

# Short Field Note: Static Pressure, Pressurization, and Humidity Troubleshooting Logic

*A quick-reference logic sheet for facility teams and junior troubleshooters dealing with comfort and moisture complaints.*

If you see this	Ask this next	Why it matters
High indoor RH and doors pulling inward	Is the building negative relative to outdoors?	Negative pressure can pull humid outside air through the envelope and overload dehumidification.
Cold supply air but clammy rooms	Is the unit removing enough moisture over enough runtime?	Cold air alone does not guarantee adequate latent removal.
High static pressure and weak airflow	Where is the restriction: filters, coil, dampers, blocked duct?	High static often means the fan is pushing against resistance, not delivering plenty of air.
Low static pressure and weak delivery	Is the fan underperforming or is air leaking out before it reaches the zone?	Low static can mean low airflow, not an easy system.
Odor migration or odd door behavior between rooms	Are room pressure relationships still being maintained?	Containment and comfort depend on pressure relationships, not just temperatures.
Condensation near diffusers or entrances	Is humid air infiltrating or is the coil/dew-point control weak?	Moisture problems often combine pressure and coil-performance issues.
Recurring complaints after local damper changes	Did we change the symptom pattern before measuring the system?	Blind adjustments erase evidence and make the true root cause harder to read.

## Quick logic sequence

1. Start with symptom pattern, not the nearest setpoint.  
Note where the issue happens, when it happens, and what weather or occupancy conditions are present.
2. Separate delivery from resistance.  
Use airflow measurements to understand delivery. Use static pressure to understand resistance.
3. Treat pressure and humidity as linked.  
If the building is negative in humid weather, fix the air-balance problem as part of the moisture problem.
4. Check what changed.  
Schedules, damper positions, exhaust operation, setpoints, filters, tenant changes, and overrides all matter.
5. Avoid blind adjustment loops.  
If multiple parties are changing controls, dampers, and fan settings without a shared hypothesis, stop and reset the diagnostic process.

## Do not forget

Static pressure is not airflow.

A damper position is not outdoor-air proof.

A building can feel cold and humid at the same time.

Door behavior is a diagnostic clue.

Pattern recognition saves time.

### Next step

This note is designed as a first-pass troubleshooting guide. It does not replace TAB, commissioning, or diagnostic work, but it does help teams ask better first questions.