

Consort

Artistic in science



20-06

Product catalogue

Vertical Units





Our EVS3xxx vertical systems allow for fine resolution of protein or nucleic acid fragments on one or two acrylamide gels (PAGE). PAGE separation offers the superior resolution necessary to separate native or denatured proteins and nucleic acids in applications such as SSCP or dinucleotide repeat analysis using western blotting and also for automated protein sequencing analysis.

All three models in the EV3xxx series incorporate inspired design features and exceptional manufacturing methods that ensure dependable performance over years of continuous use. A comprehensive offering of combs and accessories, plus the compatibility of the EVS3100 with most commercially available pre-cast mini gels, ensures maximum system utility to exceed the separation demands of most research laboratories.

High Performance

- Exceptional resolution.
- Rugged trouble-free construction.
- All units run one or two gels.
- 10x10 unit compatible with most pre-cast gels.
- Rapid and efficient cast-in-place gel casting system.
- Unique electrode configuration for straight, rapid runs.
- Efficient temperature regulation prevents band distortion.

Convenient & Versatile

- Upper buffer chamber acts as heat sink to provide uniform temperature across gel and reduce smiling.
- Units available with ports for attachment to external cooling systems.
- Wide range of comb configurations, including multi-channel capability.
- Reliable clamping system for no-leak casting and running.
- Optional gel caster for pre-casting gels while system is in use.
- Wide range of combs and accessories.

Safe & Reliable

- High quality, rugged acrylic construction, resists cracking and warping.
- Your safety ensured with interlocking lid.
- Corrosion resistant contacts and gold plugs for years of reliable service.
- Meets or exceeds IEC1010-1 standards.

Outstanding Features Ensure Trouble-Free Use

- Robust Acrylic Construction Stands up to Daily Usage without Breakage, Warping or Leakage
- Rugged, Spring-Loaded Clamp Mechanism, Alignment Pins & Hollow Gaskets Guarantee Reliable Leak-Proof Gel Installation
- Precision Glass Plates Provide Exceptional Flatness and Finished Edges to Ensure Uniform Separation
- Casting Base Enables Casting Directly on the Upper Buffer Chamber Obviating Need to Move Gels once Polymerized
- Intelligent Design Results in Exceptional Resolution
- Electrode Configuration Assures Uniform Field, Straight Lanes and Rapid Runs – Saving Time and Improving Data Generation Rate
- Proximal Upper Buffer Chamber Exploits Specific Heat of Aqueous Buffer to Provide Uniform Temperature and No Smiling
- Efficient Water Cooling System, Available on All Systems, Prevent Band Distortion.
- Optional Notched Alumina Plates available for the mini 10 cm x 10cm unit Enhance Heat Dissipation.

Wide Variety of Options Maximize Product Versatility

- Devices available for three Gel Sizes, Including the wide mini EVS3200 that Accommodate 72 Samples, Supporting Most PAGE Applications.
- Optional Additional Upper Buffer Chambers Allow for Simultaneous Use of the Twin Systems – Improving Data Output Rate.
- Non-Cooled 10cm x 10cm & 20cm x 10cm Upper Buffer Chambers Available.
- Wide Selection of Combs, plus Glass and Blocking Plates Available for All Units.
- Units are Compatible with Pre-cast Acrylamide Gels from Most Manufacturers and Vertical Agarose (VAGE) Separation.

Gel dimensions	10x10cm
Buffer volume	400
Gel volume (at 0.5cm)	6-15ml
Sample Capacity	30
Unit Dimensions	17x14x12 cm
Running condition	15-35mA/gel
Integrated Water Cooling System	
Spring-Loaded Clamp Mechanism	
Warranty	36 months

Recommended power supply
EV2650
EV3150



● Description

The EVS3100 is compatible with most pre-cast gels and can run one or two gels and has an integrated water cooling system.

Features

- High Performance.
- Exceptional resolution.
- Rugged trouble-free construction.
- Rapid and efficient gel casting system.
- Unique electrode configuration for straight, rapid runs.
- Efficient temperature regulation prevents band distortion.
- Wide range of combs and accessories available.

● Ordering codes

Complete System

Code	Description
EVS3100-SYS	Mini vertical unit 2 sets of plain glass plates 1 set of notched glass plates 2 sets of 0.8mm spacers 1 casting base 1 extra replacement gasket for upper buffer chamber 1 dummy plate 1 spacer tool 2 combs: 10 sample, 0.8 mm thick

Combs

Code	Description	Sample volume
EVS3100-C6-0.8	0.8 mm thick, 6 sample	142 µl
EVS3100-C10-0.8	0.8 mm thick, 10 sample	73 µl
EVS3100-C12-0.8	0.8 mm thick, 12 sample	55 µl
EVS3100-C6-1.5	1.5 mm thick, 6 sample	266 µl
EVS3100-C10-1.5	1.5 mm thick, 10 sample	136 µl
EVS3100-C12-1.5	1.5 mm thick, 12 sample	103 µl

Microtiter Combs

Code	Description	Sample volume
EVS3100-CMT9-0.8	0.8 mm thick, 9 sample MC	84 µl
EVS3100-CMT9-1.5	1.5 mm thick, 9 sample MC	160 µl

Replacement parts & Accessories

Code	Description
EVS3100-BASE	Gel casting base, 10 cm
EVS3100-BASEGASKET	Replacement gasket for casting base
EVS3100-UBDGASKET	Replacement gasket for upper buffer chamber
EVS3100-DUMMY	Dummy plate
EVS3100-NGLASS	Notched glass plates, 10x10 cm, 2.4 mm thick (set of 2)
EVS3100-GLASS	Glass plates, 10x10 cm, 2.4 mm thick (set of 2)
EVS3100-ALU	Notched aluminium backer plate for improved cooling
EVS3100-SP-0.8	Spacers, 0.8 mm thick (set of 2)
EVS3100-SP-1.5	Spacers, 1.5 mm thick (set of 2)

Gel dimensions	20x10cm
Buffer volume	800
Gel volume (at 0.5cm)	15-30ml
Sample Capacity	72
Unit Dimensions	28x15x13 cm
Running condition	15-45mA/gel
Integrated Water Cooling System	
Spring-Loaded Clamp Mechanism	
Warranty	36 months

Recommended power supply
EV2650
EV3150



● Description

The EVS3200 is a wide format system, accommodates large sample numbers and has an integrated water cooling system.

Features

- High Performance.
- Runs one or two gels.
- Rugged trouble-free construction.
- Unique electrode configuration for straight, rapid runs.
- Efficient temperature regulation prevents band distortion.
- Wide range of combs and accessories available.
- Rapid and efficient gel casting system.

