

**Report By:**

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



**Report: TAB Report**  
**Function: Test, Adjust, & Balance**  
**Date: 08/14/2025**  
**Completed By: National TAB**

**PROJECT**  
**08-18-25 FIREBIRDS NEW ALBANY, OH**

6036 N. HAMILTON RD.

WESTERVILLE, OH 43081

**Client**

FIREBIRD RESTAURANTS  
8700 Red Oak Blvd, Unit J  
CHARLOTTE, NC 28217

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

## Table Of Contents

<b>Section</b>	<b>Page #</b>
Summary	3
Balance Schedule	4
Remarks	5
Checklist Data	11
AHU/RTU	20
FAN - Exhaust	29
FAN - Supply	37
Kitchen Hood Type I	38
GRD Layout	45

## 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.

### DOAS w/ Diffusers

Each of the DOAS were measured at their terminal devices or via traverse to establish a total flow for that unit. Each DOAS 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.

### 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
RTU-1	KITCHEN	3195	3230	1525	1627	1670	1603	52.3%	49.6%						
RTU-2	DINING	3210	3363	1957	2136	1253	1227	39.0%	36.5%						
RTU-3	DINING	1600	1498	1263	1136	337	362	21.1%	24.2%						
DOAS-1	KITCHEN	3990	3979	0	0	3990	3979	100.0%	100.0%						
MUA-1	KITCHEN HD									3800	3569				
KEF-1	KITCHEN HD L											2300	2146		
KEF-2	KITCHEN HD R											2300	2196		
KEF-3	GRILL HD											3200	2970		
KEF-4	PREP HD											2200	2296		
EF-DISH	DISHWASHER											800	300		
TEF-1	RESTROOM													200	211
<b>TOTALS</b>		11995	12070	4745	4899	7250	7171			3800	3569	10800	9908	200	211

#### NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	11050	10740
TOTAL EXHAUST	11000	10119
<b>NET AIRFLOW</b>	50	621

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	0.014
SIDE	0.0063
REAR	0.011
<b>AVERAGE</b>	<b>0.0104</b>

#### FINAL CHECKS

- ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓
- MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓
- PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✓

NOTES:

## Issue List

- DOAS-1 Evaporator coil freezing
- EF-1 Low on flow
- KEF-3 unable to hinge back
- MUA-1 Heating not operational
- RTU-1 Evaporator coils freezing

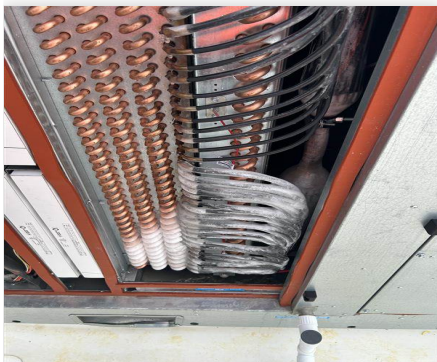


**08-18-25 FIREBIRDS NEW ALBANY, OH**

**Project Issue Information**

**Issue Name :** DOAS-1 Evaporator coil freezing  
**Description :** When unit runs normally, at the correct speed and default temp set point, the evaporator coil freezes. The temp set point was changed to 85 degrees to ensure it does not freeze  
**Created By :** National TAB      **Assigned To :** National TAB - Will Turnbough  
**Status :** Open  
**Priority :** InfoOnly      **Asset Tag :**  
**Originated Date :** 08/13/2025 - Aaron Cosby - National TAB

Project Issue File Details



08/13/2025



08/13/2025



**08-18-25 FIREBIRDS NEW ALBANY, OH**

**Project Issue Information**

**Issue Name :** EF-1 Low on flow  
**Description :** Producing 300 cfm via traverse when its designed for 800. Static pressure is high. No obstructions found when inspecting the duct work and rotation is correct  
**Created By :** National TAB                      **Assigned To :** National TAB - Brianna Biggs  
**Status :** Open  
**Priority :** **Urgent**                                      **Asset Tag :**  
**Originated Date :** 08/13/2025 - Aaron Cosby - National TAB

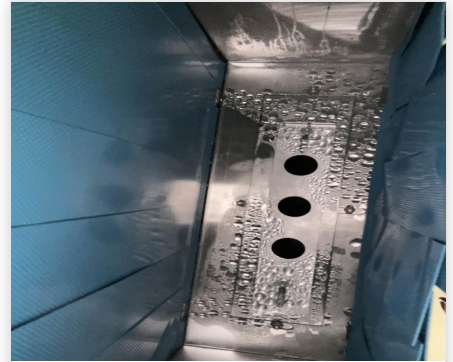
Project Issue File Details



08/14/2025



08/14/2025



08/14/2025





**08-18-25 FIREBIRDS NEW ALBANY, OH**

**Project Issue Information**

**Issue Name :** MUA-1 Heating not operational  
**Description :** Captive Aire did startup when gas wasn't connected to the building, so the heating startup was not done. When trying to test it, with tech support, it did not function. The gas, pilot, and ignition were all tested. The flame is not lighting because the ignition isn't sparking the gas, meaning the problem lies in the ignition transformer.  
**Created By :** National TAB                      **Assigned To :** National TAB - Brianna Biggs  
**Status :** Open  
**Priority :** [Medium](#)                                      **Asset Tag :**  
**Originated Date :** 08/13/2025 - Aaron Cosby - National TAB



**08-18-25 FIREBIRDS NEW ALBANY, OH**

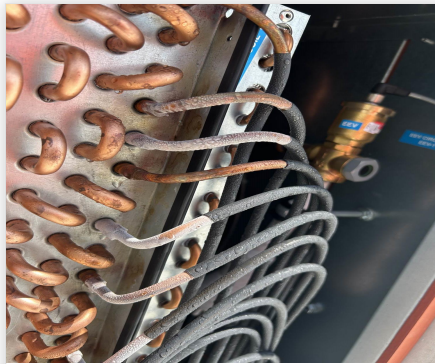
**Project Issue Information**

**Issue Name :** RTU-1 Evaporator coils freezing  
**Description :** When the unit is running at correct speed and default temp set point and the coils freeze. Doesn't seem to get worse than the picture shows. Temp set point was changed to 73 degrees to ensure the coils don't freeze  
**Created By :** National TAB                      **Assigned To :** National TAB - Brianna Biggs  
**Status :** Open  
**Priority :** InfoOnly                                      **Asset Tag :**  
**Originated Date :** 08/13/2025 - Aaron Cosby - National TAB

Project Issue File Details



08/13/2025



08/13/2025

## CheckList List

- 01: RTU'S/AHU'S
- 02: EF'S
- 03: MUA
- 04: HOODS
- 05: FINAL TESTS



**08-18-25 FIREBIRDS NEW ALBANY, OH**

**CheckList Information**

**Name :** 01: RTU'S/AHU'S **Status :** Completed  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB  
**Created Date :** 07/29/2025 - Natasha Louw - National TAB  
**Completed Date :** 08/14/2025 - Aaron Cosby - National TAB

**CheckList Item Details**

RTU's/AHU's

Thermostats installed and have power? Pass

Comment:

All diffusers and grilles are installed and match design? Pass

Comment:

Economizers are assembled and functional? Pass

Comment:

Free cooling enthalpy set point set for lowest setting (Typically "D") N/A

Comment:

Motors are all operating below the FLA rating? Pass

Comment:

Are belts tight? N/A

Comment:

If direct drive unit is the speed controller working? Pass

**Comment:**

---

**Is gas piping installed and valves turned on?**

Pass

---

**Comment:**

---

**Unit free of noticeable noise and vibration**

Pass

---

**Comment:**

---

**Deflectors on spiral duct grilles so that the dining area is free of drafting?**

Pass

---

**Comment:**

---

**Final outside air damper position is marked with permanent marker?**

Pass

---

**Comment:**

---



08-18-25 FIREBIRDS NEW ALBANY, OH

CheckList Information

**Name :** 02: EF'S **Status :** Completed

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

**Requesting Organization :** National TAB

**Created Date :** 07/29/2025 - Natasha Louw - National TAB

**Completed Date :** 08/14/2025 - Aaron Cosby - National TAB

CheckList Item Details

EF's

Rotation is correct?	Pass
----------------------	------

Comment:

Belts are tight?	Pass
------------------	------

Comment:

Hinge kit installed installed on hood fan?	Pass
--	------

Comment:

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

Comment:

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

Comment:

There is no major leakage around base of fan?	Pass
---	------

Comment:

Is the motor operating below the motor FLA rating?

Pass

Comment:

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

Pass

Comment:

Unit free of noticeable noise and vibration?

Pass

Comment:

**Notes/Comments :**

KEF-3 won't hinge back because it is sealed to the curb. Hinge kit is installed however

**Date :**08/14/2025



**08-18-25 FIREBIRDS NEW ALBANY, OH**

**CheckList Information**

**Name :** 03: MUA **Status :** Completed  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB  
**Created Date :** 07/29/2025 - Natasha Louw - National TAB  
**Completed Date :** 08/14/2025 - Aaron Cosby - National TAB

**CheckList Item Details**

MUA

Rotation is correct? Pass

Comment:

Gas piping is installed and valves are in on position? Pass

Comment:

Internal motorized damper is fully opening? Pass

Comment:

Motor is operating below the FLA rating? Pass

Comment:

Unit free of noticeable noise and vibration? Pass

Comment:



08-18-25 FIREBIRDS NEW ALBANY, OH

CheckList Information

**Name :** 04: HOODS **Status :** Completed

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

**Requesting Organization :** National TAB

**Created Date :** 07/29/2025 - Natasha Louw - National TAB

**Completed Date :** 08/14/2025 - Aaron Cosby - National TAB

CheckList Item Details

HOODS

All hood filters installed and accounted for? Yes

Comment:

Hoods are wired and have power? Yes

Comment:

Hood is free of alarms? Yes

Comment:

Hood is free of damage? Yes

Comment:

Quarter or full vertical end panels are installed if specified? Yes

Comment:



08-18-25 FIREBIRDS NEW ALBANY, OH

CheckList Information

**Name :** 05: FINAL TESTS **Status :** Completed

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

**Requesting Organization :** National TAB

**Created Date :** 07/29/2025 - Natasha Louw - National TAB

**Completed Date :** 08/14/2025 - Aaron Cosby - National TAB

CheckList Item Details

FINAL CHECKS

Are sidewall grille deflector blades adjusted to eliminate drafting in the dining room? Pass

Comment:

Is space free of drafting in general? Pass

Comment:

Is space comfortable in all areas? Pass

Comment:

Is the space free of ventilation noise? Pass

Comment:

List kitchen equipment turned on for testing

Comment:

HOOD 1, HOOD 2, HOOD 3, HOOD 4

List smoke candle type used

Comment:

45 second smoke emitter

**HOOD CAPTURE TEST**

**Smoke test capture % - Perimeter of hood**

**Comment:**

100%

**Smoke test capture % - Top of cooking surface**

**Comment:**

100%

**WITNESS**

**Date test was completed**

08/14/2025

**Comment:**

**TAB tech name / Firm**

**Comment:**

Aaron Cosby

**Site super name / Firm**

**Comment:**

Charles

**Owner representative name / Firm (if Applicable)**

**Comment:**

N/A

**BUILDING PRESSURE**

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

Pass

**Comment:**

**PICTURES**

**Equipment pictures are added to each asset?**

Yes

**Comment:**

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: AHU/RTU



Asset: DOAS 1

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Serial Num	-	6687721
Model Num	CASRTU3-I.500-24-30T	CASRTU3-I.500-24-30T
Type	DOAS	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	16X25X2"
Num Final Filter 1	-	8
Final Filter Size 1	-	20X25X2"

Motor Data		
	Design	Actual
Horsepower	5.00	5.0
Motor Rpm	-	1150
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	15.8

Test Data		
	Design	Actual
SF CFM	3990	3979
SF RPM	-	NA
RA CFM	0	0
OA CFM	3990	3990
RL Voltage	-	151 VFD
RL Amperage	-	10.1 VFD
SF Rotation	-	GOOD
SF System SetPt	-	52.9 HZ
Min OA Damper Position	-	100%

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

Completed By: Aaron Cosby on 08/13/2025

Notes:

0.73" discharge

0.77" OA

0.71" return

0.73" intake

0.64" space

Pressures taken from CAS HMI

Written By: Aaron Cosby on 08/14/2025

## Unit Data - PHOTO LOG



08/13/2025

# National TAB

Project:08-18-25 FIREBIRDS NEW ALBANY, OH

## AHU/RTU



### Diffuser Supply (GRD)

#### DOAS 1/KITCHEN

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	KITCHEN	CD-K	12"	285	1	167	167	263	92.3
SGRD2	KITCHEN	CD-K	12"	285	1	274	274	274	96.1
SGRD3	KITCHEN	CD-K	12"	285	1	341	341	276	96.8
SGRD4	KITCHEN	CD-K	12"	285	1	551	551	271	95.1
SGRD5	KITCHEN	CD-K	12"	285	1	156	156	293	102.8
SGRD6	KITCHEN	CD-K	12"	285	1	247	247	288	101.1
SGRD7	KITCHEN	CD-K	12"	285	1	268	268	272	95.4
SGRD8	KITCHEN	CD-K	12"	285	1	299	299	295	103.5
SGRD9	KITCHEN	CD-K	12"	285	1	229	229	292	102.5
SGRD10	KITCHEN	CD-K	12"	285	1	169	169	274	96.1
SGRD11	KITCHEN	CD-K	12"	285	1	245	245	301	105.6
SGRD12	KITCHEN	CD-K	12"	285	1	346	346	306	107.4
SGRD13	KITCHEN	CD-K	12"	285	1	362	362	261	91.6
SGRD14	KITCHEN	CD-K	12"	285	1	238	238	313	109.8
Total				3990		3892	3892	3979	99.72%

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: AHU/RTU



Asset: RTU 1

AREA: KITCHEN

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Serial Num	-	6687721
Model Num	CASRTU3-I.500-20-20T	CASRTU3-I.500-20-20T
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	16X25X2"
Num Final Filter 1	-	8
Final Filter Size 1	-	20X25X2"

Test Data		
	Design	Actual
SF CFM	3195	3230
SF RPM	-	NA
RA CFM	-	1627
OA CFM	1670	1603
RL Voltage	-	138 VFD
RL Amperage	-	11.5 VFD
SF Rotation	-	GOOD
SF System SetPt	-	52.9 HZ
Min OA Damper Position	-	4.6 V
Min OA Damper Type	-	ECON

Motor Data		
	Design	Actual
Horsepower	5.00	5.0
Motor Rpm	-	1600
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	15.8

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

Completed By: Aaron Cosby on 08/14/2025

Notes:

0.44" discharge

0.77" OA

0.53" return

0.54" intake

0.55" space

Pressures taken from CAS HMI

Written By: Aaron Cosby on 08/14/2025

## Unit Data - PHOTO LOG



08/13/2025

# National TAB

Project:08-18-25 FIREBIRDS NEW ALBANY, OH

## AHU/RTU



### Diffuser Supply (GRD)

#### RTU 1/KITCHEN

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	ENTRANCE	SR	12X6	175	1	154	154	192	109.7
SGRD2	ENTRANCE	SR	12X6	175	1	143	143	191	109.1
SGRD3	ENTRANCE	SR	12X6	175	1	122	122	162	92.6
SGRD4	ENTRANCE	LSD	8"	175	1	167	167	175	100.0
SGRD5	ENTRANCE	LSD	8"	175	1	162	162	186	106.3
SGRD6	DINING	SR	18X6	380	1	391	391	401	105.5
SGRD7	DINING	SR	16X6	325	1	303	303	338	104.0
SGRD8	DINING	SR	18X6	380	1	378	378	405	106.6
SGRD9	DINING	SR	18X6	380	1	344	344	375	98.7
SGRD10	DINING	CD	8"	140	1	107	107	136	97.1
SGRD11	KITCHEN	CD	8"	155	1	142	142	152	98.1
SGRD12	KITCHEN	LSD	12"	280	1	285	285	261	93.2
SGRD13	KITCHEN	LSD	12"	280	1	231	231	256	91.4
Total				3195		2929	2929	3230	101.1%

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: AHU/RTU



Asset: RTU 2

AREA:DINING

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Serial Num	-	6687721
Model Num	CASRTU3-I.300-18-15T	CASRTU3-I.300-18-15T
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	16X25X2"
Num Final Filter 1	-	8
Final Filter Size 1	-	20X25X2"

Test Data		
	Design	Actual
SF CFM	3210	3363
SF RPM	-	NA
RA CFM	-	2136
OA CFM	1253	1227
RL Voltage	-	209 VFD
RL Amperage	-	6.6 VFD
SF Rotation	-	GOOD
SF System SetPt	-	68.6 HZ
Min OA Damper Position	-	4.1 V
Min OA Damper Type	-	ECON

Motor Data		
	Design	Actual
Horsepower	2.00	2.0
Motor Rpm	-	1500
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.3

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

Completed By: Aaron Cosby on 08/14/2025

Notes:

- 0.70 discharge
- 0.72" OA
- 0.56" return
- 0.52" intake
- 0.56" space
- Pressures taken from CAS HMI

Written By: Aaron Cosby on 08/14/2025

Unit Data - PHOTO LOG



08/13/2025

# National TAB

Project:08-18-25 FIREBIRDS NEW ALBANY, OH

## AHU/RTU



### Diffuser Supply (GRD)

#### RTU 2/DINING

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	DINING	CD	12"	285	1	248	248	259	90.9
SGRD2	DINING	CD	12"	285	1	189	189	262	91.9
SGRD3	KITCHEN	CD	6"	100	1	118	118	101	101.0
SGRD4	KITCHEN	CD	6"	100	1	124	124	110	110.0
SGRD5	DINING	SR	18X10	560	1	663	663	611	109.1
SGRD6	DINING	SR	18X10	560	1	663	663	609	108.8
SGRD7	DINING	SR	18X10	560	1	663	663	614	109.6
SGRD8	DINING	SR	18X10	560	1	624	624	599	107.0
SGRD9	RESTROOM	SR	6X6	20	1	22	22	21	105.0
SGRD10	RESTROOM	CD	6"	90	1	109	109	90	100.0
SGRD11	RESTROOM	CD	6"	90	1	95	95	87	96.7
Total				3210		3518	3518	3363	104.77%

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: AHU/RTU



Asset: RTU 3

AREA:DINING

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Serial Num	-	6687721
Model Num	CASRTU1-I.125-13-5T	CASRTU1-I.125-13-5T
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	16X20X2"
Num Final Filter 1	-	8
Final Filter Size 1	-	16X16X2"

Test Data		
	Design	Actual
SF CFM	1600	1498
SF RPM	-	NA
RA CFM	-	1136
OA CFM	337	362
RL Voltage	-	203 VFD
RL Amperage	-	2.5 VFD
SF Rotation	-	GOOD
SF System SetPt	-	56.7 HZ
Min OA Damper Position	-	4.3 V
Min OA Damper Type	-	ECON

Motor Data		
	Design	Actual
Horsepower	1.00	1.0
Motor Rpm	-	1875
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	3.1

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

Completed By: Aaron Cosby on 08/13/2025

Notes:

0.35" discharge

0.81" OA

0.54" return

0.52" intake

0.56" space

Pressures taken from CAS HMI

Written By: Aaron Cosby on 08/14/2025

## Unit Data - PHOTO LOG



08/13/2025

# National TAB

Project:08-18-25 FIREBIRDS NEW ALBANY, OH

## AHU/RTU



### Diffuser Supply (GRD)

#### RTU 3/DINING

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	DINING	CD	8"	200	1	154	154	181	90.5
SGRD2	DINING	CD	8"	200	1	172	172	187	93.5
SGRD3	DINING	SD	8"	200	1	186	186	182	91.0
SGRD4	DINING	SD	8"	200	1	155	155	180	90.0
SGRD5	DINING	SD	8"	200	1	159	159	186	93.0
SGRD6	DINING	SD	8"	200	1	143	143	189	94.5
SGRD7	DINING	SD	8"	200	1	107	107	191	95.5
SGRD8	DINING	SD	8"	200	1	191	191	202	101.0
Total				1600		1267	1267	1498	93.62%

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: FAN - Exhaust



Asset: EF1

AREA:DISHROOM

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	DU33HFA	DU33HFA
Serial Num	-	6687721
Type	CEILING	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	800	300
Fan RPM	1386	NA
Fan Rotation	-	GOOD
Motor RPM	-	NA
System SetPt	-	HIGH SPEED
RL Voltage	-	NA
RL Amperage	-	1.8
Total ESP	0.500"	1.36"
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Horsepower	0.333"	0.33
Motor Rpm	-	2000
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	5.6

Completed By: Aaron Cosby on 08/13/2025

## Unit Data - PHOTO LOG



08/14/2025

# National TAB

Project:08-18-25 FIREBIRDS NEW ALBANY, OH

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF1/DISHROOM

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	DISHROOM	DISHWASHER	12X12	400	1	150	150	150	37.5
EGRD2	DISHROOM	DISHWASHER	12X12	400	1	150	150	150	37.5
Total				800		300	300	300	37.5%

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: FAN - Exhaust



Asset: KEF1

AREA:MAIN L KITCHEN HD

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	DU180HFA	DU180HFA
Serial Num	-	6687721
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	2300	2146
Fan RPM	1212	NA
Fan Rotation	-	GOOD
System SetPt	-	48.2 HZ
RL Voltage	-	106/106/106
RL Amperage	-	4.5/4.4/4.4
Total ESP	1.500"	0.93"
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Horsepower	2.000	2.0
Motor Rpm	-	1800
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	7.2

Completed By: Aaron Cosby on 08/13/2025

## Unit Data - PHOTO LOG



08/13/2025

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: FAN - Exhaust



Asset: KEF2

AREA:MAIN R KITCHEN HD

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	DU180HFA	DU180HFA
Serial Num	-	6687721
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	2300	2196
Fan RPM	1212	NA
Fan Rotation	-	GOOD
System SetPt	-	48.9 HZ
RL Voltage	-	114/115/115
RL Amperage	-	4.4/4.3/4.3
Total ESP	1.500"	0.65"
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Horsepower	2.000	2.0
Motor Rpm	-	1800
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	7.2

Completed By: Aaron Cosby on 08/13/2025

## Unit Data - PHOTO LOG



08/13/2025

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: FAN - Exhaust



Asset: KEF3

AREA:GRILL KITCHEN HD

Unit Data		
	Design	Actual
MFG	NA	DELHI BLOWERS
Model Num	NA	HRE-20
Serial Num	-	HRE-20KO1P33S43031
Type	-	UPBLAST
Configuration	-	VERTICAL

Test Data		
	Design	Actual
CFM	3200	2970
Fan RPM	-	NA
Fan Rotation	-	GOOD
RL Voltage	-	106/106/106
RL Amperage	-	4.3/4.3/4.4
Discharge ESP	-	ATM
Total ESP	1.6"	NA

Motor Data		
	Design	Actual
Horsepower	2.000	5
Motor Rpm	-	NL
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	NL

Completed By: Aaron Cosby on 08/14/2025

Notes:  
48.2 HZ  
Pressure readings unavailable as the fan is sealed to the curb and won't hinge back

Written By: Aaron Cosby on 08/14/2025

## Unit Data - PHOTO LOG



08/14/2025

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: FAN - Exhaust



Asset: KEF4

AREA:PREP KITCCHEN HD

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	DU180HFA	DU180HFA
Serial Num	-	6687721
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	2200	2296
Fan RPM	1129	NA
Fan Rotation	-	GOOD
System SetPt	-	60 HZ
RL Voltage	-	115/115/115
RL Amperage	-	5.2/5.1/5.2
Total ESP	1.400"	0.64"
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Horsepower	2.000	2.0
Motor Rpm	-	1800
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	7.2

Completed By: Aaron Cosby on 08/13/2025

## Unit Data - PHOTO LOG



08/13/2025

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: FAN - Exhaust



Asset: TEF1

AREA:RESTROOMS

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	G-080	G-080
Serial Num	-	L24XZ56577
Type	CENTRIFUGAL	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	200	211
Fan RPM	-	NA
Fan Rotation	-	GOOD
Motor RPM	-	NA
RL Voltage	-	118
RL Amperage	-	0.4
Total ESP	0.5"	0.15"

Motor Data		
	Design	Actual
Motor MFG	-	PENNBARRYRR
Horsepower	-	0.33
Motor Rpm	-	1750
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	5.2

Completed By: Aaron Cosby on 08/13/2025

Notes:  
Low speed

Written By: Aaron Cosby on 08/14/2025

## Unit Data - PHOTO LOG



08/14/2025

# National TAB

Project:08-18-25 FIREBIRDS NEW ALBANY, OH

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### TEF1/RESTROOMS

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	RESTROOM	EG	6"	100	1	352	109	109	109.0
EGRD2	RESTROOM	EG	6"	100	1	329	102	102	102.0
Total				200		681	211	211	105.5%

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: FAN - Supply



Asset: MAU1

AREA:MAIN KITCHEN HD

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	A2-D.500-20D-MPU	A2-D.500-20D-MPU
Serial Num	-	6687721
Type	MAU	MAU
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	3800	3569
SF RPM	1660	NA
Motor RPM	-	NA
RL Voltage	-	210/208/208
RL Amperage	-	12.3/12.5/12.5
Total ESP	-	0.66"

Motor Data		
	Design	Actual
Horsepower	5.000	5.0
Motor Rpm	-	2100
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	15

General	
	Actual
Fan Rotation Correct	GOOD

Gas Heat		
	Design	Actual
Heater Operates (y/n)	-	N
Flame Status (pass/fail)	-	FAIL
Inlet Air Temp SetPt	55	55
Discharge Air Temp SetPt	60	60
Air Flow Switch SP Actual	-	0

Completed By: Aaron Cosby on 08/13/2025

Notes:  
77 HZ

Written By: Aaron Cosby on 08/13/2025

## Unit Data - PHOTO LOG



08/13/2025

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: Kitchen Hood Type I



Asset: HD1

AREA:KITCHEN MAIN L

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	5424 ND-2-PSP-F	5424 ND-2-PSP-F
Job / Serial Num	-	6687721
Type	TYPE 1 CANOPY	TYPE 1 CANOPY
Hood length	138"	138"
Hood Width	54"	54"
Supply Plenum Type	-	PSP
Supply Plenum Width	6"	6"
Supply Plenum Length	150"	150"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO FILTER
Filter Size 1	16X20	16X20
Filter Qty 1	8	8
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	16.64	16.64
Filter1 FPM	-	111
Filter2 FPM	-	138
Filter3 FPM	-	150
Filter4 FPM	-	154
Filter5 FPM	-	131
Filter6 FPM	-	132
Filter7 FPM	-	113
Filter8 FPM	-	108
Filter Ave FPM(corr)	-	129
CFM	2300	2146

Cooking Equipment	
	Actual
Item 1	STOVE
Item 2	OVEN

Test Data Supply		
	Design	Actual
Total Area	6.25	6.25
Kv factor (Vel)	0.78	0.91
Num of Readings	-	7
Reading1 FPM	-	276
Reading2 FPM	-	306
Reading3 FPM	-	341
Reading4 FPM	-	317
Reading5 FPM	-	337
Reading6 FPM	-	314
Reading7 FPM	-	326
Ave FPM(corr)	-	316
CFM	1900	1801

Completed By: Aaron Cosby on 08/12/2025

## Unit Data - PHOTO LOG



08/13/2025

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: Kitchen Hood Type I



Asset: HD2

AREA:KITCHEN MAIN R

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	5424 ND-2-PSP-F	5424 ND-2-PSP-F
Job / Serial Num	-	6687721
Type	TYPE 1 CANOPY	TYPE 1 CANOPY
Hood length	138"	138"
Hood Width	54"	54"
Supply Plenum Type	-	PSP
Supply Plenum Width	6"	6"
Supply Plenum Length	138"	138"

Test Data Supply		
	Design	Actual
Total Area	5.75	5.75
Kv factor (Vel)	0.78	0.91
Num of Readings	-	9
Reading1 FPM	-	380
Reading2 FPM	-	351
Reading3 FPM	-	285
Reading4 FPM	-	328
Reading5 FPM	-	400
Reading6 FPM	-	353
Reading7 FPM	-	300
Reading8 FPM	-	336
Reading9 FPM	-	310
Ave FPM(corr)	-	338
CFM	1900	1768

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOO FILTER	CAPTRATE SOO FILTER
Filter Size 1	16X20	16X20
Filter Qty 1	8	8
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	16.64	16.64
Filter1 FPM	-	122
Filter2 FPM	-	120
Filter3 FPM	-	138
Filter4 FPM	-	130
Filter5 FPM	-	153
Filter6 FPM	-	170
Filter7 FPM	-	126
Filter8 FPM	-	103
Filter Ave FPM(corr)	-	132
CFM	2300	2196

Cooking Equipment	
	Actual
Item 1	GRILL

Completed By: Aaron Cosby on 08/12/2025

## Unit Data - PHOTO LOG



08/13/2025

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH  
System/Unit: Kitchen Hood Type I



Asset: HD3

AREA: KITCHEN - GRILL

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	6030 ND-2	6030 ND-2
Job / Serial Num	-	6687721
Type	TYPE 1 CANOPY	TYPE 1 CANOPY
Hood length	98"	98"
Hood Width	60"	60"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO FILTER
Filter Size 1	16X20	16X20
Filter Qty 1	6	6
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	12.48	12.48
Filter1 FPM	-	235
Filter2 FPM	-	241
Filter3 FPM	-	252
Filter4 FPM	-	242
Filter5 FPM	-	238
Filter6 FPM	-	221
Filter Ave FPM(corr)	-	238
CFM	3200	2970

Cooking Equipment	
	Actual
Item 1	STOVE

Completed By: Aaron Cosby on 08/12/2025

### Unit Data - PHOTO LOG



08/13/2025

# National TAB

Project: 08-18-25 FIREBIRDS NEW ALBANY, OH

System/Unit: Kitchen Hood Type I



Asset: HD4

AREA:KITCHEN - PREP

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	6024 ND-2	6024 ND-2
Job / Serial Num	-	6687721
Type	TYPE 1 CANOPY	TYPE 1 CANOPY
Hood length	132"	132"
Hood Width	60"	60"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO FILTER
Filter Size 1	20X16	20X16
Filter Qty 1	8	8
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	16.64	16.64
Filter1 FPM	-	120
Filter2 FPM	-	130
Filter3 FPM	-	146
Filter4 FPM	-	165
Filter5 FPM	-	160
Filter6 FPM	-	136
Filter7 FPM	-	136
Filter8 FPM	-	115
Filter Ave FPM(corr)	-	138
CFM	2200	2296

Cooking Equipment	
	Actual
Item 1	STOVE
Item 2	OVEN

Completed By: Aaron Cosby on 08/12/2025

## Unit Data - PHOTO LOG



08/13/2025

