Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 09/11/2025

Completed By: National TAB

PROJECT

08-04-25 NIKE #202 CHESTERFIELD, MO

18521 Outlet Blvd Suite 500

Chesterfield, , MO 63005

Client

Comfort Systems USA Strategic Accounts

2655 Fortune Circle West, Suite E

Indianapolis, IN 46241

National TAB

Project: 08-04-25 NIKE #202 CHESTERFIELD, MO

Table Of Contents

Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report is further detail 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

Each of the RTU's were measured at their terminal devices utilizing a flow hood. The sum of these readings is equal to the total flow for that particular unit. The total flow of each RTU was then adjusted within tolerance of the specified design. Each terminal diffuser was balanced to within tolerance of the engineer's design volume utilizing the provided hand damper located at the takeoff of the main & branch trunk line(s). Any equipment that fell outside of this tolerance is noted throughout the report.

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 of -0.02" wc to +0.02" wc and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report.

CheckList List

- ALL STEPS TECH CHECKLIST

08-04-25 NIKE #202 CHESTERFIELD, MO

CheckList Information

Name :	ALL STEPS TECH CHECKLIST	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	08/04/2025 - Wale Odofin - National TAB		

CheckList Item Details

RTU's/AHU's

Economizers are assembled and functional?

Comment:

YES

Motors are all operating below the FLA rating?

Comment:

YES

Are belts tight?

Comment:

NA. DIRECT DRIVE

If direct drive unit is the speed controller working.

Comment:

YES

Is gas piping installed and valves turned on?

Comment:

NA. Electric heat

Unit free of noticeable noise and vibration

Comment:

NO. RTU-4 has loose condenser fan mount that is rattling.

Units are labeled and installed on proper curb

Comment:

YES.

Unit ductwork properly installed / sealed on curb

Comment:

RTU-4 has small leakage at corner near supply fan compartment (RESOLVED PER COMFORT SYSTEMS)

Pulleys are properly aligned

Comment:

NA. Direct drive.

Condensate lines and P-Traps installed correctly

Comment:

YES

Disconnect Switch Installed

Comment:

YES

Outside air dampers/Economizers installed and functioning

Comment:

YES

Additional Comments or recommendations:

Comment:

Return grilles are clogged/dirty. Recommend cleaning. With damper set to minimum position the airflow was below design. RTU's balanced with the damper 100% open which should be more equivalent to airflow once the return grilles are cleaned.

Documentation

If issues, have NTAB team and Comfort Systems team been notified ?

Comment:

YES

If any issues, have Facilibuild issues been created explaining in detail?

Comment:

YES

Pictures

All Issues

Comment:

YES

Each Piece of equipment

Comment:

YES

Front of store

Comment:

YES

Roof Top Layout

Comment:

YES

National TAB

Project: 08-04-25 NIKE #202 CHESTERFIELD, MO

System/Unit: AHU/RTU

Asset: RTU1 AREA:SALES FLOOR/REGISTERS

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	1925P04331
Model Num	50GECN14A2M6-3W4F0	50GECN14A2M6
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	22.625X25.5”
Num Final Filter 1	-	6
Final Filter Size 1	-	18X24X2”
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	460	460
Rated Amperage	-	3.5

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

Electrical	
	Actual
VFD Min Setpt	39 HZ
VFD Max Setpt	60 HZ

Test Data		
	Design	**Actual**
SF CFM	4800	4919
SF RPM	-	1482
MOTOR RPM	-	1482
RA CFM	4250	4414
OA CFM	550	505
ABS MIN OA	-	495
ABS MIN OA DAMPER POSITION	-	14%
RL Voltage	-	484
RL Amperage	-	2.17
SF Rotation	-	COUNTERCLOCKWISE
RA Damper Position	-	86%
Min OA Damper Position	-	14%
Min OA Damper Type	-	ECON

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-1.51”
Fan Suction SP	-	-1.49”
Fan Discharge SP	-	0.25”
Total ESP	1.20	1.76”
OA Temp (db/wb)	-	95 db/75 wb
RA Temp (db/wb)	-	76 db/61 wb
SA Temp (db/wb)	-	61 db/53 wb

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES

Notes:
-Return Grilles Dirty/Clogged. Balanced RTU with OA method. Put OA damper at 100% and adjusted fan speed accordingly. Set OA once fan speed was balanced.
-Initial Airflow Calculation: 2589

Written By: Kalen Kemp on 08/06/2025

Unit Data - PHOTO LOG

08/06/2025

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Project: 08-04-25 NIKE #202 CHESTERFIELD, MO

System/Unit: AHU/RTU

Asset: RTU2 AREA:MERCHANDISE/SHOES

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	1925P04332
Model Num	50GECN14A2M6-3W4F0	50GECN14A2M6-3W4F0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	22.625X25.5”
Num Final Filter 1	-	6
Final Filter Size 1	-	18X24X2”

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	460	460
Rated Amperage	-	3.5

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

Electrical	
	Actual
VFD Min Setpt	33 Hz
VFD Max Setpt	60Hz

Test Data		
	Design	**Actual**
SF CFM	4000	3918
SF RPM	-	1258
MOTOR RPM	-	1258
RA CFM	3050	3061
OA CFM	950	857
ABS MIN OA	-	855
ABS MIN OA DAMPER POSITION	-	24%
RL Voltage	-	490
RL Amperage	-	1.46
SF Rotation	-	COUNTERCLOCKWISE
RA Damper Position	-	76%
Min OA Damper Position	-	24%
Min OA Damper Type	-	ECON

