Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 02/05/2026

Completed By: National TAB

PROJECT

03-02-26 QT #1730 FORSYTH, GA

240 HAROLD G CLARKE PRKWY

FORSYTH, GA

Client

QUIKTRIP

4705 SOUTH 129TH EAST AVENUE

TULSA, OK 74134

National TAB

Project: 03-02-26 QT #1730 FORSYTH, 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 listed 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.

Issue List

- Economizer unable to connect to Emerson

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Project Issue Information

Issue Name :	Economizer unable to connect to Emerson		
Description :	Economizer needed to be manually adjusted as it was not operating in Emerson.		
Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Low	**Asset Tag :**	
Originated Date :	03/10/2026 - Anthony Taylor - National TAB		

CheckList List

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

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CheckList Information

Name :	01: RTU’s/AHU’s	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/05/2026 - Trinity Dodds - National TAB		
Completed Date :	03/02/2026 - Anthony Taylor - 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:	

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CheckList Information

Name :	02: Exhaust Fans	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/05/2026 - Trinity Dodds - National TAB		
Completed Date :	03/03/2026 - Anthony Taylor - 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:	

03-02-26 QT #1730 FORSYTH, GA

CheckList Information

Name :	03: Hoods	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/05/2026 - Trinity Dodds - National TAB		
Completed Date :	03/02/2026 - Anthony Taylor - 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?	Fail
Comment:	

Hinge Kit is not installed.

03-02-26 QT #1730 FORSYTH, GA

CheckList Information

Name :	04: Final Tests	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/05/2026 - Trinity Dodds - National TAB		
Completed Date :	03/02/2026 - Anthony Taylor - National TAB		

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

Fryer

List smoke candle type used

Comment:

NTAB

Smoke test capture % - Perimeter of hood

Comment:

100%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	03/02/2026

Comment:

TAB tech name / Firm

Comment:

Anthony Taylor

Site super name / Firm

Comment:

Jonathan Byoyd

Owner representative name / Firm (if Applicable)

Comment:

QT

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: 03-02-26 QT #1730 FORSYTH, GA

System/Unit: AHU/RTU

Asset: RT-1 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	202201-ANEL23446
Model Num	RN-015-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	23X45
Num Final Filter 1	4
Final Filter Size 1	20X25X2

Motor Data	
	Actual
Motor MFG	AAON
Horsepower	5
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	16.7

Test Data		
	Design	**Actual**
SF CFM	5000	4975
SF RPM	-	1760
OA CFM (Hoods On)	865	900
OA CFM (Hoods Off)	415	440
RL Voltage	-	163 - VFD
RL Amperage	-	9.7 - VFD
VFD Max SetPt	-	48 hz
VFD Min SetPt	-	24 hz
OA Damper Position (Hoods On)	-	46% - MANUAL ADJUSTMENT
OA Damper Position (Hoods Off)	-	26% - MANUAL ADJUSTMENT

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.37"
Fan Suction SP	-	-0.78"
Fan Discharge SP	-	0.27"
Total ESP	-	0.64"
Fan Total SP	-	1.05"

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

Completed By: Anthony Taylor on 03/02/2026

Notes:
Economizer needed to be manually adjusted as it was not operating via Emerson.

Written By: Anthony Taylor on 03/02/2026

Unit Data - PHOTO LOG

03/02/2026

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Project: 03-02-26 QT #1730 FORSYTH, GA

System/Unit: AHU/RTU

Asset: RT-2 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	202201-ANEL23447
Model Num	RN-015-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	23X45
Num Final Filter 1	4
Final Filter Size 1	RN-015-8-0-EA0A-152

Motor Data	
	Actual
Motor MFG	AAON
Horsepower	5
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	16.7

Test Data		
	Design	**Actual**
SF CFM	5000	4968
SF RPM	-	1760
OA CFM (Hoods On)	865	831
OA CFM (Hoods Off)	415	405
RL Voltage	-	163
RL Amperage	-	8.3
VFD Max SetPt	-	48 hz
VFD Min SetPt	-	24 hz
OA Damper Position (Hoods On)	-	46% - MANUAL ADJUSTMENT
OA Damper Position (Hoods Off)	-	23% - MANUAL ADJUSTMENT

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.58"
Fan Suction SP	-	-0.84"
Fan Discharge SP	-	0.51"
Total ESP	-	1.09"
Fan Total SP	-	1.35"

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

Completed By: Anthony Taylor on 03/02/2026

Notes:
Economizer needed to be manually adjusted as it was not operating via Emerson.

Written By: Anthony Taylor on 03/02/2026

Unit Data - PHOTO LOG

03/02/2026

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Project: 03-02-26 QT #1730 FORSYTH, GA

System/Unit: AHU/RTU

Asset: RT-3 AREA:KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	202201-ANEK23448
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	23X45
Num Final Filter 1	4
Final Filter Size 1	20X25X2

Motor Data	
	Actual
Motor MFG	AAON
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

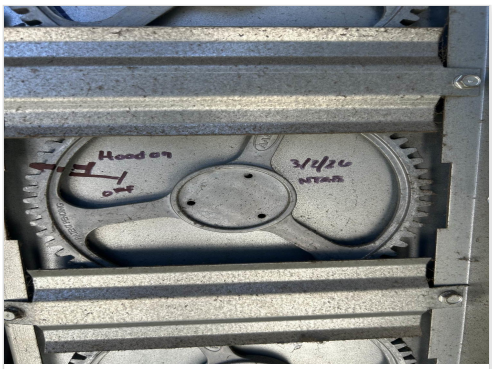
Test Data		
	Design	**Actual**
SF CFM	-	4184
SF RPM	-	1760
OA CFM (Hoods On)	856	880
OA CFM (Hoods Off)	415	419
RL Voltage	-	170 - VFD
RL Amperage	-	8.3 - VFD
VFD Max SetPt	-	48 hz
VFD Min SetPt	-	24 hz
OA Damper Position (Hoods On)	-	46% - MANUAL ADJUSTMENT
OA Damper Position (Hoods Off)	-	23%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.38"
Fan Suction SP	-	-0.69"
Fan Discharge SP	-	0.48"
Total ESP	-	0.86"
Fan Total SP	-	1.17"

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

Completed By: Anthony Taylor on 03/02/2026

Unit Data - PHOTO LOG



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Project:03-02-26 QT #1730 FORSYTH, GA

AHU/RTU

Diffuser Supply (GRD)

RT-3/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SALES	SI	12"	700	1	752	759	759	108.4
SGRD2	SUPPORT SERVICE	SI	12"	875	1	738	805	805	92.0
SGRD3	SUPPORT SERVICE	SI	12"	875	1	833	811	811	92.7
SGRD4	SUPPORT SERVICE	SI	12"	875	1	1029	865	865	98.9
SGRD5	SUPPORT SERVICE	ES	12"	875	1	899	944	944	107.9
Total				4200		4251	4184	4184	99.62%

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Project: 03-02-26 QT #1730 FORSYTH, GA

System/Unit: AHU/RTU

Asset: RT-4 AREA:BOH

Unit Data	
	Actual
MFG	AAON
Serial Num	202201-AYEF05213
Model Num	RQ-006-8-V-EA09-132
Num OA Filters 1	1
OA Filter Size 1	12X18
Num Final Filter 1	2
Final Filter Size 1	20X25X2

Motor Data	
	Actual
Motor MFG	AAON
Horsepower	2
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	7.5

Test Data		
	Design	**Actual**
SF CFM	1800	1731
SF RPM	-	1760
OA CFM (Hoods On)	160	170
OA CFM (Hoods Off)	160	170
RL Voltage	-	146
RL Amperage	-	3.96
VFD Max SetPt	-	45 hz
VFD Min SetPt	-	24 hz
OA Damper Position (Hoods On)	-	46%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.27"
Fan Suction SP	-	-0.45"
Fan Discharge SP	-	0.35"
Total ESP	-	0.62"
Fan Total SP	-	0.80"

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

Completed By: Anthony Taylor on 03/02/2026

Unit Data - PHOTO LOG

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National TAB

Project:03-02-26 QT #1730 FORSYTH, GA

AHU/RTU

Diffuser Supply (GRD)

RT-4/BOH

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	ELECTRICAL		8"	360	1	202	275	332	92.2
SGRD2	DOCK		10"	360	1	414	403	362	100.6
SGRD3	DOCK		10"	360	1	354	370	340	94.4
SGRD4	DOCK		10"	360	1	331	334	362	100.6
SGRD5	DOCK		10"	360	1	454	378	335	93.1
Total				1800		1755	1760	1731	96.17%

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Project: 03-02-26 QT #1730 FORSYTH, GA

System/Unit: FAN - Exhaust

Asset: EF1 AREA:MEN'S RR/SUPPORT SERVICE

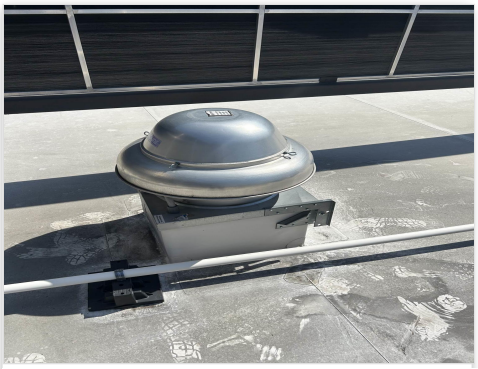
Unit Data		
	Design	**Actual**
MFG	NA	CAPITIVEAIRE
Model Num	NA	DR33HFA
Serial Num	-	5157507
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	CAPTIVEAIRE
Horsepower	-	0.333
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	4.3

Test Data		
	Design	**Actual**
CFM	650	661
Fan RPM	-	1641
Fan Rotation	-	CCW
Motor RPM	-	1641
System SetPt	-	84 %
RL Voltage	-	115
RL Amperage	-	3.8
Total ESP	-	0.17”
Fan Inlet SP	-	-0.17"
Fan Discharge SP	-	ATM

Completed By: Anthony Taylor on 03/05/2026

Unit Data - PHOTO LOG



03/02/2026

Diffuser Ret/Exh (GRD)

EF1/MEN'S RR/SUPPORT SERVICE

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	SUPPORT SERVICE	RI	8"	150	1	61	90	138	92.0
Total				150		61	90	138	92%

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Project: 03-02-26 QT #1730 FORSYTH, GA

System/Unit: FAN - Exhaust

Asset: EF2 AREA:WOMEN'S RR

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DR12HFA
Serial Num	-	5157507
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	CAPTIVEAIRE
Horsepower	-	0.250
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.9

Test Data		
	Design	**Actual**
CFM	350	329
Fan RPM	-	1360
Fan Rotation	-	CCW
Motor RPM	-	1360
System SetPt	-	71 %
RL Voltage	-	115
RL Amperage	-	1.27
Total ESP	-	-0.14"
Fan Inlet SP	-	0.14
Fan Discharge SP	-	ATM

Completed By: Anthony Taylor on 03/02/2026

Unit Data - PHOTO LOG

03/02/2026

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Project: 03-02-26 QT #1730 FORSYTH, GA

System/Unit: FAN - Exhaust

Asset: EF3 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	8385043
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	CAPTIVEAIRE
Horsepower	0.50	0.50
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	3.8

Test Data		
	Design	**Actual**
CFM	1350	1460
Fan RPM	-	1177
Fan Rotation	-	CCW
Motor RPM	-	1177
System SetPt	-	53.6 hz
RL Voltage	-	212
RL Amperage	-	1.81
Total ESP	0.75"	0.43"
Fan Inlet SP	-	-0.43"
Fan Discharge SP	-	ATM

Completed By: Anthony Taylor on 03/02/2026

Unit Data - PHOTO LOG

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National TAB

Project: 03-02-26 QT #1730 FORSYTH, GA

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:GRIDDLE

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2	6030ND-2
Job / Serial Num	-	8385043
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	108"	108"
Hood Width	60"	60"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO FILTER
Filter Size 1	20X16	20x16
Filter Qty 1	6	6
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	12.48	12.48
Filter1 FPM	-	117
Filter2 FPM	-	116
Filter3 FPM	-	124
Filter4 FPM	-	132
Filter5 FPM	-	112
Filter6 FPM	-	107
Filter Ave FPM(corr)	-	117
CFM	1350	1460

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	PIZZA OVEN

Completed By: Anthony Taylor on 03/02/2026

Unit Data - PHOTO LOG

03/02/2026

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	865	900	415	440				
RTU-2	SALES	865	831	415	405				
RTU-3	KITCHEN	865	880	415	419				
RTU-4	BOH	160	170	160	170				
EF-1	MEN'S RR/COMBI					650	661	650	661
EF-2	WOMEN'S RR					350	329	350	329
EF-3	HOOD					1350	1460	0	
TOTALS		2755	2781	1405	1434	2350	2450	1000	990

HOODS ON

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2755	2781
TOTAL EXHAUST	2350	2450
NET AIRFLOW	405	331

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.003
SIDE	0.0042
REAR	0.006
AVERAGE	**0.0044**

HOODS OFF

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1405	1434
TOTAL EXHAUST	1000	990
NET AIRFLOW	405	444

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0018
SIDE	0.002
REAR	0.003
AVERAGE	**0.0023**

NOTES: