

Report By:

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Report: TAB Report
Function: Test, Adjust, & Balance
Date: 04/02/2026
Completed By: National TAB

PROJECT
08-11-25 WHATABURGER #1613
SIMPSONVILLE, SC

671 FAIRVIEW RD

SIMPSONVILLE, SC 29680

Client

Whataburger Restaurants
300 Concord Plaza Dr

San Antonio, TX 78216

National TAB

Project: 08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

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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.

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	3850	3840	1390	1254	2460	2586	63.9%	67.3%						
RTU-2	DINING	2050	2098	500	500	1550	1598	75.6%	76.2%						
KEF-1	KITCHEN HD											1994	2052		
KEF-2	KITCHEN HD											1216	1249		
EF-1	RESTROOMS													300	303
TOTALS		5900	5938	1890	1754	4010	4184			0	0	3210	3301	300	303

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	4010	4184
TOTAL EXHAUST	3510	3604
NET AIRFLOW	500	580

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	0.021
SIDE	
REAR	0.0203
AVERAGE	0.0207

FINAL CHECKS

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

NOTES:

CheckList List

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



08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

CheckList Information

Name : 01: RTU's **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 08/06/2025 - Natasha Louw - National TAB

Completed Date : 08/12/2025 - Christian Moller - National TAB

CheckList Item Details

RTU's/AHU's

Thermostats installed and have power? Pass

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)?

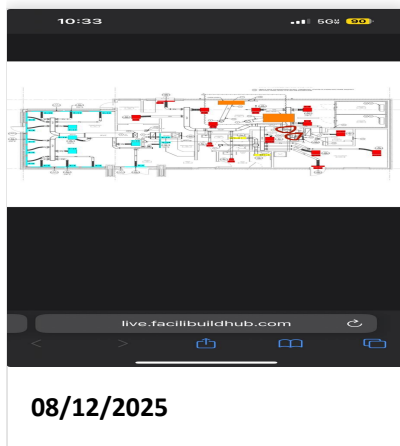
Pass

Comment:

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

Pass

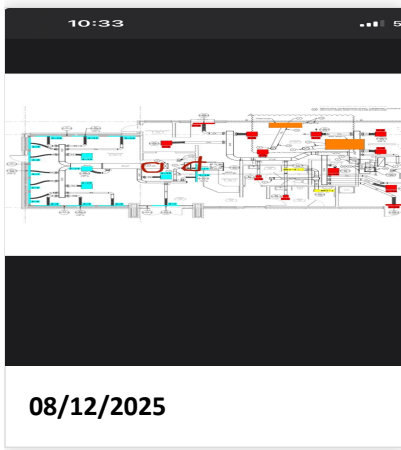
Comment:



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

Pass

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

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

Pass

Comment:



08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

CheckList Information

Name : 02: EF's **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 08/06/2025 - Natasha Louw - National TAB

Completed Date : 08/12/2025 - Christian Moller - National TAB

CheckList Item Details

EF's

Rotation is correct?	Pass
----------------------	------

Comment:

Belts are tight?	N/A
------------------	-----

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?

Pass

Comment:

Unit free of noticeable noise and vibration?

Pass

Comment:

Exhaust airflow is 0 to +10%?

Pass

Comment:



08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

CheckList Information

Name : 03: Hoods **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 08/06/2025 - Natasha Louw - National TAB

Completed Date : 08/12/2025 - Christian Moller - 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:



08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

CheckList Information

Name : 04: Final Checks **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 08/06/2025 - Natasha Louw - National TAB

Completed Date : 08/12/2025 - Christian Moller - 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:

NONE

List smoke candle type used

Comment:

S102 45 SECOND CANDLES

HOOD CAPTURE TEST

Smoke test capture % - Perimeter of hood

Comment:

100%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed

08/11/2025

Comment:

TAB tech name / Firm

Comment:

Christian Moller / National TAB Intelligence

Site super name / Firm

Comment:

Jason Herndon / WH Bass

Owner representative name / Firm (if Applicable)

Comment:

N/A

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:

FRONT: 0.021" BACK: 0.0203"

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:

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Project: 08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

System/Unit: AHU/RTU



Asset: RTU1

AREA: KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	202506-BNGP123647
Model Num	RNA-020-3-0-FABY-S0-21-000-A
Num OA Filters 1	3
OA Filter Size 1	22X19
Num OA Filters 2	6
OA Filter Size 2	20X25X2

Motor Data		
	Design	Actual
Motor MFG	-	BROAD OCEAN
Horsepower	3850	3
Motor Rpm	-	1170
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	10.6

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD
Belt Alignment	DD

Test Data		
	Design	Actual
SF CFM (Traverse)	-	3852
SF CFM	3850	3840
RA CFM (Traverse)	-	1299
RA CFM	1390	1254
OA CFM	2460	2586
RL Voltage	-	205/205/204
RL Amperage	-	8.4/8.6/9.1
SF System SetPt	-	VFD/63.00Hz
RA Damper Position	-	2"
Min OA Damper Position	-	1"
Min OA Damper Type	-	ECON

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.75"
Fan Suction SP	-	-1.12"
Fan Discharge SP	-	0.91"
Total ESP	-	1.87"
Fan Total SP	-	2.03"

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

Completed By: Christian Moller on 08/12/2025

Unit Data - PHOTO LOG



08/12/2025

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Project:08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

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	MENS RR	B1	6"	75	1	83	93	69	92.0
SGRD2	WOMENS RR	B1	6"	75	1	82	98	79	105.3
SGRD3	EXPIDITED DELIVERY	A3	10"	345	1	236	268	315	91.3
SGRD4	KITCHEN	H2	8"	200	1	68	141	184	92.0
SGRD5	KITCHEN	A4	12"	470	1	445	516	450	95.7
SGRD6	KITCHEN	A4	12"	470	1	344	396	490	104.3
SGRD7	KITCHEN	A5	12"	470	1	613	689	430	91.5
SGRD8	KITCHEN	A4	12"	470	1	562	640	517	110.0
SGRD9	KITCHEN	A4	12"	470	1	272	319	483	102.8
SGRD10	WASH ROOM	A1	6"	70	1	96	114	74	105.7
SGRD11	OFFICE	A1	6"	90	1	27	0	97	107.8
SGRD12	DRY STORAGE	A3	10"	320	1	226	253	322	100.6
SGRD13	DRY STORAGE	H3	8"	150	1	161	159	153	102.0
SGRD14	DRY STORAGE	A2	8"	175	1	139	163	177	101.1
Total				3850		3354	3849	3840	99.74%

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Project: 08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

System/Unit: AHU/RTU



Asset: RTU2

AREA:DINING

Unit Data	
	Actual
MFG	AAON
Serial Num	202506-BNGZ123630
Model Num	RN-011-3-0-FABY-S0-21-000-A
Num OA Filters 1	2
OA Filter Size 1	23.5X17
Num OA Filters 2	4
OA Filter Size 2	20X25X2

Motor Data		
	Design	Actual
Motor MFG	-	BROAD OCEAN
Horsepower	2.0	2
Motor Rpm	-	1170
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	7.5

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD
Belt Alignment	DD

Test Data		
	Design	Actual
SF CFM (Traverse)	-	2095
SF CFM	2050	2095
RA CFM (Traverse)	-	515
RA CFM	500	497
OA CFM	1550	1598
RL Voltage	-	205/205/204
RL Amperage	-	2.9/2.9/2.9
SF System SetPt	-	VFD/49
RA Damper Position	-	0.5"
Min OA Damper Position	-	3"
Min OA Damper Type	-	ECON

