Report By:

National TAB
1329 E. KEMPER ROAD
SUITE 4210
CINCINNATI, OH 45246

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 10/10/2025

Completed By: National TAB

PROJECT

10-06-25 QT #1720 GAINESVILLE, GA

551 JESSE JEWELL PARKWAY SW

GAINESVILLE, GA

Client

QUIKTRIP

4705 SOUTH 129TH EAST AVENUE

TULSA, OK 74134

National TAB

Project: 10-06-25 QT #1720 GAINESVILLE, GA

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Project Summary

Project Summary
The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report are further details about your building performance including recommendations, asset data, and pictures. 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 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.

RTU's (Roof Top Units)
Each of the RTU's was measured with a flow hood to establish total flow. The total flow was then adjusted via the VFD so that airflow fell within design tolerances. All diffusers on the kitchen RTU were balanced to the engineer's design flow. The diffusers on the sales floor were only adjusted when there were noticeable issues present like drafting or dampers that were found completely closed. The Hoods On outside air rate was set by first establishing the typical QT set point at the Emerson controller and then making manually adjustments on the roof. The hoods off airflow setpoint was found by adjusting the damper position at the Emerson controller until the design airflow was achieved. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. After completion of TAB all overrides were released.

Kitchen Exhaust Hood & Associated Fans
The kitchen exhaust fan was measured at the 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. The total flow of the exhaust was then adjusted to within tolerance of the design flow.

Restroom Exhaust Fans
The restroom exhaust fans were measured with a flow hood. The total flow was balanced for the fan with the exception of the new grille over the combi-oven which was balanced to the design.

Final Building Tests
After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report. The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat on to ensure satisfactory hood capture and containment.

NATIONAL TAB

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HOOD ON OA		HOOD OFF OA		HOOD ON EXHAUST		HOOD OFF EXHAUST	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU 1	SALES	800	805	350	378				
RTU-2	SALES	800	826	350	323				
RTU-3	BOH/KITCHEN	800	799	350	371				
EF-1	RR/JANITOR					750	786	750	786
EF-3	HOOD					1350	1345	0	0
TOTALS		2400	2430	1050	1072	2100	2131	750	786

HOODS ON

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2430
TOTAL EXHAUST	2100	2131
NET AIRFLOW	300	299

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0151
SIDE	0.0053
REAR	0.0154
AVERAGE	**0.0119**

HOODS OFF

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1072
TOTAL EXHAUST	750	786
NET AIRFLOW	300	286

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0039
SIDE	0.0025
REAR	0.0047
AVERAGE	**0.0037**

NOTES:

CheckList List

- 01: RTU’s/AHU’s
- 02: Exhaust Fans
- 03: Hoods
- 04: Final Tests

10-06-25 QT #1720 GAINESVILLE, GA

CheckList Information

Name :	01: RTU’s/AHU’s	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/25/2025 - Trinity Dodds - National TAB		
Completed Date :	10/10/2025 - Sagar Patel - National TAB		

CheckList Item Details

RTU's/AHU's

Evaporator coils are clean?	Pass
Comment:	
Condenser coils are clean?	Pass
Comment:	
Gas piping is installed and valves are turned on?	Pass
Comment:	
Unit free of noticeable noise and vibration	Pass
Comment:	

10-06-25 QT #1720 GAINESVILLE, GA

CheckList Information

Name :	02: Exhaust Fans	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/25/2025 - Trinity Dodds - National TAB		
Completed Date :	10/10/2025 - Sagar Patel - National TAB		

CheckList Item Details

EF's

Hinge kit installed installed on hood fan?	Pass
Comment:	
Flex conduit is long enough so that fan can be completely tilted back?	Pass
Comment:	
No major leakage around the fan base	Pass
Comment:	
Unit is free of noise and vibration	Pass
Comment:	

10-06-25 QT #1720 GAINESVILLE, GA

CheckList Information

Name :	03: Hoods	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/25/2025 - Trinity Dodds - National TAB		
Completed Date :	10/10/2025 - Sagar Patel - National TAB		

CheckList Item Details

HOODS

Hood is free of alarms?	Pass
Comment:	
Hood is free of damage?	Pass
Comment:	
End panels are installed per prototype?	Pass
Comment:	

