

**helicon**



*helicon*



# SOLUTIONS FOR GEL ELECTROPHORESIS

by Helicon Company

[www.helicon.ru](http://www.helicon.ru)

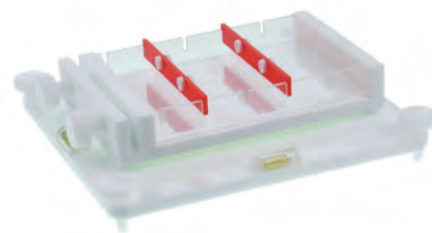
# ELECTROPHORESIS

## Levelling Table

Designed to level uneven laboratory surfaces.

Features:

- Convenient adjusting process;
- User-friendly design, simple settings; easy to clean;
- The surface of the table is easy to clean and due to its colour and structure, it almost be contaminated.



Model	stand
Size, mm	220 x 250

## Horizontal Electrophoresis Systems

### SE-1 cell

SE-1 mini-cell is optimal for rapid separation of 10 - 40 samples.

Gel frames design allows to insert from 1 to 4 combs per gel.



### SE-2 cell

SE-2 cell is designed for analyses of 18 - 120 samples.

Gel frames design allows to insert from 1 to 5 combs per gel.



Model	SE-1	SE-2
Gel size, mm	75 x 125	120 x 170
Number of samples	max 40	max 120
Buffer volume, ml	250	500
Dimensions, mm	260 x 1502 x 90	334 x 196 x 100

- Starting kit of the SE cells:
  - cell with a protective cover and cables;
  - gel tray;
  - gel caster with a casting gates and leveling table;
  - 10-well combs (2 units) for SE-1, 18-well combs (2 units) for SE-2;
  - two combs holders;
  - agarose - 50 g.

Additional accessories can be purchased separately.

## Vertical Electrophoresis Systems

### VE-10 cell

VE-10 mini-cell is the most popular device for vertical electrophoresis on the Russian research market. It combines simplicity of design, reliability and optimal quality price ratio. Cells are designed for simultaneous operation with one or two 80 x 95 mm gels, thus allowing separation of 10 - 30 samples in a small amount of buffer – 290 ml.

- ☑ Starting kit:
  - cell with a protective cover and cables;
  - plug for conducting of electrophoresis in a single gel;
  - gel caster;
  - standard combined sets of glass plates (100 x 100 mm) with fixed glass spacers (2 units). Thickness of the spacers is 1 mm;
  - screw clamps for glass plates (2 sets);
  - 1 mm combs with 10 wells (2 units), 15 wells (2 units).



### VE-20 cell

VE-20 cell for vertical electrophoresis is designed for electrophoretic separation of proteins and nucleic acids. Simultaneous operation with one or two 178 x 175 mm gels for analysis of 20 - 40 samples (in basic configuration); up to 60 samples with the use additional 30-well combs in 800 ml of buffer.

- ☑ Starting kit:
  - cell with a protective cover and a cables;
  - plug for conducting electrophoresis in a single gel;
  - standard combined sets of glass plates (2 units);
  - spring clamps;
  - screw clamps for glass plates (2 sets);
  - 20-well combs (2 units);
  - 1 mm spacers (2 sets);
  - gel casting plate, Pasteur pipette and 2 g of agarose;
  - glass plates rack 200 x 200 mm.



Glass plates with glued glass spacers, additional spacers, gel caster and combs of different thickness and with different number of wells are available.

Model	VE-10	VE-20
Size of glass plates, mm	100 x 100	200 x 200
Gel size, mm	80 x 95	175 x 175
Max number of samples	2 x 15	2 x 30
Volume of the upper buffer, ml	200	1100
Volume of the lower buffer, ml	90	420
Weight, g	370	970

## Glass plates racks

The rack is designed to be used for the following purposes: drying, moving, storing and sorting of glass plates.

- ✓ The racks do not slide on the surface due to the rubber feet.
- ✓ Convenient rack shape for storage and transfer of glass plates.
- ✓ Almost no risk for the glass plates to fall out while moving due to the special design of the racks.
- ✓ Minimal glass surface and rack contact ensures absence of stains on the glass plates during drying and prevents glass plates from contamination and damage during storage.
- ✓ Capability to fix both single glass plates and packages of two glass plates with spacers.



Model	FS-10	FS-20
Size of glass plates, mm	100 x 100	200 x 200
Quantity of slots (one slot per one glass plate or package (two glass plates + spacer))	8	8

• size of glass plates may differ from the specified size  $\pm$  4 mm

## Device for Semi-dry protein transfer

Simple, reliable and convenient design of the blotter is intended for electric transfer of proteins and nucleic acids. The size of the operating surface allows you to work with two mini-gels simultaneously. The transfer process takes less than two hours at a current of 100 mA.



Model	Semi-dry
Size of the operating surface, mm	150 x 150

## Transilluminators

### Transilluminator «Quant-312»

High frequency transilluminators «Quant-312» are designed for viewing gels in the UV spectrum range and are an indispensable of molecular biological, biochemical, biotechnological and diagnostic laboratories, using gel electrophoresis.



- Starting kit:
  - transilluminator block with a UV protective screen;
  - handle of the protective screen fixing device;
  - network cable.

Available in two options: | screen size 150 x 150 mm;  
| screen size 200 x 200 mm.

Model	Quant-312M	Quant-312B
Wavelength of the transmitted light, nm	312	312
Screen size, mm	150 x 150	200 x 200
Erythemat irradiance, mW/m <sup>2</sup>	12500	
Power consumption, W	40	
Fuse, A	Ø5 x 20 – 1.0	
Power supply	220 V - 50/60 Hz	
Dimensions, mm	370 x 280 x 135	
Weight, kg	4	

### Transilluminator «Quant-S»

Transilluminators «Quant-S» are designed for the induction of fluorescence from the gels when using SYBR Green and ethidium bromide dyes, as well as for lighting of silver-stained gel.

This procedure is used for the qualitative and quantitative assessment of the nucleic acids content in the gels after performance of electrophoretic separation.

- Starting kit:
  - transilluminator block with white filter;
  - blue filter;
  - beds for the gel - 3 pcs;
  - UV-protective glasses.



Wavelength of transmitted light, nm	470
Screen size, mm	200 x 200

## Device operating modes:

- «blue light» mode for gels, stained with SYBR Green and ethidium bromide [EtBr];
- «white light» mode for silver-stained gels

Power consumption, W blue light - 25 ; white light - 20

Dimensions, mm 370 x 280 x 75

Weight, kg 3

Transilluminators of the «Quant-312» and «Quant-S» series are fully compatible with gel-documentation system «Glance».

## Gel-documentation System «Glance»

The gel-documentation system «Glance» is designed to capture and process images of luminescent DNA in gels, stained with ethidium bromide and dyes with similar spectral features.

Compatible with any transilluminator\*

### Features:

- High-resolution camera 5 mP.
- Does not require a dark room.
- Durability and lightweight of the construction.
- Operates with PC, laptops running on Windows operating system, allowing if necessary move and quickly install the system in any laboratory.
- Operates in photo and video editor mode. You can change the image resolution, format, work in the accumulation mode to increase a weak signal and etc.
- The kit includes:
  - the digital optical unit with camera, lens and cut-off filter;
  - tube-stand and software for capturing and processing of images.



Model	Glance
Sensitivity	min 10 ng of DNA
Size of the examined object, mm	max 200 × 200, with a smooth manual zoom
Resolution, pxl	max 2592 × 1944
Dynamic range, bit	8
Imaging	JPEG
Dimensions, mm	220 × 220 × 430
Port	USB 2.0
Software	in Russian, English, German, and Japanese

\*When choosing transilluminators, pay attention to the following requirements: operating frame max 200 × 200 mm, spectrum 312 nm and 470 nm.

# SAMPLE PREPARATION

Homogenization

## Pestles for homogenization

Designed for homogenization of biological samples in 1.5 ml test tubes. The tip of the pestle is made of Teflon.



## Universal stand for 5 pipettes

The pipette stand LS-2 is designed for storage of pipettes (suitable for all manufacturers). The stand is made of polycarbonate. It is equipped with universal cutout-holders and support bar for pipettes with handles of various shapes and sizes.



## Magnetic racks

Magnetic racks, manufactured by Helicon Company, are designed for extraction of various biomolecules and single cells using kits with magnetic particles. The product line includes racks, suitable for working with all volumes of micro test tubes (from 0.2 to 2.0 ml), both individual test tubes and 96-well plates.



Rack of the «Polyus» series, designed for individual test tubes, consist of two modules an upper removable test tube rack-holder and the magnet itself, making it possible to move the test tubes placed in rack without moving the magnet.

Mag-24 and Magnicon-96 racks are designed for working with 96-well PCR plates.

Mag-24 construction allows to perform extraction in deep-well plates.

Magnetic racks «Polyus» accommodate from 8 to 16 test tubes of 0.5 and 1.5 ml volume.

The stand consists of two parts: a test tubes holder and a magnetic rack.



Today, there are a lot of kits for nucleic acid (NA) magnetic extraction. Reliable magnetic racks «Polyus» will help you to work with them and effectively purify NA.

Rack name	Number of tubes
Polyus-8	4 x 0.5 ml
	4 x 1.5 or 2.0 ml
Polyus-16	8 x 0.5 ml
	8 x 1.5 or 2.0 ml
Polyus-2402	24 slots for 0.2 ml test tubes

DNA purification

## Rack for micro test tubes with a lid

The rack «RP-100» is designed for storage of 1.5 - 2.0 ml test tubes and has transparent lid. The rack is made of polypropylene. Autoclavable.

Model	RP-100
Quantity of slots, pcs	100
Volume of the test tubes, ml	1,5–2,0
Material	Polypropylene



## Rack for micro test tubes

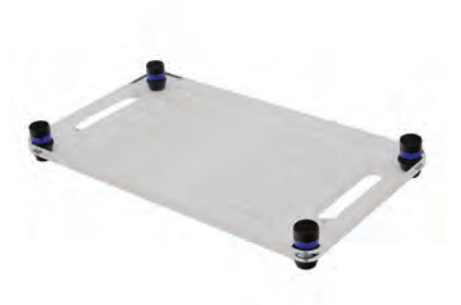
The rack «RP-80» is designed for storage of 1.5 - 2.0 ml test tubes. The rack is made of polypropylene. Autoclavable.

Model	RP-80
Quantity of slots, pcs	80
Volume of the test tubes, ml	1,5–2,0
Material	Polypropylene



## «Workplace» racks

«Workplace» racks are made of organic glass, have tapered wells and rubber feet that prevent the rack from sliding on the table. The racks are available for test tubes of a volume ranging from 0.2 to 1.5 ml, and have different number of wells.





## Platforms for shakers

Platforms for shakers have multiple holes that allow you to use almost any combination of flask clamps. The platforms are available in two sizes: 460 x 460 mm and 760 x 460 mm.



## Clamps – flask holders

Clamps for holding the flasks on the platform are solid stainless steel construction. They are supplied with a full set of necessary screws and equipped with wire springs for safety at high speeds. The clamps are designed for flasks with the following volume: 125, 250, 500, 1000, 2000 ml.

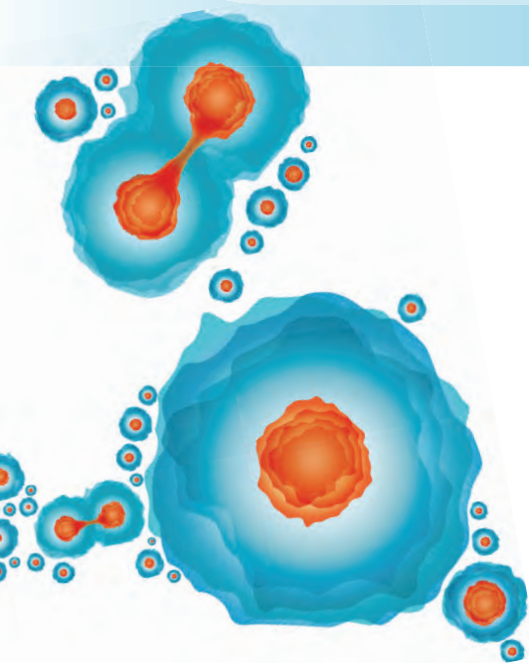


## Ordering Information

Description	Catalog #
Levelling table	stand
SE-1 cell	SE-1
SE-2 cell	SE-2
VE-10 cell	VE-10
VE-20 cell	VE-20
Rack FS-10 for 100 x 100 mm glass plates	FS-10
Rack FS-20 for 200 x 200 mm glass plates	FS-20
Device for Semi-dry transfer of proteins and nucleic acids	Semi-dry
Transilluminator Quant-312M	Quant-312M
Transilluminator Quant-312B	Quant-312B
Transilluminator Quant-S	Quant-S
Gel-documentation system «Glance»	Glance
Pestle for homogenization in micro test tubes of 1.5 ml, 1 pc	HE-15
Universal stand for 5 pipettes	LS-2
Magnetic rack Polyus-8	Polyus-8
Magnetic rack Polyus-16	Polyus-16
Magnetic rack Polyus-2402	Polyus-2402
Magnetic rack Mag-24	Mag-24
Magnetic rack Magnicon-96	Magnicon-96
Rack for micro test tubes with a cover	RP-100
Rack for micro test tubes with a cover	RP-80
«Workplace» rack for tube strips, 0.2 ml, 96 wells	RA-9602
«Workplace» rack for tube strips, 0.2 ml, 200 wells	RA-20002
«Workplace» rack for tube strips, 0.5 ml, 100 wells	RA-10005
«Workplace» rack for tube strips, 0.5 ml, 200 wells	RA-20005
«Workplace» rack for tube strips, 0.5 ml, 200 wells, elongated	RBA-20005
«Workplace» rack for tube strips, 0.5 ml, 300 wells	RA-30005
«Workplace» rack for tube strips, 0.5 ml, 50 wells	RA-5005
«Workplace» rack for tube strips, 1.5 ml, 120 wells	RBA-12015
«Workplace» rack for tube strips, 1.5 ml, 50 wells	RA-9602
«Workplace» rack for tube strips, 1.5 ml, 72 wells	RA-7215
Platform 460 x 460 mm for shakers	Platform 460 x 460 mm
Platform 760 x 460 mm for shakers	Platform 760 x 460 mm

Description	Catalog #
Clamp (flask holder) for conical flat bottom flask of 125 ml	KD-125
Clamp (flask holder) for conical flat bottom flask of 250 ml	KD-250
Clamp (flask holder) for conical flat bottom flask of 500 ml	KD-500
Clamp (flask holder) for conical flat bottom flask of 1000 ml	KD-1000
Clamp (flask holder) for conical flat bottom flask of 2000 ml	KD-2000

# helicon



**helicon**

**CENTRAL OFFICE:**

88 Kutuzovsky prospect,  
121374 Moscow  
Tel.: +7 (499) 705-50-50  
Fax: +7 (495) 930-00-84  
mail@helicon.ru

**8 800 770 71 21**  
**www.helicon.ru**

**REPRESENTATIVE OFFICES:**

**REPRESENTATIVE OFFICE IN THE SIBERIA REGION:**

28 Inzhenernaya St.  
630090 Novosibirsk  
Tel.: +7 (383) 207-84-85  
novosibirsk@helicon.ru

**REPRESENTATIVE OFFICE IN THE NORTH-WEST REGION:**

22 Gzhatskaya St.  
195220 Saint Petersburg  
Tel.: +7 (812) 244-85-52  
spb@helicon.ru

**REPRESENTATIVE OFFICE IN THE VOLGA REGION:**

14/59 Tatarstan St.  
office 201, 420021 Kazan  
Tel.: +7 (843) 202-33-37  
volga@helicon.ru

**REPRESENTATIVE OFFICE IN THE SOUTH REGION:**

76/23a 2nd Volodarsky St.  
344116 Rostov-on-Don  
Tel.: +7 (863) 294-87-66  
rostov@helicon.ru