

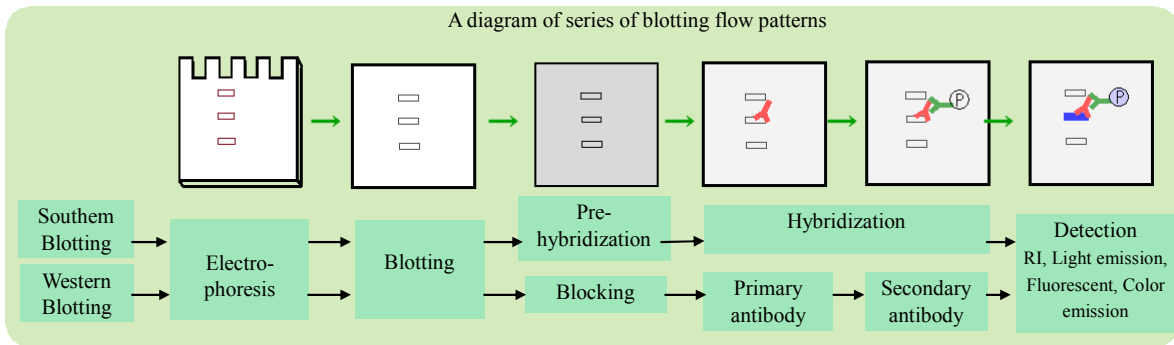
# Blotting

## Principle of Semi-Dry Blotting

### Blotting

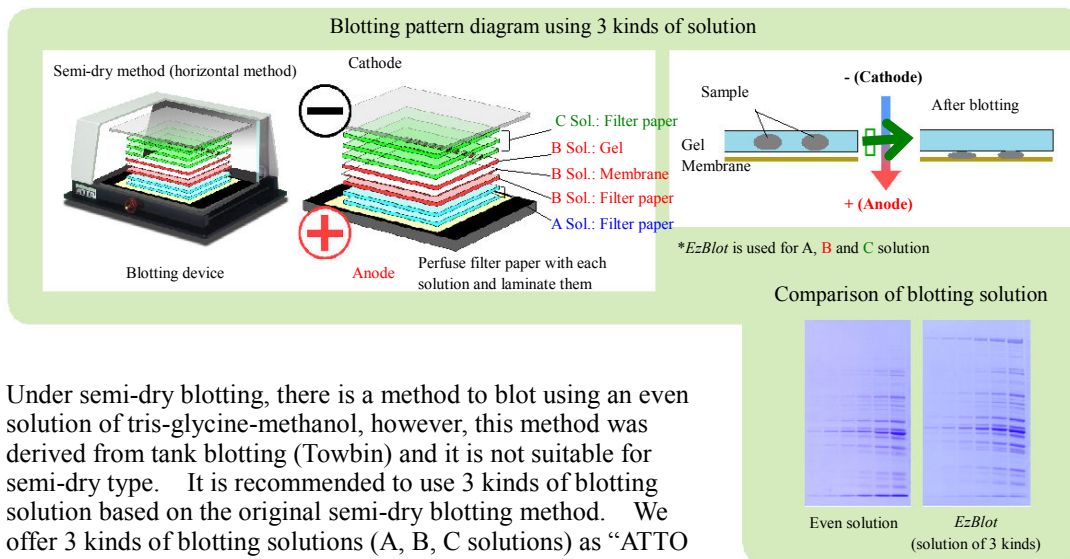
Under this “blotting method”, elements separated through electrophoresis are taken on to a membrane electrically and detected.

Blotting is a method of detecting a specific target component with a high degree of sensitivity, so it is widely used as a basic method for research on proteins, DNA and RNA. The transfer method for DNA on to membranes is called Southern Blotting and the transfer method for proteins to membranes is called Western Blotting. There are various other blotting methods, and ATTO offers “poweredBLOTmini” and “HorizBLOT” as a device for electrical semi-dry blotting and they are widely used.