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.93”
Fan Suction SP	-	-1.07”
Fan Discharge SP	-	0.15”
Total ESP	-	1.08”
OA Temp (db/wb)	-	104 db/81 wb
RA Temp (db/wb)	-	87 db/72 wb
SA Temp (db/wb)	-	68 db/55 wb

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES

Notes:
-Return Grilles Dirty/Clogged. Balanced RTU with OA method. Put OA damper at 100% and adjusted fan speed accordingly. Set OA once fan speed was balanced.
-Initial Airflow Calculation: 2999

Written By: Kalen Kemp on 08/06/2025

Unit Data - PHOTO LOG

08/06/2025

National TAB

Project: 08-04-25 NIKE #202 CHESTERFIELD, MO

System/Unit: AHU/RTU

Asset: RTU3 AREA:MERCHANDISE/SHOES

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	1925P04333
Model Num	50GECN14A2M6-3W4F0	50GECN14A2M6-3W4F0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	22.5X25.5”
Num Final Filter 1	-	6
Final Filter Size 1	-	18X24X2”

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	-	3
Rated Voltage	-	460
Rated Amperage	-	3.5

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

Electrical	
	Actual
VFD Min Setpt	33 Hz
VFD Max Setpt	60 Hz

Test Data		
	Design	**Actual**
SF CFM	4000	4080
SF RPM	-	1258
MOTOR RPM	-	1258
RA CFM	3050	3092
OA CFM	950	988
ABS MIN OA	-	855
ABS MIN OA DAMPER POSITION	-	24%
RL Voltage	-	486
RL Amperage	-	1.51
SF Rotation	-	COUNTERCLOCKWISE
RA Damper Position	-	76%
Min OA Damper Position	-	24%
Min OA Damper Type	-	ECON

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.97”
Fan Suction SP	-	-1.04”
Fan Discharge SP	-	0.21”
Total ESP	1.30"	1.18”
OA Temp (db/wb)	-	99 db/77 wb
RA Temp (db/wb)	-	81 db/66 wb
SA Temp (db/wb)	-	66 db/58 wb

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES

Notes:
-Return Grilles Dirty/Clogged. Balanced RTU with OA method. Put OA damper at 100% and adjusted fan speed accordingly. Set OA once fan speed was balanced.
-Initial Airflow Calculation: 3399

Written By: Kalen Kemp on 08/06/2025

Unit Data - PHOTO LOG

08/06/2025

National TAB

Project: 08-04-25 NIKE #202 CHESTERFIELD, MO

System/Unit: AHU/RTU

Asset: RTU4 AREA:BOH

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	2025C10140
Model Num	50GE-N05A2M6-3W4F0	50GE-N05A2M6-3W4F0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	14.125X28.125”
Num Final Filter 1	-	4
Final Filter Size 1	-	16X16X2”

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	460	460
Rated Amperage	-	2.1

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

Electrical	
	Actual
VFD Min Setpt	48 Hz
VFD Max Setpt	60 Hz

Test Data		
	Design	**Actual**
SF CFM	1600	1535
SF RPM	-	1969
MOTOR RPM	-	1969
RA CFM	1285	1282
OA CFM	315	313
ABS MIN OA	-	284
ABS MIN OA DAMPER POSITION	-	10%
RL Voltage	-	490
RL Amperage	-	1.07
SF Rotation	-	COUNTERCLOCKWISE
RA Damper Position	-	90%
Min OA Damper Position	-	10%
Min OA Damper Type	-	ECON

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.71”
Fan Suction SP	-	-0.92”
Fan Discharge SP	-	0.56”
Total ESP	1.19"	1.27”
OA Temp (db/wb)	-	100 db/76 wb
RA Temp (db/wb)	-	79 db/64 wb
SA Temp (db/wb)	-	62 db/55 wb

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES

Notes:
-Balanced RTU with OA method. Put OA damper at 100% and adjusted fan speed accordingly. Set OA once fan speed was balanced.
-Unable to access return Grilles to determine if they were clean/dirty

Written By: Kalen Kemp on 08/06/2025

Unit Data - PHOTO LOG

08/06/2025

National TAB

Project: 08-04-25 NIKE #202 CHESTERFIELD, MO

System/Unit: AHU/RTU

Asset: RTU5 AREA:OFFICE/BREAKROOM

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	1925C09522
Model Num	50GE-N06A2M6-3W4F0	50GE-N06A2M6-3W4F0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	14.125X28.125”
Num Final Filter 1	-	2
Final Filter Size 1	-	16X25X2”

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	460	460
Rated Amperage	-	1.7

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

Electrical	
	Actual
VFD Min Setpt	60 Hz
VFD Max Setpt	60 Hz

Test Data		
	Design	**Actual**
SF CFM	1750	1756
SF RPM	-	2170
MOTOR RPM	-	2170
RA CFM	1585	1587
OA CFM	165	169
ABS MIN OA	-	149
ABS MIN OA DAMPER POSITION	-	20%
RL Voltage	-	487
RL Amperage	-	1.31
SF Rotation	-	COUNTERCLOCKWISE
RA Damper Position	-	80%
Min OA Damper Position	-	20%
Min OA Damper Type	-	ECON

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-1.22”
Fan Suction SP	-	-1.48”
Fan Discharge SP	-	0.54”
Total ESP	1.19"	1.76”
OA Temp (db/wb)	-	96 db/75 wb
RA Temp (db/wb)	-	76 db/63 wb
SA Temp (db/wb)	-	64 db/58 wb

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES

Notes:
-Balanced RTU with OA method. Put OA damper at 100% and adjusted fan speed accordingly. Set OA once fan speed was balanced.
-Unable to access return Grilles to determine if they were clean/dirty

Written By: Kalen Kemp on 08/06/2025

Unit Data - PHOTO LOG

08/06/2025