

Report By:
United T&B
7013 Flagler Road
Nordland, WA 98358



Comfort. Under control.

For :
National TAB
1329 E. Kemper Road
Suite 4210
Cincinnati, OH 45246

Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 02/02/2023

PROJECT

01-23-23 CULVERS - AMMON, ID

3701 S 25TH EAST

AMMON, ID 83406

Client

Accurex

PO Box 410

Schofield, WI 54476

Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report is further detail about your building performance including recommendations, asset data, and pictures. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints.

RTU's (Roof Top Units)

Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance of the engineer's design flow. Each outlet was then adjusted to within tolerance of the design flow. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that tolerance is noted throughout the report.

Kitchen Exhaust Hood & Associated Fans

Each kitchen exhaust fan was measured at the hood filter bay utilizing a velocity matrix and a manufacturer's correction factor. Each filter velocity is multiplied by the manufacturer's corrected area. The sum of these readings equals the total flow of the exhaust fans. The total flow of the exhaust was then adjusted to within tolerance of the design flow.

General Exhaust Fans

The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within tolerance of design. Each terminal device was balanced to within tolerance of the design volume using the installed volume dampers. Any equipment that fell outside of this tolerance is noted throughout the report.

Final Building Tests

After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances of $-0.02''$ wc to $+0.02''$ wc and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report.

The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat on to ensure satisfactory hood capture and containment.

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU-1	DINING	6150	6537	4275	4648	1875	1889	30.5%	28.9%						
RTU-2	KITCHEN	6150	6010	4300	4137	1850	1873	30.1%	31.2%						
EF-1A	MOP ROOM													75	73
PRV-1	RESTROOM													300	318
PRV-2	HOOD 1											1500	1734		
PRV-3	HOOD 2											1500	1629		
TOTALS		12300	12547	8575	8785	3725	3762			0	0	3000	3363	375	391

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3725	3762
TOTAL EXHAUST	3375	3754
NET AIRFLOW	350	8

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	0.0027
SIDE	0.0003
REAR	0.0018
AVERAGE	0.0016

FINAL CHECKS

- ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✔

- MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✔

- PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✔

NOTES:

SYSTEM/UNIT: Project Checklist

Tested By: Clayton Nelson

Date: 1/24/2023

Inspection Data - Project Checklist

	Verification	Response	Notes	By	Date/Time
1	All diffusers and grilles are installed and match design?	Yes		CN	1/24/23 14:56
2	Deflector plates are removed from 1x1 diffusers on the serve line (double check that this is specified on the diffuser schedule first)	NA		CN	1/24/23 14:56
3	All hood filters installed and accounted for?	Yes		CN	1/24/23 14:56
4	Hoods are wired and have power?	Yes		CN	1/24/23 14:56
5	Hood is free of alarms?	Yes		CN	1/24/23 14:56
6	Thermostats have power?	Yes		CN	1/24/23 14:56
7	Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	Yes		CN	1/24/23 14:56

General - Project Checklist

	Verification	Response	Notes	By	Date/Time
1	Is space free of drafting?	Yes		CN	1/24/23 14:56
2	Is space comfortable in all areas?	Yes		CN	1/24/23 14:56
3	Is the space free of ventilation noise?	Yes		CN	1/24/23 14:56
4	If deviations from design were necessary to resolve 103 what were they? Otherwise put "NA"	Yes		CN	1/24/23 14:56

SYSTEM/UNIT: RTU-01

Tested By: Clayton Nelson
Date: 1/25/2023



Design Airflow (CFM)	
Design Total	6150
Design Grille Total	6150
Design Return	4275
Design Min O/A	1875

Unit Design Data	
Submittal Make	Lennox
Submittal Model #	LGH156H4B
Submittal Airflow	6150
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Listed
Filter MERV Rating (Sched/Sub)	13

Design Static Pressures (in wg)	
Design Ext SP	Not Listed
Submittal Total SP	-
Submittal Clg Coil Δ SP	-

Filter Data	
Condition	Partially Loaded
Filter Type	Pleated
MERV Rating	8
Filter Size Set 1 (in)	24x24x2
# Filters Set 1	6
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	InterLink
Motor Frame	56HZ
Motor HP	3.00
Motor RPM	1750
Motor Volts	230
Motor Phase	3

Final Airflow (CFM)	
Actual Total CFM	6537
Actual Grille Total CFM	6537
Actual Return Air CFM	4648
Actual Min O/A CFM	1889
Fan CFM Test Method	Supply Outlet Total
OA Method/Instrument	Face Velocity/RVA
OA Ak (sq ft)	5.366
OA Damper Position	54% Open
RA Damper Position	46% Open

Unit Data	
Make (tag)	Lennox
Model # (tag)	LGH156H4BS5Y
Serial # (tag)	5622D03358
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	24.0
Clg Coil Vel (FPM)	272
Fan Service	Supply
Fan Type	Centrifugal (FC)
Fan Discharge	Downblast
Fan Arrangement	DWDI

Fan Design Data	
Submittal Motor RPM	Not Listed
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	714
Actual Motor RPM	1743

Electrical Data	
Measurement Method	V/A Meter
Motor Volts 1	206
Motor Volts 2	204

SYSTEM/UNIT: RTU-01

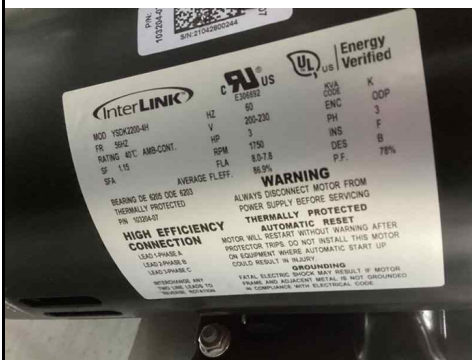
Tested By: Clayton Nelson
Date: 1/25/2023

Motor Nameplate Data	
Motor Amps	7.8
Motor S.F.	1.15
Motor % PF	78
Motor % Eff.	86.9
Other Motor Data	-

Electrical Data	
Motor Volts 3	210
Motor Amps 1	4.9
Motor Amps 2	5.9
Motor Amps 3	6.6
Operating HZ	60.00
Approx. BHP	1.7
Corr. Nameplate Amps	8.7
Starter Data	Not Applicable
VFD Reference	Not Applicable

Drive Data	
Drive Type	Belt Drive
Sheave Type	Variable
Fan Sheave Make	TBW
Fan Shv Mod# or Size (in)	B72
Fan Sheave Bore (in)	1 3/16
Motor Sheave Make	TBW
Mtr Shv Mod# or Size (in)	MLV40
Motor Sheave Bore (in)	7/8
VP Range	Full Open
Center Distance (in)	21.0
No of Belts	1
Belt Make	Gates
Belt Size	BX55
Other Data	-

Motor Make Photo:

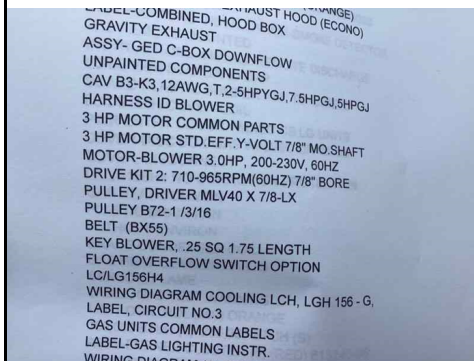


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Caption:

SYSTEM/UNIT: RTU-01

Tested By: Clayton Nelson
Date: 1/25/2023

Drive Type Photo:



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Caption:

Make (tag) Photo:



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Caption:

SYSTEM/UNIT: RTU-01

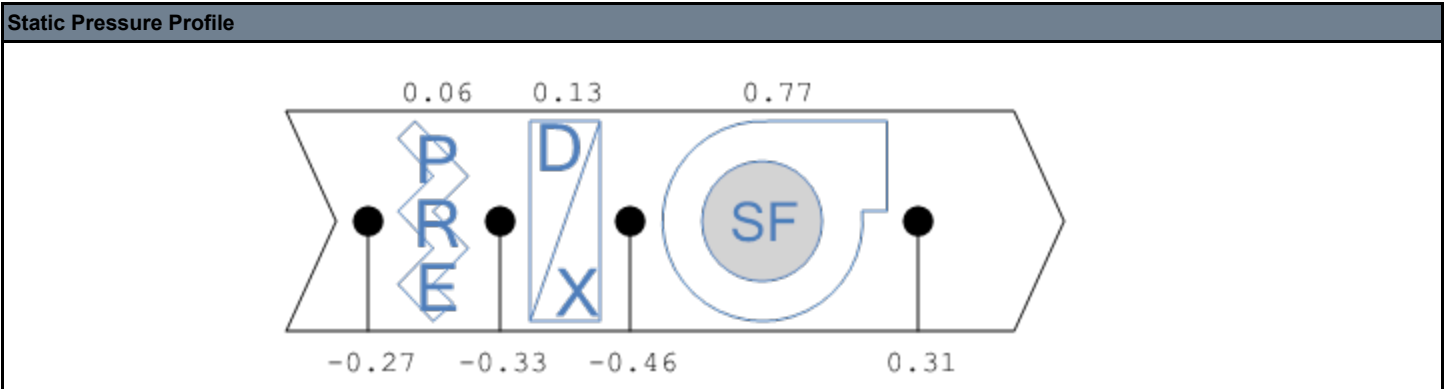
Tested By: Clayton Nelson
Date: 1/25/2023

Inspection Data - RTU-01

Verification	Response	Notes	By	Date/Time
1 IS ECONOMIZER BLANK PLATE INSTALLED BELOW THE OUTDOOR AIR FILTERS? (IF NO, REMOVE THE PIECE FROM UNDERNEATH THE COIL FILTER BANK AND INSTALL) Trane only (N/A = not applicable)	Yes		CN	1/25/23 13:31
2 Economizers are assembled and functional?	Yes		CN	1/25/23 13:31
3 DCV Max damper opening position is set to minimum?	Yes		CN	1/25/23 13:31
4 Free cooling enthalpy set point set for lowest setting (Typically "D")	Yes		CN	1/25/23 13:31
5 Is the motor operating below the motor FLA rating?	Yes		CN	1/25/23 13:31
6 Belts are Tight?	Yes		CN	1/25/23 13:31
7 If direct drive unit is the speed controller working.	NA		CN	1/25/23 13:31
8 Gas piping is installed and valves are in on position?	Yes		CN	1/25/23 13:31
9 Unit free of noticeable noise and vibration?	Yes		CN	1/25/23 13:31

SYSTEM/UNIT: RTU-01/Static Profile

Tested By: Clayton Nelson
Date: 1/25/2023



RTU-01 Supply Outlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	117 OFFICE	CD	10	200	507	220	110	Capture Hood	1.000	1.000	220
S-02	104 DRIVE THUR	CD	12	500	547	536	107	Capture Hood	1.000	1.000	536
S-03	103 ENTRY	CD	8	150	206	160	107	Capture Hood	1.000	1.000	160
S-04	102 DRINKS	CD	10	300	431	329	110	Capture Hood	1.000	1.000	329
S-05	105 CUST ORDER	CD	12	450	521	458	102	Capture Hood	1.000	1.000	458
S-06	110 CUST SERVICE	CD	10	350	431	383	109	Capture Hood	1.000	1.000	383
S-07	110 CUST SERVICE	CD	10	350	230	377	108	Capture Hood	1.000	1.000	377
S-08	110 CUST SERVICE	CD	12	350	531	379	108	Capture Hood	1.000	1.000	379
S-09	110 CUST SERVICE	CD	10	350	504	380	109	Capture Hood	1.000	1.000	380
S-10	109 HALL	CD	12	450	450	473	105	Capture Hood	1.000	1.000	473
S-11	107 MEN	CD	8	150	299	162	108	Capture Hood	1.000	1.000	162
S-12*	108 WOMEN	CD	8	150	53	163	109	Capture Hood	1.000	1.000	163
S-13	106 ENTRY	CD	8	150	305	160	107	Capture Hood	1.000	1.000	160
S-14	101 DINING	CD	8	150	241	154	103	Capture Hood	1.000	1.000	154
S-15	101 DINING	CD	8	150	250	153	102	Capture Hood	1.000	1.000	153
S-16	101 DINING	CD	8	150	166	160	107	Capture Hood	1.000	1.000	160
S-17	101 DINING	CD	8	150	210	156	104	Capture Hood	1.000	1.000	156
S-18	101 DINING	CD	8	150	271	159	106	Capture Hood	1.000	1.000	159
S-19	101 DINING	CD	8	150	164	153	102	Capture Hood	1.000	1.000	153
S-20	101 DINING	CD	8	150	175	160	107	Capture Hood	1.000	1.000	160
S-21	101 DINING	CD	8	150	167	157	105	Capture Hood	1.000	1.000	157
S-22	101 DINING	CD	8	150	180	160	107	Capture Hood	1.000	1.000	160
S-23	101 DINING	CD	8	150	193	156	104	Capture Hood	1.000	1.000	156
S-24	101 DINING	CD	8	150	0	156	104	Capture Hood	1.000	1.000	156
S-25	101 DINING	CD	8	150	204	161	107	Capture Hood	1.000	1.000	161
S-26	101 DINING	CD	8	150	246	156	104	Capture Hood	1.000	1.000	156
S-27	102 DRINKS	CD	8	150	229	161	107	Capture Hood	1.000	1.000	161
S-28	102 DRINKS	CD	8	150	154	155	103	Capture Hood	1.000	1.000	155
Totals:		-	-	6150	7865	6537	106	-	-	-	-

Log:	RTU-01/S-12	1/23/2023	Clayton Nelson	Incorrect grille type installed. Exhaust style grille installed on supply outlet.
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RTU-01 Return Inlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
R-01	101 DINING	CD	12/12	775	611	714	92	Capture Hood	1.000	1.000	714
R-02	101 DINING	CD	12/12	775	750	733	95	Capture Hood	1.000	1.000	733
R-03	101 DINING	CD	12/12	775	711	735	95	Capture Hood	1.000	1.000	735
R-04	101 DINING	CD	12/12	775	713	736	95	Capture Hood	1.000	1.000	736
R-05	101 DINING	CD	12/12	775	722	762	98	Capture Hood	1.000	1.000	762
R-06	101 DINING	CD	12/12	775	741	733	95	Capture Hood	1.000	1.000	733
R-07	101 DINING	CD	12/12	775	694	758	98	Capture Hood	1.000	1.000	758
R-08		CD	12/12	725	781	720	99	Capture Hood	1.000	1.000	720
Totals:		-	-	6150	5723	5891	96	-	-	-	-

SYSTEM/UNIT: RTU-02

Tested By: Clayton Nelson
Date: 1/25/2023



Design Airflow (CFM)		Final Airflow (CFM)	
Design Total	6150	Actual Total CFM	6010
Design Grille Total	6150	Actual Grille Total CFM	6010
Design Return	4300	Actual Return Air CFM	4137
Design Min O/A	1850	Actual Min O/A CFM	1873
Unit Design Data		Unit Data	
Submittal Make	Lennox	Make (tag)	Lennox
Submittal Model #	LGH156H4B	Model # (tag)	LGH156H4BM5Y
Submittal Airflow	6150	Serial # (tag)	5622D03353
Sched./Sub. Volts	208	Location	Roof
Sched./Sub. Phase	3	Unit Discharge	Downblast
Sched./Sub. HP	Not Listed	Cooling Coil Location	Unit / Drawthru
Submittal BHP	Not Listed	Coil Area (sq ft)	24.0
Filter MERV Rating (Sched/Sub)	13	Clg Coil Vel (FPM)	250
Design Static Pressures (in wg)		Fan Design Data	
Design Ext SP	Not Listed	Submittal Motor RPM	Not Listed
Submittal Total SP	-	Submittal Fan RPM	-
Submittal Clg Coil Δ SP	-	Fan Data	
Filter Data		Electrical Data	
Condition	Partially Loaded	Measurement Method	V/A Meter
Filter Type	Pleated	Motor Volts 1	205
MERV Rating	-	Motor Volts 2	206
Filter Size Set 1 (in)	24x24x2		
# Filters Set 1	6		
Filter Size Set 2 (in)	-		
# Filters Set 2	-		
Motor Nameplate Data			
Motor Make	Interlink		
Motor Frame	56HZ		
Motor HP	3.00		
Motor RPM	1750		
Motor Volts	230		
Motor Phase	3		

SYSTEM/UNIT: RTU-02

Tested By: Clayton Nelson
Date: 1/25/2023

Motor Nameplate Data	
Motor Amps	7.8
Motor S.F.	1.15
Motor % PF	78
Motor % Eff.	86.9
Other Motor Data	-

Electrical Data	
Motor Volts 3	210
Motor Amps 1	5.0
Motor Amps 2	5.4
Motor Amps 3	6.3
Operating HZ	60.00
Approx. BHP	1.7
Corr. Nameplate Amps	8.8
Starter Data	Not Applicable
VFD Reference	Not Applicable

Drive Data	
Drive Type	Belt Drive
Sheave Type	Variable
Fan Sheave Make	TBW
Fan Shv Mod# or Size (in)	B72
Fan Sheave Bore (in)	1 3/16
Motor Sheave Make	TBW
Mtr Shv Mod# or Size (in)	MLV40
Motor Sheave Bore (in)	7/8
VP Range	Full Open
Center Distance (in)	21.0
No of Belts	1
Belt Make	Gates
Belt Size	BX55
Other Data	-

Motor Make Photo:

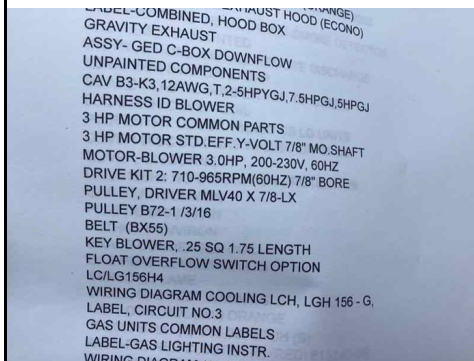


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Caption:

SYSTEM/UNIT: RTU-02

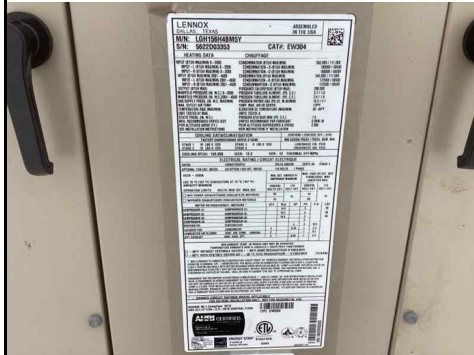
Tested By: Clayton Nelson
Date: 1/25/2023

Drive Type Photo:



Name: Drive Type.jpg
Captured: 1/25/2023 1:38 PM
Caption:

Make (tag) Photo:



Name: Make (tag).jpg
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Caption:

SYSTEM/UNIT: RTU-02

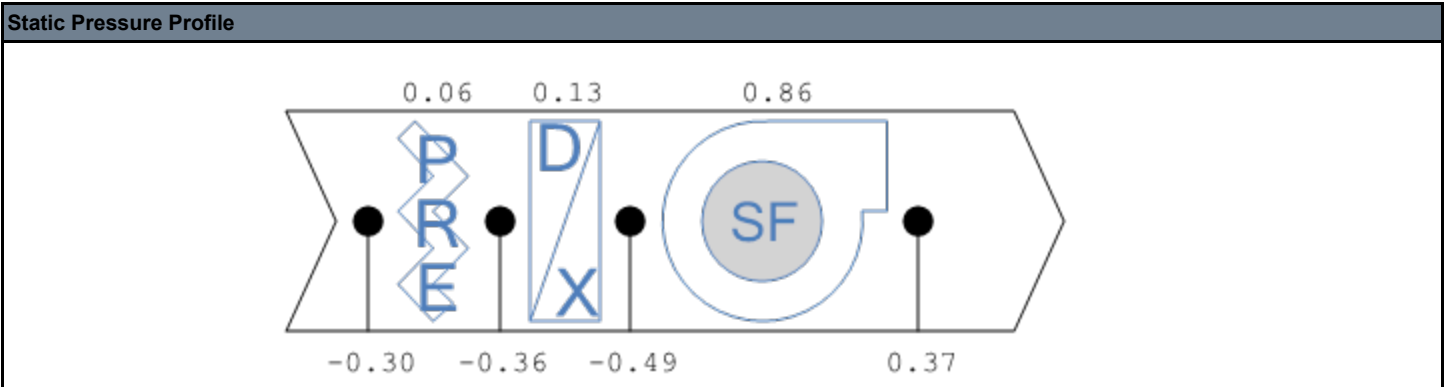
Tested By: Clayton Nelson
Date: 1/25/2023

Inspection Data - RTU-02

Verification	Response	Notes	By	Date/Time
1 IS ECONOMIZER BLANK PLATE INSTALLED BELOW THE OUTDOOR AIR FILTERS? (IF NO, REMOVE THE PIECE FROM UNDERNEATH THE COIL FILTER BANK AND INSTALL) Trane only (N/A = not applicable)	Yes		CN	1/25/23 13:38
2 Economizers are assembled and functional?	Yes		CN	1/25/23 13:38
3 DCV Max damper opening position is set to minimum?	Yes		CN	1/25/23 13:38
4 Free cooling enthalpy set point set for lowest setting (Typically "D")	Yes		CN	1/25/23 13:38
5 Is the motor operating below the motor FLA rating?	Yes		CN	1/25/23 13:38
6 Belts are Tight?	Yes		CN	1/25/23 13:38
7 If direct drive unit is the speed controller working.	NA		CN	1/25/23 13:38
8 Gas piping is installed and valves are in on position?	Yes		CN	1/25/23 13:38
9 Unit free of noticeable noise and vibration?	Yes		CN	1/25/23 13:38

SYSTEM/UNIT: RTU-02/Static Profile

Tested By: Clayton Nelson
Date: 1/25/2023



RTU-02 Supply Outlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	115 DRY GOODS	CD	12	600	706	581	97	Capture Hood	1.000	1.000	581
S-02	112 KITCHEN	CD	6	75	299	77	103	Capture Hood	1.000	1.000	77
S-03	112 KITCHEN	CD	8	125	277	130	104	Capture Hood	1.000	1.000	130
S-04	112 KITCHEN	CD	10	275	443	282	103	Capture Hood	1.000	1.000	282
S-05	112 KITCHEN	CD	10	250	25	260	104	Capture Hood	1.000	1.000	260
S-06	112 KITCHEN	CD	12	350	710	366	105	Capture Hood	1.000	1.000	366
S-07	112 KITCHEN	CD	12	400	670	385	96	Capture Hood	1.000	1.000	385
S-08	112 KITCHEN	CD	12	400	416	399	100	Capture Hood	1.000	1.000	399
S-09	112 KITCHEN	CD	12	350	392	366	105	Capture Hood	1.000	1.000	366
S-10	112 KITCHEN	CD	12	350	469	345	99	Capture Hood	1.000	1.000	345
S-11	112 KITCHEN	CD	12	375	520	376	100	Capture Hood	1.000	1.000	376
S-12	112 KITCHEN	CD	10	200	403	208	104	Capture Hood	1.000	1.000	208
S-13	104 DRIVE THUR	CD	12	600	629	571	95	Capture Hood	1.000	1.000	571
S-14	104 DRIVE THUR	CD	12	600	560	573	96	Capture Hood	1.000	1.000	573
S-15	115 DRY GOODS	CD	12	600	575	544	91	Capture Hood	1.000	1.000	544
S-16	116 UTILITY ROOM	CD	12	600	526	547	91	Capture Hood	1.000	1.000	547
Totals:		-	-	6150	7620	6010	98	-	-	-	-

RTU-02 Return Inlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
R-01*	115 DRY GOODS	CD	16	1230	921	810	66	Capture Hood	1.000	1.000	810
R-02	115 DRY GOODS	CD	16	1230	609	799	65	Capture Hood	1.000	1.000	799
R-03	115 DRY GOODS	CD	16	1230	726	800	65	Capture Hood	1.000	1.000	800
R-04	114 Prep Area	CD	14	615	647	461	75	Capture Hood	1.000	1.000	461
R-05	114 Prep Area	CD	14	615	604	456	74	Capture Hood	1.000	1.000	456
R-08*		CD	16	1230	765	862	70	Capture Hood	1.000	1.000	862
Totals:		-	-	6150	4272	4188	68	-	-	-	-

Log:	RTU-02/R-01	Inlet design did not account for outside air. Inlets proportioned with the available airflow.									
	RTU-02/R-08	1/24/2023	Clayton Nelson	Return inlets R-06 and R-07 were combined in a single 2x4' inlet and provided with one damper.							

SYSTEM/UNIT: EF-01A

Tested By: Clayton Nelson
Date: 1/25/2023



Design Airflow (CFM)		Final Airflow (CFM)	
Design Airflow	75	Actual Airflow	73
Design Grille Airflow	Not Applicable	Actual Grille Airflow	73
Unit Design Data		Unit Data	
Submittal Make	Accurex	Make (tag)	ACCUREX
Submittal Model #	XCR-B80	Model # (tag)	XCR-880
Submittal Airflow	75	Serial # (tag)	20774820
Sched./Sub. Volts	115	Unit Location	Ceiling
Sched./Sub. Phase	1	Unit Discharge	Horizontal
Sched./Sub. HP	0.1	Fan Service	Exhaust
Submittal BHP	Not Listed	Fan Type	Centrifugal (BI)
Design Static Pressures (in wg)		Fan Design Data	
Design External SP	0.125	Submittal Motor RPM	Not Listed
Submittal Total SP	Not Listed	Submittal Fan RPM	885
Motor Nameplate Data		Fan Data	
Motor Make (tag)	Greenheck	Actual Fan RPM/Speed	Single Speed
Motor Frame (tag)	Not Listed	Actual Motor RPM	Not Accessible
Motor HP (tag)	-	Speed Cont. Position	50%
Motor RPM (tag)	900	Electrical Data	
Motor Volts (tag)	115	Measurement Method	V/A Meter
Motor Phase (tag)	1	Motor Volts 1	Not Accessible
Motor Amps (tag)	0.16	Motor Volts 2	-
Motor S.F. (tag)	Not Listed	Motor Volts 3	-
Mtr % PF (tag)	-	Motor Amps 1	0.1
Mtr % Eff. (tag)	-	Motor Amps 2	-
Other Motor Data	-	Motor Amps 3	-
Drive Data		Operating HZ	60.0
Drive Type	Direct Drive	Starter Data	Not Applicable
Sheave Type	-	Approx. BHP	
Fan Sheave Make	-		
Fan Shv Mod# or Size (in)	-		
Fan Sheave Bore (in.)	-		
Motor Sheave Make	-		

SYSTEM/UNIT: EF-01A

Tested By: Clayton Nelson
Date: 1/25/2023

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

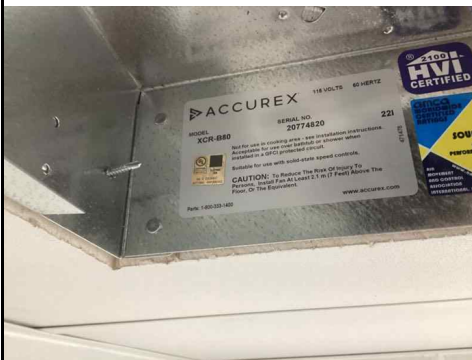
Electrical Data
Corr. Nameplate Amps

Motor Make (tag) Photo:



Name: Motor Make (tag).jpg
Captured: 1/23/2023 5:41 PM
Caption:

Make (tag) Photo:



Name: Make (tag).jpg
Captured: 1/23/2023 5:41 PM
Caption:

SYSTEM/UNIT: EF-01A

Tested By: Clayton Nelson
Date: 1/25/2023

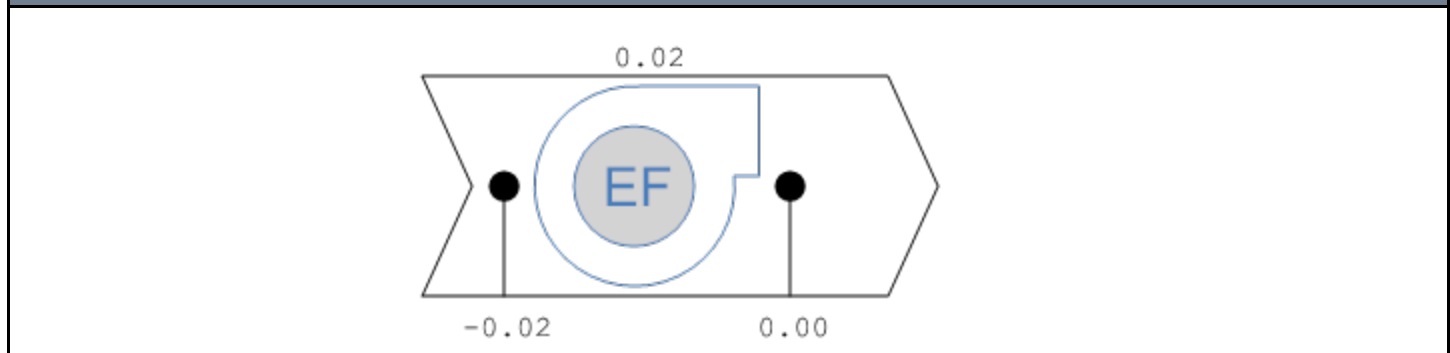
Inspection Data - EF-01A

Verification	Response	Notes	By	Date/Time
1	Fan Rotation is Correct?	Yes	CN	1/23/23 17:54
2	Belts are Tight?	NA	CN	1/23/23 17:54
3	Internal motorized damper is fully opening?	NA	CN	1/23/23 17:54
4	Motor is operating below the FLA rating?	Yes	CN	1/23/23 17:54
5	Unit free of noticeable noise and vibration?	Yes	CN	1/23/23 17:54
6	There is no major leakage around base of fan?	Yes	CN	1/23/23 17:54
7	Is the motor operating below the motor FLA rating?	Yes	CN	1/23/23 17:54
8	Back draft damper installed and can it fully open?	NA	CN	1/23/23 17:54

SYSTEM/UNIT: EF-01A/Static Profile

Tested By: Clayton Nelson
Date: 1/25/2023

Static Pressure Profile



SYSTEM/UNIT: PRV-01

Tested By: Clayton Nelson
Date: 1/25/2023



Design Airflow (CFM)		Final Airflow (CFM)	
Design Airflow	300	Actual Airflow	318
Design Grille Airflow	300	Actual Grille Airflow	318
Unit Design Data		Unit Data	
Submittal Make	Accurex	Make (tag)	ACCUREX
Submittal Model #	XRED-090-VG	Model # (tag)	XRED-096-V6-1-17-X
Submittal Airflow	375	Serial # (tag)	20777002
Sched./Sub. Volts	115	Unit Location	Roof
Sched./Sub. Phase	1	Unit Discharge	Upblast
Sched./Sub. HP	0.06	Fan Service	Exhaust
Submittal BHP	Not Listed	Fan Type	Centrifugal (BI)
Design Static Pressures (in wg)		Fan Design Data	
Design External SP	.5	Submittal Motor RPM	Not Listed
Submittal Total SP	Not Listed	Submittal Fan RPM	1465
Motor Nameplate Data		Fan Data	
Motor Make (tag)	Greenheck	Actual Fan RPM/Speed	High
Motor Frame (tag)	Not Listed	Actual Motor RPM	Not Accessible
Motor HP (tag)	1/6	Speed Cont. Position	45%
Motor RPM (tag)	300-1750	Electrical Data	
Motor Volts (tag)	115	Measurement Method	V/A Meter
Motor Phase (tag)	1	Motor Volts 1	Not Accessible
Motor Amps (tag)	2.2	Motor Volts 2	-
Motor S.F. (tag)	Not Listed	Motor Volts 3	-
Mtr % PF (tag)	-	Motor Amps 1	-
Mtr % Eff. (tag)	-	Motor Amps 2	-
Other Motor Data	-	Motor Amps 3	-
Drive Data		Operating HZ	60.0
Drive Type	Direct Drive	Starter Data	Not Applicable
Sheave Type	-	Approx. BHP	-
Fan Sheave Make	-		
Fan Shv Mod# or Size (in)	-		
Fan Sheave Bore (in.)	-		
Motor Sheave Make	-		

SYSTEM/UNIT: PRV-01

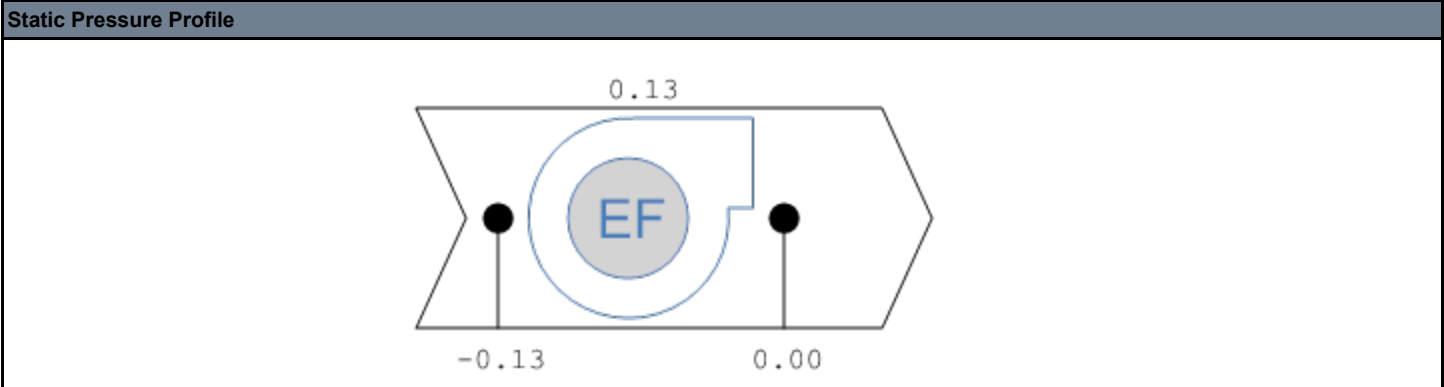
Tested By: Clayton Nelson
Date: 1/25/2023

Inspection Data - PRV-01

Verification	Response	Notes	By	Date/Time
1	Fan Rotation is Correct?	Yes	CN	1/25/23 13:41
2	Belts are Tight?	Yes	CN	1/25/23 13:41
3	Internal motorized damper is fully opening?	Yes	CN	1/25/23 13:41
4	Motor is operating below the FLA rating?	Yes	CN	1/25/23 13:41
5	Unit free of noticeable noise and vibration?	No	CN	1/25/23 13:41
6	There is no major leakage around base of fan?	Yes	CN	1/25/23 13:42
7	Is the motor operating below the motor FLA rating?	Yes	CN	1/25/23 13:42
8	Back draft damper installed and can it fully open?	Yes	CN	1/25/23 13:42

SYSTEM/UNIT: PRV-01/Static Profile

Tested By: Clayton Nelson
Date: 1/25/2023



PRV-01 Exhaust Inlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
E-01	108 WOMEN	CD	8/8	150	350	161	107	Capture Hood	1.000	1.000	161
E-02	107 MEN	CD	8/8	150	242	157	105	Capture Hood	1.000	1.000	157
Totals:		-	-	300	592	318	106	-	-	-	-