### Principle

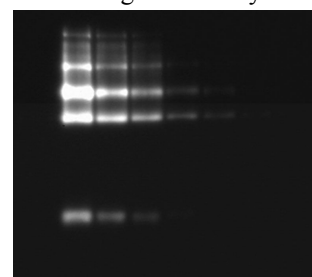
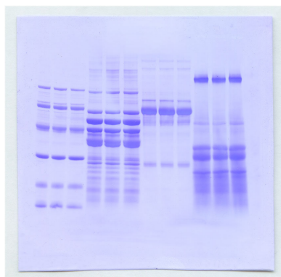
Semi-dry blotting is for laminating filter paper soaked with blotting solution, gel after electrophoresis and membrane and attaching them together between horizontal electrode plates and transferring sample in gel on to membrane by applying electricity. Semi-dry blotting requires a small amount of blotting solution because it is used only for perfusing in filter paper. Further, there is no risk of over current or heat generation, so no cooling device or dedicated power supply is required. Moreover, blotting efficiency is increased and conducting duration is shortened by using 3 kinds of blotting solution.



Under semi-dry blotting, there is a method to blot using an even solution of tris-glycine-methanol, however, this method was derived from tank blotting (Towbin) and it is not suitable for semi-dry type. It is recommended to use 3 kinds of blotting solution based on the original semi-dry blotting method. We offer 3 kinds of blotting solutions (A, B, C solutions) as “ATTO EzBlot”.

## Semi-Dry Blotting Sample Data

These are various proteins after separation with SDS-PAGE Western blotted on a clear blot P membrane. The left is a CBB stained membrane. The right is a result of antigen-antibody reaction and luminescence detection.



# Blotting

## Related Products



AE-1450 EzStandard PrestainBlue



AE-1460 EzBlot



AE-1470 EzBlock



AE-1480 EzWash



AE-1490 EzWestBlue



AE-1580 EzWestKit Mini F



P membranes



N membranes



Filter paper

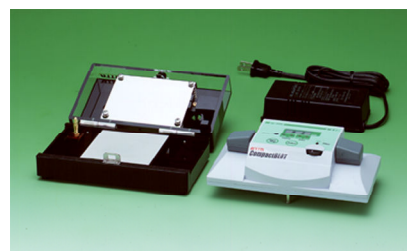
Code No.	Name	Note
2322432	6.5 x 6.5 cm P Membranes 20/pk	Compatible with Atto compact PAGE gel size
2392390	8.5 x 9 cm P Membranes 20/pk	Compatible with Atto mini PAGE gel size
2322430	13 x 14 cm P Membranes 10/pk	Compatible with Atto PAGE gel size
2322440	26 x 300 cm P Membrane, 1 roll	

Code No.	Name	Note
2392394	20 x 20 cm N Membranes 10/pk	

Code No.	Name	Note
2322437	6.5 x 6.5 cm Filter Paper 400/pk	Compatible with Atto compact PAGE gel size
2392393	8.5 x 9 cm Filter Paper 400/pk	Compatible with Atto mini PAGE gel size
2322435	13 x 14 cm Filter Paper 100/pk	Compatible with Atto PAGE gel size
2392493	20 x 20 cm Filter Paper 100/pk	
2398038	24 x 23 cm Cellophane 500/pk	

# Blotting

## Blotting System



AE-6685 poweredBLOTmini

Code No.	Type	Name	Note
2322375	AE-6685	poweredBLOTmini	(without Blot Paper and membrane)
2322377	AE-6685C	poweredBLOTmini	Including 6.5 x 6.5cm P membrane, 20pcs & filter paper, 400pcs
2322376	AE-6685S	poweredBLOTmini	Including 8.5 x 9cm P membrane, 20pcs & filter paper, 400pcs

