

National TAB

Project: USACE HVAC Reset
Address: Palatka, FL

Asset: AHU-1

Unit Data	
Manufacturer	TRANE
Model Num	TWE12043BAA
Serial Num	24032574BA
Configuration	HORIZONTAL
Num PreFilter	3
PreFilter Size	16x20x2
Num PreFilter	N/A
PreFilter Size	N/A

Test Data		
	Design	Actual
SF CFM	3400	3388
SF RPM	765	49HZ
RA CFM	3000	3025
OA CFM	400	363
RL VOLTAGE	208	207/207/205
RL AMPERAGE	6.8	5.0 VFD
OA Damper Position		Damper Marked
Brake Horsepower	1.21	1.47

Motor Data	
Motor MFG	N/A
Frame	N/A
Horsepower	2
Motor RPM	N/A
Phase	3
Rated Voltage	208
Rated Amperage	6.8
Service Factor	N/A

Performance Data		
	Design	Actual
Fan Suction SP		-0.72
Fan Discharge SP		0.20
Fan Total SP		0.92
DX Coil PD *		0.26
Pre Filter PD		0.40
Total ESP	0.50	0.26

CURRENT TEMP.	75.1F
HUMIDITY	71.80%
WETBULB	68.4F
OUTDOOR TEMPS	
CURRENT TEMP.	82.4F
HUMIDITY	81.90%
WETBULB	75.8F
DEWPOINT	71.8F

DX Coil DB EAT		73.6F
DX Coil DB LAT		58.9F
DX Coil WB EAT		71.8F
DX Coil WB LAT		55.2F



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Address: Palatka, FL

Asset: OAHU-1

Area:

Unit Data	
Manufacturer	TRANE
Model Number	UCCAG06
Serial Number	H24D33224
Configuration	HORIZONTAL
No. Pre Filters / Size	4 / 20X20X2

Test Data		
	Design	Actual
SF CFM	1310	1309
SF RPM	2317	1350
DESIGN HZ	78	45
RL VOLTAGE	208	134
RL AMPERAGE	N/L	4.8
Motor B.H.P.	1.832	N/A

Motor Data		
Motor MFG	COMEFRI	
Frame	N/L	
HP	3	
RPM	2710	
Phase	3	
Volts	N/L	
Amps	N/L	
	N/L	not listed

Performance Data		
	Design	Actual
Suction S.P.		-0.4
Discharge S.P.		0.42
Total SP	2.85	0.82
DX Coil P.D.	0.30	0.18
REHEAT P.D.	0.136	0.06
Pre Filters P.D.	0.536	0.02
Total ESP	1.75	0.55

CURRENT TEMP.	72.9F
HUMIDITY	56.10%
WETBULB	62.6F
OUTDOOR TEMPS	
CURRENT TEMP.	79.8F
HUMIDITY	59.20%
WETBULB	69.2F
DEWPOINT	64.3F

DX Coil DB EAT		69.2F
DX Coil DB LAT		53.1F
DX Coil WB EAT		79.9F
DX Coil WB LAT		51.3F

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Project: USACE HVAC Reset
Address: Palatka, FL

Asset: RTU-1

Unit Data	
Manufacturer	TRANE
Model Num	OABD108D3
Serial Num	OA356396-1-1
Configuration	VERTICAL
Num OA Filters	1
OA Filter Size	10X10
Num PreFilter	2
PreFilter Size	20X24X2

Test Data		
	Design	Actual
SF CFM	2800	2845
SF RPM	2745	45Hz
RA CFM	2200	2274
OA CFM	600	571
RL VOLTAGE	208	158
RL AMPERAGE	7.2	6.5
OA Damper Position		7/8"
Brake Horsepower	1.82	2.71

Motor Data	
Motor MFG	MARATHON
Frame	145T
Horsepower	3
Motor RPM	3500
Phase	3
Rated Voltage	208
Rated Amperage	7.2
Service Factor	1.15

Performance Data		
	Design	Actual
Fan Suction SP		-1.00
Fan Discharge SP		0.33
Fan Total SP	1.75	1.33
DX Coil PD *	0.29	*0.47
Pre Filter PD		*combined
Total ESP	0.50	0.86

CURRENT TEMP.	72.9F
HUMIDITY	56.10%
WETBULB	62.6F
OUTDOOR TEMPS	
CURRENT TEMP.	79.8F
HUMIDITY	59.20%
WETBULB	69.2F
DEWPOINT	64.3F

DX Coil DB EAT		66.2F
DX Coil DB LAT		55.6F
DX Coil WB EAT		58.5F
DX Coil WB LAT		51.4F



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Project: USACE HVAC Reset
Address: Palatka, FL

Asset: FCU 3-3

Area: Corridors

Unit Data	
MFG	TRANE
Model Num	TPEADA0181AA80A
Serial Num	3XR0119630P10C

Motor Data	
Motor MFG	N/L
Horsepower	0.162
Motor Rpm	N/L
Phase	1
Voltage (rated)	208/230
Amperage (rated)	1.95

Test Data		
	Design	Actual
SA CFM	635	626
Fan Speed		HIGH
RL Voltage	208	205
RL Amperage	1.95	0.60
Suction ESP		-0.25
Discharge ESP		0.08
Total ESP		0.33
DX Coil DB EAT		73.9F
DX Coil DB LAT		61.4F
DX Coil WB EAT		67.8F
DX Coil WB LAT		58.0F

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
SGRD-1	103	A	6	50	67	53	1.06
SGRD-2	103	A	8	200	120	181	0.91
SGRD-3	102	A	6	50	65	52	1.04
SGRD-4	104	F	12X6	185	199	185	1.00
SGRD-5	102	A	6	50	71	54	1.08
SGRD-6	30	B	6	100	88	101	1.01
				635		626	0.99



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Project: USACE HVAC Reset
Address: Palatka, FL

Asset: FCU 6-2

Area: Supply Office

Unit Data	
MFG	TRANE
Model Num	TPEADA0151AA80A
Serial Num	37R0008130P10B

Motor Data	
Motor MFG	N/L
Horsepower	0.162
Motor Rpm	N/L
Phase	1
Voltage (rated)	208/230
Amperage (rated)	1.95

Test Data		
	Design	Actual
SA CFM	530	572
Fan Speed		HIGH
RL Voltage	208	205
RL Amperage	1.95	0.56
Suction ESP		-0.12
Discharge ESP		0.15
Total ESP		0.27
DX Coil DB EAT	See	Notes
DX Coil DB LAT		
DX Coil WB EAT		
DX Coil WB LAT		

Unit communication error, locked in high speed only with a dry coil. May need medium speed for design airflow. Temperature testing cannot be completed at this time.

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Project: USACE HVAC Reset
Address: Palatka, FL

Asset: EF-

Area: Women

Unit Data	
MFG	GREENHECK
Model Num	G-080-VG-1-17-X
Serial Num	23835752 24A
Type	CRE

Motor Data	
Motor MFG	BROAD-OCEAN
Frame	N/L
Horsepower	0.10
Motor Rpm	1750
Phase	1
Voltage (rated)	115
Amperage (rated)	1.38
Service Factor	1.0

Test Data		
	Design	Actual
CFM	380	349
Fan RPM	1553	DD
RL Voltage	115	120
RL Amperage	1.38	1.1
Suction ESP		-0.20
Total ESP	0.25	0.20

Asset	Area Served	Type	Size	DESIGN	CFM(1)	FINAL CFM	% to design
EF-2	WOMEN	EG	10X10	240	185	185	0.77
EF-2	JC	EG	6X6	70	79	79	1.13
EF-2	URINALYSIS	EG	6X6	70	85	85	1.21
				380		349	0.92

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Project: USACE HVAC Reset
Address: Palatka, FL

Asset: EF-4

Area: MECHANICAL ROOM 17

Unit Data	
MFG	GREENHECK
Model Num	SQ-120-X
Serial Num	14939014 24F
Type	INLINE

Motor Data	
Motor MFG	N/L
Frame	N/L
Horsepower	1
Motor Rpm	1750
Phase	1
Voltage (rated)	115
Amperage (rated)	10.3
Service Factor	1.0

Test Data		
	Design	Actual
CFM	500	501
Fan RPM	1017	DD
RL Voltage	115	119
RL Amperage	10.3	1.9
Suction ESP		-0.06
Discharge ESP		0.03
Total ESP		0.09

Motor plate not accessible.

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Project: USACE HVAC Reset
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Asset: PAL02-EF-2

Area:

Unit Data	
MFG	GREENHECK
Model Num	SE2-30-620-B20-X
Serial Num	23922384 24A
Type	PROP SIDEWALL

Motor Data	
Motor MFG	BALDOR RELIANCE
Frame	184T
Horsepower	2
Motor Rpm	1165
Phase	3
Voltage (rated)	230/460
Amperage (rated)	6.8/3.4
Service Factor	1.15

Test Data		
	Design	Actual
CFM	10000	14193
Fan RPM	1750	1165
RL Voltage	208	205
RL Amperage	6.8	6.2
Suction ESP		-0.692
Total ESP	0.583	0.692
Brake Horse Power	2.18	1.82

NO SPEED CONTROLLER

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Project: USACE HVAC Reset
Address: Palatka, FL

Asset: KEF-1

Area: GREASE HOOD

Unit Data	
MFG	CAPTIVE AIR
Model Num	EADU180H
Serial Num	6589840
Type	PRV- UPBLAST

Motor Data	
Motor MFG	TECO WESTINGHOUSE
Frame	182T
Horsepower	1.5
Motor Rpm	1170
Phase	3
Voltage (rated)	208
Amperage (rated)	6.01
Service Factor	1.15

Test Data		
	Design	Actual
CFM	1750	1782
Fan RPM	1024	44.4HZ
RL Voltage	208	95V VFD
RL Amperage	6.6	4.9A VFD
Suction ESP		-0.56
Total ESP	1.25	0.56
Brake Horse Power	0.78	1.22

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Project: USACE HVAC Reset
Address: Palatka, FL

Asset: KEF-2

Area: HOT WELLS

Unit Data	
MFG	CAPTIVE AIR
Model Num	EADU50H
Serial Num	659840
Type	PRV- UPBLAST

Motor Data	
Motor MFG	TELCO INTERCON
Frame	48
Horsepower	0.50
Motor Rpm	1800
Phase	1
Voltage (rated)	208
Amperage (rated)	3.8
Service Factor	N/L

Test Data		
	Design	Actual
CFM	1275	1279
Fan RPM	1378	60%
RL Voltage	208	205
RL Amperage	3.8	1.8
Suction ESP		-0.71
Total ESP		0.71
Brake Horse Power	0.296	0.24

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Project: USACE HVAC Reset
Address: Palatka, FL

Asset: KEF-3

Area: DISH

Unit Data	
MFG	CAPTIVE AIR
Model Num	EADU33H
Serial Num	6589840
Type	PRV- UPBLAST

Motor Data	
Motor MFG	TELCO INTERCON
Frame	48
Horsepower	0.33
Motor Rpm	1800
Phase	1
Voltage (rated)	208
Amperage (rated)	2.5
Service Factor	N/L

Test Data		
	Design	Actual
CFM	450	432
Fan RPM		1006
RL Voltage	208	207
RL Amperage	2.5	0.7
Suction ESP		-0.30
Total ESP	0.60	0.30
Brake Horse Power	0.11	0.09



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Project: USACE HVAC Reset
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Asset: MAU-1

Area: KH-1

Unit Data	
MFG	CAPTIVE AIR
Model Num	EA1-D.500-15D
Serial Num	6589840
Type	MUA
Configuration	VERTICAL
No. Filters / Size	3 / 16X20X2
No. Filters / Size	3 / 20X25X2

Motor Data	
Motor MFG	TECO WESTINGHOUSE
Frame	145T
Horsepower	1.5
Motor Rpm	1740
Phase	3
Voltage (rated)	230/460
Amperage (rated)	4.03/2.02
Service Factor	1.15

Test Data		
	Design	Actual
CFM	1650	1612
SF RPM	1877	1404 48.4 hz
RL Voltage	208	95V VFD
RL Amperage	4.4	2.8A VFD
Suction ESP		-0.46
Discharge ESP		0.05
Total ESP	0.57	0.51
Brake Horse Power	1.03	1.04



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Project: USACE HVAC Reset
Address: Palatka, FL

Asset: MAU-2

Area: KH-2

Unit Data	
MFG	CAPTIVE AIR
Model Num	EA1-D.500-15D
Serial Num	6589840
Type	MUA
Configuration	VERTICAL
No. Filters / Size	3 / 16X20X2
No. Filters / Size	3 / 20X25X2

Motor Data	
Motor MFG	TELCO GREEN
Frame	N/L
Horsepower	1
Motor Rpm	1800
Phase	1
Voltage (rated)	115
Amperage (rated)	11.6
Service Factor	N/L

Test Data		
	Design	Actual
CFM	1200	1204
SF RPM	1558	1209
RL Voltage	115	119
RL Amperage	11.6	3.1
Suction ESP		-0.28
Discharge ESP		0.09
Total ESP	0.59	0.37
Brake Horse Power	0.568	0.27

RPM read via tachometer on direct drive fan wheel. ECM set to 100% via HMI. Does not appear that motor is actually running at 100% based on RPM and amperage.



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Project: USACE HVAC Reset
Address: Palatka, FL

Asset: KH-1

Area: GREASE HOOD

Unit Data	
MFG	CAPTIVE AIR
Model Num	5424 EX-2-PSP-FS
Job / Serial Num	6119534
Type	CANOPY w/ PSP
Hood Length	106"
Hood Width	68"
Supply Plenum Type	PSP
Supply Plenum Width	14"
Supply Plenum Length	106" / 68"

Test Data Exhaust		
Filter Type	BAFFLE	
Filter Size 1	16X16	
Filter Qty 1	6	
Filter AK factor size 1	1.62	
Filter Total AK Area 1	9.72	
Filter Size 2	N/A	
Filter Qty 2	N/A	
Filter AK factor size 2	N/A	
Filter Total AK Area 2	N/A	
	PRELIM	FINAL
Filter1 FPM	134	167
Filter2 FPM	132	180
Filter3 FPM	156	194
Filter4 FPM	150	198
Filter5 FPM	145	188
Filter6 FPM	133	173
Filter7 FPM		
Filter8 FPM		
	Design	Actual
Filter Ave FPM	180	183
CFM	1750	1782

Test Data Supply		
AK factor	16.72	
Total AK Area	0.89	
	PRELIM	FINAL
Reading1 FPM	163	158
Reading2 FPM	113	91
Reading3 FPM	123	100
Reading4 FPM	150	127
Reading5 FPM	121	99
Reading6 FPM	142	119
Reading7 FPM	110	101
Reading8 FPM	94	90
Reading9 FPM	95	95
Reading10 FPM	129	103
	Design	Actual
Ave FPM(corr)	110	108
CFM	1650	1612



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Project: USACE HVAC Reset
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Asset: KH-2

Area: HOT WELLS

Unit Data	
MFG	CAPTIVE AIR
Model Num	4824 ES-VHB-G-PSP-F-ND
Job / Serial Num	6119534
Type	CANOPY w/ PSP
Hood Length	102"
Hood Width	62"
Supply Plenum Type	PSP
Supply Plenum Width	102"
Supply Plenum Length	14"

Test Data Exhaust		
CFM	1275	1279

Test Data Supply		
AK factor	0.89	
Total AK Area	9.92	
	PRELIM	FINAL
Reading1 FPM	148	179
Reading2 FPM	104	126
Reading3 FPM	96	116
Reading4 FPM	92	111
Reading5 FPM	120	145
Reading6 FPM	106	128
Reading7 FPM	101	122
Reading8 FPM	112	136
Reading9 FPM	123	149
Reading10 FPM	126	152
	Design	Actual
Ave FPM(corr)	136	136
CFM	1200	1204



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Asset: KH-1

Area: DISHWASHER

Unit Data	
MFG	CAPTIVE AIR
Model Num	4824ES-VHB-G-ND
Job / Serial Num	6119534
Type	CANOPY w/o PSP
Hood Length	48"
Hood Width	48"

Test Data Exhaust		
	DESIGN	ACTUAL
CFM	450	432