

OUR COMPANY

Since 1992 ELETTROFOR collaborates actively in scientific research, producing vertical and horizontal electrophoresis apparatus, either standard or custom.

From 1996, increases the production on a national scale thanks to a network of distributors. Gel documentation system will complete the range of products that ELETTROFOR can offer.

Starting from 2010 ELETTROFOR enter the field of proteomics, producing an innovative instruments, under the new brand P-Dimensional, worldwide patented, with extraordinary results.

Currently ELETTROFOR is perhaps the only company in Italy to be able to offer a truly professional and ISO maintenance and repairing service, as well as parts for all brands of electrophoresis units in the market.

ELETTROFOR is also able to guarantee repairing service in all other instruments for the life science. Our dedicated staff ensure to the customer an accuracy and quick service in the unlike event that your equipment develops a fault..

To complete the range of laboratory products distributed in retail, from the major worldwide production:

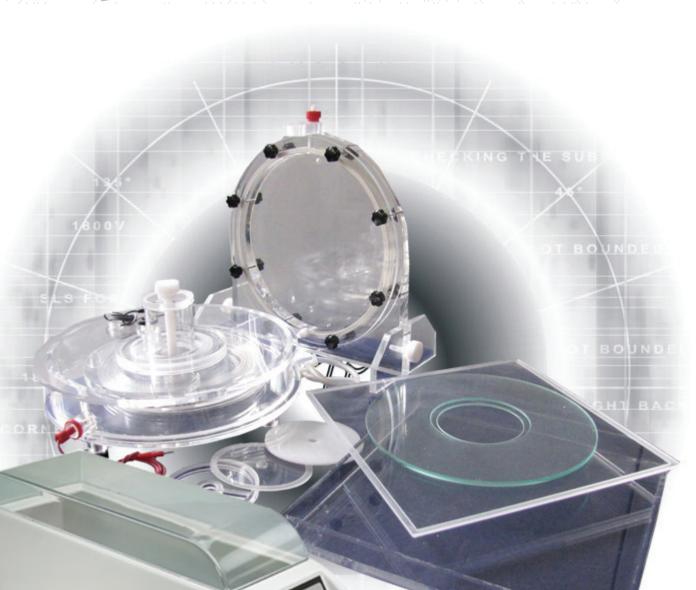
- PCR Disposable plastic and cell culture;
- Reagents for electrophoresis and molecular and cellular biology;
- Scientific Instruments for life science
- Customized devices

ELETTROFOR, thanks to the competence, courtesy and availability of their staff, is the ideal partner in the biotechnology, with over 2000 customers as assets.



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M Dimensional



A NEW DIMENSION

P-Dimensional electrophoresis: the vision of proteome at 360 degrees

2-DE is currently one of the best technique that can be routinely applied for parallel quantitative expression profiling of complex mixtures of proteins, such as cell lysates and biological fluids. Furthermore, 2-DE produces maps of proteins where changes in protein expression, isoforms and post-translational modifications are assessable at a visual level.

However, despite the high potential of 2-DE, this technique is frequently criticized as being low-throughput, in part due to the time-consuming process of image analysis that is necessary to determine differential protein expression. This process can be laborious due to gel-to-gel variations that confound the analysis process. Moreover, another problem is the scarce resolution achieved when working with complex biological samples, especially when extended gradients are used instead of narrow (3 pH unit wide) or ultranarrow (down to 1 pH unit wide) IPG-strip. This in turn leads to the phenomenon of "spot overlapping", by which proteins with similar features (molecular mass and isoelectric point) are not resolved either in the first dimension or in the second one, thus merging in a unique spot in the final map [1].

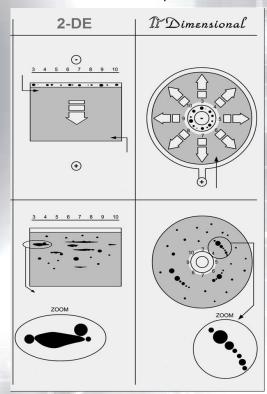
P-Dimensional is the new brand of Elettrofor which will offer all the instruments, supplies and accessories to perform the P-Dimensional electrophoresis (2-PE).

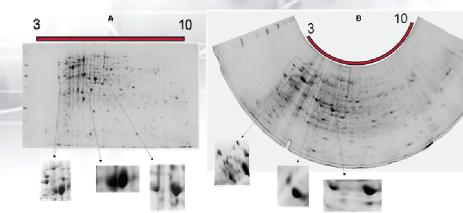
Our mission is to improve the resolution of proteins with close pI and Mr values and the map reproducibility, as compared to the traditional 2-DE technology.

2-PE (patent pending) is still based on the coupling of IEF in the first dimension and SDS-PAGE in the second dimension, but it takes advantage of a SDS-PAGE step with a radial electric field instead of a parallel one.



Traditional (panel A) and "circular" (panel B) 2-D maps of cytoplasm water-soluble proteins from *S. maltophilia*. IPGs: 18-cm long non-linear 3-10 pH gradient. SDS-PAGE: 12 %T Tris-Glycine gels.





PROTEOMICS 2-PE electrophoresis

P-Dimensional



π -Focus (P-Focus)

IEF electrophoresis strip system *Cod. PRO-0010*



P-focus is the first step to perform 2-PE electrophoresis (P-dimensional electrophoresis)

The unit has a built-in power supply and can deliver up to 15000 V and allows regulation of amperage (up to 200 μ A) onto each individual focusing (IPG) strip.

IEF tray can accommodate up to 12 IPG strips and up to 45 cm in length, allowing to run very large size 2D maps.



With this IEF system, you can run strips of maximum length still at a voltage gradient of 330 V/cm, comparable to present-day power packs operating at 8000 V on strips of 24-cm length.

The Pt wires can slide on a support to permit running strips of any length, usually from 8 to 45 cm length.

The built-in high performance Peltier system allows to control temperature in the range from 10° to 20°C.

All the parameters can be imput and modified trought the large LCD display. and the soft-keyboard membrane.

This novel instrumentation is useful as first dimension to perform large-size IEF strip electrophoresis (>25 cm).

P-Focus IEF strip system

Operatine Temperature $5 \div 40^{\circ}\text{C}$

Humidity $0 \div 90\%$ not condensing

Power supply 100-250V, 50-60Hz

Power consumption Max 150 W

Voltage range $0 \div 15000 \text{ V}$

Voltage Resolution 10 V

Current range per strip $10 \div 200 \,\mu\text{A}$

Temperature range $15 \div 30^{\circ}$ C

External material ABS (body), Stainless stell (base)

Cover material ABS

Strip tray

Strip type IPG strip from 8 up to 45cm lenght

Strip capacity Up to 12

Interface

Display LCD 5" retroilluminated

Control panel Eight-key membrane keyboard

Storage Protcol 10, with up to 10 programmable steps each

Programmable parameters Rehydration time, Rehydration temperature, Rehydra-

tion voltage, current per strip, max current per strip, strip number, step voltage, step duration, operation

mode (step-and-hold, gradient)

Unit sizes

Dimensions (W x D x h) cm $25 \times 82 \times 27,5$

Safety device

Safety features Automatic voltage cut-off when lid is opened



PROTEOMICS 2-PE electrophoresis

P-Dimensional



π -BOX1 (P-Box1)

P-Dimensional electrophoresis unit—1 gel *Cod. PRO-0001*

This is the new innovative electrophoresis unit that allow to perform and complete the new **2-PE technique**.

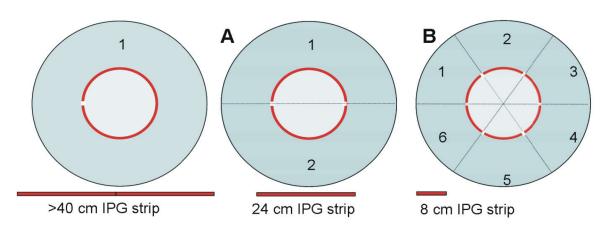
The line of forces of electric field are determined by a circular and concentric electrodes where the resolution of single spot increase during the innovative radial separation, by a factor proportional to the migration distance.

This is the second step of 2-PE electrophoresis. After run IPG strip trought the IEF P-focus apparatus, the same strip are ready to be use in the P-box.

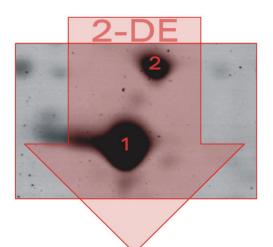
The loading of 2 or more strip on a single SDS-PAGE gel greatly improve the riproducibility and thanks to the P-BOX you are able to run many IPG strip in the same time.

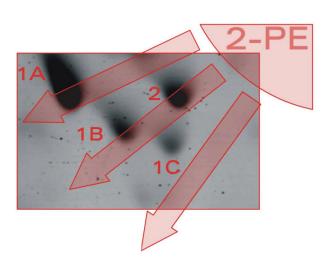
For example it is possibile to put on the same gel two 24-cm long IPG strip, each occupying half of the internal circunference, or up to six 8-cm-long IPGs (for 2-PE minigels)

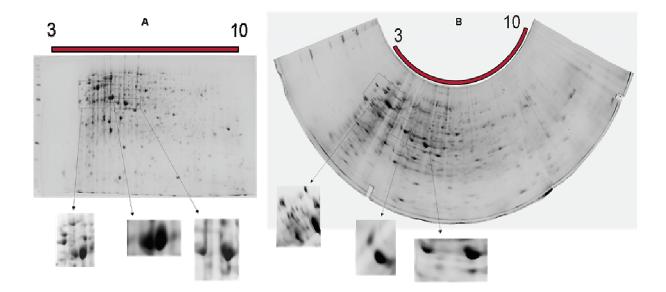


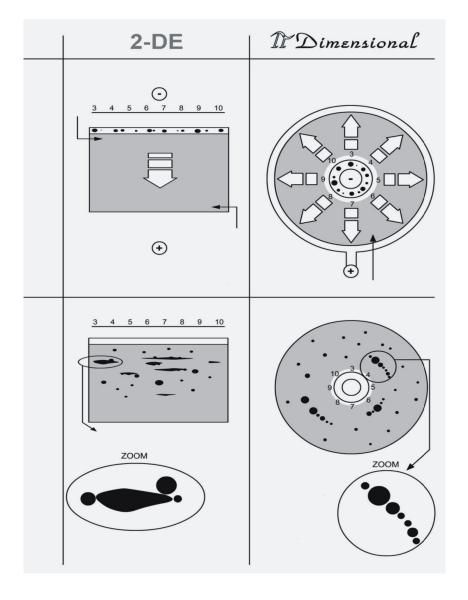


The multi strip loading configuration allow to reduce consumption of chemicals (such us the electrophoresis buffer, polyacrylamide and staining/destaining solutions) and less time required for an experiment











PROTEOMICS 2-PE electrophoresis

P-Dimensional



The P-Box is supply with the round gel casting sytem allow the operator to cast gel before running IPGs together with 2 round glass plates. One of each round glass plate as an internal diameter of 130 mm, the other one has an internal diameter of 150 mm allow to load IPG strip

Both have an external diameter of 350 mm





Model	P-box1
Product code	PRO-001
Gel sizes Ø mm	350
IPG strip number	From 1 to 6
Buffer volume max ml	3500ml
Electrode type	0,35mm platinum wire
Electrodes connectors	Gold plated 4mm

The unit is supply with all accessories necessary for the use (Reagent not included)

Image acquisition and analysis



π –Scan (P-Scan)

2-PE Flatbed Image Acquisition Scanner *Cod. PRO-0016*

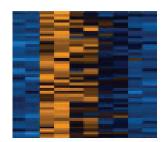
With 2400 dpi resolution—higher than any other B-size flatbed scanner available today—plus a 3.8 Dmax and 48-bit color, the P-Scan offers everything to the researcher for acquisition and documentation of 2-PE gels, as well as densitometric applications

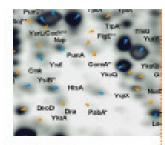
Scanner Type	Flatbed color image scanner
Scanning Method	Movement of the carriage
Photoelectric Device	(CCD line sensor
Maximum Read Area	12.2" x 17.2" (310mm x 437mm)
Light Source	Xenon gas cold cathode fluorescent lamp
Optical Resolution	2400 dpi
Hardware Resolution	2400 x 4800 dpi with Micro Step Drive technology
Maximum Resolution	12,800 x 12,800 dpi with interpolation
Effective Pixels	87,840 pixels/line (2400)
Image Data Color Depth Grayscale Depth Line Art	16 bits per pixel internal/external 16 bits per pixel internal/external 1 bit per pixel
Scaling (zoom)	50% to 200% (1% step)
Optical Density	3.8 Dmax
Brightness	7 levels
Reading Sequence	One-pass scanning
Focus Control	AutoFocus optics system (CCD and lens unit)
Scanning Speed (2400 Color Grayscale Line Art	dpi, draft mode) 16.0 msec/line (approx.) 5.3 msec/line (approx.) 5.3 msec/line (approx.)



PROTEOMICS 2-PE electrophoresis

Analysis software



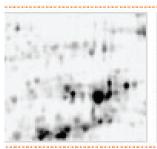


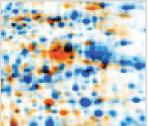


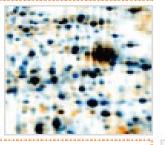
Cod. PRO-0020













Delta2D – on the cutting edge of technology

You spend a lot of time optimizing your sample preparation and 2D gel electrophoresis protocols. When you analyze the resulting gel images, you want to ensure that you get the most information out of them. Delta2D incorporates modern technologies that allow you to get reliable and statistically significant results. Furthermore, the effort needed to analyze images is reduced to a minimum — your time matters to us.

Analyze ALL your 2DE experiments with ONE software

Two-dimensional electrophoresis has seen many innovations in the past. With Delta2D you can take advantage of all the different techniques: Classical experiments as well as DIGE and other multiplex experiments like Phospho- or Glycoproteomics can easily be analyzed. Whatever you want to explore, Delta2D will help you to get the most information out of your gels.

P-Dimensional

Advanced statistical methods

With Delta2D's 100 Percent Spot Matching, there are no missing values, and matching problems are virtually eliminated. This does not only translate to higher statistical confidence, data generated by Delta2D is also especially suitable for the methods that were originally designed for DNA microarray analysis.

Since version 3.6 Delta2D incorporates algorithms from the TIGR Multiple Experiment Viewer (MeV) and tightly integrates them into the twodimensional gel image analysis workflow.

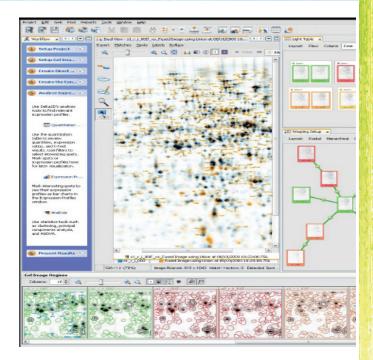
Identify structures in your data and detect outliers

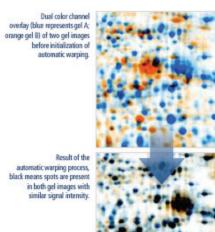
Clustering methods can be used to group expression profiles and gel images by similarity. This can be very useful for getting an overview of all expression profiles before proceeding with more detailed analyses. These methods are currently available:

- Hierarchical Clustering (HCL),
- k-means/k-medians Clustering (KMC),
- Principal Component Analysis (PCA).

Clustering of gel images can also be used to detect outliers, and to identify structures in the experiment. Ideally, the cluster composition will reflect the structure of the experiment, e.g. replicates and images from the same sample should have similar expression levels and thus end up in the same cluster.

Furthermore, Pavlidis Template Matching (PTM) allows for selecting proteins that follow a given expression pattern.





Dual Channel Images (overlay of two images colored in false colors)	See differences in spot patterns at a glance, e.g. enables qualitative analysis of gel images
SmartVectors HQ™ Technology for automatic gel alignment, i.e. image warping	Minimizes hands-on time No need for initial landmarks Eliminates running differences between gels that prevent for a fast and reliable analysis Allows verification and adjusting of automatically found vectors
Image Fusion and Proteome Maps	Combine several gel images to one synthetic (but realistically looking) gel image See all spots of all conditions on just one image – the proteome map Minimizes time needed for spot detection and editing
Color Coding for Spots and Labels	Condense your analysis results in just one gel image, e.g. in your proteome map See at a glance the distribution and also outliers in a selected property (pl, MW, etc.) over a complete gel image
3D Spots	See spots in a 3D view Check spot detection, i.e. find artifacts or spots that have to be deleted, splitted, or joined. Compare spots from two images

HORIZONTAL Dna/Rna electrophoresis units

OA-SERIE





Standard horizontal electrophoresis system in agarose gel execution for DNA and RNA analyses. The simplicity and velocity of preparation make this system the most used for the quantification and separation of DNA fragments amplified, for the control of the restriction enzimes action and for the plasmid linearization." Long-life" electrodes, 3 standard slot for comb (customized slot on request). Assembled high-quality acrilyc framework.

Safety lid, adjustable height levelling foot. Platinum wire 0.35mm for major current and voltage. All the units are supplied with 3 combs, 1 UV transparent geltray, gel-caster, connections cables, sample-load contrast plate, bubble levelling stick.

At the order, you have to choose comb's pits number and thickness, and also the sizes of gel-tray

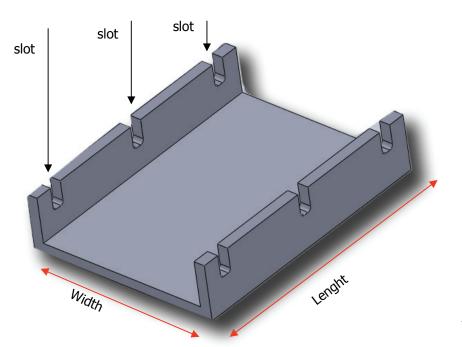
- High-impact robust acrylic costruction.
- Safety lid.
- Long-life electrodes corrosion-free.
- Universal 4mm power output connectors compatible with the major power supply on the market.
- Uv transparent acrylic gel tray.
- More accessories on request.
- Uniform electric field and correct polar orientation.
- CE marked

Model	OA-50/T	OA-78	OA-110
Product code	1003/1	1004	1006
Gel sizes mm W x L	50x50	78x100 as standard 78x120 on request	110x140 as standard 110x110 on request 110x160 on request
Samples number per comb	From 1 to 5	From 4 to 15	From 8 to 20
Buffer volume max ml		450	790
Gel tray slots number	1 as standard	3 as standard	3 as standard
Internal unit sizes		90 x 160 x 45	125 x 255 x 55

Model	OA-120	OA-160	OA-200
Product code	1010	1012	1014
Gel sizes mm W x L	120x140 as standard 120x110 on request 120x160 on request	160x160 as standard 160x180 on request	200x250 as standard 200x200 on request 200x300 on request
Samples number Per comb	From 8 to 25	From 10 to 30	From 21 to 38
Buffer volume max ml	1110	1900	1900
Gel tray slots number	3 as standard	3 as standard	3 as standard
Internal unit sizes mm W x D x H	125 x 245 x 65	165 x 270 x 65	210 x 350 x 75

OA Gel trays are made in high quality and resistence acrylic material and UV transparence for perfect gel visualization trought uv source.

Each slot, on request, can be realized with difference distance between one and the other one.





HORIZONTAL **ACCESSORIES**

OA SERIE

GE	L TRAYS
2010a	GEL-TRAY FOR OA-78 - 78x80mm - x 2 combs
2010a	/1 GEL-TRAY FOR OA-78 - 78x80mm - x 3 combs
2010b	GEL-TRAY FOR OA-78 - 78x100mm - x 2 combs
2010b	/1 GEL-TRAY FOR OA-78 - 78x100mm - x 3 combs
2010c	GEL-TRAY FOR OA-78 - 78x120mm - x 2 combs
20100	/1 GEL-TRAY FOR OA-78 - 78x120mm - x 3 combs
0010	OF LTD1V FOR OA 440 440 440
2012a	GEL-TRAY FOR OA-110 - 110x110mm - x 2 combs
2012a	1 GEL-TRAY FOR OA-110 - 110x110mm - x 3 combs
2012b	GEL-TRAY FOR OA-110 - 110x140mm - x 2 combs
2012b	1 GEL-TRAY FOR OA-110 - 110x140mm - x 3 combs
2012c	GEL-TRAY FOR OA-110 - 110x160mm - x 2 combs
2012c	1 GEL-TRAY FOR OA-110 - 110x160mm - x 3 combs
2014a	GEL-TRAY FOR OA-120 - 120x110mm - x 2 combs
2014a/	1 GEL-TRAY FOR OA-120 - 120x110mm - x 3 combs
2014b	GEL-TRAY FOR OA-120 - 120x140mm - x 2 combs
2014b/	1 GEL-TRAY FOR OA-120 - 120x140mm - x 3 combs
2014c	GEL-TRAY FOR OA-120 - 120x160mm - x 2 combs
2014c/	1 GEL-TRAY FOR OA-10 - 120x160mm - x 3 combs
2016b	GEL-TRAY FOR OA-160 - 160x160mm - x 2 combs
2016b	1 GEL-TRAY FOR OA-160 - 160x160mm - x 3 combs



