Report By:
United Test & Balance,Inc.
7013 Flagler Rd,
Nordland WA 98358.

NATIONAL TAB

Comfort. Under control.

For:
National TAB
1329 E. Kemper Road
Suite 4210
Cincinnati, OH 45246.

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 12/21/2022

PROJECT

12-12 CHIPOTLE #36-4373 GARDEN VALLEY BLVD. & STEWART PARKWAY, OR (ROSEBURG)

2060 NW STEWART PARKWAY

ROSEBURG, OR 97471

Client

Chipotle Mexican Grill

1401 Wynkoop Street, Suite 500

Denver, CO 80202

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.

MUA (Make Up Air Unit) w/ PSP

Total flow for the MAU (Make-up Air Unit) unit was measured by readings taken at the discharge of the hood's perforated supply plenum. Readings taken with a velocity matrix were averaged and multiplied by a manufacturer's corrected area. Adjustments to the fan speed were made in order to bring the unit to within design tolerance. Any MUA'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.

NATIONAL TAB

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	3400	3193	2900	2682	500	511	14.7%	16.0%						
RTU-2	DINING	4000	3807	3000	2790	1000	1017	25.0%	26.7%						
MUA-1	KITCHEN HOOD									1950	1938				
EF-1	KITCHEN HOOD											3200	3237		
EF-2	RESTROOM													150	222
TOTALS		7400	7000	5900	5472	1500	1528			1950	1938	3200	3237	150	222

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3450	3466
TOTAL EXHAUST	3350	3459
NET AIRFLOW	100	7

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.02
SIDE	0.003
REAR	0.001
AVERAGE	**0.008**

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: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: Project Checklist

Tested By: Guy Nunez
Date: 12/20/2022

Inspection Data - Project Checklist

	Verification	Response	Notes	By	Date/Time
1	All diffusers and grilles are installed and match design?	Yes		GN	12/20/22 16:24
2	Deflector plates are removed from 1x1 diffusers on the serve line (double check that this is specified on the diffuser schedule first)	Yes		GN	12/20/22 16:24
3	All hood filters installed and accounted for?	Yes		GN	12/20/22 16:24
4	Hoods are wired and have power?	Yes		GN	12/20/22 16:24
5	Hood is free of alarms?	Yes		GN	12/20/22 16:24
6	Thermostats have power?	Yes		GN	12/20/22 16:25
7	Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	Yes		GN	12/20/22 16:25

General - Project Checklist

	Verification	Response	Notes	By	Date/Time
1	Is space free of drafting?	Yes		GN	12/20/22 16:25
2	Is space comfortable in all areas?	Yes		GN	12/20/22 16:25
3	Is the space free of ventilation noise?	Yes		GN	12/20/22 16:25
4	If deviations from design were necessary to resolve 103 what were they? Otherwise put "NA"	NA		GN	12/20/22 16:25

Air Apparatus

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: RTU-01

Tested By: Guy Nunez
Date: 12/21/2022

Design Airflow (CFM)	
Design Total	3400
Design Grille Total	3400
Design Return	2900
Design Min O/A	500

Unit Design Data	
Submittal Make	Trane
Submittal Model #	YHC102F3RHA
Submittal Airflow	Not Provided
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	0.8
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	-

Filter Data	
Condition	Clean
Filter Type	Media
MERV Rating	-
Filter Size Set 1 (in)	16x20x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	Marathon
Motor Frame	56HZ
Motor HP	Not Listed
Motor RPM	1735
Motor Volts	208
Motor Phase	3

Final Airflow (CFM)	
Actual Total CFM	3193
Actual Grille Total CFM	3193
Actual Return Air CFM	2682
Actual Min O/A CFM	511
Fan CFM Test Method	Supply Outlet Total
OA Method/Instrument	Face Vel/ADM-Velgrid
OA Ak (sq ft)	3.880
OA Damper Position	3.05 4.15
RA Damper Position	Not Applicable

Unit Data	
Make (tag)	Carrier
Model # (tag)	48TCDD08A2
Serial # (tag)	3422P36615
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	Not Accessible
Clg Coil Vel (FPM)	
Fan Service	Supply
Fan Type	Centrifugal (BI)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	1046
Actual Motor RPM	1750

Electrical Data	
Measurement Method	V/A Meter
Motor Volts 1	209
Motor Volts 2	209

Air Apparatus

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: RTU-01

Tested By: Guy Nunez
Date: 12/21/2022

Motor Nameplate Data	
Motor Amps	8.1
Motor S.F.	1.15
Motor % PF	Not Listed
Motor % Eff.	Not Listed
Other Motor Data	-

Drive Data	
Drive Type	Belt Drive
Sheave Type	Variable
Fan Sheave Make	Fenner
Fan Shv Mod# or Size (in)	AFD84
Fan Sheave Bore (in)	1
Motor Sheave Make	Browning
Mtr Shv Mod# or Size (in)	5
Motor Sheave Bore (in)	7/8
VP Range	Mid Range
Center Distance (in)	17.5
No of Belts	1
Belt Make	Browning
Belt Size	AX52
Other Data	-

Electrical Data	
Motor Volts 3	210
Motor Amps 1	3.5
Motor Amps 2	3.6
Motor Amps 3	3.5
Operating HZ	60.00
Approx. BHP	
Corr. Nameplate Amps	8.1
Starter Data	Internal to VFD
VFD Reference	Not Applicable

Inspection Data - RTU-01

	Verification	Response	Notes	By	Date/Time
1	IS ECONOMIZER BLANK PLATE INSTALLED BELOW THE OUTDOOR AIR FILTERS? (IF NO, REMOVE THE PIECE FROM UNDERNEATH THE COIL FILTER BANK AND INSTALL) Trane only (N/A = not applicable)	NA		GN	12/20/22 16:00
2	Economizers are assembled and functional?	Yes		GN	12/20/22 16:00
3	DCV Max damper opening position is set to minimum?	NA		GN	12/20/22 16:00
4	Free cooling enthalpy set point set for lowest setting (Typically "D")	NA		GN	12/20/22 16:00
5	Is the motor operating below the motor FLA rating?	Yes		GN	12/20/22 16:00
6	Belts are Tight?	Yes		GN	12/20/22 16:00
7	If direct drive unit is the speed controller working.	NA		GN	12/20/22 16:00
8	Gas piping is installed and valves are in on position?	Yes		GN	12/20/22 16:00
9	Unit free of noticeable noise and vibration?	Yes		GN	12/20/22 16:00

Log: RTU-01 Final filters not installed

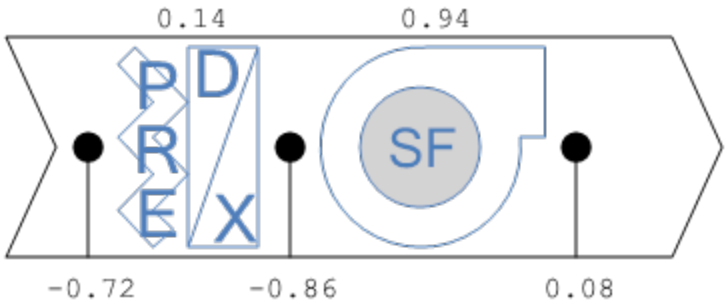
Air Apparatus

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: RTU-01/Static Profile

Tested By: Guy Nunez
Date: 12/20/2022

Static Pressure Profile



RTU-01 Supply Outlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01*	Office	CD	8	150	159	159	106	Capture Hood	1.000	1.000	159
S-02	Kitchen	CD	12	325	383	383	118	Capture Hood	1.000	1.000	383
S-03	Kitchen	CD	12	325	304	304	94	Capture Hood	1.000	1.000	304
S-04	Kitchen	CD	8	250	165	165	66	Capture Hood	1.000	1.000	165
S-05	Service Line	CD	8	250	140	140	56	Capture Hood	1.000	1.000	140
S-06	Service Line	CD	8	250	173	173	69	Capture Hood	1.000	1.000	173
S-07	Service Line	CD	8	250	185	185	74	Capture Hood	1.000	1.000	185
S-08	Service Line	CD	12	400	386	386	97	Capture Hood	1.000	1.000	386
S-09	Service Line	CD	12	400	395	395	99	Capture Hood	1.000	1.000	395
S-10	ACPSP	PSP	168x6	800	903	903	113	Velgrid	5.265	6.750	172
	Totals:	-	-	**3400**	**3193**	**3193**	**94**	-	-	-	-

Log:

RTU-01/S-01	12/20/2022	William Clayton	There are no dampers installed in the kitchen ductwork to proportion the airflow.

Air Apparatus

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: RTU-02

Tested By: Guy Nunez
Date: 12/21/2022

Design Airflow (CFM)	
Design Total	4000
Design Grille Total	4000
Design Return	3000
Design Min O/A	1000

Unit Design Data	
Submittal Make	Trane
Submittal Model #	YHC120F3RHA
Submittal Airflow	Not Provided
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	0.8
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	-

Filter Data	
Condition	Clean
Filter Type	Media
MERV Rating	-
Filter Size Set 1 (in)	20x20x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	Marathon
Motor Frame	56HZ
Motor HP	Not Listed
Motor RPM	1750
Motor Volts	208
Motor Phase	3

Final Airflow (CFM)	
Actual Total CFM	3807
Actual Grille Total CFM	3807
Actual Return Air CFM	2790
Actual Min O/A CFM	1017
Fan CFM Test Method	Supply Outlet Total
OA Method/Instrument	Face Vel/ADM-Velgrid
OA Ak (sq ft)	3.880
OA Damper Position	High Speed 3.05 / Low Speed 4.15
RA Damper Position	Not Applicable

Unit Data	
Make (tag)	Carrier
Model # (tag)	48TCDD12A2
Serial # (tag)	3622P37841
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	Not Accessible
Clg Coil Vel (FPM)	
Fan Service	Supply
Fan Type	Centrifugal (BI)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	1166
Actual Motor RPM	1750

Electrical Data	
Measurement Method	V/A Meter
Motor Volts 1	212
Motor Volts 2	210

Air Apparatus

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: RTU-02

Tested By: Guy Nunez
Date: 12/21/2022

Motor Nameplate Data	
Motor Amps	9.2
Motor S.F.	1.15
Motor % PF	Not Listed
Motor % Eff.	Not Listed
Other Motor Data	-

Drive Data	
Drive Type	Belt Drive
Sheave Type	Variable
Fan Sheave Make	Fenner
Fan Shv Mod# or Size (in)	AFD74
Fan Sheave Bore (in)	1
Motor Sheave Make	Browning
Mtr Shv Mod# or Size (in)	4 3/4
Motor Sheave Bore (in)	7/8
VP Range	Mid Range
Center Distance (in)	17.5
No of Belts	1
Belt Make	Browning
Belt Size	AX49
Other Data	-

Electrical Data	
Motor Volts 3	210
Motor Amps 1	3.9
Motor Amps 2	4.0
Motor Amps 3	3.9
Operating HZ	60.00
Approx. BHP	
Corr. Nameplate Amps	9.0
Starter Data	Internal to VFD
VFD Reference	Not Applicable

Inspection Data - RTU-02

	Verification	Response	Notes	By	Date/Time
1	IS ECONOMIZER BLANK PLATE INSTALLED BELOW THE OUTDOOR AIR FILTERS? (IF NO, REMOVE THE PIECE FROM UNDERNEATH THE COIL FILTER BANK AND INSTALL) Trane only (N/A = not applicable)	NA		GN	12/20/22 15:59
2	Economizers are assembled and functional?	Yes		GN	12/20/22 15:59
3	DCV Max damper opening position is set to minimum?	NA		GN	12/20/22 15:59
4	Free cooling enthalpy set point set for lowest setting (Typically "D")	NA		GN	12/20/22 15:59
5	Is the motor operating below the motor FLA rating?	Yes		GN	12/20/22 15:59
6	Belts are Tight?	Yes		GN	12/20/22 15:59
7	If direct drive unit is the speed controller working.	NA		GN	12/20/22 15:59
8	Gas piping is installed and valves are in on position?	Yes		GN	12/20/22 15:59
9	Unit free of noticeable noise and vibration?	Yes		GN	12/20/22 15:59

Log: RTU-02 Final filters not installed

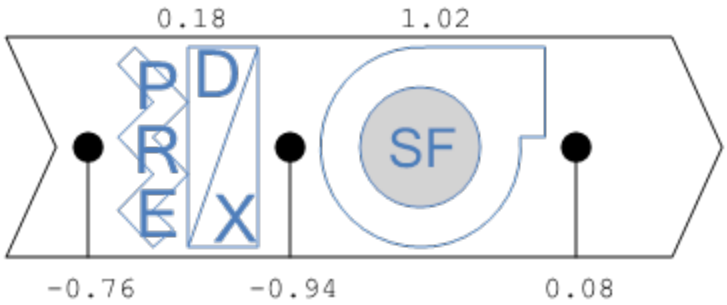
Air Apparatus

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: RTU-02/Static Profile

Tested By: Guy Nunez
Date: 12/20/2022

Static Pressure Profile



RTU-02 Supply Outlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	Dining	SW	14	600	338	552	92	Capture Hood	1.000	1.000	552
S-02	Dining	SW	14	600	245	560	93	Capture Hood	1.000	1.000	560
S-03	Dining	SW	14	600	708	584	97	Capture Hood	1.000	1.000	584
S-04	Dining	SW	14	600	739	595	99	Capture Hood	1.000	1.000	595
S-05	Dining	SW	14	600	626	591	99	Capture Hood	1.000	1.000	591
S-06	Dining	SW	18/6	500	585	467	93	Capture Hood	1.000	1.000	467
S-07	Dining	SW	18/6	500	594	458	92	Capture Hood	1.000	1.000	458
	Totals:	-	-	**4000**	**3835**	**3807**	**95**	-	-	-	-

Fan

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: EF-01

Tested By: Guy Nunez
Date: 12/20/2022

Design Airflow (CFM)	
Design Airflow	3200
Design Grille Airflow	Not Applicable

Unit Design Data	
Submittal Make	CAPTIVEAIRE
Submittal Model #	DU24OHFA
Submittal Airflow	Not Provided
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	1.2
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	TECO
Motor Frame (tag)	213T
Motor HP (tag)	3
Motor RPM (tag)	1175
Motor Volts (tag)	230
Motor Phase (tag)	3
Motor Amps (tag)	9.2
Motor S.F. (tag)	1.15
Mtr % PF (tag)	Not Listed
Mtr % Eff. (tag)	88.5
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	-

Final Airflow (CFM)	
Actual Airflow	3237
Actual Grille Airflow	See Kitchen Hood Sheet
Fan CFM Test Method	See Kitchen Hood Sheet
Test Method Ak (sq ft)	See Kitchen Hood Sheet

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	DU240HFA
Serial # (tag)	5489655
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	Not Provided
Submittal Fan RPM	-

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

Electrical Data	
Measurement Method	V/A Meter
Motor Volts 1	212
Motor Volts 2	212
Motor Volts 3	212
Motor Amps 1	5.8
Motor Amps 2	5.8
Motor Amps 3	5.8
Operating HZ	42.6
Starter Data	Internal to VFD
Approx. BHP	1.74

