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Report: TAB report
Function: Test, Adjust, & Balance
Date: 05/08/2025
Completed By: National TAB

PROJECT
Vega Expansion (Mason, OH)

3877 Mason Research Pkwy

Mason, OH 45036

Client

Feldkamp Enterprises
3642 Muddy Creek Rd
Cincinnati, OH 45238

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Project: Vega Expansion (Mason, OH)

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CERTIFICATION



PROJECT: Vega Expansion (Mason, OH)

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.

The air distribution system has been tested and balanced and final adjustments have been made in accordance with NEBB standards and the project specifications.

NEBB TAB FIRM: National TAB

REGISTRATION NO: 3629

CERTIFIED BY: Joe Hertenstein

DATE: 5/9/2025

The hydronic distribution system has been tested and balanced and final adjustments have been made in accordance with NEBB standards and the project specifications.

NEBB TAB FIRM: National TAB

REGISTRATION NO: 3629


CERTIFIED BY: Joe Hertenstein

DATE: 5/9/2025

Submitted and Certified by:

NEBB TAB FIRM: National TAB

TAB PROFESSIONAL: Joe Hertenstein

SIGNATURE: 

REGISTRATION NO: 3629

CERTIFICATION EXP: 12/31/2025





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Testing, Adjusting, and Balancing Equipment

INTELLIGENCE

Function		Range	Minimum Accuracy	Instrument Information	Calibration Date	Date Due
AIR	AIR PRESSURE	0 in wg to 10 in wg	2% +/- 0.001 in wg	Evergreen S-PVF-1 S/N 2200484C	3/24/2025	3/24/2027
	AIR VELOCITY INSTRUMENT	50 fpm to 3900 fpm	+/- 5 % +/- 7 fpm	Evergreen S-PVF-1 S/N 2200484C	3/24/2025	3/24/2027
	DIRECT HOOD READING	100 cfm to 2000 cfm	+/- 5 % +/- 7 cfm	Evergreen S-PVF-1 S/N 2200484C	3/24/2025	3/24/2027
TEMPERATURE	AIR METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	7/12/2024	7/12/2025
	AIR PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 5028	7/12/2024	7/12/2025
	IMMERSION METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	7/12/2024	7/12/2025
	IMMERSION PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 1075	7/12/2024	7/12/2025
	CONTACT METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	7/12/2024	7/12/2025
	CONTACT PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 4011	7/12/2024	7/12/2025
HUMIDITY	HUMIDITY PROBE	10 % RH to 90 % RH	3% of reading	Cooper ATKINS - SRH77A S/N 071118034	7/12/2024	7/12/2025
ELECTRICAL	VOLTAGE MEASUREMENT	0 VAC to 600 VAC	2 % reading +/- 5 digits	Fluke 373 True RMS, S/N: 33290686	7/12/2024	7/12/2025
	AMPERAGE MEASUREMENT	0 Amperes to 100 Amperes	2 % reading +/- 5 digits	Fluke 373 True RMS, S/N: 33290686	7/12/2024	7/12/2025
ROTATION	ROTATION MEASUREMENT	60 rpm to 5000 rpm	2 % reading 2 rpm	SHIMPO DT-207LR S/N: D1530081R	7/12/2024	7/12/2025
HYDRONIC	PRESSURE MEASUREMENT	-30 in Hg to 200 psi	±2% of reading +/- 1 psi	Alnor HM680 S/N: 70807241	5/11/2024	5/31/2025
	DIFFERENTIAL PRESSURE MEASUREMENT	0 psi - 80 psi	±2% of reading +/- 1 psi	Alnor HM680 S/N: 70807241	5/11/2024	5/31/2025

Abbreviation List

A = Area (ft ²)	S.F. = Service Factor
AHU = Air Handling Unit	SF = Supply Fan
A _k = Effective Area	SP = Static Pressure
BHP = Brake Horsepower (IP) HP	SR = Supply Register
Btu = British Thermal Unit	T = Temperature
Btu/h = Btuh = BTUH = BTU/Hour	T _{ma} = Mixed Air Temperature
CL = Center Distance (used in belt formula)	T _{oa} = Outside Air Temperature
CD = Ceiling Diffuser	T _{ra} = Return Air Temperature
CF = Correction Factor	H = Head (in wc, ft wc, psi)
CFM = Volumetric Flow: Cubic Feet Per Minute	h = Enthalpy
CO ₂ = Carbon Dioxide	HP = Horsepower
CO = Carbon Monoxide	hr = Hour
C _v = Flow Constant	K _v = Flow constant (SI)
d = Diameter (in.) IP	kW = Kilowatt = 1000 Watts
Δ = Difference or Change (Final - Initial)	LAT = Leaving Air Temperature
DB = Dry Bulb	lb = Pounds
EA = Exhaust Air	LWT = Leaving Water Temperature
EAT = Entering Air Temperature	ma = Mixed Air
EF = Exhaust Fan	MIN = Minimum
Eff = Efficiency	MAX = Maximum
EG = Exhaust Grille	N/A = Not Applicable
ESP = External Static Pressure	NA = No Access
EWT = Entering Water Temperature	NL = Not Listed
°F = Degrees Fahrenheit, °F	NPSHA = Net Positive Suction Head Available
FPB = Fan Powered Box	NS = Not Specified
FLA = Full Load Amps	OA = Outside Air
fpm = Feet per Minute (fpm)	OAT = Outside Air Temperature
ft = Foot	PD = Sheave Pitch Diameter
gal = Gallons	P.D. = Pressure Drop
GPM = Gallons Per Minute (GPM)	PF = Power Factor
h = Enthalpy (BTU/lb dry air)	SG = Supply Grille
P = Pressure	SR = Supply Register
ppm = parts per million	TP = Total Pressure
psi = Pounds Per Square Inch	T _{ra} = Return Air Temperature
psid = PSI Differential	TS = Tip Speed (fpm) IP, (m/s) SI
r = Radius (in)	TSP = Total Static Pressure
% _{ra} = % of Return Air	V = Velocity
RA = Return Air	VAV = Variable Air Volume
RAT = Return Air Temperature	VD = Volume Damper
RF = Return Fan	VFD = Variable Frequency Drive
RG = Return Grille	W = Watt
RH = Relative Humidity	WB = Wet Bulb
RPM = Revolutions Per Minute	wg = wc = water gauge = water column
RTU = Roof Top Unit	WHP = Water Horsepower (IP)
SA = Supply Air	ω = Humidity Ratio

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: AHU/RTU



Asset: RTU-15

AREA:ROOF (GEN MANUFACT)

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	S2L4981747
Model Num	NA	AD25T3CS4S1CKS47F3
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	32X18
Num Final Filter 1	-	9
Final Filter Size 1	-	16X25X4

Motor Data		
	Design	Actual
Motor MFG	-	MARTHON
Frame	-	213T
Horsepower	-	7.5
Motor Rpm	-	1766
Phase	3	3
Rated Voltage	460	230/460
Rated Amperage	-	19.8/9.9
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	6"
Motor Bore Size	1.5"
Motor Sheave SetPt	0 OIT
Fan Sheave Size	8.5"
Fan Sheave Bore	1.5"
Belt CL Distance	14"
Num of Belts	1
Belt Size	BX43

Test Data		
	Design	Actual
SF CFM	8040	7979
RA CFM	-	6082
OA CFM	1870	1897
RL Voltage	-	471/472/474
RL Amperage	-	10.4/9.9/10.1
SF Motor Freq(HZ)	-	52.9HZ
SF System SetPt	-	1.3"
Min OA Damper Position	-	13%
Brake Horse Power	6.4	5.4

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.49"
Fan Suction SP	-	-0.93"
Fan Discharge SP	-	1.20"
Total ESP	-	1.69"
Fan Total SP	-	2.13"

Completed By: Gabe Merk on 05/08/2025

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Project: Vega Expansion (Mason, OH)

AHU/RTU



VAV - Single Duct

RTU-15/ROOF (GEN MANUFACT)

Asset											
Asset Name	MFG	Model Num	Type	Inlet Size	Design Max CFM	Max CFM	Design Min CFM	Min CFM	Design Heat CFM	Heat CFM	Ak (max)
TAB-175	NA	NA	VAV	6	160	161	75	76	80	78	2.94
TAB-176	NA	NA	VAV	10	720	714	325	330	360	362	2.28
TAB-177	NA	NA	VAV	8	450	456	115	117	275	276	3.07
TAB-A174	NA	NA	VAV	10	700	730	120	123	350	357	1.88
TAB-B174	NA	NA	VAV	8	1040	1056	120	124	1040	1056	1.24
TAB-C174	NA	NA	VAV	8	520	519	170	169	260	253	2.30
TAB-C102	NA	NA	VAV	6	200	197	110	109	200	195	2.39
TAB-C109	NA	NA	VAV	6	275	277	50	51	275	277	2.24
TAB-C110	NA	NA	VAV	10	675	661	75	76	675	661	2.01
TAB-M171	NA	NA	VAV	10	1000	1027	335	330	500	515	2.20
TAB-M173	NA	NA	VAV	8	400	417	105	104	200	211	2.79
TAB-M183	NA	NA	VAV	12	1100	1105	365	373	550	553	2.00
TAB-MD174	NA	NA	VAV	10	800	808	220	223	400	413	2.22

Diffuser Supply (GRD)

TAB-175/ROOF (GEN MANUFACT)

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
TAB-175-SGRD1	175	SG	8	160	156	161	100.6
Total				160	156	161	100.63%

TAB-176/ROOF (GEN MANUFACT)

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
TAB-176-SGRD1	176	SD	10	360	76	384	106.7
TAB-176-SGRD2	176	SD	10	360	677	330	91.7
Total				720	753	714	99.17%

TAB-177/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
TAB-177-SGRD1	177	SR	8	200	178	205	102.5
TAB-177-SGRD2	177	SR	8	200	182	198	99.0
TAB-177-SGRD3	177	SD	6	50	83	53	106.0
Total				450	443	456	101.33%

TAB-A174/ROOF (GEN MANUFACT)

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
TAB-A174-SGRD1	174	SD	8	100	156	108	108.0
TAB-A174-SGRD2	174	SD	8	100	112	109	109.0
TAB-A174-SGRD3	174	SD	8	100	123	110	110.0
TAB-A174-SGRD4	174	SD	8	150	145	144	96.0
TAB-A174-SGRD5	174	SD	8	100	162	109	109.0
TAB-A174-SGRD6	174	SD	8	150	146	150	100.0
Total				700	844	730	104.29%

TAB-B174/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
TAB-B174-SGRD1	OPEN OFFICE	LD	6	65	101	64	98.5
TAB-B174-SGRD2	OPEN OFFICE	LD	6	65	95	71	109.2
TAB-B174-SGRD3	OPEN OFFICE	LD	6	65	76	59	90.8
TAB-B174-SGRD4	OPEN OFFICE	LD	6	65	99	68	104.6
TAB-B174-SGRD5	OPEN OFFICE	LD	6	65	82	63	96.9
TAB-B174-SGRD6	OPEN OFFICE	LD	6	65	63	67	103.1
TAB-B174-SGRD7	OPEN OFFICE	LD	6	65	107	68	104.6
TAB-B174-SGRD8	OPEN OFFICE	LD	6	65	65	61	93.8
TAB-B174-SGRD9	OPEN OFFICE	LD	6	65	56	69	106.2
TAB-B174-SGRD10	OPEN OFFICE	LD	6	65	73	71	109.2
TAB-B174-SGRD11	OPEN OFFICE	LD	6	65	82	66	101.5
TAB-B174-SGRD12	OPEN OFFICE	LD	6	65	99	69	106.2
TAB-B174-SGRD13	OPEN OFFICE	LD	6	65	34	64	98.5
TAB-B174-SGRD14	OPEN OFFICE	LD	6	65	62	64	98.5
TAB-B174-SGRD15	OPEN OFFICE	LD	6	65	37	61	93.8
TAB-B174-SGRD16	OPEN OFFICE	LD	6	65	43	71	109.2
Total				1040	1174	1056	101.54%

TAB-C102/ROOF (GEN MANUFACT)

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
TAB-C102-SGRD1	C103	SD	10	105	64	109	103.8
TAB-C102-SGRD2	C102	SD	10	95	131	88	92.6
Total				200	195	197	98.5%

TAB-C109/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
TAB-C109-SGRD1	C104	SD	12X10	50	41	53	106.0
TAB-C109-SGRD2	C106	SD	12X10	105	46	96	91.4
TAB-C109-SGRD3	C109	SD	12X10	45	38	48	106.7
TAB-C109-SGRD4	C107	SD	12X10	25	67	27	108.0
TAB-C109-SGRD5	C108	SD	12X10	50	40	53	106.0
Total				275	232	277	100.73%

TAB-C110/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
TAB-C110-SGRD1	C100	SD	14X14	400	346	393	98.3
TAB-C110-SGRD2	C110	SD	14X14	275	392	268	97.5
Total				675	738	661	97.93%

TAB-C174/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
TAB-C174-SGRD1	174	SD	8	130	131	130	100.0
TAB-C174-SGRD2	174	SD	8	130	131	126	96.9
TAB-C174-SGRD3	174	SD	8	130	124	120	92.3
TAB-C174-SGRD4	174	SD	8	130	154	143	110.0
Total				520	540	519	99.81%

TAB-M171/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
TAB-M171-SGRD1	171	SD	8	250	282	274	109.6
TAB-M171-SGRD2	171	SD	8	250	259	245	98.0
TAB-M171-SGRD3	171	SD	8	250	259	239	95.6
TAB-M171-SGRD4	171	SD	8	250	277	269	107.6
Total				1000	1077	1027	102.7%

TAB-M173/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
TAB-M173-SGRD1	173	SD	8	150	137	147	98.0
TAB-M173-SGRD2	173	SD	8	150	138	162	108.0
TAB-M173-SGRD3	173	SD	6	50	45	55	110.0
TAB-M173-SGRD4	173	SD	6	50	54	53	106.0
Total				400	374	417	104.25%

TAB-M183/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
TAB-M183-SGRD1	183	SD	10	100	248	93	93.0
TAB-M183-SGRD2	183	SD	8	250	278	263	105.2
TAB-M183-SGRD3	183	SD	8	250	250	235	94.0
TAB-M183-SGRD4	183	SD	8	250	261	251	100.4
TAB-M183-SGRD5	183	SD	8	250	249	263	105.2
Total				1100	1286	1105	100.45%

TAB-MD174/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
TAB-MD174-SGRD1	174	SD	8	200	92	200	100.0
TAB-MD174-SGRD2	174	SD	8	200	289	220	110.0
TAB-MD174-SGRD3	174	SD	8	200	225	194	97.0
TAB-MD174-SGRD4	174	SD	8	200	267	194	97.0
Total				800	873	808	101%

Completed By: Gabe Merk on 05/08/2025

Asset	Notes	Date	Written By
TAB-B174	Fan speed reduced to 50%.	05/08/2025	Nick Payne

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: AHU/RTU



Asset: RTU-16

AREA:ROOF (OFFICE)

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	S2L4983804
Model Num	NA	AD25T3DK4S1CKS47F3
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	32"X18"
Num Final Filter 1	-	9
Final Filter Size 1	-	

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	215T
Horsepower	-	10
Motor Rpm	-	1770
Phase	-	3
Rated Voltage	-	230/460
Rated Amperage	-	25.4/12.7
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	6"
Motor Bore Size	1.5"
Motor Sheave SetPt	0 OUT
Fan Sheave Size	7.5"
Fan Sheave Bore	1.5"
Belt CL Distance	14"
Num of Belts	1
Belt Size	5VX450

Test Data		
	Design	Actual
SF CFM	10200	10192
RA CFM	-	8246
OA CFM	2805	2711
RL Voltage	-	480/481/484
RL Amperage	-	9.4/9.7/9.6
SF Motor Freq(HZ)	-	60HZ
SF System SetPt	-	100%
Min OA Damper Position	-	16%
Brake Horse Power	-	7.6

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.91"
Fan Suction SP	-	-1.30"
Fan Discharge SP	-	0.38"
Total ESP	-	1.29"
Fan Total SP	-	1.68"

Completed By: Gabe Merk on 05/08/2025

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Project: Vega Expansion (Mason, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-16/ROOF (OFFICE)

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-16-SGRD1	LEVEL 2	SG	24X16	1250	1165	1196	95.7
RTU-16-SGRD2	LEVEL 2	SG	24X16	1250	1326	1273	101.8
RTU-16-SGRD3	LEVEL 2	SG	24X16	1250	1293	1302	104.2
RTU-16-SGRD4	LEVEL 2	SG	24X16	1250	1095	1187	95.0
RTU-16-SGRD5	LEVEL 2	SG	24X16	1250	1376	1322	105.8
RTU-16-SGRD6	LEVEL 2	SG	24X16	1250	1333	1305	104.4
RTU-16-SGRD7	LEVEL 2	SG	24X16	1250	1173	1267	101.4
RTU-16-SGRD8	LEVEL 2	SG	24X16	1250	1223	1340	107.2
Total				10000	9984	10192	101.92%

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Project: Vega Expansion (Mason, OH)
System/Unit: AHU/RTU



Asset: RTU-17

AREA:ROOF (GEN MANUFACT)

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	S2L4983801
Model Num	NA	AD25T3CS4S1CKS47F3
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	32"X18"
Num Final Filter 1	-	9
Final Filter Size 1	-	16X25X4

Test Data		
	Design	Actual
SF CFM	10200	9609
RA CFM	7395	6918
OA CFM	2805	2691
RL Voltage	-	478/479/483
RL Amperage	-	10.3/10.6/11.0
SF Motor Freq(HZ)	-	60HZ
SF System SetPt	-	100%
Min OA Damper Position	-	16%
Brake Horse Power	6.4	5.6

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	213T
Horsepower	-	7.5
Motor Rpm	-	1766
Phase	3	3
Rated Voltage	460	230/460
Rated Amperage	-	19.8/9.9
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.94"
Fan Suction SP	-	-1.48"
Fan Discharge SP	-	0.31"
Total ESP	-	1.25"
Fan Total SP	-	1.79"

Drive Data	
	Actual
Motor Sheave Size	6"
Motor Bore Size	1.5"
Motor Sheave SetPt	0 OUT
Fan Sheave Size	8.5"
Fan Sheave Bore	1.5"
Belt CL Distance	14"
Num of Belts	1
Belt Size	BX43

Completed By: Gabe Merk on 04/10/2025

National TAB

Project: Vega Expansion (Mason, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-17/ROOF (GEN MANUFACT)

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-17-SGRD1	LEVEL 2	SG-1	24X16	1250	1269	1159	92.7
RTU-17-SGRD2	LEVEL 2	SG-1	24X16	1250	1121	1135	90.8
RTU-17-SGRD3	LEVEL 2	SG-1	24X16	1250	1479	1300	104.0
RTU-17-SGRD4	LEVEL 2	SG-1	24X16	1250	1423	1247	99.8
RTU-17-SGRD5	LEVEL 2	SG-1	24X16	1250	1203	1203	96.2
RTU-17-SGRD6	LEVEL 2	SG-1	24X16	1250	1116	1135	90.8
RTU-17-SGRD7	LEVEL 2	SG-1	24X16	1250	1297	1223	97.8
RTU-17-SGRD8	LEVEL 2	SG-1	24X16	1250	1314	1207	96.6
Total				10000	10222	9609	96.09%

Completed By: Gabe Merk on 04/10/2025

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: AHU/RTU



Asset: RTU-18

AREA:ROOF (GEN MANUFACT)

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	S2L4981746
Model Num	NA	AD25Y3CS4S1CKS47F3
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	32"X18"
Num Final Filter 1	-	9
Final Filter Size 1	-	16X25X4

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	213T
Horsepower	-	7.5
Motor Rpm	-	1766
Phase	3	3
Rated Voltage	460	230/460
Rated Amperage	-	19.8/9.9
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	6"
Motor Bore Size	1.5
Motor Sheave SetPt	0 OUT
Fan Sheave Size	8.5"
Fan Sheave Bore	1.5"
Belt CL Distance	14"
Num of Belts	1
Belt Size	BX43

Test Data		
	Design	Actual
SF CFM	10000	9726
RA CFM	-	6897
OA CFM	2805	2829
RL Voltage	-	470/480/483
RL Amperage	-	10.4/10.8/10.6
SF Motor Freq(HZ)	-	60 HZ
SF System SetPt	-	100%
Min OA Damper Position	-	20%
Brake Horse Power	6.4	5.6

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.95"
Fan Suction SP	-	-1.42"
Fan Discharge SP	-	0.38"
Total ESP	-	1.33"
Fan Total SP	-	1.80"

Completed By: Gabe Merk on 04/10/2025

National TAB

Project: Vega Expansion (Mason, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-18/ROOF (GEN MANUFACT)

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-18-SGRD1	LEVEL 2	SG	24X16	1250	992	1349	107.9
RTU-18-SGRD2	LEVEL 2	SG	24X16	1250	1067	1373	109.8
RTU-18-SGRD3	LEVEL 2	SG	24X16	1250	1669	1137	91.0
RTU-18-SGRD4	LEVEL 2	SG	24X16	1250	1665	1168	93.4
RTU-18-SGRD5	LEVEL 2	SG	24X16	1250	862	1155	92.4
RTU-18-SGRD6	LEVEL 2	SG	24X16	1250	921	1144	91.5
RTU-18-SGRD7	LEVEL 2	SG	24X16	1250	1408	1135	90.8
RTU-18-SGRD8	LEVEL 2	SG	24X16	1250	1482	1265	101.2
Total				10000	10066	9726	97.26%

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: AHU/RTU



Asset: RTU-19

AREA:ROOF (GEN MANUFACT)

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	S2L4981749
Model Num	NA	AD25T3CS4S1CKS47F3
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	32"X18"
Num Final Filter 1	-	9
Final Filter Size 1	-	16"X25"X4"

Test Data		
	Design	Actual
SF CFM	10200	9421
RA CFM	-	6613
OA CFM	2805	2808
RL Voltage	-	478/480/482
RL Amperage	-	9.4/9.3/10.2
SF Motor Freq(HZ)	-	60HZ
SF System SetPt	-	100%
Min OA Damper Position	-	16%
Brake Horse Power	6.4	5.1

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	213T
Horsepower	-	7.5
Motor Rpm	-	1766
Phase	3	3
Rated Voltage	460	230/460
Rated Amperage	-	19.8/9.9
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.91"
Fan Suction SP	-	-1.32"
Fan Discharge SP	-	0.32"
Total ESP	-	1.23"
Fan Total SP	-	1.64"

Drive Data	
	Actual
Motor Sheave Size	6"
Motor Bore Size	1.5"
Motor Sheave SetPt	0 OUT
Fan Sheave Size	8.5"
Fan Sheave Bore	1.5"
Belt CL Distance	14"
Num of Belts	1
Belt Size	BX43

Completed By: Gabe Merk on 04/10/2025

National TAB

Project: Vega Expansion (Mason, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-19/ROOF (GEN MANUFACT)

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-19-SGRD1	LEVEL 2	SG	24X16	1250	1151	1179	94.3
RTU-19-SGRD2	LEVEL 2	SG	24X16	1250	1135	1156	92.5
RTU-19-SGRD3	LEVEL 2	SG	24X16	1250	1345	1201	96.1
RTU-19-SGRD4	LEVEL 2	SG	24X16	1250	1311	1183	94.6
RTU-19-SGRD5	LEVEL 2	SG	24X16	1250	1145	1145	91.6
RTU-19-SGRD6	LEVEL 2	SG	24X16	1250	1131	1131	90.5
RTU-19-SGRD7	LEVEL 2	SG	24X16	1250	1214	1214	97.1
RTU-19-SGRD8	LEVEL 2	SG	24X16	1250	1212	1212	97.0
Total				10000	9644	9421	94.21%

Completed By: Gabe Merk on 04/10/2025

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: AHU/RTU



Asset: RTU-20

AREA:GENERAL MANUFACTURING

Unit Data		
	Design	Actual
MFG	YORK	YORK
Serial Num	-	S2L4981750
Model Num	NA	AD25T3CS4S1CKS47F3
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	32"X18"
Num Final Filter 1	-	9
Final Filter Size 1	-	16"X25"X4"

Test Data		
	Design	Actual
SF CFM	10200	10063
RA CFM	-	7168
OA CFM	2805	2895
RL Voltage	-	479/479/483
RL Amperage	-	9.8/10.1/9.6
SF Motor Freq(HZ)	-	60HZ
SF System SetPt	-	100%
Min OA Damper Position	-	18%
Brake Horse Power	-	5.2

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	213T
Horsepower	-	7.5
Motor Rpm	-	1766
Phase	-	3
Rated Voltage	-	230/460
Rated Amperage	-	19.8/9.9
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.94"
Fan Suction SP	-	-1.43"
Fan Discharge SP	-	0.39"
Total ESP	-	1.33"
Fan Total SP	-	1.82"

Drive Data	
	Actual
Motor Sheave Size	6"
Motor Bore Size	1.5"
Motor Sheave SetPt	0 OUT
Fan Sheave Size	8.5"
Fan Sheave Bore	1.5"
Belt CL Distance	14"
Num of Belts	1
Belt Size	BX43

Completed By: Gabe Merk on 04/10/2025

National TAB

Project: Vega Expansion (Mason, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-20/GENERAL MANUFACTURING

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-20-SGRD1	LEVEL 2	SG	24X16	1250	1122	1202	96.2
RTU-20-SGRD2	LEVEL 2	SG	24X16	1250	1120	1196	95.7
RTU-20-SGRD3	LEVEL 2	SG	24X16	1250	1432	1329	106.3
RTU-20-SGRD4	LEVEL 2	SG	24X16	1250	1321	1298	103.8
RTU-20-SGRD5	LEVEL 2	SG	24X16	1250	1454	1374	109.9
RTU-20-SGRD6	LEVEL 2	SG	24X16	1250	1122	1205	96.4
RTU-20-SGRD7	LEVEL 2	SG	24X16	1250	1342	1249	99.9
RTU-20-SGRD8	LEVEL 2	SG	24X16	1250	1333	1210	96.8
Total				10000	10246	10063	100.63%

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: AHU/RTU



Asset: RTU-21

AREA:ROOF

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	2SL4983802
Model Num	NA	AD25T3DS4S1CKS47F3
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	32"X18"
Num Final Filter 1	-	9
Final Filter Size 1	-	16"X25"X4"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	215T
Horsepower	-	10
Motor Rpm	-	1770
Phase	-	3
Rated Voltage	-	208/460
Rated Amperage	-	25.4/12.7
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	6"
Motor Bore Size	1.5
Motor Sheave SetPt	0 OUT
Fan Sheave Size	7.5
Fan Sheave Bore	1.5
Belt CL Distance	14"
Num of Belts	1
Belt Size	5VX450

Test Data		
	Design	Actual
SF CFM	9000	9122
RA CFM	-	5603
OA CFM	3425	3519
RL Voltage	-	471/473/474
RL Amperage	-	8.8/9.3/8.9
SF Motor Freq(HZ)	-	49.2
SF System SetPt	-	82%
Min OA Damper Position	-	30%
Brake Horse Power	-	4.8

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.31"
Fan Suction SP	-	-0.87"
Fan Discharge SP	-	0.74"
Total ESP	-	1.05"
Fan Total SP	-	1.61"

Completed By: Gabe Merk on 05/08/2025

National TAB

Project: Vega Expansion (Mason, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-21/ROOF

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-21-SGRD1	AREA N	SG-1	24X12	300	11073	316	105.3
RTU-21-SGRD2	AREA N	SG-1	24X12	300		287	95.7
RTU-21-SGRD3	AREA N	SG-1	24X12	300		321	107.0
RTU-21-SGRD4	AREA N	SG-1	24X12	300		301	100.3
RTU-21-SGRD5	AREA N	SG-1	24X12	300		313	104.3
RTU-21-SGRD6	AREA N	SG-1	24X12	300		326	108.7
RTU-21-SGRD7	AREA N	SG-1	24X12	300		279	93.0
RTU-21-SGRD8	AREA N	SG-1	24X12	300		292	97.3
RTU-21-SGRD9	AREA N	SG-1	24X12	300		309	103.0
RTU-21-SGRD10	AREA N	SG-1	24X12	300		323	107.7
RTU-21-SGRD11	AREA N	SG-1	24X12	300		289	96.3
RTU-21-SGRD12	AREA N	SG-1	24X12	300		288	96.0
RTU-21-SGRD13	AREA N	SG-1	24X12	300		280	93.3
RTU-21-SGRD14	AREA N	SG-1	24X12	300		311	103.7
RTU-21-SGRD15	AREA N	SG-1	24X12	300		323	107.7
RTU-21-SGRD16	AREA N	SG-1	24X12	300		308	102.7
RTU-21-SGRD17	AREA N	SG-1	24X12	300		302	100.7
RTU-21-SGRD18	AREA N	SG-1	24X12	300		324	108.0
RTU-21-SGRD19	AREA N	SG-1	24X12	300		274	91.3
RTU-21-SGRD20	AREA N	SG-1	24X12	300		283	94.3
RTU-21-SGRD21	AREA N	SG-1	24X12	300		288	96.0
RTU-21-SGRD22	AREA N	SG-1	24X12	300		293	97.7
RTU-21-SGRD23	AREA N	SG-1	24X12	300		321	107.0
RTU-21-SGRD24	AREA N	SG-1	24X12	300		302	100.7
RTU-21-SGRD25	AREA N	SG-1	24X12	300		327	109.0
RTU-21-SGRD26	AREA N	SG-1	24X12	300		329	109.7
RTU-21-SGRD27	AREA N	SG-1	24X12	300		326	108.7
RTU-21-SGRD28	AREA N	SG-1	24X12	300		296	98.7
RTU-21-SGRD29	AREA N	SG-1	24X12	300		313	104.3
RTU-21-SGRD30	AREA N	SG-1	24X12	300		278	92.7
Total				9000	11073	9122	101.36%

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: AHU/RTU



Asset: RTU-22

AREA:ROOF

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	S2L4981748
Model Num	NA	AD25T3CS4S1CKS47F3
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	32"X18"
Num Final Filter 1	-	9
Final Filter Size 1	-	16"X25"X4"

Test Data		
	Design	Actual
SF CFM	9200	9214
RA CFM	-	6399
OA CFM	2805	2815
RL Voltage	-	475/476/478
RL Amperage	-	8.6/8.5/8.8
SF System SetPt	-	92%
Min OA Damper Position	-	25%
Brake Horse Power	-	4.6

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	213T
Horsepower	-	7.5
Motor Rpm	-	1766
Phase	-	3
Rated Voltage	-	230/460
Rated Amperage	-	19.8/9.9
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.34"
Fan Suction SP	-	-0.92"
Fan Discharge SP	-	0.43"
Total ESP	-	0.77"
Fan Total SP	-	1.35"

Drive Data	
	Actual
Motor Sheave Size	6"
Motor Bore Size	1.5
Motor Sheave SetPt	0 OUT
Fan Sheave Size	8.5
Fan Sheave Bore	1.5
Belt CL Distance	14"
Num of Belts	1
Belt Size	BX43

Completed By: Gabe Merk on 05/08/2025

National TAB
 Project: Vega Expansion (Mason, OH)
AHU/RTU



Diffuser Supply (GRD)

RTU-22/ROOF

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-22-SGRD1	LEVEL 2	SG-1	24X12	920	765	932	101.3
RTU-22-SGRD2	LEVEL 2	SG-1	24X12	920	823	891	96.8
RTU-22-SGRD3	LEVEL 2	SG-1	24X12	920	1150	930	101.1
RTU-22-SGRD4	LEVEL 2	SG-1	24X12	920	1167	967	105.1
RTU-22-SGRD5	LEVEL 2	SG-1	24X12	920	985	901	97.9
RTU-22-SGRD6	LEVEL 2	SG-1	24X12	920	863	876	95.2
RTU-22-SGRD7	LEVEL 2	SG-1	24X12	920	876	898	97.6
RTU-22-SGRD8	LEVEL 2	SG-1	24X12	920	1107	965	104.9
RTU-22-SGRD9	LEVEL 2	SG-1	24X12	920	882	933	101.4
RTU-22-SGRD10	LEVEL 2	SG-1	24X12	920	871	921	100.1
Total				9200	9489	9214	100.15%

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: AHU/RTU



Asset: RTU-23

AREA:ELECTRONIC MANUFACTURING

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	S2L4983803
Model Num	NA	AD25T3DS4S1CKS47F3
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	32x18
Num Final Filter 1	-	9
Final Filter Size 1	-	16X25X4

Test Data		
	Design	Actual
SF CFM	9000	9196
RA CFM	-	5636
OA CFM	3425	3560
RL Voltage	-	472/473/474
RL Amperage	-	9.4/9.1/9.1
SF Motor Freq(HZ)	-	49.2
SF System SetPt	-	82%
Min OA Damper Position	-	26%
Brake Horse Power	-	4.9

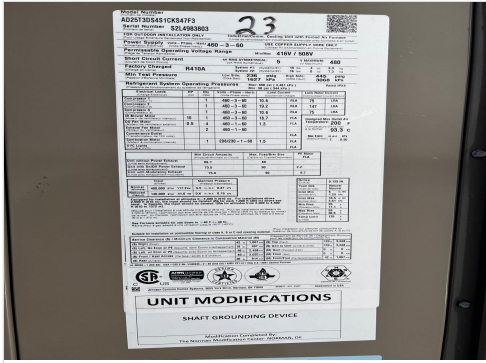
Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	215T
Horsepower	-	10
Motor Rpm	-	1770
Phase	-	3
Rated Voltage	-	230/460
Rated Amperage	-	25.4/12.7
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.38"
Fan Suction SP	-	-0.93"
Fan Discharge SP	-	0.61"
Total ESP	-	0.99"
Fan Total SP	-	1.54"

Drive Data	
	Actual
Motor Sheave Size	6"
Motor Bore Size	1.5"
Motor Sheave SetPt	0 OUT
Fan Sheave Size	7.5"
Fan Sheave Bore	1.5"
Belt CL Distance	14"
Num of Belts	1
Belt Size	5VX 450

Completed By: Gabe Merk on 05/08/2025

Unit Data - PHOTO LOG



01/30/2025



01/30/2025



01/30/2025

Motor Data - PHOTO LOG



01/30/2025

National TAB

Project: Vega Expansion (Mason, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-23/ELECTRONIC MANUFACTURING

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-23-SGRD1	ELECTRONICS	SG-1		300	11453	320	106.7
RTU-23-SGRD2	ELECTRONICS	SG-1		300		328	109.3
RTU-23-SGRD3	ELECTRONICS	SG-1		300		297	99.0
RTU-23-SGRD4	ELECTRONICS	SG-1		300		303	101.0
RTU-23-SGRD5	ELECTRONICS	SG-1		300		295	98.3
RTU-23-SGRD6	ELECTRONICS	SG-1		300		311	103.7
RTU-23-SGRD7	ELECTRONICS	SG-1		300		310	103.3
RTU-23-SGRD8	ELECTRONICS	SG-1		300		289	96.3
RTU-23-SGRD9	ELECTRONICS	SG-1		300		327	109.0
RTU-23-SGRD10	ELECTRONICS	SG-1		300		318	106.0
RTU-23-SGRD11	ELECTRONICS	SG-1		300		310	103.3
RTU-23-SGRD12	ELECTRONICS	SG-1		300		290	96.7
RTU-23-SGRD13	ELECTRONICS	SG-1		300		316	105.3
RTU-23-SGRD14	ELECTRONICS	SG-1		300		279	93.0
RTU-23-SGRD15	ELECTRONICS	SG-1		300		289	96.3
RTU-23-SGRD16	ELECTRONICS	SG-1		300		290	96.7
RTU-23-SGRD17	ELECTRONICS	SG-1		300		313	104.3
RTU-23-SGRD18	ELECTRONICS	SG-1		300		329	109.7
RTU-23-SGRD19	ELECTRONICS	SG-1		300		310	103.3
RTU-23-SGRD20	ELECTRONICS	SG-1		300		281	93.7
RTU-23-SGRD21	ELECTRONICS	SG-1		300		282	94.0
RTU-23-SGRD22	ELECTRONICS	SG-1		300		303	101.0
RTU-23-SGRD23	ELECTRONICS	SG-1		300		326	108.7
RTU-23-SGRD24	ELECTRONICS	SG-1		300		315	105.0
RTU-23-SGRD25	ELECTRONICS	SG-1		300		299	99.7
RTU-23-SGRD26	ELECTRONICS	SG-1		300		292	97.3
RTU-23-SGRD27	ELECTRONICS	SG-1		300		311	103.7
RTU-23-SGRD28	ELECTRONICS	SG-1		300		322	107.3
RTU-23-SGRD29	ELECTRONICS	SG-1		300		318	106.0
RTU-23-SGRD30	ELECTRONICS	SG-1		300		323	107.7
Total				9000	11453	9196	102.18%

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: FAN - Exhaust



Asset: EF-15

AREA:C100-109

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	120C 0R71 120 ACE
Serial Num	-	108SL38070- 01/000071
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	1240	1250
Fan RPM	1400	1415
RL Voltage	115	119
RL Amperage	5.8	4.7
Suction ESP	-	-0.72"
Total ESP	0.42	0.72"

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Horsepower	0.25	1/4
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	4.9
Service Factor	-	1.35

Drive Data	
	Actual
Motor Sheave Size	3"
Motor Bore Size	1/2"
Motor Sheave SetPt	5 OUT
Fan Sheave Size	AK28
Fan Sheave Bore	3/4"
Belt CL Distance	6"
Num of Belts	1
Belt Size	4L190

Completed By: Nick Payne on 05/06/2025

National TAB

Project: Vega Expansion (Mason, OH)

FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF-15/C100-109

Asset									
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design	Location
EF-15-EGRD1	EG	8	130		169		135	103.8	
EF-15-EGRD2	EG	6	45		147		47	104.4	
EF-15-EGRD3	EG	10	275		340		288	104.7	
EF-15-EGRD4	EG	12	400		52		381	95.3	
EF-15-EGRD5	EG	6	95		102		102	107.4	
EF-15-EGRD6	EG	6	105		107		107	101.9	
EF-15-EGRD7	EG	6	80		89		78	97.5	
EF-15-EGRD8	EG	6	50		10		47	94.0	
EF-15-EGRD9	EG	6	60		103		65	108.3	
Total			1240		1119	0	1250	100.81%	

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: FAN - Exhaust



Asset: EF-16

AREA: BREAK RR

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	120C 0R71 120 ACE
Serial Num	-	108SL38070- 01/0002001
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	300	267
Fan RPM	1585	1552
RL Voltage	115	119
RL Amperage	5.8	4.5
Suction ESP	-	-0.21"
Total ESP	0.70	0.21"

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Horsepower	0.25	1/4
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	4.9
Service Factor	-	1.35

Drive Data	
	Actual
Motor Sheave Size	3"
Motor Bore Size	1/2"
Motor Sheave SetPt	4 OUT
Fan Sheave Size	AK28
Fan Sheave Bore	3/4"
Belt CL Distance	5-1/2"
Num of Belts	1
Belt Size	4L190

Completed By: Nick Payne on 05/06/2025

National TAB

Project: Vega Expansion (Mason, OH)

FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF-16/BREAK RR

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EF-16-EGRD1	EG	6	75		64		77	102.7
EF-16-EGRD2	EG	6	75		66		72	96.0
EF-16-EGRD3	EG	6	75		52		70	93.3
EF-16-EGRD4	EG	6	50		112		48	96.0
Total			275		294	0	267	97.09%

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: FAN - Exhaust



Asset: EF-17

AREA:M185, M186 RR

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	100C3B 100ACE
Serial Num	-	108SL 38070-01/0003301
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	900	932
Fan RPM	1854	2007
RL Voltage	115	119
RL Amperage	5.8	4.9
Suction ESP	-	-0.30"

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Horsepower	0.25	1/4
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	4.9
Service Factor	-	1.35

Drive Data	
	Actual
Motor Sheave Size	3-1/2"
Motor Bore Size	1/2"
Motor Sheave SetPt	4.5 OUT
Fan Sheave Size	MA27
Fan Sheave Bore	3/4"
Belt CL Distance	5"
Num of Belts	1
Belt Size	4L180

Completed By: Nick Payne on 05/08/2025

Notes:
Connected load = 900cfm.

Written By: Nick Payne on 05/08/2025

National TAB

Project: Vega Expansion (Mason, OH)

FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF-17/M185, M186 RR

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EF-17-EGRD1	EG	12X12	375	1	277	288	386	102.9
EF-17-EGRD2	EG	12X12	375	1	276	286	392	104.5
EF-17-EGRD3	EG	6	75		129	197	74	98.7
EF-17-EGRD4	EG	6	75		121	205	80	106.7
Total			900		803	976	932	103.56%

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: FAN - Exhaust



Asset: EF-18

AREA:SFC HOOD

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	120C OR81 120 ACE
Serial Num	-	108SL38070- 01/0004501
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	400	573
Fan RPM	1405	1304
RL Voltage	115	121
RL Amperage	5.8	4.5
Suction ESP	-	-0.26"
Discharge ESP	-	ATM
Total ESP	0.70	0.26"

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Horsepower	0.25	1/4
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	4.9
Service Factor	-	1.35

Drive Data	
	Actual
Motor Sheave Size	3-1/2"
Motor Bore Size	1/2"
Motor Sheave SetPt	5 OUT
Fan Sheave Size	AK28
Fan Sheave Bore	3/4"
Belt CL Distance	6"
Num of Belts	1
Belt Size	4L190

Completed By: Nick Payne on 05/06/2025

Notes:
Flow left high due to hood install incomplection.

Written By: Nick Payne on 05/08/2025

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: FAN - Exhaust



Asset: EF-19

AREA:ELEC RM

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	120SQN-B
Serial Num	-	108SL380700170005801
Type	INLINE	INLINE

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	1.0	1.0
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	277	277
Amperage (rated)	-	5.6
Service Factor	-	1.25

Test Data		
	Design	Actual
CFM	2000	2146
RL Voltage	277	277
RL Amperage	4.2	4.2
Suction ESP	-	-0.19
Discharge ESP	-	0.1
Total ESP	0.70	0.29

Completed By: Nick Payne on 05/08/2025

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: FAN - Exhaust



Asset: EF-20

AREA:COMPRESSOR RM

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	120SQN-B
Serial Num	-	108SL380700170005802
Type	INLINE	INLINE

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	1.0	1.0
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	277	277
Amperage (rated)	-	5.6
Service Factor	-	1.25

Test Data		
	Design	Actual
CFM	2000	2089
RL Voltage	277	277
RL Amperage	4.8	4.8
Suction ESP	-	ATM
Discharge ESP	-	0.061
Total ESP	0.70	0.061

Completed By: Nick Payne on 05/08/2025

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: FAN - Exhaust



Asset: EF-21

AREA: MAINTENANCE

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	135C5B 135 ACE
Serial Num	-	108SL38070- 01/0007101
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	1750	1802
Fan RPM	1455	1328
RL Voltage	115	116
RL Amperage	9.8	6.6
Suction ESP	-	-0.88"
Discharge ESP	-	ATM
Total ESP	0.70	0.88"
Brake Horse Power	-	0.4

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Horsepower	0.50	1/2
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	7.5
Service Factor	-	1.25

Drive Data	
	Actual
Motor Sheave Size	1VL34
Motor Bore Size	1/2"
Motor Sheave SetPt	2-1/2 OUT
Fan Sheave Size	MA35
Fan Sheave Bore	3/4"
Belt CL Distance	6"
Num of Belts	1
Belt Size	4L210

Completed By: Gabe Merk on 05/08/2025

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: FAN - Exhaust



Asset: EF-22

AREA: TRASH

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	120C 0R71
Serial Num	-	108SL38070-01/0002002
Type	CRE DNBLAST	DOWNBLAST

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Horsepower	0.25	1/4
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	4.9
Service Factor	-	1.35

Drive Data	
	Actual
Motor Sheave Size	3"
Motor Bore Size	1/2"
Motor Sheave SetPt	4-1/2 OUT
Fan Sheave Size	AK 28
Fan Sheave Bore	3/4"
Belt CL Distance	6"
Num of Belts	1
Belt Size	4L200

Test Data		
	Design	Actual
CFM	300	306
Fan RPM	1585	1313
RL Voltage	115	117
RL Amperage	5.8	4.1
Suction ESP	-	-0.13"
Discharge ESP	-	ATM
Total ESP	0.70	0.13"
Brake Horse Power	-	0.21

Completed By: Nick Payne on 05/08/2025

National TAB

Project: Vega Expansion (Mason, OH)

FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF-22/TRASH

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EF-22-EGRD1		EG-2	10X10	200		316	197	197	98.5
EF-22-EGRD2		EG-2	10X10	100		47	109	109	109.0
Total				300		363	306	306	102%

Completed By: Gabe Merk on 05/08/2025

National TAB

Project: Vega Expansion (Mason, OH)
System/Unit: FAN - Exhaust



Asset: EF-23

AREA:

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	60 CPA
Serial Num	-	
Type	CENT BLOWER	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	0.50	
Motor Rpm	1725	
Phase	1	
Voltage (rated)	115	
Amperage (rated)	-	9.8
Service Factor	-	

Drive Data	
	Actual
Motor Sheave Size	
Motor Bore Size	
Motor Sheave SetPt	
Fan Sheave Size	
Fan Sheave Bore	
Belt CL Distance	
Num of Belts	
Belt Size	

Test Data		
	Design	Actual
CFM	200	
Fan RPM	1738	
RL Voltage	115	
RL Amperage	9.8	
Suction ESP	-	
Discharge ESP	-	
Total ESP	0.50	
Brake Horse Power	-	

National TAB

Project: Vega Expansion (Mason, OH)



Circuit Setter

HYDRONICS/

Asset							
Asset Name	Size	Type	Design GPM	Setting	Delta P	Final GPM	% to Design
CV-HW-A174	0.75	MANUAL	1.10	50.5 IN WC	46.2 IN WC	1.06	100.0
CV-HW-B174	1	MANUAL	6.0	2.9 IN WC	3.1 IN WC	6.2	103.3
CV-HW-C102	0.75	MANUAL	0.70	25 IN WC	29 IN WC	0.75	114.3
CV-HW-C109	0.75	MANUAL	0.70	25 IN WC	27 IN WC	0.73	100.0
CV-HW-C110	0.75	MANUAL	2.2	18 IN WC	20 IN WC	2.3	104.5
CV-HW-C174	0.75	MANUAL	0.80	30 IN WC	28.4 IN WC	0.75	100.0
CV-HW-D174	0.75	MANUAL	1.3	8 IN WC	8.5 IN WC	1.4	107.7
CV-HW-M171	0.75	MANUAL	1.6	7 IN WC	7.5 IN WC	1.66	106.3
CV-HW-M173	0.75	MANUAL	0.70	25 IN WC	23 IN WC	0.68	100.0
CV-HW-M175	0.75	MANUAL	0.5	17 IN WC	20 IN WC	0.54	100.0
CV-HW-M176	0.75	MANUAL	1.5	71 IN WC	60 IN WC	1.38	93.3
CV-HW-M177	0.75	MANUAL	0.9	40 IN WC	46.2 IN WC	0.96	111.1
CV-HW-M183	0.75	MANUAL	1.8	10 IN WC	12 IN WC	1.9	105.6
CV-HW-UH1	1.5	MANUAL	9.3	1.5 IN WC	1.4	9.0	96.8
CV-HW-UH2	0.75	MANUAL	3.1	30 IN WC	25 IN WC	2.8	90.3
CV-HW-UH3	1.5	MANUAL	9.0	1.5 IN WC	1.22	8.2	91.1
Total			41.2			40.31	97.84%

Completed By: Nick Payne on 05/08/2025