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SE1000622

1. Dual Beam Tube

Semi-evacuated electron tube filled with low-pressure helium and containing a tangential and axial electron gun. In the case of tangential bombardment and a perpendicularly aligned magnetic field, the fundamental electron charge-to-mass ratio can be determined from the diameter of the observed beam pattern. In the case of axial bombardment and a co-axial magnetic field, kinetic gas theory (e.g. impact excitation) and particle collisions can be studied through observations of the fine, luminescent beams resulting from excitation of the helium atoms.

- Max. filament voltage: 7.5V
- Max. anode voltage: 100V DC
- Anode current: approx. 30mA at 200V
- Max. deflection voltage: 50V DC

Code	Description	Pack	Price
SE1000622	S type	Each	£716.71
SE1000654	D type	Each	£920.46

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SE1013889

2. Electron Diffraction Tube

Highly evacuated electron tube for demonstrating the wave nature of electrons through the observation of interference caused by passage of electrons through a polycrystalline graphite lattice (Debye-Scherrer diffraction) and rendered visible using a fluorescent screen. Also intended for determining the wavelength as a function of the anode voltage from the radii of the diffraction rings and the lattice plane spacing of graphite, as well as confirming de Broglie's hypothesis.

Code	Description	Pack	Price
SE1013889	S type	Each	£922.11
SE1013885	D type	Each	£922.11

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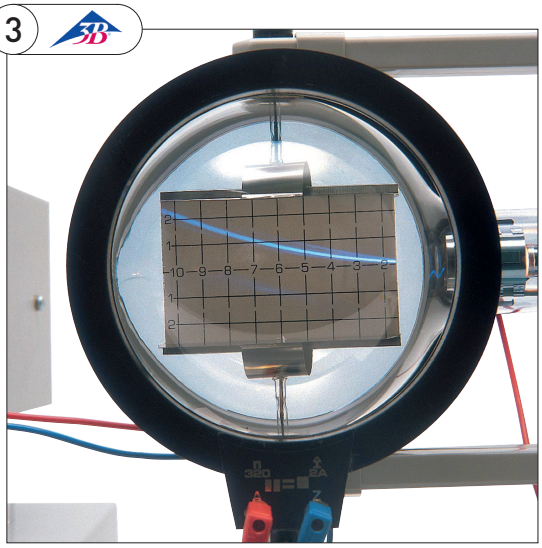

3. Electron Deflection Tube

Highly evacuated electron tube with focusing electron gun and fluorescent screen inclined relative to the beam axis, so that the path of the beam can be seen and the effects of electric and magnetic fields can be studied. The electron beam can be deflected electrically in the electric field of the built-in plate capacitor, and magnetically by using the Helmholtz coil pair D (SE1000644). By adjusting the electric field so that it cancels the magnetic deflection, it is possible to determine the specific charge e/m and the velocity of the electrons.

- Filament voltage: 6.3V AC
- Max. anode voltage: 5000V
- Anode current: approx. 0.1mA at 4000V
- Max. capacitor voltage: 5000V
- Fluorescent screen: approx. 90 x 60mm^2
- Glass bulb: approx. 130mm Ø
- Dimensions: 260 x 130mm

Code	Description	Pack	Price
SE1000651	D type	Each	£893.85