

**Report By:**

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

**NATIONAL**

**TAB**

Comfort. Under control.

**Report: STEVES REPORT**  
**Function: Test, Adjust, & Balance**  
**Date: 7/14/2022**

**PROJECT**  
**Beta Tutorial Test Project**

1 Main street

Kansas City, MO 64110

**Client**

101 Construction Company, Inc. 1  
761 Old Hickory Blvd. Suite 104  
Noida 1  
Brentwood, TN 37 027

# National TAB

Project: Beta Tutorial Test Project

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# National TAB

Project: Beta Tutorial Test Project  
System/Unit: AHU/RTU



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Asset: AHU1

AREA:

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	1234
Model Num	YCD	YCD
Configuration	-	
Num OA Filters 1	-	
OA Filter Size 1	-	
Num PreFilter 1	-	
PreFilter Size 1	-	

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

Test Data		
	Design	Actual
SF CFM	-	716
RA CFM	-	
OA CFM	-	
RL Voltage	-	
RL Amperage	-	
OA Damper Position	-	

Performance Data		
	Design	Actual
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	-	
Fan Total SP	-	

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Project: Beta Tutorial Test Project

## AHU/RTU



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### Diffuser Supply (GRD)

#### AHU1/

Asset	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
AHU1-SGRD1				100			
	<b>FINAL CFM</b>	<b>% to design</b>					
	101	101.0					
AHU1-SGRD2				200			
	<b>FINAL CFM</b>	<b>% to design</b>					
	215	107.5					
AHU1-SGRD3				300			
	<b>FINAL CFM</b>	<b>% to design</b>					
	400	133.3					
AHU1-SGRD4				100			
	<b>FINAL CFM</b>	<b>% to design</b>					
		-					
AHU1-SGRD5				200			
	<b>FINAL CFM</b>	<b>% to design</b>					
		-					
AHU1-SGRD6				300			
	<b>FINAL CFM</b>	<b>% to design</b>					
		-					
AHU1-SGRD7				100			
	<b>FINAL CFM</b>	<b>% to design</b>					
		-					
AHU1-SGRD8							
	<b>FINAL CFM</b>	<b>% to design</b>					
AHU1-SGRD9							
	<b>FINAL CFM</b>	<b>% to design</b>					
AHU1-SGRD10							
	<b>FINAL CFM</b>	<b>% to design</b>					

### Diffuser Ret/Exh (GRD)

**AHU1/**

Asset	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
AHU1-EGRD1							
	<b>FINAL CFM</b>	<b>% to design</b>					
AHU1-EGRD2	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>
	<b>FINAL CFM</b>	<b>% to design</b>					

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Project: Beta Tutorial Test Project  
System/Unit: AHU/RTU



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Asset: AHU1

AREA:

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	
Model Num	YCD	YCD
Type	-	
Configuration	-	
Num OA Filters 1	-	
OA Filter Size 1	-	
Num Final Filter 1	-	
Final Filter Size 1	-	
Num Final Filter 2	-	
Final Filter Size 2	-	

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

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

Performance Data		
	Design	Actual
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	-	
OA Temp (db/wb)	-	
RA Temp (db/wb)	-	
SA Temp (db/wb)	-	

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

General		
	Design	Actual
Fan Rotation Correct	-	
Unit Filters Clean	-	

Electrical		
	Design	Actual
VFD Min Setpt	-	
VFD Max Setpt	-	

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Project:Beta Tutorial Test Project

## AHU/RTU



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### VAV - Single Duct

#### AHU1/

Asset	MFG	Model Num	Type	Size	Design Max CFM	Max CFM	Design Min CFM
AHU1-VAV1	NA	NA					
	Min CFM	Design Heat CFM	Heat CFM	Ak (max)			

### Diffuser Supply (GRD)

#### AHU1-VAV1/

Asset	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
AHU1-VAV1-SGRD1							
	FINAL CFM	% to design					
AHU1-VAV1-SGRD2							
	FINAL CFM	% to design					
AHU1-VAV1-SGRD3							
	FINAL CFM	% to design					

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Asset	Notes

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Project: Beta Tutorial Test Project  
System/Unit: AHU/RTU



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Asset: AHU2

AREA:

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	
Model Num	YCD	YCD
Type	-	
Configuration	-	
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	-	
Rated Voltage	-	
Rated Amperage	-	

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

Electrical		
	Design	Actual
VFD Min Setpt	-	
VFD Max Setpt	-	

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

Performance Data		
	Design	Actual
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	-	
OA Temp (db/wb)	-	
RA Temp (db/wb)	-	
SA Temp (db/wb)	-	

General		
	Design	Actual
Fan Rotation Correct	-	
Unit Filters Clean	-	

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Asset	Notes

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Project: Beta Tutorial Test Project  
System/Unit: AHU/RTU



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Asset: AHU1

AREA:

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	
Model Num	YCD120	YCD150
Configuration	-	
Num OA Filters 1	-	
OA Filter Size 1	-	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	-	
Rated Voltage	-	
Rated Amperage	-	
Service Factor	-	

Test Data		
	Design	Actual
SF CFM	-	
RA CFM	-	
OA CFM	-	
RL Voltage	-	
RL Amperage	-	
OA Damper Position	-	
Brake Horse Power	-	

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

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Project:Beta Tutorial Test Project

## AHU/RTU



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### Diffuser Supply (GRD)

