Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 10/28/2024

Completed By: National TAB

PROJECT

10-21-24 REI 026 READING, MA

279 SALEM STREET

READING, MA 01867

Client

Brinco Mechanical Management Services, Inc.
125 South Main St

Freeport, NY 11520

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Project: 10-21-24 REI 026 READING, MA

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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 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 (Roof Top Units)
Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance of the engineer's design flow. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that tolerance is noted throughout the report.

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Project: 10-21-24 REI 026 READING, MA

System/Unit: AHU/RTU

Asset: RTU1 AREA:

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	4323P03675
Model Num	48FCFM16A3M5-3A1F0	48FCFM16A3M5A3A1F0
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	-	N/A
Frame	-	N/A
Horsepower	-	N/A
Motor Rpm	-	N/A
Phase	3	3
Rated Voltage	230	208/230
Rated Amperage	-	12.6

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	6000	6120
SF RPM	-	1760
RA CFM	5100	5180
OA CFM	900	940
RL Voltage	-	211/212/213
RL Amperage	-	7.3/7.8/8.0
SF Rotation	-	CCW
SF System SetPt	-	1760
RA Damper Position	-	80%
Min OA Damper Position	-	20%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	28 BTU/LBS

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.37"
Fan Suction SP	-	-1.14"
Fan Discharge SP	-	0.63”
Total ESP	0.50	1.0"
Fan Total SP	-	1.77

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

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Project: 10-21-24 REI 026 READING, MA

System/Unit: AHU/RTU

Asset: RTU2 AREA:

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	4323P03677
Model Num	48FCFM16A3M5-3A1F0	48FCFM16A3M5A3A1F0
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	-	N/A
Frame	-	N/A
Horsepower	-	N/A
Motor Rpm	-	N/A
Phase	3	3
Rated Voltage	230	208/230
Rated Amperage	-	12.6

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	6000	6191
SF RPM	-	1760
RA CFM	5100	5267
OA CFM	900	924
RL Voltage	-	213/213/211
RL Amperage	-	7.9/7.8/8.1
SF Rotation	-	CCW
SF System SetPt	-	1760
RA Damper Position	-	10.75”
Min OA Damper Position	-	N/A
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	28 BTU/LBS

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.45"
Fan Suction SP	-	-0.99"
Fan Discharge SP	-	0.38"
Total ESP	0.50	0.83"
Fan Total SP	-	1.37"

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

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Notes:
ECON NOT FUNCTIONAL MANUALLY SET AND MARKED
RETURN DAMPER BLADES MEASURED FROM BOTTOM TO TOP OF BAR

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Project: 10-21-24 REI 026 READING, MA

System/Unit: AHU/RTU

Asset: RTU3 AREA:

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	4323P03673
Model Num	48FCFM16A3M5-3A1F0	48FCFM16A3M5A3A1F0
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	-	N/A
Frame	-	N/A
Horsepower	-	N/A
Motor Rpm	-	N/A
Phase	3	3
Rated Voltage	230	208/230
Rated Amperage	-	12.6

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	6000	6072
SF RPM	-	1755
RA CFM	5100	5196
OA CFM	900	876
RL Voltage	-	214/215/213
RL Amperage	-	7.5/7.6/8.0
SF Rotation	-	CCW
SF System SetPt	-	1755
RA Damper Position	-	10.375"
Min OA Damper Position	-	N/A
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	28 BTU/LBS

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.33"
Fan Suction SP	-	-1.10"
Fan Discharge SP	-	0.41"
Total ESP	0.50	0.74"
Fan Total SP	-	1.51"

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

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System/Unit: AHU/RTU

Asset: RTU4 AREA:

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	4323P03676
Model Num	48FCFM16A3M5-3A1F0	48FCFM16A3M5A3A1F0
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	-	N/A
Frame	-	N/A
Horsepower	-	N/A
Motor Rpm	-	N/A
Phase	3	3
Rated Voltage	230	208/230
Rated Amperage	-	12.6

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	6000	6207
SF RPM	-	1800
RA CFM	5100	5227
OA CFM	900	980
RL Voltage	-	213/211/212
RL Amperage	-	8.9/8.2/8.6
SF Rotation	-	CCW
SF System SetPt	-	1800
RA Damper Position	-	9.5”
Min OA Damper Position	-	N/A
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	28 BTU/LBS

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.74”
Fan Suction SP	-	-1.24”
Fan Discharge SP	-	0.51”
Total ESP	0.50"	1.25"
Fan Total SP	-	1.75"

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

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System/Unit: AHU/RTU

Asset: RTU5 AREA:

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	4323P03674
Model Num	48FCFM16A3M5-3A1F0	48FCFM16A3M5A3A1F0
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	-	N/A
Frame	-	N/A
Horsepower	-	N/A
Motor Rpm	-	N/A
Phase	3	3
Rated Voltage	230	208/230
Rated Amperage	-	12.6

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	6000	5968
SF RPM	-	1700
RA CFM	5100	5004
OA CFM	900	964
RL Voltage	-	213/213/212
RL Amperage	-	7.3/7.2/6.7
SF Rotation	-	CCW
SF System SetPt	-	80%
RA Damper Position	-	9.125"
Min OA Damper Position	-	N/A
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	28 BTU/LBS

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.66”
Fan Suction SP	-	-1.18”
Fan Discharge SP	-	0.43”
Total ESP	0.50"	1.09"
Fan Total SP	-	1.61"

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

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System/Unit: AHU/RTU

Asset: RTU6 AREA:

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	3023C08955
Model Num	48FCEA06A3M5-3A1F0	48FCEA06A3M5A3A1F0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	18.375X22.5
Num Final Filter 1	-	2
Final Filter Size 1	-	16X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	N/A
Frame	-	N/A
Horsepower	-	N/A
Motor Rpm	-	N/A
Phase	3	3
Rated Voltage	230	208/230
Rated Amperage	6.4	6.4

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	2000	2078
SF RPM	-	2212
RA CFM	1700	2078
OA CFM	300	0
RL Voltage	-	215/215/213
RL Amperage	-	3.2/2.9/3.2
SF Rotation	-	CCW
SF System SetPt	-	2212
RA Damper Position	-	100%
Min OA Damper Position	-	0%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	28 BTU/LBS

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.18”
Fan Suction SP	-	-0.73”
Fan Discharge SP	-	0.33”
Total ESP	0.50"	0.51"
Fan Total SP	-	1.06"

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

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Notes:
ECONOMIZER IS INOPERABLE. UNABLE TO ACCESS ECONOMIZER TO MANUALLY ADJUST AND BALANCE OA.

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System/Unit: AHU/RTU

Asset: RTU7 AREA:

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	3123P26021
Model Num	48FCDM24E3M5-3V1C0	48FCDM24E3M5A3U1C0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	14.375X24.375
Num Final Filter 1	-	8
Final Filter Size 1	-	16X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	N/A
Frame	-	N/A
Horsepower	-	N/A
Motor Rpm	-	N/A
Phase	3	3
Rated Voltage	230	208/230
Rated Amperage	-	12.6

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	8000	8201
SF RPM	-	1625
RA CFM	6200	6921
OA CFM	1200	1280
RL Voltage	-	215/214/213
RL Amperage	-	4.2/4.3/3.8
SF Rotation	-	CCW
SF System SetPt	-	1625
RA Damper Position	-	90%
Min OA Damper Position	-	10%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	28

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.52”
Fan Suction SP	-	-0.98”
Fan Discharge SP	-	0.43”
Total ESP	0.50"	0.95"
Fan Total SP	-	1.41"

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

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