E3000 & E3100 Critical Point Dryers

'standard' or 'large' horizontal chamber critical point dryers

CRITICAL POINT DRYER

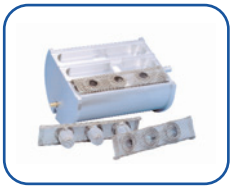
simple, robust design – an industry standard

E3100 critical point dryer

E3000 Critical Point Dryer

The design of the E3000 features a horizontal pressure chamber with an integrated water jacket for temperature control. Specimens are introduced via a removable rear door. The front of the chamber is fitted with a window which permits easy viewing of the liquid level. Dial gauges display pressure in the chamber and the temperature of water circulating through the jacket. Three pressure valves permit easy connection to the liquid CO_2 cylinder, liquid agitation and venting of the chamber.

See: www.quorumtech.com for full technical specification and additional details.



E3100 sample holder

Sample holder

The E3000 transfer holder (boat) has three tissue baskets and permits specimens in the intermediate fluid to be transferred to the critical point dryer. On sealing the chamber the intermediate fluid begins to drain and can be replaced with liquid CO_2. In this way the samples are never allowed to prematurely dry out during the critical point drying process.

Safety

Safety is of course an important consideration with all pressure vessels. Should critical pressure and temperature be inadvertently exceeded, a bursting disc is incorporated in the chamber support. The critical point drying chamber itself is tested to 2500 psi which is approximately twice the working pressure. A guard is also fitted over the 25mm thick window.

E3100 "Jumbo" Critical Point Dryer

For large specimen throughput the E3100 is ideal, because the chamber has approximately three times the volume of the E3000. The transfer holder (boat) has nine tissue baskets (see above images).

Key Features & Benefits

- Proven reliability - over 6,500 installations world-wide
- Simple robust construction - easy to maintain
- Horizontal chamber and large viewing window - unequalled visibility
- Large robust valves for ingress of CO_2, draining of fluids and gas venting
- Sample handling - optional sample holders for cover-slips and TEM grids
- Small footprint - can be easily placed on a bench and stored when not in use

Options

- E3500 Thermocirculator (heating only) or E4860 heater/chiller (avoids the need for mains water)
- Optional specimen holders for TEM grids, tissue and cover-slips (for further details see 'Product Specifications' table below)

PRODUCT SPECIFICATIONS

Supplied with	1m liquid CO_2 delivery tube, O-ring and gasket set (including window and door bonded seals) Spare bursting disc and retaining copper washer, tools and comprehensive operating manual
Chamber size	E3000: 30mm internal diameter x 82mm long. E3100: 63.5mm internal diameter x 82mm long
Operating temperature	Normal operating temperature 35˚C (critical temperature: 31˚C)
Operating pressure	1200psi (critical pressure of CO_2 is 1172psi)
Pressure safety cut-out	1850psi (note: all systems are tested to 2500psi)
Viewing window	25mm x 25mm thick (both models)
Heating and cooling requirements	E3000 / E3100 require warm water during the operating cycle. The optional E3500 Thermocirculator controls heating, the E4860 heater / chiller offers full temperature control
E3000 options	E3000-1 specimen holder for 3.05mm grids, E3000-02 specimen holder for microscope coverslips CPD800A porous pots with lids 12.7 x 15.7mm
E3100 options	E3100-1 specimen holder for 3.05mm grids, E3100-02 specimen holder for microscope coverslips CPD800A porous pots with lids 12.7 x 15.7mm