

ARID-Dry®

Hospital and Surgical Suite Dehumidification



Climate by Design International (CDI) provides actively-regenerated desiccant-based dehumidification systems for hospitals. Operating suites can now maintain the low temperature and humidity conditions required for surgeon comfort and successful medical procedures.

Climate by Design International (CDI) has over 30 years of experience with desiccant technology.

A solution to excessive surgical suite humidity is now available for both new construction and for most existing cooling-based mechanical air handling systems. By incorporating an **ARID-Dry** desiccant dehumidification system into the mechanical design for your hospital's operating suite, the air handling system can achieve recommended temperature and humidity control.

Today, due to heavy, multiple layered gowning and protracted surgical procedures, many surgeons demand their surgical suites to be cooled to 60°F to 65°F or lower during procedures. Gone are the days when satisfactory space conditions for the operating rooms were around 68°F to 72°F and 50% relative humidity.

The problem with mechanical-cooling systems designed for and installed in surgeries is that humidity control is only a by product of temperature control. Saturated air might be cold enough, but it makes for a damp operating suite.

Desiccant Dehumidification allows independent control of temperature and humidity, so your surgeons remain cool and dry. Operating rooms can be as cool and dry as desired!

ARID-Dry application assistance to your engineer insures a superior surgical facility. Surgeon comfort is enhanced both by allowing cooler operating suite conditions and by eliminating the dampness so familiar to surgical staff.

Many epidemiologists believe that reduced pathogen viability and fewer nosocomial infections result from maintaining a compliant dry surgery and dry air duct system.

Improved procedure success has also been observed by maintaining a dry surgery. For example, a correlation between procedure success and O.R. humidity levels has been noted in Laser-Assisted In Situ Keratomileusis (Lasik), where enhancement requirements are lower when procedures are performed under dry conditions.

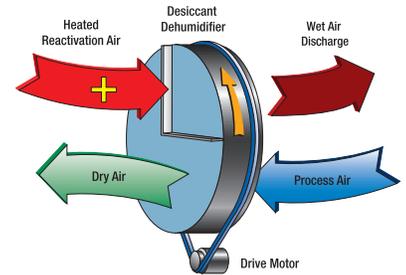
Another benefit is the elimination of fog on microscope lenses and slides and on surgeons' eyeglasses. Also, it is often necessary to maintain lower conditions in the operating rooms for therapeutic reasons or to keep the adhesive cements used in orthopedics from setting too quickly.



Climate by Design
INTERNATIONAL



CDI can furnish an ARID-Dry desiccant dehumidification solution to retrofit your existing HVAC system or design a packaged unit for your new construction.



Surgeons and patients will benefit from an improved operating room environment. Our systems employ active desiccant technology in order to allow drier and healthier operating room conditions. Benefits of **ARID-Dry** desiccant dehumidifier units include:



- Greater comfort for the physicians during surgical procedures
- Independent humidity and temperature control
- Removal of moisture upstream of any air handlers, allowing dry cooling coils
- Surgical suite duct work stays dry to prevent mold growth
- Desiccant dehumidifier can be added to hospital's existing mechanical system
- Allows the hospital's chillers to operate more efficiently
- Might allow additional chilled water loads without adding additional chiller capacity
- Makes efficient use of wasted excess boiler capacity during summer, off peak seasons, by using steam for desiccant regeneration
- Controlling latent loads with the desiccant system allows for precise and quick temperature changes (i.e., quicker cool down and recovery times)
- No more fogging of microscope lens or surgeons' eyeglasses
- No more "raining" from the operating room ceilings and/or fixtures
- Units are available with an integral smoke-purge system



Climate by Design
INTERNATIONAL



2100 Park Drive Owatonna, MN 55060

507.451.2198 • Fax: 507.451.1177 • sales@cdims.com • www.cdims.com