



Quality People. Building Solutions.

Comfort Systems USA (Arkansas), Inc.
P.O. Box 16620
Little Rock, AR 72231
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Date: 3/15/2023

Return Request: 3/25/2023

Project: Johnson Regional Medical Center (OBGYN)

Supplier: Airetech

Submittal: Testing, Adjusting, & Balancing

Submittal Number:

Drawing # and Installation: Mechanical Drawings

ARCHITECT

Studio Architects
1120 Garrison Avenue, Suite 1A
Fort Smith, AR 72901
479-782-4085

ENGINEER

HSA
7405 Ellis Street
Fort Smith, AR 72916
479-452-8922

GENERAL CONTRACTOR

Clark Contractors
15825 Cantrell Rd.
Little Rock, AR 72223
501-868-3133

MECHANICAL SUBCONTRACTOR

Comfort Systems USA (Arkansas), Inc.
9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

Notes:

--

CSUSA PROJECT NO.

23-1005

jon@comfortar.com



TO: Studio 6 Architects
chip@gostudio6.com

ATTN: Chip Johnson

RE: Johnson Regional OB-GYN Clinic
HVAC

DATE: 03/27/2023 JOB NO. 22-056

ELECTRONIC SUBMITTAL WAS REVIEWED AS FOLLOWS:

☒ CUT SHEETS	☐ NO EXCEPTIONS TAKEN	☒ APPROVED
☐ DRAWINGS	☒ NOTE MARKINGS	☐ REJECTED
☐ OTHER	☐ COMMENTS ATTACHED	☐ RESUBMIT
		☐ RESUBMIT only items marked

REMARKS:

Submittal - 23-1.0 HVAC- For Approval

ENGINEER'S REVIEW IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND CONTRACT DOCUMENT. MARKINGS OR COMMENTS SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR FROM COMPLIANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, NOR DEPARTURE THEREFROM. THE CONTRACTOR REMAINS RESPONSIBLE FOR DETAILS AND ACCURACY, FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FOR SELECTING FABRICATION PROCESSES, FOR TECHNIQUES OF ASSEMBLY AND PERFORMING HIS WORK IN A SAFE MANNER.

Copies To:

☒ File	
☐ Owner	
☒ Architect	
☐ Other	BY: Noah Sorrell

HSA Engineering Consulting Services, Inc.

7405 Ellis Street
Fort Smith, AR 72916

479.452.8922
www.hsaconsultants.com

SUBMITTAL



SUBMITTAL COMMENT SHEET

PROJECT

Johnson Regional Medical Center OB-GYN Clinic

SUBMITTAL

Spec: 23

Title: HVAC



☐ APPROVED

☐ APPROVED AS NOTED

☐ REVISE & RESUBMIT

☒ REVIEWED

☐ REJECTED

THIS SUBMITTAL HAS BEEN REVIEWED FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. APPROVAL DOES NOT RELIEVE THE SUBCONTRACTOR/SUPPLIER OF THE RESPONSIBILITY FOR CONFORMANCE TO THE QUALITY STANDARDS AS SET FORTH IN THE CONTRACT DOCUMENTS. NOR DOES IT RELIEVE THE RESPONSIBILITY FOR FIELD VERIFICATION OF ALL CONDITIONS RELATING TO THIS CONTRACT.

OK'D BY: LC DATE: 3/16/2023



CERTIFIED TEST, ADJUST, AND BALANCE REPORT

DATE

8/3/2023

PROJECT

JRMC OB/GYN CLINIC

ARCHITECT

STUDIO ARCHITECTS
1120 GARRISON AVENUE SUITE 1A
FORT SMITH, AR 72901
(479)782-4085

ENGINEER

HAS ENGINEERING
7405 ELLIS STREET
FORT SMITH, AR 72916
(479)452-8922

HVAC CONTRACTOR

COMFORT SYSTEMS USA
9924 LANDERS ROAD
NLR, AR 72117
(501)834-3320

NEBB TAB FIRM

AIRETECH CORPORATION
7631 Northshore Place
North Little Rock, Arkansas 72118

Certification Number: 2847

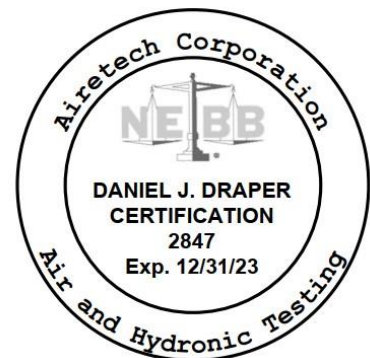


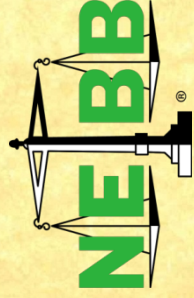
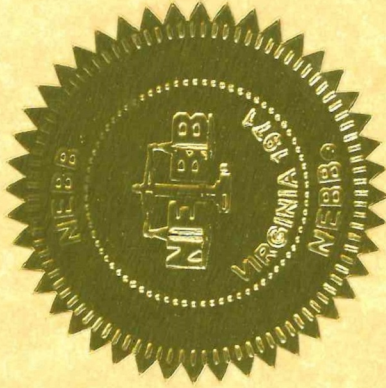
PROJECT: JRMC OB/GYN CLINIC

