

Report By:

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



Report: TAB Report
Function: Test, Adjust, & Balance
Date: 10/23/2025
Completed By: National TAB

PROJECT
10-13-25 QT #0839 MABLETON, GA

695 VETERANS MEMORIAL HWY SW

MABLETON, GA

Client

QUIKTRIP
4705 SOUTH 129TH EAST AVENUE
TULSA, OK 74134

National TAB

Project: 10-13-25 QT #0839 MABLETON, 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 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

- DIFFUSERS ARE THE WRONG TYPE
- DIRTY AIR FILTERS
- DUCTWORK NOT CONNECTED
- HOOD SIDE PANELS
- MISSING RETURN
- UNITS MISSING OA FILTERS



10-13-25 QT #0839 MABLETON, GA

Project Issue Information

Issue Name : DIFFUSERS ARE THE WRONG TYPE
Description : The installed diffusers in the kitchen are not the specified model
Created By : National TAB **Assigned To :** National TAB - Sagar Patel
Status : Open
Priority : Medium **Asset Tag :**
Originated Date : 10/16/2025 - Ben Searles - National TAB

Project Issue File Details

300FS
 Aluminum double deflection supply grille, 3/4" blade spacing, front blades parallel to short dimension
 These 300/350 Series supply grilles define the standard for the industry. With high quality and competitive pricing these grilles form the backbone of a standard offering that will meet any application requirements.

FEATURES AND BENEFITS

- Available with front louvers vertical or horizontal
- 48" x 144" w/ 1/2" Phlips for hood or nest mesh screens painted white
- Front and rear louvers are individually adjustable
- Optional opposed blade damper has screwdriver adjustment accessible through face of register
- Insect and debris screens are not available when dampers are fitted
- Material: Aluminum
- All dimensions are ± 1/16"

10/16/2025

GRILLE, REGISTER, & DIFFUSER SCHEDULE

NO.	MANUFACTURER	MODEL	SERVICE	FACE SIZE	HEX SIZE	DESCRIPTION	NOTES
1	TYS	300L	STAND	18" x 18"	SEE PLAN	34" 3/4" BLADE 3000FS GRILLE ALL W/FE	Q
2	TYS	300FS	SPR	22" x 22"	SEE PLAN	3000FS 3000FS GRILLE ALL W/FE	Q

NOTES:
 PROVIDE SPRING FOR ALL DIFFUSERS OR GRILLES IN HOV BOARD CEILING

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Project Issue Information

Issue Name : DIRTY AIR FILTERS
Description : The air filters in all RTU's are dirty and need to be replaced.
Created By : National TAB **Assigned To :** National TAB - Sagar Patel
Status : Open
Priority : Low **Asset Tag :**
Originated Date : 10/16/2025 - Ben Searles - National TAB

Project Issue File Details



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Project Issue Information

Issue Name : DUCTWORK NOT CONNECTED
Description : The ductwork for supply diffuser 1-4 is not connected. Unable to balance AC1 until the duct is connected.
Created By : National TAB **Assigned To :** National TAB - Sagar Patel
Status : Open
Priority : Urgent **Asset Tag :**
Originated Date : 10/16/2025 - Ben Searles - National TAB

Project Issue File Details



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Project Issue Information

Issue Name : HOOD SIDE PANELS
Description : The hood side panels are not installed along the wall.
Created By : National TAB **Assigned To :** National TAB - Brianna Biggs
Status : Open
Priority : Low **Asset Tag :**
Originated Date : 10/16/2025 - Ben Searles - National TAB

Project Issue File Details



10/16/2025



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Project Issue Information

Issue Name : MISSING RETURN
Description : Return grille 1-4 is not installed. Unable to balance EF1 until the return is installed.
Created By : National TAB **Assigned To :** National TAB - Sagar Patel
Status : Open
Priority : Urgent **Asset Tag :**
Originated Date : 10/16/2025 - Ben Searles - National TAB

Project Issue File Details





10-13-25 QT #0839 MABLETON, GA

Project Issue Information

Issue Name : UNITS MISSING OA FILTERS
Description : All RTU's are missing their OA filters.
Created By : National TAB **Assigned To :** National TAB - Brianna Biggs
Status : Open
Priority : Medium **Asset Tag :**
Originated Date : 10/16/2025 - Ben Searles - National TAB

Project Issue File Details



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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 : 10/06/2025 - 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 : 10/06/2025 - 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 : 10/06/2025 - 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 : 10/06/2025 - 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: 10-13-25 QT #0839 MABLETON, GA

System/Unit: AHU/RTU

Asset: RT-1

AREA:SALES FLOOR

Unit Data		
	Design	Actual
MFG	NA	AAON
Serial Num	-	201808-ANEL17345
Model Num	NA	RN-013-8-0-EAOA-152
Num OA Filters 1	-	1
OA Filter Size 1	-	25X22.5
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	Actual
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	-	3.0
Motor Rpm	-	1760
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	10.6

Test Data		
	Design	Actual
SF CFM	4200	4135
SF RPM	-	1368
OA CFM (Hoods On)	800	821
OA CFM (Hoods Off)	350	377
RL Voltage	-	217 / 216 / 216
RL Amperage	-	9.1 - VFD
VFD Max SetPt	-	45.6
VFD Min SetPt	-	24 HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	30%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.82"
Fan Suction SP	-	-1.05"
Fan Discharge SP	-	0.67"
Total ESP	-	1.49"
Fan Total SP	-	1.72"

