ChecklistGuro

HVAC System Balancing Checklist (for optimal efficiency)

Pre-Balancing Assessment & Planning

Initial assessment of the HVAC system and development of a balancing plan. Includes gathering necessary data and verifying existing documentation.

Date of Assessment

Enter date...

Time of Assessment Start

Brief Description of HVAC System (Type, Age, Capacity)

Write something...

Building Square Footage

Enter a number...

System Configuration (e.g., VAV, Constant Volume, etc.)

- [ ] VAV
- [ ] Constant Volume
- [ ] VRF
- [ ] Other - Specify in Long Text

Existing HVAC System Drawings/Schematics (if available)

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Review of Previous Balancing Reports (if available - summarize findings)

Write something...

Primary Balancing Goals (Select all that apply)

- [ ] Energy Savings
- [ ] Improved Comfort
- [ ] Noise Reduction
- [ ] Addressing Specific Complaints

Notes/Observations Prior to Balancing (e.g., noted airflow issues, complaints)

Write something...

Airflow Balancing

Tasks related to adjusting airflow to ensure proper distribution within the facility. This includes measurements, damper adjustments, and troubleshooting airflow issues.

Measured Airflow (CFM) at Supply Diffuser 1

Enter a number...

Design Airflow (CFM) for Supply Diffuser 1

Enter a number...

Damper Adjustment Needed at Supply Diffuser 1?

- [ ] Yes
- [ ] No

Damper Adjustment (Percentage) for Supply Diffuser 1

Enter a number...

Measured Airflow (CFM) at Return Grill 1

Enter a number...

Notes on Airflow Balancing at Supply Diffuser 1

Write something...

Areas experiencing airflow issues?

- [ ] Too Cold
- [ ] Too Warm
- [ ] Drafty
- [ ] Uneven Temperature
- [ ] None

Adjusted Zone Temperature Setpoint?

- [ ] Yes
- [ ] No

Hydronic System Balancing (if applicable)

Specific checks and adjustments for systems using water as the heat transfer medium. Includes valve adjustments, pressure checks, and flow verification.

Initial System Water Temperature (Supply)

Enter a number...

Initial System Water Temperature (Return)

Enter a number...

System Flow Rate (GPM)

Enter a number...

System Pressure (PSI)

Enter a number...

Valve Type (e.g., Balancing Valve, Control Valve)

- [ ] Balancing Valve
- [ ] Control Valve
- [ ] Butterfly Valve
- [ ] Other - Specify

Valve Adjustment (Position/Percentage)

Enter a number...

Notes on Valve Adjustment and Reason

Write something...

Bypass Valve Status (Open/Closed)

- [ ] Open
- [ ] Closed

Differential Pressure Across Balancing Valve (PSI)

Enter a number...

Static Pressure Verification

Measurement and adjustment of static pressure to optimize fan performance and system efficiency.

Total Supply Air Volume (CFM)

Enter a number...

Design Static Pressure (inches of water)

Enter a number...

Measured Static Pressure at Main Supply Plenum (inches of water)

Enter a number...

Measured Static Pressure at Fan Discharge (inches of water)

Enter a number...

Measured Static Pressure at Farthest Supply Diffuser (inches of water)

Enter a number...

Fan Speed (RPM)

Enter a number...

Fan Speed Adjustment Necessary?

- [ ] Yes
- [ ] No

Notes on Static Pressure Adjustments & Observations

Write something...

VAV Box Static Pressure Sensor Calibration Required?

- [ ] Yes
- [ ] No

Equipment Performance Checks

Verification of equipment performance, including fan speeds, pump pressures, and coil temperatures. This helps identify potential mechanical issues affecting balancing.

Supply Fan RPM (Revolutions Per Minute)

Enter a number...

Return Fan RPM (Revolutions Per Minute)

Enter a number...

Supply Air Temperature (°F)

Enter a number...

Return Air Temperature (°F)

Enter a number...

Chilled Water Supply Temperature (°F)

Enter a number...

Chilled Water Return Temperature (°F)

Enter a number...

Hot Water Supply Temperature (°F) (if applicable)

Enter a number...

Hot Water Return Temperature (°F) (if applicable)

Enter a number...

Supply Fan Motor Condition (Visual Inspection)

- [ ] Excellent
- [ ] Good
- [ ] Fair
- [ ] Poor

Documentation & Reporting

Recording all measurements, adjustments made, and any issues identified. Creation of a final report summarizing the balancing process and recommendations.

Balancing Report Summary

Write something...

Total System Airflow (CFM/m³/h)

Enter a number...

Total System Water Flow (GPM/LPM) - if applicable

Enter a number...

As-Built HVAC Drawings (Updated)

Upload File

Overall Balancing Success (Subjective)

- [ ] Excellent
- [ ] Good
- [ ] Acceptable
- [ ] Poor

Balancing Completion Date

Enter date...

Recommendations for Future Maintenance

Write something...

Balancing Technician Signature

Project Name/Location

Write something...

Post-Balancing Verification

Follow-up checks after balancing adjustments to ensure stability and continued optimal performance.

Date of Post-Balancing Verification

Enter date...

Time of Post-Balancing Verification

Static Pressure (in)

Enter a number...

Supply Air Temperature (°F)

Enter a number...

Return Air Temperature (°F)

Enter a number...

System Stability (after 24 hours)

- [ ] Stable
- [ ] Minor Fluctuations
- [ ] Significant Fluctuations - Further Adjustment Needed

Notes on Post-Balancing Observations

Write something...

Overall System Performance (compared to baseline)

- [ ] Improved
- [ ] Maintained
- [ ] Decreased