Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 02/18/2026

Completed By: National TAB

PROJECT

02-09-26 QT #1425 PEORIA, AZ

7455 W. PEORIA AVE

PEORIA, AZ

Client

QUIKTRIP

4705 SOUTH 129TH EAST AVENUE

TULSA, OK 74134

National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

Table Of Contents

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

- Wrong Kitchen Line Diffusers

02-09-26 QT #1425 PEORIA, AZ

Project Issue Information

Issue Name : Wrong Kitchen Line Diffusers

Description : The Kitchen Line diffusers installed are not the correct diffusers. The Titus diffusers should be installed. This is also causing small, about 5%, smoke loss on the perimeter of the hood.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Medium	**Asset Tag :**	RT-3
Originated Date :	02/09/2026 - Ethan Van Orden - National TAB		

Project Issue File Details

02/09/2026

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	800	799	350	347				
RTU-2	SALES	800	806	350	375				
RTU-3	BOH/KITCHEN	800	813	350	368				
EF-1	RR/JANITOR					750	779	750	779
EF-3	HOOD					1350	1372	0	0
TOTALS		2400	2418	1050	1090	2100	2151	750	779

HOODS ON

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2418
TOTAL EXHAUST	2100	2151
NET AIRFLOW	300	267

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0049
SIDE	0.0033
REAR	0.0017
AVERAGE	**0.0033**

HOODS OFF

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1090
TOTAL EXHAUST	750	779
NET AIRFLOW	300	311

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.011
SIDE	0.0053
REAR	0.0048
AVERAGE	**0.007**

NOTES:

CheckList List

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

02-09-26 QT #1425 PEORIA, AZ

CheckList Information

Name :	01: RTU’s/AHU’s	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/30/2025 - Trinity Dodds - National TAB		
Completed Date :	02/09/2026 - Ethan Van Orden - 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:	

02-09-26 QT #1425 PEORIA, AZ

CheckList Information

Name :	02: Exhaust Fans	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/30/2025 - Trinity Dodds - National TAB		
Completed Date :	02/09/2026 - Ethan Van Orden - 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:	

02-09-26 QT #1425 PEORIA, AZ

CheckList Information

Name :	03: Hoods	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/30/2025 - Trinity Dodds - National TAB		
Completed Date :	02/09/2026 - Ethan Van Orden - 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:	

02-09-26 QT #1425 PEORIA, AZ

CheckList Information

Name :	04: Final Tests	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/30/2025 - Trinity Dodds - National TAB		
Completed Date :	02/09/2026 - Ethan Van Orden - National TAB		

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

NA

List smoke candle type used

Comment:

SMOKE BOMB

Smoke test capture % - Perimeter of hood

Comment:

95%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	02/09/2026

Comment:

TAB tech name / Firm

Comment:

Ethan V/NTI

Site super name / Firm

Comment:

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:

02-09-26 QT #1425 PEORIA, AZ

CheckList Information

Name :	05: Smoke Detector	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/06/2026 - Trinity Dodds - National TAB		
Completed Date :	02/09/2026 - Ethan Van Orden - National TAB		

CheckList Item Details

Smoke Detector Manufacturer:

Comment:

SYSTEM SENSOR

Smoke Detector Model:

Comment:

AD4P120

Accpetable Pressure Range Rating:

Comment:

0.01-1.11

Actual Measured Pressure Range:

Comment:

RTU 1: 0.078” RTU 2: 0.112” RTU 3: 0.068”

Smoke Detector Shutdown? Pass

Comment:

RTU 1: pass RTU 2: pass RTU 3: pass

National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

System/Unit: AHU/RTU

Asset: RT-1 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	202012-ANEK21531
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	44.5X22.5
Num Final Filter 1	2
Final Filter Size 1	44X20

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

Test Data		
	Design	**Actual**
SF CFM	4200	4115
SF RPM	-	1337
OA CFM (Hoods On)	800	799
OA CFM (Hoods Off)	350	347
RL Voltage	-	155@VFD
RL Amperage	-	7.4@VFD
VFD Max SetPt	-	45.6HZ
VFD Min SetPt	-	24HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	19%