SYSTEM/UNIT: PRV-02

Tested By: Clayton Nelson
Date: 1/26/2023



Design Airflow (CFM)		Final Airflow (CFM)	
Design Airflow	1500	Actual Airflow	1734
Design Grille Airflow	Not Applicable	Actual Grille Airflow	Not Applicable
Unit Design Data		Fan CFM Test Method	
Submittal Make	Accurex	Inlet Total	
Submittal Model #	XRUB-140-7	Test Method Ak (sq ft)	
Submittal Airflow	1500	Not Applicable	
Sched./Sub. Volts	208	Unit Data	
Sched./Sub. Phase	3	Make (tag)	ACCUREX
Sched./Sub. HP	0.75	Model # (tag)	XCUBE-240XP-15-1-32-0
Submittal BHP	0.5	Serial # (tag)	24076772
Design Static Pressures (in wg)		Unit Location	Roof
Design External SP	1	Unit Discharge	Upblast
Submittal Total SP	1	Fan Service	Exhaust
Motor Nameplate Data		Fan Type	Centrifugal (BI)
Motor Make (tag)	WEG	Fan Discharge	Upblast
Motor Frame (tag)	56H	Fan Arrangement	SWSI
Motor HP (tag)	1.5	Fan Design Data	
Motor RPM (tag)	1760	Submittal Motor RPM	Not Listed
Motor Volts (tag)	230	Submittal Fan RPM	1377
Motor Phase (tag)	3	Fan Data	
Motor Amps (tag)	4.2	Actual Fan RPM/Speed	1366
Motor S.F. (tag)	1.15	Actual Motor RPM	1776
Mtr % PF (tag)	76	Speed Cont. Position	Not Applicable
Mtr % Eff. (tag)	86.5	Electrical Data	
Other Motor Data	-	Measurement Method	V/A Meter
Drive Data		Motor Volts 1	205
Drive Type	Belt Drive	Motor Volts 2	210
Sheave Type	Variable	Motor Volts 3	203
Fan Sheave Make	TBW	Motor Amps 1	2.7
Fan Shv Mod# or Size (in)	AK34	Motor Amps 2	3.0
Fan Sheave Bore (in.)	1 1/4	Motor Amps 3	3.5
Motor Sheave Make	TBW	Operating HZ	60.0
		Starter Data	Not Applicable
		Approx. BHP	0.86

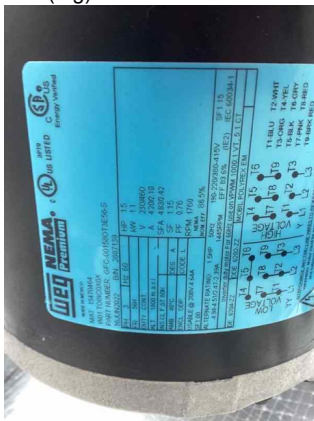
SYSTEM/UNIT: PRV-02

Tested By: Clayton Nelson
Date: 1/26/2023

Drive Data	
Mtr Shv Mod# or Size (in)	VP40
Motor Sheave Bore (in.)	5/8
VP Range	Full Open
Center Distance (in.)	7
No of Belts	1
Belt Make	Timken
Belt Size	1722
Other Data	Tension Pulley

Electrical Data	
Corr. Nameplate Amps	4.7

Motor Make (tag) Photo:



Name: Motor Make (tag).jpg
Captured: 1/23/2023 5:26 PM
Caption:

Make (tag) Photo:



Name: Make (tag).jpg
Captured: 1/23/2023 5:25 PM
Caption:

SYSTEM/UNIT: PRV-02

Tested By: Clayton Nelson
Date: 1/26/2023

Inspection Data - PRV-02

Verification	Response	Notes	By	Date/Time
1	Fan Rotation is Correct?	Yes	CN	1/25/23 13:46
2	Belts are Tight?	Yes	CN	1/25/23 13:46
3	Internal motorized damper is fully opening?	Yes	CN	1/25/23 13:46
4	Motor is operating below the FLA rating?	Yes	CN	1/25/23 13:46
5	Unit free of noticeable noise and vibration?	Yes	CN	1/25/23 13:46
6	There is no major leakage around base of fan?	Yes	CN	1/25/23 13:46
7	Is the motor operating below the motor FLA rating?	Yes	CN	1/25/23 13:46

HVAC Units / Fans - PRV-02

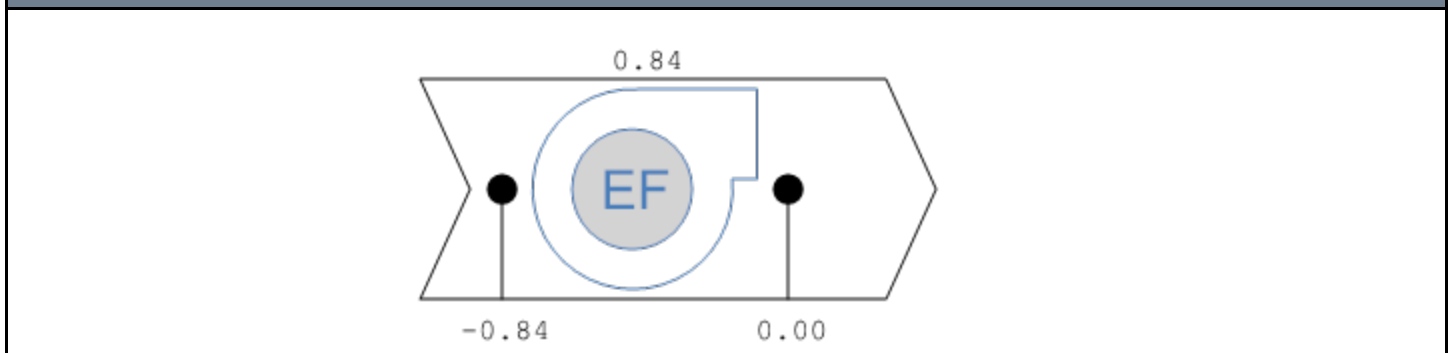
Verification	Response	Notes	By	Date/Time
1	Grease cup is installed on hood fan?	Yes	CN	1/25/23 13:46
2	Hinge kit installed on hood fan.	Yes	CN	1/25/23 13:46
3	Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	Yes	CN	1/25/23 13:46
4	Flex conduit is long enough so that fan can be completely tilted back?	Yes	CN	1/25/23 13:46

Log: PRV-02 1/25/2023 Clayton Nelson Schedule shows fan model to be 140. Installed fan is a 240 and is over performing at 116% of design CFM with sheave fully opened.

SYSTEM/UNIT: PRV-02/Static Profile

Tested By: Clayton Nelson
Date: 1/25/2023

Static Pressure Profile



SYSTEM/UNIT: PRV-02/Hood-01

Tested By: Clayton Nelson
Date: 1/25/2023



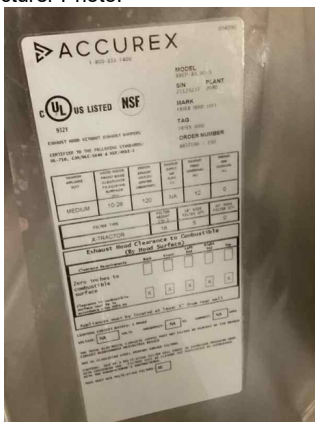
Design Airflow (CFM)	
Design Exhaust CFM	1500

Final Airflow (CFM)	
Actual Exhaust CFM	1734

Test Section	
Smoke Generation Type	Smoke Emitter
Cooking Equip Heat On	No
Hood Capture %	100
End Panels Installed (Y/N)	N/A

Kitchen Hood Information	
Service	Fryer
Manufacturer	ACCUREX
Model Number	EGEP-64.00-S
Serial Number	21129238
Test Method	Filters

Manufacturer Photo:



Name: Manufacturer.jpg
Captured: 1/24/2023 2:26 PM
Caption:

SYSTEM/UNIT: PRV-03

Tested By: Clayton Nelson
Date: 1/26/2023



Design Airflow (CFM)		Final Airflow (CFM)	
Design Airflow	1500	Actual Airflow	1629
Design Grille Airflow	Not Applicable	Actual Grille Airflow	Not Applicable
Unit Design Data		Fan CFM Test Method	
Submittal Make	Accurex	Inlet Total	
Submittal Model #	XRUB-140-7	Test Method Ak (sq ft)	
Submittal Airflow	1500	See Kitchen Hood Sheets	
Sched./Sub. Volts	208	Unit Data	
Sched./Sub. Phase	3	Make (tag)	ACCUREX
Sched./Sub. HP	0.75	Model # (tag)	XCUBE-140-7-1-26-6
Submittal BHP	0.5	Serial # (tag)	21076784
Design Static Pressures (in wg)		Unit Location	Roof
Design External SP	1.00	Unit Discharge	Upblast
Submittal Total SP	1.00	Fan Service	Exhaust
Motor Nameplate Data		Fan Type	Centrifugal (BI)
Motor Make (tag)	WEG	Fan Discharge	Upblast
Motor Frame (tag)	56	Fan Arrangement	SWSI
Motor HP (tag)	0.75	Fan Design Data	
Motor RPM (tag)	1760	Submittal Motor RPM	Not Listed
Motor Volts (tag)	230	Submittal Fan RPM	1377
Motor Phase (tag)	3	Fan Data	
Motor Amps (tag)	2.88	Actual Fan RPM/Speed	1045
Motor S.F. (tag)	1.25	Actual Motor RPM	1780
Mtr % PF (tag)	74	Speed Cont. Position	Not Applicable
Mtr % Eff. (tag)	81.1	Electrical Data	
Other Motor Data	-	Measurement Method	V/A Meter
Drive Data		Motor Volts 1	205
Drive Type	Belt Drive	Motor Volts 2	202
Sheave Type	Variable	Motor Volts 3	210
Fan Sheave Make	TBW	Motor Amps 1	1.0
Fan Shv Mod# or Size (in)	AK39	Motor Amps 2	1.2
Fan Sheave Bore (in.)	3/4	Motor Amps 3	1.1
Motor Sheave Make	TBW	Operating HZ	60.0
		Starter Data	Not Applicable
		Approx. BHP	0.23

SYSTEM/UNIT: PRV-03

Tested By: Clayton Nelson
Date: 1/26/2023

Drive Data	
Mtr Shv Mod# or Size (in)	VP34S
Motor Sheave Bore (in.)	5/8
VP Range	Full Open
Center Distance (in.)	5.5
No of Belts	1
Belt Make	Carlisle
Belt Size	AP23
Other Data	Tension Pulley

Electrical Data	
Corr. Nameplate Amps	3.2

Motor Make (tag) Photo:



Name: Motor Make (tag).jpg
Captured: 1/23/2023 5:22 PM
Caption:

Make (tag) Photo:



Name: Make (tag).jpg
Captured: 1/23/2023 5:21 PM
Caption:

SYSTEM/UNIT: PRV-03

Tested By: Clayton Nelson
Date: 1/26/2023

Inspection Data - PRV-03

Verification	Response	Notes	By	Date/Time
1	Fan Rotation is Correct?	Yes	CN	1/25/23 13:48
2	Belts are Tight?	Yes	CN	1/25/23 13:48
3	Internal motorized damper is fully opening?	Yes	CN	1/25/23 13:48
4	Motor is operating below the FLA rating?	Yes	CN	1/25/23 13:48
5	Unit free of noticeable noise and vibration?	Yes	CN	1/25/23 13:48
6	There is no major leakage around base of fan?	Yes	CN	1/25/23 13:48
7	Is the motor operating below the motor FLA rating?	Yes	CN	1/25/23 13:48

HVAC Units / Fans - PRV-03

Verification	Response	Notes	By	Date/Time
1	Grease cup is installed on hood fan?	Yes	CN	1/25/23 13:48
2	Hinge kit installed on hood fan.	Yes	CN	1/25/23 13:48
3	Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	Yes	CN	1/25/23 13:48
4	Flex conduit is long enough so that fan can be completely tilted back?	Yes	CN	1/25/23 13:48

SYSTEM/UNIT: PRV-03/Static Profile

Tested By: Clayton Nelson
Date: 1/25/2023

Static Pressure Profile

