

Report By:

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



Report: TAB Report
Function: Test, Adjust, & Balance
Date: 01/20/2026
Completed By: National TAB

PROJECT

01-19-26 QT #0721 BROOKHAVEN, GA

3249 BUFORD HWY NE

BROOKHAVEN, GA

Client

QUIKTRIP
4705 SOUTH 129TH EAST AVENUE
TULSA, OK 74134

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Project: 01-19-26 QT #0721 BROOKHAVEN, GA

Table Of Contents

Section	Page #
Summary	3
Issue Data	4
Balance Schedule	6
Checklist	7
RTU-1	13
RTU-2	15
RTU-3	17
EF-1 - Exhaust	20
EF-2 - Exhaust	22
Combi-Oven Grille	24
EF-3 - Hood Exhaust	25
Kitchen Hood Type I	27
GRD Layout	29



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Project: 01-19-26 QT #0721 BROOKHAVEN, 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 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

- Kitchen Hood Damaged



01-19-26 QT #0721 BROOKHAVEN, GA

Project Issue Information

Issue Name : Kitchen Hood Damaged
Description : A dents was found on the hood. It was made some time during installation week, but it does not impact Test and Balance.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : InfoOnly **Asset Tag :**
Originated Date : 01/20/2026 - Sagar Patel - National TAB

Project Issue File Details



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	791	350	337				
RTU-2	SALES	800	812	350	364				
RTU-3	BOH/KITCHEN	800	805	350	351				
EF-1	WOMEN'S RR					225	223	225	223
EF-2	MEN'S RR					525	494	525	494
EF-3	HOOD					1350	1310	0	0
TOTALS		2400	2408	1050	1052	2100	2027	750	717

HOODS ON

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2408
TOTAL EXHAUST	2100	2027
NET AIRFLOW	300	381

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0112
SIDE	0.0105
REAR	0.0056
AVERAGE	0.0091

HOODS OFF

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1052
TOTAL EXHAUST	750	717
NET AIRFLOW	300	335

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0153
SIDE	0.0149
REAR	0.0047
AVERAGE	0.0116

NOTES:

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 : 12/23/2025 - Trinity Dodds - National TAB
Completed Date : 01/20/2026 - 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? N/A

Comment:

Unit free of noticeable noise and vibration Pass

Comment:



01-19-26 QT #0721 BROOKHAVEN, GA

CheckList Information

Name : 02: Exhaust Fans **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 12/23/2025 - Trinity Dodds - National TAB
Completed Date : 01/20/2026 - 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:



01-19-26 QT #0721 BROOKHAVEN, GA

CheckList Information

Name : 03: Hoods **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 12/23/2025 - Trinity Dodds - National TAB

Completed Date : 01/20/2026 - Sagar Patel - National TAB

CheckList Item Details

HOODS

Hood is free of alarms? Pass

Comment:

Hood is free of damage? Fail

Comment:

Damage is only on the front of the hood. This does not effect Test and Balance.

End panels are installed per prototype? Pass

Comment:



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CheckList Information

Name : 04: Final Tests **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 12/23/2025 - Trinity Dodds - National TAB

Completed Date : 01/20/2026 - Sagar Patel - National TAB

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

Fryer and Oven

List smoke candle type used

Comment:

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

01/20/2026

Comment:

Video

TAB tech name / Firm

Comment:

Sagar Patel / National TAB Intelligence

Site super name / Firm

Comment:

Not on Site

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:



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Project: 01-19-26 QT #0721 BROOKHAVEN, GA

System/Unit: AHU/RTU

Asset: RT-1

AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201708-ANEK16191
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	22X45
Num Final Filter 1	4
Final Filter Size 1	20X25X2

Motor Data	
	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	4204
SF RPM	-	1202
OA CFM (Hoods On)	800	791
OA CFM (Hoods Off)	350	337
RL Voltage	-	130 VFD
RL Amperage	-	9.53 VFD
VFD Max SetPt	-	41 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.63"
Fan Suction SP	-	-0.76"
Fan Discharge SP	-	0.58"
Total ESP	-	1.39"
Fan Total SP	-	1.34"

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

Completed By: Sagar Patel on 01/20/2026

Unit Data - PHOTO LOG



01/20/2026



01/20/2026



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Project: 01-19-26 QT #0721 BROOKHAVEN, GA

System/Unit: AHU/RTU

Asset: RT-2

AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201708-ANEK16189
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	22X45
Num Final Filter 1	4
Final Filter Size 1	20X25X5

Motor Data	
	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	4087
SF RPM	-	1144
OA CFM (Hoods On)	800	812
OA CFM (Hoods Off)	350	364
RL Voltage	-	99.3 VFD
RL Amperage	-	8.42 VFD
VFD Max SetPt	-	39 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.64"
Fan Suction SP	-	-0.84"
Fan Discharge SP	-	0.63"
Total ESP	-	1.48"
Fan Total SP	-	1.47"

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

Completed By: Sagar Patel on 01/20/2026

Unit Data - PHOTO LOG



01/20/2026



01/20/2026



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Project: 01-19-26 QT #0721 BROOKHAVEN, GA

System/Unit: AHU/RTU

Asset: RT-3

AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	201708-ANEK16190
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	22X45
Num Final Filter 1	4
Final Filter Size 1	20X25X2

Motor Data	
	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	4209
SF RPM	-	1173
OA CFM (Hoods On)	800	805
OA CFM (Hoods Off)	350	351
RL Voltage	-	124 VFD
RL Amperage	-	9.31 VFD
VFD Max SetPt	-	40 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.62"
Fan Suction SP	-	-0.85"
Fan Discharge SP	-	0.58"
Total ESP	-	1.47"
Fan Total SP	-	1.43"

