

Report By:

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

NATIONAL

TAB

Comfort. Under control.

Report: Prelim Report
Function: Test, Adjust, & Balance
Date: 12/21/2022

PROJECT
12-19 PENN STATION - JASPER, IN

4288 N. NEWTON ST

JASPER, IN 47546

Client

C&T DESIGN
4025 PORT UNION RD.
FAIRFIELD, OH 45014

National TAB

Project: 12-19 PENN STATION - JASPER, IN

Table Of Contents

Section	Page #
AHU/RTU	3
FAN - Exhaust	7
Kitchen Hood Type I	12

National TAB

Project: 12-19 PENN STATION - JASPER, IN

System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU1

AREA:DINING

Unit Data		
	Design	Actual
MFG	CAPTIVE AIRE	CAPTIVE AIRE
Serial Num	-	5625894
Model Num	CASRTU1-I.200-15-7.5T-DOAS	CASRTU1-I.200-15-7.5T-DOAS
Type	DOAS	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	15.75x19.75
Num Final Filter 1	-	8
Final Filter Size 1	-	16x16 2

Motor Data		
	Design	Actual
Motor MFG	-	TECO
Frame	-	145T
Horsepower	2	2
Motor Rpm	-	1740
Phase	3	3
Rated Voltage	208	230/460
Rated Amperage	-	5.48/2.74

Drive Data		
	Design	Actual
Motor Sheave Size	-	DD
Motor Bore Size	-	DD
Motor Sheave SetPt	-	DD
Fan Sheave Size	-	DD
Fan Sheave Bore	-	DD
Belt CL Distance	-	DD
Num of Belts	-	DD
Belt Size	-	DD
Belt Alignment	-	DD

Completed By: Travis Halter

Notes:

Test Data		
	Design	Actual
SF CFM	2000	2027
SF RPM	-	1276 (44.0 HZ)
RA CFM	525	539
OA CFM	1475	1488
RL Voltage	-	214/214/214
RL Amperage	-	3.9/3.9/3.9
SF Rotation	-	CCW, CORRECT
Min OA Damper Position	-	7.70 V
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	Actual

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES
Condensate Drain Installed	-	YES

National TAB

Project:12-19 PENN STATION - JASPER, IN

AHU/RTU



Comfort. Under control.

Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	BOH	4-WAY	10"	100	1	229	107	107	107.0
SGRD2	PREP AREA	4-WAY	10"	250	1	232	245	245	98.0
SGRD3	PREP AREA	4-WAY	10"	250	1	312	232	232	92.8
SGRD4	SERVING AREA	4-WAY	10"	250	1	276	259	259	103.6
SGRD5	SERVING AREA	LINEAR	10"	300	1	369	311	311	103.7
SGRD6	SERVING AREA	LINEAR	10"	300	1	386	323	323	107.7
SGRD7	SERVING AREA	LINEAR	10"	300	1	314	276	276	92.0
SGRD8	SERVING AREA	4-WAY	10"	250	1	334	274	274	109.6

Completed By: Brianna Biggs on

National TAB

Project: 12-19 PENN STATION - JASPER, IN

System/Unit: AHU/RTU



Comfort. Under control.

Asset: RTU2

AREA:DINING

Unit Data		
	Design	Actual
MFG	CAPTIVE AIRE	CAPTIVE AIRE
Serial Num	-	5625894
Model Num	CASRTU1-I.200-15-7.5T-DOAS	CASRTU1-I.200-15-7.5T-DOAS
Type	DOAS	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	15.75x19.75
Num Final Filter 1	-	8
Final Filter Size 1	-	16x16x2

Motor Data		
	Design	Actual
Motor MFG	-	TECO
Frame	-	145T
Horsepower	2	2
Motor Rpm	-	1740
Phase	3	3
Rated Voltage	208	230/460
Rated Amperage	-	5.48/2.74

Drive Data		
	Design	Actual
Motor Sheave Size	-	DD
Motor Bore Size	-	DD
Motor Sheave SetPt	-	DD
Fan Sheave Size	-	DD
Fan Sheave Bore	-	DD
Belt CL Distance	-	DD
Num of Belts	-	DD
Belt Size	-	DD
Belt Alignment	-	DD

Test Data		
	Design	Actual
SF CFM	2000	2156
SF RPM	-	1624 (56.0 HZ)
RA CFM	550	697
OA CFM	1450	1459
RL Voltage	-	216/216/216
RL Amperage	-	5.1/5.1/5.1
SF Rotation	-	CCW, CORRECT
Min OA Damper Position	-	6.90 V
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	Actual

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES
Condensate Drain Installed	-	YES

Completed By: Travis Halter

Notes:

National TAB

Project:12-19 PENN STATION - JASPER, IN

AHU/RTU



Comfort. Under control.

Diffuser Supply (GRD)

RTU2/DINING

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	DINING	LINEAR	10"	300	1	262	273	273	91.0
SGRD2	DINING	LINEAR	10"	300	1	271	275	275	91.7
SGRD3	DINING	4-WAY	10"	250	1	266	254	254	101.6
SGRD4	DINING	4-WAY	10"	250	1	254	256	256	102.4
SGRD5	DINING	4-WAY	10"	250	1	252	249	249	99.6
SGRD6	DINING	4-WAY	10"	250	1	276	264	264	105.6
SGRD7	DINING	4-WAY	10"	250	1	267	253	253	101.2
SGRD8	DINING	4-WAY	10"	150	1	197	146	146	97.3
SGRD9	WOMENS RR	ROUND 4-WAY	6"	70	1	36	65	65	92.9
SGRD10	MENS RR	ROUND 4-WAY	8"	130	1	80	121	121	93.1

