

CERTIFIED TEST, ADJUST AND BALANCE REPORT

REPORT DATE: 11-13-24

**PROJECT: COOPERATIVE EDUCATIONAL SERVICES
CLASSROOMS**

**ADDRESS: 40 OAKVIEW DRIVE
TRUMBULL, CT**

CUSTOMER: USA MECHANICAL & ENERGY SERVICES

**NEBB TAB CONTRACTOR: AIR BALANCING SERVICE CO.
16 PROGRESS CIRCLE UNIT 1A
NEWINGTON, CT 06111**

PHONE NUMBER: (860) 500-5008

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PROJECT: CES CLASSROOMS

REPORT DATE: 11-13-24

SUBMITTED BY: AIR BALANCING SERVICE CO. NEBB CERTIFIED #2453

CODE: 24071T

Firm Certification Number: 2453

Firm Name: Air Balancing Service Company

Certification: Testing, Adjusting and Balancing of Environmental Systems

Certified Professional Name: CHARLES W. BRUMLEY

Expiration Date: 12/31/24



Ch W. Brumley

**** AIR INSTRUMENT CALIBRATION REPORT ****

INSTRUMENT SERIAL NUMBER	APPLICATION	CALIBRATION
SHORTRIDGE AIRDATA MULTIMETER ADM-860C SERIAL NO. M89437	MULTIMETER USED IN VELOCITY, STATIC PRESSURES, FLOWHOOD READINGS, DIFFERENTIAL PRESSURES, TEMPERATURE	8/4/2025
ALNOR SERIAL NO. A05370	AIRFLOW VELOCITY	8/4/2025
EXTECH PHOTO TACH SERIAL NO. 201117034	MOTOR AND FAN RPM'S	8/4/2025
EXTECH DIG THERMOMETER RH390 SERIAL NO. A21031496	TEMPERATURE / HUMIDITY	8/4/2025
FLUKE 52/II SERIAL NO. 7092090	TEMPERATURE	8/4/2025
FLUKE AMMETER 323 SERIAL NO. 37642839WS	VOLTAGE AND AMPERAGE	8/4/2025

Pro-Calibration, LLC Calibration Data Sheet

Submitted by: Air Balancing Service Co.
 Manufacturer: Shortridge Instruments
 Model Number: ADM-860
 Serial Number: M89437
 Description: Air Data Multimeter

Asset Number #: ABSC-050
 Cal. Technician: CT2
 Cal. Date: 8/04/24
 Due Date: 8/04/25
 Cal. Procedure: Manufacturer Specifications
 Cal. Interval: 12 Months

Page 1 of 2

Standards Used:

975

993

1066

1072

1094

1113

1144

1152

Temperature: 21 Deg.C

Barometric Pressure: 29.97" HG

Humidity: 45% RH

STD#	Tested Function	Range	Standard	Unt. Meas. Val.	Allowable Tolerance Range
1113	Pressure in/wc	0-60"WC	0.0500	0.0501	
1144	+/- 2%rdg., +/-0.001"wc		0.5000	0.5003	0.0480 - 0.0520"wc
1152			1.000	0.9999	0.4890 - 0.5110"wc
			10.000	10.04	0.9790 - 1.0210"wc
			25.000	25.11	9.799 - 10.201"wc
			50.000	50.19	24.499 - 25.501"wc
975	Air Velocity	25-5000	50	50	48.999 - 51.001"wc
993	+/- 3%rdg., +/-7fpm	Ft/min.	200	200	42 - 59 fpm
1072			500	502	187 - 213 fpm
1144			900	903	478 - 522 fpm
1152			1500	1505	866 - 934 fpm
			3100	3108	1448 - 1552 fpm
			4900	4912	3000 - 3200 fpm
1066	Temperature	-65/+250°F	5.00	5.2	4746 - 5054 fpm
	+/- 0.5°F		32.00	32.2	4.5 - 5.5°F
	+/- 0.5°F		77.00	77.2	31.5 - 32.5°F
	+/- 1.0°F		100.00	100.2	76.5 - 77.5°F
	+/- 1.0°F		240.00	240.3	99.0 - 101.0°F
1094	Absolute Pressure ±2%, rdg, ±0.1"HG	14 - 40in.Hg	29.97	29.9	239.0 - 241.0°F
					29.27 - 30.67 in.Hg.

Note;

Pro-Calibration, LLC Calibration Data Sheet

Submitted by: Air Balancing Service Co.
 Manufacturer: Shortridge Instruments
 Model Number: ADM-860
 Serial Number: M89437
 Description: AirData Multimeter

Asset Number #: ABSC-050
 Cal. Technician: CT2
 Cal. Date: 8/04/24
 Due Date: 8/04/25
 Cal. Procedure: Manufacturer Specifications
 Cal. Interval: 12 Months

Page 2 of 2

Standards Used:

975 991 993 999 1072 1094 1152

Temperature: 21Deg.C

Barometric Pressure: 29.97% HG

Humidity: 45% RH

#	Tested Function	Allowable Range	Standard	Unt. Meas. Val.	After Adj.	Tolerance
1	Air Volume / CFM	90 - 110	100	101		+/-3%, +/-7 cfm
	Supply	236 - 265	250	252		+/-3%, +/-7 cfm
	25-2500cfm	478 - 522	500	501		+/-3%, +/-7 cfm
		721 - 780	750	753		+/-3%, +/-7 cfm
		963 - 1037	1000	1003		+/-3%, +/-7 cfm
		1739 - 1861	1800	1804		+/-3%, +/-7 cfm
		2176 - 2325	2250	2255		+/-3%, +/-7 cfm
2	Air Volume / CFM	90 - 110	100	99		+/-3%, +/-7 cfm
	Exhaust	236 - 265	250	248		+/-3%, +/-7 cfm
	25-1500cfm	478 - 522	500	499		+/-3%, +/-7 cfm
		721 - 780	750	751		+/-3%, +/-7 cfm
		963 - 1037	1000	1002		+/-3%, +/-7 cfm
		1400 - 1501	1450	1502		+/-3%, +/-7 cfm

Note;

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Pro-Calibration, LLC Calibration Data Sheet

Page 1 of 1

Submitted by: Air Balancing Service Co.
 Manufacturer: Alnor Instruments
 Model Number: RVA801
 Serial Number: A05370
 Description: Rotating Vane Anemometer
 Asset Number: ABSC-035

Cal. Technician: CT2
 Cal. Date: 8/04/24
 Due Date: 8/04/25
 Cal. Procedure: Manufacturer Specifications
 Cal. Interval: 12 Months

Standards Used:

975

991

992

994

1072

1152

Temperature: 21Deg.C. Barometric Pressure: 29.97"HG. Humidity: 45%RH.

#	Tested Function	Allowable Range	Standard	Uut. Meas. Val.	After Adj.	Tolerance
1	Air Velocity	90 - 100	95	93		+/-1.0% of rdg, +4fpm
	50-6000fpm	145 - 155	150	148		+/-1.0% of rdg, +4fpm
		391 - 409	400	402		+/-1.0% of rdg, +4fpm
		788 - 812	800	803		+/-1.0% of rdg, +4fpm
		1184 - 1216	1200	1205		+/-1.0% of rdg, +4fpm
		3065 - 3135	3100	3108		+/-1.0% of rdg, +4fpm
2	Temperature	70.3 - 74.3	72.3	72		+/- 2.0deg.F
	32 - 140deg.F					

Pro-Calibration, LLC Calibration Data Sheet

Page 1 of 1

Submitted by: Air Balancing Service Co.
 Manufacturer: Extech Instruments
 Model Number: 461920
 Serial Number: 201117034
 Description: Laser / Photo Contact Tach.

Asset Number: ABSC-036
 Cal. Technician: CT2
 Cal. Date: 8/04/24
 Due Date: 8/04/25
 Cal. Procedure: Manufacturer Specifications
 Cal. Interval: 12 Months

Standards Used:

883

1005

Temperature: 21Deg.C

Barometric Pressure: 29.97"HG.

Humidity: 45%RH.

#	Tested Function	Range	Standard	UUT. Meas. Val.	After Adj.	Tolerance
1	Speed / RPM / Photo	10-99,999	500.00	500.0		± 0.05% + 1dig.
			1000.00	1000		± 0.05% + 1dig.
			1800.00	1800		± 0.05% + 1dig.
			6000.00	6000		± 0.05% + 1dig.
			30,000.00	30,001		± 0.05% + 1dig.
			90,000.00	90,002		± 0.05% + 1dig.

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Pro-Calibration, LLC Calibration Data Sheet

Page 1 of 1

Submitted by: Air Balancing Service Co.
 Manufacturer: Extech Instruments
 Model Number: RH390
 Serial Number: A21031496
 Description: Digital Psychrometer
 Asset Number: ABSC-034

Cal. Technician: CT2
 Cal. Date: 8/04/24
 Due Date: 8/04/25
 Cal. Procedure: Manufacturer Specifications
 Cal. Interval: 12 Months

Standards Used:

1003	1057	1080	1081	1135				
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Temperature: 21Deg.C Barometric Pressure: 29.97"HG. Humidity: 45%RH

#	Tested Function	Range	Standard	Uut. Meas. Val.	After Adj.	Tolerance
1	Temperature	-20 / +70°C	22.39	22.0		± 1.0°C
2	Relative Humidity	0.0 - 100.0 %rh	33.07	34.8		±2%RH
			55.33	56.8		
			75.47	77.1		(20%-90%)
3	Wet Bulb	0 - 80°C	16.7	16.8		Calculated
4	Dew Point	-30 / 100°C	13.1	13.8		Calculated

Pro-Calibration, LLC Calibration Data Sheet

Submitted by: Air Balancing Service Co.
 Manufacturer: Fluke
 Model Number: 52/II
 Serial Number: 7092090
 Description: Digital Thermometer

Asset Number #: ABSC-046
 Cal. Technician: CT2
 Cal. Date: 8/04/24
 Due Date: 8/04/25
 Cal. Procedure: Manufacturer Specifications
 Cal. Interval: 12 Months

Page 1 of 1

Standards Used:

1153

Temperature: 21Deg.C. Barometric Pressure: 29.97HG. Humidity: 45%RH

#	Tested Function	Range	Standard	Unt. Meas. Val.	After Adj.	Tolerance
1.	Temperature T1	-200 /+1370°C	-100.00 °C	-99.8		± 0.1% rdg +0.7°C
			-20.00 °C	-19.8		± 0.1% rdg +0.7°C
			0.00 °C	0.1		± 0.1% rdg +0.7°C
			100.00 °C	100.1		± 0.1% rdg +0.7°C
			1200.00°C	1200		± 0.1% rdg +0.7°C
2	Temperature T2	-200 /+1370°C	-100.00 °C	-99.9		± 0.1% rdg +0.7°C
			-20.00 °C	-19.9		± 0.1% rdg +0.7°C
			0.00 °C	-0.0		± 0.1% rdg +0.7°C
			100.00 °C	100.1		± 0.1% rdg +0.7°C
			1200.00°C	1200		± 0.1% rdg +0.7°C

Pro-Calibration, LLC Calibration Data Sheet

Page 1 of 1

Submitted by: Air Balancing Service, Co.
 Manufacturer: Fluke
 Model Number: 323 True RMS
 Serial Number: 37642839WS
 Description: Clamp Meter
 Asset Number: ABSC-010

Cal. Technician: CT2
 Cal. Date: 8/04/24
 Due Date: 8/04/25
 Cal. Procedure: Manufacturer Specifications
 Cal. Interval: 12 Months

Standards Used:

1153

Temperature: 21Deg.C Barometric Pressure: 29.97"HG Humidity: 45%RH

#	Tested Function	Range	Standard	Uut. Meas. Val.	After Adj.	Tolerance
1.	DC Voltage	0 - 600.0 V	10.0000V	10.0		1% +/- 5 counts
			100.000V	99.8		1% +/- 5 counts
			500.00V	499.5		1% +/- 5 counts
2.	AC Voltage @ (60Hz)	0 - 600.0 V	10.0000V	10.0		1.5% +/- 5 counts
			100.000V	100.0		1.5% +/- 5 counts
			500.00V	499.6		1.5% +/- 5 counts
3.	AC Current @ (60 Hz)	0 - 400.0 A	10.0000A	10.0		2.0% +/- 5 counts
			100.000A	100.0		2.0% +/- 5 counts
			390.00A	391.3		2.0% +/- 5 counts
4.	Resistance	0 - 400.0 Ω	10.0000 Ω	10.0		1% - 5 counts
			100.000 Ω	100.0		1% - 5 counts
			375.00 Ω	376		1% - 5 counts
5	Continuity / Audible	$\leq 30\Omega$	Check	OK		$\leq 30\Omega$

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ABBREVIATION / MEANING

ABBREVIATION / MEANING

AC	AIR CONDITIONER	MIN	MINIMUM
AC/HR	AIR CHANGES PER HOUR	MUA	MAKE-UP AIR
AHU	AIR HANDLING UNIT	NO.	NUMBER
AK	AREA FACTOR	OA	OUTSIDE AIR
AMP	AMPERAGE	OA%	PERCENT OF OUTSIDE AIR
CEF	CEILING EXHAUST FAN	OD	OUTSIDE DIAMETER
CFM	CUBIC FEET PER MINUTE	OED	OPEN END DUCT
CNTRL	CONTROL	PERF	PERFORATED DIFFUSER
CU FT	CUBIC FEET	POS	POSITION
CV	CONSTANT VOLUME	PRESS	PRESSURE
DD	DIRECT DRIVE	PRIM	PRIMARY
DEL	ACTUAL DELIVERED	RA	RETURN AIR
DES	DESIGN	RA%	PERCENT OF RETURN AIR
DIFF	DIFFERENTIAL	RHC	REHEAT COIL
EF	EXHAUST FAN	RPM	REVOLUTIONS PER MINUTE
ESP	EXTERNAL STATIC PRESSURE (" WG)	RTU	ROOF TOP UNIT
FPM	FEET PER MINUTE	SA	SUPPLY AIR
FT	FEET	SF	SERVICE FACTOR
H	HEIGHT	SL	SLOT
HP	HORSEPOWER	SN	SERIAL NUMBER
HR	HOURLY	SP	STATIC PRESSURE (" WG)
HTG	HEATING	SQ FT	SQUARE FEET
L	LENGTH	TEMP	TEMPERATURE
LD	LINEAR DIFFUSER	TF	THERMAFUSER
LFD	LAMINAR FLOW DIFFUSER	TSP	TOTAL STATIC PRESSURE (" WG)
LR	LIGHT RETURN	VAV	VARIABLE AIR VOLUME
LT	LIGHT TROEFFER	VEL	VELOCITY IN FEET PER MINUTE
MA	MIXED AIR	VFD	VARIABLE FREQUENCY DRIVE
MAU	MAKE-UP AIR UNIT	W	WIDTH
MAX	MAXIMUM	WEF	WALL EXHAUST FAN
MD	MOTORIZED DAMPER	WG	WATER GAUGE
MER	MECHANICAL EQUIPMENT ROOM	W/	WITH
MFR	MANUFACTURER		

DOAS-1

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: 1ST, 2ND & 3RD FLOORS

FAN LOCATION: ROOF

RELATIVE EXHAUST FAN: DOAS-1 / EF

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	4115 / 4220 (NOTE)	4507
TOTAL SP (" WG):	N/A	4.42
EXT SP (" WG):	1.5	1.68
FAN RPM:	1438	4667
VOLTS/PHASE/CYCLE:	460/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	490/484/482
AMPS T1/T2/T3:	6.6	6.0/6.1/5.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	VALENT
FAN MODEL NO:	VXE-112-41D
MOTOR MANUFACTURER:	BALDOR
MOTOR RPM:	1750
MOTOR HP:	5
MOTOR SF:	1.15
MOTOR FRAME:	184T
VFD SETTING:	78 HZ

NOTE: FAN DESIGN / OUTLET TOTAL

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-1

NEBB CERTIFIED #2453

SHEET NO. 1

DOAS-1

** AIR OUTLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
329	TEACHERS PREP		1	6X6	30	32	1
328	CLASSROOM 5		2	9X9	215	225	
327	CLASSROOM 6		3	9X9	195	215	
326	CLASSROOM 7		4	9X9	205	234	
325	CLASSROOM 8		5	9X9	190	218	
324	CLASSROOM 8		6	9X9	200	212	
323	CLASSROOM 10		7	9X9	205	209	
322	CLASSROOM 11		8	9X9	205	216	
	CORRIDOR		9	6X6	50	55	
233	PREP ROOM		10	6X6	25	26	
232	CLASSROOM 4		11	9X9	215	212	
231	CLASSROOM 5		12	9X9	195	221	
230	CLASSROOM 6		13	9X9	205	199	
229	CLASSROOM 7		14	9X9	190	199	
228	CLASSROOM 8		15	9X9	200	223	
227	CLASSROOM 9		16	9X9	205	219	
226	CLASSROOM 10		17	9X9	205	201	
223	CORRIDOR		18	6X6	50	55	
135	SPEECH PATH		19	6X6	20	45	1
	CORRIDOR		20	6X6	100	94	
134	SPEECH PATH		21	6X6	25	43	1
133	CLASSROOM 4		22	9X9	195	218	
132	CLASSROOM 5		23	9X9	195	209	
131	CLASSROOM 6		24	9X9	195	190	
130	CLASSROOM 7		25	9X9	195	204	
129	CLASSROOM 8		26	9X9	200	194	
125	IT OFFICE		27	6X6	30	36	1
124	MAINTENANCE		28	6X6	30	50	1
123	LOADING		29	6X6	50	53	
TOTAL CFM					4220	4507	

NOTE 1: VOLUME DAMPER 100% CLOSED

PROJECT: CES CLASSROOMS
 SUBMITTED BY: AIR BALANCING SERVICE CO.
 CODE: 24071-2

NEBB CERTIFIED #2453

SHEET NO. 2

DOAS-1

** DIRECT DRIVE EXHAUST FAN REPORT **

AREA SERVED: 1ST, 2ND & 3RD FLOORS

FAN LOCATION: ROOF

RELATIVE SUPPLY FAN: DOAS-1

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	4115 / 4290 (NOTE)	4359
SUCTION SP (" WG):	N/A	-3.47
DISCHARGE SP (" WG):	N/A	+1.13
TOTAL SP (" WG):	N/A	4.60
FAN RPM:	1352	5024
VOLTS/PHASE/CYCLE:	460/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	489/484/482
AMPS T1/T2/T3:	6.6	6.7/6.8/6.0

UNIT / MOTOR DATA	
FAN MANUFACTURER:	VALENT
FAN MODEL NO:	VXE-112-41D
MOTOR MANUFACTURER:	BALDOR
MOTOR RPM:	1750
MOTOR HP:	5
MOTOR SF:	1.15
MOTOR FRAME:	184T
VFD SETTING:	84 HZ

NOTE: FAN DESIGN / INLET TOTAL

PROJECT: CES CLASSROOMS

SUBMITTED BY: AIR BALANCING SERVICE CO.

CODE: 24071-3

NEBB CERTIFIED #2453

SHEET NO. 3

DOAS-1

** AIR INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
329	TEACHERS PREP		1	1206	30	65	1
326	CLASSROOM 7		2	2408	205	216	
327	CLASSROOM 6		3	2408	195	198	
328	CLASSROOM 5		4	2408	215	189	
325	CLASSROOM 8		5	2408	190	211	
320	CORRIDOR		6	2406	50	46	
324	CLASSROOM 9		7	2408	200	190	
323	CLASSROOM 10		8	2408	205	199	
322	CLASSROOM 11		9	2408	205	187	
233	TEACHERS PREP		10	1206	25	31	1
230	CLASSROOM 6		11	2408	205	210	
231	CLASSROOM 5		12	2408	195	213	
232	CLASSROOM 4		13	2408	215	229	
229	CLASSROOM 7		14	2408	190	207	
	CORRIDOR		15	2406	50	47	
228	CLASSROOM 8		16	2408	200	218	
227	CLASSROOM 9		17	2408	205	203	
226	CLASSROOM 10		18	2408	205	205	
135	SPEECH PATH		19	1206	20	26	1
134	SPEECH PATH		20	1206	25	24	1
133	CLASSROOM 4		21	2408	195	207	
132	CLASSROOM 5		22	2408	195	199	
131	CLASSROOM 6		23	2408	195	185	
130	CLASSROOM 7		24	2408	195	178	
129	CLASSROOM 8		25	2408	200	194	
124	MAINTENANCE		26	1206	30	33	
125	IT OFFICE		27	1206	30	31	
	CORRIDOR		28	1206	100	94	
123	LOADING		29	1206	50	52	
126A	SHOWER		30	1206	70	72	
TOTAL CFM					4290	4359	

NOTE 1: VOLUME DAMPER 100% CLOSED

PROJECT: CES CLASSROOMS

SUBMITTED BY: AIR BALANCING SERVICE CO.

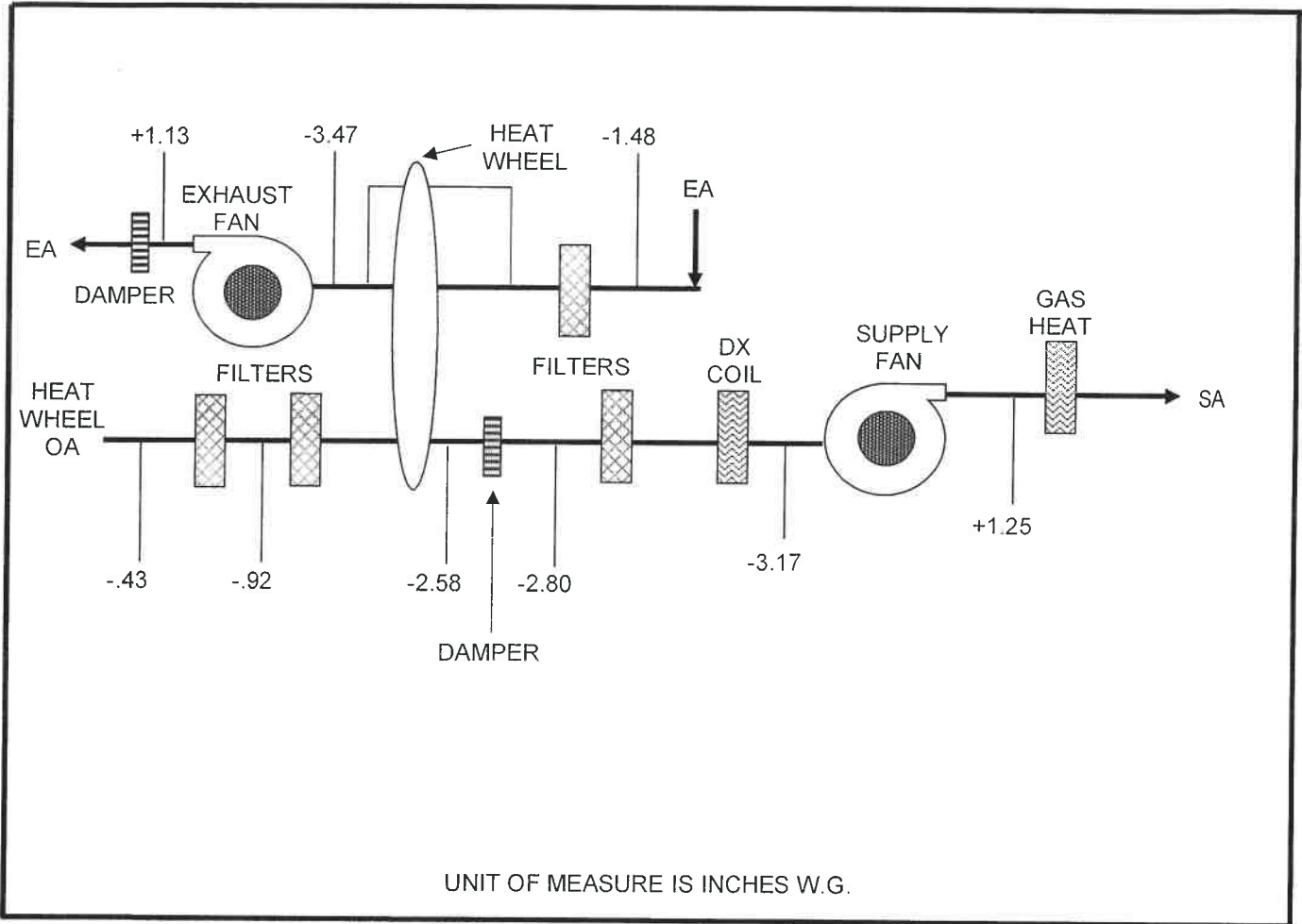
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NEBB CERTIFIED #2453

SHEET NO. 4

DOAS-1

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-5

NEBB CERTIFIED #2453

SHEET NO. 5

DOAS-2

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: 1ST, 2ND & 3RD FLOORS

FAN LOCATION: ROOF

RELATIVE EXHAUST FAN: DOAS-2 / EF

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	4735 / 3585 (NOTE)	3651
TOTAL SP (" WG):	N/A	1.98
EXT SP (" WG):	1.5	.83
FAN RPM:	1532	1167
VOLTS/PHASE/CYCLE:	460/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	484/487/484
AMPS T1/T2/T3:	6.6	4.1/3.7/4.1

UNIT / MOTOR DATA	
FAN MANUFACTURER:	VALENT
FAN MODEL NO:	VXE-212-52C
MOTOR MANUFACTURER:	BALDOR
MOTOR RPM:	1750
MOTOR HP:	5
MOTOR SF:	1.15
MOTOR FRAME:	184T
VFD SETTING:	40 HZ

NOTE: FAN DESIGN / OUTLET TOTAL

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-6

NEBB CERTIFIED #2453

SHEET NO. 6

DOAS-2

** AIR OUTLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	CORRIDOR		1	6X6	20	24	1
336	ADMIN OFFICE		2	6X6	20	21	1
337	DIR OFFICE		3	6X6	20	19	1
	CORRIDOR		4	6X6	70	74	
341	STAFF ROOM		5	6X6	55	65	1
340	CLASSROOM 2		6	9X9	200	213	
339	CLASSROOM 3		7	9X9	200	215	
338	CLASSROOM 4		8	9X9	200	218	
342	CLASSROOM 1		9	9X9	215	235	
	CORRIDOR		10	6X6	20	26	1
224	ADMIN OFFICE		11	6X6	20	32	1
225	DIR OFFICE		12	6X6	20	23	1
	CORRIDOR		13	6X6	70	69	
242	OFFICE		14	6X6	25	26	1
241	CLASSROOM 1		15	9X9	200	206	
240	CLASSROOM 2		16	9X9	200	218	
239	CLASSROOM 3		17	9X9	200	218	
243	OT OFFICE		18	6X6	25	35	1
244	OCC THERAPY		19	6X6	70	74	
201	STAIR 3		20	6X6	40	43	
	CORRIDOR		21	6X6	20	24	1
128	GYM		22	15X15	645	594	
144	ADMIN OFFICE		23	6X6	25	32	1
137	CLASSROOM 1		24	9X9	200	183	
138	CLASSROOM 2		25	9X9	200	189	
139	CLASSROOM 3		26	9X9	200	183	
	CORRIDOR		27	9X9	135	138	
143	DIR OFFICE		28	6X6	25	30	1
103	CONFERENCE ROOM		29	6X6	90	82	
102	PARENTS ROOM		30	6X6	60	54	
101	LOBBY		31	6X6	95	88	2
TOTAL CFM					3585	3651	

NOTE 1: VOLUME DAMPER 100% CLOSED

NOTE 2: AIRFLOW MEASURED WITH RVA USING A .180 AK FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-7

NEBB CERTIFIED #2453

SHEET NO. 7

DOAS-2

** DIRECT DRIVE EXHAUST FAN REPORT **

AREA SERVED: CLASSROOMS / OFFICES / CORRIDOR / LOBBY / STAIR 3 / GYM

FAN LOCATION: ROOF

RELATIVE SUPPLY FAN: DOAS-2

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	4735 / 4715 (NOTE)	4417
SUCTION SP (" WG):	N/A	-2.25
DISCHARGE SP (" WG):	N/A	+ .54
TOTAL EXT SP (" WG):	1.5	2.79
FAN RPM:	1445	1458
VOLTS/PHASE/CYCLE:	460/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	484/487/484
AMPS T1/T2/T3:	6.6	5.0/4.2/5.1

UNIT / MOTOR DATA	
FAN MANUFACTURER:	VALENT
FAN MODEL NO:	VXE-212-52C
MOTOR MANUFACTURER:	BALDOR
MOTOR RPM:	1750
MOTOR HP:	5
MOTOR SF:	1.15
MOTOR FRAME:	184T

NOTE: FAN DESIGN / INLET TOTAL

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-8

NEBB CERTIFIED #2453

SHEET NO. 8

DOAS-2

** AIR INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
332	GIRLS		1	2410	250	220	
333	BOYS		2	2410	250	226	
336	ADMIN OFFICE		3	2406	20	23	1
337	DIR OFFICE		4	2406	20	22	1
340	CLASSROOM 2		5	2408	200	186	
339	CLASSROOM 3		6	2408	200	179	
338	CLASSROOM 4		7	2408	200	177	
341	STAFF ROOM		8	2406	55	48	
342	CLASSROOM 1		9	2408	215	199	
236	GIRLS		10	2410	250	235	
237	BOYS		11	2410	250	255	
225	DIR OFFICE		12	2406	20	30	1
224	ADMIN OFFICE		13	2406	20	27	1
241	CLASSROOM 1		14	2408	200	192	
240	CLASSROOM 2		15	2408	200	192	
239	CLASSROOM 3		16	2408	200	183	
242	OFFICE		17	2406	25	40	1
243	OT OFFICE		18	2406	25	37	1
244	OCC THERAPY		19	2406	70	63	
141	GIRLS		20	2410	250	214	
142	BOYS		21	2410	250	213	
128	GYM		22	2412	645	556	
144	ADMIN OFFICE		23	1206	25	38	1
143	DIR OFFICE		24	1206	25	42	1
137	CLASSROOM 1		25	2408	200	197	
138	CLASSROOM 2		26	2408	200	184	
139	CLASSROOM 3		27	2408	200	196	
103	CONFERENCE ROOM		28	2406	90	81	
102	PARENTS ROOM		29	2406	60	61	
146	ELECTRICAL ROOM		30	6X6	100	101	2
TOTAL CFM					4715	4417	

NOTE 1: VOLUME DAMPER 100% CLOSED

NOTE 2: AIRFLOW MEASURED WITH RVA USING A .205 AK FACTOR

PROJECT: CES CLASSROOMS

SUBMITTED BY: AIR BALANCING SERVICE CO.

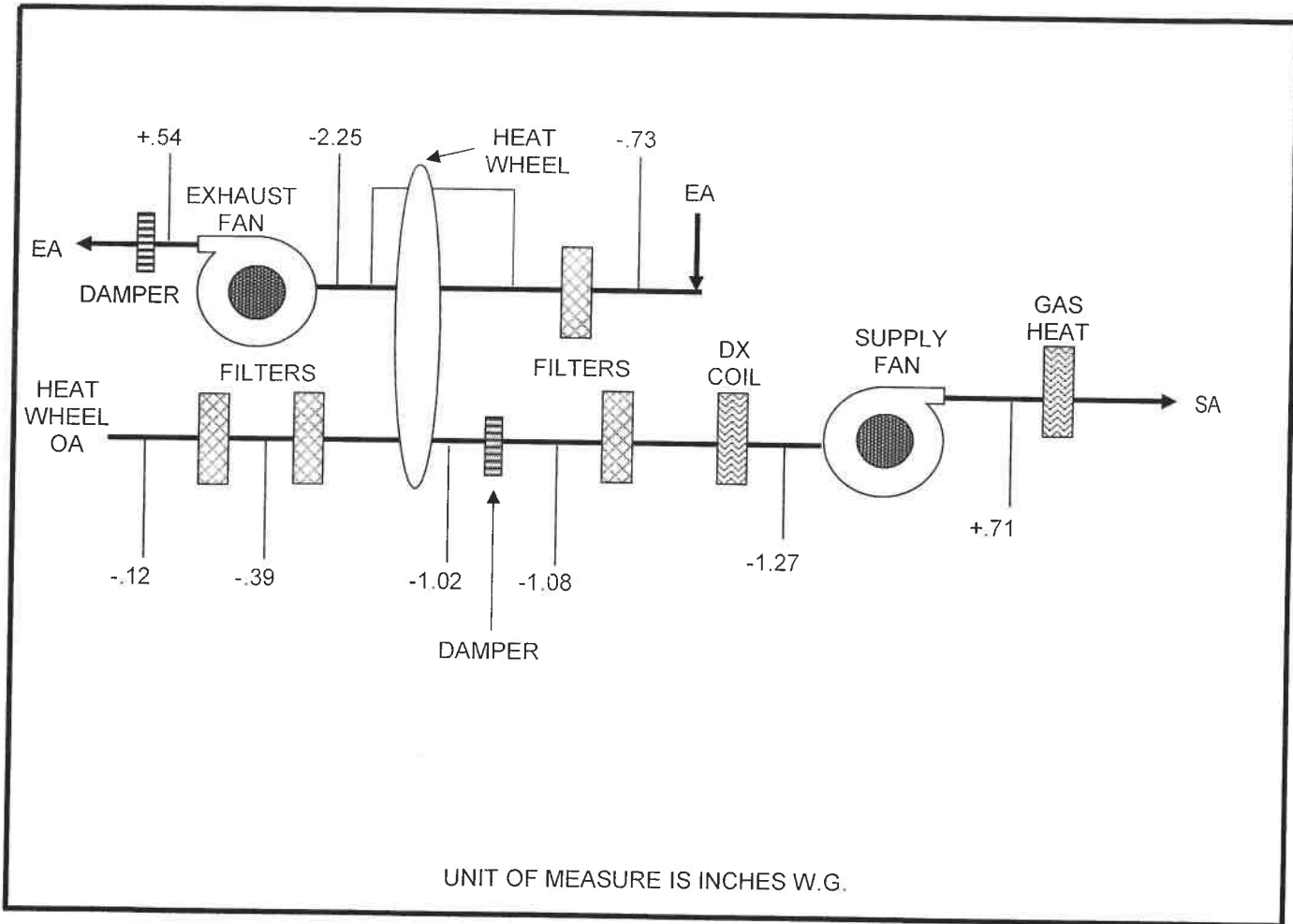
CODE: 24071-9

NEBB CERTIFIED #2453

SHEET NO. 9

DOAS-2

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-10

NEBB CERTIFIED #2453

SHEET NO. 10

DOAS-3

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: 1ST, 2ND & 3RD FLOORS

FAN LOCATION: ROOF

RELATIVE EXHAUST FAN: DOAS-3 / EF

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	5360 / 4155 (NOTE)	4449
TOTAL SP (" WG):	N/A	2.59
EXT SP (" WG):	1.5	1.46
FAN RPM:	1723	1313
VOLTS/PHASE/CYCLE:	460/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	486/488/487
AMPS T1/T2/T3:	9.8	5.9/5.9/6.1

UNIT / MOTOR DATA	
FAN MANUFACTURER:	VALENT
FAN MODEL NO:	VXE-212-52D
MOTOR MANUFACTURER:	BALDOR
MOTOR RPM:	1750
MOTOR HP:	7.5
MOTOR SF:	1.15
MOTOR FRAME:	213T
VFD SETTING:	45 HZ

NOTE: FAN DESIGN / OUTLET TOTAL

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-11

NEBB CERTIFIED #2453

SHEET NO. 11

DOAS-3

** AIR OUTLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
321	CLASSROOM 12		1	9X9	210	194	
	CORRIDOR		2	6X6	60	55	
319	ADL		3	9X9	125	135	
316	WAITING		4	6X6	20	22	
315	EXAM		5	6X6	20	20	
313	NURSE OFFICE		6	6X6	20	22	
312	OFFICE		7	6X6	25	29	
310	DIRECTOR		8	9X9	290	273	
302	FITNESS CENTER		9	6X6	60	59	
309	OFFICE		10	6X6	15	21	1
308	OFFICE		11	6X6	20	27	1
306	OFFICE		12	6X6	15	21	1
307	OFFICE		13	6X6	15	20	1
305	CLASSROOM 13		14	9X9	205	203	
304	CLASSROOM 14		15	9X9	200	206	
303	TEACHERS OFFICE		16	6X6	50	54	
222	CLASSROOM 11		17	9X9	210	223	
	CORRIDOR		18	6X6	85	91	
221	ADL		19	9X9	125	121	
218	WAITING		20	6X6	20	26	1
217	EXAM		21	6X6	20	42	1
215	NURSE OFFICE		22	6X6	20	48	1
214	TEACHERS OFFICE		23	6X6	25	50	1
202	PHYSICAL THERAPY		24	9X9	140	147	
SUB TOTAL CFM					1995	2109	

NOTE 1: VOLUME DAMPER 100% CLOSED

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-12

NEBB CERTIFIED #2453

SHEET NO. 12

DOAS-3

** AIR OUTLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
213	CLASSROOM 12		25	9X9	210	213	
212	SOCIAL WORKER		26	6X6	30	34	1
211	OFFICE		27	6X6	15	31	1
210	OFFICE		28	6X6	20	30	1
209	OFFICE		29	6X6	15	28	1
207	SPEECH PATH		30	6X6	30	47	1
208	OFFICE		31	6X6	15	65	1
206	OFFICE		32	6X6	30	58	1
205	OFFICE		33	6X6	20	29	1
204	OFFICE		34	6X6	20	39	1
203	STAFF ROOM		35	6X6	55	63	
119	CLASSROOM 9		36	9X9	190	199	
122	TEACHERS OFFICE		37	6X6	20	19	1
126	STAFF ROOM		38	6X6	40	44	
116	TEACHERS OFFICE		39	6X6	25	46	1
113	CLASSROOM 10		40	9X9	195	203	
	CORRIDOR		41	6X6	40	39	
110	DAILY SKILLS LAB		42	9X9	215	232	
111	CLASSROOM 11		43	9X9	190	198	
107	FUTURE CAFETERIA		44	6X6	110	115	
107	FUTURE CAFETERIA		46	9X9	300	295	
107	FUTURE CAFETERIA		47	12X12	355	334	
SUB TOTAL CFM					2140	2361	
TOTAL CFM					4155	4449	

NOTE 1: VOLUME DAMPER 100% CLOSED

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-13

NEBB CERTIFIED #2453

SHEET NO. 13

DOAS-3

** DIRECT DRIVE EXHAUST FAN REPORT **

AREA SERVED: 1ST, 2ND & 3RD FLOORS

FAN LOCATION: ROOF

RELATIVE SUPPLY FAN: DOAS-3

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	5360 / 4775 (NOTE)	4891
SUCTION SP (" WG):	N/A	-2.22
DISCHARGE SP (" WG):	N/A	+ .82
TOTAL SP (" WG):	1.50	3.04
FAN RPM:	1566	1546
VOLTS/PHASE/CYCLE:	460/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	485/487/487
AMPS T1/T2/T3:	6.6	5.7/5.7/5.9

UNIT / MOTOR DATA	
FAN MANUFACTURER:	VALENT
FAN MODEL NO:	VXE-212-52D
MOTOR MANUFACTURER:	BALDOR
MOTOR RPM:	1750
MOTOR HP:	5
MOTOR SF:	1.15
MOTOR FRAME:	184T
VFD SETTING:	53 HZ

NOTE: FAN DESIGN / INLET TOTAL

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-14

NEBB CERTIFIED #2453

SHEET NO. 14

DOAS-3

** AIR INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
321	CLASSROOM 12		1	2408	210	196	
319	ADL		2	2408	125	119	
315	EXAM		3	1206	20	25	1
316	WAITING		4	1206	20	19	1
313	NURSE OFFICE		4A	1206	20	24	1
314	LAV		5	1206	20	20	1
346	EXISTING WOMENS		6	18X18	250	262	
347	EXISTING MENS		7	18X18	250	271	
312	OFFICE		8	1206	25	26	
310	DIRECTOR		9	2410	290	300	
309	OFFICE		10	1206	15	34	1
308	OFFICE		11	1206	20	37	1
307	OFFICE		12	1206	15	32	1
306	OFFICE		13	1206	15	25	1
302	FITNESS CENTER		14	2406	60	65	
303	TEACHERS OFFICE		15	2406	50	46	
304	CLASSROOM 14		16	2408	200	194	
305	CLASSROOM 13		17	2408	205	209	
222	CLASSROOM 11		18	2408	210	207	
221	ADL		19	2408	125	116	
218	WAITING		20	1206	20	36	1
217	EXAM		21	1206	20	30	1
216	LAV		21A	1206	70	76	1
215	NURSE OFFICE		22	1206	20	22	1
249	EXISTING WOMENS		23	18X18	250	266	
250	EXISTING MENS		24	18X18	250	231	
SUB TOTAL CFM					2775	2888	

NOTE 1: VOLUME DAMPER 100% CLOSED

PROJECT: CES CLASSROOMS
 SUBMITTED BY: AIR BALANCING SERVICE CO.
 CODE: 24071-15

NEBB CERTIFIED #2453

SHEET NO. 15

DOAS-3

** AIR INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
214	TEACHERS OFFICE		25	1206	25	55	1,2
213	CLASSROOM 12		26	2408	210	201	
212	SOCIAL WORKER		27	1206	30	28	
211	OFFICE		28	1206	15	21	1
210	OFFICE		29	1206	20	29	1
208	OFFICE		30	1206	15	26	1
209	OFFICE		31	1206	15	28	1
207	SPEECH PATH		32	1206	30	31	
206	OFFICE		33	1206	30	33	
205	OFFICE		34	1206	20	33	1
204	OFFICE		35	1206	20	23	1
203	STAFF ROOM		36	1206	55	55	
202	PHYSICAL THERAPY		37	2408	140	148	
119	CLASSROOM 9		38	2408	190	187	
122	TEACHERS OFFICE		39	1206	20	22	
126	STAFF ROOM		40	1206	40	43	
116	TEACHERS OFFICE		41	1206	25	33	1
148	EXISTING WOMENS		42	16X16	250	229	
149	EXISTING MENS		43	18X18	250	216	
113	CLASSROOM 10		44	2408	195	180	
111	CLASSROOM 11		45	2408	190	181	
110	DAILY SKILLS LAB		46	2408	215	201	
SUB TOTAL CFM					2000	2003	
TOTAL CFM					4775	4891	

NOTE 1: VOLUME DAMPER 100% CLOSED

NOTE 2: SCREW RESTRICTING, 100% CLOSED, NO ACCESS, DUCTS IN WAY

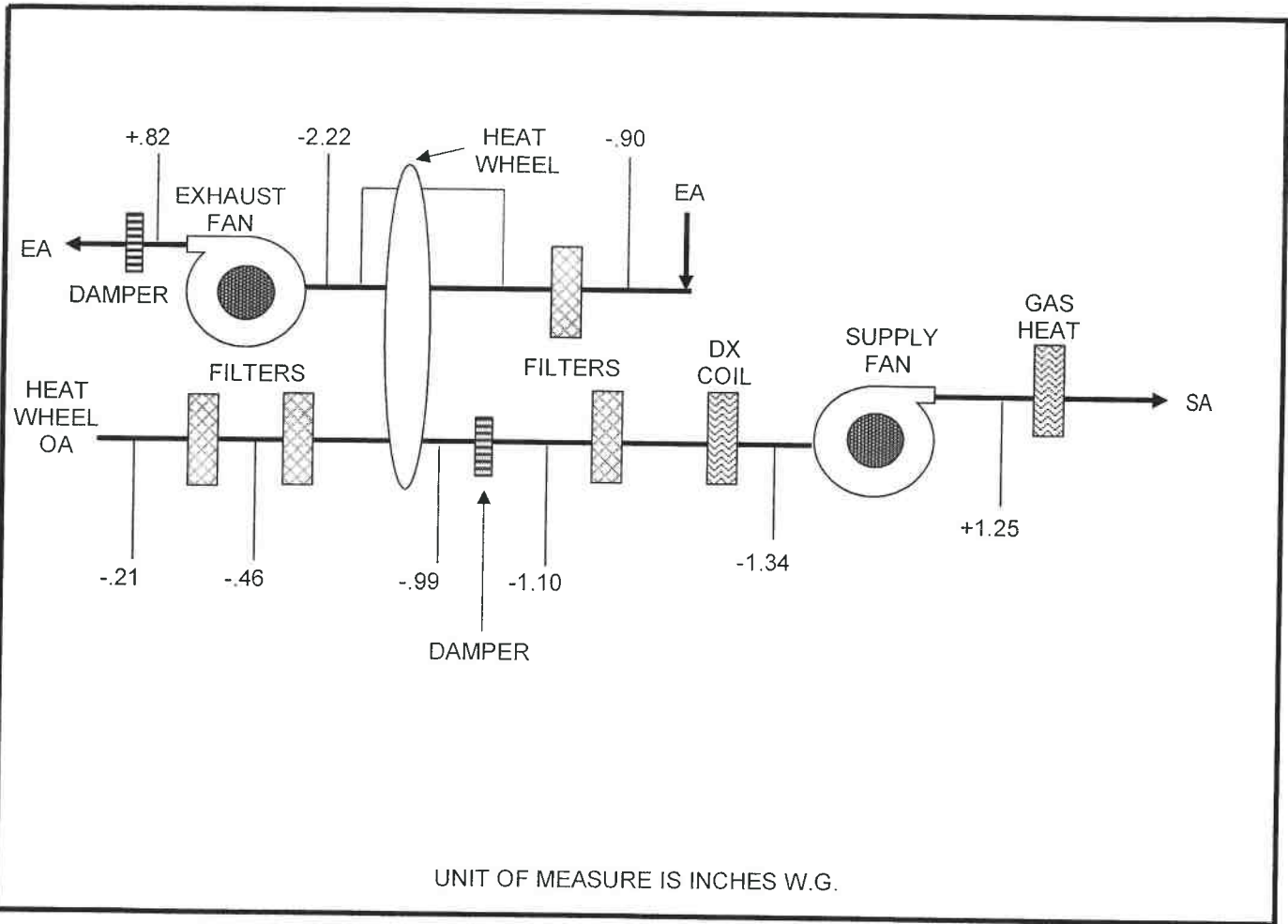
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-16

NEBB CERTIFIED #2453

SHEET NO. 16

DOAS-3

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-17

NEBB CERTIFIED #2453

SHEET NO. 17

FC-24-101

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: LOBBY 101

FAN LOCATION: DIRECTORS OFFICE 143 CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800 / 1130 (NOTE)	948
EXT SP (" WG):	.50	.42
FAN SPEED:	1807	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/210
AMPS T1/T2/T3:	4.6	1.8/1.7/1.8

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

NOTE: FAN DESIGN / OUTLET TOTAL

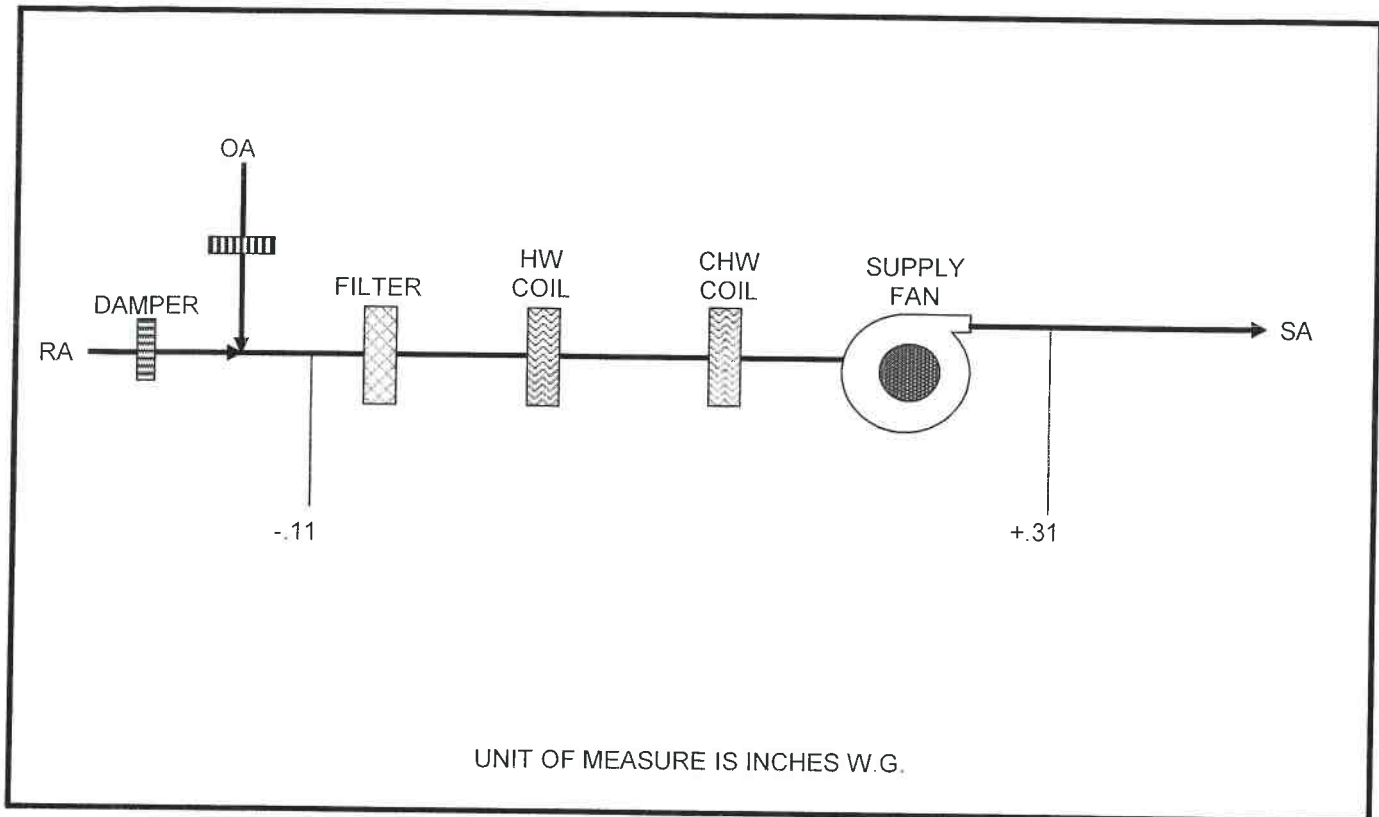
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-18

NEBB CERTIFIED #2453

SHEET NO. 18

FC-24-101

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-19

NEBB CERTIFIED #2453

SHEET NO. 19

FC-24-101

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
	ELEVATOR VESITBULE		1	9X9	240	207	
101	LOBBY		2	6X6	150	123	1
101	LOBBY		3	12X8	500	425	2
101	LOBBY		4	9X9	240	193	
TOTAL CFM					1130	948	
	RETURN						
101	LOBBY		1	16X12	800	768	3

NOTE 1: AIRFLOW MEASURED WITH RVA USING A .180 AK FACTOR

NOTE 2: AIRFLOW MEASURED WITH RVA USING A .48 AK FACTOR

NOTE 3: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-20

NEBB CERTIFIED #2453

SHEET NO. 20

FC-36-102

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CONFERENCE 103 / PARENTS ROOM 102

FAN LOCATION: PARENTS ROOM CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1200 / 1335 (NOTE)	1350
EXT SP (" WG):	.50	.36
FAN SPEED:	1642	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/208/208
AMPS T1/T2/T3:	4.6	2.4/2.4/2.5

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE036
MOTOR HP:	1.0

NOTE: FAN DESIGN / OUTLET TOTAL

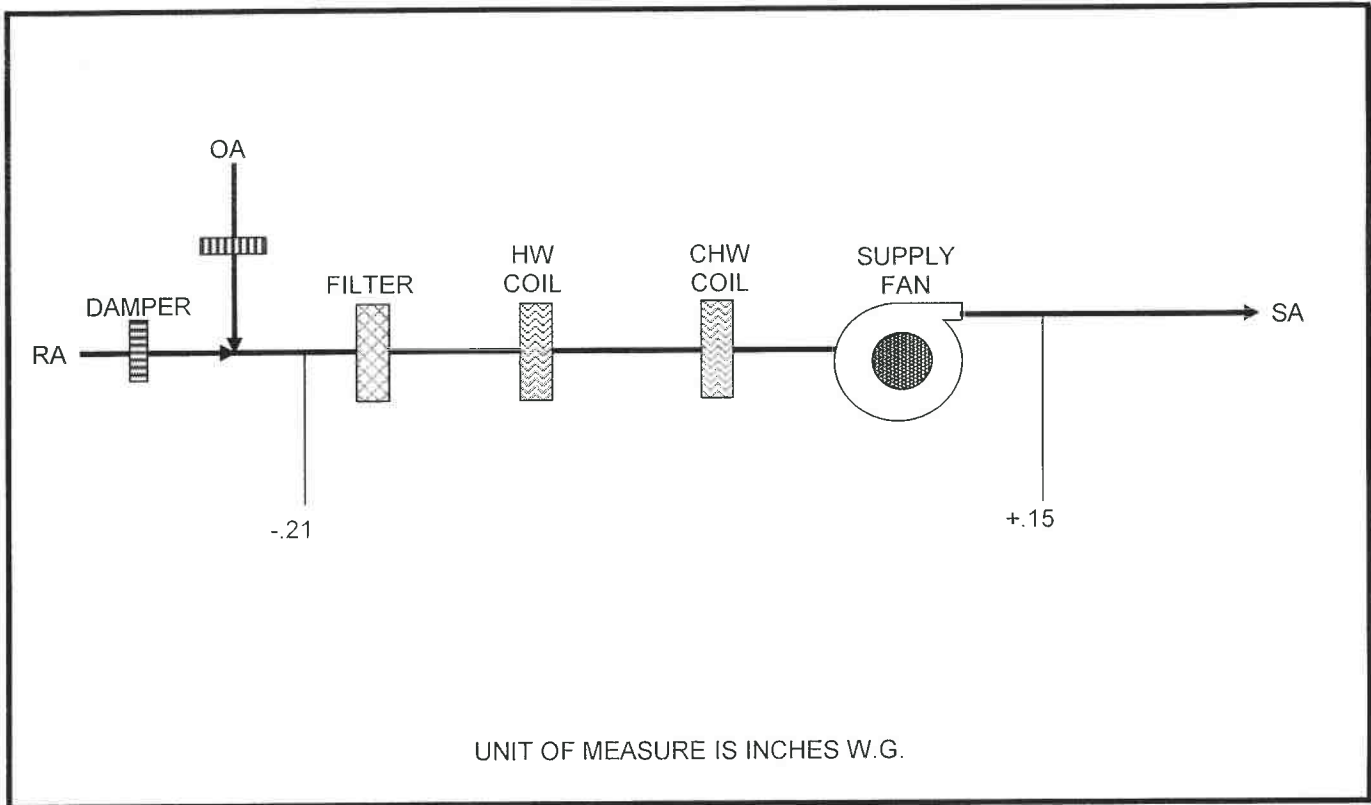
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-21

NEBB CERTIFIED #2453

SHEET NO. 21

FC-36-102

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-22

NEBB CERTIFIED #2453

SHEET NO. 22

FC-36-102

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
103	CONFERENCE ROOM		1	12X12	390	401	
102	PARENTS ROOM		2	12X12	400	403	
102	PARENTS ROOM		3	12X12	395	406	
104	WAITING ROOM		4	6X6	150	140	
TOTAL CFM					1335	1350	
	RETURN						
103	CONFERENCE ROOM		1	2410	390	353	
102	PARENTS ROOM		2	2414	795	743	
104	WAITING ROOM		3	6X6	150	130	
TOTAL CFM					1335	1226	

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-23

NEBB CERTIFIED #2453

SHEET NO. 23

FC-36-107A

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: FUTURE CATERIA 107A

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1200	1294
EXT SP (" WG):	.50	.60
FAN SPEED:	1642	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/209
AMPS T1/T2/T3:	4.6	2.5/2.6/2.6

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE036
MOTOR HP:	1.0

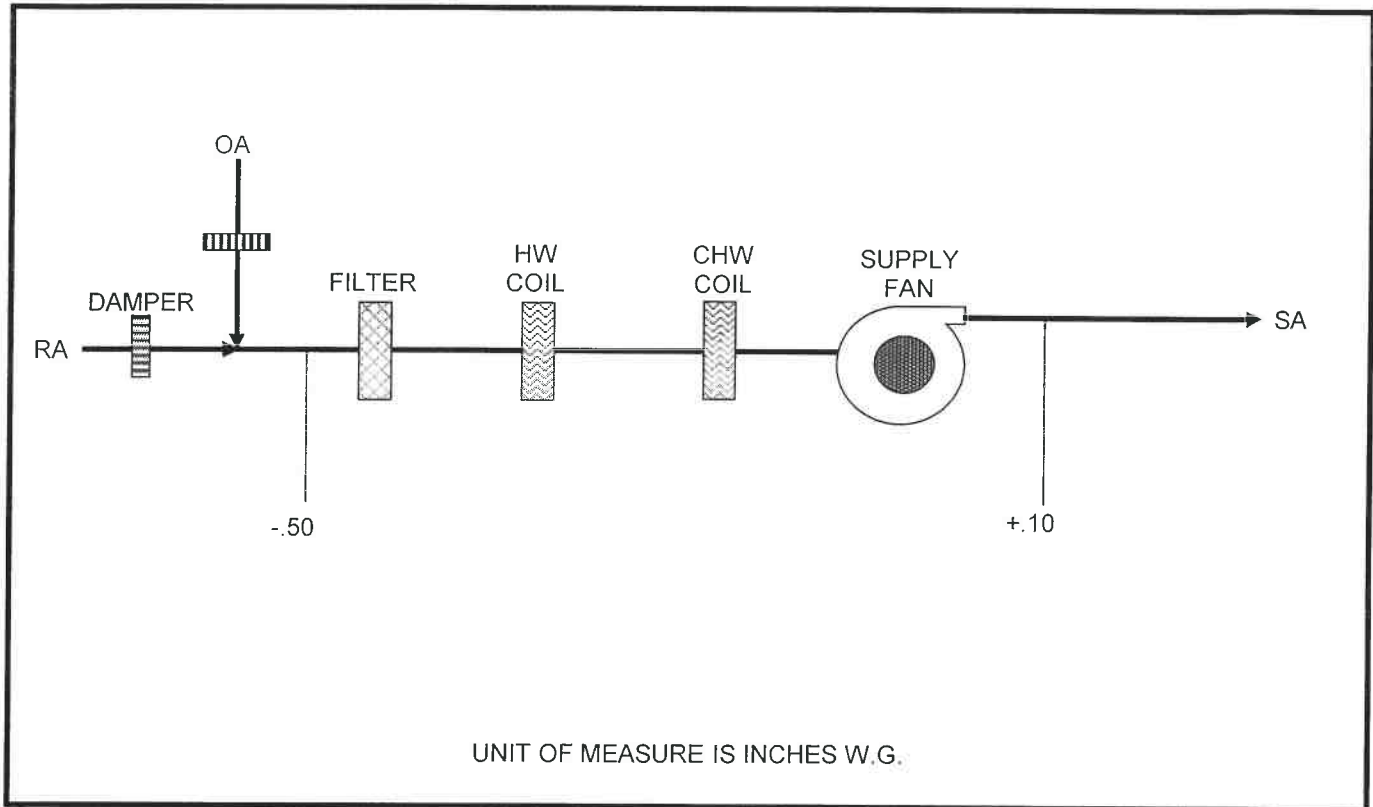
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-24

NEBB CERTIFIED #2453

SHEET NO. 24

FC-36-107A

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-25

NEBB CERTIFIED #2453

SHEET NO. 25

FC-36-107A

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
107	FUTURE CAFETERIA		1	12X12	400	439	
107	FUTURE CAFETERIA		2	12X12	400	433	
107	FUTURE CAFETERIA		3	12X12	400	422	
TOTAL CFM					1200	1294	
	RETURN						
107	FUTURE CAFETERIA		1	2415	1200	1122	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-26

NEBB CERTIFIED #2453

SHEET NO. 26

FC-36-108

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: KITCHEN
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1200	1270
EXT SP (" WG):	.50	.81
FAN SPEED:	1642	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/209
AMPS T1/T2/T3:	4.6	2.6/2.7/2.7

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE036
MOTOR HP:	1.0

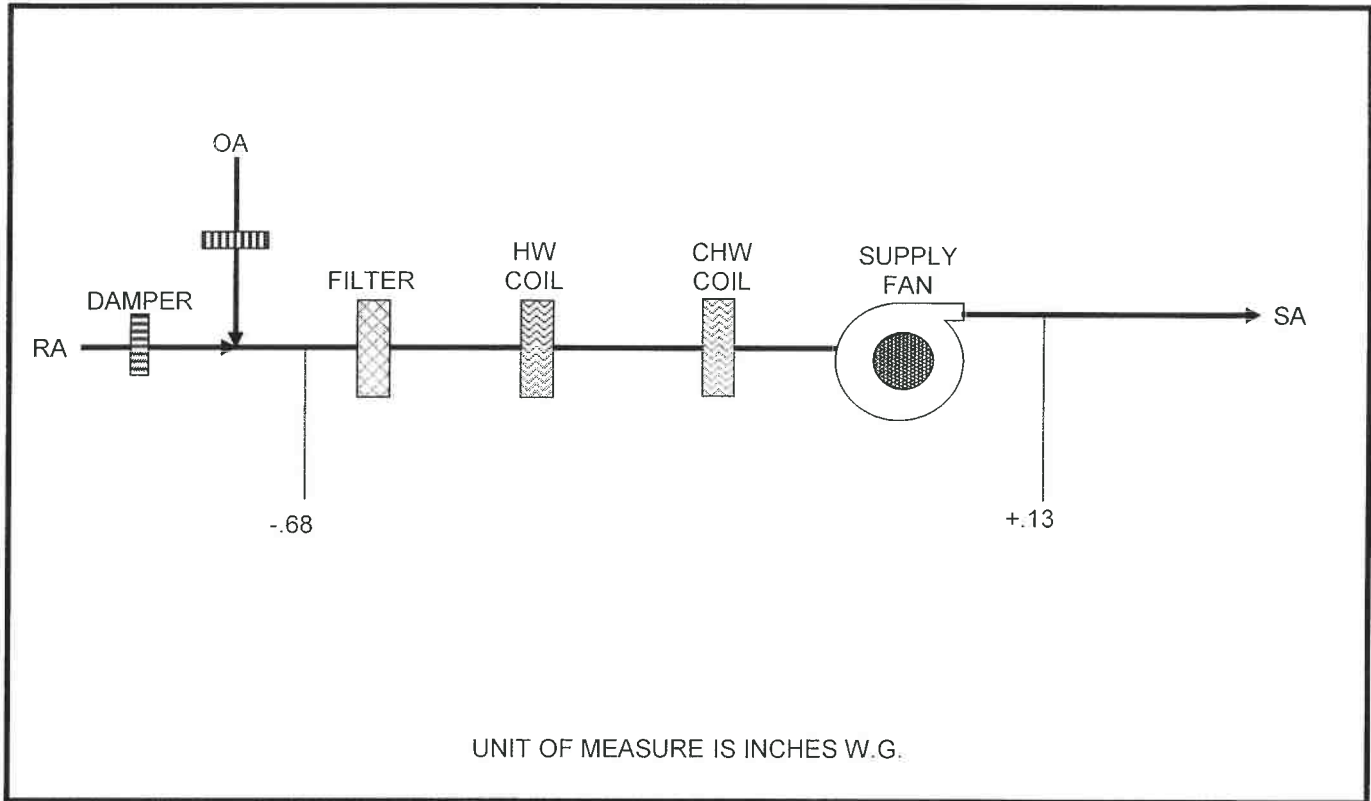
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-27

NEBB CERTIFIED #2453

SHEET NO. 27

FC-36-108

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-28

NEBB CERTIFIED #2453

SHEET NO. 28

FC-36-108

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
108	KITCHEN		1	15X15	600	645	
108	KITCHEN		2	15X15	600	625	
TOTAL CFM					1200	1270	
	RETURN						
108	KITCHEN		1	2416	1200	1062	

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-26

NEBB CERTIFIED #2453

SHEET NO. 26

FC-18-110

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 110
FAN LOCATION: CEILING

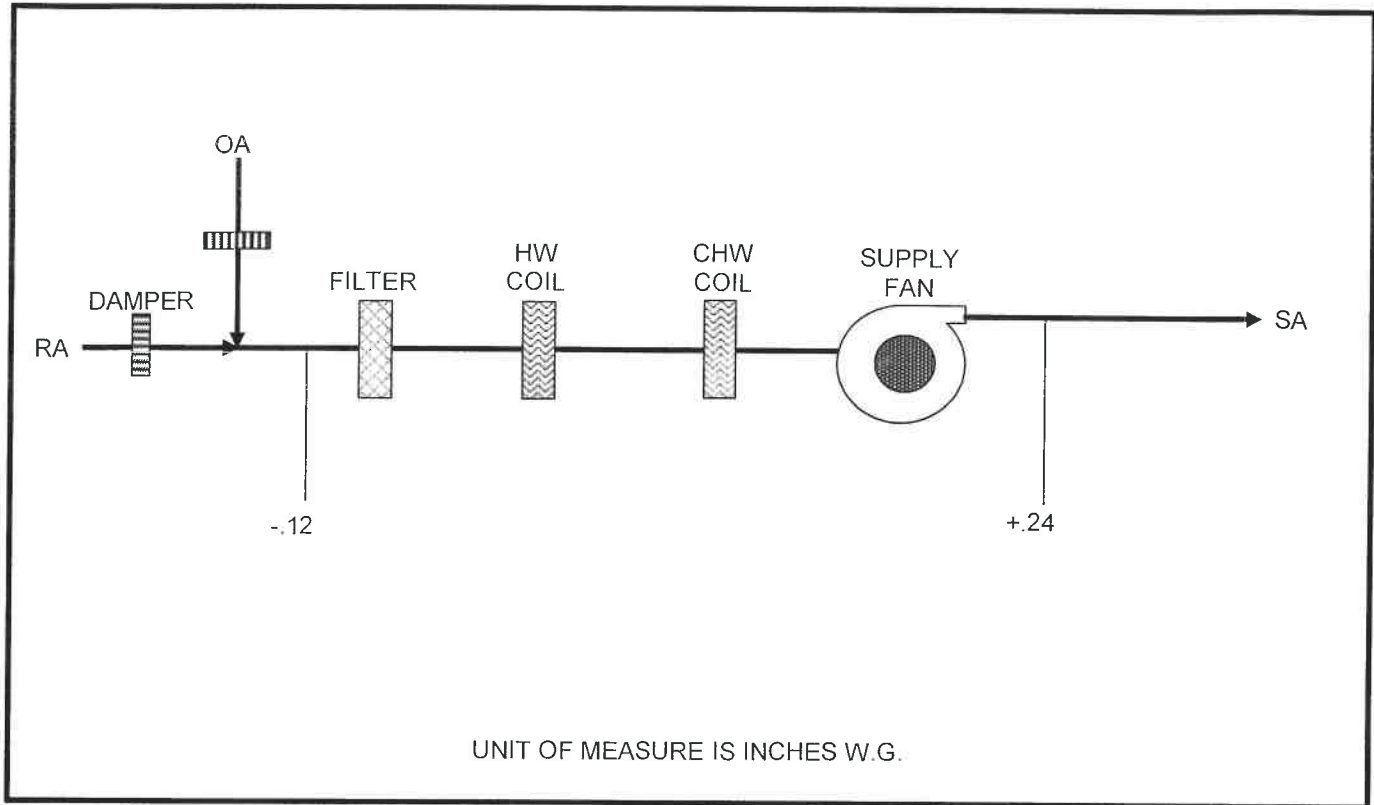
FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	717
EXT SP (" WG):	.50	.36
FAN SPEED:	1654	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/208/209
AMPS T1/T2/T3:	2.4	1.0/1.0/.9

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

NOTE: UNABLE TO LOWER FAN SPEED

FC-18-110

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-31

NEBB CERTIFIED #2453

SHEET NO. 31

FC-18-110

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
110	CLASSROOM		1	9X9	300	351	
110	CLASSROOM		2	9X9	300	366	
TOTAL CFM					600	717	
	RETURN						
110	CLASSROOM		1	2412	600	623	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-32

NEBB CERTIFIED #2453

SHEET NO. 32

FC-18-111

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 11

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	616
EXT SP (" WG):	.50	.22
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/210/209
AMPS T1/T2/T3:	2.4	1.3/1.4/1.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

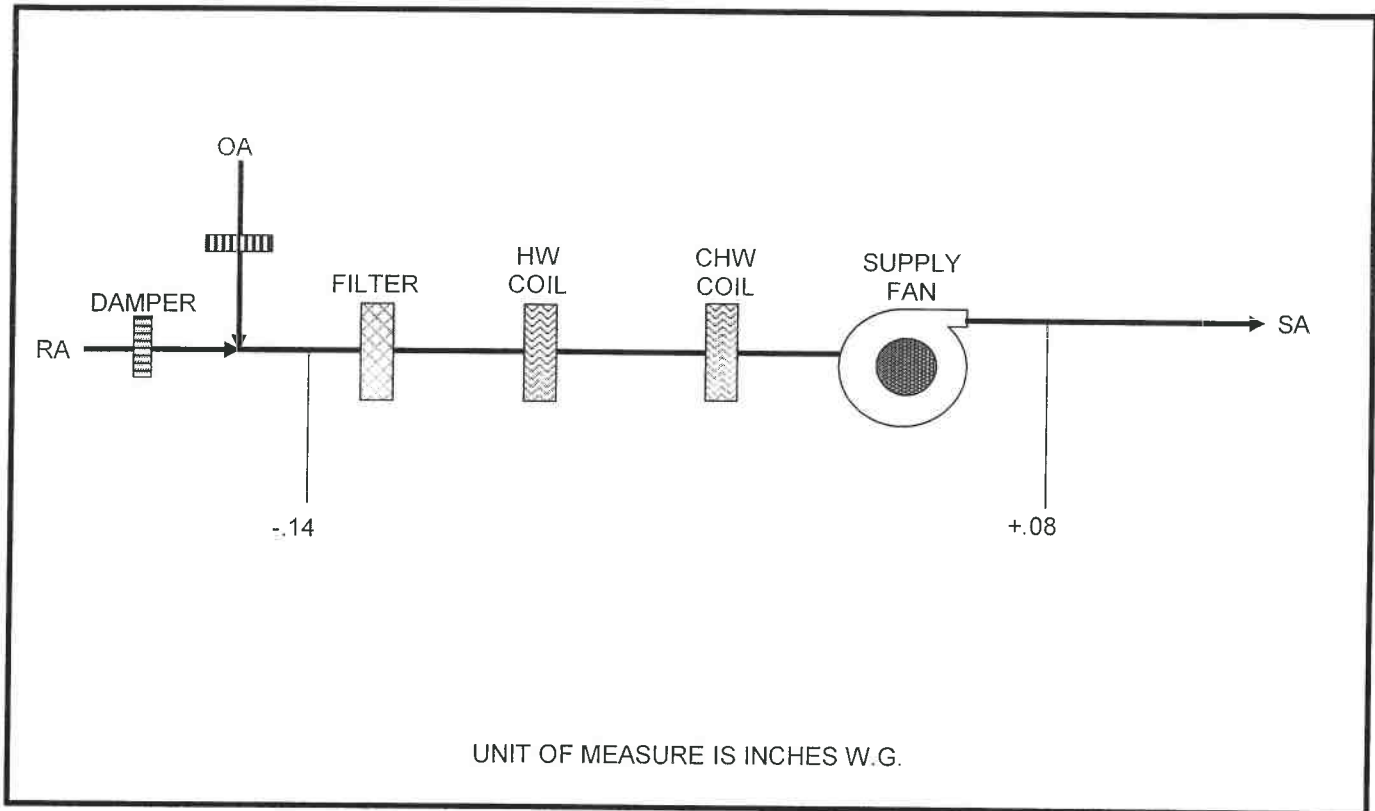
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-33

NEBB CERTIFIED #2453

SHEET NO. 33

FC-18-111

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-34

NEBB CERTIFIED #2453

SHEET NO. 34

FC-18-111

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
111	CLASSROOM 11		1	9X9	300	308	
111	CLASSROOM 11		2	9X9	300	308	
TOTAL CFM					600	616	
	RETURN						
111	CLASSROOM 11		1	2412	600	547	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-35

NEBB CERTIFIED #2453

SHEET NO. 35

FC-18-113

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 10

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	668
EXT SP (" WG):	.50	.26
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/208
AMPS T1/T2/T3:	2.4	1.2/1.3/1.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

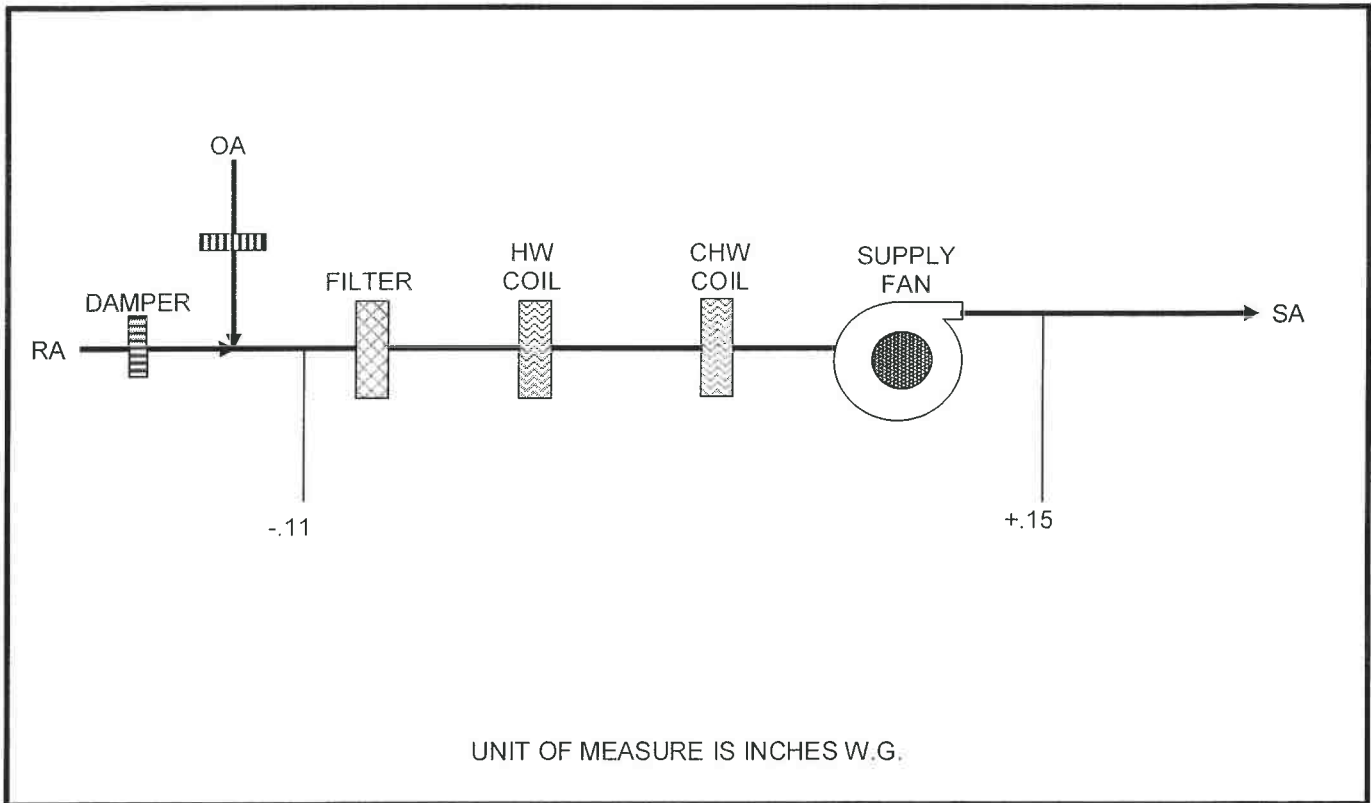
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-36

NEBB CERTIFIED #2453

SHEET NO. 36

FC-18-113

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-37

NEBB CERTIFIED #2453

SHEET NO. 37

FC-18-113

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
113	CLASSROOM 10		1	9X9	300	333	
113	CLASSROOM 10		2	9X9	300	335	
TOTAL CFM					600	668	1
	RETURN						
113	CLASSROOM 10		1	2412	600	510	2

NOTE 1: LOW SPEED IS TOO LOW

NOTE 2: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-38

NEBB CERTIFIED #2453

SHEET NO. 38

FC-24-119

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 9

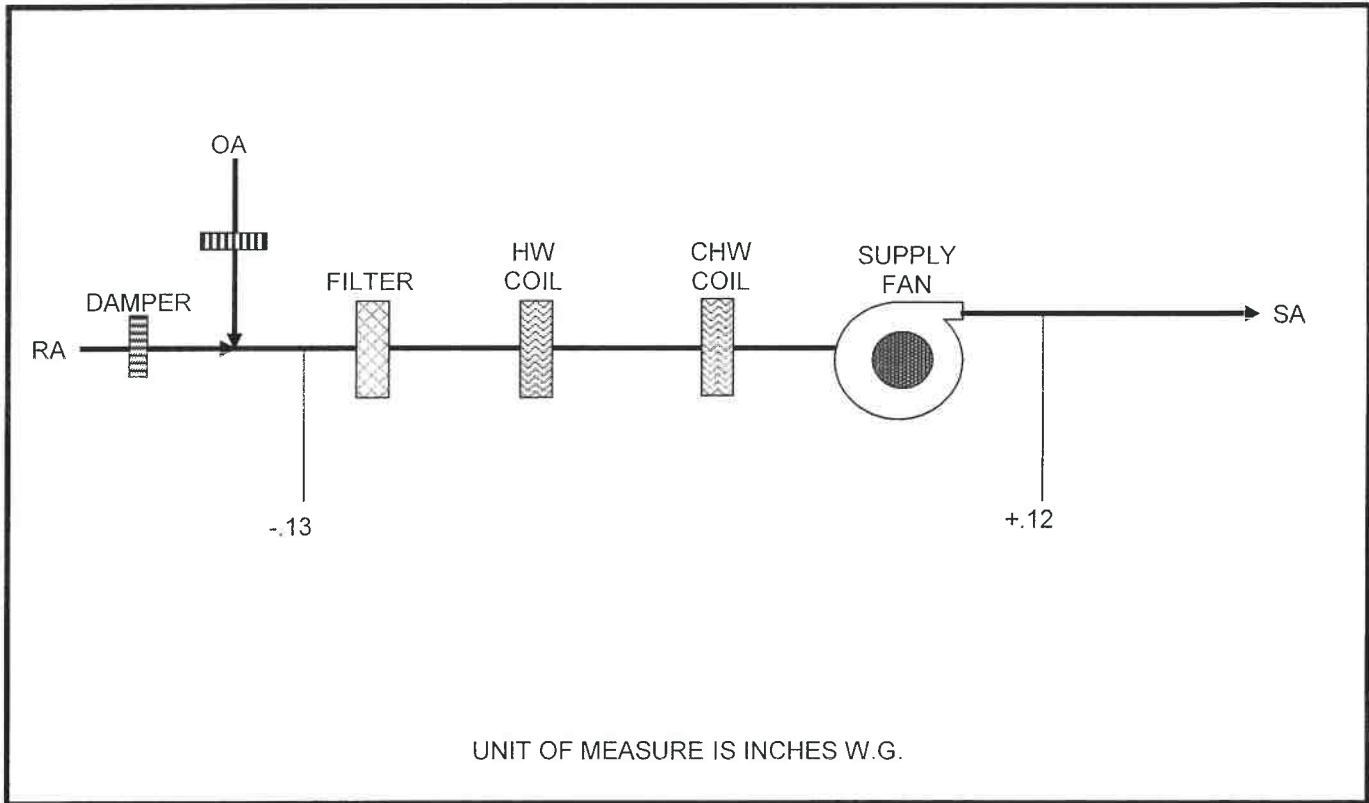
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	780
EXT SP (" WG):	.50	.25
FAN SPEED:	1807	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/208/209
AMPS T1/T2/T3:	4.6	1.7/1.6/1.7

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

FC-24-119

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-40

NEBB CERTIFIED #2453

SHEET NO. 40

FC-24-119

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
119	CLASSROOM 9		1	12X12	400	394	
119	CLASSROOM 9		2	12X12	400	386	
TOTAL CFM					800	780	
	RETURN						
119	CLASSROOM 9		1	2414	800	677	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-41

NEBB CERTIFIED #2453

SHEET NO. 41

FC-30-123

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: LOADING / MAINTENANCE

FAN LOCATION: LOADING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1000	908
EXT SP (" WG):	.50	.13
FAN SPEED:	1420	LOW
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/210/209
AMPS T1/T2/T3:	4.6	2.7/2.7/2.6

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE036
MOTOR HP:	1.0

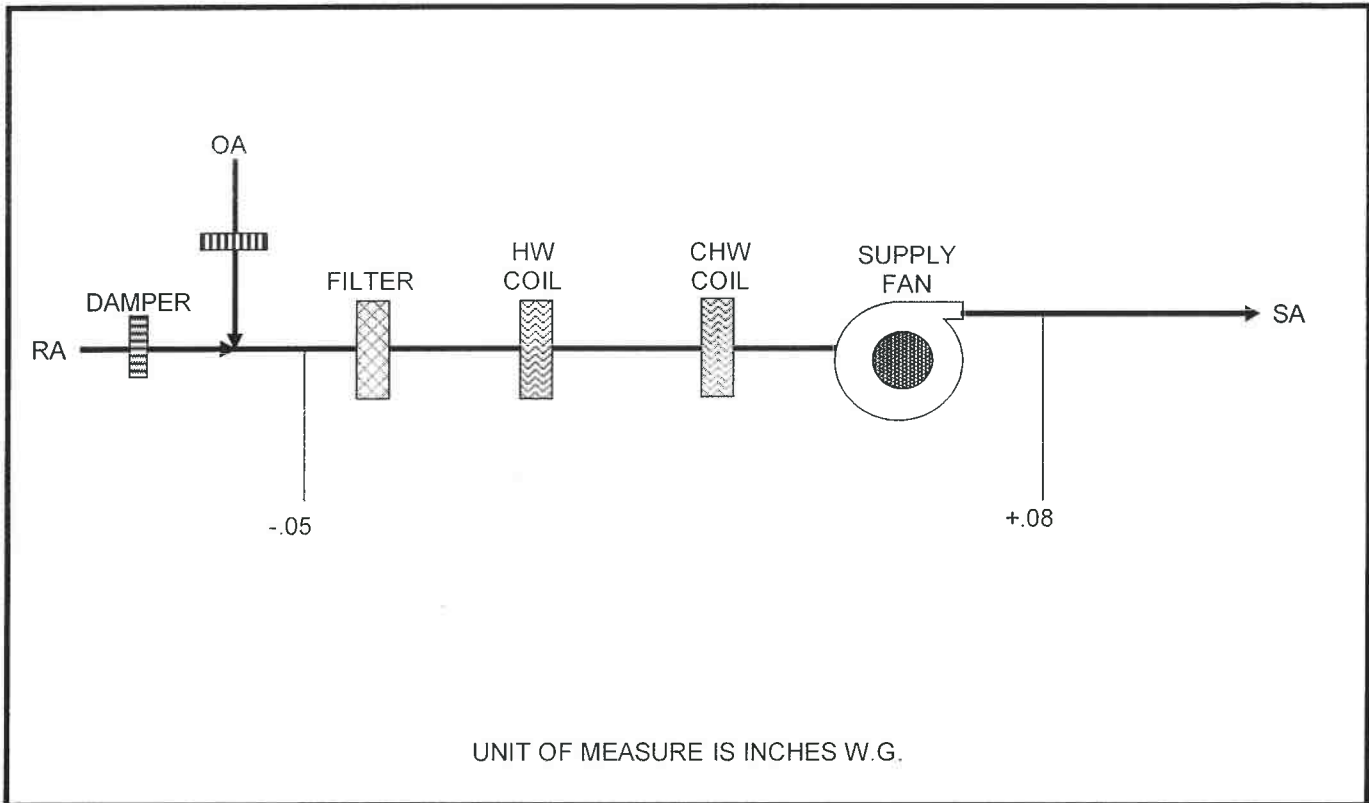
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-42

NEBB CERTIFIED #2453

SHEET NO. 42

FC-30-123

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-43

NEBB CERTIFIED #2453

SHEET NO. 43

FC-30-123

** AIR OUTLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
123	LOADING		1	8" DIA	350	315	1
123	LOADING		2	8" DIA	350	318	1
124	MAINTENANCE		3	9X9	300	275	
TOTAL CFM					1000	908	

NOTE 1: AIRFLOW MEASURED WITH RVA USING A .332 AK FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-44

NEBB CERTIFIED #2453

SHEET NO. 44

FC-12-125

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: IT OFFICE 125

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	361
EXT SP (" WG):	.50	.10
FAN SPEED:	1324	LOW
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/210/210
AMPS T1/T2/T3:	2.4	N/A

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

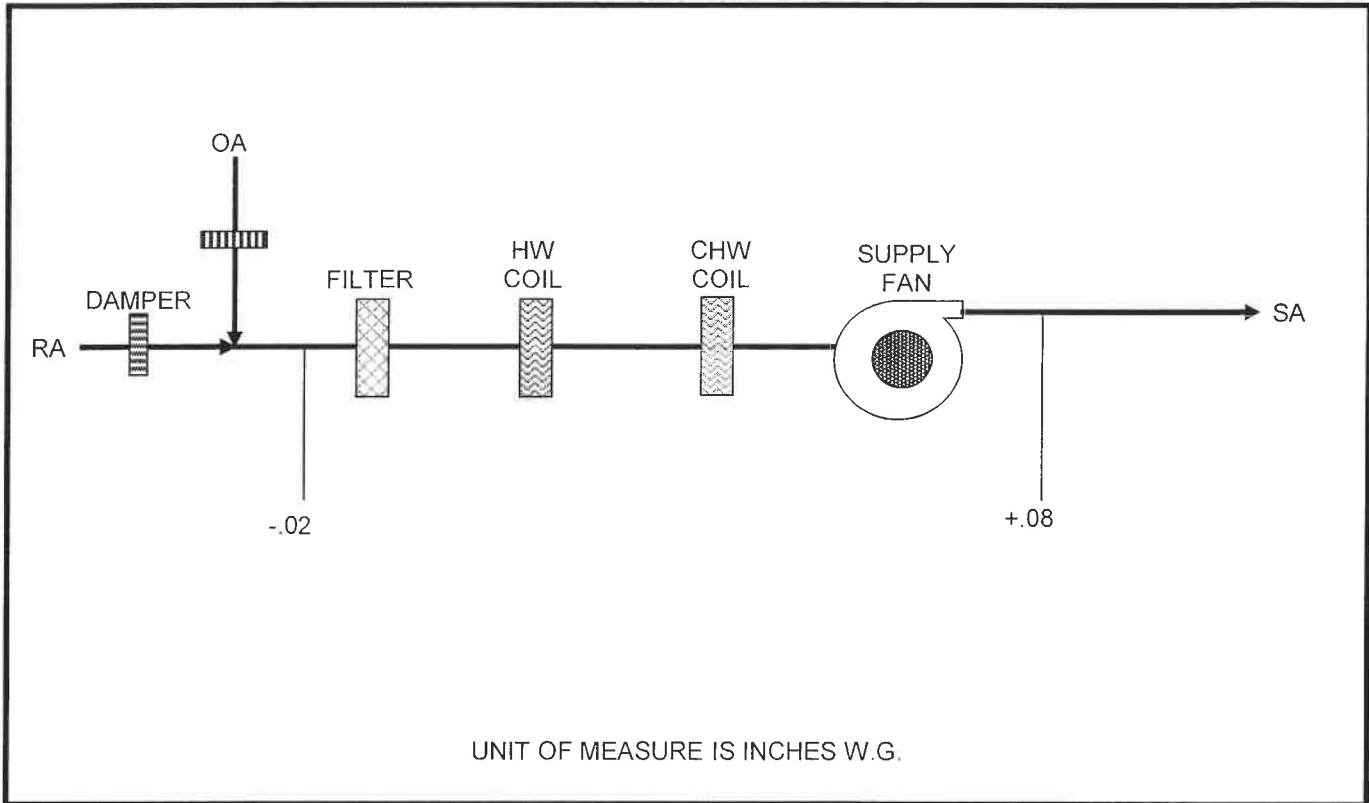
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-45

NEBB CERTIFIED #2453

SHEET NO. 45

FC-12-125

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-46

NEBB CERTIFIED #2453

SHEET NO. 46

FC-12-125

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
125	IT OFFICE		1	9X9	200	181	
125	IT OFFICE		2	9X9	200	180	
TOTAL CFM					400	361	
	RETURN						
125	IT OFFICE		1	2410	400	108	

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-47

NEBB CERTIFIED #2453

SHEET NO. 47

FC-18-126

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: TEACHERS OFFICES / STAFF ROOM

FAN LOCATION: STAFF ROOM 126

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	653
EXT SP (" WG):	.50	.22
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/210
AMPS T1/T2/T3:	2.4	1.2/1.2/1.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

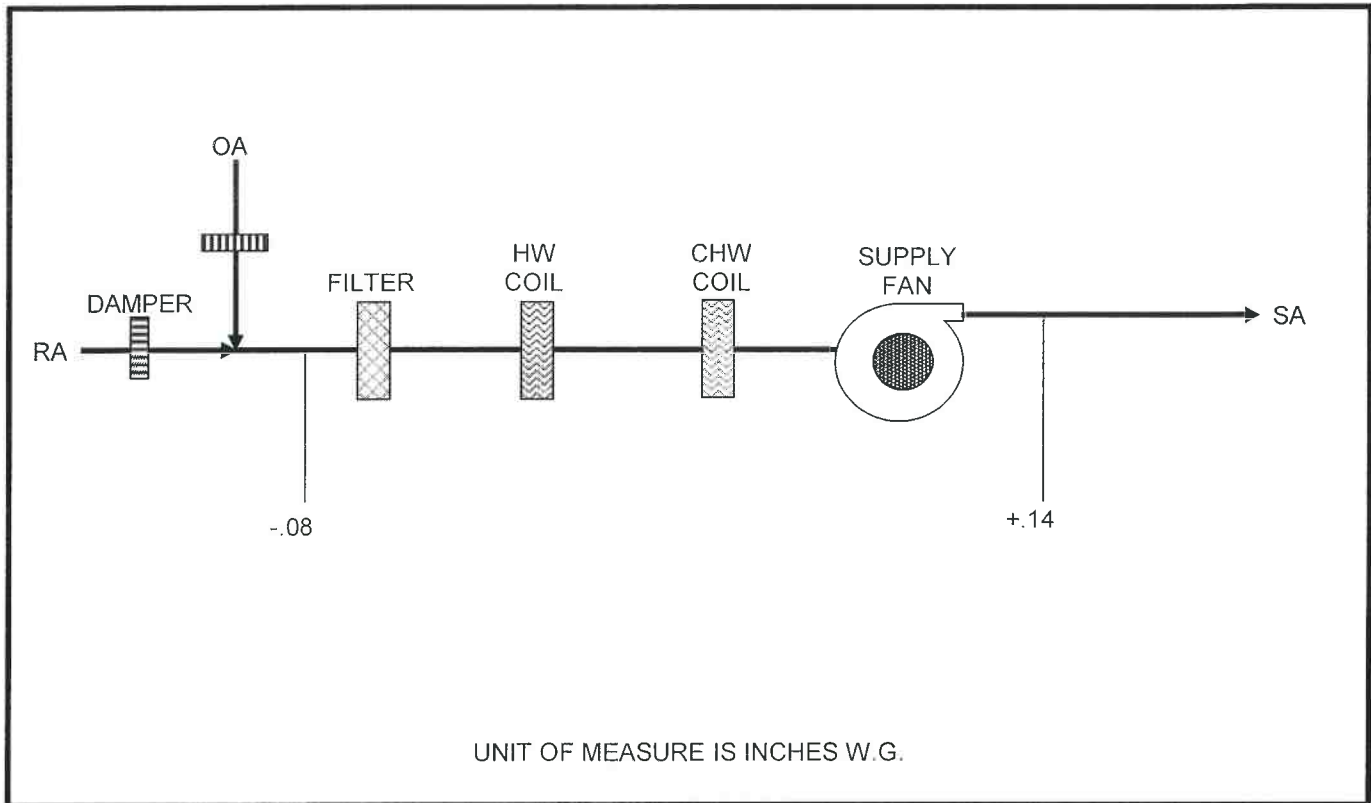
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-48

NEBB CERTIFIED #2453

SHEET NO. 48

FC-18-126

** STATIC PRESSURE PROFILE **



FC-18-126

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
116	TEACHERS OFFICE		1	9X9	200	213	
126	STAFF ROOM		2	9X9	230	251	
122	TEACHERS OFFICE		3	9X9	170	189	
TOTAL CFM					600	653	
	RETURN						
116	TEACHERS OFFICE		1	2408	200	155	1
126	STAFF ROOM		2	2408	230	169	1
122	TEACHERS OFFICE		3	2408	170	144	1
TOTAL CFM					600	468	

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-50

NEBB CERTIFIED #2453

SHEET NO. 50

FC-12-127A

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CORRIDOR 127A

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	385
EXT SP (" WG):	.50	.23
FAN SPEED:	1324	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/209
AMPS T1/T2/T3:	2.4	N/A

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

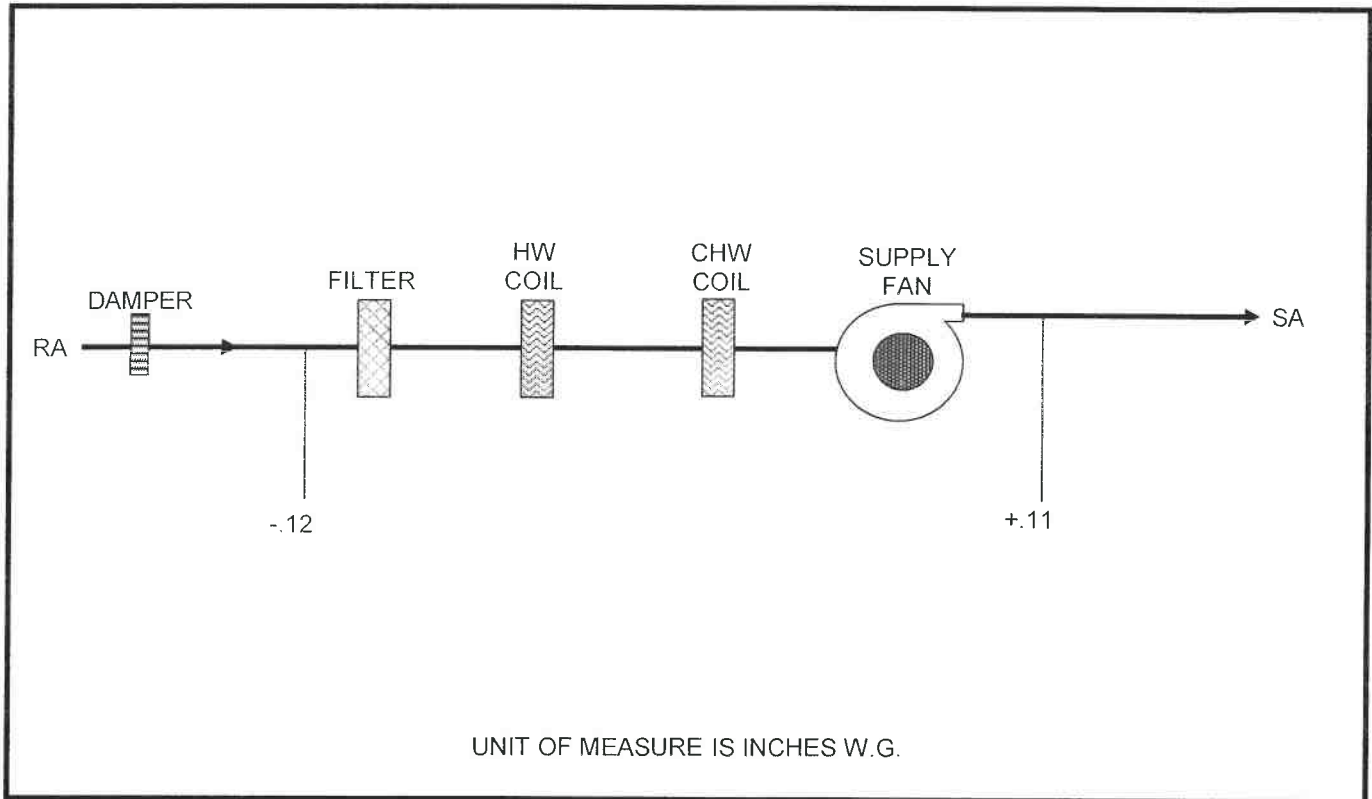
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-51

NEBB CERTIFIED #2453

SHEET NO. 51

FC-12-127A

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-52

NEBB CERTIFIED #2453

SHEET NO. 52

FC-12-127A

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
127A	CORRIDOR		1	12X12	400	385	
	RETURN						
127A	CORRIDOR		1	2410	400	307	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-53

NEBB CERTIFIED #2453

SHEET NO. 53

FC-12-127B

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CORRIDOR 127B

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	408
EXT SP (" WG):	.50	.36
FAN SPEED:	1324	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/209/209
AMPS T1/T2/T3:	2.4	.6/.6/.7

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

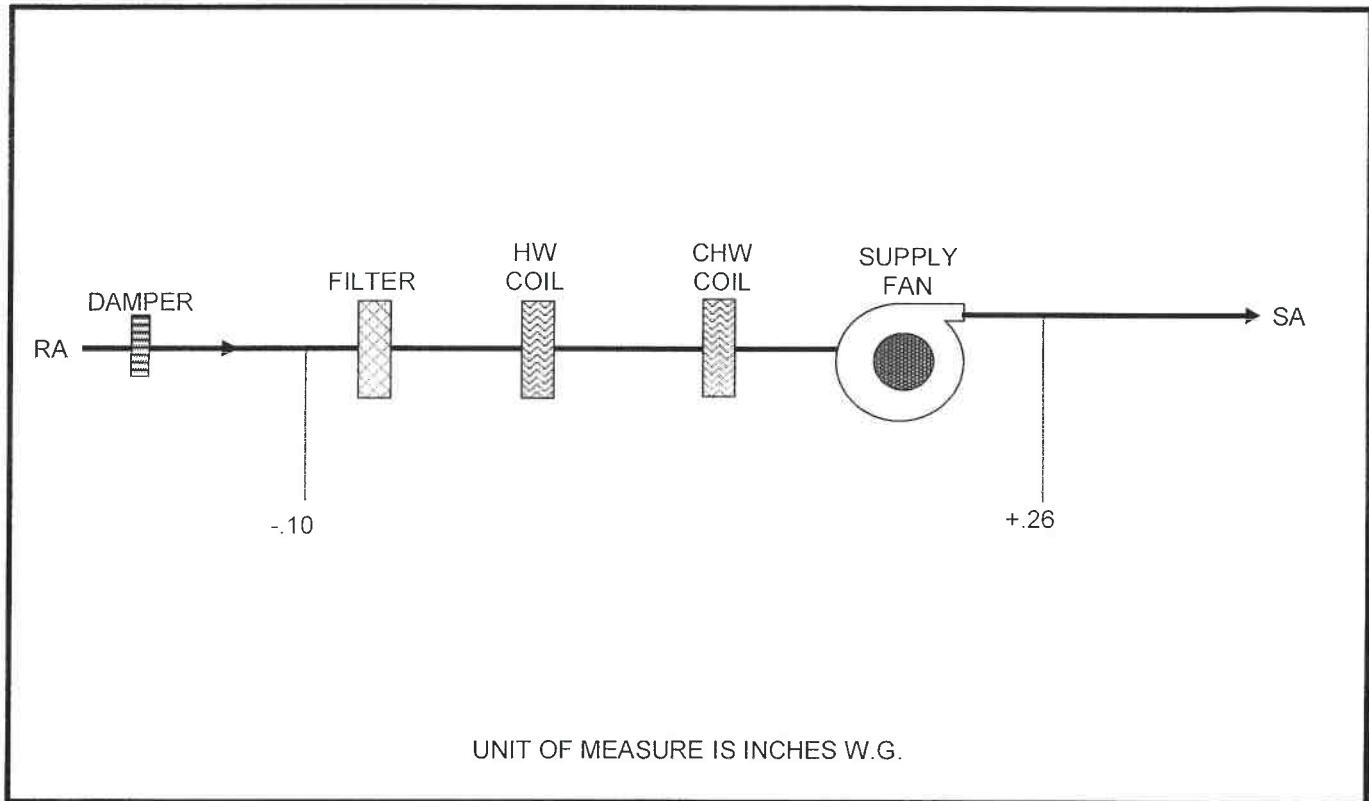
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-54

NEBB CERTIFIED #2453

SHEET NO. 54

FC-12-127B

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-55

NEBB CERTIFIED #2453

SHEET NO. 55

FC-12-127B

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
127B	CORRIDOR		1	12X12	400	408	
	RETURN						
127B	CORRIDOR		1	2410	400	295	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-56

NEBB CERTIFIED #2453

SHEET NO. 56

FC-12-127C

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CORRIDOR 127C

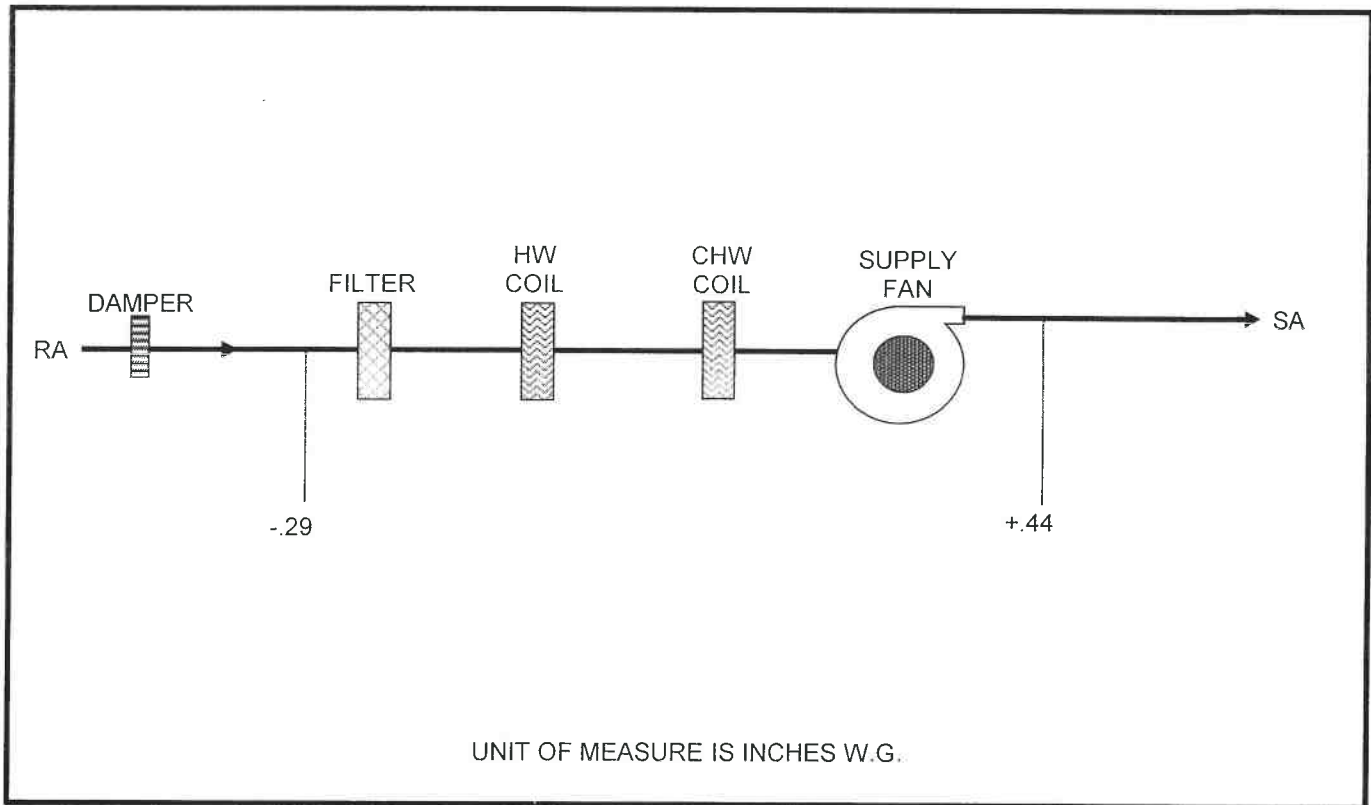
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	432
EXT SP (" WG):	.50	.73
FAN SPEED:	1324	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/208/209
AMPS T1/T2/T3:	2.4	.9/1.0/1.1

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

FC-12-127C

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-58

NEBB CERTIFIED #2453

SHEET NO. 58

FC-12-127C

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
127C	CORRIDOR		1	9X9	200	219	
118	STAIR # 2		2	9X9	100	106	
118	STAIR # 2		3	10X6	100	107	1
TOTAL CFM					400	432	
	RETURN						
127C	CORRIDOR		1	2410	400	325	2

NOTE 1: AIRFLOW MEASURED WITH RVA USING A .271 AK FACTOR

NOTE 2: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-59

NEBB CERTIFIED #2453

SHEET NO. 59

FC-12-127D

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CORRIDOR 127D

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	422
EXT SP (" WG):	.50	.48
FAN SPEED:	1324	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/210
AMPS T1/T2/T3:	2.4	N/A

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

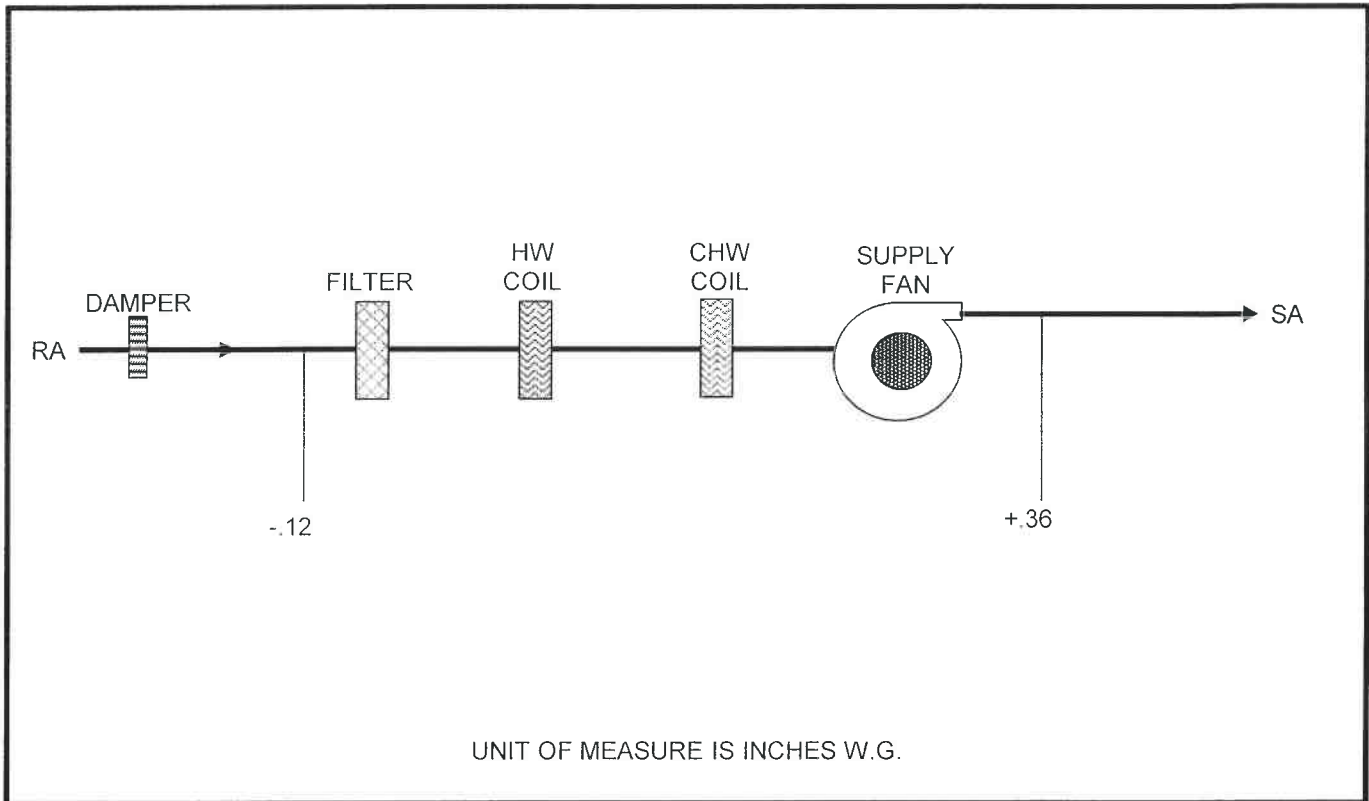
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-60

NEBB CERTIFIED #2453

SHEET NO. 60

FC-12-127D

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-61

NEBB CERTIFIED #2453

SHEET NO. 61

FC-12-127D

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
127D	CORRIDOR		1	12X12	400	422	
	RETURN						
127D	CORRIDOR		1	2410	400	315	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-62

NEBB CERTIFIED #2453

SHEET NO. 62

FC-36-128

** DIRECT DRIVE SUPPLY FAN REPORT **

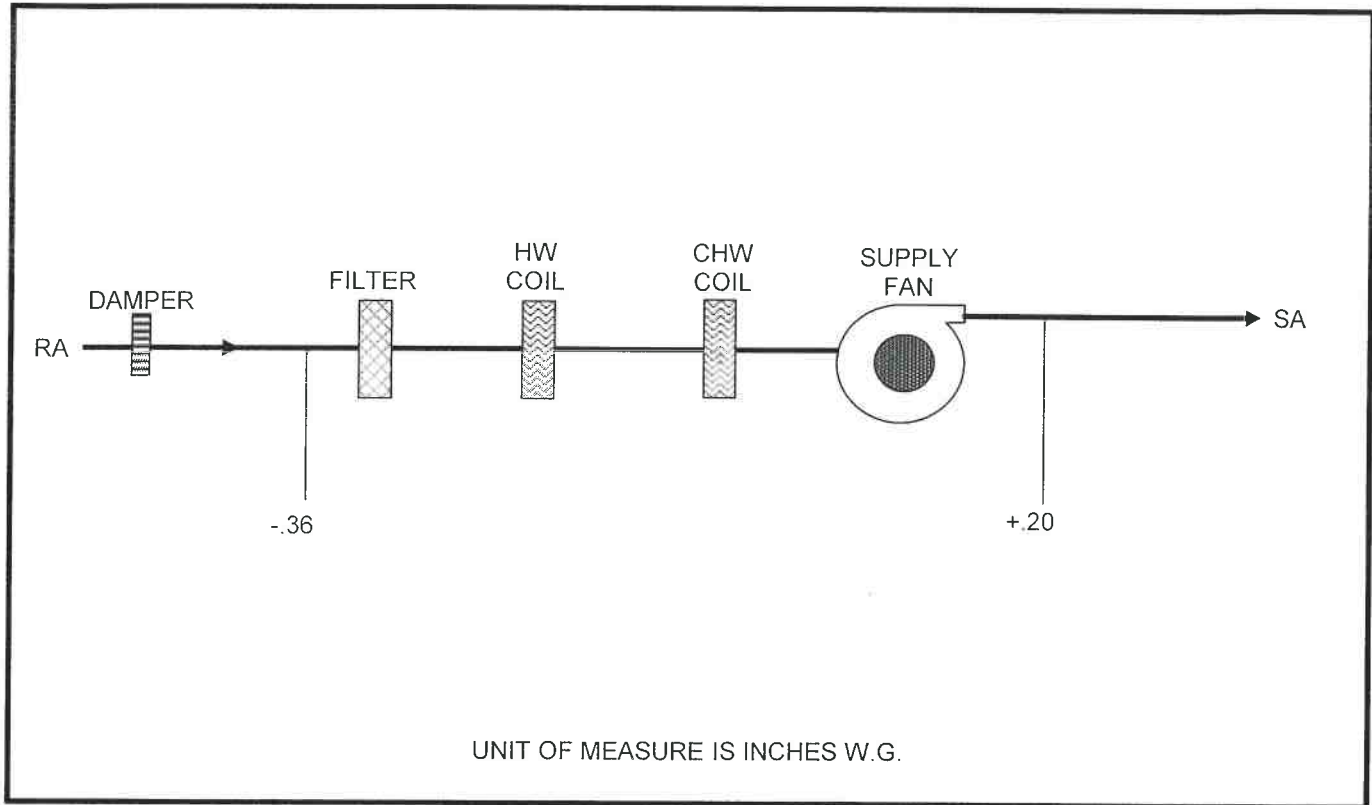
AREA SERVED: GYM
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1200	1302
EXT SP (" WG):	.50	.56
FAN SPEED:	1420	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/209/210
AMPS T1/T2/T3:	2.4	N/A

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE036
MOTOR HP:	1/2

FC-36-128

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-64

NEBB CERTIFIED #2453

SHEET NO. 64

FC-36-128

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
	GYM		1	12X12	400	434	
	GYM		2	12X12	400	439	
	GYM		3	12X12	400	429	
TOTAL CFM					1200	1302	
	RETURN						
	GYM		1	2415	1200	1175	1

NOTE 1: 1.15 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-65

NEBB CERTIFIED #2453

SHEET NO. 65

FC-18-129

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 8

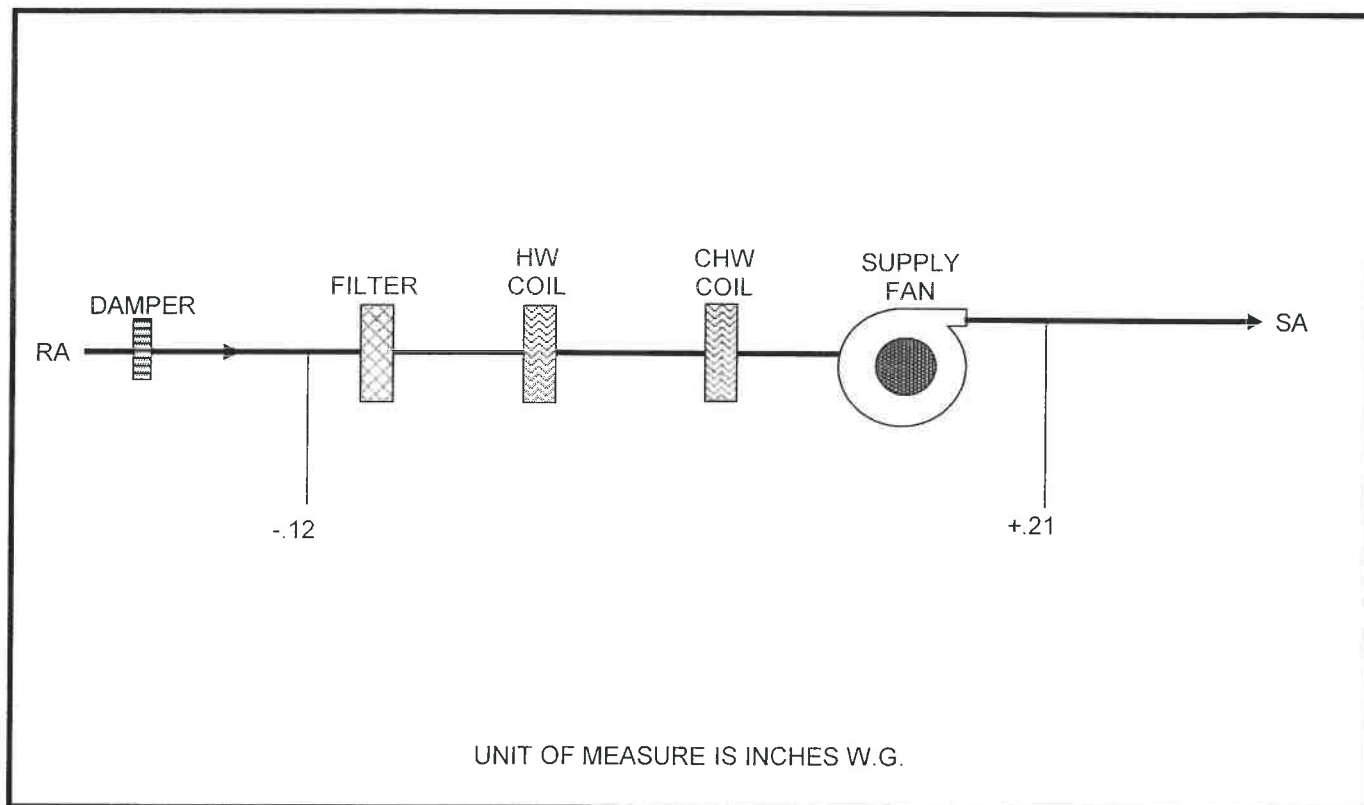
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	615
EXT SP (" WG):	.50	.33
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/209/210
AMPS T1/T2/T3:	2.4	N/A

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

FC-18-129

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-67

NEBB CERTIFIED #2453

SHEET NO. 67

FC-18-129

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
129	CLASSROOM 8		1	9X9	300	310	
129	CLASSROOM 8		2	9X9	300	305	
TOTAL CFM					600	615	
	RETURN						
129	CLASSROOM 8		1	2412	600	520	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-68

NEBB CERTIFIED #2453

SHEET NO. 68

FC-18-130

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 7

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	633
EXT SP (" WG):	.50	.27
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/209
AMPS T1/T2/T3:	2.4	N/A

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

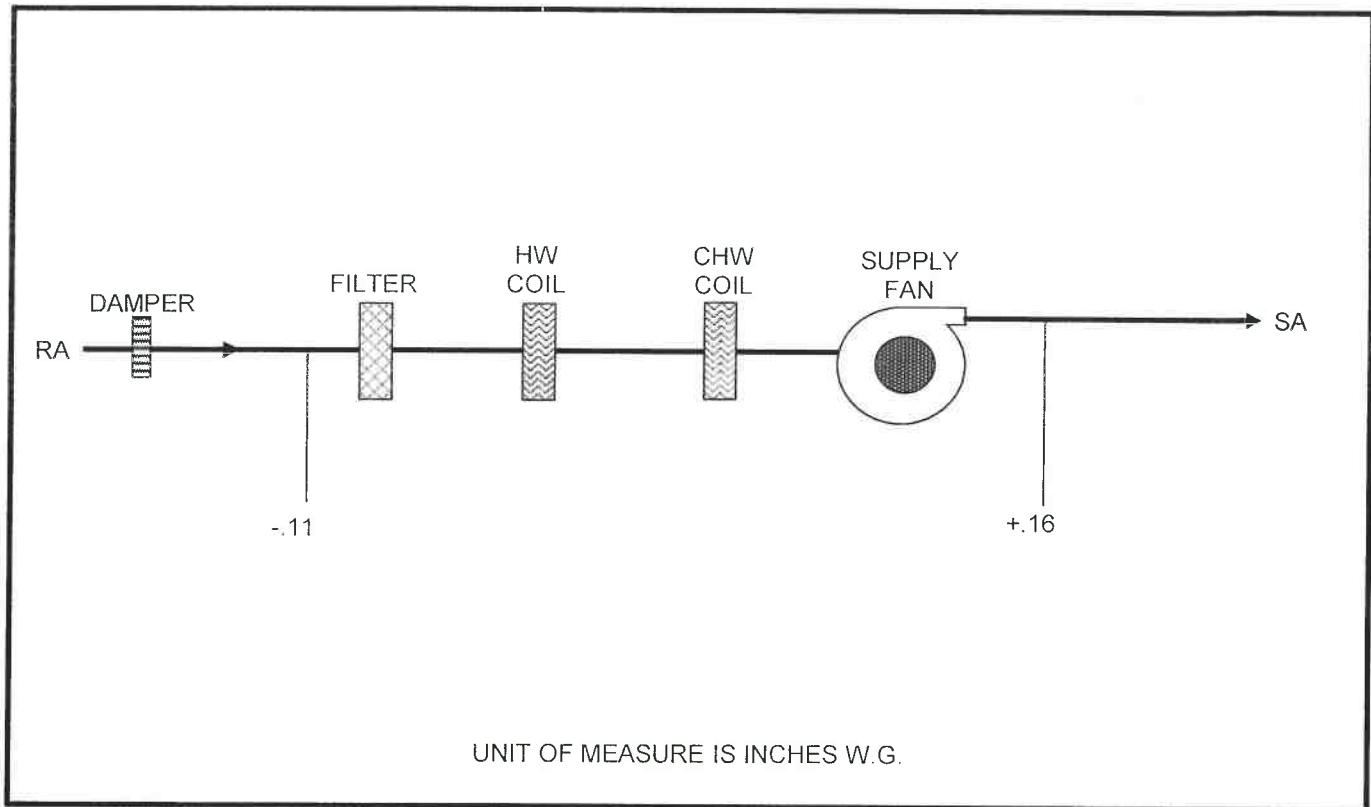
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-69

NEBB CERTIFIED #2453

SHEET NO. 69

FC-18-130

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-70

NEBB CERTIFIED #2453

SHEET NO. 70

FC-18-130

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
130	CLASSROOM 7		1	9X9	300	321	
130	CLASSROOM 7		2	9X9	300	312	
TOTAL CFM					600	633	
	RETURN						
130	CLASSROOM 7		1	2412	600	551	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-71

NEBB CERTIFIED #2453

SHEET NO. 71

FC-18-131

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 6

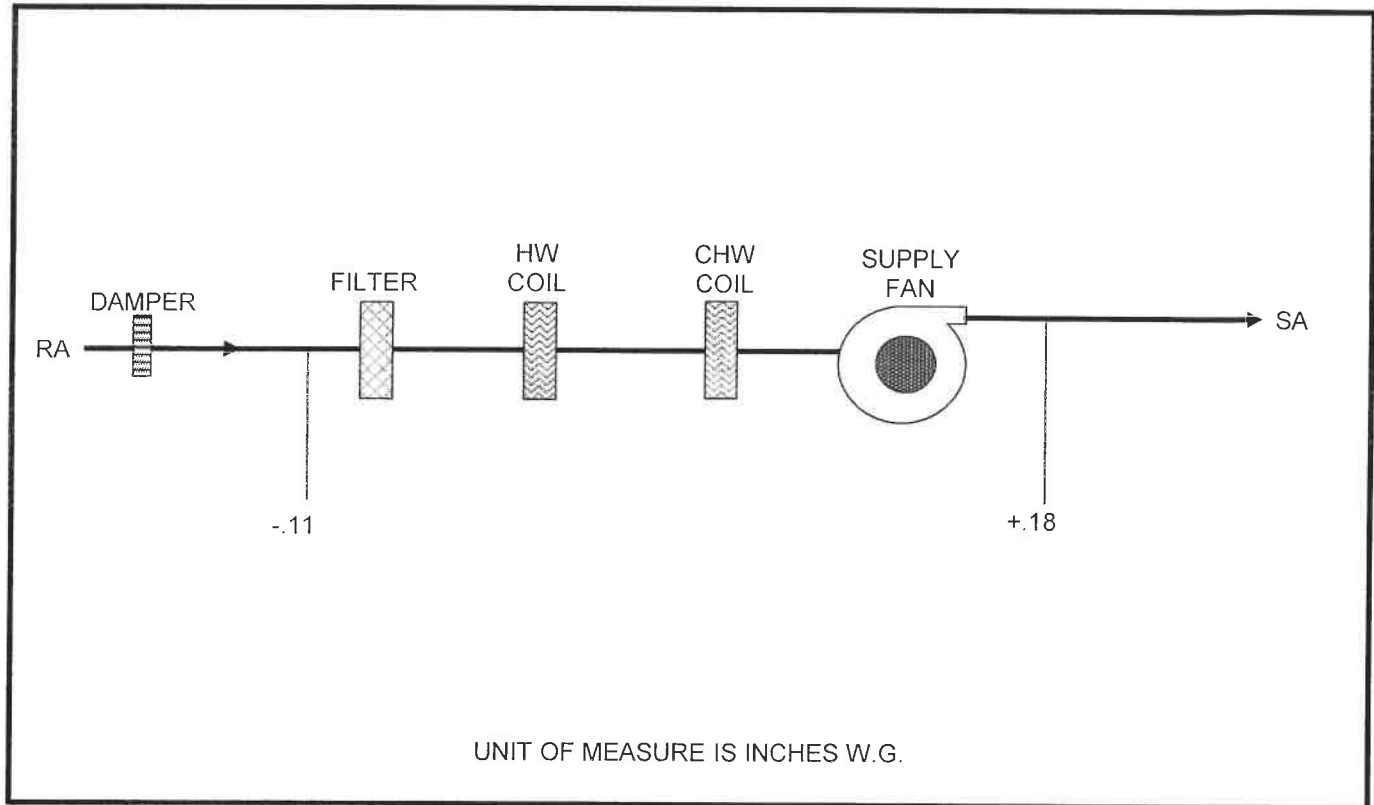
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	624
EXT SP (" WG):	.50	.29
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/210
AMPS T1/T2/T3:	2.4	1.3/1.4/1.4

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

FC-18-131

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-73

NEBB CERTIFIED #2453

SHEET NO. 73

FC-18-131

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
131	CLASSROOM 6		1	9X9	300	316	
131	CLASSROOM 6		2	9X9	300	308	
TOTAL CFM					600	624	
	RETURN						
131	CLASSROOM 6		1	2412	600	547	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-74

NEBB CERTIFIED #2453

SHEET NO. 74

FC-18-132

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 5

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	628
EXT SP (" WG):	.50	.31
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/210
AMPS T1/T2/T3:	2.4	1.4/1.4/1.5

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

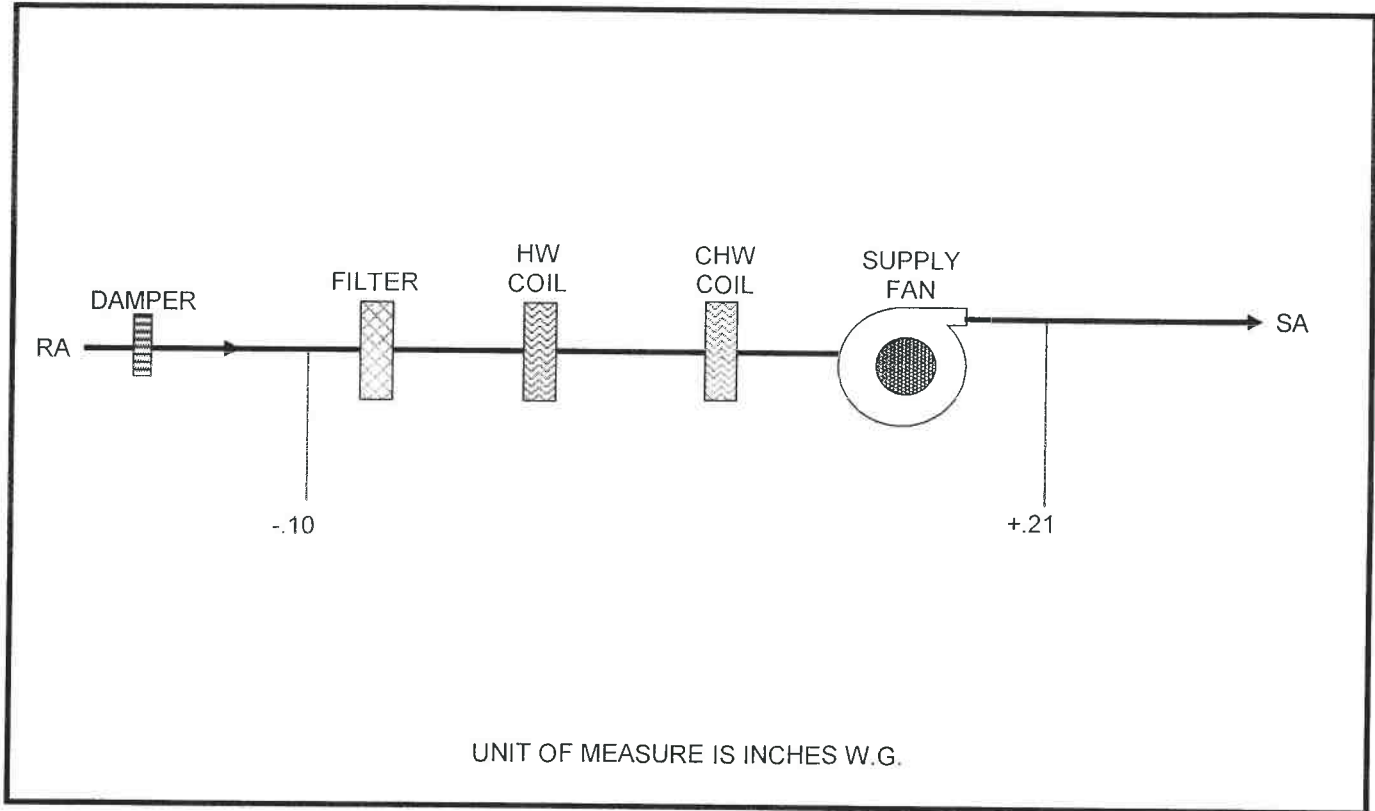
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-75

NEBB CERTIFIED #2453

SHEET NO. 75

FC-18-132

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-76

NEBB CERTIFIED #2453

SHEET NO. 76

FC-18-132

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
132	CLASSROOM 5		1	9X9	300	305	
132	CLASSROOM 5		2	9X9	300	323	
TOTAL CFM					600	628	
	RETURN						
132	CLASSROOM 5		1	2412	600	537	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-77

NEBB CERTIFIED #2453

SHEET NO. 77

FC-18-133

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 4

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	801
EXT SP (" WG):	.50	.23
FAN SPEED:	1807	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/208
AMPS T1/T2/T3:	4.6	N/A

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

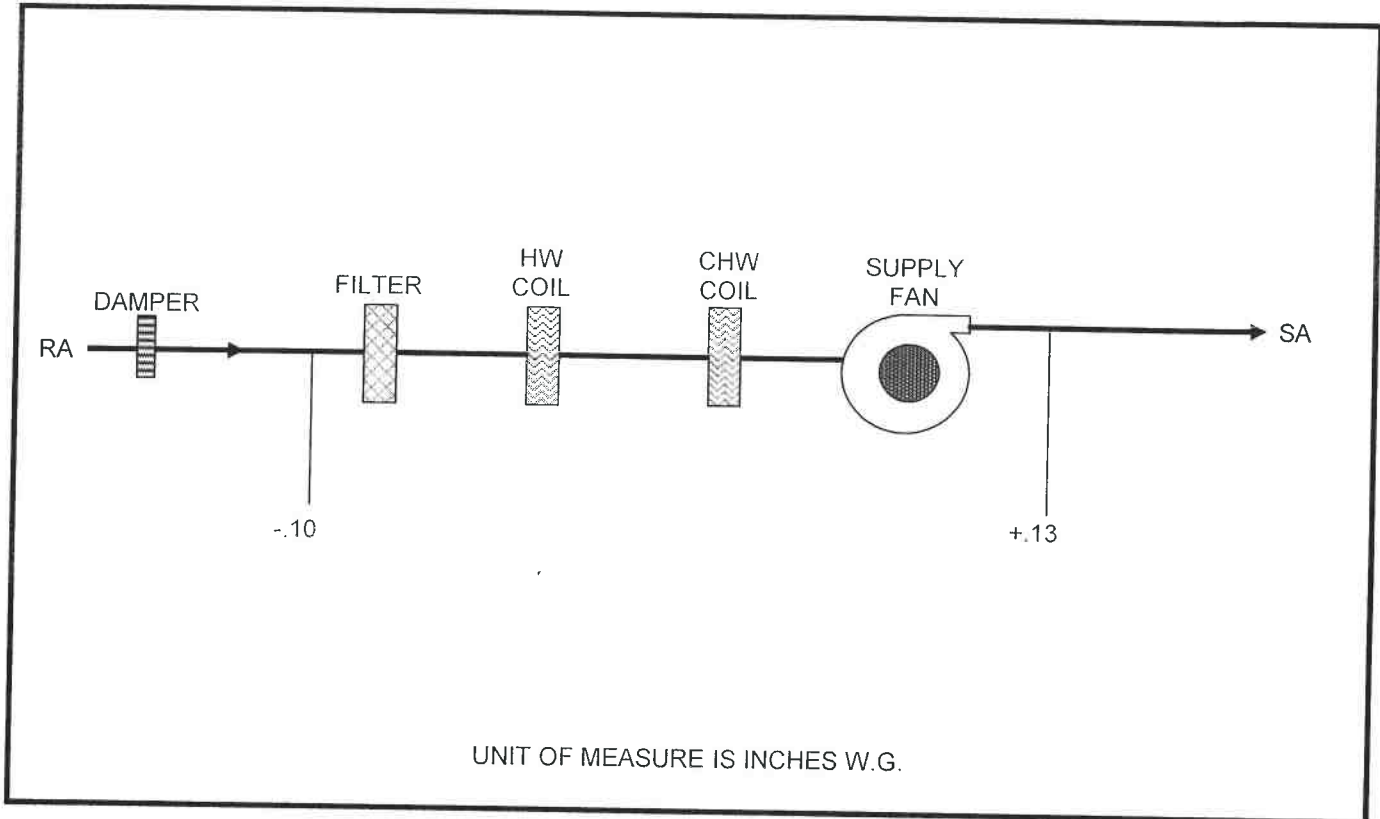
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-78

NEBB CERTIFIED #2453

SHEET NO. 78

FC-18-133

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-79

NEBB CERTIFIED #2453

SHEET NO. 79

FC-18-133

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
133	CLASSROOM 4		1	12X12	400	390	
133	CLASSROOM 4		2	12X12	400	411	
TOTAL CFM					800	801	
	RETURN						
133	CLASSROOM 4		1	2414	800	708	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-80

NEBB CERTIFIED #2453

SHEET NO. 80

FC-12-135

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: SPEECH PATHOLOGY 134/135

FAN LOCATION: SPEECH PATHOLOGY 135

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	436
EXT SP (" WG):	.50	.22
FAN SPEED:	1324	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/209/210
AMPS T1/T2/T3:	2.4	.5/.6/.6

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

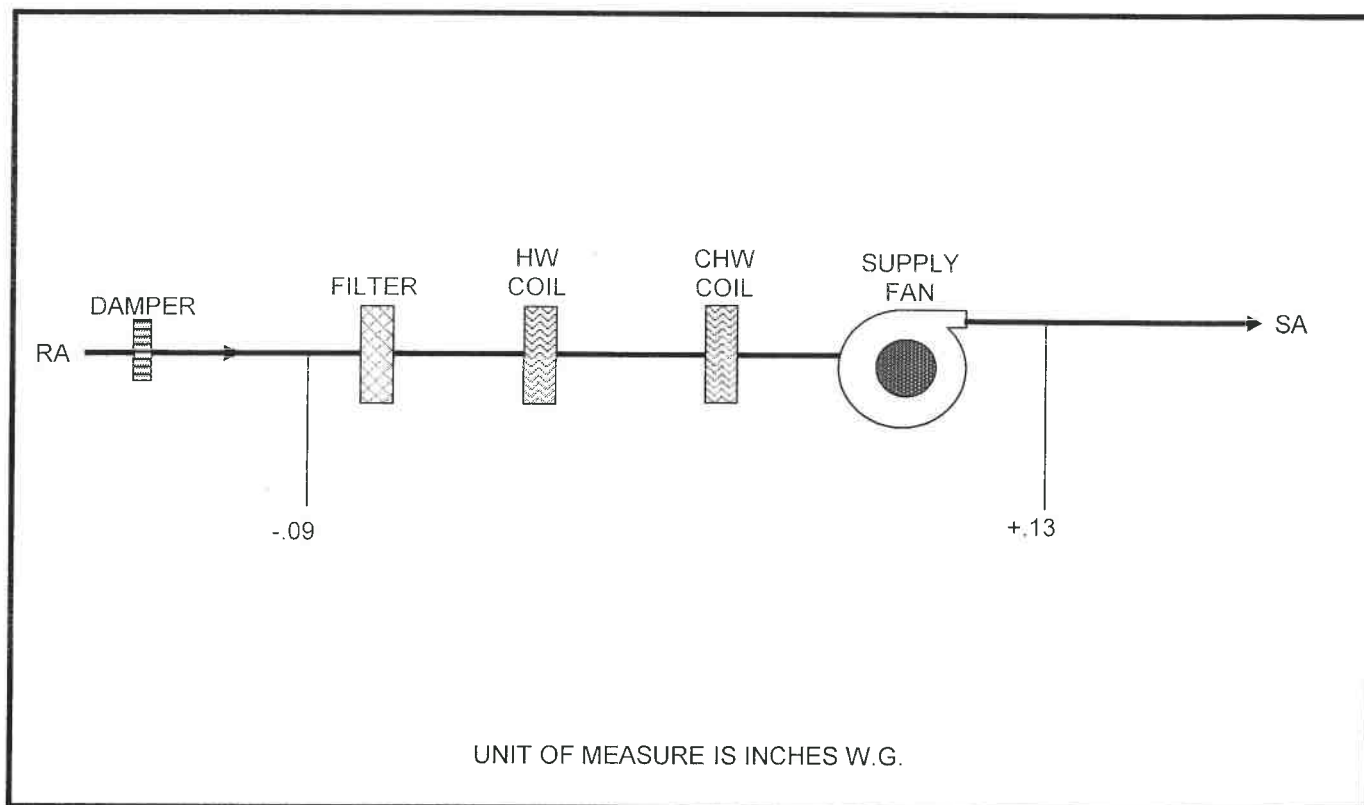
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-81

NEBB CERTIFIED #2453

SHEET NO. 81

FC-12-135

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-82

NEBB CERTIFIED #2453

SHEET NO. 82

FC-12-135

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
135	SPEECH PATHOLOGY		1	9X9	60	64	
134	SPEECH PATHOLOGY		2	9X9	340	312	
TOTAL CFM					400	376	
	RETURN						
135	SPEECH PATHOLOGY		1	2406	60	55	1
134	SPEECH PATHOLOGY		2	2410	340	326	1
TOTAL CFM					400	381	

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-83

NEBB CERTIFIED #2453

SHEET NO. 83

FC-30-138

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 3

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1000	1063
EXT SP (" WG):	.50	.24
FAN SPEED:	1420	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	211/209/209
AMPS T1/T2/T3:	2.4	N/A

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE030
MOTOR HP:	1/2

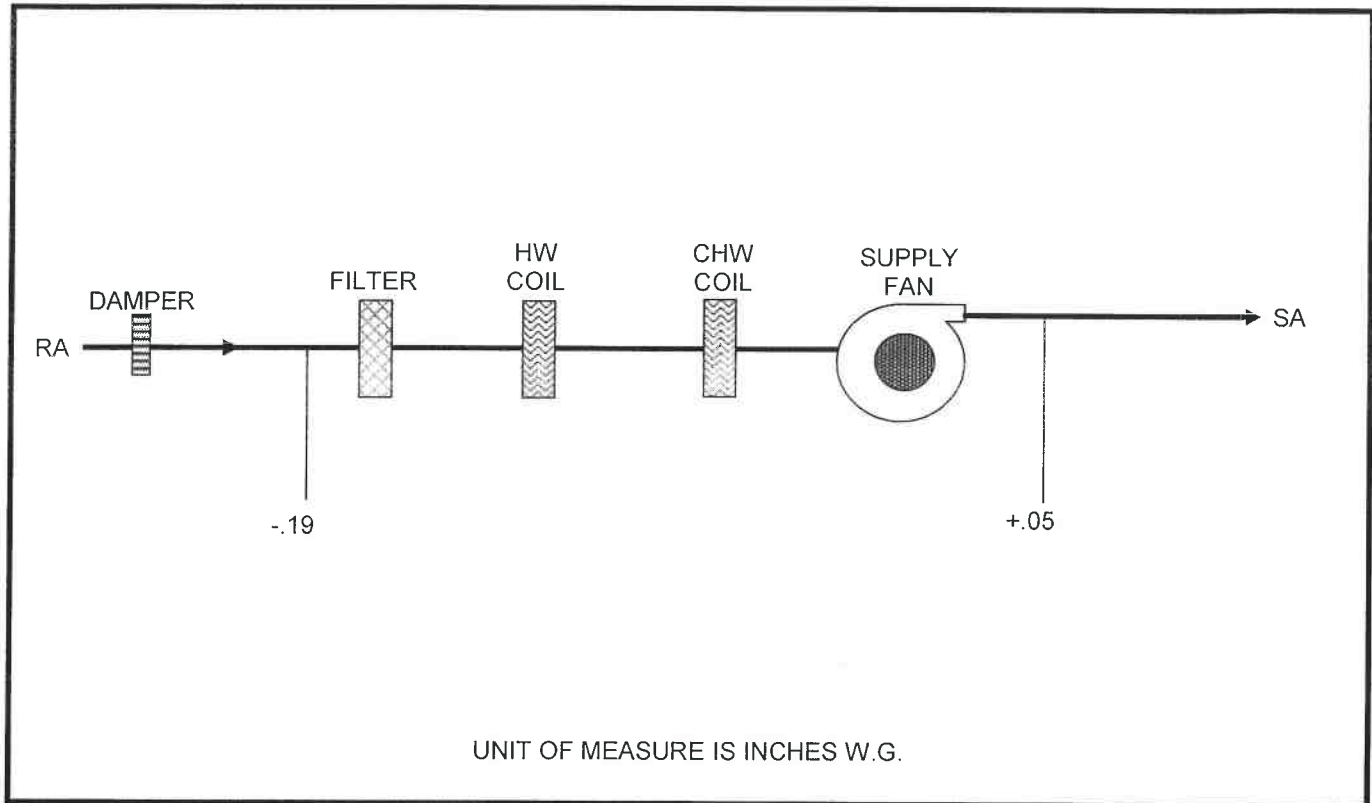
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-84

NEBB CERTIFIED #2453

SHEET NO. 84

FC-30-138

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-85

NEBB CERTIFIED #2453

SHEET NO. 85

FC-30-138

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
138	CLASSROOM 3		1	12X12	500	533	
138	CLASSROOM 3		2	12X12	500	530	
TOTAL CFM					1000	1063	
	RETURN						
138	CLASSROOM 3		1	2414	1000	1024	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-86

NEBB CERTIFIED #2453

SHEET NO. 86

FC-18-139

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 2

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	636
EXT SP (" WG):	.50	.32
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/210/210
AMPS T1/T2/T3:	2.4	N/A

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

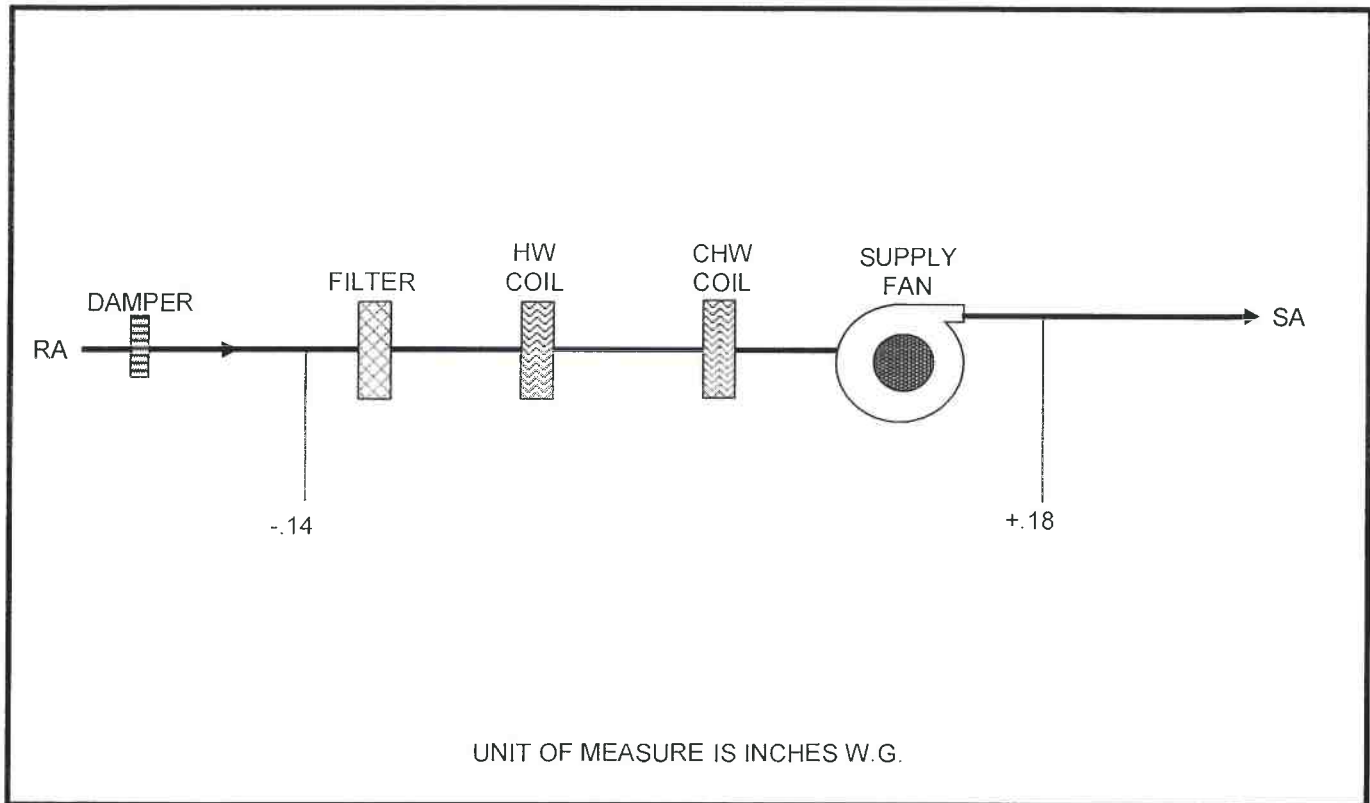
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-87

NEBB CERTIFIED #2453

SHEET NO. 87

FC-18-139

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-88

NEBB CERTIFIED #2453

SHEET NO. 88

FC-18-139

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
139	CLASSROOM 2		1	9X9	300	322	
139	CLASSROOM 2		2	9X9	300	314	
TOTAL CFM					600	636	
	RETURN						
139	CLASSROOM 2		1	2412	600	542	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-89

NEBB CERTIFIED #2453

SHEET NO. 89

FC-18-140

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 1

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600 / 585 (NOTE)	638
EXT SP (" WG):	.50	.30
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/209/209
AMPS T1/T2/T3:	2.4	N/A

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

NOTE: FAN DESIGN / OUTLET TOTAL

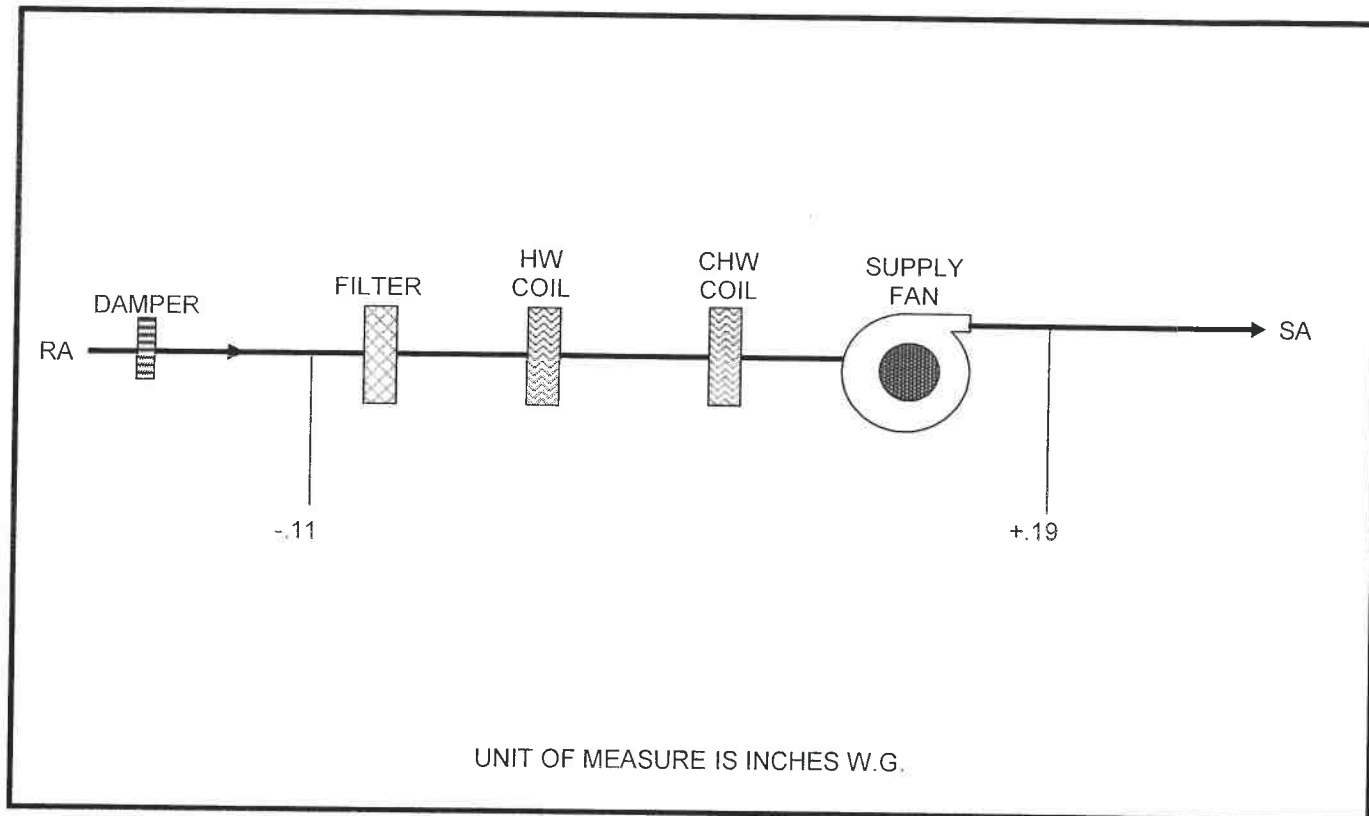
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-90

NEBB CERTIFIED #2453

SHEET NO. 90

FC-18-140

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-91

NEBB CERTIFIED #2453

SHEET NO. 91

FC-18-140

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
140	CLASSROOM 1		1	9X9	290	317	
140	CLASSROOM 1		2	9X9	295	321	
TOTAL CFM					585	638	
	RETURN						
140	CLASSROOM 1		1	2412	585	520	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-92

NEBB CERTIFIED #2453

SHEET NO. 92

FC-18-144

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: ADMIN 144 / DIR 143 OFFICES

FAN LOCATION: ADMIN 144 CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	605
EXT SP (" WG):	.50	.25
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/209/208
AMPS T1/T2/T3:	2.4	N/A

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

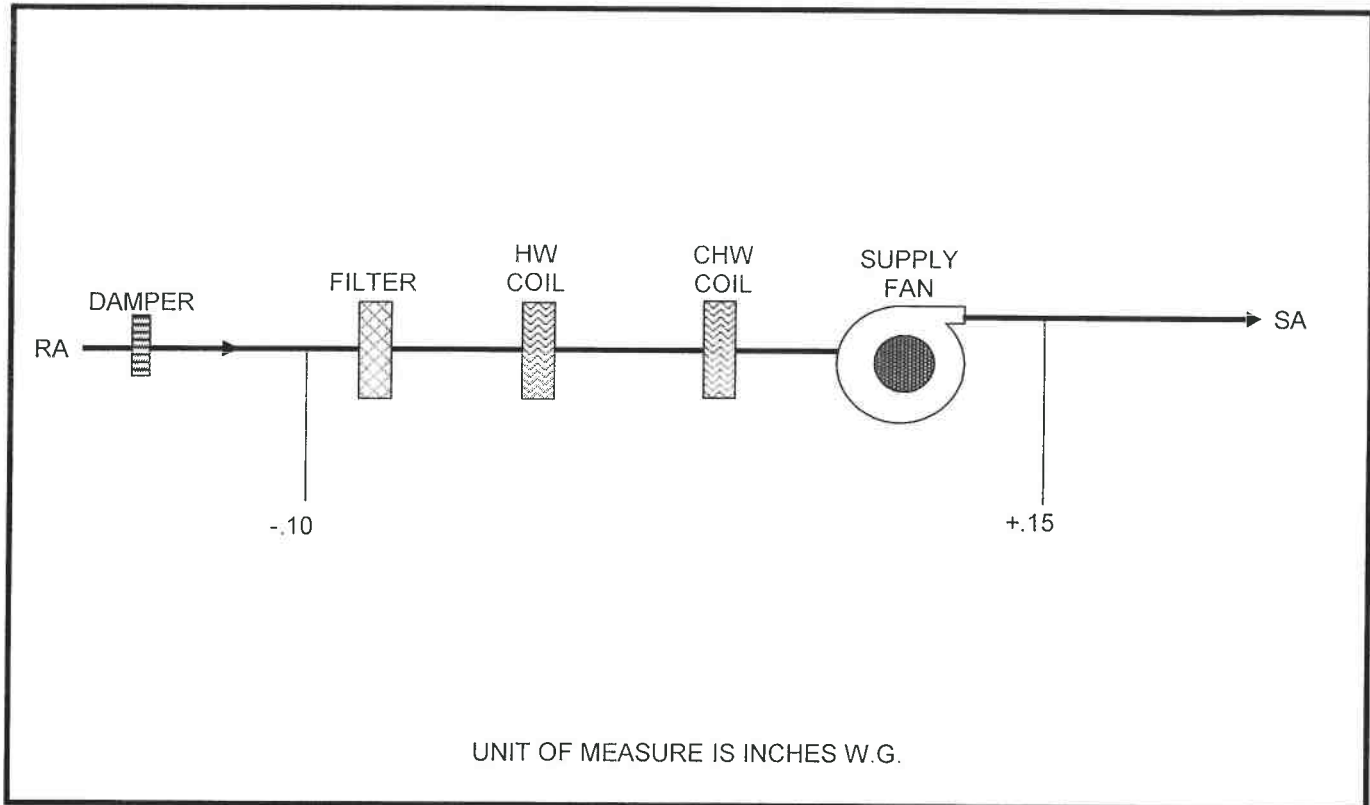
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-93

NEBB CERTIFIED #2453

SHEET NO. 93

FC-18-144

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-94

NEBB CERTIFIED #2453

SHEET NO. 94

FC-18-144

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
144	ADMIN OFFICE		1	9X9	300	300	
143	DIR OFFICE		2	9X9	300	297	
TOTAL CFM					600	597	
	RETURN						
144	ADMIN OFFICE		1	2410	300	278	1
143	DIR OFFICE		2	2410	300	276	1
TOTAL CFM					600	554	

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-95

NEBB CERTIFIED #2453

SHEET NO. 95

FC-30-201

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: STAIR # 3

FAN LOCATION: OCC THERAPY 244

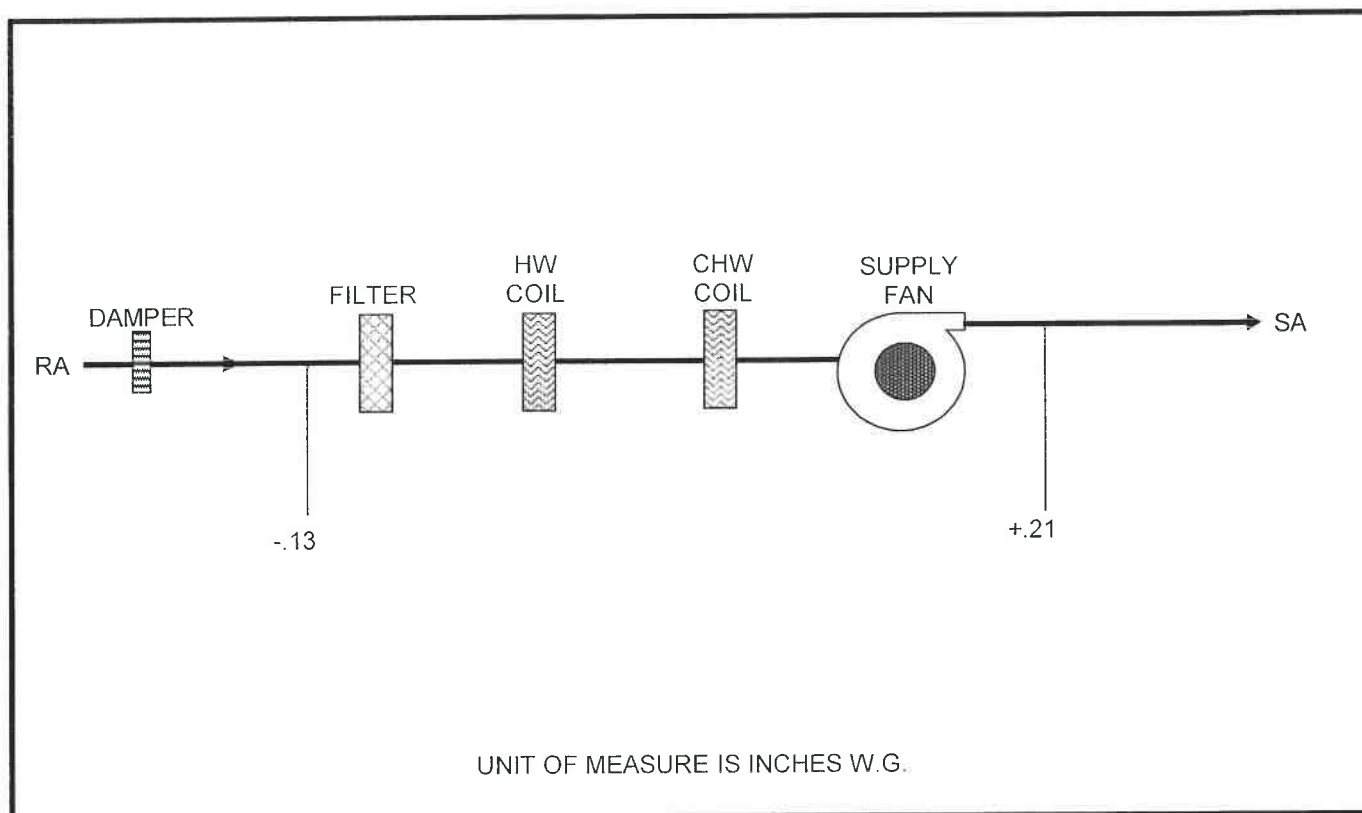
FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1000 / 1090 (NOTE)	1124
EXT SP (" WG):	.50	.34
FAN SPEED:	1420	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/209/210
AMPS T1/T2/T3:	2.4	1.8/1.9/1.9

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE030
MOTOR HP:	1/2

NOTE: FAN DESIGN / OUTLET TOTAL

FC-30-201

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-97

NEBB CERTIFIED #2453

SHEET NO. 97

FC-30-201

** RECTANGULAR TRAVERSE REPORT **

DESIGNATION: TOTAL AIR DELIVERED BY FAN TO STAIR # 3

CONDITION: FAN SET AT HIGH SPEED

TEMPERATURE (°F): 73

DUCT SP (" WG): ±.01

DUCT WIDTH ("): 12

DUCT HEIGHT ("): 6

DUCT AREA (SQ FT): 0.500

INTERNAL DUCT LINING ("): N/A

TOTAL FPM: 6359

NUMBER OF POINTS: 16

	DESIGN		ACTUAL
CFM:	175		199
FPM:	350		397

POSITION	1	2	3	4
1	-370	295	267	236
2	-308	-142	324	334
3	-164	195	424	977
4	762	845	1121	1563
SUBTOTALS FPM:	-80	1193	2136	3110

NOTE: ACTUAL FPM IS AVERAGE OF VELOCITY PROFILE READINGS

FC-30-201

** RECTANGULAR TRAVERSE REPORT **

DESIGNATION: TOTAL AIR RETURNED BY FAN FROM STAIR # 3

CONDITION: FAN SET AT HIGH SPEED

TEMPERATURE (°F): 73

DUCT SP (" WG): -.03

DUCT WIDTH ("): 18

DUCT HEIGHT ("): 16

DUCT AREA (SQ FT): 2.000

INTERNAL DUCT LINING ("): N/A

TOTAL FPM: 8497

NUMBER OF POINTS: 16

	DESIGN		ACTUAL
CFM:	1090		1062
FPM:	545		531

POSITION	1	2	3	4
1	291	626	559	532
2	73	673	665	573
3	298	692	727	591
4	520	612	628	437
SUBTOTALS FPM:	1182	2603	2579	2133

NOTE: ACTUAL FPM IS AVERAGE OF VELOCITY PROFILE READINGS

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-99

NEBB CERTIFIED #2453

SHEET NO. 99

FC-30-201

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
201	STAIR # 3		1	12X6	175	199	1
201	STAIR # 3		2	12X12	400	395	
201	STAIR # 3		3	12X12	340	363	
201	STAIR # 3		4	12X6	175	194	2
TOTAL CFM					1090	1151	
	RETURN						
201	STAIR # 3		1		1090	1078	1

NOTE 1: AIRFLOW MEASURED BY VP

NOTE 2: AIRFLOW MEASURED WITH RVA USING A .360 AK FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-100

NEBB CERTIFIED #2453

SHEET NO. 100

FC-24-202

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: PHYSICAL THERAPY

FAN LOCATION: PHYSICAL THERAPY CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	874
EXT SP (" WG):	.50	.48
FAN SPEED:	1807	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/208
AMPS T1/T2/T3:	4.6	2.2/2.3/2.2

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

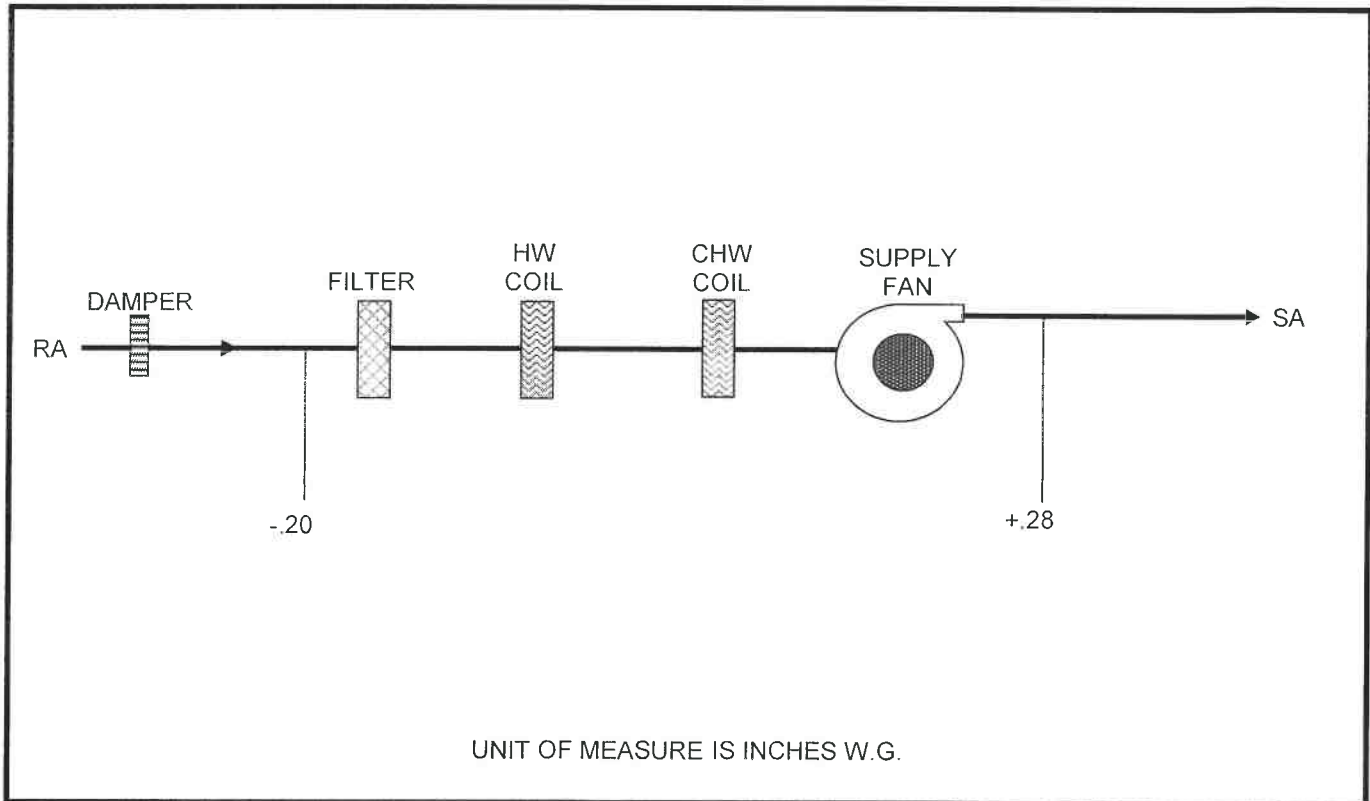
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-101

NEBB CERTIFIED #2453

SHEET NO. 101

FC-24-202

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-102

NEBB CERTIFIED #2453

SHEET NO. 102

FC-24-202

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
202	PHYSICAL THERAPY		1	9X9	130	138	
202	PHYSICAL THERAPY		2	9X9	130	132	
203	STAFF ROOM		3	9X9	270	293	
203	STAFF ROOM		4	9X9	270	311	
TOTAL CFM					800	874	
	RETURN						
202	PHYSICAL THERAPY		1	2410	260	253	1
203	STAFF ROOM		2	2414	540	519	1
TOTAL CFM					800	772	

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-103

NEBB CERTIFIED #2453

SHEET NO. 103

FC-36-203

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: OFFICES / SPEECH PATHOLOGIST

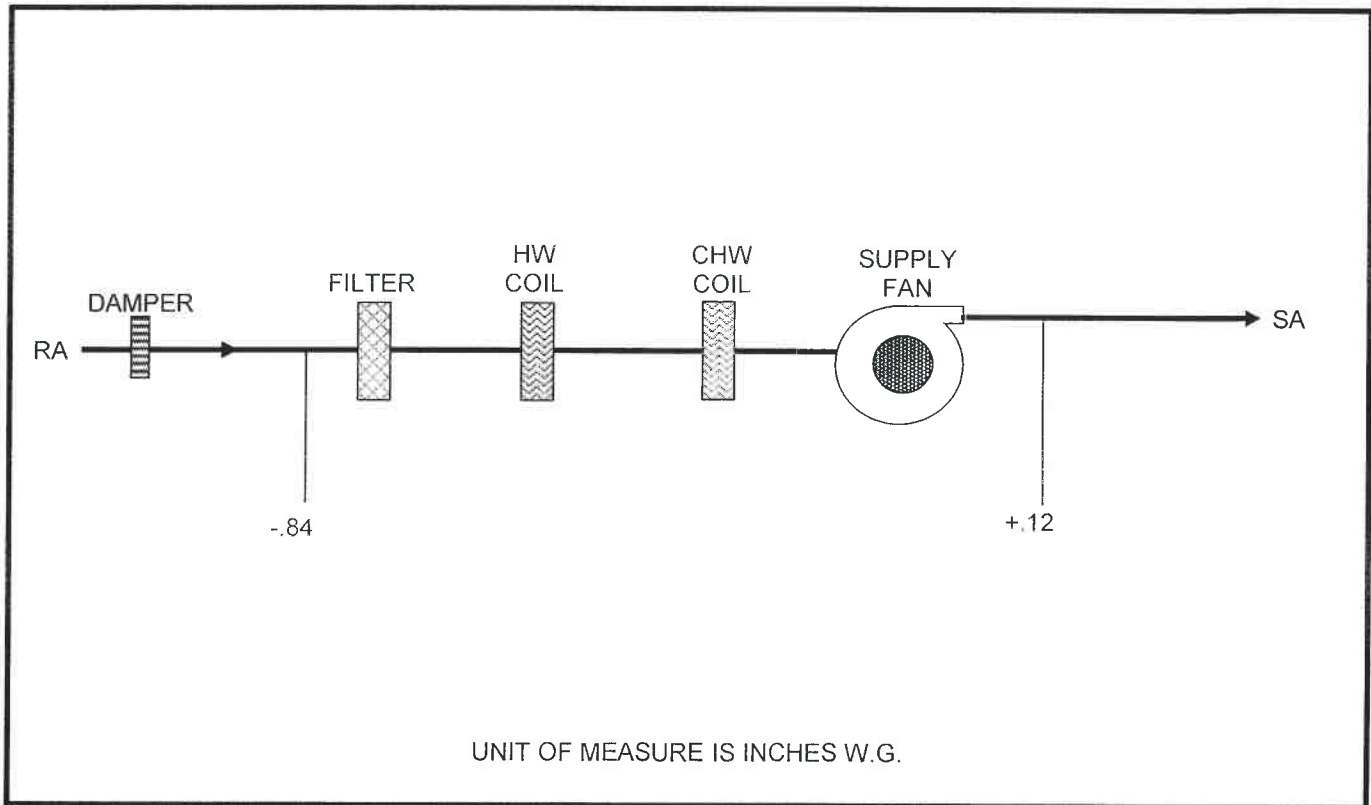
FAN LOCATION: ROOM 203 CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1200	1293
EXT SP (" WG):	.50	.96
FAN SPEED:	1642	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/210/210
AMPS T1/T2/T3:	4.6	2.5/2.5/2.6

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE036
MOTOR HP:	1.0

FC-36-203

**** STATIC PRESSURE PROFILE ****



FC-36-203

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
SUPPLY							
204	OFFICE		1	12X12	350	369	
205	OFFICE		2	9X9	195	224	
206	OFFICE		3	9X9	275	284	
207	SPEECH PATHOLOGIST		4	12X12	380	416	
TOTAL CFM					1200	1293	
RETURN							
204	OFFICE		1	2410	350	255	1
205	OFFICE		2	2408	195	171	1
206	OFFICE		3	2410	275	187	1
207	SPEECH PATHOLOGIST		4	2410	380	287	1
TOTAL CFM					1200	900	

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-106

NEBB CERTIFIED #2453

SHEET NO. 106

FC-24-212

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: SOCIAL WORKER / OFFICES

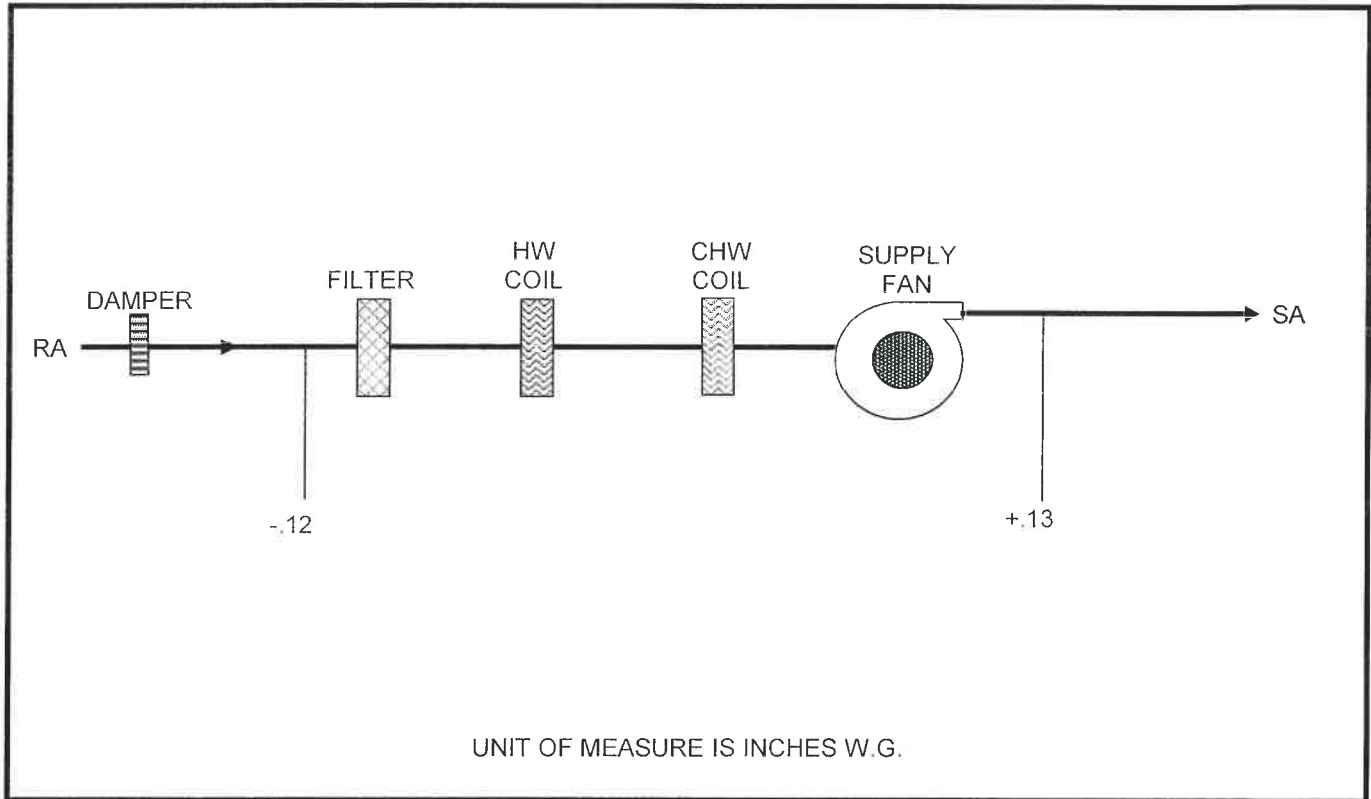
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	772
EXT SP (" WG):	.50	.25
FAN SPEED:	1807	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/210
AMPS T1/T2/T3:	4.6	1.2/1.3/1.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

FC-24-212

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-108

NEBB CERTIFIED #2453

SHEET NO. 108

FC-24-212

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
SUPPLY							
212	SOCIAL WORKER		1	9X9	230	219	
211	OFFICE		2	6X6	40	42	1
210	OFFICE		3	9X9	255	246	
209	OFFICE		4	9X9	235	227	
208	OFFICE		5	6X6	40	38	
TOTAL CFM					800	772	
RETURN							
212	SOCIAL WORKER		1	2408	230	197	2
211	OFFICE		2	2406	40	33	2
210	OFFICE		3	2410	255	215	2
209	OFFICE		4	2410	235	204	2
208	OFFICE		5	2406	40	32	2
TOTAL CFM					800	681	

NOTE 1: VOLUME DAMPER 100% CLOSED

NOTE 2: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-109

NEBB CERTIFIED #2453

SHEET NO. 109

FC-18-213

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 12

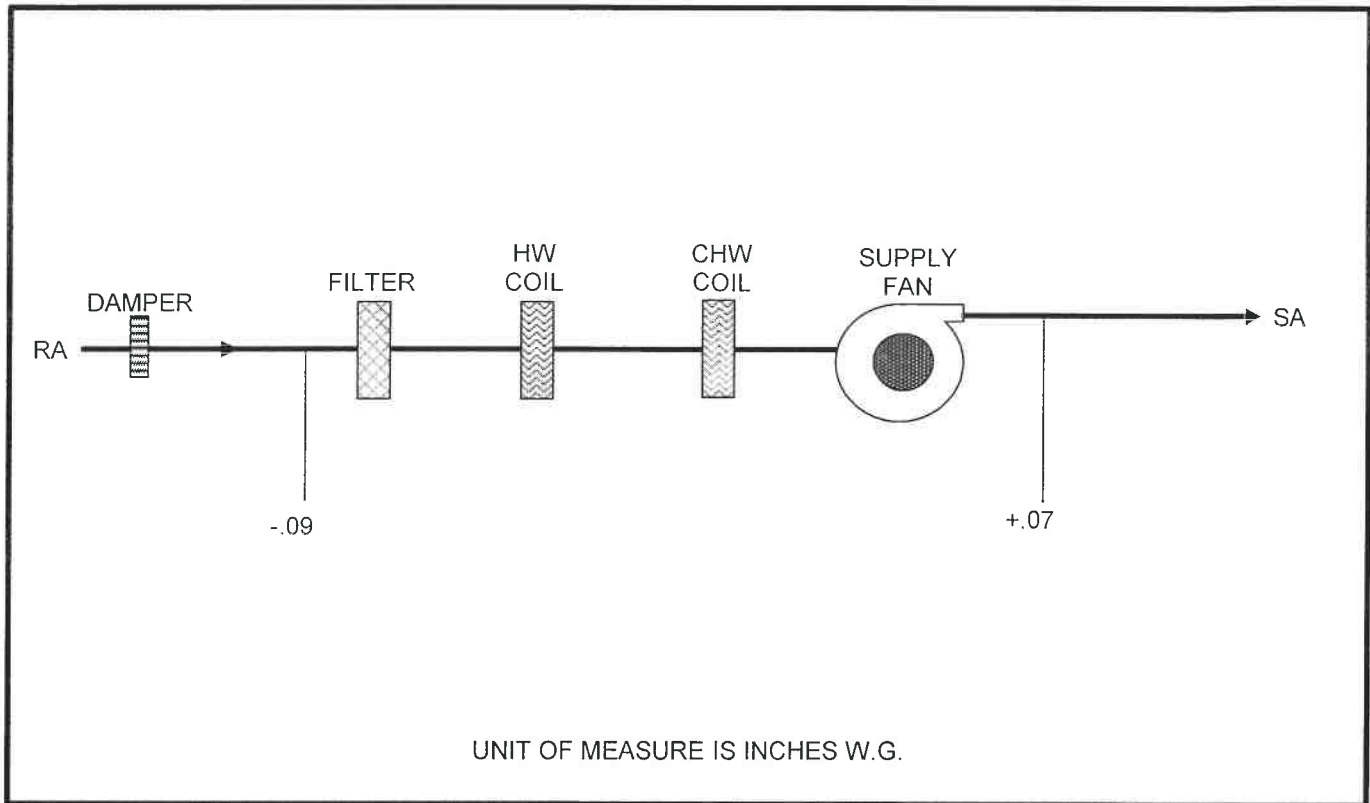
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	580
EXT SP (" WG):	.50	.16
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	211/209/209
AMPS T1/T2/T3:	2.4	1.5/1.4/1.4

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

FC-18-213

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-111

NEBB CERTIFIED #2453

SHEET NO. 111

FC-18-213

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
213	CLASSROOM 12		1	9X9	300	291	
213	CLASSROOM 12		2	9X9	300	289	
TOTAL CFM					600	580	
	RETURN						
213	CLASSROOM 12		1	2412	600	479	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-112

NEBB CERTIFIED #2453

SHEET NO. 112

FC-24-221

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: ADL 221
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	807
EXT SP (" WG):	.50	.42
FAN SPEED:	1807	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/207/208
AMPS T1/T2/T3:	4.6	2.3/2.2/2.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

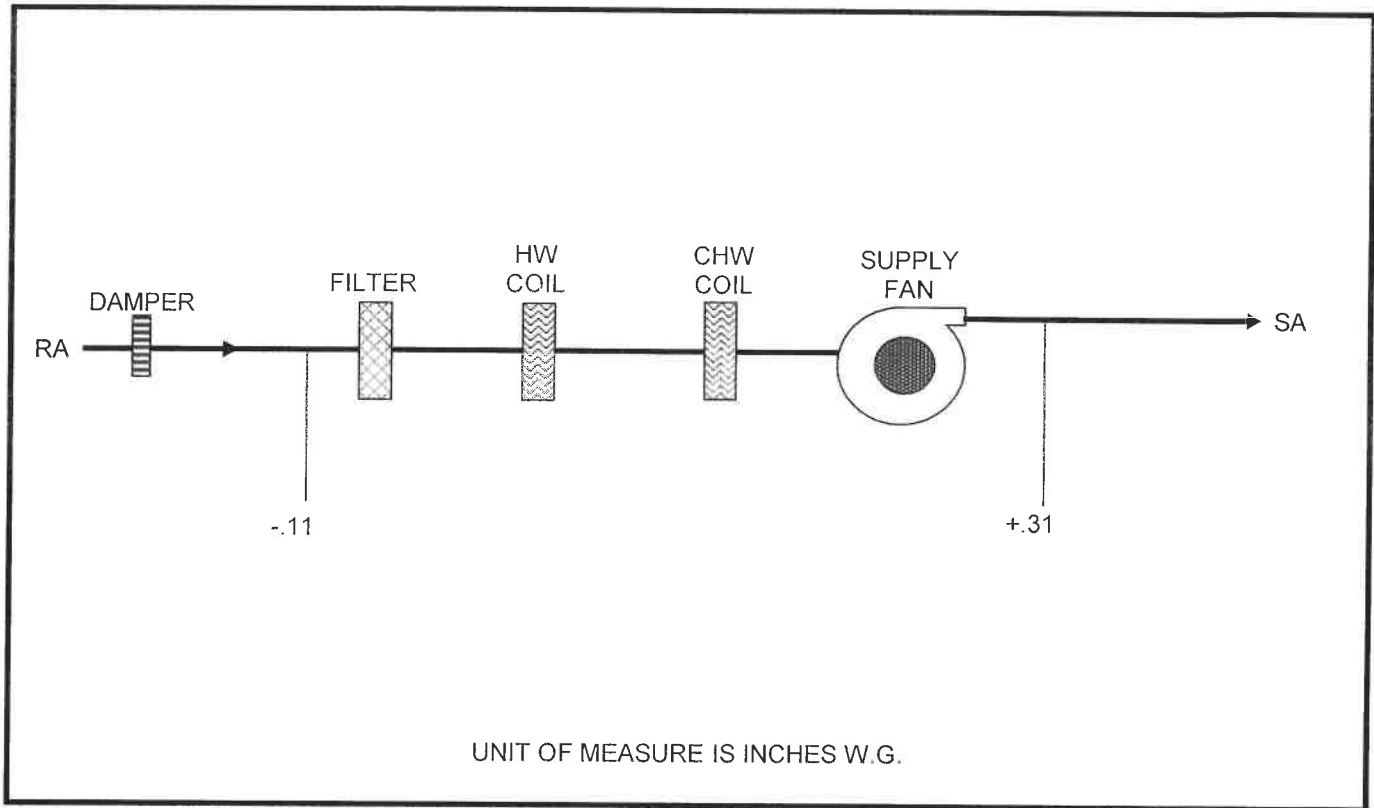
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-113

NEBB CERTIFIED #2453

SHEET NO. 113

FC-24-221

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-114

NEBB CERTIFIED #2453

SHEET NO. 114

FC-24-221

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
221	ADL		1	12X12	400	396	
221	ADL		2	12X12	400	411	
TOTAL CFM					800	807	
	RETURN						
221	ADL		1	2414	800	614	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-115

NEBB CERTIFIED #2453

SHEET NO. 115

FC-24-222

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 11

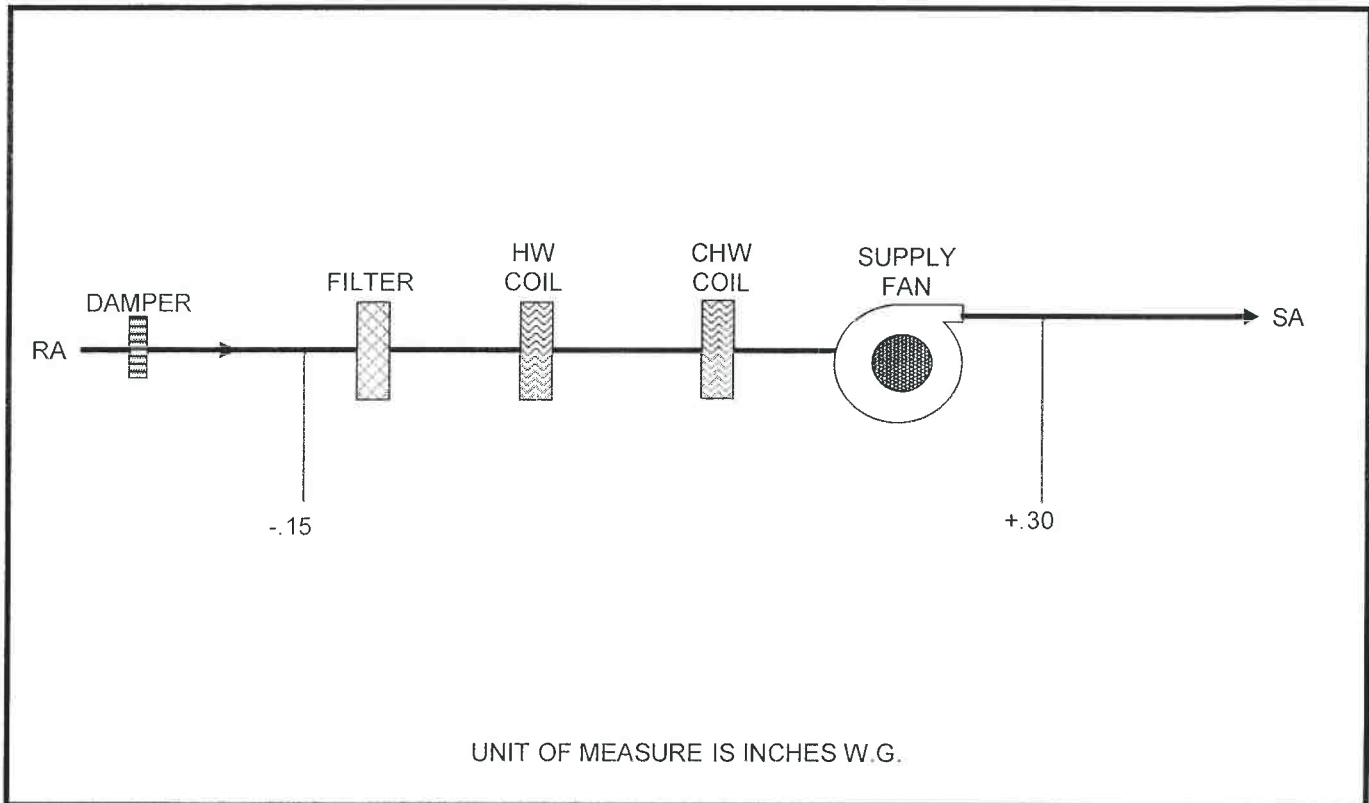
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	848
EXT SP (" WG):	.50	.45
FAN SPEED:	1807	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/210/209
AMPS T1/T2/T3:	4.6	2.2/2.3/2.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

FC-24-222

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-117

NEBB CERTIFIED #2453

SHEET NO. 117

FC-24-222

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
222	CLASSROOM 11		1	12X12	400	422	
222	CLASSROOM 11		2	12X12	400	426	
TOTAL CFM					800	848	
	RETURN						
222	CLASSROOM 11		1	2414	800	728	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-118

NEBB CERTIFIED #2453

SHEET NO. 118

FC-12-2230

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CORRIDOR / 2ND FL ELEV LOBBY / STAIR # 2

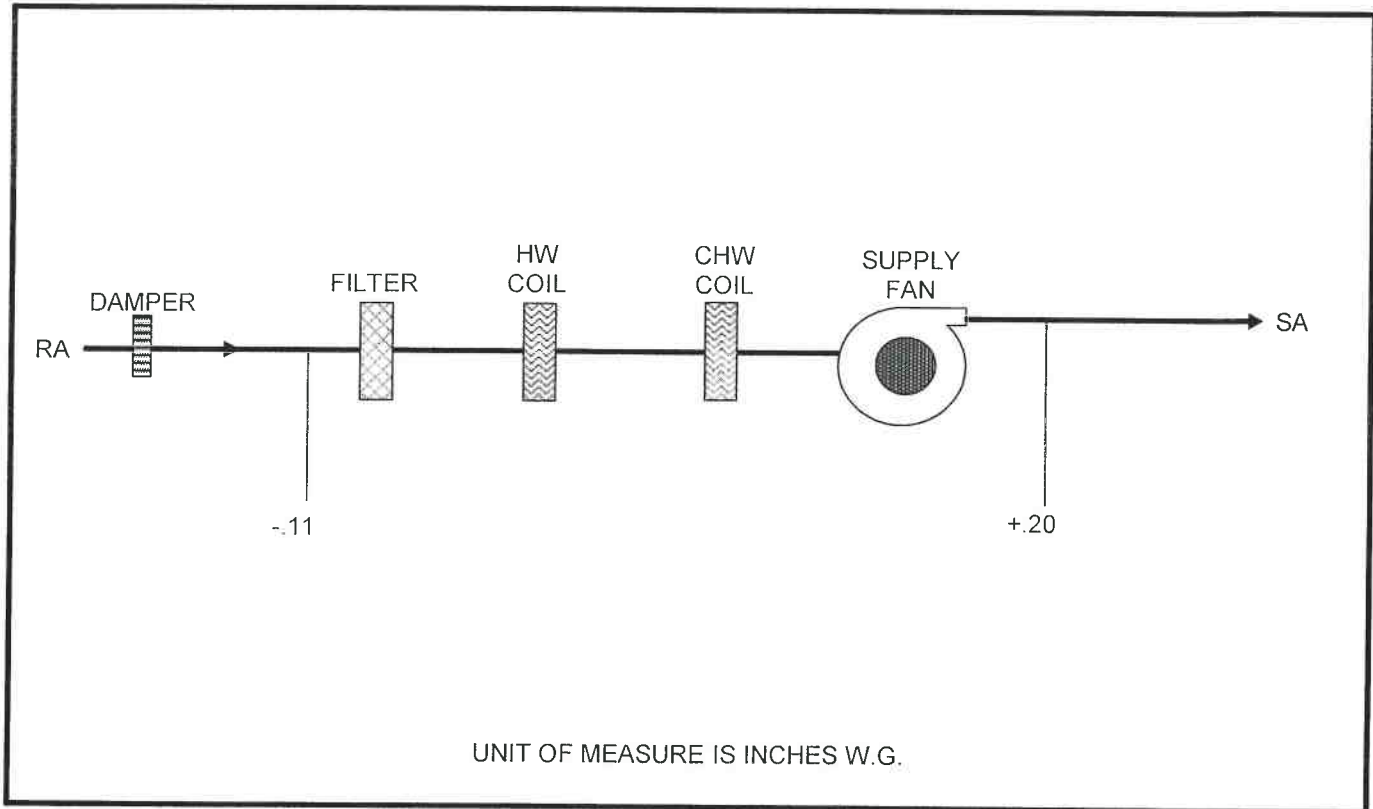
FAN LOCATION: CORRIDOR CEILING 223

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	426
EXT SP (" WG):	.50	.31
FAN SPEED:	1324	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	211/210/211
AMPS T1/T2/T3:	2.4	.5/.4/.5

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

FC-12-2230

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-120

NEBB CERTIFIED #2453

SHEET NO. 120

FC-12-2230

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
223	CORRIDOR		1	9X9	200	217	
2ND FL	ELEVATOR LOBBY		2	9X9	100	100	
	STAIR # 2		3	10X6	100	100	1
TOTAL CFM					400	417	
	RETURN						
223	CORRIDOR		1	2410	400	336	2

NOTE 1: AIRFLOW MEASURED WITH RVA USING A .300 AK FACTOR

NOTE 2: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-121

NEBB CERTIFIED #2453

SHEET NO. 121

FC-12-223A

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CORRIDOR 223A

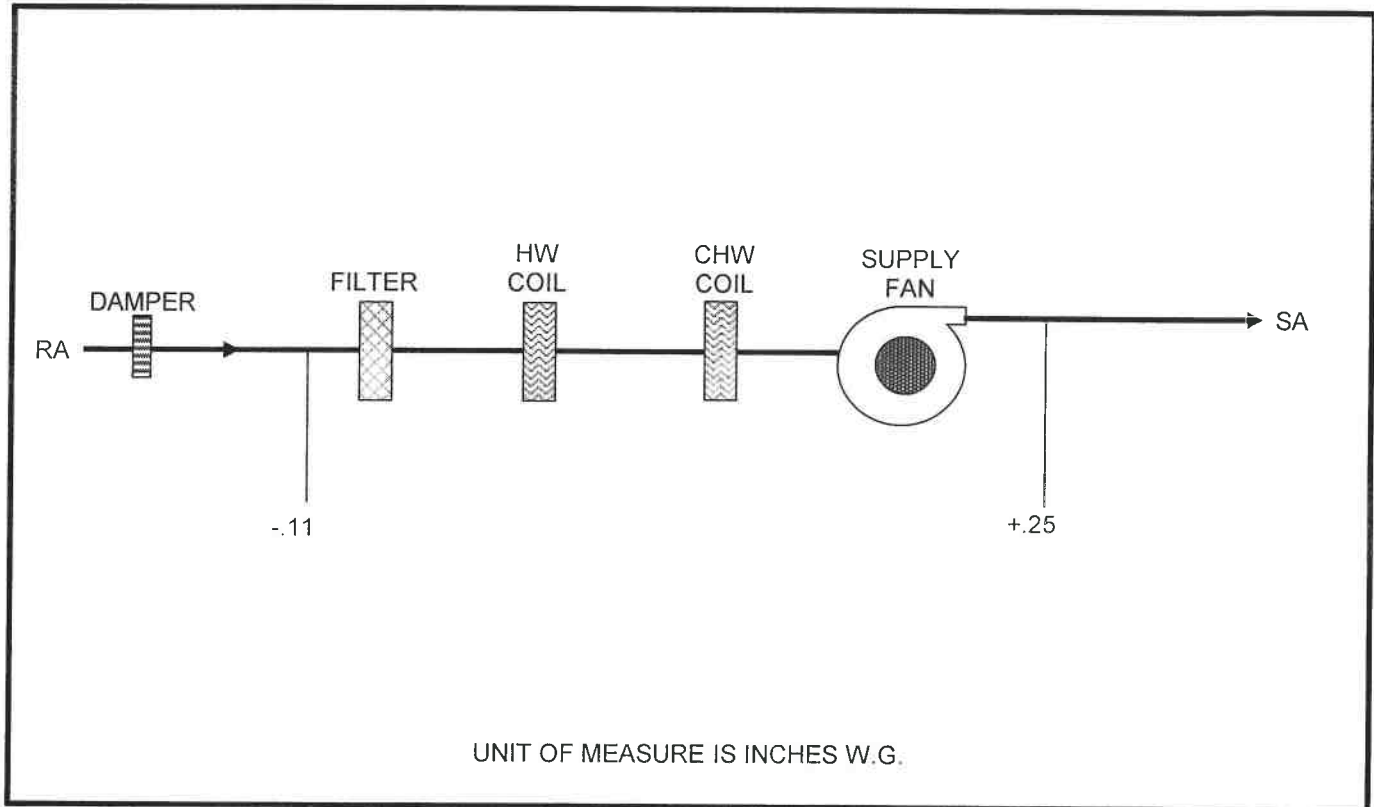
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	424
EXT SP (" WG):	.50	.36
FAN SPEED:	1324	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/207/207
AMPS T1/T2/T3:	2.4	.5/.5/.4

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

FC-12-223A

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-123

NEBB CERTIFIED #2453

SHEET NO. 123

FC-12-223A

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
223A	CORRIDOR		1	12X12	400	424	
	RETURN						
223A	CORRIDOR		1	2410	400	322	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-124

NEBB CERTIFIED #2453

SHEET NO. 124

FC-12-223B

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CORRIDOR 223B

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	428
EXT SP (" WG):	.50	.36
FAN SPEED:	1324	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/208/209
AMPS T1/T2/T3:	2.4	.5/.4/.4

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

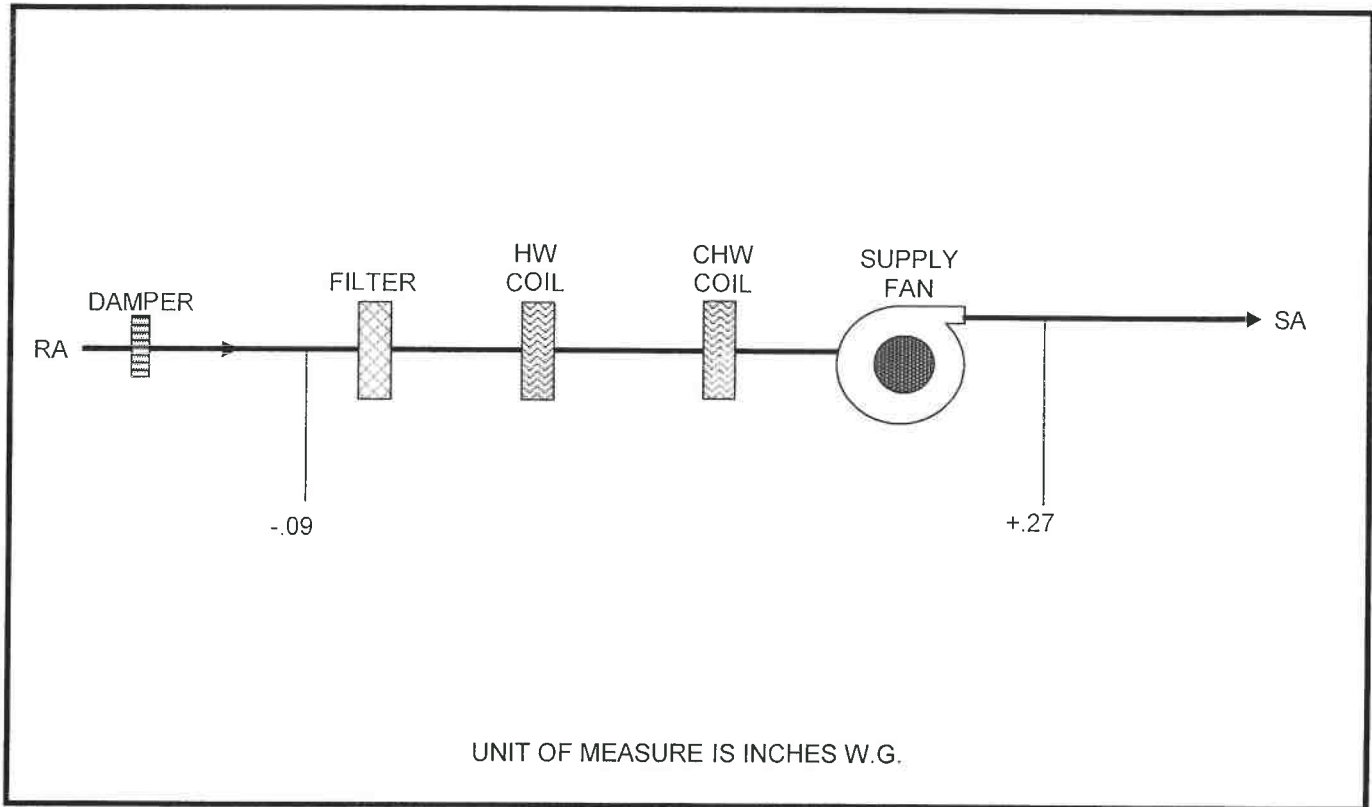
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-125

NEBB CERTIFIED #2453

SHEET NO. 125

FC-12-223B

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-126

NEBB CERTIFIED #2453

SHEET NO. 126

FC-12-223B

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
223B	CORRIDOR		1	12X12	400	428	
	RETURN						
223B	CORRIDOR		1	2410	400	344	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-127

NEBB CERTIFIED #2453

SHEET NO. 127

FC-12-223C

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CORRIDOR 223C

FAN LOCATION: CEILING ADL 221

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	449
EXT SP (" WG):	.50	.39
FAN SPEED:	1324	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/210/210
AMPS T1/T2/T3:	2.4	.5/.4/.5

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

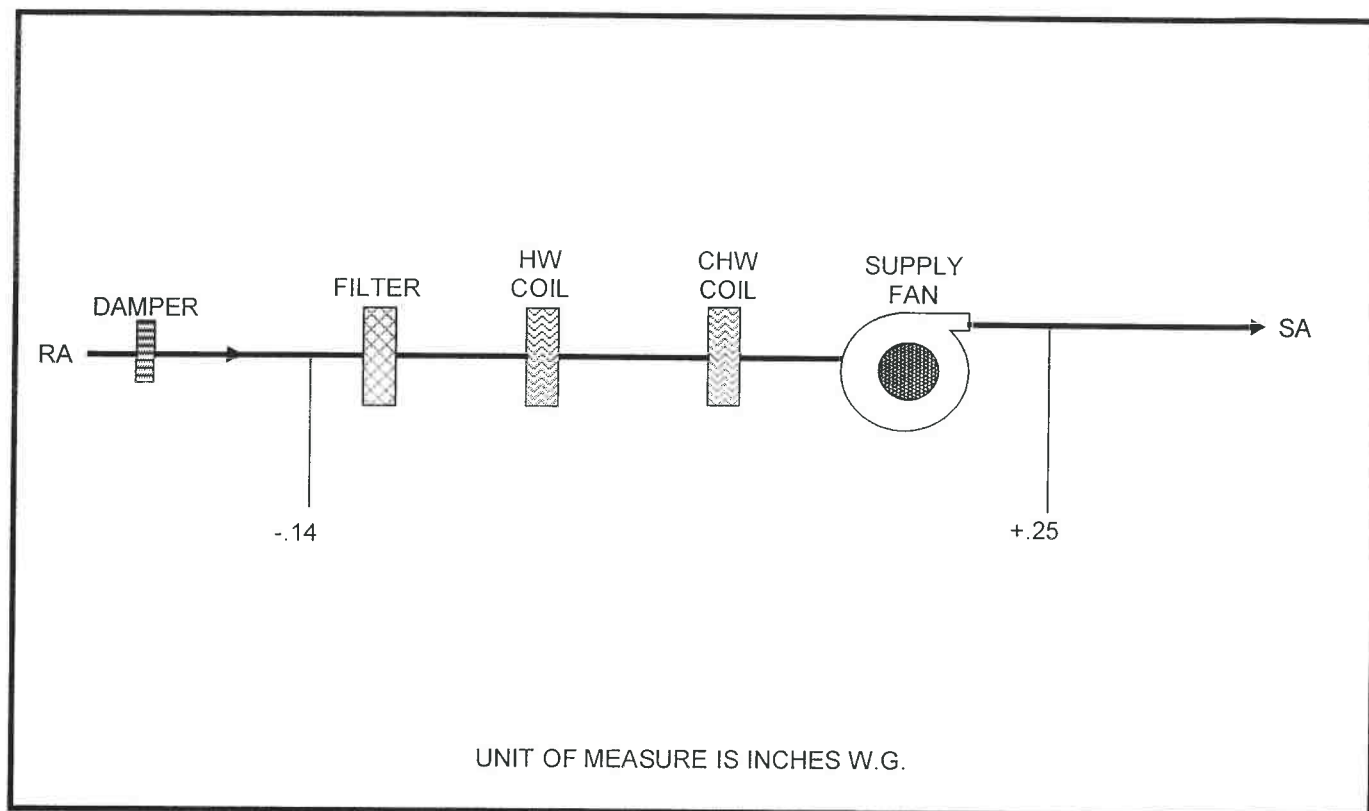
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-128

NEBB CERTIFIED #2453

SHEET NO. 128

FC-12-223C

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-129

NEBB CERTIFIED #2453

SHEET NO. 129

FC-12-223C

**** AIR OUTLET/ INLET REPORT ****

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
223C	CORRIDOR		1	12X12	400	449	
	RETURN						
223C	CORRIDOR		1	2410	400	380	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-130

NEBB CERTIFIED #2453

SHEET NO. 130

FC-12-224

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: ADMIN 229 / DOR 230
FAN LOCATION: ADMIN 229 CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	437
EXT SP (" WG):	.50	.21
FAN SPEED:	1324	LOW
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/208/209
AMPS T1/T2/T3:	2.4	.4/.3/.4

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

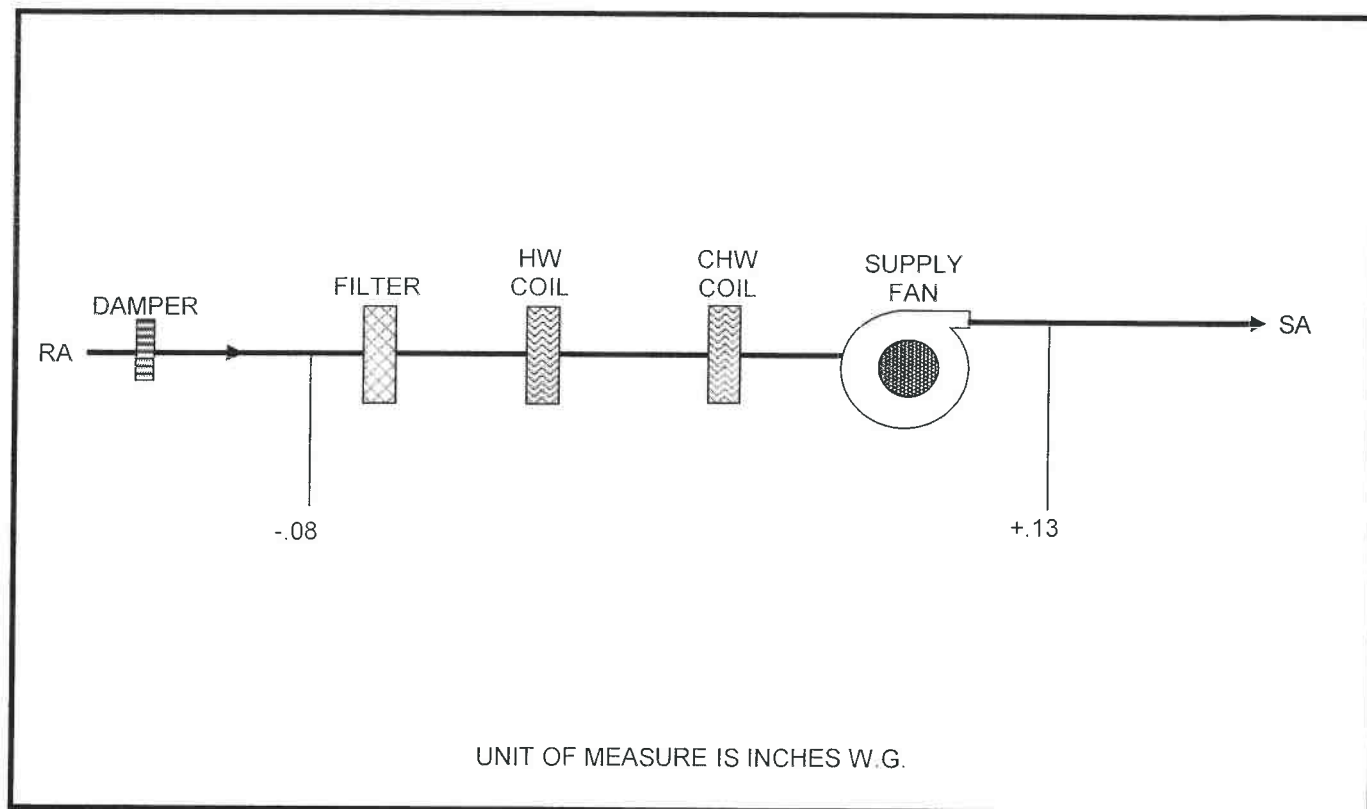
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-131

NEBB CERTIFIED #2453

SHEET NO. 131

FC-12-224

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-132

NEBB CERTIFIED #2453

SHEET NO. 132

FC-12-224

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
229	ADMIN OFFICE		1	9X9	200	220	
230	DIR OFFICE		2	9X9	200	217	
TOTAL CFM					400	437	
	RETURN						
229	ADMIN OFFICE		1	2408	200	185	1
230	DIR OFFICE		2	2408	200	179	i
TOTAL CFM					400	364	

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-133

NEBB CERTIFIED #2453

SHEET NO. 133

FC-24-226

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 10

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	799
EXT SP (" WG):	.50	.24
FAN SPEED:	1807	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/209/208
AMPS T1/T2/T3:	4.6	1.4/1.5/1.5

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

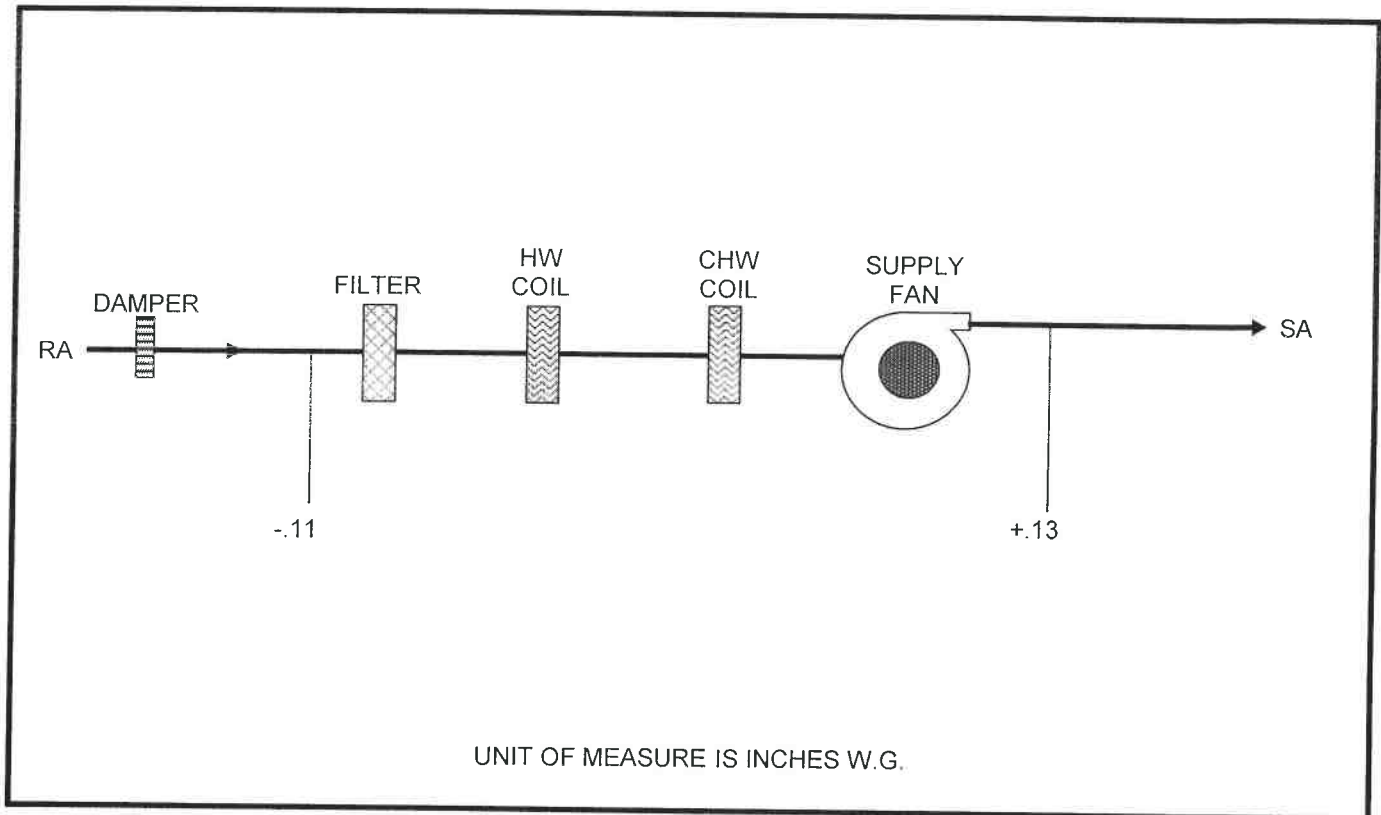
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-134

NEBB CERTIFIED #2453

SHEET NO. 134

FC-24-226

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-135

NEBB CERTIFIED #2453

SHEET NO. 135

FC-24-226

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
226	CLASSROOM 10		1	12X12	400	384	
226	CLASSROOM 10		2	12X12	400	415	
TOTAL CFM					800	799	
	RETURN						
226	CLASSROOM 10		1	2414	800	689	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-136

NEBB CERTIFIED #2453

SHEET NO. 136

FC-18-227

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 9

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	605
EXT SP (" WG):	.50	.24
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/208/209
AMPS T1/T2/T3:	2.4	1.5/1.6/1.5

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

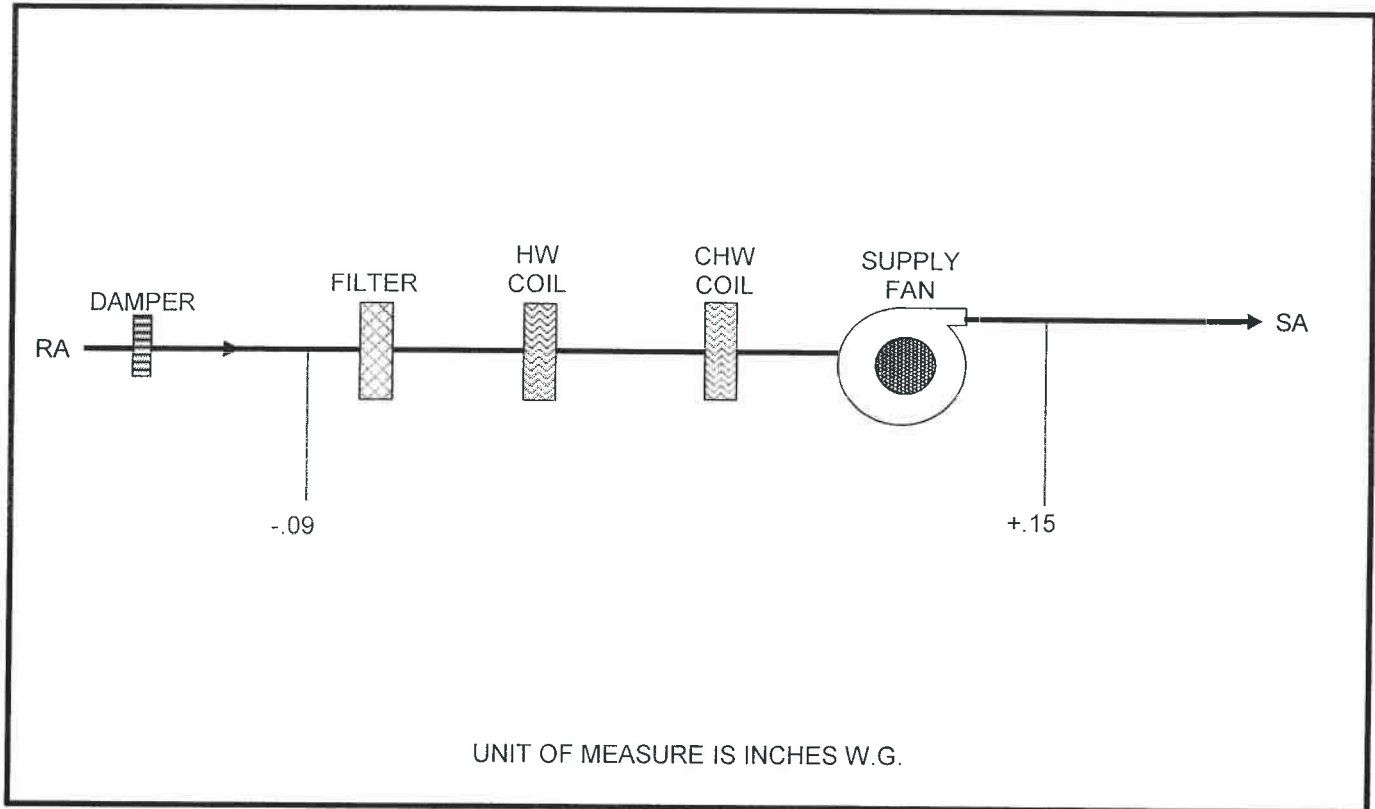
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-137

NEBB CERTIFIED #2453

SHEET NO. 137

FC-18-227

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-138

NEBB CERTIFIED #2453

SHEET NO. 138

FC-18-227

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
227	CLASSROOM 9		1	12X12	300	296	
227	CLASSROOM 9		2	12X12	300	309	
TOTAL CFM					600	605	
	RETURN						
227	CLASSROOM 9		1	2412	600	510	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-139

NEBB CERTIFIED #2453

SHEET NO. 139

FC-18-228

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 8

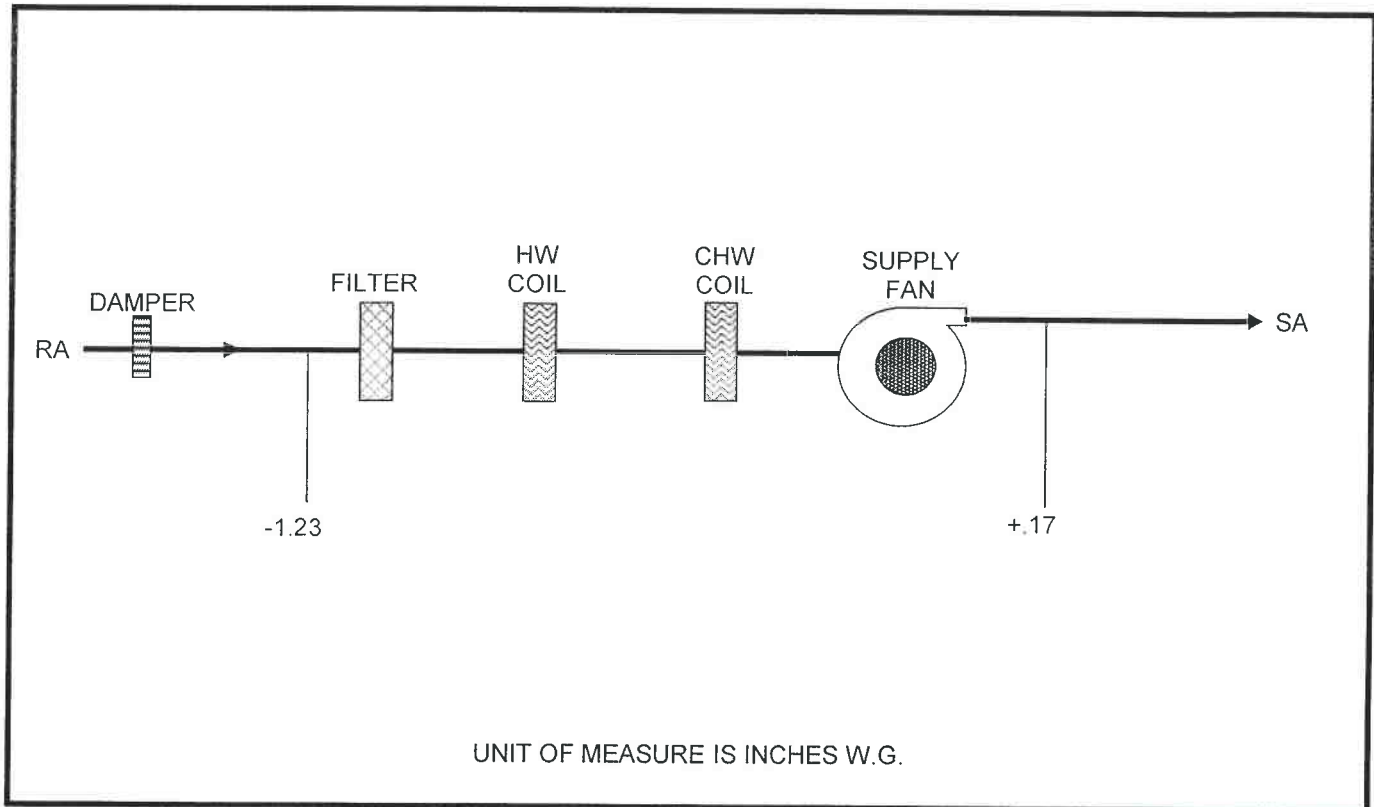
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	540
EXT SP (" WG):	.50	1.40
FAN SPEED:	1654	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/207/208
AMPS T1/T2/T3:	2.4	1.4/1.4/1.5

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

FC-18-228

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-141

NEBB CERTIFIED #2453

SHEET NO. 141

FC-18-228

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
228	CLASSROOM 8		1	9X9	300	283	
228	CLASSROOM 8		2	9X9	300	257	
TOTAL CFM					600	540	
	RETURN						
228	CLASSROOM 8		1	2412	600	456	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-142

NEBB CERTIFIED #2453

SHEET NO. 142

FC-18-229

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 7

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	636
EXT SP (" WG):	.50	.30
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/209/209
AMPS T1/T2/T3:	2.4	1.5/1.5/1.6

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

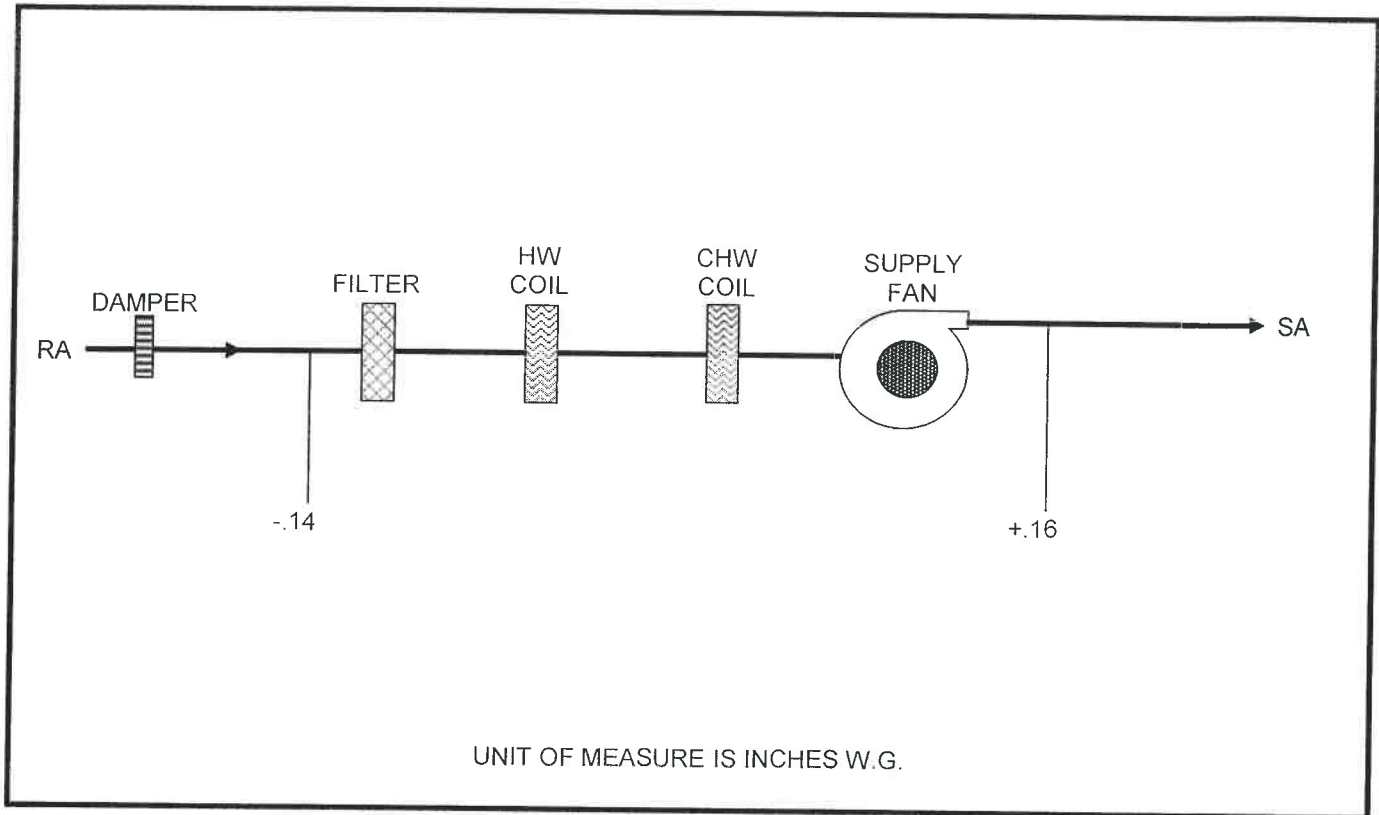
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-143

NEBB CERTIFIED #2453

SHEET NO. 143

FC-18-229

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-144

NEBB CERTIFIED #2453

SHEET NO. 144

FC-18-229

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
229	CLASSROOM 7		1	9X9	300	307	
229	CLASSROOM 7		2	9X9	300	329	
TOTAL CFM					600	636	
	RETURN						
229	CLASSROOM 7		1	2412	600	516	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-145

NEBB CERTIFIED #2453

SHEET NO. 145

FC-18-230

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 6 / TEACHER PREP

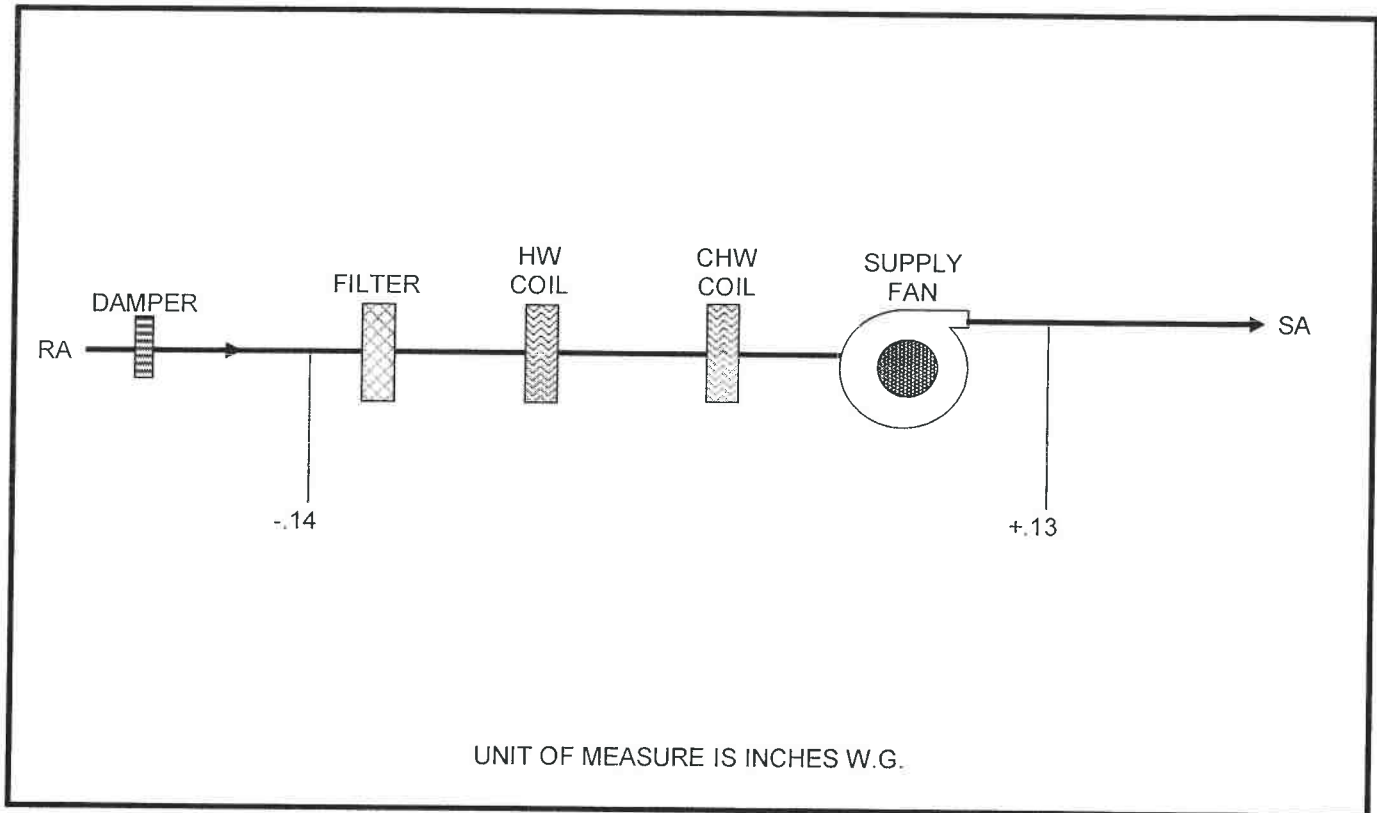
FAN LOCATION: CLASSROOM 6 CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	796
EXT SP (" WG):	.50	.27
FAN SPEED:	1654	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/2011/211
AMPS T1/T2/T3:	2.4	1.5/1.5/1.6

