

Report By:

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



Report: PRELIMINARY REPORT
Function: Test, Adjust, & Balance
Date: 05/01/2025
Completed By: National TAB

PROJECT
Ford's Garage (Avon, IN)

10416 E US HWY 36

Avon, IN 46123

Client

Lamb Mechanical Services
7061 Corporate Circle
Indianapolis, IN 46278

National TAB

Project: Ford's Garage (Avon, IN)

Table Of Contents

Section	Page #
AHU/RTU	3
FAN - Exhaust	13

National TAB

Project: Ford's Garage (Avon, IN)

System/Unit: AHU/RTU



Asset: RTU-1

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	1025P73158
Model Num	NA	48FEFM12B3M5A8
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	38"x21"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"x20"x2"

Motor Data		
	Design	Actual
Horsepower	3.0	5.0
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	12.6

Test Data		
	Design	Actual
SF CFM	4325	4164
RA CFM	-	3278
OA CFM	847	886
RL Voltage	208	214 / 214 / 214
RL Amperage	-	7.25 / 7.02 / 7.26
OA Damper Position	-	5VDC

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.71"
Fan Suction SP	-	-1.11"
Fan Discharge SP	-	0.95"
Total ESP	0.70	1.66"
Fan Total SP	-	2.06"

Completed By: Chase Wright on 05/01/2025

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Project: Ford's Garage (Avon, IN)

AHU/RTU



Diffuser Supply (GRD)

RTU-1/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	DINING	D		125	46	131	104.8
SGRD2	DINING	D		125	112	125	100.0
SGRD3	DINING	D		125	113	124	99.2
SGRD4	DINING	D		125	118	132	105.6
SGRD5	DINING	D		125	105	128	102.4
SGRD6	DINING	D		125	103	132	105.6
SGRD7	DINING	D		125	91	120	96.0
SGRD8	DINING	D		125	89	122	97.6
SGRD9	DINING	D		125	125	135	108.0
SGRD10	DINING	D		125	112	123	98.4
SGRD11		B	8	150	321	146	97.3
SGRD12	DINING	D		125			-
SGRD13	DINING	D		200			-
SGRD14	DINING	D		125	210	136	108.8
SGRD15	DINING	D		200	175	209	104.5
SGRD16	DINING	D		125	173	137	109.6
SGRD17	DINING	D		200	260	210	105.0
SGRD18	DINING	D		125	196	137	109.6
SGRD19	DINING	D		200	213	211	105.5
SGRD20	DINING	D		125	283	131	104.8
SGRD21	DINING	D		200	183	219	109.5
SGRD22	DINING	D		125	201	132	105.6
SGRD23	DINING	D		200	235	199	99.5
SGRD24	DINING	D		125	201	125	100.0
SGRD25	DINING	D		200	173	216	108.0
SGRD26	DINING	D		125	190	122	97.6
SGRD27	DINING	D		200	199	209	104.5
SGRD28	DINING	D		125	160	135	108.0
SGRD29	DINING	D		200	201	218	109.0
Total				4325	4588	4164	96.28%

Completed By: Chase Wright on 05/01/2025

Asset	Notes	Date	Written By
SGRD12	DIFFUSER 1-12 REMOVED FROM PLANS	05/01/2025	Gabe Merk
SGRD13	DIFFUSER 1-13 REMOVED FROM PLANS	05/01/2025	Gabe Merk

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Project: Ford's Garage (Avon, IN)
System/Unit: AHU/RTU



Asset: RTU-2

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	1922P82177
Model Num	NA	48TCED12A2A5
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	21"x34"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"x20"x2"

Test Data		
	Design	Actual
SF CFM	3990	3887
SF RPM	1890	847
RA CFM	-	3079
OA CFM	798	808
RL Voltage	208	211
RL Amperage	-	5.34 / 5.33 / 5.11
VFD Max SetPt	-	60HZ
OA Damper Position	-	4.5 VDC

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	3.0	NL
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	230
Rated Amperage	-	9.2
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.55"
Fan Suction SP	-	-0.81"
Fan Discharge SP	-	0.12"
Total ESP	0.70	0.67"
Fan Total SP	-	0.93"

Completed By: Chase Wright on 05/01/2025

National TAB

Project: Ford's Garage (Avon, IN)

AHU/RTU



Diffuser Supply (GRD)

RTU-2/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	KITCHEN	B	8	170	230	177	104.1
SGRD2	KITCHEN	C	10	250	268	268	107.2
SGRD3	KITCHEN	A	6	60	81	61	101.7
SGRD4	KITCHEN	C	10	250	123	257	102.8
SGRD5	KITCHEN	B	8	170	269	172	101.2
SGRD6	KITCHEN	B	8	170	241	170	100.0
SGRD7	KITCHEN	B	8	170	189	166	97.6
SGRD8	KITCHEN	B	8	200	199	209	104.5
SGRD9	KITCHEN	B	8	170	231	180	105.9
SGRD10	KITCHEN	B	8	170	122	167	98.2
SGRD11	KITCHEN	B	8	170	110	157	92.4
SGRD12	KITCHEN	B	8	170	131	180	105.9
SGRD13	KITCHEN	B	8	170	207	159	93.5
SGRD14	KITCHEN	B	8	170	xxx		-
SGRD15	KITCHEN	B	8	170	224	175	102.9
SGRD16	KITCHEN	B	8	170	183	180	105.9
SGRD17	KITCHEN	B	8	170	xxx		-
SGRD18	KITCHEN	B	8	170	201	178	104.7
SGRD19	KITCHEN	B	8	170	302	328	192.9
SGRD20	KITCHEN	B	8	170	141	167	98.2
SGRD21	KITCHEN	B	8	170	159	175	102.9
SGRD22	KITCHEN	B	8	170	239	176	103.5
SGRD23	KITCHEN	B	8	170	196	185	108.8
Total				3990	4046	3887	97.42%

Completed By: Chase Wright on 05/01/2025

Asset	Notes	Date	Written By
SGRD14	2-14 REMOVED FROM PLANS	05/01/2025	Gabe Merk
SGRD17	DIFFUSER 2-17 REMOVED FROM PLANS	05/01/2025	Gabe Merk

National TAB

Project: Ford's Garage (Avon, IN)
System/Unit: AHU/RTU



Asset: RTU-3

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	0925P72718
Model Num	NA	48FEEM09B2M5A8
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	21"x36"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"x20"x2"

Motor Data		
	Design	Actual
Horsepower	2.0	2.4
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	6.4

Test Data		
	Design	Actual
SF CFM	3075	3022
RA CFM	-	2392
OA CFM	615	630
RL Voltage	208	214 / 215 / 214
RL Amperage	-	3.53 / 3.03 / 3.10
OA Damper Position	-	4VDC

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.78"
Fan Suction SP	-	-0.58"
Fan Discharge SP	-	0.25"
Total ESP	0.70	1.03"
Fan Total SP	-	0.83"

Completed By: Chase Wright on 05/01/2025

Notes:
FAN SPEED SET POINT 7.0 DCV

Written By: Gabe Merk on 04/30/2025

National TAB

Project: Ford's Garage (Avon, IN)

AHU/RTU



Diffuser Supply (GRD)

RTU-3/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	BAR	D		125	2068	121	96.8
SGRD2	BAR	D		125		129	103.2
SGRD3	BAR	D		125		125	100.0
SGRD4	BAR	D		125		122	97.6
SGRD5	BAR	D		125		133	106.4
SGRD6	BAR	D		125		131	104.8
SGRD7	BAR	D		125		113	90.4
SGRD8	BAR	D		125		119	95.2
SGRD9	BAR	D		125		131	104.8
SGRD10	CASHIER	D		125		122	97.6
SGRD11	CASHIER	D		125		127	101.6
SGRD12	CASHIER	D		200		187	93.5
SGRD13	BAR	D		125		126	100.8
SGRD14	BAR	D		125		125	100.0
SGRD15	BAR	D		125	138	117	93.6
SGRD16	BAR	D		125	150	131	104.8
SGRD17	BAR	D		125	1326	124	99.2
SGRD18	BAR	D		125		121	96.8
SGRD19	BAR	D		125		119	95.2
SGRD20	ENTRY	D		125		126	100.8
SGRD21	ENTRY	D		200	218	195	97.5
SGRD22	ENTRY	D		300	322	278	92.7
Total				3075	4222	3022	98.28%

Completed By: Chase Wright on 05/01/2025

Asset	Notes	Date	Written By
SGRD1	CFM(1) COLUMN INDICATES TRAVERSE/KFACTOR AND HOOD READINGS	04/30/2025	Gabe Merk

National TAB

Project: Ford's Garage (Avon, IN)
System/Unit: AHU/RTU



Asset: RTU-4

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	0925C09098
Model Num	NA	48FEEM07B2M5A8
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	32"x16"
Num PreFilter 1	-	4
PreFilter Size 1	-	16"x16"x2"

Motor Data		
	Design	Actual
Horsepower	1.5	1.8
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	5.5

Test Data		
	Design	Actual
SF CFM	2360	2242
RA CFM	-	1741
OA CFM	472	501
RL Voltage	208	214 / 215 / 214
RL Amperage	-	1.83 / 1.5 / 1.9
OA Damper Position	-	5 VDC

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.27"
Fan Suction SP	-	-0.47"
Fan Discharge SP	-	0.32"
Total ESP	0.70	0.59"
Fan Total SP	-	0.79"

Completed By: Chase Wright on 05/01/2025

Notes:
FAN SPEED SET POINT 6.5 DCV

Written By: Gabe Merk on 04/30/2025

National TAB

Project: Ford's Garage (Avon, IN)

AHU/RTU



Diffuser Supply (GRD)

RTU-4/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	DINING	D		130	478	137	105.4
SGRD2	DINING	D		130	411	135	103.8
SGRD3	DINING	D		130			-
SGRD4	DINING	D		130	202	120	92.3
SGRD5	DINING	D		130	165	126	96.9
SGRD6	DINING	D		130	212	121	93.1
SGRD7	DINING	D		130	167	123	94.6
SGRD8	DINING	D		130	539	125	96.2
SGRD9	DINING	D		130	580	127	97.7
SGRD10	DINING	D		200	519	193	96.5
SGRD11	DINING	D		130	378	131	100.8
SGRD12	DINING	D		200	566	210	105.0
SGRD13	DINING	D		130	503	140	107.7
SGRD14	DINING	D		200	661	209	104.5
SGRD15	DINING	D		130	533	135	103.8
SGRD16	DINING	D		200	580	210	105.0
Total				2360	6494	2242	95%

Completed By: Chase Wright on 05/01/2025

Asset	Notes	Date	Written By
SGRD3	4-3 REMOVED FROM PLANS	05/01/2025	Gabe Merk

National TAB

Project: Ford's Garage (Avon, IN)
System/Unit: AHU/RTU



Asset: RTU-5

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	0925C09099
Model Num	NA	48FEEM07B2M5A8
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28"x16"
Num PreFilter 1	-	4
PreFilter Size 1	-	16"x16"x2"

Motor Data		
	Design	Actual
Horsepower	1.5	1.8
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	5.5

Test Data		
	Design	Actual
SF CFM	2350	2234
RA CFM	-	1747
OA CFM	470	487
RL Voltage	208	209/209/209
RL Amperage	-	3.4/3.2/3.3
OA Damper Position	-	4.8 VDC

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.52"
Fan Suction SP	-	-0.83"
Fan Discharge SP	-	0.65"
Total ESP	0.70	1.17"
Fan Total SP	-	1.48"

Completed By: Gabe Merk on 05/01/2025

Notes:
FAN SPEED SETPOINT 8.6DCV

Written By: Gabe Merk on 05/01/2025

National TAB

Project: Ford's Garage (Avon, IN)

AHU/RTU



Diffuser Supply (GRD)

RTU-5/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	DINING	D		130	188	142	109.2
SGRD2	DINING	D		130	161	138	106.2
SGRD3	DINING	D		130	190	123	94.6
SGRD4	DINING	D		130	148	139	106.9
SGRD5	DINING	D		130	185	132	101.5
SGRD6	DINING	D		130	147	131	100.8
SGRD7	DINING	D		130	182	126	96.9
SGRD8	DINING	D		130	181	137	105.4
SGRD9	DINING	D		130	162	142	109.2
SGRD10	DINING	D		130	125	129	99.2
SGRD11	DINING	D		130	201	119	91.5
SGRD12	DINING	D		130	145	130	100.0
SGRD13	DINING	D		130	153	134	103.1
SGRD14	DINING	D		130	141	142	109.2
SGRD15	DINING	D		130			-
SGRD16	RESTROOM	B	8	200	162	184	92.0
SGRD17	RESTROOM	B	8	200	51	186	93.0
Total				2350	2522	2234	95.06%

National TAB

Project: Ford's Garage (Avon, IN)

System/Unit: FAN - Exhaust



Asset: EF-1

AREA:

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	100C15DH 100 ACEH
Serial Num	-	179PL50062- 00/0000701
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	480	477
RL Voltage	120	123
RL Amperage	-	1.7
Discharge ESP	-	ATM
Total ESP	0.35	0.13"

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	48Y
Horsepower	-	1/8
Motor Rpm	1490	1600
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	1.7

Completed By: Gabe Merk on 05/01/2025

National TAB

Project: Ford's Garage (Avon, IN)

FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF-1/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	RESTROOM	F	10	240	1	298	256	260	108.3
EGRD2		F	8	130					-
EGRD3	RESTROOM	F	10	240	1	245	214	217	90.4
Total				610		543	470	477	78.2%

Asset	Notes	Date	Written By
EGRD2	EF1-2 REMOVED FROM PLANS	05/01/2025	Gabe Merk