



**NATIONAL ENVIRONMENTAL BALANCING BUREAU
CERTIFIED TEST, ADJUST, AND BALANCE REPORT**

by **pb**pro balance

NEBB CERTIFICATION NUMBER 2851

February 23, 2018

Jumpin Catfish

Lee's Summit, Missouri

ARCHITECT: ng
CITY/STATE: ng

ENGINEER: ng
CITY/STATE: ng

HVAC CONTRACTOR: Catco
CITY/STATE: Independence, Missouri

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project: Jumpin Catfish

TABLE OF CONTENTS

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Project Sheet

Project Name: Jumpin Catfish

Date Started: Thursday, February 22, 2018

Date Finished: Friday, February 23, 2018

Field Tech(s): David Yocum

Project Supervisor: Rick West

NATIONAL ENVIRONMENTAL BALANCING BUREAU PROJECT CERTIFICATION

PROJECT: Jumpin Catfish
Lee's Summit, Missouri

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 NEBB Procedural Standard for Testing, Adjusting and Balancing of Environmental Systems.

The measurements shown and information given, in this report are certified to be accurate and complete, at the time and the date information was gathered.

Any variances from design quantities, which exceed NEBB tolerances, are noted in the TAB report Summary.

Submitted by:

PRO BALANCE, INC.
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NEBB Supervisor:

Rick West

Date:

February 23, 2018

Equipment Calibration Log

PROJECT: Jumpin Catfish

INSTRUMENT/SERIAL NUMBER	APPLICATION	CALIBRATION TEST DATE	RE CALIBRATION DUE DATE
Shortridge ADM 860/M11838	Velocity, pressures, flow hood, temp.	September 11, 2017	September 11, 2018
Shortridge ADM 860C/M12360	Velocity, pressures, flow hood, temp.	September 12, 2017	September 12, 2018
Shimpo PT-121/S104880	Digital RPM Measurement	January 24, 2018	January 24, 2019
Amprobe ACD-6 TRMS PRO/81000504081E+016	Amperage/Voltage Measurement	January 8, 2018	January 8, 2019
Cooper SRH77A / 020712016	DB/WB Temperature Measurement	January 24, 2018	January 24, 2019
Alnor/HM670/71144011	Water Balance Differential Meter	November 30, 2017	November 30, 2018
Shortridge/HDM250/ W07069	Water Balance Differential Meter	December 4, 2017	December 4, 2018
Alnor/HM675/71509014	Water Balance Differential Meter	June 29, 2017	June 29, 2018

Report Summary & Nomenclatures

PROJECT: Jumpin Catfish

Report Summary : Building pressure was measured at -.006".

AMP= Amperes
BTU= British Thermal Unit
MBH= 1000 BTUs Per Hour
CD= Ceiling Diffuser
CFM= Cubic Feet Per Minute
DMP= Damper
°F= Degrees Fahrenheit
DIA= Diameter
ΔP= Differential Pressure
DB= Dry Bulb (°F)
EAT= Entering Air Temperature (°F)
EXH= Exhaust
EA= Exhaust Air
ESP= External SP ("WG)
EWT= Entering Water Temp (°F)
FT= Feet
FPM= Feet Per Minute
HZ= Hertz
IN= Inches
kW= Kilowatt
LAT= Leaving Air Temperature (°F)
LWT= Leaving Water Temp (°F)

MAT= Mixed Air Temperature (°F)
NA= Not Applicable
NG= Not Given
OA= Outside Air
OAT= Outside Air Temperature (°F)
PH= Phase
PSI= Pounds Per Square Inch
RLF= Relief
RA= Return Air
RAT= Return Air Temperature (°F)
RPM= Revolutions Per Minute
S.F.= Service Factor
SCFM= Standard Cubic Feet Per Minute
SP= Static Pressure ("WG)
SA= Supply Air
SAT= Supply Air Temperature (°F)
SQFT= Square Feet
ΔT= Temperature Difference
TSP= Total SP ("WG)
VFD= Variable Frequency Drive
WG= Water Gauge
WB= Wet Bulb (°F)

Exhaust/Supply Fan Test Report

PROJECT: Jumpin Catfish

UNIT TAG	MAU-1		KEF-1			
LOCATION	roof		roof			
SERVICE	kitchen hood		kitchen hood			
MANUFACTURER	Captive Aire		Captive Aire			
MODEL NUMBER	A2-D.500-G15		NCA24FA			
SERIAL NUMBER	ng		ng			
TYPE	backward incline		backward incline			
MOTOR VOLTAGE/PHASE	Weg/56HZ		Weg/56HZ			
MOTOR HP/CFM	2.0/1740		3.0/1735			
VOLTAGE/PHASE	208-230-460/3/60		208-230-460/3/60			
CFM/HP/PHASE	5.9-5.3-2.6/1.15		8.7-7.9-3.9/1.15			
MOTOR MAKE/TYPE	Browning		Browning			
MOTOR MAKE/TYPE/HP	1VL40/.875		2VP42/.875			
FAN MAKE/TYPE	Browning		Browning			
FAN MAKE/TYPE/HP	AK66/1.0		2BK60/1.0			
WHEEL MAKE/TYPE	1/Bando/AX47		2/Bando/BX31			
ENTERING STATIC P	17.0/-1+2		7.5/-2+1			
OUTLET DUCT DIA	-0.5		0			
	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
DISTRIBUTION EFFICIENCY	ng	3240	ng	3748		
SUBMITTED FAN CFM	ng	3240	ng	3748		
SPINOUT	ng	*1	ng	*1		
TOTAL SP	ng	*1	ng	*1		
FAN RPM/VOLTS/Hz	ng	965	ng	1205		
VOLTAGE	208	211/211/211	208	211/211/211		
AVERAGE	5.9	4.1/4.2/4.2	8.7	7.1/7.2/7.3		

Remarks: *1 No access to measure static pressure.

Rectangular Duct Traverse/Surface Velocity Report

PROJECT: Jumpin Catfish

SYSTEM: MAU-1

LOCATION OF TRAVERSE	MEASURING DEVICE	SP	AIR TEMP	ALTITUDE	CORRECTION FACTOR
kitchen hood	velgride	na	78.0	Standard	1.00

DUCT SIZE	DESIGN DATA	ACTUAL DATA
W X H: 187.00 X 16.00	SCFM: ng	SCFM: 3240
LINER: 0.00 SQFT: 20.78	FPM: ng CFM: ng	FPM: 156 CFM: 3240

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	137	148	164	172	152	158	163	148	175	178	145	155	132
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													

VELOCITIES TOTAL	NO. OF POINTS	AVG. FPM
2027	13	156

Remarks:

Rectangular Duct Traverse/Surface Velocity Report

PROJECT: Jumpin Catfish

SYSTEM: KEF-1

LOCATION OF TRAVERSE	MEASURING DEVICE	SP	AIR TEMP	ALTITUDE	CORRECTION FACTOR
grease filters	velgride	na	na	Standard	1.00

DUCT SIZE	DESIGN DATA	ACTUAL DATA
W X H: 202.00 X 14.00	SCFM: ng	SCFM: 3748
LINER: 0.00 SQFT: 19.64	FPM: ng CFM: ng	FPM: 191 CFM: 3748

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	174	179	186	199	204	213	174	182	213	188	196	203	170
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													

VELOCITIES TOTAL	NO. OF POINTS	AVG. FPM
2481	13	191

Remarks: