National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: AHU-DUAL FAN

Asset: DOAS-1 AREA:BLDG EAST

UNIT DATA - SUPPLY		
	Design	**Actual**
Manufacturer	AAON	AAON
Model Number	RQ-005	NA
Serial Number	-	202411-AYCE06452
No. Pre-Filters / Size (1)	-	1/ 12X24X2
No. Final Filters / Size (1)	-	2/ 20X20X4
No. Final Filters / Size (2)	-	2/ 20X20X2

MOTOR DATA - SUPPLY	
	Actual
Motor MFG / Frame	BALDOR/ 56Z
Horsepower / RPM	2 / 1770
Rated Volts / Phase	208/ 3
Rated Amperage / SF	5.8/ 1.15

TEST DATA - SUPPLY		
	Design	**Actual**
Total CFM	1380	1328
Fan RPM	1928	DIRECT DRIVE
VFD Speed	65.7	78
RL Voltage	208	220/219/220
RL Amperage	-	5.32/5.5/ 5.49
Motor B.H.P.	1.20	

PERFORMANCE DATA - SUPPLY		
	Design	**Actual**
Suction S.P.	-	-3.15"
Discharge S.P.	-	0.06"
Total S.P.	2.81	3.21"
Reheat Coil P.D.	0.	0.00
DX Coil P.D.	0.22	1.16"
Heat Wheel P.D.	1.09	1.78"
Pre-Filters P.D.	0.25	COMBINED*
Total ESP	0.50	

UNIT DATA - EXHAUST/RETURN		
	Design	**Actual**
Manufacturer	-	AAON
Model Number	-	NA
Serial Number	-	202411-AYCE06452
No. Pre-Filters / Size (1)	-	2/ 20X20X4
No. Pre-Filters / Size (2)	-	2/ 20X20X2

MOTOR DATA - EXHAUST/RETURN	
	Actual
Motor MFG / FRAME	AAON/ 143T
Horsepower / RPM	1 / 1760
Rated Volts / Phase	200/ 3
Rated Amperage / SF	3.5/ 1.15

TEST DATA - EXHAUST/RETURN		
	Design	**Actual**
Total CFM	1050	1059
Fan RPM	1443	DIRECT DRIVE
VFD Speed	49.2	51
RL Voltage	208	219/220/219
RL Amperage	-	2.5/2.5/2.7
Motor B.H.P.	0.35	0.73

PERFORMANCE DATA - EXHAUST/RETURN		
	Design	**Actual**
Suction S.P.	-	-0.34"
Discharge S.P.	-	0.24"
Total S.P.	1.06	0.58"
Heat Wheel P.D.	0.74	0.58"
Total ESP	0.25	

Notes:
1. before pre filter/ MA: -0.21"
2. after pre filter/ before final filters and before CW coil: -1.99"
3. supply fan suction/ after CW coil: -.3.15"
4. discharge: 0.059" supply fan

1. exhaust fan suction: -0.34"
2. discharge: 0.24"

Flow Station 1: 1.21 gain
Flow Station 2: 0.547 gain

Written By: Jearod Ferrette on 09/11/2025

National TAB

Project:Charlotte Firehouse #30 (Charlotte, NC)

AHU-DUAL FAN

Diffuser Supply (GRD)

DOAS-1/BLDG EAST

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	WSHP-5	DUCT	8	180	-	199	-	169	93.9
SGRD2	WSHP-4	DUCT	8	100	-	137	-	104	104.0
SGRD3	WSHP-6	DUCT	12	590	-	601	-	578	98.0
SGRD4	WSHP-1	DUCT	8	100	-	140	-	95	95.0
SGRD5	WSHP-3	DUCT	6	160	-	198	-	167	104.4
SGRD6	WSHP-2	DUCT	10	200		220		198	99.0
Total				1330		1495	0		112.41%

Diffuser Ret/Exh (GRD)

DOAS-1/BLDG EAST

Asset								
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**	**AK**
EGRD1		K	6	50			-	
EGRD2	RR 105	I	6	50			-	
EGRD3	IT 106	M	6X12	50			-	
EGRD4	CPT RR/LCKR 204	K	6	50			-	
EGRD5	CPT RR/LCKR 204	I	6	50			-	
EGRD6	LOCKER 208	K	6	50			-	
EGRD7	LOCKER 208	K	6	50			-	
EGRD8	LOCKER 208	K	6	50			-	
EGRD9		K	6	50			-	
EGRD10	LOCKER 208	I	6	50			-	
EGRD11	LOCKER 208	K	6	50			-	
EGRD12	LOCKER 208	K	6	50			-	
EGRD13		K	6	50			-	
EGRD14	CHIEF RR 117	I	6	50			-	
EGRD15	CHIEF LCKR 115	K	6	50			-	
EGRD16	CLASS A 209	K	6	50			-	
EGRD17	HALL	I	6	100			-	
EGRD18		I	6	50			-	
EGRD19		K	6	50			-	
EGRD20		K	6	50			-	
Total				1050	0	0	0%	

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: AHU-DUAL FAN

Asset: DOAS-2 AREA:FITNESS 125

UNIT DATA - SUPPLY		
	Design	**Actual**
Manufacturer	AAON	AAON
Model Number	RQ-005	NA
Serial Number	-	202411-AYCE06453
No. Pre-Filters / Size (1)	-	1/ 12X24X2
No. Final Filters / Size (1)	-	2/ 20X20X4
No. Final Filters / Size (2)	-	2/ 20X20X2

MOTOR DATA - SUPPLY	
	Actual
Motor MFG / Frame	BALDOR/ 56Z
Horsepower / RPM	2 / 1770
Rated Volts / Phase	208/ 3
Rated Amperage / SF	5.8/ 1.15

TEST DATA - SUPPLY		
	Design	**Actual**
Total CFM	1300	1262
Fan RPM	1854	DIRECT DRIVE
VFD Speed	63.2	75
RL Voltage	208	220/219/220
RL Amperage	-	4.8/5/4.9
Motor B.H.P.	1.07	1.68

PERFORMANCE DATA - SUPPLY		
	Design	**Actual**
Suction S.P.	-	-2.69"
Discharge S.P.	-	0.42"
Total S.P.	2.65	3.11"
Reheat Coil P.D.	0.00	0.00
DX Coil P.D.	0.22	1.17"
Heat Wheel P.D.	1.08	1.35"*
Pre-Filters P.D.	0.25	COMBINED*
Total ESP	0.50	

UNIT DATA - EXHAUST/RETURN		
	Design	**Actual**
Manufacturer	-	AAON
Model Number	-	NA
Serial Number	-	202411-AYCE06453
No. Pre-Filters / Size (1)	-	2/ 20X20X4
No. Pre-Filters / Size (2)	-	2/ 20X20X2

MOTOR DATA - EXHAUST/RETURN	
	Actual
Motor MFG / FRAME	AAON/ 143T
Horsepower / RPM	1/ 1760
Rated Volts / Phase	200/ 3
Rated Amperage / SF	3.5/ 1.15

TEST DATA - EXHAUST/RETURN		
	Design	**Actual**
Total CFM	962	964
Fan RPM	1320	805
VFD Speed	45	30
RL Voltage	208	220, 220,219
RL Amperage	-	3,3.3,3.4`1
Motor B.H.P.	0.27	

PERFORMANCE DATA - EXHAUST/RETURN		
	Design	**Actual**
Suction S.P.	-	-0.07"
Discharge S.P.	-	0.10"
Total S.P.	1.03	0.17"
Heat Wheel P.D.	0.74	0.17"
Pre-Filters P.D.	-	NA
Total ESP	0.25	

Completed By: Antonio Flores-De La Cruz on 09/11/2025

Notes:
1. before pre filter/ MA/ supply side/ before heat wheel: -0.17"
2. after pre filter/ before final filters and before CW coil/ after heat wheel : -1.52"
3. supply fan suction/ after CW coil/ after final filter : -.2.69"
4. discharge: 0.42" supply fan

1. exhaust fan suction: -0.07"
2. discharge: 0.10"

Flow station: 1.12

Written By: Jearod Ferrette on 09/11/2025

National TAB

Project:Charlotte Firehouse #30 (Charlotte, NC)

AHU-DUAL FAN

Diffuser Supply (GRD)

DOAS-2/FITNESS 125

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
SGRD1	FITNESS 125	L	9X6	260			-
SGRD2	FITNESS 125	L	9X6	260			-
SGRD3	FITNESS 125	L	9X6	260			-
SGRD4	FITNESS 125	L	9X6	260			-
SGRD5	FITNESS 125	L	9X6	260			-
Total				1300	0	0	0%

Diffuser Ret/Exh (GRD)

DOAS-2/FITNESS 125

Asset											
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**VEL(1)**	**CFM(1)**	**VEL(2)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	125	Duct		962							-
Total				962			0		0	0	0%

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: Heat Pump

Asset: WSHP-1 AREA:ELEC/MECH 118

Unit Data		
	Design	**Actual**
Unit MFG	NA	CLIMATEMASTER
Model Num	NA	TEV038BHBC0DLTS
Serial Num	-	245111043
Type	-	WSHP
Configuration	-	HORIOZONTAL
Num Filters Size 1	-	1
Filter Size 1	-	27.625X29.625X2

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	NA
Phase	-	3
Voltage	-	208
Service Factor	-	1

Test Data		
	Design	**Actual**
SA CFM	1060	1135
Motor Speed Setpt	-	611 RPM
RL Voltage	208	213
RL Amperage	-	1.6
RA CFM	960	1040
OA CFM	100	95

Performance Data		
	Design	**Actual**
Suction ESP	-	0.11”
Discharge ESP	-	0.05”
Total ESP	0.50"	0.16”

Completed By: Antonio Flores-De La Cruz on 09/11/2025

Notes:
SET UNIT TO CONTINUOUSLY TO GET DESIGN CFMS., UNIT STAYS IN DEHUMIDIFICATION MODE OTHERWISE

DYWER HOOD SET MANUAL 1.0

RPMS ARE THE MOTORS SETPOINTS.

Written By: Jearod Ferrette on 08/21/2025

Diffuser Supply (GRD)

WSHP-1/ELEC/MECH 118

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
SGRD1	CPT OFC 103	B	8	150	92	137	91.3
SGRD2	CPT OFC 103	B	8	150	148	167	111.3
SGRD3	CHIEF OFC 102	B	8	175	150	189	108.0
SGRD4	CHIEF OFC 102	B	8	175	137	167	95.4
SGRD5	ENTRY 100	A	6	50	74	58	116.0
SGRD6	WATCH 101	B	8	150	158	173	115.3
SGRD7	PRIV RM 104	A	6	30	0	31	103.3
SGRD8	RR 105	A	6	30	59	38	126.7
SGRD9	WATCH 101	B	8	150	133	175	116.7
Total				1060	951	1135	107.08%

Diffuser Ret/Exh (GRD)

WSHP-1/ELEC/MECH 118

Asset								
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**FINAL CFM**	**% to design**
EGRD1	CPT OFC 103	G	10	300	1		230	76.7
EGRD2	PRIV RM 104	E	6	30	1		0	0.0
EGRD3	CHIEF OFC 102	G	10	350	1		176	50.3
EGRD4	WATCH 101	G	10	140	1		160	114.3
EGRD5	WATCH 101	G	10	140	1		175	125.0
Total				960		0	741	77.19%

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: Heat Pump

Asset: WSHP-2 AREA:ELEC/MECH 118

Unit Data		
	Design	**Actual**
Unit MFG	NA	CLIMATEMASTER
Model Num	NA	TEV072BHBC0DLTS
Serial Num	-	245011110
Type	-	WSHP
Configuration	-	HORIOZONTAL
Num Filters Size 1	-	1
Filter Size 1	-	29.375X35.750X2

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	NA
Phase	-	3
Voltage	-	208
Service Factor	-	1

Test Data		
	Design	**Actual**
SA CFM	1570	1635
Motor Speed Setpt	-	677
RL Voltage	208	214
RL Amperage	-	1.58
RA CFM	1370	1437
OA CFM	200	198

Performance Data		
	Design	**Actual**
Suction ESP	-	-0.25”
Discharge ESP	-	0.02”
Total ESP	0.50"	0.27”

Completed By: Antonio Flores-De La Cruz on 09/11/2025

Notes:
SET UNIT TO CONTINUOUSLY TO GET DESIGN CFMS., UNIT STAYS IN DEHUMIDIFICATION MODE OTHERWISE

DYWER HOOD SET MANUAL 1.0

RPMS ARE THE MOTORS SETPOINTS.

Written By: Jearod Ferrette on 08/21/2025

Diffuser Supply (GRD)

WSHP-2/ELEC/MECH 118

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
SGRD1	HALL	C	10	250	164	256	102.4
SGRD2	KITCHEN 109	B	8	190	166	195	102.6
SGRD3	KITCHEN 109	B	8	190	151	191	100.5
SGRD4	DINING 108	B	8	180	166	188	104.4
SGRD5	DINING 108	B	8	180	101	185	102.8
SGRD6	HALL	B	8	100	179	99	99.0
SGRD7	DINING 108	B	8	180	165	195	108.3
SGRD8	DAY RM 107	A	6	100	72	109	109.0
SGRD9	DAY RM 107	A	6	100	90	109	109.0
SGRD10	DAY RM 107	A	6	100	90	108	108.0
Total				1570	1344	1635	104.14%

Diffuser Ret/Exh (GRD)

WSHP-2/ELEC/MECH 118

Asset								
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**FINAL CFM**	**% to design**
EGRD1	HALL	G	10	215	1	193		-
EGRD2	HALL	H	12	355	1	260	198	55.8
EGRD3	ICE 108A	E	6	90	1	146	146	162.2
EGRD4	HALL	H	12	355	1	287	214	60.3
EGRD5	HALL	H	12	355	1	241	194	54.6
Total				1370		1127	752	54.89%

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: Heat Pump

Asset: WSHP-3 AREA:ELEC/MECH 118

Unit Data		
	Design	**Actual**
Unit MFG	NA	CLIMATEMASTER
Model Num	NA	TCV018AGBC0CPTS
Serial Num	-	244611171
Type	-	WSHP
Configuration	-	HORIOZONTAL
Num Filters Size 1	-	1
Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	NA
Phase	-	3
Voltage	-	208
Service Factor	-	1

Test Data		
	Design	**Actual**
SA CFM	360	413
Motor Speed Setpt	-	NA
RL Voltage	208	214
RL Amperage	-	1.5
RA CFM	200	246
OA CFM	160	167

Performance Data		
	Design	**Actual**
Suction ESP	-	-0.18”
Discharge ESP	-	0.17”
Total ESP	0.50"	0.35”

Completed By: Antonio Flores-De La Cruz on 09/11/2025

Notes:
SINGLE SPEED FAN

Written By: Jearod Ferrette on 08/19/2025

Diffuser Supply (GRD)

WSHP-3/ELEC/MECH 118

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
SGRD1	CHIEF LKR 115	B	8	100	58	105	105.0
SGRD2	CHIEF BED 116	B	8	115	119	138	120.0
SGRD3	CHIEF BED 116	B	8	115	151	138	120.0
SGRD4	CHIEF RR 117	A	6	30	90	32	106.7
Total				360	418	413	114.72%

Diffuser Ret/Exh (GRD)

WSHP-3/ELEC/MECH 118

Asset								
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**FINAL CFM**	**% to design**
EGRD1	CHIEF LKR 115	E	6	70	1	92	77	110.0
EGRD2	CHIEF BED 116	F	8	130	1	181	142	109.2
Total				200		273	219	109.5%

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: Heat Pump

Asset: WSHP-4 AREA:ELEC/MECH 206

Unit Data		
	Design	**Actual**
Unit MFG	NA	CLMATEMASTER
Model Num	NA	TCV024AGBC0CPTS
Serial Num	-	244611097
Type	-	WSHP
Configuration	-	HORIOZONTAL
Num Filters Size 1	-	1
Filter Size 1	-	20X20

Motor Data		
	Design	**Actual**
Phase	-	1
Voltage	-	208

Test Data		
	Design	**Actual**
SA CFM	800	1024
RL Voltage	208	214
RL Amperage	-	1.6
OA CFM	100	104

Performance Data		
	Design	**Actual**
Suction ESP	-	-0.09"
Discharge ESP	-	0.10"
Total ESP	0.22"	0.19"

Completed By: Antonio Flores-De La Cruz on 09/11/2025

Diffuser Supply (GRD)

WSHP-4/ELEC/MECH 206

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
SGRD1	CORR 200	A	6	100	70	109	109.0
SGRD2	DORM 203	A	6	80	60	99	123.8
SGRD3	DORM 203	A	6	80	73	114	142.5
SGRD4	DORM 203	A	6	80	74	114	142.5
SGRD5	DORM 203	A	6	80	50	87	108.8
SGRD6	DORM 203	A	6	80	66	108	135.0
SGRD7	DORM 203	A	6	80	70	113	141.3
SGRD8	DORM 203	B	8	110	124	146	132.7
SGRD9	DORM 203	B	8	110	117	134	121.8
Total				800	704	1024	128%

Diffuser Ret/Exh (GRD)

WSHP-4/ELEC/MECH 206

Asset								
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**FINAL CFM**	**% to design**
EGRD1	DORM 203	G	10	200	1		180	90.0
EGRD2	DORM 203	G	10	200	1		187	93.5
EGRD3	DORM 203	G	10	200	1		171	85.5
Total				600		0	538	89.67%

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: Heat Pump

Asset: WSHP-5 AREA:ELEC/MECH 206

Unit Data		
	Design	**Actual**
Unit MFG	NA	CLIMATEMASTER
Model Num	NA	TCV024AGBC0CPTS
Serial Num	-	244611096
Type	-	WSHP
Configuration	-	HORIOZONTAL
Num Filters Size 1	-	1
Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Phase	-	1
Voltage	-	208
Service Factor	-	

Test Data		
	Design	**Actual**
SA CFM	800	852
RL Voltage	208	214
RL Amperage	-	1.59
OA CFM	180	169

Performance Data		
	Design	**Actual**
Suction ESP	-	-0.13"
Discharge ESP	-	0.22"
Total ESP	0.22	0.35

Completed By: Jearod Ferrette on 08/28/2025

Notes:
Standard read on Dwyer

Written By: Jearod Ferrette on 09/11/2025

Diffuser Supply (GRD)

WSHP-5/ELEC/MECH 206

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
SGRD1	STAIRS	A	6	100	131	107	107.0
SGRD2	LAUNDRY 207	A	6	100	118	95	95.0
SGRD3	STAIRS	A	6	100	132	107	107.0
SGRD4	RR/LOCKER 204	B	8	120	155	121	100.8
SGRD5	HALL	A	6	100	132	103	103.0
SGRD6	CPT BED 201	B	8	140	176	140	100.0
SGRD7	CPT BED 202	B	8	140	166	136	97.1
Total				800	1010	809	101.12%

Diffuser Ret/Exh (GRD)

WSHP-5/ELEC/MECH 206

Asset								
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**FINAL CFM**	**% to design**
EGRD1	STAIR HALL	F	8	200	1			-
EGRD2	RR/LOCKER 204	E	6	90	1			-
EGRD3	HALL	E	6	50	1			-
EGRD4	CPT BED 201	F	8	140	1			-
EGRD5	CPT BED 202	F	8	140	1			-
Total				620		0	0	0%

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: Heat Pump

Asset: WSHP-6 AREA:ELEC/MECH 206

Unit Data		
	Design	**Actual**
Unit MFG	NA	CLIMATEMASTER
Model Num	NA	TEV038BGBC0DLTS
Serial Num	-	245110470
Type	-	WSHP
Configuration	-	HORIOZONTAL
Num Filters Size 1	-	1
Filter Size 1	-	27.625X29.625X2

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	NA
Horsepower	0.5	0.5
Motor Rpm	-	NA
Phase	1	1
Voltage	208	208
Amperage	-	4.2
Service Factor	-	1

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

Test Data		
	Design	**Actual**
SA CFM	1000	1039
SFAN RPM	-	NA
Motor Speed Setpt	-	715 RPM
Motor Frequency	-	NA
RL Voltage	208	214
RL Amperage	-	1.57
RA CFM	410	461
OA CFM	590	578

Performance Data		
	Design	**Actual**
Suction ESP	-	-0.10”
Discharge ESP	-	0.08”
Total ESP	0.70"	0.18”

Completed By: Antonio Flores-De La Cruz on 09/11/2025

Notes:
SET UNIT TO CONTINUOUSLY TO GET DESIGN CFMS., UNIT STAYS IN DEHUMIDIFICATION MODE OTHERWISE

DYWER HOOD SET MANUAL 1.0

RPMS ARE THE MOTORS SETPOINTS.

Written By: Jearod Ferrette on 08/20/2025

Diffuser Supply (GRD)

WSHP-6/ELEC/MECH 206

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
SGRD1	LOCKER 208	B	8	150	174	156	104.0
SGRD2		B	8	120	141	126	105.0
SGRD3	CLASS A 209	B	8	150	169	152	101.3
SGRD4		B	8	130	174	142	109.2
SGRD5		A	6	100	123	110	110.0
SGRD6	HALL	B	8	150	151	139	92.7
SGRD7		A	6	80	122	87	108.8
SGRD8		B	8	120	142	127	105.8
Total				1000	1196	1039	103.9%

Diffuser Ret/Exh (GRD)

WSHP-6/ELEC/MECH 206

Asset								
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**FINAL CFM**	**% to design**
EGRD1	LOCKER 208	G	10	210	1		241	114.8
EGRD2	CLASS A 209	G	10	200	1		157	78.5
Total				410		0	398	97.07%

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: FAN - Exhaust

Asset: EF-1 AREA:ELEC 126

Unit Data		
	Design	**Actual**
MFG	NA	COOK
Model Num	NA	90C17DEC
Serial Num	-	410PL31712-01
Type	-	CRE

Motor Data		
	Design	**Actual**
Motor MFG	-	COOK
Frame	-	NA
Horsepower	-	0.17
Motor Rpm	-	1725
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.36
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	300	577
RL Voltage	208	210
RL Amperage	1.5	0.6
Suction ESP	-	-0.23"
Total ESP	0.25	0.23"

Completed By: Jearod Ferrette on 08/19/2025

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: FAN - Exhaust

Asset: EF-2 AREA:GEO PUMP 119

Unit Data		
	Design	**Actual**
MFG	NA	COOK
Model Num	NA	90SQN17DEC
Serial Num	-	410PL31712-01
Type	INLINE	INLINE

Motor Data		
	Design	**Actual**
Motor MFG	-	COOK
Frame	-	NA
Horsepower	-	0.167
Motor Rpm	-	1725
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	NA
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	250	593
RL Voltage	208	212
RL Amperage	1.5	0.7
Suction ESP	-	-0.09"
Discharge ESP	-	0.06"
Total ESP	0.50	014"

Completed By: Jearod Ferrette on 08/19/2025

Notes:
NO SPEED CONTROLLER

Written By: Jearod Ferrette on 08/19/2025

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: FAN - Exhaust

Asset: EF-3 AREA:APPARATUS 121

Unit Data		
	Design	**Actual**
MFG	NA	COOK
Model Num	NA	90SQN17DEC
Type	INLINE	INLINE

