Report By:

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

Report: Kitchen Hood Evaluation

Function: Test, Adjust, & Balance

Date: 09/12/2025

Completed By: National TAB

PROJECT

Marion's Piazza

50 E Stroop Rd

Kettering, OH 45429

Client

Marion's Piazza

National TAB

Project: Marion's Piazza

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Project Summary

Initial building pressure: 0.002"

Hood exhaust fans found to be rotating backwards.

Building pressure after swapping direction: -0.190"

Initial hood exhaust conveyer: 659 cfm flow after swapping direction: 2926 cfm

Initial hood exhaust deck ovens: 525 cfm flow after swapping direction: 1696 cfm. Smoke Capture average.

conveyer hood exhaust turned down to improve space pressure issues. final flow 2510 cfm. Smoke Capture Great

Final space pressure: -0.140"

MUA flow not reliably measurable. Do not reccomend increasing flow of MUA as it may cause decreased smoke capture.

Reccomend installing air filters in all RTUs and economizer oa intake on large kitchen unit. This unit is capable of taking in ~800-1000cfm of oa without causing performance issues.

Reccomend opening existing economizer 1" to 1-1/2" to aid in space pressure issues.

Reccomend running RTUs on schedule to keep space pressure from fluctuating as they turn on and off.

Reccomend reducing mua flow at deck oven hood to improve smoke capture. Sheave is seized. Mua blows smoke away from the hood exhaust reducing capture efficiency.

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Project: Marion's Piazza

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:CONVEYER OVEN

Unit Data		
	Design	**Actual**
Hood length	-	122”
Hood Width	-	76”

Test Data Exhaust		
	Design	**Actual**
Filter Type	-	BAFFLE
Filter Size 1	-	20"X20"
Filter Qty 1	-	6
Filter Total AK Area	-	16.08
Filter1 FPM	-	145
Filter2 FPM	-	160
Filter3 FPM	-	178
Filter4 FPM	-	162
Filter5 FPM	-	163
Filter6 FPM	-	131
Filter Ave FPM(corr)	-	419.4
CFM	-	2511

Cooking Equipment	
	Actual
Item 1	CONVEYER OVEN

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Project: Marion's Piazza

System/Unit: Kitchen Hood Type I

Asset: HD2 AREA:DECK OVEN

Unit Data		
	Design	**Actual**
Hood length	-	180”
Hood Width	-	44”

Test Data Exhaust		
	Design	**Actual**
Filter Type	-	BAFFLE
Filter Size 1	-	10"X20"
Filter Qty 1	-	9
Filter Total AK Area	-	11.43
Filter1 FPM	-	110
Filter2 FPM	-	127
Filter3 FPM	-	130
Filter4 FPM	-	170
Filter5 FPM	-	177
Filter6 FPM	-	168
Filter7 FPM	-	137
Filter8 FPM	-	148
Filter9 FPM	-	161
Filter Ave FPM(corr)	-	187.3
CFM	-	1685

Cooking Equipment	
	Actual
Item 1	DECK OVEN X 3

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Project: Marion's Piazza

System/Unit: FAN - Exhaust

Asset: EF2 AREA:DECK OVEN

Unit Data		
	Design	**Actual**
MFG	NA	PENN VENTILATION
Model Num	Na	FMX-18B
Serial Num	-	NA
Type	-	CRE UPBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	LEESON
Frame	-	56
Horsepower	-	3/4
Motor Rpm	-	1725
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	10.0
Service Factor	-	1.25

Drive Data	
	Actual
Motor Sheave Size	MVL46
Motor Bore Size	5/8”
Motor Sheave SetPt	2 OUT
Fan Sheave Size	MFAL64
Fan Sheave Bore	5/8”
Belt CL Distance	5-1/2”
Num of Belts	1
Belt Size	4L260

Test Data		
	Design	**Actual**
CFM	-	1685
Fan RPM	-	929
RL Voltage	-	118
RL Amperage	-	8.7
Suction ESP	-	-0.48”
Discharge ESP	-	ATM
Total ESP	-	0.48”
Brake Horse Power	-	0.65

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Project: Marion's Piazza

System/Unit: FAN - Exhaust

Asset: EF-1 AREA:CONVEYER OVEN

Unit Data		
	Design	**Actual**
MFG	NA	PENN VENTILATION
Model Num	NA	FMX-18B
Serial Num	-	NA
Type	-	CRE UPBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	-	3/4
Motor Rpm	-	1725
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	10.0

Drive Data	
	Actual
Motor Sheave Size	3”
Motor Bore Size	5/8”
Motor Sheave SetPt	2-1/2 OUT
Fan Sheave Size	6”
Fan Sheave Bore	3/4”
Belt CL Distance	5-1/2”
Num of Belts	1
Belt Size	4L260

Test Data		
	Design	**Actual**
CFM	-	2511
Fan RPM	-	750
RL Voltage	-	118
RL Amperage	-	8.6
Suction ESP	-	-0.40”
Discharge ESP	-	ATM
Total ESP	-	0.40”
Brake Horse Power	-	0.65

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