

Report By:



National TAB
1329 E Kemper Rd, Ste 4210
Cincinnati, OH 45246

Report: Test and Balance
Date: 11/5/2021

PROJECT
ARBY'S #5451 - OKMULGEE, OK

129 S WOOD DR
OKMULGEE, OK

Client

Flynn Restaurant Group
6200 Oak Tree Boulevard
Suite 250
Independence, OH 44131

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National TAB

Project: ARBY'S #5451 - OKMULGEE, OK

REMARKS

Assigned Organization: National TAB

Status: Not Submitted

Asset:

PRIORITY (HIGH/LOW/INFO ONLY)	
OVERALL BUILDING PERFORMANCE	
INFO ONLY	Net building airflow was initially -1830 CFM and after completion of balancing this was improved to net -1004 CFM and -0.0137" wc. Building is still highly negative and there are further recommendations below that need to be completed in order to improve performance.
RTU-1 (KITCHEN)	
INFO ONLY	Airflow is 303 CFM/ton which is lower than recommended although it is still within tolerance of the assumed original design of 333 CFM/ton.
LOW	Return grilles are dirty. Recommend cleaning.
LOW	Recommend cleaning inside RTU compartments.
HIGH	Outside air damper is not responding and could the damper could not be manually set. Recommend manually setting approximately 0.5" open.
HIGH	Evaporator coil is very dirty and likely causing airflow restriction. Recommend thorough deep clean of the coil. Make take several times to fully clean.
LOW	Condenser coil is dirty. Recommend cleaning.
HIGH	Belt is loose and could not be tightened due a rusted bolt. Recommend properly tightening.
RTU-2 (DINING)	
INFO ONLY	Airflow is 435 CFM/ton which is acceptable.
LOW	Return grilles are dirty. Recommend cleaning.
HIGH	Manager stated that the dining room RTU will suddenly turn off and that she has to manually reset the RTU at the breaker. This issue was not observed while the TAB tech was on site. Recommend troubleshooting issue.
HIGH	Motor is overamping but the motor sheave is frozen and speed could not be reduced. Recommend breaking free and slowing down until the motor is below the FLA rating. Fan should still be within design tolerance after making the adjustment.
HIGH	Condensate drain is broken off. Recommend repairing so that the unit can properly drain.
HIGH	Humidity sensor alarm is present on the Prodigy controller. RTU has humidity control but the humidity sensor is not wired/installed. Recommend completing and ensuring that it is properly communicating.

EF-1 (FRYERS)/FRYER HOOD	
HIGH	Airflow is higher than required for this application (1820 CFM). Fan is old and dirty so may consider replacing the entire fan. If doing so the curb size is 23.5"x24". Recommend replacing with a ECM direct drive fan. The hood is 84" long which requires 1600 CFM but could possibly be reduced to 1400 CFM depending on field testing. Also recommend quarter end panels be installed. If fan is to remain then recommend changing pulleys to an 8" diameter fan pulley with 3/4" bore. REquires approximately AX21 belt.
LOW	Fan is very dirty and needs to be cleaned.
EF-2 (OVEN HOOD)/OVEN HOOD	
HIGH	Fan is not operating. Recommend repair or replacement. The curb size is 19.5x19.5. Only requires approximately 500-600 CFM of exhaust.
HIGH	Belt is broken and needs to be replaced.
HIGH	There is an insect nest inside motor compartment that needs to be removed.
EF-3 (UNKONWN)	
INFO ONLY	Fan is not operating and appears to be abandoned. Did not find any ductwork for this fan.
EF-4 (RESTROOM)	
HIGH	Fan is not operational and should be replaced. Curb size is 19.5"x19.5".
MUA (FRYER HOOD)	
HIGH	Fan is not operational. Fan is non-tempered and non-conditioned. Appears that based on HVAC/exhaust flows that a MUA will be required to maintain a positive building pressure. Recommend replacing with a heated MUA minimum and consulting Captive-Aire to see if they would recommend a conditioned MUA for the climate. Also recommend a PSP be installed in front of the hood for improved performance and comfort in the kitchen.

Notes/Comments:



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		2432		2432		0		0.0%						
RTU-2	DINING		4345		3529		816		18.8%						
MUA-1	HOOD 1										0				
EF-1	HOOD 1											1820			
EF-2	HOOD 2											0			
EF-4															0
TOTALS		0	6777	0	5961	0	816			0	0	0	1820	0	0

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	0	816
TOTAL EXHAUST	0	1820
NET AIRFLOW	0	-1004

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	-0.0247
SIDE	-0.0153
REAR	-0.0012
AVERAGE	-0.0137

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:

Project Checklist

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: 1 Initial Airflows

Tested By: Salomon Cantu
Date: 8/13/2021

Findings - 1 Initial Airflows

	Verification	Response	Notes	By	Date/Time
1	What is the initial building pressure before making any changes?	FD1:0.0033 SD1:0.0015 SD2: BD:0.0034 0.0021		SC	8/13/21 20:08
2	Measure initial temperature and humidity in the kitchen	DB: 71.6 WB: 64.1 H: 67.2%		SC	8/11/21 12:19
3	Measure initial temperature and humidity in the dining	DB: 69.0 WB: 62.3 H: 70.5%		SC	8/11/21 12:09
4	SUPPLY RTU-1	2432		SC	8/13/21 20:15
5	OA RTU-1	0		SC	8/11/21 13:22
6	SUPPLY RTU-2	4345		SC	8/13/21 20:15
7	OA RTU-2	0		SC	8/11/21 14:25
8	SUPPLY RTU-3	-		SC	8/11/21 17:39
9	OA RTU-3	-		SC	8/11/21 17:39
10	EF-1	1820		SC	8/13/21 20:26
11	EF-2	0		SC	8/11/21 17:39
12	EF-3	0		SC	8/11/21 17:39
13	EF-4	0		SC	8/11/21 17:39
14	MAU-1	0		SC	8/11/21 17:39

Project Checklist

PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: 2 Initial Walkthrough

Tested By: Salomon Cantu
 Date: 8/11/2021

Findings - 2 Initial Walkthrough

Verification	Response	Notes	By	Date/Time
1	All diffusers and grilles are installed?	Yes	SC	8/11/21 12:10
2	Take pictures of diffusers in the dining and kitchen. Note if there are "Plaque" style diffusers installed.	No	SC	8/11/21 12:10

Take pictures of diffusers in the dining and kitchen. Note if there are "Plaque" style diffusers installed. Photo:



Name: Dining Room Diffuser.jpg
 Captured: 8/23/2021 10:17 AM
 Caption:

3	All hood filters installed and accounted for?	Yes	SC	8/11/21 12:10
4	Hoods are wired and have power?	Yes	SC	8/11/21 12:10
5	Hood is free of alarms?	Yes	SC	8/11/21 12:10
6	Thermostats have power?	Yes	SC	8/11/21 12:11

Thermostats have power? Photo:



Name: Kitchen TStat.jpg
 Captured: 8/23/2021 10:16 AM
 Caption:

7	Any drafting occurring?	No	SC	8/11/21 12:14
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Project Checklist



PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: 2 Initial Walkthrough

Tested By: Salomon Cantu
 Date: 8/11/2021

Findings - 2 Initial Walkthrough

Verification	Response	Notes	By	Date/Time
Any drafting occurring? Photo:				
				
Name: Dining Room TStat.jpg Captured: 8/23/2021 10:16 AM Caption:				
8	Any Comfort issues noticed or manager statements?	Yes	Manager stated that the unit that serves the Dining room will suddenly turn off at times and she uses the breaker to turn it back on.	SC 8/11/21 12:17
9	Any significant or abnormal ventilation noise in dining or kitchen?	No		SC 8/11/21 12:18
10	Do return grilles in kitchen or dining have significant amount of dirt buildup that might impact airflow?	Yes		SC 8/11/21 12:18
Do return grilles in kitchen or dining have significant amount of dirt buildup that might impact airflow? Photo:				
				
Name: Do return grilles in kitchen or dining have signif.jpg Captured: 8/11/2021 12:18 PM Caption:				
11	Do ceiling tiles near the hoods have any evidence of staining that might indicate an issue with hood performance?	No		SC 8/11/21 12:18

Project Checklist

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: 3 Final Tests

Tested By: Salomon Cantu
Date: 8/11/2021

Findings - 3 Final Tests

	Verification	Response	Notes	By	Date/Time
1	Program thermostats for 7:00AM - 11:45PM occupied time	Yes		SC	8/11/21 17:41
2	Occupied temperatures - 71 cooling, 69 heating	Yes		SC	8/11/21 17:41
3	Occupied Fan Status - ON	Yes		SC	8/11/21 17:41
4	Program thermostats for 11:45PM - 7:00AM unoccupied time	Yes		SC	8/11/21 17:41
5	Occupied temperatures - 76 cooling, 65 heating	Yes		SC	8/11/21 17:41
6	Occupied Fan Status - AUTO	Yes		SC	8/11/21 17:41
7	Measure final temperature and humidity in the kitchen	DB: 75.3 WB: 64.9 H: 57%		SC	8/11/21 17:48
8	Measure final temperature and humidity in the dining	DB: 71.8 WB: 62.7 H: 61%		SC	8/11/21 17:44
9	Confirm that the temperatures/humidities match what is shown on the corresponding thermostats. Make a note if more than 1 degree temperature difference is noted.	Yes		SC	8/11/21 17:44

SYSTEM/UNIT: 4 Maintenance Tech Grade

Tested By: Salomon Cantu
Date: 8/13/2021


Findings - 4 Maintenance Tech Grade


	Verification	Response	Notes	By	Date/Time
1	Availability of Mechanical Contractor while on site (1-10)	-		SC	8/13/21 20:07
2	Mechanical Contractor was supportive during TAB process (1-10)	-		SC	8/13/21 20:07
3	Notes/Explanation (if needed/not required)	-		SC	8/13/21 20:07

Project Issue Report

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu


Issue ID:	0001	Status:	Open	Issue Priority:	
Equipment:	RTU-01			Created Date: 11-Aug-21	
Issue Description:					
Condensation lines are not installed correctly and is causing a water build up on roof.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					
Issue Photos:					
					
Name:	Condensation lines are not installed correctly and .jpg				
Captured:	8/11/2021 12:54 PM				

Issue ID:	0002	Status:	Open	Issue Priority:	
Equipment:	RTU-01			Created Date: 11-Aug-21	
Issue Description:					
Unit interior is very dirty and needs servicing.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					
Issue Photos:					
					
Name:	Unit interior is very dirty and needs servicing. .jpg	Name:	Unit interior is very dirty and needs servicing. .jpg	Name:	Unit interior is very dirty and needs servicing. .jpg
Captured:	8/11/2021 1:20 PM	Captured:	8/11/2021 1:20 PM	Captured:	8/11/2021 12:59 PM

Project Issue Report

PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu


Issue ID:	0003	Status:	Open	Issue Priority:	
Equipment:	RTU-01				Created Date: 11-Aug-21
Issue Description:					
Belt is loose and was nit able to be tightened due to a bolt that was rusted shut.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					
Issue Photos:					
					
Name:	Belt is loose and was nit able to be tightened due.jpg				
Captured:	8/11/2021 1:22 PM				


Issue ID:	0004	Status:	Open	Issue Priority:	
Equipment:	RTU-01				Created Date: 11-Aug-21
Issue Description:					
Outside air controller is unresponsive, unable to set outside air.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

Project Issue Report

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

Issue ID:	0006	Status:	Open	Issue Priority:	
Equipment:	RTU-02			Created Date: 11-Aug-21	
Issue Description:					
Condensation lines are not installed properly and aren't connected causing a large water build up on roof.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					
Issue Photos:					
					
Name:	Condensation lines are not installed properly and .jpg		Name:	Condensation lines are not installed properly and .jpg	
Captured:	8/11/2021 2:01 PM		Captured:	8/11/2021 2:01 PM	

Issue ID:	0007	Status:	Open	Issue Priority:	
Equipment:	RTU-02			Created Date: 11-Aug-21	
Issue Description:					
Active alarm is reading: "Alarming Value:0 Humidity sensor A91"					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					
Issue Photos:					
					
Name:	RTU-02.jpg				
Captured:	8/11/2021 2:23 PM				

Project Issue Report

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

Issue ID:	0008	Status:	Open	Issue Priority:	
Equipment:	RTU-02			Created Date: 11-Aug-21	

Issue Description:
 Unit is over amping and could not be slowed down due to the sheave being frozen shut, 2 missing set screws and slide in key.

Issue Type: Installation
 Role Assignment: Mechanical Contractor
 Comments / Signature:

Issue Photos:



Name: Unit is over amping and could not be slowed down d.jpg
 Captured: 8/11/2021 3:18 PM



Name: Unit is over amping and could not be slowed down d.jpg
 Captured: 8/11/2021 3:18 PM



Name: Unit is over amping and could not be slowed down d.jpg
 Captured: 8/11/2021 3:18 PM

Issue ID:	0009	Status:	Open	Issue Priority:	
Equipment:	Kitchen Fan-03			Created Date: 11-Aug-21	

Issue Description:
 Fan is not wired in and is not operating.

Issue Type: Installation
 Role Assignment: Mechanical Contractor
 Comments / Signature:

Issue Photos:



Name: Kitchen Fan-03.jpg
 Captured: 8/11/2021 3:26 PM

Project Issue Report

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

Issue ID:	0010	Status:	Open	Issue Priority:	
Equipment:	Kitchen Fan-02			Created Date: 11-Aug-21	
Issue Description: Fan is not operating.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

Issue ID:	0011	Status:	Open	Issue Priority:	
Equipment:	Kitchen Fan-02			Created Date: 11-Aug-21	
Issue Description: Unit is very dirty and unit interior needs servicing. There is an insect nest in the unit.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

Issue Photos:





Name: Unit is very dirty and unit interior needs service.jpg
Captured: 8/11/2021 3:31 PM

Project Issue Report

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu




Issue ID:	0012	Status:	Open	Issue Priority:	
Equipment:	Kitchen Fan-02			Created Date: 11-Aug-21	
Issue Description: Belt needs to be replaced.					
Issue Type: Installation					
Role Assignment: Mechanical Contractor					
Comments / Signature:					
Issue Photos:					
					
Name: Belt needs to be replaced..jpg					
Captured: 8/11/2021 3:30 PM					

Issue ID:	0014	Status:	Open	Issue Priority:	
Equipment:	MAU			Created Date: 11-Aug-21	
Issue Description: MAU is not operating.					
Issue Type: Installation					
Role Assignment: Mechanical Contractor					
Comments / Signature:					
Issue Photos:					
					
Name: MAU is not operating..jpg					
Captured: 8/11/2021 3:47 PM					

Project Issue Report

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

Issue ID:	0015	Status:	Open	Issue Priority:	
Equipment:	Kitchen Fan-01			Created Date: 11-Aug-21	
Issue Description: Unit is extremely filthy and needs the unit interior serviced.					
Issue Type: Installation Role Assignment: Mechanical Contractor Comments / Signature:					
Issue Photos:					
					
Name: Kitchen Fan-01.jpg Captured: 8/11/2021 4:02 PM		Name: Kitchen Fan-01.jpg Captured: 8/11/2021 4:02 PM		Name: Kitchen Fan-01.jpg Captured: 8/11/2021 4:02 PM	

Issue ID:	0016	Status:	Open	Issue Priority:	
Equipment:	Restroom Fan			Created Date: 11-Aug-21	
Issue Description: Fan is not operating.					
Issue Type: Installation Role Assignment: Mechanical Contractor Comments / Signature:					

Issue ID:	0017	Status:	Open	Issue Priority:	
Equipment:	Kitchen Fan-03			Created Date: 13-Aug-21	
Issue Description: Could not locate where exhaust fan is ducted too.					
Issue Type: Installation Role Assignment: Mechanical Contractor Comments / Signature:					

Air Apparatus

PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: RTU-01

Tested By: Salomon Cantu
 Date: 8/11/2021



Design Airflow (CFM)		Final Airflow (CFM)	
Design Total	2650	Actual Total CFM	2432
Design Grille Total	2650	Actual Grille Total CFM	2432
Design Return	2120	Actual Return Air CFM	2432
Design Min O/A	530	Actual Min O/A CFM	0
Unit Design Data		Unit Data	
Submittal Make	Existing Unit	Make (tag)	AAON
Submittal Model #	-	Model # (tag)	20047 RK-08-2-E0-222:C00E0AD0H0000B
Submittal Airflow	-	Serial # (tag)	98HKGH415
Sched./Sub. Volts	-	Location	Roof
Sched./Sub. Phase	-	Unit Discharge	Downblast
Sched./Sub. HP	-	Cooling Coil Location	Unit / Drawthru
Submittal BHP	-	Coil Area (sq ft)	13.3
Filter MERV Rating (Sched/Sub)	-	Clg Coil Vel (FPM)	183
Design Static Pressures (in wg)		Fan Design Data	
Design Ext SP	Existing Unit	Submittal Motor RPM	Existing Unit
Submittal Total SP	-	Submittal Fan RPM	-
Submittal Clg Coil Δ SP	-	Fan Data	
Filter Data		Electrical Data	
Condition	Partially Loaded	Measurement Method	V/A Meter
Filter Type	Disposable	Motor Volts 1	208
MERV Rating	-	Motor Volts 2	205
Filter Size Set 1 (in)	20x16x2		
# Filters Set 1	6		
Filter Size Set 2 (in)	-		
# Filters Set 2	-		
Motor Nameplate Data			
Motor Make	A.O. Smith		
Motor Frame	56HZ		
Motor HP	1.00		
Motor RPM	1725		
Motor Volts	208		
Motor Phase	3		

Air Apparatus

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LOCATION: Okmulgee, OK
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DATE: 8/23/2021
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SYSTEM/UNIT: RTU-01

Tested By: Salomon Cantu
Date: 8/11/2021

Motor Nameplate Data	
Motor Amps	3.2
Motor S.F.	1.15
Motor % PF	Not Listed
Motor % Eff.	-
Other Motor Data	-

Drive Data	
Drive Type	Belt Drive
Sheave Type	Variable
Fan Sheave Make	Not Accessible
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	PowerDrive
Mtr Shv Mod# or Size (in)	1VP44
Motor Sheave Bore (in)	7/8
VP Range	Mid Range
Center Distance (in)	24.5
No of Belts	1
Belt Make	Browning
Belt Size	BX61
Other Data	-

Electrical Data	
Motor Volts 3	205
Motor Amps 1	2.8
Motor Amps 2	2.5
Motor Amps 3	2.8
Operating HZ	60.00
Approx. BHP	0.9
Corr. Nameplate Amps	3.2
Starter Data	Not Applicable
VFD Reference	Not Applicable

Actual Temperatures (°F)	
Entering Air DB	92.0
Entering Air WB	78.9
Leaving Air DB	54.9
Leaving Air WB	53.6
Outside Air DB	100.7
Outside Air WB	82.8

Air Apparatus

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DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: RTU-01

Tested By: Salomon Cantu
 Date: 8/11/2021

Motor Make Photo:



Name: Motor Make.jpg
 Captured: 8/11/2021 12:56 PM
 Caption:

Make (tag) Photo:



Name: Make (tag).jpg
 Captured: 8/11/2021 1:01 PM
 Caption:

General - RTU-01

Verification	Response	Notes	By	Date/Time
1 Economizers are assembled and functional?	No		SC	8/11/21 13:27
2 Free cooling enthalpy set point set for lowest setting (Typically "D")	Yes		SC	8/11/21 13:52
3 Motors are all operating below the FLA rating?	Yes		SC	8/11/21 13:53
4 Are belts tight and in good condition?	No		SC	8/11/21 13:31
5 If direct drive unit is the speed controller working?	NA		SC	8/11/21 13:31

Air Apparatus

PROJECT: Arby's #5451
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 PROJECT #: 21232

DATE: 8/23/2021
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SYSTEM/UNIT: RTU-01

Tested By: Salomon Cantu
 Date: 8/11/2021

General - RTU-01

Verification	Response	Notes	By	Date/Time
6	Is gas piping installed and valves turned on?	Yes	SC	8/11/21 13:31
7	Are the condenser coils free of damage and clean? (Take picture)	No	SC	8/11/21 13:24

Are the condenser coils free of damage and clean? (Take picture) Photo:



Name: Are the condenser coils free of damage and clean? .jpg
 Captured: 8/11/2021 1:24 PM
 Caption:

8	Are the evaporator coils free of damage and clean? (Take picture)	Yes	SC	8/11/21 13:53
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Are the evaporator coils free of damage and clean? (Take picture) Photo:



Name: Are the evaporator coils free of damage and clean?.jpg
 Captured: 8/11/2021 1:53 PM
 Caption:

9	Unit free of noticeable noise and vibration	Yes	SC	8/11/21 13:31
10	Any other damage of cleanliness issues to note?	Yes	SC	8/11/21 13:32

Air Apparatus

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DATE: 8/23/2021
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SYSTEM/UNIT: RTU-01

Tested By: Salomon Cantu
 Date: 8/11/2021

General - RTU-01

Verification	Response	Notes	By	Date/Time
11	Measure the discharge ductwork if the static pressures indicate possible restriction.	-	SC	8/11/21 13:32

Control Systems - RTU-01

Verification	Response	Notes	By	Date/Time
1	Do the RTU's have humidity control?	No	SC	8/11/21 13:32
2	Take pictures of the electrical compartment including the low voltage wiring	Yes	SC	8/11/21 13:05

Take pictures of the electrical compartment including the low voltage wiring Photo:



Name: Take pictures of the electrical compartment includ.jpg
 Captured: 8/11/2021 1:05 PM
 Caption:

3	Are the humidity sensors wired properly?	No	SC	8/11/21 13:32
4	If maximum damper position can be set, set to the same as the minimum damper position (if Lennox, see section at end of this checklist)	NA	SC	8/11/21 13:32
5	Final damper position is clearly marked with permanent marker or white out?	NA	SC	8/11/21 13:32
6	If damper had to be manually set and is loose, secure it with a sheet metal screw so that it cannot shut	NA	SC	8/11/21 13:32
7	LENNOX ONLY: For Honeywell Pro 8000 (TH8321R) thermostats, make sure it is set up for "Commercial", "2 Stage", and "A" terminal is wired and assigned to "Economizer".	NA	SC	8/11/21 13:32

Air Apparatus

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DATE: 8/23/2021
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SYSTEM/UNIT: RTU-01

Tested By: Salomon Cantu
 Date: 8/11/2021

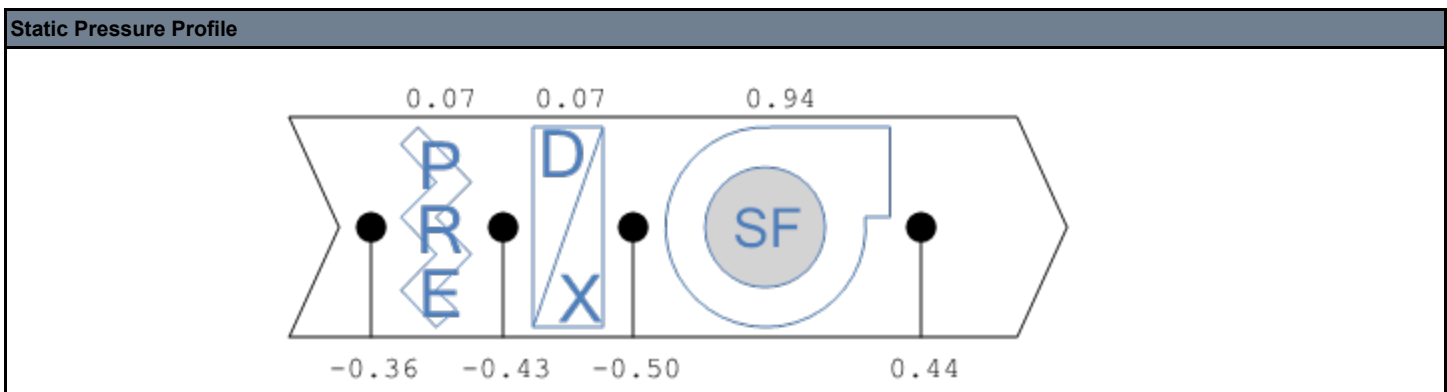
Control Systems - RTU-01

Verification	Response	Notes	By	Date/Time
8 LENNOX ONLY: For Lennox Comfort Sense CS7500-CS8500 thermostats, make sure the "EC" terminal is wired, set up for 2 stage operation, stage delay timer is off, and stage 2 differential is 1.5F.	NA		SC	8/11/21 13:32
9 LENNOX ONLY: On Prodigy controller, ensure Dehumidifier set to "No Condition", Local Sensor, Setpoint is 55%, Deadband is 3%.	NA		SC	8/11/21 13:32
10 LENNOX ONLY: On Prodigy controller, ensure economizer damper set point is set to 50°F.	NA		SC	8/11/21 13:32
11 LENNOX ONLY: Set parameter 131 on Prodigy to 50% (Max damper position)	NA		SC	8/11/21 13:32

Log:	RTU-01	8/11/2021	Salomon Cantu	Condensation lines are not installed correctly and is causing a water build up on roof.
	RTU-01	8/11/2021	Salomon Cantu	Unit interior is very dirty and needs servicing.
	RTU-01	8/11/2021	Salomon Cantu	Belt is loose and was nit able to be tightened due to a bolt that was rusted shut.
	RTU-01	8/11/2021	Salomon Cantu	Outside air controller is unresponsive, unable to set outside air.

SYSTEM/UNIT: RTU-01/Static Profile

Tested By: Salomon Cantu
 Date: 8/11/2021



Air Apparatus

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

RTU-01 Supply Outlet Summary

System/Unit	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	CD	-	2650	440	440	17	Flow Hood	1.000	1.000	440
S-02	CD	-	-	98	98		Flow Hood	1.000	1.000	98
S-03	CD	-	-	318	318		Flow Hood	1.000	1.000	318
S-04	CD	-	-	287	287		Flow Hood	1.000	1.000	287
S-05	CD	-	-	120	120		Flow Hood	1.000	1.000	120
S-06	CD	-	-	315	315		Flow Hood	1.000	1.000	315
S-07	CD	-	-	325	325		Flow Hood	1.000	1.000	325
S-08	CD	-	-	105	105		Flow Hood	1.000	1.000	105
S-09	CD	-	-	236	236		Flow Hood	1.000	1.000	236
S-10	CD	-	-	188	188		Flow Hood	1.000	1.000	188
Totals:	-	-	2650	2432	2432	92	-	-	-	-

Air Apparatus

PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: RTU-02

Tested By: Salomon Cantu
 Date: 8/13/2021



Design Airflow (CFM)		Final Airflow (CFM)	
Design Total	4000	Actual Total CFM	4345
Design Grille Total	4000	Actual Grille Total CFM	4345
Design Return	3200	Actual Return Air CFM	3529
Design Min O/A	800	Actual Min O/A CFM	816
Unit Design Data		Unit Data	
Submittal Make	Existing Unit	Make (tag)	Lennox
Submittal Model #	-	Model # (tag)	LGH120H4BH4BH3Y
Submittal Airflow	-	Serial # (tag)	5617J06711
Sched./Sub. Volts	-	Location	Roof
Sched./Sub. Phase	-	Unit Discharge	Downblast
Sched./Sub. HP	-	Cooling Coil Location	Unit / Drawthru
Submittal BHP	-	Fan Service	Supply
Filter MERV Rating (Sched/Sub)	-	Fan Type	Centrifugal (FC)
Design Static Pressures (in wg)		Fan Design Data	
Design Ext SP	Existing Unit	Submittal Motor RPM	Existing Unit
Submittal Total SP	-	Submittal Fan RPM	-
Submittal Clg Coil Δ SP	-	Fan Data	
Filter Data		Electrical Data	
Condition	Partially Loaded	Measurement Method	V/A Meter
Filter Type	Disposable	Motor Volts 1	208
MERV Rating	-	Motor Volts 2	205
Filter Size Set 1 (in)	25x20x2	Motor Volts 3	205
# Filters Set 1	4	Motor Amps 1	10.4
Filter Size Set 2 (in)	-	Motor Nameplate Data	
# Filters Set 2	-	Motor Make	InterLink
Motor Nameplate Data		Motor Frame	56HZ
Motor Make	InterLink	Motor HP	3.00
Motor Frame	56HZ	Motor RPM	1750
Motor HP	3.00	Motor Volts	200
Motor RPM	1750	Motor Phase	3
Motor Volts	200		
Motor Phase	3		

Air Apparatus

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: RTU-02

Tested By: Salomon Cantu
Date: 8/13/2021

Motor Nameplate Data	
Motor Amps	8
Motor S.F.	1.15
Motor % PF	78%
Motor % Eff.	86.9%
Other Motor Data	-

Drive Data	
Drive Type	Belt Drive
Sheave Type	Variable
Fan Sheave Make	DODGE
Fan Shv Mod# or Size (in)	6.5
Fan Sheave Bore (in)	1
Motor Sheave Make	DW
Mtr Shv Mod# or Size (in)	1VP50
Motor Sheave Bore (in)	3/4
VP Range	Fully Closed
Center Distance (in)	23.0
No of Belts	1
Belt Make	Browning
Belt Size	BX61
Other Data	-

Electrical Data	
Motor Amps 2	10.4
Motor Amps 3	10.2
Operating HZ	60.00
Approx. BHP	4.1
Corr. Nameplate Amps	7.7
Starter Data	Not Applicable
VFD Reference	Not Applicable

Actual Temperatures (°F)	
Entering Air DB	88.4
Entering Air WB	76.3
Leaving Air DB	59.9
Leaving Air WB	58.3
Outside Air DB	104.7
Outside Air WB	83.7

Air Apparatus

PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: RTU-02

Tested By: Salomon Cantu
 Date: 8/13/2021

Motor Make Photo:



Name: Motor Make.jpg
 Captured: 8/11/2021 2:02 PM
 Caption:

Make (tag) Photo:



Name: Make (tag).jpg
 Captured: 8/11/2021 1:55 PM
 Caption:

General - RTU-02

Verification	Response	Notes	By	Date/Time
1	Economizers are assembled and functional?	Yes	SC	8/11/21 15:20
2	Free cooling enthalpy set point set for lowest setting (Typically "D")	Yes	SC	8/11/21 15:20
3	Motors are all operating below the FLA rating?	No	SC	8/11/21 15:20
4	Are belts tight and in good condition?	Yes	SC	8/11/21 15:20
5	If direct drive unit is the speed controller working?	NA	SC	8/11/21 15:20

Air Apparatus

PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: RTU-02

Tested By: Salomon Cantu
 Date: 8/13/2021

General - RTU-02

Verification	Response	Notes	By	Date/Time
6	Is gas piping installed and valves turned on?	Yes	SC	8/11/21 15:20
7	Are the condenser coils free of damage and clean? (Take picture)	Yes	SC	8/11/21 13:58

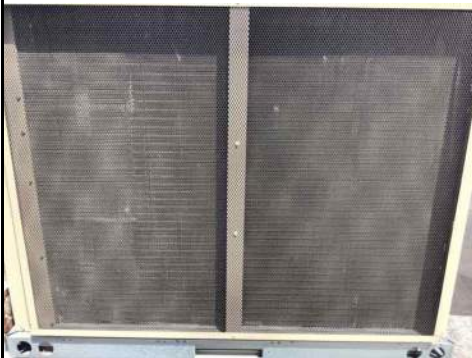
Are the condenser coils free of damage and clean? (Take picture) Photo:



Name: Are the condenser coils free of damage and clean? .jpg
 Captured: 8/11/2021 1:58 PM
 Caption:

8	Are the evaporator coils free of damage and clean? (Take picture)	Yes	SC	8/11/21 15:20
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Are the evaporator coils free of damage and clean? (Take picture) Photo:



Name: Are the evaporator coils free of damage and clean?.jpg
 Captured: 8/11/2021 3:20 PM
 Caption:

9	Unit free of noticeable noise and vibration	Yes	SC	8/11/21 15:20
10	Any other damage of cleanliness issues to note?	No	SC	8/11/21 15:20

Air Apparatus

PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: RTU-02

Tested By: Salomon Cantu
 Date: 8/13/2021

General - RTU-02

Verification	Response	Notes	By	Date/Time
11	Measure the discharge ductwork if the static pressures indicate possible restriction.	-	SC	8/11/21 15:21

Control Systems - RTU-02

Verification	Response	Notes	By	Date/Time
1	Do the RTU's have humidity control?	No	SC	8/11/21 14:38
2	Take pictures of the electrical compartment including the low voltage wiring	Yes	SC	8/11/21 14:39

Take pictures of the electrical compartment including the low voltage wiring Photo:



Name: Take pictures of the electrical compartment includ.jpg
 Captured: 8/11/2021 2:39 PM
 Caption:

3	Are the humidity sensors wired properly?	No	SC	8/11/21 14:39
4	If maximum damper position can be set, set to the same as the minimum damper position (if Lennox, see section at end of this checklist)	Yes	SC	8/11/21 14:41
5	Final damper position is clearly marked with permanent marker or white out?	Yes	SC	8/11/21 17:20
6	If damper had to be manually set and is loose, secure it with a sheet metal screw so that it cannot shut	NA	SC	8/11/21 14:40
7	LENNOX ONLY: For Honeywell Pro 8000 (TH8321R) thermostats, make sure it is set up for "Commercial", "2 Stage", and "A" terminal is wired and assigned to "Economizer".	NA	WC	8/16/21 13:32

Air Apparatus

PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: RTU-02

Tested By: Salomon Cantu
 Date: 8/13/2021

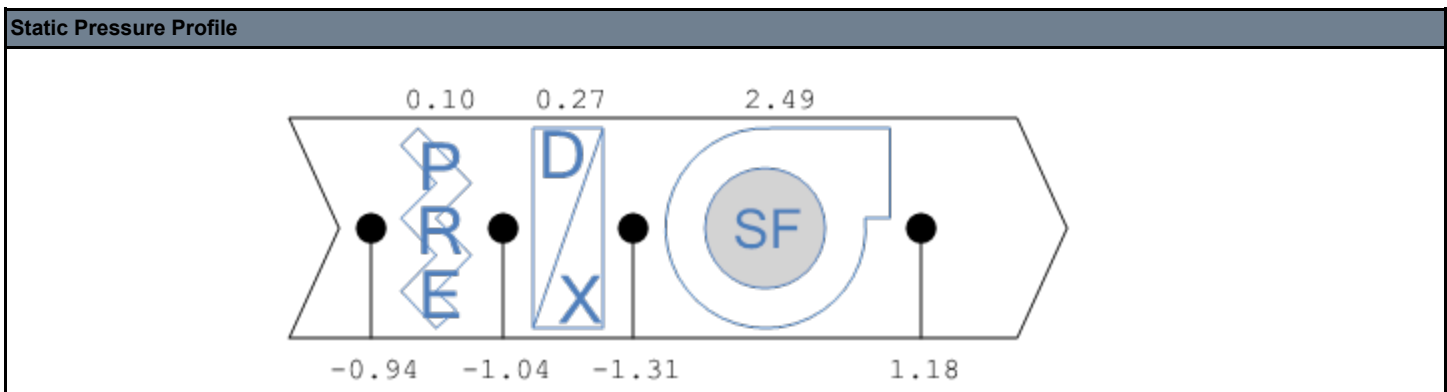
Control Systems - RTU-02

Verification	Response	Notes	By	Date/Time
8 LENNOX ONLY: For Lennox Comfort Sense CS7500-CS8500 thermostats, make sure the "EC" terminal is wired, set up for 2 stage operation, stage delay timer is off, and stage 2 differential is 1.5F.	NA		WC	8/16/21 13:32
9 LENNOX ONLY: On Prodigy controller, ensure Dehumidifier set to "No Condition", Local Sensor, Setpoint is 55%, Deadband is 3%.	NA		SC	8/11/21 14:42
10 LENNOX ONLY: On Prodigy controller, ensure economizer damper set point is set to 50°F.	Yes		SC	8/11/21 14:41
11 LENNOX ONLY: Set parameter 131 on Prodigy to 50% (Max damper position)	Yes		SC	8/11/21 14:41

Log:	RTU-02	8/11/2021	Salomon Cantu	Condensation lines are not installed properly and aren't connected causing a large water build up on roof.
	RTU-02	8/11/2021	Salomon Cantu	Active alarm is reading: "Alarming Value:0 Humidity sensor A91"
	RTU-02	8/11/2021	Salomon Cantu	Unit is over amping and could not be slowed down due to the sheave being frozen shut, 2 missing set screws and slide in key.