THE DATA PRESENTED IN THIS REPORT IS A RECORD OF SYSTEM MEASUREMENTS & FINAL ADJUSTMENTS THAT HAVE BEEN OBTAINED IN ACCORDANCE WITH THE CURRENT ADDITION OF THE NEBB PROCEDURAL STANDARD FOR TESTING, ADJUSTING & BALANCING OF ENVIRONMENTAL SYSTEMS. THE MEASUREMENTS SHOWN, & THE INFORMATION GIVEN, IN THIS REPORT ARE CERTIFIED TO BE ACCURATE & COMPLETE, AT THE TIME & DATE INFORMATION WAS GATHERED. ANY VARIANCES FROM DESIGN QUANTITIES, WHICH EXCEED NEBB TOLERANCES, ARE NOTED IN THE TAB REPORT PROJECT SUMMARY.

SUBMITTED & CERTIFIED BY:
NEBB TAB FIRM: AIRETECH CORPORATION
REGISTRATION NUMBER: 2847
CERTIFIED BY (TAB SUPERVISOR): DANIEL J DRAPER
CERTIFICATION EXPIRATION DATE: 12/31/2023
SIGNATURE:

A handwritten signature in black ink that reads 'Daniel J. Draper'.





Firm Certification

AIRETECH CORPORATION

**HAS MET ALL REQUIREMENTS FOR NEBB CERTIFIED
STATUS IN THE FOLLOWING DISCIPLINE**

Testing, Adjusting and Balancing of Environmental Systems

2847

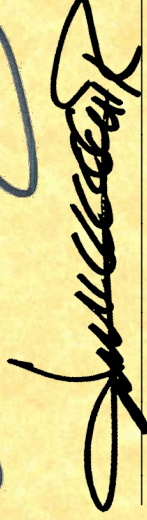
NEBB Certification Number

December 31, 2023

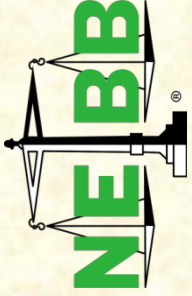
Expiration Date



NEBB President



NEBB President-Elect



Certification

DANIEL J. DRAPER

**HAS MET ALL REQUIREMENTS FOR NEBB CERTIFIED PROFESSIONAL
STATUS IN THE FOLLOWING DISCIPLINE**

Testing, Adjusting and Balancing of Environmental Systems

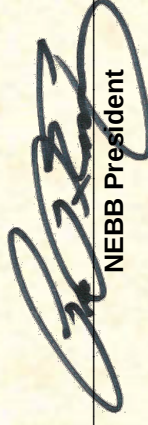
This Certificate, as well as individual affiliation with a NEBB Certified Firm and associated NEBB Certification Stamp
are REQUIRED to provide a NEBB Certified Report. Participation in the NEBB Quality Assurance Program
requires the Certificant be affiliated with a NEBB Certified Firm

CP-23442

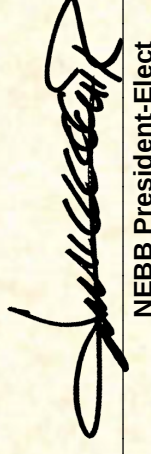
NEBB Certification Number

December 31, 2023

Expiration Date



NEBB President



NEBB President-Elect



7631 Northshore Place
 North Little Rock, AR 72118
 Phone: 501-280-0404
 Fax: 501-280-9200

Instrument Calibration List

	Function	Range	Accuracy	Make	Model #	Serial #	Calibration Date
AIR	Air Pressure Measurement	0 to 10.00 in.w.g.	± 2% of reading	Evergreen	S-PVF-1	2200600A	12/14/2022
	Air Velocity Measurement	100 to 3500 fpm	± 5% of reading	Evergreen	S-PVF-1	2200600A	12/14/2022
	Direct Reading Hood	25 to 2000 cfm	± 5% of reading, ± 7 cfm	Evergreen	S-PVF-1	2200600A	12/14/2022
TEMPERATURE	Air Meter with Probe	0 to 200 °F	± 0.5% of reading	Cooper	SRH77A-E	10709022	10/26/2022
	Immersion Meter with probe	0 to 200 °F	± 0.5% of reading	Cooper	SRH77A-E	10709022	10/26/2022
HUMIDITY	Humidity Measurement	10 to 90% RH	± 3% RH	Evergreen	S-H-3-5	2000197	12/21/2022
ELECTRICAL	Volts AC	0 to 600 VAC	± 2% of reading	Fluke	323	34730682WS	10/27/2022
	Amperes	0.1 to 100 Amps	± 2% of reading	Fluke	323	34730682WS	10/27/2022
ROTATION	Rotation Measurement	60 to 5000rpm	± 2% of reading	Extech	461995	Q083294	10/26/2022
HYDRONIC	Hydronic Pressure Measurement	0.4 to 200 PSI	± 2% of reading	Dwyer	490W-6	01L6RK	3/6/2023
	Hydronic Differential Pressure	0.4 to 75 PSI	± 2% of reading	Dwyer	490W-6	01L6RK	3/6/2023

(N.E.B.B. # 2847)



ABBREVIATIONS

<u>SYMBOL</u>	<u>DESCRIPTION</u>	<u>SYMBOL</u>	<u>DESCRIPTION</u>
A	AMPS	HP	HEAT PUMP
AHU	AIR HANDLING UNIT	HW	HEATING WATER
BCU	BLOWER COIL UNIT	KEF	KITCHEN EXHAUST FAN
BTU	BRITISH THERMAL UNIT	LAT	LEAVING AIR TEMPERATURE
CD	CEILING DIFFUSER	LWT	LEAVING WATER TEMPERATURE
CFM	CUBIC FEET PER MINUTE	M/N	MODEL NUMBER
CH	CHILLER	MAT	MIXED AIR TEMPERATURE
CHW	CHILLED WATER	MAU	MAKE UP AIR UNIT
CW	CONDENSER WATER	NA	NOT APPLICABLE
COMP	COMPRESSOR	NL	NOT LISTED
COND	CONDENSER	NLA	NO LOAD AMPS
CRAC	COMPUTER ROOM AIR CONDITIONING	OAT	OUTSIDE AIR TEMPERATURE
CW	CHILL WATER	OAU	OUTSIDE AIR UNIT
DALT	DUCT AIR LEAKAGE TEST	OED	OPEN ENDED DUCT
DB	DRY BULB	PH	PRE-HEAT
DP	DIFFERENTIAL PRESSURE	RG	RETURN GRILLE
DP	DISCHARGE PRESSURE	RH	RE-HEAT
EAT	ENTERING AIR TEMPERATURE	RLA	RUN LOAD AMPS
EF	EXHAUST FAN	RTU	ROOF TOP UNIT
EG	EXHAUST GRILLE	S/N	SERIAL NUMBER
ERU	ENERGY RECOVERY UNIT	SF	SUPPLY FAN
ERV	ENERGY RECOVERY VENTILATOR	SG	SIDEWALL GRILLE
ESP	EXTERNAL STATIC PRESSURE	SP	SUCTION PRESSURE
EVAP	EVAPORATOR	TSP	TOTAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE	V	VOLTS
FCU	FAN COIL UNIT	VAV	VARIABLE AIR VOLUME
FP	FAN POWERED	VRF	VARIABLE REFRIGERANT
FPM	FEET PER MINUTE	WB	WET BULB
GPM	GALLONS PER MINUTE		



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LOCATION: Clarksville, AR
PROJECT #: 71838

DATE: 8/3/2023
CONTACT: Elizabeth Amador
AUTHOR:

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REPORT SUMMARY

Test, adjust, and balance work was performed at this project at Johnson Regional Medical Center OB-GYN Clinic in Clarksville, Arkansas. There are four furnace units and two exhaust fans.

FURNACE UNITS

The supply grille airflows were measured with a direct reading flowhood, totaled, fan speeds adjusted as necessary, and grilles proportionally balanced. The outside air flow was measured and adjusted, the return grille airflows were measured and proportionally balanced. Unit operating data was measured and recorded.

EXHAUST FANS

The exhaust grille airflows were measured with a direct reading flowhood, totaled, fan speeds adjusted as necessary, and grilles proportionally balanced. Fan operating data was measured and recorded.



Fan Coil

PROJECT: Johnson Regional Medical Center - OB-GYN Clinic
LOCATION: Clarksville, AR
PROJECT #: 71838

DATE: 8/3/2023
CONTACT: Elizabeth Amador
AUTHOR:

SYSTEM/UNIT: F-01

Tested By: Patrick McBride
Date: 8/1/2023

Unit Data	
Unit Manufacturer	Daikin
Unit Model Number	DM96SN0804CNAA
Unit Serial Number	22094151891
Filter Type	Pleated
Filter Qty - S1	1
Filter Size - S1	24x24x2

Test Data	
Cool Ent Air DB Temp Actual	70.0 Deg F
Cool Ent Air WB Temp Actual	60.0 Deg F
Cool Leav Air DB Temp Actual	54.0 Deg F
Cool Leav Air WB Temp Actual	52.0 Deg F
Heat Ent Air Temp Actual	69.0 Deg F
Heat Leav Air Temp Actual	104.0 Deg F
Heating Air Delta T	35.0 Deg F

Electrical Test Data	
Motor Volts T1-T2	121 Volts
Motor Amps T1	10.10 Amps

Motor Data	
Motor HP	0.75 HP
Motor Rated Volts	115 Volts
Motor Phase	1
Motor Hertz	60 Hz
Motor FL Amps	14.1 Amps
Motor Type	Direct Drive
Direct Drive Speed	F05