Completed By: Brianna Biggs on

National TAB

Project: 12-19 PENN STATION - JASPER, IN

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF1

AREA:HD1 GRILL

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU85HFA	DU85HFA
Serial Num	-	5625894
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	0.750	0.75
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	8.9
Service Factor	-	1.0

Test Data		
	Design	Actual
CFM	1225	1199
Fan RPM	1240	954
Fan Rotation	-	CCW, CORRECT
Motor RPM	-	954
System SetPt	-	53%
RL Voltage	-	124
RL Amperage	-	2.8
Total ESP	1.150"	0.45"
Fan Inlet SP	-	-0.45"
Fan Discharge SP	-	ATM

Completed By: Travis Halter

Notes:

National TAB

Project: 12-19 PENN STATION - JASPER, IN

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF2

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU33HFA	DU33HFA
Serial Num	-	5625894
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	0.333	0.33
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	4.3
Service Factor	-	1.0

Test Data		
	Design	Actual
CFM	600	607
Fan RPM	1296	1296
Fan Rotation	-	CCW, CORRECT
Motor RPM	-	1296
System SetPt	-	72%
RL Voltage	-	123
RL Amperage	-	2.0
Total ESP	0.600"	0.38"
Fan Inlet SP	-	-0.38"
Fan Discharge SP	-	ATM

Completed By: Travis Halter

Notes:

National TAB

Project: 12-19 PENN STATION - JASPER, IN

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF3

AREA:HD3 FRYERS

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU85HFA	DU85HFA
Serial Num	-	5625894
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	0.750"	0.75
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	8.9
Service Factor	-	1.0

Test Data		
	Design	Actual
CFM	800	797
Fan RPM	1210	882
Fan Rotation	-	CCW, CORRECT
Motor RPM	-	882
System SetPt	-	49%
RL Voltage	-	123
RL Amperage	-	2.1
Total ESP	1.2"	0.51"
Fan Inlet SP	-	-0.51"
Fan Discharge SP	-	ATM

Completed By: Travis Halter

Notes:

National TAB

Project: 12-19 PENN STATION - JASPER, IN

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF4

AREA:WOMEN'S RR

Unit Data		
	Design	Actual
MFG	NA	PANASONIC
Model Num	NA	FV-0511VQ1
Serial Num	-	20528M
Type	-	CEILING
Configuration	-	HORIZONTAL

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	-	1
Voltage (rated)	-	120
Amperage (rated)	-	0.31
Service Factor	-	1.0

Test Data		
	Design	Actual
CFM	75	82
Fan RPM	-	DD
Fan Rotation	-	CW, CORRECT
Motor RPM	-	DD
System SetPt	-	MED
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	-	0.19"
Fan Inlet SP	-	ATM
Fan Discharge SP	-	0.19"

Completed By: Travis Halter

Notes:

National TAB

Project: 12-19 PENN STATION - JASPER, IN

System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF5

AREA: MEN'S RR

Unit Data		
	Design	Actual
MFG	NA	PANASONIC
Model Num	NA	FV-1115VQ1
Serial Num	-	20919M
Type	-	CEILING
Configuration	-	HORIZONTAL

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	-	1
Voltage (rated)	-	120
Amperage (rated)	-	0.31
Service Factor	-	1.0

Test Data		
	Design	Actual
CFM	150	154
Fan RPM	-	DD
Fan Rotation	-	CW, CORRECT
Motor RPM	-	DD
System SetPt	-	SINGLE SPEED
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	-	0.16"
Fan Inlet SP	-	ATM
Fan Discharge SP	-	0.16"

Completed By: Travis Halter

Notes:

National TAB

Project: 12-19 PENN STATION - JASPER, IN

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD1

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	3650 BD-2	3650 BD-2
Job / Serial Num	-	5625894
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROXIMITY
Hood length	84"	84"
Hood Width	36"	36"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16X16	16X16
Filter Qty 1	4	5
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	6.48	8.1
Filter1 FPM	-	165
Filter2 FPM	-	143
Filter3 FPM	-	143
Filter4 FPM	-	144
Filter5 FPM	-	144
Filter Ave FPM(corr)	-	148
CFM	1225	1199

Cooking Equipment		
	Design	Actual
Item 1	-	GRIDDLE

Completed By: Travis Halter

Notes:

National TAB

Project: 12-19 PENN STATION - JASPER, IN

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD2

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	4412 PS-OVN	4412 PS-OVN
Job / Serial Num	-	5625894
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROXIMITY
Hood length	21.25	21.25"
Hood Width	44"	44"

Test Data Exhaust		
	Design	Actual
Filter Type	SS BAFFLE	SS BAFFLE
Filter Size 1	20X10	20X10
Filter Qty 1	2	2
Filter AK factor size 1	-	1.2
Filter Total AK Area	-	2.4
Filter1 FPM	-	268
Filter2 FPM	-	237
Filter Ave FPM(corr)	-	253
CFM	600	607

Cooking Equipment		
	Design	Actual
Item 1	-	OVEN

Completed By: Travis Halter

Notes:

National TAB

Project: 12-19 PENN STATION - JASPER, IN

System/Unit: Kitchen Hood Type I



Comfort. Under control.

Asset: HD3

AREA:

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	3650 BD-2	3650 BD-2
Job / Serial Num	-	5625894
Type	TYPE I LOW PROXIMITY	TYPE I LOW PROXIMITY
Hood length	50"	50"
Hood Width	36"	36"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16X16	16X16
Filter Qty 1	3	3
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	4.86	4.86
Filter1 FPM	-	158
Filter2 FPM	-	168
Filter3 FPM	-	167
Filter Ave FPM(corr)	-	164
CFM	800	797

Cooking Equipment		
	Design	Actual
Item 1	-	FRYERS

Completed By: Travis Halter

Notes: