

Preface

The summary below provides a quick understanding of how well your HVAC systems balanced in respect to the design criteria. The summary concludes with a quick understanding of your building environment and possible suggestions for each of your systems after testing has been performed. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred. Our focus is to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints. Also, enclosed are pictures of building assets and items listed below that will provide your team with more insight.

Facility Identification and TAB Requirements

The mechanical equipment to be tested, adjusted, and balanced includes: All Roof Top Units (RTU), All Exhaust Fans (EF), All Kitchen Hoods, and all associated air devices.

RTU's (Roof Top Units)

Before balancing, the RTU's are commanded to high fan speed through the BMS. Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within +/- 10% of the engineer's design flow. Any equipment that fell outside of that tolerance is noted throughout the report.

Kitchen Exhaust Hood & Associated Fans

The kitchen exhaust fan was measured at the main hood filter bay utilizing a velocity matrix and a manufacturer's correction factor. Each filter velocity is multiplied by the manufacturer's corrected area. The sum of these readings equals the total flow of the exhaust fans.

Bakery Exhaust Fans

The bakery exhaust fans were measured by traversing the B-vent ductwork. The average velocity of these readings was multiplied by the cross-sectional area of the duct to calculate airflow.

General Exhaust Fans

The remaining building EF's were measured by reading each air device with a flow hood. The total airflow is equivalent to the sum of these readings. The fan speed for each EF was then adjusted when necessary, so that the airflow was within +/-10% of design.

Final Building Tests

After completing the test and balance, a completed balance schedule was created showing the summation of all airflow for the building. A total building pressure could not be taken due to traffic in and out of the main doors during time of balancing.

A smoke containment test was performed on each hood by using a smoke emitter. The test was performed at the hood perimeter and the cook top level with the equipment heat "on" and 100% capture was observed.