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.158"
Fan Suction SP	-	-0.30"
Fan Discharge SP	-	0.27"
Total ESP	0.75"	0.45"
Fan Total SP	-	0.57"

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

Completed By: Christian Moller on 08/12/2025

Unit Data - PHOTO LOG



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Project:08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

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	ENTRY	P1	6"	100	.33	132	132	105	105.0
SGRD2	DINING	P1	6"	100	.33	89	89	105	105.0
SGRD3	DINING	P1	6"	100	.33	77	77	109	109.0
SGRD4	DINING	P1	6"	100	.33	102	102	106	106.0
SGRD5	DINING	P1	6"	100	.33	97	97	93	93.0
SGRD6	DINING	P1	6"	100	.33	117	117	97	97.0
SGRD7	DINING	P1	6"	100	.33	84	84	93	93.0
SGRD8	DINING	P1	6"	100	.33	68	68	104	104.0
SGRD9	DINING	P1	6"	100	.33	72	72	96	96.0
SGRD10	DINING	P1	6"	100	.33	96	96	109	109.0
SGRD11	DINING	P1	6"	100	.33	83	83	101	101.0
SGRD12	DINING	P1	6"	100	.33	121	121	108	108.0
SGRD13	DINING	A2	8"	170	1	86	86	154	90.6
SGRD14	DINING	A2	8"	170	1	103	103	186	109.4
SGRD15	DINING	A2	8"	170	1	99	99	172	101.2
SGRD16	SERVING AREA	A2	8"	170	1	122	122	183	107.6
SGRD17	SERVING AREA	H1	6"	85	1	108	108	89	104.7
SGRD18	SERVING AREA	H1	6"	85	1 1684	28	28	88	103.5
Total				2050		1684	1684	2098	102.34%



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Project:08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

Diffuser Supply (GRD)

TRAVERSES/

Asset					
Asset Name	Size	DESIGN CFM	VEL(1)	FINAL CFM	% to design
RETURN TRAVERSE - RTU1	20X20	1390	1246	1299	93.5
RETURN TRAVERSE - RTU 2	44X14	500	389	515	103.0
SUPPLY TRAVERSE - RTU 1	24X22	3850	3354	3852	100.1
SUPPLY TRAVERSE - RTU 2	30X12	2050	1643	2098	102.3
Total		7790		7764	99.67%

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Project: 08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

System/Unit: FAN - Exhaust



Asset: EF1

AREA:RESTROOMS

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	G-080-VG	G-080-VG-1-17-X
Serial Num	-	26814738
Type	DOWNBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	VARI-GREEN
Frame	-	NL
Horsepower	0.10	1/10
Motor Rpm	-	1750
Phase	1	1
Voltage (rated)	120	208
Amperage (rated)	-	1.38
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	300	303
Fan Rotation	-	CCW
System SetPt	-	SPEED CONTROLLER, 5.5
RL Voltage	-	110
RL Amperage	-	0.56
Total ESP	0.50"	0.42"
Fan Inlet SP	-	0.42"
Fan Discharge SP	-	ATM

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Unit Data - PHOTO LOG



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Project:08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF1/RESTROOMS

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	MENS RR	F1	8X8	150	1	203	171	142	94.7
EGRD2	WOMENS RR	F1	8X8	150	1	235	198	161	107.3
Total				300		438	369	303	101%

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Project: 08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

System/Unit: FAN - Exhaust



Asset: KEF1

AREA:KITCHEN HD

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	CUE-140-VG	CUE-140-10-VG-1-26-G
Serial Num	-	26815112 25D
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	VARI-GREEN
Horsepower	1.00	1
Motor Rpm	-	1725
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	7.0

Test Data		
	Design	Actual
CFM	1994	2052
Fan Rotation	-	CCW
System SetPt	-	SPEED CONTROLLER, 6
RL Voltage	-	206
RL Amperage	-	2.9
Total ESP	1.00"	0.87"
Fan Inlet SP	-	0.87"
Fan Discharge SP	-	ATM

Completed By: Christian Moller on 08/11/2025

Unit Data - PHOTO LOG



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Project: 08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

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-1-22-G
Serial Num	-	26815118 25D
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

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

Test Data		
	Design	Actual
CFM	1216	1249
Fan Rotation	-	CCW
System SetPt	-	6.5
RL Voltage	-	211
RL Amperage	-	3.4
Total ESP	0.75"	0.46"
Fan Inlet SP	-	0.46"
Fan Discharge SP	-	ATM

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Unit Data - PHOTO LOG



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Project: 08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

System/Unit: Kitchen Hood Type I



Asset: KH1

AREA:GRILL

Unit Data		
	Design	Actual
MFG	H&K DALLAS INC.	H&K DALLAS INC.
Model Num	HKD023	HKD027
Job / Serial Num	-	8162646-001
Type	TYPE 1	TYPE I
Hood length	73"	87"
Hood Width	22.19"	27.5"

Test Data Exhaust		
	Design	Actual
Filter Type	FLAMEGAURD FILTERS	FLAMEGUARD
Filter Size 1	12X20	12X20
Filter Qty 1	8	8
Filter AK factor size 1	1.5	1.5
Filter Total AK Area	12	12
Filter1 FPM	-	167
Filter2 FPM	-	193
Filter3 FPM	-	175
Filter4 FPM	-	157
Filter5 FPM	-	171
Filter6 FPM	-	178
Filter7 FPM	-	185
Filter8 FPM	-	145
Filter Ave FPM(corr)	-	171
CFM	1994	2052

Cooking Equipment	
	Actual
Item 1	GRILL

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Unit Data - PHOTO LOG



08/12/2025

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Project: 08-11-25 WHATABURGER #1613 SIMPSONVILLE, SC

System/Unit: Kitchen Hood Type I



Asset: KH2

AREA:KITCHEN

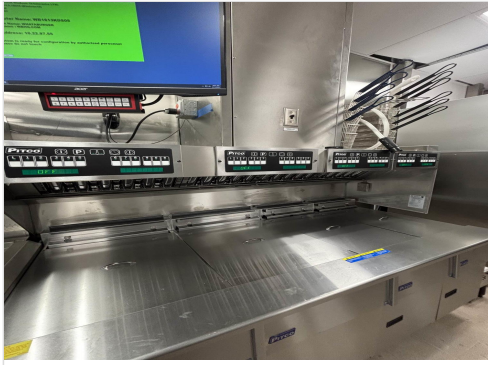
Unit Data		
	Design	Actual
MFG	H&K DALLAS INC.	H&K DALLAS INC.
Model Num	HKD023	HKD023
Job / Serial Num	-	8165631-001
Type	TYPE 1	TYPE 1
Hood length	73"	70.5"
Hood Width	22.19"	23"

Test Data Exhaust		
	Design	Actual
Filter Type	FLAMEGAURD	FLAMEGUARD
Filter Size 1	12X20	12X20
Filter Size 2	12X16	12X16
Filter Qty 1	2	1
Filter Qty 2	2	3
Filter AK factor size 1	1.5	1.5
Filters AK factor size 2	1.16	1.16
Filter Total AK Area	5.32	4.98
Filter1 FPM	-	259
Filter2 FPM	-	232
Filter3 FPM	-	276
Filter4 FPM	-	237
Filter Ave FPM(corr)	-	251
CFM	1216	1249

Cooking Equipment	
	Actual
Item 1	FRYER

Completed By: Christian Moller on 08/11/2025

Unit Data - PHOTO LOG



08/12/2025

18 REMOTE ANSUL SYSTEM MOUNTED ON WALL. CONFIRM FINAL LOCATION OF STATION WITH OWNER, ARCHITECT, AND OTHER TRADES. REFER TO DETAILS AND SPECIFICATIONS.

