

National TAB

Project: Joseph Airport Hyundai Reno
Address: 1220 W National Rd Vandalia, OH 45377

Scope of work includes (4) RTUs, (2) restroom exhaust fans, and all associated air devices. RTU-1,2, and 4 are all operating within design. RTU-3 was not able to make design flow. Issues checked for including but not limited to: Fan Rotation, Unit Filters, Closed Dampers, Duct Leakage and Curb Leakage. No major issues located.

Motor pulley was changed for a larger size but were limited by amperage.

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Asset: RTU-1 (EXISTING)

Unit Data	
Manufacturer	CARRIER
Model Num	48TCFD14
Serial Num	2511G30376
Configuration	VERTICAL
Num OA Filters	1
OA Filter Size	36X20
Num PreFilter	4
PreFilter Size	20X20X2

Test Data		
	Design	Actual
SF CFM	4975	4713
SF RPM		1209
RA CFM	4095	3836
OA CFM	880	877
RL VOLTAGE		472/474/472
RL AMPERAGE		6.0/5.8/6.1
OA Damper Position		1.5"
Brake Horsepower		4

Motor Data	
Motor MFG	MARATHON
Frame	145
Horsepower	5
Motor RPM	1725
Phase	3
Rated Voltage	460
Rated Amperage	7.5
Service Factor	1.15

Performance Data		
	Design	Actual
Mixed Air SP		1.37
Fan Suction SP		2.22
Fan Discharge SP		0.66
Fan Total SP		2.88
Total ESP		2.03

Drive Data	
Motor Sheave Size / Bore	VP65 X 0.875"
Fan Sheave Size / Bore	AFD84 X 1"
Belt CL Distance	16.5"
No. Belts / Size	1 4L560

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Asset: RTU-2 (EXISTING)

Unit Data	
Manufacturer	CARRIER
Model Num	48TCFD14
Serial Num	2511G30377
Configuration	VERTICAL
Num OA Filters	1
OA Filter Size	36X20
Num PreFilter	4
PreFilter Size	20X20X2

Test Data		
	Design	Actual
SF CFM	5000	4811
SF RPM		1252
RA CFM	4400	4195
OA CFM	600	616
RL VOLTAGE		472/470/474
RL AMPERAGE		6.5/6.2/6.4
OA Damper Position		1.25"
Brake Horsepower		

Motor Data	
Motor MFG	MARATHON
Frame	145
Horsepower	5
Motor RPM	1725
Phase	3
Rated Voltage	460
Rated Amperage	7.5
Service Factor	1.15

Performance Data		
	Design	Actual
Mixed Air SP		1.54
Fan Suction SP		2.11
Fan Discharge SP		0.85
Fan Total SP		2.96
Total ESP		2.39

Drive Data	
Motor Sheave Size / Bore	VP65 X 0.875"
Fan Sheave Size / Bore	AFD84 X 1"
Belt CL Distance	16.5"
No. Belts / Size	1 4L560

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Asset: RTU-3 (EXISTING)

Unit Data	
Manufacturer	CARRIER
Model Num	48TCD05
Serial Num	3111C54937
Configuration	VERTICAL
Num OA Filters	1
OA Filter Size	16X30
Num PreFilter	2
PreFilter Size	16X25X2

Test Data		
	Design	Actual
SF CFM	1400	1020
SF RPM		1466
RA CFM	1150	781
OA CFM	250	239
RL VOLTAGE		464
RL AMPERAGE		2
OA Damper Position		1"
Brake Horsepower		0.98

Motor Data	
Motor MFG	GENTEQ
Frame	48
Horsepower	1
Motor RPM	1650
Phase	1
Rated Voltage	460
Rated Amperage	2.1
Service Factor	1.15

Performance Data		
	Design	Actual
Mixed Air SP		0.48
Fan Suction SP		0.63
Fan Discharge SP		0.24
Fan Total SP		0.87
Total ESP		0.72

Drive Data	
Motor Sheave Size / Bore	4.5" x 0.625"
Fan Sheave Size / Bore	4 X 0.625"
Belt CL Distance	13"
No. Belts / Size	1 / 4L370

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Asset: RTU-4 (EXISTING)

Unit Data	
Manufacturer	CARRIER
Model Num	48TCEA06
Serial Num	2514G40358
Configuration	VERTICAL
Num OA Filters	1
OA Filter Size	16X30
Num PreFilter	2
PreFilter Size	16X25X2

Test Data		
	Design	Actual
SF CFM	2000	1903
SF RPM		1498
RA CFM	1850	1741
OA CFM	150	162
RL VOLTAGE		478/480/479
RL AMPERAGE		2.3/2.2/2.3
OA Damper Position		0.5"
Brake Horsepower		2.12

Motor Data	
Motor MFG	MARATHON
Frame	56
Horsepower	2.4
Motor RPM	1725
Phase	3
Rated Voltage	460
Rated Amperage	2.6
Service Factor	1.15

Performance Data		
	Design	Actual
Mixed Air SP		0.27
Fan Suction SP		0.54
Fan Discharge SP		0.22
Fan Total SP		0.76
Total ESP		0.49

Drive Data	
Motor Sheave Size / Bore	4.0" x 0.625"
Fan Sheave Size / Bore	4.0 X 0.625"
Belt CL Distance	14"
No. Belts / Size	1 / 4L400

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Project: Joseph Airport Hyundai Reno
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Asset: EF-2

Area: 120

Unit Data	
MFG	COOK
Model Num	90ACEM
Serial Num	108SI24804-00/0004301
Type	EXISTING

Motor Data	
Motor MFG	US MOTOR
Frame	48
Horsepower	0.125
Motor Rpm	1650
Phase	1
Voltage (rated)	120
Amperage (rated)	1.7
Service Factor	1.15

Test Data		
	Design	Actual
CFM	300	310
Fan RPM		DD
RL Voltage		120
RL Amperage		1.1
Suction ESP		-0.36
Total ESP		ATM
Brake Horse Power		0.36

Asset	Area Served	Type	Size	DESIGN	CFM(1)	FINAL CFM	% to design
E2-1	120	EG	8	150	212	152	1.01
E2-2	121	EG	8	150	196	158	1.05

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Asset: EF-3

Area: 113

Unit Data	
MFG	COOK
Model Num	100ACEH
Serial Num	108SI88713-00/0003002
Type	EXISTING

Motor Data	
Motor MFG	US MOTOR
Frame	48
Horsepower	0.04
Motor Rpm	1650
Phase	1
Voltage (rated)	120
Amperage (rated)	1
Service Factor	

Test Data		
	Design	Actual
CFM	320	333
Fan RPM		DD
RL Voltage		120
RL Amperage		0.5
Suction ESP		-0.28
Total ESP		ATM
Brake Horse Power		0.28

Asset	Area Served	Type	Size	DESIGN	CFM(1)	FINAL CFM	% to design
E3-1	113	EG-1	8	170	155	172	1.01
E3-2	115	EG-1	6	75	95	82	1.09
E3-3	113 RR	EG-1	6	75	98	79	1.05