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

Completed By: Ben Searles on 10/16/2025

Unit Data - PHOTO LOG



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Project: 10-13-25 QT #0839 MABLETON, GA

System/Unit: AHU/RTU

Asset: RT-2

AREA:SALES FLOOR

Unit Data		
	Design	Actual
MFG	NA	AAON
Serial Num	-	201807-ANEK17344
Model Num	NA	RN-013-8-0-EAOA-152
Num OA Filters 1	-	1
OA Filter Size 1	-	35X22.5
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	Actual
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	-	3.0
Motor Rpm	-	1760
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	10.6

Test Data		
	Design	Actual
SF CFM	4200	4097
SF RPM	-	1368
OA CFM (Hoods On)	800	782
OA CFM (Hoods Off)	350	361
RL Voltage	-	215 / 216 / 216
RL Amperage	-	9.5 - VFD
VFD Max SetPt	-	45.6 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	-	-0.96"
Fan Suction SP	-	-1.22"
Fan Discharge SP	-	0.52"
Total ESP	-	1.48"
Fan Total SP	-	1.74"

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

Completed By: Ben Searles on 10/16/2025

Unit Data - PHOTO LOG



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Project: 10-13-25 QT #0839 MABLETON, GA

System/Unit: AHU/RTU

Asset: RT-3

AREA:BOH/KITCHEN

Unit Data		
	Design	Actual
MFG	NA	AAON
Serial Num	-	201808-ANEK17346
Model Num	NA	RN-013-8-0-EAOA-152
Num OA Filters 1	-	1
OA Filter Size 1	-	35X22.5
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	Actual
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	-	3.0
Motor Rpm	-	1760
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	10.6

Test Data		
	Design	Actual
SF CFM	4200	
SF RPM	-	
OA CFM (Hoods On)	800	
OA CFM (Hoods Off)	350	
RL Voltage	-	
RL Amperage	-	
VFD Max SetPt	-	
VFD Min SetPt	-	
OA Damper Position (Hoods On)	-	
OA Damper Position (Hoods Off)	-	

Performance Data		
	Design	Actual
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	-	
Fan Total SP	-	

General	
	Actual
Fan Rotation Correct	
Unit Filters Clean	
Condensate Drain Installed	

Unit Data - PHOTO LOG



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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				-
SGRD2	SUPPORT SERVICE	SI	12"	800	1				-
SGRD3	SUPPORT SERVICE	SI	12"	800	1				-
SGRD4	SUPPORT SERVICE	SI	12"	800	1				-
SGRD5	WORKROOM	ES	10"	500	1				-
SGRD6	WORKROOM	ES	10"	500	1				-
Total				4200		0	0	0	0%



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System/Unit: FAN - Exhaust

Asset: EF1

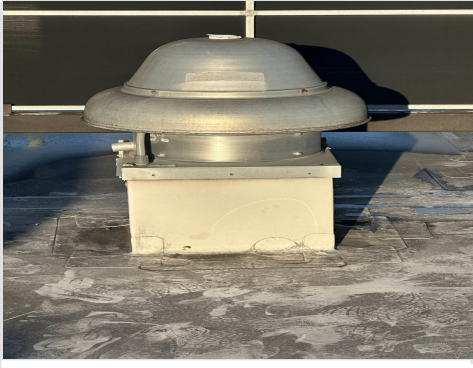
AREA:RR/JANITOR

Unit Data		
	Design	Actual
MFG	NA	NA
Model Num	NA	NA
Serial Num	-	
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	-	
Voltage (rated)	-	
Amperage (rated)	-	
Service Factor	-	

Test Data		
	Design	Actual
CFM	750	
Fan RPM	-	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	-	
Fan Inlet SP	-	
Fan Discharge SP	-	

Unit Data - PHOTO LOG



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National TAB

Project:10-13-25 QT #0839 MABLETON, GA

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					-
Total				150		0	0	0	0%



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Project: 10-13-25 QT #0839 MABLETON, GA

System/Unit: FAN - Exhaust

Asset: EF3

AREA:KITCHEN HD

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	7644850
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	
Fan RPM	-	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	-	
Fan Inlet SP	-	
Fan Discharge SP	-	ATM

Notes:
FAN IS RUNNING BACKWARDS

Written By: Ben Searles on 10/16/2025

Unit Data - PHOTO LOG



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Project: 10-13-25 QT #0839 MABLETON, 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	-	7644850
Type	-	TYPE I - CANOPY
Hood length	-	108"
Hood Width	-	60"

Test Data Exhaust		
	Design	Actual
Filter Type	-	BAFFLE
Filter Size 1	-	16X20
Filter Qty 1	-	6
Filter AK factor size 1	-	2.08
Filter Total AK Area	-	12.48
Filter1 FPM	-	
Filter2 FPM	-	
Filter3 FPM	-	
Filter4 FPM	-	
Filter5 FPM	-	
Filter6 FPM	-	
Filter Ave FPM(corr)	-	
CFM	1350	108

Cooking Equipment	
	Actual
Item 1	OPEN FRYER
Item 2	TOASTER OVEN

Notes:
HOOD NOT IN EMERSON CONTROLLER.

Written By: Ben Searles on 10/16/2025

Unit Data - PHOTO LOG



10/16/2025

