

# National TAB

Project: 08-14-23 FREDDY'S - PORTLAND, TX (US 181)

## System/Unit: AHU/RTU



Asset: DOAS1

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Serial Num	-	5280149
Model Num	YSC102H3ELA	CASRTU3-I.200-18-20T
Type	DOAS	DOAS
Configuration	VERTICAL DISCHARGE	VERTICAL DISCHARGE
Num OA Filters 1	-	4
OA Filter Size 1	-	16x25x2
Num Final Filter 1	-	8
Final Filter Size 1	-	20x25x2

Motor Data		
	Design	Actual
Motor MFG	-	TECO
Frame	-	184T
Horsepower	-	2.0
Motor Rpm	-	1165
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	8.05

Test Data		
	Design	Actual
SF CFM	2550	2539
SF RPM	-	1320
RA CFM	0	0
OA CFM	2550	2539
RL Voltage	-	197
RL Amperage	-	6.9
SF Rotation	-	CCW
RA Damper Position	-	CLOSED
Min OA Damper Position	-	OPEN
Min OA Damper Type	-	OPPOSED BLADE

Performance Data		
	Design	Actual
MA Plenum SP	-	[1]
Fan Suction SP	-	[1]
Fan Discharge SP	-	0.56"
Total ESP	-	0.56"

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES

Completed By: Wesley John on 08/17/2023

Notes:

[1] UNABLE TO DRILL UNIT DOORS TO TAKE MA AND SUCTION STATIC PRESSURE. SUPPLY DROP DRILLED TO TAKE DISCHARGE PRESSURE.

Written By: Wesley John on 08/17/2023

# National TAB

Project:08-14-23 FREDDY'S - PORTLAND, TX (US 181)

## AHU/RTU



### Diffuser Supply (GRD)

#### DOAS1/KITCHEN

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	STORAGE	B	10"	273	1.0	263	301	284	104.0
SGRD2	STORAGE	B	10"	273	1.0	212	236	259	94.9
SGRD3	HOOD-2	B	10"	273	1.0	320	355	264	96.7
SGRD4	SERVICE	B	10"	273	1.0	257	284	279	102.2
SGRD5	ICE CREAM	B	10"	273	1.0	217	249	268	98.2
SGRD6	DRIVE THRU	B	10"	273	1.0	189	215	258	94.5
SGRD7	PREP	B	10"	273	1.0	163	182	253	92.7
SGRD8	DISHWASH	B	10"	273	1.0	312	349	293	107.3
SGRD9	OFFICE	B	6"	93	1.0	82	89	90	96.8
SGRD10	BACK	B	10"	273	1.0	272	310	291	106.6
Total				2550		2287	2570	2539	99.57%

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# National TAB

Project: 08-14-23 FREDDY'S - PORTLAND, TX (US 181)

## System/Unit: AHU/RTU



Asset: RTU1

AREA: DINING

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CARRIER
Serial Num	-	1623P78229
Model Num	YSC102H3ELA	48FCDM12A3M5A6U3C0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL DISCHARGE
Num OA Filters 1	-	1
OA Filter Size 1	-	20x36x1
Num Final Filter 1	-	4
Final Filter Size 1	-	20x20x2

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	12.6

Test Data		
	Design	Actual
SF CFM	4000	3852
SF RPM	-	2205
RA CFM	3200	3071
OA CFM	800	781
RL Voltage	-	210/209/210
RL Amperage	-	8.9/8.6/8.8
SF Rotation	-	CCW
RA Damper Position	-	5"
Min OA Damper Position	-	1/2"
Min OA Damper Type	-	OPPOSED BLADE

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.64"
Fan Suction SP	-	-0.89"
Fan Discharge SP	-	0.47"
Total ESP	0.8"	1.11"
Fan Total SP	-	1.36"

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES
Condensate Drain Installed	-	YES

Completed By: Wesley John on 08/17/2023

Notes:

GRILLES ADJUSTED PROPORTIONALLY TO MEET UNITS SCHEDULED AIR FLOW DESIGN OF 2550 CFM.

Written By: Wesley John on 08/16/2023

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## AHU/RTU



### Diffuser Supply (GRD)

#### RTU1/DINING

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	DINING	A	12"	400	1.0	359	407	384	96.0
SGRD2	DINING	A	12"	400	1.0	320	359	376	94.0
SGRD3	DINING	A	12"	400	1.0	333	369	373	93.3
SGRD4	DINING	A	12"	400	1.0	397	441	406	101.5
SGRD5	ENTRY	D	10"	200	1.0	228	260	194	97.0
SGRD6	DINING	A	12"	400	1.0	279	315	379	94.8
SGRD7	DINING	A	12"	400	1.0	411	451	413	103.3
SGRD8	DINING	A	12"	400	1.0	307	348	365	91.3
SGRD9	DINING	A	12"	400	1.0	312	345	367	91.8
SGRD10	DINING	A	12"	400	1.0	347	390	404	101.0
SGRD11	WOMENS	D	6"	50	1.0	65	69	48	96.0
SGRD12	RR HALLWAY	C	6"	100	1.0	64	70	92	92.0
SGRD13	MENS	D	6"	50	1.0	89	101	51	102.0
Total				4000		3511	3925	3852	96.3%

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# National TAB

Project: 08-14-23 FREDDY'S - PORTLAND, TX (US 181)

## System/Unit: FAN - Exhaust



Asset: EF1

AREA:MENS RR

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	BROAN
Model Num	DU50HFA	AR80X-B
Serial Num	-	22L30A
Type	CENTRIFUGAL	CENTRIFUGAL
Configuration	CEILING	CEILING

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	0.40
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	75	77
Fan RPM	-	DIRECT DRIVE
Fan Rotation	-	CCW
Motor RPM	-	DIRECT DRIVE
System SetPt	-	SINGLE SPEED
RL Voltage	-	121
RL Amperage	-	0.33
Total ESP	0.25"	N/A
Fan Inlet SP	-	N/A
Fan Discharge SP	-	N/A

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# National TAB

Project: 08-14-23 FREDDY'S - PORTLAND, TX (US 181)

## System/Unit: FAN - Exhaust



Asset: EF2

AREA:WOMENS RR

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	BROAN
Model Num	DU50HFA	AR80X-B
Serial Num	-	32A12A
Type	CENTRIFUGAL	CENTRIFUGAL
Configuration	CEILING	CEILING

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	0.40
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	75	79
Fan RPM	-	DIRECT DRIVE
Fan Rotation	-	CCW
Motor RPM	-	DIRECT DRIVE
System SetPt	-	SINGLE SPEED
RL Voltage	-	121
RL Amperage	-	0.31
Total ESP	0.25"	N/A
Fan Inlet SP	-	N/A
Fan Discharge SP	-	N/A

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# National TAB

Project: 08-14-23 FREDDY'S - PORTLAND, TX (US 181)

## System/Unit: FAN - Exhaust



Asset: KEF1

AREA:HOOD-1

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	DU50HFA	CASRE18DD
Serial Num	-	5280149
Type	CENTRIFUGAL	CENTRIFUGAL
Configuration	UTILITY	UTILITY

Motor Data		
	Design	Actual
Motor MFG	-	TECO
Frame	-	145T
Horsepower	1.0	1.0
Motor Rpm	-	1150
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	3.80
Service Factor	-	1.15

Test Data		
	Design	Actual
CFM	1600	1571
Fan RPM	-	1300
Fan Rotation	-	CCW
Motor RPM	-	1300
System SetPt	-	67.8 Hz
RL Voltage	-	208
RL Amperage	-	3.8
Total ESP	1.50"	1.37"
Fan Inlet SP	-	-1.37"
Fan Discharge SP	-	ATM

Completed By: Wesley John on 08/15/2023

Notes:  
MOTOR OPERATING AT FLA.

