

Report By:

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



Report: PRELIMINARY TAB REPORT

Function: Test, Adjust, & Balance

Date: 04/08/2025

Completed By: National TAB

PROJECT

04-07-25 FIVE GUYS TOLEDO, OH

6920 CENTRAL AVE

TOLEDO, OH 43617

Client

Sunforest Building Company

National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH

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National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH

System/Unit: AHU/RTU



Asset: RTU1

AREA:DINING

Unit Data		
	Design	Actual
MFG	LENNOX	AMERICAN STANDARD
Serial Num	-	240460045MxX
Model Num	LGT150H4E	GCC150A3EHB3
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	37x22
Num Final Filter 1	-	4
Final Filter Size 1	-	20"x20"x2"

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	3.75	3.0
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.8

Drive Data	
	Actual
Motor Sheave Size	1VP60
Motor Bore Size	7/8"
Motor Sheave SetPt	0 OUT
Fan Sheave Size	BK95
Fan Sheave Bore	1"
Belt CL Distance	23"
Num of Belts	1
Belt Size	B-66
Belt Alignment	Good

Test Data		
	Design	Actual
SF CFM	4110	4129
SF RPM	-	1088
RA CFM	3310	3364
OA CFM	800	765
RL Voltage	-	211/212/210
RL Amperage	-	10.3/8.8/10.3
SF Rotation	-	CCW
SF System SetPt	-	60HZ
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	5.8 DCV
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	D

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.73"
Fan Suction SP	-	-1.20"
Fan Discharge SP	-	0.83"
Total ESP	---	1.56"
Fan Total SP	-	2.03"

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

Completed By: Gabe Merk on 04/08/2025

Notes:
Motor has 1.15 sf. Average leg amperage within sfa.

Written By: Gabe Merk on 04/08/2025

National TAB
 Project:04-07-25 FIVE GUYS TOLEDO, OH
AHU/RTU



Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	DINING	S1	18X16	585	1	602	602	635	108.5
SGRD2	DINING	S1	18X16	585	1	584	584	621	106.2
SGRD3	DINING	S1	20X20	585	1	544	544	566	96.8
SGRD4	DINING	S1	22X20	585	1	552	552	584	99.8
SGRD5	DINING	S1	---	600	1	737	737	609	101.5
SGRD6	DINING	S1	20X20	585	1	520	520	559	95.6
SGRD7	DINING	S1	18X16	585	1	531	531	555	94.9
Total				4110		4070	4070	4129	100.46%

Completed By: Gabe Merk on 04/08/2025

National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH

System/Unit: AHU/RTU



Asset: RTU2

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	LENNOX	AMERICAN STANDARD
Serial Num	-	233860040MX
Model Num	LGT092H4E	GCC090A3EHB3
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	37"x22"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"x20"x2"

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	2	2
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	6.3

Drive Data	
	Actual
Motor Sheave Size	1VP60
Motor Bore Size	7/8"
Motor Sheave SetPt	0 out
Fan Sheave Size	BK115
Fan Sheave Bore	1"
Belt CL Distance	22"
Num of Belts	1
Belt Size	B66
Belt Alignment	GOOD

Test Data		
	Design	Actual
SF CFM	3000	2973
SF RPM	-	913
RA CFM	2600	2537
OA CFM	400	436
RL Voltage	-	212 / 212 / 211
RL Amperage	-	6.4 / 5.2 / 6.2
SF Rotation	-	CCW
SF System SetPt	-	60HZ
RA Damper Position	-	Mechanically Linked
Min OA Damper Position	-	2.0 VDC
Min OA Damper Type	-	Economizer
OA Enthalpy Setpt	-	D

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.46"
Fan Suction SP	-	-0.69"
Fan Discharge SP	-	0.69"
Total ESP	---	1.15"
Fan Total SP	-	1.38"

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

Completed By: Chase Wright on 04/08/2025

National TAB
 Project:04-07-25 FIVE GUYS TOLEDO, OH
AHU/RTU



Diffuser Supply (GRD)

RTU2/KITCHEN

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	HOOD 1	ACPSP	6"X129"	614	4.19	651	651	628	102.3
SGRD2	HOOD 2	ACPSP	6"X105"	560	3.46	386	386	550	98.2
SGRD3	KITCHEN	S1		150	1	221	221	146	97.3
SGRD4	KITCHEN	S1		325	1	356	356	325	100.0
SGRD5	KITCHEN	S1		326	1	445	445	331	101.5
SGRD6	KITCHEN	S1		325	1	363	363	313	96.3
SGRD7	KITCHEN	S3		400	1	243	243	373	93.3
SGRD8	KITCHEN	S3		150	1	175	175	152	101.3
SGRD9	KITCHEN	S3		100	1	174	174	102	102.0
SGRD10	KITCHEN	S3		50	1	173	173	53	106.0
Total				3000		3187	3187	2973	99.1%

