A M E R S H A M P H A R M A C I A B I O T E C H

Hoefer Mighty Small
SE 245 Dual Gel Caster
User Manual

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Important user information

Please read this entire manual to fully understand the safe and effective use of this product.

Should you have any comments on this manual, we will be pleased to receive them via email at ts-ep@am.apbiotech.com or at:

Hoefer Pharmacia Biotech Inc.
Marketing Department
654 Minnesota Street
San Francisco, CA 94107 USA

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Dual Gel Caster Function and Description

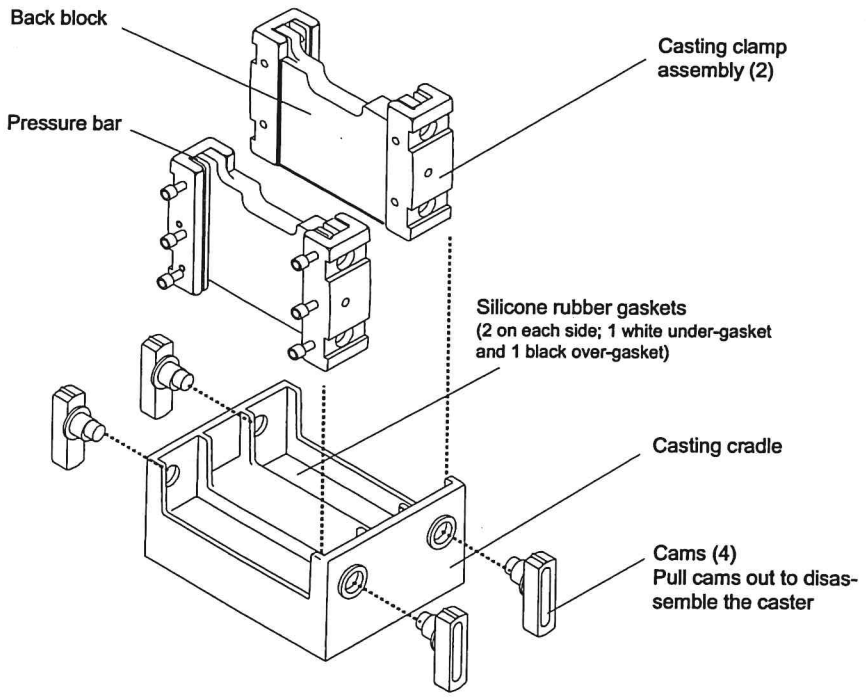
The Mighty Small Dual Gel Caster holds one or two glass or glass/alumina plate gel sandwiches so that acrylamide or agarose gels can be easily cast. The bottom of the sandwich is sealed against a rubber gasket with cam action. Once the gel is set, sandwiches are transferred to a Hoefer Mighty Small II Mini-Vertical unit for electrophoresis.

Unpacking

Unwrap all packages carefully and compare contents with the packing list, making sure all items arrived. If any part is missing, contact your local sales office. Inspect all components for damage that may have occurred while the unit was in transit. If any part appears damaged, contact the carrier immediately. Be sure to keep all packing material for damage claims or to use should it become necessary to return the unit.

Dual Gel Caster

The gel sandwich is held together by the casting clamp assembly.



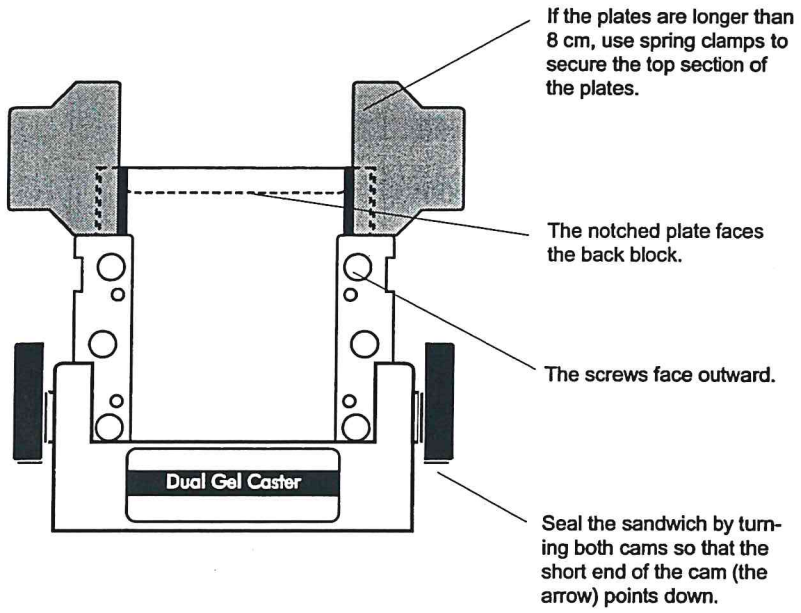
6 Inspect plate and spacer alignment. To prevent leaking, the bottom of the plates and spacers must be aligned and the sandwich should protrude slightly below the back block. Adjust if necessary.

7 Place the white foam gasket into the bottom of the casting slot and lay the black gasket over it.

8 Place the clamp assembly in the casting cradle, screw side facing out. In this position the gel will be visible through the rectangular glass plate.

9 Insert a cam into each hole on both sides of the casting cradle with the arrow (short end) pointing up. Seal the sandwich by turning both cams 180° so that the arrow points down.

Important
The plate and spacer bottoms must be aligned for a proper seal.



After polymerization

1 To remove combs (if necessary): cover the top of the gel with 1X separating or stacking gel buffer, then work each comb out slowly by gently rocking it side to side while pulling it out.

2 Remove the gel sandwich from the casting cradle by loosening the pressure bar screws, tilting the sandwich forward, and lifting it out.

Note

The back block shape facilitates easy sandwich removal.

3 Rinse the sandwich with distilled water to remove the overlay and extra gel, then blot the sandwich with a lint-free tissue.

4 To run gels: Follow the instructions accompanying the electrophoresis unit.

To store gels: Wrap individual gels in plastic wrap after adding approx. 5 ml of 1X separating gel buffer to the top of each sandwich. Alternatively, lay a batch of gels in 1X separating buffer. Store gels at 4 °C for up to one week.

Troubleshooting

Gel sandwich leaks

- ✓ Replace any chipped plates.
- ✓ Check plate and spacer alignment and realign if necessary.
- ✓ Check the black gasket for cuts or cracks and replace if necessary.
- ✓ Apply a light film of Cello-seal to the bottom outside corner of each spacer.

Sample wells damaged or irregular

- ✓ Remove air pockets before inserting combs. Slide comb into solution at an angle. If comb must be removed, add more monomer solution before reinserting the comb.
- ✓ Allow a minimum of 1 hour for polymerization of acrylamide gels.
- ✓ Remove the comb at a slight angle and very slowly to prevent damage to the gel.

Customer Service Information

Technical Service and Repair

Amersham Pharmacia Biotech offers complete technical support for all our products. If you have any questions about how to use this product, or would like to arrange to repair it, please call or fax your local Amersham Pharmacia Biotech representative.

Important: Decontaminate instrument of all radioactivity and/or infectious agents before returning item! Include documentation to verify that this has been done.

Ordering information

	Quantity	Code No.
Gel Caster and replacement parts		
For 1 or 2 gels, 10 x 8, -10.5, -12 cm. SE 245 Mighty Small Dual Gel Caster, complete	1	80-6146-50
Casting cradle with gaskets	1	80-6146-88
Sealing gasket set	2	80-6146-69
Casting clamp assembly	1	80-6147-07
Cams, black	4	80-6174-24
Clamps, red	4	80-6147-83
Spacer-Mate	1	80-6193-84
Glass and alumina plates		
10 x 8 cm, for SE 250		
Notched alumina plate	1	80-6136-24
Notched alumina plates	10	80-6136-43
Rectangular glass plates	10	80-6136-81
10 x 10.5 cm, for SE 260		
Notched alumina plates	5	80-6150-68
Rectangular glass plates	5	80-6150-87
10 x 12 cm, for SE 280		
Notched alumina plates	2	80-6153-15
Rectangular glass plates	5	80-6153-34