2014c/1	GEL-TRAY FOR OA-10 - 120x160mm - x 3 combs
2016b	GEL-TRAY FOR OA-160 - 160x160mm - x 2 combs
2016b/1	GEL-TRAY FOR OA-160 - 160x160mm - x 3 combs
2016a	GEL-TRAY FOR OA-160 - 160x180mm - x 2 combs
2016a/1	GEL-TRAY FOR OA-160 - 160x180mm - x 3 combs
2017a	GEL-TRAY FOR OA-200 - 200x200mm - x 2 combs
2017a/1	GEL-TRAY FOR OA-200 - 200x200mm - x 3 combs
2017b	GEL-TRAY FOR OA-200 - 200x250mm - x 2 combs
2017b/1	GEL-TRAY FOR OA-200 - 200x250mm - x 3 combs
2017c	GEL-TRAY FOR OA-200 - 200x300mm - x 2 combs
2017c/1	GEL-TRAY FOR OA-200 - 200x300mm - x 3 combs

GEL-CASTING SYSTEM

2449/1	GEL-CASTER OA-78
2450/1	GEL-CASTER UNIT WITH PLANE SURFACE OA-78
2449/2	GEL-CASTER OA-110
2450/2	GEL-CASTER UNIT WITH PLANE SURFACE OA-110
2449/3	GEL-CASTER OA-120
2450/3	GEL-CASTER UNIT WITH PLANE SURFACE OA-120
2449/4	GEL-CASTER OA-160
2450/4	GEL-CASTER UNIT WITH PLANE SURFACE OA-160
2449/5	GEL-CASTER OA-200
2450/5	GEL-CASTER UNIT WITH PLANE SURFACE OA-200

COMBS

COMB FOR UNIT OA-78 SP.0,75mm.	2047	
COMB FOR UNIT OA-78 SP.1mm.	2048	
COMB FOR UNIT OA-78 SP.1.5mm	2050	
COMB FOR UNIT OA-78 SP.2mm.	2052	
COMB FOR UNIT OA-78 SP.3mm.	2054	
COMB FOR UNIT OA-78 SP.5mm.	2056	
D#		

Pits on request by users

COMB FOR UNIT OA-110 SP.8mm.	2067
COMB FOR UNIT OA-110 SP.1mm.	2058
COMB FOR UNIT OA-110 SP.1.5mm	2060
COMB FOR UNIT OA-110 SP.2mm.	2062
COMB FOR UNIT OA-110 SP.3mm.	2064
COMB FOR UNIT OA-110 SP.5mm.	2066

Pits on request by users

COMB FOR UNIT OA-120 SP.1mm.	2068
COMB FOR UNIT OA-120 SP.1.5mm	2070
COMB FOR UNIT OA-120 SP.2mm.	2072
COMB FOR UNIT OA-120 SP.3mm.	2074
COMB FOR UNIT OA-120 SP.5mm.	2076

Pits on request by users

COMB FOR UNIT OA-160 SP.1mm.	2078
COMB FOR UNIT OA-160 SP.1.5mm	2080
COMB FOR UNIT OA-160 SP.2mm.	2082
COMB FOR UNIT OA-160 SP.3mm.	2084
COMB FOR UNIT OA-160 SP.5mm.	2086

Pits on request by users

COMB FOR UNIT OA-200SP.1mm.	2088
COMB FOR UNIT OA-200 SP.1.5mm	2090
COMB FOR UNIT OA-200 SP.2mm.	2092
COMB FOR UNIT OA-200 SP.3mm.	2094
COMB FOR UNIT OA-200 SP.5mm.	2096

Pits on request by users

THERMOSTATIC AND BUFFER **MAGNETIC CIRCULATION SYSTEM**

2502	THERMOSTATIC SYSTEM OA-78
2504/6	BUFFER MAGNETIC CIRCULATION SYSTEM OA-78
2503	THERMOSTATIC SYSTEM OA-110
2504/7	BUFFER MAGNETIC CIRCULATION SYSTEM 0A-110
2503	THERMOSTATIC SYSTEM OA-120
2504/7	BUFFER MAGNETIC CIRCULATION SYSTEM 0A-120
2504	THERMOSTATIC SYSTEM OA-160
2504/8	BUFFER MAGNETIC CIRCULATION SYSTEM OA-160
2504/1	THERMOSTATIC SYSTEM OA-200
2504/9	BUFFER MAGNETIC CIRCULATION SYSTEM OA-200

HORIZONTAL Dna/Rna electrophoresis units

OA SERIE

EASY WAY FOR CASTING YOUR GELS!

We developed a very easy-to-use gel caster, so you can make your gel quickly!

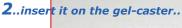
Simply insert the tray on the gel-caster, using the springs to adapt the plexiglass walls with gasket on the free side of the tray. Now you have a complete isolate tray and you can pour your agarose solutions! Finally wait the polymerization of the gel and start run once you loaded samples!

With our gel-casting system you don't need any special seals for prepare your gels!

3 simple steps.....





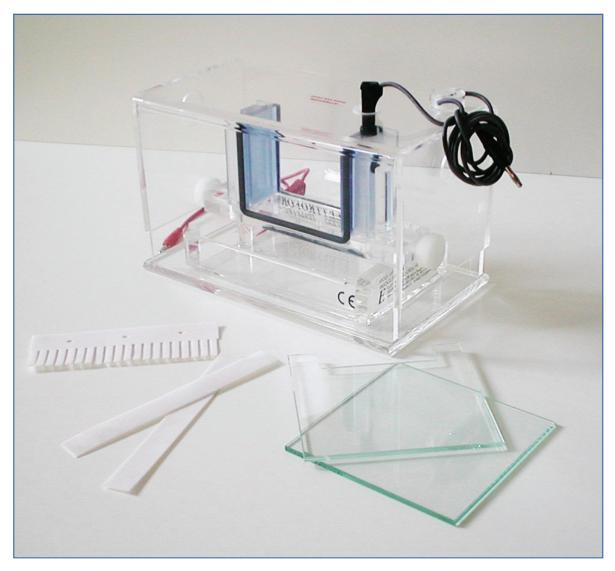






VERTICAL Proteins electrophoresis u-

VP SERIE





Vertical electrophoresis unit for proteins on polyacrylamide gel. This system allows to execute gels of favorite matrix e.g polyacrylammide and to obtain vertical separation. The high resolutive power of this system makes it suitable for the separation of proteins in both denaturing and not denaturino conditions. It is used as the first step in edulcoloration of proteins through gel elution and in the transfer of proteins on nitrocellulose or nylon matrix. This system can be used for DNA analyses wich need a high sensivity and a discrimination of small differences in nucleotides: amplified surveying, checking of restriction enzymes action, gelfingerprinting, SSCP and so on.... Available for 1 or 2 gels in the same time, high impact acrylic construction.

Standard accessories are included: 2 combs, 2 glass plate couple, 2 spacers set, gel-caster, chrome clips and cables.

At the order must specified thickness and pits number of the combs. To cool down the buffer can be use a glass coil with a cooled liquid inside.

Available gel-precast interchange module to combine both pre-cast gel and normal gels.