## Specifications

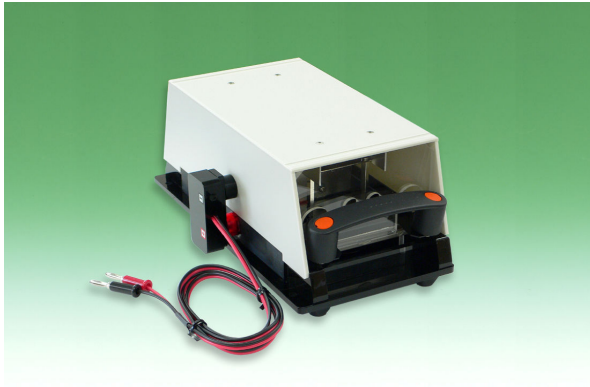
Name	AE-6685 poweredBLOTmini
Size of Gel	60(W) x 60(H) x 0.75(D)mm Compact Slab size 85(W) x 90(H) x 1(D)mm Mini Slab size
Size of electrodes	95 mm x 100 mm
Material	Acrylic plastic, except stainless steel for cathode, platinum-plated titanium for anode, and ABS for power module
Program mode (Preset)	Compact: Constant current 80 mA. Mini: Constant current 144 mA.  Timer mode: 1 - 120 min, Free.
Protection	Open and short circuit detection
Power requirement	100 - 240 V, 50/60 Hz
Dimensions	170 (W) x 107 (H) x 116 (D) mm, 0.75 kg, excluding AC adapter

## Features

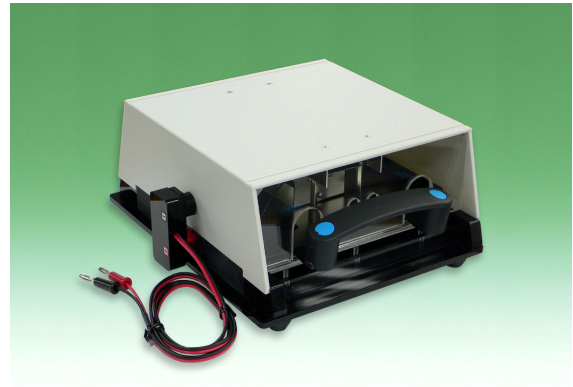
- Blotting equipment incorporating a power source for the compact and miniPAGE series.
- Palm size, reduced space.
- Output settings are selected from four programmed modes.
- Accurate setting can be done easily by anyone with just 3 steps: 1. Load the filter paper, membrane, and gel and close the lid; 2. Turn the knob of the power source and select the mode; 3. Press the output switch.
- A spring is used in the upper electrode and blotting with minimal unevenness is possible because moderate pressure is exerted.

# Blotting

## Blotting System



AE-6687 HorizBLOT 2M



AE-6688 HorizBLOT 4M

Code No.	Type	Name	Note
2322381	AE-6687	HorizBLOT 2M	Without filter paper & membranes.
2322380	AE-6687S	HorizBLOT 2M	Including 8.5 x 9cm P membrane, 20pcs & filter paper, 400pcs
2322391	AE-6688	HorizBLOT 4M	Without filter paper & membranes.
2322390	AE-6688S	HorizBLOT 4M	Including 8.5 x 9cm P membrane, 20pcs & filter paper, 400pcs

## Specifications

Name	AE-6687 HorizBLOT 2M	AE-6688 HorizBLOT 4M
Size of electrodes	97 mm(D) x 196 mm(W)	202 mm(D) x 197 mm(W)
Distance of electrodes	Up to 55 mm	
Material	Acrylic plastic, except stainless steel for cathode and platinum-plated titanium for anode	
Dimensions	138 (D) x 270 (W) x 123 (H) mm, 1.67 kg	236 (D) x 270 (W) x 123 (H) mm, 2.54 kg
Safety protection	Cover lid, lead wire with terminal covers, reverse current prevention function	

## Features

- Advantages of the semi-dry method
  - (1) Loading is easy (just by stacking the filter paper, membrane, and gel on the electrode plate)
  - (2) Horizontal electrode plate and movable, so a uniform electric field can be obtained
  - (3) Done with an amount of blotting solution that is 1/10 of that with the wet type
  - (4) Heavy current is unnecessary and heat generation due to gel heating is minimal
  - (5) Completed in a short time
- Selection from five models possible in accordance with intended uses and gel size
- Supports proteins and DNA
- Blotting membranes and filter paper for individual gels are sold separately