Fan

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: EF-01

Tested By: Guy Nunez
Date: 12/20/2022

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	10.0

Inspection Data - EF-01

	Verification	Response	Notes	By	Date/Time
1	Fan Rotation is Correct?	Yes		GN	12/19/22 13:00
2	Belts are Tight?	NA		GN	12/19/22 13:00
3	Internal motorized damper is fully opening?	NA		GN	12/20/22 15:32
4	Motor is operating below the FLA rating?	Yes		GN	12/19/22 13:00
5	Unit free of noticeable noise and vibration?	Yes		GN	12/19/22 13:00
6	There is no major leakage around base of fan?	Yes		GN	12/19/22 13:00
7	Is the motor operating below the motor FLA rating?	Yes		GN	12/19/22 13:00

HVAC Units / Fans - EF-01

	Verification	Response	Notes	By	Date/Time
1	Grease cup is installed on hood fan?	Yes		GN	12/19/22 13:00
2	Hinge kit installed on hood fan.	Yes		GN	12/19/22 13:00
3	Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	Yes		GN	12/19/22 13:00
4	Flex conduit is long enough so that fan can be completely tilted back?	Yes		GN	12/19/22 13:00

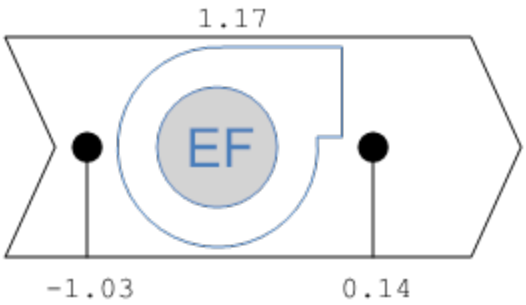
Fan

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: EF-01/Static Profile

Tested By: Guy Nunez
Date: 12/20/2022

Static Pressure Profile



Fan

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: EF-01/HD-01

Tested By: Guy Nunez
Date: 12/20/2022

Design Airflow (CFM)	
Design Exhaust CFM	3200

Final Airflow (CFM)	
Actual Exhaust CFM	3237

Test Section	
Smoke Generation Type	Smoke emitter
Cooking Equip Heat On	Gas range
Hood Capture %	100
End Panels Installed (Y/N)	Y

Supplemental Data	
Space Offset Temp Riser 1	15
Space Offset Temp Riser 2	15
Riser Temp F (idle) Riser 1	81.4
Riser Temp F (idle) Riser 2	80.8
Ambient Room Temp	67.3
100% override functional	Yes

Kitchen Hood Information	
Service	Cooking Surface
Manufacturer	Captive-Aire
Model Number	5424 ND-2
Serial Number	5489655
Test Method	Filters

Verification - EF-01/HD-01

	Verification	Response	Notes	By	Date/Time
1	Third Party Company	Troy - western const		GN	12/20/22 15:17
2	Tech Company	UTAB		GN	12/20/22 15:18

Prefunctional - EF-01/HD-01

	Verification	Response	Notes	By	Date/Time
1	Kitchen equipment installed in proper places?	Yes		GN	12/19/22 8:50
2	Can kitchen equipment be turned on for final smoke test?	Yes		GN	12/19/22 8:50

Remarks

Equipment Under Hood (List All)

Flat top grill, Gas burner stove, deep fryer, rice cooker

Fan

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

EF-01/HD-01 Exhaust Filter Summary

System/Unit	Size	Type	Ak	Reading 2	Reading 1	FPM	Instrument	CFM
Filter-01	16x16	Baffle	1.62		199	199	Velgrid	322
Filter-02	16x16	Baffle	1.62		212	212	Velgrid	343
Filter-03	16x16	Baffle	1.62		207	207	Velgrid	335
Filter-04	16x16	Baffle	1.62		196	196	Velgrid	318
Filter-05	16x16	Baffle	1.62		189	189	Velgrid	306
Filter-06	16x16	Baffle	1.62		203	203	Velgrid	329
Filter-07	16x16	Baffle	1.62		209	209	Velgrid	339
Filter-08	16x16	Baffle	1.62		200	200	Velgrid	324
Filter-09	16x16	Baffle	1.62		195	195	Velgrid	316
Filter-10	16x16	Baffle	1.62		188	188	Velgrid	305
Totals:	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3237**

