

**Report By:**

National TAB  
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SUITE 4210  
CINCINNATI, OH 45246



**Report: preliminary tab report**  
**Function: Test, Adjust, & Balance**  
**Date: 03/07/2025**  
**Completed By: National TAB**

# PROJECT

## Global Impact STEM Academy (Springfield, OH)

570 E. Leffel Ln

Springfield, OH 45505

### Client

TP Mechanical  
1500 Kemper Meadow Drive  
Cincinnati, OH 45240

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

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# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

System/Unit: AHU/RTU



Asset: AHU-2

AREA:

Unit Data		
	Design	Actual
MFG	NA	TRANE
Serial Num	-	OA3588641-1
Model Num	NA	OADG015C3
Configuration	VERTICAL	VERTICAL
Num PreFilter 1	-	6
PreFilter Size 1	-	20"x20"
Num Final Filter 1	-	6
Final Filter Size 1	-	18"x24"x2"
Num Final Filter 2	-	6
Final Filter Size 2	-	18"x24"x4"

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	NA
Horsepower	3	3
Motor Rpm	-	1770
Phase	3	3
Rated Voltage	460	460
Rated Amperage	4.0	4.0
Service Factor	-	1.15

Test Data		
	Design	Actual
SF CFM	3000	3008
SF RPM	2666	1800
RA CFM	-	0
OA CFM	3000	3008
RL Voltage	460	466 VFD
RL Amperage	-	2.8 VFD
VFD Max SetPt	-	60Hz
SF Motor Freq(HZ)	-	60hz
SF System SetPt	-	60hz
RA Damper Position	-	0%
OA Damper Position	-	100%
Brake Horse Power	1.86	1.88

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.13"
Fan Suction SP	-	INACCESSIBLE
Fan Discharge SP	-	0.13"
Total ESP	2.10	0.26"
Fan Total SP	2.80	NA
Final Filters P.D.	-	0.62"*

Completed By: Gabe Merk on 03/11/2025

Notes:

\*FINAL FILTER AND COOLING COIL PD COMBINED

Written By: Gabe Merk on 03/11/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## AHU/RTU



### Diffuser Supply (GRD)

#### AHU-2/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	KITCHEN	AL	12	500	410	505	101.0
SGRD2	KITCHEN	AL	12	500	417	521	104.2
SGRD3	KITCHEN	AL	12	500	381	515	103.0
SGRD4	KITCHEN	AL	12	500	356	481	96.2
SGRD5	KITCHEN	AL	12	500	361	472	94.4
SGRD6	KITCHEN	AL	12	500	376	514	102.8
Total				3000	2301	3008	100.27%

Completed By: Gabe Merk on 03/06/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: AHU-DUAL FAN



Asset: AHU-1

AREA:

UNIT DATA - SUPPLY		
	Design	Actual
Manufacturer	NA	TRANE
Model Number	NA	SFHN0904E
Serial Number	-	C24E03003
No. Pre-Filters / Size (1)	-	21/20"x24"x2"
No. Pre-Filters / Size (2)	-	5/12"x20"x2"
No. Final Filters / Size (1)	-	21/20"x24"x18"
No. Final Filters / Size (2)	-	5/12"x20"x18"

MOTOR DATA - EXHAUST/RETURN	
	Actual
Motor MFG / FRAME	BALDOR / 284T
Horsepower / RPM	25 / 1775
Rated Volts / Phase	460 / 3
Rated Amperage / SF	31 / 1.15

MOTOR DATA - SUPPLY	
	Actual
Motor MFG / Frame	BALDOR / 326T
Horsepower / RPM	50 / 1775
Rated Volts / Phase	460 / 3
Rated Amperage / SF	58 / 1.15

DRIVE DATA - EXHAUST/RETURN		
	Design	Actual
Motor Sheave Size / Bore	-	5-1/4" / 1-7/8"
Fan Sheave Size / Bore	-	9" / 2-7/16"
Belt CL Distance	-	24"
No. Belts / Size	-	2 / 5VX710

DRIVE DATA - SUPPLY		
	Design	Actual
Motor Sheave Size / Bore	-	7" / 2"
Fan Sheave Size / Bore	-	3B5V110 / 2-7/16"
Belt CL Distance	-	27-1/2"
No. Belts / Size	-	3 / 5VX830

TEST DATA - EXHAUST/RETURN		
	Design	Actual
Total CFM	24780	23121
RL Voltage	460	271VFD
RL Amperage	30.50	16.1VFD
Motor B.H.P.	17.60	8.2VFD

TEST DATA - SUPPLY		
	Design	Actual
Total CFM	31000	29622
OA CFM	6220	6479
VFD Speed	-	80%
RL Voltage	460	370
RL Amperage	59.00	35.1
Motor B.H.P.	34.45	30.2

PERFORMANCE DATA - SUPPLY		
	Design	Actual
Static Pressure Stpt	-	2.25"
Suction S.P.	-	-1.31"
Discharge S.P.	-	2.06"
Total S.P.	4.94	3.37"
DX Coil P.D.	-	0.38"
Total ESP	2.50	2.05"

**Notes:**

AHU finals reported with all VAVs commanded to max cooling, satisfied, and final DP recorded at 2.25". DP sensor is located directly at unit discharge.

Written By: Nick Payne on 03/27/2025

**National TAB**  
Project: Global Impact STEM Academy (Springfield, OH)  
**AHU-DUAL FAN**



VAV - Single Duct

AHU-1/

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)
1-1-1	PRICE	SDV	VVR14 REHEAT	14	1475	1499	450	455	738	742	3719
1-1-2	PRICE	SDV	VVR16 REHEAT	16	1900	1916	590	601	950	962	5324
1-1-3	PRICE	SDV	VVR12 REHEAT	12	960	967	192	199	480	486	2779
1-1-4	PRICE	SDV	VV6 COOLING	6	300	292	60	64	0	0	596
1-1-5	PRICE	SDV	VVR12 REHEAT	12	950	947	790	795	790	795	2407
1-1-6	PRICE	SDV	VVR14 REHEAT	14	1540	1506	430	415	770	763	3384
1-1-7	PRICE	SDV	VVR14 REHEAT	14	1535	1542	430	443	770	759	3294
1-1-8	PRICE	SDV	VVR10 REHEAT	10	650	633	130	135	325	332	1727
1-1-9	PRICE	SDV	VVR10 REHEAT	10	850	856	170	174	425	428	1837
1-1-10	PRICE	SDV	VVR12 REHEAT	12	1250	1305	890	899	890	899	2905
1-1-11	PRICE	SDV	VVR24X16 REHEAT	24X16	2520	2470	540	535	1260	1236	10310
1-1-12	PRICE	SDV	VVR24X16 REHEAT	24X16	2520	2453	540	556	1260	1267	12891
1-1-13	PRICE	SDV	VVR8 REHEAT	8	555	528	111	113	278	283	1105
1-1-14	PRICE	SDV	VVR5 REHEAT	5	210	202	42	40	105	110	518
1-1-15	PRICE	SDV	VVR10 REHEAT	10	885	881	177	183	443	461	1618
1-1-16	PRICE	SDV	VVR5 REHEAT	5	220	218	44	47	110	115	564
1-1-17	PRICE	SDV	VVR7 REHEAT	7	375	367	75	74	188	193	766
1-1-18	PRICE	SDV	VVR12 REHEAT	12	1065	1027	213	215	533	543	3293
1-1-19	PRICE	SDV	VVR12 REHEAT	12	1285	1303	257	265	643	657	2423
1-1-20	PRICE	SDV	VVR6 REHEAT	6	345	325	69	65	173	171	576
1-1-21	PRICE	SDV	VVR5 REHEAT	5	150	152	30	31	75	77	493
1-1-22	PRICE	SDV	VVR7 REHEAT	7	390	396	78	82	195	204	771
1-1-23	PRICE	SDV	VVR7 REHEAT	7	355	345	71	73	178	182	778
1-1-24	PRICE	SDV	VVR8HH REHEAT	8	400	409	80	83	400	409	1016
1-1-25	PRICE	SDV	VVR12 REHEAT	12	750	757	695	701	695	701	2392
1-1-26	PRICE	SDV	VVR12 REHEAT	12	1230	1195	745	735	745	735	2470
1-1-27	PRICE	SDV	VVR14 REHEAT	14	1785	1860	357	360	893	901	3998
1-1-28	PRICE	SDV	VVR12 REHEAT	12	1260	1283	885	894	885	894	2467
1-1-29	PRICE	SDV	VVR10 REHEAT	10	855	869	220	229	428	435	1526
1-1-30	PRICE	SDV	VVR14 REHEAT	14	1560	1576	860	868	860	868	3354

Diffuser Supply (GRD)

1-1-1/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	131	CS	22X6	335	1828	352	105.1
SGRD2	131	CS	22X6	335		326	97.3
SGRD3	131B	CS	10X8	75		80	106.7
SGRD4	131C	CS	10X8	50		53	106.0
SGRD5	131	CS	22X6	340		347	102.1
SGRD6	131	CS	22X6	340		341	100.3
Total				1475	1828	1499	101.63%

1-1-2/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	131	CS	22X6	315	275	314	99.7
SGRD2	131	CS	22X6	315	338	303	96.2
SGRD3	131	CS	22X6	315	523	333	105.7
SGRD4	131	CS	22X6	315	561	335	106.3
SGRD5	131	CS	22X6	320	434	316	98.8
SGRD6	131	CS	22X6	320	350	315	98.4
Total				1900	2481	1916	100.84%

1-1-3/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	OPEN HUDDLE 129	CS	12X8	240	331	261	108.8
SGRD2	OPEN HUDDLE 129	CS	12X8	240	339	263	109.6
SGRD3	OPEN HUDDLE 129	CS	12X8	240	277	219	91.3
SGRD4	OPEN HUDDLE 129	CS	12X8	240	280	224	93.3
Total				960	1227	967	100.73%

1-1-4/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	KILN 126C	AL	10	300	82	292	97.3
Total				300	82	292	97.33%

1-1-5/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	126	AL	8	190	209	185	97.4
SGRD2	126	AL	8	190	225	193	101.6
SGRD3	126	AL	8	190	194	182	95.8
SGRD4	126	AL	8	190	238	204	107.4
SGRD5	126	AL	8	190	211	183	96.3
Total				950	1077	947	99.68%

1-1-6/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	125	AL	12	515	529	486	94.4
SGRD2	125	AL	12	510	551	510	100.0
SGRD3	125	AL	12	515	613	509	98.8
Total				1540	1693	1505	97.73%

1-1-7/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	125	AL	12	515	539	497	96.5
SGRD2	125	AL	12	510	581	527	103.3
SGRD3	125	AL	12	510	546	518	101.6
Total				1535	1666	1542	100.46%

1-1-8/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	133	AL	8	175	187	174	99.4
SGRD2	133	AL	8	175	182	170	97.1
SGRD3	133	AL	8	175	179	172	98.3
SGRD4	128	AL	8	125	199	117	93.6
Total				650	747	633	97.38%

1-1-9/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	124B	HL	48	425	486	426	100.2
SGRD2	124B	HL	48	425	568	430	101.2
Total				850	1054	856	100.71%

1-1-10/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	100C	AL	8	210	272	212	101.0
SGRD2	100C	AL	8	210	288	220	104.8
SGRD3	100C	AL	8	205	258	212	103.4
SGRD4	100C	AL	8	205	283	211	102.9
SGRD5	100C	AL	8	210	298	230	109.5
SGRD6	100C	AL	8	210	268	220	104.8
Total				1250	1667	1305	104.4%

1-1-11/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	100C	CS	24X6	420	526	394	93.8
SGRD2	100C	CS	24X6	420	565	458	109.0
SGRD3	100C	CS	24X6	420	611	392	93.3
SGRD4	100C	CS	24X6	420	432	379	90.2
SGRD5	100C	CS	24X6	420	606	437	104.0
SGRD6	100C	CS	24X6	420	635	410	97.6
Total				2520	3375	2470	98.02%

1-1-12/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	100C	CS	24X6	420	559	389	92.6
SGRD2	100C	CS	24X6	420	654	421	100.2
SGRD3	100C	CS	24X6	420	858	395	94.0
SGRD4	100C	CS	24X6	420	517	401	95.5
SGRD5	100C	CS	24X6	420	713	421	100.2
SGRD6	100C	CS	24X6	420	792	426	101.4
Total				2520	4093	2453	97.34%

1-1-13/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	RR 120 MENS	AL	10	240	240	228	95.0
SGRD2	RR 120 WOMENS	AL	10	240	184	218	90.8
SGRD3	STORAGE 119	CS	10X8	75	264	82	109.3
Total				555	648	528	95.14%

1-1-14/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	113	AL	6	100	83	95	95.0
SGRD2	112	AL	8	110	173	107	97.3
Total				210	256	202	96.19%

1-1-15/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	100C	CS	22X6	355	350	367	103.4
SGRD2	100C	AS	8	175	146	178	101.7
SGRD3	100C	CS	22X6	355	472	336	94.6
Total				885	968	881	99.55%

1-1-16/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	111	AL	8	110	141	104	94.5
SGRD2	110	AL	8	110	162	114	103.6
Total				220	303	218	99.09%

1-1-17/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	102	AL	12	375	426	367	97.9
Total				375	426	367	97.87%

1-1-18/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	100B	CS	22X6	355	350	336	94.6
SGRD2	100B	CS	22X6	355	598	348	98.0
SGRD3	100B	CS	22X6	355	613	343	96.6
Total				1065	1561	1027	96.43%

1-1-19/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	108	AL	10	325	427	329	101.2
SGRD2	108	AL	10	320	311	341	106.6
SGRD3	108	AL	10	320	298	318	99.4
SGRD4	108	AL	10	320	423	315	98.4
Total				1285	1459	1303	101.4%

1-1-20/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	106	AL	8	170	53	157	92.4
SGRD2	106	AL	8	175	40	168	96.0
Total				345	93	325	94.2%

1-1-21/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	HALL	AL	6	75	81	72	96.0
SGRD2	107	AL	6	75	95	80	106.7
Total				150	176	152	101.33%

1-1-22/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	104	AL	10	235	256	243	103.4
SGRD2	105	AL	8	155	191	153	98.7
Total				390	447	396	101.54%

1-1-23/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	103	AL	10	355	410	345	97.2
Total				355	410	345	97.18%

1-1-24/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	101	AL	8	200	223	200	100.0
SGRD2	101	AL	8	200	233	209	104.5
Total				400	456	409	102.25%

1-1-25/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	115	AL	8	150	156	145	96.7
SGRD2	115	AL	8	150	187	163	108.7
SGRD3	115	AL	8	150	161	147	98.0
SGRD4	115	AL	8	150	170	149	99.3
SGRD5	115	AL	8	150	169	153	102.0
Total				750	843	757	100.93%

1-1-26/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	116	AL	8	205	215	185	90.2
SGRD2	116	AL	8	205	219	187	91.2
SGRD3	116	AL	8	205	250	211	102.9
SGRD4	116	AL	8	205	245	206	100.5
SGRD5	116	AL	8	205	239	207	101.0
SGRD6	116	AL	8	205	236	199	97.1
Total				1230	1404	1195	97.15%