10-06-25 QT #1720 GAINESVILLE, GA

CheckList Information

Name :	04: Final Tests	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/25/2025 - Trinity Dodds - National TAB		
Completed Date :	10/10/2025 - Sagar Patel - National TAB		

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

N/A

List smoke candle type used

Comment:

INSPECT USA 45 SECOND SMOKE EMITTER

Smoke test capture % - Perimeter of hood

Comment:

100%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	10/10/2025

Comment:

TAB tech name / Firm

Comment:

SAGAR PATEL / NATIONAL TAB INTELLIGENCE

Site super name / Firm

Comment:

KYLE DAMRON / ASCENT CONSTRUCTION GROUP

Owner representative name / Firm (if Applicable)

Comment:

BUILDING PRESSURE

Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	Pass

Comment:

National TAB

Project: 10-06-25 QT #1720 GAINESVILLE, GA

System/Unit: AHU/RTU

Asset: RT-1 AREA:SALES FLOOR

Unit Data		
	Design	**Actual**
MFG	NA	AAON
Serial Num	-	202007-ANEK20263
Model Num	NA	RN-013-8-0-EA09-152
Type	-	RTU
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	22X45
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	-	3
Motor Rpm	-	1760
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	10.6

Test Data		
	Design	**Actual**
SF CFM	4200	4266
SF RPM	-	1115
RA CFM	3400	3461
OA CFM	800	805
RL Voltage	-	111 VFD
RL Amperage	-	8.41 VFD
SF Rotation	-	CCW
SF System SetPt	-	38.0 Hz
RA Damper Position	-	54%
Min OA Damper Position	-	46%
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.63”
Fan Suction SP	-	-0.86”
Fan Discharge SP	-	0.42”
Total ESP	-	1.05"
Fan Total SP	-	1.28"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Sagar Patel on 10/09/2025

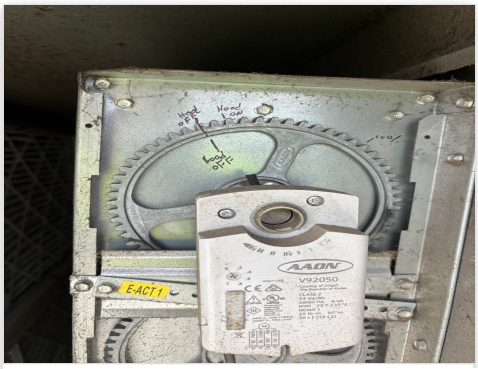
Notes:
OA HOOD ON AND OFF SETPOINT PICTURE WITH UNIT PICTURE.

HOOD OFF SETPOINT: 26%

Written By: Sagar Patel on 10/09/2025

Unit Data - PHOTO LOG

10/09/2025



10/09/2025

National TAB

Project: 10-06-25 QT #1720 GAINESVILLE, GA

System/Unit: AHU/RTU

Asset: RT-2 AREA:SALES FLOOR

Unit Data		
	Design	**Actual**
MFG	NA	AAON
Serial Num	-	202007-ANEK20264
Model Num	NA	RN-013-8-0-EA09-152
Type	-	RTU
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	22X45
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	-	3
Motor Rpm	-	1760
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	10.6

Test Data		
	Design	**Actual**
SF CFM	4200	4252
SF RPM	-	1179
RA CFM	3400	3426
OA CFM	800	826
RL Voltage	-	125 VFD
RL Amperage	-	9.17 VFD
SF Rotation	-	CCW
SF System SetPt	-	40.20 Hz
RA Damper Position	-	54%
Min OA Damper Position	-	46%
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.75”
Fan Suction SP	-	-0.94”
Fan Discharge SP	-	0.51”
Total ESP	-	1.26"
Fan Total SP	-	1.45"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Sagar Patel on 10/09/2025

Notes:
OA HOOD ON AND OFF SETPOINT PICTURE WITH UNIT PICTURE.

