

Report By:

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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

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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

- DIFFUSERS ARE THE WRONG TYPE
- HOOD SIDE PANELS
- MISSING RETURN



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
- 8 1/2" x 11 1/2" Phillips flat head sheet metal screws 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

| MANUFACTURER | MODEL | SERVICE | FACE SIZE | HOOK SIZE | DESCRIPTION | NOTES |
|--------------|-------|---------|-----------|-----------|-------------------------------------|-------|
| Titus | 350L | EMVACT | 14 1/2" | 3/8" PAN | 34" 3/4" BLADE 300FS GRILLE AL W/PE | Q |
| Titus | 350FS | EMV | 22 1/2" | 3/8" PAN | 200L PERI-PAN GRILLE AL W/PE | Q |

NOTE:
 PROVIDE TORX KEYS FOR ALL DIFFUSERS OR GRILLES IN OFF-DAMPED CEILING

10/16/2025



Project Issue Response Details

- **11/12/2025 National TAB - Sagar Patel**
 - Diffusers are still incorrect. Titus diffusers are on back order.





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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

Project Issue Response Details

- **11/12/2025 National TAB - Sagar Patel**
 - Hood end panels are now being installed on right side of hood only. Panel needs to be installed.



11/12/2025



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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



Project Issue Response Details

- **11/12/2025 National TAB - Sagar Patel**
 - Return grille is not correct and ceiling is exposed.



11/12/2025

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

- [Open QT_Balance_Schedule.xlsx](#)

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 : 10/06/2025 - Trinity Dodds - National TAB
Completed Date : 11/12/2025 - 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:



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CheckList Information

Name : 02: Exhaust Fans **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 10/06/2025 - Trinity Dodds - National TAB
Completed Date : 11/12/2025 - 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:



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CheckList Information

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

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 10/06/2025 - Trinity Dodds - National TAB

Completed Date : 11/12/2025 - 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? | Fail |
|--|------|

Comment:



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CheckList Information

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

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 10/06/2025 - Trinity Dodds - National TAB

Completed Date : 11/12/2025 - 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

11/12/2025

Comment:

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:

N/A

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: 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 | - | 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 | 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 HZ |
| 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



10/16/2025



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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



10/16/2025



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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 |

| 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 | 4141 |
| SF RPM | - | 1349 |
| OA CFM (Hoods On) | 800 | 864 |
| OA CFM (Hoods Off) | 350 | 366 |
| RL Voltage | - | 161 VFD |
| RL Amperage | - | 9.58 VFD |
| VFD Max SetPt | - | 46 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 | - | -0.83" |
| Fan Suction SP | - | -1.03" |
| Fan Discharge SP | - | 0.76" |
| Total ESP | - | 1.59" |
| Fan Total SP | - | 1.79" |

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

Completed By: Sagar Patel on 11/12/2025

Unit Data - PHOTO LOG



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Project:10-13-25 QT #0839 MABLETON, 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 | 979 | 874 | 874 | 109.3 |
| SGRD2 | SUPPORT SERVICE | SI | 12" | 800 | 1 | 802 | 791 | 791 | 98.9 |
| SGRD3 | SUPPORT SERVICE | SI | 12" | 800 | 1 | 783 | 804 | 804 | 100.5 |
| SGRD4 | SUPPORT SERVICE | SI | 12" | 800 | 1 | 834 | 758 | 758 | 94.8 |
| SGRD5 | WORKROOM | ES | 10" | 500 | 1 | 397 | 453 | 453 | 90.6 |
| SGRD6 | WORKROOM | ES | 10" | 500 | 1 | 352 | 461 | 461 | 92.2 |
| Total | | | | 4200 | | 4147 | 4141 | 4141 | 98.6% |

Completed By: Sagar Patel on 11/12/2025



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

System/Unit: FAN - Exhaust

Asset: EF1

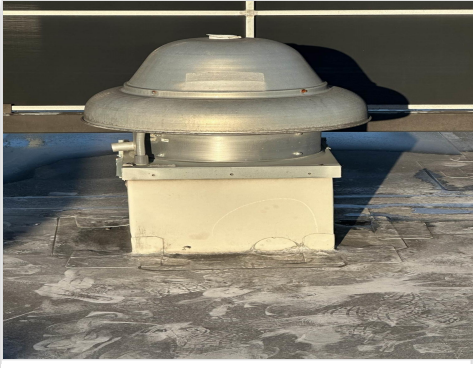
AREA:RR/JANITOR

| Unit Data | | |
|---------------|--------|-------------|
| | Design | Actual |
| MFG | NA | CAPTIVEAIRE |
| Model Num | NA | DR50HFA |
| Serial Num | - | 3470314 |
| Type | - | DOWNBLAST |
| Configuration | - | VERTICAL |

| Motor Data | | |
|------------------|--------|-----------|
| | Design | Actual |
| Motor MFG | - | US MOTORS |
| Frame | - | N/L |
| Horsepower | - | 0.5 |
| Motor Rpm | - | N/L |
| Phase | - | 1 |
| Voltage (rated) | - | 115 |
| Amperage (rated) | - | 5.6 |
| Service Factor | - | N/L |

| 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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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 | 1285 |
| Fan RPM | - | 1214 |
| Fan Rotation | - | CCW |
| Motor RPM | - | 1214 |
| System SetPt | - | 53 HZ |
| RL Voltage | - | 217 |
| RL Amperage | - | 1.8 |
| Total ESP | - | 0.19" |
| Fan Inlet SP | - | -0.19" |
| Fan Discharge SP | - | 1 ATM |

Completed By: Sagar Patel on 11/12/2025

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 | - | 86 |
| Filter2 FPM | - | 103 |
| Filter3 FPM | - | 118 |
| Filter4 FPM | - | 109 |
| Filter5 FPM | - | 105 |
| Filter6 FPM | - | 101 |
| Filter Ave FPM(corr) | - | 103 |
| CFM | 1350 | 1285 |

| Cooking Equipment | |
|-------------------|--------------|
| | Actual |
| Item 1 | OPEN FRYER |
| Item 2 | TOASTER OVEN |

Completed By: Sagar Patel on 11/12/2025

Notes:
HOOD NOT IN EMERSON CONTROLLER.

Written By: Ben Searles on 10/16/2025

Unit Data - PHOTO LOG



10/16/2025