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

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Unit Data - PHOTO LOG



01/20/2026



01/20/2026



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Project:01-19-26 QT #0721 BROOKHAVEN, 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	899	784	803	100.4
SGRD2	SUPPORT SERVICE	SI	12"	800	1	849	763	794	99.3
SGRD3	SUPPORT SERVICE	SI	12"	800	1	1145	995	847	105.9
SGRD4	SUPPORT SERVICE	SI	12"	800	1	831	723	768	96.0
SGRD5	DOCK	ES	12"	750	1	749	656	734	97.9
SGRD6	WORKROOM	ES	8"	250	1	336	287	263	105.2
Total				4200		4809	4208	4209	100.21%

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Project: 01-19-26 QT #0721 BROOKHAVEN, GA

System/Unit: FAN - Exhaust

Asset: EF1

AREA:WOMEN'S RR

Unit Data		
	Design	Actual
MFG	NA	COOK COMPANY
Model Num	NA	90ACEG 90C15DH
Serial Num	-	050SH22062-00
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Test Data		
	Design	Actual
CFM	225	223
Fan Rotation	-	CCW
System SetPt	-	MEDIUM HIGH
RL Voltage	-	[1]
RL Amperage	-	1.3
Total ESP	-	0.22"
Fan Inlet SP	-	-0.22"
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Motor MFG	-	QUEACE
Frame	-	48Y
Horsepower	-	0.125
Motor Rpm	-	1600
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	1.7
Service Factor	-	N/L

Completed By: Sagar Patel on 01/20/2026

Notes:

[1] UNABLE TO READ VOLTS SAFELY

Written By: Sagar Patel on 01/20/2026

Unit Data - PHOTO LOG



01/20/2026



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Project: 01-19-26 QT #0721 BROOKHAVEN, GA

System/Unit: FAN - Exhaust

Asset: EF2

AREA: MEN'S RR/COMBI

Unit Data		
	Design	Actual
MFG	NA	COOK COMPANY
Model Num	NA	120 ACE 120C13D 33
Serial Num	-	050SH22062-00
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Test Data		
	Design	Actual
CFM	525	494
Fan Rotation	-	CCW
System SetPt	-	MEDIUM LOW
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	-	0.17"
Fan Inlet SP	-	-0.17"
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Motor MFG	-	QUEACE
Frame	-	48Y
Horsepower	-	0.25
Motor Rpm	-	1300
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	3.3
Service Factor	-	N/L

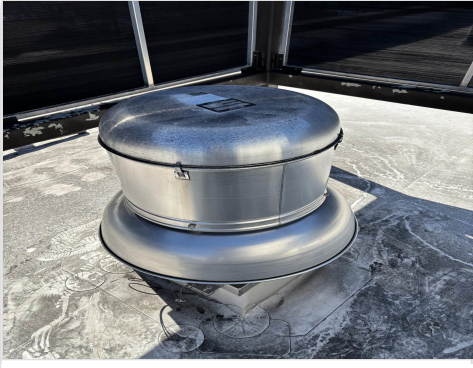
Completed By: Sagar Patel on 01/20/2026

Notes:

[1] UNABLE TO READ VOLTS AND AMPS SAFELY

Written By: Sagar Patel on 01/20/2026

Unit Data - PHOTO LOG



01/20/2026



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Project:01-19-26 QT #0721 BROOKHAVEN, GA

Diffuser Ret/Exh (GRD)

EF2/MEN'S RR/COMBI

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	SUPPORT SERVICE	RI	8"	150	1	147	147	147	98.0
Total				150		147	147	147	98%

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Project: 01-19-26 QT #0721 BROOKHAVEN, GA

System/Unit: FAN - Exhaust

Asset: EF3

AREA: KITCHEN HD

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	8225588
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Frame	-	N/L
Horsepower	1/2	0.5
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	208
Amperage (rated)	-	3.8
Service Factor	-	N/L

Test Data		
	Design	Actual
CFM	1350	1310
Fan RPM	-	1186
Fan Rotation	-	CCW
Motor RPM	-	1186
System SetPt	-	52.6 Hz (65% on MSC)
RL Voltage	-	211
RL Amperage	-	1.8
Total ESP	-	0.27"
Fan Inlet SP	-	-0.27"
Fan Discharge SP	-	ATM

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Unit Data - PHOTO LOG



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Project: 01-19-26 QT #0721 BROOKHAVEN, GA

System/Unit: Kitchen Hood Type I

Asset: HD1

AREA:GRIDDLE

Unit Data

	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2-F	6030ND-2-F
Job / Serial Num	-	8225588
Type	-	TYPE 1 CANOPY
Hood length	-	108"
Hood Width	-	60"

Test Data Exhaust

	Design	Actual
Filter Type	-	CAPTRATE SOLO FILTER
Filter Size 1	-	16X20
Filter Qty 1	-	6
Filter AK factor size 1	-	2.08
Filter Total AK Area	-	12.48
Filter1 FPM	-	97
Filter2 FPM	-	101
Filter3 FPM	-	106
Filter4 FPM	-	115
Filter5 FPM	-	113
Filter6 FPM	-	98
Filter Ave FPM(corr)	-	105
CFM	1350	1310

Cooking Equipment

	Actual
Item 1	FRYER
Item 2	OVEN

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Unit Data - PHOTO LOG



01/20/2026