Completed By: Gabe Merk on 04/08/2025

National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH

System/Unit: Kitchen Hood Type I



Asset: HD1

AREA:FRYER HOOD

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND-2-ACPSP-F	5424 ND-2
Job / Serial Num	-	6879563
Type	TYPE I - CANOPY	TYPE 1 CANOPY
Hood length	108"	105"
Hood Width	54"	54"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	14"	14"
Supply Plenum Length	129"	105"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO
Filter Size 1	16X16	16"X16"
Filter Qty 1	6	6
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	11.34	9.72
Filter1 FPM	-	149
Filter2 FPM	-	154
Filter3 FPM	-	182
Filter4 FPM	-	186
Filter5 FPM	-	157
Filter6 FPM	-	154
Filter Ave FPM(corr)	-	264
CFM	1662	1584

Cooking Equipment	
	Actual
Item 1	FRYER

Test Data Supply		
	Design	Actual
Total Area	12.54	10.2
Kv factor (Vel)	0.89	0.89
Num of Readings	-	12
Reading1 FPM	-	92
Reading2 FPM	-	99
Reading3 FPM	-	114
Reading4 FPM	-	104
Reading5 FPM	-	132
Reading6 FPM	-	129
Reading7 FPM	-	105
Reading8 FPM	-	103
Reading9 FPM	-	79
Reading10 FPM	-	107
Reading11 FPM	-	129
Reading12 FPM	-	131
Ave FPM(corr)	-	98
CFM	1247	1125

Completed By: Gabe Merk on 04/08/2025

National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH

System/Unit: Kitchen Hood Type I



Asset: HD2

AREA:GRILL HOOD

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND2-ACPSP-F	5424 ND-2
Job / Serial Num	-	6879563
Type	TYPE I - CANOPY	TYPE 1 CANOPY
Hood length	108"	117"
Hood Width	54"	54"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	14"	14"
Supply Plenum Length	105"	129"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO
Filter Size 1	16X16	16"X16"
Filter Qty 1	6	7
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	9.72	11.34
Filter1 FPM	-	148
Filter2 FPM	-	159
Filter3 FPM	-	180
Filter4 FPM	-	185
Filter5 FPM	-	161
Filter6 FPM	-	156
Filter7 FPM	-	173
Filter Ave FPM(corr)	-	269
CFM	1852	1882

Cooking Equipment	
	Actual
Item 1	GRILL

Test Data Supply		
	Design	Actual
Total Area	10.20	12.54
Kv factor (Vel)	0.89	0.89
Num of Readings	-	12
Reading1 FPM	-	135
Reading2 FPM	-	116
Reading3 FPM	-	99
Reading4 FPM	-	120
Reading5 FPM	-	102
Reading6 FPM	-	107
Reading7 FPM	-	147
Reading8 FPM	-	113
Reading9 FPM	-	144
Reading10 FPM	-	107
Reading11 FPM	-	121
Reading12 FPM	-	105
Ave FPM(corr)	-	105
CFM	1574	1480

Completed By: Gabe Merk on 04/08/2025



National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH

System/Unit: FAN - Exhaust

Asset: EF1

AREA:FRYER HOOD

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU180HFA	DU180HFA
Serial Num	-	6879563
Type	UPBLAST	UPBLAST
Configuration	CEILING	VERTICAL

Test Data		
	Design	Actual
CFM	1662	1581
Fan RPM	-	700
Fan Rotation	-	CCW
Motor RPM	-	700
System SetPt	-	35.9Hz
RL Voltage	-	117 VFD
RL Amperage	-	3.0VFD
Total ESP	1.375"	0.54"
Fan Inlet SP	-	-0.54"
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Motor MFG	-	WEG
Frame	-	182T
Horsepower	2.0	2.0
Motor Rpm	-	1170
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	6.44
Service Factor	-	1.25

Completed By: Gabe Merk on 04/08/2025

Unit Data - PHOTO LOG



04/07/2025



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National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH
System/Unit: FAN - Exhaust



Asset: EF2

AREA:GRILL

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	CASRE15DD	CASRE15DD
Serial Num	-	6879563
Type	UTILITY	UTILITY SET
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1852	1882
Fan RPM	-	1468
Fan Rotation	-	CCW
Motor RPM	-	1468
System SetPt	-	50.5Hz
RL Voltage	-	112 VFD
RL Amperage	-	3.3 VFD
Total ESP	0.5"	INACCESSIBLE
Fan Inlet SP	-	INACCESSIBLE
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	145T
Horsepower	2.0	2
Motor Rpm	-	1745
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	5.64
Service Factor	-	1.15

