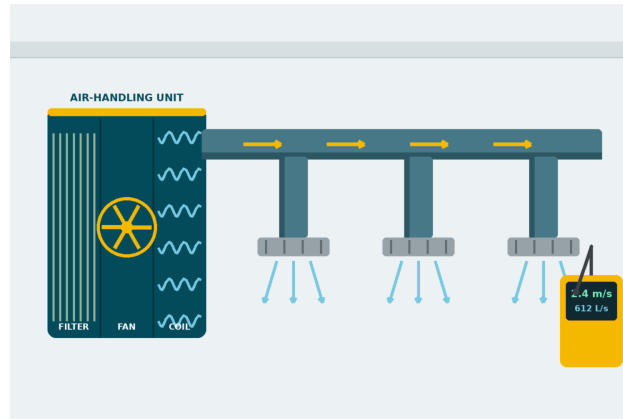


HVAC System Testing, Adjusting & Balancing Services

An independent reference for verifying HVAC performance and indoor air quality to international standards



Field measurement of air-handling and distribution systems, carried out to international testing and balancing standards

An HVAC system can run continuously and still fail to do its job: rooms starved of fresh air, energy wasted on unbalanced flows, comfort complaints left unexplained, all while the plant appears to operate normally. Independent testing, adjusting and balancing is the only way to confirm that an HVAC system actually delivers the airflow, temperatures and air quality it was designed for.

What HVAC testing reveals

A structured TAB survey exposes problems that routine operation hides:

- Unbalanced air and water flow distribution
- Insufficient fresh-air and ventilation rates
- Rooms that overheat, overcool or stay stuffy
- Excess fan and pump energy consumption
- Incorrect room pressurisation and cross-flow
- Clogged filters and underperforming coils

Why testing & balancing matters

A balanced, verified HVAC system lets a building:

- Deliver the airflow and temperatures designed for
- Maintain healthy indoor air quality
- Cut wasted heating, cooling and fan energy
- Keep occupants comfortable and productive
- Pass commissioning and handover checks
- Meet ventilation and energy-code requirements

A balanced HVAC system delivers comfort, clean air and lower energy bills, proven by measurement, not assumption



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Scope of Services

HVAC testing, adjusting and balancing carried out by Mizan follows the procedures of ASHRAE Standard 111 and EN 12599, so that results are accurate, repeatable and defensible.

▪ Air-side testing & balancing

- Airflow measurement at diffusers, grilles and ducts
- Fan performance and air-handling-unit checks
- Fresh-air and ventilation-rate verification
- Room pressurisation and air-change-rate testing

▪ Water-side & thermal testing

- Chilled-water and hot-water flow balancing
- Pump performance and pressure measurement
- Coil capacity and temperature-rise checks
- Thermal-comfort assessment to ISO 7730

▪ Applications

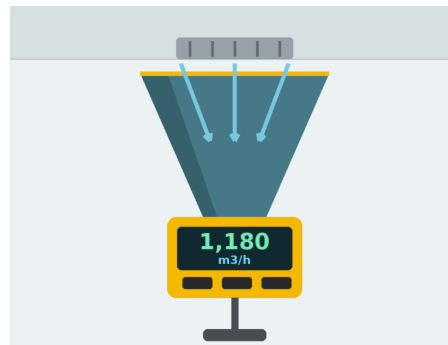
- Hospitals, laboratories and clean rooms
- Offices and commercial buildings
- Hotels, malls and mixed-use developments
- Data centres and industrial facilities
- New-build commissioning and handover

Technical Reports to ASHRAE, EN & ISO Standards

In preparing TAB reports, Mizan applies a documentation and analysis methodology aligned with ASHRAE Standard 111, EN 12599 and the relevant ISO standards, ensuring results that are clear, traceable and dependable for decision-making.

The technical reports issued by Mizan include the following:

- Measured air and water flow rates compared against design values to ASHRAE 111 and EN 12599
- Fan, pump and coil performance with operating points and efficiency
- Ventilation and fresh-air rates assessed against ASHRAE 62.1
- Indoor thermal-comfort and air-quality evaluation to ISO 7730 and ASHRAE 55
- The location and likely cause of every imbalance or non-conformity recorded
- Clear, prioritised recommendations for adjustment, repair and energy improvement



Capture-hood measurement verifies diffuser airflow against design values

A comfortable, efficient building begins with a balanced HVAC system



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