

Report By:

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



Report: TAB Report
Function: Test, Adjust, & Balance
Date: 09/15/2025
Completed By: National TAB

PROJECT

09-08-25 QT - #1123 GREENWOOD, SC

1138 BYPASS 72 NE

GREENWOOD, SC

Client

QUIKTRIP
4705 SOUTH 129TH EAST AVENUE
TULSA, OK 74134

National TAB

Project: 09-08-25 QT - #1123 GREENWOOD, SC

Table Of Contents

Section	Page #
Issue Data	3
AHU/RTU	8
FAN - Exhaust	17
Kitchen Hood Type I	20

Issue List

- EF 1 EGRD 4 too big
- Missing two new diffusers for RTU 3
- No RTU has their OA filters
- RTU 3 overramping at design

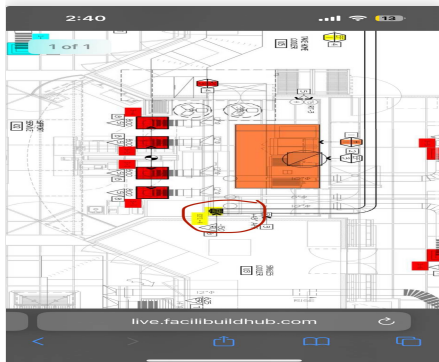


09-08-25 QT - #1123 GREENWOOD, SC

Project Issue Information

Issue Name : EF 1 EGRD 4 too big
Description : The diffuser for the combi oven exhaust is too large. The GC is aware of the problem and has ordered the correct one, CFM was still able to be taken.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : InfoOnly **Asset Tag :** EGRD4
Originated Date : 09/10/2025 - Chistian Moller - National TAB

Project Issue File Details



09/10/2025



09/10/2025

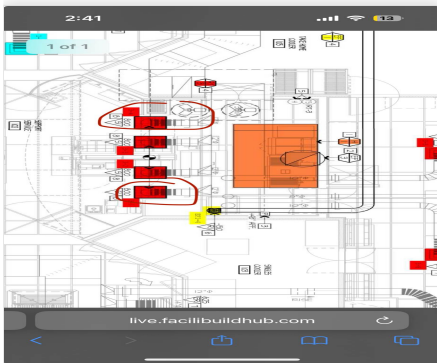


09-08-25 QT - #1123 GREENWOOD, SC

Project Issue Information

Issue Name : Missing two new diffusers for RTU 3
Description : Two of the four new diffusers that go in front of the hood are not installed. GC is aware of the problem and has already ordered the new ones.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : InfoOnly **Asset Tag :** RT-3
Originated Date : 09/10/2025 - Chistian Moller - National TAB

Project Issue File Details



09/10/2025



09/10/2025



09-08-25 QT - #1123 GREENWOOD, SC

Project Issue Information

Issue Name : No RTU has their OA filters
Description : None of the RTU's have their OA filters on the outside of the units. OA was still able to be set and marked.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : Medium **Asset Tag :**
Originated Date : 09/10/2025 - Chistian Moller - National TAB

Project Issue File Details



09/10/2025



09/10/2025



09-08-25 QT - #1123 GREENWOOD, SC

Project Issue Information

Issue Name : RTU 3 overramping at design
Description : At design CFM the unit was overramping (55.8Hz, at 11.6 amps). Airflow was decreased to within FLA, with diffusers in front of hood balanced to +/- 10% of design besides SGRD 1.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : High **Asset Tag :** RT-3
Originated Date : 09/10/2025 - Chistian Moller - National TAB

Project Issue File Details



09/10/2025

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Project: 09-08-25 QT - #1123 GREENWOOD, SC

System/Unit: AHU/RTU



Asset: RT-1

AREA:SALES FLOOR

Unit Data		
	Design	Actual
MFG	NA	AAON
Serial Num	-	202303-ANEK27895
Model Num	NA	RN-013-8-0-HA0A-152
Type	-	RTU
Num OA Filters 1	-	1
OA Filter Size 1	-	45X25

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

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD
Belt Alignment	DD

Test Data		
	Design	Actual
SF CFM	4450	4387
RA CFM	3650	3546
OA CFM	800	841
RL Voltage	-	208/209/210
RL Amperage	-	8.9/8.5/8.8
SF System SetPt	-	VFD/46.2Hz
RA Damper Position	-	3"
Min OA Damper Position	-	0.5"
Min OA Damper Type	-	ECON

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.73"
Fan Suction SP	-	-1.01"
Fan Discharge SP	-	0.89"
Total ESP	-	1.74"
Fan Total SP	-	1.9"

General	
	Actual
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Chistian Moller on 09/10/2025

Notes:

RTU balanced for total flow.

For 365 OA CFM, OA dampers set to 0.1", returns at 3.5"

Written By: Chistian Moller on 09/10/2025

Unit Data - PHOTO LOG



09/10/2025

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 Project:09-08-25 QT - #1123 GREENWOOD, SC
AHU/RTU



Diffuser Supply (GRD)

RT-1/SALES FLOOR

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	ENTRANCE	ES	10"	300					-
SGRD2	SALES	ES	10"	400					-
SGRD3	SALES	ES	10"	450					-
SGRD4	SALES	ES	12"	425					-
SGRD5	SALES	ES	12"	425					-
SGRD6	SALES	ES	10"	450					-
SGRD7	SALES	ES	12"	525					-
SGRD8	SALES	ES	12"	525					-
SGRD9	WOMENS RR	ES	8"	150					-
SGRD10	UTILITY CLOSET	ES	12"	300					-
SGRD11	MEN'S RR	ES	8"	250					-
Total				4200		0	0	0	0%

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Project: 09-08-25 QT - #1123 GREENWOOD, SC

System/Unit: AHU/RTU



Asset: RT-2

AREA: SALES FLOOR

Unit Data		
	Design	Actual
MFG	NA	AAON
Serial Num	-	202304-ANEK27896
Model Num	NA	RN-013-8-0-HA0A-152
Type	-	RTU
Num OA Filters 1	-	1
OA Filter Size 1	-	45X25

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

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD
Belt Alignment	DD

Test Data		
	Design	Actual
SF CFM	4200	4233
RA CFM	3400	3371
OA CFM	800	862
RL Voltage	-	209/209/208
RL Amperage	-	7.4/7.0/7.0
SF System SetPt	-	VFD/43.2Hz
RA Damper Position	-	3.0"
Min OA Damper Position	-	0.5"
Min OA Damper Type	-	ECON

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.66"
Fan Suction SP	-	-0.85"
Fan Discharge SP	-	0.77"
Total ESP	-	1.51"
Fan Total SP	-	1.62"

General	
	Actual
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Chistian Moller on 09/10/2025

Notes:

RTU balanced for total flow.

For 350 OA CFM - OA dampers at 0.1", returns at 4.0".

Written By: Chistian Moller on 09/10/2025

Unit Data - PHOTO LOG



09/10/2025

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Project:09-08-25 QT - #1123 GREENWOOD, SC

AHU/RTU



Diffuser Supply (GRD)

RT-2/SALES FLOOR

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	ENTRANCE	ES	10"	300					-
SGRD2	SALES	ES	10"	400					-
SGRD3	SALES	ES	10"	450					-
SGRD4	SALES	ES	12"	525					-
SGRD5	SALES	ES	12"	525					-
SGRD6	SALES	ES	8"	200					-
SGRD7	SIDE ENTRANCE	ES	10"	300					-
SGRD8	FOUNTAIN AREA	ES	12"	525					-
SGRD9	FOUNTAIN AREA	ES	12"	525					-
SGRD10	SALES	ES	10"	450					-
Total				4200		0	0	0	0%

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Project: 09-08-25 QT - #1123 GREENWOOD, SC

System/Unit: AHU/RTU



Asset: RT-3

AREA:BOH/KITCHEN

Unit Data		
	Design	Actual
MFG	NA	AAON
Serial Num	-	202304-ANEK27897
Model Num	NA	RN-013-8-0-HA0A-152
Type	-	RTU
Num OA Filters 1	-	1
OA Filter Size 1	-	45X25

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

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD
Belt Alignment	DD

Test Data		
	Design	Actual
SF CFM	4200	3361
RA CFM	3400	2534
OA CFM	800	827
RL Voltage	-	211/210/209
RL Amperage	-	10.6/10.6/10.5
SF System SetPt	-	VFD/50.8Hz
RA Damper Position	-	3.0"
Min OA Damper Position	-	0.5"
Min OA Damper Type	-	ECON

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.38"
Fan Suction SP	-	-0.56"
Fan Discharge SP	-	0.70
Total ESP	-	0.94"
Fan Total SP	-	1.26"

General	
	Actual
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Chistian Moller on 09/10/2025

Notes:

For OA at 354 CFM - OA dampers at 0.25", returns at 3.5".

At design CFM the unit was overramping (55.8Hz, at 11.6 amps). Airflow was decreased to within FLA, with diffusers in front of hood balanced to +/- 10% of design besides SGRD 1.

Written By: Chistian Moller on 09/10/2025

Unit Data - PHOTO LOG



09/10/2025

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Project:09-08-25 QT - #1123 GREENWOOD, SC

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	700	766	766	95.8
SGRD2	SUPPORT SERVICE	SI	12"	800	1	570	740	740	92.5
SGRD3	SUPPORT SERVICE	SI	12"	800	1	681	734	734	91.8
SGRD4	SUPPORT SERVICE	SI	12"	800	1	309	545	545	68.1
SGRD5	WORKROOM	ES	10"	400	1	235	215	215	53.8
SGRD6	WORKROOM	ES	10"	400	1	118	185	185	46.3
SGRD7	WORKROOM 2	ES	8"	200	1	233	176	176	88.0
Total				4200		2846	3361	3361	80.02%

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Project: 09-08-25 QT - #1123 GREENWOOD, SC

System/Unit: FAN - Exhaust



Asset: EF1

AREA:RR/JANITOR

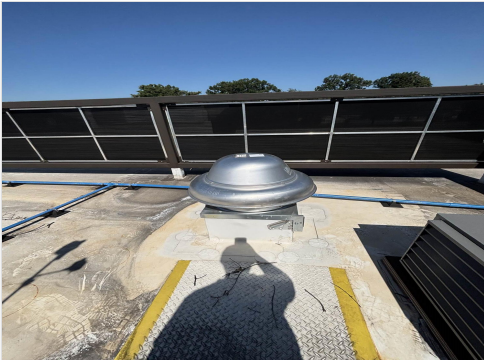
Unit Data		
	Design	Actual
MFG	NA	INTERTEK
Model Num	NA	DR50HFA
Serial Num	-	6169411
Type	-	UPBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	CAPTIVEAIRE
Frame	-	NL
Horsepower	-	0.5
Motor Rpm	-	2000
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	8.4
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	750	727
Fan Rotation	-	CCW
System SetPt	-	MEDIUM SPEED
RL Voltage	-	108
RL Amperage	-	5.8
Total ESP	-	0.56"
Fan Inlet SP	-	-0.56"
Fan Discharge SP	-	ATM

Completed By: Chistian Moller on 09/10/2025

Unit Data - PHOTO LOG



09/10/2025

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Project:09-08-25 QT - #1123 GREENWOOD, SC

FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF1/RR/JANITOR

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	MEN'S RR	EE	10"	300	1	115	167	167	55.7
EGRD2	JANITOR'S CLOSET	EE	6"	100	1	50	96	96	96.0
EGRD3	WOMEN'S RR	EE	10"	200	1	273	326	326	163.0
EGRD4	KITCHEN	RI	8"	150	1	154	138	138	92.0
Total				750		592	727	727	96.93%

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Project: 09-08-25 QT - #1123 GREENWOOD, SC

System/Unit: FAN - Exhaust



Asset: EF3

AREA: KITCHEN HOOD

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	7632503
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1350	1310
Fan Rotation	-	CCW
System SetPt	-	HOOD HMI / 50.8Hz
RL Voltage	-	110
RL Amperage	-	5.4
Total ESP	-	0.75"
Fan Inlet SP	-	-0.75"
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Motor MFG	-	HSSA
Frame	-	48
Horsepower	1/2	1/2
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	6.2
Service Factor	-	NL

Completed By: Chistian Moller on 09/11/2025

Unit Data - PHOTO LOG



09/10/2025

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Project: 09-08-25 QT - #1123 GREENWOOD, SC

System/Unit: Kitchen Hood Type I



Asset: HD1

AREA:GRIDDLE

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030 ND-2-F	6030 ND-2
Job / Serial Num	-	7632503
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	-	122"
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	-	107
Filter2 FPM	-	108
Filter3 FPM	-	107
Filter4 FPM	-	98
Filter5 FPM	-	107
Filter6 FPM	-	107
Filter7 FPM	-	
Filter8 FPM	-	
Filter9 FPM	-	
Filter10 FPM	-	
Filter11 FPM	-	
Filter12 FPM	-	
Filter Ave FPM(corr)	-	105
CFM	1350	1310

Cooking Equipment	
	Actual
Item 1	Oven
Item 2	Fryer

Completed By: Chistian Moller on 09/11/2025

Unit Data - PHOTO LOG



09/10/2025