SYSTEM/UNIT: RTU-02/Static Profile

Tested By: Salomon Cantu
 Date: 8/11/2021



Air Apparatus

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

RTU-02 Supply Outlet Summary

System/Unit	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	CD	-	4000	486	486	12	Flow Hood	1.000	1.000	486
S-02	CD	-	-	434	434		Flow Hood	1.000	1.000	434
S-03	CD	-	-	480	480		Flow Hood	1.000	1.000	480
S-04	CD	-	-	480	480		Flow Hood	1.000	1.000	480
S-05	CD	-	-	481	481		Flow Hood	1.000	1.000	481
S-06	CD	-	-	514	514		Flow Hood	1.000	1.000	514
S-07	CD	-	-	459	459		Flow Hood	1.000	1.000	459
S-08	CD	-	-	490	490		Flow Hood	1.000	1.000	490
S-09	CD	-	-	196	196		Flow Hood	1.000	1.000	196
S-10	CD	-	-	86	86		Flow Hood	1.000	1.000	86
S-11	CD	-	-	239	239		Flow Hood	1.000	1.000	239
Totals:	-	-	4000	4345	4345	109	-	-	-	-

Fan

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: Kitchen Fan-01

Tested By: Salomon Cantu
 Date: 8/13/2021



Design Airflow (CFM)		Final Airflow (CFM)	
Design Airflow	2000	Actual Airflow	1820
Design Grille Airflow	Not Applicable	Actual Grille Airflow	Not Applicable
Unit Design Data		Unit Data	
Submittal Make	Existing Unit	Make (tag)	No Unit Tag
Submittal Model #	-	Model # (tag)	-
Submittal Airflow	-	Serial # (tag)	-
Sched./Sub. Volts	-	Unit Location	Roof
Sched./Sub. Phase	-	Unit Discharge	Upblast
Sched./Sub. HP	-	Fan Service	Exhaust
Submittal BHP	-	Fan Type	Centrifugal (BI)
Design Static Pressures (in wg)		Fan Design Data	
Design External SP	Existing Unit	Submittal Motor RPM	Existing Unit
Submittal Total SP	-	Submittal Fan RPM	-
Motor Nameplate Data		Fan Data	
Motor Make (tag)	A.O. Smith	Actual Fan RPM/Speed	855
Motor Frame (tag)	56	Actual Motor RPM	1749
Motor HP (tag)	1/2	Speed Cont. Position	Not Applicable
Motor RPM (tag)	1725	Electrical Data	
Motor Volts (tag)	208	Measurement Method	V/A Meter
Motor Phase (tag)	3	Motor Volts 1	205
Motor Amps (tag)	1.9	Motor Volts 2	208
Motor S.F. (tag)	1.25	Motor Volts 3	205
Mtr % PF (tag)	Not Listed	Motor Amps 1	1.1
Mtr % Eff. (tag)	-	Motor Amps 2	1.3
Other Motor Data	-	Motor Amps 3	1.3
Drive Data		Operating HZ	60.0
Drive Type	Belt Drive	Starter Data	Not Applicable
Sheave Type	Variable	Approx. BHP	0.29
Fan Sheave Make	Not Listed		
Fan Shv Mod# or Size (in)	7		
Fan Sheave Bore (in.)	3/4		
Motor Sheave Make	Not Listed		

Fan

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: Kitchen Fan-01

Tested By: Salomon Cantu
Date: 8/13/2021

Drive Data	
Mtr Shv Mod# or Size (in)	3.75
Motor Sheave Bore (in.)	5/8
VP Range	Mid Range
Center Distance (in.)	6.5
No of Belts	1
Belt Make	Browning
Belt Size	AX20
Other Data	-

Electrical Data	
Corr. Nameplate Amps	1.9

Motor Make (tag) Photo:



Name: Motor Make (tag).jpg
Captured: 8/11/2021 4:03 PM
Caption:

Make (tag) Photo:



Name: Make (tag).jpg
Captured: 8/11/2021 5:39 PM
Caption:

Fan

PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: Kitchen Fan-01

Tested By: Salomon Cantu
 Date: 8/13/2021

General - Kitchen Fan-01

Verification	Response	Notes	By	Date/Time
1	Rotation is correct?	Yes	SC	8/11/21 16:12
2	Belts are tight and in good condition?	Yes	SC	8/11/21 16:12
3	Grease cup installed on grease hood fan?	No	SC	8/11/21 16:12

Grease cup installed on grease hood fan? Photo:



Name: Grease cup installed on grease hood fan?.jpg
 Captured: 8/11/2021 4:17 PM
 Caption:

4	Hinge kit installed installed on hood fan?	Yes	SC	8/11/21 16:12
5	There is no major leakage around base of fan?	Yes	SC	8/11/21 16:13
6	Is the motor operating below the motor FLA rating?	Yes	SC	8/11/21 16:13
7	Unit free of noticeable noise and vibration?	Yes	SC	8/11/21 16:13
8	Any other damage of cleanliness issues to note?	Yes	SC	8/11/21 16:13
9	Roof Curb Dimensions	23.5x24x25	SC	8/11/21 16:18
10	Duct Dimensions	23.5x24	SC	8/11/21 16:18

Log:	Kitchen Fan-01	8/11/2021	Salomon Cantu	Unit is extremely filthy and needs the unit interior serviced.
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Fan

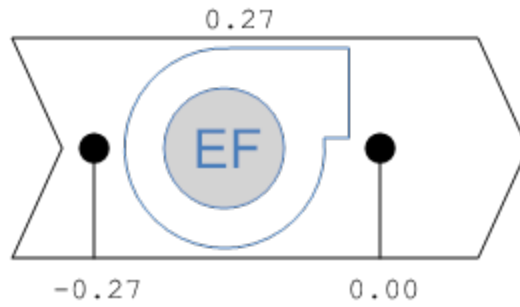
PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: Kitchen Fan-01/Static Profile

Tested By: Salomon Cantu
Date: 8/11/2021

Static Pressure Profile



Fan

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: Kitchen Fan-01/Kitchen Hood - Exhaust

Tested By: Salomon Cantu
Date: 8/13/2021

Design Airflow (CFM)	
Design Exhaust CFM	2000
Halton Design SP	-

Final Airflow (CFM)	
Actual Exhaust CFM	1820
Halton Actual SP	-

Kitchen Hood Information	
Service	Fryer
Manufacturer	Aerolator
Model Number	ACW
Serial Number	61L4
Test Method	Filters

Manufacturer Photo:



Name: Manufacturer.jpg
Captured: 8/13/2021 8:19 PM
Caption:

Fan

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: Kitchen Fan-01/Kitchen Hood - Exhaust

Tested By: Salomon Cantu
Date: 8/13/2021

Prefunctional - Kitchen Fan-01/Kitchen Hood - Exhaust

Verification	Response	Notes	By	Date/Time
1	Can kitchen equipment be turned on for final smoke test?	Yes	SC	8/11/21 17:33
2	What is the foot print of the hood?	84x42x30	SC	8/11/21 17:35
3	Attach a picture of the hood.	Y	SC	8/11/21 17:34

Attach a picture of the hood. Photo:



Name: Attach a picture of the hood..jpg
Captured: 8/11/2021 5:34 PM
Caption:

Remarks

Equipment Under Hood (List All)

Fryers

Kitchen Fan-01/Kitchen Hood - Exhaust Exhaust Filter Summary

System/Unit	Size	Type	Ak	Reading 2	Reading 1	FPM	Instrument	CFM
Filter-01	20x20	Baffle	2.68		151	151	Velgrid	405
Filter-02	20x20	Baffle	2.68		187	187	Velgrid	501
Filter-03	20x20	Baffle	2.68		182	182	Velgrid	488
Filter-04	20x20	Baffle	2.68		159	159	Velgrid	426
Totals:	-	-	10.72	-	-	-	-	1820

Fan

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: Kitchen Fan-02

Tested By: Salomon Cantu
 Date: 8/22/2021



Design Airflow (CFM)		Final Airflow (CFM)	
Design Airflow	800	Actual Airflow	0
Design Grille Airflow	Not Applicable	Actual Grille Airflow	-
Unit Design Data		Unit Data	
Submittal Make	Existing Unit	Make (tag)	Captive Aire
Submittal Model #	-	Model # (tag)	Not legible
Submittal Airflow	-	Serial # (tag)	-
Sched./Sub. Volts	-	Unit Location	Roof
Sched./Sub. Phase	-	Unit Discharge	Upblast
Sched./Sub. HP	-	Fan Service	Exhaust
Submittal BHP	-	Fan Type	Centrifugal (BI)
Design Static Pressures (in wg)		Fan Design Data	
Design External SP	Existing Unit	Submittal Motor RPM	Existing Unit
Submittal Total SP	-	Submittal Fan RPM	-
Motor Nameplate Data		Fan Data	
Motor Make (tag)	WEG	Actual Fan RPM/Speed	
Motor Frame (tag)	Not Listed	Actual Motor RPM	
Motor HP (tag)	1/3	Speed Cont. Position	
Motor RPM (tag)	1735	Electrical Data	
Motor Volts (tag)	115	Measurement Method	
Motor Phase (tag)	1	Motor Volts 1	
Motor Amps (tag)	7	Motor Volts 2	
Motor S.F. (tag)	1.35	Motor Volts 3	
Mtr % PF (tag)	52%	Motor Amps 1	
Mtr % Eff. (tag)	50%	Motor Amps 2	
Other Motor Data	-	Motor Amps 3	
Drive Data		Operating HZ	
Drive Type	Belt Drive	Starter Data	Not Applicable
Sheave Type	Variable	Approx. BHP	
Fan Sheave Make	Not Listed		
Fan Shv Mod# or Size (in)	4.5		
Fan Sheave Bore (in.)	3/4		
Motor Sheave Make	Not Listed		

Fan

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: Kitchen Fan-02

Tested By: Salomon Cantu
Date: 8/22/2021

Drive Data	
Mtr Shv Mod# or Size (in)	3
Motor Sheave Bore (in.)	1/2
VP Range	Mid Range
Center Distance (in.)	5
No of Belts	1
Belt Make	Jason
Belt Size	A20
Other Data	-

Electrical Data
Corr. Nameplate Amps

Motor Make (tag) Photo:



Name: Motor Make (tag).jpg
Captured: 8/11/2021 3:33 PM
Caption:

Make (tag) Photo:



Name: Make (tag).jpg
Captured: 8/11/2021 12:48 PM
Caption:

Fan

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: Kitchen Fan-02

Tested By: Salomon Cantu
Date: 8/22/2021

General - Kitchen Fan-02

Verification		Response	Notes	By	Date/Time
1	Rotation is correct?	NA		SC	8/11/21 15:38
2	Belts are tight and in good condition?	No		SC	8/11/21 15:38
3	Grease cup installed on grease hood fan?	No		SC	8/11/21 15:38
4	Hinge kit installed installed on hood fan?	Yes		SC	8/11/21 15:38
5	There is no major leakage around base of fan?	No		SC	8/11/21 15:38
6	Is the motor operating below the motor FLA rating?	NA		SC	8/11/21 15:38
7	Unit free of noticeable noise and vibration?	NA		SC	8/11/21 15:38
8	Any other damage of cleanliness issues to note?	Yes		SC	8/11/21 15:39
9	Roof Curb Dimensions	19.5x19.5x20.5		SC	8/11/21 15:40
10	Duct Dimensions	19.5x19.5		SC	8/11/21 15:40

Log:	Kitchen Fan-02	Footprint:48x48x23		
	Kitchen Fan-02	8/11/2021	Salomon Cantu	Fan is not operating.
	Kitchen Fan-02	8/11/2021	Salomon Cantu	Unit is very dirty and unit interior needs servicing. There is an insect nest in the unit.
	Kitchen Fan-02	8/11/2021	Salomon Cantu	Belt needs to be replaced.

Fan

PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: Kitchen Fan-02/Kitchen Hood - Exhaust

Tested By: Salomon Cantu
 Date: 8/13/2021



Design Airflow (CFM)	
Design Exhaust CFM	800
Halton Design SP	-

Final Airflow (CFM)	
Actual Exhaust CFM	0
Halton Actual SP	-

Kitchen Hood Information	
Service	Oven
Manufacturer	CaptiveAire
Model Number	4824 VHB
Serial Number	612020
Test Method	Hood Opening

Manufacturer Photo:



Name: Manufacturer.jpg
 Captured: 8/13/2021 8:21 PM
 Caption:

Prefunctional - Kitchen Fan-02/Kitchen Hood - Exhaust

Verification	Response	Notes	By	Date/Time
1	Can kitchen equipment be turned on for final smoke test?	No	SC	8/13/21 20:23
2	What is the foot print of the hood?	48x48x23	SC	8/13/21 20:23
3	Attach a picture of the hood.	See file cloud.	SC	8/13/21 20:23

Fan

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: Kitchen Fan-02/Kitchen Hood -
Exhaust

Tested By: Salomon Cantu
Date: 8/13/2021

Remarks

Equipment Under Hood (List All)

Oven

Fan

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: Kitchen Fan-03

Tested By: Salomon Cantu
 Date: 8/22/2021



Design Airflow (CFM)		Final Airflow (CFM)	
Design Airflow	800	Actual Airflow	0
Design Grille Airflow	Not Applicable	Actual Grille Airflow	0
		Fan CFM Test Method	See Note
		Test Method Ak (sq ft)	Not Applicable
Unit Design Data		Unit Data	
Submittal Make	Existing Unit	Make (tag)	No Tag
Submittal Model #	-	Model # (tag)	-
Submittal Airflow	-	Serial # (tag)	-
Sched./Sub. Volts	-	Unit Location	Roof
Sched./Sub. Phase	-	Unit Discharge	Upblast
Sched./Sub. HP	-	Fan Service	Exhaust
Submittal BHP	-	Fan Type	Centrifugal (BI)
		Fan Discharge	Upblast
		Fan Arrangement	SWSI
Design Static Pressures (in wg)		Fan Design Data	
Design External SP	Existing Unit	Submittal Motor RPM	Existing Unit
Submittal Total SP	-	Submittal Fan RPM	-
Motor Nameplate Data		Fan Data	
Motor Make (tag)	No Tag	Actual Fan RPM/Speed	
Motor Frame (tag)	-	Actual Motor RPM	
Motor HP (tag)	-	Speed Cont. Position	
Motor RPM (tag)	-		
Motor Volts (tag)	-	Electrical Data	
Motor Phase (tag)	-	Measurement Method	
Motor Amps (tag)	-	Motor Volts 1	
Motor S.F. (tag)	-	Motor Volts 2	
Mtr % PF (tag)	-	Motor Volts 3	
Mtr % Eff. (tag)	-	Motor Amps 1	
Other Motor Data	-	Motor Amps 2	
		Motor Amps 3	
		Operating HZ	
		Starter Data	
		Approx. BHP	
Drive Data			
Drive Type	Direct Drive		
Sheave Type	-		
Fan Sheave Make	-		
Fan Shv Mod# or Size (in)	-		
Fan Sheave Bore (in.)	-		
Motor Sheave Make	-		

Fan

PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: Kitchen Fan-03

Tested By: Salomon Cantu
 Date: 8/22/2021

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data
Corr. Nameplate Amps

General - Kitchen Fan-03

Verification	Response	Notes	By	Date/Time
1	Rotation is correct?			
2	Belts are tight and in good condition?			
3	Grease cup installed on grease hood fan?			
4	Hinge kit installed installed on hood fan?			
5	There is no major leakage around base of fan?			
6	Is the motor operating below the motor FLA rating?			
7	Unit free of noticeable noise and vibration?			
8	Any other damage of cleanliness issues to note?			
9	Roof Curb Dimensions			
10	Duct Dimensions			

Log:	Kitchen Fan-03	8/11/2021	Salomon Cantu	Fan is not wired in and is not operating.
	Kitchen Fan-03	8/13/2021	Salomon Cantu	Could not locate where exhaust fan is ducted too.