- High-impact robust acrylic costruction.
- Safety lid.
- Long-life electrodes corrosion-free.
- Universal 4mm power output connectors compatible with the major power supply on the market.
- Uv transparent acrylic gel tray.
- More accessories on request.
- Uniform electric field and correct polar orientation.
- CE marked

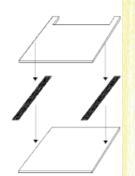
Model	VP-80	VP-100	VP-140
Product code	1020	1021	1022
Gel sizes mm W x L	80x100 as standard 80x120 on request 80x140 on request	100x100 as standard 100x120 on request 100x140 on request	140x160 as standard 140x140 on request 140x180 on request
Gel thickness available mm	0.75—1—1.5—2	0.75—1—1.5—2	0.75—1—1.5—2
Buffer volume total ml	550	550	1050
Volume positive tank ml	300	300	550
Volume negative tank ml	250	250	500
Max sample per comb	From 6 to 15	From 6 to 15	From 10 to 20
Acrylamide volume ml On standard gel	Gel 80x100 6—10ml	Gel 100x100 6—10ml	Gel 140x160 10—22ml
Positive tank sizes LxWxH	155 x 90 x 25	155 x 90 x 25	210 x 100 x 30
Negative tank sizes LxWxH	80 x 40 x 85	80 x 40 x 85	140 x 40 x 100

Model	VP-160
Product code	1024
Gel sizes mm W x L	160x180 as standard 160x160 on request 160x200 on request 160x220 on request
Gel thickness available mm	0.75—1—1.5—2
Buffer volume max ml	1150
Volume positive tank ml	600
Volume negative tank ml	550
Max sample per comb	From 15 to 30
Acrylamide volume ml	Gel 160x180 27—31ml
Positive tank sizes LxWxH	210 x 30 x 45
Negative tank sizes LxWxH	160 x 50 x 105

Gel-caster

Gel-casting can be done thanks to glass plates and the base included.

- Use glass plate and spacers to make the "sandwich" that can be insert on the preparation base.
- After insert the glass plates with spacers on the preparation base fix the clamp on the side and then use the 2 screw to block the glasses.
- After this, you can pour your poliacrylamide solution and put the combs for making loading pits.





VERTICAL Dna Sequencing unit with adjustable height

VS SERIE





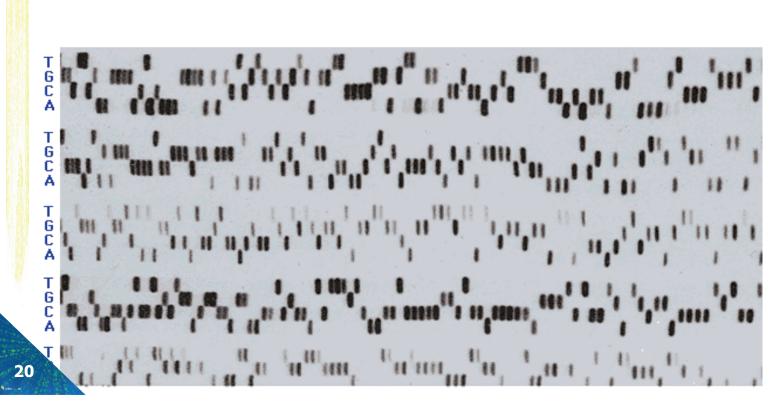


Comprising FIVE units, the range offers an unsurpassed combination of economy of gel and buffer volume, with versatility and safety. .Gel size and sample number requirements can be exactly matched in each unit.

Very high resolution power system. The combination of a vertical run of polyacrylamide gel is suitable for underlining the difference of single base in the different DNA fragments produced during a sequencing.



- High-impact robust acrylic costruction.
- Safety lid.
- Long-life electrodes corrosion-free.
- Universal 4mm power output connectors compatible with the major power supply on the market.
- Uv transparent acrylic gel tray.
- More accessories on request.
- Uniform electric field and correct polar orientation.
- CE marked





Cod. 1028

Vertical electrophoresis system for DNA fragments sequencing on acrylamide gel on single or double

This unit is ideal for application with big gels. This unit is supply with all accessories and ready-to-use.

MODEL VS-185

Cod. 1030

Vertical electrophoresis system for DNA fragments sequencing on acrylamide gel on single or double run. This unit is ideal for application with big gels. This unit is supply with all accessories and ready-to-use.

Other model available:

MODEL VS-185/2: FOR TWO GELS

MODEL VS-210

Cod. 1032

Vertical electrophoresis system for DNA fragments sequencing on acrylamide gel on single or double run. This unit is ideal for application with big gels. This unit is supply with all accessories and ready-to-use.

Other model available: MODEL VS-210/2: FOR TWO GELS

MODEL VS-310

Cod. 1034

Vertical electrophoresis system for DNA fragments sequencing on acrylamide gel on single or double run. This unit is ideal for application with big gels. This unit is supply with all accessories and ready-to-use.

Other model available: MODEL VS-310/2: FOR TWO GELS

Model	VS-165/2
Active gel sizes	16,5 x 30 cm (lenght 40 –60 cm on request)
Gel thickness	0.20-0.30-0.50mm
Upper Buffer chamber volume	600ml
Lower Buffer chamber volume	2000ml
Comb max n°sample	From 10 to 30
Simultanuosly double run option	YES

Model	VS-185
Active gel sizes	18,5 x 30 cm (lenght 40 –60 cm on request)
Gel thickness	0.20-0.30-0.50mm
Upper Buffer chamber volume	800ml
Lower Buffer chamber volume	2000ml
Comb max n°sample	From 10 to 30
Simultanuosly double run option	YES

Model	VS-210
Active gel sizes	21 x 30 cm (lenght 40 –60 cm on request)
Gel thickness	0.20-0.30-0.50mm
Upper Buffer chamber volume	800ml
Lower Buffer chamber volume	1000ml
Comb max n°sample	From 22 to 30
Simultanuosly double run option	YES

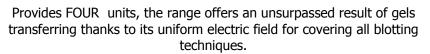
Model	VS-310
Active gel sizes	31 x 30 cm (lenght 40 -60 cm on request)
Gel thickness	0.20-0.30-0.50mm
Upper Buffer cham- ber volume	800ml
Lower Buffer cham- ber volume	1000ml
Comb max n°sample	From 22 to 30
Simultanuosly double run option	YES



TRANS-BLOT Transfer units

TB SERIE







The transfers of proteins from gel to a nitrocellulose or nylon matrix under theaction af an electric field is the most used system for immunoenzymatic analyses and for amino acid sequencing. It couples the high resolutive power of the vertical run on a polyacrilamide gel with the possibility to transfer proteins to a matrix more accessible to further analyses

(for istance, recognition of agiven antigen, possibility to produces peptides with aimed digestions). The electroblot can be used to transfer DNA or RNA to matrixes instead of t he more standard northern and southern blot.

The dot/slot-blot for proteins is an easy method for quantificative analyses through the direct application of the sample, without a previous treatment, into membranes or paper. The technique is used for bands test on many samples and is essential for those studies in which the edulcoloration or other treatments can alterate the protein biologic activity. Contrarily to other techniques the dot/slot-blot can be used for a variety of membranes orr filters always keeping a good signal to filler ratio. Dot/slot-blot technique, in which DNA in solution is directly applied to a matrix, is a fast qualitative screeming method for the presence of a fixed RNA or DNA sequence. Tests can be done both on edulcorated nucleic acids and on samples of cell listing. Oth the systems, the point (dot) and the fissure (slot) one, have the possibility of a densimetric quantification.

"Southern" transfer system transfer elution DNA from an agarose gel to a solid stand, like nitrocellulose or nylon membranes.

The transfe takes place through capillarity during one night, as soon as the DNA is immobilized it can be used for hybridization with marked drills or for other band tests. The surveing method can be either the standard one with radioisotopes or the more modern one with chemioluminescent or colorimetric techniques.

"Northern" transfer system refer to RNA elution from agarose gel to a membrane on which molecules are immobilized for further analyses (hybridization). The detection of the fixed RNA can be carried out by both a radioactive technique and chemioluminescent or colorimetric one.



MODEL T-B 900 Cod. 1036

Model	T-B 900
Electrodes	Spiral with platinum wire Ø 0.35mm
Current	Up to 500mA
Buffer volume	900ml
Max gels capacity	Up to 4
Gel sizes	10x10 cm
Thermostatic option	YES



MODEL T-B 3000 Cod. 1038

Model	Т-В 3000
Electrodes	Spiral with platinum wire Ø 0.35mm
Current	Up to 500mA
Buffer volume	3000ml
Max gels capacity	Up to 2 (4 on request)
Gel sizes	13x20 cm
Thermostatic option	YES

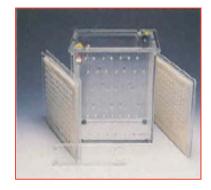


MODEL T-B/G 3000 Cod. 1043

Gradient system adapt to different molecular

Same features like T-B 3000 but with a more complex working.

Included a current device.



MODEL T-B 5000 Cod. 1040

- Model	T-B 5000
Electrodes	Spiral with platinum wire Ø 0.35mm
Current	Up to 500mA
Buffer volume	5000ml
Max gels capacity	Up to 2 (4 on request)
Gel sizes	20x20 cm
Thermostatic option	YES

DGGE Units Denaturing Gradient Gel Electrophoresis





DGGE is an electrophoretic separation method based on differences in melting behaviour of double stranded DNA fragments. The principle is that increasing denaturants concentration double-stranded DNA will melt in distinct domains. When the melting point of a domain is reached the DNA begins to melt, creating a branched molecule with reduced mobility in the gel. The denaturing environment is created by a uniform run temperature beteen 50 and 65°C and a linear denaturant gradient formed with urea and formamide. The gradient may be formed perpendicular or parallel to the direction of electrophoresis. At very high denaturants concentration the DNA fragment can completely melt, creating two single strands. DGGE is one of the most sensitive mutation detection methods, providing efficiency up to 99%

Important note:

the quality of the DGGE results is determined by the quality of the PCR products. Double bands most often are a PCR problem, not an electrophoresis problem. We advise to purify the DNA before to start a DGGE experiment.

Applications

- To hunt for unknown mutation
- · Screening mutations causing cancer
- Monitoring microbial diversity
- Identify DNA polymorphism
- Asses genetic diversity
- Determine DNA fragment melting point

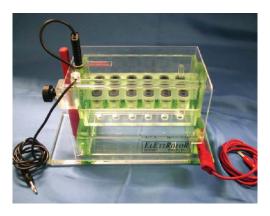
Elettrofor has designed five different DGGE Systems which are reliable and easy-to-use. The DGGE-1 (show above) is a 2 gels system. The DGGE-2 is a 4 gels system. The DGGE-3 is a 6 gels system and the DGGE-4 has a capacity of 8 gels per run. The DGGE Elettrofor System allow to rapidly cast the gels using metal clamps and a casting stand in which a rubber strip is placed at the bottom to prevent leakage. The gradient can be made easily using a gradient maker and a peristaltic pump. The polymerized gel is then transferred to a plexiglass dual gel cassette (upper reservoir) and then to a reinforced buffer tank (lower reservoir). The running buffer is circulated by the GT-80 thermostatpump to the upper buffer compartment and to the tank allowing to maintain a constant and homogeneous temperature during the run. Also a safety cover help to maintain the temperature and reduce evaporation.





Model	DGGE-1	DGGE-2	DGGE-3	DGGE-4
Product code	1042	1044	1045	1046
Gel sizes mm W x L	180x220 as standard Other size on request	180x220 as standard Other sizes on request	180x220 as standard Other sizes on request	180x220 as standard Other sizes on request
Number of gel	2	4	6	8
Glass plate sizes mm	200x220	200x220	200x220	200x220
Max samples number	2x20 More on request	4x20 More on request	6x20 More on request	8x20 More on request
Camera volume buffer ml	8000	9000	10000	10000
Temperature range regulation	From ambient up to 80°C			
Accessories included	Glass plates, 2 combs, 2 set of spacers, gel caster GT-80 immersion thermostath	Glass plates, 4 combs, 4 set of spacers, gel caster GT-80 immersion thermostath	Glass plates, 6 combs, 6 set of spacers, gel caster GT-80 immersion thermostath	Glass plates, 8 combs, 8 set of spacers, gel caster GT-80 immersion thermostath

SPECIAL Electrophoresis units



This unit performs the first phase of 2-D electrophoresis (Isoelectric Focusing - IEF), allows 12 capillary gels to be run at any one time, Essentially these gels differ in the length of the capillary tubes, with a diameter fro m2 to 5mmng, allowing a high degree of versatility in the separation desired. The capillary tubes have a wide capillary bore diameter, which greatly eases the extraction of the capillary gel once the IEF phase is completed. After focusing, which typically takes between 3 to 4 hours, the tube gel can then be extracted and the samples separated on a slab gel for the 2-D, size determining phase.

Model	IEF unit
Capacity	12 capillary gels
Internal capillary Ø	From 2 to 5mm
Product code	1026

SDS electrophoresis unit



The most commonly used denaturant is sodium dodecyl sulfate (SDS). SDS is an amphipathic surfactant. It denatures proteins by binding to the protein chain with its hydrocarbon 'tail', exposing normally buried regions and 'coating' the protein chain with surfactant molecules. The polar 'head' group of SDS adds an additional benefit to the use of this denaturant. Proteins solubilized in SDS bind the detergent uniformly along their length to a level of 1.4 g SDS/g protein. This creates a charge/mass ratio which is consistent between proteins. For this reason, separation on a polyacrylamide gel in the presence of SDS occurs by mass alone.

SDS is the most commonly used detergent in protein electrophoresis. Treatment with SDS creates a uniform charge to mass ratio between different proteins.

SDS PAGE offers a rapid and relatively accurate way to determine protein molecular weights. Masses determined by SDS-PAGE are usually accurate within 5-10%, although occasionally proteins may retain enough secondary structure or contain sufficient charged groups to migrate anomalously. The migration of histones, which carry a strong intrinsic charge, is an example of this phenomenon.



Model	SDS unit
Gel sizes	20x20cm
With built-in	Thermostatic coil
Product code	1026

Electro eluter unit



Model	Electro Eluter
Product code	1001

electro-eluter is an electroelution cell for preparative recovery of protein molecules from agarose and polyacrylamide gels.

Depending on the buffer system, this unt can be used for protein elution or dialysis. In all cases, setup is quick and easy and the sample is collected in a 400 μ l volume.



This is the VP-80PCG unit for use with Anamed Pre-cast Gels.

This unit can run one or two pre-cast gels.

We can adapt this unit to your pre-cast gel!

Model	VP-80PCG
Product code	1020/1
Gel sizes mm W x L	STANDARD PRE-CAST 100x100mm
Buffer volume max ml	550
Volume positive tank ml	300
Volume negative tank ml	250
Positive tank sizes LxWxH	155 x 90 x 25
Negative tank sizes LxWxH	80 x 40 x 85
Duoble run	yes





POWER SUPPLIES Digital electrophoresis power supplies

EFD SERIE







The EFD power supplies series are design to insure high precision and reliability to all electrophoresis application.

The EFD series are design for the follow techniques:

- Submerged DNA/RNA electrophoresis
- Electroabsorbition
- Fragment DNA separation
- Immuno-electrophoresis
- Minielectrophoresis with polyacrylamide gel

The electrophoresis runs can be controlled by voltage or current with automatic crossover. The EFD series is equipped with an automatically selection of the parameter not over the limts that they are

programmed.

All the parameters are controlled by microprocessor to ensure high precision.

- Start-up autocheck
- User-friendly interface
- Digital display
- Easy to clean Soft-touch membrane
- Visibile and audible alarms
- 4 output way to connect up to 4 electrophoresis unit in the same time.
- Timer or continuos operate
- Store of the last input settings at start up





EFD SERIE

	EFD-300 Cod. 7005	EFD-600 Cod.7007	EFD-1000 Cod.7012
Voltage output DC	1-300 V	1-600 V	1-1000 V
Current output DC	1-400 mA	1-400mA	1-400mA
Max power output	120 W	120 W	120W
Step	1V / 1mA	1V / 1mA	1V / 1mA
Timer	9h:59min	9h:59min	9h:59min
Fault detection	Viewing and audible alarm	Viewing and audible alarm	Viewing and audible alarm
Resolution	1 digit	1 digit	1 digit
Source	230 V AC +/-10% 50 Hz	230 V AC +/-10% 50 Hz	230 V AC +/-10% 50 Hz
Power abs.	150 W	180 W	180 W
Operating temperature	0-40°C	0-40°C	0-40°C
Display	led 16x2	Led 16x2	led 16x2
Ouput exit n°	N° 4	N° 4	N° 4
Dimensions (LxPxH)	15,5 x 20 x 12 cm	15,5 x 20 x 12 cm	22 x 20 x 12 cm



- High-impact robust acrylic costruction.
- Safety lid.
- Long-life electrodes corrosion-free.
- Universal 4mm power output connectors compatible with the major power supply on the market.
- Uv transparent acrylic gel tray.
- More accessories on request.
- Uniform electric field and correct polar orientation.
- CE marked



Converter for connector from 4 to 2mm Cod. 7020

GEL DOCUMENTATION Digital basic gel documentation system

PHOTO-GEL





Photo-Gel System is a user-friendly digital system with high resolutions for gel documentation. With a resolution up to 10 Mpixel, acquired image are of superb quality and very clear. It is a "stand-alone" system, the use of PC is not required and all the functions are managed by the practical and powerful camera, thanks to a simply interface and the small TFT Lcd display.

Photo-Gel System View is fitted with an external 5.6" TFT LCD display that allow to view the image before and after the acquisition.

Ecomic and compact system, but with powerful performance.

FRAMEWORK:

- Handle Light stainless steel pyramid darkroom with footprint 32x24cm standard framework with lateral knob to facilitate handling and displacement. (32x32 is also available but can't fit our UVIFOR M20)
- Small front door to aid gel introduction.
- Camera adapter with filter.
- Non-slip rubber gasket under darkroom

Photo-Gel Systems are suitable for all type of gels and can be used in all the transilluminators availble in the market.

OPTIONAL ACCESSORIES:

- Thermal printer CP SERIE for direct printing from camera.
- Gel-Quant Pro analysis software
- Totalab analysis software
- Sybr Green optical filter



Model	Photo-gel Basic	Photo-gel View
Product code	8490	8491
Camera resolution	10 Mpixel	10 Mpixel
Max gel field view	32 x 24cm	32 x 24cm
Memory capacity	8 Gbyte	8 Gbyte
Sensor type	CCD	CCD
Max resolution	2816 x 2112 pixel	2816 x 2112 pixel
Optical zoom	12x	12x
Digital zoom	4x	4x
External 5.7" TFT Lcd display	no	yes
Direct print from camera	yes	yes

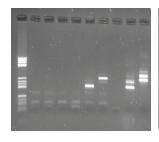


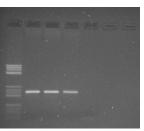


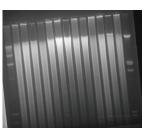


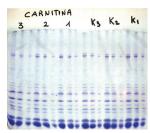


Photogel system Basic can be used in conjunction with our UVIFOR M20 transilluminator (cod.11001)









UV TRANSILUMINATORS

UVIFOR SERIE



Uvifor

Is th new line of transilluminators designed and manufactured by Elettrofor, which combined compact sizes with high performance in one simple instrument!

Thanks to a compact footprint Uvifor transilluminator can be place on your work benchtop surface and cover only a small part your space.

Specially designed for viewing Dna/Rna on agarose gels stained with ethidium bromure and for polyacrylamide gels. Can be used in university, research laboratories and departments, molecular biology, genetic, medical applications and in

all other scientific sectors where required.

Stainless steell external body is chemical resistant, hinged fully adjustable Uv safety screen can be positioned to suit the operator's viewing angle against exposure to harmful UV rays and protect him during viewing, cutting or positioning of gels.

Microprocessor controlled with electronic ballast that eliminates the flickering effect thanks to its 25 Khz high frequency. Also provide instant switch of the tubes.

Long-life high quality filter and stainless steel frame filter, with high efficiency reflecting panel for superb Uv transmission.

The high quality filter elimitates visibile light output and provide great contrast . The filter material is chosen for max transmission of the selected wavelenght. Unlimited life for 312 and 365nm and up to 3000 hours for 254nm.



Low(70%) for preparation. High(100%) for viewing.

Visibile alarms:

- Uv tubes life ending (default set by the manufacturer on 3000h).
- Uv tubes failure.
- General microprocessor error .

<u>Model</u>	Power supply	<u>Wavelenght</u>	<u>Filter sizes</u>	<u>Tubes</u>	Intensity
Uvifor S15	230V 50-60Hz	254nm	15 x 15 cm	6 x 8W	Double (High/Low)
Uvifor M15	230V 50-60Hz	312nm	15 x 15 cm	6 x 8W	Double (High/low)
Uvifor L15	230V 50-60Hz	365nm	15 x 15 cm	6 x 8W	Double (High/low)
Uvifor S20	230V 50-60Hz	254nm	20 x 20 cm	6 x 8W	Double (High/Low)
Uvifor M20	230V 50-60Hz	312nm	20 x 20 cm	6 x 8W	Double (High/Low)
Uvifor L20	230V 50-60Hz	365nm	20 x 20 cm	6 x 8W	Double (High/low)

Key features:

- ⇒ Electronic ballast/ microprocessor controlled
- ⇒ Eliminates flickering effect thanks to its 25Khz high frequency
- ⇒ Reduced electrical consumption
- ⇒ Unlimited life filter(312 and 365nm)
- ⇒ Intensità selector(70 / 100 %)
- ⇒ High quality reflector
- ⇒ High Uv transmission
- ⇒ Fully adjustable Uv safety cover
- ⇒ Stainlees steel body chemical resistant
- ⇒ Small footprint: 315x275x110mm
- ⇒ *CE Marked*
 - ⇒ 24 months warranty



PCR CABINET Pcr passive cabinet

Elettrofor PCr cabinet has been designed to decontaminate reagents and equipment prior to carring out PCR reactions. The powerful UV lamps denature nucleic acids in 5 to 10 minutes making them unsuitable for amplification.

