

Certified Test, Adjust and Balance Report

Project: Tableau Kirkland KPP -
Level 3 Phase 2 Replacement Units

Address: 401 Parkplace Center
Kirkland, WA 98033

Engineer: Auburn Mechanical

Mechanical Contractor: Auburn Mechanical

Address: PO Box 249
Auburn, WA 98071

TAB Supervisor: Dustin Polly

NEBB Certification: 3000

Date: June 9, 2016





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CERTIFICATION

PROJECT: Tableau Kirkland KPP - Level 3 Phase 2 Replacement Units

ADDRESS: Kirkland, WA

THE DATA PRESENTED IN THIS REPORT IS A RECORD OF SYSTEM MEASUREMENTS AND FINAL ADJUSTMENTS THAT HAVE BEEN OBTAINED IN ACCORDANCE WITH THE CURRENT EDITION OF THE **NEBB PROCEDURAL STANDARDS FOR TESTING, ADJUSTING, AND BALANCING OF ENVIRONMENTAL SYSTEMS**. ANY VARIANCES FROM DESIGN QUANTITIES, WHICH EXCEED NEBB TOLERANCES, ARE NOTED IN THE TEST-ADJUST-BALANCE REPORT PROJECT SUMMARY.

NEBB TAB FIRM: AIRTEST CO., INC.

REG. NO. 3000

CERTIFIED BY: DUSTIN POLLY

DATE: June 9, 2016

SUBMITTED & CERTIFIED BY:

NEBB TAB FIRM: AIRTEST CO., INC.

TAB SUPERVISOR: DUSTIN POLLY

REG. NO. 3000

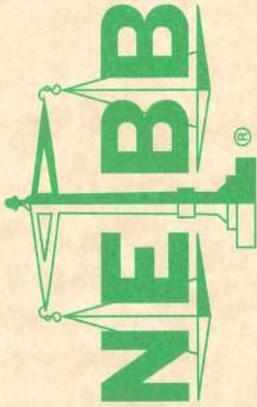
SIGNATURE:



CERTIFICATION EXPIRATION DATE: March 31, 2017



National Environmental Balancing Bureau



Recertification

THIS IS TO CERTIFY THAT

Airtest Company, Inc.

HAS MET ALL REQUIREMENTS FOR RENEWAL OF NEBB
CERTIFICATION IN THE FOLLOWING DISCIPLINE

Air & Hydronics Systems

FOR THE BOARD OF DIRECTORS:

EXP. March 31, 2017

Airtest Company, Inc.

No. 3000

NEBB Cert. No.

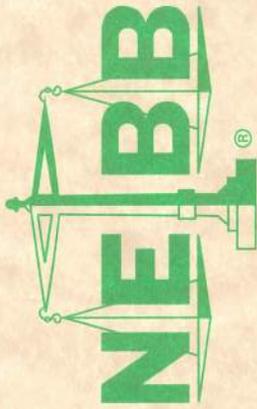
R. Zinner

President

James H. ...

President-Elect

National Environmental Balancing Bureau



Recertification

THIS IS TO CERTIFY THAT

Dustin Polly

with Airtest Company, Inc.

HAS MET ALL THE NEBB REQUIREMENTS FOR
NEBB CERTIFIED PROFESSIONAL STATUS IN

Air & Hydronics Systems



FOR THE BOARD OF DIRECTORS:

EXP. March 31, 2017

Airtest Company, Inc.

No. 3000

NEBB Cert. No.

R. Zander

President

James H. ...

