermostatic Water Bath



TT-TWB-2L/4L/5L and 6L Marina Thermostatic Water Baths are temperature-controlled water baths for culture incubation or analysis of various liquid and solid compounds. The PID temperature controller ensures precise and consistent incubation for precious cultures and samples. Samples can be incubated from ambient +5°C up to 100°C with uniformity of 0.5°C at 37°C. The inner chamber and external cabinet are manufactured with corrosion resistant stainless steel and iron respectively, making this water bath range a robust and long-lasting equipment. The chambers can be emptied conveniently with independent drain valves. These water baths are suitable for various research laboratories such as microbiology, molecular biology, genetics, biomedical and more.

GENE SERIES | Real-Time

GS-Q8 Pico Traveller Real-time PCR System



GS-Q8 Pico Traveller Real-Time PCR System is an ideal compact real-time PCR system suitable for field applications. It delivers reliable and consistent results with high detection sensitivity as low as 1 copy target sequence. The machine is equipped with two channels, SYBR/FAM and HEX/VIC for flexibility. It is compatible with commercial SYBR® or TaqMan® qPCR kits. Featuring a friendly user interface, it is simple to operate and allows the data to be emailed directly to user after each run.

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NANO SERIES | Microplate Washer

NC-100 Nano Clean Microplate Washer



NC-100 Nano Clean Microplate Washer is a robust and reliable microplate washer, ideal for routine ELISA applications. It features an intuitive system with graphical 4.3-inch LCD display and USB port for data transfer convenience as well as software upgrade. It saves time with minimal operation by offering fast and fully automated washing.

FISH Hybridization System

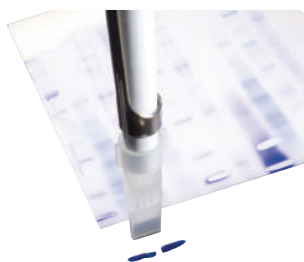
NP-500 Nano Probe FISH Hybridization System



NP-500 Nano Probe FISH Hybridization System offers efficient and convenient operation for slide-based FISH (fluorescence in-situ hybridization) procedure which is ideal for cytogenetic laboratories. The intuitive touch screen interface allows user to set suitable programs for routine or specific workflows. There are 4 flexible operation modes where user can choose between denaturation/hybridization, fixed temperature hybridization, custom or in-situ PCR.

LABWARES SERIES | Cutting Tips

Disposable Gel Cutting Tips



Hercuvan Disposable Gel Cutting Tips are specially designed to offer convenience and user-friendly operation to excise nucleic acid and protein bands from gels. It allows safe band removal and free from contamination. Furthermore, using sharp scalpels may damage the transilluminators and gel trays. The gel band is neatly extracted and contained in the tip, followed by dispensing into a tube for downstream application or analysis.

Western Blot Film

X-Blu UHC Western Blot Film



X-Blu UHC Western Blot Film is an autoradiography film suitable for detection and documentation of ECL-based Western Blots, chemiluminescent nucleic acid or protein applications such as Northern and Southern blotting. The light blue base X-ray film provides optimized balance of ultra-high contrast and sensitivity with low background. It is also coated on both sides (double emulsion) which provides enhanced quality and performance. Clear and sharp images of publication quality can be obtained with X-Blu UHC Western Blot Film.

TAB LE TOP



SERIES



TT-EP2 ElitePro 2.0 Single Channel Adjustable Volume Pipette

HIGHLIGHTS

- **Maximum Pipetting Comfort**

Reduced Pipetting Forces

Spring pressure is engineered to minimize actuation forces to only 3.8 Newton (Newton units), determined to be the optimum intersection between minimal user thumb strain and sufficient aspiration among all brands of filter tips (including high density filters).

Ergonomically Contoured Tip Ejector Button

Button is contoured and angled to prevent discomfort and minimize pressure on the thumb.

Full Hook Design

The hook is especially designed in a way to provide ergonomic finger rest with comfort and confidence.

Slim, Smooth and Rounded Handle

Handles are slim, smooth and rounded for comfortable fit in either right or left hand.

- **Adjustable Volume & Swivel-Lock**

ElitePro pipettes feature a continuously adjustable digital micrometer for volume selection. Accidental volume change can be prevented with the optional locking wheel positioned at the top of the handle.

- **Full Volume Range (0.1 μ L – 10 mL)**

Ten models are available for almost any volume.

- **Superior Accuracy & Reproducibility**

Finely Polished Stainless Steel Piston & Chemical-resistant, Maintenance-free Seals

Both features serve to offer acute precision and performance as well as exceptional piston and seal life.

Air-jacketed Handle

Eliminates inaccuracies in micrometer mechanism due to hand heat transfer.

- **Versatility**

Compatible with a wide range of tips

- **Free Calibration Tool Included**

The open-ended design allows the wrench to be used without any disassembly and without removing the plunger button.



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Exceptional Accuracy with Improved Ergonomics

TT-EP2 ElitePro 2.0 Single Channel Adjustable Volume Pipette series is a new generation with improved actuation forces and approximately 20% weight reduction in overall weight compared to its predecessor, the TT-EP series. The upgraded series provides superior accuracy and ergonomics, especially for prolonged and repetitive pipetting. TT-EP2 series is available in 10 models with full adjustable volumes ranging from 0.1 μ L – 10 mL. All ElitePro pipettes are autoclavable.



Equivalent of 4-digit micrometer system



Free calibration tool provided



Swivel-Lock System prevents accidental volume change



ElitePro FlexiStand accepts most popular pipettes, single or multi-channel with 3, 5 and 6 place models available. Made of robust 5mm acrylic material.



TT-EP-FS6

ElitePro FlexiStand features windows which can accommodate multi-channel pipettes

TECHNICAL DATA

Cat. No.	Volume Range	Increment	Accuracy	Reproducibility
TT-EP2-2U	0.1-2 μ L	0.002 μ L	\pm 12.0 - 1.5%	\leq 6.00 - 0.70%
TT-EP2-10U	1 - 10 μ L	0.02 μ L	\pm 2.5 - 1.0%	\leq 1.20 - 0.40%
TT-EP2-20U	2 - 20 μ L	0.02 μ L	\pm 7.5 - 1.0%	\leq 2.00 - 0.30%
TT-EP2-50U	5 - 50 μ L	0.2 μ L	\pm 7.5 - 1.0%	\leq 2.00 - 0.30%
TT-EP2-100U	10 - 100 μ L	0.2 μ L	\pm 3.5 - 0.8%	\leq 1.00 - 0.15%
TT-EP2-200U	20 - 200 μ L	0.2 μ L	\pm 2.5 - 0.8%	\leq 1.00 - 0.15%
TT-EP2-300U	30 - 300 μ L	0.2 μ L	\pm 2.5 - 0.8%	\leq 1.00 - 0.15%
TT-EP2-1M	100 - 1000 μ L	2 μ L	\pm 3.0 - 0.8%	\leq 0.60 - 0.15%
TT-EP2-5M	1 - 5 mL	0.02 mL	\pm 2.4 - 0.6%	\leq 0.60 - 0.16%
TT-EP2-10M	1 - 10 mL	0.02 mL	\pm 2.5 - 0.6%	\leq 0.60 - 0.16%

ORDERING INFORMATION

Cat. No.	Single Channel Adjustable Volume Pipette
TT-EP2-2U	ElitePro 2.0 Single Channel Adjustable Pipette TT-EP2-2U, 0.1-2 μ L
TT-EP2-10U	ElitePro 2.0 Single Channel Adjustable Pipette TT-EP2-10U, 1-10 μ L
TT-EP2-20U	ElitePro 2.0 Single Channel Adjustable Pipette TT-EP2-20U, 2-20 μ L
TT-EP2-50U	ElitePro 2.0 Single Channel Adjustable Pipette TT-EP2-50U, 5-50 μ L
TT-EP2-100U	ElitePro 2.0 Single Channel Adjustable Pipette TT-EP2-100U, 10-100 μ L
TT-EP2-200U	ElitePro 2.0 Single Channel Adjustable Pipette TT-EP2-200U, 20-200 μ L
TT-EP2-300U	ElitePro 2.0 Single Channel Adjustable Pipette TT-EP2-300U, 30-300 μ L
TT-EP2-1M	ElitePro 2.0 Single Channel Adjustable Pipette TT-EP2-1M, 100-1000 μ L
TT-EP2-5M	ElitePro 2.0 Single Channel Adjustable Pipette TT-EP2-5M, 1-5mL
TT-EP2-10M	ElitePro 2.0 Single Channel Adjustable Pipette TT-EP2-10M, 1-10mL

OPTIONAL ACCESSORIES

Cat. No.	ElitePro FlexiStand Rack
TT-EP-FS6	ElitePro FlexiStand for 6 pipettes, up to 4 multi-channels

Cat. No.	Pipette Tips
TT-EP-T5M	Tips, 5 mL, 250 ea / pack
TT-EP2-T10M	Tips, 10 mL, 100 ea / pack

TT-EP ElitePro Multi-Channel Adjustable Volume Pipette

HIGHLIGHTS

- **Maximum Pipetting Comfort**

Reduced Pipetting Forces

Spring pressure is engineered to minimize actuation forces to only 3.8 Newton (Newton units), determined to be the optimum intersection between minimal user thumb strain and sufficient aspiration among all brands of filter tips (including high density filters).

Ergonomically Contoured Tip Ejector Button

Button is contoured and angled to prevent discomfort and minimize pressure on the thumb.

Full Hook Design

The hook is especially designed in a way to provide ergonomic finger rest with comfort and confidence.

Slim, Smooth and Rounded Handle

Handles are slim, smooth and rounded for comfortable fit in either right or left hand.

- **Adjustable Volume & Swivel-Lock**

ElitePro pipettes feature a continuously adjustable digital micrometer for volume selection. Accidental volume change can be prevented with the optional locking wheel positioned at the top of the handle.

- **Superior Accuracy & Reproducibility**

Finely Polished Stainless Steel Piston & Chemical-resistant, Maintenance-free Seals

Both features serve to offer acute precision and performance as well as exceptional piston and seal life.

Air-jacketed Handle

Eliminates inaccuracies in micrometer mechanism due to hand heat transfer.

- **Durability**

Built with individual stainless steel pistons and easily removable tip nozzles.

- **Versatility**

Compatible with a wide range of tips

- **Free Calibration Tool Included**

The open-ended design allows the wrench to be used without any disassembly and without removing the plunger button.



8-Channel Pipette



12-Channel Pipette

Superior accuracy and ergonomic design for your optimum pipetting experience

TT-EP ElitePro Multi-Channel Adjustable Volume Pipette series is designed ideally for 96-well applications with precision, speed and comfort in mind. The series are lightweight, robust and perfect for routine as well as prolonged laboratory use. There are 5 models available for both 8-channel and 12-channel pipettes, ranging from 1.0 μ L – 300 μ L. The increments can go as low as 0.02 μ L for 10 μ L, 20 μ L and 50 μ L models for better accuracy. ElitePro pipettes are fully autoclavable.



ElitePro FlexiStand

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Exceptional ergonomic design on the ejector button provides comfortable contour to minimize pressure on thumb



Swivel-Lock eliminates accidental volume change by locking the specific volume

Full hook design ensures ergonomic fit with comfort and confidence



Equivalent of 4-digit Micrometer System
Besides the 3-digit micrometer display, ElitePro has additional "hash-marks" which is equivalent to 4-digit micrometer selection. This feature allows further division of smaller increments

Slim, smooth and rounded handle design provides comfortable fit for either right or left hands. It is also lightweight with reduced actuation force for prolonged pipetting

Fully autoclavable



Free calibration tool provided

Built with individual stainless steel pistons and removable tip nozzles for durability



TECHNICAL DATA

Cat. No.	Volume Range	Increment	Accuracy	Reproducibility
TT-EP08-10U	1.0 - 10 μ L	0.02 μ L	\pm 8.0 – 2.0%	\leq 6.00 – 1.20%
TT-EP08-20U	2.0 - 20 μ L	0.02 μ L	\pm 3.5 – 1.8%	\leq 3.50 – 1.00%
TT-EP08-50U	5.0 - 50 μ L	0.02 μ L	\pm 4.0 – 1.6%	\leq 2.50 – 0.60%
TT-EP08-200U	20 - 200 μ L	0.2 μ L	\pm 3.0 – 1.0%	\leq 1.50 – 0.60%
TT-EP08-300U	30 - 300 μ L	0.2 μ L	\pm 2.0 – 1.0%	\leq 1.50 – 0.60%
TT-EP12-10U	1.0 - 10 μ L	0.02 μ L	\pm 8.0 – 2.0%	\leq 6.00 – 1.20%
TT-EP12-20U	2.0 - 20 μ L	0.02 μ L	\pm 3.5 – 1.8%	\leq 3.50 – 1.00%
TT-EP12-50U	5.0 - 50 μ L	0.02 μ L	\pm 4.0 – 1.6%	\leq 2.50 – 0.60%
TT-EP12-200U	20 - 200 μ L	0.2 μ L	\pm 3.0 – 1.0%	\leq 1.50 – 0.60%
TT-EP12-300U	30 - 300 μ L	0.2 μ L	\pm 2.0 – 1.0%	\leq 1.50 – 0.60%

ORDERING INFORMATION

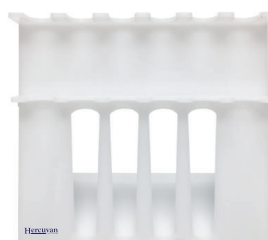
Cat. No.	Multi-Channel Adjustable Volume Pipettes
TT-EP08-10U	ElitePro 8-Channel Adjustable Volume Pipette TT-EP08-10U, 1.0 - 10 μ L
TT-EP08-20U	ElitePro 8-Channel Adjustable Volume Pipette TT-EP08-20U, 2.0 - 20 μ L
TT-EP08-50U	ElitePro 8-Channel Adjustable Volume Pipette TT-EP08-50U, 5.0 - 50 μ L
TT-EP08-200U	ElitePro 8-Channel Adjustable Volume Pipette TT-EP08-200U, 20 - 200 μ L
TT-EP08-300U	ElitePro 8-Channel Adjustable Volume Pipette TT-EP08-300U, 30 - 300 μ L
TT-EP12-10U	ElitePro 12-Channel Adjustable Volume Pipette TT-EP12-10U, 1.0 - 10 μ L
TT-EP12-20U	ElitePro 12-Channel Adjustable Volume Pipette TT-EP12-20U, 2.0 - 20 μ L
TT-EP12-50U	ElitePro 12-Channel Adjustable Volume Pipette TT-EP12-50U, 5.0 - 50 μ L
TT-EP12-200U	ElitePro 12-Channel Adjustable Volume Pipette TT-EP12-200U, 20 - 200 μ L
TT-EP12-300U	ElitePro 12-Channel Adjustable Volume Pipette TT-EP12-300U, 30 - 300 μ L

OPTIONAL ACCESSORIES

Cat. No.	ElitePro FlexiStand Rack
TT-EP-FS6	ElitePro FlexiStand for 6 pipettes, up to 4 multi-channels



ElitePro FlexiStand accepts most popular pipettes, single or multi-channel with 3, 5 and 6 place models available. Made of robust 5mm acrylic material.



ElitePro FlexiStand features windows which can accommodate multi-channel pipettes

TT-EP-FS6

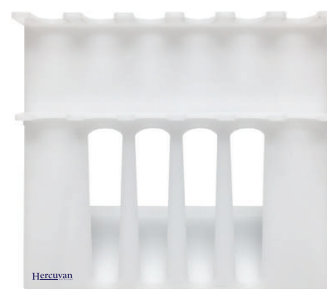
ElitePro FlexiStand

HIGHLIGHTS

- Fits wide range of pipettes
- “Windows” to accommodate multi-channel pipettes with ease
- Non-skid rubber bottom for stability
- Robust build with 5mm acrylic (40% thicker)

Versatile and trusty companion for your pipettes

ElitePro FlexiStand is designed to fit both single and multi-channel pipettes with reliable stability. The stand features “windows” to accommodate multi-channel pipettes head longways through the rack while simultaneously keeping the body of the pipette stable, which is achieved with two points; under the finger hook and near the bottom of the handle. As a result, users do not have to worry about pipettes falling or damaged. ElitePro FlexiStand is available as a 6-place rack that accepts four multi-channel pipettes. Each ElitePro FlexiStand is fitted with four non-skid rubber bottom for extra stability.



TT-EP-FS6

ElitePro FlexiStand features windows which can accommodate multi-channel pipettes

ORDERING INFORMATION

Cat. No.

ElitePro FlexiStand Rack

TT-EP-FS6

ElitePro FlexiStand for 6 pipettes, up to 4 multi-channels

TT-300-GBS/ TT-300L-GBS Glass Bead Sterilizer

HIGHLIGHTS

- Comes with two different capacities
- Multiple slits to enable better heat dissipation
- Effective sterilization of solid metal and glass implements
- Safe to use – no gases, open flames or harsh chemicals
- Digital temperature display
- Portable, lightweight and compact footprint, can be placed in Laminar Flow Cabinet for convenience

APPLICATIONS

- Laboratory equipment sterilization such as forceps, scissors, scalpels, inoculation loops, glass spreader
- Suitable for microbiology, tissue culture, life science laboratory



TT-300-GBS

TT-300-GBS/ TT-300L-GBS Glass Bead Sterilizer offer a fast and effective method to decontaminate solid metal and glass implements within 10 seconds. TT-300-GBS/ TT-300L-GBS work by heating the glass beads to about 300°C to effectively destroy all microbes and spores. Suitable for sterilizing forceps, scissors, scalpels, needles and inoculating loops. TT-300L-GBS is an improved version that features greater glass bead capacity up to 600 g which enables sterilization of larger equipment. It is specially designed for better heat dissipation with the unique multiple slits, ensuring safe operation.



TT-300L-GBS

TECHNICAL DATA

Specifications	TT-300-GBS Glass Bead Sterilizer	TT-300L-GBS Glass Bead Sterilizer
Temperature control range	100°C – 300°C	100 °C – 300 °C
Temperature stability	≤±5°C	≤±5°C
Heating speed	≤25 min.	≤25 min.
Heating well volume	Ø40 mm x 80 mm	Ø40 mm x 150 mm
Glass bead capacity	300 g	600 g
Material of construction (cover)	Stainless steel	Stainless steel
Material of construction (insulator)	Green mineral wool	Green mineral wool
Voltage	AC 110V/AC 220V, 50/60Hz	AC 110V/AC 220V, 50/60Hz
Power	120W	300W
Fuse	250V, 2A/3A, Ø5x20	250V, 2A/3A, Ø5x20
Dimension (WxDxH)	130 × 150 × 200 mm	130 × 150 × 240 mm
Net weight	2.0 kg	2.5 kg

ORDERING INFORMATION

Cat. No.	Glass Bead Sterilizer
TT-300-GBS-110V	Glass Bead Sterilizer TT-300-GBS, 100-300°C, heating well volume Ø40 x 80 mm, AC 110V
TT-300-GBS-220V	Glass Bead Sterilizer TT-300-GBS, 100-300°C, heating well volume Ø40 x 80 mm, AC 220V
TT-300L-GBS-110V	Glass Bead Sterilizer TT-300L-GBS, 100-300°C, heating well volume Ø40 x 150 mm, AC 110V
TT-300L-GBS-220V	Glass Bead Sterilizer TT-300L-GBS, 100-300°C, heating well volume Ø40 x 150 mm, AC 220V

TT-825-S / TT-825-L Infrared Micro-Sterilizer

HIGHLIGHTS

- Safe and convenient sterilizer
- Adjustable angle heating chamber
- Safeguard users without open flame and hazardous gas
- Has lower temperature setting (480°C) that is used as standby mode to extend the shelf life of the heating chamber

APPLICATIONS

- Instant sterilization

TT-825-S / TT-825-L Infrared Micro-Sterilizer utilizes infrared heat that produce 825°C to incinerate organic material deep within the ceramic funnel.

Ideally used to provide complete sterilization of platinum inoculating loops, needles, glass tube or pipette mouth in 5-7 seconds.



TT-825-S



Adjustable angle heating chamber



High & low temperature setting



TT-825-L

TECHNICAL DATA

Specifications	TT-825-S Infrared Micro-Sterilizer	TT-825-L Infrared Micro-Sterilizer
High temperature setting	825±50°C	825±50°C
Low temperature setting	480°C	480°C
Sterilization time	5-7 seconds	5-7 seconds
Heating speed to max. temperature	20min	20min
Heating time to 500°C	~4 min 50 sec	~4 min 50 sec
Heating time to 700°C	~9 min 45 sec	~9 min 45 sec
Chamber diameter	14 mm	35 mm
Heating element length	140 mm	100 mm
Input voltage	AC 110V or AC 220V, 50/60Hz	AC 110V or AC 220V, 50/60Hz
Fuse	250V, 2A/3A, Ø5x20	250V, 3A/5A, Ø5x20
Power	230 W	400 W
Dimension (W x D x H)	87 x 151 x 160mm	92 x 101 x 170mm
Permissible ambient temperature	5 - 40°C	5 - 40°C
Permissible relative humidity	≤70%	≤70%
Net weight	1.0 kg	1.1 kg

ORDERING INFORMATION

Cat. No.	Infrared Micro-Sterilizer
TT-825-S-110V	Infrared Micro-Sterilizer TT-825-S, 14 mm chamber diameter, AC 110V
TT-825-S-220V	Infrared Micro-Sterilizer TT-825-S, 14 mm chamber diameter, AC 220V
TT-825-L-110V	Infrared Micro-Sterilizer TT-825-L, 35 mm chamber diameter, AC 110V
TT-825-L-220V	Infrared Micro-Sterilizer TT-825-L, 35 mm chamber diameter, AC 220V

OPTIONAL ACCESSORIES

Cat. No.	Heating Element
TT-825-S-HE	Replacement heating element for TT-825-S Infrared Micro-Sterilizer
TT-825-L-HE	Replacement heating element for TT-825-L Infrared Micro-Sterilizer

TT-30K Digital Handheld Homogenizer

HIGHLIGHTS

- Ideal for shredding and homogenizing samples
- Adjustable speed control from 8,000 rpm up to 35,000 rpm with easy-to-read LED display
- Practical for small samples ranging from 0.5 ml to 250 ml
- Light weight and comfortable for one hand operation
- Autoclavable generator shaft is made up of 316L stainless steel
- Interchangeable generator probes are easily disassembled for cleanup
- Optional H-type stand with adjustable height and angle available for more convenient and lengthier operation



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APPLICATIONS

- Tissue homogenization (liquid/solid mixture)
- PCR, RNA and DNA sample preparation
- Food and plant analysis
- Environmental, biological, pharmaceutical, microbiological research
- Suitable for bacteria, yeast, plant and animal tissue samples



LED Display



Before After

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Lab Systems

TT-30K Digital Handheld Homogenizer is a powerful handheld homogenizer designed to rapidly homogenize, disperse and disintegrate biological samples in 10-30 seconds with adjustable speed ranging from 8,000 rpm up to 35,000 rpm.

The homogenizer is ideal to use with samples from 0.5 ml to 250 ml with three types of generator probes available for different sample volume range. It is lightweight to be handheld with one hand operation and also can be mounted to a stand for fatigue-free and longer operation.

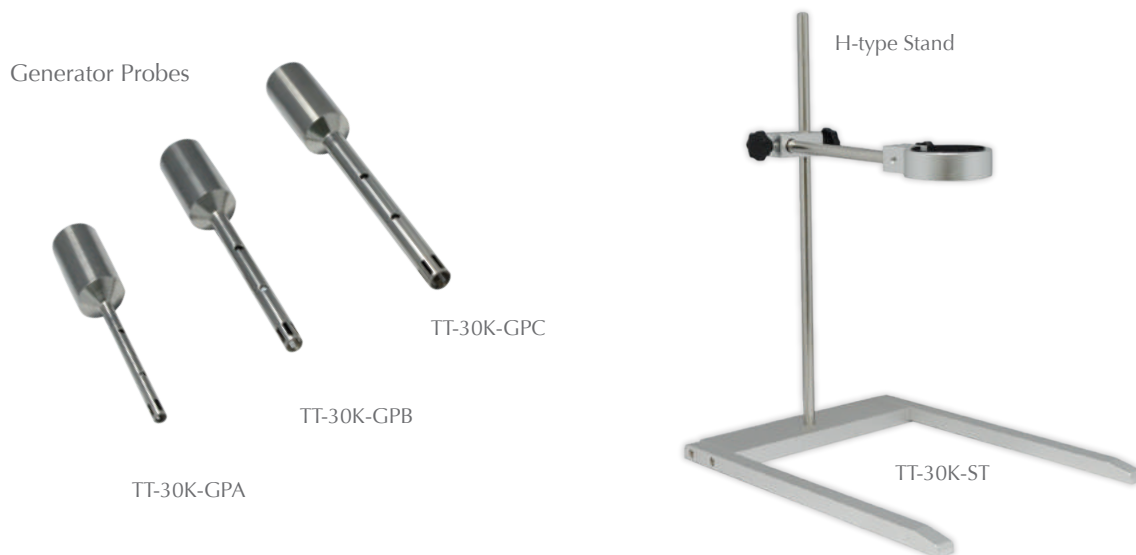
TT-30K Digital Handheld Homogenizer works by drawing the sample material into the generator probe with variable speed rotor. The material is repeatedly cycled and drawn through narrow slits in the generator probe where the extra shearing and disintegration action taken place to reduce the particle size of the sample. Complete homogenization of tissues (muscle, liver, breast tissue, etc.) is generally achieved in a few seconds. The brand new handheld homogenizer now comes in black and grey combination, replacing its old black and blue version.



TECHNICAL DATA

Specifications	TT-30K Digital Handheld Homogenizer
Speed control range	8,000-35,000 rpm (digital display, 1000 rpm increment)
Sample volume range	0.5 ml – 250 ml
Rotor speed	6.3m/sec-14m/sec
Noise level	72 dB
Electrical supply	AC 220-240V, 50Hz
Power (Input/Output)	160W/110W
Dimension (W x D x H)	46 x 55 x 230 mm
Weight	0.7 kg
Permissible ambient temperature	5 – 40°C
Permissible relative humidity	≤70%

OPTIONAL ACCESSORIES



INTERCHANGEABLE GENERATOR PROBES

Type	Sample Volumes	Outer Diameter	Inner Diameter	Length	Min. / Max. Immersion Depth
TT-30K-GPA	0.5 - 50 ml	6 mm	3.9 mm	150 mm	20 / 90 mm
TT-30K-GPB	1 - 100 ml	8 mm	6.1 mm	167 mm	20 / 107 mm
TT-30K-GPC	1 - 250 ml	10 mm	7.9 mm	180 mm	20 / 120 mm

ORDERING INFORMATION

Cat. No.	Digital Handheld Homogenizer
TT-30K-240V	Digital Handheld Homogenizer TT-30K, AC 220-240V

Cat. No.	Accessories
TT-30K-GPA	Generator probe for TT-30K, volumes 0.5 - 50 ml, Ø6 mm x L 150 mm
TT-30K-GPB	Generator probe for TT-30K, volumes 1 - 100 ml, Ø8 mm x L 167 mm
TT-30K-GPC	Generator probe for TT-30K, volumes 1 - 250 ml, Ø10 mm x L 180 mm
TT-30K-ST	H-type stand for TT-30K Digital Handheld Homogenizer

TT-13K Mini Handheld Homogenizer

HIGHLIGHTS

- Light, convenient, practical and portable
- Battery powered, ideal for field work and mobile applications
- Homogenization of sample in 1.5 ml or 2.0 ml microcentrifuge tubes
- Disposable plastic grinding pestles to avoid contamination
- Choice of plastic and stainless steel grinding pestles
- Easy one hand operation
- Easy to clean, stainless steel pestles (optional) can be autoclaved



Excellent portable sample preparation mate

TT-13K Mini Handheld Homogenizer is a light and portable handheld device ideal for homogenization of biological samples and resuspension of pellets in 1.5 ml or 2.0 ml microcentrifuge tubes. With constant rotational speed of 13,000 rpm and high efficient micro DC motor, it is capable of grinding and homogenizing various sample types including plant and animal tissues as well as cell disruption.

Powered by 2 AA batteries, it is excellent for field application where the use of electrical cord is eliminated. 10 pieces of disposable plastic grinding pestles are included in every package to avoid contamination of precious sample. Stainless steel grinding pestle is also available as an option.

EACH STANDARD SET INCLUDES

- 10pcs plastic grinding pestles (TT-13K-GPA)

APPLICATIONS

- Tissue homogenisation (liquid/solid mixture) eg. root, stem, leaf, flower, fruit, seed, cerebrum, heart, lung, stomach, liver, thymus, kidney, intestine, muscle, marrow, lymph
- Re-suspends protein and DNA pellets
- Disrupts soft tissue in microcentrifuge tubes
- PCR, RNA, DNA and protein sample preparation
- Food and plant analysis
- Environmental, biological, pharmaceutical, microbiology research



TT-13K-GPA



TT-13K-GPB

TECHNICAL DATA

Specifications	TT-13K Mini Handheld Homogenizer
Speed control range	13,000 rpm
Noise level	50 dB
Motor type	Micro DC motor
Power Supply	2 x AA battery, 1.2V
Dimension (W x D x H)	25 x 143 x 135 mm
Weight	0.18 kg

ORDERING INFORMATION

Cat. No.	Mini Handheld Homogenizer
TT-13K	Mini Handheld Homogenizer TT-13K with 10 pcs plastic grinding pestles

OPTIONAL ACCESSORIES

Cat. No.	Accessories
TT-13K-GPA	Plastic grinding pestle, 10pcs/pack
TT-13K-GPB	Stainless steel (304) grinding pestle, 1pc/pack

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Lab Systems

TT-DMSM-25/ TT-DMS-18/ TT-DMSH-350/TT-DMSH-350S CycloneSpin Digital Magnetic Stirrer

HIGHLIGHTS

- Control panel with 30° slope, easy-to-read LED display and convenient control knob for quick and precise time and speed setting (TT-DMS-18/ TT-DMSH-350)
- Intuitive holographic colour display (TT-DMSH-350S)
- Able to stir up to 20L of solutions or media
- Ergonomic design, small footprint and lightweight
- Brushless DC motor offers quiet operation and prevent any undesirable heat



TT-DMSM-25

Low Profile Magnetic Stirrer with Mighty Performance

CycloneSpin Digital Magnetic Stirrer Series are compact benchtop magnetic stirrers ergonomically designed for routine stirring applications of solution, media or buffer preparation in various types of laboratories. These affordable digital magnetic stirrers are robust and reliable, designed based on precision, control and operational simplicity to ensure success of your work.

TT-DMSM-25 is a compact and reliable magnetic stirrer, suitable for small capacity samples that can accommodate up to 250 ml. The strong magnetic stir range from 0-2,500 rpm provides smooth and consistent operation. The platform is made of non-slip silicone mat.

TT-DMSH-350 and TT-DMSH-350S are digital magnetic stirrers with hotplate function. They are equipped with PID for precise temperature control and chemical resistant ceramic working surface for rapid heating. The TT-DMSH-350S is equipped with an optional external temperature sensor for temperature monitoring and detachable stand for various sensor probes (temperature, pH and others).

Both TT-DMS-18 and TT-DMSH-350 are equipped with 30° slope, easy-to-read LED display while the TT-DMSH-350S comes with intuitive holographic display with convenient control knob for quick and precise time and speed setting. Variable speed is available for different models which renders low speed to powerful mixing capability. The stirring begins slow to avoid splashing followed by a smooth and steady speed increase.



TT-DMSH-350



TT-DMSH-350S



TT-DMS-18

APPLICATIONS

- Routine mixing of chemical or biological components (media, buffer, solutions)
- Dissolving nutrients and solids
- Preventing suspended matter from settling during titration
- PH-metering, extraction and dialysing with the small quantities of substances
- Suitable for chemistry, biochemistry, molecular biology, microbiology, pharmaceutical, medical laboratories

EACH STANDARD SET INCLUDES

One magnetic stir bar (Ø8 x 46 mm)

TECHNICAL DATA

	TT-DMSM-25	TT-DMS-18	TT-DMSH-350	TT-DMSH-350S
Speed control range	0-2,500 rpm	100 - 1800 rpm	0-1800 rpm	80 - 1800 rpm
Temp. control range (surface)	-	-	R.T. +5°C - 340°C	R.T. +5°C - 340°C
Temp. setting range (surface)	-	-	30 - 340°C	30 - 340°C
Temperature stability	-	-	±3°C	±3°C
Safety light indicator (temp. range)	-	-	50 - 340°C	50 - 340°C
Digital time setting	-	1 min - 99h 59min	Continuous	Continuous
Working surface diameter	88 mm	137 mm	137 mm	137 mm
Working surface	Silicone	Stainless steel	Ceramic	Ceramic
Stirring point quantity	1 point	1 point	1 point	1 point
Stirring capacity range (H ₂ O)	5 ml - 250 ml	50 ml - 20L	50 ml - 20L	50 ml - 20L
Max. stirring capacity (H ₂ O)	250 ml	20L	20L	20L
Max. length of stir bar	46 mm	80 mm	80 mm	80 mm
Magnetic stir bar is supplied as standard	Ø8 x 46 mm, 1ea	Ø8 x 46 mm, 1ea	Ø8 x 46 mm, 1ea	Ø8 x 46 mm, 1ea
External temp. sensor	-	-	-	Yes (PT1000)
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor	Brushless DC motor
Voltage	DC12V, 50/ 60Hz	AC100V-240V, 50/ 60Hz	AC110V/ AC 220V, 50/ 60 Hz	AC110V/ AC 220V, 50/ 60 Hz
Power	<12W	30W	600W	600W
Fuse	-	250V, 1A, Ø5x20	250V, 4A/8A, Ø5x20	250V, 4A/8A, Ø5x20
Dimension (WxDxH)	110 x 110 x 70	156 x 270 x 70 mm	156 x 270 x 70 mm	156 x 270 x 70 mm
Net weight	1.2 kg	2.6 kg	2.6 kg	2.6 kg
Permissible ambient temp.	5°C - 40°C	5°C - 40°C	5°C - 40°C	5°C - 40°C
Permissible relative humidity	≤70%	≤70%	≤70%	≤70%

ORDERING INFORMATION

Cat. No.	Digital Magnetic Stirrer
TT-DMSM-25	CycloneSpin Mini Digital Magnetic Stirrer TT-DMSM-25, 0-2,500rpm, 88mm plate diameter, DC12V
TT-DMS-18	CycloneSpin Digital Magnetic Stirrer TT-DMS-18, 100-1800rpm, 137mm plate diameter, AC100-240V
TT-DMSH-350-110V	CycloneSpin Digital Magnetic Stirrer Hotplate TT-DMSH-350, 0-1800rpm, 137mm plate diameter, AC 110V
TT-DMSH-350-220V	CycloneSpin Digital Magnetic Stirrer Hotplate TT-DMSH-350, 0-1800rpm, 137mm plate diameter, AC 220V
TT-DMSH-350S-110V	CycloneSpin Digital Magnetic Stirrer Hotplate TT-DMSH-350S, 80-1800rpm, 137mm plate diameter, AC 110V
TT-DMSH-350S-220V	CycloneSpin Digital Magnetic Stirrer Hotplate TT-DMSH-350S, 80-1800rpm, 137mm plate diameter, AC 220V

Cat. No.	Accessories
TT-DMSH-TP	Support rod and temperature probe for TT-DMSH-350S

TT-SSMS-200 CellaSpin Slow Speed Magnetic Stirrer

HIGHLIGHTS

- Bright digital LCD control panel with 30° slope for ease of operation and monitoring
- Adjustable speed from 5 rpm to 200 rpm (1 rpm step)
- Programmable setting up to 9 programs with cycle numbers
- Stainless steel working platform and durable metal housing resist corrosion
- Able to accommodate up to 3L of culture or media
- Compatible to use with glass and plastic spinner flasks
- Accelerate and decelerate gradually with low shear for optimal growth of cell cultures



Reliable Stirring for Optimal Growth of Cell Culture

TT-SSMS-200 CellaSpin Slow Speed Magnetic Stirrer is ideally designed for optimal stirring of sensitive cell suspension and microcarrier cell culture and culture broths. The gentle and smooth stirring capability from as low as 5 rpm up to 200 rpm promotes high cell viability and good mixing of media and cultures for up to 3 litres.

The intuitive digital LCD control panel is easy to use with setting for cycle number and up to 9 programs for convenient daily operation. The built-in digital timer displays elapsed time and stops automatically after it reaches zero. Audible alarm sounds when time reaches zero. The metal shell housing provides durability and resists corrosive agents.

APPLICATIONS

- Stirring sensitive cell suspension, microcarrier culture and culture broths that require low speed
- Good mixing and dissolving media and solutions
- Tissue and cell culture, microbiology, life science laboratories



TECHNICAL DATA

Specifications	TT-SSMS-200 CellaSpin Slow Speed Magnetic Stirrer
Speed control range	5 - 200 rpm (1 rpm step)
Digital time setting	0s - 99min 59s
Display	Digital TFT LCD
Stirring point	1 position
Maximum stirring capacity	3L
Working surface material	Stainless steel
Motor type	Stepper motor
Maximum number of programs	9 programs
Voltage	AC 100-240V, 50/60Hz
Dimension (W x D x H)	180 x 283 x 88 mm
Net weight	1.8 kg
Permissible ambient temperature	5 - 40°C
Permissible relative humidity	≤70%

ORDERING INFORMATION

Cat. No.	CellaSpin Slow Speed Magnetic Stirrer
TT-SSMS-200	CellaSpin Slow Speed Magnetic Stirrer TT-SSMS-200, 5-200 rpm, AC 100-240V



TT-DOS-40 Twister Digital Overhead Stirrer

HIGHLIGHTS

- Easy to operate, clear LED display with real-time speed and torque
- Accurate and constant speed control
- Anti-spill with smooth start
- Explosion-proof DC brushless motor
- Closed casing to prevent liquid from entering the interior and corrosion
- Continuous and stable operation
- Safety features (eg. overload, short circuit and abnormal speed) with alarm
- Clockwise and counter clockwise stirring mode

High Performance Stirrer for Medium to High Viscosity Sample

TT-DOS-40 Twister Digital Overhead Stirrer is a robust, general purpose stirrer for medium to high viscosity liquid or solid-liquid mixture, up to 40L. It offers flexible speed range from 50 – 2200 rpm. The controls are easy to operate and enable user to set required speed and torque, with real-time LED display. The anti-spill feature prevents sample spill by implementing a smooth and steady start up. Speed precision is guaranteed by the microprocessor to ensure reliable and reproducible performance. The unit comes with a standard stainless steel stirrer rod of choice.

APPLICATIONS

- Mixing of medium to high viscosity liquid or solid-liquid mixture
- Dissolving solids and nutrients
- Prevent suspended matter from settling during titration
- PH-metering, extraction and dialysing with small quantities of substances
- Suitable for chemistry, biochemistry, molecular biology, microbiology, pharmaceutical, medical, chemical analysis, petrochemical, food and cosmetic laboratories



EACH STANDARD SET INCLUDES

- Stirrer rod of choice
- One stand with base

TECHNICAL DATA

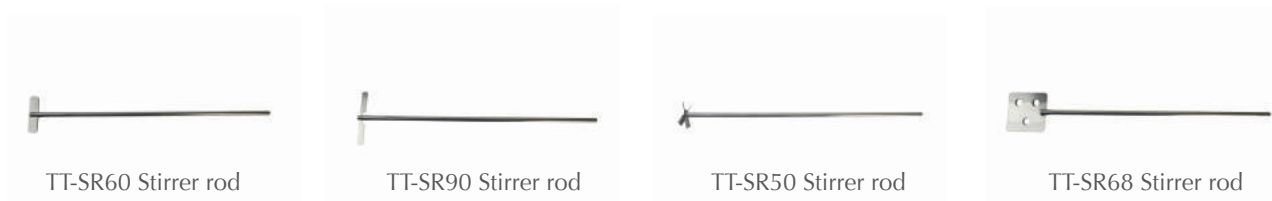
Specifications	TT-DOS-40 Digital Overhead Stirrer
Max. stir capacity	40L
Speed range	50 - 2200 rpm
Speed control accuracy	±3 rpm
Speed display accuracy	±1 rpm
Time range	30s - 999 min or continuous
Max. torque	60 N.cm
Max. viscosity	50,000 mPas
Drill chuck clamping diameter range	0.5-10 mm
Stirrer rod material	Stainless steel (304)
Microprocessor control	Yes
Display alarm	Yes
Audible alarm	No
Voltage	DC 24V, 50/60Hz
Power	130W
Dimension (W x D x H)	83 x 186 x 220 mm
Net weight	2.8 kg
Permissible ambient temperature	4°C - 45°C
Permissible relative humidity	≤70%

ORDERING INFORMATION

Cat. No.	Digital Overhead Stirrer
TT-DOS-40-24V	Twister Digital Overhead Stirrer TT-DOS-40, 40L, 50-2200rpm, DC24V

OPTIONAL ACCESSORIES

Cat. No.	Propeller style	Specification	Propeller diameter	Stirrer rod diameter	Stirrer rod length	Maximum speed
TT-SR60	Straight	1 blade	60 mm	8 mm	400 mm	2200 rpm
TT-SR90	Centrifugal	2 blades	90 mm	8 mm	400 mm	2200 rpm
TT-SR50	Crossed	4 blades	50 mm	8 mm	400 mm	2200 rpm
TT-SR68	Square	1 blade	68 mm	8 mm	400mm	1000 rpm



TT-60-SI/TT-60-MSI/TT-60-RSI InQShake Shaking Incubator

HIGHLIGHTS

- Large LED display for speed, temperature and time setting
- Microprocessor controls for temperature and speed
- Wide-angled cover lid enables easy sample loading and unloading
- Units stops automatically when cover lid is lifted
- Audio alarm sounds when time reaches zero
- Independent temperature alarm system, heating function off when temperature exceed limit
- Maintenance-free, brushless DC motor permits a long service life
- Unique speed control feature helps to prevent sudden start to eliminate splashing of vessel contents
- Adjustable fan speed eliminates sample evaporation
- Temperature setting range from 4-60°C (TT-60-RSI)



TT-60-SI

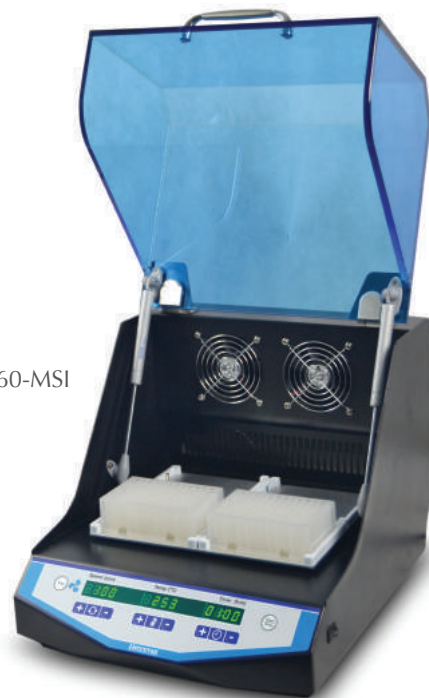
APPLICATIONS

- Growing cell cultures
- Bacterial suspensions
- Extracting tissue samples
- Solubility studies
- Staining/ destaining
- Gel washing
- General mixing
- General incubation

TT-60-RSI



TT-60-MSI



Versatile and accurate temperature control for sample mixing, incubation and cultivation

TT-60-SI/ TT-60-MSI/ TT-60-RSI InQShake Shaking Incubators are compact benchtop shaking incubators designed for mixing, incubation and cultivation of biological liquids according to set programme in a tightly sealed growth chamber. These units feature large LED display for speed, temperature and timer. Built-in microprocessor controls for temperature and speed adjustment enable smooth and stable temperature control and shaking function. A wide variety of interchangeable platforms allows for operation with different shapes and sizes of common lab vessels.

