Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 07/23/2025

Completed By: National TAB

PROJECT

Gorjana (Madison, WI)

420 N Midvale Blvd

Madison, WI 53705

Client

Air Temperature Services

5301 VOGES RD

MADISON, WI 53718

National TAB

Project: Gorjana (Madison, WI)

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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 and asset data. 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, parts needed, or time constraints.

RTU

The RTU is located three floors above the store. The unit is a Trane 5-ton Reliatel unit and scheduled for 2000 cfm of supply airflow. Supply airflow for this unit was measured at its terminal devices utilizing both a 2X2 and a linear flow hood. A velocity grid was used when necessary. The sum of these readings is equal to the total flow for the RTU. The total flow of the 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 or cable dampers. Any equipment that fell outside of this tolerance is noted throughout the report. The outside airflow for the RTU was measured by calculating the free area of the OA intake and utilizing a velocity grid. The OA damper was set to the appropriate position. The return airflow for this unit was measured with a flow hood and adjusted to within tolerance by utilizing provided dampers. Total return grille scheduled airflow does not account for outside airflow. The two return grilles in the open sales floor area were reduced to account for the outside airflow, leaving returns in enclosed rooms at scheduled airflow so as not to impact individual room pressure.

Ceiling Exhaust Fan

The restroom ceiling exhaust fan was measured using a flow hood. The fan was not wired at the time of TAB, but a power cord was run to the fan and it was powered for testing. The fan is single speed and was measured within tolerance.

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Project: Gorjana (Madison, WI)

System/Unit: AHU/RTU

Asset: EX-RTU-1 AREA:

Unit Data		
	Design	**Actual**
MFG	NA	TRANE
Serial Num	-	241510225L
Model Num	NA	YHC060E4R
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	37.5X24
Num PreFilter 1	-	4
PreFilter Size 1	-	16X25X2

Test Data		
	Design	**Actual**
SF CFM	2000	2021
SF RPM	-	1743
RA CFM	1670	1668
OA CFM	330	353
RL Voltage	-	476/476/478
RL Amperage	-	1.4/1.4/1.5
OA Damper Position	-	2.97 V
Brake Horse Power	-	0.895

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	-	1.0
Motor Rpm	-	1725
Phase	-	3
Rated Voltage	-	460
Rated Amperage	-	1.6
Service Factor	-	1.5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.55"
Fan Suction SP	-	-0.84"
Fan Discharge SP	-	0.49"
Total ESP	-	1.04"
Fan Total SP	-	1.33"
Cooling Coil P.D.	-	0.29"

Drive Data	
	Actual
Motor Sheave Size	1VL34
Motor Bore Size	5/8"
Motor Sheave SetPt	0 TURNS 0PEN
Fan Sheave Size	AK49
Fan Sheave Bore	3/4"
Belt CL Distance	9.5"
Num of Belts	1
Belt Size	AX29

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Notes:
[1] REDUCED RETURNS IN OPEN AREA (R-1-2 AND R-1-4) TO ACCOUNT FOR OUTSIDE AIR.

Written By: Michael McDonnell on 07/23/2025

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Project:Gorjana (Madison, WI)

AHU/RTU

Diffuser Supply (GRD)

EX-RTU-1/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
SGRD1	RESTROOM	CD-1	6"	50	114	54	108.0
SGRD2	BACK ROOM	CD-1	8"	125	154	120	96.0
SGRD3	OFFICE	CD-1	8"	150	107	160	106.7
SGRD4	BACK ROOM	CD-1	8"	125	125	124	99.2
SGRD5	SALES	LD-1	8"	140	114	134	95.7
SGRD6	SALES	LD-1	8"	140	165	148	105.7
SGRD7	SALES	LD-1	8"	140	117	141	100.7
SGRD8	SALES	LD-1	8"	140	127	138	98.6
SGRD9	SALES	LD-1	8'	140	119	140	100.0
SGRD10	SALES	LD-1	8"	140	101	154	110.0
SGRD11	SALES	LD-1	8"	140	110	150	107.1
SGRD12	SALES	LD-1	8"	140	114	132	94.3
SGRD13	SALES	LD-1	8"	140	104	135	96.4
SGRD14	SALES	LD-1	8"	140	94	131	93.6
SGRD15	ENTRY	LD-1	8"	150	101	160	106.7
Total				2000	1766	2021	101.05%

Diffuser Ret/Exh (GRD)

EX-RTU-1/

Asset								
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**FINAL CFM**	**% to design**
EGRD1	OFFICE	RR-1	18X18	150	1.0	188	152	101.3
EGRD2	SALES	RR-2	10X10	635	1.0	625	632	99.5
EGRD3	BACK ROOM	RR-1	18X18	250	1.0	203	242	96.8
EGRD4	SALES	RR-2	10X10	635	1.0	476	642	101.1
Total				1670		1492	1668	99.88%

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System/Unit: FAN - Exhaust

Asset: EF-2 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	NA	LOREN COOK
Model Num	NA	GEMINI VF 100
Serial Num	-	615771
Type	CEILING	CEILING

Test Data		
	Design	**Actual**
CFM	70	64
System SetPt	-	SINGLE SPEED
RL Voltage	-	119
RL Amperage	-	0.12

Motor Data		
	Design	**Actual**
Motor MFG	-	MCMILLAN
Frame	-	NOT LISTED
Horsepower	-	7W
Motor Rpm	-	350-1100
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.26

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