

Report By:

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



**Report: TAB REPORT**  
**Function: Test, Adjust, & Balance**  
**Date: 07/12/2024**

**PROJECT**  
**07-08-24 FREDDY'S - FENTON, MO**

677 Gravois Bluffs Boulevard

FENTON, MO 63026

Client  
FREDDYS

# National TAB

Project: 07-08-24 FREDDY'S - FENTON, MO

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# National TAB

Project: 07-08-24 FREDDY'S - FENTON, MO

## System/Unit: AHU/RTU

Asset: DOAS1

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	6275392
Model Num	CASRTU3-I.250-18-15T	CASRTU3-I.250-18-15T
Type	DOAS	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1 BIRD SCREEN
OA Filter Size 1	-	25.5X45.75
Num Final Filter 1	-	4 METAL MESH
Final Filter Size 1	-	16X25X2
Num Final Filter 2	-	8
Final Filter Size 2	-	20X25X2

Motor Data		
	Design	Actual
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	145T
Horsepower	2.00	2
Motor Rpm	-	1745
Phase	3	3
Rated Voltage	208	230/460
Rated Amperage	-	5.64/2.82

Test Data		
	Design	Actual
SF CFM	2250	
SF RPM	-	
RA CFM	0	
OA CFM	2250	
RL Voltage	-	
RL Amperage	-	
SF Rotation	-	
SF System SetPt	-	
RA Damper Position	-	
Min OA Damper Position	-	
Min OA Damper Type	-	
OA Enthalpy Setpt	-	

Performance Data		
	Design	Actual
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	0.500"	
Fan Total SP	-	

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

Notes:  
UNIT WOULD NOT RUN OVER 17HZ WHILE TECH WAS ON SITE. UNABLE TO BALANCE UNIT.

Written By: Jacob Davidson on 07/11/2024



# National TAB

Project:07-08-24 FREDDY'S - FENTON, MO

## AHU/RTU

**Diffuser Supply (GRD)**

**DOAS1/KITCHEN**

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
DOAS1-SGRD1	KITCHEN	SD-3	10"	250					-
DOAS1-SGRD2	KITCHEN	SD-2	10"	250					-
DOAS1-SGRD3	KITCHEN	SD-2	10"	200					-
DOAS1-SGRD4	KITCHEN	SD-2	10"	200					-
DOAS1-SGRD5	KITCHEN	SD-3	10"	250					-
DOAS1-SGRD6	KITCHEN	SD-2	10"	200					-
DOAS1-SGRD7	KITCHEN	SD-4	8"	150					-
DOAS1-SGRD8	COUNTER	SD-2	10"	250					-
DOAS1-SGRD9	COUNTER	SD-2	10"	250					-
DOAS1-SGRD10	KITCHEN	SD-2	10"	250					-
Total				2250		0	0	0	0%



# National TAB

Project: 07-08-24 FREDDY'S - FENTON, MO

## System/Unit: AHU/RTU

Asset: RTU1

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Serial Num	-	4112P73901
Model Num	48HCFE09	48FCEB08K2M5A3U3C0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1 METAL MESH
OA Filter Size 1	-	19.5X35
Num Final Filter 1	-	4
Final Filter Size 1	-	16X20X2

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

Test Data		
	Design	Actual
SF CFM	3000	3010
SF RPM	-	1400
RA CFM	2398	2391
OA CFM	602	619
RL Voltage	-	204/204/205
RL Amperage	-	2.7/2.8/3.0
SF Rotation	-	CCW
RA Damper Position	-	75%
Min OA Damper Position	-	25%
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.42"
Fan Suction SP	-	-0.82"
Fan Discharge SP	-	0.45"
Total ESP	1.0"	0.87"
Fan Total SP	-	1.27"

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

Completed By: Jacob Davidson on 07/11/2024

Notes:  
SPEED SETPOINT: 1400 RPM

Written By: Jacob Davidson on 07/11/2024



# National TAB

Project:07-08-24 FREDDY'S - FENTON, MO

## AHU/RTU

**Diffuser Supply (GRD)**

**RTU1/KITCHEN**

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU1-SGRD1	DINING	SD-1	12"	450	1	330	538	487	108.2
RTU1-SGRD2	DINING	SD-1	12"	450	1	291	513	450	100.0
RTU1-SGRD3	DINING	SD-1	12"	450	1	294	482	430	95.6
RTU1-SGRD4	DINING	SD-1	12"	450	1	251	447	408	90.7
RTU1-SGRD5	DINING	SD-1	12"	450	1	298	517	472	104.9
RTU1-SGRD6	DINING	SD-1	12"	450	1	326	548	486	108.0
RTU1-SGRD7	OUTSIDE RR	SD-5	6"	100	1	69	101	91	91.0
RTU1-SGRD8	MENS RR	SD-5	6"	100	1	67	101	94	94.0
RTU1-SGRD9	WOMENS RR	SD-5	6"	100	1	71	113	92	92.0
Total				3000		1997	3360	3010	100.33%

Completed By: Jacob Davidson on 07/11/2024



# National TAB

Project: 07-08-24 FREDDY'S - FENTON, MO

## System/Unit: AHU/RTU

Asset: RTU2

AREA:Kitchen

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Serial Num	-	1024P66680
Model Num	48HCFE09	48FCEN08K2M5A3U3C0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1 METAL MESH
OA Filter Size 1	-	19.5X35
Num Final Filter 1	-	4
Final Filter Size 1	-	16X20X2
Num Final Filter 2	-	
Final Filter Size 2	-	

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

Test Data		
	Design	Actual
SF CFM	3000	2920
SF RPM	-	1560
RA CFM	2398	2331
OA CFM	602	589
RL Voltage	-	204/205/205
RL Amperage	-	3.2/3.4/3.5
SF Rotation	-	CCW
RA Damper Position	-	77%
Min OA Damper Position	-	23%
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.38"
Fan Suction SP	-	-0.76"
Fan Discharge SP	-	0.96"
Total ESP	1.0"	1.34"
Fan Total SP	-	1.72"

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

Completed By: Jacob Davidson on 07/11/2024

Notes:  
SPEED SETPOINT: 1560 RPM

Written By: Jacob Davidson on 07/11/2024



# National TAB

Project:07-08-24 FREDDY'S - FENTON, MO

## AHU/RTU

### Diffuser Supply (GRD)

#### RTU2/Kitchen

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU2-SGRD1	DINING	SD-1	12"	475	1	632	438	440	92.6
RTU2-SGRD2	DINING	SD-1	12"	475	1	314	401	428	90.1
RTU2-SGRD3	DINING	SD-1	12"	475	1	442	508	459	96.6
RTU2-SGRD4	DINING	SD-1	12"	475	1	504	460	480	101.1
RTU2-SGRD5	DINING	SD-1	12"	475	1	476	553	478	100.6
RTU2-SGRD6	DINING	SD-1	12"	475	1	499	478	487	102.5
RTU2-SGRD7	SD-6	SD-6	8"	150	1	175	155	148	98.7
Total				3000		3042	2993	2920	97.33%

Completed By: Jacob Davidson on 07/11/2024



# National TAB

Project: 07-08-24 FREDDY'S - FENTON, MO

System/Unit: FAN - Exhaust

Asset: EF1

AREA:Men's RR

Unit Data		
	Design	Actual
MFG	COOK	COOK
Model Num	GC-166	GEMINI 160 SERIES SONEBUSTER
Serial Num	-	NL
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	150	
Fan RPM	1100	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	

Motor Data		
	Design	Actual
Motor MFG	-	QUEACE
Frame	-	NL
Horsepower	-	16W
Motor Rpm	-	NL
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.51/0.44
Service Factor	-	1

Notes:  
FAN IS NOT RUNNING AT TIME OF TAB

Written By: Jacob Davidson on 07/11/2024



# National TAB

Project: 07-08-24 FREDDY'S - FENTON, MO

System/Unit: FAN - Exhaust

Asset: EF2

AREA:Women's RR

Unit Data		
	Design	Actual
MFG	COOK	COOK
Model Num	GC-166	GEMINI 160 SERIES SONEBUSTER
Serial Num	-	NA
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	150	164
Fan RPM	1100	DD ECM
Fan Rotation	-	CCW
Motor RPM	-	DD ECM
System SetPt	-	HIGH
RL Voltage	-	119V
RL Amperage	-	0.36A

Motor Data		
	Design	Actual
Motor MFG	-	QUEACE
Frame	-	NL
Horsepower	-	16W
Motor Rpm	-	NL
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.51/0.44
Service Factor	-	1

Completed By: Jacob Davidson on 07/11/2024



# National TAB

Project: 07-08-24 FREDDY'S - FENTON, MO

System/Unit: FAN - Exhaust

Asset: KEF1

AREA:GRIDDLE

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	CASRE18DD	CASRE18DD
Serial Num	-	6275392
Type	UTILITY	UTILITY
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TECO WESTINGHOSUE
Frame	-	145T
Horsepower	1.000	1
Motor Rpm	-	1150
Phase	3	3
Voltage (rated)	208	230/460
Amperage (rated)	-	3.44/1.72
Service Factor	-	1.15

Test Data		
	Design	Actual
CFM	1600	1539
Fan RPM	1105	1278
Fan Rotation	-	CCW
Motor RPM	-	1278
System SetPt	-	66.7HZ
RL Voltage	-	202V
RL Amperage	-	3.4A
Total ESP	1.400"	UTO
Fan Inlet SP	-	UTO
Fan Discharge SP	-	UTO

Completed By: Jacob Davidson on 07/11/2024



# National TAB

Project: 07-08-24 FREDDY'S - FENTON, MO

System/Unit: FAN - Exhaust

Asset: KEF2

AREA:FRYER

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU50HFA	DU50HFA
Serial Num	-	6275392
Type	UPBLAST/CEILING	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	0.500"	1/2
Motor Rpm	1532	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	6.3
Service Factor	-	1

Test Data		
	Design	Actual
CFM	775	
Fan RPM	1532	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	1.250"	
Fan Inlet SP	-	
Fan Discharge SP	-	

Notes:

FAN DID NOT HAVE LOW VOLTAGE CONNECTED AT TIME OF TAB AND COULD NOT BE BALANCED.

Written By: Jacob Davidson on 07/11/2024



# National TAB

Project: 07-08-24 FREDDY'S - FENTON, MO

## System/Unit: Kitchen Hood Type I

Asset: HD1

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND-2	5424 ND-2
Job / Serial Num	-	6275392
Type	TYPE 1 CANOPY	TYPE I CANOPY
Hood length	96"	96"
Hood Width	54"	54"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO
Filter Size 1	16X16	16X16
Filter Qty 1	5	5
Filter AK factor size 1	8.1	8.1
Filter Total AK Area	8.1	8.1
Filter1 FPM	-	199
Filter2 FPM	-	198
Filter3 FPM	-	187
Filter4 FPM	-	184
Filter5 FPM	-	181
Filter Ave FPM(corr)	-	190
CFM	1600	1539

Cooking Equipment	
	Actual
Item 1	GRIDDLE

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# National TAB

Project: 07-08-24 FREDDY'S - FENTON, MO

## System/Unit: Kitchen Hood Type I

Asset: HD2

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND-2	5424 ND-2
Job / Serial Num	-	6275392
Type	TYPE 1 CANOPY	TYPE I CANOPY
Hood length	60"	60"
Hood Width	54"	54"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO
Filter Size 1	16X16	16X16
Filter Qty 1	3	3
Filter AK factor size 1	4.86	4.86
Filter Total AK Area	4.86	4.86
Filter1 FPM	-	
Filter2 FPM	-	
Filter3 FPM	-	
Filter Ave FPM(corr)	-	
CFM	775	

Cooking Equipment	
	Actual
Item 1	FRYERS