HOOD OFF SETPOINT: 26%

Written By: Sagar Patel on 10/09/2025

Unit Data - PHOTO LOG

10/09/2025

10/09/2025

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Project: 10-06-25 QT #1720 GAINESVILLE, GA

System/Unit: AHU/RTU

Asset: RT-3 AREA:BOH/KITCHEN

Unit Data		
	Design	**Actual**
MFG	NA	AAON
Serial Num	-	202007-ANEK2062
Model Num	NA	RN-013-8-0-EA09-152
Type	-	RTU
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	22X45
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	-	3
Motor Rpm	-	1760
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	10.6

Test Data		
	Design	**Actual**
SF CFM	4200	4219
SF RPM	-	1138
RA CFM	3400	3420
OA CFM	800	799
RL Voltage	-	116 VFD
RL Amperage	-	8.65 VFD
SF Rotation	-	CCW
SF System SetPt	-	38.80 Hz
RA Damper Position	-	54%
Min OA Damper Position	-	46%
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.75”
Fan Suction SP	-	-0.96”
Fan Discharge SP	-	0.47”
Total ESP	-	1.22"
Fan Total SP	-	1.43"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Sagar Patel on 10/10/2025

Notes:
OA HOOD ON AND OFF SETPOINT PICTURE WITH UNIT PICTURE.

HOOD OFF SETPOINT: 26%

Written By: Sagar Patel on 10/09/2025

Unit Data - PHOTO LOG

10/09/2025

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Project:10-06-25 QT #1720 GAINESVILLE, GA

AHU/RTU

Diffuser Supply (GRD)

RT-3/BOH/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SUPPORT SERVICE	SI	12"	800	1	656	657	731	91.4
SGRD2	SUPPORT SERVICE	SI	12"	800	1	1119	903	874	109.3
SGRD3	SUPPORT SERVICE	SI	12"	800	1	1107	946	878	109.8
SGRD4	SUPPORT SERVICE	SI	12"	800	1	693	701	724	90.5
SGRD5	WORKROOM	ES	10"	500	1	450	431	478	95.6
SGRD6	WORKROOM	ES	8"	250	1	319	321	263	105.2
SGRD7	PLUMBING	ES	8"	250	1	299	270	271	108.4
Total				4200		4643	4229	4219	100.45%

Completed By: Sagar Patel on 10/10/2025

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Project: 10-06-25 QT #1720 GAINESVILLE, GA

System/Unit: FAN - Exhaust

Asset: EF1 AREA:RR/JANITOR

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DR50HFA
Serial Num	-	6901590
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	HSSA
Frame	-	N/L
Horsepower	-	0.5
Motor Rpm	-	1625
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	5.6
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	750	786
Fan Rotation	-	CCW
System SetPt	-	LOW
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	-	-0.25”
Fan Inlet SP	-	-0.25”
Fan Discharge SP	-	1 ATM

Completed By: Sagar Patel on 10/10/2025

Notes:
[1] UNABLE TO READ VOLTS AND AMPS SAFELY

Written By: Sagar Patel on 10/10/2025

Unit Data - PHOTO LOG

10/10/2025

National TAB

Project: 10-06-25 QT #1720 GAINESVILLE, GA

System/Unit: FAN - Exhaust

Asset: EF3 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	7632032
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	HSSA
Frame	-	48
Horsepower	1/2	0.5
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	6.2
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	1350	1345
Fan RPM	-	1137
Fan Rotation	-	CCW
Motor RPM	-	1137
System SetPt	-	49.8 HZ
RL Voltage	-	213
RL Amperage	-	1.5
Total ESP	-	-0.20"
Fan Inlet SP	-	-0.20"
Fan Discharge SP	-	1 ATM

Completed By: Sagar Patel on 10/10/2025

Notes:
UNABLE TO BALANCE HOOD THROUGH EMERSON, BALANCED AT HOOD CONTROL PANEL

Written By: Sagar Patel on 10/10/2025

Unit Data - PHOTO LOG

10/10/2025

National TAB

Project:10-06-25 QT #1720 GAINESVILLE, GA

Diffuser Ret/Exh (GRD)

EF1/RR/JANITOR

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD4	SUPPORT SERVICE	RI	8"	150	1	130	143	143	95.3
Total				150		130	143	143	95.33%

Completed By: Sagar Patel on 10/10/2025