Motor Data		
	Design	**Actual**
Motor MFG	-	DD
Frame	-	DD
Horsepower	-	DD
Motor Rpm	-	DD
Phase	-	DD
Voltage (rated)	-	DD
Amperage (rated)	-	DD
Service Factor	-	DD

Test Data		
	Design	**Actual**
CFM	250	330
RL Voltage	208	210
RL Amperage	1.5	0.8
Suction ESP	-	-0.15"
Discharge ESP	-	0.28"
Total ESP	0.50	0.43"

Completed By: Jearod Ferrette on 08/19/2025

Notes:
NO SPEED CONTROLLER

Written By: Jearod Ferrette on 08/19/2025

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: FAN - Exhaust

Asset: EF-4 AREA:APPARATUS 121

Unit Data		
	Design	**Actual**
MFG	NA	COOK
Model Num	NA	150SQN17D (VF)
Serial Num	-	410SL31712-00
Type	INLINE	INLINE

Motor Data		
	Design	**Actual**
Motor MFG	-	COOK
Frame	-	NA
Horsepower	-	0.625
Motor Rpm	-	1725
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	NA
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	2250	2107
Fan RPM	1373	1099
RL Voltage	208	211
Suction ESP	-	-0.07
Discharge ESP	-	0.04"
Total ESP	0.50	0.11"

Completed By: Jearod Ferrette on 08/19/2025

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: FAN - Exhaust

Asset: KEF-5 AREA:KITCHEN 109

Unit Data		
	Design	**Actual**
MFG	NA	COOK
Model Num	NA	120V3B
Serial Num	-	410SL31712-00
Type	-	CEV

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	NA
Horsepower	-	0.25
Motor Rpm	-	1725
Phase	-	1
Voltage (rated)	-	208
Amperage (rated)	-	4.9
Service Factor	-	1

Drive Data	
	Actual
Motor Sheave Size	VP34
Motor Bore Size	0.50
Motor Sheave SetPt	MAX TURNS IN
Fan Sheave Size	MA33X3
Fan Sheave Bore	0.75
Belt CL Distance	5.25
Num of Belts	1
Belt Size	4L200

Test Data		
	Design	**Actual**
CFM	1000	800
Fan RPM	-	1580
RL Voltage	208	212
RL Amperage	-	4.8
Suction ESP	-	-0.91"
Total ESP	0.50	0.90"
Brake Horse Power	-	0.90"

Completed By: Jearod Ferrette on 08/20/2025

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: FAN - Supply

Asset: MAF-1 AREA:CLASS A 209

Unit Data		
	Design	**Actual**
MFG	NA	COOK
Model Num	NA	100SQN28D (VF)
Type	-	INLINE

Motor Data		
	Design	**Actual**
Motor MFG	-	NA
Frame	-	NA
Horsepower	-	0.33
Motor Rpm	-	2800
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	NA
Service Factor	-	NA

Test Data		
	Design	**Actual**
CFM	800	867
SF RPM	1859	DD
RL Voltage	115	117
Suction ESP	-	-0.54"
Discharge ESP	-	0.10"
Total ESP	0.50	0.64"

Completed By: Jearod Ferrette on 08/21/2025

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: Kitchen Hood Type II

Asset: HOOD-1 AREA:

Unit Data		
	Design	**Actual**
MFG	NA	WOLF
Model Num	NA	PW662418
Type	TYPE II CANOPY	TYPE II CANOPY
Hood length	66	66
Hood Width	24	24

Test Data		
	Design	**Actual**
Exhaust CFM	1000	800

Completed By: Jearod Ferrette on 08/20/2025

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: Pump

Asset: P-1 AREA:

Unit Data		
	Design	**Actual**
MFG	NA	TACO
Model Num	NA	CI1206E
Serial Num	-	F0477736
Service	-	WSHP Loop
Pump RPM	-	3450
GPM/HD	-	90/120
Impeller Diameter	-	5.60"

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	184JM
Horsepower	-	7.5
Motor Rpm	-	3450
Phase	-	3
Voltage	-	208
Amperage	-	17.2
Service Factor	-	1.15
Efficiency	-	88.5
Power Factor	-	89

Test Data		
	Design	**Actual**
Pump Off Pres	-	16 psi
Act Impeller Dia (IN)	-	5.6
Valve Open GPM	-	91
Valve Open Diff (FT)	-	93.7
Final Suction Pres (FT)	-	36.2
Final Discharge Pres (FT)	-	127.8
Total Head Pres (FT)	120	91.6
Final GPM	90	90
Motor RPM	-	3419
Pump RPM	-	3419
Motor Frequency	-	57 Hz
System SetPt	-	28 psi
RL Voltage	208	199 VFD
RL Amperage	-	12.56 VFD
Brake Horse Power	-	5.5

Completed By: Antonio Flores-De La Cruz on 09/11/2025

National TAB

Project: Charlotte Firehouse #30 (Charlotte, NC)

System/Unit: Pump

Asset: P-2 AREA:

Unit Data		
	Design	**Actual**
MFG	NA	TACO
Model Num	NA	CI1206D
Serial Num	-	F0477736
Service	-	WSHP Loop
Pump RPM	-	3450
GPM/HD	-	90/120
Impeller Diameter	-	5.60"

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	184JM
Horsepower	-	7.5
Motor Rpm	-	3450
Phase	-	3
Voltage	-	208
Amperage	-	17.2
Service Factor	-	1.15
Efficiency	-	88.5
Power Factor	-	89

Test Data		
	Design	**Actual**
Pump Off Pres	-	11
Act Impeller Dia (IN)	-	5.6
Valve Open GPM	-	94
Valve Open Diff (FT)	-	98.3
Final Suction Pres (FT)	-	27.7
Final Discharge Pres (FT)	-	117.1
Total Head Pres (FT)	120	89.4
Final GPM	90	89
Motor RPM	-	3419
Pump RPM	-	3419
Motor Frequency	-	57
System SetPt	-	28 psi
RL Voltage	208	199 VFD
RL Amperage	-	12.6 VFD
Brake Horse Power	-	5.5

Completed By: Antonio Flores-De La Cruz on 09/11/2025

National TAB

Project:Charlotte Firehouse #30 (Charlotte, NC)

Circuit Setter

GW CS/

Asset								
Asset Name	**Location**	**Size**	**Type**	**Design GPM**	**Range (PSID)**	**Actual DP (PSID)**	**Final GPM**	**% to Design**
CS-1	WSHP-1	1.0	Auto	7.5	5.8 ft	61 FT	7.7	102.7
CS-2	WSHP-2	1.25	Auto	16.0	8.5 ft	61.7 FT	16.8	105.0
CS-3	WSHP-3	0.75	Auto	3.0	8.31ft	69.7 FT	3.1	103.3
CS-4	WSHP-4	1.0	Auto	7.5	7.7 ft	63.8 FT	7.9	105.3
CS-5	WSHP-5	1.0	Auto	7.5	7.7 ft	60.4 FT	7.6	101.3
CS-6	WSHP-6	1.25	Auto	16.0	5.8 ft	55.3 FT	7.7	48.1
CS-7	DOAS-1	1.5	Manual	20.0		36.8 IN	19.8	99.0
CS-8	DOAS-2	1.5	Manual	20.0		36.8 IN	20.1	100.5
Total				97.5			90.7	93.03%

Completed By: Antonio Flores-De La Cruz on 09/02/2025

HW CS/

Asset									
Asset Name	**Location**	**Size**	**Type**	**Service**	**Design GPM**	**Setting**	**Delta P**	**Final GPM**	**% to Design**
CS-1	Mech Rm	1.0	Manual	Condenser	15.0	0	7.4	10.5	70.0
CS2	Mech Rm	1.0	Manual	Evap	15.0	0	9.5	11.8	78.7
Total					30			22.3	74.33%

Completed By: Antonio Flores-De La Cruz on 09/11/2025