Air Test Data	
Design Airflow	1200 CFM
Actual Airflow	1146 CFM
Design OSA	200 CFM
Actual OSA	211 CFM
Design Rtn Airflow	1000 CFM
Actual Rtn Airflow	935 CFM

F-01 Supply Outlet Summary

System/Unit	Area Served	Outlet Type	Size LxW / D	Design Airflow	Prelim Airflow	% Prelim Diff.	Final Airflow	% Final Diff.	Instrument
Outlet-01	TOILET	A	6	50	78	156.0	48	96.0	Evergreen
Outlet-02	WAITING	B	8	200	165	82.5	189	94.5	Evergreen
Outlet-03	WAITING	B	8	200	138	69.0	193	96.5	Evergreen
Outlet-04	WAITING	B	8	200	159	79.5	189	94.5	Evergreen
Outlet-05	WAITING	B	8	200	253	126.5	190	95.0	Evergreen
Outlet-06	WAITING	B	8	150	171	114.0	154	102.7	Evergreen
Outlet-07	RECEPTION	B	8	200	123	61.5	183	91.5	Evergreen
Totals:		-	-	1200	1087	90.6	1146	95.5	-

F-01 Return Inlet Summary

System/Unit	Area Served	Inlet Type	Size LxW / D	Design Airflow	Prelim Airflow	% Prelim Diff.	Final Airflow	% Final Diff.	Instrument
Inlet-01	WAITING	C	22/22	1000	661	66.1	935	93.5	Evergreen
Totals:		-	-	1000	661	66.1	935	93.5	-



Fan Coil

PROJECT: Johnson Regional Medical Center - OB-GYN Clinic
LOCATION: Clarksville, AR
PROJECT #: 71838

DATE: 8/3/2023
CONTACT: Elizabeth Amador
AUTHOR:

SYSTEM/UNIT: F-02

Tested By: Patrick McBride
 Date: 8/1/2023

Unit Data	
Unit Manufacturer	Daikin
Unit Model Number	DM96SN005CNA
Unit Serial Number	2210253886
Filter Type	Pleated
Filter Qty - S1	1
Filter Size - S1	24x24x2

Test Data	
Cool Ent Air DB Temp Actual	69.0 Deg F
Cool Ent Air WB Temp Actual	60.0 Deg F
Cool Leav Air DB Temp Actual	53.0 Deg F
Cool Leav Air WB Temp Actual	52.0 Deg F
Heat Ent Air Temp Actual	68.0 Deg F
Heat Leav Air Temp Actual	103.0 Deg F
Heating Air Delta T	35.0 Deg F

Electrical Test Data	
Motor Volts T1-T2	121 Volts
Motor Amps T1	12.20 Amps

Motor Data	
Motor Rated Volts	115 Volts
Motor Phase	1
Motor Hertz	60 Hz
Motor FL Amps	16.9 Amps
Motor Type	Direct Drive
Direct Drive Speed	F05

Air Test Data	
Design Airflow	1500 CFM
Actual Airflow	1456 CFM
Design OSA	200 CFM
Actual OSA	213 CFM
Design Rtn Airflow	1200 CFM
Actual Rtn Airflow	1243 CFM

F-02 Supply Outlet Summary

System/Unit	Area Served	Outlet Type	Size LxW / D	Design Airflow	Prelim Airflow	% Prelim Diff.	Final Airflow	% Final Diff.	Instrument
Outlet-01	CORRIDOR	B	8	150	174	116.0	153	102.0	Evergreen
Outlet-02	LAB	B	8	200	112	56.0	187	93.5	Evergreen
Outlet-03	TOILET	A	6	50	50	100.0	53	106.0	Evergreen
Outlet-04	CORRIDOR	B	8	150	171	114.0	146	97.3	Evergreen
Outlet-05	NURSE STATION	B	8	150	133	88.7	149	99.3	Evergreen
Outlet-06	NURSE STATION	B	8	200	128	64.0	184	92.0	Evergreen
Outlet-07	CORRIDOR	B	8	150	176	117.3	142	94.7	Evergreen
Outlet-08	NURSE STATION	B	8	200	136	68.0	191	95.5	Evergreen
Outlet-09	CORRIDOR	B	8	150	193	128.7	153	102.0	Evergreen
Outlet-10	TOILET	A	6	50	71	142.0	47	94.0	Evergreen
Outlet-11	TOILET	A	6	50	49	98.0	51	102.0	Evergreen
Totals:		-	-	1500	1393	92.9	1456	97.1	-

F-02 Return Inlet Summary

System/Unit	Area Served	Inlet Type	Size LxW / D	Design Airflow	Prelim Airflow	% Prelim Diff.	Final Airflow	% Final Diff.	Instrument
Inlet-01	NURSE STATION	C	14	450	292	64.9	457	101.6	Evergreen
Inlet-02	NURSE STATION	C	14	450	369	82.0	463	102.9	Evergreen
Inlet-03	CORRIDOR	C	10	300	267	89.0	323	107.7	Evergreen
Totals:		-	-	1200	928	77.3	1243	103.6	-



Fan Coil

PROJECT: Johnson Regional Medical Center - OB-GYN Clinic
LOCATION: Clarksville, AR
PROJECT #: 71838

DATE: 8/3/2023
CONTACT: Elizabeth Amador
AUTHOR:

SYSTEM/UNIT: F-03

Tested By: Patrick McBride
Date: 8/1/2023

Unit Data	
Unit Manufacturer	Daikin
Unit Model Number	DM96SN005CNAA
Unit Serial Number	2210253878
Filter Type	Pleated
Filter Qty - S1	1
Filter Size - S1	24x24x2

Test Data	
Cool Ent Air DB Temp Actual	68.0 Deg F
Cool Ent Air WB Temp Actual	60.0 Deg F
Cool Leav Air DB Temp Actual	53.0 Deg F
Cool Leav Air WB Temp Actual	52.0 Deg F
Heat Ent Air Temp Actual	68.0 Deg F
Heat Leav Air Temp Actual	104.0 Deg F
Heating Air Delta T	36.0 Deg F

Electrical Test Data	
Motor Volts T1-T2	121 Volts
Motor Amps T1	13.10 Amps

Motor Data	
Motor Rated Volts	115 Volts
Motor Phase	1
Motor Hertz	60 Hz
Motor FL Amps	16.9 Amps
Motor Type	Direct Drive
Direct Drive Speed	F09

Air Test Data	
Design Airflow	1800 CFM
Actual Airflow	1750 CFM
Design OSA	250 CFM
Actual OSA	242 CFM
Design Rtn Airflow	1550 CFM
Actual Rtn Airflow	1508 CFM

F-03 Supply Outlet Summary

System/Unit	Area Served	Outlet Type	Size LxW / D	Design Airflow	Prelim Airflow	% Prelim Diff.	Final Airflow	% Final Diff.	Instrument
Outlet-01	ULTRASOUND	B	8	200	138	69.0	187	93.5	Evergreen
Outlet-02	TOILET	A	6	50	54	108.0	53	106.0	Evergreen
Outlet-03	CORRIDOR	B	8	150	107	71.3	139	92.7	Evergreen
Outlet-04	ULTRASOUND	B	8	150	90	60.0	138	92.0	Evergreen
Outlet-05	EXAM	B	8	150	111	74.0	143	95.3	Evergreen
Outlet-06	EXAM	B	8	150	159	106.0	157	104.7	Evergreen
Outlet-07	EXAM	B	8	150	124	82.7	152	101.3	Evergreen
Outlet-08	CORRIDOR	B	8	150	114	76.0	138	92.0	Evergreen
Outlet-09		A	6	50	64	128.0	53	106.0	Evergreen
Outlet-10	OFFICE	B	8	125	141	112.8	123	98.4	Evergreen
Outlet-11	BREAK ROOM	B	8	150	107	71.3	144	96.0	Evergreen
Outlet-12	BREAK ROOM	B	8	150	123	82.0	139	92.7	Evergreen
Outlet-13	STAFF TOILET	A	6	50	35	70.0	53	106.0	Evergreen
Outlet-14	OFFICE	B	8	125	192	153.6	131	104.8	Evergreen
Totals:		-	-	1800	1559	86.6	1750	97.2	-



Fan Coil

PROJECT: Johnson Regional Medical Center - OB-GYN Clinic
LOCATION: Clarksville, AR
PROJECT #: 71838

DATE: 8/3/2023
CONTACT: Elizabeth Amador
AUTHOR:

F-03 Return Inlet Summary

System/Unit	Area Served	Inlet Type	Size LxW / D	Design Airflow	Prelim Airflow	% Prelim Diff.	Final Airflow	% Final Diff.	Instrument
Inlet-01	ULTRASOUND	C	8	200	99	49.5	186	93.0	Evergreen
Inlet-02	EXAM	C	8	200	317	158.5	198	99.0	Evergreen
Inlet-03	ULTRASOUND	C	8	200	108	54.0	187	93.5	Evergreen
Inlet-04	EXAM	C	8	200	136	68.0	193	96.5	Evergreen
Inlet-05	EXAM	C	8	200	113	56.5	184	92.0	Evergreen
Inlet-06	OFFICE	C	8	150	201	134.0	147	98.0	Evergreen
Inlet-07	OFFICE	C	8	200	223	111.5	202	101.0	Evergreen
Inlet-08	BREAK ROOM	C	8	200	161	80.5	211	105.5	Evergreen
Totals:		-	-	1550	1358	87.6	1508	97.3	-



Fan Coil

PROJECT: Johnson Regional Medical Center - OB-GYN Clinic
LOCATION: Clarksville, AR
PROJECT #: 71838

DATE: 8/3/2023
CONTACT: Elizabeth Amador
AUTHOR:

SYSTEM/UNIT: F-04

Tested By: Patrick McBride
 Date: 7/31/2023

Unit Data	
Unit Manufacturer	Daikin
Unit Model Number	DM96SN005CNAA
Unit Serial Number	2210253884
Filter Type	Pleated
Filter Qty - S1	1
Filter Size - S1	24x24x2

Test Data	
Cool Ent Air DB Temp Actual	70.0 Deg F
Cool Ent Air WB Temp Actual	60.0 Deg F
Cool Leav Air DB Temp Actual	55.0 Deg F
Cool Leav Air WB Temp Actual	54.0 Deg F
Heat Ent Air Temp Actual	68.0 Deg F
Heat Leav Air Temp Actual	105.0 Deg F
Heating Air Delta T	37.0 Deg F

Electrical Test Data	
Motor Volts T1-T2	121 Volts
Motor Amps T1	13.20 Amps

Motor Data	
Motor Rated Volts	115 Volts
Motor Phase	1
Motor Hertz	60 Hz
Motor FL Amps	16.9 Amps
Motor Type	Direct Drive
Direct Drive Speed	F09

Air Test Data	
Design Airflow	1800 CFM
Actual Airflow	1892 CFM
Design OSA	250 CFM
Actual OSA	255 CFM
Design Rtn Airflow	1550 CFM
Actual Rtn Airflow	1543 CFM

F-04 Supply Outlet Summary

System/Unit	Area Served	Outlet Type	Size LxW / D	Design Airflow	Prelim Airflow	% Prelim Diff.	Final Airflow	% Final Diff.	Instrument
Outlet-01	NST/PROCEDURE	B	8	150	126	84.0	147	98.0	Evergreen
Outlet-02	NST/PROCEDURE	B	8	150	176	117.3	149	99.3	Evergreen
Outlet-03	EXAM	B	8	150	138	92.0	142	94.7	Evergreen
Outlet-04	EXAM	B	8	150	135	90.0	149	99.3	Evergreen
Outlet-05	EXAM	B	8	150	197	131.3	139	92.7	Evergreen
Outlet-06	EXAM	B	8	150	197	131.3	156	104.0	Evergreen
Outlet-07	EXAM	B	8	150	181	120.7	152	101.3	Evergreen
Outlet-08	EXAM	B	8	150	136	90.7	157	104.7	Evergreen
Outlet-09	EXAM	B	8	150	198	132.0	148	98.7	Evergreen
Outlet-10	EXAM	B	8	150	174	116.0	149	99.3	Evergreen
Outlet-11	CORRIDOR	B	8	125	42	33.6	131	104.8	Evergreen
Outlet-12	FLEX	B	8	175	192	109.7	179	102.3	Evergreen
	Totals:	-	-	1800	1892	105.1	1798	99.9	-



Fan Coil

PROJECT: Johnson Regional Medical Center - OB-GYN Clinic
LOCATION: Clarksville, AR
PROJECT #: 71838

DATE: 8/3/2023
CONTACT: Elizabeth Amador
AUTHOR:

F-04 Return Inlet Summary

System/Unit	Area Served	Inlet Type	Size LxW / D	Design Airflow	Prelim Airflow	% Prelim Diff.	Final Airflow	% Final Diff.	Instrument
Inlet-01	NST/PROCEDURE	C	8	155	80	51.6	146	94.2	Evergreen
Inlet-02	EXAM	C	8	155	73	47.1	162	104.5	Evergreen
Inlet-03	EXAM	C	8	155	75	48.4	153	98.7	Evergreen
Inlet-04	EXAM	C	8	155	105	67.7	158	101.9	Evergreen
Inlet-05	EXAM	C	8	155	143	92.3	157	101.3	Evergreen
Inlet-06	EXAM	C	8	155	133	85.8	151	97.4	Evergreen
Inlet-07	EXAM	C	8	155	127	81.9	155	100.0	Evergreen
Inlet-08	EXAM	C	8	155	156	100.6	142	91.6	Evergreen
Inlet-09	EXAM	C	8	155	20	12.9	161	103.9	Evergreen
Inlet-10	FLEX	C	8	155	143	92.3	158	101.9	Evergreen
Totals:		-	-	1550	1055	68.1	1543	99.5	-



Fan Unit

PROJECT: Johnson Regional Medical Center - OB-GYN Clinic
LOCATION: Clarksville, AR
PROJECT #: 71838

DATE: 8/3/2023
CONTACT: Elizabeth Amador
AUTHOR:

SYSTEM/UNIT: EF-01

Tested By: Patrick McBride
Date: 7/31/2023

Unit Data	
Fan Manufacturer	Greenheck
Fan Model Number	CSP-A700

Test Data	
Design Airflow	375 CFM
Actual Airflow	365 CFM
Motor Volts T1-T2	121 Volts
Motor Amps T1	2.6 Amps

Motor Data	
Motor RPM	807 RPM
Motor Rated Volts	115 Volts
Motor Phase	1
Motor Hertz	60 Hz
Motor FL Amps	3.3 Amps
Corrected FL Amps	3.14 Amps
Motor Type	Direct Drive
Direct Drive Speed	High RPM

EF-01 Exhaust Inlet Summary

System/Unit	Area Served	Inlet Type	Size LxW / D	Design Airflow	Prelim Airflow	% Prelim Diff.	Final Airflow	% Final Diff.	Instrument
Inlet-01	TOILET	D	6	75	20	26.7	69	92.0	Evergreen
Inlet-02	TOILET	D	6	75	60	80.0	77	102.7	Evergreen
Inlet-03	LAB	D	10	225	213	94.7	219	97.3	Evergreen
Totals:		-	-	375	293	78.1	365	97.3	-

SYSTEM/UNIT: EF-02

Tested By: Patrick McBride
Date: 8/1/2023

Unit Data	
Fan Manufacturer	Greenheck
Fan Model Number	CSP-A700

Test Data	
Design Airflow	375 CFM
Actual Airflow	381 CFM
Motor Volts T1-T2	121 Volts
Motor Amps T1	2.4 Amps

Motor Data	
Motor RPM	807 RPM
Motor Rated Volts	115 Volts
Motor Phase	1
Motor Hertz	60 Hz
Motor FL Amps	3.3 Amps
Corrected FL Amps	3.14 Amps
Motor Type	Direct Drive
Direct Drive Speed	Low RPM

EF-02 Exhaust Inlet Summary

System/Unit	Area Served	Inlet Type	Size LxW / D	Design Airflow	Prelim Airflow	% Prelim Diff.	Final Airflow	% Final Diff.	Instrument
Inlet-01	TOILET	D	6	75	55	73.3	70	93.3	Evergreen
Inlet-02	STAFF TOILET	D	6	75	81	108.0	78	104.0	Evergreen
Inlet-03	TOILET	D	6	75	143	190.7	73	97.3	Evergreen
Inlet-04	TOILET	D	6	75	123	164.0	81	108.0	Evergreen
Inlet-05		D	6	75	98	130.7	79	105.3	Evergreen
Totals:		-	-	375	500	133.3	381	101.6	-



Submittal

Job:	Johnson Regional Medical Center – OB-GYN Clinic
Location:	Clarksville, AR
Contractor:	Comfort Systems USA (AR)
Items submitted:	Air Balance

**Submitted by:
Elizabeth Amador
3/8/2023**



CERTIFIED TEST, ADJUST, AND BALANCE REPORT

DATE

PROJECT

ARCHITECT

ENGINEER

HVAC CONTRACTOR

NEBB TAB FIRM

Airetech Corporation
7631 Northshore Place
North Little Rock, Arkansas 72118

Certification Number: 2847



PROJECT:

THE DATA PRESENTED IN THIS REPORT IS A RECORD OF SYSTEM MEASUREMENTS & FINAL ADJUSTMENTS THAT HAVE BEEN OBTAINED IN ACCORDANCE WITH THE CURRENT ADDITION OF THE NEBB PROCEDURAL STANDARD FOR TESTING, ADJUSTING & BALANCING OF ENVIRONMENTAL SYSTEMS. THE MEASUREMENTS SHOWN, & THE INFORMATION GIVEN, IN THIS REPORT ARE CERTIFIED TO BE ACCURATE & COMPLETE, AT THE TIME & DATE INFORMATION WAS GATHERED. ANY VARIANCES FROM DESIGN QUANTITIES, WHICH EXCEED NEBB TOLERANCES, ARE NOTED IN THE TAB REPORT PROJECT SUMMARY.

SUBMITTED & CERTIFIED BY:

NEBB TAB FIRM: AIRETECH CORPORATION

REGISTRATION NUMBER: 2847

CERTIFIED BY (TAB SUPERVISOR): DANIEL J DRAPER

CERTIFICATION EXPIRATION DATE: 12/31/2023

SIGNATURE:

A handwritten signature in black ink that reads 'Daniel J. Draper'.





Firm Certification

AIRETECH CORPORATION

HAS MET ALL REQUIREMENTS FOR NEBB CERTIFIED
STATUS IN THE FOLLOWING DISCIPLINE

Testing, Adjusting and Balancing of Environmental Systems

2847

NEBB Certification Number

December 31, 2023

Expiration Date

NEBB President

NEBB President-Elect



Certification

DANIEL J. DRAPER

**HAS MET ALL REQUIREMENTS FOR NEBB CERTIFIED PROFESSIONAL
STATUS IN THE FOLLOWING DISCIPLINE**

Testing, Adjusting and Balancing of Environmental Systems

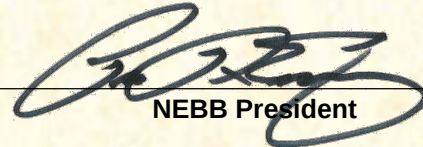
This Certificate, as well as individual affiliation with a NEBB Certified Firm and associated NEBB Certification Stamp are REQUIRED to provide a NEBB Certified Report. Participation in the NEBB Quality Assurance Program requires the Certificant be affiliated with a NEBB Certified Firm

CP-23442

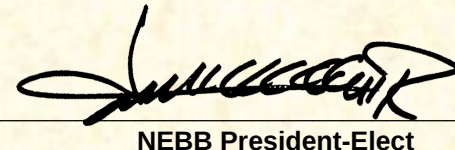
NEBB Certification Number

December 31, 2023

Expiration Date



NEBB President



NEBB President-Elect



7631 Northshore Place
 North Little Rock, AR 72118
 Phone: 501-280-0404
 Fax: 501-280-9200

Instrument Calibration List

	Function	Range	Accuracy	Make	Model #	Serial #	Calibration Date
AIR	Air Pressure Measurement	0 to 10.00 in.w.g.	± 2% of reading	Evergreen	S-PVF-1	2000126A	3/21/2022
	Air Velocity Measurement	100 to 3500 fpm	± 5% of reading	Evergreen	S-PVF-1	2000126A	3/21/2022
	Direct Reading Hood	25 to 2000 cfm	± 5% of reading, ± 7 cfm	Evergreen	S-PVF-1	2000126A	3/21/2022
TEMPERATURE	Air Meter with Probe	0 to 200 °F	± 0.5% of reading	Cooper	SRH77A-E	10709022	10/26/2022
	Immersion Meter with probe	0 to 200 °F	± 0.5% of reading	Cooper	SRH77A-E	10709022	10/26/2022
HUMIDITY	Humidity Measurement	10 to 90% RH	± 3% RH	Evergreen	S-H-3-5	2000197	3/21/2022
ELECTRICAL	Volts AC	0 to 600 VAC	± 2% of reading	Fluke	323	34730682WS	10/27/2022
	Amperes	0.1 to 100 Amps	± 2% of reading	Fluke	323	34730682WS	10/27/2022
ROTATION	Rotation Measurement	60 to 5000rpm	± 2% of reading	Extech	461995	Q083294	10/26/2022
HYDRONIC	Hydronic Pressure Measurement	0.4 to 200 PSI	± 2% of reading	Dwyer	490W-6	01L67L	4/13/2022
	Hydronic Differential Pressure	0.4 to 75 PSI	± 2% of reading	Dwyer	490W-6	01L67L	4/13/2022

(N.E.B.B. # 2847)



ABBREVIATIONS

<u>SYMBOL</u>	<u>DESCRIPTION</u>	<u>SYMBOL</u>	<u>DESCRIPTION</u>
A	AMPS	HP	HEAT PUMP
AHU	AIR HANDLING UNIT	HW	HOT WATER
BCU	BLOWER COIL UNIT	KEF	KITCHEN EXHAUST FAN
BTU	BRITISH THERMAL UNIT	LAT	LEAVING AIR TEMPERATURE
CD	CEILING DIFFUSER	LWT	LEAVING WATER TEMPERATURE
CFM	CUBIC FEET PER MINUTE	M/N	MODEL NUMBER
CH	CHILLER	MAT	MIXED AIR TEMPERATURE
COMP	COMPRESSOR	MAU	MAKE UP AIR UNIT
COND	CONDENSER	NA	NOT APPLICABLE
CRAC	COMPUTER ROOM AIR CONDITIONING	NL	NOT LISTED
CW	CHILL WATER	NLA	NO LOAD AMPS
DALT	DUCT AIR LEAKAGE TEST	OAT	OUTSIDE AIR TEMPERATURE
DB	DRY BULB	OAU	OUTSIDE AIR UNIT
DP	DIFFERENTIAL PRESSURE	PH	PRE-HEAT
DP	DISCHARGE PRESSURE	RG	RETURN GRILLE
EAT	ENTERING AIR TEMPERATURE	RH	RE-HEAT
EF	EXHAUST FAN	RLA	RUN LOAD AMPS
EG	EXHAUST GRILLE	RTU	ROOF TOP UNIT
ERU	ENERGY RECOVERY UNIT	S/N	SERIAL NUMBER
ERV	ENERGY RECOVERY VENTILATOR	SF	SUPPLY FAN
ESP	EXTERNAL STATIC PRESSURE	SG	SIDEWALL GRILLE
EVAP	EVAPORATOR	SP	SUCTION PRESSURE
EWT	ENTERING WATER TEMPERATURE	TSP	TOTAL STATIC PRESSURE
FCU	FAN COIL UNIT	V	VOLTS
FP	FAN POWERED	VAV	VARIABLE AIR VOLUME
FPM	FEET PER MINUTE	VRF	VARIABLE REFRIGERANT
GPM	GALLONS PER MINUTE	WB	WET BULB

AIRETECH CORPORATION

7631 NORTHSORE PLACE
NORTH LITTLE ROCK, AR 72218
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REPORT SUMMARY