

Instructions for use



Blotting / Transfer Manifolds

T790.1; T791.1

WARNING

Please read the entire operator's manual thoroughly before operating this unit.

These units comply with the statutory CE safety directives:

Our Blotting manifolds are designed to give long service and reproducible results in your laboratory. A few moments spent reading these instructions will ensure that your expectations are reflected in the successful use of the apparatus.

First check that the apparatus has been received complete and undamaged following shipment. Refer to the packing list and check that all components and accessories are present. Any faults or losses must be notified immediately.

PLEASE RETAIN ALL PACKAGING MATERIALS UNTIL THE WARRANTY PERIOD HAS EXPIRED.

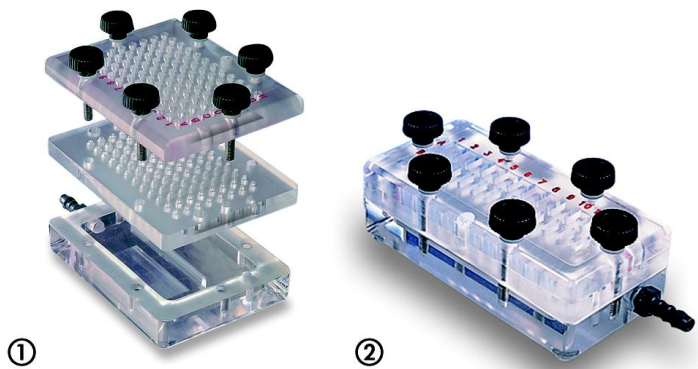
1. PACKING LISTS

T790	Dot-Blotter (1)	96- Well Transfer Unit	Instructions-for-use
T791	Slot-Blotter (2)	48-Well Transfer Unit	Instructions-for-use

2. SPECIFICATIONS

A. Construction

- Machined from High Density Acrylic.
- Precision Lapped Mating Surfaces.
- No need for Gaskets or 'O' Rings.
- Simple Assembly of the Manifold.

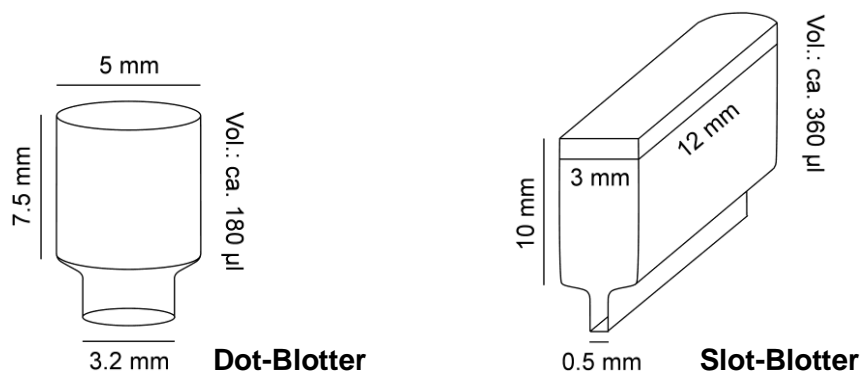


B. Environmental Conditions

- This apparatus is intended for indoor use only.
- This apparatus can be operated safely at an altitude of 2,000 m.
- The normal operating temperature range is between 4 °C and 65 °C.
- Maximum relative humidity 80 % for temperatures up to 31 °C decreasing linearly to 50 % relative humidity at 40 °C.

Format:

Art. No.	Model	Size (H x L x W)	Dot Size	Sample Number	Vol. / Well	Membrane Size
T790.1	Dot-Blotter	60 x 105 x 140	Ø 3.2 mm	8 x 12	180 µl	11 x 7.4 cm
T791.1	Slot-Blotter	60 x 95 x 100	3 x 0.5 mm	3 x 16	360 µl	12.1 x 4.4 cm



D. Recommended Pump

A vacuum of approx. 600 mm Hg (0.8 Bar) is required during sample application. We recommend Diaphragm vacuum pump LABOPORT® speed-controlled N 96 (Art. No. 1EK3.1) and the following tubings: ROTILABO®-Vacuum-Silicone hose, Inner-Ø 8 mm (Art. No. 9746.1) or ROTILABO®-Vacuum-Rubber hose, Inner-Ø 8 mm (Art. No. 0680.1).

3. USING THE BLOTTING MANIFOLDS

A. Safety Precautions

Acrylic plastic is **NOT** resistant to aromatic or halogenated hydrocarbons, ketones, esters, alcohol's (over 25 %) or acids (over 25 %).

B. Cleaning

Rinse all the components of the Blotting manifold with deionised water, **NEVER USE ORGANIC SOLVENTS**, then dry with tissues.

C. Introduction

Our Blotting units provide a mechanism for performing "dot-blot" and "slot-blot" DNA:DNA and DNA:RNA hybridization analysis or protein Western-Blot analysis. The Blotter serves to confine individual populations of nucleic acids or proteins to discrete zones on solid support transfer membranes and filters, for subsequent reaction and hybridization to labeled nucleic acid probes or antibodies. The physical and chemical properties of the hybridization membranes vary considerably, and the conditions described herein are intended as a guide only. Refer to the manufacturer's specifications for details of handling membranes and filter supports.

D. Operation

Make sure that an appropriate pump is connected with the Blotter via vacuum hoses (for recommended pump see above at 2.D).

1. Remove the top of the Blotting manifold by loosening and removing the thumb screws. Lift the top straight off. The now exposed plate surfaces (the lower surface of plate 1 and the upper surface of plate 2) are precision ground, and must be protected from scratches and abrasions in order to prevent cross-contamination and leakage. Everything must be clean and free from particles, since the transfer membrane will serve as a gasket.

2. Cut a piece of hybridization membrane to fit the manifold, covering the desired 48 or 96. The outer frame of 1.5 cm thickness must be kept free.
NOTE: If nitrocellulose is to be used as the hybridization membrane, it must be soaked in distilled water for a few minutes prior to placing it in the manifold.
 Addition of a thin filter paper is recommended for nylon membranes or thin nitrocellulose- or PVDF membranes (for instance ROTILABO® Blottingpaper 0,17 mm, CL69.1). The filter should be cut to the same size as the hybridization membrane and placed under the transfer membrane (i.e. in contact with the lower plate), in order to ensure proper vacuum seal.
3. Position the top with the aid of the locating pins, and gently lower it into position on the membrane. Replace the thumb screws, taking care to ensure that a uniform firm pressure is applied to the plate. Tighten the screws progressively in an even pattern. Tighten firmly but do not over tighten.
4. Turn the pump on and apply full house vacuum (600 mm Hg/0.8 Bar is sufficient). Load the prepared, if necessary denatured samples into the wells of the manifold and draw samples through.
5. When all the samples have been loaded and drawn through the filter, turn the pump off. The Blotter may now be disassembled as described above and the membrane removed. Use the membrane for whichever subsequent application intended.
6. Wash the manifold in distilled water only after use and allow to dry before storing.
NOTE: Excessive pressure must not be applied to the thumb screws during long-term storage of the apparatus, or warpage of the plates may occur.

NOTE:

- a) Exercise extreme caution when the precision ground surfaces are exposed. Although the manifold will last for years if properly handled, scratched or indented surfaces will necessitate the return of the apparatus for resurfacing.
- b) Nitrocellulose and other blotting membranes should never be touched with bare fingers. Oils from the skin will prevent wetting, resulting in uneven binding and variable results. Always wear gloves.

DOT-BLOTTER	T790.1
SLOT-BLOTTER	T791.1

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