

DEFENCE SYSTEM PRESERVATION

- ✎ Prevent corrosion
- ✎ Increase readiness
- ✎ Reduce maintenance cost

Defence storage

Since the 1960s sorption dehumidifiers have been used by defence forces in countries all over the world to protect materials. If you fail to regulate air humidity in a warehouse, mould and rust can easily develop. Sensitive electronic equipment can break down. A dehumidifier makes sure that the relative humidity, RH, does not exceed 50%rh. This means that valuable material is in good condition when it is needed!

Corrosion

Vernon identified the relation ship between relative humidity (RH) and corrosion in 1929, and since them RH control has been a method of corrosion prevention. Desiccants are effective in variable climate humidity control, as refrigeration is problematic at lower temperatures and unreliable, and heated stores in cold climates are ineffective on items with thermal inertia or inefficient. Static desiccants in bags are only as effective as the vapour seal, and humidity control in rooms with or without static desiccant support the reliability.

Maintenance costs

Dry air technology bee verified by statements by Swedish Materiel FMV to nominate 10% savings for operational and 40% for long term storage maintenance budgets. US defence nominate humidity control systems provide a ROI of 9:1 by the US government auditing agency. Energy cost of DST Recursorb is 1.4kW/litre of water removed compared with conventional desiccant dehumidifiers of 2.0-1.6kW.



Readiness of avionics

is improved by reducing circuit board corrosion and eliminating humidity impact on cable insulation effecting electronic resistance. MTBF of SwAF Viggen was increased from 7 hrs to 22hrs with dry air

References

Dehumidifiers from Seibu Giken DST AB are used by defence forces in countries including: Belgium, Norway, Finland, France, Germany, Sweden, Switzerland, Thailand, Great Britain and Italy.