

Report By:

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



**Report: TAB REPORT**  
**Function: Test, Adjust, & Balance**  
**Date: 08/28/2023**

**PROJECT**

**08-21-23 FREDDY'S - NACOGDOCHES, TX**

2400 W 75TH ST

NACOGDOCHES, TX 66208

Client

Brazos Contractors Development, INC  
9191 Gulf FWY  
Bldg D, STE 400  
Houston, TX 77017

# National TAB

Project: 08-21-23 FREDDY'S - NACOGDOCHES, TX

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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) w/ Diffusers

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. Each outlet was then adjusted to within tolerance of the 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.

### Kitchen Exhaust Hood & Associated Fans

Each kitchen exhaust fan was measured at the hood filter bay utilizing a velocity matrix and a manufacturer's correction factor. Each filter velocity is multiplied by the manufacturer's corrected area. The sum of these readings equals the total flow of the exhaust fans. The total flow of the exhaust was then adjusted to within tolerance of the design flow. . Any EF's that fell outside of this tolerance is noted throughout the report.

### General Exhaust Fans w/ Grilles

The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within tolerance of design. Each terminal device was balanced to within tolerance of the design volume using the installed volume dampers. Any equipment that fell outside of this tolerance is noted throughout the report.

### Final Building Tests

After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances of  $-0.02''$  wc to  $+0.02''$  wc and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report.

The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat on to ensure satisfactory hood capture and containment.

## Issue List

- DOAS Filters
- Hood End Panels
- KEF-2



**08-21-23 FREDDY'S - NACOGDOCHES, TX**

**Project Issue Information**

**Issue Name :** DOAS Filters  
**Description :** DOAS filters are dirty. Half of filters for each DOAS unit were removed during testing. Recommend replacing. Replacement filter sizes: DOAS-1 (4) 20x25x2 (MERV 8) (4) 20x25x2 (MERV 13) DOAS-2 (4) 16x20x2 (MERV 8) (4) 16x20x2 (MERV 13)  
**Created By :** National TAB                      **Assigned To :** National TAB - Will Turnbough  
**Status :** Open  
**Originated Date :** 08/28/2023 - Wesley John - National TAB

Project Issue File Details



**FILTERS**  
**08/28/2023**



**08-21-23 FREDDY'S - NACOGDOCHES, TX**

**Project Issue Information**

**Issue Name :** Hood End Panels  
**Description :** Hood end panels are not installed on Hood-1 and Hood-2. Recommend installing to aid hood performance.  
**Created By :** National TAB                      **Assigned To :** National TAB - Will Turnbough  
**Status :** Open  
**Originated Date :** 08/28/2023 - Wesley John - National TAB

Project Issue File Details



**END\_PANELS**  
**08/28/2023**



**08-21-23 FREDDY'S - NACOGDOCHES, TX**

**Project Issue Information**

**Issue Name :** KEF-2  
**Description :** KEF-2 (fryer hood) is missing hinge kit. Recommend installing to allow for grease duct cleaning. Fan should be able to hinge completely given length of electrical conduit.  
**Created By :** National TAB                      **Assigned To :** National TAB - Will Turnbough  
**Status :** Open  
**Originated Date :** 08/28/2023 - Wesley John - National TAB

Project Issue File Details



**HINGE\_KIT**  
**08/28/2023**

### AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
DOAS-1	KITCHEN	2650	2556	0	0	2650	2556	100.0%	100.0%						
DOAS-2	DINING	4000	3907	3200	3095	800	812	20.0%	20.8%						
KEF-1	HOOD-1											1600	1588		
KEF-2	HOOD-2											775	787		
KEF-3	HOOD-3											525	533		
EF-1	FAMILY RR													75	79
EF-2	MENS RR													150	171
EF-3	WOMENS RR													75	72
<b>TOTALS</b>		6650	6463	3200	3095	3450	3368			0	0	2900	2908	300	322

#### NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3450	3368
TOTAL EXHAUST	3200	3230
<b>NET AIRFLOW</b>	250	138

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	0.001
SIDE	-
REAR	0.001
<b>AVERAGE</b>	<b>0.001</b>

#### FINAL CHECKS

- ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

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- MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

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- PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✓

NOTES:

## CheckList List

- TECH - SITE PICTURES



## 08-21-23 FREDDY'S - NACOGDOCHES, TX

### CheckList Information

**Name :** TECH - SITE PICTURES **Status :** Completed

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 08/23/2023 - Brian Turnbough - National TAB

**Completed Date :** 08/28/2023 - Wesley John - National TAB

### CheckList Item Details

STORE FRONT

**Comment:**



STORE\_FRONT  
08/24/2023

DOAS-1

**Comment:**



**DOAS-1**  
**08/24/2023**

---

DOAS-2

**Comment:**



**DOAS-2**  
**08/24/2023**

---

KEF-1

**Comment:**



**KEF-1**  
**08/24/2023**

---

KEF-2

**Comment:**



**KEF-2**  
**08/24/2023**

---

KEF-3

**Comment:**



**KEF-3**  
**08/24/2023**

---

EF-1

**Comment:**



**EF-1**  
**08/24/2023**

---

EF-2

**Comment:**

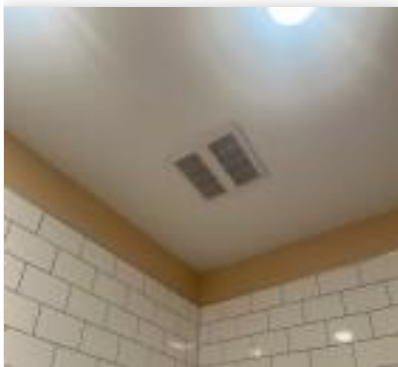


**EF-2**  
**08/24/2023**

---

EF-3

**Comment:**



**EF-3**  
**08/24/2023**

---

HOOD-1

**Comment:**



**HOOD-1**  
**08/24/2023**

---

HOOD-2

**Comment:**



**HOOD-2**  
**08/24/2023**

---

HOOD-3

**Comment:**



**HOOD-3**  
**08/24/2023**

## **CheckList List**

- TECH - STEP 1: INITIAL SITE WALKTHROUGH
- TECH - STEP 2: UNIT DATA AND EVAL
- TECH - STEP 3: TEST, ADJUST AND BALANCE
- TECH - STEP 4: FINAL TESTS



## 08-21-23 FREDDY'S - NACOGDOCHES, TX

### CheckList Information

**Name :** TECH - STEP 1: INITIAL SITE WALKTHROUGH      **Status :** Completed

**Assigned Organization :** National TAB      **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 08/23/2023 - Brian Turnbough - National TAB

**Completed Date :** 08/28/2023 - Wesley John - National TAB

### CheckList Item Details

#### INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design? Yes

**Comment:**

All hood filters installed and accounted for? Yes

**Comment:**

Hoods are wired and have power? Yes

**Comment:**

Hood is free of alarms? Yes

**Comment:**

Thermostats have power? Yes

**Comment:**

Have trades/general contractor been notified about any issues and are they created on FaciliBuild?

**Comment:**

YES



## 08-21-23 FREDDY'S - NACOGDOCHES, TX

### CheckList Information

**Name :** TECH - STEP 2: UNIT DATA AND EVAL **Status :** Completed  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB  
**Created Date :** 08/23/2023 - Brian Turnbough - National TAB  
**Completed Date :** 08/28/2023 - Wesley John - National TAB

### CheckList Item Details

#### UNIT DATA AND EVALUATION WHILE GATHERING UNIT DATA CHECK THE FOLLOWING:

#### RTU's/AHU's

Economizers are assembled and functional? Yes

#### Comment:

DCV Max damper opening position is set to minimum? Yes

#### Comment:

Free cooling enthalpy set point set for lowest setting (Typically "D") Yes

#### Comment:

Motors are all operating below the FLA rating? Yes

#### Comment:

Are belts tight?

#### Comment:

UNITS ARE DIRECT DRIVE

If direct drive unit is the speed controller working.

**Comment:**

YES

Is gas piping installed and valves turned on?

No

**Comment:**

GAS PIPING INSTALLED BUT GAS VALVES KEPT OFF AT THIS TIME.

Unit free of noticeable noise and vibration

Yes

**Comment:**

**EF's**

Rotation is correct?

Yes

**Comment:**

Belts are tight?

**Comment:**

UNITS ARE DIRECT DRIVE.

Grease cup installed on hood fan?

Yes

**Comment:**

Hinge kit installed installed on hood fan?

**Comment:**

HINGE KIT MISSING ON KEF-2

Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?

Yes

**Comment:**

UNABLE TO CHECK UNDER KEF-2 (MISSING HINGE KIT)

Flex conduit is long enough so that fan can be completely tilted back?

Yes

**Comment:**

There is no major leakage around base of fan?

Yes

**Comment:**

Is the motor operating below the motor FLA rating?

Yes

**Comment:**

For restroom fan(s) is the back draft damper installed and can it fully open?

Yes

**Comment:**

Unit free of noticeable noise and vibration?

Yes

**Comment:**

#### **HOODS**

Kitchen equipment installed in proper places?

Yes

**Comment:**

Can kitchen equipment be turned on for final smoke test?

No

**Comment:**

KITCHEN EQUIPMENT NOT STARTED AT TIME OF BALANCE.

#### **DOCUMENTATION**

Have trades/general contractor been notified about any issues and are they created on FaciliBuild?

Yes

**Comment:**



## 08-21-23 FREDDY'S - NACOGDOCHES, TX

### CheckList Information

**Name :** TECH - STEP 3: TEST, ADJUST AND BALANCE      **Status :** Completed

**Assigned Organization :** National TAB      **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 08/23/2023 - Brian Turnbough - National TAB

**Completed Date :** 08/28/2023 - Wesley John - National TAB

### CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting?	Yes
----------------------------	-----

**Comment:**

Is space comfortable in all areas?	Yes
------------------------------------	-----

**Comment:**

Is the space free of ventilation noise?	Yes
---	-----

**Comment:**

If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".

**Comment:**

NA



## 08-21-23 FREDDY'S - NACOGDOCHES, TX

### CheckList Information

**Name :** TECH - STEP 4: FINAL TESTS **Status :** Completed

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 08/23/2023 - Brian Turnbough - National TAB

**Completed Date :** 08/28/2023 - Wesley John - National TAB

### CheckList Item Details

#### FINAL TESTS

#### HOOD CAPTURE TEST

List equipment turned on for testing

**Comment:**

NONE. EQUIPMENT NOT STARTED AT TIME OF BALANCE.

List smoke candle type used

**Comment:**

45 SECOND SMOKE CARTRIDGE.

Smoke test capture - Perimeter of hood

**Comment:**

100%

Smoke test capture - Top of cooking surface

**Comment:**

100%

#### WITNESS

Date test was completed

08/24/2023

**Comment:**

---

TAB tech name / Firm

**Comment:**

---

WESLEY JOHN / NATIONAL TAB

---

Site super name / Firm

**Comment:**

---

RICK KIRKPATRICK / BRAZOS CONTRACTORS

---

Owner representative name / Firm (if Applicable)

**Comment:**

---

N/A

---

Building pressure at front & back doors (All Systems On)

**Comment:**

---

FRONT 0.001" / BACK 0.001"

---

**ADDITIONAL**

---

Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)

**Comment:**

---

YES

---

Thermostats are programmed?

Yes

**Comment:**

---

# National TAB

Project: 08-21-23 FREDDY'S - NACOGDOCHES, TX

System/Unit: AHU/RTU



Asset: DOAS1

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Serial Num	-	5565563
Model Num	CASRTU2-I.200-15-20T-DOAS	CASRTU3-I.200-15-20T
Type	DOAS	DOAS
Configuration	VERTICAL DISCHARGE	VERTICAL DISCHARGE
Num OA Filters 1	-	4
OA Filter Size 1	-	16x25x2
Num Final Filter 1	-	4 (MERV 8)
Final Filter Size 1	-	20x25x2
Num Final Filter 2	-	4 (MERV13)
Final Filter Size 2	-	20x25x2

Motor Data		
	Design	Actual
Motor MFG	-	TECO
Frame	-	145T
Horsepower	2.0	2.0
Motor Rpm	-	1740
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	6.06

Test Data		
	Design	Actual
SF CFM	2650	2556
SF RPM	-	1769
RA CFM	0	0
OA CFM	2650	2556
RL Voltage	-	206
RL Amperage	-	5.4
SF Rotation	-	CCW
RA Damper Position	-	0%
Min OA Damper Position	-	100%
Min OA Damper Type	-	OPPOSED BLADE

Performance Data		
	Design	Actual
MA Plenum SP	-	[1]
Fan Suction SP	-	[1]
Fan Discharge SP	-	0.53"
Total ESP	0.50"	0.53"

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	NO

Completed By: Wesley John on 08/28/2023

Notes:

[1] UNABLE TO DRILL UNIT TO TAKE MIXED AIR AND FAN SUCTION STATIC PRESSURE READINGS. SUPPLY DUCT DRILLED TO TAKE FAN DISCHARGE READING.

GRILLES ADJUSTED TO MEET SCHEDULED DESIGN OF 2650 CFM.

Written By: Wesley John on 08/28/2023

# National TAB

Project:08-21-23 FREDDY'S - NACOGDOCHES, TX

## AHU/RTU



### Diffuser Supply (GRD)

#### DOAS1/KITCHEN

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	KITCHEN	SD-4	8"	154	1.0	145	152	161	104.5
SGRD2	KITCHEN	SD-2	12"	240	1.0	248	263	234	97.5
SGRD3	KITCHEN	SD-3	12"	282	1.0	311	331	273	96.8
SGRD4	KITCHEN	SD-3	12"	282	1.0	295	305	261	92.6
SGRD5	KITCHEN	SD-3	12"	282	1.0	272	289	300	106.4
SGRD6	KITCHEN	SD-2	12"	282	1.0	229	240	276	97.9
SGRD7	KITCHEN	SD-3	12"	282	1.0	364	385	267	94.7
SGRD8	KITCHEN	SD-3	12"	282	1.0	131	139	258	91.5
SGRD9	KITCHEN	SD-3	12"	282	1.0	237	244	260	92.2
SGRD10	KITCHEN	SD-3	12"	282	1.0	240	255	266	94.3
Total				2650		2472	2603	2556	96.45%

Completed By: Wesley John on 08/28/2023

# National TAB

Project: 08-21-23 FREDDY'S - NACOGDOCHES, TX

## System/Unit: AHU/RTU



Asset: DOAS2

AREA:DINING

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Serial Num	-	5565563
Model Num	CASRTU2-I.200-15-20T-DOAS	CASRTU2-I.250-18-10T
Type	DOAS	DOAS
Configuration	VERTICAL DISCHARGE	VERTICAL DISCHARGE
Num OA Filters 1	-	2
OA Filter Size 1	-	20x25x2
Num Final Filter 1	-	4 (MERV 8)
Final Filter Size 1	-	16x20x2
Num Final Filter 2	-	4 (MERV 13)
Final Filter Size 2	-	16x20x2

Motor Data		
	Design	Actual
Motor MFG	-	TECO
Frame	-	184T
Horsepower	5.0	5.0
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	15.0

Test Data		
	Design	Actual
SF CFM	4000	3907
SF RPM	-	2188
RA CFM	3200	3095
OA CFM	800	812
RL Voltage	-	189
RL Amperage	-	12.2
SF Rotation	-	CCW
RA Damper Position	-	52%
Min OA Damper Position	-	48%
Min OA Damper Type	-	OPPOSED BLADE

Performance Data		
	Design	Actual
MA Plenum SP	-	[1]
Fan Suction SP	-	[1]
Fan Discharge SP	-	0.57"
Total ESP	0.50"	0.57"

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	NO

Completed By: Wesley John on 08/28/2023

Notes:

[1] UNABLE TO DRILL UNIT TO TAKE MIXED AIR AND FAN SUCTION STATIC PRESSURE READINGS. SUPPLY DUCT DRILLED TO TAKE FAN DISCHARGE READING.  
GRILLES ADJUSTED TO MEET SCHEDULED DESIGN OF 4000 CFM.

Written By: Wesley John on 08/28/2023

# National TAB

Project:08-21-23 FREDDY'S - NACOGDOCHES, TX

## AHU/RTU



### Diffuser Supply (GRD)

#### DOAS2/DINING

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	FAMILY RR	SD-5	6"	50	1.0	60	-	52	104.0
SGRD2	HALLWAY	SD-5	6"	100	1.0	56	-	97	97.0
SGRD3	MENS RR	SD-5	6"	100	1.0	44	-	94	94.0
SGRD4	WOMENS RR	SD-5	6"	50	1.0	41	-	48	96.0
SGRD5	DINING	SD-1	12"	375	1.0	304	-	359	95.7
SGRD6	DINING	SD-1	12"	325	1.0	378	-	351	108.0
SGRD7	DINING	SD-1	12"	375	1.0	369	-	343	91.5
SGRD8	DINING	SD-1	12"	325	1.0	308	-	320	98.5
SGRD9	DINING	SD-1	12"	375	1.0	212	-	360	96.0
SGRD10	ENTRANCE	SD-6	8"	150	1.0	205	-	161	107.3
SGRD11	DINING	SD-1	12"	375	1.0	384	-	361	96.3
SGRD12	DINING	SD-1	12"	325	1.0	420	-	311	95.7
SGRD13	DINING	SD-1	12"	375	1.0	391	-	354	94.4
SGRD14	DINING	SD-1	12"	325	1.0	403	-	309	95.1
SGRD15	DINING	SD-1	12"	375	1.0	399	-	387	103.2
Total				4000		3974	0	3907	97.68%

Completed By: Wesley John on 08/28/2023

# National TAB

Project: 08-21-23 FREDDY'S - NACOGDOCHES, TX

## System/Unit: FAN - Exhaust



Asset: EF1

AREA:FAMILY RR

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	[1]
Model Num	DU33HFA	N/A
Serial Num	-	N/A
Type	CENTRIFUGAL	CENTRIFUGAL
Configuration	CEILING	CEILING

Motor Data		
	Design	Actual
Motor MFG	-	N/A
Frame	-	N/A
Horsepower	30.3W	N/A
Motor Rpm	-	N/A
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	N/A
Service Factor	-	N/A

Test Data		
	Design	Actual
CFM	75	79
Fan RPM	-	DIRECT DRIVE
Fan Rotation	-	CCW
Motor RPM	-	DIRECT DRIVE
System SetPt	-	SINGLE SPEED
RL Voltage	-	120
RL Amperage	-	0.31
Total ESP	0.25"	N/A
Fan Inlet SP	-	N/A
Fan Discharge SP	-	N/A

Completed By: Wesley John on 08/28/2023

Notes:

[1] DATA TAG PAINTED OVER. CANNOT GET UNIT DATA.

Written By: Wesley John on 08/28/2023

# National TAB

Project: 08-21-23 FREDDY'S - NACOGDOCHES, TX

## System/Unit: FAN - Exhaust



Asset: EF2

AREA:MENS RR

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	BROAN
Model Num	DU33HFA	NL
Serial Num	-	22K11H
Type	CENTRIFUGAL	CENTRIFUGAL
Configuration	CEILING	CEILING

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	50.4W	NL
Motor Rpm	-	NL
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	1.8
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	150	171
Fan RPM	-	DIRECT DRIVE
Fan Rotation	-	CCW
Motor RPM	-	DIRECT DRIVE
System SetPt	-	SINGLE SPEED
RL Voltage	-	121
RL Amperage	-	0.72
Total ESP	0.25"	N/A
Fan Inlet SP	-	N/A
Fan Discharge SP	-	N/A

Completed By: Wesley John on 08/28/2023

# National TAB

Project: 08-21-23 FREDDY'S - NACOGDOCHES, TX

## System/Unit: FAN - Exhaust



Asset: EF3

AREA:WOMENS RR

Unit Data		
	Design	Actual
MFG	COOK	[1]
Model Num	GC-146	N/A
Serial Num	-	N/A
Type	CENTRIFUGAL	CENTRIFUGAL
Configuration	CEILING	CEILING

Motor Data		
	Design	Actual
Motor MFG	-	N/A
Frame	-	N/A
Horsepower	30.3W	N/A
Motor Rpm	-	N/A
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	N/A
Service Factor	-	N/A

Test Data		
	Design	Actual
CFM	75	72
Fan RPM	-	DIRECT DRIVE
Fan Rotation	-	CCW
Motor RPM	-	DIRECT DRIVE
System SetPt	-	SINGLE SPEED
RL Voltage	-	121
RL Amperage	-	0.32
Total ESP	0.25	N/A
Fan Inlet SP	-	N/A
Fan Discharge SP	-	N/A

Completed By: Wesley John on 08/28/2023

Notes:  
[1] DATA TAG PAINTED OVER. CANNOT GET UNIT DATA.

Written By: Wesley John on 08/28/2023

# National TAB

Project: 08-21-23 FREDDY'S - NACOGDOCHES, TX

## System/Unit: FAN - Exhaust



Asset: KEF1

AREA:HOOD-1

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	DU33HFA	CASRE18DD
Serial Num	-	5565563
Type	CENTIFUGAL	CENTRIFUGAL
Configuration	UTILITY	UTILITY

Motor Data		
	Design	Actual
Motor MFG	-	TECO
Frame	-	145T
Horsepower	1.0	1.0
Motor Rpm	-	1150
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	3.80
Service Factor	-	1.15

Test Data		
	Design	Actual
CFM	1600	1588
Fan RPM	-	1244
Fan Rotation	-	CCW
Motor RPM	-	1244
System SetPt	-	64.9 Hz
RL Voltage	-	205
RL Amperage	-	3.4
Total ESP	1.40"	1.21"
Fan Inlet SP	-	-1.21"
Fan Discharge SP	-	ATM

Completed By: Wesley John on 08/28/2023

# National TAB

Project: 08-21-23 FREDDY'S - NACOGDOCHES, TX

## System/Unit: FAN - Exhaust



Asset: KEF2

AREA:HOOD-2

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	DU33HFA	DU50HFA
Serial Num	-	5565563
Type	CENTRIFUGAL	CENTRIFUGAL
Configuration	UPBLAST	UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	TELCO
Frame	-	NL
Horsepower	0.50	0.50
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	NL
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	775	787
Fan RPM	-	1044
Fan Rotation	-	CCW
Motor RPM	-	1044
System SetPt	-	58%
RL Voltage	-	122
RL Amperage	-	2.3
Total ESP	1.25"	[1]
Fan Inlet SP	-	[1]
Fan Discharge SP	-	ATM

Completed By: Wesley John on 08/28/2023

Notes:  
[1] HINGE KIT NOT INSTALLED. UNABLE TO MEASURE FAN SUCTION STATIC PRESSURE.

Written By: Wesley John on 08/23/2023

# National TAB

Project: 08-21-23 FREDDY'S - NACOGDOCHES, TX

## System/Unit: FAN - Exhaust



Asset: KEF3

AREA:HOOD-3

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	DU33HFA	DU33HFA
Serial Num	-	5565563
Type	CENTRIFUGAL	CENTRIFUGAL
Configuration	UPBLAST	UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	TELCO
Frame	-	NL
Horsepower	0.333	0.333
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	NL
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	525	533
Fan RPM	-	985
Fan Rotation	-	CCW
Motor RPM	-	985
System SetPt	-	50%
RL Voltage	-	122
RL Amperage	-	0.88
Total ESP	0.80"	0.37"
Fan Inlet SP	-	-0.37"
Fan Discharge SP	-	ATM

Completed By: Wesley John on 08/28/2023

# National TAB

Project: 08-21-23 FREDDY'S - NACOGDOCHES, TX

System/Unit: Kitchen Hood Type I



Asset: HD1

AREA:GRIDDLE

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	5424 ND-2	5424 ND-2
Job / Serial Num	-	5565563
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	96"	96"
Hood Width	54"	54"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16x16	16x16
Filter Qty 1	5	5
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	8.10	8.10
Filter1 FPM	-	182
Filter2 FPM	-	196
Filter3 FPM	-	199
Filter4 FPM	-	205
Filter5 FPM	-	200
Filter Ave FPM(corr)	-	196
CFM	1600	1588

Cooking Equipment		
	Design	Actual
Item 1	-	GRIDDLES

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# National TAB

Project: 08-21-23 FREDDY'S - NACOGDOCHES, TX

System/Unit: Kitchen Hood Type I



Asset: HD2

AREA:FRYER

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	5424 ND-2	5424 ND-2
Job / Serial Num	-	5565563
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	60"	60"
Hood Width	54"	54"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16x16	16x16
Filter Qty 1	3	3
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	4.86	4.86
Filter1 FPM	-	168
Filter2 FPM	-	177
Filter3 FPM	-	141
Filter Ave FPM(corr)	-	162
CFM	775	787

Cooking Equipment		
	Design	Actual
Item 1	-	FRYERS

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# National TAB

Project: 08-21-23 FREDDY'S - NACOGDOCHES, TX

System/Unit: Kitchen Hood Type II



Asset: HD(Type2)3

AREA:DISHWASHER

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	4224 VHB-G	4224 VHB
Serial Num	-	5565563
Type	TYPE II CANOPY	TYPE II CANOPY
Hood length	42"	42"
Hood Width	42"	42"

Test Data		
	Design	Actual
Exhaust CFM	525	533

Completed By: Wesley John on 08/28/2023