The UV lamps are timer controlled so that the UV exposure can be minimized. Safety microwitch on the cabinet doors protect the user from accidental exposure to UV light. The 10 mm thick optical acrylic material also acts as an efficient shield of beta radioactive emissions .

A white light provides the user with good visibility when working with the cabinet.



TECHNICAL FEATURES

STRUCTURE

External: polycarbonate material

Lateral wall thickness: 6mm polycarbonate **Front wall thickness:** 6mm polycarbonate **Work surface:** stainless steel aisi 304

LIGHTNING

Uv lamp: Sankyo Denki G20T10 uvc germicidal 20W 254nm

Fluorescent lamp: white light

CONTROLS

White light switch

Timer for programming Uv light

SAFETY

Automatic cut-off of UV light when door open.

DIMENSIONS (L x P x H)

660 x 630 x 750h mm

WEIGHT

32Kg



GRADIENT MAKERS



Gradient gels resolve a much wider size range of proteins on a single gel. Furthermore, calculating molecular weights is simplified because, unlike single concentration gels, the relationship between log size and mobility is linear over most of the fractionation range of the gel.

Elettrofor offers gradient makers made with high impact acrylic and leak-free valves to make casting gradient gels easy and accurate.

PRODUCT CODE	DESCRIPTION
2999	Gradient Maker 15ml*
3000	Gradient Maker 25ml*
3002	Gradient Maker 50ml*
3004	Gradient Maker 100ml*
3006	Gradient Maker 250ml*
3008	Gradient Maker 500ml*
3010	Gradient Maker 1000ml*
3011	Gradient Maker 2500ml*

* indicated volume is to be intended total volume



Gradient Plus

New automatic gradient maker

- It's an automatic instruments controlled by microprocessor, that allows by two syringe actioned by a micromotor to mix two solution with different density.
- The two syringes can operate with different step and speed.
- Possibility to memorized custom program.
- With digital display.
- Built-in magnetic stirrer with speed regulation.
- Custom gradient % and total volume

IMMERSION THERMOSTATH AND THERMOSTATIC TANKS



The GT-80 (cod. 7500) immersion thermostath is used for tank thermostatic application. The device has a PID thermoregulator with temperature from ambient up to 80° C visualized on the display with resolution of 0.1° C.

Before the visualization, temperature is processed by an algorithm that allow the reduction of visualized value oscillation. Uniform heating by an electrical small shaker motor with helix and by 800 watt heating spiral.

The safety device allows to turn off the instrument when there is a too low level of liquid in the tank.

The GT-80 on request with recirculation pump (mod.GT-80/P) cod. 7500/P

Temperature range	From ambient up to 80°C
Resolution	0.1°C
Minumun tank height	150mm
Dimensions	130 x 210 x 300mm
Weight	Kg 2.25
Voltage	220V
Protection fuses	2 x 3,5A (5x20mm)



Elettrofor offer a wide range of acrilyc thermostatic tanks (customized sizes are available).

This tanks can be used with our GT-80 immersion thermostath that allow to control the liquid temperature inside the tank with a continue shaking movement of the liquid.

This mean a uniform temperature distribution inside the tank with a precision of $\pm - 0.2$ °C.

	Thermostatic Tank	
Cod. 4031 2mm	350x200x180h mm.	thickness1-
Cod. 4031/1 12mm	400x200x180h mm.	thickness
Cod. 4031/2 12mm	400x300x250h mm.	thickness

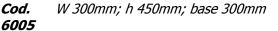


RADIATION PROTECTIVE SHIELDS

For protection against beta emitters we offer a complete range of safety products manufactured from 10 mm acrylic which blocks all beta emitters commonly used in the lab such as 32P, 35S, 3H and 14C.



ONE BEND SHIELD



Cod. W 420mm; h 600mm; base 300mm **6010**

Cod. W350mm; h 550mm; base 140mm **6020** (with curved base for the vassel)



DOUBLE BEND SHIELD



DOUBLE BEND SHIELD



THREE BEND SHIELD



Radiation safety workstation *Cod. 6090*

Ergonomic design allows easy and comfortable access through the two side doors. A plate in between the two doors shields the researcher effectively while working. The doors can be closed to use the unit for storing radioactive material.

500mm x 500h mm. (behind panel) Door dimensions: width 140mm height 270mm



MICROSCOPE CELL



Steel inox microscopes cell used with confocal microscopes for cells culture, in life studies and cells analysis. Used with glasses with \emptyset 25mm.

PRODUCT CODE 8000





AEQUORINOMETER

Product code 9119

Aequorinometer is the new instrument that allow to detect in-vivo signal from photo-proteins like aequorin.

Complete aequorinometer with:

- box 340x300x800h mm with protection of photomultiplier type 9893A/350.
- Thermostatic cell with small double flow glass holder.
- Amplificator/discriminator type AD2
- Counter time type PCB-CTI, CTI laeda
- Ambient housing-Ion barrel type B2F/RF
- Power supply type PM30D



EXCLUSIVE DISTRIBUTION

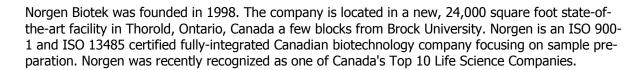
ELETTROFOR has the exclusive distribution in the italian territory for the following brand:



Jena Bioscience GmbH was founded by a team of scientists from the Max-Planck-Institute for molecular Physiology in Dortmund. 25+ years of academic know how were condensed into the company in order to develop innovative reagents and technologies for the life science market.

Jena Bioscience's products include nucleotides and their non-natural analogs, recombinant proteins & protein production systems, reagents for the crystallization of biological macromolecules and tailor-made solutions for molecular biology and biochemistry.





Norgen has successfully exploited part of its IP to develop over 60 sample preparation kits for RNA, DNA, and protein purification for research purposes. These kits include the leading kits in the world for the isolation and purification of total RNA and microRNA from various samples, as well as novel multi-analyte kits that allow for the sequential isolation of RNA, DNA and proteins from the same sample using a single column with no sample splitting. Another 40 sample preparation kits are currently in the pipeline.



PAN-Biotech GmbH is a modern and innovative company based at Aidenbach Bavaria.

The company develop, produce and distribute a broad variety of innovative biotechnological products for cell cultures. Key products are serumfree media, serum and their special variants and mediums. An important new product range are automated cell culture systems for research and industry. In addition Pan-Biotech offer growth factors as well as polyclonal and monoclonal antibodies and specific products for molecular biology.

The company offer you flexible solutions for your demands:Developments, productions, tests, measurements and quality controls will be done according to your requirements within our own laboratories. Whether you need individual data for production, special bottling or productions in small or bulk quantities, we will take up the challenge and install special testing and production procedures.



EXCLUSIVE DISTRIBUTION for EUROPE

Amerex Instruments

Amerex is an established designer, manufacturer and supplier of quality and reliable laboratory equipment for the government, university, biotechnology and biomedical markets. Our product lines include autoclaves, incubator shakers, incubators, ovens, and water baths. In the past two decades, Amerex has provided its customers with quality and reliable research equipment along with excellent after-sales service and prompt technical support.