● Ordering codes

Complete System

Code	Description
EVS3200-SYS	Wide vertical unit 2 sets of plain glass plates 2 set of notched glass plates 4 sets of 0.8mm spacers 1 casting base 1 extra replacement gasket for upper buffer chamber 1 dummy plate 1 spacer tool 2 combs: 15 sample, 0.8 mm thick 2 combs: 20 sample, 0.8 mm thick

Combs

Code	Description	Sample volume
EVS3200-C10-0.8	0.8 mm thick, 10 sample	239 µl
EVS3200-C15-0.8	0.8 mm thick, 15 sample	144 µl
EVS3200-C20-0.8	0.8 mm thick, 20 sample	97 µl
EVS3200-C25-0.8	0.8 mm thick, 25 sample	69 µl
EVS3200-C10-1.5	1.5 mm thick, 10 sample	449 µl
EVS3200-C15-1.5	1.5 mm thick, 15 sample	271 µl
EVS3200-C20-1.5	1.5 mm thick, 20 sample	182 µl
EVS3200-C25-1.5	1.5 mm thick, 25 sample	129 µl

Microtiter Combs

Code	Description	Sample volume
EVS3200-CMT18-0.8	0.8 mm thick, 18 sample MC	78 µl
EVS3200-CMT36-1.5	1.5 mm thick, 36 sample MC	156 µl
EVS3200-CMT18-0.8	0.8 mm thick, 18 sample MC	32 µl
EVS3200-CMT36-1.5	1.5 mm thick, 36 sample MC	64 µl

Replacement parts & Accessories

Code	Description
EVS3200-BASE	Gel casting base, 20 cm
EVS3200-BASEGASKET	Replacement gasket for casting base
EVS3200-UBDGASKET	Replacement gasket for upper buffer chamber
EVS3200-DUMMY	Dummy plate
EVS3200-NGLASS	Notched glass plates, 20x10 cm, 3.2 mm thick (set of 2)
EVS3200-GLASS	Glass plates, 20x10 cm, 3.2 mm thick (set of 2)
EVS3200-ALU	Notched aluminium backer plate for improved cooling
EVS3200-SP-0.8	Spacers, 0.8 mm thick (set of 2)
EVS3200-SP-1.5	Spacers, 1.5 mm thick (set of 2)

Gel dimensions	20x20cm
Buffer volume	1300
Gel volume (at 0.5cm)	25-49ml
Sample Capacity	50
Unit Dimensions	30x24x16 cm
Running condition	15-75mA/gel
Integrated Water Cooling System	
Spring-Loaded Clamp Mechanism	
Warranty	36 months

Recommended power supply
EV2650
EV3150



● Description

The EVS3300 is a large format system, accommodates large sample numbers and has an integrated water cooling system.

Features

- High Performance.
- Runs one or two gels.
- Rugged trouble-free construction.
- Unique electrode configuration for straight, rapid runs.
- Efficient temperature regulation prevents band distortion.
- Wide range of combs and accessories available.
- Rapid and efficient gel casting system.

● Ordering codes

Complete System

Code	Description
EVS3300-SYS	Maxi vertical unit 2 sets of plain glass plates 2 set of notched glass plates 4 sets of 0.8mm spacers 1 casting base 1 extra replacement gasket for upper buffer chamber 1 dummy plate 1 spacer tool 2 combs: 15 sample, 0.8 mm thick 2 combs: 20 sample, 0.8 mm thick

Combs

Code	Description	Sample volume
EVS3300-C10-0.8	0.8 mm thick, 10 sample	239 µl
EVS3300-C15-0.8	0.8 mm thick, 15 sample	144 µl
EVS3300-C20-0.8	0.8 mm thick, 20 sample	97 µl
EVS3300-C25-0.8	0.8 mm thick, 25 sample	69 µl
EVS3300-C10-1.5	1.5 mm thick, 10 sample	449 µl
EVS3300-C15-1.5	1.5 mm thick, 15 sample	271 µl
EVS3300-C20-1.5	1.5 mm thick, 20 sample	182 µl
EVS3300-C25-1.5	1.5 mm thick, 25 sample	129 µl

Replacement parts & Accessories

Code	Description
EVS3300-BASE	Gel casting base, 20 cm
EVS3300-BASEGASKET	Replacement gasket for casting base
EVS3300-UBDGASKET	Replacement gasket for upper buffer chamber
EVS3300-DUMMY	Dummy plate
EVS3300-NGLASS	Notched glass plates, 20x20 cm, 3.2 mm thick (set of 2)
EVS3300-GLASS	Glass plates, 20x20 cm, 3.2 mm thick (set of 2)
EVS3300-ALU	Notched aluminium backer plate for improved cooling
EVS3300-SP-0.8	Spacers, 0.8 mm thick (set of 2)
EVS3300-SP-1.5	Spacers, 1.5 mm thick (set of 2)

Cassette size	9 x 9
Cassette capacity	4
Buffer Volume (ml)	1300
Unit Dimensions	13x15x15 cm
Recommended voltage	150V
Warranty	36 months
Recommended power supply	EV2310

Outstanding Features Ensure Trouble-Free Use

- Robust Acrylic Construction Stands up to Daily Usage without Breakage, Warping or Leakage
- Gold Plated Electrodes, Corrosion Free and Rated
- Safe up to 1,000 volts
- Safety Cover with attached Power Cords Assures Safety and Prevents Reverse Orientation of Electric Field

Intelligent Design Results in Exceptional Resolution

- Efficient Water Cooled Base
- Color Coded Cassettes Obviate Accidental Sample Loss



• Description

The EVS3100-BLOT Tank Electro-Blotter is designed to rapidly transfer nucleic acid or protein fragments from up to four polyacrylamide gels at one time to nitrocellulose, nylon or PVDF membranes. The color-coded cassettes allow for easy assembly of transfer sandwich and error free transfer.

The large buffer capacity allows for high current output for the transfer of high molecular weight proteins while integral cooling permits high voltages and extended transfers. System is compatible with transfer membranes and blotting paper from all suppliers.

This tank style electroblotter provides reliable and efficient transfer of a wide range of protein compounds from acrylamide gels. Up to four gels can be transferred simultaneously. Platinum grid style electrodes and robust construction assure even and complete molecular transfer and long service life. System is supplied complete with power leads and four blotting cassettes.

• Ordering codes

Code	Description
EVS3100-BLOT	Mini Tank Blotter (10x10cm) with 4 cassettes
EVS3100-CASSETTE	Transfer Cassette with Pads
EVS3100-FIBREPAD	Replacement Blotting Pads, 4 per pack



Cassette size	18 x 20
Cassette capacity	2
Buffer Volume (ml)	4000
Unit Dimensions	22x12.5x9 cm
Recommended voltage	150V
Warranty	36 months
Recommended power supply	EV3150

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● Ordering codes

Code	Description
EVS3300-BLOT	Maxi Tank Blotter (20x20cm) with 2 cassettes
EVS3100-CASSETTE	Transfer Cassette with Pads
EVS3100-FIBREPAD	Replacement Blotting Pads, 4 per pack



- Quick & Efficient
- Convenient & Versatile
- Safe & Reliable

Quick transfer times make these systems ideal for the rapid and efficient transfer of nucleic acids and proteins from agarose or acrylamide gels.

Solid plate style electrodes assure even pressure and complete molecular transfer.

Galileo semi-dry electroblotters will accommodate most pre-cast gels, and for many larger format pre-cast gels, once the stacking area of the gel is removed the “working” area will also fit easily into the devices. Since only the transfer “sandwich” of gel, membrane and blotting papers must be kept wet, much less buffer is required than traditional tank transfer systems.

