

Separation of Large DNA Molecules Biometra Rotaphor System 8



Biometra Rotaphor System 8

Pulsed Field Gel Electrophoresis (PFGE) system for the separation of large DNA molecules

Rotating field electrophoresis (ROFE)

Pulsed field electrophoresis with the Rotaphor system allows the separation of DNA beyond the 50 kb limit of conventional agarose electrophoresis. Thanks to the patented electrode rotor, the electrical field can be applied in virtually any angle. To achieve a very homogeneous field, the two main rotor electrodes are flanked by 2 sets of secondary electrodes each.

Flexibility

Due to the unique design of the Rotaphor system, all common techniques for separation of large DNA molecules can be applied. This includes methods like CHEF, FIGE, PAGE and naturally ROFE (Rotating Field Electrophoresis).

Buffer management

Since PFGE gels typically run for many hours (up to several days), the electrophoresis buffer has to be cooled. The Rotaphor electrophoresis chamber comes with a built-in buffer circulation pump which is connected to an external cooling thermostat. During the run the buffer temperature in the electrophoresis chamber is constantly monitored and precisely controlled by the Rotaphor software.

Easy control

The Rotaphor system includes a PC that controls the electrode rotor and the power supply over the Rotaphor interface card. The Rotaphor software provides 17 pre-set programs for separation of different size ranges. Starting with the pre-set parameters, new applications are quickly optimised. For each pre-set program the software shows a real gel image. Once a custom program has been optimised, a referring gel picture can be uploaded into the software. Thus, the Rotaphor software over time will not only be a control tool, but also a library of successful experiments linked to the underlying separation parameters. By linking programs to combined lists also complex sequences can be programmed.

- Separation of large DNA molecules (up to 8 Mb = 8,000 kb)
- Patented electrode rotor allows free electrical field angle
- Exceptional resolution
- Optimised protocols for different size ranges



Rotaphor rotor with computer controlled electrodes and connection plug. Electrodes are freely rotatable, thus providing a maximum of flexibility.



Monitor not supplied with the Rotaphor System

Thermostat

Cooling Thermostat for Precise Temperature Control

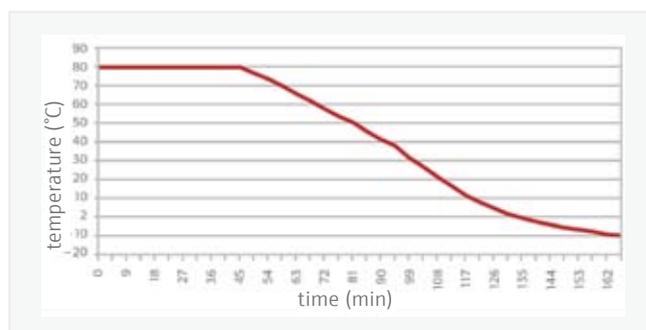
Precise and constant temperatures are often essential for a broad range of applications in laboratory, e.g. Pulse Field Gel Electrophoresis, native polyacrylamide gel electrophoresis (PAGE, slab gels), isoelectric focusing (IEF, 2-D gel electrophoresis) or DNA sequencing (Sequencing gels). The thermostat Accel 250 offers an intuitively operable, digital multifunctional display. The compact design is a result of modern SMD technology. The Real Temperature Adjustment (RTA) system allows corrections between the actual temperature displayed and the temperature in an external system by a correction value.

- Space saving design
- Real Temperature Adjustment (RTA)
- 5 selectable fixed temperatures
- CFC-free



Thermostat Accel 250

In the front panel integrated fill and drain ports, as well as the level indicator, ensure easy accessibility and trouble-free operation. The small internal reservoir eliminates evaporation and provides quick tempering. The powerful pump (max. flow rate 7.5 l/min or 15 l/min) ensures an excellent temperature uniformity and an efficient heat exchange with external objects. Thus, a high degree of temperature accuracy is attainable.



Technical Data

Description

Working temperature range	-10 °C to +80 °C
Fixed temperatures	5 (free selection)
Temperature accuracy	± 0.1 K
Display	Multifunction, digital
Heating capacity	2,000 W
Cooling capacity at 20 °C	250 W
Pump flow rate	7.5 l/min or 15 l/min
Max. pressure	300 mbar
Bath volume (internal)	2.8 l
Overall dimensions (W x L x D) (mm)	232 x 487 x 620
Weight	30 kg

Order Information

Order number	Description
846-021-101	Biometra Rotaphor 8 System , 230 V, PC with Windows® operating system (German)
846-021-201	Biometra Rotaphor 8 System , 110 V/230 V, PC with Windows® operating system (English)
846-021-202	Biometra Rotaphor 8 System , 230 V, China-RoHS compliant, PC with Windows® operating system (English)

The Rotaphor System includes: Electrophoresis chamber with electrode rotor and internal buffer circulation, power supply, gel tray, comb (18 well), frame for gel casting, sample mould, connection cables, computer with interface card and pre-installed Rotaphor software, 22" TFT monitor, gel scoop

846-043-500	Refrigerating circulator Accel 250 (230 V) operating temperature range -10 °C to +80 °C
846-043-590	Refrigerating circulator Accel 250 (115 V) operating temperature range -10 °C to +80 °C

Accessories

	Combs for 20 cm x 20 cm gels
846-021-011	18 wells
846-021-004	25 wells
846-021-005	40 wells
846-021-006	50 wells
846-021-007	18 wells (for liquid samples)
	Combs for 18 cm x 13 cm gels
846-021-008	5 wells
846-021-009	12 wells
846-021-010	20 wells
	Sample casting form (for 20 embedded samples, 14 mm x 10 mm x 1 mm each)
846-021-001	Preparative gel casting kit, 13 cm x 18 cm gel casting tray, comb 5 wells (3 marker slots, 2 preparative slots), comb 12 wells
846-021-002	Gel tray (20 cm x 20 cm gels) and casting frame

Headquarters

Analytik Jena AG
Konrad-Zuse-Str. 1
07745 Jena · Germany

Phone +49 3641 77 70
Fax +49 3641 77 9279
info@analytik-jena.com
www.analytik-jena.com

Pictures: Analytik Jena AG
Subjects to changes in design and scope of delivery as well as further technical development!