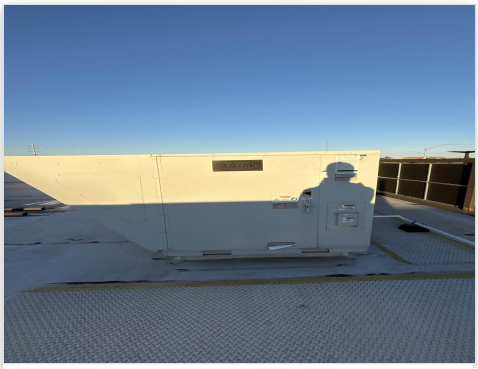
Performance Data	
	Actual
MA Plenum SP	-0.53”
Fan Suction SP	-0.78”
Fan Discharge SP	0.16”
Total ESP	0.69"
Fan Total SP	0.94"

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

Completed By: Ethan Van Orden on 02/09/2026

Unit Data - PHOTO LOG

02/09/2026



02/09/2026

National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

System/Unit: AHU/RTU

Asset: RT-2 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	202012-ANEK21532
Model Num	RN-013-8-0-EA0A
Num OA Filters 1	1
OA Filter Size 1	44.5X22.5
Num Final Filter 1	2
Final Filter Size 1	44X20

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

Test Data		
	Design	**Actual**
SF CFM	4200	4314
SF RPM	-	1320
OA CFM (Hoods On)	800	806
OA CFM (Hoods Off)	350	375
RL Voltage	-	151@VFD
RL Amperage	-	7.7@VFD
VFD Max SetPt	-	45HZ
VFD Min SetPt	-	24HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	21%

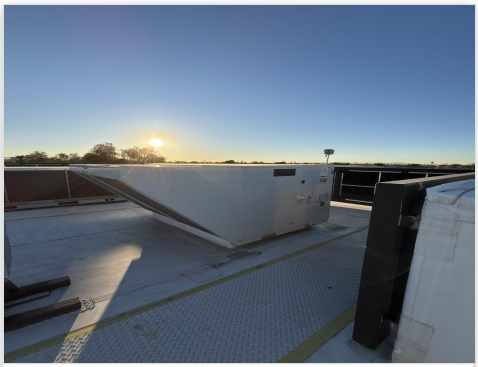
Performance Data	
	Actual
MA Plenum SP	-0.50”
Fan Suction SP	-0.76”
Fan Discharge SP	0.23”
Total ESP	0.73"
Fan Total SP	0.99"

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

Completed By: Ethan Van Orden on 02/09/2026

Unit Data - PHOTO LOG

02/09/2026



02/09/2026

National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

System/Unit: AHU/RTU

Asset: RT-3 AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	202012-ANEK21533
Model Num	RN-013-8-0EA0A-152
Num OA Filters 1	1
OA Filter Size 1	44.5X22.5
Num Final Filter 1	2
Final Filter Size 1	44X20

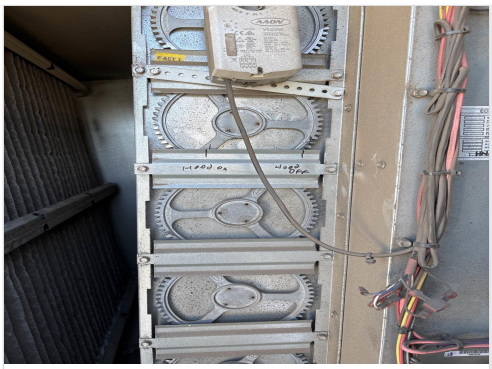
Motor Data	
	Actual
Motor MFG	NL
Frame	NL
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	**Actual**
SF CFM	4200	4263
SF RPM	-	1584
OA CFM (Hoods On)	800	813
OA CFM (Hoods Off)	350	368
RL Voltage	-	208@VFD
RL Amperage	-	9.7@VFD
VFD Max SetPt	-	54HZ
VFD Min SetPt	-	24HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	24%

Performance Data	
	Actual
MA Plenum SP	-0.94”
Fan Suction SP	-1.28”
Fan Discharge SP	0.39”
Total ESP	1.33"
Fan Total SP	1.67"

