PELCO"

PELCO[®] TEM Grid Vacuum Desiccator Product Number 16178

TECHNICAL NOTES



General description:

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The PELCO[®] TEM Grid Vacuum Desiccator has been designed to hold 50 standard 3mm TEM grids in a circular TEM grid holder box with a rotary lid.

The PELCO[®] TEM Grid Vacuum Desiccator comprises a fully pumped blue anodized aluminum body (1) with a clear acrylic lid (2), a silicon O-ring seal (3) and a vacuum valve (4). Samples stored under vacuum are protected from dust, contamination and oxidization. The circular TEM grid holder box (5) includes a rotary lid with slotted holes (6). The rotary lid prevents the grid from falling out and only exposes 3 storage holes at a time.

Loading/removing samples:

Use precision fine pointed tweezers to load or remove grids. Rotate the dial on the circular grid box to the position where you want to store or remove the TEM grid. After loading rotate the dial to cover the storage position

Evacuating the PELCO[®] TEM Grid Vacuum Desiccator:

Load the TEM grids with precision fine tipped tweezers, rotate the dial to cover the stored TEM grids. Clean the O-ring seal if needed, clean the sealing face of the lid if needed and place the lid on the O-ring. Connect a pump to the ¹/₄" barb fitting, open the valve and pump down. Depending on the pump, the pump down time can vary from 10 seconds to minutes. After pump down, close the valve and disconnect the pump. The lid is held by vacuum. The TEM grids and the desiccator are now ready for storage or transport. We advise to repump once a month.

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Venting the PELCO[®] TEM Grid Vacuum Desiccator:

Hold the vacuum desiccator horizontal or place on a suitable horizontal surface before opening the valve. We advise to connect a venting filter to reduce dust entering the desiccators. Please be aware that the lid is only held by vacuum and can fall off when not held horizontal. Lift the lid, place on a clean non-scratching surface and remove the TEM grid(s) as needed.

Vacuum pump:

The small volume of the vacuum desiccators can be pumped down by virtually any pump or vacuum system. A dry pumping system such as our diaphragm pump (Product No. 3436) or a scroll pump is preferred. When using a rotary pump, install a foreline trap to reduce backstreaming. Another possibility is to use a port with a valve on an available high vacuum system. Use ¹/₄" thick walled silicon vacuum tubing (Product No. 92490-253) for vacuum connection.

Transport:

When the PELCO[®] TEM Grid Vacuum Desiccator is used for transporting or shipping sample, please evacuate or re-pump the desiccator before shipping and secure the lid with adhesive tape or elastic band. We advise to use $3M^{TM}$ Kapton[®] tape (Product No. 16089-4) which can be easily removed and leaves a clean surface. In case of accidental venting, the lid is held in place by the tape.

Maintenance and care:

The moving parts in the valve are self lubricating and do not require maintenance. Keep all vacuum sealing surfaces clean and scratch free. Clean the sealing O-ring when needed.



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