Interlocking safety lid prevents reverse orientation of electric filed. High quality plate electrodes (stainless steel cathode and platinum anode) and gold plated components assure long, trouble-free performance. System is supplied complete with power leads and a sample pack of our ultra-pure cotton fiber filter paper.



Code	Description
ESDB3100	Semi Dry Electroblotter, 11x11cm blotting area
ESDB3200	Semi Dry Electroblotter, 21x21cm blotting area
EV2310	Power supply, 300 V, 1000 mA, 150 W
EV3020	Power supply, 300 V, 2000 mA, 300 W

Two sizes to fits your needs:

Unit	ESDB3100	ESDB3200
Transfer area (cm)	11X11	21X21
Buffer Volume (ml)	50	100
Unit Dimensions	19x19x6 cm	29x29x6 cm
Running condition	0.8-3mA/cm	0.8-3mA/cm
Recommended voltage	<100V	<100V
Warranty	36 months	36 months
Recommended PS	EV2650	EV3150



- Description

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- Ordering codes

Code	Description
ESDB3100	Semi Dry Electroblotter, 11x11cm blotting area
ESDB3200	Semi Dry Electroblotter, 21x21cm blotting area



About Vertical Electrophoresis

Preventing leaking gels

The two most important things to be aware of when casting gels using the caster systems are:

- that the glass plates have been inserted into the casting or gel running module on a flat surface.
- that the spacers are flush with the bottom edges of the glass plates.

Perfect alignment of spacers can be guaranteed using the new glass plates with bonded spacers.

Overcome polymerisation problems

If you are experiencing problems obtaining good polymerisation adjacent to spacers and combs then this can be overcome by pre-soaking the combs and spacers in distilled water or a 10% solution of ammonium persulphate.

Avoiding over-tightening

Over-tightening the cam pins on the casting systems is a common cause of problems when using these units. Cams should only be tightened just until appreciable pressure is felt.

Extracting the tube gel

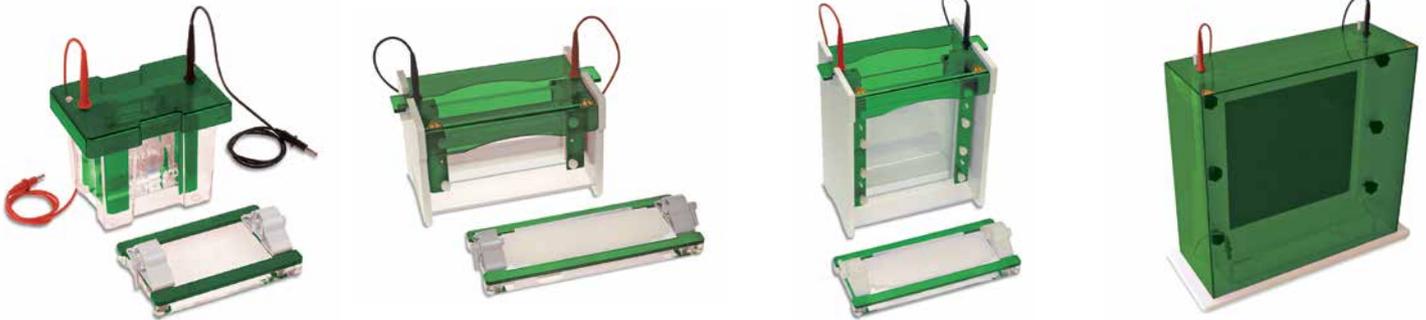
Tube gel electrophoresis can be difficult because of problems with extracting the tube gel from the capillary tube. The tube gel is best extracted by gently pipetting liquid behind the tube gel and then catching it in the Gel extraction platform.

Enhance transfer

If the gel blot sandwich is too thick, this may bow the cassette causing loss of contact between gel and membrane resulting in poor transfer. The thickness of the blot can be lessened by removing the fibre pad on the non-membrane side of the blot.

EVS1000 series

Vertical units



● Overview

Low cost

Injection moulded construction

Durable, leak-proof environment for complete safety and long life.

Easy to use

Leak proof "Plug and Go" casting dams allow gels to be rapidly cast externally while the tank remains in use for electrophoresis.

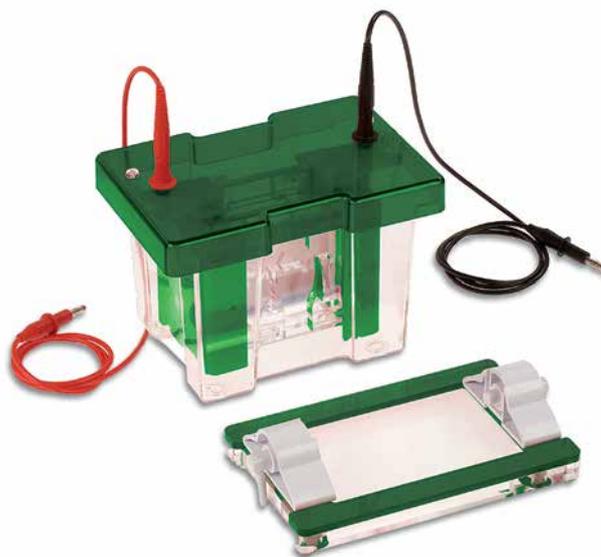
Plate dimensions	10x10 cm
Gel dimensions	7.5x8 cm
Number of gels	1 to 4
Buffer volume	250 ml to 1200 ml
Sample Capacity	80 (20 per gel)
Unit Dimensions	19x13x15 cm
Warranty	12 months

Recommended power supply

EV1450
EV2310

EVS1100 is constructed using the latest injection moulding manufacturing techniques. This gives a high quality, low cost product with unsurpassed finish, durability and strength.

The unit incorporates a sealing system which is compatible with all major types of 8x10 cm and 10x10 cm pre-cast gel. Runs up to four 1 mm thick gels. Gel casting and running utilise the same insert, no transfer of glass plates during gel casting is necessary. The insert allowing very rapid set up of both hand cast and pre-cast gels. Reversible gasket for use with Bio-Rad 'non-eared' or short glass plates. Accessory electro-blotting and tube gel modules are available which use the same outer tank and lid.



● Ordering codes

Code	Description
EVS1100-SYS	Mini vertical unit, 2 sets of glass plates with bonded 1 mm thick spacers cooling pack, dummy plate, casting base 2 combs: 12 sample, 1 mm thick, 12 samples

Combs

Code	Description	Sample volume
EVS1100-C5-1.0	1 mm thick, 5 sample	100 µl
EVS1100-C9-1.0	1 mm thick, 9 sample	50 µl
EVS1100-C10-1.0	1 mm thick, 10 sample	40 µl
EVS1100-C12-1.0	1 mm thick, 12 sample	35 µl
EVS1100-C20-1.0	1 mm thick, 20 sample	20 µl
EVS1100-C5-1.5	1.5 mm thick, 5 sample	140 µl
EVS1100-C9-1.5	1.5 mm thick, 9 sample	70 µl
EVS1100-C10-1.5	1.5 mm thick, 10 sample	60 µl
EVS1100-C12-1.5	1.5 mm thick, 12 sample	50 µl
EVS1100-C20-1.5	1.5 mm thick, 20 sample	30 µl

Replacement parts & Accessories

Code	Description
EVS1100-BASE	Gel casting base, 10 cm
EVS1100-SILMAT	Replacement silicone mat for gel casting base, 10 cm
EVS1100-GELINSERT	Inner running module
EVS1100-COOL	Mini cooling pack
EVS1100-NGLASS	Notched glass plates, 10x10 cm, 2 mm thick, pk/2
EVS1100-GLASS	Glass plates, 10x10 cm, 2 mm thick, pk/2
EVS1100-GLASS-SP-1	Glass plates, 10x10 cm, + 1 mm bonded spacers, pk/2
EVS1100-GLASS-SP-1.5	Glass plates, 10x10 cm, + 1.5 mm bonded spacers, pk/2
EVS1100-DUMMY	Dummy plate, 10x10 cm
EVS1100-SP-1.0	Spacers, 1 mm thick, 10 cm, pk/2
EVS1100-SP-1.5	Spacers, 1.5 mm thick, 10 cm, pk/2

Plate dimensions	20x10 cm
Gel dimensions	18x8 cm
Number of gels	1 to 4
Buffer volume	600 ml to 2800 ml
Sample Capacity	192 (48 per gel)
Unit Dimensions	26x16x16 cm
Warranty	12 months

Recommended power supply

EV2310

EV2650

EVS1200 allows double the number of samples to be resolved as the mini unit. This allows consistency of sample comparison on a single gel and is designed for those with greater than 20 samples to compare and resolve. Simple set up using ultra soft silicone seals guarantees trouble free glass plate loading and gel casting. Dual gaskets on the gel running insert along with notched and plain glass plates ensure leak proof gel running. Rapid set up cooling retains resolution in extended separations and also saves on buffer volume. 4 mm thick glass plates prevent breakage and have bonded spacers for convenience.



● Ordering codes

Code	Description
EVS1200-SYS	Mini-wide vertical unit, 2 sets of glass plates with bonded 1 mm thick spacers cooling pack, dummy plate, casting base 2 combs: 12 sample, 1 mm thick, 24 samples

Combs

Code	Description	Sample volume
EVS1200-C5-1.0	1 mm thick, 5 sample	200 µl
EVS1200-C10-1.0	1 mm thick, 10 sample	100 µl
EVS1200-C24-1.0	1 mm thick, 24 sample	40 µl
EVS1200-C30-1.0	1 mm thick, 30 sample	35 µl
EVS1200-C48-1.0	1 mm thick, 48 sample	20 µl
EVS1200-C5-1.5	1.5 mm thick, 5 sample	320 µl
EVS1200-C10-1.5	1.5 mm thick, 10 sample	160 µl
EVS1200-C24-1.5	1.5 mm thick, 24 sample	60 µl
EVS1200-C30-1.5	1.5 mm thick, 30 sample	50 µl
EVS1200-C48-1.5	1.5 mm thick, 48 sample	30 µl

Replacement parts & Accessories

Code	Description
EVS1200-BASE	Gel casting base, 20 cm
EVS1200-SILMAT	Replacement silicone mat for gel casting base, 20 cm
EVS1200-GELINSERT	Inner running module
EVS1200-COOL	Maxi cooling pack
EVS1200-NGLASS	Notched glass plates, 20x10 cm, 4 mm thick, pk/2
EVS1200-GLASS	Glass plates, 20x10 cm, 4 mm thick, pk/2
EVS1200-GLASS-SP-1.0	Glass plates, 20x10 cm, + 1 mm bonded spacers, pk/2
EVS1200-GLASS-SP-1.5	Glass plates, 20x10 cm, + 1.5 mm bonded spacers, pk/2
EVS1200-DUMMY	Dummy plate, 20x10 cm
EVS1100-SP-1.0	Spacers, 1 mm thick, 10 cm, pk/2
EVS1100-SP-1.5	Spacers, 1.5 mm thick, 10 cm, pk/2
EPT50	Replacement platinum wire, 0.2 mm thick, 50 cm

Plate dimensions	20x20 cm
Gel dimensions	16x17.5 cm
Number of gels	1 to 4
Buffer volume	1200 ml to 5600 ml
Sample Capacity	192 (48 per gel)
Unit Dimensions	30x18x27 cm
Warranty	12 months

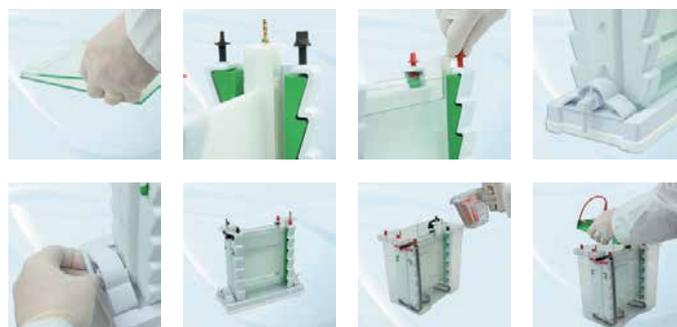
Recommended power supply

EV2650
EV3150
EV3020

EVS1300 is designed to perform a variety of separations, including first- and second-dimension SDS-PAGE, native, preparative, gradient and high-resolution nucleic acid electrophoresis, plus capillary tube gel IEF and electro-blotting.

By introducing innovative, new vertical leak-free casting with vertical screw-pin technology only four screws are now necessary to secure as many 20x20 cm gels. Glass plates compress gently against a flat, level gasket to prevent current leakage from the inner buffer chamber during electrophoresis.

Detachable inner cooling coil connects to the laboratory water supply or a recirculating chiller to provide uniform, smile-free electrophoresis, while allowing runs to be performed at higher voltage. 4 mm thick glass plates reduce breakage and have bonded spacers for added convenience. Prep combs can be used to maximize sample loading and recovery. Accessory electro-blotting and tube gel modules are available which use the same outer tank and lid.



● Ordering codes

Code	Description
EVS1300-SYS	Maxi vertical unit, 2 sets of glass plates with bonded 1 mm thick spacers cooling coil, dummy plate, casting base, 2 combs: 24 sample, 1 mm thick

Combs

Code	Description	Sample volume
EVS1300-C5-1.0	1 mm thick, 5 sample	200 µl
EVS1300-C10-1.0	1 mm thick, 10 sample	100 µl
EVS1300-C24-1.0	1 mm thick, 24 sample	40 µl
EVS1300-C30-1.0	1 mm thick, 30 sample	35 µl
EVS1300-C48-1.0	1 mm thick, 48 sample	20 µl
EVS1300-C5-1.5	1.5 mm thick, 5 sample	320 µl
EVS1300-C10-1.5	1.5 mm thick, 10 sample	160 µl
EVS1300-C24-1.5	1.5 mm thick, 24 sample	60 µl
EVS1300-C30-1.5	1.5 mm thick, 30 sample	50 µl
EVS1300-C48-1.5	1.5 mm thick, 48 sample	30 µl

Replacement parts & Accessories

Code	Description
EVS1300-BASE	Gel casting base, 20 cm
EVS1300-SILMAT	Replacement silicone mat for gel casting base, 20 cm
EVS1300-GELINSERT	Inner running module
EVS1300-COOL	Maxi cooling pack
EVS1300-NGLASS	Notched glass plates, 20x20 cm, 4 mm thick, pk/2
EVS1300-GLASS	Glass plates, 20x20 cm, 4 mm thick, pk/2
EVS1300-GLASS-SP-0.8	Glass plates, 20x20 cm, + 0.75 mm bonded spacers, pk/2
EVS1300-GLASS-SP-1.0	Glass plates, 20x20 cm, + 1 mm bonded spacers, pk/2
EVS1300-GLASS-SP-1.5	Glass plates, 20x20 cm, + 1.5 mm bonded spacers, pk/2
EVS1300-GLASS-SP-2.0	Glass plates, 20x20 cm, + 2 mm bonded spacers, pk/2
EVS1300-DUMMY	Dummy plate, 20x20 cm
EVS1300-SP-1.0	Spacers, 1 mm thick, 20 cm, pk/2
EVS1300-SP-1.5	Spacers, 1.5 mm thick, 20 cm, pk/2
EPT50	Replacement platinum wire, 0.2 mm thick, 50 cm

These systems include all modules and accessories required for slab gel electrophoresis, 2-D electrophoresis and electro-blotting.

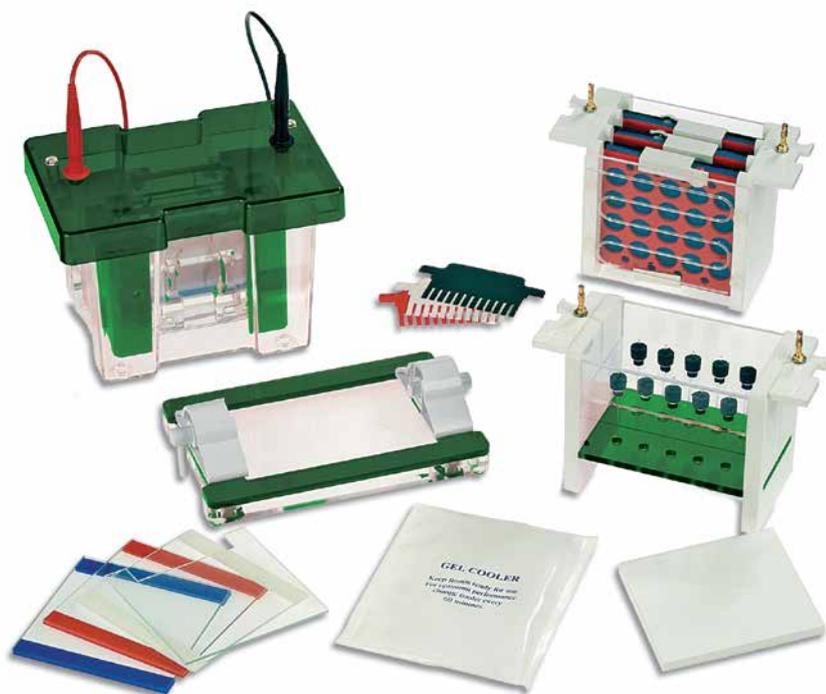
The central component is the mini vertical unit, mini-wide vertical unit or maxi vertical unit. These include a rapid and intuitive casting system, enhanced and easy to set up cooling system and have increased capacity (can run up to four gels per run).

In addition, the tube gel module is capable of resolving up to 10 first dimension gels and the electro-blotting module has a four blot (mini) or three blot (mini-wide and maxi) capacity.

Each of these techniques benefits from rapid set up cooling packs which provide enhanced resolution even during high intensity 2-D electrophoresis and electro-blotting.

All replacement parts and accessories of the corresponding vertical units can also be used for these systems.

Recommended power supply: EV3020

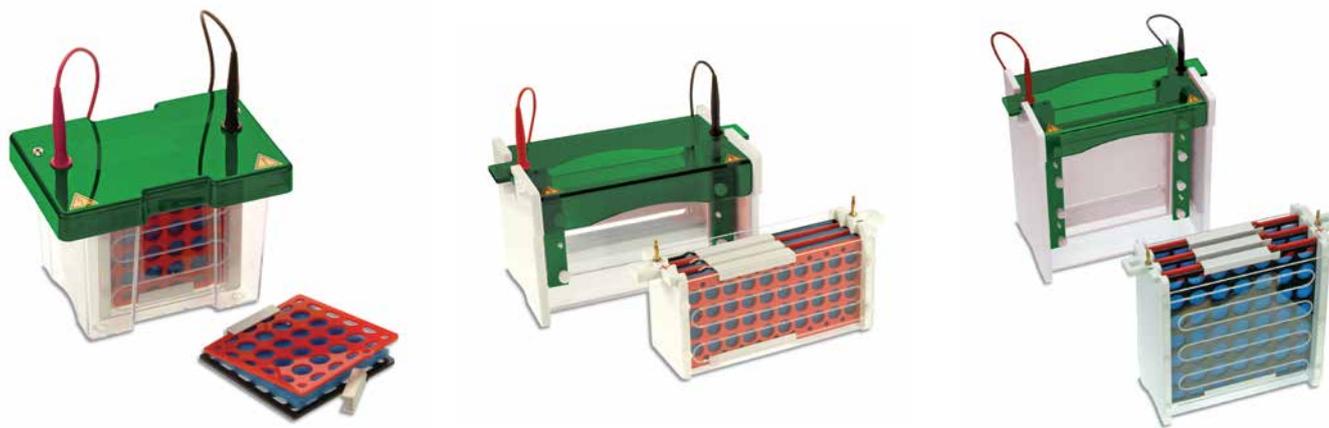


● Ordering codes

Code	Description
EVS1100-MULTI	Modular system: EVS1100-SYS + capillary module + electro-blotting module + 2 sets of glass plates with bonded 1 mm thick spacers + 2 combs, 1 mm thick, 12 samples + cooling pack + dummy plate + casting base + 100 capillary tubes (1 mm int. diameter) + blanking plugs + 4 compression cassettes 10x10 cm + 8 fibre pads
EVS1200-MULTI	Modular system: EVS1200-SYS + capillary module + electro-blotting module + 2 sets of glass plates with bonded 1 mm thick spacers + 2 combs, 1 mm thick, 24 samples + cooling pack + dummy plate + casting base + 100 capillary tubes (1 mm int. diameter) + blanking plugs + 3 compression cassettes 20x10 cm + 6 fibre pads
EVS1300-MULTI	Modular system: EVS1300-SYS + capillary module + electro-blotting module + 2 sets of glass plates with bonded 1 mm thick spacers + 2 combs, 1 mm thick, 24 samples + cooling coil + dummy plate + casting base + 100 capillary tubes (1 mm int. diameter) + blanking plugs + 3 compression cassettes 20x20 cm + 6 fibre pads

Replacement parts & Accessories

Code	Description
EVS1100-TUBE-1.0	Mini capillary tubes, 1 mm internal diameter, 8 mm, pk/100
EVS1100-TUBE-1.5	Mini capillary tubes, 1.5 mm internal diameter, 8 mm, pk/100
EVS1100-TUBEPORT	Capillary blanking ports pk/10
EVS1300-TUBE-1.0	Maxi capillary tubes, 1 mm internal diameter, 17 mm, pk/100
EVS1100-BLOTINSERT	Mini blot insert + 4 cassettes 10x10 cm + 8 fibre pads
EVS1100-CASSETTE	Mini blot cassette, 10x10 cm
EVS1100-FIBREPAD	Mini fibre pads, 10x10 cm, pk/6
EVS1100-TUBEINSERT	Mini tube gel insert + 100 capillary tubes (1 mm int. diameter)
EVS1200-BLOTINSERT	Mini-wide blot insert + 3 cassettes 20x10 cm + 6 fibre pads
EVS1200-CASSETTE	Mini-wide blot cassette, 20x10 cm
EVS1200-FIBREPAD	Mini-wide fibre pads, 20x10 cm, pk/6
EVS1200-TUBEINSERT	Mini-wide tube gel insert + 100 capillary tubes
EVS1200-BLOTINSERT	Maxi blot insert + 3 cassettes 20x20 cm + 6 fibre pads
EVS1300-CASSETTE	Maxi blot cassette, 20x20 cm
EVS1300-FIBREPAD	Maxi fibre pads, 20x20 cm, pk/6
EVS1300-TUBEINSERT	Maxi tube gel insert + 100 capillary tubes (1 mm int. diameter)



These stand-alone, complete units for electro-blotting, mini, mini-wide and maxi formats, include vertical tank and lid, electro-blotting insert, cassettes and fibre pads.

Units are interchangeable with the vertical slab and tube gel inserts.

Hinged rigid cassettes allow rapid set up and convenience and ensure even contact between the gel and membrane is maintained.

Recommended power supply: EV3020

● Ordering codes

Code	Description
EVS1100-BLOT	Mini blotter: tank & lid + 4 cassettes 10x10 cm + 8 fibre pads + cooling pack
EVS1200-BLOT	Mini-wide Blotter: tank & lid + 3 cassettes 20x10 cm + 6 fibre pads + cooling pack
EVS1300-BLOT	Maxi blotter: tank & lid + 3 cassettes 20x20 cm + 6 fibre pads + cooling pack

Replacement parts & Accessories

Code	Description
EVS1100-BLOTINSERT	Mini blot insert + 4 cassettes 10x10 cm + 8 fibre pads
EVS1100-CASSETTE	Mini blot cassette, 10x10 cm
EVS1100-FIBREPAD	Mini fibre pads, 10x10 cm, pk/6
EVS1200-BLOTINSERT	Mini-wide blot insert + 3 cassettes 20x10 cm + 6 fibre pads
EVS1200-CASSETTE	Mini-wide blot cassette, 20x10 cm
EVS1200-FIBREPAD	Mini-wide fibre pads, 20x10 cm, pk/6
EVS1200-BLOTINSERT	Maxi blot insert + 3 cassettes 20x20 cm + 6 fibre pads
EVS1300-CASSETTE	Maxi blot cassette, 20x20 cm
EVS1300-FIBREPAD	Maxi fibre pads, 20x20 cm, pk/6

These semi-dry blotters offer rapid transfer times for DNA, RNA and protein blotting (typically 15 to 30 minutes). All units can be used for all types of blotting and are compatible with gel thickness from 0.25 up to 10 mm without the need for additional equipment. Each unit is compatible with their respective vertical gel system. Semi-dry blotting has the added benefit of economic transfers due to very low buffer volumes.

These semi-dry blotters utilise a screw down lid, which secures the blot sandwich and allows complete control of pressure ensuring even transfer.

The electrodes, comprising platinum coated anode and stainless steel cathode, will exhibit practically no corrosion and so provide many years of trouble free use. Uniform heat dispersion across the blot sandwich ensures stable transfer times and no heat induced sample loss or transfer distortions. Electrode plates are fully separated to prevent arcing or damage.

Warranty 12 months
Recommended power supply: EV3020



● Ordering codes

Code	Description	Buffer Volume	Max. sample capacity	External dimensions
ESDB1100	Semi-dry blotter, mini, 10x10 cm	5 ml	1 blot, 10x10 cm	16x16x7 cm
ESDB1200	Semi-dry blotter, midi, 20x20 cm	20 ml	1 blot, 20x20 cm or 4 blots, 10x10 cm	26x26x7 cm

Plate dimensions	33x45 cm 20x50 cm
Buffer volume	800 ml to 2000 ml
Sample Capacity	96
Unit Dimensions	30x18x27 cm

Warranty 12 months

Ideal for a variety of large format vertical gel applications, this unit offers advanced features for enhancing gel resolution and ease of use, essential when handling gels of this size.

Resolution is enhanced by using an aluminium heat sink plate, essential for even sample migration. Added convenience is provided by a removable lower buffer tank and upper buffer drainage tap.

Special buffer chambers allow either low buffer volumes to be used for economy or high buffer volumes to be used for extended runs.

A wide range of interchangeable comb and spacer options allows a large number of techniques to be easily accomplished.

Recommended power supply: EV3330. EV3620



Ordering codes

Code	Description
ESEQ1100-SYS	Sequencing unit 33x45 cm glass plates 0.35 mm thick spacers 2 combs: 48 samples, 0.35 mm thick

Combs

Code	Description	Sample volume
ESEQ1100-C48-0.3	0.25 mm thick, 48 sample	7 µl
ESEQ1100-C96-0.3	0.25 mm thick, 96 sample	3 µl
ESEQ1100-C48-0.4	0.35 mm thick, 48 sample	9 µl
ESEQ1100-C96-0.4	0.35 mm thick, 96 sample	5 µl
ESEQ1100-C48-1.0	1 mm thick, 48 sample	35 µl
ESEQ1100-C80-1.0	1 mm thick, 80 sample	20 µl
ESEQ1100-C48-1.5	1.5 mm thick, 48 sample	50 µl
ESEQ1100-C80-1.5	1.5 mm thick, 80 sample	30 µl

Code	Description
ESEQ1200-SYS	Sequencing unit 20x50 cm glass plates 0.35 mm thick spacers 2 combs: 24 samples, 0.35 mm thick

Combs

Code	Description	Sample volume
ESEQ1200-C24-0.3	0.25 mm thick, 24 sample	7 µl
ESEQ1200-C48-0.3	0.25 mm thick, 48 sample	3 µl
ESEQ1200-C24-0.4	0.35 mm thick, 24 sample	9 µl
ESEQ1200-C48-0.4	0.35 mm thick, 48 sample	5 µl
ESEQ1200-C24-1.0	1 mm thick, 24 sample	35 µl
ESEQ1200-C48-1.0	1 mm thick, 48 sample	20 µl
ESEQ1200-C24-1.5	1.5 mm thick, 24 sample	50 µl
ESEQ1200-C48-1.5	1.5 mm thick, 48 sample	30 µl

