

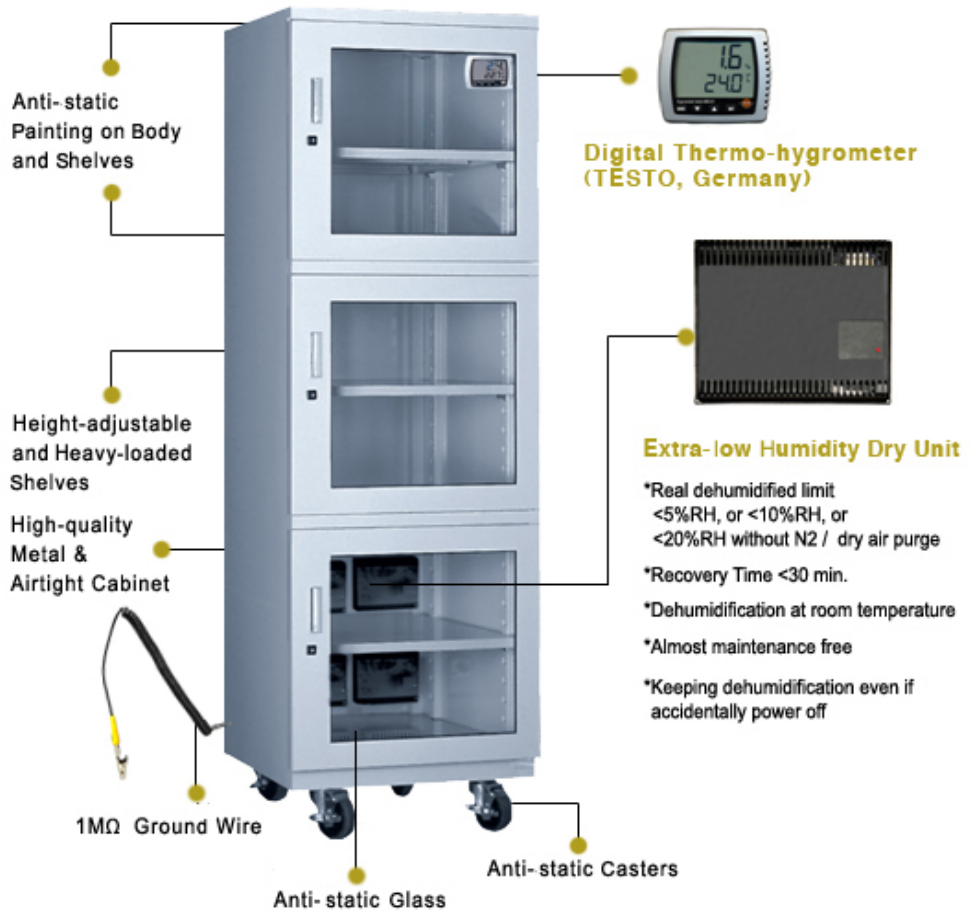
Issues Associated with Moisture Problems

StatPro CPDC Series Desiccator Dry Cabinets

An Alternative Drying Solution Replaces Traditional Methods

As the industry utilizes a high-temperature reflow process, moisture sensitivity in SMT remains a constant problem. Serious manufacturing defects and failures are much more likely to occur later when products are in the field, which can be traced to improper storage and handling of components and PCBs during the assembly process.

StatPro dry cabinets with desiccant dryer technology employ an alternative drying solution as opposed to traditional methods because field failures will occur without proper moisture control. These are important factors to consider when product reliability must be tightly controlled by manufacturing industries such as automotive, defense, medical device, aeronautic, and aviation.



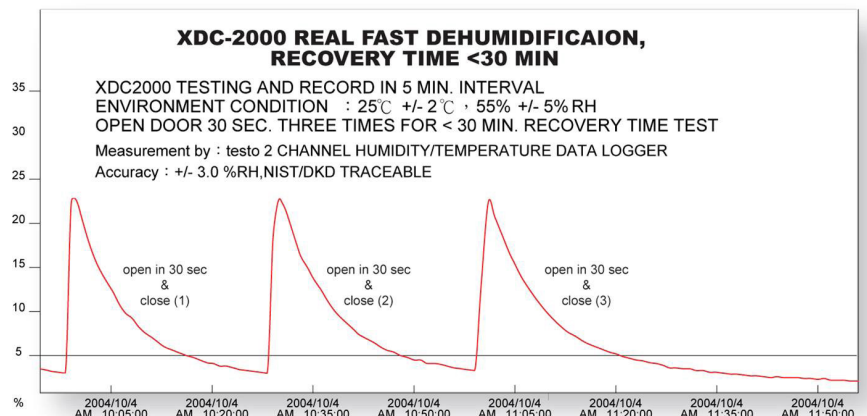
Why You Need StatPro CPDC Series Desiccator Dry Cabinets

With decreased time in development cycles, invention of ever-smaller devices, innovative use of new materials, and larger wafer chip development, there is a rapid increase of MSDs and higher levels of trace moisture sensitivity during the reflow process. As a result, internal component damage due to trace moisture expansion will occur in MSDs.

By storing MSDs and other valuable components in StatPro dry cabinets, you will be ensured of extended floor life. This will also prevent moisture expansion, popcorning, intermetallic growth, oxidation, solderability, and other moisture-related problems from occurring.

How Trace Moisture Affects SMT Production

Trace moisture causes component and PCB failure during the high-temperature reflow process. When absorbed moisture rapidly expands from high temperatures, internal component damage and failure such as micro-cracking, blistering, and popcorning will occur in MSDs, packages, and components. Because PCBs are hygroscopic, absorbed moisture will lead to delamination when moisture inside the layers expands during the process.



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StatPro CPDC Series Desiccator Dry Cabinet Applications

When components are removed from moisture barrier bags, StatPro ultra-low humidity dry cabinets will stop the floor-life clock for all IC packages:

Dual-in-line – Flatpack, SOIC, SOJ, TSOP, SSOP, TSSOP, QSOP, VSOP, and DFN

Quad-in-line – PLCC, QFP, LQFP, PQFP, CQFP, MQFP, TQFP, QFN, LCC, MLP, and PQFN

Grid arrays – PGA, BGA, LGA, FBGA, LFBGA, TFBGA, CGA, CCGA, μ BGA, and LLP

Other applications:

Drying and storage of multi-layer PCBs and PWBs before and after mounting, including dual-side boards awaiting second-side reflow.

Moisture controlled storage with desiccating capabilities for PCB pattern film/prepreg, quartz, fiber optics, CCDs, etc.

PP plate, prepreg, solder paste, semi-mounted PCB, mounted PCB, die cast and mold compounds, bonding materials, fluorescence powder, LCG board, wafer, CCD, condenser, oscillators, etc.

The low power consumption, no calibration, and plug and play operation make StatPro CPDC Series Desiccator Dry Cabinets a viable option for long-term storage of all production components. StatPro results in the ultimate production goal – higher yields.