Completed By: Ethan Van Orden on 02/09/2026

Unit Data - PHOTO LOG



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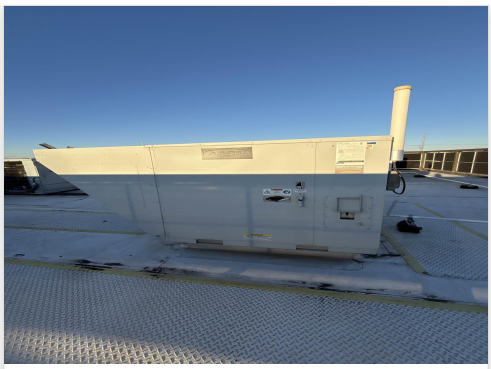

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National TAB

Project:02-09-26 QT #1425 PEORIA, AZ

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	457	536	752	94.0
SGRD2	SUPPORT SERVICE	SI	12"	800	1	685	723	823	102.9
SGRD3	SUPPORT SERVICE	SI	12"	800	1	709	742	831	103.9
SGRD4	SUPPORT SERVICE	SI	12"	800	1	728	815	853	106.6
SGRD5	WORKROOM	ES	10"	500	1	634	681	489	97.8
SGRD6	WORKROOM	ES	10"	500	1	676	730	515	103.0
Total				4200		3889	4227	4263	101.5%

Completed By: Ethan Van Orden on 02/09/2026

National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

System/Unit: FAN - Exhaust

Asset: EF1 AREA:RR/JANITOR

Unit Data	
	Actual
MFG	CAPTIVEAIRE
Model Num	DR50HFA
Serial Num	4683904
Type	DOWNBLAST
Configuration	VERTICAL

Motor Data	
	Actual
Motor MFG	NEMA
Frame	NL
Horsepower	0.500
Motor Rpm	2000
Phase	1
Voltage (rated)	115
Amperage (rated)	8.4
Service Factor	NL

Test Data		
	Design	**Actual**
CFM	750	779
Fan Rotation	-	CCW
Motor RPM	-	NA
System SetPt	-	LOW
RL Amperage	-	4.3
Total ESP	-	0.31”
Fan Inlet SP	-	-0.31”
Fan Discharge SP	-	ATMS

Completed By: Ethan Van Orden on 02/09/2026

Unit Data - PHOTO LOG

02/09/2026

National TAB

Project:02-09-26 QT #1425 PEORIA, AZ

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	158	158	158	105.3
Total				150		158	158	158	105.33%

Completed By: Ethan Van Orden on 02/09/2026

National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

System/Unit: FAN - Exhaust

Asset: EF3 AREA:KITCHEN HD

Unit Data	
	Actual
MFG	CAPTIVEAIRE
Model Num	DU50HFA
Serial Num	8384994
Type	UPBLAST
Configuration	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	NEMA
Frame	-	NL
Horsepower	1/2	1/2
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	208
Amperage (rated)	-	3.8
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	1350	1372
Fan RPM	-	1249
Fan Rotation	-	CCW
Motor RPM	-	1249
System SetPt	-	55.8HZ
RL Voltage	-	210
RL Amperage	-	2.8
Total ESP	-	0.64”
Fan Inlet SP	-	-0.64”
Fan Discharge SP	-	ATMS

Completed By: Ethan Van Orden on 02/09/2026

Unit Data - PHOTO LOG

02/09/2026

National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:GRIDDLE

Unit Data	
	Actual
MFG	CAPTIVEAIRE
Model Num	6030ND-2-F
Job / Serial Num	8384994
Type	TYPE I CANOPY
Hood length	108”
Hood Width	60”

Test Data Exhaust		
	Design	**Actual**
Filter Type	-	BAFFLE
Filter Size 1	-	20X16
Filter Qty 1	-	6
Filter AK factor size 1	-	2.08
Filter Total AK Area	-	12.48
Filter1 FPM	-	105
Filter2 FPM	-	119
Filter3 FPM	-	113
Filter4 FPM	-	117
Filter5 FPM	-	114
Filter6 FPM	-	96
Filter Ave FPM(corr)	-	110
CFM	1350	1372

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	OVEN

Completed By: Ethan Van Orden on 02/09/2026

Unit Data - PHOTO LOG

02/09/2026