

Report By:

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



**Report: 1stWatchTABReport
Function: Test, Adjust, & Balance
Date: 05/12/2023**

**PROJECT
Dunkin Donuts (Georgetown, KY)**

105 Crosswinds Center Path

Georgetown, KY 40324

Client

Holland Design Construction
5120 Taylor Mill Road
Suite 300
Taylor Mill, KY 41015

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Project: Dunkin Donuts (Georgetown, KY)

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The Dunkin Donuts located in Georgetown Kentucky consists of Several RTU-HVAC Units, A small type 2 hood, general exhaust & toilet exhaust system along with their associated air devices. The overall systems were balanced to within 10% of total airflow per NEBB Guidelines. All units were commissioned for the function to ensure proper performance. After the units were balanced, each air devices were balanced to flow, yet ensuring good performance without drafting.

Finally, a smoke test & building pressure test was performed with all systems in operation. The hood captured 100% of smoke test. The final building pressure averaged +0.01" wc which correlates to a slightly positive building pressure & meets the IMC code recommendations of maintaining between a -0.02" to +0.02" wc pressure for building.

All systems were installed in accordance with the plan design.

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Project: Dunkin Donuts (Georgetown, KY)
System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU-1

AREA: KITCHEN

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	N2M2165690
Model Num	NA	ZF090N18R2A
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	30"X22"
Num PreFilter 1	-	4
PreFilter Size 1	-	16"x24"X2"

Test Data		
	Design	Actual
SF CFM	3000	2778
SF RPM	-	1189
RA CFM	1810	2103
OA CFM	650	675
RL Voltage	208	211.3/213.8/213.4
RL Amperage	-	8.3
OA Damper Position	-	8%
Brake Horse Power	2.0	3

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	-	3
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	8.3
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.71"
Fan Suction SP	-	-1.03"
Fan Discharge SP	-	1.58"
Total ESP	1.00	1.74"
Fan Total SP	-	2.61"

Drive Data		
	Design	Actual
Motor Sheave Size	-	4"
Motor Bore Size	-	1"
Motor Sheave SetPt	-	2.5 TURNS OUT
Fan Sheave Size	-	6"
Fan Sheave Bore	-	1"
Belt CL Distance	-	18"
Num of Belts	-	1
Belt Size	-	A49

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Project: Dunkin Donuts (Georgetown, KY)

AHU/RTU



Comfort. Under control.

Diffuser Supply (GRD)

RTU-1/KITCHEN

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
1-1	KITCHEN	CD-1		300	275	273	91.0
1-2	KITCHEN	CD-1	6	100	85	93	93.0
1-3	DINING ROOM	CD-1	12	600	593	593	98.8
1-4	KITCHEN	CD-1		300	284	284	94.7
1-5	KITCHEN	CD-1		200	203	203	101.5
1-6	KITCHEN	CD-1		300	271	271	90.3
1-7	DINING ROOM	CD-1	10	200	184	184	92.0
1-8	DINING ROOM	CD-1		400	356	356	89.0
1-9	KITCHEN	CD-1		300	284	279	93.0
1-10	KITCHEN	CD-1	10	300	241	242	80.7

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Project: Dunkin Donuts (Georgetown, KY)
System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU-2

AREA: DINING ROOM

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	N2M2153538
Model Num	NA	ZF090N18R2A
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	30"X22"
Num PreFilter 1	-	4
PreFilter Size 1	-	16"X24"X2"

Test Data		
	Design	Actual
SF CFM	3000	2898
SF RPM	-	1166
RA CFM	-	2215
OA CFM	650	683
RL Voltage	208	211.9/210.7/208.6
RL Amperage	-	7.72/9.6/7.45
OA Damper Position	-	10%
Brake Horse Power	2.0	2.98

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56 HZ
Horsepower	-	3
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	8.3
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.74"
Fan Suction SP	-	-1.1"
Fan Discharge SP	-	0.53"
Total ESP	1.00	1.75"
Fan Total SP	-	1.64"

Drive Data		
	Design	Actual
Motor Sheave Size	-	4"
Motor Bore Size	-	1"
Motor Sheave SetPt	-	4 TURNS OUT
Fan Sheave Size	-	6"
Fan Sheave Bore	-	1"
Belt CL Distance	-	18"
Num of Belts	-	1
Belt Size	-	A49

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Project: Dunkin Donuts (Georgetown, KY)

AHU/RTU



Comfort. Under control.

Diffuser Supply (GRD)

RTU-2/DINING ROOM

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
2-1	DINING ROOM	CD-3		550	458	502	91.3
2-2	DINING ROOM	CD-3		550	437	514	93.5
2-3	DINING ROOM	CD-3	12	600	515	580	96.7
2-4	DINING ROOM	CD-1		100	84	98	98.0
2-5	DINING ROOM	CD-3	12	550	493	543	98.7
2-6	DINING ROOM	CD-3	12	550	472	534	97.1
2-7	RESTROOM	CD-2		50	68	61	122.0
2-8	RESTROOM	CD-2		50	75	66	132.0

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Project: Dunkin Donuts (Georgetown, KY)
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF-1

AREA:RESTROOMS

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	CREG-070-VG-1-17-X
Serial Num	-	21254345
Type	-	CENTRIFUGAL

Test Data		
	Design	Actual
CFM	200	186
Total ESP	0.275	-0.14"

Motor Data		
	Design	Actual
Motor MFG	-	VARI-GREEN
Horsepower	-	0.166
Motor Rpm	-	1750
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	1.3

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Project: Dunkin Donuts (Georgetown, KY)

FAN - Exhaust



Comfort. Under control.

Diffuser Ret/Exh (GRD)

EF-1/RESTROOMS

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
E1-1	EG-1	6	100	1	100	100	100	100.0
E1-2	EG-1	6	100	1	86	86	86	86.0

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Project: Dunkin Donuts (Georgetown, KY)
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF-2

AREA:HOOD #1

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU33HFA
Serial Num	-	5506300
Type	-	UPBLAST

Test Data		
	Design	Actual
CFM	525	518
RL Voltage	-	119.8
RL Amperage	-	0.48/
Total ESP	0.500	-0.088"

Motor Data		
	Design	Actual
Motor MFG	-	TELCOGREEN
Horsepower	-	0.333
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	4.3

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Project: Dunkin Donuts (Georgetown, KY)

System/Unit: Kitchen Hood Type II



Comfort. Under control.

Asset: HOOD #1

AREA:SANDWICH STATION

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	3624 VHB
Serial Num	-	5506300
Type	-	TYPE II
Hood length	-	63
Hood Width	-	36

Test Data		
	Design	Actual
Exhaust CFM	525	518

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