TT-60-MSI InQShake Microplate Shaking Incubator is ideal for mixing cultures or samples on microplates, with speed range between 200-1200 rpm and tight horizontal orbit 3mm. This feature enables efficient mixing for small vessels such as microplates. The platform will safely accommodate up to 4 microplates (full skirt 96-well/384-well) and cell culture plates (24-well, 48-well, 96-well) in secure positions.

TT-60-RSI InQShake Refrigerated Shaking Incubator is a refrigerated shaking incubator for cultures and applications that require lower temperature. The temperature can be controlled from 4-60°C with low noise to avoid disturbance in the lab.



TECHNICAL DATA

	TT-60-SI Shaking Incubator	TT-60-MSI Microplate Shaking Incubator	TT-60-RSI Refrigerated Shaking Incubator
Speed control range	50-300 rpm	200-1200 rpm	50-300 rpm
Orbit	20mm (circle)	3mm (horizontal)	20mm (circle)
Temperature control range	R.T. + 5 - 60°C	R.T. + 5 - 60°C	4-60°C @ RT ≤25°C
Temperature setting range	5 - 60°C	5 - 60°C	4 - 60°C
Temperature display accuracy	0.1°C	0.1°C	0.1°C
Temperature stability at 37°C	≤±0.3°C	≤±0.3°C	≤±0.3°C
Digital time setting	1min – 99h 59min or continuous	1min – 99h 59min or continuous	1min – 99h 59min or continuous
Digital display	LED display	LED display	LED display
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor
Plexiglass thickness	8 mm	8 mm	8 mm
Voltage	AC 110V/ AC 220V, 50/60Hz	AC 110V/ AC 220V, 50/60Hz	AC 110V/ AC 220V, 50/60Hz
Power	400W	400W	600W
Fuse	250V, 3A/5A, Ø5x20	250V, 3A/5A, Ø5x20	250V, 5A/10A, Ø5x20
Dimension (WxDxH)	360 x 435 x 320 mm	360 x 435 x 320 mm	385 x 560 x 320mm
Net weight	18.7 kg	18.7 kg	18.7 kg
Permissible ambient temperature	4 – 45°C	4 – 45°C	4 – 45°C
Permissible relative humidity	≤70°C	≤70°C	≤70°C

ORDERING INFORMATION

Cat. No.	Shaking Incubator
TT-60-SI-110V	InQShake Shaking Incubator TT-60-SI, 50-300 rpm, R.T. +5-60°C, 20 mm, AC 110V
TT-60-SI-220V	InQShake Shaking Incubator TT-60-SI, 50-300 rpm, R.T. +5-60°C, 20 mm, AC 220V
TT-60-MSI-110V	InQShake Microplate Shaking incubator TT-60-MSI, 200-1200 rpm, R.T. +5-60°C, 3 mm, AC 110V
TT-60-MSI-220V	InQShake Microplate Shaking incubator TT-60-MSI, 200-1200 rpm, R.T. +5-60°C, 3 mm, AC 220V
TT-60-RSI-110V	InQShake Refrigerated Shaking Incubator TT-60-RSI, 50-300 rpm, 4-60°C, 20 mm, AC 110V
TT-60-RSI-220V	InQShake Refrigerated Shaking Incubator TT-60-RSI, 50-300 rpm, 4-60°C, 20 mm, AC 220V

Cat. No.	Accessories
TT-UP-12	Universal platform with adjustable bars
TT-P6-250	Platform with clamps for 250-300 ml flasks
TT-P12-100	Platform with clamps for 100-150 ml flasks
TT-PP4	Flat platform with non-slip rubber mat
TT-PP4A	Two-level flat platform with non-slip rubber mat
TT-UP-260	Universal platform with spring
TT-SPD-GS	Sticky Pad for TT-PP4 or TT-PP4A
TT-PW-1500	Platform for TT-60-MSI

OPTIONAL ACCESSORIES



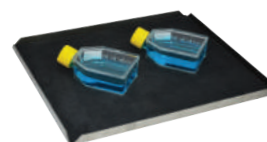
TT-UP-12



TT-P6-250



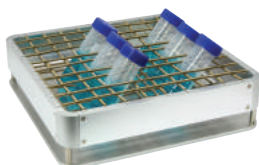
TT-P12-100



TT-PP4



TT-PP4A



TT-UP-260



TT-SPD-GS



TT-PW-1500

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Lab Systems

TT-100H/ TT-100C Thermo Shaker Incubator

HIGHLIGHTS

- Adjustable mixing speed, temperature and time with programmable features
- Simultaneous indication of set and actual temperature, speed and time
- Various block options
- Built-in temperature calibration
- With short mix operation mode
- Quiet motor operation



TT-100H/TT-100C Thermo Shaker Incubator is designed for mixing/shaking and temperature control (heating only or heating and cooling) of samples in microtubes or PCR plates.

Available with mutual interchangeable blocks to hold PCR plates, tubes ranging in size from 0.2 ml up to 50 ml.

The mixing and heating/incubation operation can be performed either combined or independently. The device can work as:

- 1 Thermo-shaker
- 2 Shaker (without temperature control)
- 3 Thermostat (without shaking/mixing)



3-IN-1 MODULE: SHAKING AND TEMPERATURE CONTROL

- Plate (shaking and mixing) 96-well and 384-well PCR plate, 96 and 384 deep well plates, MTP plates
- Tube Holder (shaking and mixing) 0.2 ml PCR tubes and PCR strip tubes, 0.5 ml microtubes, 1.5/2.0 ml microtubes
- Blocks (shaking, mixing and incubating)



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Lab Systems

APPLICATIONS

- Denaturation of DNA, RNA and proteins
- Lysis reactions at 100°C
- Plasmid/RNA/DNA purification
- Extraction of DNA fragments from agarose gels
- Biochemical study of enzymatic reactions and processes (eg. DNA restriction digestion, Proteinase K digestion and ligation)
- Extraction of lipids and other cell components
- Extraction of metabolites from cellular material
- Bacterial growth in micro-reaction vessels, deep well plates

EACH STANDARD SET INCLUDES



1 x TT-100-CLA
Standard Cover Lid



1 x TTC/H-100-MIX A
(96 x 0.2 ml)



1 x TTC/H-100-MIX B
(24 x 0.5 ml)



1 x TTC/H-100-MIX C
(24 x 1.5ml/ 2.0 ml)

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Tube holder for
24 tubes 1.5/2.0 ml

Tube holder for
24 tubes 0.5 ml

Tube holder for
96 tubes 0.2 ml

Deepwell plate

Microplate

PCR plate



PV: Present value
SV: Set value



Extended height cover lid

TECHNICAL DATA

	TT-100H Thermo Shaker Incubator	TT-100C Thermo Shaker Incubator
Speed range	300-1,600 rpm (Standard) 300-2,000 rpm (Turbo mix)	300-1,500 rpm (Standard)
Orbit diameter	3 mm (horizontal)	3 mm (horizontal)
Temperature setting range	5°C - 100°C	0-100°C
Temperature control range	R.T. +5°C - 100°C	0-100°C
Temperature stability	≤±0.3°C	≤±0.3°C
Block temperature uniformity	≤±0.3°C	≤±0.3°C
Temperature display accuracy	0.1°C	0.1°C
Heating speed	≤15min (20°C to 100°C)	≤15min (20°C to 100°C)
Cooling Speed	N/A	≤30min (R.T. to R.T. -20°C) at 26°C
Digital time setting	1min to 99h 59min or continuous	1min to 99h 59min or continuous
Voltage	AC 110V or AC 220V, 50/60 Hz	AC 100 - 240V
Power	200W	200W
Fuse	250V, 2A/3A, Ø5x20	250V, 2A/3A, Ø5x20
Dimension (WxDxH)	196 x 270 x 170 mm	196 x 270 x 170 mm
Net weight	8.2 kg	8.8 kg
Permissible ambient temperature	5 – 30°C	5 – 30°C
Permissible relative humidity	≤70%	≤70%

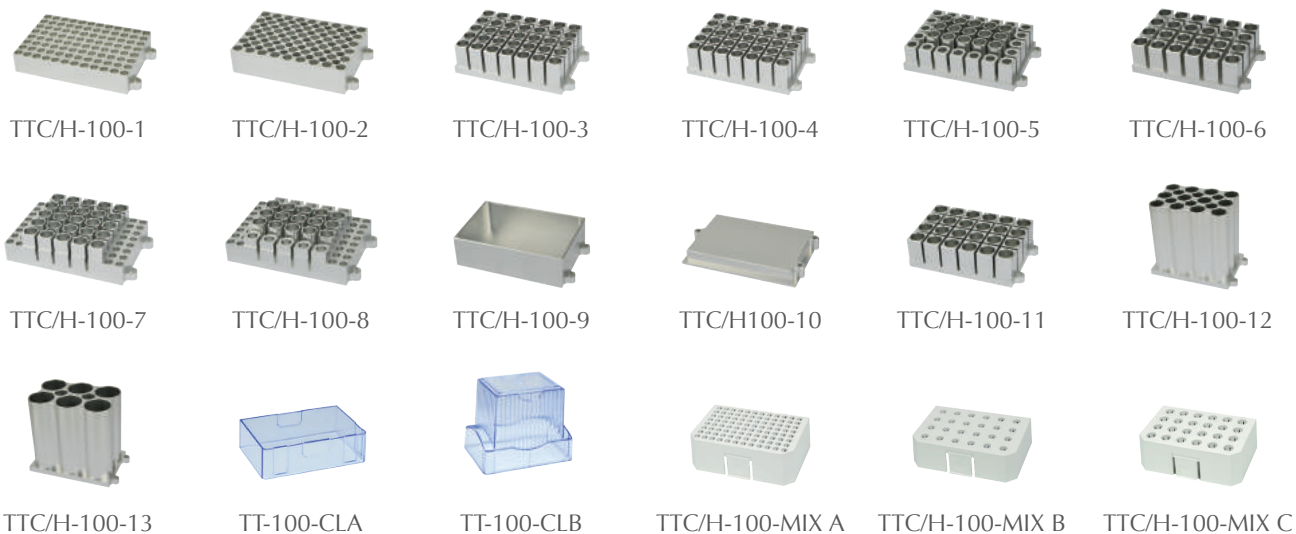
ORDERING INFORMATION

Cat. No.	Thermo Shaker Incubator
TT-100H-110V	Thermo Shaker Incubator TT-100H, Heating, R.T. +5-100°C, AC 110V
TT-100H-220V	Thermo Shaker Incubator TT-100H, Heating, R.T. +5-100°C, AC 220V
TT-100C	Thermo Shaker Incubator TT-100C, Cooling, 0-100°C, AC 100-240V

OPTIONAL ACCESSORIES

Cat. No.	Block for Thermo Shaker Incubator	Diameter of block well	Bottom shape of block well	Dimension
TTC/H-100-1	96 x 0.2 ml	6.7 mm	Cone bottom	107 x 71 x 20 mm
TTC/H-100-2	54 x 0.5 ml	8.0 mm	Cone bottom	107 x 71 x 25 mm
TTC/H-100-3	35 x 1.5 ml	10.8 mm	Cone bottom	107 x 71 x 32 mm
TTC/H-100-4	35 x 2.0 ml	10.8 mm	Round bottom	107 x 71 x 32 mm
TTC/H-100-5	20 x 0.5 ml + 15 x 1.5 ml	8.0 mm/ 10.8 mm	Cone bottom	107 x 71 x 32 mm
TTC/H-100-6	24 x dia. ≤ 12 mm	12.0 mm	Flat bottom	107 x 71 x 32 mm
TTC/H-100-7	32 x 0.2 ml + 25 x 1.5 ml	6.1 mm x 10.8 mm	Cone bottom	107 x 71 x 32 mm
TTC/H-100-8	32 x 0.2 ml + 10 x 0.5 ml + 15 x 1.5 ml	6.1 mm/ 8.0 mm/ 10.8 mm	Cone bottom	107 x 71 x 32 mm
TTC/H-100-9	Water bath block	103 x 67 x 30 mm	Flat bottom	107 x 71 x 32 mm
TTC/H-100-10	Flat bottom plate	69 x 107 x 12 mm	Flat bottom plate	116 x 71 x 15 mm
TTC/H-100-11	24 x 5 ml	13.5 mm	Flat bottom	107 x 71 x 32 mm
TTC/H-100-12	12 x 15 ml	16.9 mm	Flat bottom	107 x 71 x 100 mm
TTC/H-100-13	6 x 50 ml	29.5 mm	Flat bottom	107 x 71 x 100 mm

Note: Maximum speed for shaking blocks TTC/H-100-11, TTC/H-100-12 and TTC/H-100-13 are 600 rpm.



Cat. No.	Tube Holder for Thermo Shaker Incubator	Dimension
TTC/H-100-MIX A	Tube Holder for Thermo Shaker Incubator, 96 x 0.2 ml	122 x 80.5 x 35 mm
TTC/H-100-MIX B	Tube Holder for Thermo Shaker Incubator, 24 x 0.5 ml	122 x 80.5 x 41 mm
TTC/H-100-MIX C	Tube Holder for Thermo Shaker Incubator, 24 x 1.5 ml/ 2.0 ml	122 x 80.5 x 41 mm

Cat. No.	Cover lid
TT-100-CLA	Cover Lid for Thermo Shaker Incubator, Standard Height, For Block TTC-H-100-1 to 8, 10
TT-100-CLB	Cover Lid for Thermo Shaker Incubator, Extended Height, For Block TTC/H-100-9, 11 to 13

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Lab Systems

TT-70-2-S/ TT-60-4-S Microplate Thermo Shaker Incubator

HIGHLIGHTS

- Simultaneous indication of set and actual temperature, time and shaking speed
- Used with microplates and cell culture plates
- Microprocessor PID controller controls time and temperature with good linearity
- Audio alarm signals upon program completion

TT-70-2-S/ TT-60-4-S Microplate Thermo Shaker Incubator is designed to provide orbital shaking and maintaining constant temperature of liquid sample in standard microplates.

It has a heating platform for microplates and thermo lid to allow achieving exact set temperature of each well. The mixing and heating/incubation operation can be performed either combined or independently. The device can work as:

- Thermo-shaker
- Thermostat (without shaking/mixing)
- Microplate shaker (without temperature control)

APPLICATIONS

- Immunochemistry and molecular diagnostics
- Cytochemistry for in situ reactions
- Immunochemistry for immunofluorescent reactions
- Biochemistry for enzyme and protein analysis
- Molecular biology for micro array analysis



TT-70-2-S



TT-60-4-S

TECHNICAL DATA

Specifications	TT-70-2-S Microplate Thermo Shaker Incubator	TT-60-4-S Microplate Thermo Shaker Incubator
Speed range	300 -1200 rpm	300 -1200 rpm
Shaking orbit	3mm (horizontal)	2mm (horizontal)
Temperature control range	R.T.+5°C -70°C	R.T.+5°C -70°C
Temperature stability at 37°C	±0.2°C	±0.2°C
Digital time setting	1min to 99h 59min or short mix	1 min to 99 h59min or short mix
Platform temperature uniformity	≤±0.5°C	≤±0.5°C
Temperature display accuracy	0.1°C	0.1°C
Heating speed	≤25 min (20°C to 70°C)	≤25 min (20°C to 70°C)
Sample capacity	2 plates	4 plates
Voltage	AC 110V or AC 220V, 50/60 Hz	AC 110V or AC 220V, 50/60 Hz
Power	150W	250W
Dimension (W x D x H)	284 x 264 x 157 mm	284 x 264 x 157 mm
Net weight	6.7 kg	10.5 kg

ORDERING INFORMATION

Cat. No.	Microplate Thermo Shaker Incubator
TT-70-2-S-110V	Microplate Thermo Shaker Incubator TT-70-2-S, 2 x 96-well plate, AC 110V
TT-70-2-S-220V	Microplate Thermo Shaker Incubator TT-70-2-S, 2 x 96-well plate, AC 220V
TT-60-4-S-110V	Microplate Thermo Shaker Incubator TT-60-4-S, 4 x 96-well plate, AC 110V
TT-60-4-S-220V	Microplate Thermo Shaker Incubator TT-60-4-S, 4 x 96-well plate, AC 220V

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Lab Systems

TT-10-RS-1/ TT-10-RS-2 2D Rocker-Shaker

HIGHLIGHTS

- Smooth see-saw rocking motion with fixed angle 10°
- Digital speed control easily adjusts from 10-80 rpm
- Independent digital timer control up to 99 hrs 59 min
- Maximum load up to 5kg
- Maintenance-free, brushless DC motor provides quiet and reliable operation
- Non-slip rubber mat included
- Stainless steel platform for durability and easy



TT-10-RS-1

TT-10-RS-1/TT-10-RS-2 2D Rocker-Shaker provides see-saw rocking action to achieve gentle to intensive mixing of solutions or nutrient media in vessels such as culture flasks, petri dishes etc.

TT-10-RS-2 2D Rocker-Shaker is installed with dual platform doubles work surface without sacrificing bench space.

APPLICATIONS

- Gel staining/destaining after electrophoresis
- Homogenization of bioextraction media
- Biomolecule hybridization
- Washing blots
- Antibody staining
- Immunoprecipitations



TT-10-RS-2

TECHNICAL DATA

Specifications	TT-10-RS-1 2D Rocker-Shaker	TT-10-RS-2 2D Rocker-Shaker
Speed range	10-80 rpm	10-80 rpm
Rocking motion	See-saw	See-saw
Fixed tilt angle	10°/ 25 mm (up & down)	10°/ 25 mm (up & down)
Digital time setting	1 min - 99h 59 min or continuous	1 min - 99h 59 min or continuous
Maximum load	5.0 kg	5.0 kg
Platform with non-slip rubber mat supplied as standard	One-level platform with flat non-slip rubber mat	Two-level platform with flat non-slip rubber mat
Platform dimension	280 x 228 mm	280 x 228 mm
Overall dimension with platform (WxDxH)	284 x 264 x 134 mm	284 x 264 x 248 mm
Electrical supply	Input AC 100-240V, 50/60 Hz; Output DC 12V	Input AC 100-240V, 50/60 Hz; Output DC 12V
Net weight	5.2 kg	5.2 kg
Permissible ambient temperature	4 - 45°C	4 - 45°C
Permissible relative humidity	≤70%	≤70%

ORDERING INFORMATION

Cat. No.	2D Rocker-Shaker
TT-10-RS-1	2D Rocker-Shaker TT-10-RS-1, One-level flat platform with non-slip rubber mat, AC 100-240V
TT-10-RS-2	2D Rocker-Shaker TT-10-RS-2, Two-level flat platform with non-slip rubber mat, AC 100-240V

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Lab Systems

TT-20-NR 3D Mini Nutating Rocker

HIGHLIGHTS

- Three-dimensional movement for thorough and uniform mixing
- Ideal for mixing samples in blood and centrifuge tubes
- 20 rpm fixed speed rocking motion at 20° tilt angle
- Maximum load up to 0.8 kg
- Dimpled rubber mat included to secure various tube sizes in place during operation
- Cold room and incubator safe



TT-20-NR 3D Mini Nutating Rocker provides three dimensional smooth rocking action to deliver thorough, low-foam and uniform mixing of solutions in small collection tubes to larger centrifuge tubes.

The speed and tilt angle of this rocker is fixed and designed to provide optimal level of mixing samples in small containers.

It is a compact device included with dimpled mat which provides stable position to hold a variety of tubes with different sizes such as 60 x 1.5 ml tubes, 30 x 3 ml tubes, 21 x 7 ml tubes and 17 x 15 ml tubes.

APPLICATIONS

- Mixing blood into buffer in large centrifuge tubes
- Mixing DNAs into solution in microtubes



TECHNICAL DATA

Specifications	TT-20-NR 3D Mini Nutating Rocker
Fixed speed	20 rpm
Rocking motion	3D gyratory
Fixed tilt angle	20°
Dimpled rubber mat is supplied as standard	Yes
Maximum load	0.8 kg
Platform dimension	237 x 172 mm
Voltage	AC 110V or AC 220V, 50/60 Hz
Power	45W
Overall dimension (W x D x H)	240 x 170 x 150 mm
Net weight	1.6 kg
Permissible ambient temperature	4 - 40°C
Permissible relative humidity	≤70%

ORDERING INFORMATION

Cat. No.	3D Mini Nutating Rocker
TT-20-NR-110V	3D Mini Nutating Rocker TT-20-NR, with dimpled rubber mat platform, AC 110V
TT-20-NR-220V	3D Mini Nutating Rocker TT-20-NR, with dimpled rubber mat platform, AC 220V

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Lab Systems

TT-10/ TT-20/ TT-30 Orbital Shaker

HIGHLIGHTS

- Choice of orbit sizes: 10 mm, 20 mm and 30 mm
- LED display: Easy-to-read, independent LED display for time and speed
- Quiet operation: Stable & low noise
- Multiple interchangeable platform options
- Audible alarm: Alarm will sound when the time reaches zero

TT-10/ TT-20/ TT-30 Orbital Shaker is a compact orbital shaker intended for shaking samples in various types of containers such as flasks, bottles, petri dishes and other laboratory vessels via efficient orbital motion. This microprocessor controlled system with brushless motor enable silent operation and provides stable, smooth and uniform shaking speed.



APPLICATIONS

- Biotechnology and microbiology: For microorganism cultivation and extraction of biologically active substances
- Immunology and biochemistry: For agglutination and precipitation assay
- Gene engineering: For washing off electrophoretic gel
- Molecular and cell biology: for cultivation of biological liquids

OPTIONAL ACCESSORIES



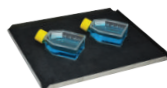
TT-UP-12



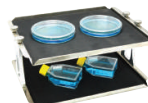
TT-P6-250



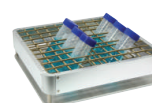
TT-P12-100



TT-PP4



TT-PP4A



TT-UP-260



TT-SPD-GS

TECHNICAL DATA

Specifications	TT-10 Orbital Shaker	TT-20 Orbital Shaker	TT-30 Orbital Shaker
Shaking action	Orbital	Orbital	Orbital
Speed range	50 - 350 rpm	50 - 300 rpm	50 - 250 rpm
Orbit diameter	10 mm	20 mm	30 mm
Digital time setting	1min – 99h 59min	1min – 99h 59min	1min – 99h 59min
Operating mode	Timer or continuous	Timer and continuous	Timer and continuous
Maximum load	2.5 kg	2.5 kg	2.0 kg
Voltage	AC 100-240V, 50-60Hz	AC 100-240V, 50-60Hz	AC 100-240V, 50-60Hz
Power	50W	50W	50W
Fuse	250V, 1A, Ø5x20	250V, 1A, Ø5x20	250V, 1A, Ø5x20
Dimension (W x D x H)	284 x 264 x 108 mm	284 x 264 x 108 mm	284 x 264 x 108 mm
Net weight	5.6 kg	5.6 kg	5.6 kg
Permissible ambient temperature	4 - 45°C	4 - 45°C	4 - 45°C
Permissible relative humidity	≤70%	≤70%	≤70%

ORDERING INFORMATION

Cat. No.	TT-10/20/30 Orbital Shaker
TT-10	Programmable Orbital Shaker TT-10, 50-350 rpm, 10 mm, AC 100-240V
TT-20	Programmable Orbital Shaker TT-20, 50-300 rpm, 20 mm, AC 100-240V
TT-30	Programmable Orbital Shaker TT-30, 50-250 rpm, 30 mm, AC 100-240V

OPTIONAL ACCESSORIES

Cat. No.	Platforms for Orbital Shaker
TT-UP-12	Universal platform with adjustable bars
TT-P6-250	Platform with clamps for 250 - 300 ml flask
TT-P12-100	Platform with clamps for for 100 - 150 ml flask
TT-PP4	Flat platform with non-slip rubber mat
TT-PP4A	Two-level flat platform with non-slip rubber mat
TT-UP-260	Universal platform with springs
TT-SPD-GS	Sticky pad for TT-PP4 or TT-PP4A

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Lab Systems

TT-1500 Microplate Shaker

HIGHLIGHTS

- Platform for 4 microplates supplied as standard
- LED display: Easy-to-read, LED display for time and speed
- DC brushless motor: Maintenance-free, stable & quiet operation
- Audible alarm: Alarm will sound when the time reaches zero
- Remaining time display: Timer will display remaining time

TT-1500 Microplate Shaker is designed for shaking/ mixing liquid samples in microplates (96/384 well) and cell culture plates (24, 48, 96-well). The orbital shaking platform supplied able to hold up to four plates (standard or deep well) without requiring the use of clamps, springs or special tools.



APPLICATIONS

- Mixing of biological and chemical components in all areas of medicine, biotechnology and microbiology laboratory research
- Immunodiagnosics/Immunoassay
- Shaking ELISA plates
- Staining cells for flow cytometry
- 96-well plate preparation prior to LC-MS/MS
- Plate shaking for library preparation



TECHNICAL DATA

Specifications	TT-1500 Microplate Shaker
Speed range	200 - 1500 rpm (standard microplates); 200 - 1000 rpm (deep well plates)
Shaking orbit	3 mm (horizontal)
Digital time setting	1min - 99h 59min
Sample capacity	4 standard microplates
Voltage	AC 100-240V, 50/60Hz
Power	50W
Fuse	250V, 1A, Ø5x20
Dimension (W x D x H)	284 x 264 x 121 mm
Net weight	5.2 kg
Permissible ambient temperature	4 - 45°C
Permissible relative humidity	≤70%

ORDERING INFORMATION

Cat. No.	Microplate Shaker
TT-1500	Microplate Shaker TT-1500, 200 - 1500 rpm, 3 mm, 4 x 96-well microplate, AC 100-240V

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Lab Systems

TT-6000/ TT-3K-10K Mini-Centrifuge

HIGHLIGHTS

- Interchangeable rotors: Two interchangeable rotors to accommodate PCR tubes and PCR strips;
- Easy and quick exchange of rotors without any tools
- Lid automatically opens up to an angle of 95° pressing the cover lid release button
- Simple & Fast: Spin is activated by closing the lid
- Ergonomic: Compact design, small foot print with ergonomically designed lid that is designed to fit in the palm for ease of repeat opening & use
- Adjustable digital timer
- Low noise



TT-6000

TT-6000 Mini-Centrifuge is a fixed speed 6,000 rpm personal mini-centrifuge that is designed for quick spin downs of microsamples. Operation is simple and fast by loading the sample tubes, close the lid and the rotor accelerates to 6,000 rpm. This speed range is ideal for bringing small droplets to the bottom of the tubes, for micro-filtrations and basic separation applications.

The similarly TT-3K-10K Mini-Centrifuge allows adjustable quick spins ranging from 3,000 rpm to 10,000 rpm in 1,000 rpm increment. This indicates a single unit is equivalent to eight mini-centrifuges!

Both units feature compact design with a small footprint with its ergonomically designed lid that are specially designed to fit in the palm for ease of repeat opening and use.

APPLICATIONS

- Facilitates microfiltration
- Low-speed centrifugation of tubes and strips
- Quick spin-downs from the walls and caps of tubes



TT-3K-10K

EACH STANDARD SET INCLUDES

- Eight-place microtube rotor for 1.5 ml/ 2.0 ml tubes
- Eight-places PCR tube strip rotor for two 0.2 ml PCR tube strips or 16 single tubes
- Eight adapters for 0.5 ml tube for customized use
- Eight adapters for 0.2 ml tube for customized use



TECHNICAL DATA

	TT-6000 Mini-Centrifuge	TT-3K-10K Mini-Centrifuge
Speed	6,000 rpm	3,000 – 10,000 rpm (increment: 1000 rpm)
Relative centrifugal force (RCF)	Approx. 2,000 x g	Approx. 500 g – 5,300 x g
Rotor capacity	8 x 1.5/ 2.0 ml tubes 8 x 0.5 ml/ 8 x 0.2 ml tubes (using adapter) Two 8 x 0.2 ml tube strips 16 x 0.2 ml tubes	8 x 1.5/ 2.0 ml tubes 8 x 0.5 ml/ 8 x 0.2 ml tubes (using adapter) Two 8 x 0.2 ml tube strips (use only when ≤6,000 rpm) 16 x 0.2 ml tubes strips (use only when ≤6,000 rpm)
Digital time setting	1sec – 9999min	1sec – 999min
Noise	≤45 dB	≤55 dB
Voltage	AC 110V or AC 220V, 50/60 Hz	AC 110V or AC 220V, 50/60 Hz
Power	≤45W	≤45W
Fuse	250V, 1A, Ø5x20	250V, 1A, Ø5x20
Dimension (W x D x H)	156 x 176 x 121 mm	156 x 176 x 121 mm
Net weight	1.5 kg	1.5 kg
Permissible ambient temperature	4 - 45°C	4 - 45°C
Permissible relative humidity	≤70%	≤70%

ORDERING INFORMATION

Cat. No.	Mini-Centrifuge
TT-6000-110V	Mini-Centrifuge TT-6000, 6,000 rpm, AC 110V
TT-6000-220V	Mini-Centrifuge TT-6000, 6,000 rpm, AC 220V
TT-3K-10K-110V	Mini-Centrifuge TT-3K-10K, 3,000-10,000 rpm, AC 110V
TT-3K-10K-220V	Mini-Centrifuge TT-3K-10K, 3,000-10,000 rpm, AC 220V



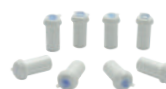
TT-RT-815



TT-RT-802

ACCESSORIES

Cat. No.	Replacement Accessories
TT-RT-815	Microtube rotor for Mini-Centrifuge, 8 x 1.5 ml
TT-RT-802	Strip tube rotor for Mini-Centrifuge, 2 x 8 x 0.2 ml
TT-AP-802	Adapter for 0.2 ml tubes, (Pack of 8)
TT-AP-805	Adapter for 0.5 ml tubes, (Pack of 8)



TT-AP-802



TT-AP-805

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Lab Systems

TT-2500 Microplate Centrifuge

HIGHLIGHTS

- **Versatile**
Accept skirted, non-skirted and all standard PCR plates
- **Accelerating efficiency**
Rotor quickly accelerates to 2,500 rpm
- **Two modes**
Short spin mode & timed operation mode
- **DC brushless motor**
Maintenance-free, stable & quiet operation
- **Fast deceleration speed**
10 seconds
- **Easy to load and remove PCR plate or microplates**
Lids automatically opens up to an angle of 95° pressing the cover lid release button



TT-2500 Microplate Centrifuge is a compact personal sized centrifuge that is ideal for quick and easy centrifugation of samples in microplates or PCR plates. It quickly spins down droplets and condensation, and is used before and after thermal cycler to improve PCR yield by providing a more homogenous sample mixture. Microplate can be inserted vertically from the top with no sample leakage caused by surface tension mechanism.



TECHNICAL DATA

Specifications	TT-2500 Microplate Centrifuge
Speed	2500 rpm
G force (RCF)	500 x g
Sample capacity	2 standard PCR or microplates
Rotor	Fixed vertically
Digital time setting	1sec – 99sec or short spin
Voltage	DC 24V
Dimension (W x D x H)	190 x 219 x 186 mm
Net weight	2.7 kg
Permissible ambient temperature	4 - 45°C
Permissible relative humidity	≤70%

ORDERING INFORMATION

Cat. No.	Microplate Centrifuge
TT-2500	Microplate Centrifuge TT-2500, 2500 rpm, AC 100-240V

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Lab Systems

TT-14500 PRO Microcentrifuge

HIGHLIGHTS

- Compact & small foot print conserves benchtop space
- Anodized aluminium rotor
- Simplified operation with clear LED display
- Separate short spin key for quick spin
- Autoclavable rotor (at 121°C for 20 minutes)
- Simple setting of rpm and RCF
- Timer can be set up to 99 minutes
- Fast acceleration & deceleration speed



TT-14500 PRO Microcentrifuge is a compact personal sized 12-place centrifuge that achieves maximum rotation speeds of 14,500 rpm (14,000 x g) which is able to accommodate microtubes of 1.5 ml/ 2.0 ml or even smaller volumes with adapters. It is intended for separating aqueous solution and suspensions in test tubes.

EACH STANDARD SET INCLUDES

- 12-place microtubes rotor for 1.5 ml/ 2 ml tubes
- 12 adapters for 0.5 ml tubes for customized use
- 12 adapters for 0.2 ml tubes for customized use



Microtubes
rotor



Adapter for
0.5 ml tubes



Adapter for
0.2 ml tubes

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Lab Systems

APPLICATIONS

- Nucleic acid purification
- PCR cleanup
- Plasmid mini-prep
- Protein processing



TECHNICAL DATA

Specifications	TT-14500 PRO Microcentrifuge
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Maximum rotational speed	14,500 rpm
Relative centrifugal force (RCF)	14,000 x g
Digital time setting	20sec – 99min
Acceleration time to max. speed	17sec
Braking time from max. speed	15sec
Voltage	100V or 240V, 50/60 Hz
Power	100W
Dimension (W x D x H)	230 x 270 x 155 mm
Weight with rotor (kg)	4.8 kg
Permissible ambient temperature	5 – 30°C
Permissible relative humidity	≤70%

ORDERING INFORMATION

Cat. No.	Microplate Centrifuge
TT-14500 PRO-100V	Microcentrifuge TT-14500 PRO, AC 100V
TT-14500 PRO-240V	Microcentrifuge TT-14500 PRO, AC 240V

Cat. No	Replacement Adapter
TT-14500-A02	Adapter for 0.2 ml tubes
TT-14500-A05	Adapter for 0.5 ml tubes

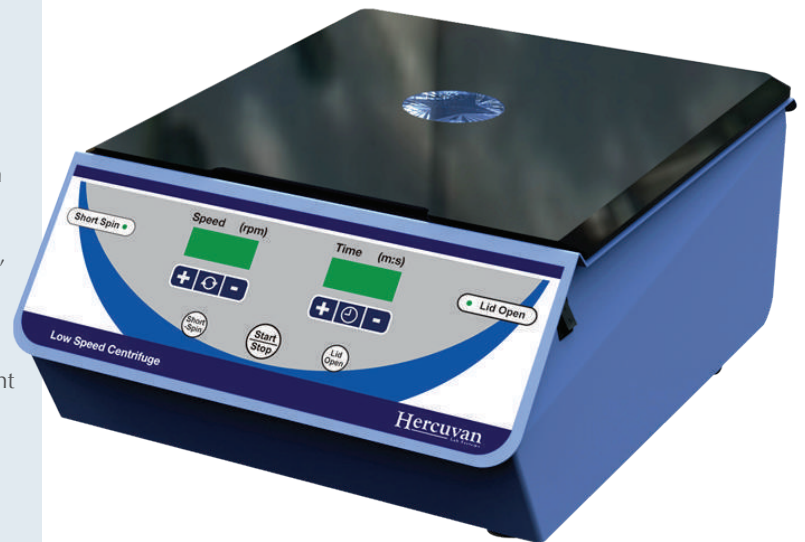
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Lab Systems

TT-4500 Low Speed Centrifuge

HIGHLIGHTS

- Maximum speed: 4500 rpm (2,490 x g)
- Intuitive LCD control panel
- Multiple time setting modes: Short mix, digital time setting and continuous
- Rapid and gradient acceleration and deceleration
- Automatic lid release upon program completion
- Multiple safety features: double-layered safety lid, auto-lock function, audio alert and automatically stop when over-speed, over-heat and imbalance occurred
- Quiet operation for peaceful working environment
- Run-to-run reproducibility, timer starts when the selected rotational speed is reached
- Fully autoclavable rotors (120°C)
- Rust-free and easy to clean stainless steel rotor chamber



An economic benchmark of low speed centrifugation

TT-4500 Low Speed Centrifuge is a contemporary low speed benchtop centrifuge designed for operation with centrifuge tubes and conical tubes up to 50ml. It is intended for biological sample separation with adjustable speed range of 300-4500rpm which is widely used in various profile laboratories including biomedical, pharmaceutical, microbiology and molecular biology.

Three autoclavable angle rotor options are available to accommodate common tube sizes (5ml, 7ml, 10ml, 15ml and 50ml). The device enables rapid and gradient acceleration (30 sec) and deceleration (20 sec), thus eliminating time-consuming and centrifugation process.

You may enjoy a peace of mind while operating the unit as it comes with safety features such as double-layered safety lid with auto-lock function, alarm and stop automatically when over-speed, over-heat and imbalance occurred. Operating noise level is also low at ≤ 56 dB to avoid any unwanted distraction in the laboratory.



Cover lid release in the event of power failure

APPLICATIONS

- Biological sample separations of cellular materials, lipid cell, stem cell, blood, urine etc.
- Cell harvest from cultures (protein expression, bioprocessing)
- Pelleting for bacteria, animal and plant cells as well as membrane organelles or fractions
- Biomedical, clinical, pharmaceutical, proteomics, biochemistry, microbiology, molecular biology, chemical laboratories



TECHNICAL DATA

Specifications	TT-4500 Low Speed Centrifuge
Speed	300 - 4500 rpm (100rpm steps)
Maximum RCF	2490 × g (increment: 100 × g)
RPM/RCF conversion	Yes
Speed accuracy	±20rpm
Rotor capacity	5 ml/ 7 ml x 16; 10/ 15 ml x 12; 50 ml x 6
Digital time setting	1sec - 99min 59sec or continuous
Short spin	Yes
Automatic lid lock	Yes
Automatic lid release after completion	Yes
Alarm and automatic stop	Yes, during over-speed, over-heat and imbalance
Noise level	≤56dB
Acceleration time to max. speed	30sec
Braking time from max. speed	20sec
Soft acceleration/deceleration	Yes
Motor type	Brushless DC motor
Voltage	AC 110-240V, 50/60Hz
Power	120W
Dimension (W x D x H)	300 x 431 x 178 mm
Net Weight	17.0 kg
Permissible ambient temperature	4 - 40°C
Permissible relative humidity	≤70%

ORDERING INFORMATION

Cat. No. **TT-4500 Low Speed Centrifuge**

TT-4500 Low Speed Centrifuge TT-4500, 300-4500 rpm, AC 110-240V

OPTIONAL ACCESSORIES

Cat. No **Rotor for Low Speed Centrifuge**

TT-4500-R01 Angle rotor for 5 ml/ 7 ml tubes x 16
TT-4500-R02 Angle rotor for 10 ml/ 15 ml tubes x 12
TT-4500-R03 Angle rotor for 50 ml tube x 6



TT-4500-R01
5 ml/ 7 ml tubes x 16 rotor



TT-4500-R02
10 ml/ 15 ml tubes x 12 rotor



TT-4500-R03
50 ml tube x 6 rotor

TT-15000/TT-15000R High Speed Centrifuge

HIGHLIGHTS

- Maximum rotor capacity: 24 x 1.5/ 2.0 ml tubes
- Maximum speed 15,000 rpm (21,400 × g)
- Three optional rotors to fit in different tube sizes
- Short-spin key available for quick centrifugation
- Soft brake function to avoid sample agitation and protect sensitive sample
- Automatic lid release at the end of each run prevents sample warming
- Safe to use in cold room (TT-15000 model)



TT-15000

Defy expectation with optimal safety and functionality

TT-15000/ TT-15000R High Speed Centrifuge are the new generation high speed benchtop centrifuges which meet the optimal functionality with medium capacity for molecular biology applications. Built with 24-place capacity and maximum RCF of 21,400 × g, they are perfectly designed for centrifugation of samples in microcentrifuge tubes, PCR strip tubes and tubes up to 5.0ml. To maximise sample protection, both models feature soft brake function to prevent sample agitation.

TT-15000R High Speed Centrifuge is a refrigerated benchtop centrifuge equipped with advanced cooling technology and precise temperature control which protects sensitive samples from degradation during centrifugation. The system allows efficient pre-cooling from 20°C to 4°C in 20 minutes, saving valuable time in sample processing.



TT-15000R

Hercuvan

Lab Systems

SPECIAL FEATURES FOR TT-15000R REFRIGERATED CENTRIFUGE

- Temperature range from -10°C to +40°C
- Rapid pre-cooling of the centrifuge (from 20°C to 4°C in 20 min)
- Continuously cools sample with constant temperature as long as lid is closed

APPLICATIONS

- Plasmid, DNA/RNA, PCR cleanup, spin column/ miniprep kits
- Protein work, cell culture
- Whole cell harvesting or pelleting
- Molecular biology, genomic, biochemistry, pharmaceutical, medical, microbiology, proteomic laboratories

EACH STANDARD SET INCLUDES

- 24-place microtubes rotor for 1.5 ml/2.0 ml tubes

TECHNICAL DATA

Specifications	TT-15000 High Speed Centrifuge	TT-15000R High Speed Centrifuge
Speed control range	500 - 15,000 rpm (100 rpm steps)	500 - 15,000 rpm (100 rpm steps)
Maximum RCF	21,400 × g	21,400 × g
Acceleration and deceleration time (Soft brake off)	15sec	15sec
Acceleration and deceleration time from max. speed (Soft brake on)	45sec	45sec
Maximum rotor capacity	24 × 1.5 ml/ 2.0 ml tubes	24 × 1.5 ml/ 2.0 ml tubes
Rotor is supplied as standard	24 × 1.5 ml/ 2.0 ml rotor	24 × 1.5 ml/ 2.0 ml rotor
Noise	62 dB	60 dB
Short spin function	Yes	Yes
Soft brake function	Yes	Yes
Automatic lid release after completion	Yes	No
Digital time setting	1sec - 99min 59sec	1sec - 99min 59sec
Temperature range	-	-10°C - +40°C
Temperature control at 4°C	-	±2°C
From 20°C to 4°C	-	≤20min
Rotor material	Aluminium	Aluminium
Voltage	AC 100-120V or AC 200-240V, 50/60Hz	AC 100-120V or AC 200-240V, 50/60Hz
Maximum power	250 W	500 W
Rated power	1000 W	1200 W
Dimension (W × D × H)	340 × 240 × 230 mm	500 × 300 × 320 mm
Weight (with rotor)	13 kg	30 kg
Permissible ambient temperature	5- 40°C	10 - 30°C
Permissible relative humidity	≤80%	≤80%

ORDERING INFORMATION

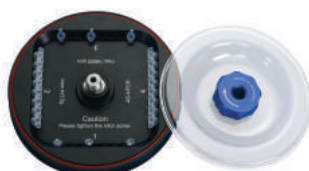
Cat. No.	High Speed Centrifuge
TT-15000-120V	High Speed Centrifuge TT-15000, 500-15,000 rpm, AC 100-120V
TT-15000-240V	High Speed Centrifuge TT-15000, 500-15,000 rpm, AC 200-240V
TT-15000R-120V	High Speed Centrifuge TT-15000R, 500-15,000 rpm, AC 100-120V
TT-15000R-240V	High Speed Centrifuge TT-15000R, 500-15,000 rpm, AC 200-240V

OPTIONAL ACCESSORIES

Cat. No	Accessories for High Speed Centrifuge
TT-RT-2415	Rotor for 24 x 1.5 ml/ 2.0 ml tubes
TT-RT-4820	Rotor for 4 x 8 x 0.2 ml PCR strip tubes
TT-RT-1250	Rotor for 12 x 5.0 ml tubes
TT-AP-2402	Adapter for 0.2 ml tubes
TT-AP-2405	Adapter for 0.5 ml tubes



TT-RT-2415
24 x 1.5 ml/ 2.0 ml rotor



TT-RT-4820
4 x 8 x 0.2 ml PCR strip rotor



TT-RT-1250
12 x 5.0 ml rotor

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Lab Systems

TT-254-VM VeloTEX Vortex Mixer

HIGHLIGHTS

- Adjustable speed control: 0-2500 rpm, allows slow shaking up to high vortexing
- “Continuous” or “Touch” operation
- “No-walk” suction feet prevent excessive movement and vibration during operation
- Various optional platforms and foam tube holders to hold different types of tubes or containers

TT-254-VM VeloTEX Vortex Mixer is a versatile variable speed vortex mixer intended for gentle mixing to vigorous vortexing of samples in various types of commonly used tubes ranging from 0.2 ml up to 50 ml and microplate.

Two modes of operation available:

- Continuous mode when using accessory attachments or foam tube stands
- Touch mode which activates mixing when depressing the standard cup head

APPLICATIONS

- General - Resuspension of cell or chemical pellets
- Life Science – deproteinisation of DNA/protein complexes, mixing of immunostained cells, purification of low molecular DNA/RNA fragments
- Biopharmaceutical – solubilising powders

EACH STANDARD SET INCLUDES

- A standard head, for tubes and vessels with diameter <30 mm (Cat. No: TT-VM-1)
- A standard platform to hold foam tube holder (Cat. No: TT-VM-P)



TT-VM-1



TT-VM-P

TECHNICAL DATA

Specifications **TT-254-VM VeloTEX Vortex Mixer**

Speed control range	0-2,500 rpm
Orbit	3 mm
Shaking mode	Circle
Control	Speed knob with scale indication
Operation mode	Continuous or touch (short mix)
Voltage	AC 110V/AC 220V, 50/60Hz
Power	60W
Fuse	250V, 1A, Ø5x20
Dimension (WxDxH)	132 × 156 × 150 mm
Net weight	2.4 kg

ORDERING INFORMATION

Cat. No. **VeloTEX Vortex Mixer**

TT-254-VM-110V	VeloTEX Vortex Mixer TT-254-VM, 0-2500 rpm, 3 mm, AC 110V
TT-254-VM-220V	VeloTEX Vortex Mixer TT-254-VM, 0-2500 rpm, 3 mm, AC 220V

Cat. No. **Accessories**

TT-VM-P	Standard platform to hold foam tube holder
TT-VM-1	Standard head, for tubes and vessels with dia. <30 mm
TT-VM-2	Convex pad, for tubes and vessels with dia. <99 mm, use with TT-VM-P
TT-VM-3	Foam tube holder, for 0.2 ml tubes, 70 holes, use with TT-VM-P
TT-VM-4	Foam tube holder, for 0.5 ml tubes, 36 holes, use with TT-VM-P
TT-VM-5	Foam tube holder, for 1.5/2.0 ml tubes, 20 holes, use with TT-VM-P
TT-VM-6	Foam tube holder, for 15 ml tubes, 8 holes, use with TT-VM-P
TT-VM-7	Foam tube holder, for 50 ml tubes, 4 holes, use with TT-VM-P
TT-VM-8	Tube holder platform, for 1.5/2.0 ml tubes x 22
TT-VM-9	Tube holder platform, for 15 ml tubes x 4
TT-VM-10	Tube holder platform, for 50 ml tubes x 2
TT-VM-11	Plate holder platform, for all standard plates
TT-VM-12	Universal platform for tube holders and all standard plates
TT-TH-A	Tube holder for TT-VM-12 platform, 96 x 0.2 ml tubes
TT-TH-B	Tube holder for TT-VM-12 platform, 24 x 0.5 ml tubes
TT-TH-C	Tube holder for TT-VM-12 platform, 24 x 1.5/ 2.0 ml tubes

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Lab Systems

OPTIONAL ACCESSORIES



TT-VM-2



TT-VM-3



TT-VM-4



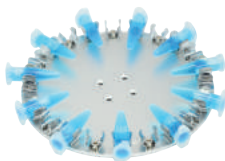
TT-VM-5



TT-VM-6



TT-VM-7



TT-VM-8



TT-VM-9



TT-VM-10



TT-VM-11



TT-VM-12



TT-TH-A



TT-TH-B



TT-TH-C

TT-2500-VM Multi-Tube Vortex Mixer

HIGHLIGHTS

- Hands-free mixing up to 50 tubes at a time
- Gentle to vigorous mixing in every tube at adjustable of 500-2,500 rpm
- Easy-to-read LED speed and time display
- Variety of tube frames available to hold different sizes
- Short mixing and timed mixing operation modes
- With microprocessor controller for digital programming of speed & time
- Maintenance-free brushless DC motor



TT-2500-VM Multi-Tube Vortex Mixer is a high capacity vortex mixer designed to provide gentle to vigorous mixing of reagents up to 50 test tubes simultaneously.

The vortexing action is created by holding the top of the vessel securely in place and moving the bottom tray freely in a defined orbit.

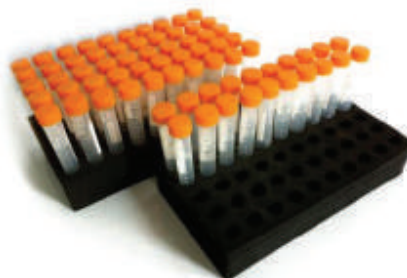
APPLICATIONS

- General micro test tube mixing
- Mixing tissue samples
- Vortexing cells suspensions
- Mixing chemical reagents
- High throughput testing in clinical, environmental and chemistry labs



EACH STANDARD SET INCLUDES

- One tray pad set (Cat. No.: TT-2500VM-H)



TECHNICAL DATA

Specifications

TT-2500-VM Multi-Tube Vortex Mixer

Speed range	500 - 2500 rpm
Speed accuracy	±10 rpm
Orbit diameter	4 mm
Operation mode	Digital timer, short mix or continuous
Digital time setting	1sec – 9999min
Maximum load	5.0 kg
Voltage	AC 100-240V, 50/60Hz
Power	60W
Fuse	250A, 1A, Ø5x20
Dimension (W x D x H)	250 x 426 x 480 mm
Net weight	15 kg
Permissible ambient temperature	4 - 45°C
Permissible relative humidity	≤70%

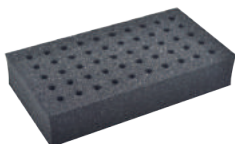
ORDERING INFORMATION

Cat. No. **Multi-Tube Vortex Mixer**

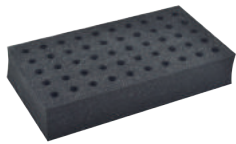
TT-2500-VM Multi-Tube Vortex Mixer TT-2500-VM, 500-2500 rpm, 4 mm, AC100-240V

Cat. No.	Accessories	Dimension
TT-2500VM-10	50 x Ø10 mm foam tube holder	245 x 132 x 45 mm
TT-2500VM-12	50 x Ø12 mm foam tube holder	245 x 132 x 45 mm
TT-2500VM-13	50 x Ø13 mm foam tube holder	245 x 132 x 45 mm
TT-2500VM-16	50 x Ø16 mm foam tube holder (15 ml Falcon tube)	245 x 132 x 45 mm
TT-2500VM-25	15 x Ø25 mm foam tube holder	245 x 132 x 45 mm
TT-2500VM-29	15 x Ø29 mm foam tube holder (50 ml Falcon tube)	245 x 132 x 45 mm
TT-2500VM-40	40 x 1.5/2.0ml transparent acrylic tube holder	169 x 84 x 41 mm
TT-2500VM-H	Tray pad set (upper and lower)	305 x 178.5 x 25 mm

OPTIONAL ACCESSORIES



TT-2500VM-10



TT-2500VM-12



TT-2500VM-13



TT-2500VM-16



TT-2500VM-25



TT-2500VM-29



TT-2500VM-40



TT-2500VM-H

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Lab Systems

TT-3000 Smart Mixer

HIGHLIGHTS

- **Pre-programmed soft keys:**
Allow selection of pre-set mixing parameters
- **Stable:**
Remain stationary even at maximum mixing speed
- **Touch vortex:**
3,500 rpm
- **Universal holder:**
Universal holder with steel springs hold plates and tube holder firmly in place even at 3,000 rpm mixing speed
- **LED display:**
Clear display for ease of setting and reading



TT-3000 Smart Mixer is designed to mix and vortex aqueous solutions and suspensions in various types of micro test tubes and micro test plates.

It can hold from 0.2 ml PCR tubes to 2.0 ml micro test tubes as well as PCR plates, MTP & DWP at a maximum mixing frequency up to 3,000 rpm.

Variable speed control and optional tube holders make this mixer ideal for a wide range of mixing applications.

APPLICATIONS

- Controlled mixing of PCR, restriction or other enzyme reactions
- Resuspension of DNA, RNA, protein or cell pellets in tubes and in plates
- Vortexing in micro test tubes and in 15 ml/ 50 ml screw-cap tubes

EACH STANDARD SET INCLUDES

1. TTC/H-100-MIX-A 96x0.2 ml tube holder
2. TTC/H-100-MIX-B 24x0.5 ml tube holder
3. TTC/H-100-MIX-C 24x1.5 ml/ 2.0 ml tube holder



96-well skirted PCR plates, 384-well PCR plates and deep well plate can be loaded into the universal holder without requiring any tube holder.

3-IN-1 MODULE MIXER

Allow mixing of aqueous solutions in various types of plates, tubes and vortex mixing

1. Plates

- PCR plates (skirted, semi-skirted, unskirted)
- 384-well PCR plate
- 96 and 384 deep well plates
- MTP

2. Tubes

- 0.2 ml PCR tubes and PCR strips
- 0.5 ml microtest tubes
- 1.5 ml / 2.0 ml microtest tubes

3. Vortex



SOFTKEYS FOR PRESET OPTIMIZED MIXING PARAMETERS

Softkey	Speed (rpm)	Time (s)	Tube / Plate	Fill Level (%)
384	2000	15	MTP and DWP (384-well)	10-60
PCR 384	2600	15	PCR Plate (384-well)	10-50
96	1000	30	MTP (96-well)	5-60
PCR 96/ 0.5	1650	30	PCR plates & DWP (96-well), PCR tubes (0.2 ml) and micro test tubes (0.5 ml)	5-50
1.5/ 2.0	1400	60	Test tubes (1.5/2.0 ml)	5-80

TECHNICAL DATA

Specifications

TT-3000 Smart Mixer

Speed range	300 - 3000 rpm
Touch vortex speed	3500 rpm
Orbit diameter	3 mm
Operation mode	Timer, touch vortex and continuous operation
Digital time setting	1sec – 99h 59min
Noise Level	<50 dB
Voltage	AC 100-240V, 50/ 60Hz
Power	45W
Fuse	250A, 1A, Ø5x20
Dimension (W x D x H)	196 x 270 x 170 mm
Net weight (kg)	7.7 kg
Permissible ambient temperature	4 - 45°C
Permissible relative humidity	≤70%

ORDERING INFORMATION

Cat. No. Smart Mixer

TT-3000	Smart Mixer TT-3000, 300-3,000 rpm, 3 mm, AC 100-240V
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Cat. No. Tube Holder for Smart Mixer

TTC/H-100-MIX-A	Tube holder for Smart Mixer, 96 x 0.2 ml
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TTC/H-100-MIX-B	Tube holder for Smart Mixer, 24 x 0.5 ml
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TTC/H-100-MIX-C	Tube holder for Smart Mixer, 24 x 1.5 ml/ 2.0 ml
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TTC/H-100-MIX-A



TTC/H-100-MIX-B



TTC/H-100-MIX-C

TT-2800-VVM Mini Vortex Mixer

HIGHLIGHTS

- Vortexing for tubes with diameter up to 30 mm
- Variable speed control from 0 to 4,000 rpm allows slow to high speed vortexing
- Vacuum suction feet hold to the work surface and prevent the mixer from movement
- Sturdy base safely secure mixer in place during operation

TT-2800-VVM Mini Vortex Mixer is an ultra-compact vortex mixer that provides touch mode operation and variable speed control for gentle to vigorous vortexing of reagent in tubes. The unique concave cup design accepts tubes and vessels with diameter up to 30 mm or maximum 50 ml.



APPLICATIONS

- Resuspending pellets
- Vortexing cell suspensions and biological or chemical liquid components



TECHNICAL DATA

Specifications	TT-2800-VVM Mini Vortex Mixer
Speed range (rpm)	0 - 4,000 rpm
Mixing motion	Circular (vortexing)
Orbit diameter	4.5 mm
Run Type	Touch operation
Mixing module for tubes	From 1.5 ml to 50 ml
Maximum mixing volume	35 ml
Voltage	Input AC 100-240V, 50/60Hz; Output DC 12V
Power	12W
Dimension (W x D xH)	110 x 110 x 86 mm
Net weight	1.2 kg
Permissible ambient temperature	0 - 40°C
Permissible relative humidity	≤70%

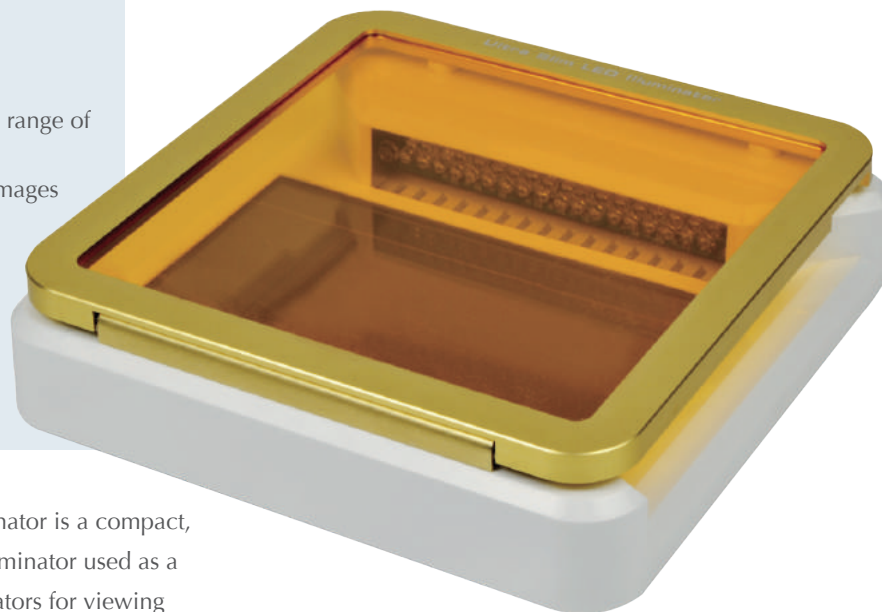
ORDERING INFORMATION

Cat. No.	Mini Vortex Mixer
TT-2800-VVM	Mini Vortex Mixer TT-2800-VVM, Variable speed, AC 100V-240V

TT-BLT-470 SafeViewer Blue Light Transilluminator

HIGHLIGHTS

- Safe for samples and users**
 Does not cause burn to skin and eyes
 Diminishes damage to DNA samples
- Exceptional performance**
 108 high intensity LEDs illuminate wide range of samples
 Uniform illumination, high quality gel images
- Portable and light weight**
 Easy to lift, small footprint conserves bench space
- Durable and long lasting**
 Long service life of LEDs up to 100,000 hours



TT-BLT-470 SafeViewer Blue Light Transilluminator is a compact, portable and high intensity blue light transilluminator used as a safer, less toxic alternative to UV transilluminators for viewing wide range of blue light-excitable nucleic acid stains.

The ultra slim TT-BLT-470 SafeViewer Blue Light Transilluminator emits a high intensity LED array at wavelength of 470 nm which illuminate wide range of “safe” dyes in oppose to toxic Ethidium Bromide. This method prevents exposure of users to harmful UV radiation and minimizes DNA damage caused by UV light.

Post-staining for Agarose Gel
(a) (b)

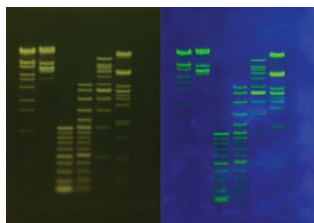


Figure 1: Various ladders and markers run at 1.5% TBE agarose gel. The agarose gel is post-stained with ViSafe Green Gel Stain (Vivantis). The gel is visualized using transilluminator with (a) blue light (Hercuvan); (b) UV light.

Precast for Agarose Gel
(a) (b)

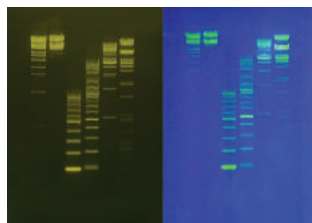


Figure 2: The agarose gel is pre-stained with ViSafe Green Gel Stain (Vivantis). Various ladders and makers run at 1.5% TBE pre-stained agarose gel. The gel is visualized using transilluminator with (a) blue light (Hercuvan); (b) UV light.



TECHNICAL DATA

Specifications	TT-BLT-470 SafeViewer Blue Light Transilluminator
Wavelength	470 nm
Max. gel size	100 x 150 mm
Voltage	DC 24V
Dimension (WxDxH)	210 x 210 x 30 mm
Permissible ambient temperature	5 - 40°C
Permissible relative humidity	≤70%
Net weight	1.4 kg

ORDERING INFORMATION

Cat. No.	Blue Light Transilluminator
TT-BLT-470	SafeViewer Blue Light Transilluminator TT-BLT-470, 470 nm, max. gel size 100 x 150 mm, DC 24V

TT-100F/HT/HL/CL/CTL Mini Dry Bath Incubator

HIGHLIGHTS

- Available with heat only or heat & cool models
- Compact palm size design, saving crowded bench space
- Various blocks options for exchange
- Digital time and temperature display
- Nine programmable programs
- Link two consecutive segments
- Built-in temperature calibration
- Custom blocks available upon request

TT-100F/HT/HL/CL/CTL Mini Dry Bath Incubator compact personal incubator designed for maintaining constant temperature of small volume sample in microtubes up to 2.0 ml.

TT-100F Mini Dry Bath Incubator has a built -in fan to cool down sample rapidly while TT-100HL and TT-100-CTL Mini Dry Bath Incubator have additional heated lid to prevent sample evaporation.

APPLICATIONS

- PCR analysis
- Extraction of DNA and RNA from cell cultures



TT-100F/HT/CL



TT-100HL/CTL

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Lab Systems

OPTIONAL ACCESSORIES



TT-100-Block A



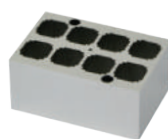
TT-100-Block B



TT-100-Block C



TT-100-Block D



TT-100-Block E



TT-100-Block F



TT-100-Block G

TECHNICAL DATA



Specifications	TT-100F	TT-100HT	TT-100HL	TT-100CL	TT-100CTL
Temperature control range	R.T. +5-100°C	R.T. +5-100°C	R.T. +5-100°C	-10-100°C	-10-100°C
Temperature stability at 100°C	≤±0.5°C	≤±0.5°C	≤±0.5°C	≤±0.5°C	≤±0.5°C
Temperature stability at 40°C	≤±0.3°C	≤±0.3°C	≤±0.3°C	≤±0.3°C	≤±0.3°C
Block temperature uniformity	≤±0.3°C	≤±0.3°C	≤±0.3°C	≤±0.3°C	≤±0.3°C
Temperature display accuracy	0.1°C	0.1°C	0.1°C	0.1°C	0.1°C
Heating speed	≤15 min (20-100°C)	≤15 min (20-100°C)	≤15 min (20-100°C)	≤15 min (20-100°C)	≤15 min (20-100°C)
Cooling speed	Fan cooling	Natural cooling	Natural cooling	≤30 min (from R.T. to R.T.-20°C at 26°C)	≤30 min (from R.T. to R.T.-20°C at 26°C)
Thermo Lid	No	No	Yes	No	Yes
Digital time setting	1sec – 999sec or 1min – 999min	1sec – 999sec or 1min – 999min	1sec – 999sec or 1min – 999min	1sec – 999sec or 1min – 999min	1sec – 999sec or 1min – 999min
Voltage	DC 24V	DC 24V	DC 24V	DC 24V	DC 24V
Power	60W	60W	60W	120W	120W
Dimension (W x D x H) mm	110 x 156 x 103	110 x 156 x 92	110 x 156 x 97	110 x 156 x 103	110 x 156 x 108
Net weight	1 kg	1 kg	1 kg	1.4 kg	1.4 kg
Permissible ambient temperature	5 – 30°C	5 – 30°C	5 – 30°C	5 – 30°C	5 – 30°C
Permissible relative humidity	≤70%	≤70%	≤70%	≤70%	≤70%

ORDERING INFORMATION

Cat. No. Mini Dry Bath Incubator

TT-100F	Mini Dry Bath Incubator TT-100F, Cooling Fan, Transparent Lid, AC 100-240V
TT-100HT	Mini Dry Bath Incubator TT-100HT, Heating, Transparent Lid, AC 100-240V
TT-100HL	Mini Dry Bath incubator TT-100HL, Heating, Heated Lid, AC 100-240V
TT-100CL	Mini Dry Bath Incubator TT-100CL, Cooling, Transparent Lid, AC 100-240V
TT-100CTL	Mini Dry Bath Incubator TT-100CTL, Cooling, Heated Lid, AC 100-240V

OPTIONAL ACCESSORIES

Cat. No.	Block for Mini Dry Bath Incubator	Diameter of block well	Bottom shape of block well	Dimension
TT-100-Block A	40x0.2 ml or 8 x 0.2 ml strip	6.1 mm	Cone bottom	71 x 47 x 32 mm
TT-100-Block B	24x0.5 ml	8.0 mm	Cone bottom	71 x 47 x 32 mm
TT-100-Block C	15x1.5 ml	10.8 mm	Cone bottom	71 x 47 x 32 mm
TT-100-Block D	15x2.0 ml	10.8 mm	Round bottom	71 x 47 x 32 mm
TT-100-Block E	8x (dia. 8-12.5) mm cuvette	8-12.5 mm	No bottom	71 x 47 x 32 mm
TT-100-Block F	4x15 ml (not compatible with cover)	16.9 mm	Flat bottom	71 x 47 x 82 mm
TT-100-Block G	2x50 ml (not compatible with cover)	29.2 mm	Flat bottom	71 x 47 x 82 mm

TT-100-DHT/ TT-100-DHC Dry Bath Incubator

HIGHLIGHTS

- Available with heat only or heat & cool models
- Various blocks options for microtubes, PCR plates and other small vessels
- Simultaneous indication of set and actual temperature
- Up to 5 consecutive multiple program setting
- Built-in temperature calibration
- Custom blocks available upon request

TT-100-DHT/TT-100-DHC Dry Bath Incubator is designed for maintaining constant temperature (heating only or heating and cooling) of sample in small volume tubes and PCR plate.

APPLICATIONS

Sample preparation during enzyme reactions, hybridization reactions, DNA analysis

EACH STANDARD SET INCLUDES

- TT-100-DH-CLA Standard Cover Lid



TT-100-DHT/DHC



TECHNICAL DATA

Specifications	TT-100-DHT Dry Bath Incubator	TT-100-DHC Dry Bath Incubator
Temperature control range	R.T. +5 -100°C	R.T. +5 -100°C
Temperature stability at 100°C	≤±0.5°C	≤±0.5°C
Temperature stability at 40°C	≤±0.3°C	≤±0.3°C
Block temperature uniformity	≤±0.3°C	≤±0.3°C
Temperature display accuracy	0.1°C	0.1°C
Heating speed	≤15 min (20°C to 100°C)	≤15 min (20°C to 100°C)
Cooling speed	N/A	≤30 min (R.T. to R.T. -30 at 26°C)
Time range	1min – 99h 59min or continuous	1min – 99h 59min or continuous
Voltage	AC 110V or AC 220V, 50/60 Hz	AC 100 – 240V, 50/60 Hz
Power	150W	150W
Fuse	250V, 1A/2A, Ø5x20	250V, 3A, Ø5x20
Dimension (W x D x H)	196 x 270 x 170 mm	196 x 270 x 170 mm
Net weight	2.2 kg	3.5 kg
Permissible ambient temperature	5 – 30°C	5 – 30°C
Permissible relative humidity	≤70%	≤70%

ORDERING INFORMATION


Cat. No.	Dry Bath Incubator
TT-100-DHT-110V	Dry Bath Incubator TT-100-DHT, Heating, R.T. +5-100°C, AC 110V
TT-100-DHT-220V	Dry Bath Incubator TT-100-DHT, Heating, R.T. +5-100°C, AC 220V
TT-100-DHC	Dry Bath Incubator TT-100-DHC, Cooling, -10-100°C, AC 100-240V

OPTIONAL ACCESSORIES

Cat. No.	Block for Dry Bath Incubator	Diameter of block well	Bottom shape of block well	Dimension
TT-100-DH-Block-A	96 x 0.2 ml	6.7 mm	Cone bottom	107 x 71 x 20 mm
TT-100-DH-Block-B	54 x 0.5 ml	8.0 mm	Cone bottom	107 x 71 x 25 mm
TT-100-DH-Block-C	35 x 1.5 ml	10.8 mm	Cone bottom	107 x 71 x 32 mm
TT-100-DH-Block-D	35 x 2.0 ml	10.8 mm	Round bottom	107 x 71 x 32 mm
TT-100-DH-Block-E	20 x 0.5 ml + 15 x 1.5 ml	8.0 mm / 10.8 mm	Cone bottom	107 x 71 x 32 mm
TT-100-DH-Block-F	24 x dia. ≤ 12 mm	12.0 mm	Flat bottom	107 x 71 x 32 mm
TT-100-DH-Block-G	32 x 0.2 ml + 25 x 1.5 ml	6.1 mm x 10.8 mm	Cone bottom	107 x 71 x 32 mm
TT-100-DH-Block-H	32 x 0.2 ml + 10 x 0.5 ml + 15 x 1.5 ml	6.1 mm / 8.0 mm / 10.8 mm	Cone bottom	107 x 71 x 32 mm
TT-100-DH-Block-I	Water bath block	103 x 67 x 30 mm	Flat bottom	107 x 71 x 32 mm
TT-100-DH-Block-J	Flat bottom plate	69 x 107 x 12 mm	Flat bottom plate	116 x 71 x 15 mm
TT-100-DH-Block-K	24 x 5 ml	13.5 mm	Flat bottom	107 x 71 x 32 mm
TT-100-DH-Block-L	12 x 15 ml	16.9 mm	Flat bottom	107 x 71 x 100 mm
TT-100-DH-Block-M	6 x 50 ml	29.5 mm	Flat bottom	107 x 71 x 100 mm

Note: Maximum speed for shaking blocks TT-100-DH-Block-K, TT-100-DH-Block-L and TT-100-DH-Block-M are 600 rpm.

Cat. No.	Cover lid
TT-100-DH-CLA	Cover Lid for Dry Bath Incubator, Standard Height, For TT-100-DH-Block-A to H, J
TT-100-DH-CLB	Cover Lid for Dry Bath Incubator, Extended Height, For TT-100-DH-Block-I, K to M

				
TT-100-DH-Block-A	TT-100-DH-Block-B	TT-100-DH-Block-C	TT-100-DH-Block-D	TT-100-DH-Block-E
				
TT-100-DH-Block-F	TT-100-DH-Block-G	TT-100-DH-Block-H	TT-100-DH-Block-I	TT-100-DH-Block-J
				
TT-100-DH-Block-K	TT-100-DH-Block-L	TT-100-DH-Block-M	TT-100-DH-CLA	TT-100-DH-CLB

TT-200BI Biological Indicator Incubator

HIGHLIGHTS

- Various blocks option for different sizes of biological indicator vials
- Compact palm size design, saving crowded bench space
- Digital time and temperature display
- Custom blocks available upon request
- Built in temperature calibration function

TT-200BI Biological Indicator Incubator is designed for maintaining constant temperature of Ethylene Oxide (EO) biological indicators.

APPLICATIONS

Sterilization processes in food and beverage industries, medical and healthcare sectors and pharmaceutical manufacturing applications



OPTIONAL ACCESSORIES



TT-200BI-Block-9



TT-200BI-Block-10



TT-200BI-Block-12



TT-200BI-Block-15



TT-200BI-Block-16

TECHNICAL DATA

Specifications	TT-200BI Biological Indicator Incubator
Temperature control range	R.T. +5-100°C
Temperature stability at 56°C	≤±0.5°C
Temperature display accuracy	0.1°C
Heating speed	<6 min (20°C to 56°C)
Digital time setting	1sec – 999 sec or 1min – 999min
Voltage	DC 24V
Power	60W
Dimension	110 x 156 x 92 mm
Net weight	1 kg

ORDERING INFORMATION

Cat. No.	Biological Indicator Incubator
TT-200BI	Biological Indicator Incubator TT-200BI, R.T. +5-100°C, AC 100-240V

OPTIONAL ACCESSORIES

Cat. No.	Block for Biological Indicator Incubator	Diameter of block well	Bottom shape of block well	Dimension
TT-200BI-Block-9	18 x Ø9 mm	9.5 mm	Flat bottom	71 x 47 x 32 mm
TT-200BI-Block-10	15 x Ø10 mm	10.5 mm	Flat bottom	71 x 47 x 32 mm
TT-200BI-Block-12	12 x Ø12 mm	12.5 mm	Flat bottom	71 x 47 x 32 mm
TT-200BI-Block-15	6 x Ø15 mm	15.5 mm	Flat bottom	71 x 47 x 32 mm
TT-200BI-Block-16	6 x Ø16 mm	16.5 mm	Flat bottom	71 x 47 x 32 mm

TT-70-2/ TT-60-4 Microplate Incubator

HIGHLIGHTS

- Simultaneous display of set and actual temperature and time
- Microprocessor PID controller controls time and temperature with good linearity
- Audio alarm signals upon program completion
- User friendly operating interface

TT-70-2



TT-70-2/TT-60-4 Microplate Incubator is designed for heating and maintaining constant temperature of liquid samples in microplates (96-well/ 384-well) and cell culture plates (24-well, 48-well, 96-well).

It is uniquely designed with a heating platform with holding mechanism for microplates coupled with thermo lid which allows achieving the set and actual temperature of each well.

APPLICATIONS

- Incubation of ELISA plate, cell culture plate
- Denaturation of nucleic acids and proteins etc



TT-60-4

TECHNICAL DATA

Specifications	TT-70-2 Microplate Incubator	TT-60-4 Microplate Incubator
Temperature control range	R.T. +5 - 70°C	R.T. +5 - 70°C
Temperature stability at 37°C	±0.2°C	±0.2°C
Platform temperature uniformity	±0.5°C	±0.5°C
Temperature display accuracy	0.1°C	0.1°C
Heating speed	≤25 min (20°C to 70°C)	≤25 min (20°C to 70°C)
Digital time setting	1 min – 99h 59min	1 min – 99h 59min
Sample capacity	2 Microplates	4 Microplates
Voltage	AC 110V or AC 220V, 50/60 Hz	AC 110V or AC 220V, 50/60 Hz
Power	150W	250W
Fuse	250V, 1A/2A, Ø5x20	250V, 3A/5A, Ø5x20
Dimension (W x D x H)	284 x 264 x 157 mm	345 x 310 x 178 mm
Net weight	3.3 kg	4.9 kg
Permissible ambient temperature	5 – 30°C	5 – 30°C
Permissible relative humidity	≤70%	≤70%

ORDERING INFORMATION

Cat. No.	Microplate Incubator
TT-70-2-110V	Microplate Incubator TT-70-2, R.T. +5-70°C, 2 x 96-well plate, AC 110V
TT-70-2-220V	Microplate Incubator TT-70-2, R.T. +5-70°C, 2 x 96-well plate, AC 220V
TT-60-4-110V	Microplate Incubator TT-60-4, R.T. +5-70°C, 4 x 96-well plate, AC 110V
TT-60-4-220V	Microplate Incubator TT-60-4, R.T. +5-70°C, 4 x 96-well plate, AC 220V

TT-TWB-2L/TT-TWB-4L/TT-TWB-5L/TT-TWB-6L Marina Thermostatic Water Bath

HIGHLIGHTS

- Bright, clear and intuitive LED display
- Accurate PID temperature controller
- Robust construction with corrosion resistant stainless steel inner chamber
- Leak-proof inner chamber with special design sealing
- Safety feature includes audible alarm for dry burning
- Built-in water level sensor with audible alarm to prevent from drying



TT-TWB-2L

Uniquely designed for the comfort of your samples

TT-TWB-2L/4L/5L and 6L Marina Thermostatic Water Baths are temperature-controlled water baths for culture incubation or analysis of various liquid and solid compounds. The PID temperature controller ensures precise and consistent incubation for precious cultures and samples. Samples can be incubated from ambient +5°C up to 100°C with uniformity of 0.5°C at 37°C. The inner chamber and external cabinet are manufactured with corrosion resistant stainless steel and iron respectively, making this water bath range a robust and long-lasting equipment. The chambers can be emptied conveniently with independent drain valves. These water baths are suitable for various research laboratories such as microbiology, molecular biology, genetics, biomedical and more.



TT-TWB-5L



TT-TWB-4L

- Independent drain valves
- Dual independent digital time and temperature control

APPLICATIONS

- Reagent or media warming
- Sample thawing or incubation at specific temperature
- Cell cultivation
- Routine laboratory experiments



TT-TWB-6L

- Independent drain valves
- Digital time and temperature for each chamber can be controlled individually

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Lab Systems



TECHNICAL DATA

Specifications	TT-TWB-2L	TT-TWB-4L	TT-TWB-6L	TT-TWB-5L
Temp. control range	RT. +5°C-100°C	RT. +5°C-100°C	RT. +5°C-100°C	RT. +5-100°C
Temp. accuracy	0.3°C	0.3°C	0.3°C	0.3°C
Temp. stability	0.5°C	0.5°C	0.5°C	0.5°C
Temp. uniformity at 37°C	0.5°C	0.5°C	0.5°C	0.5°C
Digital time setting	1 min to 99h 59min	1 min to 99h 59min	1 min to 99h 59min	1 min to 99h 59min
Digital display	LED	LED	LED	LED
Number of chambers	1	2	3	1
Inner chamber	Stainless steel	Stainless steel	Stainless steel	Stainless steel
External cabinet	Iron (235)	Iron (235)	Iron (235)	Iron (235)
Cover lid	Acrylic	Acrylic	Acrylic	Acrylic
Chamber capacity	2L x 1	2L x 2	2L x 3	5L x 1
Inner dimension (mm)	135×150×143×1	135×150×143×2	135×150×143×3	325×150×176×1
Voltage	AC 220V, 50/60Hz	AC 220V, 50/60Hz	AC 220V, 50/60Hz	AC 220V, 50Hz
Power	800W	800W	800W	1000W
Dimension (W x D x H) (mm)	198×310×255	363×310×255	510×310×255	360×284×265
Net weight	2.3kg	5.1kg	6.7kg	5.1kg
Permissible ambient temperature	5°C - 35°C	5°C - 35°C	5°C - 35°C	5°C - 35°C
Permissible relative humidity	≤70%	≤70%	≤70%	≤70%

ORDERING INFORMATION

Cat. No.	Thermostatic Water Bath
TT-TWB-2L	Marina Thermostatic Water Bath TT-TWB-2L, 2L, 2L x 1. R.T. +5-100°C, AC 220V
TT-TWB-4L	Marina Thermostatic Water Bath TT-TWB-4L, 4L, 2L x 2. R.T. +5-100°C, AC 220V
TT-TWB-5L	Marina Thermostatic Water Bath TT-TWB-5L, 5L, 5L x 1. R.T. +5-100°C, AC 220V
TT-TWB-6L	Marina Thermostatic Water Bath TT-TWB-6L, 6L, 2L x 3. R.T. +5-100°C, AC 220V

HerCuVan

Lab Systems

TT-200-1-SC / TT-200-2-SC Sample Concentrator

HIGHLIGHTS

- Uniform gas output ensures entire air chamber to be filled with inert gas for improved and accurate results
- Concentrate dozens of samples simultaneously
- Independent gas control valves and optional flow regulating valve minimize wastage of nitrogen gas
- Can be used in fume hood when concentrating toxic solvents
- Adjustable gas needle position to suit different types of sample tubes
- Simple installation, operation and maintenance
- Built-in over temperature protection device, automatic fault detection system and alarm function
- Digital display of temperature and time
- Compact foot print, fits all standard fume hood



TT-200-1-SC

TT-200-1-SC/TT-200-2-SC Sample Concentrator is the all new and upgraded version of its predecessors intended to provide rapid evaporation of solvents from samples in test tubes or containers. The newly designed air chamber can be filled entirely with inert gas (nitrogen). With this technology, a uniform gas output of each stainless steel needle is guaranteed. Furthermore, any unused needle can be lifted conveniently. It works under the principle of solvent evaporation to concentrate samples. By heating the samples/ solution in a dry block heater coupled with a stream of inert gas (nitrogen) direct to the surface of the sample, vapour is rapidly driven off and the sample is quickly concentrated.

The sample concentrator is built with gas manifold plate mounted onto a height adjustable stand which allows flexible positioning above the samples. There are independent gas control valves that are used to control the gas flow towards the surface of each sample via gas needles. It is a compact device commonly used to replace high cost rotary evaporators and safe to be used in fume hood.



TT-200-2-SC

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Lab Systems

EACH STANDARD SET INCLUDES



- 1 Block lifter
- 2 Allen wrench



Easy exchange of block module with block lifter

OPTIONAL ACCESSORIES

Flow regulating valve can be connected to nitrogen gas tank and inlet of gas needle to control nitrogen gas flow rate



TT-SC-V

APPLICATIONS

- Molecular biology, drug screening and analytical procedures (HPLC, GCMS), hormone assays
- Remove solvent from DNA samples
- Chromatographic analysis



TT-200-1-SC



TT-200-2-SC



TT-DT-01A



TT-DT-02A



TT-DT-03A



TT-DT-04A



TT-DT-05A



TT-DT-06A



TT-DT-07A



TT-DT-08A



TT-DT-09A



TT-DT-10A



TT-DT-11A



TT-DT-12A



TT-DT-13A



TT-DT-14A



TT-DT-15A



TT-DT-16A

TECHNICAL DATA

Specifications	TT-200-1-SC Sample Concentrator	TT-200-2-SC Sample Concentrator
Temperature control range	R.T. +5 C – 150°C	R.T. +5 C – 150°C
Temperature stability at 40 -100°C	≤±0.5°C	≤±0.5°C
Temperature stability at 100 -150°C	≤±1.0°C	≤±1.0°C
Block temperature uniformity at 100°C	≤±0.5°C	≤±0.5°C
Temperature display accuracy	0.1°C	0.1°C
Heating speed	≤30 min (40°C to 150)	≤30 min (40°C to 150)
Digital time setting	1min – 99h 59min or continuous	1min – 99h 59min or continuous
Maximum vertical travel	285 mm	285 mm
Outer diameter of gas inlet	Ø7 mm	Ø7 mm
Nitrogen pressure	≤0.1MPa	≤0.1MPa
Nitrogen flow rate	0 – 10L/min	0 – 10L/min
Needle length	150 mm	150 mm
Sample capacity	1 standard block	2 standard blocks
Voltage	AC 110V / AC 220V, 50/60 Hz	AC 110V / AC 220V,50 / 60 Hz
Power	200W	400W
Dimension (W x D x H)	200 x 230 x 525 mm	200 x 260 x 525 mm
Net weight	5.1 kg	6.1 kg

ORDERING INFORMATION

Cat. No.	Sample Concentrator
TT-200-1-SC-110V	Sample Concentrator TT-200-1-SC, R.T.+5-150°C, Single Block, AC 110V
TT-200-1-SC-220V	Sample Concentrator TT-200-1-SC, R.T.+5-150°C, Single Block, AC 220V
TT-200-2-SC-110V	Sample Concentrator TT-200-2-SC, R.T.+5-150°C, Dual Block, AC 110V
TT-200-2-SC-220V	Sample Concentrator TT-200-2-SC, R.T.+5-150°C, Dual Block, AC 220V

OPTIONAL ACCESSORIES

Cat. No.	Block for Sample Concentrator	Diameter of block well	Bottom shape of block well	Dimension
TT-DT-01A	12 x 6 mm	6.5 mm	Round bottom	95.5 x 76.5 x 50 mm
TT-DT-02A	12 x 7 mm	7.5 mm	Round bottom	95.5 x 76.5 x 50 mm
TT-DT-03A	12 x 10 mm	10.5 mm	Round bottom	95.5 x 76.5 x 50 mm
TT-DT-04A	12 x 12 mm	12.5 mm	Round bottom	95.5 x 76.5 x 50 mm
TT-DT-05A	12 x 13 mm	13.5 mm	Round bottom	95.5 x 76.5 x 50 mm
TT-DT-06A	12 x 15 mm	15.5 mm	Round bottom	95.5 x 76.5 x 50 mm
TT-DT-07A	12 x 16 mm	16.5 mm	Round bottom	95.5 x 76.5 x 50 mm
TT-DT-08A	12 x 19 mm	19.5 mm	Round bottom	95.5 x 76.5 x 50 mm
TT-DT-09A	6 x 20 mm	20.5 mm	Round bottom	95.5 x 76.5 x 50 mm
TT-DT-10A	6 x 26 mm	26.5 mm	Round bottom	95.5 x 76.5 x 50 mm
TT-DT-11A	4 x 28 mm	28.5 mm	Flat bottom	95.5 x 76.5 x 50 mm
TT-DT-12A	2 x 40 mm	40.5 mm	Round bottom	95.5 x 76.5 x 50 mm
TT-DT-13A	12 x 0.5 ml	8.0 mm	Cone bottom	95.5 x 76.5 x 50 mm
TT-DT-14A	12 x 1.5 ml	10.8 mm	Cone bottom	95.5 x 76.5 x 50 mm
TT-DT-15A	12 x 2.0 ml	10.8 mm	Round bottom	95.5 x 76.5 x 50 mm
TT-DT-16A	12 x 0.2 ml	6.1 mm	Cone bottom	95.5 x 76.5 x 50 mm

Cat. No. Flow Regulating Valve

TT-SC-V	Flow regulating valve for Sample Concentrator
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TT-200-96SC 96-Well Sample Concentrator

HIGHLIGHTS

- Concentrate up to 96 samples simultaneously
- Optional flow regulating valve to minimize wastage of nitrogen gas.
- Can be used in fume hood when concentrating toxic solvents
- Adjustable gas needle position to suit different types of sample tubes
- Simple installation, operation and maintenance
- Built-in over temperature protection device, automatic fault detection system and alarm function
- Digital display of temperature and time
- Compact foot print, fits all standard fume hood



TT-200-96SC 96-Well Sample Concentrator is intended to provide rapid evaporation of solvents from samples in 96-well PCR plate, 96-well microplate or up to 96 x 0.2ml microtubes in a single batch. It works under the principle of solvent evaporation to concentrate samples. By heating the samples/ solution in a dry block heater coupled with a stream of inert gas (nitrogen) direct to the surface of the sample, vapour is rapidly driven off and the sample is quickly concentrated.

The sample concentrator is built with gas chamber with 96 gas needles mounted onto a height adjustable stand which allows flexible positioning above the samples. It is a compact device commonly used to replace high cost rotary evaporators and safe to be used in fume hood.



APPLICATIONS

- Molecular biology, drug screening and analytical procedures (HPLC, GCMS), hormone assays
- Remove solvent from DNA samples
- Chromatographic analysis

TECHNICAL DATA

Specifications	TT-200-96SC 96-Well Sample Concentrator
Temperature control range	R.T. +5°C – 150°C
Temperature stability at 40 -100°C	≤±0.5°C
Temperature stability at 100 -150°C	≤±1.0°C
Block temperature uniformity at 100°C	≤±0.5°C
Block temperature uniformity at 150°C	≤±1.0°C
Temperature display accuracy	0.1
Heating speed	≤30 min (40°C to 150°C)
Digital time setting	1min – 99h 59min or continuous
Maximum vertical travel	275 mm
Outer diameter of gas inlet	Ø7 mm
Nitrogen pressure	≤0.1MPa
Nitrogen flow rate	0 – 10L/min
Needle length	80 mm
Sample capacity	1 standard plate block
Voltage	AC 110V / AC 220V, 50/60 Hz
Power	400W
Fuse	250V, 3A/6A, Ø5x20
Dimension (W x D x H)	220 x 260 x 445 mm
Net weight	5.5 kg
Permissible ambient temperature	5°C – 30°C
Permissible relative humidity	≤70%

ORDERING INFORMATION

Cat. No. 96-Well Sample Concentrator

TT-200-96SC-110V	96-Well Sample Concentrator TT-200-96SC, AC 110V
TT-200-96SC-220V	96-Well Sample Concentrator TT-200-96SC, AC 220V

OPTIONAL ACCESSORIES

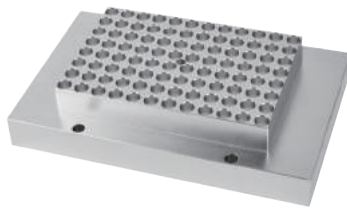
Cat. No.	Block for Sample Concentrator	Diameter of block well	Bottom shape of block well	Dimension
TT-DT-16	96-Well PCR plate or 96 x 0.2 ml microtubes	6.7 mm	Cone bottom	95.5 x 153.5 x 33.5 mm
TT-DT-17	96-Well microplate	76 x 116 x 4 mm (top)	Flat plate	95.5 x 135 x 22.5 mm

Cat. No. Flow regulating valve

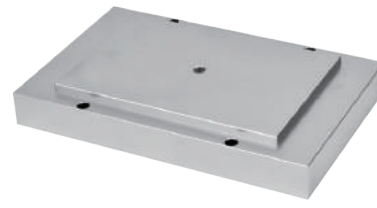
TT-SC-V	Flow Regulating Valve for Sample Concentrator
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TT-SC-V



TT-DT-16



TT-DT-17

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Lab Systems

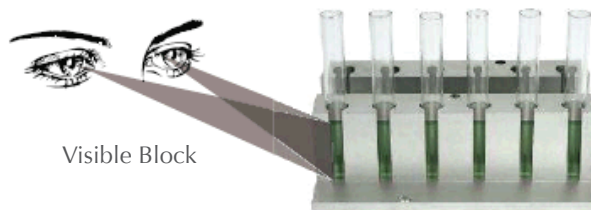
TT-200-VSC Visible Sample Concentrator

HIGHLIGHTS

- Concentrate up to 96 samples simultaneously
- Sample level of the concentrate can be observed during operation
- 12 independent gas control valves and optional flow regulating valve minimize wastage of nitrogen gas
- Can be used in fume hood when concentrating toxic solvents
- Adjustable gas needle position to suit different types of sample tubes
- Simple installation, operation and maintenance
- Built-in over temperature protection device, automatic fault detection system and alarm function
- Digital display of temperature and time
- Compact foot print, fits all standard fume hood

TT-200-VSC Visible Sample Concentrator is intended to provide rapid evaporation of solvents from samples in test tubes or containers. It works under the principle of solvent evaporation to concentrate samples. By heating the samples/ solution in a dry block heater coupled with a stream of inert gas (nitrogen) direct to the surface of the sample, vapour is rapidly driven off and the sample is quickly concentrated. The unique design of the block enables sample level to be observed during operation.

The sample concentrator is built with gas manifold plate mounted onto a height adjustable stand which allows flexible positioning above the samples. There are 12 independent gas control valves that are used to control the gas flow towards the surface of each sample via gas needles. It is a compact device commonly used to replace high cost rotary evaporators and safe to be used in fume hood.



APPLICATIONS

- Molecular biology, drug screening and analytical procedures (HPLC, GCMS), hormone assays
- Remove solvent from DNA samples
- Chromatographic analysis

OPTIONAL ACCESSORIES



TT-200-VSC-NK01



TT-200-VSC-NK02



TT-200-VSC-NK03



TT-200-VSC-NK04



TT-200-VSC-NK05



TT-200-VSC-NK06



TT-200-VSC-NK07



TT-SC-V

TECHNICAL DATA

Specifications

TT-200-VSC Visible Sample Concentrator

Temperature control range	R.T. +5°C
Temperature stability at 40 -100°C	≤±0.5°C
Temperature stability at 100 -150°C	≤±1.0°C
Block temperature uniformity at 100°C	≤±0.5°C
Block temperature uniformity at 150°C	≤±1.0°C
Temperature display accuracy	0.1°C
Heating speed	≤30 min (40°C to 150°C)
Digital time setting	1min – 99h 59min or continuous
Maximum vertical travel	285 mm
Outer diameter of gas inlet	Ø 7 mm
Nitrogen pressure	≤0.1MPa
Nitrogen flow rate	0 – 10L/min
Needle length	150 mm
Sample capacity	1 standard visible block
Voltage	AC 110V / AC 220V, 50/60 Hz
Power	400W
Fuse	250V, 3A/6A, Ø5x20
Dimension (W x D x H)	220 x 260 x 525 mm
Net weight	5.8 kg
Permissible ambient temperature	5°C – 30°C
Permissible relative humidity	≤70%

ORDERING INFORMATION

Specifications Visible Sample Concentrator

TT-200-VSC-110V	Visible Sample Concentrator TT-200-VSC, R.T. +5-150°C, 1 Block Configured, AC 110V
TT-200-VSC-220V	Visible Sample Concentrator TT-200-VSC, R.T. +5-150°C, 1 Block Configured, AC 220V

OPTIONAL ACCESSORIES

Cat. No.	Block for Visible Sample Concentrator	Diameter of block well	Bottom shape of block well	Dimension
TT-200-VSC-NK01	12 x 10 mm	10.5 mm	Round bottom	153.5 x 95.5 x 50 mm
TT-200-VSC-NK02	12 x 12 mm	12.5 mm	Round bottom	153.5 x 95.5 x 50 mm
TT-200-VSC-NK03	12 x 13 mm	13.5 mm	Round bottom	153.5 x 95.5 x 50 mm
TT-200-VSC-NK04	12 x 15 mm	15.5 mm	Round bottom	153.5 x 95.5 x 50 mm
TT-200-VSC-NK05	12 x 16 mm	16.5 mm	Round bottom	153.5 x 95.5 x 50 mm
TT-200-VSC-NK06	12 x 19 mm	19.5 mm	Round bottom	153.5 x 95.5 x 50 mm
TT-200-VSC-NK07	12 x 20 mm	20.5 mm	Round bottom	153.5 x 95.5 x 50 mm

Cat. No. Flow Regulating Valve

TT-200-VSC-110V	Flow Regulating Valve for Sample Concentrator
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NANO



SERIES



ND-3800-OD Nano DOT Microspectrophotometer

ND-2800-ODJ Nano DOT Nucleic Acid Analyzer

HIGHLIGHTS

- Standalone**
 Integrated Android system eliminates the need for a separate computer
- 7-inch touch screen**
 Easy and flexible operation with 7-inch color touchscreen interface
- OD₆₀₀**
 OD₆₀₀ pre-defined program for measuring concentration of bacteria
- Microvolume**
 Requires less than 2 μ L samples for analysis, save your precious samples
- Easy and Rapid**
 Simply pipette, measure and wipe clean. Fast measurement time of less than 8 seconds
- No Dilution**
 No dilution of samples required
- No Warm Up**
 No more waiting time to warm up lamp
- Long Lifespan**
 Xenon flash lamp, 10⁹ flashes (up to 10 years)
- Compact**
 Small footprint design conserves bench space
- Flexible data output**
 Results can be printed with built-in thermal printer. Data can be exported via USB



ND-3800-OD
Nano DOT Microspectrophotometer



ND-2800-ODJ
Nano DOT Nucleic Acid Analyzer



Scan to
watch video

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Superior Performance in Nucleic Acid and Protein Quantification

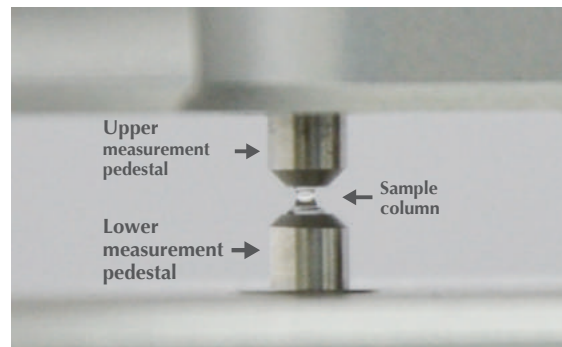
Specially designed for the life science market, Hercuvan is offering two types of microvolume spectrophotometers for fast and accurate quantification of nucleic acid and protein.

ND-3800-OD Nano DOT Microspectrophotometer is a robust microspectrophotometer that provides full spectrum UV-Vis analysis. OD₆₀₀ measurement with cuvette mode enables measuring of bacteria concentration in liquid suspension to monitor growth of bacterial cultures. Enhanced with 7-inch touch screen design and built-in Android system, it allows quick navigation of application modules, easy operation and access of data without requiring connecting to a computer.

It is an integrated system that delivers fast and reliable quantification of nucleic acid and protein with microvolume samples as little as 0.5 µL.

ND-2800-ODJ Nano DOT Nucleic Acid Analyzer is a stand alone, easy-to-use and compact spectrophotometer that is ideal for quick measurement of concentration and purity of nucleic acid and purified protein samples by using 260 nm and 280 nm. ND-2800-ODJ has an additional feature, OD₆₀₀ measurement, which allows quantification of bacteria concentration in liquid suspension by using cuvette.

Samples of 1 µl to 2 µl can be measured by pipetting directly onto lower pedestal without requiring absorption cell or cuvette and the results can be obtained in less than 8 seconds. The newly 7-inch colour touchscreen and intuitive graphical interface make operation easy and user friendly. Results can be printed with the built-in printer or exported via USB flash drive.



EACH STANDARD SET INCLUDES

- 1 Main device
- 2 Power adapter (DC 24V)
- 3 Mouse
- 4 Printing Paper (2 rolls)
- 5 Cuvettes (2 pcs)

Hercuvan

Lab Systems



Pipette



Measure

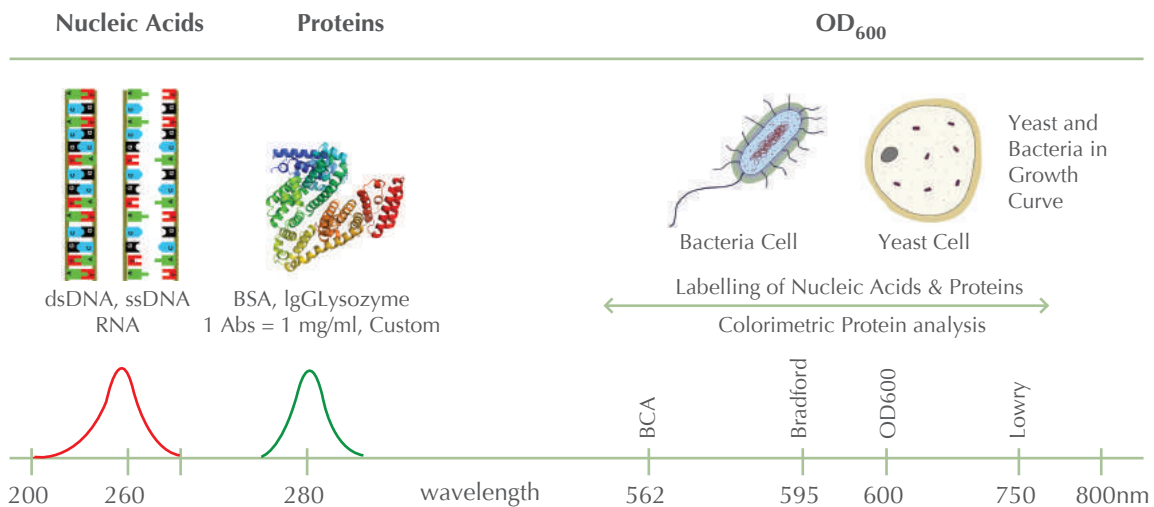


Wipe

PRODUCT SELECTION GUIDE

Applications	ND-3800-OD Nano DOT Microspectrophotometer	ND-2800-ODJ Nano DOT Nucleic Acid Analyzer
Full Spectral Data (200 - 800nm)	■	
Measures Nucleic Acid Concentration	■	■
Measures Nucleic Acid 260/280 Ratio	■	■
Measures Nucleic Acid 260/230 Ratio	■	
Measures Protein A280	■	■
Measures Protein BCA	■	
Measures Protein Lowry	■	
Measures Protein Bradford	■	
Measures OD ₆₀₀	■	■
Measures Industrial Dyes (490nm)	■	
Measures Gold Nanoparticles (520nm)	■	

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TECHNICAL DATA

Specifications	ND-3800-OD Nano DOT Microspectrophotometer	ND-2800-ODJ Nano DOT Nucleic Acid Analyzer
Sample size	0.5 µl - 2 µl (2 µl advised)	1 µl - 2 µl (2 µl advised)
Path length	0.2 mm (high concentration) 1.0 mm (ordinary concentration)	0.5 mm
Light source	Xenon flash lamp/ >10 ⁹ flashes	UV LED
Detector type	2048 – element linear CCD array	UV silicon photocell
Optical system	Single monochromator	-
Wavelength range	200 – 800 nm	260 nm, 280 nm
Wavelength accuracy	±1 nm	-
Spectral resolution	≤3 nm (FWHM at Hg 253.7 nm)	-
Absorbance precision	0.003 Abs	0.005 Abs
Absorbance accuracy	1% (7.332 Abs at 260 nm)	1% (7.332 Abs at 260 nm)
Absorbance range (10 mm equivalent absorbance)	0.04 – 90 A	0.02 – 80 A
Detection range	2 – 4,500 ng/µl (dsDNA) 0.1mg/ml - 70mg/ml (protein)	10 – 2,500 ng/µl (dsDNA)
Detection time	<8s	<8s
Sample pedestal material	Aluminium alloy and quartz fiber	Aluminium alloy and quartz fiber
Display	7-inch touch screen	7-inch touch screen
Operating voltage	DC 24V	DC 24V
Operating power consumption	25W	25W
Standby power consumption	5W	5W
Dimension (WxDxH)	208 x 280 x 186 mm	208 x 280 x 186 mm
Net weight	3.6 kg	3.5 kg
Software compatibility	Android system	Android system
Data output interface	USB	USB

OD₆₀₀ MEASUREMENT

Specifications	ND-3800-OD Nano DOT Microspectrophotometer	ND-2800-ODJ Nano DOT Nucleic Acid Analyzer
Light source	LED	LED
Wavelength range	600 ± 8nm	600 ± 8nm
Absorbance range	0-4A	0-4A

ORDERING INFORMATION

Cat. No.	Microspectrophotometer / Nucleic Acid Analyzer
ND-3800-OD	Nano DOT Microspectrophotometer ND-3800-OD, DC 24V
ND-2800-ODJ	Nano DOT Nucleic Acid Analyzer ND-2800-ODJ, DC 24V

NS-100 Nano Scan Microplate Reader

HIGHLIGHTS

- 7-inch touch screen with intuitive control panel
- Can be operated as a stand-alone system or connects to printer (optional) 9 channel vertical optical path
- Broad wavelength range (4 standard filters: 405nm, 450nm, 492nm, 630nm with optional filters from 340-750 nm)
- Flexible data output (thermal printer or export via USB drive)
- Built-in shaker with 3 modes of speed selection
- Fast and reproducible measurement within 6 seconds
- Automatic motorized door for convenient sample loading
- Analyses include pre-processing for dual mode reads, +/- interpretation with controls, concentration determination, curve fits, and kinetic measurement analyses & curves



Scan to watch video



Redefining your Assay with Superb Precision and Speed

NS-100 Nano Scan Microplate Reader is an excellent and versatile microplate reader that is essential for laboratories that require routine measurement of concentration or absorbance in 96 well plates. It is intended for use in various applications such as ELISA (enzyme-linked immunosorbent assays), protein quantification, cell proliferation, enzyme kinetic as well as colorimetric assays.

With fast reading speed, great performance and reproducible result, users no longer have to worry about inaccuracy or time-consuming measurements for your assays.

The NS-100 Nano Scan Microplate Reader offers user-friendly interface with convenient data output, large data storage, built-in shaker for uniform cell suspension and homogenized coloured solutions. It is an economical, robust and stand-alone system that does not require any external computer. The compact design takes up only minimal space making it suitable for small laboratories.

APPLICATIONS

- ELISA
- Protein quantification
- Cell proliferation and growth curves
- Enzyme kinetic assay
- Colorimetric assay





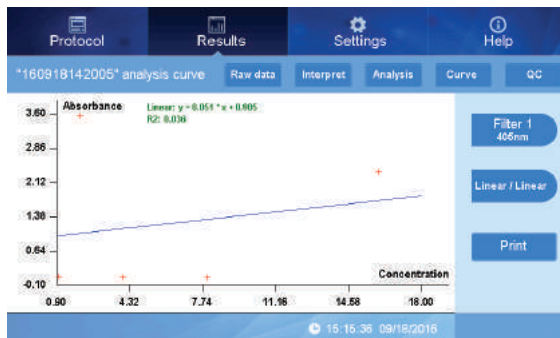
NANO SCAN INTUITIVE GRAPHICAL INTERFACE



1 Simply choose pre-set or customize your own protocols and analysis options.



2 Set up your 96-well plate layout by assigning the positions for positive/ negative controls, standards, samples etc.



3 After running, analyse your results with the “Curve” or “Kinetics Measurement” options.

	1	2	3	4	5	6	7	8	9	10	11	12
A	0.078	3.548	0.068	0.067	2.334	2.007	0.065	0.079	3.004	0.763	3.174	3.097
B	0.061	0.076	0.072	0.068	0.070	0.057	0.081	0.068	0.064	3.367	3.378	6.711
C	0.074	0.089	0.071	0.067	0.077	0.082	3.259	2.769	3.179	0.063	3.307	0.068
D	3.567	0.068	0.066	0.075	0.065	0.063	0.067	0.066	0.064	0.060	3.390	
E	0.091	0.105	0.067	0.070	0.069	0.067	2.061	0.074	0.061	0.059	0.075	0.064
F	0.072	0.071	0.069	3.644	0.060	0.074	0.069	0.076	0.068	2.385	0.064	0.066
G	0.080	0.069	0.064	0.108	0.064	0.065	0.077	0.073	0.065	0.074	0.071	0.095
H	0.067	0.077	0.066	0.071	0.074	0.079	0.064	0.076	0.064	0.066	0.072	0.073

4 The ‘Cutoff’ value can also be set to interpret your results as ‘positive’ or ‘negative’. Print your results using a thermal printer (optional) or export via USB.

A PLETHORA OF ASSAYS FOR YOUR RESEARCH

Filter	Assay
340 nm	Glutathione S-Transferase (GST), NAD/NADP Conversion
405 nm	Alkaline phosphatase (PNPP), β-galactosidase (ONPG), β-glucosidase (PNPG), Horseradish peroxidase (ABTS)
415 nm	Hydrogen peroxide concentration assays, Total glutathione assays (GSSG/GSH)
450 nm	Horseradish peroxidase (TMB), Glucose colorimetric
492 nm	Horseradish peroxidase (OPD), DPD, MTS, XTT
540 nm	BCA
570 nm	MTT
578 nm	L-Ascorbate
590 nm	BCA
595 nm	Bradford, Lowry, Diphenylamine DNA (DISHE)
650 nm	Total phenolic content (TPC)
663 nm	Chlorophyll content
750 nm	Lowry



1 Custom Filters for Your Assay

Can't find the filter for your assay? Don't worry! You can select from a total of 28 filters in our extensive catalogue ranging from 340-750nm. Up to 8 different filters can be installed in the NS-100 for your research.



2 Large, Intuitive Touch Screen Graphical Interface

7-inch intuitive touch screen interface allows quick navigation & set up of protocol without any PC. Simply select from any of the pre-set protocols or customize your own protocol according to your needs. Assign controls or sample type & export your data via USB or print straightaway using a thermal printer.



3 Fast, Accurate & Reproducible

Not only fast with a reading speed within 6 seconds, it also makes sure the results are accurate & reproducible without daunting deviations. With this reliable machine, you can save your precious time & samples and you know that the results are correct.

TECHNICAL DATA

Specifications

NS-100 Nano Scan Microplate Reader

Display	7 inch touch screen (800 x 480 pixels)
Compatible Plate Type	96-well plates
Light Source	Quartz-halogen lamp 6V/10W
Wavelength Range	340-750nm
Optical Filter	9 channel vertical optical path. Inclusive of 4 standard optical filters: 405nm, 450nm, 492nm, 630nm. Optional: 4 optical filters from 340nm-750nm
Half-bandwidth of filters	8-10
Dynamic range	0-4.000 Abs
Linearity (405nm)	0-2.000 Abs $\leq \pm 1\%$ 2-4.000 Abs $\leq \pm 2\%$
Accuracy (405nm)	$\pm 1\%$ (0-3 Abs) $\pm 3\%$ (3-4 Abs)
Precision (405nm)	CV$\leq 0.2\%$ (0-3 Abs) CV$\leq 0.12\%$ (3-4 Abs)
Accuracy (450, 620 and 650nm)	1% \pm 0.010 (0-3 Abs)
Reproducibility (450, 620 and 650nm)	1% \pm 0.005 (0-3 Abs)
Total number of channels	8 channels for detection analysis and 1 channel for reference
Resolution	0.001 Abs
Reading speed	<6 seconds
Reading mode	End point, Dual Mode, Kinetic
Incubator	No
Shaking mode	3 modes: slow, medium, fast
User interface	Integrated software or Touch Screen
Input Voltage	AC100-240V, 50/60Hz
Storage	200 programs and 100,000 records
Ports	2 USB ports (thermal printer, mouse or USB drive), 1 ethernet port
Dimensions (WxDxH)	440 x 295 x 225 mm
Weight	10 kg

ORDERING INFORMATION

Cat. No. Microplate Reader

NS-100 Nano Scan Microplate Reader NS-100, with 4 standard optical filters: 405nm, 450nm, 492nm and 630nm

Cat. No.	Accessories for Microplate Reader	Cat. No.	Accessories for Microplate Reader
NS-100-OF1	Optical filter 340nm	NS-100-OF18	Optical filter 520nm
NS-100-OF2	Optical filter 380nm	NS-100-OF19	Optical filter 532nm
NS-100-OF3	Optical filter 405nm	NS-100-OF20	Optical filter 546nm
NS-100-OF4	Optical filter 415nm	NS-100-OF21	Optical filter 560nm
NS-100-OF5	Optical filter 450nm	NS-100-OF22	Optical filter 562nm
NS-100-OF6	Optical filter 492nm	NS-100-OF23	Optical filter 600nm
NS-100-OF7	Optical filter 540nm	NS-100-OF24	Optical filter 620nm
NS-100-OF8	Optical filter 570nm	NS-100-OF25	Optical filter 646nm
NS-100-OF9	Optical filter 578nm	NS-100-OF26	Optical filter 663nm
NS-100-OF10	Optical filter 590nm	NS-100-OF27	Optical filter 700nm
NS-100-OF11	Optical filter 595nm	NS-100-OF28	Optical filter 750nm
NS-100-OF12	Optical filter 630nm	NS-100-HL	Halogen Lamp for Nano Scan Microplate Reader NS-100
NS-100-OF13	Optical filter 650nm	NS-100-TP	Thermal Printer for Nano Scan Microplate Reader NS-100
NS-100-OF14	Optical filter 690nm	NS-100-PP	Printer Paper for Nano Scan Microplate Reader NS-100
NS-100-OF15	Optical filter 470nm		
NS-100-OF16	Optical filter 490nm		
NS-100-OF17	Optical filter 510nm		

NC-100 Nano Clean Microplate Washer

HIGHLIGHTS

- Intuitive 4.3-inch colour LCD display
- Fully automated washing
- Low residual liquid ($\leq 1 \mu\text{l}$)
- Compatible microplates (flat, U, V and C bottom)
- Accurate washing head position (0.1 mm)
- Up to 100 programs can be set

Simplify your ELISA washing with the touch of a button

NC-100 Nano Clean Microplate Washer is a robust and reliable microplate washer, ideal for routine ELISA applications. It features an intuitive system with graphical 4.3-inch LCD display and USB port for data transfer convenience as well as software upgrade. It saves time with minimal operation by offering fast and fully automated washing. Minimum residual volume in each well of less than $1 \mu\text{l}$ ensures efficient washing. It is equipped with liquid position sensor that offers alarm for low volume or overflow conditions.

Strainer in the pipeline prevents blockage and maintains smooth flow.

EACH STANDARD SET INCLUDES

- 8-needles and 12-needles wash heads
- 3 x 2.5L wash bottles and 1 x 2.5L waste bottle



TECHNICAL DATA

Specifications	NC-100 Nano Clean Microplate Washer
Plate type	96-well (flat, U, V, C bottom)
Residual liquid	≤ 1 µl
Wash heads	1 x 8 or 1 x 12 heads
Wash method	Single point, two points or multi points
Wash volume	50 – 2,000 µl, (increment 50 µl)
Wash times	99 times
Wash channels	3
Programs	100
Bottles	3 x 2.5L wash bottles, 1 x 2.5L waste bottle
Dispense accuracy	≤ 2% at 300 µl
Liquid injection accuracy	CV ≤ 1.5% at 300 µl
Soaking and shaking time	19 min 59 s
Data connection	USB
Power supply	AC 110-240V, 50/60Hz
Weight	12 kg
Dimension (W x D x H)	345 x 460 x 200mm
Permissible ambient temperature	4°C - 45°C
Permissible relative humidity	≤70%

ORDERING INFORMATION

Cat. No.	Microplate Washer
NC-100	Nano Clean Microplate Washer NC-100, AC110-240V, 50/60Hz

Cat. No.	Accessories for Microplate Washer
NC-100-WH08	8 needles washing head for Microplate Washer NC-100
NC-100-WH12	12 needles washing head for Microplate Washer NC-100
NC-100-WB01	Wash bottle for Microplate Washer NC-100, 2.5L
NC-100-WB02	Waste bottle for Microplate Washer NC-100, 2.5L

NP-500 Nano Probe FISH Hybridization System

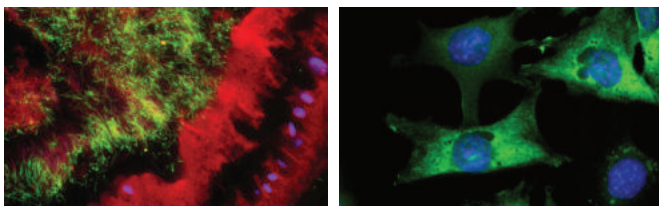
HIGHLIGHTS

- Intuitive touch screen LCD interface
- Four operation modes: denaturation/ hybridization, fixed temperature hybridization, custom and in-situ PCR
- Rapid temperature warm-up and high temperature accuracy ($\pm 1^{\circ}\text{C}$)
- Excellent temperature uniformity
- Efficient humidity control system
- Convenient data transfer via USB drive



FISH procedure made easy and convenient

NP-500 Nano Probe FISH Hybridization System offers efficient and convenient operation for slide-based FISH (fluorescence in-situ hybridization) procedure which is ideal for cytogenetic laboratories. The intuitive touch screen interface allows user to set suitable programs for routine or specific workflows. There are 4 flexible operation modes where user can choose between denaturation/ hybridization, fixed temperature hybridization, custom or in-situ PCR. Both sides of the slides are uniformly heated or cooled, providing accurate humidity and temperature-controlled environment for samples. Data transfer is convenient via USB drive.

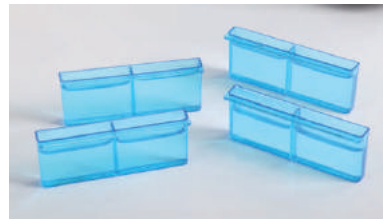


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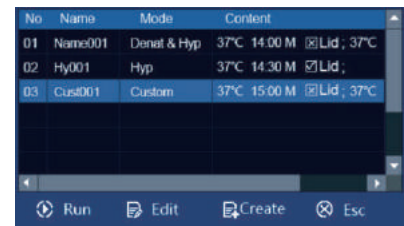
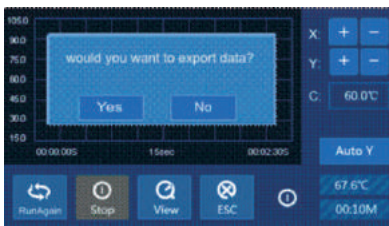
Lab Systems



Convenient data transfer via USB drive



Mini water tanks for optimal humidity



Nano Probe Intuitive Graphical Interface

TECHNICAL DATA

Specifications

NP-500 Nano Probe FISH Hybridization System

Temperature control range	RT. $\pm 5^{\circ}\text{C}$ – 99.9°C
Temperature accuracy	$\pm 1^{\circ}\text{C}$
Temperature uniformity	$\pm 1^{\circ}\text{C}$
Temperature display accuracy	$\pm 0.1^{\circ}\text{C}$
Digital time setting	1 min - 99hr 59min or 1sec – 99min 59sec
Heating time (37°C to 95°C)	$\leq 3\text{min}$
Cooling time (95°C to 37°C)	$\leq 7\text{min}$
Programmable temp. control	30°C - 100°C
Operation mode	Denaturation/hybridization, fixed temperature hybridization, custom and in-situ PCR
Capacity	12 slides
Display	Touch screen LCD
Dimension (W x D x H)	225 x 420 x 143 mm
Weight	5.8 kg
Voltage	AC 220V, 50/50hz
Power	460W
Permissible ambient temperature	5°C - 30°C
Permissible relative humidity	$\leq 70\%$

ORDERING INFORMATION

Cat. No.	FISH Hybridization System
NP-500-120V	Nano Probe FISH Hybridization System, AC120V, 3A 50/60Hz
NP-500-220V	Nano Probe FISH Hybridization System, AC220V, 2A, 50/60Hz

GE NE



SERIES



GS-96/ 60/ 9677/ 384/ 2x48/ 4830/ 322/ 96 PRO Gradient Touch Thermal Cycler

HIGHLIGHTS

- **Easy to program**

8 inches TFT touchscreen display and intuitive graphical programming makes navigation, protocol editing and viewing easier

- **High performance lid**

The lids are engineered with unique clutch mechanism which automatically limit the lid pressure applied against sample container, thus prevent PCR tubes/plates from damage

- **Easy data output**

Able to save and transfer files using USB flash drive

- **Personalized log in users and passwords**

Log in feature allows users to set password for individual account to fully monitor their protocols with more privacy

- **LAN network enabled**

Users able to control up to 30 thermal cyclers simultaneously via PC-controlled network

- **Free and easy software updates**

Software update from USB flash makes the software updates easier

- **GLP report**

GLP report completely records essential information of all PCR run

- **Incubation setting**

Incubation setting module allows users to program desired incubation block temperature and hold time



GS-96/ GS-60/ GS-9677/
GS-384/ GS-96 PRO



GS-2x48/ GS-4830



Scan to
watch video

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Lab Systems

GS-96/ 60/ 9677/ 2x48/ 384/ 4830 Gradient Touch Thermal Cycler is a reliable gradient thermal cycler that delivers exceptional thermal performance for great accuracy and reproducibility in nucleic acid amplification with 8 Peltier elements, 4 independent temperature sensors and high ramping rates up to 5°C/sec.

GS-96 and GS-60 models come with a standard 96-well x 0.2 ml block and 60-well x 0.5 ml block respectively while GS-384 model comes with 384-well block format to handle high throughput PCR experiments. The newly added GS-9677 model features a combined block module to accommodate 96-well x 0.2ml and 77 x 0.5ml PCR tubes.

GS-2x48 model is a dual-block system with two separate 48-well x 0.2 ml reaction module while GS-4830 model comes with 48-well x 0.2 ml plus 30-well x 0.5 ml block format. User can interchange all of these reaction modules easily without requiring any special tools.

GS-96 PRO Gradient Touch Thermal Cycler is the upgraded version of GS-96 model that is engineered with HexaPRO Block with 6 temperature zones for PCR optimization.

GS-322 model comes with a triple block that has 3 temperature zones (6 Peltier elements) for precise temperature control and PCR optimization.



GS-322



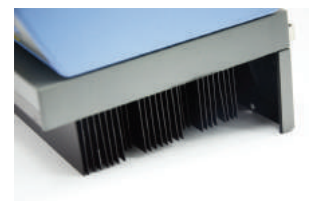
Touch screen



High performance lid



Heated lid



Cooling Fin

Interchangeable block
(GS-96/ 60/ 9677/ 384/
2x48/ 4830)

Communication ports

TECHNICAL DATA

Specifications	GS-96 / 60/ 9677/ 384/ 2x48 / 4830	GS-322	GS-96 PRO
Capacity	96 x 0.2 ml/ 60 x 0.5 ml/ 96 x 0.2 ml/ + 77 x 0.5ml 384 x 0.02 ml/ 2 x 48 x 0.2 ml/ 48 x 0.2 ml + 30 x 0.5 ml	3 x 32 x 0.2 ml (3 temperature zones)	6 x 16 x 0.2 ml (6 temperature zones)
Program memory	10,000 programs + USB	10,000 programs + USB	10,000 programs + USB
Temperature range	0 - 100°C	0 - 100°C	4 - 100°C
Temperature gradient	30°C	30°C	25°C (max. 5°C zone-to-zone)
Gradient temperature range	30 - 100°C	30 - 100°C	30 - 100°C
PCR volume range	1-100 µl	5-80 µl	1-80 µl
Maximum heating rate	5.0°C / sec	5.0°C / sec	6.0°C / sec
Maximum cooling rate	4.0°C / sec	4.0°C / sec	4.0°C / sec
Temperature uniformity	±0.2°C at 30°C - 72°C ±0.3°C at 95°C	±0.2°C at 30°C - 72°C ±0.3°C at 95°C	±0.2°C at 30°C - 72°C ±0.3°C at 95°C
Temperature accuracy	±0.1°C (30-100°C)	±0.2°C (30-100°C)	±0.2°C (30-100°C)
Ramp rate adjustable	0.1- 5.0°C /sec	0.1- 5.0°C /sec	0.1- 6.0°C /sec
Display	8.0" TFT color touch screen, 800 x 600 pixels	8.0" TFT color touch screen, 800 x 600 pixels	8.0" TFT color touch screen, 800 x 600 pixels
Cool samples to 4°C	Yes	Yes	Yes
Auto restart after power failure	Yes	Yes	Yes
Height adjustable heated lid	Yes	Yes	Yes
Hot lid temperature range	30°C -110°C	30°C -110°C	30°C -110°C
Max. number of steps	30	30	30
Max. number of cycles	100	100	100
Time increment / decrement	1sec - 600sec	1sec - 600sec	1sec - 600sec
Temp. increment / decrement	0.1 - 10.0°C	0.1 - 10.0°C	0.1 - 10.0°C
Max. power consumption	600 Watt	600 Watt	600 Watt
Input voltage	AC 85-264V, 47 - 63Hz	AC 85-264V, 47 - 63Hz	AC 85-264V, 47 - 63Hz
Interfaces	USB, LAN	USB, LAN	USB, LAN
Dimension (W x D x H)	270 x 390 x 255 mm	270 x 390 x 255 mm	270 x 390 x 255 mm
Weight	9.0 kg	9.0 kg	9.0 kg

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Lab Systems

ORDERING INFORMATION

Cat. No.	Gradient Touch Thermal Cycler
GS-96	Gradient Touch Thermal Cycler GS-96, 96 x 0.2 ml block
GS-60	Gradient Touch Thermal Cycler GS-60, 60 x 0.5 ml block
GS-9677	Gradient Touch Thermal Cycler GS-9677, 96x0.2ml + 77x0.5ml block
GS-384	Gradient Touch Thermal Cycler GS-384, 384 x 0.02 ml block
GS-2x48	Gradient Touch Thermal Cycler GS-2x48, 2 x 48 x 0.2 ml block
GS-4830	Gradient Touch Thermal Cycler GS-4830, 48 x 0.2 ml + 30 x 0.5 ml block
GS-322	Gradient Touch Thermal Cycler GS-322, 3 x 32 x 0.2 ml Triple block
GS-96 PRO	Gradient Touch Thermal Cycler GS-96 PRO, 6 x 16 x 0.2 ml HexaPRO block

OPTIONAL ACCESSORIES

Cat. No.	Block for Gradient Touch Thermal Cycler
GS-B962	Gradient Touch Thermal Cycler Block, 96 x 0.2 ml
GS-B605	Gradient Touch Thermal Cycler Block, 60 x 0.5 ml
GS-B9677	Gradient Touch Thermal Cycler Block, 96 x 0.2ml + 77 x 0.5ml
GS-B384	Gradient Touch Thermal Cycler Block, 384 x 0.02 ml
GS-B482	Gradient Touch Thermal Cycler Block, 2 x 48 x 0.2 ml
GS-B4830	Gradient Touch Thermal Cycler Block, 48 x 0.2 ml + 30 x 0.5 ml
GS-B322	Gradient Touch Thermal Cycler Block, 3 x 32 x 0.2 ml (3 temperature zones)
GS-B962 PRO	Gradient Touch Thermal Cycler HexaPRO Block, 6 x 16 x 0.2 ml (6 temperature zones)

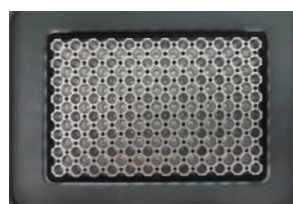
Single Block Module



96 x 0.2ml



60 x 0.5ml



96 x 0.2ml + 77 x 0.5ml

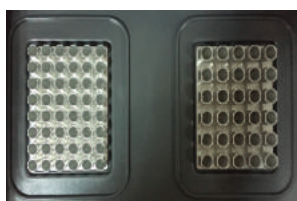


384 x 0.02ml

Dual Block Module

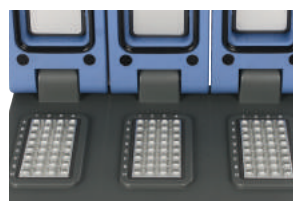


2 x 48 x 0.2ml

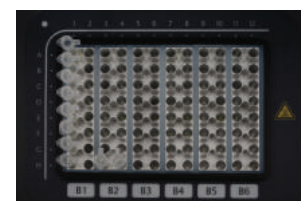


48 x 0.2ml + 30 x 0.5ml

Triple Block Module

3 x 32 x 0.2ml
(3 temperature zones)

HexaPRO Block Module

6 x 16 x 0.2ml
(6 temperature zones)

GS-16 myGenix Personal Thermal Cycler

HIGHLIGHTS

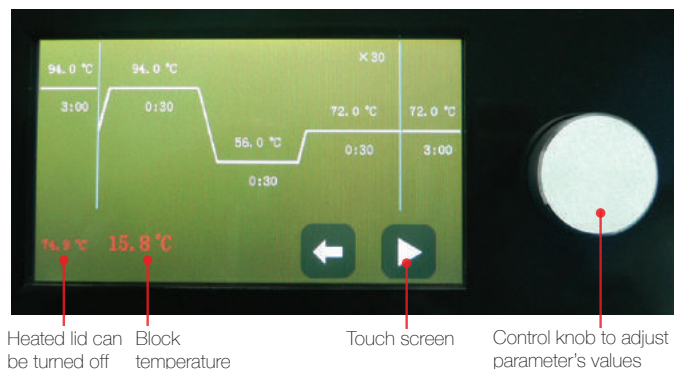
- Slim and thin design at only 4cm thickness!
- Compact foot print at 20cm x 20cm, bench space saving system!
- Portable, light-weight system at only 2.4kg!
- Energy efficient, eco-friendly cycler with 12V DC power for field application!
- Precise temperature control with hassle-free self-adjusting rotary knob!
- LCD touch screen display and easy to operate!
- Able to store 15 protocols!