Fan

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: EF-02

Tested By: Guy Nunez
Date: 12/20/2022

Design Airflow (CFM)	
Design Airflow	150
Design Grille Airflow	150

Unit Design Data	
Submittal Make	CAPTIVEAIRE
Submittal Model #	DR12HFA
Submittal Airflow	Not Provided
Sched./Sub. Volts	115
Sched./Sub. Phase	1
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	0.6
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	Telco
Motor Frame (tag)	Not Listed
Motor HP (tag)	1/4
Motor RPM (tag)	1800
Motor Volts (tag)	115
Motor Phase (tag)	1
Motor Amps (tag)	2.9
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	-

Final Airflow (CFM)	
Actual Airflow	222
Actual Grille Airflow	222
Fan CFM Test Method	Inlet Total
Test Method Ak (sq ft)	Not Applicable

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	DR12HFA
Serial # (tag)	5489655
Unit Location	Roof
Unit Discharge	Downblast
Fan Service	Exhaust
Fan Type	Centrifugal (BI)
Fan Discharge	Upblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	Not Accessible
Actual Motor RPM	Unable to determine
Speed Cont. Position	Not operating

Electrical Data	
Measurement Method	V/A Meter
Motor Volts 1	117
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	1.7
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	60.0
Starter Data	Electronically Protected
Approx. BHP	0.15

Fan

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: EF-02

Tested By: Guy Nunez
Date: 12/20/2022

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	2.9

Inspection Data - EF-02

	Verification	Response	Notes	By	Date/Time
1	Fan Rotation is Correct?	Yes		GN	12/20/22 14:55
2	Belts are Tight?	NA		GN	12/20/22 14:55
3	Internal motorized damper is fully opening?	NA		GN	12/20/22 14:56
4	Motor is operating below the FLA rating?	Yes		GN	12/20/22 14:56
5	Unit free of noticeable noise and vibration?	Yes		GN	12/20/22 14:56
6	There is no major leakage around base of fan?	Yes		GN	12/20/22 14:56
7	Is the motor operating below the motor FLA rating?	Yes		GN	12/20/22 14:56
8	Back draft damper installed and can it fully open?	Yes		GN	12/20/22 14:56

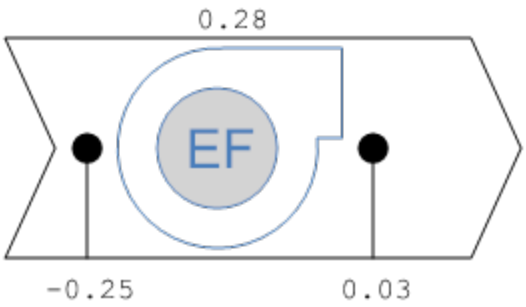
Log:

EF-02	12/20/2022	Guy Nunez	Speed controller not operating. Unable to set fan to design CFM.

SYSTEM/UNIT: EF-02/Static Profile

Tested By: Guy Nunez
Date: 12/20/2022

Static Pressure Profile



EF-02 Exhaust Inlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
E-01	Restroom	CD	6/6	75	117	117	156	Capture Hood	1.000	1.000	117
E-02	Restroom	CD	6/6	75	105	105	140	Capture Hood	1.000	1.000	105
	Totals:	**-**	**-**	**150**	**222**	**222**	**148**	**-**	**-**	**-**	**-**

Fan

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: MAU-01

Tested By: Guy Nunez
Date: 12/20/2022

Design Airflow (CFM)	
Design Airflow	1950
Design Grille Airflow	Not Applicable

Unit Design Data	
Submittal Make	CAPTIVEAIRE
Submittal Model #	A1-D.250-15D
Submittal Airflow	Not Provided
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	0.5
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	TECO
Motor Frame (tag)	145T
Motor HP (tag)	2
Motor RPM (tag)	1740
Motor Volts (tag)	230
Motor Phase (tag)	3
Motor Amps (tag)	5.18
Motor S.F. (tag)	1.15
Mtr % PF (tag)	Not Listed
Mtr % Eff. (tag)	86.5
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	-

Final Airflow (CFM)	
Actual Airflow	1938
Actual Grille Airflow	See Kitchen Hood Sheet
Fan CFM Test Method	See Kitchen Hood Sheet
Test Method Ak (sq ft)	See Kitchen Hood Sheet

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	A1-D.250-15D
Serial # (tag)	5489655
Unit Location	Roof
Unit Discharge	Downblast
Fan Service	Make-Up Air
Fan Type	Centrifugal (BI)
Fan Discharge	Horizontal
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

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

Electrical Data	
Measurement Method	VFD Display
Motor Volts 1	212
Motor Volts 2	212
Motor Volts 3	212
Motor Amps 1	2.8
Motor Amps 2	2.8
Motor Amps 3	2.8
Operating HZ	47.4
Starter Data	Internal to VFD
Approx. BHP	1.00

Fan

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: MAU-01

Tested By: Guy Nunez
Date: 12/20/2022

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	5.6

Inspection Data - MAU-01

	Verification	Response	Notes	By	Date/Time
1	Fan Rotation is Correct?	Yes		GN	12/20/22 15:45
2	Belts are Tight?	NA		GN	12/20/22 15:45
3	Internal motorized damper is fully opening?	Yes		GN	12/20/22 15:45
4	Motor is operating below the FLA rating?	Yes		GN	12/20/22 15:45
5	Unit free of noticeable noise and vibration?	Yes		GN	12/20/22 15:45
6	There is no major leakage around base of fan?	Yes		GN	12/20/22 15:45
7	Is the motor operating below the motor FLA rating?	Yes		GN	12/20/22 15:45

Heat Exchangers - MAU-01

	Verification	Response	Notes	By	Date/Time
1	Gas piping is installed and valves are in on position?	Yes		GN	12/20/22 15:45
2	Heater tested and is functional?	Yes		GN	12/20/22 15:45
3	Heater Operates?	Yes		GN	12/20/22 15:45
4	Flame Status?	Yes		GN	12/20/22 15:45
5	Inlet Air Temp SetPt (Design 55)	55		GN	12/20/22 15:45
6	Discharge Air Temp SetPt (Design 60)	60		GN	12/20/22 15:46
7	Air Flow Switch Sp Actual	0.32		GN	12/20/22 15:46

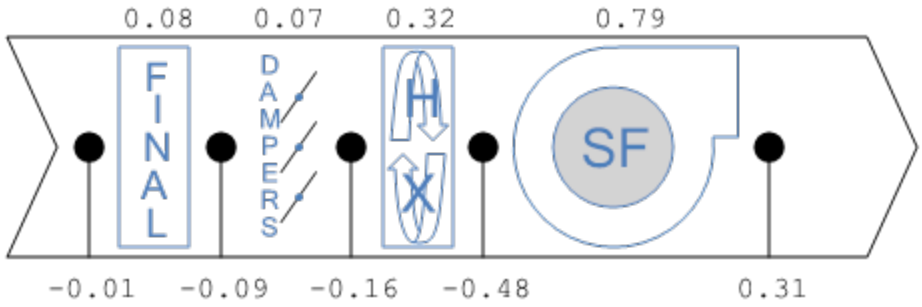
Fan

PROJECT: Chipotle #36-4373
LOCATION: Roseburg, OR
PROJECT #: 22327

SYSTEM/UNIT: MAU-01/Static Profile

Tested By: Guy Nunez
Date: 12/20/2022

Static Pressure Profile



SYSTEM/UNIT: MAU-01/HD-01

Tested By: Guy Nunez
Date: 12/20/2022

Design Airflow (CFM)	
Des. Make-up Air	1950

Final Airflow (CFM)	
Act. Make-up Air	1938

Kitchen Hood Information	
Manufacturer	
Test Method	

Test Data	
PSP Length (in)	171
PSP Width (in)	12"
Correction Factor	0.83
Total MA Ak (sq ft)	11.82
Avg. MA Velocity (FPM)	164