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Report: RTU & VAV
Function: Test, Adjust, & Balance
Date: 05/14/2025
Completed By: National TAB

PROJECT

Jefferson County Crime Lab (Pevely, MO)

1177 Mason Cir

Pevely, MO 63070

Client

Crystal Heating and Cooling

National TAB

Project: Jefferson County Crime Lab (Pevely, MO)

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Project: Jefferson County Crime Lab (Pevely, MO)

System/Unit: AHU/RTU



Asset: AHU-1

AREA:CRIME SCENE EQUIP

Unit Data		
	Design	Actual
MFG	NA	AAON
Serial Num	-	
Model Num	NA	V3-BRB3-0-141D-7DS
Configuration	-	
Num PreFilter 1	-	
PreFilter Size 1	-	
Num PreFilter 2	-	
PreFilter Size 2	-	
Num Final Filter 1	-	
Final Filter Size 1	-	
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	1.0	
Motor Rpm	-	
Phase	3	
Rated Voltage	460	
Rated Amperage	1.2	
Service Factor	-	

Test Data		
	Design	Actual
SF CFM	1260	
SF RPM	1760	
RA CFM	0	
OA CFM	1260	
RL Voltage	460	
RL Amperage	1.2	
VFD Max SetPt	-	
SF Motor Freq(HZ)	-	
SF System SetPt	-	
RA Damper Position	-	
OA Damper Position	-	
Brake Horse Power	0.61	

Performance Data		
	Design	Actual
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	1.0	
Fan Total SP	1.74	
Pre-Filter P.D.	-	
Final Filters P.D.	-	
Cooling Coil P.D.	-	
CHW Coil P.D.	-	
PreHeat Coil P.D.	-	
Heating Coil P.D.	-	
HW Coil P.D.	-	
Hot Gas Reheat P.D.	-	

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Project: Jefferson County Crime Lab (Pevely, MO)

AHU/RTU



Diffuser Supply (GRD)

AHU-1/CRIME SCENE EQUIP

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
AHU-1-SGRD1	1000	S2	6	100			-
AHU-1-SGRD2	1005	S6	10	290			-
AHU-1-SGRD3	1000	S6	10	290			-
AHU-1-SGRD4	1005	S6	10	290			-
AHU-1-SGRD5	1000	S6	10	290			-
Total				1260	0	0	0%

Diffuser Ret/Exh (GRD)

AHU-1/CRIME SCENE EQUIP

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
AHU-1-EGRD1	RG	34X20	1150					-
Total			1150		0	0	0	0%

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Project: Jefferson County Crime Lab (Pevely, MO)

System/Unit: AHU/RTU



Asset: RTU-1

AREA:ROOF

Unit Data		
	Design	Actual
MFG	NA	AAON
Serial Num	-	
Model Num	NA	RNA-070
Configuration	VERTICAL	
Num OA Filters 1	-	
OA Filter Size 1	-	
Num PreFilter 1	-	
PreFilter Size 1	-	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	12.50	
Motor Rpm	-	
Phase	3	
Rated Voltage	460	
Rated Amperage	-	
Service Factor	-	

Test Data		
	Design	Actual
SF CFM	11500	
SF RPM	-	
RA CFM	-	
OA CFM	9020	
RL Voltage	-	
RL Amperage	-	
VFD Max SetPt	-	
VFD Min SetPt	-	
SF Motor Freq(HZ)	-	
OA Damper Position	-	
Brake Horse Power	13.90	

Performance Data		
	Design	Actual
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	-	
Fan Total SP	3.00	
Cooling Coil P.D.	-	

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Project: Jefferson County Crime Lab (Pevely, MO)

AHU/RTU



VAV - Single Duct

RTU-1/ROOF

Asset											
Asset Name	MFG	Model Num	Type	Inlet Size	Design Max CFM	Max CFM	Design Min CFM	Min CFM	Design Heat CFM	Heat CFM	Ak (max)
VAV-1010	TITUS	DESV	REHEAT	8	495		495		495		
VAV-1015	TITUS	DESV	REHEAT	6	340		330		330		
VAV-1025	TITUS	DESV	REHEAT	10	1020		1020		1020		
VAV-1035	TITUS	DESV	REHEAT	6	400		400		400		
VAV-1050	TITUS	DESV	REHEAT	8	650		650		650		
VAV-1055	TITUS	DESV	REHEAT	10	770		770		770		
VAV-1060	TITUS	DESV	REHEAT	8	620		620		620		
VAV-1085	TITUS	DESV	REHEAT	8	650		650		650		
VAV-1090	TITUS	DESV	REHEAT	14	1100		1100		1100		
VAV-1100	TITUS	DESV	REHEAT	10	810		810		810		
VAV-1110	TITUS	DESV	REHEAT	10	810		300		800		
VAV-1135	TITUS	DESV	REHEAT	6	250		200		200		
VAV-1145	TITUS	DESV	REHEAT	8	400		100		330		
VAV-1150	TITUS	DESV	REHEAT	8	630		200		630		
VAV-1115	TITUS	DESV	REHEAT	8	650		210		650		
VAV-A1030	TITUS	DESV	REHEAT	8	620		620		620		
VAV-A1050	TITUS	DESV	REHEAT	8	550		550		550		
VAV-A1060	TITUS	DESV	REHEAT	10	720		720		720		
VAV-A1090	TITUS	DESV	REHEAT	6	200		200		200		
VAV-AC1110	TITUS	DESV	REHEAT	8	500		210		480		
VAV-B1090	TITUS	DESV	REHEAT	8	620		620		620		

Diffuser Supply (GRD)

RTU-1/ROOF

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-1-SGRD1	CORRIDOR	S3	8	200			-
Total				200	0	0	0%

VAV-1010/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1010-SGRD1	1010A	SD	12X10	50			-
VAV-1010-SGRD2	1010A	SD	12X10	50			-
VAV-1010-SGRD3	1010C	SD	12X10	135			-
VAV-1010-SGRD4	1010A	SD	12X10	130			-
VAV-1010-SGRD5	1010C	SD	12X10	130			-
Total				495	0	0	0%

VAV-1015/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1015-SGRD1	1015	SD	12	140			-
VAV-1015-SGRD2	1010A	SD	12	200			-
Total				340	0	0	0%

VAV-1025/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1025-SGRD1	1025	SD	14X15	120			-
VAV-1025-SGRD2	1025A	SD	14X15	660			-
VAV-1025-SGRD3	1030B	SD	14X15	120			-
VAV-1025-SGRD4	1025	SD	14X15	120			-
Total				1020	0	0	0%

VAV-1035/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1035-SGRD1	1030B	SD	12X8	350			-
VAV-1035-SGRD2	1035	SD	12X8	50			-
Total				400	0	0	0%

VAV-1050/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1050-SGRD1	OPEN OFFICE	SD	12	325			-
VAV-1050-SGRD2	OPEN OFFICE	SD	12	325			-
Total				650	0	0	0%

VAV-1055/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1055-SGRD1	1055	SD	14X14	100			-
VAV-1055-SGRD2	1055	SD	12	670			-
Total				770	0	0	0%

VAV-1060/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1060-SGRD1	1060	SD	12X10	300			-
VAV-1060-SGRD2	1060	SD	12X10	320			-
Total				620	0	0	0%

VAV-1085/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1085-SGRD1	1085	SD	12X10	220			-
VAV-1085-SGRD2	1070	SD	12X10	50			-
VAV-1085-SGRD3	1075	SD	12X10	50			-
VAV-1085-SGRD4	1085	SD	8	220			-
VAV-1085-SGRD5	1085A	SD	8	110			-
Total				650	0	0	0%

VAV-1090/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1090-SGRD1	1090	SD	14	550			-
VAV-1090-SGRD2	1090	SD	14	570			-
Total				1120	0	0	0%

VAV-1100/ROOF

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-110-SGRD1	1105	SD	14X12	50			-
VAV-110-SGRD2	1100	SD	14X12	200			-
VAV-110-SGRD3	1090C	SD	14X12	60			-
VAV-110-SGRD4	1100	SD	14X12	300			-
VAV-110-SGRD5	1100	SD	14X12	200			-
Total				810	0	0	0%

VAV-1110/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1110-SGRD1	1110	SD	14X13	300			-
VAV-1110-SGRD2	1110	SD	14X13	365			-
VAV-1110-SGRD3	1110	SD	14X13	235			-
Total				900	0	0	0%

VAV-1115/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1115-SGRD1	1115A	SD	12X10	325			-
VAV-1115-SGRD2	1115	SD	12X10	325			-
Total				650	0	0	0%

VAV-1135/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1135-SGRD1	1140	SD	12X8	75			-
VAV-1135-SGRD2	1135	SD	12X8	75			-
VAV-1135-SGRD3	1130	SD	12X8	50			-
VAV-1135-SGRD4	1125	SD	12X8	50			-
Total				250	0	0	0%

VAV-1145/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1145-SGRD1	1145	SD	12X10	200			-
VAV-1145-SGRD2	1145	SD	12X10	200			-
Total				400	0	0	0%

VAV-1150/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-1150-SGRD1	1150	SD	12X10	315			-
VAV-1150-SGRD2	1150	SD	12X10	315			-
Total				630	0	0	0%

VAV-A1030/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-A1030-SGRD1	1020	SD	14	50			-
VAV-A1030-SGRD2	1030	SD	14	570			-
Total				620	0	0	0%

VAV-A1050/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-A1050-SGRD1	1050A		12X10	150			-
VAV-A1050-SGRD2	1050A		12X10	200			-
VAV-A1050-SGRD3	1050A		12X10	300			-
Total				650	0	0	0%

VAV-A1060/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-A1060-SGRD1	1060	SD	9	720			-
Total				720	0	0	0%

VAV-A1090/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-A1090-SGRD1	1080	SD	12X8	100			-
VAV-A1090-SGRD2	1090A	SD	12X8	100			-
Total				200	0	0	0%

VAV-AC1110/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-AC1110-SGRD1	1110C	SD	12	130			-
VAV-AC1110-SGRD2	1110B	SD	12	130			-
VAV-AC1110-SGRD3	1110A	SD	12	240			-
Total				500	0	0	0%

VAV-B1090/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
VAV-B1090-SGRD1	1090B	SD	8	620			-
Total				620	0	0	0%