GS-16

The ultra-compact myGenix Personal Thermal Cycler is a small-capacity 16-well PCR system that features with thin and slim design at merely 4cm thickness and 20cmx20cm foot print, ideally for teaching labs and research labs that perform routine and low throughput thermal cycling.

The LCD touch screen display coupled with the intuitive built-in software render myGenix an user-friendly and easy to operate instrument. The unique self-adjustment rotary knob enables users to adjust the parameters at the desired values as quickly and hassle-free as possible. It is also energy efficient PCR system with 12V DC power that is portable for field applications whilst demonstrates exceptional thermal performance at affordable price without compromising on quality.



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Lab Systems

TECHNICAL DATA

Specifications	GS-16
Sample Capacity	16 x 0.2ml PCR tubes
Time range	1 sec – 60 min
Control accuracy	0.1°C
Temperature range	8-99°C
Temperature uniformity	±0.2°C
Temperature accuracy	±0.2°C
Maximum ramping rate	3°C/sec
Heated lid temperature	105°C (Can be turned on and off)
Display	LCD touch screen
Number of stored programs	15
Maximum number of cycles	99
Power supply	12V DC, 7A
Dimension (WxDxH)	20cm x 20 cm x 4 cm
Net Weight (Including power adapter)	2.8 kg

ORDERING INFORMATION

Cat. No.	Thermal Cycler
GS-16	myGenix Personal Thermal Cycler, GS-16, 16x0.2ml

GS-Q8

Pico Traveller Real-Time PCR System

HIGHLIGHTS

- Intuitive user interface
- Open system, versatile and compatible with most commercial reagents
- Two channels: SYBR/FAM, ROX/ Texas Red or SYBR/FAM, HEX/VIC
- Superb sensitivity as low as 1 copy
- Portable with small footprint makes it ideal for field applications
- Results can be automatically emailed directly to user after each run

Friendly and high performance portable real-time PCR

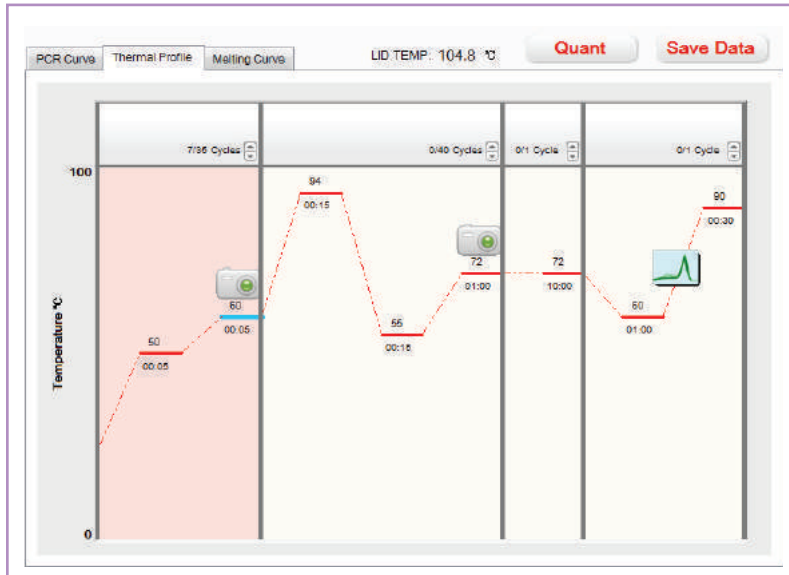
GS-Q8 Pico Traveller Real-Time PCR System is an ideal compact real-time PCR system suitable for field applications. It delivers reliable and consistent results with high detection sensitivity as low as 1 copy target sequence. The machine is equipped with two channels, SYBR/FAM and HEX/VIC for flexibility. It is compatible with commercial SYBR® or TaqMan® qPCR kits. Featuring a friendly user interface, it is simple to operate and allows the data to be emailed directly to user after each run.

GS-Q8 can accommodate 8 x 0.2ml PCR tubes and compatible with car charger or a battery pack, making it an excellent portable real-time PCR system. The system can be used for wide range of applications such as genotyping, gene expression analysis, screening and food safety.



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PICO TRAVELLER INTUITIVE INTERFACE



Easily set up your own parameters and protocols

Sample Well	1	2	3	4	5	6	7	8
Sample Name	<None>	<None>	<None>	<None>	<None>	<None>	<None>	<None>
Sample Type	Unk	Unk	Std	Std	Std	Std	Unk	Unk
Fluorophore CH1	None	None	None	None	None	None	None	None
Fluorophore CH2	None	None	None	None	None	None	None	None
Concentration CH1	?	?	180.00E+0	18.00E+0	1.80E+0	180.00E-3	?	?
Concentration CH2	?	?	?	?	?	?	?	?

Sample Name
<None>

Sample Type
<None>

Standards
None

Fluorophore CH1
None

Fluorophore CH2
None

CH1 Unit
ng/μL

CH2 Unit
ng/μL

Select Plate
Save Plate

The software simplifies sample layout with easy identification for sample wells, fluorophores and concentration

Please input terminal ΔR_n for each sample.

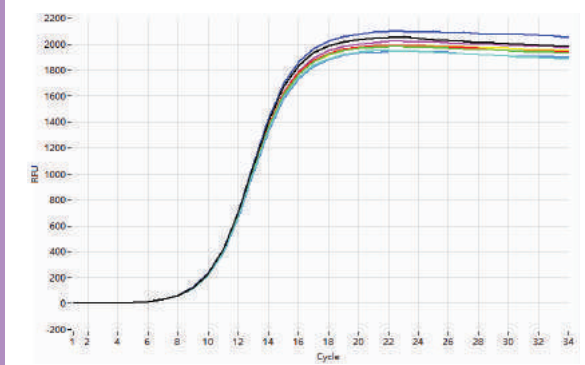
E-mail Sender:

E-mail Recipient 1:

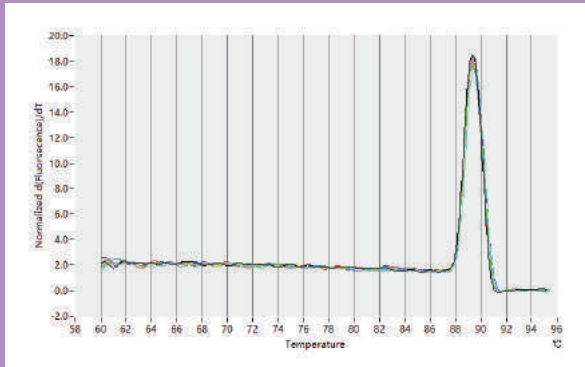
Results can be emailed after each run

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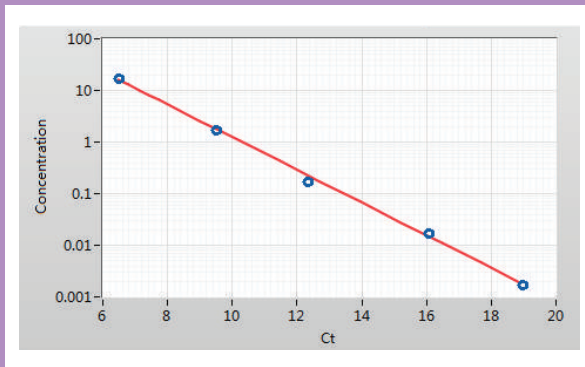
Lab Systems



The efficient system offers accurate and consistent results



Melting curve



Quantification interface

122

TECHNICAL DATA

Specifications	GS-Q8 Pico Traveller Real-Time PCR System
Light source	High power LED
Detector	Photodiode
Heating/cooling model	Peltier
Ramp rate (Max.)	3°C/s
Temperature uniformity	±0.2°C
Temperature accuracy	±0.2°C
Temperature range	4-100°C
Sample format	8 wells
Reaction volume	15-150 µl
Detection sensitivity	1 copy
Melting curve	Supported resolution to 0.5°C
Multiplexing	ROX version: Detect up to 2 dyes simultaneously, 470/520 nm (SYBR/FAM), 565/625 nm (ROX/Texas Red) VIC version: 470/520 nm (SYBR/FAM), 520/570 nm (HEX/VIC)
PC requirement	WIN7/WIN8.1/WIN10
Power supply	DC 12V, 10A
Dimension (W x D x H)	190 x 205 x 98 mm
Weight	2.1 kg
Permissible ambient temperature	15-30°C
Permissible relative humidity	15-90%

ORDERING INFORMATION

Cat. No.	Real-Time PCR System
GS-Q8-ROX-US	Pico Traveller Real-Time PCR System GS-Q8, 8 x 0.2ml, FAM/ROX version, US plug
GS-Q8-ROX-UK	Pico Traveller Real-Time PCR System GS-Q8, 8 x 0.2ml, FAM/ROX version, UK plug
GS-Q8-ROX-EU	Pico Traveller Real-Time PCR System GS-Q8, 8 x 0.2ml, FAM/ROX version, EU plug
GS-Q8-VIC-US	Pico Traveller Real-Time PCR System GS-Q8, 8 x 0.2ml, FAM/VIC version, US plug
GS-Q8-VIC-UK	Pico Traveller Real-Time PCR System GS-Q8, 8 x 0.2ml, FAM/VIC version, UK plug
GS-Q8-VIC-EU	Pico Traveller Real-Time PCR System GS-Q8, 8 x 0.2ml, FAM/VIC version, EU plug

ELECTROPHORESIS & BLOTTING



SERIES



TT-HES-1 MiniGEL Electrophoresis System

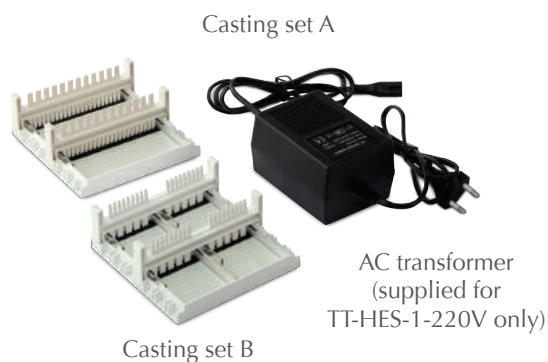
HIGHLIGHTS

- Integrated power supply: Just plug into the gel and ready to cast
- Three pre-set voltage selector: 35V, 50V and 100V
- Digital timer adjustable from 0 – 99 minutes or continuous mode
- Easy ejection and reconnection of power supply
- Vented safety lid – current runs only when the lid is in place, prevent electrical hazards during electrophoresis



TT-HES-1 MiniGEL Electrophoresis System is a compact, easy to use all-in-one electrophoresis system. It is completed with all components required to cast and run horizontal gels, including gel trays, combs, casting stand, gel tank and digital power supply. The power supply attaches directly to the gel tank without requiring power cables and save valuable bench space. A magnetic sensor allows current to flow to the electrodes only when the lid is in place. Current immediately shut down if the lid is removed during operation. The lid is vented to dissipate heat produced during operation.

Double sided combs are included in the system. The smaller tooth combs are compatible with multichannel pipettes. The gel tray features a dark contrast strip to aid in visualizing wells while loading and lines that fluoresce under UV or blue light to keep track progress of the run.



Includes casting gel sets with multichannel pipette compatible combs

EACH STANDARD SET INCLUDES

- Main device
- Power supply
- Power cord (For TT-HES-1-110V only)
- AC transformer (For TT-HES-1-220V only)
- Casting set A for 11cm x 6cm gels: two gel trays and two combs (22*/12 teeth)
- Casting set B for 5.4cm x 6cm gels: four gel tray and two combs (18*/10 teeth)

* Multichannel pipette compatible

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APPLICATIONS

- Northern and Southern blotting
- Cosmid library restriction analysis
- STS screening
- Microsatellite analysis
- PCR fragment analysis
- RFLP analysis
- DNA finger printing & high throughput analysis

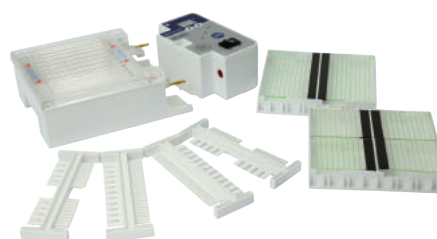


TECHNICAL DATA

Specifications	TT-HES-1 -110V MiniGEL Electrophoresis System	TT-HES-1 -220V MiniGEL Electrophoresis System
Input power	AC 100-120V, 50-60Hz	AC 220-240V, 50-60Hz
Output voltage	DC 35V, DC 50V or DC 100V	DC 35V, DC 50V or DC 100V
Timer	0 - 99min. or continuous	0 - 99min. or continuous
Tank dimension (WxDxH)	110 x 120 x 45 mm	110 x 120 x 45 mm
Buffer volume	250 ml - 300 ml	250 ml - 300 ml
Gel tray (WxD)	Gel Tray A: 110 x 60 mm (2pcs) Gel Tray B: 54 x 60 mm (4pcs)	Gel Tray A: 110 x 60 mm (2pcs) Gel Tray B: 54 x 60 mm (4pcs)
Double sided comb (Width x thickness x no. of teeth)	Teeth for casting set A: (1) 3 x 1mm x 22* (2) 5.6 x 1 mm x 12 Teeth for casting set B: (1) 3 x 1 mm x 18* (2) 5.6 x 1 mm x 10 *Multichannel pipette compatible	Teeth for casting set A: (1) 3 x 1 mm x 22* (2) 5.6 x 1 mm x 12 Teeth for casting set B: (1) 3 x 1 mm x 18* (2) 5.6 x 1 mm x 10 *Multichannel pipette compatible
Max. power	40W	40W
Dimension (WxDxH)	190 x 130 x 55 mm	190 x 130 x 55 mm
Net weight	0.45 kg (without AC transformer)	0.45 kg (without AC transformer)

ORDERING INFORMATION

Specifications	MiniGEL Electrophoresis System
TT-HES-1-110V	MiniGEL Electrophoresis System TT-HES-1, AC 100 - 120V
TT-HES-1-220V	MiniGEL Electrophoresis System TT-HES-1, AC 220 - 240V



ConcertoGEL Horizontal Electrophoresis Systems Selection Guide

HIGHLIGHTS

ConcertoGEL Electrophoresis. The name implies an integrated range of system where it all comes together with necessary components, through brainy design and innovative features, offers a robust, versatile and flexible system which is highly adaptable to volatile changing needs of today's scientist to orchestrate streamlined gel electrophoresis experiments and analysis every day.

Hercuvan's ConcertoGEL Horizontal Gel Electrophoresis Systems are created by scientists who take heart to orchestrate science every day.



TANK AND LID DESIGN

Tanks and lids are built for robustness, safety, durability and longevity. The advantages of injection moulded design are leak-proof with minimal evaporation.

Easy lid removal

Lid design with thumb locators allows easy lid removal and reduces wear and tear on the electrode plugs.

Electrical safety

Lid removal immediately disconnects electrical current to the lower buffer chamber to allow completely safe access to the gel.



CASTING SYSTEM

Plug-and-Go casting system - rapid set-up and guaranteed leak proof while casting gels. Moulded casting dams clip easily onto the ends of the gel tray for quick external casting, allowing ConcertoGEL unit to remain in use for gel running.

Simply place one dam onto the lab bench facing upwards and insert gel tray into the groove in the dam and repeat with the second dam at the other end. The dam is now sealed and may be placed on flat bench or gel levelling table for leak-proof gel casting.



COMBS

Wide catalogue of **colour coded combs by four thicknesses** - meet virtually every application from preparatory electrophoresis to high-throughput screening.

Black (0.75mm)

for tightly resolved bands

White (1mm)

supplied as standard

Red (1.5mm)

to maximise sample volume

Blue (2mm)

to maximise sample volume

Black and White combs are suitable for high resolution gels and publication quality data, red and blue to scale-up nucleic acid volumes for preparatory techniques.

The height-adjustable combs give users full control over well depth and sample loading volume. The rigid comb back material is constructed to prevent heat-inducing warping.



ELECTRODES

Cassette - style electrodes difficult to break, composed of 99.99% corrosion-resistant, pure platinum with gold plated terminals.



The electrodes are **easy and inexpensive to change** with recessed channel to protect wiring system.



ACCESSORIES

Red loading guides

Ease well and sample visualization during loading.

Viewing platform

Offers a contrasting background to view bromophenol blue migration fronts and determine electrophoresis progress during every run.

Gel levelling table

Recommended especially for ConcertoGEL Maxi gel tray.



GEL SCOOPS

Gel scoops

Available in various sizes for **safe handling** of hazardous gels containing ethidium bromide.



GEL TRAYS

Multiple gel tray selections

Eliminate extra cost for additional gel tanks and allow gels to be casted externally.

Gel trays are UV and blue light transparent (up to 300nm), enable gels to be imaged without removal from the tray.



POWER CABLES

4mm standard connections are compatible with most modern low-to-medium power supplies. Adapters can be supplied for complete power supply compatibility.

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TANK AND LID DESIGN

Flexicasters allow **casting externally** without dams and multiple gels simultaneously to save time while the unit is running.



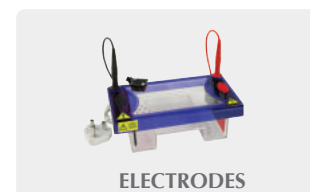
CASTING SYSTEM

Cool packs and platform are available for experiments that require high intensity runs (**high voltage produces heat**). This **reduces overheating** and maintains the temperature within acceptable limits.



COMBS

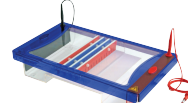
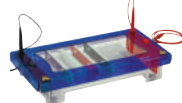
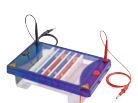
Buffer saver blocks reduces tank volume and **lowers buffer cost**, added economy for large format units. Can also be used when running gels at lower voltage.



ELECTRODES

Condensation can often build up during electrophoresis and obscure the progress of the run. These lids eliminate the need to stop the run and remove the lid just to monitor how far the sample has run. The lid is **built with USB powered fan that completely removes condensation**. Available as complete system or an upgrade if you have purchased ConcertoGEL tank.

Horizontal Electrophoresis Systems SELECTION GUIDE



	ConcertoGEL				MiniGEL
	Midi	Classic	Classic XL	Maxi	
	Built for routine and rapid PCR sample screening as well as DNA fragment analysis. Resolves up to 100 samples per gel.	Wide format system with 2-3 times sample capacity as Midi units. A comprehensive selection of combs offers maximum flexibility for preparatory and screening techniques. Recommended for cloning and mini-prep analysis.	An extended version of Classic unit, excellent for stretched high resolution separation of samples from 96-well microplates and blocks. Suitable to be used for routine preparatory techniques.	Large format system with maximum versatility designed for high-throughput techniques. Multichannel pipette compatible combs allow speedy loading of samples from 96-well microplates. Perfect for RFLP analysis, southern and northern blotting applications, DNA library and PCR fragment analyses.	An all-in-one compact system with power supply directly attaches to the gel tank. Three pre-set voltage selector: 35V, 50V and 100V and adjustable digital timer from 0-99 minutes. Quick and easy casting for low number of sample analysis.
Unit dimensions (W x D x H)	12.5 x 22 x 9 cm	17.5 x 26.5 x 9 cm	17.5 x 41 x 9 cm	23 x 39.5 x 9 cm	11 x 12 x 4.5 cm
Gel size (W x D)/ Corresponding gel tray	10 x 7 cm / CGMD-UVT7 10 x 10cm / CGMD-UVT10	15 x 7 cm / CGCL- UVT7 15 x 10 cm / CGCL- UVT10 15 x 15 cm / CGCL- UVT15	15 x 20 cm / CGCL-UVT20 15 x 25 cm / CGCL-UVT25	20 x 10 cm / CGMX-UVT10 20 x 15 cm / CGMX-UVT15 20 x 20 cm / CGMX-UVT20 20 x 25 cm / CGMX-UVT25	11 x 6 cm / Gel Tray A 5.4 x 6 cm / Gel Tray B
Sample capacity	1-50 (10 x 7 cm) a 1-100 (10 x 10 cm) b	1-70 (15 x 7 cm) a 1-140 (15 x 10 cm) b 1-210 (15 x 15 cm) c	1-280 (15 x 20 cm) f 1-350 (15 x 25 cm) g	1-200 (20 x 10 cm) b 1-350 (20 x 15 cm) c 1-450 (20 x 20 cm) d 1-550 (20 x 25 cm) e	1-44 (11 x 6 cm) 1-36 (5.4 x 6 cm)
Tank buffer volume	300 ml	500 ml	1000 ml	1200 ml	250 – 300 ml
Combs thickness/ No. of teeth	0.75, 1.0, 1.5, 2.0 mm/ 1, 2, 4, 8, 10MC, 12,16, 20, 25	0.75, 1.0, 1.5, 2.0 mm/ 1, 2, 4, 10, 10MC,12, 14MC, 16 MC, 28MCA, 35	0.75, 1.0, 1.5, 2.0 mm/ 1, 2, 4, 10, 10MC, 12, 14MC, 16MC, 28MCA, 35	0.75, 1.0, 1.5, 2.0 mm/ 1, 2, 4, 10, 16, 20MC, 25, 30, 36, 40MCA, 50	1mm/ 10, 12, 18, 22
Plug-and-Go casting dams supplied	Yes, 1 pair	Yes, 1 pair	Yes, 1 pair	Yes, 1 pair	No
Flexicaster options & tray capacity	CGMD-FC: 1 tray CGCLMX-FC: 1 tray	CGCLMX-FC: 1 tray	CGCLMX-FC: 1 tray	CGCLMX-FC: 1 tray	No
Typical running conditions	90V, 45-60 minutes	90-150V, 60-90 minutes	100-150V, 60-90 minutes	100-150V, 60-90 minutes	
Bromophenol blue migration	~4-5cm/h at 90V	~4-7cm/h at 90-150V	~4-6cm/h at 100-150V	~4-6.5cm/h at 100-150V	

Notes:

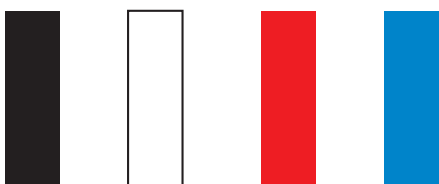
a Assumes 1-2 combs per gel b Assumes 1-4 combs per gel c Assumes 1-6 combs per gel d Assumes 1-9 combs per gel
e Assumes 1-11 combs per gel f Assumes 1-8 combs per gel g Assumes 1-10 combs per gel

Hercuvan Lab Systems

Combs for ConcertoGEL Series come in 4 different thicknesses and colour coded for ease of identification.

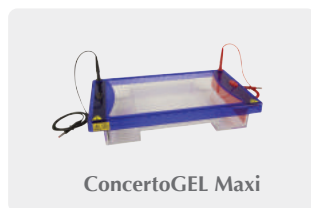
- Black** – 0.75 mm for tightly resolved bands
- White** – 1 mm supplied as standard comb
- Red** – 1.5 mm to maximise sample volume
- Blue** – 2 mm to maximise sample volume




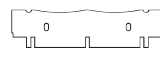
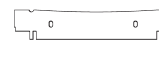


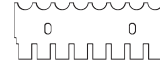



















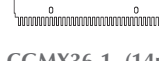



Black and white combs are recommended for high resolution gels and publication quality data. Red and blue are to scale-up nucleic acid volumes for preparatory techniques.



ConcertoGEL Horizontal Electrophoresis Systems comprise a wide catalogue of casting combs for gel casting. Custom combs can be manufactured on request.

ConcertoGEL Combs SELECTION GUIDE



 CGMD1-1, (360µl)	 CGMD2-1, (158µl)	 CGCL1-1, (495µl)	 CGCL2-1, (225µl)	 CGMX1-1, (675µl)	 CGMX2-1, (315µl)
 CGMD4-1, (77µl)	 CGMD8-1, (41µl)	 CGCL4-1, (122µl)	 CGCL10-1, (45µl)	 CGMX4-1, (153µl)	 CGMX10-1, (72µl)
 CGMD10MC-1, (27µl)	 CGMD12-1, (23µl)	 CGCL10MC-1, (29µl)	 CGCL12-1, (41µl)	 CGMX16-1, (41µl)	 CGMX20MC-1, (27µl)
 CGMD16-1, (16µl)	 CGMD20-1, (14µl)	 CGCL14MC-1, (29µl)	 CGCL16MC-1, (27µl)	 CGMX25-1, (21µl)	 CGMX30-1, (17µl)
 CGMD25-1, (10µl)		 CGCL20MC-1, (10µl)	 CGCL28MCA-1, (11µl)	 CGMX36-1, (14µl)	 CGMX40MCA-1, (11µl)
		 CGCL35-1, (10µl)		 CGMX50-1, (10µl)	



MC = multichannel pipette compatible



MCA = fits multichannel loading every other row

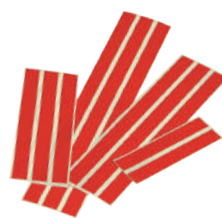
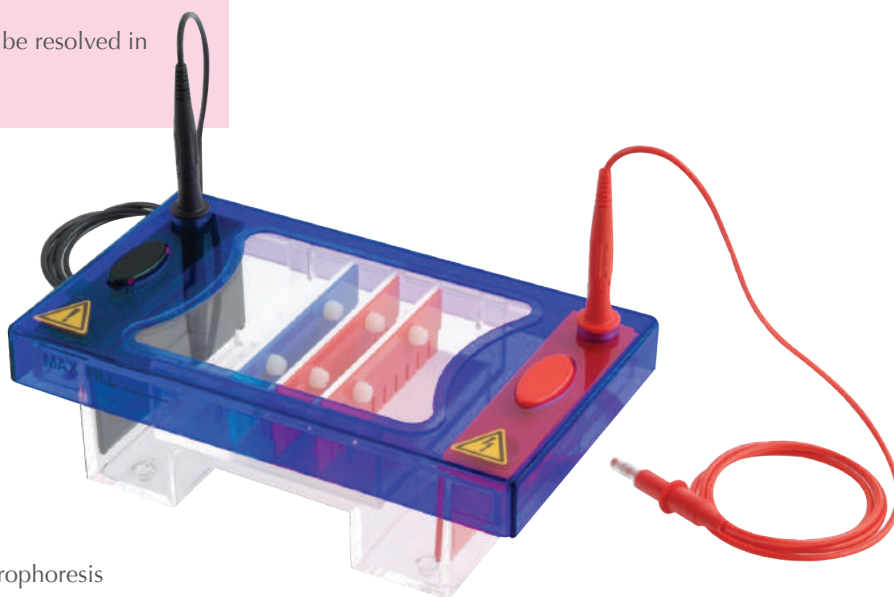
ConcertoGEL Midi Horizontal Electrophoresis System

HIGHLIGHTS

- Ideal for routine, rapid PCR sample screening and DNA fragment analysis
- Available with 10 x 7cm, 10 x 10cm gel trays or both
- Up to 100 samples per gel can be resolved in a single run

Built for routine, rapid PCR sample screening and DNA fragment analysis

ConcertoGEL Midi Horizontal Electrophoresis System is designed for routine and rapid PCR sample screening as well as DNA fragment analysis. It can run up to 100 samples per gel, making this unit ideal for routine screening of medium number of samples. ConcertoGEL Midi is available with gel tray options of 10 x 7cm, 10 x 10cm or with both gel trays. It is equipped with components required to cast and run horizontal gels, including gel trays, combs, casting stand and gel tank. Power supply is available as the complete set or as a separate unit.

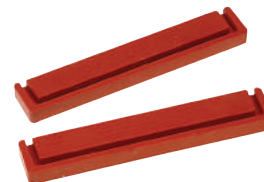


Adhesive Loading Guides

User-friendly guides are included as standard for easy well identification and sample loading

Casting Dams

Fast, easy and guaranteed leak proof plug –and-go external gel casting while ConcertoGEL Midi is running



TECHNICAL DATA

Specifications	ConcertoGEL Midi Horizontal Electrophoresis System	Max. Sample Capacity
Tank dimension (W x D x H)	12.5 x 22 x 9 cm	
Buffer volume	300 ml	
Gel tray (W x D)	10 x 7 cm 10 x 10 cm	50 samples 100 samples

ORDERING INFORMATION

Cat. No	ConcertoGEL Midi Horizontal Electrophoresis System		
EB-HES-CGMIDI7	CG Midi, 10x7cm: 1 UV tray and 2 combs (16 teeth)*		
EB-HES-CGMIDI10	CG Midi, 10x10cm : 1 UV tray & 2 combs (16 teeth)*		
EB-HES-CGMIDIDUO	CG Midi Duo, 10x7cm & 10x10cm: 2 UV trays and 2 combs (16 teeth)*		
CGMD-UVT7	10 x 7 cm UV Tray	CGMD-LG	Adhesive Loading Guides
CGMD-UVT10	10 x 10 cm UV Tray	CGMD-BS	Buffer Saving Blocks, 2 units, saves 100ml buffer
CGMD-PE	Positive Electrode	CGMD-CP	Cool Pack and Platform
CGMD-NE	Negative Electrode	CGMD-GS	UV Gel Scoop, 10 cm
CGMD-CD	Casting Dams, 2 units	CGMD-VP	Viewing Platform for CG Midi
CGMD-FC	Flexible Caster for CG Midi	CGMD-CSx	Clearsight Lid for CG Midi, with fan and power source, replace x with '7', '10', or 'DUO'
		CGMD-L	Lid for CG Classic, no cables
		CGMD-T	Tank for CG Midi, including electrodes
		EB-HES-EC	Electrophoresis Cable, black and red

Color	Cat. No	Combs for ConcertoGEL Midi	Sample Volume (5mm thick gel)	Color	Cat. No	Combs for ConcertoGEL Midi	Sample Volume (5mm thick gel)
Black	CGMD1-0.75	Comb for 1 sample, 1 marker, 0.75 mm thick	270 µL	Red	CGMD1-1.5	Comb for 1 sample, 1 marker, 1.5 mm thick	540 µL
	CGMD2-0.75	Comb for 2 samples, 2 markers, 0.75 mm thick	118 µL		CGMD2-1.5	Comb for 2 samples, 2 markers, 1.5 mm thick	236 µL
	CGMD4-0.75	Comb for 4 samples, 2 markers, 0.75 mm thick	57 µL		CGMD4-1.5	Comb for 4 samples, 2 markers, 1.5 mm thick	115 µL
	CGMD8-0.75	Comb for 8 samples, 0.75 mm thick	30 µL		CGMD8-1.5	Comb for 8 samples, 1.5 mm thick	61 µL
	CGMD10MC-0.75	Comb for 10 samples, multichannel, 0.75 mm thick	20 µL		CGMD10MC-1.5	Comb for 10 samples, multichannel, 1.5 mm thick	41 µL
	CGMD12-0.75	Comb for 12 samples, 0.75 mm thick	17 µL		CGMD12-1.5	Comb for 12 samples, 1.5 mm thick	44 µL
	CGMD16-0.75	Comb for 16 samples, 0.75 mm thick	12 µL		CGMD16-1.5	Comb for 16 samples, 1.5 mm thick	24 µL
	CGMD20-0.75	Comb for 20 samples, 0.75 mm thick	10 µL		CGMD20-1.5	Comb for 20 samples, 1.5 mm thick	20 µL
	CGMD25-0.75	Comb for 25 samples, 0.75 mm thick	7 µL		CGMD25-1.5	Comb for 25 samples, 1.5 mm thick	15 µL
	Blue	CGMD1-1	Comb for 1 sample, 1 marker, 1 mm thick		360 µL	Blue	CGMD1-2
CGMD2-1		Comb for 2 samples, 2 markers, 1 mm thick	158 µL	CGMD2-2	Comb for 2 samples, 2 markers, 2 mm thick		315 µL
CGMD4-1		Comb for 4 samples, 2 markers, 1 mm thick	77 µL	CGMD4-2	Comb for 4 samples, 2 markers, 2 mm thick		153 µL
CGMD8-1		Comb for 8 samples, 1 mm thick	41 µL	CGMD8-2	Comb for 8 samples, 2 mm thick		81 µL
CGMD10MC-1		Comb for 10 samples, multichannel, 1 mm thick	27 µL	CGMD10MC-2	Comb for 10 samples, multichannel, 2 mm thick		54 µL
CGMD12-1		Comb for 12 samples, 1 mm thick	23 µL	CGMD12-2	Comb for 12 samples, 2 mm thick		45 µL
CGMD16-1		Comb for 16 samples, multichannel, 1 mm thick	16 µL	CGMD16-2	Comb for 16 samples, 2 mm thick		32 µL
CGMD20-1		Comb for 20 samples, multichannel, 1 mm thick	14 µL	CGMD20-2	Comb for 20 samples, 2 mm thick		27 µL
CGMD25-1		Comb for 25 samples, 1 mm thick	10 µL	CGMD25-2	Comb for 55 samples, 2 mm thick		20 µL

* All models include casting dams, loading guides

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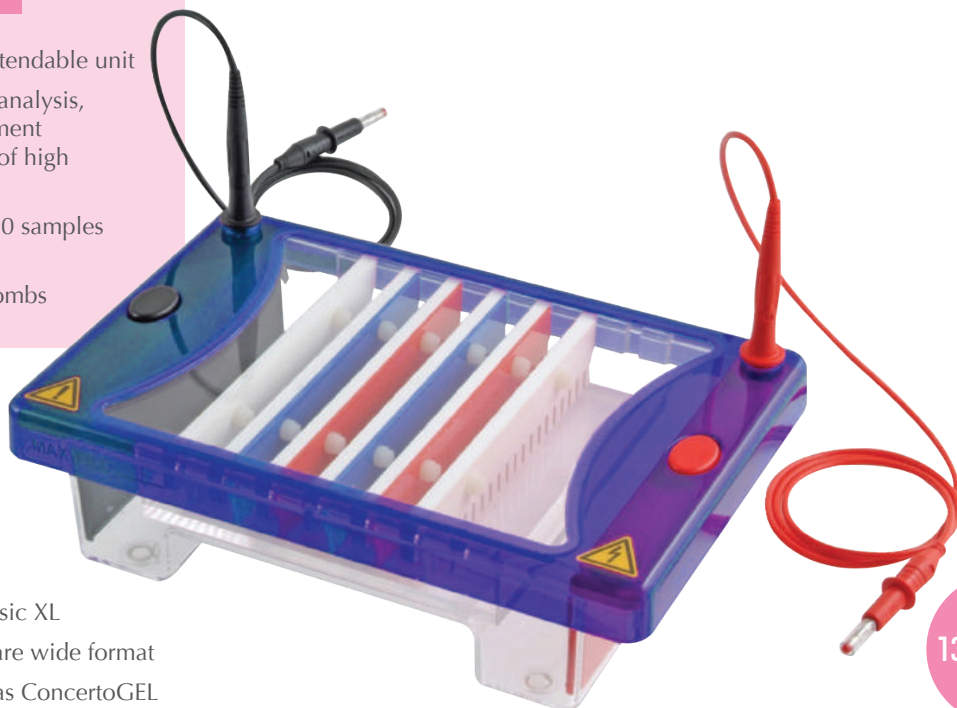
Lab Systems

ConcertoGEL Classic/ Classic Trio/ Classic XL Horizontal Electrophoresis System

HIGHLIGHTS

- Versatile with 3 tray options and extendable unit
- Suitable for cloning and mini-prep analysis, restriction fragment restriction fragment analysis, sample prep or screening of high number of samples
- Up to 210 samples (Classic) and 350 samples (Classic XL)
- Multichannel pipette compatible combs

Classic choice for optimum versatility and flexibility



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ConcertoGEL Classic/ Classic Trio / Classic XL Horizontal Gel Electrophoresis System are wide format system with 2-3 times sample capacity as ConcertoGEL Midi unit, primarily designed for routine and rapid horizontal gel electrophoresis and restriction fragment analysis with optimum versatility and flexibility.

ConcertoGEL Classic is available with three gel tray options of 15 x 7 cm, 15 x 10 cm and 15 x 15 cm. Restriction fragment and close MW samples can be easily analysed with the 15 cm total run length, which permits sufficient band separation. It allows rapid gel resolution for up to 210 samples with maximized comb and tray options. Furthermore, the 10, 14, 16 or 28 multichannel pipette compatible combs prevent time-consuming loading of samples.

Another model, ConcertoGEL Classic XL allows higher resolution separation of greater sample number from 96-well microplates and blocks over a longer distance with optional 15 x 20 cm and 15 x 25 cm gel trays together with four 28-sample combs. ConcertoGEL Classic Trio includes all 3 tray sizes for optimum versatility and economic of scale.



ConcertoGEL Classic Trio
Includes all 3 tray options



ConcertoGEL Classic XL
Able to run up to 350 samples

TECHNICAL DATA

Specifications	ConcertoGEL Classic / Classic Trio / Classic XL	Max. Sample Capacity
Tank dimension (W x D x H)	Classic model 17.5 x 26.5 x 9 cm Classic XL model 17.5 x 41 x 9 cm	
Buffer volume	500 ml	
Gel tray (W x D)	Classic model 15 x 7 cm 15 x 10 cm 15 x 15 cm Classic XL model 15 x 20 cm 15 x 25 cm	70 samples 140 samples 210 samples 280 samples 350 samples

ORDERING INFORMATION

Cat. No ConcertoGEL Classic / Classic Trio / Classic XL Horizontal Electrophoresis System

EB-HES-CGCL7	CG Classic, 15x7cm: 1 UV tray, 2 combs (20 teeth)*	EB-HES-CGCLTRIO	CG Classic Trio, 15x7cm: 15x10cm: 15x15cm: 3 UV trays & 2 combs (20 teeth)*
EB-HES-CGCL10	CG Classic, 15x10cm: 1 UV tray, 2 combs (20 teeth)*	EB-HES-CGCLXL20	CG Classic XL, 15x20cm: 1 UV tray, 4 combs (28 teeth)*
EB-HES-CGCL15	CG Classic, 15x15cm: 1 UV tray, 2 combs (20 teeth)*	EB-HES-CGCLXL25	CG Classic XL, 15x25cm: 1 UV tray, 4 combs (28 teeth)*
CGCL-UVT7	15 x 7 cm UV Tray	CGCL-CD	Casting Dams, 2 units
CGCL-UVT10	15 x 10 cm UV Tray	CGCLMX-FC	Flexible Caster for CG Classic/Maxi
CGCL-UVT15	15 x 15 cm UV Tray	CGCL-LG	Adhesive Loading Guides
CGCL-UVT20	15 x 20 cm UV Tray	CGCL-BS	Buffer Saving Blocks, 2 units, saves 190ml buffer
CGCL-UVT25	15 x 25 cm UV Tray	CGCL-CP	Cool Pack and Platform
CGCL-PE	Positive Electrode	CGCL-GS	UV Gel Scoop, 15cm
CGCL-NE	Negative Electrode	CGCL-VP	Viewing Platform for CG Classic
		CGCL-CSx	Clearsight Lid for CG Classic, with fan & power source, replace x with '7', '10', '15', '20', '25' or 'TRIO'
		CGCL-L	Lid for CG Classic, no cables
		CGCLXL-L	Lid for CG Classic XL, no cables
		CGCL-T	Tank for CG Classic, including electrodes
		CGCLXL-T	Tank for CG Classic XL, including electrodes
		EB-HES-EC	Electrophoresis Cable, black and red

Hercuvan

Lab Systems

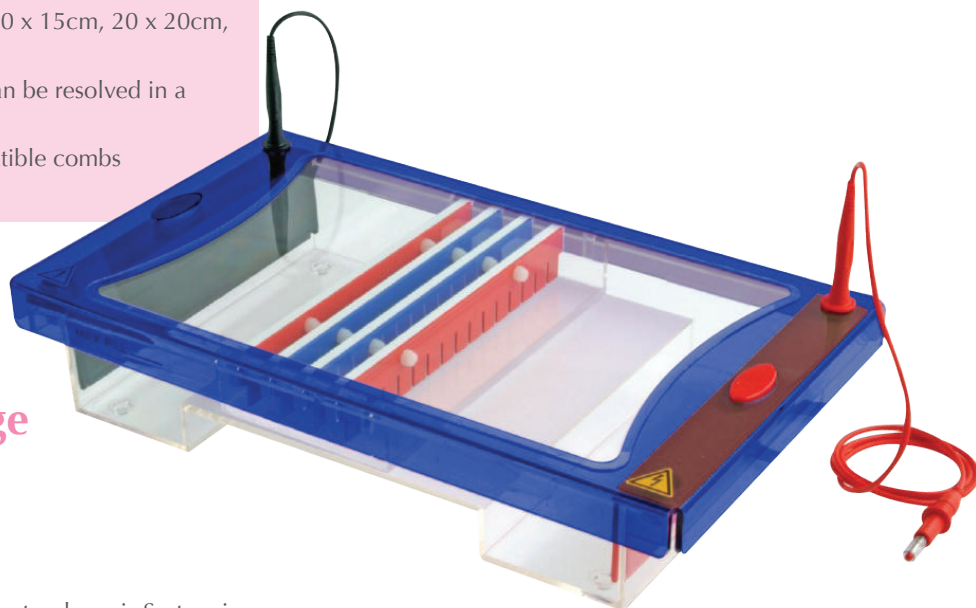
Color	Cat. No	Combs for ConcertoGEL Classic / Classic Trio / Classic XL	Sample Volume (5mm thick gel)	Color	Cat. No	Combs for ConcertoGEL Classic / Classic Trio / Classic XL	Sample Volume (5mm thick gel)
Black	CGCL1-0.75	Comb for 1 sample, 1 marker, 0.75 mm thick	371 µL	Red	CGCL1-1.5	Comb for 1 sample, 1 marker, 1.5 mm thick	743 µL
	CGCL2-0.75	Comb for 2 samples, 2 markers, 0.75 mm thick	169 µL		CGCL2-1.5	Comb for 2 samples, 2 markers, 1.5 mm thick	338 µL
	CGCL4-0.75	Comb for 4 samples, 3 markers, 0.75 mm thick	91 µL		CGCL4-1.5	Comb for 4 samples, 2 markers, 1.5 mm thick	182 µL
	CGCL10-0.75	Comb for 10 samples, 0.75 mm thick	34 µL		CGCL10-1.5	Comb for 10 samples, 1.5 mm thick	68 µL
	CGCL10MC-0.75	Comb for 10 samples, multichannel, 0.75 mm thick	22 µL		CGCL10MC-1.5	Comb for 10 samples, multichannel, 1.5 mm thick	44 µL
	CGCL12-0.75	Comb for 12 samples, 0.75 mm thick	30 µL		CGCL12-1.5	Comb for 12 samples, 1.5 mm thick	61 µL
	CGCL14MC-0.75	Comb for 14 samples, multichannel, 0.75 mm thick	22 µL		CGCL14MC-1.5	Comb for 14 samples, multichannel, 1.5 mm thick	44 µL
	CGCL16MC-0.75	Comb for 16 samples, multichannel, 0.75 mm thick	16 µL		CGCL16MC-1.5	Comb for 16 samples, multichannel, 1.5 mm thick	32 µL
	CGCL20MC-0.75	Comb for 20 samples, multichannel, 0.75 mm thick	7 µL		CGCL20MC-1.5	Comb for 20 samples, multichannel, 1.5 mm thick	15 µL
	CGCL28MCA-0.75	Comb for 28 samples, multichannel alternate, 0.75 mm thick	8 µL		CGCL28MCA-1.5	Comb for 28 samples, multichannel alternate, 1.5 mm thick	17 µL
CGCL35-0.75	Comb for 35 samples, 0.75 mm thick	9 µL	CGCL35-1.5	Comb for 35 samples, 1.5 mm thick	19 µL		
Blue	CGCL1-1	Comb for 1 sample, 1 marker, 1 mm thick	495 µL	Blue	CGCL1-2	Comb for 1 sample, 1 marker, 2 mm thick	990 µL
	CGCL2-1	Comb for 2 samples, 2 markers, 1 mm thick	225 µL		CGCL2-2	Comb for 2 samples, 2 markers, 2 mm thick	450 µL
	CGCL4-1	Comb for 4 samples, 2 markers, 1 mm thick	122 µL		CGCL4-2	Comb for 4 samples, 2 markers, 2 mm thick	243 µL
	CGCL10-1	Comb for 10 samples, 1 mm thick	45 µL		CGCL10-2	Comb for 10 samples, 2 mm thick	90 µL
	CGCL10MC-1	Comb for 10 samples, multichannel, 1 mm thick	29 µL		CGCL10MC-2	Comb for 10 samples, multichannel, 2 mm thick	59 µL
	CGCL12-1	Comb for 12 samples, 1 mm thick	41 µL		CGCL12-2	Comb for 12 samples, 2 mm thick	81 µL
	CGCL14MC-1	Comb for 14 samples, multichannel, 1 mm thick	29 µL		CGCL14MC-2	Comb for 14 samples, multichannel, 2 mm thick	59 µL
	CGCL16MC-1	Comb for 16 samples, multichannel, 1 mm thick	21 µL		CGCL16MC-2	Comb for 16 samples, multichannel, 2 mm thick	43 µL
	CGCL20MC-1	Comb for 20 samples, multichannel, 1 mm thick	10 µL		CGCL20MC-2	Comb for 20 samples, multichannel, 2 mm thick	10 µL
	CGCL28MCA-1	Comb for 28 samples, multichannel alternate, 1 mm thick	11 µL		CGCL28MCA-2	Comb for 28 samples, multichannel alternate, 2 mm thick	23 µL
CGCL35-1	Comb for 35 samples, 1 mm thick	13 µL	CGCL35-2	Comb for 35 samples, 2 mm thick	25 µL		

* All models include casting dams, loading guides

ConcertoGEL Maxi Horizontal Electrophoresis System

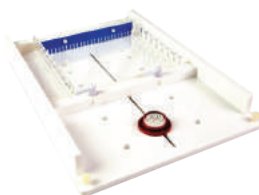
HIGHLIGHTS

- For large number of sample separation from PCR or cloning and extended separations
- Suitable for RFLP analysis southern and northern blotting applications, DNA library and PCR fragment analysis
- Available with 20 x 10cm, 20 x 15cm, 20 x 20cm, 20 x 25cm gel trays
- Up to 550 sample per gel can be resolved in a single run
- Multichannel pipette compatible combs



Perfect for separation of large sample number– PCR or Cloning

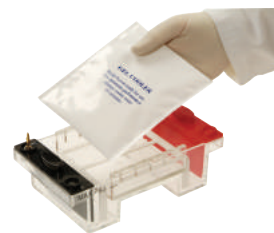
ConcertoGEL Maxi Horizontal Electrophoresis System is a large format system ideally designed for separation of high numbers of samples from PCR or cloning. With extended runs over 20 cm, it can provide high-resolution separations of up to 550 samples per gel using 50 sample combs. ConcertoGEL Maxi is available with four gel tray options of 20 x 10cm, 20 x 15cm, 20 x 20cm and 20 x 25cm. For easy sample transfer to membrane, in application such as Southern Blotting, the tray sizes match the standard blotter sizes. Multi-channel pipette compatible combs are available for quick loading with up to 40 sample comb that can accommodate 440 samples per gel.



Flexible Caster

Convenient gel casting of up to 20 cm length with the moveable dam (optional)

Cool Pack & Platform
Can reduce overheating for experiments with high intensity runs (high voltage produces heat)



TECHNICAL DATA

Specifications	ConcertoGEL Maxi	Max. Sample Capacity
Tank dimension (W x D x H)	23 x 39.5 x 9 cm	
Buffer volume	1500 ml	
Gel tray (W x D)	20 x 10 cm	200 samples
	20 x 15 cm	350 samples
	20 x 20 cm	450 samples
	20 x 25 cm	550 samples

ORDERING INFORMATION

Cat. No ConcertoGEL Maxi Horizontal Electrophoresis System

EB-HES-CGMAXI10	CG Maxi, 20 x 10 cm: 1 UV tray, 2 combs (20 teeth)*	EB-HES-CGMAXI25	CG Maxi, 20 x 25 cm: 1 UV tray, 2 combs (20 teeth)*
EB-HES-CGMAXI15	CG Maxi, 20 x 15 cm: 1 UV tray, 2 combs (20 teeth)*	EB-HES-CGMAXIDUO	CG Maxi Duo, 20 x 10 cm & 20 x 20 cm: 2 UV trays, 2 combs (20 teeth)*
EB-HES-CGMAXI20	CG Maxi, 20 x 20 cm: 1 UV tray, 2 combs (20 teeth)*		

CGMX-UVT10	20 x 10 cm UV Tray	CGMX-CD	Casting Dams, 2 units	CGMX-GLT	Gel Levelling Table
CGMX-UVT15	20 x 15 cm UV Tray	CGCLMX-FC	Flexible Caster for CG Classic/Maxi	CGMX-VP	Viewing Platform for CG Maxi
CGMX-UVT20	20 x 20 cm UV Tray	CGMX-LG	Adhesive Loading Guides	CGMX-L	Lid for CG Maxi, no cables
CGMX-UVT25	20 x 25 cm UV Tray	CGMX-GS	UV Gel Scoop, 20 cm	CGMX-T	Tank for CG Maxi, including electrodes
CGMX-PE	Positive Electrode	CGMX-CP	Cool Pack and Platform	EB-HES-EC	Electrophoresis Cable, black and red
CGMX-NE	Negative Electrode	CGMX-BS	Buffer Saving Blocks, 2 units, saves 450ml buffer	CGMX-CSx	Clearsight Lid for CG Maxi, with fan and power source, replace x with '10', '15', '20', '25' or 'DUO'

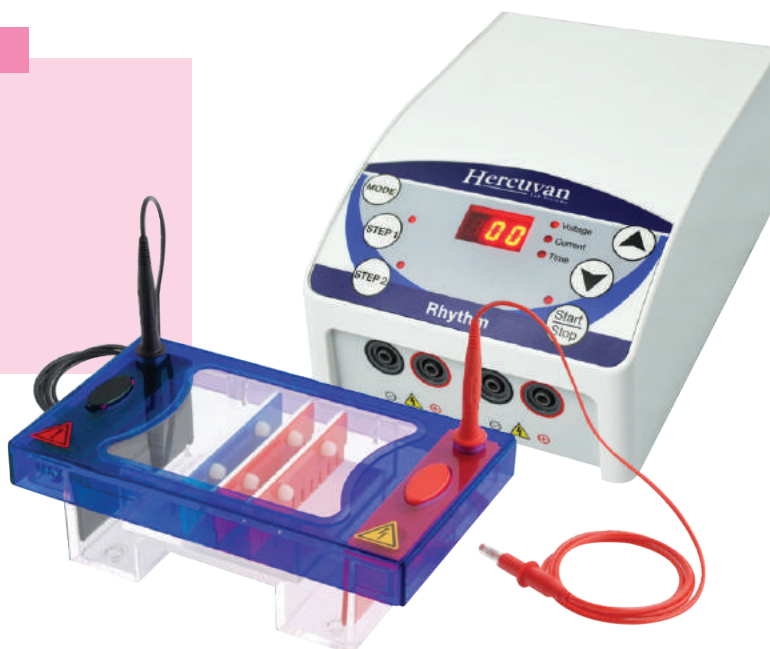
Color	Cat. No	Combs for ConcertoGEL Maxi	Sample Volume (5mm thick gel)	Color	Cat. No	Combs for ConcertoGEL Maxi	Sample Volume (5mm thick gel)		
Black	CGMX1-0.75	Comb for 1 sample, 1 marker, 0.75 mm thick	506 µL	Red	CGMX1-1.5	Comb for 1 sample, 1 marker, 1.5 mm thick	1013 µL		
	CGMX2-0.75	Comb for 2 samples, 2 markers, 0.75 mm thick	236 µL		CGMX2-1.5	Comb for 2 samples, 2 markers, 1.5 mm thick	473 µL		
	CGMX4-0.75	Comb for 4 samples, 2 markers, 0.75 mm thick	115 µL		CGMX4-1.5	Comb for 4 samples, 2 markers, 1.5 mm thick	230 µL		
	CGMX10-0.75	Comb for 10 samples, 0.75 mm thick	54 µL		CGMX10-1.5	Comb for 10 samples, 1.5 mm thick	108 µL		
	CGMX16-0.75	Comb for 16 samples, 0.75 mm thick	30 µL		CGMX16-1.5	Comb for 16 samples, 1.5 mm thick	61 µL		
	CGMX20MC-0.75	Comb for 20 samples, multichannel, 0.75mm thick	20 µL		CGMX20MC-1.5	Comb for 20 samples, multichannel, 1.5 mm thick	41 µL		
	CGMX25-0.75	Comb for 25 samples, 0.75 mm thick	16 µL		CGMX25-1.5	Comb for 25 samples, 1.5 mm thick			
	CGMX30-0.75	Comb for 30 samples, 0.75 mm thick	13 µL		CGMX30-1.5	Comb for 30 samples, 1.5 mm thick	32 µL		
	CGMX36-0.75	Comb for 36 samples, 0.75 mm thick	11 µL		CGMX36-1.5	Comb for 36 samples, 1.5 mm thick	26 µL		
	CGMX40MCA-0.75	Comb for 40 samples, multichannel alternate, 0.75 mm thick	8 µL		CGMX40MCA-1.5	Comb for 40 samples, multichannel alternate, 1.5 mm thick	22 µL		
	CGMX50-0.75	Comb for 50 samples, 0.75 mm thick	8 µL		CGMX50-1.5	Comb for 50 samples, 1.5 mm thick	17 µL		
	Blue	CGMX1-1	Comb for 1 sample, 1 marker, 1 mm thick		675 µL	Blue	CGMX1-2	Comb for 1 sample, 1 marker, 2 mm thick	1350 µL
		CGMX2-1	Comb for 2 samples, 2 markers, 1 mm thick		315 µL		CGMX2-2	Comb for 2 samples, 2 markers, 2 mm thick	630 µL
		CGMX4-1	Comb for 4 samples, 2 markers, 1 mm thick		153 µL		CGMX4-2	Comb for 4 samples, 2 markers, 2 mm thick	306 µL
		CGMX10-1	Comb for 10 samples, 1 mm thick		72 µL		CGMX10MC-2	Comb for 10 samples, 2 mm thick	144 µL
CGMX16-1		Comb for 16 samples, 1 mm thick	41 µL	CGMX16-2	Comb for 16 samples, 2 mm thick		81 µL		
CGMX20MC-1		Comb for 20 samples, multichannel, 1 mm thick	27 µL	CGMX20MC-2	Comb for 20 samples, multichannel, 2 mm thick		54 µL		
CGMX25-1		Comb for 25 samples, 1 mm thick	21 µL	CGMX25-2	Comb for 25 samples, 2 mm thick		42 µL		
CGMX30-1		Comb for 30 samples, 1 mm thick	17 µL	CGMX30-2	Comb for 30 samples, 2 mm thick		34 µL		
CGMX36-1		Comb for 36 samples, 1 mm thick	14 µL	CGMX36-2	Comb for 36 samples, 2 mm thick		29 µL		
CGMX40MCA-1		Comb for 40 samples, multichannel alternate, 1 mm thick	11 µL	CGMX40MCA-2	Comb for 40 samples, multichannel alternate, 2 mm thick		23 µL		
CGMX50-1		Comb for 50 samples, 1 mm thick	10 µL	CGMX50-2	Comb for 50 samples, 2 mm thick		21 µL		

* All models include casting dams, loading guides

ConcertoGEL Horizontal Electrophoresis System Package Deals

HIGHLIGHTS

- We offer 3 types of package deals for ConcertoGEL Horizontal Electrophoresis Systems. The package deals come with full horizontal systems and power supply to suit your budget.



CGMIDIDUO-RT300



CGCLTRIO-ML300



CGMAXIDUO-ML300

ORDERING INFORMATION

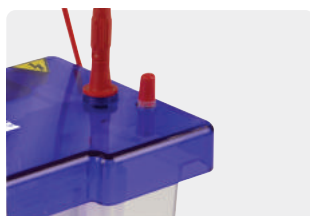
Cat. No	ConcertoGEL Package Deals
CGMIDIDUO-RT300	ConcertoGEL Midi Duo, 10 x 7 cm and 10 x 10 cm gels: 2 gel trays and 2 combs (16 teeth), plus Rhythm300 power supply
CGCLTRIO-ML300	ConcertoGEL Classic Trio, 15 x 7 cm, 15 x 10 cm, 15 x 15 cm gels: 3 gel trays and 2 combs (20 teeth), loading guides, casting dams, plus Melody300 power supply
CGMAXIDUO-ML300	ConcertoGEL Maxi Duo, 20 x 10 cm & 20 x 20 cm: 2 UV trays, 2 combs (20 teeth), casting dams, loading guides, plus Melody300 power supply

SymphonyPAGE Vertical Electrophoresis Systems Selection Guide

HIGHLIGHTS

SymphonyPAGE Electrophoresis. The name implies a unified system comprising all essential components from universal tank and lids to interchangeable insert modules, with thoughtful designs to ease daily operation, saving time and cost. The system enables different applications for protein and nucleic acid analyses such as PAGE, first and second-dimension gel electrophoresis and blotting.

Hercuvan's SymphonyPAGE Vertical Gel Electrophoresis Systems are designed by scientists who believe in making research simpler and more effective with integrated systems.



TANK AND LID DESIGN

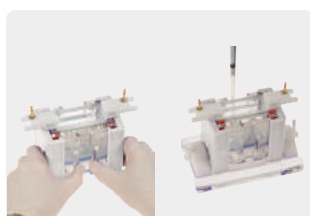
Tanks and lids are built for robustness, safety, durability and longevity. The injection moulded design provides leak-proof operation with minimal evaporation.

Easy lid removal

Lid design with elongated thumb locators allows easy lid removal and reduces wear and tear on the electrode plugs. They're also colour-coded to prevent polarity reversal.

Electrical safety

Lid removal immediately disconnects electrical current to the lower buffer chamber to allow completely safe access to the gel.



CASTING SYSTEM

Unique sliding-clamp technology – Allows easy and rapid setup of handcast and precast gels.

Dual-purpose PAGE inserts – Eliminates time-consuming transfer of glass plates between separate casting and running modules. The caster locks PAGE insert onto the soft silicone mat within casting base to provide leak-proof seal.



COMBS AND SPACERS

Wide catalogue of colour coded combs and spacers by four thicknesses – meet virtually every application from preparatory electrophoresis to high-throughput screening.

Black (0.75mm) – for tightly resolved bands
White (1mm) – supplied as standard
Red (1.5mm) – to maximise sample volume
Blue (2mm) – to maximise sample volume

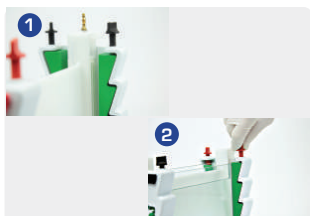
Black and White combs are suitable for high resolution gels and publication quality data, red and blue to scale-up nucleic acid volumes for preparatory techniques.



GLASS PLATES

Glass plates – Robust scientific grade glass plates. Two thicknesses: 2 mm thick for SymphonyPAGE MINI and 4 mm thick for SymphonyW.

Notched glass plates with bonded spacer options – May be used with standard plain glass plate with 1 mm bonded spacer and notched glass plates to double gel capacity of the PAGE insert which allows a maximum of 4 gels to be run.



WAVE SYSTEM

Resting slots – allow gel clamps to sit conveniently out of the way for gel cassette loading.

Novel vertical screw-clamp technology – Utilizes only 4 screws for faster set up compared to traditional large format system.



Ergonomic 'wave' design of PAGE insert – provides convenient finger grips for easy handling.

Sliding gel-clamps – available in two thicknesses to accommodate single and double-gel cassettes.



GEL RELEASE TOOL

Gel release tool – quickly and easily releases glass plates from PAGE insert.



COOL PACKS

Cool packs – Ensure enhanced resolution without costly and time-consuming additional equipment. Simply pre-chill in freezer and place within the gel tank. It also reduces buffer volume.



GLASS PLATE RACK

For safe drying and storage of glass plate racks



GRADIENT MIXERS

For creating gradient gels.



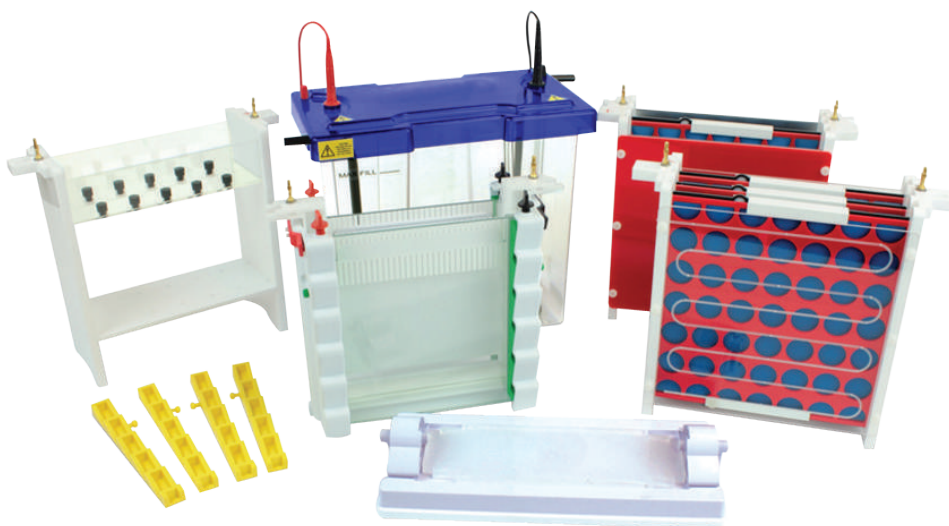
POWER CABLES

4mm standard connections are **compatible with most modern low-to-medium power supplies.** Adapters can be supplied for complete power supply compatibility.



MULTICASTERS

Allows casting of multiple identical gels, up to 24 at a time.



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2D AND BLOTTING OPTIONS

Available as standalone add-ons or part of fully integrated electrophoresis systems.

Modular blotting inserts for SymphonyPAGE MINI and W systems use the tank and lid of the corresponding PAGE system to perform fast and efficient blotting of maximum 4 gels; high-intensity plate electrode option available for SymphonyPAGE MINI and W.

Capillary tube gel inserts utilize the same tank and lid of corresponding PAGE system for reproducible 2D electrophoresis; isoelectric focusing (IEF) of up to 10 capillary tube gels may be completed in as little as 3.5 hours. Optional IPG converter kits modify PAGE gels to accommodate commercial IPG strips.

Vertical Electrophoresis Systems SELECTION GUIDE



SymphonyPAGE

Mini

Run 1-4 handcast gels and up to 2 precast gels in mini format

Two-in-one insert system for both gel casting and running eliminates time-consuming transfer of fragile gels

Sliding clamp assembly allows rapid set up and leak-proof operation

Small and compact unit saves cost by reducing buffer and reagent usage

Modular design for rapid turnaround of data which allows PAGE, 2D and blotting to be completed within a working day

Ideal for discovery projects and evaluation of sample preparing conditions

Run 1-4 large format gels at maximum resolution

Innovative vertical screw-clamp technology provides uniform pressure along the height of glass plates, ensuring leak-proof seal, without gel compression and bowing, leading to even sample migration

Fewer screws compared to traditional formats making set up easy and fast

W Maxi

Optional blotting insert supplied with additional tank and life for a dedicated 4-gel blotting system and plate electrodes for rapid transfer also available

Detachable cooling coil provides fast and 'smile-free' gel electrophoresis

Seamless injection moulded design provides leak-proof operation compared to glue joints

Capacity to run 1-4 18 cm capillary tube gels or IPG strips in second dimension with optional 2D module

Compatible Gel Formats

Precast Commercial 10 x 10 cm and 10 x 8 cm (WxH) precast gels: e.g. Thermo, Invitrogen, SERVA, Novex, IDGel™ etc.

Handcast Mini glass plates with or without bonded spacers

W Maxi plain and notched glass plates with or without bonded spacers for handcast gels

Electrophoresis System

Standard 2 gel systems

Precast (tank, lid and running insert only) SymphonyPAGE Mini SPMN-PRE
SymphonyPAGE Mini EB-VES-SPMINI

Tapecast (includes glass plates) SymphonyPAGE Mini EB-VES-SPMINISYS

Handcast (with glass plates and caster) SymphonyPAGE Mini EB-VES-SPMINICU

Handcast (with extra casting stand and plates to run 2 gels in tank, while casting 2 simultaneously)

SymphonyPAGE Maxi EB-VES- SWMAXICU

Gel dimension (WxH) 8 x 8.5 cm

16 x 17.5 cm

Available gel thickness 0.75, 1, 1.5 and 2 mm

0.75, 1, 1.5 and 2 mm

Compatible electroblotting transfer systems integrated modular SymphonyBLOT Mini VSPMINICBS

SymphonyBLOT Maxi SWMAXICBS

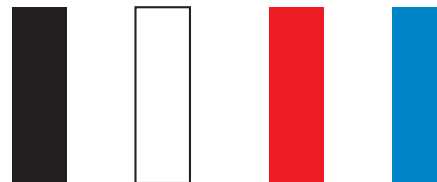
Standalone wet/tank transfer SymphonyBLOT Mini SPMINICBS for 4- blot transfer

SymphonyBLOT Maxi SWMAXIBL

Hercuvan Lab Systems

SymphonyPAGE Vertical Electrophoresis Systems comprise a wide catalogue of casting combs for gel casting. In addition to the standard options shown in this selection guide, custom combs are also manufactured on request.

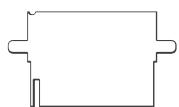
- Black** – 0.75 mm for tightly resolved bands
- White** – 1 mm supplied as standard comb
- Red** – 1.5 mm to maximise sample volume
- Blue** – 2 mm to maximise sample volume



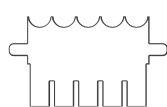
Black and white combs are recommended for high resolution gels and publication quality data. Red and blue are to scale-up nucleic acid volumes for preparatory techniques.

Note: Volume refers to maximum well volume of the longer tooth.

SymphonyPAGE Combs SELECTION GUIDE



SPMN1-1, (650 µL)



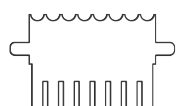
SPMN5-1, (100 µL)



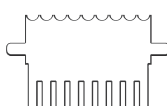
SWMX1-1, (1500 µL)



SWMX5-1, (200 µL)



SPMN8MC-1, (60 µL)



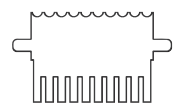
SPMN9-1, (50 µL)



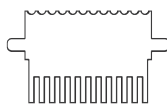
SWMX10-1, (100 µL)



SWMX18MC-1, (50 µL)



SPMN10-1, (40 µL)



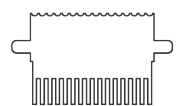
SPMN12-1, (35 µL)



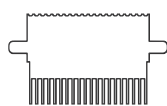
SWMX24-1, (40 µL)



SWMX30-1, (35 µL)



SPMN16MC-1, (25 µL)



SPMN20-1, (20 µL)



SWMX36MC-1, (25 µL)



SWMX48-1, (20 µL)



MC = multichannel pipette compatible

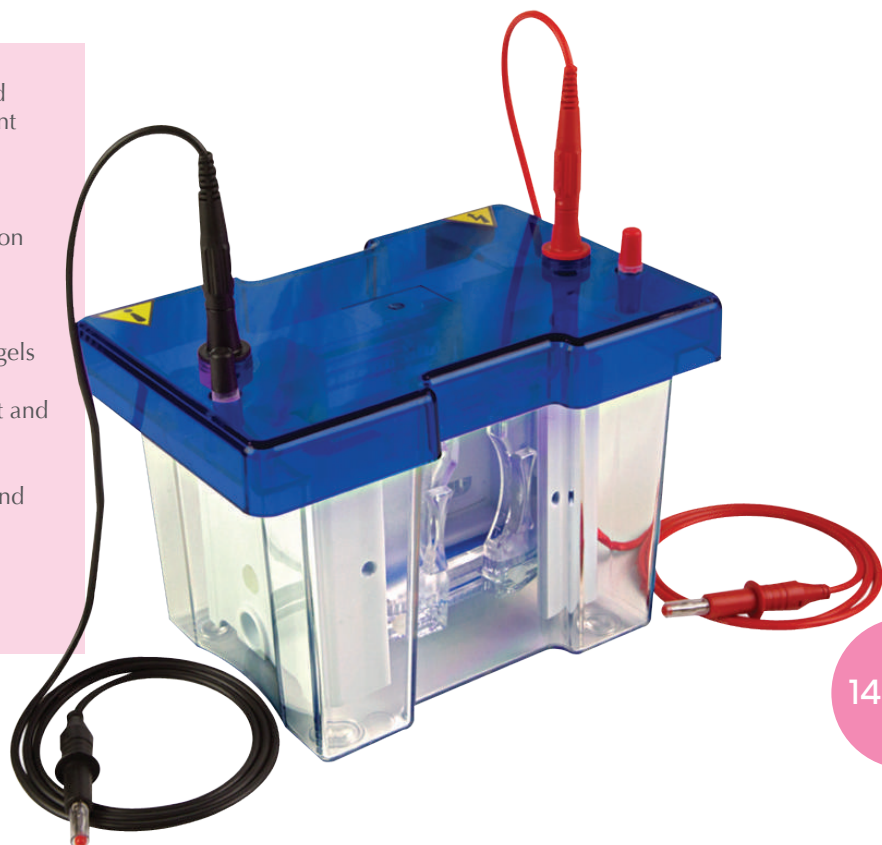
Hercuvan

Lab Systems

SymphonyPAGE Mini Vertical Electrophoresis System

HIGHLIGHTS

- Ideal for routine, rapid protein separation and new samples screening, Native PAGE, gradient and gel purification of low molecular weight nucleic acid fragments
- Easy and leak-proof gel casting due to injection moulded construction
- Two-in-one gel casting and running saves operation time and avoids damage of fragile gels
- Sliding clamp allows rapid set up of handcast and precast gels
- 2 mm thick glass plates minimize breakage and have bonded spacers for convenience
- Low buffer volumes



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Routine protein electrophoresis and screening new samples

SymphonyPAGE Mini Electrophoresis System is built for routine and rapid protein sample screening. It can run up to 4 handcast gels and 2 precast gels at a time, compatible with commercial 8 x 10 cm and 10 x 10 cm precast gels. The unique design allows gel casting and running to be carried out using the same internal module. This prevents time-consuming transfer of glass plates and fragile gels. The system provides an easy and efficient method for vertical electrophoresis applications to generate reproducible results.



Interchangeable module

Mini blotting insert may be used with the same tank and lid to adapt SymphonyPAGE Mini system, for easy, fast and efficient electroblotting of mini gels. These units are available as standalone options or as part of fully integrated electrophoresis systems.

TECHNICAL DATA

Specifications	SymphonyPAGE Mini Vertical	
Tank dimension (W x D x H)	19 x 13 x 15 cm	
Buffer volume	2 gels: Minimum 250 ml Maximum 1200 ml	4 gels: Minimum 250 ml Maximum 1200 ml
Gel dimension (W x D x H)	8 x 8.5 cm	
Plate dimension (W x D x T)	10 x 10 x 0.2 cm	
Standard run time for SDS PAGE	1-2 hours from 90-225 V	

ORDERING INFORMATION

Cat. No	SymphonyPAGE Mini Vertical Electrophoresis System				
EB-VES-SPMINI	SymphonyPAGE Mini, 10 x 10 cm gels: 2 glass plates with bonded 1 mm thick spacers, 2 combs (12 teeth), cooling pack and dummy plate	EB-VES-SPMINICU	SymphonyPAGE Mini, 10 x 10 cm gels: 2 glass plates with bonded 1 mm thick spacers, 2 combs (12 teeth), cooling pack, dummy plate, casting base and casting upstand		
EB-VES-SPMINISYS	SymphonyPAGE Mini, 10 x 10 cm gels: 2 glass plates with bonded 1 mm thick spacers, 2 combs (12 teeth), cooling pack, dummy plate and casting base	EB-VES-SPMINITETRAD	SymphonyPAGE Mini, 10 x 10 cm gels: 2 glass plates with bonded 1 mm thick spacers, 2 combs (12 teeth), cooling pack, dummy plate, casting base and casting upstand plus 2 x additional 1 mm 12-sample combs, 1 x plain glass plates with 1 mm spacers (2/pk), 1 x notched glass plates (2/pk) and 2 x notched glass plates with 1 mm spacers (2/pk)		
SPMN-PRE	SymphonyPAGE Mini, 10 x 10 cm gels, dummy plate and cooling pack	SPMN-PG	10 x 10 cm Plain Glass Plates 2 mm thick (2/pk)	SPMN-NG2	10 x 10 cm Notched Glass Plates 2 mm bonded spacers (2/pk)
SPMN-EXCAST	External Casting Stand, no casting base	SPMN-NG0.75	10 x 10 cm Notched Glass Plates 0.75 mm bonded spacers (2/pk)	SPMN-PG2	10 x 10 cm Plain Glass Plates 2 mm bonded spacers (2/pk)
SPMN-EXCASTSYS	External Casting System, upstand and base	SPMN-PG0.75	10 x 10 cm Plain Glass Plates 0.75 mm bonded spacers (2/pk)	SPMN-DP	10 x 10 cm Dummy Plate
SPMN-CAST	10 x 10 cm Dual Caster for SymphonyPAGE Mini	SPMN-NG1	10 x 10 cm Notched Glass Plates 1 mm bonded spacers (2/pk)	SPMN-SP0.75	10 cm Spacers – 0.75 mm (2/pk)
SPMN-CASTM	Replacement Silicone Mat for 10 x 10 cm Casting Base	SPMN-PG1	10 x 10 cm Plain Glass Plates 1 mm bonded spacers (2/pk)	SPMN-SP1	10 cm Spacers – 1 mm (2/pk)
SPMN-RM1	Inner Running Module with sliding clamps or screw clamps	SPMN-NG1.5	10 x 10 cm Notched Glass plates 1.5 mm bonded spacers (2/pk)	SPMN-SP1.5	10 cm Spacers – 1.5 mm (2/pk)
SPMN-CP	Mini Cooling Pack	SPMN-PG1.5,	10 x 10 cm Plain Glass Plates 1.5 mm bonded spacers (2/pk)	SPMN-SP2	10 cm Spacers – 2 mm (2/pk)
SPMN-NG	10 x 10 cm Notched Glass Plates 2 mm thick (2/pk)				

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Lab Systems

EASY, RAPID AND LEAK-PROOF GEL CASTING

- Dual-purpose PAGE module saves time by eliminating transfer of glass plates between separate casting and running.
- Ground glass plates with bonded injection moulded spacers are consistent with comb thickness to ensure 'clean' well formation and correct alignment for leak-proof casting. Eliminates the need for awkward spacer aligners.
- Ultra-soft silicone mat within cam-caster compensates for glass plate misalignment to ensure leak-proof casting.



a Insert glass plates between pressure frame and gasket.



b Slide gasket for efficient seal.



c Transfer to casting base and tighten cams.



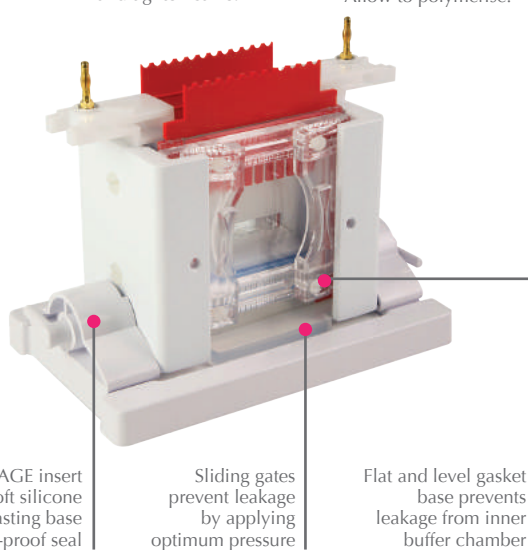
d Insert gel solution and comb. Allow to polymerise.



e Transfer to tank and fill with buffer.



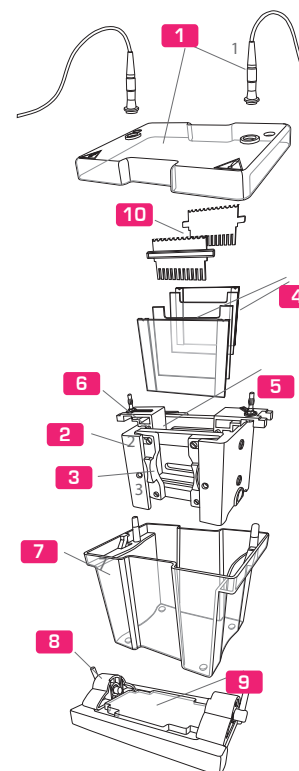
f Load samples using Loading Guides and run.



Cam pins lock PAGE insert onto the ultra-soft silicone mat within the casting base to provide leak-proof seal

Sliding gates prevent leakage by applying optimum pressure

Flat and level gasket base prevents leakage from inner buffer chamber



Mini Components Part

1. Lid and power cables
2. PAGE insert
3. Sliding clamps
4. Glass plates
5. Inner buffer chamber
6. Gasket
7. Outer tank
8. Cam-pin caster
9. Ultra-soft casting mat
10. Combs

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ORDERING INFORMATION

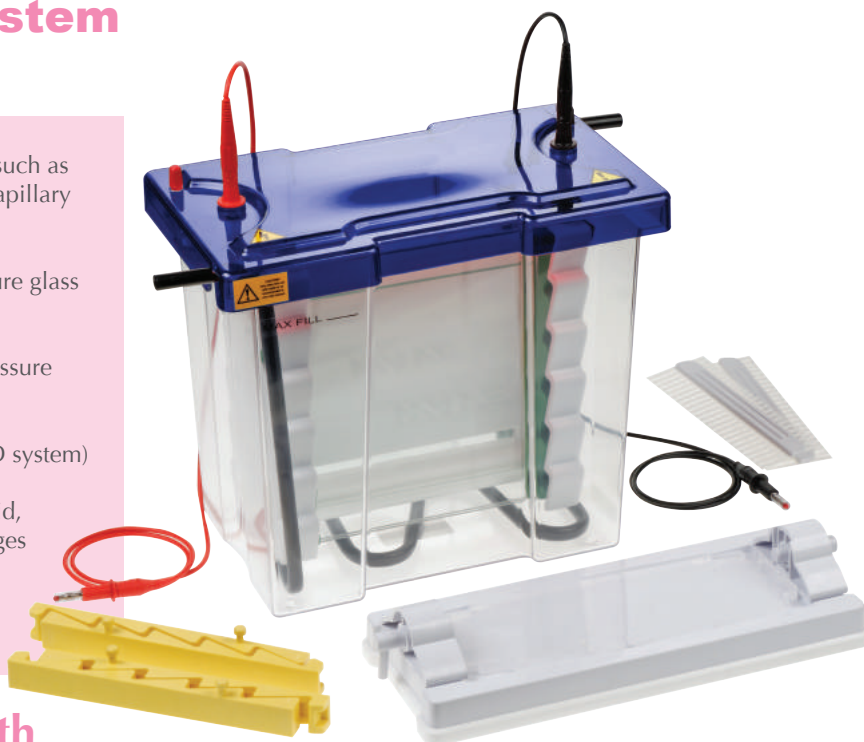
Color	Cat. No	Combs for SymphonyPAGE Mini	Sample Volume (5mm thick gel)	Color	Cat. No	Combs for SymphonyPAGE Mini	Sample Volume (5mm thick gel)
Black	SPMN1-0.75	Comb for 1 sample, 1 marker, 0.75 mm thick	500 µL	Red	SPMN1-1.5	Comb for 1 sample, 1 marker, 1.5 mm thick	1000 µL
	SPMN5-0.75	Comb for 5 samples, 0.75 mm thick	70 µL		SPMN5-1.5	Comb for 5 samples, 1.5 mm thick	140 µL
	SPMN8MC-0.75	Comb for 8 samples, multichannel, 0.75 mm thick	40 µL		SPMN8MC-1.5	Comb for 8 samples, multichannel, 1.5 mm thick	80 µL
	SPMN9-0.75	Comb for 9 samples, 0.75 mm thick	35 µL		SPMN9-1.5	Comb for 9 samples, 1.5 mm thick	70 µL
	SPMN10-0.75	Comb for 10 samples, 0.75 mm thick	30 µL		SPMN10-1.5	Comb for 10 samples, 1.5 mm thick	30 µL
	SPMN12-0.75	Comb for 12 samples, 0.75 mm thick	25 µL		SPMN12-1.5	Comb for 12 samples, 1.5 mm thick	50 µL
	SPMN16MC-0.75	Comb for 16 samples, multichannel, 0.75 mm thick	20 µL		SPMN16MC-1.5	Comb for 16 samples, multichannel, 1.5 mm thick	40 µL
	SPMN20-0.75	Comb for 20 samples, 0.75 mm thick	15 µL		SPMN20-1.5	Comb for 20 samples, 1.5 mm thick	30 µL
Blue	SPMN1-1	Comb for 1 sample, 1 marker, 1 mm thick	650 µL	Blue	SPMN1-2	Comb for 1 sample, 1 marker, 2 mm thick	1300 µL
	SPMN5-1	Comb for 5 samples, 1 mm thick	100 µL		SPMN5-2	Comb for 5 samples, 2 mm thick	200 µL
	SPMN8MC-1	Comb for 8 samples, multichannel, 1 mm thick	60 µL		SPMN8MC-2	Comb for 8 samples, multichannel, 2 mm thick	120 µL
	SPMN9-1	Comb for 9 samples, 1 mm thick	50 µL		SPMN9-2	Comb for 9 samples, 2 mm thick	100 µL
	SPMN10-1	Comb for 10 samples, 1 mm thick	40 µL		SPMN10-2	Comb for 10 samples, 2 mm thick	80 µL
	SPMN12-1	Comb for 12 samples, 1 mm thick	35 µL		SPMN12-2	Comb for 12 samples, 2 mm thick	70 µL
	SPMN16MC-1	Comb for 16 samples, multichannel, 1 mm thick	25 µL		SPMN16MC-2	Comb for 16 samples, multichannel, 2 mm thick	50 µL
	SPMN20-1	Comb for 20 samples, 1 mm thick	20 µL		SPMN20-2	Comb for 20 samples, 2 mm thick	40 µL

* All models include casting dams, loading guides

SymphonyW Maxi Vertical Electrophoresis System

HIGHLIGHTS

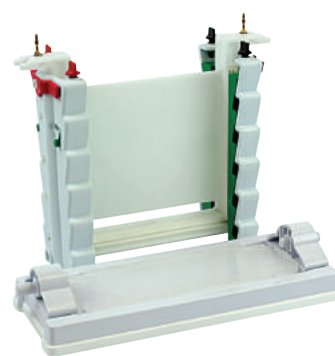
- Versatile system for various applications such as electrophoresis, 1D and 2D SDS-PAGE, capillary tube gel IEF or IPG strips and blotting
- Faster setup with only four screws to secure glass plates
- Vertical screw-clamps distribute even pressure along the height of gel
- Run up to 4 gels simultaneously (TETRAD system)
- Detachable inner cooling coil allows rapid, smile-free electrophoresis at higher voltages
- Injection moulded construction ensures robustness and consistency



Multipurpose system with innovative design ideal for various electrophoresis, 2D and blotting applications

SymphonyW Maxi Vertical Electrophoresis System is a multipurpose system for various applications such as native, gradient and high resolution nucleic acid electrophoresis, first and second-dimension SDS-PAGE as well as capillary tube gel IEF or IPG strips and blotting. It has a unique vertical screw-clamp design within the PAGE insert that only requires four screws to secure up to four 20 x 20 cm gels. This design is advantageous with a faster setup time compared to traditional clamping configuration, with as many as 24 screws to secure just two glass plates. Leakage during casting is prevented by providing even pressure along the height of the gel instead of the centre to eliminate plate bowing and gel compression.

For smile-free electrophoresis and high voltage runs, a detachable inner cooling coil can be connected to the laboratory water supply or recirculating chiller. The system is useful for large format electrophoresis with extended separation distances, high sample throughput and more efficient resolution. A 4-gel TETRAD system is also offered to allow external gel casting while running to save time. The TETRAD system comprises additional plates with spacers, combs, casting base and external casting upstand.



External Casting Upstand is a standard internal module without platinum wire.

TECHNICAL DATA

Specifications	SymphonyW Maxi
Tank dimension (W x D x H)	26 x 16 x 28 cm
Maximum sample	Slab : 192 samples (48 samples/gel) Tube : 10 tubes Blot : 4 blots
Buffer volume	Minimum 1200 ml Maximum 5600 ml

ORDERING INFORMATION

Cat. No	SymphonyW Maxi Vertical Electrophoresis System				
EB-VES-SWMAXI	SymphonyW Maxi, 20 x 20 cm gels: 2 x glass plates with bonded 1 mm spacers, 2 x 24 sample combs, cooling pack, dummy plate and casting base				
EB-VES-SWMAXICU	SymphonyW Maxi, 20 x 20 cm gels: 2 x glass plates with bonded 1 mm spacers, 2 x 24 sample combs, cooling pack, dummy plate, casting base and external casting upstand				
EB-VES-SWMAXITETRAD	SymphonyW Maxi, 20 x 20 cm gels: 2 x glass plates with bonded 1 mm spacers, 2 x 24 sample combs, cooling pack, dummy plate, casting base, external casting upstand, plus 2 x notched glass plates with 1 mm bonded spacers (2/pk) and 2 x 1mm 24-sample combs				
SWMX-EC	SymphonyW Maxi External Casting Upstand, no casting base	SWMX-x-LG	Loading Guides, x=comb well number	SWMX-NG2	20 x 20 cm Notched Glass Plates mm 1.5 bonded spacers (2/pk)
SWMX-CAST	SymphonyW Casting Base	SWMX-NG	20 x 20 cm Notched Glass Plates 4 mm (2/pk)	SWMX-PG2	20 x 20 cm Plain Glass Plates 2 mm bonded spacers (2/pk)
SWMX-PI	SymphonyW Page Insert	SWMX-PG	20 x 20 cm Plain Glass Plates 4 mm (2/pk)	SWMX-DP	Dummy plate, 20 x 20 cm
SWMX-CC	Detachable Cooling Coil	SWMX-NG0.75	20 x 20 cm Notched Glass Plates bonded 0.75 mm spacers	SWMX-SP0.75	20 cm Spacers, 0.75 mm (2/pk)
SWMX-DCAST	20 x 20 cm Dual Caster	SWMX-SP1		SWMX-SP1	20 cm Spacers, 1 mm (2/pk)
SWMX-CASTM	Replacement Rubber Mats for 20 x 20 cm caster	SWMX-SP1.5		SWMX-SP1.5	20 cm Spacers, 1.5 mm (2/pk)
SWMX-IRM	Inner Running Module	SWMX-SP2		SWMX-SP2	20 cm Spacers, 2 mm (2/pk)
SWMX-CP	Maxi Cooling Pack	SWMX-NG1	20 x 20 cm Notched Glass Plates 1 mm bonded spacers (2/pk)	SWMX-RPW-0.2100	Replacement Platinum Wire, 0.2 mm, 100 cm
		SWMX-PG1	20 x 20 cm Plain Glass Plates 1 mm bonded spacers (2/pk)	SWPX-IEFKIT	IEF Conversion for 18 cm IPG strips and tube gels: 1 set of plain glass plates with bonded spacers, 0.6 x 20 cm (WxH), 2 x 2D combs with one 3.5 mm marker lane and one 18 cm preparatory well
		SWMX-NG1.5	20 x 20 cm Notched Glass Plates 1 mm bonded spacers (2/pk)		
		SWMX-PG1.5	20 x 20 cm Plain Glass Plates 1.5 mm bonded spacers (2/pk)		

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Lab Systems

GEL CASTING MADE EASY

- Versatile system for various applications such as electrophoresis, 1D and 2D SDS-PAGE, capillary tube gel IEF or IPG strips and blotting
- Faster setup with only four screws to secure glass plates
- Vertical screw-clamps distribute even pressure along the height of gel
- Run up to 4 gels simultaneously (TETRAD system)
- Detachable inner cooling coil allows rapid, smile-free electrophoresis at higher voltages
- Injection moulded construction ensures robustness and consistency



Assemble each gel cassette on flat surface, by placing the plain glass plate down with the spacers facing upwards followed by the notched glass plates.



Loosen the vertical screw-pins in the PAGE insert to release the locking mechanism. This allows the gel clamps to sit in the resting slots.



Insert a gel cassette into each side of the inner buffer chamber in the PAGE insert and tighten the vertical screw-pins.



Continue to tighten the screw-pins until the gel clamps glide out of the resting slots and fix firmly against the glass plates pushing them upright.



Check the bottom of the glass plates to ensure that they are even together and place the PAGE insert onto the casting base. Make sure the cams are facing downwards.

Colour-coded vertical screw-pins to prevent polarity reversal.

Resting slots allow the gel clamps to sit conveniently out of the way, easy loading of the cassettes into the PAGE insert.

Ergonomic 'wave' design provides finger grips for easy handling.

Cam-pins lock PAGE insert onto the ultra-soft silicone mat to provide leak-proof seal.

Flat, even gasket provides leak-proof seal for inner buffer chamber.

Sliding gel clamps available in two thicknesses to accommodate single and double gel cassettes.



Insert cams and turn until tight, drawing the PAGE insert onto the casting to form a leak-proof seal.



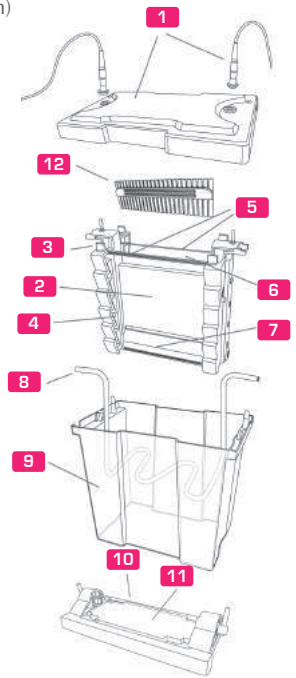
Pour in the gel solution, insert the combs and allow the wells to polymerise.



Transfer the PAGE insert to the gel tank. Fill the inner and outer buffer chambers before loading samples.



Place the lid, connect to power supply and run.



SymphonyW Maxi Components

1. Lid and power cables
2. PAGE insert
3. Vertical screw-pin
4. Clamping bars
5. Glass plates
6. Inner buffer chamber
7. Gasket
8. Detachable cooling coil
9. Outer tank
10. Cam-pin caster
11. Ultra-soft silicone mat
12. Combs

ORDERING INFORMATION

Color	Cat. No	Combs for SymphonyW Maxi	Sample Volume (5mm thick gel)	Color	Cat. No	Combs for SymphonyW Maxi	Sample Volume (5mm thick gel)
Black	SWMX1-0.75	Comb for 1 sample, 1 marker, 0.75 mm thick	110 µL	Red	SWMX1-1.5	Comb for 1 sample, 1 marker, 1.5 mm thick	2200 µL
	SWMX5-0.75	Comb for 5 samples, 0.75 mm thick	160 µL		SWMX5-1.5	Comb for 5 samples, 1.5 mm thick	320 µL
	SWMX10-0.75	Comb for 10 samples, 0.75 mm thick	80 µL		SWMX10-1.5	Comb for 10 samples, 1.5 mm thick	160 µL
	SWMX18MC-0.75	Comb for 18 samples, multichannel, 0.75 mm thick	40 µL		SWMX18MC-1.5	Comb for 18 samples, multichannel, 1.5 mm thick	80 µL
	SWMX24-0.75	Comb for 24 samples, 0.75 mm thick	30 µL		SWMX24-1.5	Comb for 24 samples, 1.5 mm thick	60 µL
	SWMX30-0.75	Comb for 30 samples, 0.75 mm thick	25 µL		SWMX30-1.5	Comb for 30 samples, 1.5 mm thick	50 µL
	SWMX36MC-0.75	Comb for 36 samples, multichannel, 0.75 mm thick	20 µL		SWMX36MC-1.5	Comb for 36 samples, multichannel, 1.5 mm thick	40 µL
	SWMX48-0.75	Comb for 48 samples, 0.75 mm thick	15 µL		SWMX48-1.5	Comb for 48 samples, 1.5 mm thick	30 µL
Blue	SWMX1-1	Comb for 1 sample, 1 marker, 1 mm thick	1500 µL	Blue	SWMX1-2	Comb for 1 sample, 1 marker, 2 mm thick	3000 µL
	SWMX5-1	Comb for 5 samples, 1 mm thick	200 µL		SWMX5-2	Comb for 5 samples, 2 mm thick	400 µL
	SWMX10-1	Comb for 10 samples, 1 mm thick	100 µL		SWMX10-2	Comb for 10 samples, 2 mm thick	200 µL
	SWMX18MC-1	Comb for 18 samples, multichannel, 1 mm thick	50 µL		SWMX18MC-2	Comb for 18 samples, multichannel, 2 mm thick	100 µL
	SWMX24-1	Comb for 24 samples, 1 mm thick	40 µL		SWMX24-2	Comb for 24 samples, 2 mm thick	80 µL
	SWMX30-1	Comb for 30 samples, 1 mm thick	35 µL		SWMX30-2	Comb for 30 samples, 2 mm thick	70 µL
	SWMX36MC-1	Comb for 36 samples, multichannel, 1 mm thick	25 µL		SWMX36MC-2	Comb for 36 samples, multichannel, 2 mm thick	50 µL
	SWMX48-1	Comb for 48 samples, 1 mm thick	20 µL		SWMX48-2	Comb for 48 samples, 2 mm thick	40 µL

* All models include casting dams, loading guides

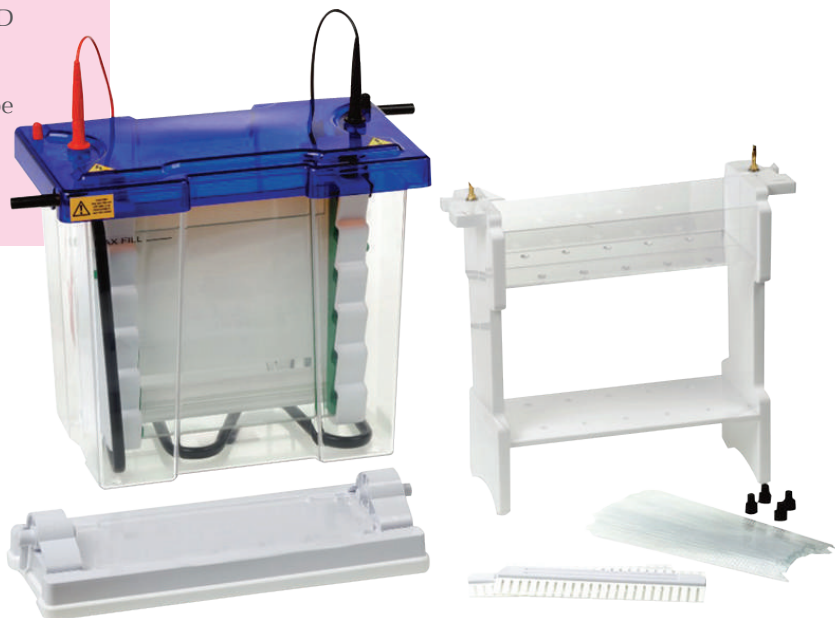
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Lab Systems

SymphonyW Maxi 2D System

HIGHLIGHTS

- Comprises all necessary components for 2D electrophoresis using capillary tube gels
- Interchangeable inserts to run capillary tube gels for first-dimension IEF and vertical gel slabs for second-dimension SDS-PAGE using the same universal tank and lid



Beneficial interchangeable modular inserts for excellent 2D electrophoresis

SymphonyW Maxi 2D System comprises all necessary components for 2D electrophoresis using capillary ampholyte tube gels. The system is designed in such a way that the same universal tank and lid are utilized with interchangeable modular inserts to run capillary tube gels for first-dimension IEF and vertical slab gels for second-dimension SDS-PAGE. The dedicated 2D insert is able to run up to 10 first-dimension IEF tube gels with a single run. Running fewer gels can also be carried out by using the included dummy ports. The system can also be used to resolve 18 cm IPG strips in the first-dimension on the flat-bed IEF system. The complete stand-alone units for first dimension capillary tube gel electrophoresis are available which include the W Maxi tank and lid, tube gel module, tube and dummy ports. The units are interchangeable with W Maxi slab gel and blotting modules.



SymphonyW Maxi Tube Gel Module

TECHNICAL DATA

Specifications	SymphonyW Maxi 2D System
IEF tube gel capacity	1-10
PAGE gel capacity	2 as standard; up to 4 maximum
Tube gel dimensions	18 x 0.1 cm (Length x Diameter)
Plate dimensions (W x H x T)	20 x 20 x 4 cm
2D gel dimensions (W x H)	18.8 x 17.5 cm
Running conditions for IEF with cooling	Up to 20 hours;800V maximum
Recommended power supply	Flat Bed IEF : HarmonyCS2320 W Maxi Tube Gel : HarmonyCS3330

ORDERING INFORMATION

Cat. No	SymphonyW Maxi 2D System
EB-VES-SWMAXI2DS	SymphonyW Maxi Complete 2D System: 1 x W Maxi Vertical Unit: 2 x 4mm notched glass plates, 2 x 4 mm plain glass plates with 1 mm bonded spacers, 1 x dummy plate, 2 x combs, 1 mm, 24 samples, 1 x casting base, silicone mat, cooling pack plus 1 x Capillary Electrophoresis Module: W Maxi tube gel insert, 100 x capillary tubes, 10 x dummy ports plus 1 x W Maxi IEF Kit: 1 set of plain glass plates with bonded spacers, 0.6 x 20 cm (WxH) and 2 x 2D combs with one 3.5 mm marker lane and one 18 cm preparatory well
EB-VES-SWMAXITG	W Maxi Tube Gel Unit, 20 x 20 cm with tank and lid, glass capillary tubes, dummy ports and cooling pack
SWMAXITGM	W Maxi Tube Gel Module: glass capillary tubes and dummy ports
SWMAXICT	W Maxi Capillary Tubes, 100/pk
SWMAXICT1.5	W Maxi Capillary Tubes, 100/pk
SWMAXIDP	W Maxi Dummy Ports, 10/pk

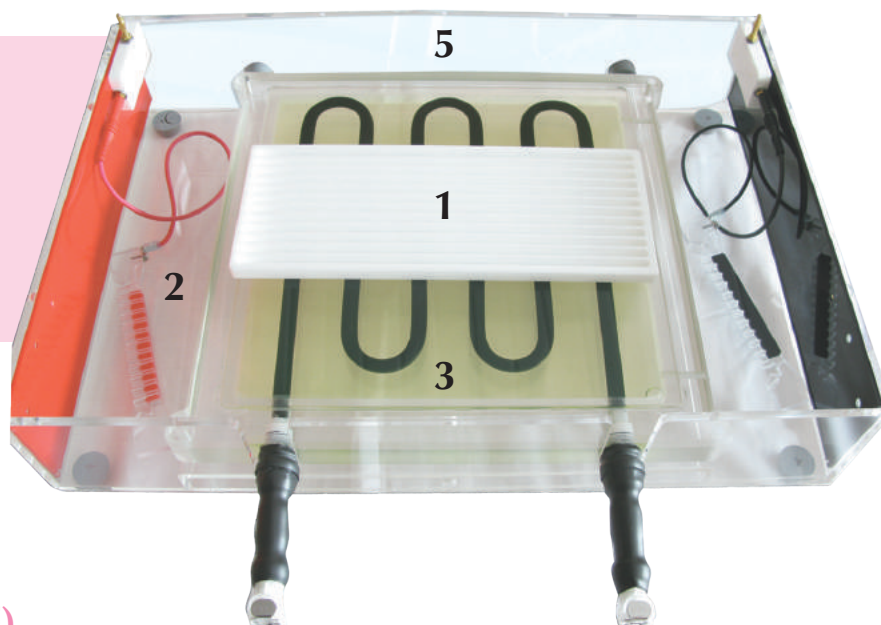
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Lab Systems

SymphonyIEF Isoelectric Focusing

HIGHLIGHTS

- Ideal for IPG strips and IEF gels
- Adjustable electrodes
- Focusing tray for maximum 12 IPG strips (7-24 cm) and rehydration tray provided
- Large cooling platform



The newly designed first-dimension isoelectric focusing (IEF) with IPG (immobilised pH gradient) strips now comes with rehydration and focusing trays

SymphonyIEF Isoelectric Focusing is a versatile unit that covers most IEF requirements from small scale to high-throughput operation. The focusing tray can accommodate up to 12 IPG strips. It is convenient with adjustable 'pick-and-place' electrodes clip anywhere within the focusing tray to resolve IPG strips from 7-24 cm in length, colour-coded to prevent polarity reversal. It is also compatible with horizontal precast IEF and PAGE gels, with electrode frame that clips directly onto the cooling plate. The cooling plate built from a special grade ceramic boasts a large 26 x 26 cm surface area which enables better heat dissipation and homogenous thermal control, making it efficient for high voltage IEF applications. An optional recirculating chiller is also available which connects easily to the cooling plate via snap-lock connectors to preserve optimal operating temperatures for IPG strips (20°C) and precast gels (4°C).

SymphonyIEF components

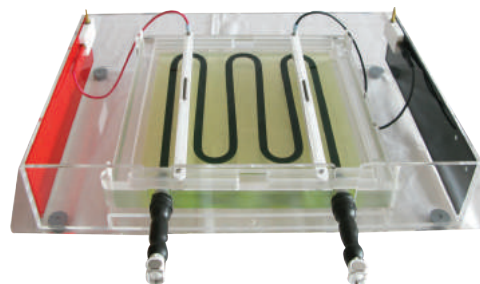
- 1 Focusing Tray
- 2 Adjustable 'pick-and-place' electrodes
- 3 Ceramic cooling plate with snap- lock connectors
- 4 Rehydration tray (not shown)
- 5 Electrode frame for horizontal precast gels
- 6 Shrouded 2 mm high voltage cables (not shown)

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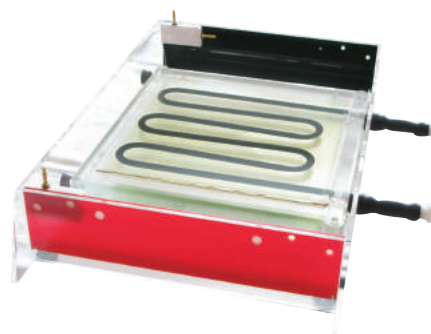
Lab Systems

The unit now comes with rehydrating tray for convenient transfer of IPG strips to the focusing tray without time-consuming removal of residual rehydration buffer. This also allows focusing tray to remain permanently in use for IEF to maximise throughput. In addition, it also provides useful storage at -20°C for focused strips before second-dimension runs.

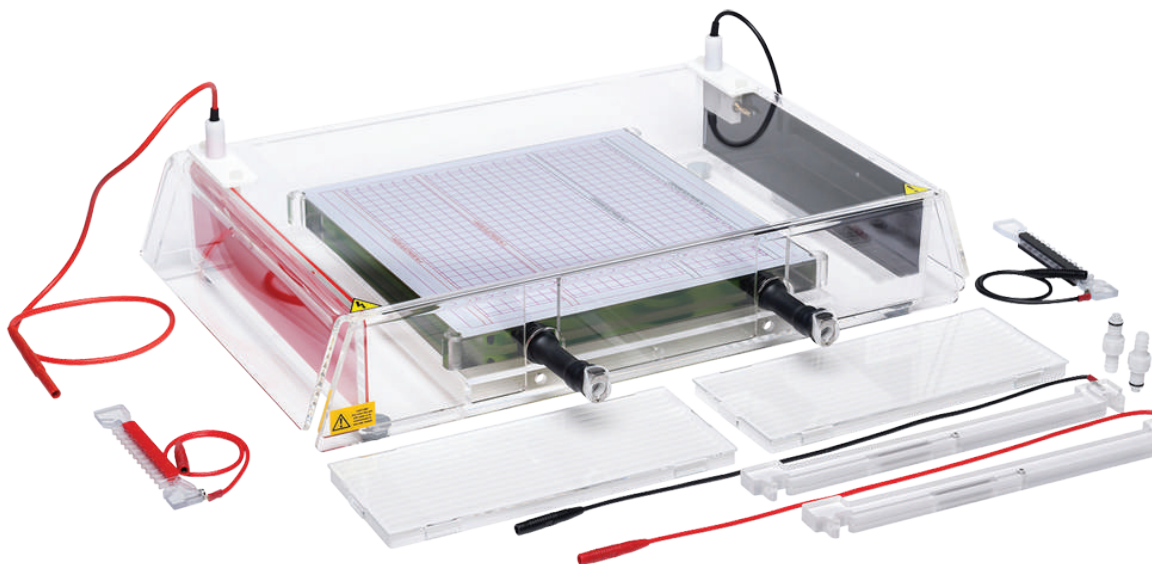
Recommended power supply is HarmonyCS2320, 3000V 150mA, 150W. HarmonyCS2320 has 9 different program settings with 9 different parameters and voltage ramping for multi-step IEF techniques. The power supply allows setting Volt-Hours for focusing to be achieved faster at maximum voltage. You can save up to 3600 output values for data logging, collect run data via R3232 connection and it comes with free downloadable data acquisition software.



SymphonyIEF with electrodes



SymphonyIEF with cooling plate



SymphonyIEF components

TECHNICAL DATA

Tray Specifications					Typical Running Conditions						
IPG Strip Length	7cm	11cm	18cm	24cm	7 cm IPG strip						
Focusing tray					IEF step	1	2	3	4	5	6
Electrode distance	6.5cm	10.2cm	17.1cm	22.7cm	Voltage (V)	150	300	600	1500	3000	300
Max. strip length	25.3cm	25.3cm	25.3cm	25.3cm	Time (H)	0.5	0.5	0.5	0.5	2.5	<20
IPG strip length	7cm	1cm	18cm	24cm	Volt-Hours	75	150	300	750	7500	-
Rehydration tray					18 cm IPG strip						
Max. strip length	24cm	24 cm	24cm	24cm	IEF step	1	2	3	4	5	6
Recommended volume for strip rehydration	3.5ml	5ml	8ml	12ml	Voltage (V)	300	600	1500	3000	300	
					Time (H)	0.5	1	1	12	<20	
					Volt-Hours	150	600	1500	36000	-	

* IPG strips are not supplied by Hercuvan. All measurement and typical running condition are based on Serva IPG BlueStrip.

ORDERING INFORMATION

Cat. No	SymphonyIEF Isoelectric Focusing				
EB-VES-SIEF	SymphonyIEF Flatbed IEF system for IPG strips and gels, with focusing and rehydration trays	EB-VES-SIEFKIT-115V	1D Combination package, includes EB-VES-SIEF, EB-CL-JAZZ, Harmony CS2320, 115V		
EB-CL-JAZZ-115V	Jazz Chiller system, -20°C to 100°C, including insulated tubing and clips, 115V	EB-VES-SIEFKIT-240V	1D Combination package, includes EB-VES-SIEF, EB-CL-JAZZ, Harmony CS2320, 240V		
EB-CL-JAZZ-240V	Jazz Chiller system, -20°C to 100°C, including insulated tubing and clips, 240V				
SIEF-CP	Cooling Platform for IEF system	SIEF-SNE	Replacement spring negative electrode	SIEF-T	Tank for SymphonyIEF
SIEF-PE	Replacement positive electrode	SIEF-RT	Rehydration tray	SIEF-L	Lid for SymphonyIEF, no cables
SIEF-NE	Replacement negative electrode	SIEF-FT	Focusing tray with adjustable electrodes	Harmony CS2320-110V	Consort power supply 3000V, 300mA, 300W, 110V
SIEF-EF	Replacement electrode frame	SIEF-FTPE	Focusing tray with adjustable positive electrodes	Harmony CS2320-230V	Consort power supply 3000V, 300mA, 300W, 230V
SIEF-SPE	Replacement spring positive electrode	SIEF-FTNE	Focusing tray with adjustable negative electrodes		

SymphonyBLOT Mini Blotting System

HIGHLIGHTS

- Integrated system utilizing universal tank and lid
- Hinged cassettes for even pressure or contact between gel and membrane
- 4 blot capacity
- Available in standard or high intensity options
- Rapid and simple cooling setup

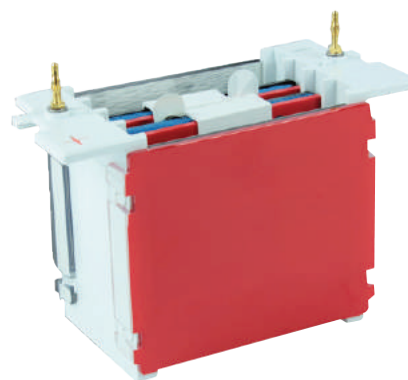


SymphonyBLOT Mini Blotting System

Convenience with integrated system utilizing universal tank and lid

SymphonyBLOT Mini Blotting System comprises both modules required for Slab Gel Electrophoresis and Blotting as well as accessories. The system offers a complete mini gel casting (10 x 10 cm), running and blotting system. Included in the blotting module are three interlocking cassettes and six fibre pads. The system uses coiled platinum electrodes to generate high intensity current and in conjunction with advanced cooling features, this allows rapid blotting in only 1-2 hours. By using the same universal base and lid, higher consistency can be achieved, as well as economical value.

The complete stand-alone unit EB-BS-VSPMINI for 10 x 10 cm electroblotting format, consists of SymphonyPAGE Mini tank and lid, blotting module, cassettes and fibre pads. Modules are interchangeable with SymphonyPAGE slab gel module. The hinged rigid cassettes allow rapid and simple setup to ensure even contact between the gel and membrane is maintained.



Hi-Intensity Blot Module consists of plate electrodes (2 cm apart), to generate a powerful electric field. This allows transfer capability for up to two 10 x 10 cm gels in as little as one hour.

TECHNICAL DATA

Specifications **SymphonyBLOT Mini**

Maximum gel size	8 x 8.5 cm
Gel capacity	4 mini gels
Buffer volume	1.2L maximum
Running conditions	100V (1-2 hours)

ORDERING INFORMATION

Cat. No **SymphonyBLOT Mini Blotting System**

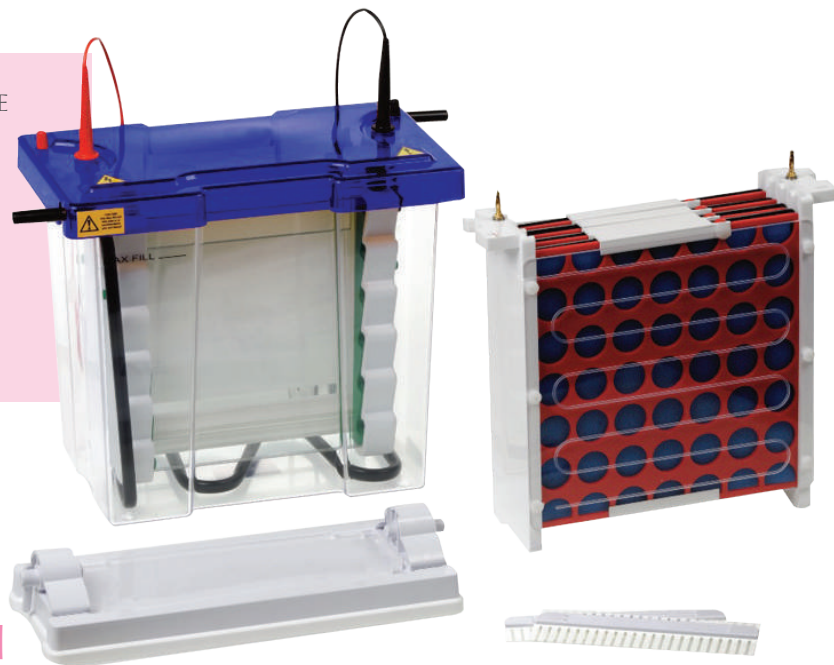
EB-BS-VSPMINICBS	Complete SymphonyBLOT Mini Blotting System, 10 x 10 cm gels: 1 x Mini Vertical Unit: PAGE module, 2 x 2 mm notched glass plates, 2 x 2 mm plain glass plates, 1 x dummy plate, 2 x combs (1 mm, 12 samples), 1 x casting base, silicone mat, cooling pack Plus 1 x Mini Standard Blotting module: Mini Platinum Wire Blotting Insert, 4 x 10 x 10 cm compression cassettes and 16 x fibre pads
EB-BS-VSPMINICBS-HI	Complete SymphonyBLOT Mini Blotting System, 10 x 10 cm gels: 1 x Mini Vertical Unit: PAGE module, 2 x 2 mm notched glass plates, 2 x 2 plain glass plates with 1 mm bonded spacers, 1 x dummy plate, 2 x combs (1 mm thick, 12 samples), 1 x casting base, silicone mat, cooling pack Plus 1 x High Intensity Blotting Module: internal blotting module, 2 x 10 x 10 cm compression cassettes and 8 x fibre pads

VSPMINIBL	Mini Blot Unit, 10 x 10 cm Stand-alone System: tank and lid, 4 cassettes, 8 fibre pads and cooling pack	VSPMINIBM-HI	Mini Blot High Intensity Module: 2 cassettes and 8 fibre pads
VSPMINIBL-HI	Mini Blot Unit, 10 x 10 cm High Intensity System: tank and lid, 2 cassettes, 8 fibre pads, cooling pack	VSPMINI-C	Mini Blot Cassette
VSPMINIBM	Mini Blot Module: 4 cassettes and 8 fibre pads	VSPMINI-F	Fibre pads (8/pk)

SymphonyBlot Maxi Blotting System

HIGHLIGHTS

- Same universal tank and lid for vertical PAGE and blotting
- Rigid, open design cassettes maximise current transfer and prevents 'shadow band' formation
- Colour-coded cassettes prevent polarity reversal



A symphony of integrated system for blotting of larger sample number

SymphonyBlot Maxi Blotting System comprises all necessary components for blotting vertical slab gels. The interchangeable modular inserts mean you can use the same universal tank and lid for both electrophoresis and blotting applications. The blotting module includes 4 interlocking cassettes and 8 fibre pads with capacity for up to 4 maxi gels and 16 mini gels. Two types of wire electrodes are available – standard insert with platinum which is sufficient for most routine electrophoresis at voltages as low as 35V and Hi-Intensity insert with coiled platinum plate electrodes which is just 3 cm apart, ideal for higher voltage transfers at 200V within 1-2 hours.

The detachable cooling coil can be connected to the laboratory water supply or a recirculating chiller to prevent buffer depletion and allows overnight transfers while maintaining low temperatures, crucial for protein stability especially during native transfers and high-intensity blots. The hinged rigid cassettes are easy to operate and provide even contact between gel and membrane.



**SymphonyBLOT Maxi
Standard Blotter**



**SymphonyBLOT Maxi
Hi-Intensity Blotter**

TECHNICAL DATA

Specifications	SymphonyBLOT Maxi
Maximum gel size	16 x 17.5 cm
Blotting capacity	1-4 blots
Buffer volume (outer tank)	5.3L
Blotting cassette dimensions	20 x 20 cm
Running conditions	100V, 5-20 hours

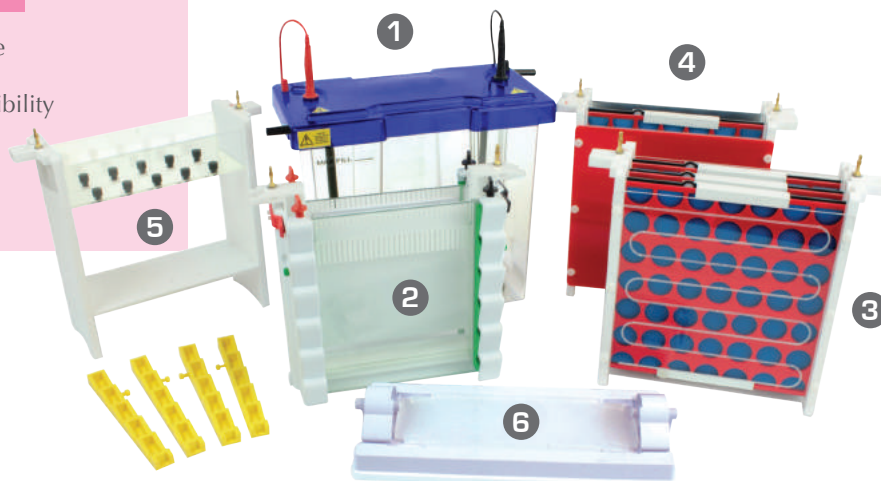
ORDERING INFORMATION

Cat. No	SymphonyBLOT Maxi Blotting System		
EB-VES -SWMAXICBS	Complete SymphonyBLOT Maxi Blotting System, 20 x 20 cm: 1 x W Maxi Vertical Unit: 2 x 4 mm notched glass plates, 2 x 4 mm plain glass plates with 1 mm bonded spacers, 1 x dummy plate, 2 x combs (1 mm, 24 samples), 1 x casting base, silicone mat, cooling pack plus 1 x Blotting Module: internal blotting module, 3 x compression cassettes for gel sizes up to 20 x 20 cm and 6 x fibre pads		
EB-VES -SWMAXICBS-HI	Complete SymphonyBLOT Maxi Blotting System, 20 x 20 cm: 1 x W Maxi Vertical unit: 2 x 4 mm notched glass plates, 2 x 4 mm plain glass plates with bonded spacers, 1 x dummy plate, 2 x combs (1 mm, 24 samples), 1 x casting base, silicone mat, cooling pack plus 1 x High Intensity Blotting Module: internal blotting module, 2 x compression cassettes for gel sizes up to 20 x 20 cm and 6 x fibre pads		
SWMAXIBL	W Maxi Blot Unit, 20 x 20 cm Stand-alone System: tank, lid, 4 x cassettes, 18 x fibre pads, cooling pack	SWMAXI-C	W Maxi Blot Cassette
		SWMAXI-F	W Maxi Fibre Pads (6/pk)
SWMAXIBL-HI	W Maxi High Intensity Blot Unit, 20 x 20 cm: 1 x cassette and 6 x fibre pads	SWMAXIEBM	W Maxi Blot Cassettes, 20 x 20 cm, 5 position, including 5 cassettes
SWMAXIBM	W Maxi Blot Module: 4 x cassettes and 18 x fibre pads		

SymphonyW Maxi Modular System

HIGHLIGHTS

- Save cost and reduced bench space
- User-friendly casting and reproducibility
- Suitable for large format and high-resolution applications



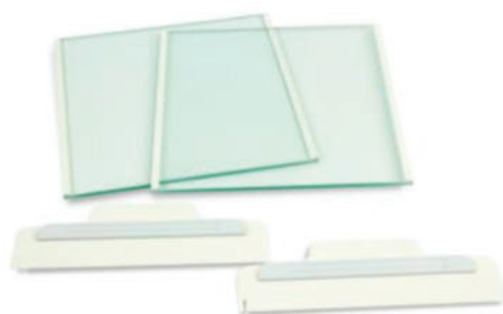
Interchangeable inserts for PAGE, tube gel and blotting applications

SymphonyW Maxi Modular System is a versatile system that allows multiple electrophoresis techniques to be performed in the same unit. There are 3 different interchangeable inserts for PAGE, capillary tube gel and blotting applications. The SymphonyW Maxi Modular System accommodates 20 x 20 cm gels and can be utilized as an individual, combination or complete modular systems. The complete modular system offer not only maximum value for money but also better consistency by using the same universal tank and lid.

The system is a fully integrated solution and allows combination of vertical PAGE with capillary tube gel IEF to perform 2D electrophoresis, followed by western transfer for enhanced sensitivity. The detachable internal cooling coil connects to either laboratory water supply or a recirculating chiller making it suitable for temperature sensitive separations and samples as well as high voltage runs to achieve high-resolution focusing for pI determination.

Components of SymphonyW Maxi Modular System:

- | | |
|--------------------|-------------------------------------|
| 1. Tank and lid | 4. Hi-intensity blotting module |
| 2. PAGE module | 5. Capillary electrophoresis module |
| 3. Blotting module | 6. Casting base |



IEF Conversion Kit for 18 cm IPG strips and tube gels. The kit comprises 1 set of plain glass plates with bonded spacers, 0.6 x 20 cm (WxH), 2 x 2D combs with one 3.5 mm marker lane and one 18 cm preparatory well.

ORDERING INFORMATION

Cat. No	SymphonyW Maxi Modular System		
EB-VES-SWMAXICES	SymphonyW Maxi, 20 x 20 cm, Complete Vertical Electrophoresis System: 1 x W Maxi Vertical Unit: PAGE insert, 2 x 4 mm notched glass plates, 2 x 4 mm plain glass plates with 1 mm bonded spacers, 1 x dummy plate, 2 x combs (1 mm, 24 samples), 1 x casting base, silicone mat, cooling pack plus 1 x Standard Blotting Module: W Maxi platinum wire blotting insert, 4 x compression cassettes for gels up to 20 x 20 cm and 18 x fibre pads plus 1 x Capillary Electrophoresis Module: internal running module for tube gels, capillary tubes, dummy ports plus 1 x W Maxi IEF Kit: 1 set of plain glass plates with bonded spacers, 0.6 x 20 cm (WxH) and 2 x 2D combs with one 3.5 mm marker lane and one 18 cm preparatory well		
EB-VES-SWMAXICES-HI	SymphonyW Maxi, 20 x 20 cm, Complete Vertical Electrophoresis System for High-Intensity Blotting: 1 x W Maxi Vertical Unit: PAGE insert, 2 x 4 mm notched glass plates, 2 x 4 mm plain glass plates with 1 mm bonded spacers, 1 x dummy plate, 2 x combs (1 mm, 24 samples), 1 x casting base, silicone mat, cooling pack plus 1 x High-Intensity Blotting Module: W Maxi plate electrode blotting insert, 4 x compression cassettes for gels up to 20 x 20 cm and 18 x fibre pads plus 1 x Capillary Electrophoresis Module: W Maxi tube gel insert, 100 x capillary tubes, 10 x dummy ports plus 1 x W Maxi IEF Kit: 1 set of plain glass plates with bonded spacers, 0.6 x 20 cm (WxH) and 2 x 2D combs with one 3.5 mm marker lane and one 18 cm preparatory well		
EB-VES-SWMAXI2DS	SymphonyW Maxi Complete 2D System: 1 x W Maxi Vertical Unit: PAGE insert, 2 x 4mm notched glass plates, 2 x 4 mm plain glass plates with 1 mm bonded spacers, 1 x dummy plate, 2 x combs (1 mm, 24 samples), 1 x casting base, silicone mat, cooling pack plus 1 x Capillary Electrophoresis Module: W Maxi tube gel insert, 100 x capillar tubes, 10 x dummy ports plus 1 x W Maxi IEF Kit: 1 set of plain glass plates with bonded spacers, 0.6 x 20 cm (WxH) and 2 x 2D combs with one 3.5 mm marker lane and one 18 cm preparatory well		
SWMAXITG	W Maxi Tube Gel Unit, 20 x 20 cm with tank and lid, glass capillary tubes, dummy ports and cooling pack	SWMAXICT	W Maxi Capillary Tubes, 100/pk
		SWMAXICT1.5	W Maxi Capillary Tubes, 100/pk
SWMAXITGM	W Maxi Tube Gel Module: glass capillary tubes and dummy ports	SWMAXIDP	W Maxi Dummy Ports, 10/pk

SymphonyPAGE Vertical Electrophoresis System Package Deals

HIGHLIGHTS

- We offer 3 types of package deals for SymphonyPAGE Vertical Electrophoresis Systems. The package deals come with full vertical systems and power supply to suit your budget.



SPMINISYS-ML300



VSPMINICBS-ML300



SPMAXITETRAD-ML500

ORDERING INFORMATION

Cat. No	SymphonyPAGE Package Deals
SPMINISYS-ML300	SymphonyPAGE Mini System, 10 x 10 cm gels comprising: <ul style="list-style-type: none"> • 2 glass plates with bonded 1 mm thick spacers, 2 combs (12 teeth), cooling pack, blanking plate and casting base • Melody300
VSPMINICBS-ML300	SymphonyPAGE Complete Mini, 10 x 10 cm gels , Vertical Electrophoresis & Blotting System, comprising: <ul style="list-style-type: none"> • 1x Mini Vertical Unit, EB-VES-SPMINISYS which includes: PAGE Module, 2x2mm thick notched glass plates, 2x2mm thick plain glass plates with 1mm thick bonded spacers, 1x blanking plate, 2x combs (1mm thick,12 samples), 1x casting base, silicone mat, cooling pack • 1x Standard Electroblotting Module, VSPMINIBM, SymphonyBLOT Mini Insert - including 4 cassettes, 16 foam pads • Melody300
SPMAXITETRAD-ML500	SymphonyW Maxi System, 20 x 20 cm gels comprising: <ul style="list-style-type: none"> • 2 x glass plates with bonded 1 mm spacers, 2 x 24 sample combs, cooling pack, dummy plate, casting base, external casting upstand, plus 2 x notched glass plates with 1 mm bonded spacers (2/pk) and 2 x 1mm 24-sample combs • Melody500

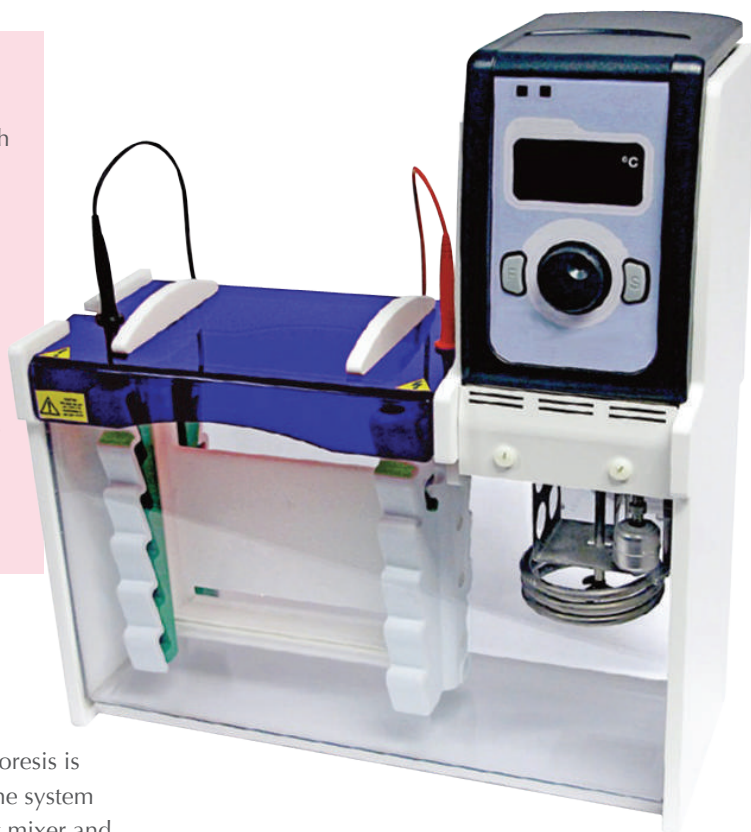
Hercuwan

Lab Systems

SymphonyDGGE Denaturing Gradient Gel Electrophoresis

HIGHLIGHTS

- Complete system for DNA mutation analysis
- Maximum 96-sample throughput compatible with microplates and thermal cycler blocks
- Four-screw vertical clamp design for rapid setup
- Higher resolution with large format 20 x 20 cm glass plates
- 100 ml gradient mixer with valve-controlled 50 ml reservoir and mixing chambers, able to make two 1 mm parallel denaturing gradient gels
- Accuracy of $\pm 0.02^\circ\text{C}$ with microprocessor-controlled temperature control unit



All-in-one system for different DGGE techniques

SymphonyDGGE Denaturing Gradient Gel Electrophoresis is a comprehensive system to detect DNA mutations. The system comprises a temperature control unit, stirrer, gradient mixer and casting accessories. The user-friendly vertical screw-clamp design allows rapid setup of denaturing PAGE gels. Various mutation detection techniques can be carried out with the efficient microprocessor controlled PID temperature control unit between ambient temperature and 70°C . Among the applications of the system are heteroduplex analysis (HA), parallel denaturing gradient gel electrophoresis (DGGE) and constant denaturing gradient gel electrophoresis (CDGE).

The integrated modular design provides great convenience for switching between different mutation detection techniques. The maximum 96-sample throughput enables detection of high mutation numbers within a few hours. The gradient mixer, SDGGE-GM100 is provided as standard for preparation and mixing of high and low density denaturant solutions. With the flat-base design and support handle, SDGGE-GM100 can be secured to a retort stand, providing an easy mount on a magnetic stirring plate. Not only that, the mixing chamber can accommodate a magnetic stirrer to form a linear gradient. An optional peristaltic pump is available for linear and reproducible gradient gels casting base and external casting upstand.



PAGE insert and cam-caster



Temperature control unit



Digital magnetic stirrer and power supply are available as additional accessories

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Lab Systems

ADVANCED CASTING AND SETUP MECHANISM

- Simplifies gel casting with newly designed vertical screw-clamp technology
- Eliminates time-consuming gel casting with just 4 screws and plate transfer
- Built-in inner buffer chamber within PAGE insert allows setup to be completed without heavy top tanks or buffer chambers
- Soft-silicone mat on the cam-caster base prevents leakage during gel casting

CONSISTENT AND OPTIMAL THERMAL CONTROL

- Combines buffer recirculation with a heat sensor and 1.4W heating element to assist efficient temperature control within $\pm 0.02^{\circ}\text{C}$
- Allows gel temperature to be set to the melting temperature (T_m) of the amplified DNA polymorphism or mutation of interest
- Clear and bright 4-digit 16 mm LED display for intuitive operation, 0.1°C resolution, 3 adjustable preset temperature
- Stirred buffer recirculation for temperature stability and uniformity

PROGRAMMABLE POWER SUPPLY OPTION

- Melody500: 500V, 800mA, 300W outputs
- Full versatility for different mutation detection techniques

SymphonyDGGE APPLICATIONS & BENEFITS

Description	DGGE	CGGE	Heteroduplex Analysis (HA)
SymphonyDGGE Applications	<ol style="list-style-type: none"> Determines the denaturing conditions required to identify unknown mutations down to one base pair difference between DNA strands Increasing denaturant concentrations melt DNA in a domain-specific manner. DNA domain with lowest T_m contains the mutation or polymorphism of interest. Requires parallel DGGE – resolve DNA samples at uniform temperature in gels containing formamide and urea denaturant gradient parallel to the direction of electrophoresis The higher GC content in the sample, the harder it melts, thus progressing further into the gel before stopping. 	<ol style="list-style-type: none"> Rapid screening method for multiple samples containing a known mutation DGGE is first required to determine optimal denaturing conditions for mutation identification Utilizes constant denaturant gel instead of denaturant gradient Provides higher efficiency 	<ol style="list-style-type: none"> Applied for difficult detection of homoduplex mutation by DGGE Denaturation and annealing of wild type and mutant DNA mixed together, typically within a PCR reaction Heteroduplexes melt at a lower denaturant concentration compared to wild type and mutant homoduplex molecules, enabling them to be identified by reduced mobility within the gel Requires parallel DGGE, or can be performed overnight in a TBE gel made from special high resolution acrylamide
Symphony-DGGE Benefits	<ol style="list-style-type: none"> SDGGE-GM100 gradient mixer and optional peristaltic pump simplify casting of denaturing gradient gels Newly designed insert and cam-caster prevent leakage during casting Microprocessor temperature control unit ensures consistent run temperature between $45-70^{\circ}\text{C}$ High resolution 20 x 20 cm format 	<ol style="list-style-type: none"> Newly designed insert and cam-caster provides leak-proof casting Optimal temperature control with microprocessor - controlled temperature unit Maximum 96-samples (48 samples per gel) 	<ol style="list-style-type: none"> Newly designed insert and cam-caster provides leak-proof casting High resolution 20 x 20 cm format Gradient mixer, SDGGE-GM100 eases DGGE operation Optimal temperature control

TECHNICAL DATA

W Maxi Insert And Tank		Temperature Control unit	
Max. number of gels	2 per run	Temperature control	PID
Plate dimensions (W x H)	20 x 20 cm	Operating temperature range	Ambient-100°C
Gel dimensions (W x H)	16 x 17.5 cm	Working temperature range (DGGE)	45-70°C
Spacer thicknesses	0.75, 1, 1.5, 2mm	Buffer recirculation mechanism	Stirring
Max. sample capacity	96 samples; 48 per gel	Temperature uniformity/stability at 37°C	±0.05/0.02°C
Available combs	1, 5, 10, 18MC, 36MC, 48; as per W Maxi unit	Setting/display resolution	0.1°C
Max. buffer volume	8.5L	Safety	Fluid-level float switch; isolated; IEC1010/CE
Unit dimension (W x D x H)	40.5 x 17 x 44cm	Stored temperature values	4
Weight	8 kg	Heater power at 230V/ 110V AC	1.4/ 1.3kW

Recommended Power Supply Melody500

Voltage	500V total
Current	800mA
Power	300W

Gradient Mixer

Total volume	100 ml
Volume of reservoir & mixing chambers	50 ml
Internal diameter of outlet port	2mm

ORDERING INFORMATION

Cat. No

SymphonyDGGE Denaturing Gradient Gel Electrophoresis System

EB-VES-SDGGE- 100V	SymphonyDGGE System, 20 x 20 cm: temperature control unit, cam-casting base, glass plates with 1 mm bonded spacers, 2 x 24-sample combs and gradient mixer, 100V
EB-VES-SDGGE- 240V	SymphonyDGGE System, 20 x 20 cm: temperature control unit, cam-casting base, glass plates with 1 mm bonded spacers, 2 x 24-sample combs and gradient mixer, 240V

SDGGE-TC-115V	Temperature control unit, 115V	SDGGE-L	Lid for SymphonyDGGE
SDGGE-TC-240V	Temperature control unit, 240V	SDGGE-PP	Single channel peristaltic pump
SDGGE-GM100	Gradient mixer, 100 ml	SDGGE-PPS16	Silicon tube 1.8", 25 ft. for peristaltic pump
SDGGE-KIT	SymphonyDGGE package: SDDGE, TT-DMS-18, SDGGE-PP, SDGGE-PPS16, Melody500	TT-DMS-18	CycloneSpin Digital Magnetic Stirrer
SDGGE-T	Outer tank for SymphonyDGGE, no running or module controller	EP-PS-ML500-110V	Melody500, 500V, 800mA, 300W, AC110V
		EP-PS-ML500-230V	Melody500, 500V, 800mA, 300W, AC230V

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Lab Systems

Jazz Chiller System

HIGHLIGHTS

- Quick and easy assembly
- Intuitive display
- 5 litre tank with drain tap
- Cooling power 140W at 0°C
- Broad temperature range from -20 to 100°C
- Relay control for refrigeration (on/off)
- Safety features such as visual and audible alarm
- User calibration function for optimum accuracy at the required operating temperature

Ideal for maintaining operating temperatures during IEF

Jazz Chiller can be utilized to maintain optimal operating temperatures of IPG strips (20° C) and precast gels (4°C) during IEF (isoelectric focusing) application. It is a recirculating chiller with easy and quick assembly. Simply connect the chiller to the cooling plate via snap-lock connectors.

The thermostat is mounted readily on the refrigerator with insulated tubing and clips. Jazz Chiller is suitable for both immersing samples and circulating temperature controlled fluid to external devices. It is equipped with an immersion thermostat that integrates Intelligent Control Optimisation for adaptive intelligent PID temperature control. Jazz Chiller also comes with a robust integral pump, intuitive timer function and variable high temperature alarm setting. For convenience and safety purpose, the temperature range and heater power are automatically limited based on the liquid type selected.



Clear digital display and intuitive controls with intelligent PID temperature control

TECHNICAL DATA

Specifications

Jazz Chiller System

Temperature range	-20 to 100°C
Setting display resolution	0.01 – 0.1°C
Temperature display	4 digit LED
Temperature control	PID
Cooling power	140 W at 0°C
Pump capacity flow rate	16L/ min
Pump capacity flow pressure (bar)	0.21
Bath opening /bath depth (W x L / D cm)	120 x 155 mm / 155 mm
Pump connections	M6 standard with options available
Temperature stability	± 0.1°C
Filling volume (L)	5
Refrigerant stage 1	R134a
Filling volume refrigerant stage 1 (g)	140
Global warming potential for R134a	1430
Carbon dioxide equivalent stage 1 (t)	0.2
Heating capacity (kW)	1.3
Visual and audible alarm	Yes
Ambient temperature	5-40°C
Bath tank	Stainless steel
Bath cover	Stainless steel
Cooling of compressor	Air
Included with each unit	Tube fitting + 2 x 1 m insulated tubing
Weight (kg)	29
Dimension (W x D x H)	24.5 x 43 x 64

ORDERING INFORMATION

Cat. No

Jazz Chiller System

EB-CL-JAZZ-115V	Jazz Chiller system, -20 to 100°C, including insulated tubing and clips, 115V
EB-CL-JAZZ-220V	Jazz Chiller system, -20 to 100°C, including insulated tubing and clips, 220V

Power Supply Specification SELECTION GUIDE



Mini		Midi	Maxi	Maxi
Rhythm300	Rhythm500	Melody300	Melody500	Melody3000

Output range

Volt	10-300V	10-500V	2-300V	5-500V	5-300V
Current	10-400mA	10-400mA	1-700mA	1-800mA	10-3000mA
Power	60W max.	120W max.	150W	300W	300W
Resolution	1V/ 1mA	1V/ 1mA	1V/ 1mA/ 1W	1V/ 1mA/ 1W	1V/ 1mA/ 1W
Type of output	Constant voltage or constant current				
Automatic crossover	No	No	Yes	Yes	Yes
Timer	1-999 min with alarm; continuous		1-999 min with alarm; continuous	Constant mode: 1-999 min with alarm; continuous. Programmable mode: 1-999 min with alarm; continuous.	
Pause/resume function	No	Yes	Yes	Yes	Yes
Display	3-digit LED		3-digit LED	2.6" LCD, 2-line	2.6" LCD, 2-line
Programmable methods	No	No	Up to 30 programs, each with 6 steps		
Automatic recovery upon power failure	No-load detection, over-voltage, current & temperature protection, max. power, output detection, shrouded plugs and sockets		No-load detection, sudden load change detection, overload detection; ground leak detection, over-voltage, current & temperature protection; max. power output detection, shrouded plugs and sockets		
Safety features	No	Yes	Yes	Yes	Yes
Operating conditions	Ambient-40°C, ≤95% humidity		Ambient-40°C, ≤95% humidity		
Stackable	No	Yes	Yes	Yes	Yes
No. of output jacks	2 sets in parallel	2 sets in parallel	4 sets in parallel	4 sets in parallel	4 sets in parallel
Regulatory conformity	EN-61010-1; CE	EN-61010-1; CE	EN-61010-1; CE	EN-61010-1; CE	EN-61010-1; CE
Dual voltage	Yes, 100-240V AC			Yes, 100-240V AC	
Construction	Polycarbonate housing with aluminium base		Flame retardant ABS-plate design with aluminium base		
Dimension (W x D x H)	140 x 191 x 84 mm			190 x 305 x 95 mm	
Weight	1 kg	2.5 kg	2.5 kg	2.5 kg	2.5 kg

Power Supply Selection Guide

Apparatus Format	Sample Size/Quantity	Recommended Power Supply
Agarose Horizontal Gel Electrophoresis		
ConcertoGEL Midi	100 x 100 x 5 mm, max.	Rhythm300, Rhythm500 or Melody300
ConcertoGEL Classic	150 x 150 x 5 mm, max.	Rhythm300, Rhythm500 or Melody300
ConcertoGEL Classic XL	150 x 250 x 5 mm, max.	Rhythm300, Rhythm500 or Melody300
ConcertoGEL Maxi	200 x 200 x 5 mm, max.	Rhythm300, Rhythm500 or Melody300
Polyacrylamide Vertical Gel Electrophoresis		
SymphonyPAGE Mini	80 x 85 x 1 mm, 4 gels	Rhythm300, Rhythm500 or Melody300
SymphonyW Maxi	160 x 175 x 1 mm, 2-4 gels	Rhythm500 or Melody500
Western Blotting		
SymphonyBLOT Mini	80 x 85 x 1 mm, 4 gels	Melody300, Melody3000
SymphonyBLOT Mini Stand Alone	100 x 100 x 2/5mm, 1 gel	Melody3000
SymphonyBLOT Maxi	160 x 175 x 1 mm, 4 gels	Melody300, Melody500, Melody3000
SymphonyBLOT Maxi Stand Alone	200 x 200 x 2/5mm, 1 gel	Melody3000
IEF, First-dimension 2-D		
Symphony IEF	3 x 240 x 1 mm, 12 strips max	HarmonyCS2320
W Maxi Tube Gel Unit	180 x 1/15 mm tubes, 10 max.	HarmonyCS3150
Mutation Detection		
SymphonyDGGE	160 x 175 x 1 mm, 2 gels	Melody500

*Sizes shown refer to those commonly used in the corresponding apparatus. Refer to product manuals for running conditions for additional sizes.

Rhythm Power Supply Series

HIGHLIGHTS

- Economical with small footprint saves bench space
- Precise setting with 1V and 1mA increment
- Two pairs of parallel power terminals accommodate two electrophoresis units to be run simultaneously
- Enhanced built-in safety features
- Clear and bright 3-digit LED
- Alarm function
- Robust and easy-to-clean polycarbonate housing



Compact and economical power supplies for DNA, RNA and protein electrophoresis

Rhythm300 & 500

Hercuvan's extensive Power Supply Series range accommodates various electrophoresis techniques, from routine horizontal DNA agarose gel electrophoresis to PAGE applications as well as first dimension IEF using IPG strips and DGGE. Safety is assured as all the power supplies adhere to IEC 61010. The compact design makes it suitable for labs of any size with intuitive operation.

The newly improved Rhythm power supply series consists of compact and economical units for DNA/RNA (horizontal) and protein (vertical) electrophoresis systems. The operation is simple with 2 steps to set a programmable change in voltage/ current/ time. Simply press MODE and program STEP 1 and STEP 2 to the desired setting, followed by START. The maximum constant voltage up to 300 or 500V and maximum constant current output of 400mA makes them capable of running horizontal ConcertoGEL and vertical SymphonyPAGE systems. Rhythm500 can be used to run SymphonyW Maxi system and vertical gel tanks from other manufacturers.

ORDERING INFORMATION

Cat. No	Rhythm Power Supply Series
EB-PS-RT300-110V	Rhythm300 power supply 300V, 400mA, 60W, AC 110V
EB-PS-RT300-230V	Rhythm300 power supply 300V, 400mA, 60W, AC 230V
EB-PS-RT500-110V	Rhythm500 power supply 500V, 400mA, 120W, AC 110V
EB-PS-RT500-230V	Rhythm500 power supply 500V, 400mA, 120W, AC 230V
EB-PS-CAB	Replacement cables, 2/pk
EB-PS-CAB2	Replacement unit cables, 2/pk
EB-PS-4-4	Power supply adapters, 4 mm to 4 mm
EB-PS-4-2	Power supply adapters, 4 mm to 2 mm
EB-PS-2-4	Power supply adapters, 2 mm to 4 mm

Melody Power Supply Series

HIGHLIGHTS

- Built-in preset protocols and save up to 30 programs
- Bright and clear LED display
- Operable at constant or programmable setting simultaneously (Melody500 and Melody3000)
- Run time extendable to 999 mins for overnight transfers (Melody3000)

Multipurpose power supplies for DNA, RNA and protein electrophoresis



Melody300 is a multipurpose unit suitable for horizontal ConcertoGEL and vertical SymphonyPAGE Mini systems. With 300V, 700mA and 150W, the unit has nearly twice the current and power of equivalent leading unit in the market.

Melody500 operates with maximum 500V, 800mA and 300W, making it one of the most versatile unit suitable for wide range of applications such as horizontal, vertical and DGGE.

Melody3000 is ideal for high current electrophoresis applications at 300V, 3000mA and 300W. It is suitable for blotting units with high-intensity plate electrodes, especially SymphonyBLOT Maxi.

TECHNICAL DATA

Specifications	Melody300	Melody500	Melody3000
Max. voltage	2-300V/ 1V	5-500V/1V	5-300V/ 1V
Max. current	1-700mA/ 1mA	1-800mA/ 1mA	10-3000mA/ 1mA
Max. watt	150W/ 1W	300W/ 1W	300W/ 1 W
Output type		Constant voltage/Current power	
Program		30 program files, pre-setting	
Timer		Up to 6-step	
Programmable mode		Constant mode 999 min with alarm	
Rated voltage		999 min with alarm 100-240V	

ORDERING INFORMATION

Cat. No	Melody Power Supply Series
EB-PS-ML300-110V	Melody300 Power Supply, 300V, 700mA, 150W, AC 110V
EB-PS-ML300-230V	Melody300 Power Supply, 300V, 700mA, 150W, AC 230V
EB-PS-ML500-110V	Melody500 Power Supply, 500V, 800mA, 300W, AC 110V
EB-PS-ML500-230V	Melody500 Power Supply, 500V, 800mA, 300W, AC 230V
EB-PS-ML3000-110V	Melody3000 Power Supply, 300V, 3000mA, 300W, AC 110V
EB-PS-ML3000-230V	Melody3000 Power Supply, 300V, 3000mA, 300W, AC 230V

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Lab Systems

HarmonyCS1450 Consort Power Supply

HIGHLIGHTS

- Intuitive setting with real time clock date and time
4 available languages
- Various running modes; simple mode, 9x9
method programming mode, voltage ramp mode,
timer mode
- Firmware updates via USB interface and feature
requests are available
- Battery back up system for real time clock date
and time to keep run logs
- Automatic cross-over
- Automatic recovery after power failure
- Automatically store up to 100 hours of runs
in data-logging
- Free data acquisition software for PC
available for data transfer to analyse
stored run details
- Can be remotely controlled by a computer
using special commands
- Password protection
- Safety features include ground leakage
detection, overload protection, no-load
detection, smooth voltage rise and
isolated communication



Suitable for horizontal and vertical electrophoresis applications with smaller tanks

HarmonyCS1450 Consort Power Supply is designed for horizontal and vertical electrophoresis with smaller tanks as well as electroelution applications. During runs, all useful information is shown on screen for easy setup. There is a Simple Mode where the power supply can be set to desired parameters and press Run. Moreover, HarmonyCS1450 comes with firmware updates via USB interface to ensure convenient and beneficial improvements in the future. Safety features are abundant coupled with robustness, you can utilize HarmonyCS1450 without worry.

TECHNICAL DATA

Specifications	HarmonyCS1450 Consort Power Supply
Voltage	0-400V
Current	0-500mA
Power	0-50W
Parameter range	1-100%
Timer	0-99h 59min
Volt-Hours	0-99.99kVh
Display	Graphical
Setup resolution	1V, 1mA, 1W
Programs	9x9 set of parameters
Outputs	4 in parallel, 4 mm sockets
Min. load resistance	30 Ω
Ground leakage detection	Yes
Overload detection	Yes
Computer control	Yes
Password protection	Yes
Data-logging	3600 values
Interval	1-60 sec
Real time clock	Yes
USB interface	Yes
Ambient temperature	0-40°C
Relative humidity	0-95%, non-condensing
Power requirements	AC 210-250V, 50/60 Hz, 75W AC 100-125V, 50/60 Hz, 75W
Dimensions (WxDxH)	24 x 20 x 13 cm
Weight	3 kg

ORDERING INFORMATION

Cat. No	HarmonyCS1450 Consort Power Supply
EB-CPS-H1450-110V	HarmonyCS1450 Consort Power Supply
EB-CPS-H1450-230V	HarmonyCS1450 Consort Power Supply

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Lab Systems

HarmonyCS2000 Consort Power Supply

HIGHLIGHTS

- 4 available languages
- Various running modes; simple mode, 9x9 method programming mode, voltage ramp mode, timer mode
- Firmware updates via USB interface and feature requests are available
- Battery back up system for real time clock date and time to keep run logs
- Automatic cross-over
- Automatic recovery after power failure
- Automatically store up to 100 hours of runs in data-logging
- Free data acquisition software for PC available for data transfer to analyse stored run details
- Can be remotely controlled by a computer using special commands
- Password protection
- Safety features include ground leakage detection, overload protection, no-load detection, smooth voltage rise and isolated communication



Mid-power range ideal for larger tanks or multiple smaller tanks

HarmonyCS2000 Consort Power Supply Series are durable appropriate for applications such as horizontal, vertical and electroelution. There are 4 models under this series, each with different specifications to suit customers' needs. The HarmonyCS2310 can also be used for mini gel blotting. Featuring intuitive graphic display with useful information, setting up is easy and fast. Packed with multiple safety features, you can use the consort power supply with peace of mind.

TECHNICAL DATA

Specifications	HarmonyCS2000 Consort Power Supply Series			
	HarmonyCS2310	HarmonyCS2650	HarmonyCS2230	HarmonyCS2320
Voltage	0-300V	0-600V	0-1500V	0-3000V
Current	0-1000mA	0-500mA	0-300mA	0-150mA
Power	0-150W	0-150W	0-150W	0-150W
Parameter range	1-100%	1-100%	1-100%	1-100%
Timer	0-99h 59min	0-99h 59min	0-99h 59min	0-99h 59min
Volt-Hours	0-99.99kVh	0-99.99kVh	0-99.99kVh	0-99.99kVh
Display	Graphical	Graphical	Graphical	Graphical
Setup resolution	1V, 1mA, 1W	1V, 1mA, 1W	1V, 1mA, 1W	1V, 1mA, 1W
Measurement resolution	1V, 1mA, 0.1W	1V, 0.1mA, 0.1W	1V, 0.1mA, 0.1W	1V, 0.1mA, 0.1W
Programs	9x9 set of parameters	9x9 set of parameters	9x9 set of parameters	9x9 set of parameters
Outputs	4 in parallel, 4 mm sockets	4 in parallel, 4 mm sockets	4 in parallel, 4 mm sockets	4 in parallel, 4 mm sockets
Min. load resistance	10 Ω	30 Ω	300 Ω	600 Ω
No-load detection	Yes	Yes	Yes	Yes
Ground leakage detection	Yes	Yes	Yes	Yes
Overload detection	Yes	Yes	Yes	Yes
Computer control	Yes	Yes	Yes	Yes
Password protection	Yes	Yes	Yes	Yes
Data-logging	3600 values	3600 values	3600 values	3600 values
Interval	1-60 sec	1-60 sec	1-60 sec	1-60 sec
Real time clock	Yes	Yes	Yes	Yes
USB interface	Yes	Yes	Yes	Yes
Ambient temperature	0-40°C	0-40°C	0-40°C	0-40°C
Relative humidity	0-95%, non-condensing	0-95%, non-condensing	0-95%, non-condensing	0-95%, non-condensing
Power requirements	AC 210-250V, 50/60Hz, 200W AC 100-125V, 50/60Hz, 200W	AC 210-250V, 50/60Hz, 200W AC 100-125V, 50/60Hz, 200W	AC 210-250V, 50/60Hz, 200W AC 100-125V, 50/60Hz, 200W	AC 210-250V, 50/60Hz, 200W AC 100-125V, 50/60Hz, 200W
Dimensions (WxDxH)	24 x 20 x 13 cm	24 x 20 x 13 cm	24 x 20 x 13 cm	24 x 20 x 13 cm
Weight	6 kg	6 kg	6 kg	6 kg

ORDERING INFORMATION

Cat. No	HarmonyCS2000 Consort Power Supply Series
EB-CPS-H2310-110V	HarmonyCS2310 Consort Power Supply
EB-CPS-H2310-230V	HarmonyCS2310 Consort Power Supply
EB-CPS-H2650-110V	HarmonyCS2650 Consort Power Supply
EB-CPS-H2650-230V	HarmonyCS2650 Consort Power Supply
EB-CPS-H2230-110V	HarmonyCS2230 Consort Power Supply
EB-CPS-H2230-230V	HarmonyCS2230 Consort Power Supply
EB-CPS-H2320-110V	HarmonyCS2320 Consort Power Supply
EB-CPS-H2320-230V	HarmonyCS2320 Consort Power Supply

HarmonyCS3000 (300-1200V) Consort Power Supply

HIGHLIGHTS

- Various running modes; simple mode, 9x9 method programming mode, voltage ramp mode, timer mode
- 4 available languages
- Firmware updates via USB interface and feature requests are available
- Battery back up system for real time clock date and time to keep run logs
- Automatic cross-over
- Automatic recovery after power failure
- Automatically store up to 100 hours of runs in data-logging
- Free data acquisition software for PC available for data transfer to analyse stored run details
- Can be remotely controlled by a computer using special commands
- Password protection
- Safety features include ground leakage detection, overload protection, no-load detection, smooth voltage rise and isolated communication



High-power range ideal for blotting, horizontal and vertical electrophoresis

HarmonyCS3000 Consort Power Supply Series comprises 3 models that are suitable for most horizontal, vertical electrophoresis, electroelution and blotting. Multiple gels can be run with this series. Applications requiring higher currents can be run with HarmonyCS3150. The series is manufactured with solid and durable material making it long-lasting.

TECHNICAL DATA

Specifications	HarmonyCS3020	HarmonyCS3610	HarmonyCS3150
Voltage	0-300V	0-600V	0-1200V
Current	0-2000mA	0-1000mA	0-500mA
Power	0-300W	0-300W	0-300W
Parameter range	1-100%	1-100%	1-100%
Timer	0-99h 59min	0-99h 59min	0-99h 59min
Volt-Hours	0-99.99kVh	0-99.99kVh	0-99.99kVh
Display	LCD, 2x16 characters	LCD, 2x16 characters	LCD, 2x16 characters
Setup resolution	1V, 1mA, 1W	1V, 1mA, 1W	1V, 1mA, 1W
Measurement resolution	1V, 0.1mA, 0.1W	1V, 0.1mA, 0.1W	1V, 0.1mA, 0.1W
Programs	9x9 set of parameters	9x9 set of parameters	9x9 set of parameters
Outputs	4 (4 mm sockets)	4 (4 mm sockets)	4 (4 mm sockets)
Min. load resistance	5Ω	15 Ω	70 Ω
No-load detection	Yes	Yes	Yes
Ground leakage detection	Yes	Yes	Yes
Overload detection	Yes	Yes	Yes
Computer control	Yes	Yes	Yes
Password protection	Yes	Yes	Yes
Data-logging	3600 values	3600 values	3600 values
Interval	1-60 sec	1-60 sec	1-60 sec
Real time clock	Yes	Yes	Yes
USB interface	Yes	Yes	Yes
Ambient temperature	0-40°C	0-40°C	0-40°C
Relative humidity	0-95%, non-condensing AC 210-250V, 50/60Hz, 360W AC 100-125V,	0-95%, non-condensing AC 210-250V, 50/60Hz, 360W AC 100-125V,	0-95%, non-condensing AC 210-250V, 50/60Hz, 360W AC 100-125V,
Power requirements	50/60Hz, 360W	50/60Hz, 360W	50/60Hz, 360W
Dimensions (WxDxH)	31 x 26 x 13 cm	31 x 26 x 13 cm	31 x 26 x 13 cm
Weight	10 kg	10 kg	10 kg

ORDERING INFORMATION

Cat. No	HarmonyCS3000 Consort Power Supply Series
EB-CPS-H3020-110V	HarmonyCS3020 Consort Power Supply
EB-CPS-H3020-230V	HarmonyCS3020 Consort Power Supply
EB-CPS-H3610-110V	HarmonyCS3610 Consort Power Supply
EB-CPS-H3610-230V	HarmonyCS3610 Consort Power Supply
EB-CPS-H3150-110V	HarmonyCS3150 Consort Power Supply
EB-CPS-H3150-230V	HarmonyCS3150 Consort Power Supply

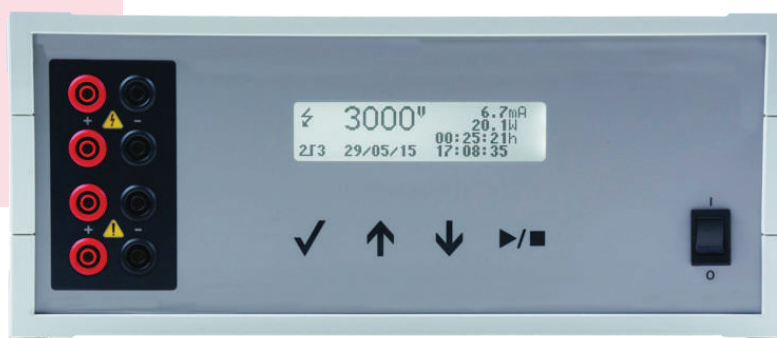
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Lab Systems

HarmonyCS3000 (3000-6000V) Consort Power Supply

HIGHLIGHTS

- Various running modes; simple mode, 9x9 method programming mode, voltage ramp mode, timer mode
- 4 available languages
- Firmware updates via USB interface and feature requests are available
- Battery back up system for real time clock date and time to keep run logs
- Automatic cross-over
- Automatic recovery after power failure
- Automatically store up to 100 hours of runs in data-logging
- Free data acquisition software for PC available for data transfer to analyse stored run details
- Can be remotely controlled by a computer using special commands
- Password protection
- Safety features include ground leakage detection, overload protection, no-load detection, smooth voltage rise and isolated communication



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High-power range ideal for blotting, horizontal and vertical electrophoresis

HarmonyCS3000 (3000-6000V) Consort Power Supply Series is designed for high voltage applications as well as IEF (Isoelectric Focusing), DNA sequencing, horizontal and vertical electrophoresis. The units have a special low current mode for IEF applications.

TECHNICAL DATA

Specifications

	HarmonyCS3330	HarmonyCS3620
Voltage	0-3000V	0-6000V
Current	0-300mA	0-150mA
Power	0-300W	0-300W
Parameter range	1-100%	1-100%
Timer	0-99h 59min	0-99h 59min
Volt-Hours	0-99.99kVh	0-99.99kVh
Display	LCD, 2x16 characters	LCD, 2x16 characters
Setup resolution	1V, 1mA, 1W	1V, 1mA, 1W
Measurement resolution	1V, 0.1mA, 0.1W	1V, 0.1mA, 0.1W
Resolution IEF mode	1V, 0.01mA, 0.01W	1V, 0.01mA, 0.01W
Programs	9x9 set of parameters	9x9 set of parameters
Outputs	4 (4 mm sockets)	4 (2 mm sockets)
Min. load resistance	600 Ω	1200 Ω
IEF mode	Yes	Yes
No-load detection	Yes	Yes
Ground leakage detection	Yes	Yes
Overload detection	Yes	Yes
Computer control	Yes	Yes
Password protection	Yes	Yes
Data-logging	3600 values	3600 values
Interval	1-60 sec	1-60 sec
Real time clock	Yes	Yes
USB interface	Yes	Yes
Ambient temperature	0-40°C	0-40°C
Relative humidity	0-95%, non-condensing	0-95%, non-condensing
Power requirements	AC 210-250V, 50/60Hz, 360W	AC 210-250V, 50/60Hz, 360W
Dimensions (WxDxH)	AC 100-125V, 50/60Hz, 360W	AC 100-125V, 50/60Hz, 360W
Weight	31 x 26 x 13 cm 10 kg	31 x 26 x 13 cm 10 kg

ORDERING INFORMATION

Cat. No	HarmonyCS3000 Consort Power Supply Series
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EB-CPS-H3330-110V	HarmonyCS3330 Consort Power Supply
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EB-CPS-H3330-230V	HarmonyCS3330 Consort Power Supply
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EB-CPS-H3620-110V	HarmonyCS3620 Consort Power Supply
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EB-CPS-H3620-230V	HarmonyCS3620 Consort Power Supply
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LAB WARE



SERIES



X-Blu UHC Western Blot Film

HIGHLIGHTS

- High performance, contrast and sensitivity
- Low background
- Light blue base
- Publication quality
- Suitable for ¹⁴C, ³²P, ³³P, ¹²⁵I, ³⁵S

High Performance, Contrast and Sensitivity

X-Blu UHC Western Blot Film is an autoradiography film suitable for detection and documentation of ECL-based Western Blots, chemiluminescent nucleic acid or protein applications such as Northern and Southern blotting. The light blue base X-ray film provides optimized balance of ultra-high contrast and sensitivity with low background. It is also coated on both sides (double emulsion) which provides enhanced quality and performance. Clear and sharp images of publication quality can be obtained with X-Blu UHC Western Blot Film.



ORDERING INFORMATION

Cat. No.	X-Blu UHC Western Blot Film
LW-UHC5x7	X-Blu UHC Western Blot Film, 5 x 7 in. (127 x 178 mm), 100 sheets
LW-UHC8x10	X-Blu UHC Western Blot Film, 8 x 10 in. (203 x 254 mm), 100 sheets

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Lab Systems

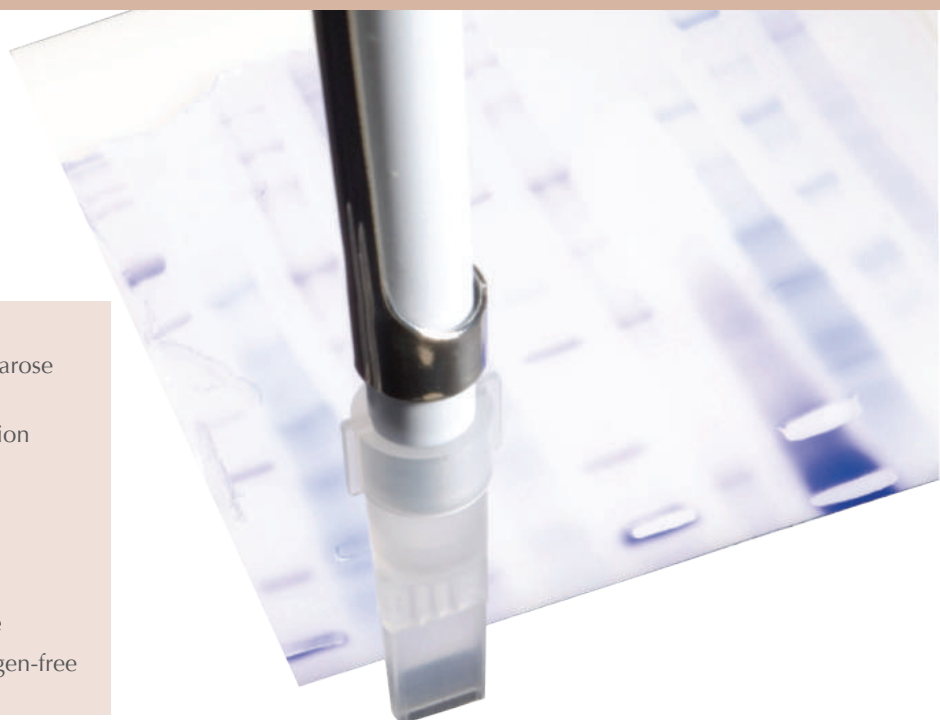
Disposable Gel Cutting Tips

HIGHLIGHTS

- Specially designed to excise bands from agarose and protein gels
- Easy and convenient with one-hand operation
- Avoid scalpel damage to gel tray and transilluminators
- Push button gel and tip release mechanism
- Suitable for standard 1000µl pipettes
- Autoclavable, sterile versions also available
- Certified DNase-free, RNase-free and Pyrogen-free

Convenient and safe for gel cutting

Hercuvan Disposable Gel Cutting Tips are specially designed to offer convenience and user-friendly operation to excise nucleic acid and protein bands from gels. It allows safe band removal and free from contamination. Furthermore, using sharp scalpels may damage the transilluminators and gel trays. The gel band is neatly extracted and contained in the tip, followed by dispensing into a tube for downstream application or analysis.



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ORDERING INFORMATION

Cat. No.	Disposable Gel Cutting Tips
LW-GCT4	Disposable Gel Cutting Tips, 4mmx 1mm, 250pcs/bag
LW-GCT4RACK	Disposable Gel Cutting Tips, 4mmx 1mm, 5 racks of 48pcs
LW-GCT6.5	Disposable Gel Cutting Tips, 6.5mmx 1mm, 250pcs/bag
LW-GCT6.5RACK	Disposable Gel Cutting Tips, 6.5mmx 1mm, 5 racks of 48pcs

CELL CULTURE AND PROTEIN EXPRESSION

Sterilization

TT-825-S/TT-825-L Infrared Micro-Sterilizer
 TT-300-GBS/TT-300L-GBS Glass Bead Sterilizer



Cell culture

TT-SSMS-200 CellaSpin Slow Speed Magnetic Stirrer
 TT-60-SI/ TT-60-MSI/ TT-60-RSI InQShake Shaking Incubator
 TT-70-2/TT-60-2 Microplate Incubator
 TT-100C/TT-100H Thermo Shaker Incubator
 TT-70-2-S/TT-60-4-S Microplate Thermo Shaker Incubator



CELL HARVESTING AND DNA/RNA/PROTEIN SAMPLE PRETREATMENT

Liquid handling

ElitePro 2.0 Single Channel Adjustable Volume Pipette
 ElitePro Multi-Channel Adjustable Volume Pipette
 ElitePro FlexiStand



Sample resuspension, centrifugation, cell harvesting

TT-6000/ TT-3K-10K Mini-Centrifuge
 TT-15000/TT-15000R High Speed Centrifuge



Sample thermostating and incubation

TT-100-DHT/TT-100-DHC Dry Bath Incubator
 TT-100HL/CTL Mini Dry bath Incubator
 TT-TWB-2L/4L/5L/6L Marina Thermostatic Water Bath



Sample pretreatment

TT-13K Mini Handheld Homogenizer
 TT-30K Digital Handheld Homogenizer



Sample concentration

TT-200-1-SC/TT-200-2-SC/
 TT-200-96SC/TT-200-VSC Sample Concentrator



DNA/RNA/PROTEIN PURIFICATION

High speed centrifugation for DNA extraction

TT-14500 PRO Microcentrifuge



Centrifugation for DNA extraction in plates, small scale expression, protein concentration

TT-2500 Microplate Centrifuge



Buffer preparation

TT-DMS-18 CycloneSpin Digital Magnetic Stirrer
 TT-2800-VVM Mini Vortex Mixer
 TT-254-VM VeloTEX Vortex Mixer



DNA/ RNA/ PROTEIN QUANTITATION

Concentration analysis

ND-2800-ODJ Nucleic Acid Analyzer



ND-3800-OD Microspectrophotometer



PCR

DNA amplification

GS-96/ 60/ 9677/ 384/ 2x48/ 4830/ 322/ 96 PRO Gradient Touch Thermal Cycler



GS-16 myGenix Personal Thermal Cycler

Quantitative PCR

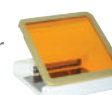
GS-Q8 Pico Traveller Real-time PCR System



GEL DOCUMENTATION

DNA/RNA documentation

TT-BLT-470 SafeViewer Blue Light Transilluminator



Disposable Gel Cutting Tips



ENZYME-LINKED IMMUNOSORBENT ASSAY (ELISA)

Sample preparation

ElitePro Multi-Channel Adjustable Volume Pipette
ElitePro FlexiStand



Sample concentration

ND-2800-ODJ Nano DOT Nucleic Acid Analyzer
ND-3800-OD Nano DOT Microspectrophotometer



Sample incubation

TT-60-MSI InQShake Microplate Shaking Incubator
TT-70-2-S/TT-60-4-S Microplate Thermo Shaker Incubator



Washing

NC-100 Nano Clean Microplate Washer



ELISA assay

NS-100 Nano Scan Microplate Reader



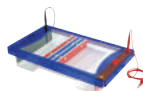
DNA/RNA ELECTROPHORESIS

Horizontal electrophoresis

TT-HES-1 MiniGEL
 ConcertoGEL Midi
 ConcertoGEL Classic/
 Classic Trio/ Classic XL



CGMAXIDUO
 ConcertoGEL Max



DNA mutation analysis

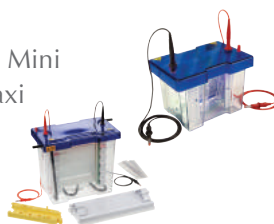
SymphonyDGGE
 Denaturing Gradient
 Gel Electrophoresis



PROTEIN ELECTROPHORESIS AND WESTERN BLOT

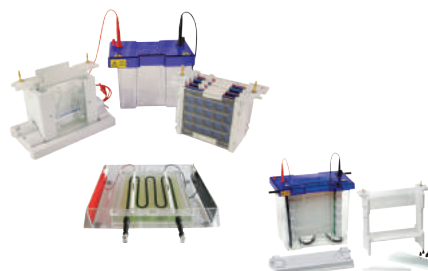
Vertical electrophoresis

SymphonyPAGE Mini
 SymphonyW Maxi



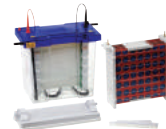
2D and Isoelectric focusing Blotting

SymphonyW Maxi 2D System
 SymphonyIEF



SymphonyBLOT Mini
 SymphonyBLOT Maxi
 2D Rocker Shaker

X-Blu UHC Western Blot Film



Power supply

Rhythm300/500
 Melody300/500/3000
 HarmonyCS Series



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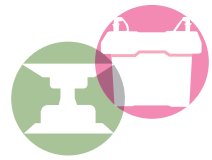
ILLUSTRATIONS

All images are for illustration purpose only, actual products might differ from the pictures. Subject to technical changes.

The glass vessels and containers shown in the photos together with the instruments are generally not included in the product package.

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CATALOG
2 0 1 9



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