

Relative Humidity Controlled Workstation



Powders are widely encountered in industry, and an understanding of their properties is important for their safe and efficient manufacture and handling. Changes in ambient humidity greatly affects electrical flow and adhesion properties of powders. For this reason it is essential to perform many electrostatic measurements - especially on powders - under controlled humidity conditions.

CHILWORTH RELATIVE HUMIDITY CONTROLLED WORKSTATION

The relative humidity controlled workstation supports powder resistivity and charge relaxation time measurement apparatus which allow results to be obtained in accordance with BS5958 and BS7506. Measurements to other standards are also possible. Chilworth Systems (the Instrumentation division of Chilworth) can also supply this other equipment to clients as a complete package. The main chamber of the workstation comprises a circulation fan for uniform conditioning throughout the unit, internal shelf, trays for stowing either silica gel crystals (or saturated salt solutions) or samples which are being conditioned. The workstation is fitted with a light unit which contains individual isolation power switches for the light or fan. The gloves supplied on the unit permit the operator to reach any area of the internal chamber for easy cleaning of powder spillages.

The workstation is also fitted with a digital hygrometer with integral humidity and temperature measurement facilities. This is ideal for datasheet recording purposes. Workstations can be designed to meet a clients specific requirements upon request. Custom manufacture is one of our specialities.

SPECIFICATION AND ACCESSORIES SUPPLIED

Standard sizes include : 1000(l) x 600(w) x 600(h) mm or 760(l) x 600(w) x 500(h) mm. Finished in white epoxy coating.

- Uniformity of humidity measurement: Better than 1%
- Humidity meter (auto switch off facility): Measurement range: 5 to 95% RH. -20°C to +70°C.
Resolution: 0.1% RH/0.1°C Accuracy: +/-3% RH/+/- 0.5°C
Battery operated: 200 hours life (continuous) approx.
- RH selection using saturated salts: Typical RH value 10%-100% in 10% increments.
- Top mounted light fitting with separate power switch
- Internal chamber circulation fan for uniformity (120v 60 hz or 240v 50 hz)
- Internal shelf ideal for silica gel crystal stowage (can also be used for saturated salts or sample stowage) during the 24 hour recommended sample conditioning period.
- 500g silica gel crystals and 2 x trays
- Cable glands (side entry) to suit specific applications.
- Gloves and clamps supplied ready fitted.

Please note that the standard humidity controlled workstation supplied by Chilworth Systems is for non-toxic work. For other options please contact us.

Relative Humidity Controlled Workstation

THE BENEFITS

The Relative Humidity Controlled Workstation :-

- Low cost.
- Compact. Requires limited laboratory space.
- Permits accurate powder resistivity and charge relaxation time measurements to be conducted at more than one relative humidity as per BS5958 and BS7506 guidelines.
- Easily cleaned.
- Excellent uniformity of humidity measurements from any location within the chamber.
- Light fitting for easy internal chamber viewing.
- Independent light and/or fan operation.
- Can be customised to meet client requirements.



Powder Resistivity Apparatus

Testing to GLP Standard



Consultancy



Training



CHILWORTH SERVICES IN PROCESS SAFETY

As well as equipment supply we also offer a range of testing and consultancy services to the process industry, covering:-

- Dust/Gas/Vapour Explosion
- Electrostatic Hazards
- Hazardous Area Classification
- Chemical Reaction Hazards
- Chemical Process Optimisation
- Regulatory Testing (NONS, SDS, CHIP, CPL, UN)
- ATEX / DSEAR Audits
- IEC61508/11 Functional Safety & SIL Determination
- Major Hazards (Seveso II / COMAH)
- HAZOP
- Incident Investigation / Expert Witness
- Training

For further information and a comprehensive list of the services available, please contact one of our offices detailed below.

CONTACT

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