Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 03/02/2026

Completed By: National TAB

PROJECT

02-23-26 WHATABURGER #1644 GARNER, NC

79 INSPIRATION DRIVE

GARNER, NC 27529

Client

Whataburger Restaurants

300 Concord Plaza Dr

San Antonio, TX 78216

National TAB

Project: 02-23-26 WHATABURGER #1644 GARNER, NC

Table Of Contents

Project Summary

Project Summary
The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report are further details 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.

Exhaust Fans w/ Registers
The exhaust fan was measured at the grilles to measure the total flow. The fan was then adjusted to bring airflow within tolerance of the engineer's design flow. Each grille was then adjusted to within tolerance of design flow.

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 and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report. The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat on to ensure satisfactory hood capture and containment.

Issue List

- EF-1 Damper Not Opening

02-23-26 WHATABURGER #1644 GARNER, NC

Project Issue Information

Issue Name : EF-1 Damper Not Opening

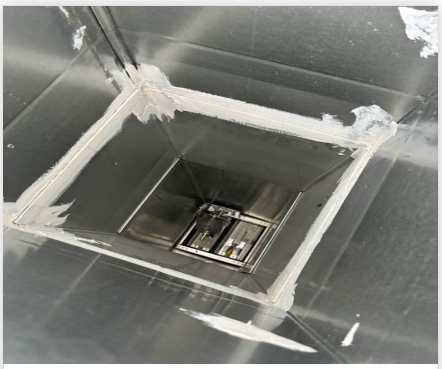
Description : The damper in the drop is not opening resulting in low flow for the two bathroom exhaust diffusers. The damper is too far down the drop to be manually opened. The damper actuator wire is not wired to anything. The wire needs to be used in order for the damper to open.

Created By :	National TAB	**Assigned To :**	National TAB - Brianna Biggs
Status :	Open		
Priority :	High	**Asset Tag :**	EF1
Originated Date :	02/26/2026 - Alex Bauer - National TAB		

Project Issue File Details

02/26/2026

02/26/2026



02/26/2026

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2. Open Image_2026_03_02T1652..

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	3650	3507	1533	1395	2117	2112	58.0%	60.2%						
RTU-2	DINING	2240	2189	493	444	1747	1745	78.0%	79.7%						
KEF-1	KITCHEN HD											1994	1949		
KEF-2	KITCHEN HD											1216	1126		
EF-1	RESTROOMS													300	138
TOTALS		5890	5696	2026	1839	3864	3857			0	0	3210	3075	300	138

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3864	3857
TOTAL EXHAUST	3510	3213
NET AIRFLOW	354	644

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0381
SIDE	0.0151
REAR	0.0127
AVERAGE	**0.022**

FINAL CHECKS

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

NOTES:

See issues list about EF-1.

CheckList List

- 01: RTU's
- 02: EF's
- 03: Hoods
- 04: Final Checks

02-23-26 WHATABURGER #1644 GARNER, NC

CheckList Information

Name :	01: RTU's	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/17/2026 - Natasha Louw - National TAB		
Completed Date :	03/02/2026 - Alex Bauer - National TAB		

CheckList Item Details

RTU's/AHU's

Thermostats installed and have power?	N/A
Comment:	
All diffusers and grilles are installed and match design?	Pass
Comment:	
Motors are all operating below the FLA rating?	Pass
Comment:	
Is gas piping installed and valves turned on?	Pass
Comment:	
Unit free of noticeable noise and vibration	Pass
Comment:	
Final outside air damper position is set manually and marked with permanent marker?	Pass
Comment:	
Supply airflow is 0 to +10%?	Pass

Comment:

Outside airflow is 0 to +10%?	Pass

Comment:

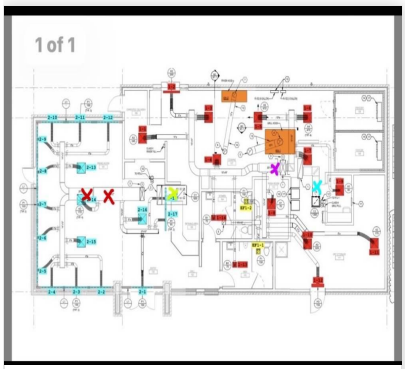
Return balance dampers are confirmed to be 100% open (if installed)?	Pass

Comment:

Screenshot of the GRD marked up with supply and return traverse locations for RTU-1 (Add picture here)	Pass

Comment:

The returns were not traversed as they were not reachable.