Completed By: Gabe Merk on 04/08/2025

Unit Data - PHOTO LOG



National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH

System/Unit: FAN - Exhaust



Asset: EF3

AREA:TOILET

Unit Data		
	Design	Actual
MFG	GREENHECK	TWIN CITY
Model Num	G-095-E	ACXD-090BE
Serial Num	-	17121-2-00001
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	225	222
Fan RPM	-	INACCESSIBLE
Fan Rotation	-	CCW
Motor RPM	-	INACCESSIBLE
System SetPt	-	VIA DIAL
RL Voltage	-	123
RL Amperage	-	0.4
Total ESP	0.50"	0.19"
Fan Inlet SP	-	-0.19"
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Motor MFG	-	MCMILLAN
Frame	-	NA
Horsepower	1.30	1/6
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.6
Service Factor	-	NA

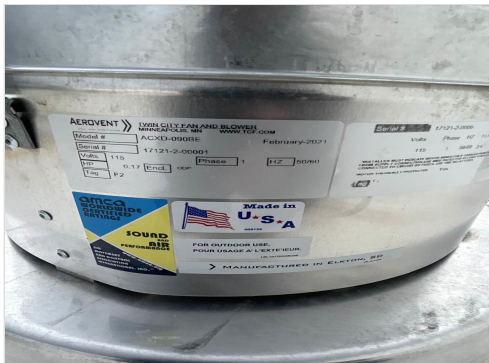
Completed By: Gabe Merk on 04/08/2025

Notes:

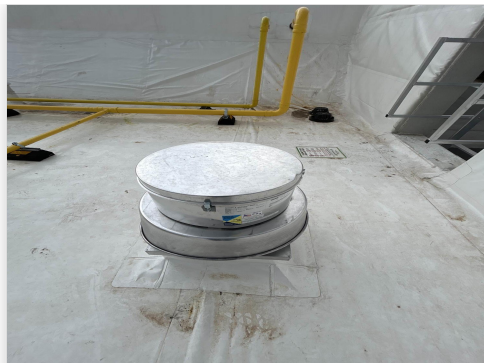
EF3 DESIGNED AT 375 CFM. AIR DEFICE TOTALS= 225 CFM. ADJUSTED UNITS DESIGN TO REFLECT AIR DEVICE TOTALS.

Written By: Tara Metcalf on 04/03/2025

Unit Data - PHOTO LOG



04/07/2025



04/07/2025

National TAB
 Project:04-07-25 FIVE GUYS TOLEDO, OH
FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF3/TOILET

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	TOILET	E1		75	1	169	72	72	96.0
EGRD2	TOILET	E1		75	1	137	76	76	101.3
EGRD3	TOILET	E1		75	1	120	74	74	98.7
Total				225		426	222	222	98.67%

Completed By: Gabe Merk on 04/08/2025

National TAB

Project: 04-07-25 FIVE GUYS TOLEDO, OH

System/Unit: FAN - Supply



Asset: MUA1

AREA:MUA

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	A2-D.500-20D-MPU	A2-D.500-20D-MPU
Serial Num	-	6879563
Type	MUA	MUA
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	182T
Horsepower	3.0	3.0
Motor Rpm	-	1750
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	8.6
Service Factor	-	1.15

Gas Heat		
	Design	Actual
Heater Operates (y/n)	-	YES
Flame Status (pass/fail)	-	PASS
Inlet Air Temp SetPt	55	55
Discharge Air Temp SetPt	60	60
Air Flow Switch SP Actual	-	0.32"

Test Data		
	Design	Actual
CFM	2821	2838
SF RPM	-	1245
Motor RPM	-	1245
SF System SetPt	-	42.7Hz
RL Voltage	-	107 VFD
RL Amperage	-	5.4VFD
Total ESP	-	0.37"
Fan Discharge SP	-	0.37"

General	
	Actual
Fan Rotation Correct	YES

Completed By: Gabe Merk on 04/08/2025

CheckList List

- TECH - STEP 1: INITIAL WALKTHRU
- TECH - STEP 2: UNIT DATA AND EVAL
- TECH - STEP 3: TEST, ADJUST AND BALANCE
- TECH - STEP 4: FINAL TESTS
- TECH - STEP 5: FINAL DOCUMENTATION



04-07-25 FIVE GUYS TOLEDO, OH

CheckList Information

Name : TECH - STEP 1: INITIAL WALKTHRU **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 03/28/2025 - Tara Metcalf - National TAB
Completed Date : 04/08/2025 - Gabe Merk - National TAB

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design? No

Comment:

All diffusers and grilles installed but returns do not match R1 type specified.

