

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
03-16-26 QT #0596 OMAHA, NE

5005 SOUTH 108TH STR

OMAHA, NE

Client

QUIKTRIP
4705 SOUTH 129TH EAST AVENUE
TULSA, OK 74134

National TAB

Project: 03-16-26 QT #0596 OMAHA, NE

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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.

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 :** Not Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 01/20/2026 - Trinity Dodds - National TAB

CheckList Item Details

RTU's/AHU's

Evaporator coils are clean?

Comment:

Condenser coils are clean?

Comment:

Gas piping is installed and valves are turned on?

Comment:

Unit free of noticeable noise and vibration

Comment:



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CheckList Information

Name : 02: Exhaust Fans **Status :** Not Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 01/20/2026 - Trinity Dodds - National TAB

CheckList Item Details

EF's

Hinge kit installed installed on hood fan?

Comment:

Flex conduit is long enough so that fan can be completely tilted back?

Comment:

No major leakage around the fan base

Comment:

Unit is free of noise and vibration

Comment:



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CheckList Information

Name : 03: Hoods **Status :** Not Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 01/20/2026 - Trinity Dodds - National TAB

CheckList Item Details

HOODS

Hood is free of alarms?

Comment:

Hood is free of damage?

Comment:

End panels are installed per prototype?

Comment:



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CheckList Information

Name : 04: Final Tests **Status :** Not Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 01/20/2026 - Trinity Dodds - National TAB

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

List smoke candle type used

Comment:

Smoke test capture % - Perimeter of hood

Comment:

Smoke test capture % - Top of cooking surface

Comment:

WITNESS

Date test was completed

Comment:

TAB tech name / Firm

Comment:

Site super name / Firm

Comment:

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)

Comment:



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Project: 03-16-26 QT #0596 OMAHA, NE

System/Unit: AHU/RTU

Asset: RT-1

AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201208-ANGL24737
Model Num	RN-015-8-0-CA02-2F2
Num OA Filters 1	1
OA Filter Size 1	22.5X45"
Num Final Filter 1	4
Final Filter Size 1	20X25X2"
Num Final Filter 2	
Final Filter Size 2	

Motor Data	
	Actual
Motor MFG	NA
Frame	NA
Horsepower	5.0
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	16.7

Test Data		
	Design	Actual
SF CFM	5000	4526
SF RPM	-	NA
OA CFM (Hoods On)	700	738
OA CFM (Hoods Off)	700	738
RL Voltage	-	206/207/208
RL Amperage	-	12.7/12.8/12.0
VFD Max SetPt	-	N/A
VFD Min SetPt	-	N/A
OA Damper Position (Hoods On)	-	0.875" OPEN
OA Damper Position (Hoods Off)	-	0.875" OPEN

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.67"
Fan Suction SP	-	-1.05"
Fan Discharge SP	-	0.13"
Total ESP	-	0.80"
Fan Total SP	-	1.18"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	NO
Condensate Drain Installed	YES

Completed By: Kalen Kemp on 03/19/2026

Notes:

- MOTOR DATA RETRIEVED FROM UNIT TAG.
- FINAL FILTERS ARE DIRTY.
- EVAPORATOR COIL IS DIRTY.
- NO VFD OR SPEED CONTROLLER. UNABLE TO ADJUST FAN SPEED.
- CURB NOT ALIGNED PROPERLY WITH SUPPLY DROP. CAUSING LARGE AMOUNT IF AIR LEAKAGE ABOVE CEILING.
- OA ACTUATOR NOT CONNECTED TO OA DAMPER ARM. OA DAMPER POSITION SET MANUALLY.
- DISCHARGE PRESSURE READING TAKEN AT UNIT ON THE ROOF. READING IS LOW DUE TO AIR LEAKAGE AT THE DROP.

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Unit Data - PHOTO LOG



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Project: 03-16-26 QT #0596 OMAHA, NE

System/Unit: AHU/RTU

Asset: RT-2

AREA:BOH

Unit Data	
	Actual
MFG	AAON
Serial Num	201406-ANGJ36139
Model Num	RN-010-8-0-FB09-3L9
Num OA Filters 1	1
OA Filter Size 1	16.5X27.5"
Num Final Filter 1	4
Final Filter Size 1	16X20X2"
Num Final Filter 2	
Final Filter Size 2	

Motor Data	
	Actual
Motor MFG	NA
Frame	NA
Horsepower	1.0
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	4.6

Test Data		
	Design	Actual
SF CFM	1350	1358
SF RPM	-	NA
OA CFM (Hoods On)	1350	1358
OA CFM (Hoods Off)	0	0
RL Voltage	-	207/208/208
RL Amperage	-	1.87/1.84/1.84
VFD Max SetPt	-	44.8 Hz
VFD Min SetPt	-	24.0 Hz
OA Damper Position (Hoods On)	-	6.375" OPEN (100%)
OA Damper Position (Hoods Off)	-	0" OPEN (0%)

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.07"
Fan Suction SP	-	-0.21"
Fan Discharge SP	-	0.18"
Total ESP	-	0.25"
Fan Total SP	-	0.39"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	NO
Condensate Drain Installed	YES

Completed By: Kalen Kemp on 03/19/2026

Notes:

- MOTOR DATA RETRIEVED FROM UNIF TAG.
- FINAL FILTERS ARE DIRTY.
- EVAPORATOR COIL IS DIRTY.

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Unit Data - PHOTO LOG



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Project:03-16-26 QT #0596 OMAHA, NE

AHU/RTU

Diffuser Supply (GRD)

RT-2/BOH

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	BOH	RS	12"	675	1.0	841	707	668	99.0
SGRD2	BOH	RS	12"	675	1.0	559	737	690	102.2
Total				1350		1400	1444	1358	100.59%



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Project: 03-16-26 QT #0596 OMAHA, NE

System/Unit: FAN - Exhaust

Asset: EF1

AREA:RESTROOMS

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	100C2B
Serial Num	-	009S428536000000700396
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Test Data		
	Design	Actual
CFM	240	0
Fan RPM	-	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	-	
Fan Inlet SP	-	
Fan Discharge SP	-	

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	48Z
Horsepower	-	0.167
Motor Rpm	-	NL
Phase	-	1
Voltage (rated)	-	NL
Amperage (rated)	-	NL
Service Factor	-	NL

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Notes:

- FAN NOT RUNNING. DRIVE BELT IS BROKEN. RECOMMEND SERVICE.
- MOTOR NOT RUNNING. HAS NOTICEABLE BURN MARKS ON IT.

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Unit Data - PHOTO LOG



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Project: 03-16-26 QT #0596 OMAHA, NE

System/Unit: FAN - Exhaust

Asset: EF2

AREA:GRIDDLE EXHAUST

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	7257691
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Frame	-	48
Horsepower	0.50	0.50
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	3.8
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	1350	1298
Fan RPM	-	1310
Fan Rotation	-	CCW
Motor RPM	-	1310
System SetPt	-	57.8 Hz
RL Voltage	-	207
RL Amperage	-	2.84/2.90
Total ESP	0.75"	0.79"
Fan Inlet SP	-	-0.79"
Fan Discharge SP	-	ATM

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Notes:
-MINOR AIR LEAKAGE OBSERVED AT FAN BASE

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Unit Data - PHOTO LOG



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Project: 03-16-26 QT #0596 OMAHA, NE

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	-	8257691
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 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	-	103
Filter2 FPM	-	98
Filter3 FPM	-	103
Filter4 FPM	-	107
Filter5 FPM	-	106
Filter6 FPM	-	105
Filter7 FPM	-	
Filter8 FPM	-	
Filter9 FPM	-	
Filter10 FPM	-	
Filter11 FPM	-	
Filter12 FPM	-	
Filter Ave FPM(corr)	-	104
CFM	1350	1298

Cooking Equipment	
	Actual
Item 1	
Item 2	

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Project: 03-16-26 QT #0596 OMAHA, NE

System/Unit: FAN - Exhaust

Asset: EF3

AREA:COMBI OVEN

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	SIFI0DD-SS
Serial Num	-	8257691
Type	INLINE	INLINE
Configuration	VERTICAL	HORIZONTAL

Motor Data		
	Design	Actual
Motor MFG	-	NA
Frame	-	NA
Horsepower	0.3	0.250
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	2.9
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	150	149
Fan RPM	-	641
Fan Rotation	-	NA
Motor RPM	-	641
System SetPt	-	38%
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	-	0.08"
Fan Inlet SP	-	-0.05"
Fan Discharge SP	-	0.03"

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Notes:

-COULD NOT SAFELY ACCESS VOLTAGE/AMPERAGE READINGS.

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Unit Data - PHOTO LOG



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