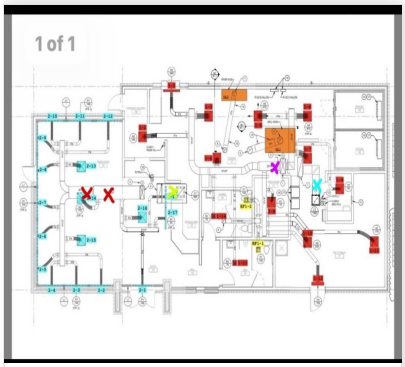


03/02/2026

Screenshot of the GRD marked up with supply and return traverse locations for RTU-2 (Add picture here)	Pass

Comment:

The returns were not traversed as they were not reachable.



03/02/2026

For each unit supply, is the flow hood reading within 10% of the final traverse reading? If not do you feel any major points of leakage	Pass
Comment:	

For each unit return, is the flow hood reading within 10% of the final traverse reading? If not do you feel any major points of leakage	N/A
Comment: The returns were not traversed as they were not reachable.	

02-23-26 WHATABURGER #1644 GARNER, NC

CheckList Information

Name :	02: EF's	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/17/2026 - Natasha Louw - National TAB		
Completed Date :	03/02/2026 - Alex Bauer - National TAB		

CheckList Item Details

EF's

Rotation is correct?	Pass
Comment:	
Belts are tight?	Pass
Comment:	
Hinge kit installed installed on hood fan?	Pass
Comment:	
Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	Pass
Comment:	
Flex conduit is long enough so that fan can be completely tilted back?	Pass
Comment:	
There is no major leakage around base of fan?	Pass
Comment:	

Is the motor operating below the motor FLA rating?	Pass
Comment:	
For restroom fan(s) is the back draft damper installed and can it fully open?	Fail
Comment: See issues list.	
Unit free of noticeable noise and vibration?	Pass
Comment:	
Exhaust airflow is 0 to +10%?	Fail
Comment: See issues list.	

02-23-26 WHATABURGER #1644 GARNER, NC

CheckList Information

Name :	03: Hoods	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/17/2026 - Natasha Louw - National TAB		
Completed Date :	03/02/2026 - Alex Bauer - National TAB		

CheckList Item Details

HOODS

All hood filters installed and accounted for?	Pass
Comment:	
Hoods are wired and have power?	Pass
Comment:	
Hood is free of alarms?	Pass
Comment:	
Hood is free of damage?	Pass
Comment:	
Quarter or full vertical end panels are installed if specified?	Pass
Comment:	

02-23-26 WHATABURGER #1644 GARNER, NC

CheckList Information

Name :	04: Final Checks	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/17/2026 - Natasha Louw - National TAB		
Completed Date :	03/02/2026 - Alex Bauer - National TAB		

CheckList Item Details

FINAL CHECKS

Is space free of drafting?	Pass
Comment:	
Is space comfortable in all areas?	Pass
Comment:	
Is the space free of ventilation noise?	Pass
Comment:	

List kitchen equipment turned on for testing

Comment:

N/A

List smoke candle type used

Comment:

Smoke test yet to be completed.

HOOD CAPTURE TEST

Smoke test capture % - Perimeter of hood

Comment:

Smoke test yet to be completed.

Smoke test capture % - Top of cooking surface

Comment:

Smoke test yet to be completed.

WITNESS

Date test was completed	N/A

Comment:

Smoke test yet to be completed.

TAB tech name / Firm

Comment:

Alex Bauer/NTAB

Site super name / Firm

Comment:

Damion Swindle/Wimco Corp.

Owner representative name / Firm (if Applicable)

Comment:

NA

BUILDING PRESSURE

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

Comment:

Is the building pressure at least +0.02"? If not, do you see any obvious areas of external building that aren't sealed?	Pass

Comment:

Notes/Comments :

See issues list about EF-1. The hood smoke test has yet to be completed.

Date :03/02/2026

National TAB

Project: 02-23-26 WHATABURGER #1644 GARNER, NC

System/Unit: AHU/RTU

Asset: RTU1 AREA:KITCHEN

Unit Data	
	Actual
MFG	CAPTIVE-AIRE
Serial Num	8189267
Model Num	CAS-HVAC3-I.300-20-20T
Num OA Filters 1	4
OA Filter Size 1	16X20X2
Num Final Filter 1	8
Final Filter Size 1	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	WESTINGHOUSE
Frame	-	184T
Horsepower	5.0	5.0
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	13.6

Drive Data	
	Actual
Motor Sheave Size	DD

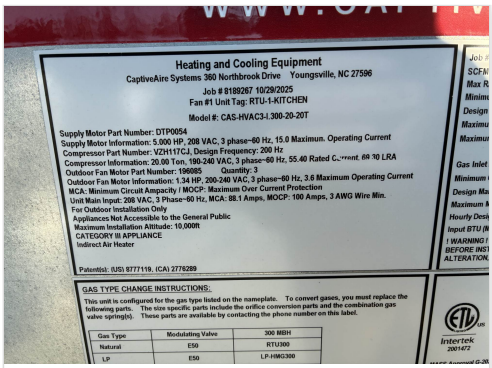
Test Data		
	Design	**Actual**
SF CFM	3650	3507
SF RPM	-	1195
MOTOR RPM	-	1195
RA CFM	1533	1395
OA CFM	2117	2112
RL Voltage	-	128 VFD
RL Amperage	-	9.70 VFD
SF System SetPt	-	41 Hz
Min OA Damper Position	-	60%
Min OA Damper Type	-	ECON

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.36”
Fan Suction SP	-	-0.72”
Fan Discharge SP	-	0.21”
Total ESP	1.0"	0.57”
Fan Total SP	-	0.93”

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

Completed By: Alex Bauer on 03/02/2026

Unit Data - PHOTO LOG



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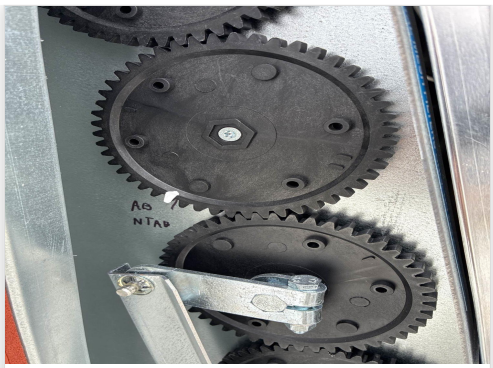


03/02/2026

National TAB

Project:02-23-26 WHATABURGER #1644 GARNER, NC

AHU/RTU

Diffuser Supply (GRD)

RTU1/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DELIVERY	A3	10"	300	1	288	343	288	96.0
SGRD2	DRIVE-THRU	H2	8"	200	1.55	220	296	220	110.0
SGRD3	KITCHEN	A5	12"	475	1	441	527	441	92.8
SGRD4	KITCHEN	A4	12"	475	1	428	485	428	90.1
SGRD5	KITCHEN	A5	12"	475	1	442	694	442	93.1
SGRD6	KITCHEN	A4	12"	475	1	460	602	460	96.8
SGRD7	KITCHEN	A4	12"	475	1	440	437	440	92.6
SGRD8	WASHROOM	A2	8"	150	1	161	198	161	107.3
SGRD9	OFFICE	A2	8"	165	1	154	168	154	93.3
SGRD10	DRY STORAGE	A2	8"	150	1	140	276	140	93.3
SGRD11	DRY STORAGE	H3	8"	160	1.70	173	157	173	108.1
SGRD12	MENS RR	B1	6"	75	1	80	33	80	106.7
SGRD13	WOMENS RR	B1	6"	75	1	80	120	80	106.7
Total				3650		3507	4336	3507	96.08%

Completed By: Alex Bauer on 03/02/2026

National TAB

Project: 02-23-26 WHATABURGER #1644 GARNER, NC

System/Unit: AHU/RTU

Asset: RTU2 AREA:DINING

Unit Data	
	Actual
MFG	CAPTIVE-AIRE
Serial Num	8189267
Model Num	CAS-HVAC3-I.200-15-15T
Num OA Filters 1	4
OA Filter Size 1	16X20X2
Num Final Filter 1	8
Final Filter Size 1	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	WESTINGHOUSE
Frame	-	145T
Horsepower	2.0	2.0
Motor Rpm	-	1745
Phase	3	3
Rated Voltage	208	230
Rated Amperage	-	5.64

Drive Data	
	Actual
Motor Sheave Size	DD

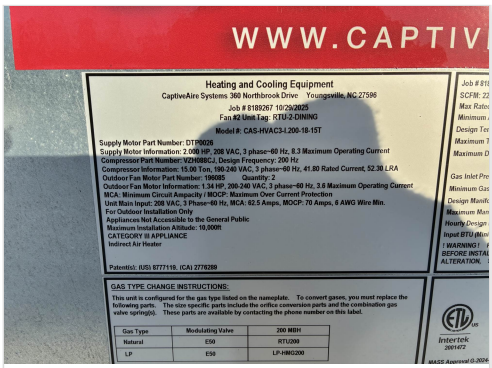
Test Data		
	Design	**Actual**
SF CFM	2240	2189
SF RPM	-	1575
MOTOR RPM	-	1575
RA CFM	493	444
OA CFM	1747	1745
RL Voltage	-	128 VFD
RL Amperage	-	5.1 VFD
SF System SetPt	-	54 Hz
Min OA Damper Position	-	40%
Min OA Damper Type	-	ECON

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.12”
Fan Suction SP	-	-0.31”
Fan Discharge SP	-	0.27”
Total ESP	1.0"	0.39”
Fan Total SP	-	0.58”

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

Completed By: Alex Bauer on 03/02/2026

Unit Data - PHOTO LOG



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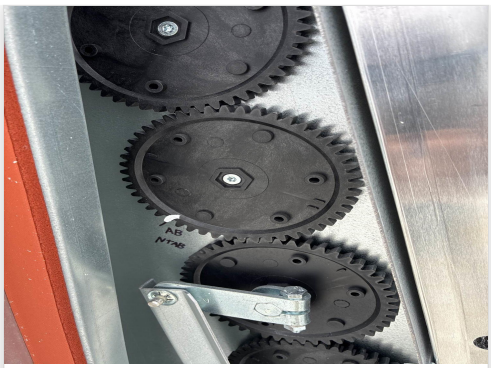


03/02/2026

02/23/2026

National TAB

Project:02-23-26 WHATABURGER #1644 GARNER, NC

AHU/RTU

Diffuser Supply (GRD)

RTU2/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	ENTRANCE	P2	8"	120	0.88	114	181	114	95.0
SGRD2	ENTRANCE	P2	8"	120	0.88	115	99	115	95.8
SGRD3	DINING	P1	6"	100	0.88	102	81	102	102.0
SGRD4	DINING	P1	6"	100	0.88	92	74	92	92.0
SGRD5	DINING	P1	6"	100	0.88	97	91	97	97.0
SGRD6	DINING	P1	6"	100	0.88	99	73	99	99.0
SGRD7	DINING	P1	6"	100	0.88	102	90	102	102.0
SGRD8	DINING	P1	6"	100	0.88	106	92	106	106.0
SGRD9	DINING	P1	6"	100	0.88	109	73	109	109.0
SGRD10	DINING	P1	6"	100	0.88	98	63	98	98.0
SGRD11	DINING	P1	6"	100	0.88	96	106	96	96.0
SGRD12	DINING	P1	6"	100	0.88	100	92	100	100.0
SGRD13	DINING	A2	8"	200	1	189	163	189	94.5
SGRD14	DINING	A2	8"	200	1	187	220	187	93.5
SGRD15	DINING	A2	8"	200	1	182	149	182	91.0
SGRD16	DINING	A2	8"	200	1	190	136	190	95.0
SGRD17	SERVING AREA	H1	8"	200	1.55	211	138	211	105.5
Total				2240		2189	1921	2189	97.72%

Completed By: Alex Bauer on 03/02/2026

National TAB

Project: 02-23-26 WHATABURGER #1644 GARNER, NC

System/Unit: FAN - Exhaust

Asset: EF1 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	G-080-VG	G-080-VG-1-17-X
Serial Num	-	28125587
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	NA
Horsepower	0.1	0.10
Motor Rpm	-	1750
Phase	1	1
Voltage (rated)	120	230
Amperage (rated)	-	0.73
Service Factor	-	NA

Test Data		
	Design	**Actual**
CFM	300	138
Fan RPM	1679	1750
Fan Rotation	-	CCW
Motor RPM	-	1750
System SetPt	-	10
RL Voltage	-	125
RL Amperage	-	1.71
Total ESP	0.50"	1.15”
Fan Inlet SP	-	-1.15”
Fan Discharge SP	-	ATM

Notes:
See issues list.

Written By: Alex Bauer on 03/02/2026

Unit Data - PHOTO LOG

02/23/2026

02/23/2026

National TAB

Project:02-23-26 WHATABURGER #1644 GARNER, NC

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF1/RESTROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	MENS RR	F1	8X8	150	1	19	63	59	39.3
EGRD2	WOMENS RR	F1	8X8	150	1	33	84	79	52.7
Total				300		52	147	138	46%

National TAB

Project: 02-23-26 WHATABURGER #1644 GARNER, NC

System/Unit: FAN - Exhaust

Asset: KEF1 AREA:KITCHEN HD

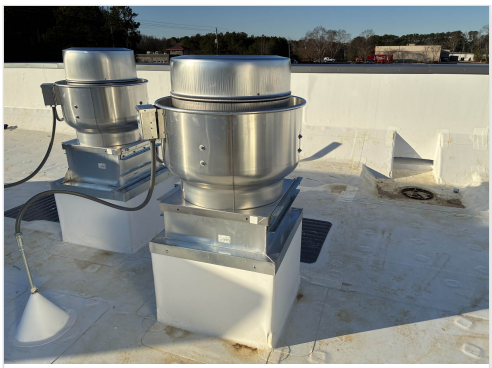
Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	CUE-140-VG	CUE-140-7-VG-1-22-G
Serial Num	-	28125591 25K
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	NA
Horsepower	1.0	0.75
Motor Rpm	-	1550
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	5.4
Service Factor	-	NA

Test Data		
	Design	**Actual**
CFM	1994	1949
Fan RPM	1554	1554
Fan Rotation	-	CCW
Motor RPM	-	1554
System SetPt	-	10
RL Voltage	-	217
RL Amperage	-	NA
Total ESP	1.0"	1.25”
Fan Inlet SP	-	-1.25”
Fan Discharge SP	-	ATM

Completed By: Alex Bauer on 03/02/2026

Unit Data - PHOTO LOG



02/23/2026

02/23/2026

National TAB

Project: 02-23-26 WHATABURGER #1644 GARNER, NC

System/Unit: FAN - Exhaust

Asset: KEF2 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	CUE-120-VG	CUE-120-5-VG-1-19-G
Serial Num	-	28125592 25K
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	NA
Horsepower	0.5	0.50
Motor Rpm	-	1725
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	3.8
Service Factor	-	NA

Test Data		
	Design	**Actual**
CFM	1216	1126
Fan RPM	1449	1449
Fan Rotation	-	CCW
Motor RPM	-	1449
System SetPt	-	10
RL Voltage	-	218
RL Amperage	-	NA
Total ESP	0.75"	1.01”
Fan Inlet SP	-	-1.01”
Fan Discharge SP	-	ATM

Completed By: Alex Bauer on 03/02/2026

Unit Data - PHOTO LOG

02/23/2026

02/23/2026

National TAB

Project: 02-23-26 WHATABURGER #1644 GARNER, NC

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:KITCHEN

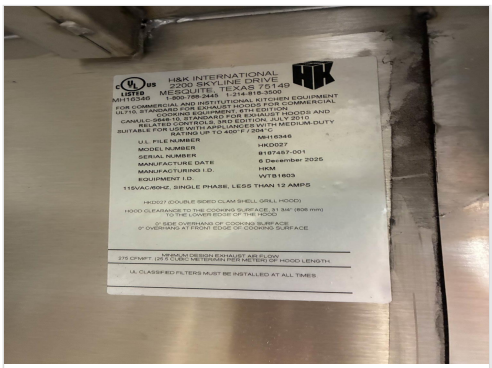
Unit Data		
	Design	**Actual**
MFG	H&K DALLAS	H&K DALLAS
Model Num	HKD0	HKD027
Job / Serial Num	-	8187457-001
Type	TYPE 1 CANOPY	TYPE I CANOPY
Hood length	87"	86.75”
Hood Width	56.19"	56.25”

Test Data Exhaust		
	Design	**Actual**
Filter Type	-	BAFFLE FILTERS
Filter Size 1	-	9.75X17.75
Filter Qty 1	-	8
Filter AK factor size 1	-	1.20
Filter Total AK Area	-	9.60
Filter1 FPM	-	185
Filter2 FPM	-	187
Filter3 FPM	-	232
Filter4 FPM	-	171
Filter5 FPM	-	220
Filter6 FPM	-	224
Filter7 FPM	-	200
Filter8 FPM	-	207
Filter Ave FPM(corr)	-	203
CFM	1994	1949

Cooking Equipment	
	Actual
Item 1	GRIDDLE
Item 2	GRIDDLE PRESS

Completed By: Alex Bauer on 03/02/2026

Unit Data - PHOTO LOG



02/23/2026

02/23/2026

02/23/2026

National TAB

Project: 02-23-26 WHATABURGER #1644 GARNER, NC

System/Unit: Kitchen Hood Type I

Asset: HD2 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	H&K DALLAS	H&K DALLAS
Model Num	HKD0	HKD023
Job / Serial Num	-	8191087-001
Type	TYPE 1 CANOPY	TYPE I CANOPY
Hood length	73"	65.50”
Hood Width	22.19	22.25”

Test Data Exhaust		
	Design	**Actual**
Filter Type	SS BAFFLE	SS BAFFLE FILTERS
Filter Size 1	12X16	9.50X14
Filter Qty 1	3	4
Filter AK factor size 1	1.16	0.92
Filter Total AK Area	4.98	3.68
Filter1 FPM	-	308
Filter2 FPM	-	341
Filter3 FPM	-	316
Filter4 FPM	-	262
Filter Ave FPM(corr)	-	306
CFM	1216	1126

Cooking Equipment	
	Actual
Item 1	FRYER

Completed By: Alex Bauer on 03/02/2026

Unit Data - PHOTO LOG

02/23/2026

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