All hood filters installed and accounted for? Yes

Comment:

Hoods are wired and have power? Yes

Comment:

Hood is free of alarms? Yes

Comment:

Thermostats have power? Yes

Comment:

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

Comment:

Yes.



04-07-25 FIVE GUYS TOLEDO, OH

CheckList Information

Name : TECH - STEP 2: UNIT DATA AND EVAL **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 03/28/2025 - Tara Metcalf - National TAB
Completed Date : 04/08/2025 - Gabe Merk - National TAB

CheckList Item Details

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

RTU's/AHU's

Economizers are assembled and functional? Yes

Comment:

DCV Max damper opening position is set to minimum? Yes

Comment:

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

Comment:

Motors are all operating below the FLA rating? Yes

Comment:

Are belts tight?

Comment:

YES

If direct drive unit is the speed controller working.

Comment:

N/A

Is gas piping installed and valves turned on?

Yes

Comment:

Unit free of noticeable noise and vibration

Yes

Comment:

EF's

Rotation is correct?

Yes

Comment:

Belts are tight?

Comment:

N/A

Grease cup installed on hood fan?

Yes

Comment:

Hinge kit installed installed on hood fan?

Yes

Comment:

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

Yes

Comment:

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

Yes

Comment:

There is no major leakage around base of fan?

Yes

Comment:

Is the motor operating below the motor FLA rating?

Yes

Comment:

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

Comment:

Unit free of noticeable noise and vibration?	Yes
-----------------------------------------------------	-----

Comment:

MUA

Rotation is correct?	Yes
-----------------------------	-----

Comment:

Gas piping is installed and valves are in on position?	Yes
---------------------------------------------------------------	-----

Comment:

Heater tested and is functional?	Yes
-----------------------------------------	-----

Comment:

Internal motorized damper is fully opening?	Yes
----------------------------------------------------	-----

Comment:

Motor is operating below the FLA rating?	Yes
-------------------------------------------------	-----

Comment:

Unit free of noticeable noise and vibration?	Yes
-----------------------------------------------------	-----

Comment:

HOODS

Kitchen equipment installed in proper places?	Yes
------------------------------------------------------	-----

Comment:

Can kitchen equipment be turned on for final smoke test?	Yes
-----------------------------------------------------------------	-----

Comment:

DOCUMENTATION

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

Comment:



04-07-25 FIVE GUYS TOLEDO, OH

CheckList Information

Name : TECH - STEP 3: TEST, ADJUST AND BALANCE **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 03/28/2025 - Tara Metcalf - National TAB
Completed Date : 04/08/2025 - Gabe Merk - National TAB

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting? Yes

Comment:

Is space comfortable in all areas? Yes

Comment:

Is the space free of ventilation noise? Yes

Comment:

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

Comment:

N/A



04-07-25 FIVE GUYS TOLEDO, OH

CheckList Information

Name : TECH - STEP 4: FINAL TESTS **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 03/28/2025 - Tara Metcalf - National TAB
Completed Date : 04/08/2025 - Gabe Merk - National TAB

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

GRILL/FRYER

List smoke candle type used

Comment:

COOKING SMOKE

Smoke test capture - Perimeter of hood

Comment:

100%

Smoke test capture - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed

04/08/2025

Comment:

TAB tech name / Firm

Comment:

GABE M / NTI

Site super name / Firm

Comment:

N/A

Owner representative name / Firm (if Applicable)

Comment:

NICK (MANAGER)/ 5 GUYS

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

Comment:

0.02"/-0.02"

ADDITIONAL

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

Comment:

NO, MEASURED PRESSURE IS AFFECTED BY STRONG WINDS AGAINST SIDE AND REAR OF BUILDING.

Thermostats are programmed?

Yes

Comment:



04-07-25 FIVE GUYS TOLEDO, OH

CheckList Information

Name : TECH - STEP 5: FINAL DOCUMENTATION **Status :** Not Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 03/28/2025 - Tara Metcalf - National TAB

CheckList Item Details

FINAL DOCUMENTATION

Marked Data capture complete for all assets? Yes

Comment:

Picture file sent to processing team or uploaded? Yes

Comment:

Balance schedule complete and uploaded? Yes

Comment:

Prelim report generated and reviewed?

Comment:

FINAL DOCUMENTATION

Marked Data capture complete for all assets?

Comment:

Picture file sent to processing team or uploaded?

Comment:

Balance schedule complete and uploaded?

Comment:

Prelim report generated and reviewed?

Comment:
