1. Safety instructions

When operating tubes, the terminals may be live to high voltages that are dangerous to touch.

- Do not modify circuits unless all power supplies are turned off.
- Do not mount or remove tubes unless all power supplies are turned off.

2. Description

The tube holder accommodates all tubes of the series D and their accessories, such as the Helmholtz Coils D (100644) and Auxiliary Coil (100645) plus the Optical Analogue equipment (1000656). The tube holder consists of a robust base plate with an upright stanchion and a fork-shaped holder for hot cathode tubes that can be rotated by 360° and is made of heat-resistant, highly insulating plastic. The tubes are secured into sprung clamps with retaining sliders. Two holes are bored in the base plate to accommodate a pair of Helmholtz coils at the "Helmholtz separation distance" for generating a uniform magnetic field. The tube holder rests on three non-slip rubber feet.
3. Technical data

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Approximation</th>
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</thead>
<tbody>
<tr>
<td>Dimensions:</td>
<td>230x175x320 mm³</td>
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<tr>
<td>Separation of</td>
<td>76 mm</td>
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<tr>
<td>holes for coils:</td>
<td></td>
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<tr>
<td>Weight:</td>
<td>1.5 kg</td>
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</tbody>
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4. Operation

4.1 Setting up and removing hot cathode tubes
- Tubes should not be mounted or removed unless all power supplies are disconnected.
- Push the jaw clamp sliders on the stanchion of the tube holder right back so that the jaws open.
- Push the bosses of the tube into the jaws.
- Push the jaw clamps forward on the stanchions to secure the tube within the jaws.
- To remove the tube, push the jaw clamps right back again and take the tube out of the jaws.

4.2 Setting up the Helmholtz coils D (100644)
- Place the tube in the holder as described above.
- Insert the Helmholtz tubes into the holes with the connections facing outwards. Push the sleeves on the rod upwards and insert the rod at an angle.
- Push the sleeves into the holes to secure the coils.

4.3 Setting up the auxiliary coil (1000645)
- Place the coil on the upper fork.
- Push the retaining slider over the lip of the auxiliary coil to secure the coil in place.

4.4 Setting up the optical analogue equipment (1000656)
- Insert the aluminium disc with the grating into the stanchion from behind.

Fig. 1 Setting up a tube (left), a tube, the Helmholtz coils and the auxiliary coil (right)