President-Elect



Warranty of TAB Services

PROJECT: Tableau Kirkland KPP - Level 3 Ph 2 Replacement Units **DATE:** 6/9/2016

LOCATION: Kirkland, WA

TECHNICIAN: Jason Douglas

PROJECT #: 16-4063-1

Warranty of TAB Services:

AIRTEST Co., Inc. warrants the TAB work performed on this project for one year from the date of the first published report. AIRTEST Co., Inc. reserves the right to correct errors or omissions in the collection of data, and issue amended TAB reports. This Warranty covers all Test and Balance services provided by AIRTEST unless otherwise stated in writing. When any balancing issues or concerns arise, AIRTEST Co., Inc. will dedicate resources to understand the issue or question. This may include a return trip(s) to the project site, or other appropriate methods of resolving the issue. A return trip(s) to the site, if necessary, will involve verification of system adjustments and adherence to reported values. No charges will be issued for any work found to be in compliance with the reported data, however if AIRTEST Co., Inc. is directed to make adjustments that result in differences from the reported data (i.e. Comfort Balancing), charges may be incurred. Repeated requests for Warranty services may incur charges if the TAB work is found to be in compliance with the reported data.

Voided Warranty and Additional Charges:

When issues arise due to mechanical equipment failure, control or maintenance related causes, the return trip may be subject to a service charge not covered under warranty. AIRTEST Co., Inc. reserves the right to resolve any TAB issues. Actions by others to resolve a warranty issue before AIRTEST Co., Inc. is notified, or allowed sufficient time to respond, will result in a voided project warranty. Any return trip(s) to the jobsite as a result of such actions are subject to charges. A purchase order will be required before returning to the jobsite if such conditions exist.

Document Archiving:

An electronic copy of the test data will be provided at no charge for the warranty period. Electronic copies of the project test data may be available after the warranty period, at no charge. Printed / bound copies will be subject to a fee.



Calibration Report

PROJECT: Tableau Kirkland KPP - Level 3 Ph 2 Replacement Units
 LOCATION: Kirkland, WA
 PROJECT #: 16-4063-1

DATE: 6/9/2016
 TECHNICIAN: Jason Douglas

INSTRUMENT / SERIAL NUMBER	APPLICATION	DATES OF USE THRU	CALIBRATION TEST DATE
Pacer DA400 / 1014147	Velocity	Jun-16	4/15
Shortridge ADM-860/ M92506	CFM	Jun-16	5/15
Evergreen Telemetry S-PVF-1/ 1500171	Pressure	Jun-16	5/15
SHIMPO DT-207LR / D14 C0003R	RPM	Jun-16	2/15
Fluke 323/ 29541139WS	Electrical	Jun-16	1/15
Evergreen Telemetry PR-T-1/ 1500229	Temperature	Jun-16	7/15
Alnor HM670 / 70748158	Hydronics	Jun-16	6/15

SYMBOLS & ABBREVIATIONS	
ADJ = Adjustable Fan Speed	LD x = Linear Diffuser where "x" is number of slots
CD = Ceiling Diffuser	N/A = Not Available
CFM = Cubic Feet per Minute	NI = Not Installed
D/A = VAV Inlet Dimension in Inches	NR = Not Required
DD = Design Data	NPSH = Net Positive Suction Head
EG = Exhaust Grille	RG = Return Grille
E.S.P. = External Static Pressure	RPM = Revolutions per Minute
F/C = VAV Calibration Factor	SF = Motor Service Factor
FCD = Field Collected Data	S.P. = Static Pressure
FG = Floor Grille	SWG = Side Wall Grille
FLA = Motor Full Load Amps	T.S.P. = Total Static Pressure
GPM = Gallons per Minute	VAR = Variable Fan Speed
HP = Horsepower	
Hz = Hertz	
in. Hg. = Inches Mercury	
in. w.g. = Inches Water Gauge	
LD = Linear Diffuser	

Heat Pump

PROJECT: Tableau Kirkland KPP - Level 3 Ph 2 Replacement Units
LOCATION: Kirkland, WA
PROJECT #: 16-4063-1

DATE: 6/9/2016
CONTACT: Jason Douglas

SYSTEM/UNIT: HP-03-3A

AREA: 3rd Floor

Tested By: Jason Douglas

Test Date: June 03, 2016

Unit Data	
Unit Location	Ceiling
Unit Manufacturer	Climate Master
Unit Model Number	TCH036AHD30CLBS
Unit Serial Number	U11023023
Unit Serves	Office Space
HP-03-3A / Fan	
Fan Type / Class	FC/1

Test Data	
External SP Design	.5 in. wc.
SP Inlet Actual	.03 in. wc.
SP Outlet Actual	.02 in. wc.
External SP Actual	.05 in. wc.

Electrical Test Data	
HP-03-3A / Fan	
Final Operating Hz	60 Hz
Motor Volts 1	120 Volts
Motor Amps 1	2.0 Amps

Motor Data	
HP-03-3A / Fan	
Motor Manufacturer	US Motors
Motor HP	1/3 HP
Motor RPM	1015/3 speed RPM
Motor Rated Volts	208 - 230 Volts
Motor Phase	1
Motor Hertz	60 Hz
Motor FL Amps	2.8 Amps
Motor Service Factor	1

Sheave Data	
HP-03-3A / Fan	
Drive Type	Direct Drive

Air Test Data	
Total Fan CFM Design	1200 CFM
Total Fan CFM Act.	1300 CFM

Filter Data	
HP-03-3A / Filter	
Filter Manufacturer	Glassfloss
Filter Type	Fiberglass
Filter Quantity	1
Filter Size	14x20x1 Inches

HP-03-3A Supply Outlet Summary

System / Unit	Area Served	Outlet Type	Size LxW / D	Design CFM	Prelim Reading	Final Reading	% Final
Outlet-01	Office 227A/B/C	CD	12 RD	400	450	435	109
Outlet-02	Corner Office	CD	12 RD	400	440	430	108
Outlet-03	Office 03-520	CD	12 RD	400	550	435	109
Totals :		-	-	1,200	1,440	1,300	108 %

* **Notes** HP-03-3A 3-Jun-16 Jason Douglas Fan speed set to High.

Heat Pump

PROJECT: Tableau Kirkland KPP - Level 3 Ph 2 Replacement Units
LOCATION: Kirkland, WA
PROJECT #: 16-4063-1

DATE: 6/9/2016
CONTACT: Jason Douglas

SYSTEM/UNIT: HP-03-3B

Tested By: Jason Douglas

AREA: 3rd Floor

Test Date: June 03, 2016

Unit Data	
Unit Location	Ceiling
Unit Manufacturer	Climate Master
Unit Model Number	TCH036AHD30CLBS
Unit Serial Number	U11023022
Unit Serves	Office Space
HP-03-3B / Fan	
Fan Type / Class	FC/1

Test Data	
External SP Design	.5 in. wc.
SP Inlet Actual	.03 in. wc.
SP Outlet Actual	.02 in. wc.
External SP Actual	.05 in. wc.

Electrical Test Data	
HP-03-3B / Fan	
Final Operating Hz	60 Hz
Motor Volts 1	204 Volts
Motor Amps 1	2.5 Amps

Motor Data	
HP-03-3B / Fan	
Motor Manufacturer	US Motors
Motor HP	1/3 HP
Motor RPM	1015/3 speed RPM
Motor Rated Volts	208 - 230 Volts
Motor Phase	1
Motor Hertz	60 Hz
Motor FL Amps	2.8 Amps
Motor Service Factor	1

Sheave Data	
HP-03-3B / Fan	
Drive Type	Direct Drive

Air Test Data	
Total Fan CFM Design	1200 CFM
Total Fan CFM Act.	1270 CFM

Filter Data	
HP-03-3B / Filter	
Filter Manufacturer	Glassfloss
Filter Type	Fiberglass
Filter Quantity	1
Filter Size	14x20x1 Inches

HP-03-3B Supply Outlet Summary

System / Unit	Area Served	Outlet Type	Size LxW / D	Design CFM	Prelim Reading	Final Reading	% Final
Outlet-01	Office 03-228A/B	CD	12 RD	400	400	430	108
Outlet-02	Office 03-229A/B/C	CD	12 RD	400	390	430	108
Outlet-03	Office 230A/B/C	CD	12 RD	400	475	410	103
Totals :		-	-	1,200	1,265	1,270	106 %

* **Notes** HP-03-3B 3-Jun-16 Jason Douglas Fan speed set to High.

