

**FlapCassette 2D** is a re-usable cassette used for running ready-made film-backed polyacrylamide 2D gels in vertical electrophoresis systems. It consists of a glass plate with spacers and a plastic frame, connected by a hinge (fig. 1). The plastic frame holds the film-backed gel with its surface in contact to the glass plate. During electrophoresis the cassette is tightly locked together with a grooved and tongued joint.

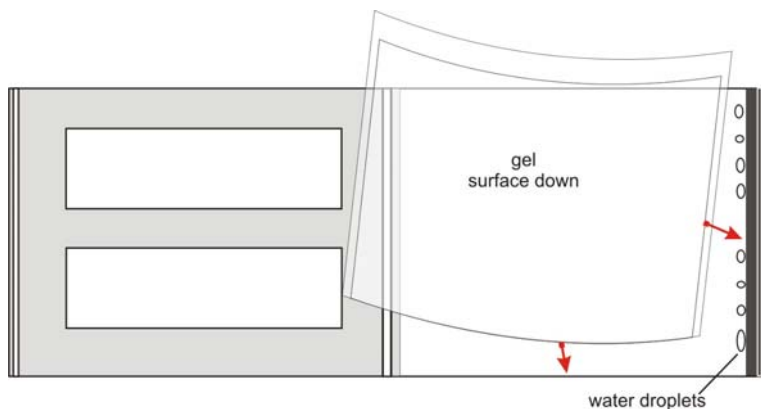
**2DGel DALT NF, 2DGel DALT, 2DGel Laemmli NF, and 2DGel Laemmli** are 1 mm thick polyacrylamide gels covalently bound to a film support. The gels are available with homogeneous matrix of 12.5 %T and as gradient gels 10-15%T. The “NF” film backing has no auto-fluorescence and is compatible with the detection of fluorescent labelled proteins – like CyDye™ fluorophors (DIGE) - fluorescent stains like, LavaPurple™, Deep Purple, Sypro® Ruby, or Flamingo Pink™. The film-backing of gels without the “NF” shows some autofluorescence, but is better suitable for staining procedures containing > 30 % alcohol, like silver staining and some Coomassie Brilliant Blue staining methods.

The gels are used in large-format vertical systems for SDS PAGE: in dual tank systems such as the Ettan™ DALT<sub>twelve</sub>, Ettan™ DALT<sub>six</sub> chambers of GE Healthcare as well as in single tank systems like the Hoefer SE 900 and the BioRad Dodeca cell.

**FlapCassette 2D** (1 per gel to be run)      **ETC 1003-40**

## Instruction:

- Open the FlapCassette 2D and place it on the bench, hinge and spacers up; plastic frame on the left hand side. Clean the glass surface thoroughly with distilled water and dry it completely with a lint-free tissue paper.
- Pipette 0.5 mL of distilled water along the opening side of the glass plate (figure 2).
- Remove the protective plastic sheet from the gel. Handling the gel only by the side support film margins, hold it, gel-side down, over



**Fig. 3:** Schematic drawing of orientation of 2DGel and FlapCassette 2D the glass plate (figure 3).

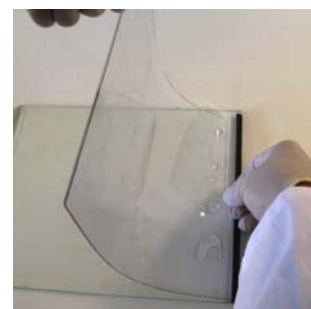
- Align the right edge of the gel with the edge of the spacer next to the closing side; the water allows sliding of the gel along the spacer.
- Flex the gel downward slightly and lower it slowly (figure 4). Take care that the lower edge of the gel is flush with the lower edge of the glass plate. The protruding side support film margins (not the gel) should lay on top of the spacers.
- Use the roller to press out any air bubbles and excess liquid from between the gel and the glass (figure 5).



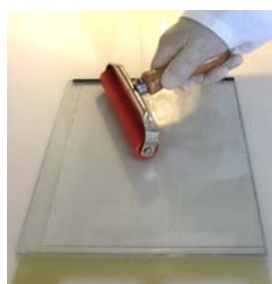
**Fig.1:** FlapCassette2D for large-format film-supported gels to be run in vertical equipment.



**Fig. 2:** Pipetting dist. water along the spacer of the closing side



**Fig. 4:** Applying the gel and flexing it down towards the cassette glass plate.



**Fig. 5:** Roll out air bubbles



**Fig. 6:** Close the cassette, press tightly.