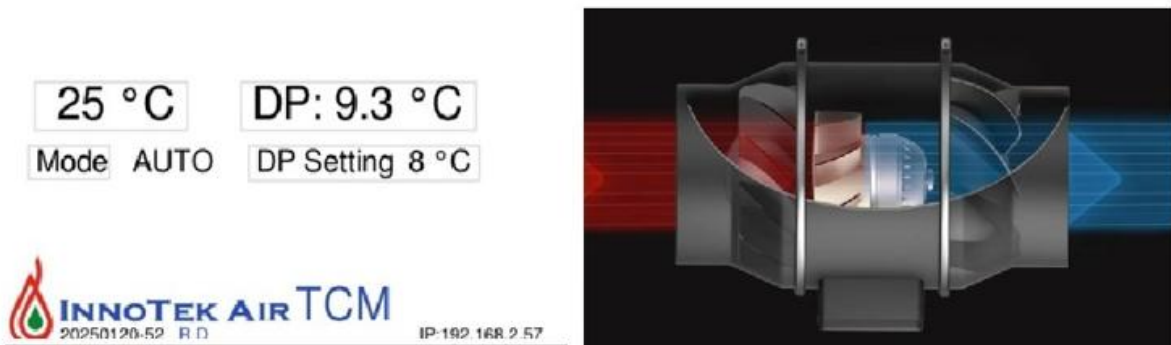




A **Revolutionary** leap in dehumidification system & control technology

The Dehumidification Mixed Air Controller (DMAC) can operate in a force cooling



The **Dehumidification Mixed Air Controller (DMAC)** is a key component of the **HumidiFlex System**. This innovative add-on gives your existing HVAC system the ability to manage humidity intelligently.

The **DMAC** acts as the brain of the system, integrating with your indoor unit's thermostat. It constantly monitors for heating, cooling, and fan operation. What makes it so effective is its "**force cooling**" feature, which you can activate with a one-time setup on the user-friendly **Graphical User Interface (GUI)**.

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### A Smarter Way to Dehumidify

Standard air conditioning systems often struggle with humidity. Homeowners typically try to combat a damp, uncomfortable feeling by lowering their thermostat's setpoint. This forces the unit to run longer, but it leads to several problems:

- **Inefficient Dehumidification:** The system cycles on and off too frequently, preventing significant moisture removal.
- **Overcooling:** Your space becomes uncomfortably cold and wastes energy.

- **Delayed Action:** It can take a long time for the system to start effectively removing moisture.

The **HumidiFlex System** and its **DMAC** correct these issues. Instead of simply overcooling, the system forces the fan and cooling to run in a specialized dehumidification mode when needed. This is a game-changer for several reasons:

- **Rapid Dehumidification:** The system begins removing moisture almost immediately, not after 10 minutes of cycling.
- **Maximizes Moisture Removal:** It dramatically increases the amount of moisture removed from the air.
- **Minimizes Overcooling:** The system significantly reduces the "sensible cooling effect," meaning it focuses on removing humidity without making your space uncomfortably cold.

**By forcing cooling in this targeted, intelligent way, the HumidiFlex System transforms your regular air conditioner into a powerful, dedicated dehumidifier. It gives you true comfort without the common problems of overcooling and inefficiency.**

**The critical distinction is between overcooling and force cooling:**

#### **Overcooling (Ineffective Dehumidification)**

**Overcooling occurs when an air conditioning system's evaporator coil provides poor dehumidification. Because the system isn't effectively removing humidity, the occupants feel uncomfortably warm and clammy, even if the air temperature is acceptable. As a result, users often lower the thermostat set point, forcing the AC to run longer and chill the air excessively in an attempt to finally remove moisture.**

**The underlying issue is that standard vapor-compression refrigeration is primarily designed for cooling, and any dehumidification is merely an uncontrolled, circumstantial side-effect rather than an optimized function. This leads to inefficient moisture removal and the need for overcooling to achieve comfort.**

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#### **Force Cooling (Strategic Dehumidification Enhancement)**

**Force Cooling is a strategic operational change designed to optimize and maximize the evaporator coil's ability to dehumidify. This process alters the system's performance parameters, allowing the AC unit to deliver highly effective moisture removal, essentially performing as capably as a top-tier standalone dehumidifier.**

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In summary:

- **Overcooling is the *result* of a system's *failure* to dehumidify effectively, making users excessively lower the temperature setting.**
- **Force Cooling is a *solutional* strategic *process alteration* to *improve* the system's dehumidification capability.**