Fan

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: MAU

Tested By: Salomon Cantu
 Date: 8/22/2021



Design Airflow (CFM)		Final Airflow (CFM)	
Design Airflow	1800	Actual Airflow	
Design Grille Airflow	Not Applicable	Actual Grille Airflow	
		Fan CFM Test Method	
		Test Method Ak (sq ft)	
Unit Design Data		Unit Data	
Submittal Make	Existing Unit	Make (tag)	Not listed
Submittal Model #	-	Model # (tag)	W+H D09-9A .50 CW OC
Submittal Airflow	-	Serial # (tag)	-
Sched./Sub. Volts	-	Unit Location	Rooftop
Sched./Sub. Phase	-	Unit Discharge	Downblast
Sched./Sub. HP	-	Fan Service	Make-up Air
Submittal BHP	-	Fan Type	Centrifugal (FC)
		Fan Discharge	Downblast
		Fan Arrangement	DWDI
Design Static Pressures (in wg)		Fan Design Data	
Design External SP	Existing Unit	Submittal Motor RPM	Existing Unit
Submittal Total SP	-	Submittal Fan RPM	-
Motor Nameplate Data		Fan Data	
Motor Make (tag)	No Tag	Actual Fan RPM/Speed	-
Motor Frame (tag)	-	Actual Motor RPM	Not Accessible
Motor HP (tag)	-	Speed Cont. Position	Not Applicable
Motor RPM (tag)	-		
Motor Volts (tag)	-	Electrical Data	
Motor Phase (tag)	-	Measurement Method	V/A Meter
Motor Amps (tag)	-	Motor Volts 1	No Safe Access
Motor S.F. (tag)	-	Motor Volts 2	-
Mtr % PF (tag)	-	Motor Volts 3	-
Mtr % Eff. (tag)	-	Motor Amps 1	No Safe Access
Other Motor Data	-	Motor Amps 2	-
		Motor Amps 3	-
		Operating HZ	60.0
		Starter Data	Not Applicable
		Approx. BHP	
Drive Data			
Drive Type	Direct Drive		
Sheave Type	-		
Fan Sheave Make	-		
Fan Shv Mod# or Size (in)	-		
Fan Sheave Bore (in.)	-		
Motor Sheave Make	-		

Fan

PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: MAU

Tested By: Salomon Cantu
 Date: 8/22/2021

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data
Corr. Nameplate Amps

General - MAU

Verification	Response	Notes	By	Date/Time
1	Rotation is correct?	NA	SC	8/22/21 18:07
2	Belts are tight and in good condition?	NA	SC	8/22/21 18:08
3	There is no major leakage around base of fan?	NA	SC	8/22/21 18:08
4	Is the motor operating below the motor FLA rating?	NA	SC	8/22/21 18:08
5	Unit free of noticeable noise and vibration?	NA	SC	8/22/21 18:08
6	Any other damage of cleanliness issues to note?	Yes	SC	8/22/21 18:08
7	Gas piping is installed and valves are in on position?	See issue log.	SC	8/22/21 18:08
8	Heater tested and is functional?	NA	SC	8/22/21 18:08
9	Internal motorized damper is fully opening?	NA	SC	8/22/21 18:08
10	Roof Curb Dimensions	-	SC	8/22/21 18:08
11	Duct Dimensions	-	SC	8/22/21 18:08

Log:	MAU	- Filter size 16x20x2 (x 2) 20x20x2 (x 2)		
	MAU	8/11/2021	Salomon Cantu	MAU is not operating.

Fan

PROJECT: Arby's #5451
 LOCATION: Okmulgee, OK
 PROJECT #: 21232

DATE: 8/23/2021
 CONTACT: Salomon Cantu

SYSTEM/UNIT: Restroom Fan

Tested By: Salomon Cantu
 Date: 8/22/2021

Design Airflow (CFM)	
Design Airflow	300
Design Grille Airflow	300

Unit Design Data	
Submittal Make	Existing Unit
Submittal Model #	-
Submittal Airflow	-
Sched./Sub. Volts	-
Sched./Sub. Phase	-
Sched./Sub. HP	-
Submittal BHP	-

Design Static Pressures (in wg)	
Design External SP	Existing Unit
Submittal Total SP	-

Motor Nameplate Data	
Motor Make (tag)	Fasco
Motor Frame (tag)	Not Listed
Motor HP (tag)	1/8
Motor RPM (tag)	1600
Motor Volts (tag)	115
Motor Phase (tag)	1
Motor Amps (tag)	1.7
Motor S.F. (tag)	Not Listed
Mtr % PF (tag)	-
Mtr % Eff. (tag)	-
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in.)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Final Airflow (CFM)	
Actual Airflow	0
Actual Grille Airflow	0
Fan CFM Test Method	Inlet Total
Test Method Ak (sq ft)	Not Applicable

Unit Data	
Make (tag)	REEWQ
Model # (tag)	PA116798
Serial # (tag)	110708
Unit Location	Roof
Unit Discharge	Upblast
Fan Service	Exhaust
Fan Type	Centrifugal (BI)
Fan Discharge	Upblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Existing Unit
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	Single Speed
Actual Motor RPM	Not Accessible
Speed Cont. Position	Not Applicable

Electrical Data	
Measurement Method	No Safe Access to Measure
Motor Volts 1	-
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	60.0
Starter Data	Not Applicable
Approx. BHP	-
Corr. Nameplate Amps	-

Fan

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: Restroom Fan

Tested By: Salomon Cantu
Date: 8/22/2021

Motor Make (tag) Photo:



Name: Motor Make (tag).jpg
Captured: 8/11/2021 4:23 PM
Caption:

Make (tag) Photo:



Name: Make (tag).jpg
Captured: 8/11/2021 4:23 PM
Caption:

Fan

PROJECT: Arby's #5451
LOCATION: Okmulgee, OK
PROJECT #: 21232

DATE: 8/23/2021
CONTACT: Salomon Cantu

SYSTEM/UNIT: Restroom Fan

Tested By: Salomon Cantu
Date: 8/22/2021

General - Restroom Fan

	Verification	Response	Notes	By	Date/Time
1	Rotation is correct?	NA		SC	8/11/21 16:25
2	Belts are tight and in good condition?	NA		SC	8/11/21 16:25
3	There is no major leakage around base of fan?	No		SC	8/11/21 16:25
4	Is the motor operating below the motor FLA rating?	NA		SC	8/11/21 16:26
5	For restroom fan(s) is the back draft damper installed and can it fully open?	NA		SC	8/11/21 16:26
6	Unit free of noticeable noise and vibration?	NA		SC	8/11/21 16:26
7	Any other damage or cleanliness issues to note?	NA		SC	8/11/21 16:26
8	Roof Curb Dimensions	18.5x19.5x5		SC	8/11/21 16:27
9	Duct Dimensions	18.5x19.5		SC	8/11/21 16:27

Log: Restroom Fan 8/11/2021 Salomon Cantu Fan is not operating.

