

**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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# National TAB

Project: 10-06-25 QT #1720 GAINESVILLE, GA  
Function: Test, Adjust, & Balance

## 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.

### 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
<b>TOTALS</b>		<b>2400</b>	<b>2430</b>	<b>1050</b>	<b>1072</b>	<b>2100</b>	<b>2131</b>	<b>750</b>	<b>786</b>

### HOODS ON

#### NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2430
TOTAL EXHAUST	2100	2131
<b>NET AIRFLOW</b>	<b>300</b>	<b>299</b>

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0151
SIDE	0.0053
REAR	0.0154
<b>AVERAGE</b>	<b>0.0119</b>

### HOODS OFF

#### NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1072
TOTAL EXHAUST	750	786
<b>NET AIRFLOW</b>	<b>300</b>	<b>286</b>

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0039
SIDE	0.0025
REAR	0.0047
<b>AVERAGE</b>	<b>0.0037</b>

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

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**Site super name / Firm**

**Comment:**

KYLE DAMRON / ASCENT CONSTRUCTION GROUP

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**Owner representative name / Firm (if Applicable)**

**Comment:**

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**BUILDING PRESSURE**

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**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

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

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

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.

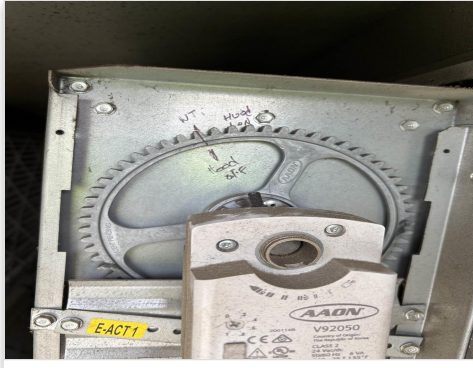
HOOD OFF SETPOINT: 26%

Written By: Sagar Patel on 10/09/2025

**Unit Data - PHOTO LOG**



**10/09/2025**



**10/09/2025**



# National TAB

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



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# National TAB

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



# National TAB

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

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

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

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



# National TAB

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

## System/Unit: Kitchen Hood Type I

Asset: HD1

AREA:FRYER/OVEN

### Unit Data

	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2-F	6030ND-2-F
Job / Serial Num	-	7632032
Type	-	TYPE 1 CANOPY
Hood length	-	108"
Hood Width	-	60"

### Test Data Exhaust

	Design	Actual
Filter Type	-	CAPTRATE
Filter Size 1	-	16X20
Filter Qty 1	-	6
Filter AK factor size 1	-	2.22
Filter Total AK Area	-	13.32
Filter1 FPM	-	100
Filter2 FPM	-	92
Filter3 FPM	-	105
Filter4 FPM	-	110
Filter5 FPM	-	106
Filter6 FPM	-	98
Filter Ave FPM(corr)	-	101
CFM	1350	1345

### Cooking Equipment

	Actual
Item 1	FRYER
Item 2	OVEN

Completed By: Sagar Patel on 10/10/2025

## Unit Data - PHOTO LOG



10/10/2025

