

Report By:

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

NATIONAL

TAB

Comfort. Under control.

Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 02/01/2023

PROJECT
02-06-23 RED ROBIN GLENDALE AZ

ROBIN

GLENDALE , AK

Client

CSA

National TAB

Project: 02-06-23 RED ROBIN GLENDALE AZ

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CheckList Information

Name : TECH - STEP 1: INITIAL WALKTHROUGH **Status :** NotSubmitted
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?

All hood filters installed and accounted for?

Hoods are wired and have power?

Hood is free of alarms?

Thermostats have power?

Have trades/general contractor been notified about any issues and are they created on FaciliBuild?

Notes/Comments :



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CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	Status :	NotSubmitted
Assigned Organization :	National TAB	Asset :	
Requesting Organization :	National TAB		

CheckList Item Details

UNIT DATA AND EVALUATION WHILE GATHERING UNIT DATA CHECK THE FOLLOWING:

RTU's/AHU's

- Economizers are assembled and functional?
- DCV Max damper opening position is set to minimum?
- Free cooling enthalpy set point set for lowest setting (Typically "D")
- Motors are all operating below the FLA rating?
- Are belts tight?
- If direct drive unit is the speed controller working.
- Is gas piping installed and valves turned on?
- Unit free of noticeable noise and vibration

EF's

- Rotation is correct?
- Belts are tight?
- Grease cup installed on hood fan?
- Hinge kit installed installed on hood fan?
- Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?

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

There is no major leakage around base of fan?

Is the motor operating below the motor FLA rating?

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

Unit free of noticeable noise and vibration?

MUA

Rotation is correct?

Gas piping is installed and valves are in on position?

Heater tested and is functional?

Internal motorized damper is fully opening?

Motor is operating below the FLA rating?

Unit free of noticeable noise and vibration?

HOODS

Kitchen equipment installed in proper places?

Can kitchen equipment be turned on for final smoke test?

DOCUMENTATION

Have trades/general contractor been notified about any issues and are they created on FaciliBuild?

Notes/Comments :



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CheckList Information

Name : TECH - STEP 3: TEST, ADJUST AND BALANCE **Status :** NotSubmitted

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting?

Is space comfortable in all areas?

Is the space free of ventilation noise?

If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".

Notes/Comments :



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CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	Status :	NotSubmitted
Assigned Organization :	National TAB	Asset :	
Requesting Organization :	National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

List smoke candle type used

Smoke test capture - Perimeter of hood

Smoke test capture - Top of cooking surface

WITNESS

Date test was completed

TAB tech name / Firm

Site super name / Firm

Owner representative name / Firm (if Applicable)

Building pressure at front & back doors (All Systems On)

ADDITIONAL

Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)

Thermostats are programmed?

Notes/Comments :



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CheckList Information

Name :	TECH - STEP 5: FINAL DOCUMENTATION	Status :	NotSubmitted
Assigned Organization :	National TAB	Asset :	
Requesting Organization :	National TAB		

CheckList Item Details

FINAL DOCUMENTATION

Marked Data capture complete for all assets?

Picture file sent to processing team or uploaded?

Balance schedule complete and uploaded?

Prelim report generated and reviewed?

Notes/Comments :

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System/Unit: AHU/RTU



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Asset: DOAS1

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	
Model Num	CASTRU3-14.400-20T-DOAS	CASTRU3-14.400-20T-DOAS
Type	DOAS	
Configuration	VERTICAL	
Num OA Filters 1	-	
OA Filter Size 1	-	
Num Final Filter 1	-	
Final Filter Size 1	-	
Num Final Filter 2	-	
Final Filter Size 2	-	

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

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

Test Data		
	Design	Actual
SF CFM	4900	
SF RPM	-	
RA CFM	4900	
OA CFM	0	
RL Voltage	-	
RL Amperage	-	
SF Rotation	-	
RA Damper Position	-	
Min OA Damper Position	-	
Min OA Damper Type	-	
OA Enthalpy Setpt	-	

Performance Data		
	Design	Actual
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	0.5	
Fan Total SP	-	

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

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Project:02-06-23 RED ROBIN GLENDALE AZ

AHU/RTU



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Diffuser Supply (GRD)

DOAS1/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	TO- GO	CSD2	10"	310					-
SGRD2	COOKLINE	CSD3	10"	300					-
SGRD3	EXPO	CSD2	12'	470					-
SGRD4	EXPO	CSD2	12"	460					-
SGRD5	COOKLINE	CSD3	10"	300					-
SGRD6	EXPO	CSD2	12"	470					-
SGRD7	COOKLINE	CSD3	10"	300					-
SGRD8	WASH	CSD3	10"	300					-
SGRD9	FOOD PREP	CSD3	12"	460					-
SGRD10	RECEIVIN G	CSD2	12"	460					-
SGRD11	RECEIVIN G	CSD2	12"	435					-
SGRD12	OFFICE	CSD2	12"	435					-
SGRD13	FIRE RISER	CSD2	8"	200					-

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Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: AHU/RTU



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Asset: RTU1

AREA:DINING

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	
Model Num	CASTRU-I.300-20-12.5T-DOAS	CASTRU-I.300-20-12.5T-DOAS
Type	DOAS	
Configuration	VERTICAL	
Num OA Filters 1	-	
OA Filter Size 1	-	
Num Final Filter 1	-	
Final Filter Size 1	-	
Num Final Filter 2	-	
Final Filter Size 2	-	

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

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

Test Data		
	Design	Actual
SF CFM	4800	
SF RPM	-	
RA CFM	2920	
OA CFM	1880	
RL Voltage	-	
RL Amperage	-	
SF Rotation	-	
RA Damper Position	-	
Min OA Damper Position	-	
Min OA Damper Type	-	
OA Enthalpy Setpt	-	

Performance Data		
	Design	Actual
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	0.5	
Fan Total SP	-	

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

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Project:02-06-23 RED ROBIN GLENDALE AZ

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	CSD2	12"	425					-
SGRD2	DINING	CSD2	12"	425					-
SGRD3	DINING	CSD2	12"	425					-
SGRD4	DINING	CSD2	12"	425					-
SGRD5	DINING	CSD2	12"	425					-
SGRD6	DINING	PSD3	8"	165					-
SGRD7	DINING	PSD3	8"	165					-
SGRD8	DINING	PSD3	8"	165					-
SGRD9	DINING	PSD3	8"	165					-
SGRD10	DINING	PSD3	8"	165					-
SGRD11	DINING	CSD2	12"	425					-
SGRD12	DINING	CSD2	12"	425					-
SGRD13	DINING	CSD2	12"	425					-
SGRD14	DINING	CSD2	12"	425					-
SGRD15	HALL	CSD1	6"	75					-
SGRD16	RESTROOM	CSD1	6"	75					-

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System/Unit: AHU/RTU



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Asset: RTU2

AREA:KITHCHEN

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE`	CAPTIVEAIRE`
Serial Num	-	
Model Num	CASTRU-I-150-15.6T-DOAS	CASTRU-I-150-15.6T-DOAS
Type	DOAS	
Configuration	VERTICAL	
Num OA Filters 1	-	
OA Filter Size 1	-	
Num Final Filter 1	-	
Final Filter Size 1	-	
Num Final Filter 2	-	
Final Filter Size 2	-	

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

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

Test Data		
	Design	Actual
SF CFM	2500	
SF RPM	-	
RA CFM	1890	
OA CFM	610	
RL Voltage	-	
RL Amperage	-	
SF Rotation	-	
RA Damper Position	-	
Min OA Damper Position	-	
Min OA Damper Type	-	
OA Enthalpy Setpt	-	

Performance Data		
	Design	Actual
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	0.5	
Fan Total SP	-	

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

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AHU/RTU



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Diffuser Supply (GRD)

RTU2/KITHCHEN

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	VESTIBLE	CSD1	6"	100					-
SGRD2	ENTRY	CSD2	8"	200					-
SGRD3	ENTRY	CSD2	8"	200					-
SGRD4	LOUNGE	CSD2	8"	200					-
SGRD5	LOUNGE	CSD2	8"	200					-
SGRD6	LOUNGE	CSD2	8"	200					-
SGRD7	LOUNGE	CSD2	8"	200					-
SGRD8	LOUNGE	CSD2	8"	150					-
SGRD9	LOUNGE	CSD2	8"	200					-
SGRD10	BAR	CSD2	8"	200					-
SGRD11	BAR	CSD2	8"	200					-
SGRD12	BAR	CSD2	8"	200					-

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Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: FAN - Exhaust



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Asset: EF1

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	CASRE20DD	CASRE20DD
Serial Num	-	
Type	UTILITY	
Configuration	VERTICAL	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	3	
Voltage (rated)	208	
Amperage (rated)	-	
Service Factor	-	

Test Data		
	Design	Actual
CFM	3500	
Fan RPM	1449	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	2.0"	
Fan Inlet SP	-	
Fan Discharge SP	-	

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System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF2

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU180HFA	DU180HFA
Serial Num	-	
Type	UPBLAST	
Configuration	VERTICAL	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	3	
Voltage (rated)	208	
Amperage (rated)	-	
Service Factor	-	

Test Data		
	Design	Actual
CFM	2063	
Fan RPM	1155	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	1.5"	
Fan Inlet SP	-	
Fan Discharge SP	-	

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System/Unit: FAN - Exhaust



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Asset: EF3

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DR33HFA	DR33HFA
Serial Num	-	
Type	DOWNBLAST	
Configuration	VERTICAL	

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

Test Data		
	Design	Actual
CFM	900	
Fan RPM	1593	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	0.4"	
Fan Inlet SP	-	
Fan Discharge SP	-	

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Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: FAN - Exhaust



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Asset: EF4

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DR12HFA	DR12HFA
Serial Num	-	
Type	DOWNBLAST	
Configuration	VERTICAL	

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

Test Data		
	Design	Actual
CFM	300	
Fan RPM	1415	
Fan Rotation	-	
Motor RPM	-	
System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	0.619"	
Fan Inlet SP	-	
Fan Discharge SP	-	

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Project:02-06-23 RED ROBIN GLENDALE AZ

FAN - Exhaust



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Diffuser Ret/Exh (GRD)

EF4/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	W. RESTROO M	CEG1	6X6	150					-
EGRD2	M. RESTROO M	CEG1	6X6	150					-

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Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: Kitchen Hood Type I



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Asset: HD1

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5430ND-2	5430ND-2
Job / Serial Num	-	
Type	TYPE I CANOPY	
Hood length	110"	
Hood Width	54"	

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO.	
Filter Size 1	16X20	
Filter Size 2	-	
Filter Qty 1	6	
Filter Qty 2	-	
Filter AK factor size 1	2.08	
Filters AK factor size 2	-	
Filter Total AK Area	12.48	
Filter1 FPM	-	
Filter2 FPM	-	
Filter3 FPM	-	
Filter4 FPM	-	
Filter5 FPM	-	
Filter6 FPM	-	
Filter7 FPM	-	
Filter8 FPM	-	
Filter9 FPM	-	
Filter10 FPM	-	
Filter11 FPM	-	
Filter12 FPM	-	
Filter Ave FPM(corr)	-	
CFM	2063	

Cooking Equipment		
	Design	Actual
Item 1	-	
Item 2	-	

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System/Unit: Kitchen Hood Type I



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Asset: HD2

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5430ND-2	5430ND-2
Job / Serial Num	-	
Type	TYPE I CANOPY	
Hood length	168"	
Hood Width	54"	

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	
Filter Size 1	16X20	
Filter Size 2	-	
Filter Qty 1	10	
Filter Qty 2	-	
Filter AK factor size 1	2.08	
Filters AK factor size 2	-	
Filter Total AK Area	20.8	
Filter1 FPM	-	
Filter2 FPM	-	
Filter3 FPM	-	
Filter4 FPM	-	
Filter5 FPM	-	
Filter6 FPM	-	
Filter7 FPM	-	
Filter8 FPM	-	
Filter9 FPM	-	
Filter10 FPM	-	
Filter11 FPM	-	
Filter12 FPM	-	
Filter Ave FPM(corr)	-	
CFM	3500	

Cooking Equipment		
	Design	Actual
Item 1	-	
Item 2	-	

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Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: Kitchen Hood Type II



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Asset: HD3

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	4224 VHB-G	4224 VHB-G
Serial Num	-	
Type	TYPE II CANOPY	
Hood length	72"	
Hood Width	42"	

Test Data		
	Design	Actual
Exhaust CFM	900	

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