

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

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# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: AHU/RTU



Asset: RTU-1

AREA:ROOF

Unit Data		
	Design	Actual
MFG	NA	TRANE
Serial Num	-	C24G03967
Model Num	NA	YCH480CEL*6D3N64A0
Configuration	HORIZONTAL	HORITONTAL
OA Filter Size 1	-	42"X 22"
Num OA Filters 2	-	3
Num PreFilter 1	-	17
PreFilter Size 1	-	16"X20"X4"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	254T
Horsepower	15	15
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208	200
Rated Amperage	43.00	41
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	6"
Motor Bore Size	1.5"
Motor Sheave SetPt	NA
Fan Sheave Size	14"
Fan Sheave Bore	1.5"
Belt CL Distance	35"
Num of Belts	2
Belt Size	B X 97

Test Data		
	Design	Actual
SF CFM	13485	13057
SF RPM	-	100%
RA CFM	11191	9934
OA CFM	2294	2475
RL Voltage	208	199 VFD
RL Amperage	43.00	32.7 VFD
SF Motor Freq(HZ)	-	60 HZ
SF System SetPt	-	1.8"
Min OA Damper Position	-	3.4%
Brake Horse Power	7.6	12.5 VFD

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.60"
Fan Suction SP	-	-1.51"
Fan Discharge SP	-	1.31"
Total ESP	1.5	1.91"
Fan Total SP	3.242	2.82"
Pre-Filter P.D.	-	0.91"*
Cooling Coil P.D.	-	*

Completed By: Gabe Merk on 06/04/2025

Notes:

\*PREFILTER AND COOLING COIL PD COMBINED.

Written By: Gabe Merk on 06/04/2025

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## AHU/RTU



### VAV - Single Duct

#### RTU-1/ROOF

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)
V1-01	TRANE	VCEF08	REHEAT	8	810	800	395	395	429	429	1.77
V1-02	TRANE	VCEF10	REHEAT	10	930	921	470	473	375	370	1.08
V1-03	TRANE	VCEF05	REHEAT	5	270	271	135	135	83	83	1.28
V1-04	TRANE	VCEF04	REHEAT	4	140	148	84	89	83	75	0.65
V1-05	TRANE	VCEF10	REHEAT	10	1000	979	500	493	301	315	1.08
V1-06	TRANE	VCEF05	REHEAT	5	300	298	150	149	83	87	1.5
V1-07	TRANE	VCEF10	REHEAT	10	1050	1071	525	539	210	216	1.06
V1-08	TRANE	VCEF08	REHEAT	8	560	544	280	276	219	212	1.17
V1-09	TRANE	VCEF08	REHEAT	8	510	513	255	252	423	427	0.96
V1-10	TRANE	VCEF05	REHEAT	5	85	83	50	54	84	84	1
V1-11	TRANE	VCEF04	REHEAT	4	330	337	60	56	86	87	0.21
V1-12	TRANE	VCEF04	REHEAT	4	120	123	43	46	83	82	0.33
V1-13	TRANE	VCEF06	REHEAT	6	250	247	175	168	256	248	0.69
V1-14	TRANE	VCEF05	REHEAT	5	320	300	160	160	224	224	1.37
V1-15	TRANE	VCEF04	REHEAT	4	160	157	80	83	83	87	1.03
V1-17	TRANE	VCEF06	REHEAT	6	250	253	145	145	290	290	1.16
V1-18	TRANE	VCEF05	REHEAT	7	310	299	155	162	202	211	0.75
V1-19	TRANE	VCEF05	REHEAT	5	140	153	70	77	166	173	1
V1-20	TRANE	VCEF08	REHEAT	8	650	662	325	327	157	160	1.14
V1-21	TRANE	VCEF08	REHEAT	8	460	445	255	250	266	257	1.37
V1-22	TRANE	VCEF10	REHEAT	8	560	550	280	277	121	122	1.12
V1-23	TRANE	VCEF10	REHEAT	10	1070	1089	533	535	536	540	1.10
V1-24	TRANE	VCEF08	REHEAT	8	700	693	350	344	398	399	1.16
V1-25	TRANE	VCEF10	REHEAT	10	1075	1067	538	536	554	552	1.00
V1-26	TRANE	VCEF08	REHEAT	8	490	477	258	263	250	251	1.12
V1-27	TRANE	VCEF10	REHEAT	10	865	855	433	428	229	224	1.08
V1-28	TRANE	VCEF05	REHEAT	5	160	157	80	81	124	127	1.10
V1-29	TRANE	VCEF10	REHEAT	10	1240	1243	615	621	707	717	1.07
V1-30	TRANE	VCEF05	REHEAT	5	280	276	140	137	217	215	1.14

### Diffuser Ret/Exh (GRD)

**RTU-1/ROOF**

<b>Asset</b>								
<b>Asset Name</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>	<b>FINAL CFM</b>	<b>% to design</b>
RTU-1-EGRD1	ER	6X6	80		979		920	1150.0
RTU-1-EGRD2	RR	8	190		1172		915	481.6
RTU-1-EGRD3	RR	8X6	160		420		146	91.3
RTU-1-EGRD4	RR	12	560		451		530	94.6
RTU-1-EGRD5	RR	12X10	490		30			-
RTU-1-EGRD6	RR	14X12	700		20			-
RTU-1-EGRD7	RR	10X8	230		15			-
RTU-1-EGRD8	RR	12X10	355		25			-
RTU-1-EGRD9	RR	8X6	160		40		146	91.3
RTU-1-EGRD10	RR	28X16	615		447		535	87.0
RTU-1-EGRD11	RR	28X16	615		411		583	94.8
RTU-1-EGRD12	RR	10X10	350		330		336	96.0
RTU-1-EGRD13	RR	10X8	280		207		261	93.2
RTU-1-EGRD14	RR	12X8	355		257		282	79.4
RTU-1-EGRD15	RR	8	160		23		145	90.6
RTU-1-EGRD16	RR	12X10	400		330		365	91.3
RTU-1-EGRD17	RR	14X8	550		415		475	86.4
RTU-1-EGRD18	RR	12X10	70		174		65	92.9
RTU-1-EGRD19	RR	10X10	80		163		72	90.0
RTU-1-EGRD20	RR	10X8	70		135		65	92.9
RTU-1-EGRD21	RR	8X6	120		148		135	112.5
RTU-1-EGRD22	RR	10X10	350		420		360	102.9
RTU-1-EGRD23	RR	6X6	75		144		74	98.7
RTU-1-EGRD24	RR	6X4	65		85		67	103.1
RTU-1-EGRD25	RR	10X8	260		410		265	101.9
RTU-1-EGRD26	RR	6X6	75		81		72	96.0
RTU-1-EGRD27	RR	6X6	80		72		79	98.8
RTU-1-EGRD28	RR	6X6	80		66		120	150.0
RTU-1-EGRD29	RR	6	40		80		37	92.5
RTU-1-EGRD30	RR	8	270		315		235	87.0
RTU-1-EGRD31	RR	8X6	100		182		95	95.0
RTU-1-EGRD32	RR	6	90		170		96	106.7
RTU-1-EGRD33	RR	22X14	1050		445		869	82.8
RTU-1-EGRD34	RR	18X8	560		289		461	82.3
RTU-1-EGRD35	RR	8X6	100		89		98	98.0
RTU-1-EGRD36	RR	8X6	140		146		135	96.4
RTU-1-EGRD37	RR	8X8	200		86		165	82.5
RTU-1-EGRD38	RR	16X12	930		461		730	78.5
Total			11055		9733	0	9934	89.86%

**Diffuser Supply (GRD)**

**V1-01/ROOF**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-01-SGRD1	101	SR	6X6	100	103	103	103.0
V1-01-SGRD2	103	LD	6	100	95	95	95.0
V1-01-SGRD3	101	SR	10	255	248	248	97.3
V1-01-SGRD4	101	SR	10	255	262	262	102.7
V1-01-SGRD5	101	SR	8	100	92	92	92.0
Total				810	800	800	98.77%

**V1-02/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-02-SGRD1	105	CD	8	155	146	146	94.2
V1-02-SGRD2	105	CD	14X12	155	153	149	96.1
V1-02-SGRD3	105	CD	8	155	161	154	99.4
V1-02-SGRD4	105	CD	8	155	185	158	101.9
V1-02-SGRD5	105	CD	12	155	200	150	96.8
V1-02-SGRD6	105	CD	8	155	166	164	105.8
Total				930	1011	921	99.03%

**V1-03/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-03-SGRD1	119	CD	8	135	170	139	103.0
V1-03-SGRD2	119	CD	8	135	174	133	98.5
Total				270	344	272	100.74%

**V1-04/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-04-SGRD1	121	SR	6	60	235	62	103.3
V1-04-SGRD2	121	CD	6	80	91	86	107.5
Total				140	326	148	105.71%

**V1-05/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-05-SGRD1	STORM SHELTER	CD	10	280	280	264	94.3
V1-05-SGRD2	STORM SHELTER	CD	10	280	279	284	101.4
V1-05-SGRD3	STORM SHELTER	CD	10	280	315	263	93.9
V1-05-SGRD4	STORM SHELTER	CD	8	160	214	168	105.0
Total				1000	1072	979	97.9%

**V1-06/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-06-SGRD1	109	SR	10X10	300	114	298	99.3
Total				300	114	298	99.33%

**V1-07/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-07-SGRD1	111	SR	16	265	290	280	105.7
V1-07-SGRD2	111	SR	16	260	273	263	101.2
V1-07-SGRD3	111	SR	12	265	254	247	93.2
V1-07-SGRD4	111	SR	12	260	291	281	108.1
Total				1050	1108	1071	102%

**V1-08/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-08-SGRD1	117	SR	8	200	230	205	102.5
V1-08-SGRD2	117	CD	8	180	250	177	98.3
V1-08-SGRD3	117	CD	8	180	191	162	90.0
Total				560	671	544	97.14%

**V1-09/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-09-SGRD1	118	CD	8	110	93	107	97.3
V1-09-SGRD2	123	SR	12	100	115	104	104.0
V1-09-SGRD3	123	SR	12	100	121	100	100.0
V1-09-SGRD4	123	SR	8	100	119	103	103.0
V1-09-SGRD5	123	SR	8	100	108	99	99.0
Total				510	556	513	100.59%

**V1-10/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-10-SGRD1	127	CD	6	85	130	83	97.6
Total				85	130	83	97.65%

**V1-11/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-11-SGRD1	126	CD	10	165	133	164	99.4
V1-11-SGRD2	126	CD	8	165	142	173	104.8
Total				330	275	337	102.12%

**V1-12/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-12-SGRD1	131	CD	8	120	83	123	102.5
Total				120	83	123	102.5%

**V1-13/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-13-SGRD1	128	CD	6	85	66	81	95.3
V1-13-SGRD2	128	CD	6	80	73	74	92.5
V1-13-SGRD3	128	CD	6	85	110	92	108.2
Total				250	249	247	98.8%

**V1-14/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-14-SGRD1	122	CD	8	130	76	118	90.8
V1-14-SGRD2	137	CD	6	20	55	22	110.0
V1-14-SGRD3	137	SR	6	40	71	38	95.0
V1-14-SGRD4	136	CD	8	130	113	122	93.8
Total				320	315	300	93.75%

**V1-15/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-15-SGRD1	137	SR	6	80			-
V1-15-SGRD2	139	SR	6	80			-
Total				160	0	0	0%

**V1-17/ROOF**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-17-SGRD1	141	SR	4	20	44	22	110.0
V1-17-SGRD2	143	SR	6	90	101	92	102.2
V1-17-SGRD3	143	SR	6	100	87	98	98.0
V1-17-SGRD4	146	SR	6	40	107	41	102.5
Total				250	339	253	101.2%

**V1-18/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-18-SGRD1	150	SR	8	200	190	190	95.0
V1-18-SGRD2	145	SR	4	15	16	16	106.7
V1-18-SGRD3	142	SR	6	95	93	93	97.9
Total				310	299	299	96.45%

**V1-19/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-19-SGRD1	135	CD	6	75	81	81	108.0
V1-19-SGRD2	132	CD	6	65	72	72	110.8
Total				140	153	153	109.29%

**V1-20/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-20-SGRD1	121	SR	14	185	196	182	98.4
V1-20-SGRD2	121	SR	12	185	210	190	102.7
V1-20-SGRD3	121	SR	10	180	205	187	103.9
V1-20-SGRD4	134	SR	6	100	133	103	103.0
<b>Total</b>				<b>650</b>	<b>744</b>	<b>662</b>	<b>101.85%</b>

**V1-21/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-21-SGRD1	215	CD-7	8	120	130	118	98.3
V1-21-SGRD2	218	SR-3	4X4	20	92	21	105.0
V1-21-SGRD3	216	CD-6	6	30	82	30	100.0
V1-21-SGRD4	217	SR-3	4X4	20	110	20	100.0
V1-21-SGRD5	214	SR-1	12X6	80	99	83	103.8
V1-21-SGRD6	220	SR-6	8	190	205	173	91.1
<b>Total</b>				<b>460</b>	<b>718</b>	<b>445</b>	<b>96.74%</b>

**V1-22/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-22-SGRD1	213	CD	10	280	306	264	94.3
V1-22-SGRD2	213	CD	10	280	329	286	102.1
<b>Total</b>				<b>560</b>	<b>635</b>	<b>550</b>	<b>98.21%</b>

**V1-23/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-23-SGRD1	212	CD	12	535	586	534	99.8
V1-23-SGRD2	212	CD	12	535	595	555	103.7
<b>Total</b>				<b>1070</b>	<b>1181</b>	<b>1089</b>	<b>101.78%</b>

**V1-24/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-24-SGRD1	211	CD	14	700	820	693	99.0
<b>Total</b>				<b>700</b>	<b>820</b>	<b>693</b>	<b>99%</b>

**V1-25/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-25-SGRD1	208	CD	10	355	330	343	96.6
V1-25-SGRD2	209	CD	10	230	349	229	99.6
V1-25-SGRD3	210	CD	10	490	413	495	101.0
<b>Total</b>				<b>1075</b>	<b>1092</b>	<b>1067</b>	<b>99.26%</b>

**V1-26/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-26-SGRD1	201	CD	10	245	308	255	104.1
V1-26-SGRD2	201	CD	10	245	251	222	90.6
<b>Total</b>				<b>490</b>	<b>559</b>	<b>477</b>	<b>97.35%</b>

**V1-27/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-27-SGRD1	207	CD	8	160	257	158	98.8
V1-27-SGRD2	206	CD	10	355	373	372	104.8
V1-27-SGRD3	205	CD	10	350	323	325	92.9
<b>Total</b>				<b>865</b>	<b>953</b>	<b>855</b>	<b>98.84%</b>

**V1-28/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-28-SGRD1	203	CD	8	160	175	157	98.1
Total				160	175	157	98.12%

**V1-29/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-29-SGRD1	202	CD	8	205	212	199	97.1
V1-29-SGRD2	202	CD	8	205	240	218	106.3
V1-29-SGRD3	202	CD	8	205	193	186	90.7
V1-29-SGRD4	202	CD	8	205	211	195	95.1
V1-29-SGRD5	202	CD	12	210	231	216	102.9
V1-29-SGRD6	202	CD	8	210	251	229	109.0
Total				1240	1338	1243	100.24%

**V1-30/**

<b>Asset</b>							
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>CFM(1)</b>	<b>FINAL CFM</b>	<b>% to design</b>
V1-30-SGRD1	204	CD	10	280	320	276	98.6
Total				280	320	276	98.57%

<b>Asset</b>	<b>Notes</b>	<b>Date</b>	<b>Written By</b>
V1-04	Boxes 4 and 6 were swapped upon install. Per controls tech, we switched set points and then b alanced to design.	04/24/2025	Jordan Best
V1-06	Boxes 4 and 6 were swapped upon install. Per controls tech, we switched set points and then b alanced to design.	04/24/2025	Jordan Best
V1-15	not driving up to max	04/23/2025	Chase Wright
RTU-1-EGRD28	no damper available	06/03/2025	Corey Dick
RTU-1-EGRD32	Damper is shut as far as possible	06/03/2025	Corey Dick

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## System/Unit: FAN - Exhaust



Asset: EF-1

AREA:151

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-098-VG
Serial Num	-	25372370
Type	CRE DNBLAST	CRE DNBLAST

Test Data		
	Design	Actual
CFM	300	295
RL Voltage	208	212
RL Amperage	1.7	0.2
Discharge ESP	-	ATM
Total ESP	0.3	0.16"

Motor Data		
	Design	Actual
Motor MFG	-	VARI-GREEN
Frame	-	NA
Horsepower	0.25	0.25
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.8
Service Factor	-	NA

Completed By: Gabe Merk on 05/05/2025

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust



Asset: EF-2

AREA:149

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-100-VG
Serial Num	-	25372372
Type	CRE DNBLAST	CRE DNBLAST

Test Data		
	Design	Actual
CFM	650	673
RL Voltage	208	213
RL Amperage	1.7	0.3
Discharge ESP	-	ATM
Total ESP	0.3	0.18"

Motor Data		
	Design	Actual
Motor MFG	-	VARI-GREEN
Frame	-	NA
Horsepower	0.25	0.25
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.8
Service Factor	-	NA

Completed By: Gabe Merk on 05/05/2025

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust



Asset: EF-3

AREA:148

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-098-VG
Serial Num	-	25372371
Type	CRE DNBLAST	CRE DNBLAST

Test Data		
	Design	Actual
CFM	300	312
RL Voltage	208	212
RL Amperage	-	0.2
Discharge ESP	-	ATM
Total ESP	0.3	0.12"

Motor Data		
	Design	Actual
Motor MFG	-	VARI-GREEN
Frame	-	NA
Horsepower	0.25	0.25
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.8
Service Factor	-	NA

Completed By: Gabe Merk on 05/05/2025

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## System/Unit: FAN - Exhaust



Asset: EF-4

AREA:116

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	BCF-108-TH-10
Serial Num	-	25405929
Type	CABINET	INLINE

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56
Horsepower	1	1
Motor Rpm	1725	1770
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	3.2
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	3"
Motor Bore Size	5/8"
Motor Sheave SetPt	5 TURNS OUT
Fan Sheave Size	4-1/2"
Fan Sheave Bore	3/4"
Belt CL Distance	14"
Num of Belts	1
Belt Size	A35

Test Data		
	Design	Actual
CFM	1140	1173
Fan RPM	1287	962
RL Voltage	208	NOT SAFELY ACCESSIBLE
RL Amperage	4.6	2.4/2.4/2.2
Suction ESP	-	-0.23"
Discharge ESP	-	0.05"
Total ESP	1.0	0.28"
Brake Horse Power	-	0.73

Completed By: Gabe Merk on 06/04/2025

Notes:

CFM(1) COLUMN ARE READINGS OF RESTROOM GRILLS AND REMAINING TOTAL VIA TRAVERSE. CFM(2) COLUMN IS UNIT TOTAL TRAVERSE AFTER REDUCING FANSPEED. FINAL COLUMN IS TRAVERSE OF EACH EXHAUST LEG AND THE 4 GRILLES IN THE BATHROOM SETTING EACH LEG TO 10 CFM/LOCKER.

Written By: Gabe Merk on 06/04/2025

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

FAN - Exhaust



Diffuser Ret/Exh (GRD)

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	116	DUCT	4	80		64	1508	87	108.8
EGRD2	116	DUCT	4	160		92		156	97.5
EGRD3	116	DUCT	4	160		89		149	93.1
EGRD4	116	DUCT	4	80		71		72	90.0
EGRD5	116	DUCT	4	10		1702		43	430.0
EGRD6	116	DUCT	4	10				76	760.0
EGRD7	116	DUCT	4	10				83	830.0
EGRD8	116	DUCT	4	10				151	1510.0
EGRD9	116	DUCT	4	10				87	870.0
EGRD10	116	DUCT	4	10				149	1490.0
EGRD11	116	DUCT	4	10				44	440.0
EGRD12	116	DUCT	4	10				76	760.0
EGRD13	116	DUCT	4	10					-
EGRD14	116	DUCT	4	10					-
EGRD15	116	DUCT	4	10					-
EGRD16	116	DUCT	4	10					-
EGRD17	116	DUCT	4	10					-
EGRD18	116	DUCT	4	10					-
EGRD19	116	DUCT	4	10					-
EGRD20	116	DUCT	4	10					-
EGRD21	116	DUCT	4	10					-
EGRD22	116	DUCT	4	10					-
EGRD23	116	DUCT	4	10					-
EGRD24	116	DUCT	4	10					-
EGRD25	116	DUCT	4	10					-
EGRD26	116	DUCT	4	10					-
EGRD27	116	DUCT	4	10					-
EGRD28	116	DUCT	4	10					-
EGRD29	116	DUCT	4	10					-
EGRD30	116	DUCT	4	10					-
EGRD31	116	DUCT	4	10					-
EGRD32	116	DUCT	4	10					-
EGRD33	116	DUCT	4	10					-
EGRD34	116	DUCT	4	10					-
EGRD35	116	DUCT	4	10					-
EGRD36	116	DUCT	4	10					-
EGRD37	116	DUCT	4	10					-
EGRD38	116	DUCT	4	10					-
EGRD39	116	DUCT	4	10					-
EGRD40	116	DUCT	4	10					-
EGRD41	116	DUCT	4	10					-
EGRD42	116	DUCT	4	10					-
EGRD43	116	DUCT	4	10					-
EGRD44	116	DUCT	4	10					-
EGRD45	116	DUCT	4	10					-
EGRD46	116	DUCT	4	10					-
EGRD47	116	DUCT	4	10					-
EGRD48	116	DUCT	4	10					-
EGRD49	116	DUCT	4	10					-
EGRD50	116	DUCT	4	10					-
EGRD51	116	DUCT	4	10					-
EGRD52	116	DUCT	4	10					-
EGRD53	116	DUCT	4	10					-
EGRD54	116	DUCT	4	10					-
EGRD55	116	DUCT	4	10					-
EGRD56	116	DUCT	4	10					-
EGRD57	116	DUCT	4	10					-
EGRD58	116	DUCT	4	10					-
EGRD59	116	DUCT	4	10					-
EGRD60	116	DUCT	4	10					-
EGRD61	116	DUCT	4	10					-
EGRD62	116	DUCT	4	10					-
EGRD63	116	DUCT	4	10					-
EGRD64	116	DUCT	4	10					-
EGRD65	116	DUCT	4	10					-
EGRD66	116	DUCT	4	10					-
EGRD67	SHOWERS	ER-1	6X6	10					-

EGRD68	SHOWERS	ER-1	8X8	10					-
EGRD69	SHOWERS	ER-1	8X8	10					-
EGRD70	SHOWERS	ER-1	6X6	10					-
Total				1140		2018	1508	1173	102.89%

Asset	Notes	Date	Written By
EGRD1	NUMBERS PLACED IN CFM(1) AND FINAL COLUMN FOR EGRD1 AND 2 REPRESENT TRAVERSE TOTALS FOR THE LOCKER PLENUMS. EACH LOCKER IS NOT INDIVIDUALLY DUCTED TO THE EXHAUST. ~3 DUCT DROPS PER LOCKER ROW. THE TOTAL FOR EACH TRAVERSE HAS BEEN SET FOR 10 CFM PER LOCKER.	06/04/2025	Gabe Merk

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## System/Unit: FAN - Exhaust



Asset: EF-5

AREA:109,110

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	GB-098-4
Serial Num	-	25432882
Type	CRE DNBLAST	CRE DNBLAST

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56Z
Horsepower	0.25	0.25
Motor Rpm	1725	1745
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.35
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	VP25
Motor Bore Size	0.75"
Motor Sheave SetPt	1/2 TURNS OUT
Fan Sheave Size	4"
Fan Sheave Bore	0.75"
Belt CL Distance	5.25"
Num of Belts	1
Belt Size	3L200R

Test Data		
	Design	Actual
CFM	465	467
Fan RPM	1224	1194
RL Voltage	208	211
RL Amperage	3.2	0.8
Suction ESP	-	-0.11"
Discharge ESP	-	ATM
Total ESP	0.4	0.11"
Brake Horse Power	-	0.15

Completed By: Gabe Merk on 06/04/2025

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

EF-5/109,110

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	109	DUCT	4	10		206		113	1130.0
EGRD2	109	DUCT	4	10		310		103	1030.0
EGRD3	109	DUCT	4	10					-
EGRD4	109	DUCT	4	10					-
EGRD5	110	ER-1	6X6	80				79	98.8
EGRD6	109	DUCT	4	10					-
EGRD7	110	ER-1	8X8	160				145	90.6
EGRD8	109	DUCT	4	10					-
EGRD9	109	DUCT	4	10					-
EGRD10	109	DUCT	4	10					-
EGRD11	109	DUCT	4	10					-
EGRD12	109	DUCT	4	10					-
EGRD13	109	DUCT	4	10					-
EGRD14	109	DUCT	4	10					-
EGRD15	109	DUCT	4	10					-
EGRD16	109	DUCT	4	10					-
EGRD17	109	DUCT	4	10					-
EGRD18	109	DUCT	4	10					-
EGRD19	109	DUCT	4	10					-
EGRD20	109	DUCT	4	10					-
EGRD21	109	DUCT	4	10					-
EGRD22	109	DUCT	4	10					-
EGRD23	109	DUCT	4	25				27	108.0
Total				465		516	0	467	100.43%

Asset	Notes	Date	Written By
EGRD1	NUMBERS PLACED IN CFM(1) AND FINAL COLUMN FOR EGRD1 AND 2 REPRESENT TRAVERSE TOTALS FOR THE LOCKER PLENUMS. EACH LOCKER IS NOT INDIVIDUALLY DUCTED TO THE EXHAUST. ~3 DUCT DROPS PER LOCKER ROW. THE TOTAL FOR EACH TRAVERSE HAS BEEN SET FOR 10 CFM PER LOCKER.	06/04/2025	Gabe Merk

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## System/Unit: FAN - Exhaust



Asset: EF-6

AREA:150,142,141,143,144

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	GB-098-4
Serial Num	-	25432883
Type	CRE DNBLAST	CRE DNBLAST

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56Z
Horsepower	0.25	0.25
Motor Rpm	1725	1745
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.35
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	VP25
Motor Bore Size	5/8"
Motor Sheave SetPt	0 TURNS OUT
Fan Sheave Size	AK35
Fan Sheave Bore	3/4"
Belt CL Distance	5-1/2"
Num of Belts	1
Belt Size	3L200R

Test Data		
	Design	Actual
CFM	555	521
Fan RPM	1404	1440
RL Voltage	208	211
RL Amperage	3.2	0.9
Suction ESP	-	-0.15"
Discharge ESP	-	ATM
Total ESP	0.4	0.15"
Brake Horse Power	-	0.17

Completed By: Gabe Merk on 06/04/2025

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

EF-6/150,142,141,143,144

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EF-6-EGRD1	ER	10X8	200		153	158	181	90.5
EF-6-EGRD2	ER	8	95		72	99	93	97.9
EF-6-EGRD3	ER	4	20		19	22	21	105.0
EF-6-EGRD4	ER	8	90		105	118	88	97.8
EF-6-EGRD5	ER	8	150		87	108	138	92.0
Total			555		436	505	521	93.87%

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## System/Unit: FAN - Exhaust



Asset: EF-7

AREA:140

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B110
Serial Num	-	174676790-0008
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	80	115

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Motor Rpm	802	950
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.5

Completed By: Gabe Merk on 05/05/2025

Notes:

Single speed ef. Unable to reduce flow to design.

Written By: Gabe Merk on 05/05/2025

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust



Asset: EF-8

AREA:104

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B110
Serial Num	-	174572494-0072
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	80	110

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Motor Rpm	802	950
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.15

Completed By: Gabe Merk on 05/05/2025

Notes:  
Single speed ef. Unable to reduce flow to design.

Written By: Gabe Merk on 05/05/2025

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust



Asset: EF-9

AREA:RR 217

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	CSP-A390
Serial Num	-	NA
Type	INLINE	INLINE

Test Data		
	Design	Actual
CFM	210	99
RL Voltage	115	
RL Amperage	1.42	
Discharge ESP	-	
Total ESP	0.5	

Motor Data		
	Design	Actual
Motor MFG	-	McMILLAN
Frame	-	NL
Horsepower	51W	NL
Motor Rpm	1025	1350
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.4
Service Factor	-	NL

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-9/RR 217

Asset									
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design	Location
EF-9-EGRD1	ER-1	6X6	80	1	24			-	
EF-9-EGRD2	ER-1	6X6	80	1	24			-	
EF-9-EGRD3	ER-5		50	1	51			-	
Total			210		99	0	0	0%	

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## System/Unit: FAN - Exhaust



Asset: EF-10

AREA:134

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	GB-097-3
Serial Num	-	25432884
Type	CRE DNBLAST	DOWNBLAST

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56Z
Horsepower	0.33	0.33
Motor Rpm	1725	1740
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.6
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	VP34S
Motor Bore Size	5/8"
Motor Sheave SetPt	1 OUT
Fan Sheave Size	4"
Fan Sheave Bore	3/4"
Belt CL Distance	5-1/2"
Num of Belts	1
Belt Size	4L230R

Test Data		
	Design	Actual
CFM	150	152
Fan RPM	1161	1170
RL Voltage	208	212
RL Amperage	4	0.8
Suction ESP	-	-0.18"
Discharge ESP	-	ATM
Total ESP	0.4	0.18"
Brake Horse Power	-	0.16

Completed By: Gabe Merk on 05/05/2025

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

EF-10/134

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	ER-2	8X8	150		152	152	152	101.3
Total			150		152	152	152	101.33%

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## System/Unit: FAN - Exhaust



Asset: SEF-1

AREA:116

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	BCF-107-TH-5
Serial Num	-	25405934
Type	CABINET	INLINE

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56
Horsepower	0.5	0.5
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	7.4
Service Factor	-	1.25

Drive Data	
	Actual
Motor Sheave Size	3"
Motor Bore Size	1.75"
Motor Sheave SetPt	4 TURNS OUT
Fan Sheave Size	NA
Fan Sheave Bore	NA
Belt CL Distance	NA
Num of Belts	1
Belt Size	4L330R/0224*

Test Data		
	Design	Actual
CFM	800	856
Fan RPM	1513	1757
RL Voltage	115	NA
RL Amperage	9.8	6.9
Suction ESP	-	-0.13
Discharge ESP	-	
Total ESP	1	
Brake Horse Power	-	

Completed By: Aaron Cosby on 06/03/2025

Notes:  
Motor rpm recorded. Fan rpm NA

Written By: Aaron Cosby on 06/03/2025

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### SEF-1/116

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SEF-1-EGRD1	ER	16X12	800	1	950	926	859	107.4
Total			800		950	926	859	107.38%

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Supply



Asset: SF-1

AREA:116

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	BCF-108-5
Serial Num	-	25405936

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56
Horsepower	0.5	0.5
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	7.4
Service Factor	-	1.25

Drive Data	
	Actual
Motor Sheave Size	3.5"
Motor Bore Size	1"
Fan Sheave Size	4.5"
Fan Sheave Bore	0.75"
Belt CL Distance	13.5"
Num of Belts	1
Belt Size	4L380R/5123*

Test Data		
	Design	Actual
CFM	800	1212
SF RPM	1072	879
RL Voltage	115	NA
RL Amperage	9.8	6.6
Suction ESP	-	-0.19
Discharge ESP	-	0.03"
Total ESP	0.75	0.22"
Brake Horse Power	-	

Completed By: Aaron Cosby on 06/03/2025

Notes:  
5 Turns out. Above design

Written By: Aaron Cosby on 06/03/2025

# National TAB

Project: Green Township Police Dept (Cincinnati, OH)

## FAN - Supply



### Diffuser Supply (GRD)

SF-1/116

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SF-1-SGRD1	STORM SHELTER	OR	9X8	800	1278		-
Total				800	1278	0	0%