Replacement parts & Accessories

Code	Description
ESEQ1200-NGLASS	Notched glass plates, 20x50 cm, pk/2
ESEQ1200-GLASS	Plain glass plates, 20x50 cm, pk/2
ESEQ1200-SP-0.3	Spacers, 0.25 mm thick, 50 cm, pk/2
ESEQ1200-SP-0.4	Spacers, 0.35 mm thick, 50 cm, pk/2
ESEQ1200-SP-1.0	Spacers, 1 mm thick, 50 cm, pk/2
ESEQ1200-SP-1.5	Spacers, 1.5 mm thick, 50 cm, pk/2
ESEQ1200-SENSOR	Fan heater sensor kit

Replacement parts & Accessories

Code	Description
ESEQ1100-NGLASS	Notched glass plates, 33x45 cm, pk/2
ESEQ1100-GLASS	Plain glass plates, 33x45 cm, pk/2
ESEQ1100-SP-0.3	Spacers, 0.25 mm thick, 45 cm, pk/2
ESEQ1100-SP-0.4	Spacers, 0.35 mm thick, 45 cm, pk/2
ESEQ1100-SP-1.0	Spacers, 1 mm thick, 45 cm, pk/2
ESEQ1100-SP-1.5	Spacers, 1.5 mm thick, 45 cm, pk/2
ESEQ1100-SENSOR	Fan heater sensor kit



ABSOLUTE READINGS

The instrument shows the actual value without compensating to a reference temperature.

AC-ADAPTOR

An internationally approved mains-plug with built-in low voltage transformer for a safe supply of energy to instruments.

ACCURACY

Maximum electronic error of the measured unit. The accuracy of an electrochemical determination such as pH, conductivity, dissolved oxygen & ion-selective measurements is mainly limited by the electrodes and calibration solutions.

ALARM

An alert sounds or a relay is closed when readings stray outside pre-set limits.

ALTERNATING DISPLAY

The meter can automatically scan all selected inputs for display or transmission to a computer or printer.

AUTOMATIC CROSS-OVER

When the resistance of an electrophoresis apparatus changes during a run, the power supply is able to switch automatically between constant voltage, constant current and constant power.

BATTERY CAPACITY

Percentage of remaining battery capacity.

BAUD RATE

Communication speed, in bits/second (b/s), of the digital interface (RS232).

BUFFER

A solution of buffered species where the pH tends to remain constant if diluted or concentrated.

Pre-programmed pH buffers: 1.68/ 2.00/ 4.00/ 4.01/ 6.87/ 7.00/ 9.18/ 9.21/ 10.01/ 12.00/ 12.45.

User specified pH buffers: special tables can be stored for future calibrations.

CALIBRATION REMINDER

A timed calibration procedure facilitates considerably GLP management by prompting the user when his instrument needs to be recalibrated.

CAPACITIVE COMPENSATION

The capacity of the electrode and its cable falsifies the measurement at very low conductivities. A capacity compensation allows to compensate for these errors.

CELL

The 2-pole design is the most commonly used conductivity cell. The electrodes are made of platinised platinum. The cell must be replaced or re-platinised if the plates become fouled.

The 4-pole design reduces considerably the problems of polarisation and fouling. By utilising four electrodes, no current flows through the measuring circuit. The AC-current is only applied to the outer pair of rings allowing the inner pair of electrodes to measure the voltage without any polarisation effects.

CELL CONSTANT

The cell constant (cm⁻¹) of a conductivity electrode is determined by the length (cm) of the column of liquid between the plates divided by the area (cm²) of the plates.

CONCENTRATION

Concentration measurement with an ion selective electrode requires a minimum of chemical know-how to make successful ion selective determinations.

CONDUCTIVITY

The conductivity is a measure of the solution's ability to conduct electric current. The basic unit is Siemens/cm (S/cm). It is measured by an electrode consisting of two platinum plates to which an alternating potential is applied. The corresponding current is proportional to the conductivity of the ionic solution in which the electrode is dipped.

DATA-ACQUISITION

Connect the instrument to a computer via an USB, RS232, RS485 interface for bi-directional communication capabilities. Most instruments require no special software and feature an advanced easy to use data acquisition fully compatible with spread-sheet.

DATA-LOGGING

Stores automatically or manually the measured values (+ °C & time/date) in a built-in non-volatile memory.

GLP

Good Laboratory Practices procedures help to increase accuracy through calibration reports.

GROUND LEAKAGE

Leaking or dirty electrophoresis apparatus are dangerous, since the applied high voltage may result in an electric current flowing through the operator to the ground.

IDENTIFICATION NUMBER

Several instruments connected to the same computer can easily be identified when specific numbers are allocated to them.

INPUT

Several types of connectors are used according to the application. Check the specifications of meter-input and electrode-plug on their compatibility.

ISO-pH

Zero-point of a pH electrode. A new pH electrode has an ISO-pH between 6.5

and 7.5 pH.

MINIMUM/MAXIMUM MEMORY

Recalls the lowest/highest values ever measured since the last calibration.

mV

Electrode potential is read in mV.

ON/OFF CONTROL

Simple control system in which the relays are continuously closed when a pre-set level is exceeded.

ORP

Oxido-Reduction-Potential (the reducing or oxidising capability of a solution).

PASSWORD PROTECTION

For tamper-proof storage of parameters and data, a secret personal code protects the instrument against any undesired access.

pH

The pH is a measurement for the acidity or alkalinity of a solution. In pure water the hydrogen ion (H⁺) and hydroxyl ion (OH⁻) concentrations are equal at 10⁻⁷ M (25°C). To provide a convenient and effective means of defining acidity and alkalinity, the negative logarithm of hydrogen ion activity is used. The pH is calculated from the potential between a glass and a reference electrode (Nernst equation).

PROPORTIONAL CONTROL

The control relay will pulse at a rate proportional to the regulation difference. When the difference is superior to a pre-set maximum value, the relay is continuously activated. However, when reaching a pre-set level the wait-time between the pulses will increase gradually in order to perform very accurate regulations.

Pt100

Platinum resistance thermometer (100 Ω at 0°C). It requires a low resistance cable for highest accuracy.

Pt1000

Platinum resistance thermometer (1000 Ω at 0°C). Less errors when using longer cables.

QUALITY MANAGEMENT

Measuring equipment should be calibrated on a regular basis (GLP). The accuracy of measurements is only limited by the electrodes and calibration solutions. At any moment, a complete documentation about the electrodes and calibration solutions can be printed or sent to a computer. This includes meter settings, data about the last calibration and a comparison with the previous calibration. The use of certified calibration solutions is strongly recommended. For very accurate quality measurements fresh standard solutions should be used for each calibration.

QUANTIFICATION OF VINCENT

The quantification of Vincent is a measurement for the energy stored in an organism. It expresses the maximum dissipation of energy by a chemical or biochemical reaction. The basic unit is Watt (W) but it is more convenient to use μW (micro-watt). It is calculated from the ORP, referenced against a hydrogen electrode, and the resistance.

RANGE LOCK

Allows to lock the initial conductivity measuring range when titrating in order to avoid cross-over errors due to varying measuring frequencies and linearity errors of the conductivity cell.

REAL TIME CLOCK

Shows time and date on the display.

REDOX POTENTIAL

The potential developed by a metallic electrode when placed in a solution containing a species in two different oxidation states. It is usually measured by a combination platinum electrode.

REFERENCE TEMPERATURE

Conductivity measurements are temperature dependent. Therefore, the readings should be referenced to a standard temperature.

RESISTIVITY

Electrical resistivity is the reciprocal of Conductivity. The basic unit is Ohm.cm ($\Omega\cdot\text{cm}$). While the ion concentration of a solution decreases, the resistivity rises up to a maximum of $18.3\text{ M}\Omega\cdot\text{cm}$ (absolute pure water at 25°C).

RESOLUTION

Smallest possible reading of the measured unit. More sophisticated meters allow to select the desired resolution. Unlike other meters, the CONSORT models round off the last digit rather than simply truncating digits outside the display range.

rH2

The rH2 is a measurement for the level of electronic exchanges between water and dissolved ions. It enables to study incomplete, indeterminate and very diluted aqueous redox solutions. It is defined as the negative logarithm of molecular hydrogen ion activity, calculated from the pH and the ORP referenced against a hydrogen electrode.

RS232

Digital interface, transmits the displayed values and calibration data to a printer or computer.

RS485

Allows to connect several process controllers for bi-directional communication with a computer. It allows multiple devices (up to 32) to communicate at half-duplex on a single

pair of wires, plus a ground wire, at distances up to 1200 meters.

SALINITY

Salinity gives an indication of the salt content of sea water. It is calculated from the conductivity referred to 15°C . The salinity is the ratio between the total salt content (g) and the total weight of the sea water (kg). Hence salinity can be expressed in ppt (parts per thousand).

SLOPE

Percentage which relates the actual behaviour of a pH electrode to the Nernst's law. A new electrode has a slope between 95 and 100 %.

S/S RELAY

A solid-state relay contains no mechanical contacts. Long life, compact design and spark-free switching are its main advantages. It should not be used for controlling very low power loads, as the small leakage current can cause unwanted switching-on.

STABILITY INDICATION

A decimal point flashes until the electrode output remains constant, then readings can be recorded.

TDS

Total Dissolved Salts of a solution gives an indication of the total ion concentration. Due to ionic interactions within a solution, the salt concentration cannot easily be related to conductivity. As the dissolved solids are generally unknown, a TDS measurement is always referred to a solution of pure Sodium Chloride.

TEMPERATURE COEFFICIENT

Each solution has its own temperature coefficient (%/K). As this coefficient also varies with temperature, a standard conductometer cannot achieve a precise temperature compensation over a wide span of temperatures. However, a research grade meter is able to plot special temperature curves for each individual type of solutions in its non-volatile memory. Specific temperature coefficients can also be entered for special applications. For standard applications, the non-linear function for natural waters (EN27888) is used.

TEMPERATURE COMPENSATION

Corrects readings for variations in electrode response due to temperature effects.

THERMOCOUPLE

Thermocouples basically consist of two dissimilar wires (each made of a different alloy). One end is twisted or soldered to form a measuring junction. The other end is connected to a thermometer and forms the reference junction. The signal is a small voltage (μV) proportional to the temperature

gradient between the measuring and reference junctions. Thermocouple probes are ideal to cover greater lengths. They also have a great temperature range and can easily pass through e.g. oven doors. Response time is faster than with Pt100 probes. Accuracy, stability and repeatability are less than with Pt100 probes.

USB

Universal Serial Bus is a standard designed to eliminate the guesswork in connecting peripherals to a computer.

VOLT-HOUR INTEGRATOR

The distance at which molecules migrate in an electrophoresis apparatus depends on the applied voltage and run-time ($\int V\cdot dt$). In order to achieve reproducible experiments, it is recommended to use a volt-hour integrator rather than a simple timer.

ZERO POINT (E_0)

Standard pH meters assume a pH electrode to supply a zero potential at 7 pH. Electrodes for special applications (e.g. stomach pH measurements) may have a different zero point. An adjustable zero point correction feature will allow users to measure with these electrodes.

Art. 1

Unless otherwise agreed in writing, the legal relationship between the parties is governed by the present general terms, of which the customer declares to have taken cognisance, and which prevail over the customer's possible terms of purchase.

Art. 2

All quotations are without engagement. Prices do not include taxes. Any price stated is based at all times on the salaries, social charges and prices of materials obtaining on the date of the quotation. Official price modifications as arranged by legal dispositions automatically entail equivalent modifications of the prices stated in the contract. This proportional increase can also apply to part of the order or work.

Art. 3

Transport or dispatch of our goods by any means of transport is at the consignee's risk, even with carriage paid.

Art. 4

If our firm acts as an intermediary, the guarantee on the goods supplied by us is restricted to the guarantee given to us by the supplier or manufacturer. If the goods are subject to formal guarantee, defective, material will be repaired or replaced, but no claims for any other damage will be accepted.

Art. 5

All invoices are payable cash on the address of the invoice unless otherwise stipulated in the documents committing the parties or unless an expiry date is stated on the Invoice.

Art. 6

Contrary to art. 1583 of the Civil Code, any goods that are not paid in full remain our full property; in such case possible advance payments will serve as a compensation for costs and loss of profit.

Art. 7

Bills in arrears entitle us to suspend any further deliveries or services without prior notice, such to prevent debts from further increasing.

Art. 8

The supply of goods or services on a later date than the date stipulated for supply or service, if such is not caused by bad faith or a serious shortcoming of the supplier, shall never form a motive for suspending the order or the agreement, nor entitle the customer to claim any damages.

Art. 9

If default is made in cash payment or if payment is not carried out on the expiry date stated, the amount of the invoice shall bear a conventional interest of 1.5% per month as from the day on which the invoice is remitted or as from the expiry date stated, such by right and without any formal notice. Each month started shall be charged as a full month.

Art. 10

Moreover, by way of a fixed and irrevocable condition, the amount of the invoice shall be increased by 15% with a minimum of 200 EUR, by right and without formal notice, as a compensation for recovery costs of the claim (both staff and administration costs, management and follow-up of the file, influences on financial management, etc.), in application of art. 1147 C.C. and 1152 C.C. This compensation is due apart from the moratory interests, the recoverable procedure costs and the possible compensation for material damages and loss of profit. The parties thus agree that this compensation is fixed and that, contrary to art. 1231 C.C. It cannot be modified, even when the shortcoming is only partial.

Art. 11

Cheques and bills of exchange are only accepted as payment after their repayment. Possible costs are at the expense of the purchaser or commissioner.

Art. 12

The drawing and/or accepting bills of exchange or other transferable documents does not imply a novation or deviation from the general terms. The acceptance costs of bills of exchange are at the expense of the purchaser or commissioner.

Art. 13

If one invoice remains unpaid on its expiry date, the balance due of any other invoices, even when not expired, are immediately recoverable by right.

Art. 14

In the event of a dispute, only the courts of Turnhout, Belgium, shall have competence.

Art. 15

Any complaints regarding the supply of the goods and services shall be made on termination and be confirmed by a motivated registered letter within 8 days of the date of supply. These complaints do not suspend the obligation of payment.

Art. 16

Remarks and restrictions concerning the invoice and/or the general terms therein stated shall be transmitted to us by motivated registered letter within 8 days of date of invoice; for the settlement of disputes this period amounts to 30 days. If an order form is signed by a purchaser or commissioner, the regulations of the general terms stated on the order form shall apply.