

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

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Project: 02-23-26 WHATABURGER #1644 GARNER, NC
Function: Test, Adjust, & Balance

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
- HD-1 Not Wired/Connected
- HD-2 Not Wired/Connected



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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 fan is set to the maximum speed, there are no odd shapes/angles in the duct work, and the branch dampers are 100% open. The damper in the drop needs to open in order for there to be appropriate flow.

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

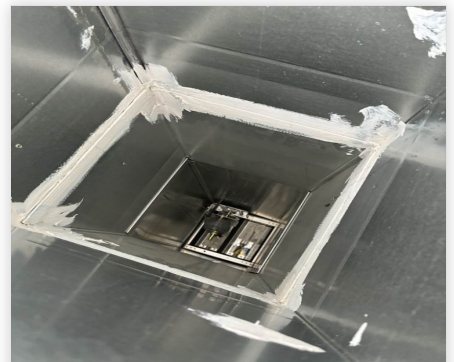
Project Issue File Details



02/26/2026



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Project Issue Information

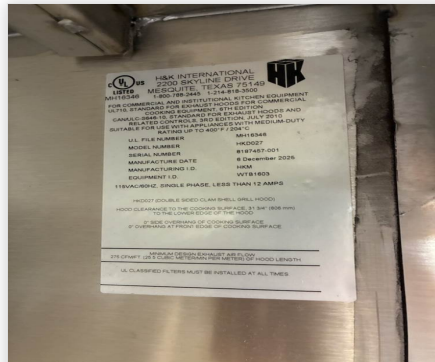
Issue Name : HD-1 Not Wired/Connected
Description : The on/off switch for HD-1 is not wired. The technician from Chisholm Service says the hoods are also not connected to the RTUs. The switch needs to be wired and the hood systems connected to the RTUs.

Created By : National TAB **Assigned To :** National TAB - Brianna Biggs
Status : Open
Priority : Urgent **Asset Tag :** HD1
Originated Date : 02/23/2026 - Alex Bauer - National TAB

Project Issue File Details



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Project Issue Information

Issue Name : HD-2 Not Wired/Connected
Description : The on/off switch for HD-2 is not wired. The technician from Chisholm Service says the hoods are also not connected to the RTUs. The switch needs to be wired and the hood systems connected to the RTUs.
Created By : National TAB **Assigned To :** National TAB - Brianna Biggs
Status : Open
Priority : Urgent **Asset Tag :** HD2
Originated Date : 02/23/2026 - Alex Bauer - National TAB

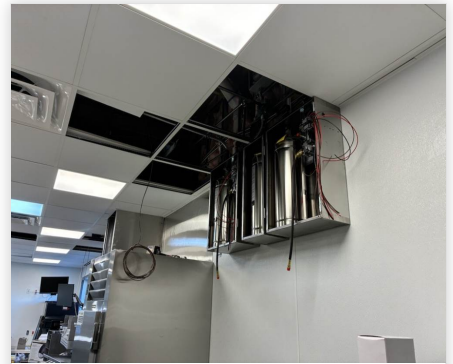
Project Issue File Details



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

- [Open](#) Whataburger_Balance_Schedule.xlsx

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 :** Not Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 02/17/2026 - Natasha Louw - National TAB

CheckList Item Details

RTU's/AHU's

Thermostats installed and have power?

Comment:

All diffusers and grilles are installed and match design?

Comment:

Motors are all operating below the FLA rating?

Comment:

Is gas piping installed and valves turned on?

Comment:

Unit free of noticeable noise and vibration

Comment:

Final outside air damper position is set manually and marked with permanent marker?

Comment:

Supply airflow is 0 to +10%?

Comment:

Outside airflow is 0 to +10%?

Comment:

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

Comment:

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

Comment:

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

Comment:

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

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

Comment:



02-23-26 WHATABURGER #1644 GARNER, NC

CheckList Information

Name : 02: EF's **Status :** Not Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 02/17/2026 - Natasha Louw - National TAB

CheckList Item Details

EF's

Rotation is correct?

Comment:

Belts are tight?

Comment:

Hinge kit installed installed on hood fan?

Comment:

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

Comment:

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

Comment:

There is no major leakage around base of fan?

Comment:

Is the motor operating below the motor FLA rating?

Comment:

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

Comment:

Unit free of noticeable noise and vibration?

Comment:

Exhaust airflow is 0 to +10%?

Comment:



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CheckList Information

Name : 03: Hoods **Status :** Not Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 02/17/2026 - Natasha Louw - National TAB

CheckList Item Details

HOODS

All hood filters installed and accounted for?

Comment:

Hoods are wired and have power?

Comment:

Hood is free of alarms?

Comment:

Hood is free of damage?

Comment:

Quarter or full vertical end panels are installed if specified?

Comment:



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CheckList Information

Name : 04: Final Checks **Status :** Not Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 02/17/2026 - Natasha Louw - National TAB

CheckList Item Details

FINAL CHECKS

Is space free of drafting?

Comment:

Is space comfortable in all areas?

Comment:

Is the space free of ventilation noise?

Comment:

List kitchen equipment turned on for testing

Comment:

List smoke candle type used

Comment:

HOOD CAPTURE TEST

Smoke test capture % - Perimeter of hood

Comment:

Smoke test capture % - Top of cooking surface

Comment:

WITNESS

Date test was completed

Comment:

TAB tech name / Firm

Comment:

Site super name / Firm

Comment:

Owner representative name / Firm (if Applicable)

Comment:

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)

Comment:

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

Comment:

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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

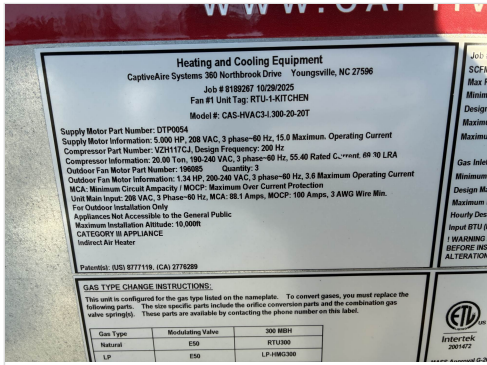
Test Data		
	Design	Actual
SF CFM	3650	3507
SF RPM	-	1195
MOTOR RPM	-	1195
RA CFM	1533	1395
OA CFM	2117	2112
RL Voltage	-	128 VFD
RL Amperage	-	9.70 VFD
SF System SetPt	-	41 Hz
Min OA Damper Position	-	60%
Min OA Damper Type	-	ECON

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 02/24/2026

Unit Data - PHOTO LOG



02/23/2026



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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%

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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

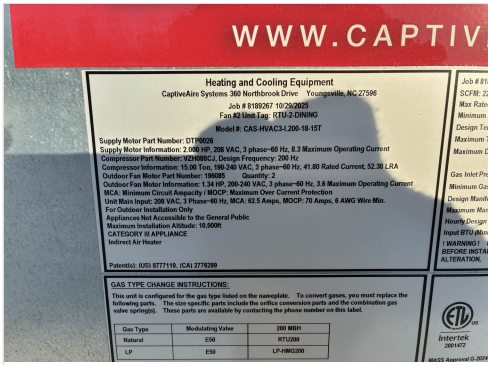
Test Data		
	Design	Actual
SF CFM	2240	2189
SF RPM	-	1575
MOTOR RPM	-	1575
RA CFM	493	444
OA CFM	1747	1745
RL Voltage	-	128 VFD
RL Amperage	-	5.1 VFD
SF System SetPt	-	54 Hz
Min OA Damper Position	-	40%
Min OA Damper Type	-	ECON

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 02/24/2026

Unit Data - PHOTO LOG



02/23/2026



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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%

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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	147
Fan RPM	1679	1750
Fan Rotation	-	CCW
Motor RPM	-	
System SetPt	-	10
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	0.50"	1.15"
Fan Inlet SP	-	-1.15"
Fan Discharge SP	-	ATM

Notes:

Unable to read volts and amps because of rain.

Written By: Alex Bauer on 02/26/2026

Unit Data - PHOTO LOG



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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	42.0
EGRD2	WOMENS RR	F1	8X8	150	1		33	84	56.0
Total				300		0	52	147	49%

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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	
Fan RPM	1554	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	1.0"	
Fan Inlet SP	-	
Fan Discharge SP	-	ATM

Unit Data - PHOTO LOG



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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	
Fan RPM	1449	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	0.75"	
Fan Inlet SP	-	
Fan Discharge SP	-	ATM

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System/Unit: Kitchen Hood Type I



Asset: HD1

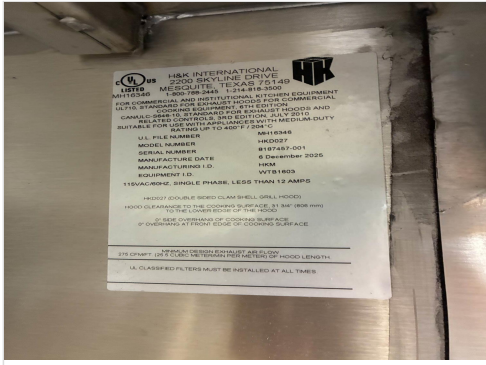
AREA:KITCHEN

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	-	
Filter2 FPM	-	
Filter3 FPM	-	
Filter4 FPM	-	
Filter5 FPM	-	
Filter6 FPM	-	
Filter7 FPM	-	
Filter8 FPM	-	
Filter Ave FPM(corr)	-	
CFM	1994	

Cooking Equipment	
	Actual
Item 1	GRIDDLE
Item 2	GRIDDLE PRESS

Unit Data - PHOTO LOG



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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"

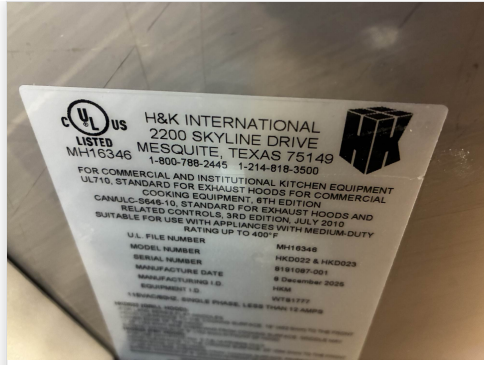
Test Data Exhaust		
	Design	Actual
Filter Type	SS BAFFLE	SS BAFFLE FILTERS
Filter Size 1	12X16	9.50X14
Filter Qty 1	3	4
Filter AK factor size 1	1.16	0.92
Filter Total AK Area	4.98	3.68
Filter1 FPM	-	
Filter2 FPM	-	
Filter3 FPM	-	
Filter4 FPM	-	
Filter Ave FPM(corr)	-	
CFM	1216	

Cooking Equipment	
	Actual
Item 1	FRYER

Unit Data - PHOTO LOG



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