Written By: Wesley John on 08/15/2023

# National TAB

Project: 08-14-23 FREDDY'S - PORTLAND, TX (US 181)

## System/Unit: FAN - Exhaust



Asset: KEF2

AREA:HOOD-2

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	DU50HFA	DU50HFA
Serial Num	-	5280149
Type	CENTRIFUGAL	CENTRIFUGAL
Configuration	UPBLAST	UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	TELCO
Frame	-	NL
Horsepower	0.50	0.50
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	NL
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	775	787
Fan RPM	-	1134
Fan Rotation	-	CCW
Motor RPM	-	1134
System SetPt	-	63%
RL Voltage	-	121
RL Amperage	-	3.4
Total ESP	1.25"	1.25"
Fan Inlet SP	-	-1.03"
Fan Discharge SP	-	ATM

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# National TAB

Project: 08-14-23 FREDDY'S - PORTLAND, TX (US 181)

## System/Unit: FAN - Exhaust



Asset: KEF3

AREA:HOOD-3

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	DU33HFA	DU33HFA
Serial Num	-	5280149
Type	CENTRIFUGAL	CENTRIFUGAL
Configuration	UPBLAST	UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	TELCO
Frame	-	NL
Horsepower	-	0.333
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	NL
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	525	509
Fan RPM	-	905
Fan Rotation	-	CCW
Motor RPM	-	905
System SetPt	-	50%
RL Voltage	-	122
RL Amperage	-	0.82
Total ESP	0.80"	0.49"
Fan Inlet SP	-	-0.49"
Fan Discharge SP	-	ATM

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# National TAB

Project: 08-14-23 FREDDY'S - PORTLAND, TX (US 181)

## System/Unit: Kitchen Hood Type I



Asset: HD1

AREA:GRIDDLE

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	5424 ND-2	5424ND-2
Job / Serial Num	-	5280149
Type	TYPE 1 CANOPY	TYPE I CANOPY
Hood length	96"	96"
Hood Width	54"	54"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16x16	16x16
Filter Qty 1	5	5
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	8.10	8.10
Filter1 FPM	-	186
Filter2 FPM	-	203
Filter3 FPM	-	192
Filter4 FPM	-	198
Filter5 FPM	-	192
Filter Ave FPM(corr)	-	194
CFM	1600	1571

Cooking Equipment		
	Design	Actual
Item 1	-	DOUBLE GRIDDLE

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# National TAB

Project: 08-14-23 FREDDY'S - PORTLAND, TX (US 181)

## System/Unit: Kitchen Hood Type I



Asset: HD2

AREA:FRYER

### Unit Data

	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIIRE
Model Num	5424 ND-2	5424 ND-2
Job / Serial Num	-	5280149
Type	TYPE 1 CANOPY	TYPE I CANOPY
Hood length	60"	60"
Hood Width	54"	54"

### Test Data Exhaust

	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16x16	16x16
Filter Qty 1	3	3
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	4.86	4.86
Filter1 FPM	-	160
Filter2 FPM	-	172
Filter3 FPM	-	154
Filter Ave FPM(corr)	-	162
CFM	775	787

### Cooking Equipment

	Design	Actual
Item 1	-	DOUBLE FRYER

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# National TAB

Project: 08-14-23 FREDDY'S - PORTLAND, TX (US 181)

## System/Unit: Kitchen Hood Type II



Asset: HD(Type2)3

AREA:DISHWASHER

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	4224 VHB-G	4224 VHB
Serial Num	-	5280149
Type	TYPE II CANOPY	TYPE II CANOPY
Hood length	42"	42"
Hood Width	42"	42"

Test Data		
	Design	Actual
Exhaust CFM	525	509

Completed By: Wesley John on 08/15/2023