



## Pure Air solutions

Control temperature and relative humidity, and improve indoor air quality



### Why use Alfa Laval Pure Air Dehumidification Systems?

- Optimize operating room (OR) environment for staff and patients
- Enhance cleanliness level of air supplied to the OR
- Prevention of Healthcare Infection



### System benefits

#### **Most cost efficient heat transfer technology**

- Meets ASHRAE (American Society of Heating, Refrigeration and Air conditioning Engineers) 170 OR temp/RH (relative humidity) requirement and surgical staff comfort
- Employs standard facility cooling and heating utilities
- Green technology, able to use waste heat for regeneration
- Minimal maintenance

#### **Germicidal technology**

- Eliminates microbial contamination from HVAC (heating, ventilation and air conditioning) system
- Kills bacteria, mold and viruses; bacterial removal efficacy up to 99.999%
- Proactive technology to aid in preventing HAI (Healthcare Associated Infection)

# Exceptional technology

The ability to simultaneously cool and dehumidify an airstream is unique to the Alfa Laval Pure Air technology. This translates into lowered operating costs and more efficient performance, while removing any bacteria, fungi or viruses that may be present.

The Alfa Laval Pure Air Dehumidification System uses an absorbent solution - Kathene - which removes moisture from air as it moves through a conditioning spray chamber within the conditioner tower. Control of the space RH level from 20-60% at  $\pm 1\%$  is achieved.

Dilute solution collects within the system sump and is transferred to the regenerator where the moisture is removed. The concentrated solution is then transferred back to the conditioner.

Conversely, humidity may be added to the air stream by heating inlet air and providing deionized (DI) or reverse osmosis (RO) make-up water to the conditioner sump.

An energy treatment zone (UVGI- ultra violet germicidal irradiation) completes the Pure Air process.

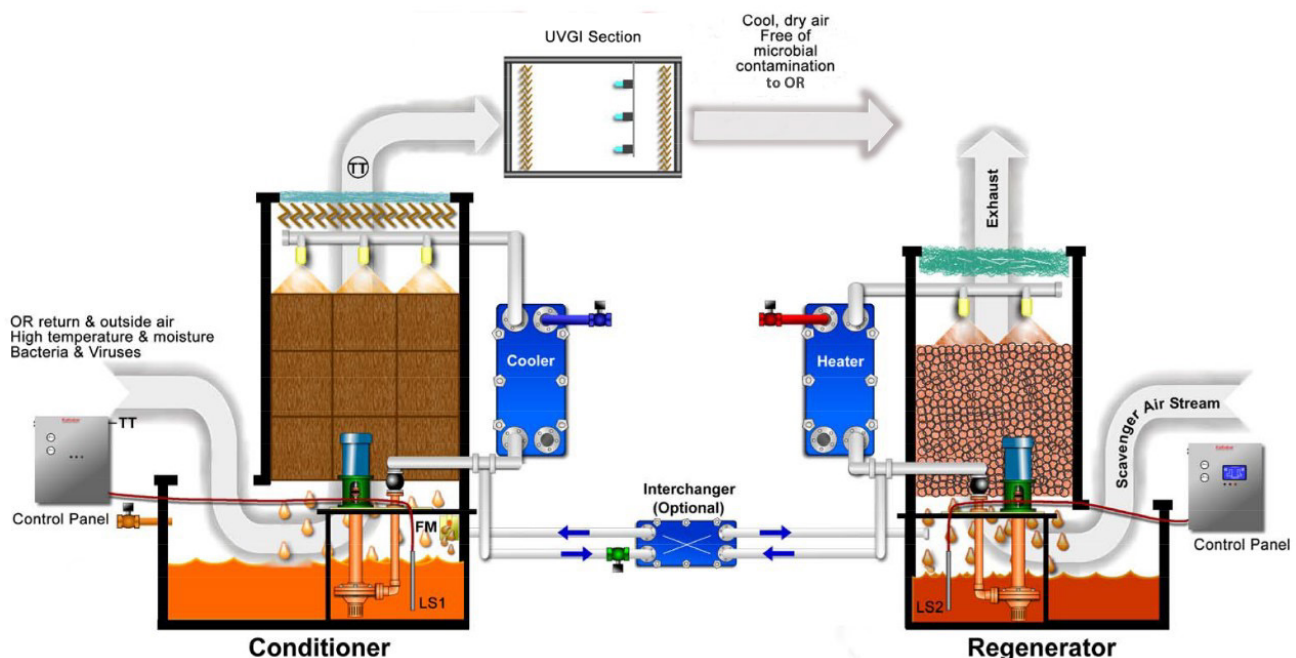
## Unparalleled critical environment control

Alfa Laval Pure Air Dehumidification Systems provide precise control of demanding OR conditions needed by surgical staff that both comply with mandated performance requirements and comfort levels, but most importantly, to realize best possible patient outcomes.

### The Pure Air technology has many advantages over traditional HVAC systems:

- Ability to use existing facility CW (chilled water) system (42-48° F) to meet lower OR temperatures and required RH levels
- Lowers energy requirements
- Provides sanitized air to critical environments
- Reduces environmental microbial load to aid in control of HAI

### Conditioner/Regenerator schematic with UVGI module depicted at Conditioner discharge



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[www.kathabar.com](http://www.kathabar.com)