

# National TAB

Project: 10-20-25 QT #0847 GAINESVILLE, GA

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# National TAB

Project: 10-20-25 QT #0847 GAINESVILLE, GA  
Function: Test, Adjust, & Balance

## 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.

### 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	358				
RTU-2	SALES	800	820	350	337				
RTU-3	BOH/KITCHEN	800	777	350	337				
EF-1	WOMEN'S RR					225	247	225	247
EF-2	MEN'S RR					525	567	525	567
EF-3	HOOD					1350	1360	0	0
<b>TOTALS</b>		<b>2400</b>	<b>2388</b>	<b>1050</b>	<b>1032</b>	<b>2100</b>	<b>2174</b>	<b>750</b>	<b>814</b>

#### HOODS ON

##### NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2388
TOTAL EXHAUST	2100	2174
<b>NET AIRFLOW</b>	<b>300</b>	<b>214</b>

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0034
SIDE	0.0056
REAR	0.0029
<b>AVERAGE</b>	<b>0.004</b>

#### HOODS OFF

##### NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1032
TOTAL EXHAUST	750	814
<b>NET AIRFLOW</b>	<b>300</b>	<b>218</b>

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0025
SIDE	0.0032
REAR	0.0047
<b>AVERAGE</b>	<b>0.0035</b>

NOTES:

## Issue List

- RTU-3: Kitchen Diffusers Incorrect Style
- RTU-3: Kitchen Supply Diffuser Ductwork Incorrect



**10-20-25 QT #0847 GAINESVILLE, GA**

**Project Issue Information**

**Issue Name :** RTU-3: Kitchen Diffusers Incorrect Style  
**Description :** Kitchen diffusers 3-1, 3-2, 3-3, and 3-4 are substitutes until the correct Titus Diffusers can be installed.  
**Created By :** National TAB                      **Assigned To :** National TAB - Dan Hertenstein  
**Status :** Open  
**Priority :** High                                      **Asset Tag :**  
**Originated Date :** 10/23/2025 - Sagar Patel - National TAB

Project Issue File Details



Project Issue Response Details

- **11/25/2025 National TAB - Sagar Patel**
  - Substitute diffusers are still in place of Titus diffusers.

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- **11/04/2025 National TAB - Ben Searles**
  - DIFFUSERS REMAIN INCORRECT

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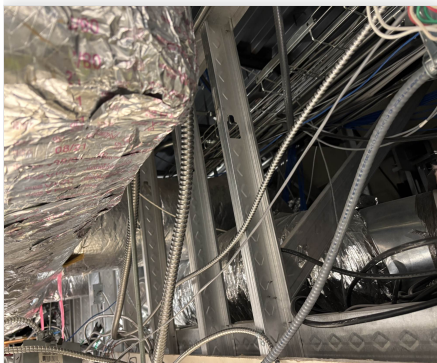


**10-20-25 QT #0847 GAINESVILLE, GA**

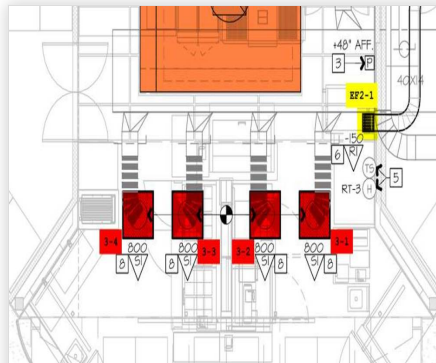
**Project Issue Information**

**Issue Name :** RTU-3: Kitchen Supply Diffuser Ductwork Incorrect  
**Description :** RTU-3 Diffusers 3-1 and 3-4 in the kitchen are not connected to the supply duct. They are still connected to the return duct. This will need to be corrected. RTU 3 is balanced to total design airflow.  
**Created By :** National TAB                      **Assigned To :** National TAB - Dan Hertenstein  
**Status :** Closed  
**Priority :** Urgent                                      **Asset Tag :**  
**Originated Date :** 10/23/2025 - Sagar Patel - National TAB

Project Issue File Details



10/23/2025



10/23/2025

## CheckList List

- 01: RTU's/AHU's
- 02: Exhaust Fans
- 03: Hoods
- 04: Final Tests
- PLAN REVIEW



**10-20-25 QT #0847 GAINESVILLE, GA**

**CheckList Information**

**Name :** 01: RTU's/AHU's **Status :** Completed  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB  
**Created Date :** 10/14/2025 - Trinity Dodds - National TAB  
**Completed Date :** 10/23/2025 - 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? N/A

Comment:

Unit free of noticeable noise and vibration Pass

Comment:



10-20-25 QT #0847 GAINESVILLE, GA

**CheckList Information**

**Name :** 02: Exhaust Fans **Status :** Completed  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB  
**Created Date :** 10/14/2025 - Trinity Dodds - National TAB  
**Completed Date :** 10/23/2025 - 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:



**10-20-25 QT #0847 GAINESVILLE, GA**

**CheckList Information**

**Name :** 03: Hoods **Status :** Completed  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB  
**Created Date :** 10/14/2025 - Trinity Dodds - National TAB  
**Completed Date :** 10/23/2025 - 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?** N/A

**Comment:**

---



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CheckList Information

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

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 10/14/2025 - Trinity Dodds - National TAB

**Completed Date :** 10/23/2025 - 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:**

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**

10/23/2025

**Comment:**

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**TAB tech name / Firm**

**Comment:**

SAGAR PATEL / NATIONAL TAB INTELLIGENCE

---

**Site super name / Firm**

**Comment:**

JEFF MORRIS / POWEHOUSE

---

**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:**

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10-20-25 QT #0847 GAINESVILLE, GA

**CheckList Information**

**Name :** PLAN REVIEW **Status :** Completed  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB  
**Created Date :** 10/14/2025 - Trinity Dodds - National TAB  
**Completed Date :** 10/14/2025 - Trinity Dodds - National TAB

**CheckList Item Details**

**Asset Requirements**

**We have the latest set of construction drawings and are not working off the Bid or Permit Set:** N/A

**Comment:**

**Diffuser totals equal the scheduled airflow of each piece of equipment** Yes

**Comment:**

**Scheduled Hood airflow match scheduled EF and MAU airflows** N/A

**Comment:**

**Files to Upload**

**A PDF summary is uploaded and matches the equipment/scope of the project** Yes

**Comment:**

**Balance schedule is uploaded?** Yes

**Comment:**

**Required account checklists are created** Yes

**Comment:**

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**Mechanical drawings are uploaded**

Yes

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**Comment:**

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**If job is a Revive, Pre-design, or Remodel. Check if we have an old report on sharepoint or the old FaciliBuild and upload to files section.**

N/A

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**Comment:**

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**GRD Layout is uploaded**

Yes

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**Comment:**

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**Jurisdiction Requirements**

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**Is job in Orlando, FL metro area or Phoenix metro area? If yes, a smoke detector checklist needs to be created for each RTU or AHU**

No

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**Comment:**

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**Is job in Broward County, FL? If so, is Broward County on the permit (Ask the GC)? If Broward County is on the permit, then we CANNOT perform the balance.**

No

---

**Comment:**

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# National TAB

Project: 10-20-25 QT #0847 GAINESVILLE, GA

## System/Unit: AHU/RTU

Asset: RT-1

AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201312-ANEK09755
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X22
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	4224
SF RPM	-	1232
OA CFM (Hoods On)	800	791
OA CFM (Hoods Off)	350	358
RL Voltage	-	126 VFD
RL Amperage	-	9.42 VFD
VFD Max SetPt	-	42 HZ
VFD Min SetPt	-	24 HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	34%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.81"
Fan Suction SP	-	-0.99"
Fan Discharge SP	-	0.62"
Total ESP	-	1.43"
Fan Total SP	-	1.61"

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

Completed By: Sagar Patel on 10/21/2025

**Unit Data - PHOTO LOG**



**10/21/2025**



**10/21/2025**



# National TAB

Project: 10-20-25 QT #0847 GAINESVILLE, GA

## System/Unit: AHU/RTU

Asset: RT-2

AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201312-ANEK09754
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X22
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	3922
SF RPM	-	1232
OA CFM (Hoods On)	800	820
OA CFM (Hoods Off)	350	337
RL Voltage	-	126 VFD
RL Amperage	-	9.21 VFD
VFD Max SetPt	-	42 HZ
VFD Min SetPt	-	24 HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	28%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.60"
Fan Suction SP	-	-0.76"
Fan Discharge SP	-	0.84"
Total ESP	-	1.44"
Fan Total SP	-	1.60"

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

Completed By: Sagar Patel on 10/21/2025

**Unit Data - PHOTO LOG**



**10/21/2025**



**10/21/2025**



# National TAB

Project: 10-20-25 QT #0847 GAINESVILLE, GA

## System/Unit: AHU/RTU

Asset: RT-3

AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	201312-ANEK09756
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X22
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	4590
SF RPM	-	1232
OA CFM (Hoods On)	800	777
OA CFM (Hoods Off)	350	337
RL Voltage	-	126 VFD
RL Amperage	-	9.32 VFD
VFD Max SetPt	-	42 HZ
VFD Min SetPt	-	24 HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	36%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.63"
Fan Suction SP	-	-0.77"
Fan Discharge SP	-	0.89"
Total ESP	-	1.52"
Fan Total SP	-	1.66"

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

Notes:

[1] INCORRECT DIFFUSERS INSTALLED FOR 1 THROUGH 4

[2] DIFFUSERS 3-1 & 3-4 ARE MISSING DAMPERS AND ARE LEAKING AIR INTO THE CEILING. UNIT TOTAL WAS BALANCED, BUT UNABLE TO BALANCE DIFFUSERS

Written By: Ben Searles on 11/04/2025

## Unit Data - PHOTO LOG



10/21/2025



10/21/2025



# National TAB

Project:10-20-25 QT #0847 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	0	907		-
SGRD2	SUPPORT SERVICE	SI	12"	800	1	1232	909		-
SGRD3	SUPPORT SERVICE	SI	12"	800	1	1056	717		-
SGRD4	SUPPORT SERVICE	SI	12"	800	1	0	963		-
SGRD5	DOCK	ES	12"	750	1	924	645		-
SGRD6	WORKROOM	ES	8"	250	1	951	391		-
Total				4200		4163	4532	0	0%

Asset	Notes	Date	Written By
SGRD1	MISSING DAMPER AND DUCTWORK IS LEAKING AIR INTO THE CEILING. UNABLE TO BALANCE	11/04/2025	Ben Searles
SGRD4	MISSING DAMPER AND DUCTWORK IS LEAKING AIR INTO THE CEILING. UNABLE TO BALANCE	11/04/2025	Ben Searles



# National TAB

Project: 10-20-25 QT #0847 GAINESVILLE, GA

## System/Unit: FAN - Exhaust

Asset: EF1

AREA:WOMEN'S RR

Unit Data		
	Design	Actual
MFG	NA	LOREN COOK COMPANY
Model Num	NA	90 ACEH 90C15DH
Serial Num	-	050SE95843- 00/0000701
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Test Data		
	Design	Actual
CFM	225	247
Fan Rotation	-	CCW
System SetPt	-	LOW
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	-	0.23"
Fan Inlet SP	-	-0.23"
Fan Discharge SP	-	1 ATM

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	48YZ
Horsepower	-	0.25
Motor Rpm	-	1725
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	5.0
Service Factor	-	1.35

Completed By: Sagar Patel on 10/23/2025

Notes:

[1] UNABLE TO READ VOLTS AND AMPS SAFELY

Written By: Sagar Patel on 10/23/2025

**Unit Data - PHOTO LOG**



**10/21/2025**



# National TAB

Project: 10-20-25 QT #0847 GAINESVILLE, GA

## System/Unit: FAN - Exhaust

Asset: EF2

AREA: MEN'S RR

Unit Data		
	Design	Actual
MFG	NA	LOREN COOK COMPANY
Model Num	NA	120 ACE 120C13D 33
Serial Num	-	050SE95843-00/0001901
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Test Data		
	Design	Actual
CFM	525	567
Fan Rotation	-	CCW
System SetPt	-	LOW
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	-	0.21"
Fan Inlet SP	-	-0.21"
Fan Discharge SP	-	1 ATM

Motor Data		
	Design	Actual
Motor MFG	-	FASCI
Frame	-	N/L
Horsepower	-	0.250
Motor Rpm	-	1300
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	3.2
Service Factor	-	N/L

Completed By: Sagar Patel on 10/23/2025

Notes:

[1] UNABLE TO READ VOLTS AND AMPS SAFELY

Written By: Sagar Patel on 10/23/2025

**Unit Data - PHOTO LOG**



**10/21/2025**



# National TAB

Project:10-20-25 QT #0847 GAINESVILLE, GA

Diffuser Ret/Exh (GRD)

## EF2/MEN'S RR

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	SUPPORT SERVICE	RI	8"	150	1	158	158	158	105.3
Total				150		158	158	158	105.33%



# National TAB

Project: 10-20-25 QT #0847 GAINESVILLE, GA

## System/Unit: FAN - Exhaust

Asset: EF3

AREA:KITCHEN HD

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	7644848
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)	-	208
Amperage (rated)	-	3.6
Service Factor	-	N/L

Test Data		
	Design	Actual
CFM	1350	1360
Fan RPM	-	1199
Fan Rotation	-	CCW
Motor RPM	-	1199
System SetPt	-	52.8 HZ
RL Voltage	-	211
RL Amperage	-	1.8
Total ESP	-	0.34"
Fan Inlet SP	-	-0.34"
Fan Discharge SP	-	1 ATM

Completed By: Sagar Patel on 10/23/2025

## Unit Data - PHOTO LOG



10/21/2025



# National TAB

Project: 10-20-25 QT #0847 GAINESVILLE, 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	-	7644848
Type	TYPE I CANOPY	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	-	2.08
Filter Total AK Area	-	12.48
Filter1 FPM	-	106
Filter2 FPM	-	108
Filter3 FPM	-	126
Filter4 FPM	-	107
Filter5 FPM	-	107
Filter6 FPM	-	101
Filter Ave FPM(corr)	-	109
CFM	1350	1360

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	GRITTLE

Completed By: Sagar Patel on 10/23/2025

## Unit Data - PHOTO LOG



10/21/2025

