



Instruction Manual

CSL Dot and Slot Blotters

CSL-D48 - Dot Blotter, 48 Samples

CSL-D96 - Dot Blotter, 96 Samples

CSL-S24 - Slot Blotter, 24 Samples

CSL-S48 - Slot Blotter, 48 Samples

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Packing Lists:

Catalogue Number	Main Unit	Internal Gasket	Instruction Manual
CSL-D48	-	CSL-SG	-
CSL-D96	-	CSL-LG	-
CSL-S24	-	CSL-SG	-
CSL-S48	-	CSL-SG	-

The packing lists should be referred to as soon as the units are received to ensure that all components have been included. The unit should be checked for damage when received.

Please contact your supplier if there are any problems or missing items.

Usage Guidance and restrictions:

- Maximum altitude 2,000m.
- Temperature range 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.
- Not for outdoor Use.

Care and Maintenance:-

Cleaning CSL Dot and Slot Blotting Units.

Units are best cleaned using warm water and a mild detergent. **Water at temperatures above 60° C can cause damage to the unit and components.**

The unit should be thoroughly rinsed with warm water or distilled water to prevent build up of salts but care should be taken not to damage the enclosed electrode and vigorous cleaning is not necessary or advised.

Air drying is preferably before use. **NOTE: These units cannot be autoclaved and the surfaces can be easily damaged leading to uneven plate binding and leakage.**

The units should only be cleaned with the following:-

Warm water with a mild concentration of soap or other mild detergent.

Compatible detergents include dishwashing liquid, Hexane and Aliphatic hydrocarbons

The units should not be left to in detergents for more than 30 minutes.

The units should never come into contact with the following cleaning agents, these will cause irreversible and accumulative damage:-

Acetone, Phenol, Chloroform, Carbon tetrachloride, Methanol, Ethanol, Isopropyl alcohol

Alkalis.

RNase Decontamination

This can be performed using the following protocol:-

Clean the units with a mild detergent as described above.

Wash with 3% hydrogen peroxide for 10 minutes.

Rinsed with 0.1% DEPC- (diethyl pyrocarbonate) treated distilled water,

Caution: DEPC is a suspected carcinogen. Always take the necessary precautions when using. RNaseZAP™ (Ambion) can also be used. Please consult the instructions for use with acrylic gel tanks.

Setting up the CSL Dot and Slot Blotting Units:-

These units are designed to provide discrete wells for performing the following:-

DNA:DNA and DNA:RNA hybridization analysis.

Protein Antibody Hybridizations and Immunological Screening applications.

The size of membrane to be used is shown in Table 1.

The membrane should be cut to the exact dimensions below using a paper template.

Templates are shown on page 8. These should be photocopied and then cut out.

Table 1.

	Arrangement	Membrane Size to be used.
CSL-D48	3 x 16 dots, 3mm diameter.	12.1 x 4.4cm
CSL-D96	8 x 12 dots, 3mm diameter. Multi-Channel Pipette Compatible	11 x 7.4cm
CSL-S24	2 x 12 slots, 6mm in length.	12.1 x 4.4cm
CSL-S48	3 x 16 slots, 6mm in length.	12.1 x 4.4cm

The units need to be connected to a pump capable of delivering a vacuum of 0.8 BAR. The pump requires a trapping system between the Dot or Slot blotter and the pump to prevent corrosion of the internal parts of the pump. Please refer to the pump manufacturer's instructions for use.

Standard Protocol:-

1. Fully loosen the large screws and lift the top off. The top will come away in one piece. The top piece then needs to be separated into two giving an upper, a middle and a lower piece.
2. Insert the pre-cut membrane onto the rebate in the middle piece. Note the membrane must completely cover the recess and the template size is designed to do this. The membrane should not sit inside the rebate as this will cause well leakage at the edges. Avoid touching the membrane with bare fingers as contamination can occur or changes in the surface properties of the membrane.
3. Put the middle and upper piece together carefully so as not to disturb the membrane and then seat the screws into the bottom piece.
4. Firmly tighten the screws. Tighten opposite screws on the assembly so as to create an even pressure. Do not fully tighten one screw then another adjacent to it as this will cause uneven seating of the plates and the likelihood of leakage is increased.
4. Connect the unit to the vacuum source using the port at the bottom of the unit and compatible tubing. The port has an Outer diameter of 10mm.
5. Load the samples into the wells and leave for ten minutes or until the liquid has fully drained into the base of the unit.
6. Turn off the vacuum and remove the tubing from the end of the unit.
7. Disassemble the unit by fully loosening the screws and taking apart the plates as described above.

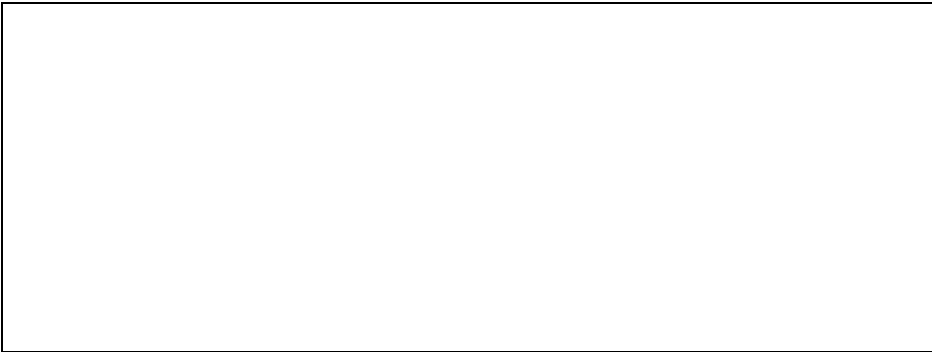
NOTE: Some types of membrane such as nitrocellulose membranes may work better if they are pre-soaked in distilled water. Some types of nitrocellulose and nylon membranes may work better with a piece of backing filter paper.

References:-

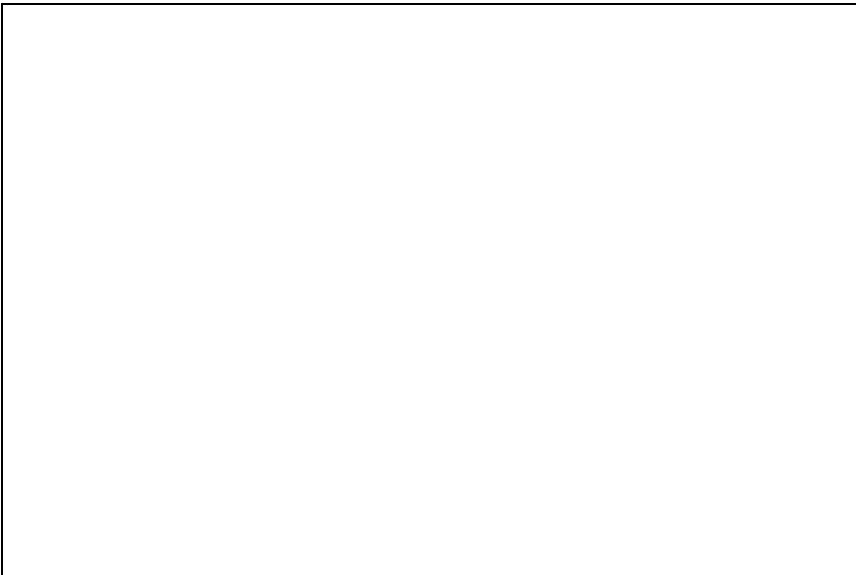
1. Sambrook, Fritsch, and Maniatis, **Molecular Cloning A Laboratory Manual**, Second Edition, Cold Spring Harbor Laboratory Press, 1989.
2. **Current Protocols in Molecular Biology**, Greene Publishing Associates and Wiley-Interscience, 1989.

Templates:-

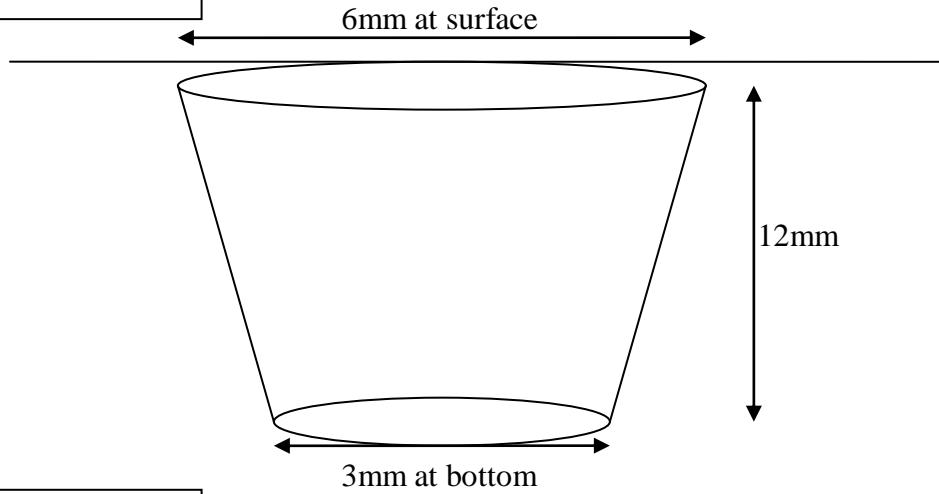
Template 1. – Use for CSL-D48, CSL-S24, CSL-S48.



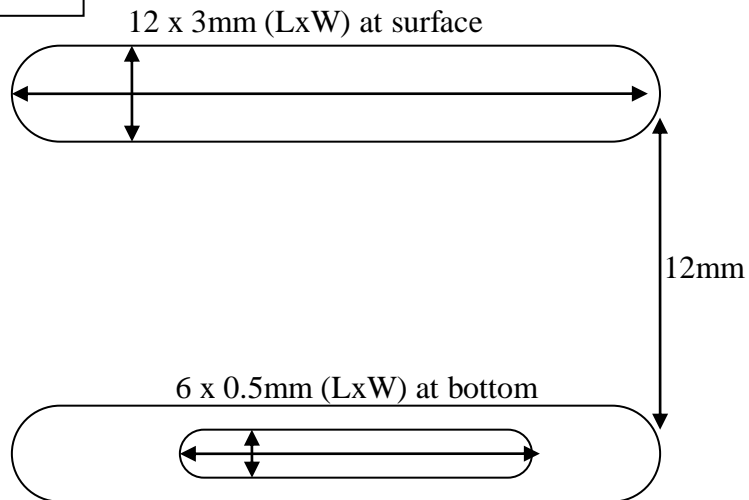
Template 2. – Use for CSL-D96.



CSL-D48 & CSL-D96
Well Dimensions



CSL-S24 & CSL-S48
Slot Dimensions





Notes



Warranty

The Cleaver Scientific Ltd. (CSL) units have a warranty against manufacturing and material faults of twelve months from date of customer receipt.

If any defects occur during this warranty period, CSL will repair or replace the defective parts free of charge.

This warranty does not cover defects occurring by accident or misuse or defects caused by improper operation.

Units where repair or modification has been performed by anyone other than CSL or an appointed distributor or representative are no longer under warranty from the time the unit was modified.

Units which have accessories or repaired parts not supplied by CSL or its associated distributors have invalidated warranty.

CSL cannot repair or replace free of charge units where improper solutions or chemicals have been used. For a list of these please see the Care and Maintenance subsection.

If a problem does occur then please contact your supplier or CSL on:-

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