



LIQUID DESICCANT AIR CONDITIONING SYSTEMS



Excellent Efficiency

Suitable for environments that demand constant temperature and humidity or low humidity



Easily Achieves 2g/kg Dry Air (DA)

In industrial process, DA is essential for the production of high-quality products. Traditional air-conditioning employs overcooling to remove excess moisture. By lowering the temperature to dew point, moisture-carrying potential of air is reduced, thus achieving dehumidification. However, this requires the air to be reheated afterwards to a suitable indoor temperature, which doubles energy consumption.

Alternatively, the desiccant wheel system requires extensive preliminary designing of the desiccant wheel, which incurs additional investment, places a burden on renewable energy sources, and also accumulates maintenance costs.

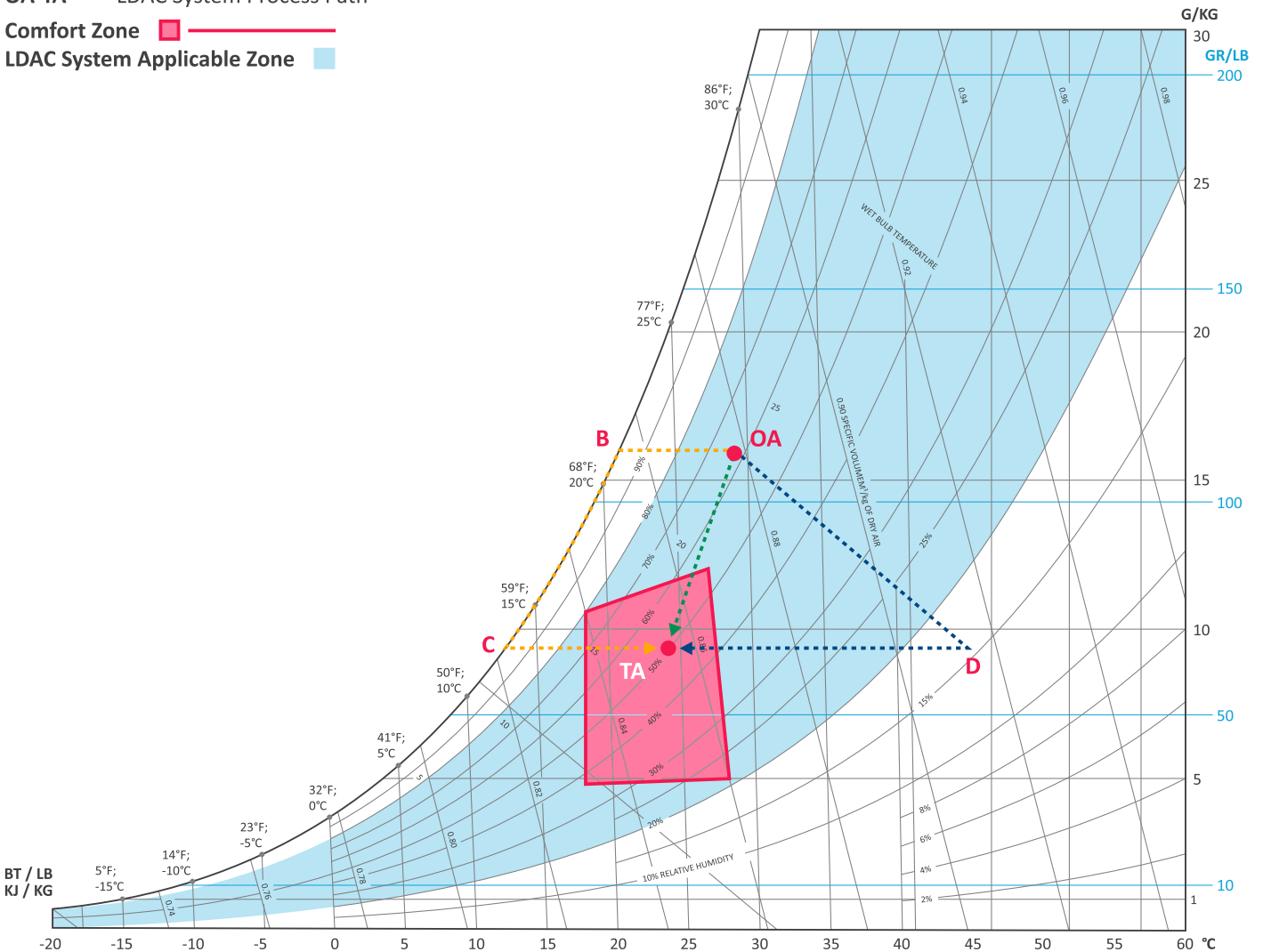
However, you now have a new option — energy-efficient liquid desiccant system. It has a moderate dew point, does not require reheating, cuts desiccant wheel regeneration costs by 50%, and is inexpensive to maintain!

Psychrometric Chart Comparison

- OA-B-C-TA Traditional Dehumidification System Process Path
- OA-D-TA Desiccant Wheel Dehumidification System Process Path
- OA-TA LDAC System Process Path

Comfort Zone ■

LDAC System Applicable Zone ■





Operating Principle

Liquid Desiccant Dehumidification Process

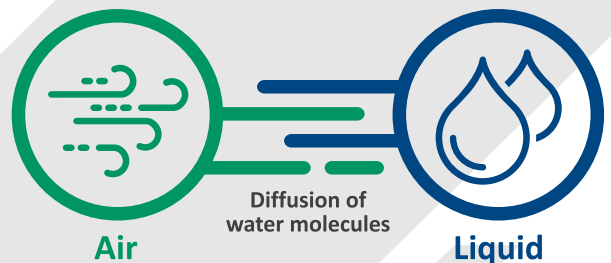
Desiccant solution is natural, highly stable, safe and a strong absorbent - it efficiently absorbs ambient humidity due to low vapor surface vapor pressure.

Regeneration Process

To maintain operation and performance of the desiccant solution, heat is applied to raise surface vapor pressure above the water vapor pressure of air (the reverse of the differential pressure gradient driving dehumidification). Subsequently, water evaporates into the air and the solution becomes concentrated and is regenerated.

The latent heat of vaporization of water is usually absorbed by the intercooler heat exchanger (section effector).

The regeneration process only require a low heat source, which can be recovered from waste heat above 55°C, solar energy, heat pumps, boilers, steam, and steam condensate.



everything under control

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