1-1-27/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	100C	CS	18X6	290	2736	300	103.4
SGRD2	100C	CS	18X6	295		303	102.7
SGRD3	100C	CS	18X6	295		324	109.8
SGRD4	100C	CS	18X6	295		304	103.1
SGRD5	100C	CS	18X6	295		308	104.4
SGRD6	100C	CS	18X6	295		321	108.8
Total				1765	2736	1860	105.38%

1-1-28/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	117	AL	8	210	195	198	94.3
SGRD2	117	AL	8	210	211	210	100.0
SGRD3	117	AL	8	210	263	218	103.8
SGRD4	117	AL	8	210	269	212	101.0
SGRD5	117	AL	8	210	272	216	102.9
SGRD6	117	AL	8	210	240	229	109.0
Total				1260	1450	1283	101.83%

1-1-29/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	134B	HL	48	285	297	293	102.8
SGRD2	134B	HL	48	285	256	293	102.8
SGRD3	134B	HL	48	285	251	283	99.3
Total				855	804	869	101.64%

1-1-30/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	118	AL	10	260	287	256	98.5
SGRD2	118	AL	10	260	220	247	95.0
SGRD3	118	AL	10	260	311	282	108.5
SGRD4	118	AL	10	260	309	273	105.0
SGRD5	118	AL	10	260	273	269	103.5
SGRD6	118	AL	10	260	308	249	95.8
Total				1560	1708	1576	101.03%

Asset	Notes	Date	Written By
1-1-2	grille k=0.594	03/06/2025	Gabe Merk
1-1-4	BOX HAS NO REHEAT. GM	03/06/2025	Gabe Merk
SGRD1	CFM(1) FROM VAV CALIBRATION TRAVERSE. GM	03/07/2025	Gabe Merk
SGRD2	Damper inaccessible above hard ceiling.	03/04/2025	Gabe Merk
SGRD1	CFM 1 INDICATES INITIAL VAV TRAVERSE CFM.	03/04/2025	Gabe Merk

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: FAN - Exhaust



Asset: EF-1

AREA:RR 120

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-099-VG
Serial Num	-	24893194
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	750	753
RL Voltage	115	122
RL Amperage	3.5	2.6
Total ESP	0.5	1.13"

Motor Data		
	Design	Actual
Motor MFG	-	VARIGREEN
Frame	-	NA
Horsepower	0.25	1/4
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	3.5
Service Factor	-	NA

Completed By: Gabe Merk on 03/10/2025

Notes:  
GRILLES 8-10 COMBINED TO ONE GRILLE AT 225 CFM.

Written By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-1/RR 120

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	GS	12X12	75	1	134	131	73	97.3
EGRD2	GS	12X12	75	1	65	66	73	97.3
EGRD3	GS	12X12	75	1	98	83	82	109.3
EGRD4	GS	12X12	75	1	45	33	68	90.7
EGRD5	GS	12X12	75	1	78	69	82	109.3
EGRD6	GS	12X12	75	1	122	112	81	108.0
EGRD7	GS	12X12	75	1	138	134	79	105.3
EGRD8	GS	12X12	225	1	200	186	215	95.6
Total			750		880	814	753	100.4%

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: FAN - Exhaust



Asset: EF-2

AREA:RR 109B,109A

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-097-VG
Serial Num	-	24893190
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	150	155
RL Voltage	115	123
RL Amperage	2.85	1.0
Total ESP	0.50	0.21"

Motor Data		
	Design	Actual
Motor MFG	-	VARIGREEN
Frame	-	NA
Horsepower	0.25	1/4
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	3.5
Service Factor	-	NA

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-2/RR 109B,109A

Asset							
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	FINAL CFM	% to design
EGRD1	GS	24X12	75	1	108	80	106.7
EGRD2	GS	24X12	75	1	83	75	100.0
Total			150		191	155	103.33%

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

System/Unit: FAN - Exhaust



Asset: EF-3

AREA:CLASS 118

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-140-VG
Serial Num	-	24893183
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	1700	1697
RL Voltage	115	122
RL Amperage	6.4	2.6
Total ESP	0.50	1.45"

Motor Data		
	Design	Actual
Motor MFG	-	VARIGREEN
Frame	-	NA
Horsepower	0.5	1/2
Motor Rpm	1200	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	6.4
Service Factor	-	NA

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-3/CLASS 118

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	FL	24X24	425	1	766	592	409	96.2
EGRD2	FL	24X24	425	1	595	464	389	91.5
EGRD3	FL	24X24	425	1	457	355	454	106.8
EGRD4	FL	24X24	425	1	446	352	445	104.7
Total			1700		2264	1763	1697	99.82%

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: FAN - Exhaust



Asset: EF-4

AREA:PREP HOOD 134B

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	FJI-08-BI-21
Serial Num	-	24884355
Type	CRE FUME	UTILITY SET FUME

Test Data		
	Design	Actual
CFM	620	635
Fan RPM	2009	1490
RL Voltage	460	282/286/284
RL Amperage	1.1	0.6/0.6/0.7
Brake Horse Power	-	0.23

Motor Data		
	Design	Actual
Motor MFG	-	WEG
Frame	-	56
Horsepower	0.33	0.33
Motor Rpm	1725	1765
Phase	3	3
Voltage (rated)	460	460
Amperage (rated)	-	0.668
Service Factor	-	1.35

Drive Data	
	Actual
Motor Sheave Size	VP34S
Motor Bore Size	5/8"
Motor Sheave SetPt	5 OUT
Fan Sheave Size	3"
Fan Sheave Bore	1"
Belt CL Distance	9-1/4"
Num of Belts	1
Belt Size	4L80R

Completed By: Nick Payne on 03/25/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: FAN - Exhaust



Asset: EF-5

AREA:PREP HOOD 124B

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	FJI-08-BI-21
Serial Num	-	24884357
Type	CRE FUME	UTILITY SET FUME

Test Data		
	Design	Actual
CFM	620	585
Fan RPM	2009	1565
RL Voltage	460	283/286/285
RL Amperage	1.1	0.7/0.7/0.6

Motor Data		
	Design	Actual
Motor MFG	-	WEG
Frame	-	56
Horsepower	0.33	0.33
Motor Rpm	1725	1765
Phase	3	3
Voltage (rated)	460	460
Amperage (rated)	-	0.668
Service Factor	-	1.35

Drive Data	
	Actual
Motor Sheave Size	3"
Motor Bore Size	5/8"
Motor Sheave SetPt	4 OUT
Fan Sheave Size	3"
Fan Sheave Bore	1"
Belt CL Distance	10-1/2"
Num of Belts	1
Belt Size	4L280R

Completed By: Nick Payne on 03/25/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: FAN - Exhaust



Asset: EF-6

AREA:CLASS 125

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-200-VG
Serial Num	-	24899377
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	3275	2882
RL Voltage	230	121
RL Amperage	2.6	8
Total ESP	0.5	0.97

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	145TZ
Horsepower	1.0	1
Motor Rpm	900	1800
Phase	1	3
Voltage (rated)	115	230
Amperage (rated)	-	2.6
Service Factor	-	1

Completed By: Aaron Cosby on 03/25/2025

Notes:  
 MOTOR RATED FOR 230V AND SPEED CONTROLLER RATED FOR 120V.  
 UNIT BALANCED PROPORTIONALLY LOW GM 3/25/25

Written By: Nick Payne on 03/27/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-6/CLASS 125

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	FL	24X24	820	1	656	726	747	91.1
EGRD2	FL	24X24	815	1	720	835	739	90.7
EGRD3	FL	24X24	820	1	544	627	664	81.0
EGRD4	FL	24X24	820	1	627	712	732	89.3
Total			3275		2547	2900	2882	88%

Completed By: Gabe Merk on 03/25/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: FAN - Exhaust



Asset: EF-7

AREA:CLASS 126

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-120-VG
Serial Num	-	24893193
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	1080	1085
RL Voltage	115	123
RL Amperage	6.4	2.5
Total ESP	0.5	0.55"

Motor Data		
	Design	Actual
Motor MFG	-	VARIGREEN
Frame	-	NA
Horsepower	0.50	1/2
Motor Rpm	1200	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	6.4
Service Factor	-	NA

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-7/CLASS 126

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	FL	24X24	360	1	524	488	350	97.2
EGRD2	FL	24X24	360	1	431	404	357	99.2
EGRD3	FL	24X24	360	1	461	433	378	105.0
Total			1080		1416	1325	1085	100.46%

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: FAN - Exhaust



Asset: EF-8

AREA:KILN 126C

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-098-VG
Serial Num	-	24893187
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	375	360
RL Voltage	115	123
RL Amperage	3.5	0.6
Total ESP	0.50	0.25"

Motor Data		
	Design	Actual
Motor MFG	-	VARIGREEN
Frame	-	NA
Horsepower	0.25	1/4
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	3.5
Service Factor	-	NA

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-8/KILN 126C

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	FL	10	375	1	606	428	360	96.0
Total			375		606	428	360	96%

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: FAN - Exhaust



Asset: EF-9

AREA:STORAGE 126B

Unit Data		
	Design	Actual
<b>MFG</b>	NA	GREENHECK
<b>Model Num</b>	NA	G-097-VG
<b>Serial Num</b>	-	24893184
<b>Type</b>	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
<b>CFM</b>	100	108
<b>RL Voltage</b>	115	124
<b>RL Amperage</b>	3.5	0.6
<b>Total ESP</b>	0.50	0.16"

Motor Data		
	Design	Actual
<b>Motor MFG</b>	-	VARIGREEN
<b>Frame</b>	-	NA
<b>Horsepower</b>	0.25	1/4
<b>Motor Rpm</b>	1725	1750
<b>Phase</b>	1	1
<b>Voltage (rated)</b>	115	115
<b>Amperage (rated)</b>	-	3.5
<b>Service Factor</b>	-	NA

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-9/STORAGE 126B

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	GL	6	100	1	190	108	108	108.0
Total			100		190	108	108	108%

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: FAN - Exhaust



Asset: EF-10

AREA:WORKSHOP 131

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-200-VG
Serial Num	-	
Type	CRE DNBLAST	

Test Data		
	Design	Actual
CFM	3450	3238
RL Voltage	115	123
RL Amperage	10.3	5.6
Total ESP	0.50	0.33"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	145TZ
Horsepower	1.0	1
Motor Rpm	900	1800
Phase	1	1
Voltage (rated)	115	120
Amperage (rated)	-	9.4
Service Factor	-	1

Completed By: Gabe Merk on 03/10/2025

Notes:  
GRILLE K FACTOR: 2.78

Written By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-10/WORKSHOP 131

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	GS	36X12	860	2.78	1320	903	875	101.7
EGRD2	GS	36X12	860	2.78	1220	714	776	90.2
EGRD3	GS	36X12	865	2.78	222	761	782	90.4
EGRD4	GS	36X12	865	2.78	247	795	805	93.1
Total			3450		3009	3173	3238	93.86%

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: FAN - Exhaust



Asset: EF-11

AREA: JAN 127

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-097-VG
Serial Num	-	24893185
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	100	99
RL Voltage	115	123
RL Amperage	3.5	0.2
Total ESP	0.50	0.02"

Motor Data		
	Design	Actual
Motor MFG	-	VARIGREEN
Frame	-	NA
Horsepower	0.25	1/4
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	3.5
Service Factor	-	NA

Completed By: Gabe Merk on 03/10/2025

Notes:  
READ VIA VEL GRID FACE READING.

Written By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

EF-11/JAN 127

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	GS	10X10	100	0.594	298	119	99	99.0
Total			100		298	119	99	99%

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: FAN - Exhaust



Asset: EF-12

AREA:CLASS 117

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-120-VG
Serial Num	-	24893186
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	1410	1183
RL Voltage	115	123
RL Amperage	6.4	4.8
Total ESP	0.50	1.43

Motor Data		
	Design	Actual
Motor MFG	-	VARIGREEN
Frame	-	NA
Horsepower	0.50	1/2
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	6.4
Service Factor	-	NA

Completed By: Aaron Cosby on 03/25/2025

Notes:  
UNIT AT MAX SPEED. PROPORTIONALLY BALANCED LOW. GM 3/25/25

Written By: Gabe Merk on 03/25/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-12/CLASS 117

Asset							
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	FINAL CFM	% to design
EGRD1	FL	24X24	350	1	400	299	85.4
EGRD2	FL	24X24	350	1	348	298	85.1
EGRD3	FL	24X24	350	1	224	278	79.4
EGRD4	FL	24X24	350	1	179	308	88.0
Total			1400		1151	1183	84.5%

Completed By: Gabe Merk on 03/25/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

System/Unit: FAN - Exhaust



Asset: EF-13

AREA:PREP 134B

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-098-VG
Serial Num	-	24893188
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	380	366
RL Voltage	115	122
RL Amperage	3.5	0.6
Total ESP	0.50	0.23"

Motor Data		
	Design	Actual
Motor MFG	-	VARIGREEN
Frame	-	NA
Horsepower	0.25	1/4
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	3.5
Service Factor	-	NA

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-13/PREP 134B

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	FL	12	380	1	366	366	366	96.3
Total			380		366	366	366	96.32%

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

System/Unit: FAN - Exhaust



Asset: EF-14

AREA:PREP 124B

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-098-VG
Serial Num	-	24893189
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	380	367
RL Voltage	115	122
RL Amperage	3.5	0.9
Total ESP	0.50	0.36"

Motor Data		
	Design	Actual
Motor MFG	-	VARIGREEN
Frame	-	NA
Horsepower	0.25	1/4
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	3.5
Service Factor	-	NA

Completed By: Gabe Merk on 03/11/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-14/PREP 124B

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	FL	8	380	1	514	415	367	96.6
Total			380		514	415	367	96.58%

Completed By: Gabe Merk on 03/11/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: FAN - Exhaust



Asset: EF-15

AREA: KITCHEN HOOD 130

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU180HFA
Serial Num	-	6866988
Type	CRE UPBLAST	UPBLAST

Test Data		
	Design	Actual
CFM	2400	2303
RL Voltage	460	373/374/374
RL Amperage	3.01	2.5 VFD
Total ESP	1.250	1.17"

Motor Data		
	Design	Actual
Motor MFG	-	WESTINGHOUSE
Frame	-	182T
Horsepower	0.75	1.5
Motor Rpm	1366	1170
Phase	3	3
Voltage (rated)	460	460
Amperage (rated)	-	3.01
Service Factor	-	1.15

Completed By: Gabe Merk on 03/12/2025

Notes:  
VFD SETPOINT 58.1HZ.

Written By: Gabe Merk on 03/12/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

System/Unit: FAN - Exhaust



Asset: EF-16

AREA: KITCHEN 130

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-100-VG
Serial Num	-	24893191
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	900	938
RL Voltage	115	122
RL Amperage	3.5	2.2
Total ESP	0.50	1.03"

Motor Data		
	Design	Actual
Motor MFG	-	VARIGREEN
Frame	-	NA
Horsepower	0.25	1/4
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	3.5
Service Factor	-	NA

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-16/KITCHEN 130

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	FL	14	900	1	938	938	938	104.2
Total			900		938	938	938	104.22%

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

System/Unit: FAN - Exhaust



Asset: EF-17

AREA:TECH RM 124A

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-120-VG
Serial Num	-	24893192
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	Actual
CFM	1200	1244
RL Voltage	115	122
RL Amperage	6.4	5.2
Total ESP	0.50	1.64"

Motor Data		
	Design	Actual
Motor MFG	-	VARIGREEN
Frame	-	NA
Horsepower	0.50	1/2
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	6.4
Service Factor	-	NA

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-17/TECH RM 124A

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	FL	14	1200	2.75	1244	1244	1244	103.7
Total			1200		1244	1244	1244	103.67%

Completed By: Gabe Merk on 03/10/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

System/Unit: FAN - Exhaust



Asset: EF-18

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU85HFA
Serial Num	-	6866988
Type	-	UPBLAST

Test Data		
	Design	Actual
CFM	1350	1400
RL Voltage	-	273/272/273
RL Amperage	-	1.0
Total ESP	-	0.68"

Motor Data		
	Design	Actual
Motor MFG	-	HSSA
Frame	-	N/A
Horsepower	-	3/4
Motor Rpm	-	1725
Phase	-	3
Voltage (rated)	-	460
Amperage (rated)	-	1.3
Service Factor	-	1.15

Completed By: Gabe Merk on 03/12/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

System/Unit: Pump



Asset: P-1

AREA:

Unit Data		
	Design	Actual
MFG	NA	GRUNDFOS
Model Num	NA	UPS 32-80 F
Service	-	HOT WATER
Type	-	INLINE
GPM/HD	25/20	25/20

Motor Data		
	Design	Actual
Horsepower	0.50	0.5
Phase	-	3
Voltage	-	460
Amperage	-	2.8

Test Data		
	Design	Actual
Final Suction Pres (FT)	-	20.2 FT
Final Discharge Pres (FT)	-	38.5 FT
Total Head Pres (FT)	20	18.3 FT
Final GPM	25	28
Motor Frequency	-	60
RL Voltage	460	478/481/480
RL Amperage	-	2.5/2.4/2.4

Completed By: Nick Payne on 03/25/2025

# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

System/Unit: Pump



Asset: P-2

AREA:

Unit Data		
	Design	Actual
MFG	NA	GRUNDFOS
Model Num	NA	UPS 32-80 F
Service	-	HOT WATER
Type	-	INLINE
GPM/HD	25/20	25/20

Motor Data		
	Design	Actual
Horsepower	0.50	0.5
Phase	-	3
Voltage	-	460
Amperage	-	2.8

Test Data		
	Design	Actual
Final Suction Pres (FT)	-	19.6 FT
Final Discharge Pres (FT)	-	38.9 FT
Total Head Pres (FT)	20	19.3 FT
Final GPM	25	26
Motor Frequency	-	60
RL Voltage	460	478/477/479
RL Amperage	-	2.2/2.3/2.2

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# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: Pump



Asset: P-3

AREA:

Unit Data		
	Design	Actual
MFG	NA	GRUNDFOS
Model Num	NA	92833890
Serial Num	-	1971249773/20A
Service	-	HOT WATER
Type	-	INLINE
Configuration	-	HORIZONTAL
Pump RPM	-	1765
GPM/HD	65/50	65/50
Impeller Diameter	8.26	8.26"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	182JM
Horsepower	3.0	3
Motor Rpm	-	1765
Phase	-	3
Voltage	-	460
Amperage	-	4.2
Service Factor	-	1.15
Efficiency	-	89.5
Power Factor	-	74

Test Data		
	Design	Actual
Valve Open GPM (FT)	-	103.8
Valve Open Diff (FT)	-	57.0 FT
Final Suction Pres (FT)	-	33.4 FT
Final Discharge Pres (FT)	-	90.4 FT
Total Head Pres (FT)	50	57.0 FT
Final GPM	65	58.9
Pump Rotation	-	CW
Motor RPM	-	1800
Pump RPM	-	1800
Motor Frequency	-	60 HZ
RL Voltage	460	483 VFD
RL Amperage	-	2.99 VFD
Brake Horse Power	-	1.88

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# National TAB

Project: Global Impact STEM Academy (Springfield, OH)

## System/Unit: Pump



Asset: P-4

AREA:

Unit Data		
	Design	Actual
MFG	NA	GRUNDFOS
Model Num	NA	92833890
Serial Num	-	1971249773/20B
Service	-	HOT WATER
Type	-	INLINE
Configuration	-	Horizontal
Pump RPM	-	1760
GPM/HD	65/50	65/50
Impeller Diameter	8.26	8.26

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	182JM
Horsepower	3.0	3
Motor Rpm	-	1800
Phase	-	3
Voltage	-	460
Amperage	-	4.2
Service Factor	-	1.15
Efficiency	-	89.5
Power Factor	-	74

Test Data		
	Design	Actual
Valve Open Diff (FT)	-	57.5 FT
Final Suction Pres (FT)	-	111.4 FT
Final Discharge Pres (FT)	-	168.9 FT
Total Head Pres (FT)	50	57.5 FT
Final GPM	65	60
Pump Rotation	-	CW
Motor RPM	-	1800
Pump RPM	-	1800
Motor Frequency	-	60 HZ
System SetPt	-	10 PSI
RL Voltage	460	482 VFD
RL Amperage	-	2.96 VFD
Brake Horse Power	-	1.74 VFD

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# National TAB

Project: Global Impact STEM Academy (Springfield, OH)



## Circuit Setter

### HW CS/

Asset	Asset Name	Size	Type	Design GPM	Setting	Delta P	Final GPM	% to Design
CS01	UH-122	1.0	MANUAL	5.0	18"	16.9"	4.7	94.0
CS02	UH-121	1.0	MANUAL	5.0	18"	17.2"	4.8	96.0
CS03	UH-114	1.0	MANUAL	5.0	18"	17.7"	4.9	98.0
CS04	RP-123	0.75	MANUAL	1.0	12.7"	12.9"	0.96	100.0
CS05	RP-125	0.75	MANUAL	1.0	12.7"	13.2"	0.98	100.0
CS06	RP-126	0.75	MANUAL	1.0	12.7"	12.2"	1.08	110.0
CS07	1-1-6	0.75	MANUAL	3.20	9"	9.2"	3.3	103.1
CS08	1-1-7	0.75	MANUAL	3.20	9"	8.9"	3.1	96.9
CS09	1-1-8	0.75	MANUAL	1.31	6"	6.2"	1.4	107.7
CS10	1-1-9	0.75	MANUAL	2.27	12"	11.5"	2.2	95.7
CS11	1-1-10	0.75	MANUAL	2.99	30"	32.3"	3.05	103.3
CS12	1-1-11	0.75	MANUAL	5.17	18"	18.5"	5.3	101.9
CS13	1-1-12	0.75	MANUAL	5.17	18"	18.7"	5.3	101.9
CS14	1-1-13	0.75	MANUAL	1.98	13.7"	13.2"	1.9	95.0
CS15	1-1-5	0.75	MANUAL	3.63	35"	37.2"	3.8	105.6
CS16	CUH-2	1.0	MANUAL	1.0	12.7"	12.5"	0.98	100.0
CS17	UH-131	1.0	MANUAL	8.1	45"	42.2"	7.9	97.5
CS18	1-1-1	0.75	MANUAL	2.95	30"	32.3"	3.05	103.3
CS19	1-1-2	0.75	MANUAL	3.88	13"	13.4"	3.95	102.6
CS20	RP-100C2 1	0.75	MANUAL	1.0	12.7"	12.5"	1.06	110.0
CS21	RP-100C1 1	0.75	MANUAL	1.0	12.7"	12.2"	1.05	110.0
CS22	1-1-25	0.75	MANUAL	2.02	13.7"	10.9	1.82	90.0
CS23	RP-115	0.75	MANUAL	0.5	13.1"	13.2"	0.51	100.0
CS24	1-1-26	0.75	MANUAL	0.5	13.1"	17.3"	2.29	460.0
CS25	RP-117	0.75	MANUAL	1.0	12.7"	12.9"	1.02	100.0
CS26	RP-116	0.75	MANUAL	0.5	13.1"	13.8"	0.52	100.0
CS27	1-1-27	0.75	MANUAL	4.34	15"	14.8"	4.2	97.7
CS28	RP-100B 1	1.0	MANUAL	2.0	13.7"	14.2"	2.1	105.0
CS29	1-1-28	0.75	MANUAL	2.96	30"	27.7"	2.8	93.3
CS30	1-1-29	0.75	MANUAL	2.31	18"	20.5"	2.4	104.3
CS31	RP-118	0.75	MANUAL	1.0	12.7"	48"	0.98	100.0
CS32	1-1-30	1	MANUAL	4.0	15"	15.5"	4.05	102.5
CS33	1-1-15	0.75	MANUAL	2.52	20"	18.7"	2.4	96.0
CS34	1-1-14	0.75	MANUAL	0.46	17"	17.6"	0.47	100.0
CS35	1-1-13	0.75	MANUAL	1.48	9"	9.5"	1.5	100.0
CS36	1-1-16	0.75	MANUAL	0.49	13.0"	13.0"	0.49	100.0
CS37	1-1-18	0.75	MANUAL	2.44	18"	18.5"	2.52	104.2
CS38	1-1-17	0.75	MANUAL	0.98	12.7"	12.8"	0.99	100.0
CS39	1-1-19	0.75	MANUAL	2.31	18"	18.1"	2.32	100.0
CS40	1-1-20	0.75	MANUAL	1.27	78"	81.0"	1.25	100.0
CS41	1-1-21	0.75	MANUAL	0.29	5.5"	5.9"	0.31	100.0
CS42	1-1-24	0.75	MANUAL	1.25	78"	81.5"	1.23	92.3
CS43	1-1-22	0.75	MANUAL	1.05	12.7"	55.2"	1.02	90.9
CS44	1-1-23	0.75	MANUAL	0.88	12.7"	43.3"	0.91	100.0
CS45	CUH-1	1.0	MANUAL	1.0	12.7"	12.3"	0.98	100.0
Total				102.4			103.84	101.41%