#### AHU1/

Asset	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)
AHU1-SGRD1							
	<b>FINAL CFM</b>	<b>% to design</b>					
AHU1-SGRD2							
	<b>FINAL CFM</b>	<b>% to design</b>					
AHU1-SGRD3							
	<b>FINAL CFM</b>	<b>% to design</b>					
AHU1-SGRD4							
	<b>FINAL CFM</b>	<b>% to design</b>					
AHU1-SGRD5							
	<b>FINAL CFM</b>	<b>% to design</b>					
AHU1-SGRD6							
	<b>FINAL CFM</b>	<b>% to design</b>					
AHU1-SGRD7							
	<b>FINAL CFM</b>	<b>% to design</b>					
AHU1-SGRD8							
	<b>FINAL CFM</b>	<b>% to design</b>					
AHU1-SGRD9							
	<b>FINAL CFM</b>	<b>% to design</b>					
AHU1-SGRD10							
	<b>FINAL CFM</b>	<b>% to design</b>					

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Asset	Notes
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Project: Beta Tutorial Test Project  
System/Unit: AHU/RTU



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Asset: AHU2

AREA:

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	
Model Num	YCD120	YCD120
Configuration	-	
Num OA Filters 1	-	
OA Filter Size 1	-	
Num PreFilter 1	-	
PreFilter Size 1	-	

Test Data		
	Design	Actual
SF CFM	-	
RA CFM	-	
OA CFM	-	
RL Voltage	-	
RL Amperage	-	
OA Damper Position	-	
Brake Horse Power	-	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	-	
Rated Voltage	-	
Rated Amperage	-	
Service Factor	-	

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

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Asset	Notes

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Project: Beta Tutorial Test Project  
System/Unit: FAN - Exhaust



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Asset: EF1

AREA:

Unit Data		
	Design	Actual
<b>MFG</b>	CAPTIVE-AIRE	CAPTIVE-AIRE
<b>Model Num</b>	DU85	DU85
<b>Serial Num</b>	-	
<b>Type</b>	-	

Test Data		
	Design	Actual
<b>CFM</b>	-	
<b>RL Voltage</b>	-	
<b>RL Amperage</b>	-	
<b>Total ESP</b>	-	

Motor Data		
	Design	Actual
<b>Motor MFG</b>	-	
<b>Frame</b>	-	
<b>Horsepower</b>	-	
<b>Motor Rpm</b>	-	
<b>Phase</b>	-	
<b>Voltage (rated)</b>	-	
<b>Amperage (rated)</b>	-	
<b>Service Factor</b>	-	

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Asset	Notes

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Project: Beta Tutorial Test Project  
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF1

AREA:

Unit Data		
	Design	Actual
MFG	CAS	CAS
Model Num	NCA14	NCA14
Serial Num	-	
Series	-	
Configuration	-	

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

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

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Asset	Notes

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Project: Beta Tutorial Test Project  
System/Unit: FAN - Supply



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Asset: SF1

AREA:

Unit Data		
	Design	Actual
MFG	CAS	CAS
Model Num	NSAU	NSAU
Serial Num	-	
Type	-	
Configuration	-	

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

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

Gas Heat		
	Design	Actual
Heater Operates (y/n)	-	
Flame Status (pass/fail)	-	
Inlet Air Temp SetPt	-	
Discharge Air Temp SetPt	-	
Air Flow Switch SP Actual	-	

Test Data		
	Design	Actual
CFM	-	
SF RPM	-	
Motor RPM	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	-	
Fan Discharge SP	-	

General		
	Design	Actual
Fan Rotation Correct	-	

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Asset	Notes

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Project: Beta Tutorial Test Project

## System/Unit: Kitchen Hood Type I



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Asset: HD1

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	ND2	ND2
Job / Serial Num	-	
Type	-	
Hood length	-	
Hood Width	-	

Performance Data		
	Design	Actual
Smoke Generation Type	-	
Hood Capture %	-	
End Panels Installed (Y/N)	-	

Test Data Exhaust		
	Design	Actual
Filter Type	-	
Filter Size 1	-	
Filter Size 2	-	
Filter Qty 1	-	
Filter Qty 2	-	
Filter AK factor size 1	-	
Filters AK factor size 2	-	
Filter Total AK Area	-	
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	-	

General		
	Design	Actual
Third Party Witness	-	
Third Party Company	-	
Tech Witness	-	

Cooking Equipment		
	Design	Actual
Item 1	-	
Item 2	-	

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Asset	Notes

# National TAB

Project: Beta Tutorial Test Project

## System/Unit: Kitchen Hood Type I



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Asset: HD2

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE-AIRE
Model Num	ND2	ND2
Job / Serial Num	-	-
Type	-	-
Hood length	-	-
Hood Width	-	-

Test Data Exhaust		
	Design	Actual
Filter Type	-	-
Filter Size 1	-	-
Filter Size 2	-	-
Filter Qty 1	-	-
Filter Qty 2	-	-
Filter AK factor size 1	-	-
Filters AK factor size 2	-	-
Filter Total AK Area	-	-
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	-	-

Cooking Equipment		
	Design	Actual
Item 1	-	-
Item 2	-	-

Performance Data		
	Design	Actual
Smoke Generation Type	-	-
Hood Capture %	-	-
End Panels Installed (Y/N)	-	-

General		
	Design	Actual
Third Party Witness	-	-
Third Party Company	-	-
Tech Witness	-	-

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Asset	Notes