

Report By:

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



Report: PRELIM TAB
Function: Test, Adjust, & Balance
Date: 11/07/2024
Completed By: National TAB

PROJECT
DOT Headquarters (Ewing, NJ)

1035 Parkway Ave.

Ewing, NJ 08618

Client

EMY Solutions Inc.
624 Montgomery Rd
Hillsborough, NJ 08844

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Project: DOT Headquarters (Ewing, NJ)

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Asset: RTU-1

AREA: MULTIPURPOSE RM

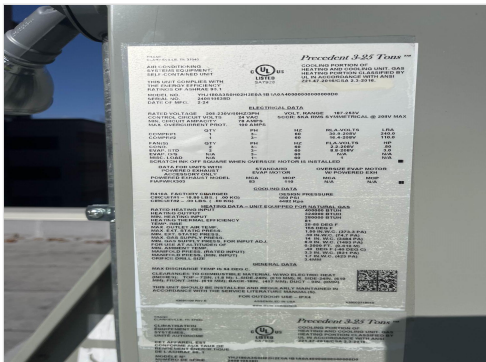
Unit Data		
	Design	Actual
MFG	NA	TRANE
Serial Num	-	240810538D
Model Num	NA	YHJ18003S0H02H2E0A1B1
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	68X20
Num PreFilter 1	-	8
PreFilter Size 1	-	20X24X2

Test Data		
	Design	Actual
SF CFM	5995	5994
RA CFM	5270	5230
OA CFM	725	764
RL Voltage	208	206.3/206.2/207.3
RL Amperage	-	6.55/6.44/5.98
OA Damper Position	-	10%
Brake Horse Power	-	2.86

Motor Data		
	Design	Actual
Motor MFG	-	2X EBM PABST
Frame	-	NL
Horsepower	3.00	3000W
Motor Rpm	-	1790
Phase	3	3
Rated Voltage	208	200
Rated Amperage	-	8.8
Service Factor	-	1

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.58"
Fan Suction SP	-	-0.99"
Fan Discharge SP	-	0.54"
Total ESP	0.70	1.12"
Fan Total SP	-	1.53"

Unit Data - PHOTO LOG



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Completed By: Tyler Youells on 11/07/2024

Notes:
[1] MAX FAN SETPOINT 64%

Written By: Tyler Youells on 11/07/2024



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Project:DOT Headquarters (Ewing, NJ)

AHU/RTU



Diffuser Supply (GRD)

RTU-1/MULTIPURPOSE RM

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	MULTIPURPOSE STORAGE	A2	8	120	161	114	95.0
SGRD2	MULTIPURPOSE RM	A6	16	635	300	578	91.0
SGRD3	MULTIPURPOSE RM	A6	16	635	602	648	102.0
SGRD4	MULTIPURPOSE RM	A6	16	635	550	597	94.0
SGRD5	MULTIPURPOSE RM	A6	16	635	643	644	101.4
SGRD6	MULTIPURPOSE RM	A6	16	635	645	681	107.2
SGRD7	MULTIPURPOSE RM	A6	16	635	685	654	103.0
SGRD8	MULTIPURPOSE RM	A6	16	635	574	623	98.1
SGRD9	MULTIPURPOSE RM	A6	16	635	711	654	103.0
SGRD10	MULTIPURPOSE RM	A6	16	635	638	635	100.0
SGRD11	VESTIBULE	A2	8	160	263	166	103.8
Total				5995	5772	5994	99.98%

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Project: DOT Headquarters (Ewing, NJ)



System/Unit: Energy Recovery Unit

Asset: ERV-1

AREA:VRF'S

Unit Data		
	Design	Actual
MFG	NA	ALDES
Model Num	NA	E1100L-Fi-EC-N
Serial Num	-	N23100012
Service	-	FCU-OA
Num Exh-Filters 1	-	3
Exh-Filter Size 1	-	15X11.5
Num OA-Filters 1	-	3
OA-Supply Size 1	-	15X11.5

Exhaust Fan Motor Data		
	Design	Actual
Motor MFG	-	2X EBMPABST
Frame	-	NL
Horsepower	-	170W
Motor Rpm	-	2510
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.4
Service Factor	-	1

OA Fan Motor Data		
	Design	Actual
Motor MFG	-	2X EBM PABST
Frame	-	NL
Horsepower	-	170W
Motor Rpm	-	2510
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.4
Service Factor	-	1

Exhaust Fan Test Data		
	Design	Actual
Exh-ERU CFM	400	372
Exh-ERU RPM	-	NA
RL Voltage	-	204.7
RL Amperage	-	0.88

Exhaust Fan Performance Data		
	Design	Actual
Exh-ERU Filter Delta SP	-	COMBINED
Exh-ERU Wheel Delta SP	-	0.21"
Exh-ERU Delta T	-	0.9F

OA Fan Test Data		
	Design	Actual
OA-ERU CFM	370	354
OA-ERU RPM	-	FULL SPEED
RL Voltage	-	207.7
RL Amperage	-	1.48

OA Fan Performance Data		
	Design	Actual
OA-ERU Filter Delta SP	-	COMBINED
OA-ERU Wheel Delta SP	-	0.15"
OA-ERU Delta T	-	2.1F

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Project:DOT Headquarters (Ewing, NJ)

Energy Recovery Unit



Diffuser Supply (GRD)

ERV-1/VRF'S

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	FC-1	DUCT	6	100	95	92	92.0
SGRD2	FC-3	DUCT	6	70	45	64	91.4
SGRD3	FC-2	DUCT	6	50	39	49	98.0
SGRD4	FC-4	DUCT	4	20	12	19	95.0
SGRD5	FC-5	DUCT	6	40	19	37	92.5
SGRD6	FC-6	DUCT	6	40	25	41	102.5
SGRD7	FC-7	DUCT	6	50	45	52	104.0
Total				370	280	354	95.68%

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Asset: FC-1

AREA:CORRIDOR

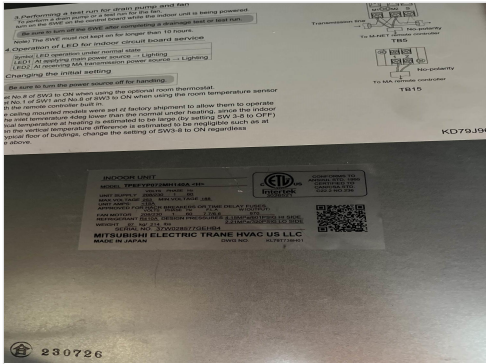
Unit Data		
	Design	Actual
MFG	NA	TRANE
Model Num	NA	TPEFYP072MH140A
Serial Num	-	37W028577GEHB4
Configuration	-	HORIZONTAL

Motor Data		
	Design	Actual
Horsepower	-	870W
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	7.7

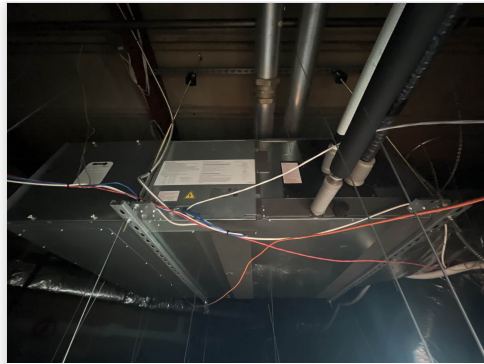
Test Data		
	Design	Actual
SFAN CFM	1780	1795
Motor Speed SetPt	-	50 Pa
RL Voltage	-	206.4
RL Amperage	-	2.14
RA CFM	1680	1703
OA CFM	100	92

Performance Data		
	Design	Actual
Suction ESP	-	-0.01"
Discharge ESP	-	0.28"
Total ESP	0.60	0.29"

Unit Data - PHOTO LOG



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Project:DOT Headquarters (Ewing, NJ)

Fan Coil



Diffuser Supply (GRD)

FC-1/CORRIDOR

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	CORRIDOR	A4	12	400	379	363	90.8
SGRD2	CORRIDOR	A4	12	400	585	403	100.8
SGRD3	CORRIDOR	A4	12	400	501	428	107.0
SGRD4	CORRIDOR	A4	12	400	491	412	103.0
SGRD5	CORRIDOR	A2	8	180	216	189	105.0
Total				1780	2172	1795	100.84%

Completed By: Tyler Youells on 11/06/2024



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Project: DOT Headquarters (Ewing, NJ)

System/Unit: Fan Coil



Asset: FC-2

AREA:FAC MGMT OFC

Unit Data		
	Design	Actual
MFG	NA	TRANE
Model Num	NA	TPEFYP027MA144A
Serial Num	-	3XR0051330P911
Configuration	-	HORIZONTAL

Motor Data		
	Design	Actual
Horsepower	-	0.162HP
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	2.03

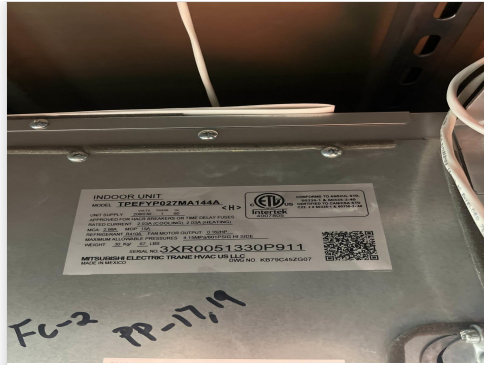
Test Data		
	Design	Actual
SFAN CFM	740	677
Motor Speed SetPt	-	150 Pa
RL Voltage	-	206.3
RL Amperage	-	1.84
RA CFM	690	628
OA CFM	50	49

Performance Data		
	Design	Actual
Suction ESP	-	-0.12"
Discharge ESP	-	0.63"
Total ESP	0.60	0.75"

Unit Data - PHOTO LOG



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Project:DOT Headquarters (Ewing, NJ)

Fan Coil



Diffuser Supply (GRD)

FC-2/FAC MGMT OFC

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	FAC MGMT OFC	A4	12	370	256	337	91.1
SGRD2	FAC MGMT OFC	A4	12	370	241	340	91.9
Total				740	497	677	91.49%

Completed By: Tyler Youells on 11/06/2024

Asset	Notes	Date	Written By
SGRD1	[1] DIFFUSER INSTALLED AS 8"	11/07/2024	Tyler Youells
SGRD2	[1] DIFFUSER INSTALLED AS 8"	11/07/2024	Tyler Youells



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Project: DOT Headquarters (Ewing, NJ)

System/Unit: Fan Coil



Asset: FC-3

AREA:OFFICE

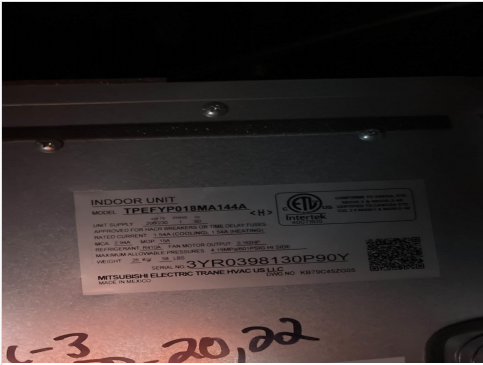
Unit Data		
	Design	Actual
MFG	NA	TRANE
Model Num	NA	TPEFYP018MA144A
Serial Num	-	3YR0398130P90Y
Configuration	-	HORIZONTAL

Motor Data		
	Design	Actual
Horsepower	-	0.162
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.54

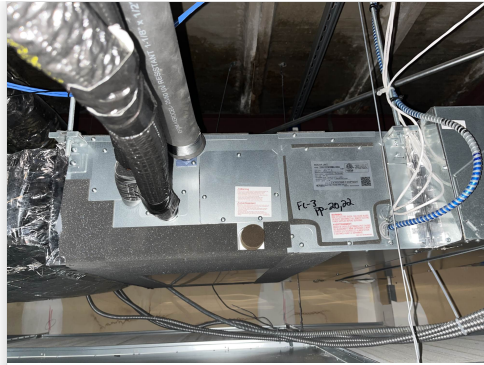
Test Data		
	Design	Actual
SFAN CFM	500	521
Motor Speed SetPt	-	50Pa
RL Voltage	-	206.3
RL Amperage	-	0.77
RA CFM	430	457
OA CFM	70	64

Performance Data		
	Design	Actual
Suction ESP	-	-0.07"
Discharge ESP	-	0.14"
Total ESP	0.60	0.21"

Unit Data - PHOTO LOG



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Project:DOT Headquarters (Ewing, NJ)

Fan Coil



Diffuser Supply (GRD)

FC-3/OFFICE

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	OFFICE 1	A2	8	185	204	189	102.2
SGRD2	CORRIDOR	A2	8	130	170	139	106.9
SGRD3	OFFICE 1	A2	8	185	162	193	104.3
Total				500	536	521	104.2%

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Project: DOT Headquarters (Ewing, NJ)

System/Unit: Fan Coil



Asset: FC-7

AREA: OFFICE 2,3

Unit Data		
	Design	Actual
MFG	NA	TRANE
Model Num	NA	TPEFYP018MA144A
Serial Num	-	39R0357630P90Y
Configuration	-	HORIZONTAL

Motor Data		
	Design	Actual
Horsepower	-	0.162HP
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.54

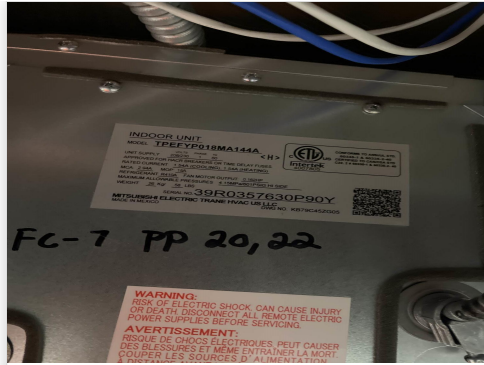
Test Data		
	Design	Actual
SFAN CFM	420	434
Motor Speed SetPt	-	35 Pa
RL Voltage	-	207.4
RL Amperage	-	0.60
RA CFM	370	382
OA CFM	50	52

Performance Data		
	Design	Actual
Suction ESP	-	-0.06"
Discharge ESP	-	0.16"
Total ESP	0.60	0.22"

Unit Data - PHOTO LOG



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image_1868759971

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Project:DOT Headquarters (Ewing, NJ)

Fan Coil



Diffuser Supply (GRD)

FC-7/OFFICE 2,3

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	OFFICE 2	A2	8	200	230	214	107.0
SGRD2	OFFICE 3	A2	8	220	292	220	100.0
Total				420	522	434	103.33%

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