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

FC-18-230

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-147

NEBB CERTIFIED #2453

SHEET NO. 147

FC-18-230

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
230	CLASSROOM 6		1	9X9	300	289	
230	CLASSROOM 6		2	9X9	300	306	
233	TEACHER PREP		3	9X9	200	201	
TOTAL CFM					800	796	
	RETURN						
230	CLASSROOM 6		1	2412	600	534	1
233	TEACHER PREP		2	2408	200	150	1
TOTAL CFM					800	684	

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-148

NEBB CERTIFIED #2453

SHEET NO. 148

FC-24-231

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 5

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	799
EXT SP (" WG):	.50	.21
FAN SPEED:	1807	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/208/209
AMPS T1/T2/T3:	4.6	1.3/1.4/1.4

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

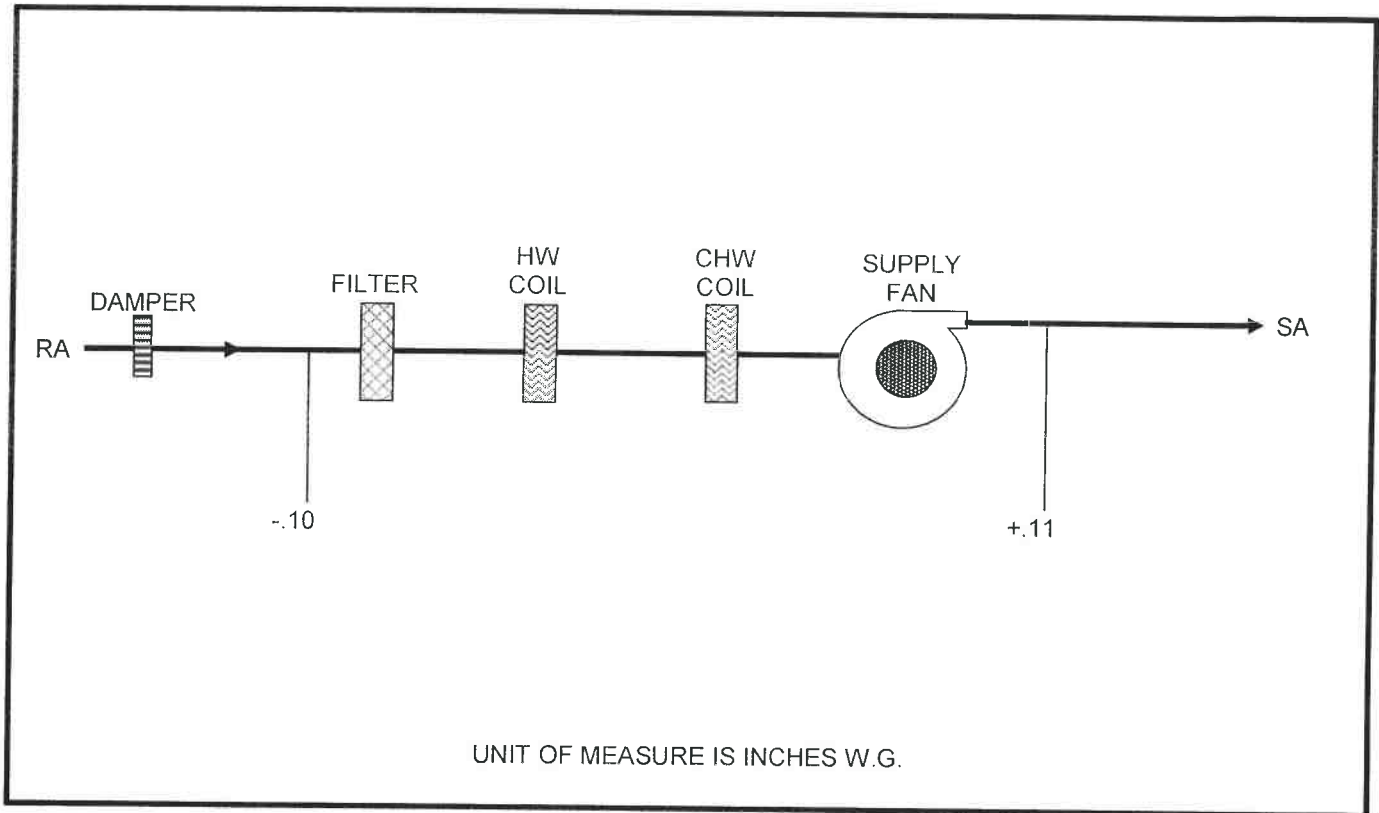
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-149

NEBB CERTIFIED #2453

SHEET NO. 149

FC-24-231

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-150

NEBB CERTIFIED #2453

SHEET NO. 150

FC-24-231

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
231	CLASSROOM 5		1	12X12	400	394	
231	CLASSROOM 5		2	12X12	400	405	
TOTAL CFM					800	799	
	RETURN						
231	CLASSROOM 5		1	2414	800	660	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-151

NEBB CERTIFIED #2453

SHEET NO. 151

FC-24-232

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 4

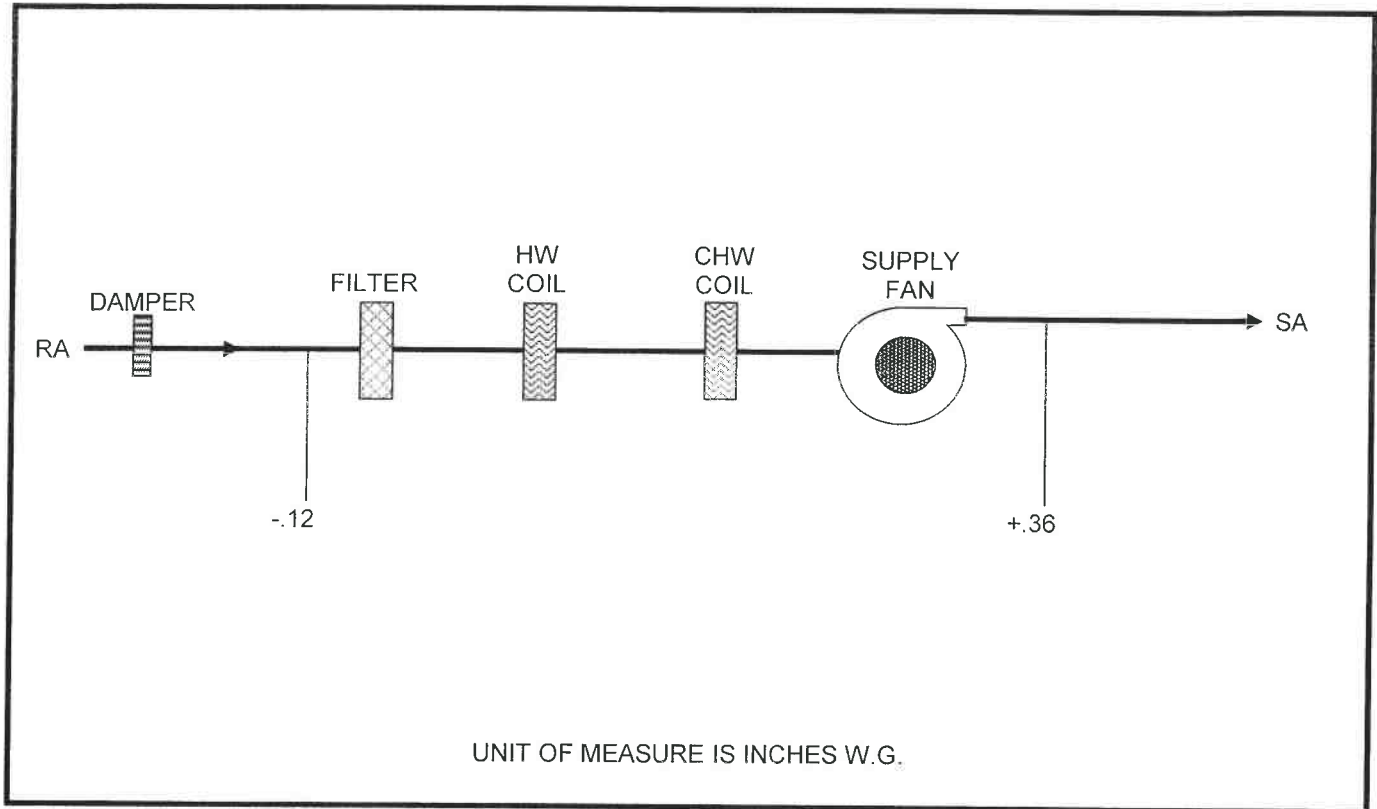
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	812
EXT SP (" WG):	.50	.48
FAN SPEED:	1807	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/210/208
AMPS T1/T2/T3:	4.6	1.7/1.8/1.7

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

FC-24-232

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-153

NEBB CERTIFIED #2453

SHEET NO. 153

FC-24-232

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
232	CLASSROOM 4		1	12X12	400	399	
232	CLASSROOM 4		2	12X12	400	413	
TOTAL CFM					800	812	
	RETURN						
232	CLASSROOM 4		1	2414	800	703	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-154

NEBB CERTIFIED #2453

SHEET NO. 154

FC-36-239

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 3

FAN LOCATION: CEILING

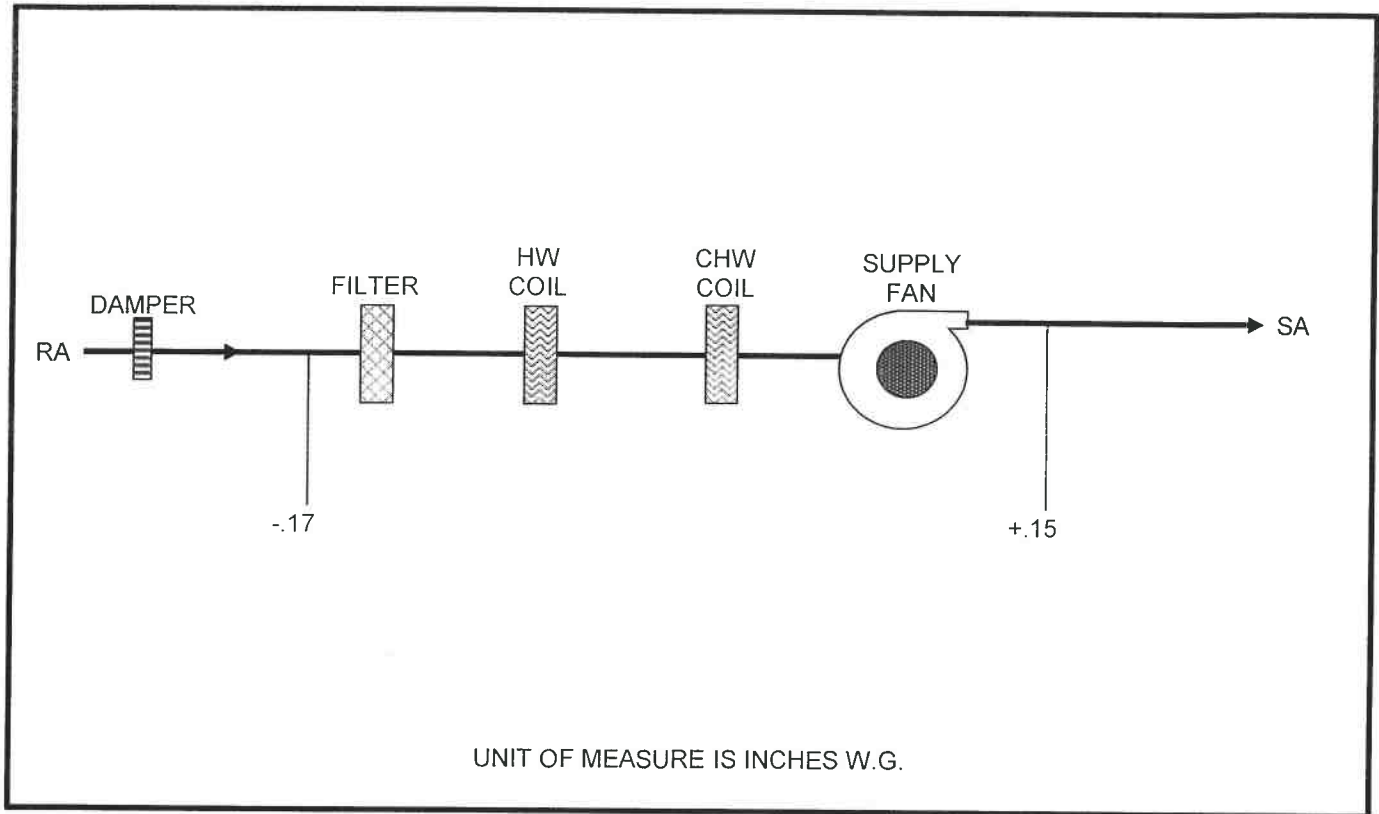
FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1200 / 1000 (NOTE)	963
EXT SP (" WG):	.50	.32
FAN SPEED:	1420	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/208
AMPS T1/T2/T3:	2.4	1.5/1.6/1.6

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE036
MOTOR HP:	1/2

NOTE: FAN DESIGN / OUTLET TOTAL

FC-36-239

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-156

NEBB CERTIFIED #2453

SHEET NO. 156

FC-36-239

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
239	CLASSROOM 3		1	12X12	500	478	
239	CLASSROOM 3		2	12X12	500	485	
TOTAL CFM					1000	963	
	RETURN						
239	CLASSROOM 3		1	2414	1000	872	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-157

NEBB CERTIFIED #2453

SHEET NO. 157

FC-18-240

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 2

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	620
EXT SP (" WG):	.50	.23
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/210
AMPS T1/T2/T3:	2.4	1.3/1.4/1.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

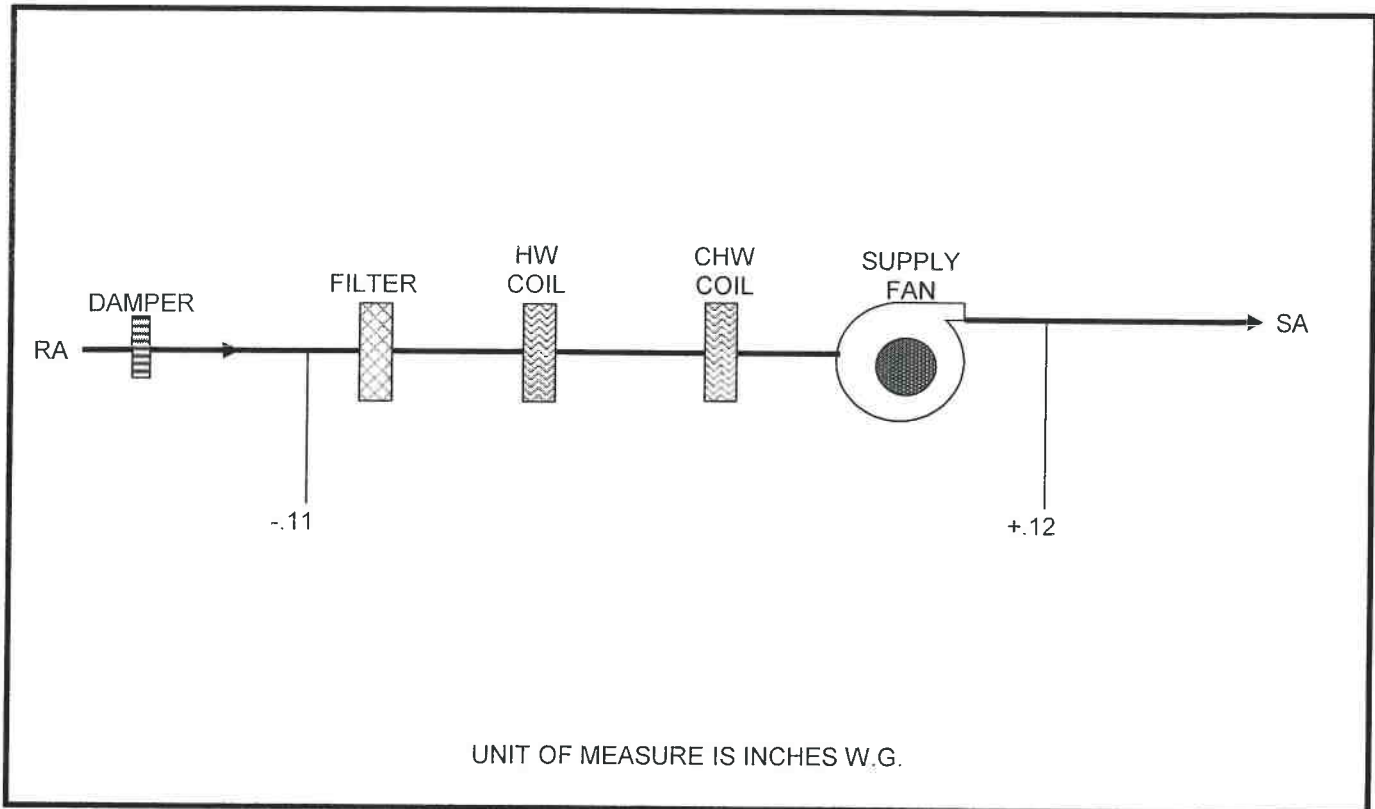
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-158

NEBB CERTIFIED #2453

SHEET NO. 158

FC-18-240

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-159

NEBB CERTIFIED #2453

SHEET NO. 159

FC-18-240

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
240	CLASSROOM 2		1	9X9	300	309	
240	CLASSROOM 2		2	9X9	300	321	
TOTAL CFM					600	630	
	RETURN						
240	CLASSROOM 2		1	2412	600	547	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-160

NEBB CERTIFIED #2453

SHEET NO. 160

FC-18-241

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 1

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	675
EXT SP (" WG):	.50	.24
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/209/208
AMPS T1/T2/T3:	2.4	1.3/1.3/1.2

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

PROJECT: CES CLASSROOMS

SUBMITTED BY: AIR BALANCING SERVICE CO.

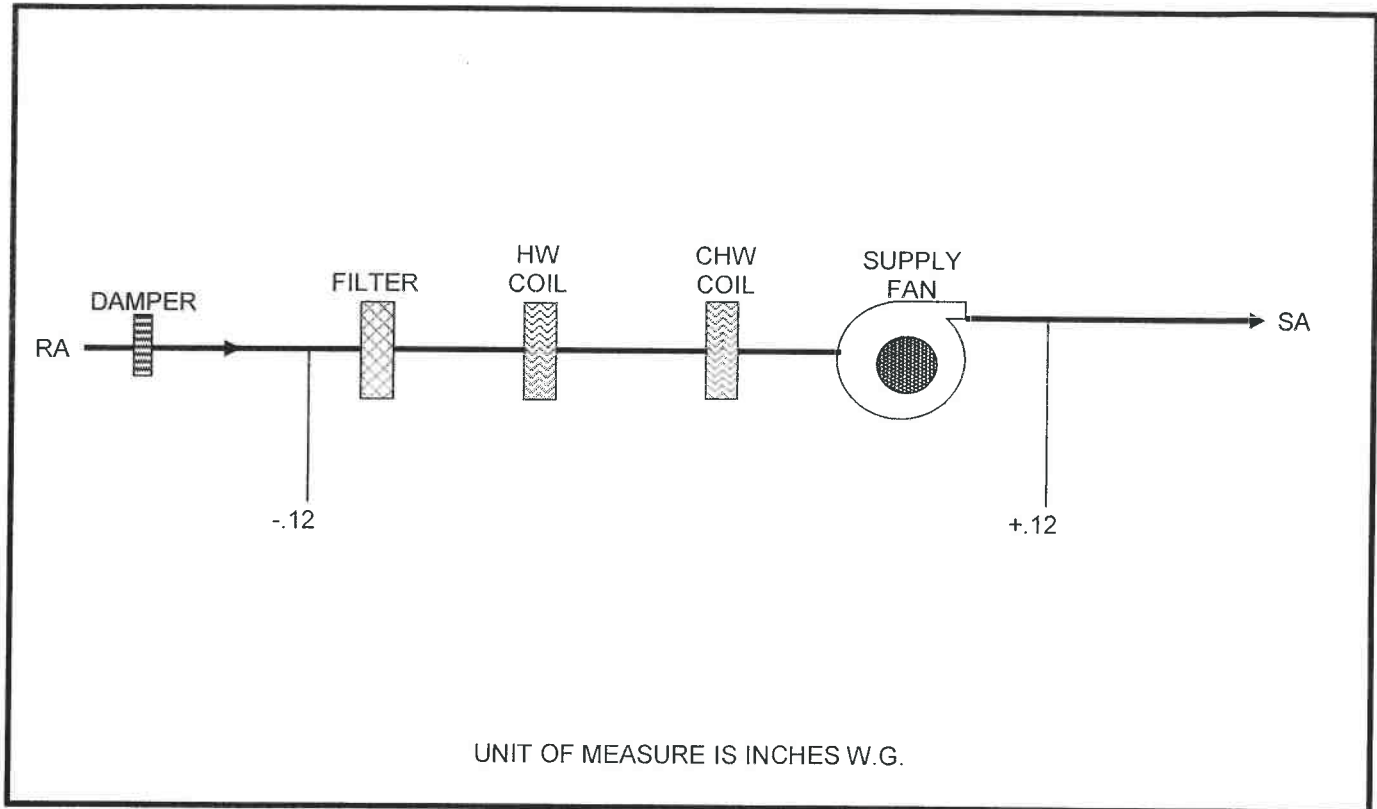
CODE: 24071-161

NEBB CERTIFIED #2453

SHEET NO. 161

FC-18-241

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-162

NEBB CERTIFIED #2453

SHEET NO. 162

FC-18-241

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
241	CLASSROOM 1		1	9X9	300	343	
241	CLASSROOM 1		2	9X9	300	332	
TOTAL CFM					600	675	
	RETURN						
241	CLASSROOM 1		1	2412	600	585	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-163

NEBB CERTIFIED #2453

SHEET NO. 163

FC-12-242

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: OFFICE 243 / OT OFFICE 244

FAN LOCATION: OFFICE 243 CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	374
EXT SP (" WG):	.50	.13
FAN SPEED:	1324	LOW
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/208/208
AMPS T1/T2/T3:	2.4	.4/.3/.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

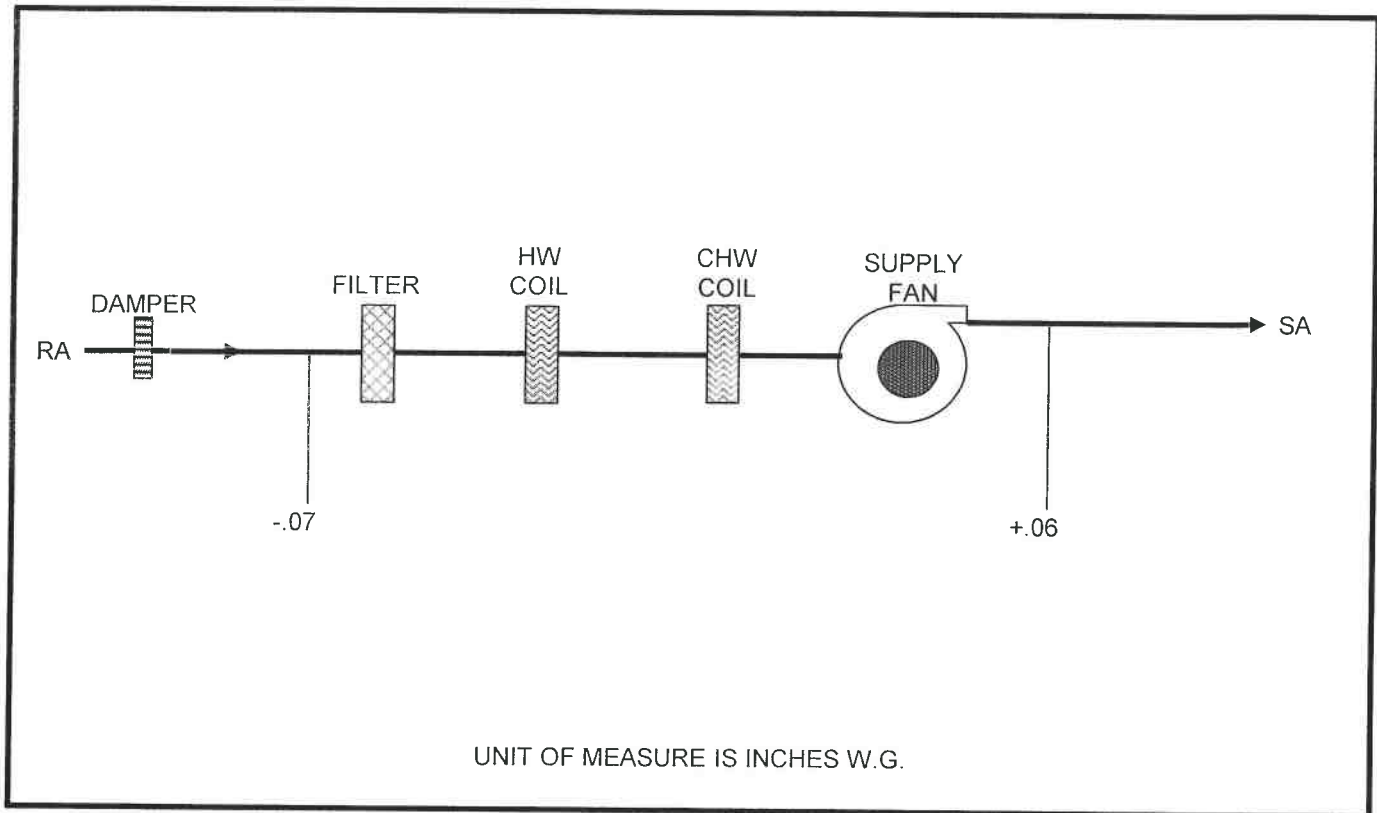
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-164

NEBB CERTIFIED #2453

SHEET NO. 164

FC-12-242

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-165

NEBB CERTIFIED #2453

SHEET NO. 165

FC-12-242

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
243	OFFICE		1	9X9	200	187	
244	OT OFFICE		2	9X9	200	187	
TOTAL CFM					400	374	
	RETURN						
243	OFFICE		1	9X9	200	153	1
244	OT OFFICE		2	9X9	200	140	1
TOTAL CFM					400	293	

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-166

NEBB CERTIFIED #2453

SHEET NO. 166

FC-24-244

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: OCCUPATIONAL THERAPY 244
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	755
EXT SP (" WG):	.50	.30
FAN SPEED:	1807	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/210
AMPS T1/T2/T3:	4.6	1.5/1.5/1.4

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

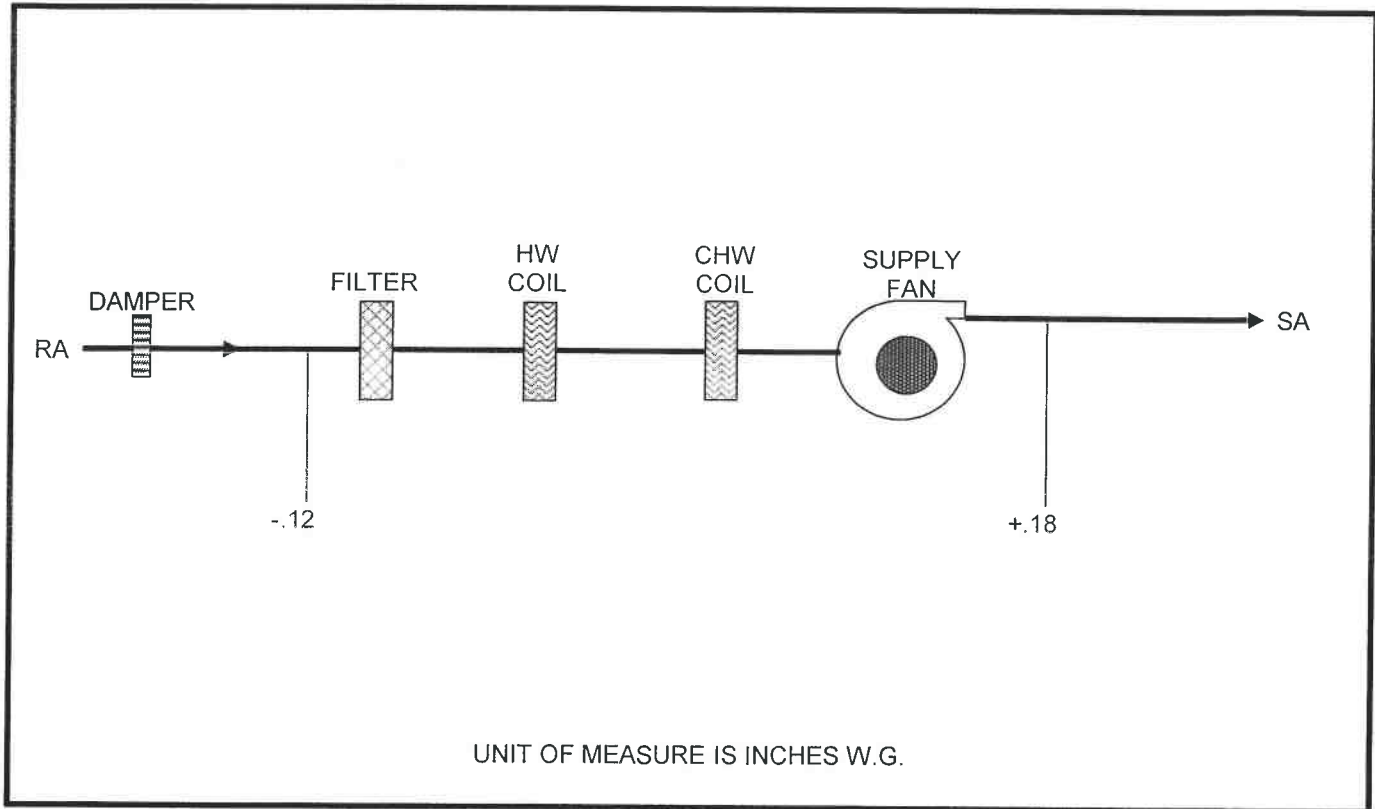
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-167

NEBB CERTIFIED #2453

SHEET NO. 167

FC-24-244

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-168

NEBB CERTIFIED #2453

SHEET NO. 168

FC-24-244

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
244	OCCUPATIONAL THERAPY		1	12X12	400	380	
244	OCCUPATIONAL THERAPY		2	12X12	400	375	
TOTAL CFM					800	755	
	RETURN						
244	OCCUPATIONAL THERAPY		1	2414	800	657	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-169

NEBB CERTIFIED #2453

SHEET NO. 169

FC-30-301

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: STAIR 3

FAN LOCATION: CLASSROOM 1 / 342

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1000	925
EXT SP (" WG):	.5	.51
FAN SPEED:	1420	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/210/209
AMPS T1/T2/T3:	2.4	1.8/1.8/1.9

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE030
MOTOR HP:	1/2

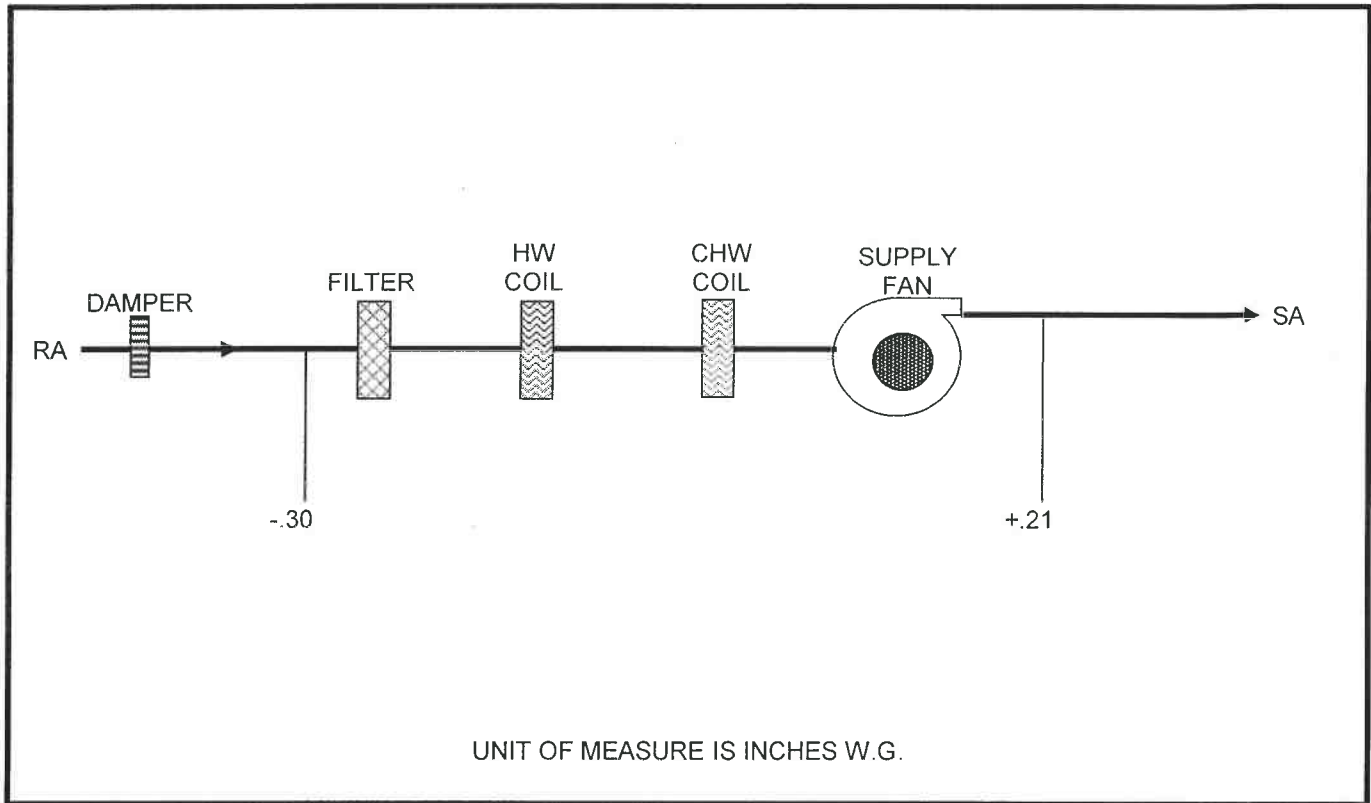
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-170

NEBB CERTIFIED #2453

SHEET NO. 170

FC-30-301

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-171

NEBB CERTIFIED #2453

SHEET NO. 171

FC-30-301

** ROUND DUCT TRAVERSE REPORT **

DESIGNATION: TOTAL AIR DELIVERED BY FAN TO STAIR 3 (VP-1)

CONDITION: FAN AT HIGH SPEED

TEMPERATURE (°F): 87

DUCT SP (" WG): +.16

DUCT SIZE (" DIA): 8

DUCT AREA (SQ FT): 0.349

INTERNAL DUCT LINING ("): N/A

TOTAL READINGS 1 FPM: 8523

TOTAL READINGS 2 FPM: 8304

TOTAL FPM: 16827

NUMBER OF POINTS: 20

	DESIGN		ACTUAL
CFM:	330		294
FPM:	946		841

	READINGS 1	READINGS 2
	658	696
	688	739
	764	753
	748	799
	813	828
	984	922
	1011	929
	976	867
	975	894
	906	877
SUBTOTALS FPM:	8523	8304

NOTE: ACTUAL FPM IS AVERAGE OF VELOCITY PROFILE READINGS

PROJECT: CES CLASSROOMS

SUBMITTED BY: AIR BALANCING SERVICE CO.

CODE: 24071-172

NEBB CERTIFIED #2453

SHEET NO. 172

FC-30-301

** ROUND DUCT TRAVERSE REPORT **

DESIGNATION: TOTAL AIR DELIVERED BY FAN TO STAIR 3 (VP-2)

CONDITION: FAN AT HIGH SPEED

TEMPERATURE (°F): 87

DUCT SP (" WG): +.16

DUCT SIZE (" DIA): 8

DUCT AREA (SQ FT): 0.349

INTERNAL DUCT LINING ("): N/A

TOTAL READINGS 1 FPM: 8475

TOTAL READINGS 2 FPM: 8700

TOTAL FPM: 17175

NUMBER OF POINTS: 20

	DESIGN		ACTUAL
CFM:	330		300
FPM:	946		859

	READINGS 1	READINGS 2
	807	904
	869	985
	854	973
	886	952
	893	923
	842	776
	809	746
	835	783
	856	810
	824	848
SUBTOTALS FPM:	8475	8700

NOTE: ACTUAL FPM IS AVERAGE OF VELOCITY PROFILE READINGS

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-173

NEBB CERTIFIED #2453

SHEET NO. 173

FC-30-301

** ROUND DUCT TRAVERSE REPORT **

DESIGNATION: TOTAL AIR RETURNED BY FAN FROM STAIR 3 (VP-3)

CONDITION: FAN AT HIGH SPEED

TEMPERATURE (°F): 87

DUCT SP (" WG): -.27

DUCT SIZE (" DIA): 14

DUCT AREA (SQ FT): 1.068

INTERNAL DUCT LINING ("): N/A

TOTAL READINGS 1 FPM: 10088

TOTAL READINGS 2 FPM: 8598

TOTAL FPM: 18686

NUMBER OF POINTS: 20

	DESIGN		ACTUAL
CFM:	1000		998
FPM:	936		934

	READINGS 1	READINGS 2
	1255	770
	1254	661
	929	673
	858	648
	875	622
	962	1094
	1052	1153
	1027	1167
	1011	1040
	865	770
SUBTOTALS FPM:	10088	8598

NOTE: ACTUAL FPM IS AVERAGE OF VELOCITY PROFILE READINGS

PROJECT: CES CLASSROOMS

SUBMITTED BY: AIR BALANCING SERVICE CO.

CODE: 24071-174

NEBB CERTIFIED #2453

SHEET NO. 174

FC-30-301

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
	STAIR 3		1	12X12	330	294	1
	STAIR 3		2	12X12	330	300	2
	STAIR 3		3	12X12	340	331	
TOTAL CFM					1000	925	
	RETURN						
	STAIR 3		1	2414	1000	998	3

NOTE 1: VP-1

NOTE 2: VP-2

NOTE 3: VP-3

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-175

NEBB CERTIFIED #2453

SHEET NO. 175

FC-18-302

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: OCC THERAPY 302 / TEACHERS OFFICE 303

FAN LOCATION: OCC THERAPY 302 CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	568
EXT SP (" WG):	.50	.28
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/209/208
AMPS T1/T2/T3:	2.4	1.8/1.8/1.7

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

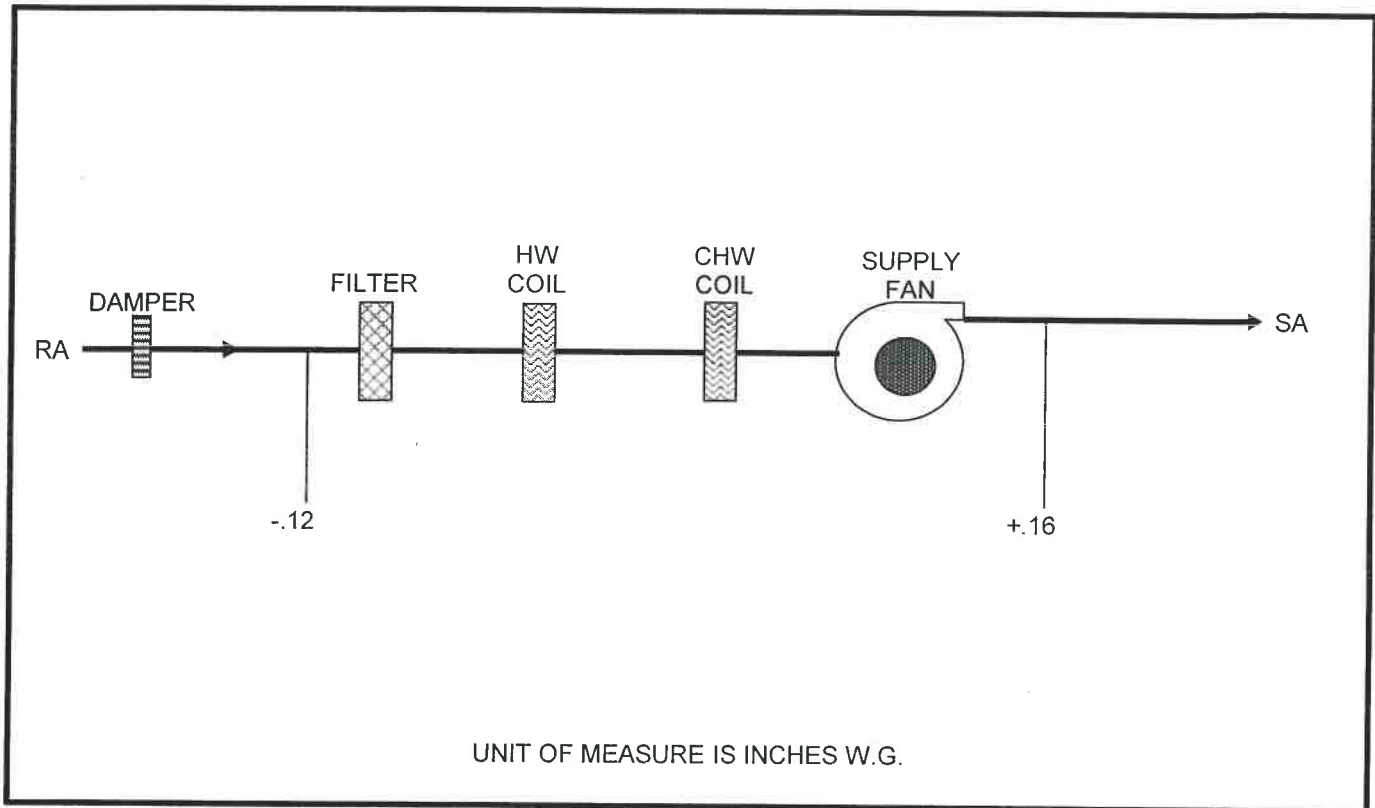
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-176

NEBB CERTIFIED #2453

SHEET NO. 176

FC-18-302

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-177

NEBB CERTIFIED #2453

SHEET NO. 177

FC-18-302

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
302	OCCUPATIONAL THERAPY		1	9X9	285	273	
303	TEACHERS OFFICE		2	9X9	315	295	
TOTAL CFM					600	568	
	RETURN						
302	OCCUPATIONAL THERAPY		1	2410	285	254	1
303	TEACHERS OFFICE		2	2410	315	266	1
TOTAL CFM					600	520	

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-178

NEBB CERTIFIED #2453

SHEET NO. 178

FC-30-304

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 14

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1000	1014
EXT SP (" WG):	.50	.26
FAN SPEED:	1420	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/208/209
AMPS T1/T2/T3:	2.4	1.6/1.6/1.5

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE030
MOTOR HP:	1/2

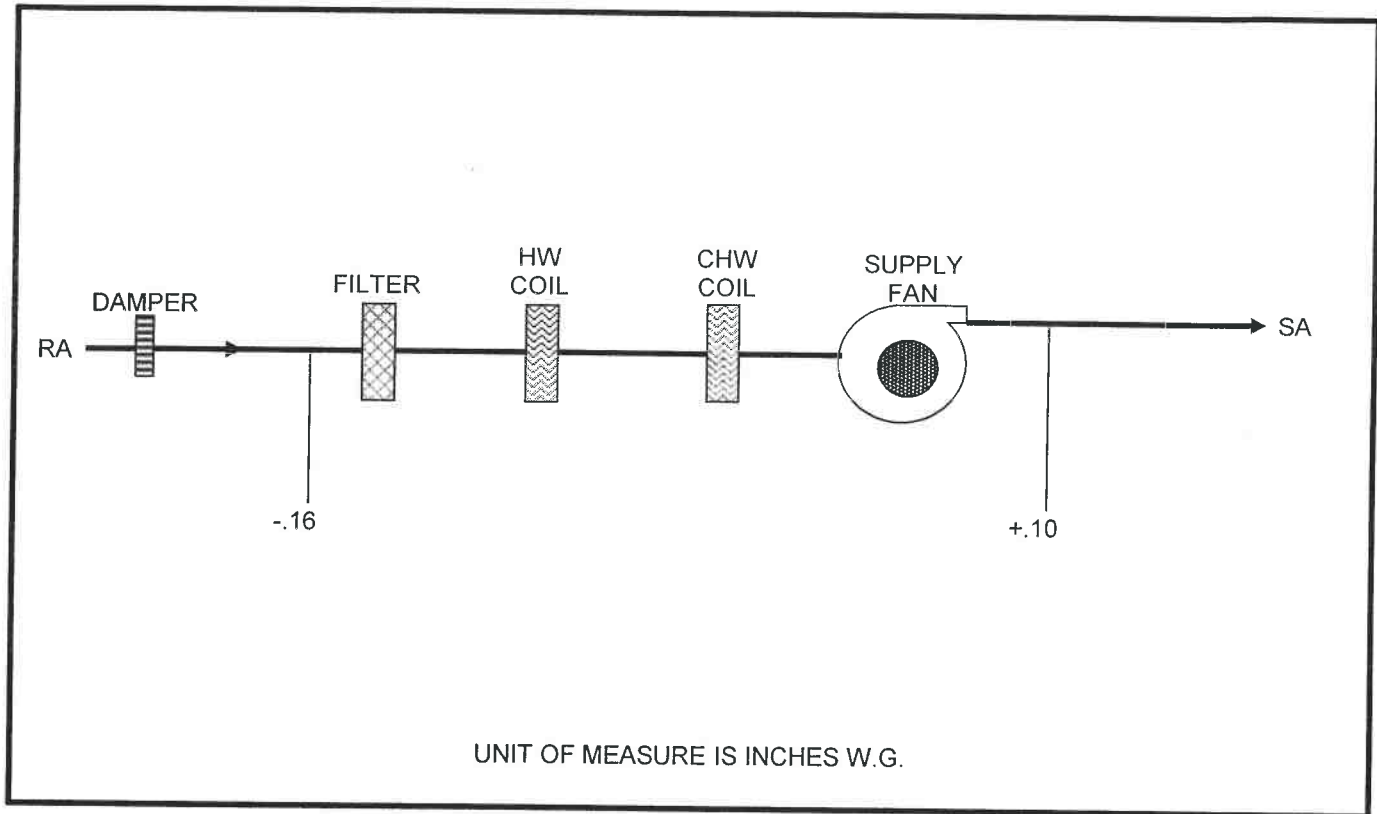
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-179

NEBB CERTIFIED #2453

SHEET NO. 179

FC-30-304

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-180

NEBB CERTIFIED #2453

SHEET NO. 180

FC-30-304

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
304	CLASSROOM 14		1	12X12	500	503	
304	CLASSROOM 14		2	12X12	500	511	
TOTAL CFM					1000	1014	
	RETURN						
304	CLASSROOM 14		1	2414	1000	905	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-181

NEBB CERTIFIED #2453

SHEET NO. 181

FC-30-305

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 13

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1000	1018
EXT SP (" WG):	.50	.53
FAN SPEED:	1420	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/209/209
AMPS T1/T2/T3:	2.4	1.9/1.8/1.9

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE030
MOTOR HP:	1/2

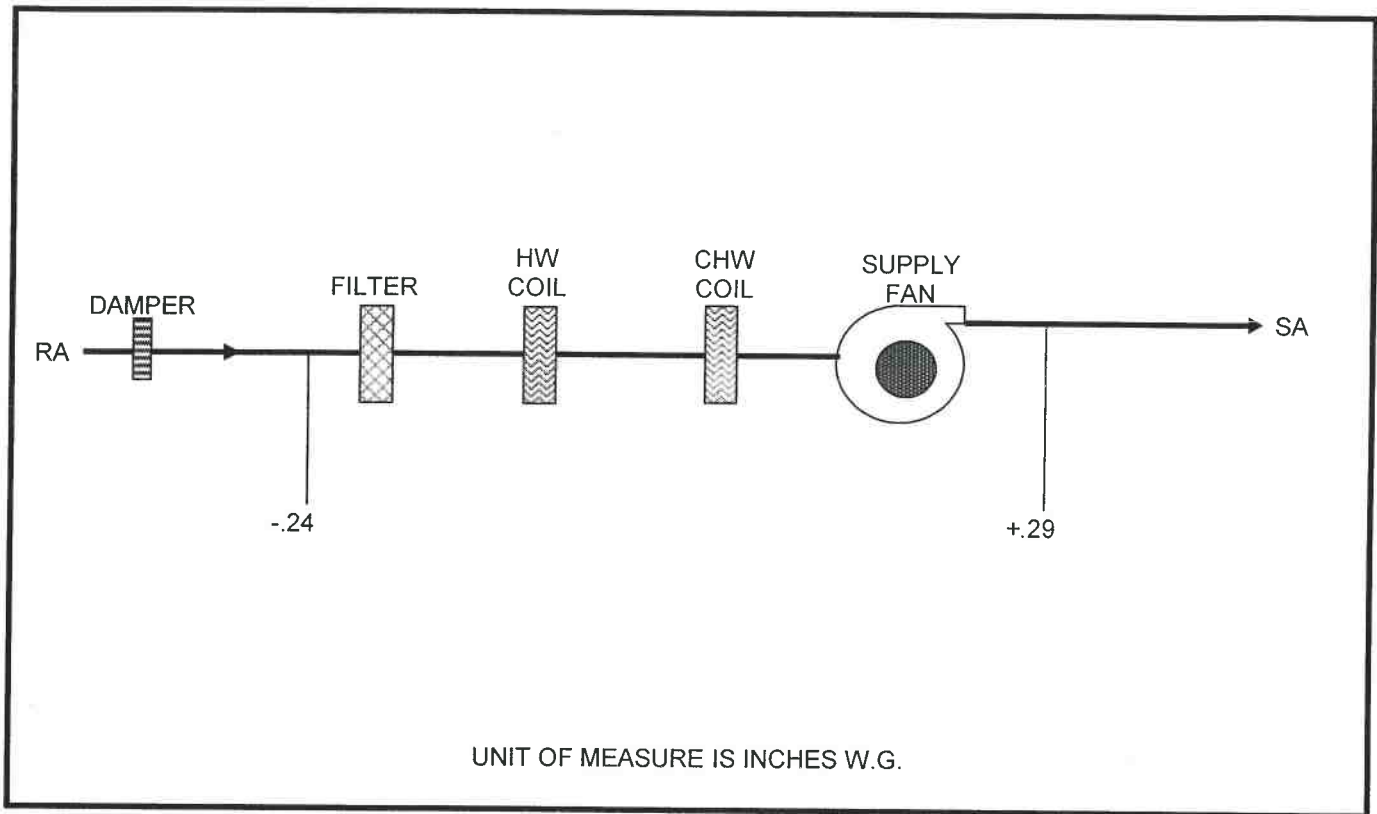
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-182

NEBB CERTIFIED #2453

SHEET NO. 182

FC-30-305

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-183

NEBB CERTIFIED #2453

SHEET NO. 183

FC-30-305

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
305	CLASSROOM 13		1	12X12	335	322	
305	CLASSROOM 13		2	12X12	335	350	
305	CLASSROOM 13		3	12X12	330	346	
TOTAL CFM					1000	1018	
	RETURN						
305	CLASSROOM 13		1	2414	1000	971	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-184

NEBB CERTIFIED #2453

SHEET NO. 184

FC-18-308

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: OFFICES 307, 308, 309, 310

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	595
EXT SP (" WG):	.50	.33
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/209
AMPS T1/T2/T3:	2.4	1.8/1.7/1.8

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

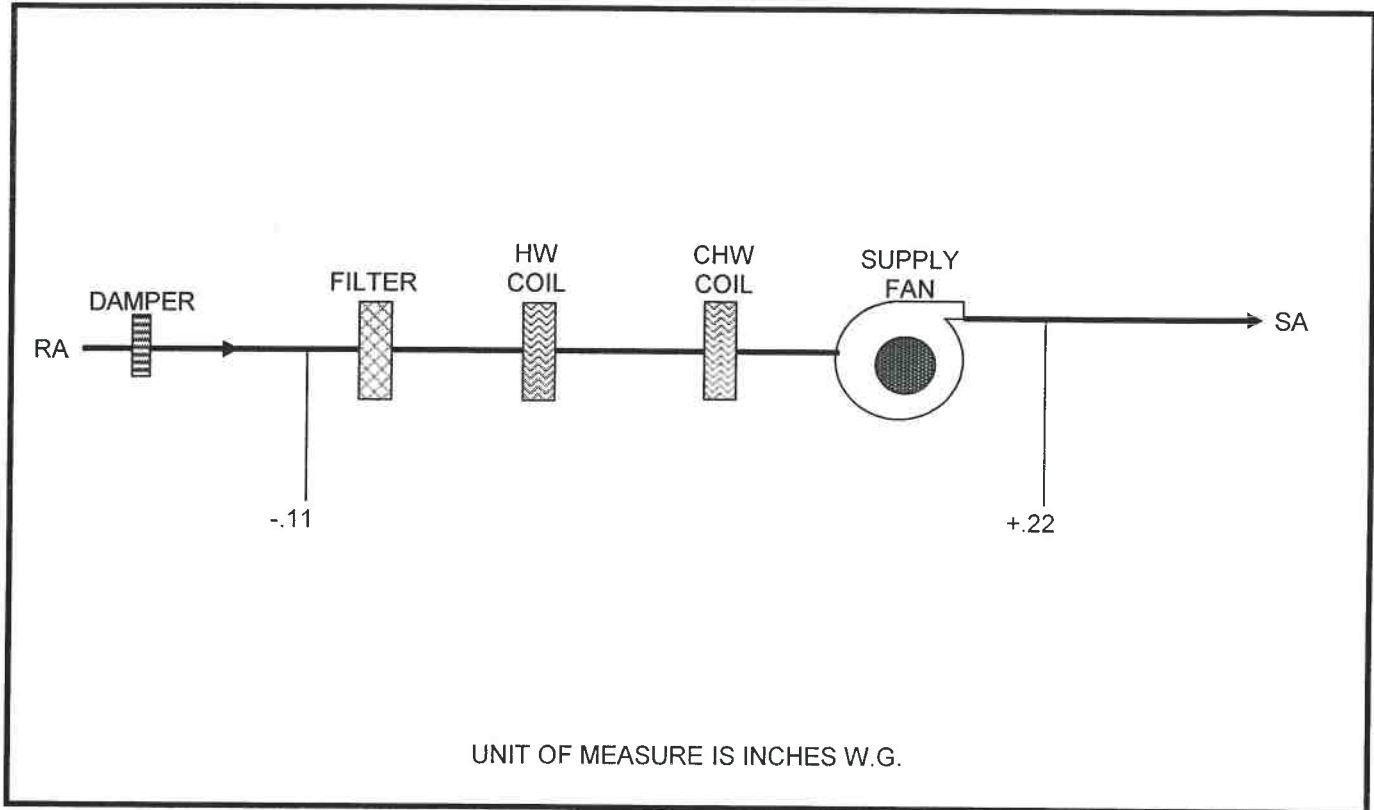
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-185

NEBB CERTIFIED #2453

SHEET NO. 185

FC-18-308

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-186

NEBB CERTIFIED #2453

SHEET NO. 186

FC-18-308

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
307	OFFICE		1	9X9	45	45	
308	OFFICE		2	9X9	230	239	
309	OFFICE		3	9X9	275	263	
310	OFFICE		4	9X9	50	48	
TOTAL CFM					600	595	
	RETURN						
307	OFFICE		1	2406	45	40	1
308	OFFICE		2	2408	230	201	1
309	OFFICE		3	2410	275	244	1
310	OFFICE		4	2406	50	45	1
TOTAL CFM					600	530	

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-187

NEBB CERTIFIED #2453

SHEET NO. 187

FC-24-310

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: GLEN ROOM 311

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	751
EXT SP (" WG):	.50	.22
FAN SPEED:	1807	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/210/210
AMPS T1/T2/T3:	4.6	1.6/1.7/1.7

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

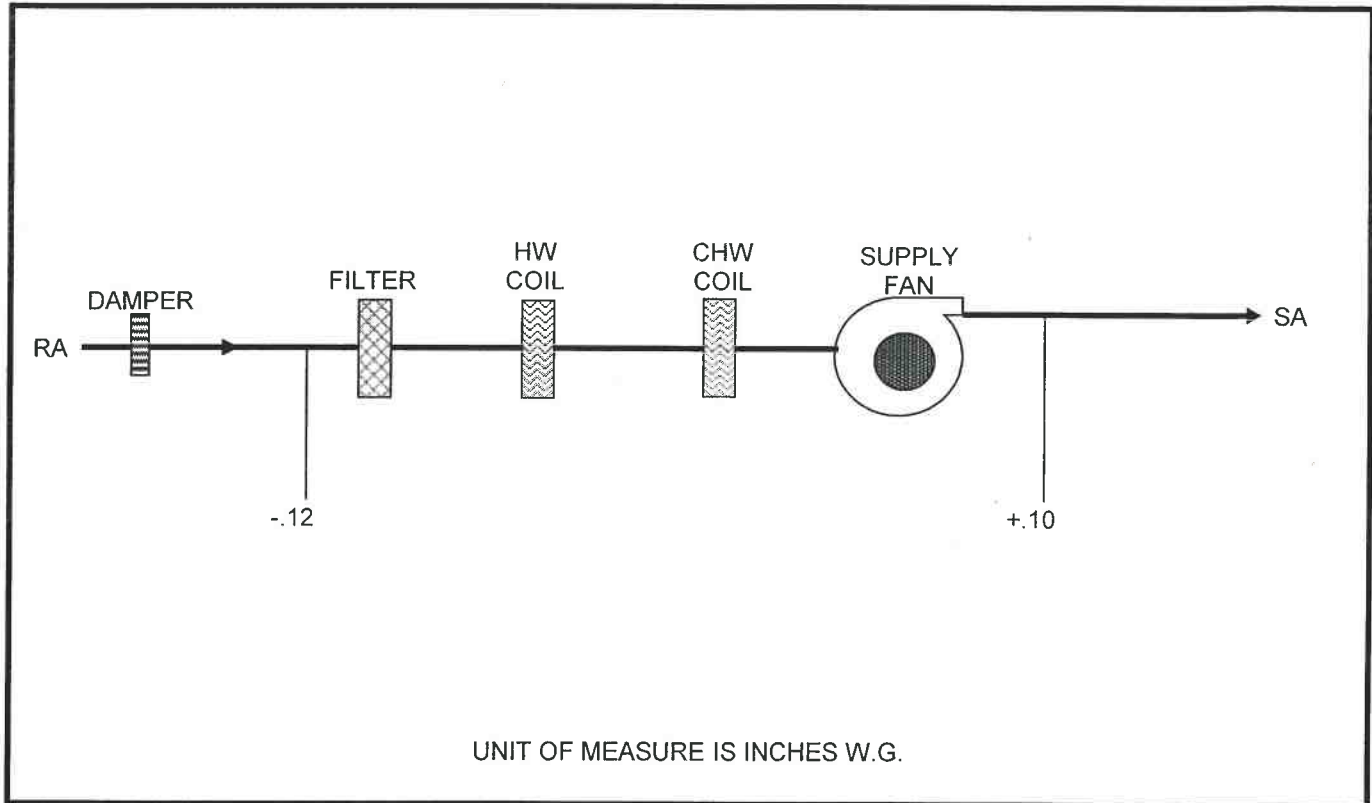
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-188

NEBB CERTIFIED #2453

SHEET NO. 188

FC-24-310

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-189

NEBB CERTIFIED #2453

SHEET NO. 189

FC-24-310

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
311	GLEN ROOM		1	12X12	400	373	
311	GLEN ROOM		2	12X12	400	378	
TOTAL CFM					800	751	
	RETURN						
311	GLEN ROOM		1	2414	800	654	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-190

NEBB CERTIFIED #2453

SHEET NO. 190

FC-18-312

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: NURSES SUITE, 3RD FLOOR

FAN LOCATION: CEILING 312

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	644
EXT SP (" WG):	.50	.33
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/207/207
AMPS T1/T2/T3:	2.4	1.4/1.5/1.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

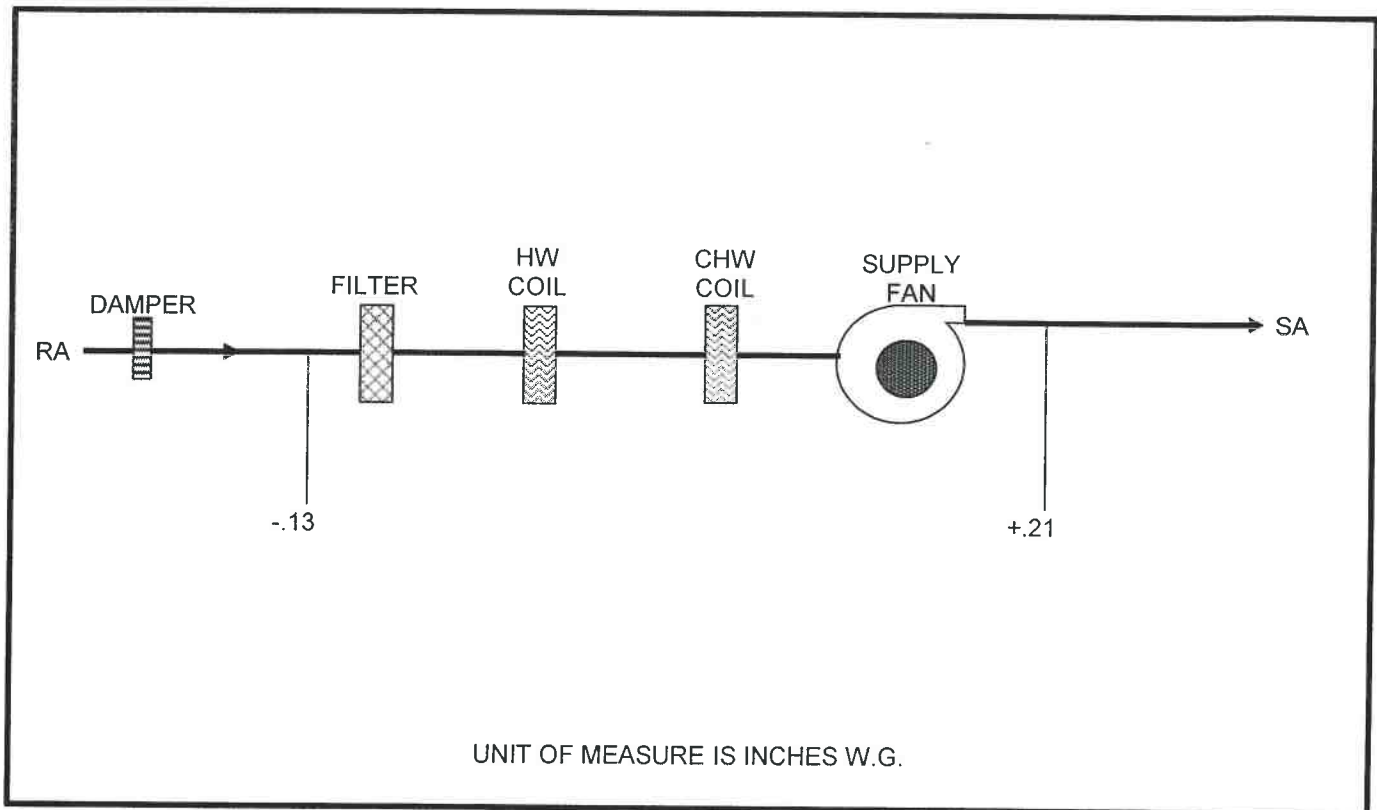
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-191

NEBB CERTIFIED #2453

SHEET NO. 191

FC-18-312

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-192

NEBB CERTIFIED #2453

SHEET NO. 192

FC-18-312

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
312	OFFICE		1	9X9	210	217	
314	LAV		2	6X6	25	27	
313	NURSE OFFICE		3	9X9	135	145	
315	EXAM		4	9X9	135	143	
316	WAITING		5	6X6	95	112	
TOTAL CFM					600	644	
	RETURN						
312	OFFICE		1	2408	210	182	1
313	NURSE OFFICE		2	2408	135	119	1
315	EXAM		3	2408	135	113	1
316	WAITING		4	2408	95	85	1
TOTAL CFM					575	499	

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-193

NEBB CERTIFIED #2453

SHEET NO. 193

FC-24-319

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: ADL 319
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	721
EXT SP (" WG):	.50	.23
FAN SPEED:	1807	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/209/208
AMPS T1/T2/T3:	4.6	1.7/1.6/1.6

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

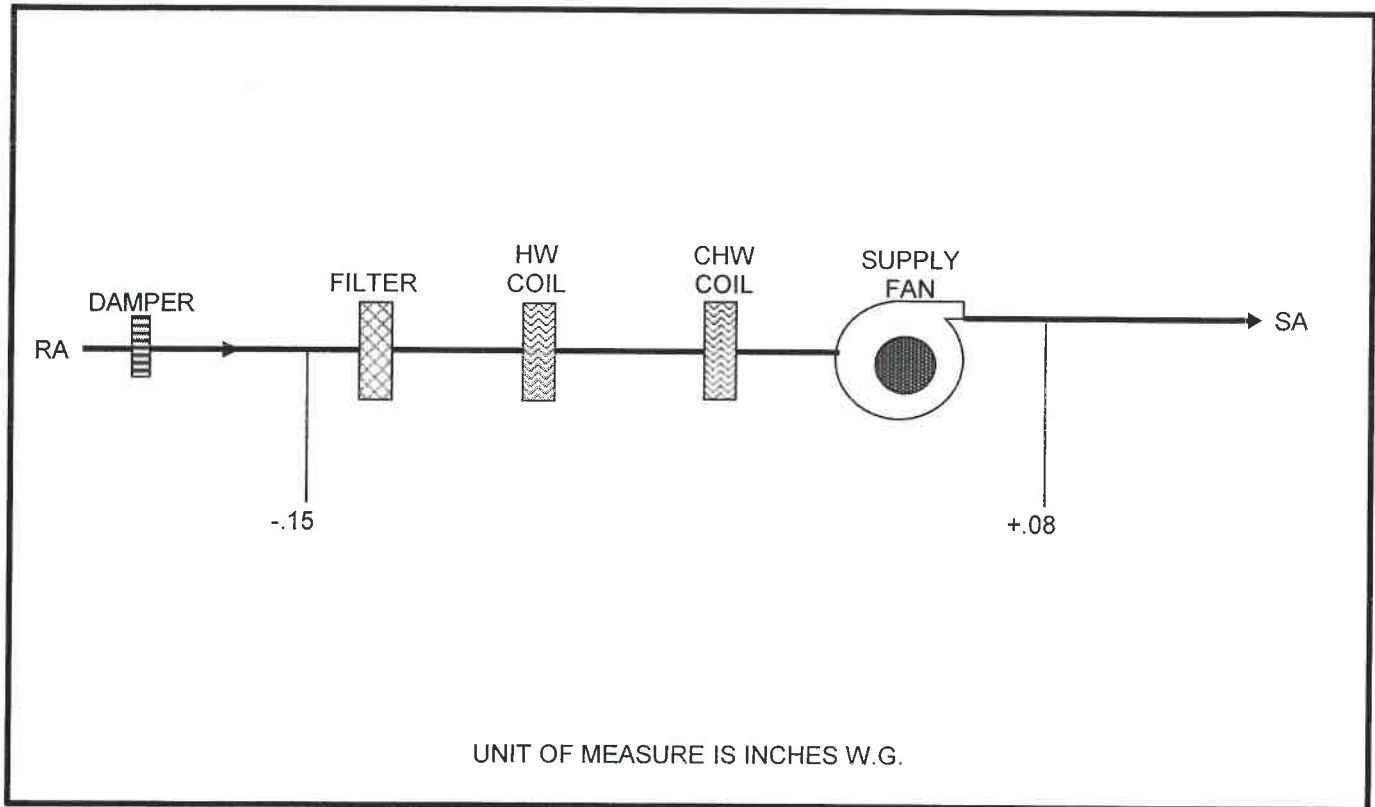
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-194

NEBB CERTIFIED #2453

SHEET NO. 194

FC-24-319

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-195

NEBB CERTIFIED #2453

SHEET NO. 195

FC-24-319

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
319	ADL		1	12X12	400	360	
319	ADL		2	12X12	400	361	
TOTAL CFM					800	721	
	RETURN						
319	ADL		1	2414	800	666	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-196

NEBB CERTIFIED #2453

SHEET NO. 196

FC-12-320A

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CORRIDOR 320

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	410
EXT SP (" WG):	.50	.33
FAN SPEED:	1324	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/210/208
AMPS T1/T2/T3:	2.4	.5/.4/.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

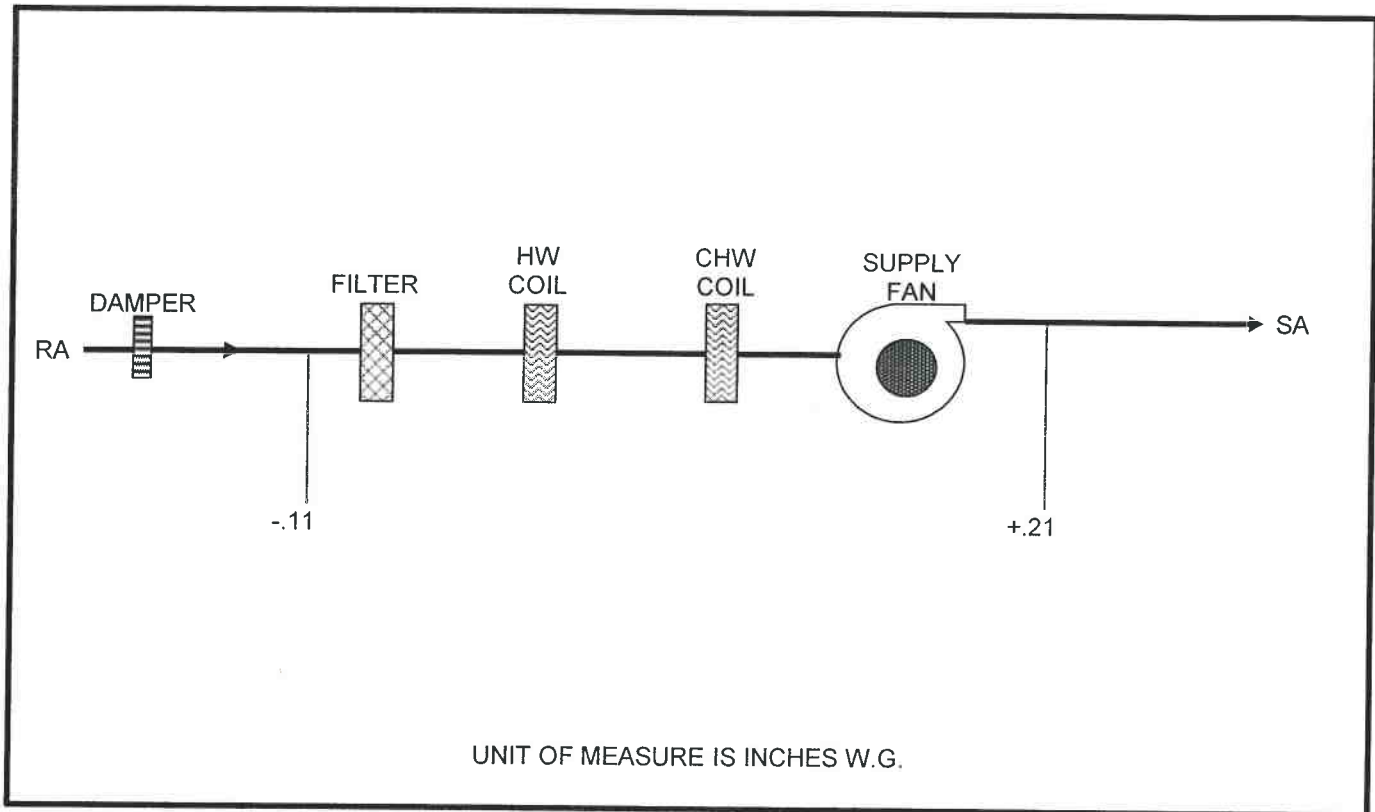
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-197

NEBB CERTIFIED #2453

SHEET NO. 197

FC-12-320A

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-198

NEBB CERTIFIED #2453

SHEET NO. 198

FC-12-320A

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
320	CORRIDOR		1	12X12	400	410	
	RETURN						
320	CORRIDOR		1	2410	400	334	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-199

NEBB CERTIFIED #2453

SHEET NO. 199

FC-12-320B

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CORRIDOR 320B

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	577
EXT SP (" WG):	.50	.47
FAN SPEED:	1324	LOW
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/209/210
AMPS T1/T2/T3:	2.4	.6/.7/.6

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHED12EAA0
MOTOR HP:	.5

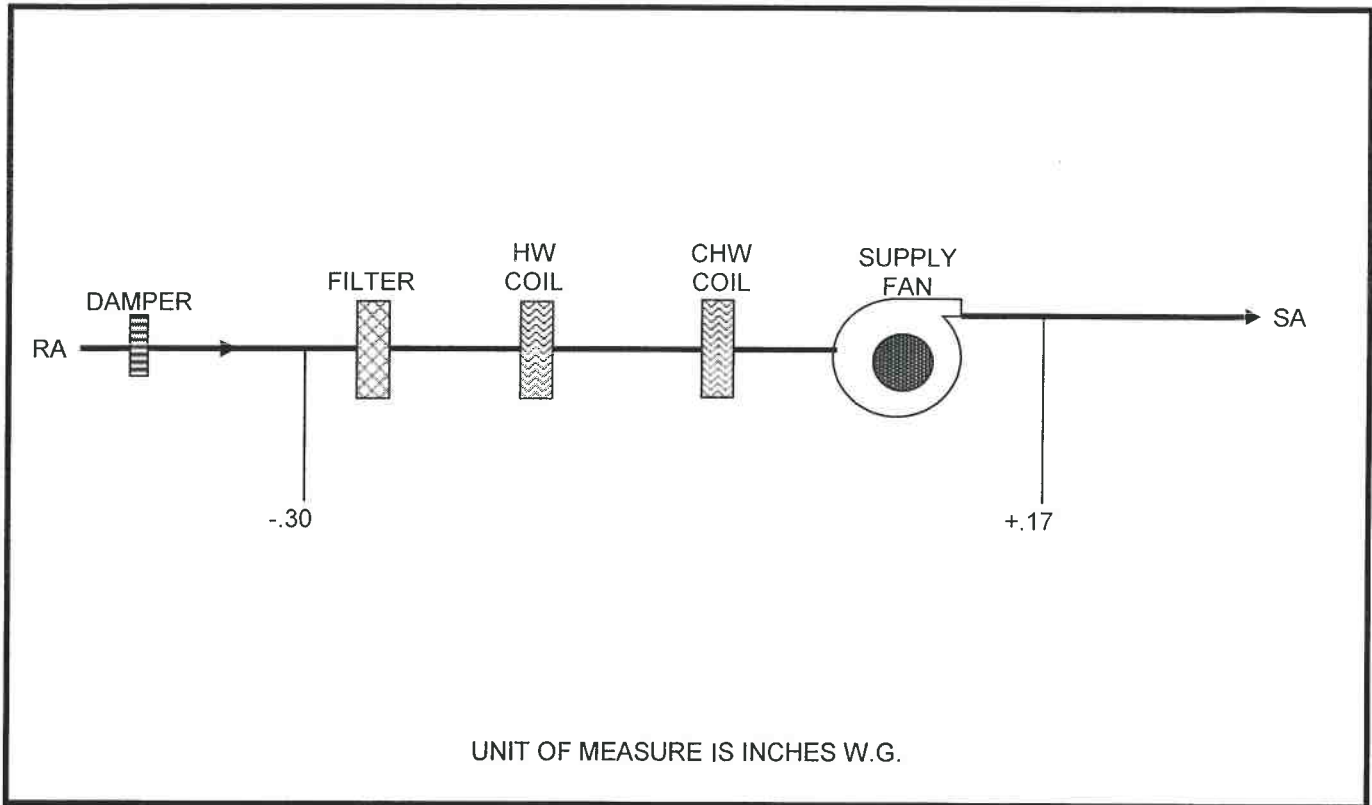
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-200

NEBB CERTIFIED #2453

SHEET NO. 200

FC-12-320B

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-201

NEBB CERTIFIED #2453

SHEET NO. 201

FC-12-320B

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
336	CORRIDOR		1	12X12	400	577	
	RETURN						
336	CORRIDOR		1	2410	400	400	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-202

NEBB CERTIFIED #2453

SHEET NO. 202

FC-12-320C

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CORRIDOR

FAN LOCATION: ROOM 319

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	422
EXT SP (" WG):	.50	.34
FAN SPEED:	1324	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/211/209
AMPS T1/T2/T3:	2.4	.5/.6/.5

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHED12EAA
MOTOR HP:	.5

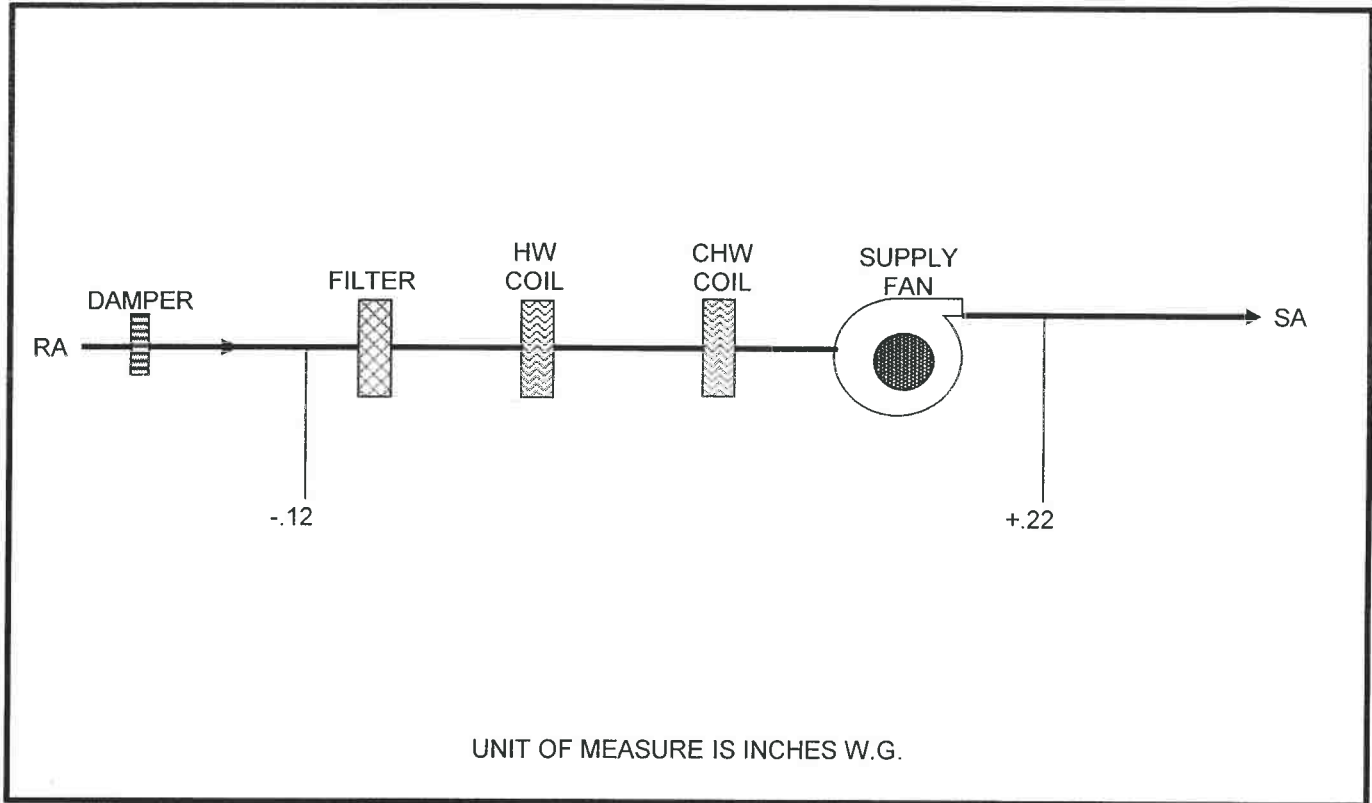
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-203

NEBB CERTIFIED #2453

SHEET NO. 203

FC-12-320C

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-204

NEBB CERTIFIED #2453

SHEET NO. 204

FC-12-320C

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
320	CORRIDOR		1	12X12	400	422	
	RETURN						
320	CORRIDOR		1	2410	400	297	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-205

NEBB CERTIFIED #2453

SHEET NO. 205

FC-12-320D

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CORRIDOR 320D / STAIR 2

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	383
EXT SP (" WG):	.50	.40
FAN SPEED:	1324	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/209/210
AMPS T1/T2/T3:	2.4	.5/.4/.5

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE012
MOTOR HP:	1/2

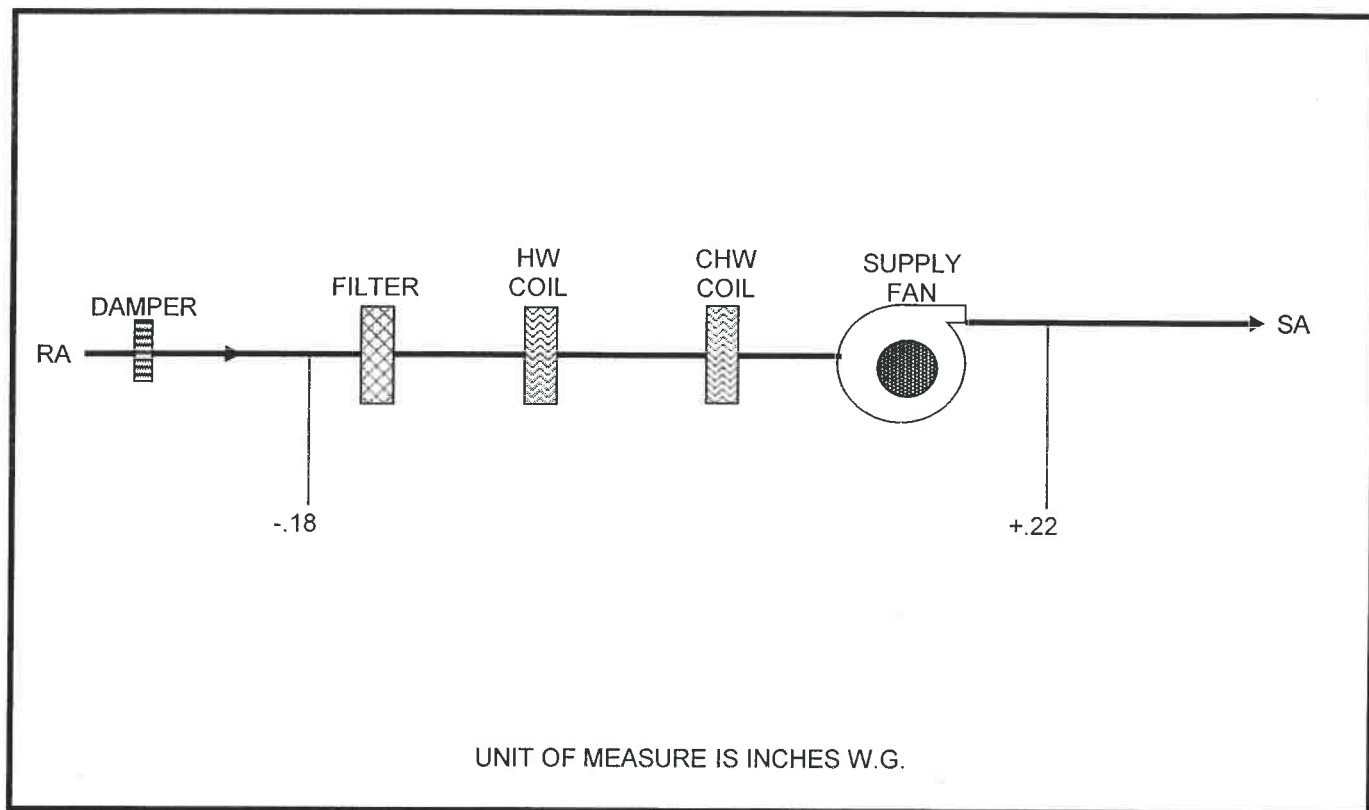
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-206

NEBB CERTIFIED #2453

SHEET NO. 206

FC-12-320D

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-207

NEBB CERTIFIED #2453

SHEET NO. 207

FC-12-320D

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
320D	CORRIDOR		1	9X9	200	185	
	STAIR 2 / ELEVATOR		2	9X9	200	198	
TOTAL CFM					400	383	
	RETURN						
320D	CORRIDOR		1	2410	400	320	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-208

NEBB CERTIFIED #2453

SHEET NO. 208

FC-24-321

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 12

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	825
EXT SP (" WG):	.50	.21
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	207/208/208
AMPS T1/T2/T3:	2.4	1.2/1.1/1.1

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1/2

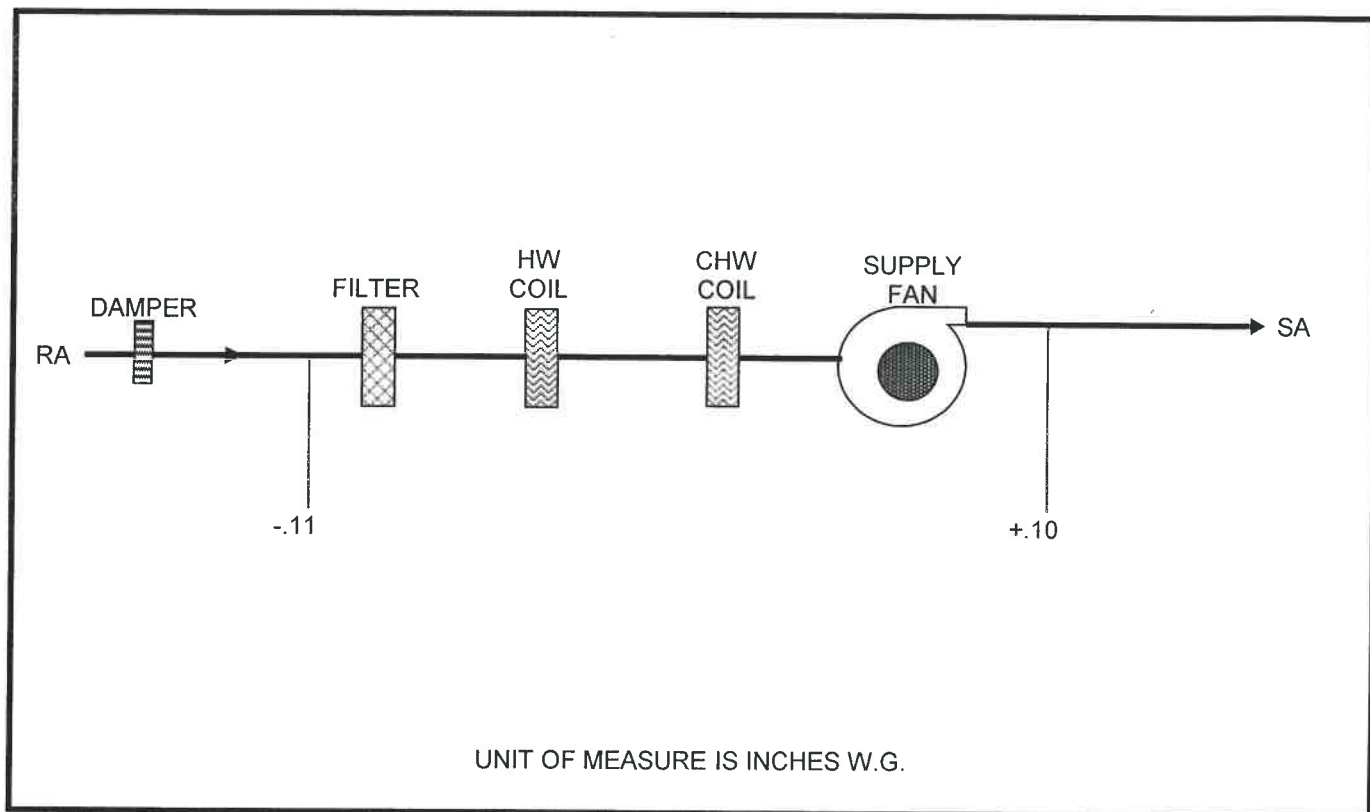
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-209

NEBB CERTIFIED #2453

SHEET NO. 209

FC-24-321

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-210

NEBB CERTIFIED #2453

SHEET NO. 210

FC-24-321

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
321	CLASSROOM 12		1	12X12	400	425	
321	CLASSROOM 12		2	12X12	400	400	
TOTAL CFM					800	825	
	RETURN						
321	CLASSROOM 12		1	2414	800	670	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-211

NEBB CERTIFIED #2453

SHEET NO. 211

FC-24-322

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 11

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	774
EXT SP (" WG):	.50	.28
FAN SPEED:	1807	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/210/209
AMPS T1/T2/T3:	4.6	1.5/1.6/1.6

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

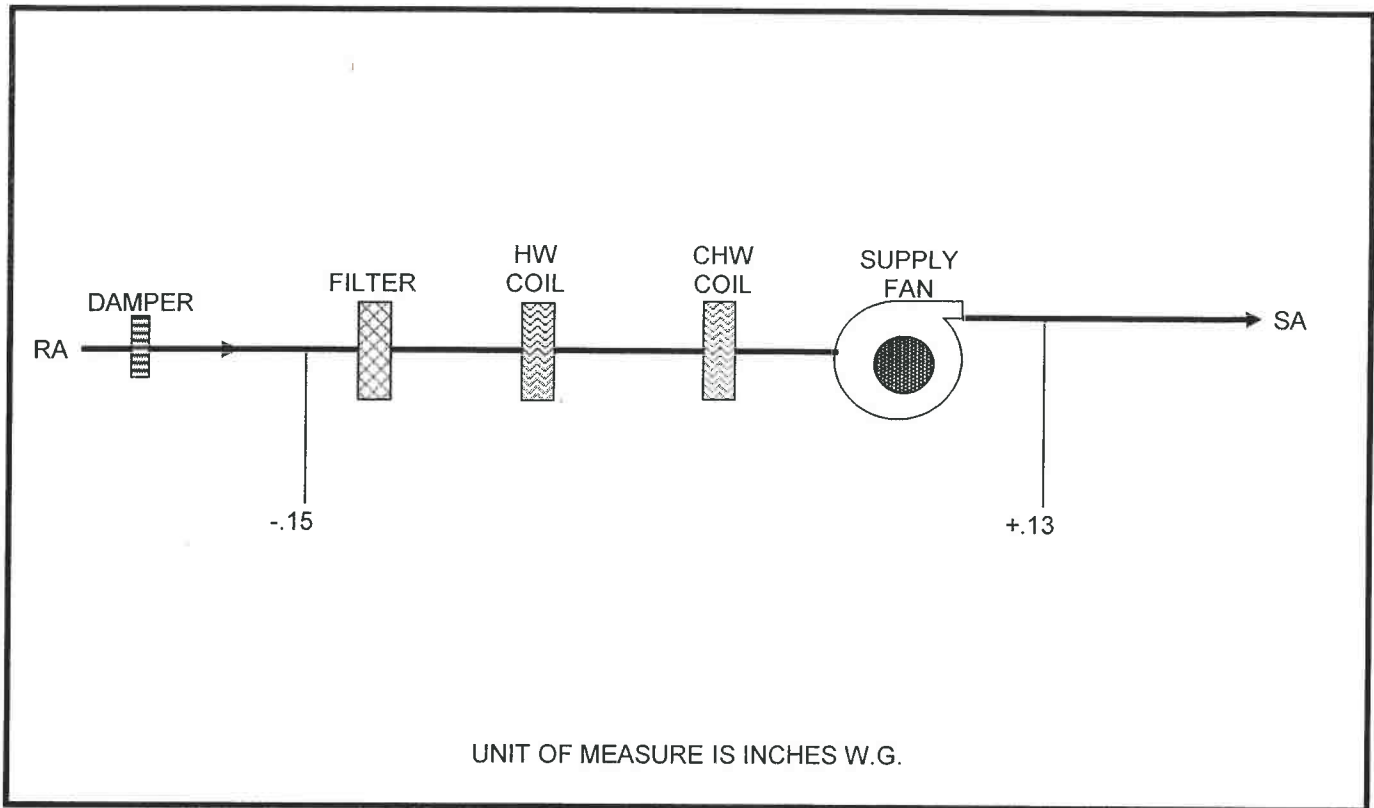
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-212

NEBB CERTIFIED #2453

SHEET NO. 212

FC-24-322

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-213

NEBB CERTIFIED #2453

SHEET NO. 213

FC-24-322

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
322	CLASSROOM 11		1	12X12	400	386	
322	CLASSROOM 11		2	12X12	400	388	
TOTAL CFM					800	774	
	RETURN						
322	CLASSROOM 11		1	2414	800	771	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-214

NEBB CERTIFIED #2453

SHEET NO. 214

FC-18-323

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 10

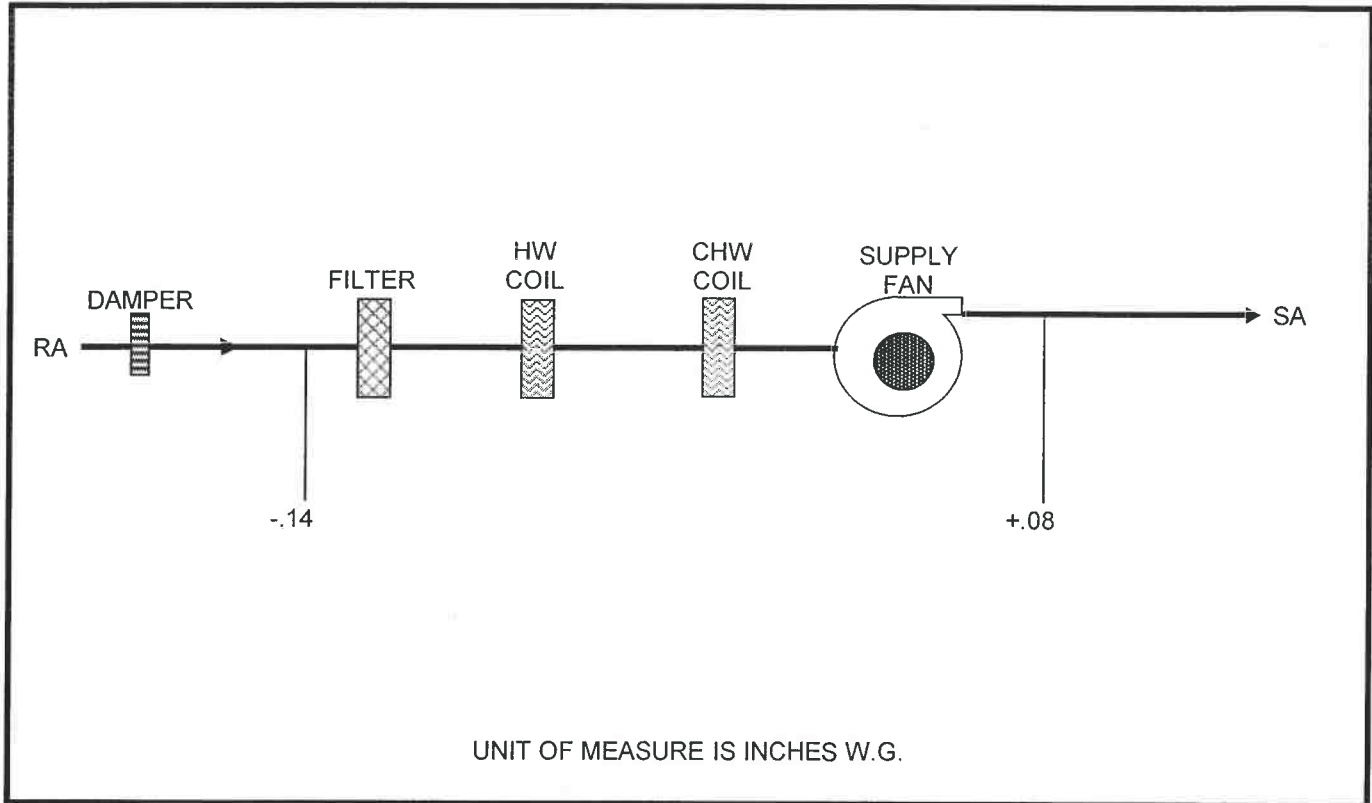
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	621
EXT SP (" WG):	.50	.22
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/209/209
AMPS T1/T2/T3:	2.4	1.7/1.8/1.7

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

FC-18-323

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-216

NEBB CERTIFIED #2453

SHEET NO. 216

FC-18-323

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
323	CLASSROOM 10		1	9X9	300	303	
323	CLASSROOM 10		2	9X9	300	318	
TOTAL CFM					600	621	
	RETURN						
323	CLASSROOM 10		1	2412	600	535	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-217

NEBB CERTIFIED #2453

SHEET NO. 217

FC-18-324

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 9

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	608
EXT SP (" WG):	.50	.38
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	211/210/211
AMPS T1/T2/T3:	2.4	1.8/1.7/1.7

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

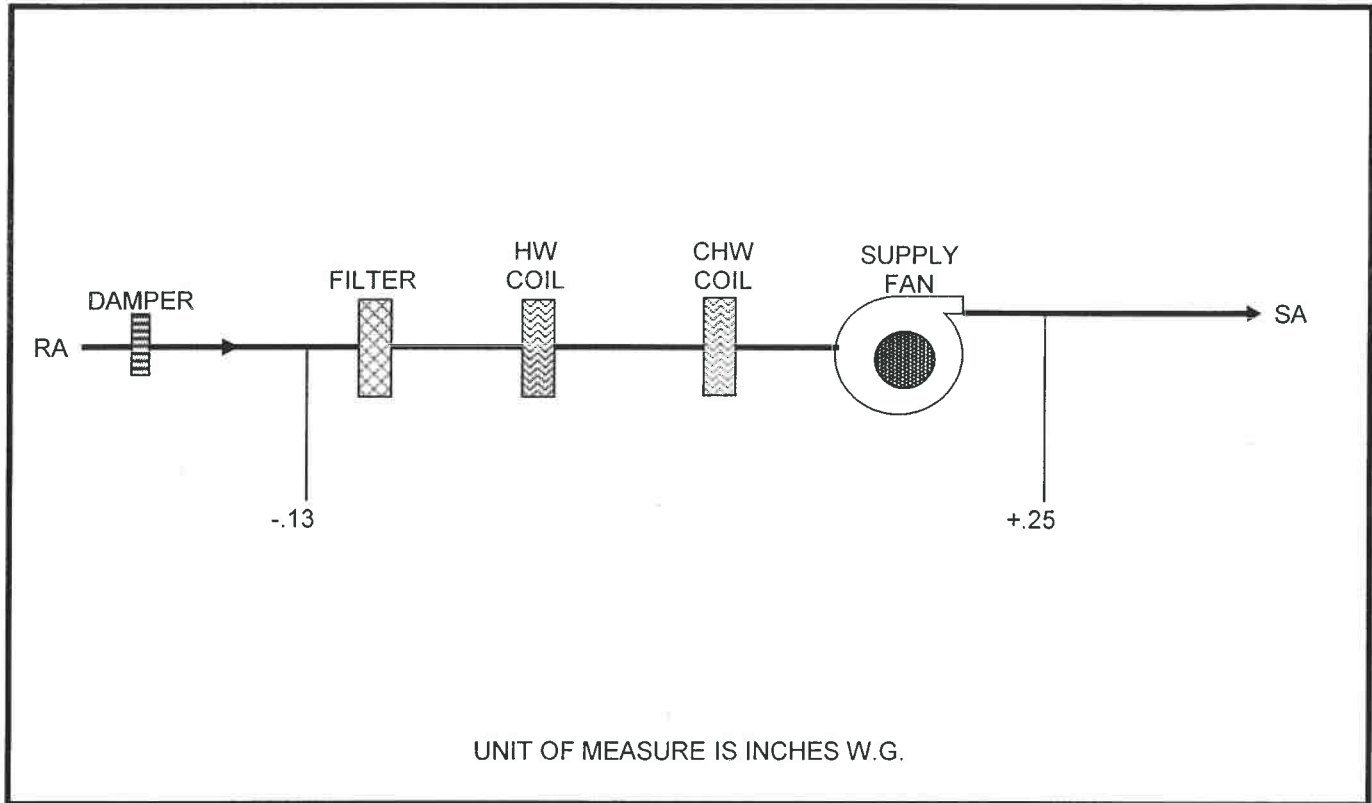
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-218

NEBB CERTIFIED #2453

SHEET NO. 218

FC-18-324

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-219

NEBB CERTIFIED #2453

SHEET NO. 219

FC-18-324

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
324	CLASSROOM 9		1	9X9	300	304	
324	CLASSROOM 9		2	9X9	300	304	
TOTAL CFM					600	608	
	RETURN						
324	CLASSROOM 9		1	2412	600	491	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-220

NEBB CERTIFIED #2453

SHEET NO. 220

FC-18-325

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 8

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	629
EXT SP (" WG):	.50	.21
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/208/208
AMPS T1/T2/T3:	2.4	1.2/1.3/1.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

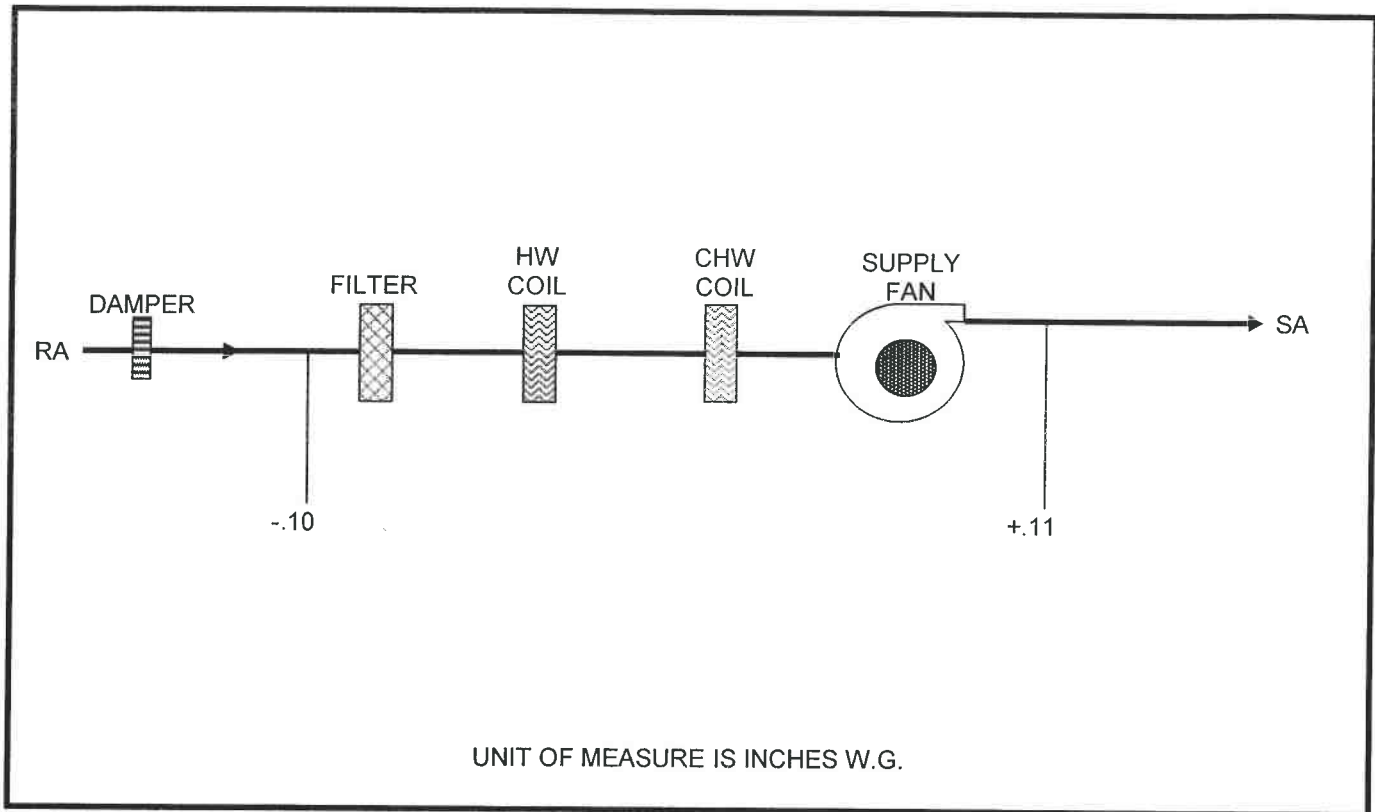
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-221

NEBB CERTIFIED #2453

SHEET NO. 221

FC-18-325

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-222

NEBB CERTIFIED #2453

SHEET NO. 222

FC-18-325

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
325	CLASSROOM 8		1	9X9	300	308	
325	CLASSROOM 8		2	9X9	300	321	
TOTAL CFM					600	629	
	RETURN						
325	CLASSROOM 8		1	2412	600	546	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-223

NEBB CERTIFIED #2453

SHEET NO. 223

FC-24-326

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 7 & TEACHER PREP

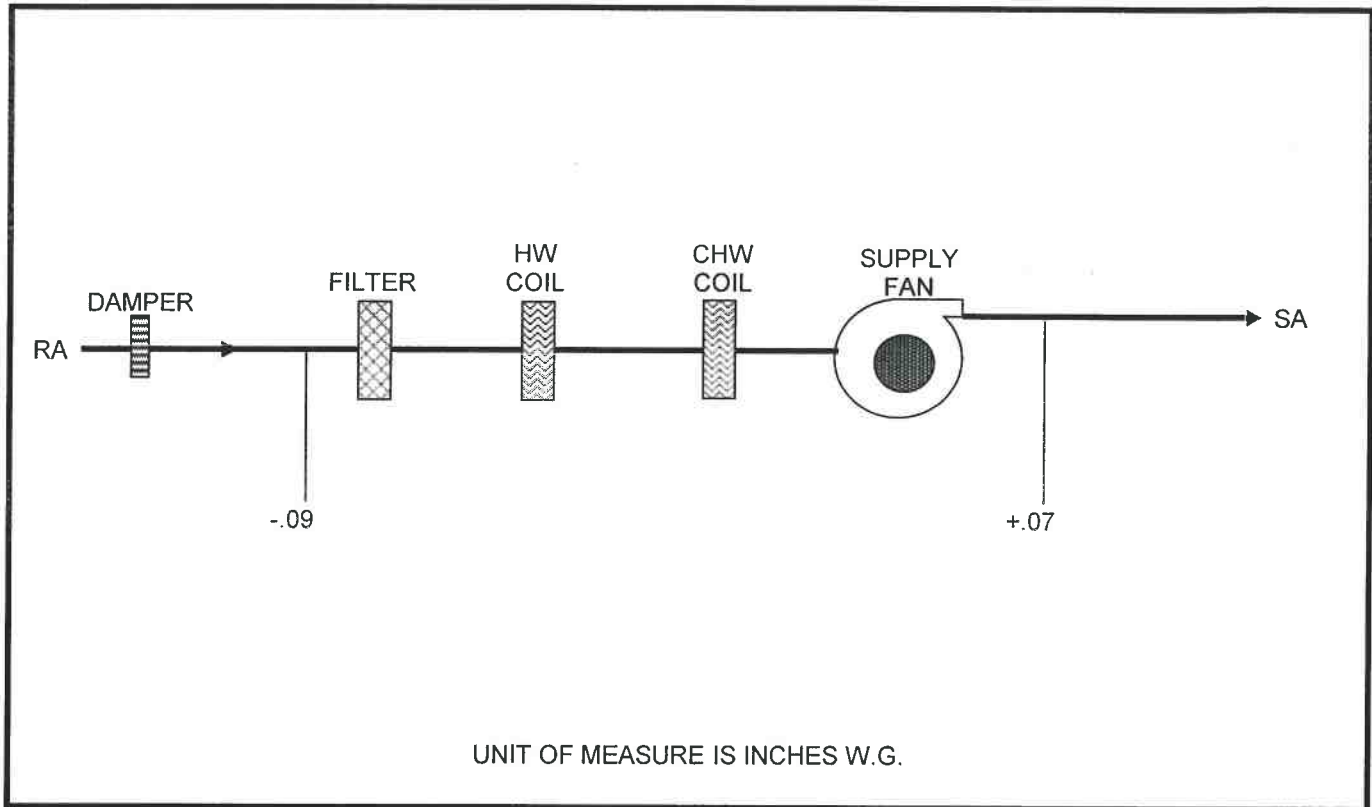
FAN LOCATION: CLASSROOM 7 CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	840	843
EXT SP (" WG):	.50	.16
FAN SPEED:	1654	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/210/209
AMPS T1/T2/T3:	2.4	1.7/1.8/1.8

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHED18EAA0
MOTOR HP:	.5

FC-24-326

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-225

NEBB CERTIFIED #2453

SHEET NO. 225

FC-24-326

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
329	TEACHER PREP		1	9X9	240	229	
326	CLASSROOM 7		2	9X9	300	318	
326	CLASSROOM 7		3	9X9	300	296	
TOTAL CFM					840	843	
	RETURN						
326	CLASSROOM 7		1	2412	600	464	1
329	TEACHER PREP		2	2408	240	194	1
TOTAL CFM					840	658	

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-226

NEBB CERTIFIED #2453

SHEET NO. 226

FC-24-327

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 6

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	875
EXT SP (" WG):	.50	.44
FAN SPEED:	1807	LOW
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/209/207
AMPS T1/T2/T3:	4.6	2.1/2.2/2.1

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

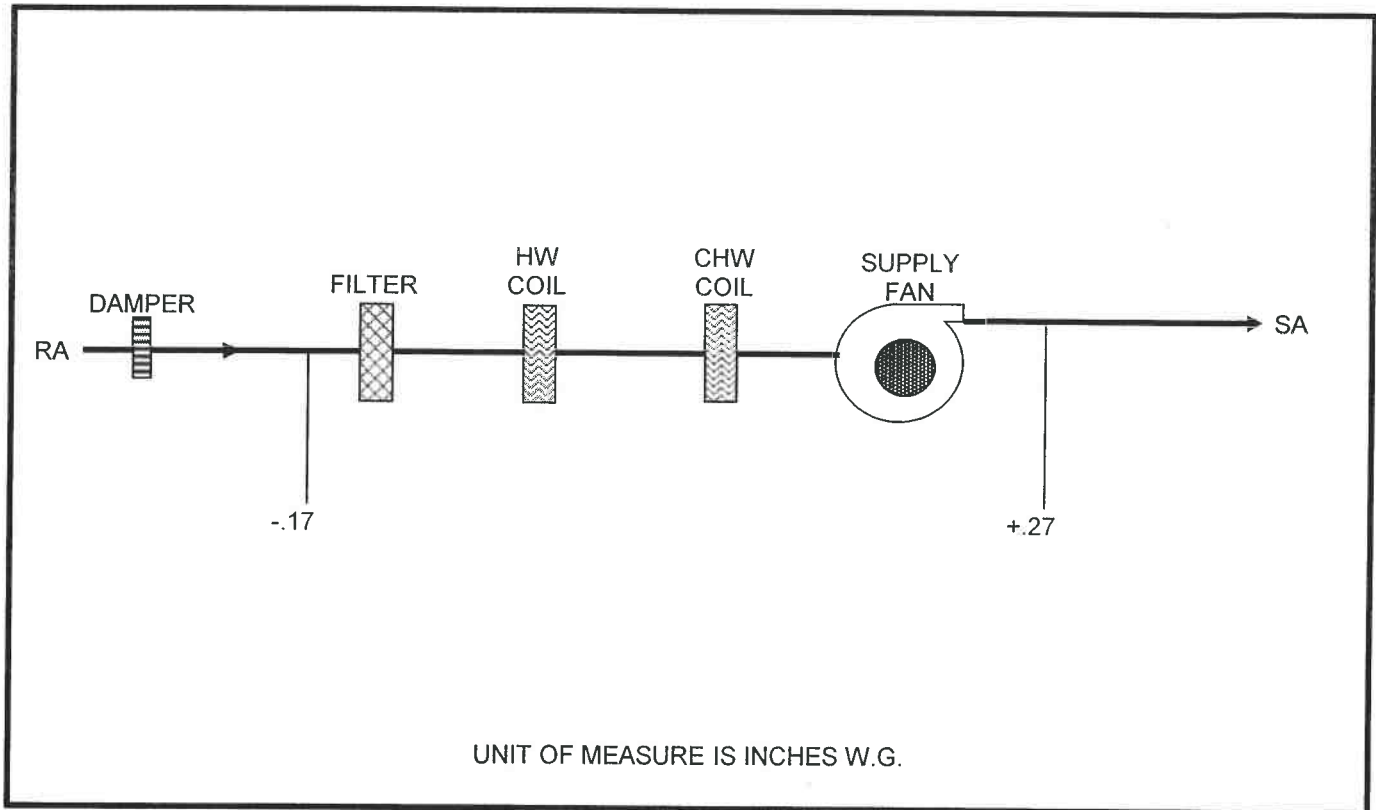
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-227

NEBB CERTIFIED #2453

SHEET NO. 227

FC-24-327

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-228

NEBB CERTIFIED #2453

SHEET NO. 228

FC-24-327

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
327	CLASSROOM 6		1	12X12	400	441	
327	CLASSROOM 6		2	12X12	400	334	
TOTAL CFM					800	775	
	RETURN						
327	CLASSROOM 6		1	2414	800	805	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-229

NEBB CERTIFIED #2453

SHEET NO. 229

FC-24-328

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 5

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	800	822
EXT SP (" WG):	.50	.4
FAN SPEED:	1807	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	207/210/208
AMPS T1/T2/T3:	4.6	1.4/1.5/1.5

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE024
MOTOR HP:	1.0

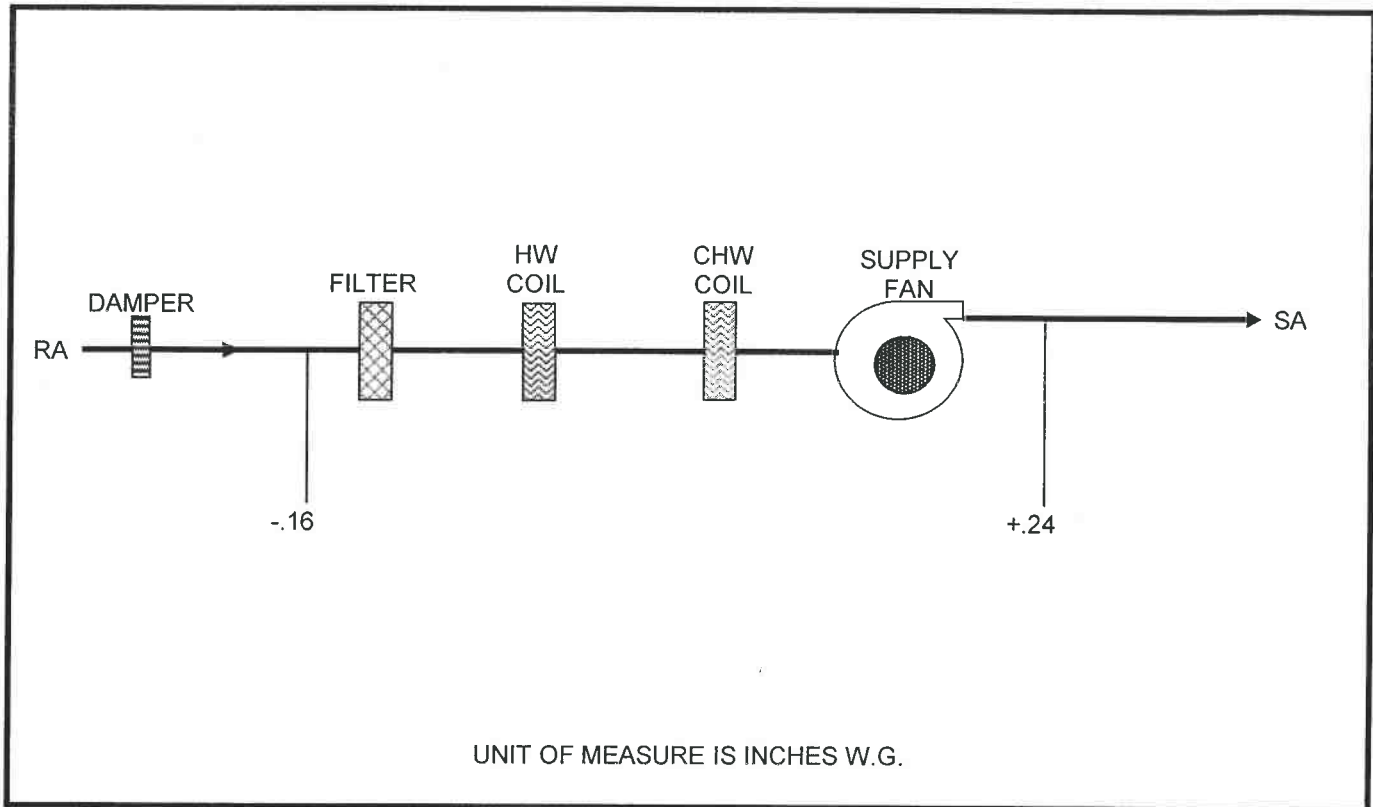
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-230

NEBB CERTIFIED #2453

SHEET NO. 230

FC-24-328

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-231

NEBB CERTIFIED #2453

SHEET NO. 231

FC-24-328

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
328	CLASSROOM 5		1	12X12	400	423	
328	CLASSROOM 5		2	12X12	400	399	
TOTAL CFM					800	822	
	RETURN						
328	CLASSROOM 5		1	2414	800	668	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-232

NEBB CERTIFIED #2453

SHEET NO. 232

FC-12-337

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: ROOM 337 & 325

FAN LOCATION: 337 CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	360	402
EXT SP (" WG):	.50	.14
FAN SPEED:	1324	LOW
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/210/210
AMPS T1/T2/T3:	2.4	.3/.3/.2

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHED12EAA
MOTOR HP:	1/2

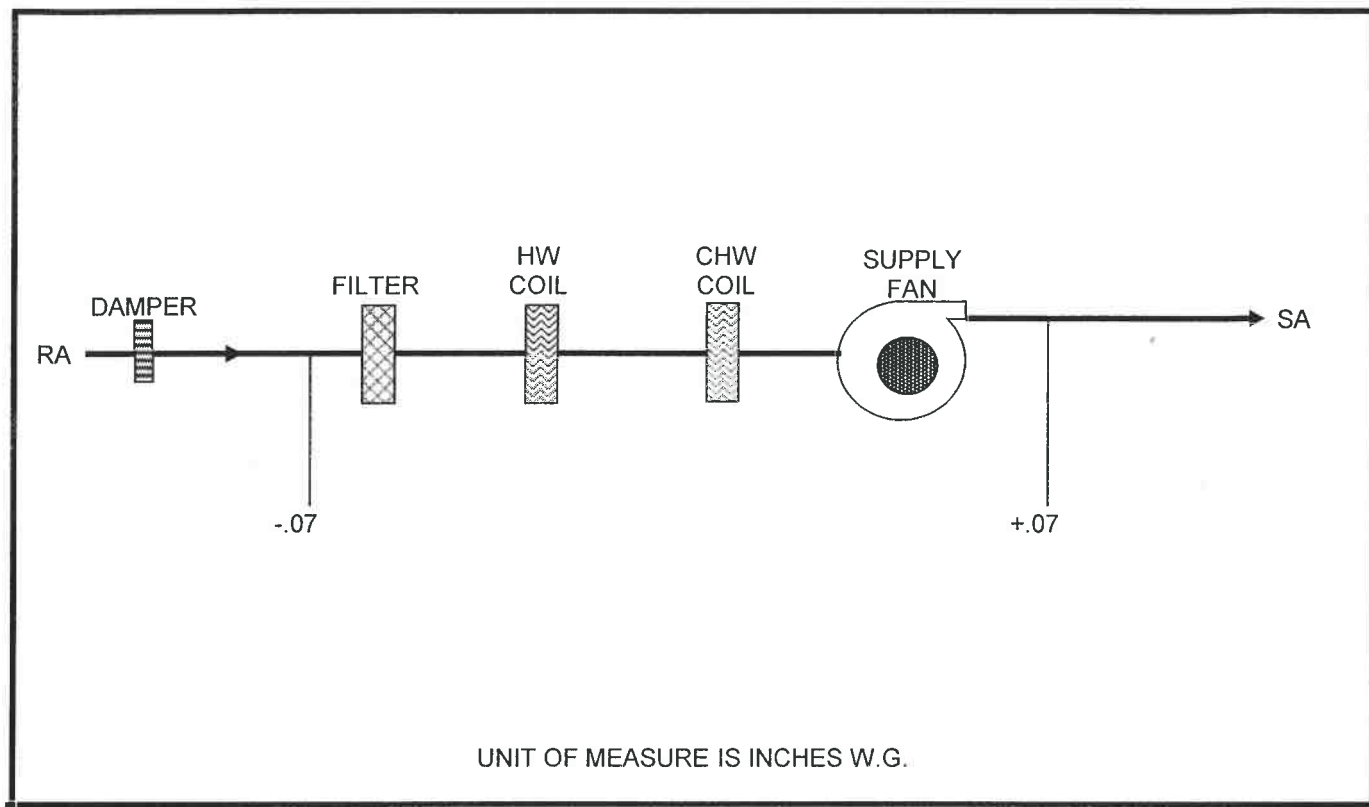
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-233

NEBB CERTIFIED #2453

SHEET NO. 233

FC-12-337

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-234

NEBB CERTIFIED #2453

SHEET NO. 234

FC-12-337

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
337	DIRECTORS OFFICE		1	9X9	180	207	
325	ADMIN OFFICE		2	9X9	180	195	
					360	402	
	RETURN						
337	DIRECTORS OFFICE		1	2408	180	135	1
325	ADMIN OFFICE		2	2408	180	136	1
					360	271	

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-235

NEBB CERTIFIED #2453

SHEET NO. 235

FC-30-338

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 4

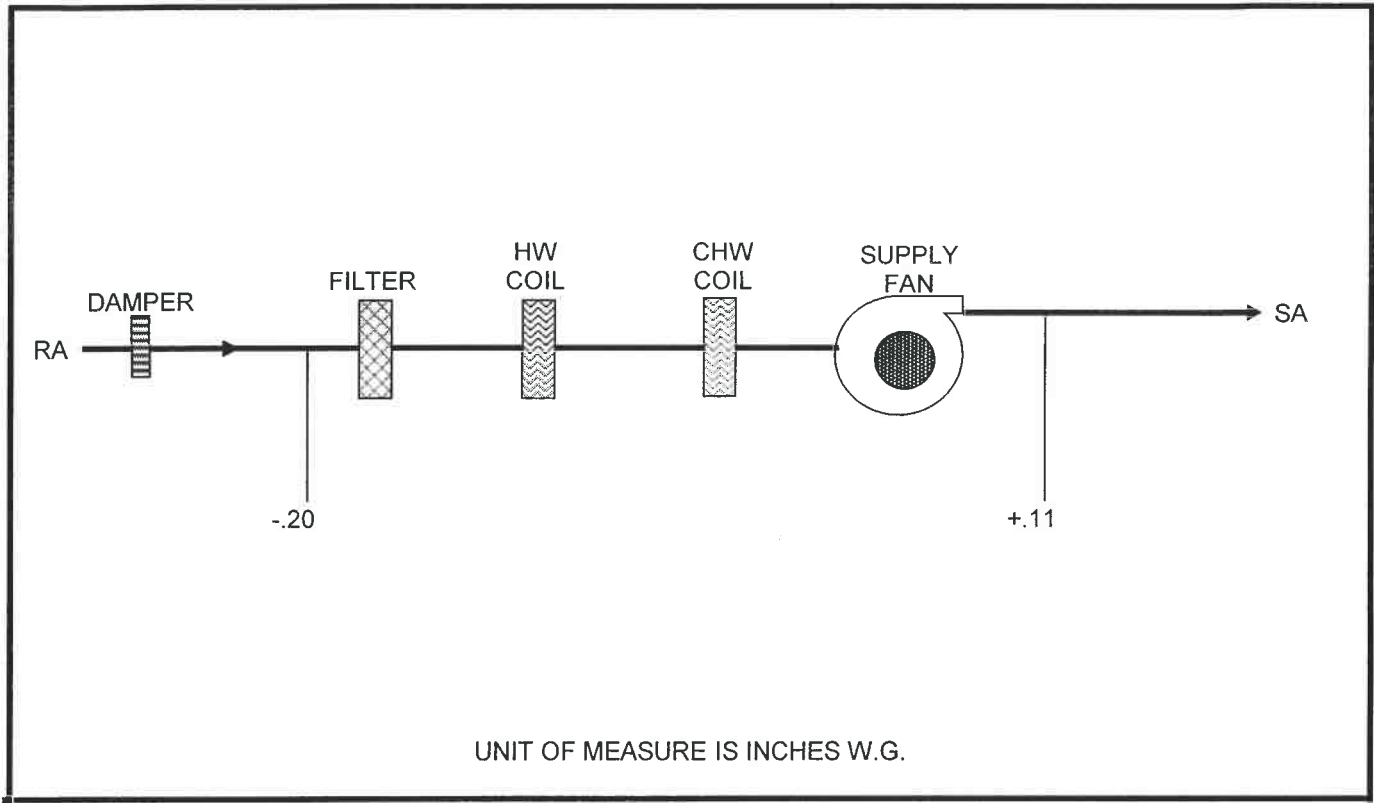
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1000	923
EXT SP (" WG):	.50	.31
FAN SPEED:	1420	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/210/210
AMPS T1/T2/T3:	2.4	1.2/1.3/1.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE030
MOTOR HP:	1/2

FC-30-338

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-237

NEBB CERTIFIED #2453

SHEET NO. 237

FC-30-338

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
338	CLASSROOM 4		1	12X12	500	451	
338	CLASSROOM 4		2	12X12	500	472	
TOTAL CFM					1000	923	
	RETURN						
338	CLASSROOM 4		1	2414	1000	807	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-238

NEBB CERTIFIED #2453

SHEET NO. 238

FC-18-339

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 3
FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	630
EXT SP (" WG):	.50	.24
FAN SPEED:	1654	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/209/209
AMPS T1/T2/T3:	2.4	1.6/1.7/1.6

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE018
MOTOR HP:	1/2

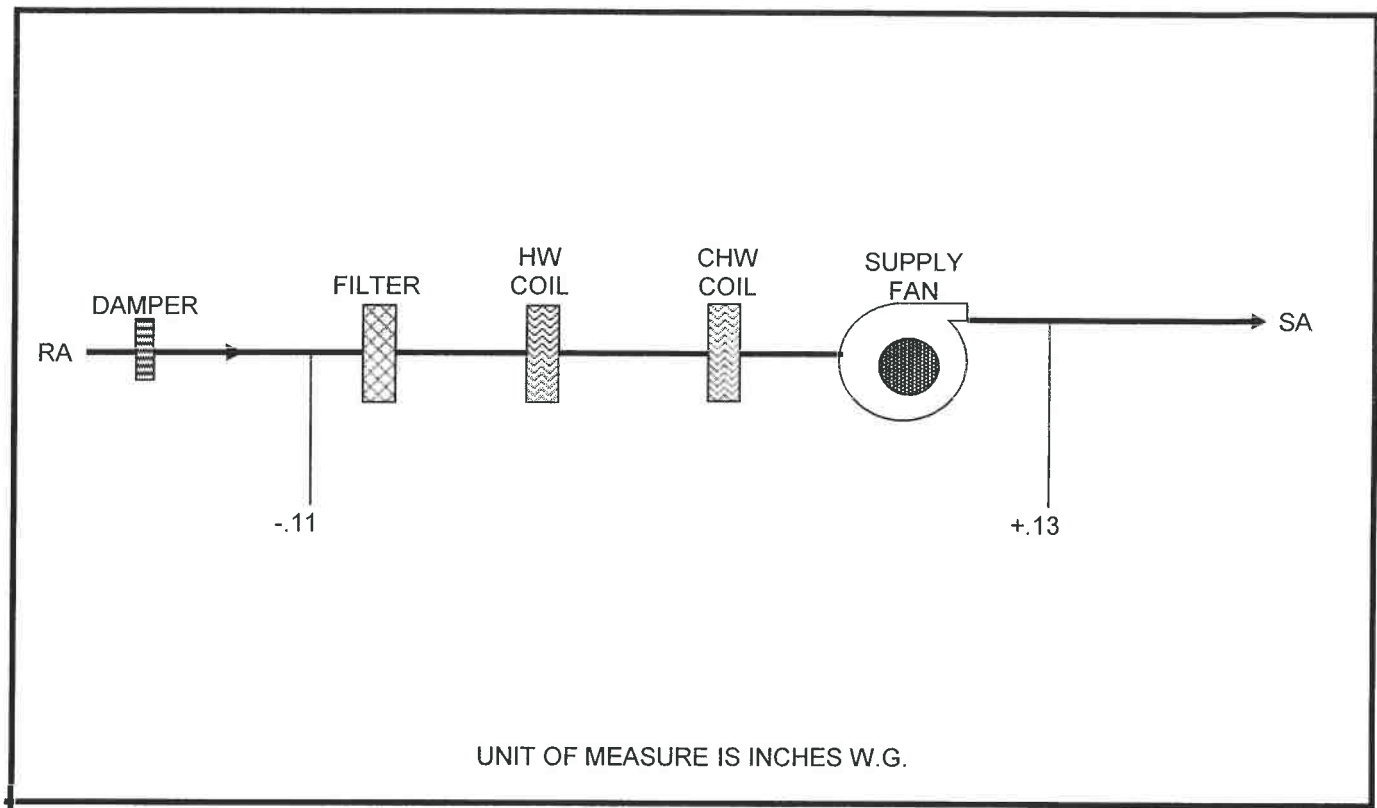
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-239

NEBB CERTIFIED #2453

SHEET NO. 239

FC-18-339

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-240

NEBB CERTIFIED #2453

SHEET NO. 240

FC-18-339

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
339	CLASSROOM 3		1	9X9	300	321	
339	CLASSROOM 3		2	9X9	300	309	
TOTAL CFM					600	630	
	RETURN						
339	CLASSROOM 3		1	2412	600	503	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-241

NEBB CERTIFIED #2453

SHEET NO. 241

FC-18-340

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 2

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	600	578
EXT SP (" WG):	.50	1.48
FAN SPEED:	1654	HIGH
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	210/209/210
AMPS T1/T2/T3:	2.4	.9/1.0/1.0

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHED18EAA0
MOTOR HP:	1/2

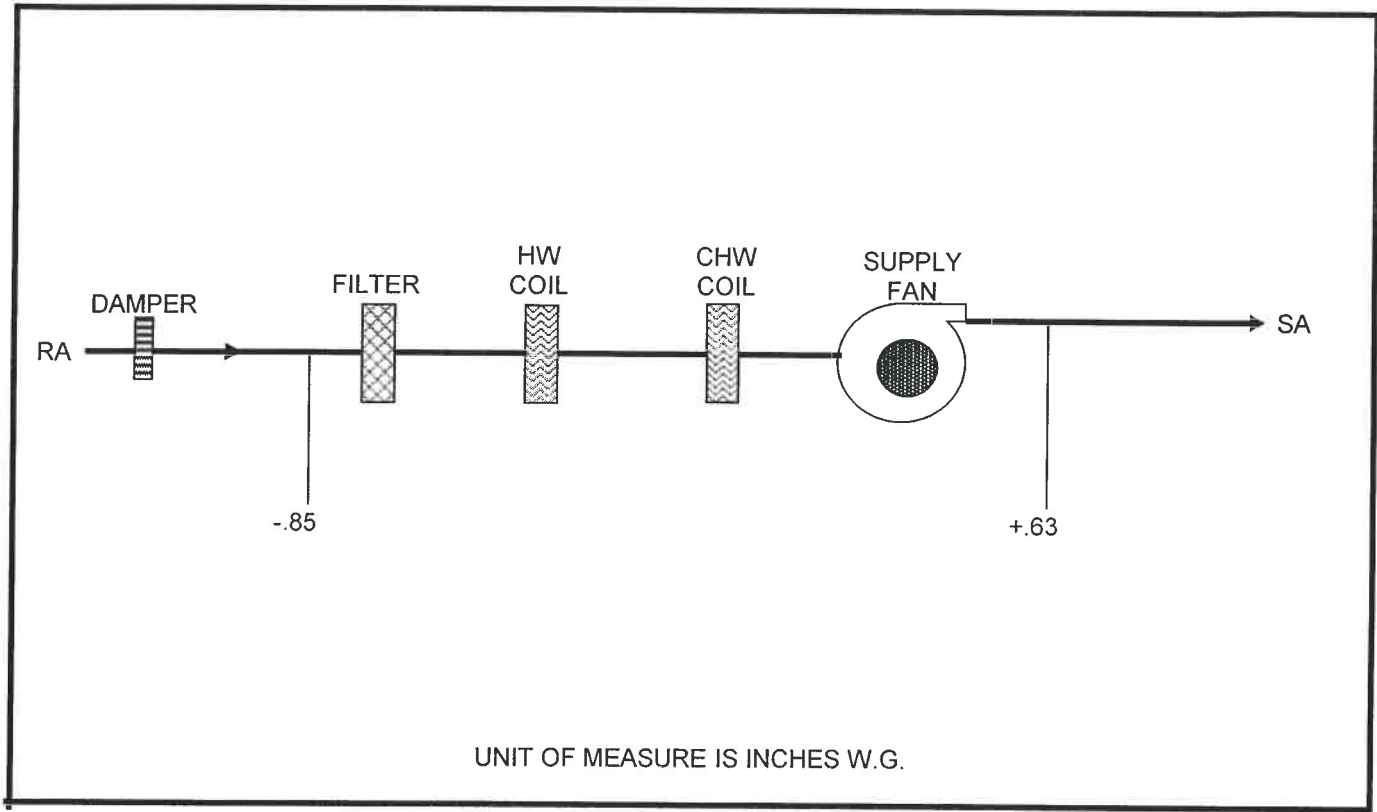
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-242

NEBB CERTIFIED #2453

SHEET NO. 242

FC-18-340

** STATIC PRESSURE PROFILE **



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-243

NEBB CERTIFIED #2453

SHEET NO. 243

FC-18-340

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
340	CLASSROOM 2		1	9X9	300	291	
340	CLASSROOM 2		2	9X9	300	287	
TOTAL CFM					600	578	
	RETURN						
340	CLASSROOM 2		1	2412	600	393	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-244

NEBB CERTIFIED #2453

SHEET NO. 244

FC-12-341

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: STAFF ROOM 341

FAN LOCATION: STAFF ROOM 341

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	400	373
EXT SP (" WG):	.50	.16
FAN SPEED:	1324	LOW
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	208/209/208
AMPS T1/T2/T3:	2.4	.3/.2/.3

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHED12EAA
MOTOR HP:	1/2

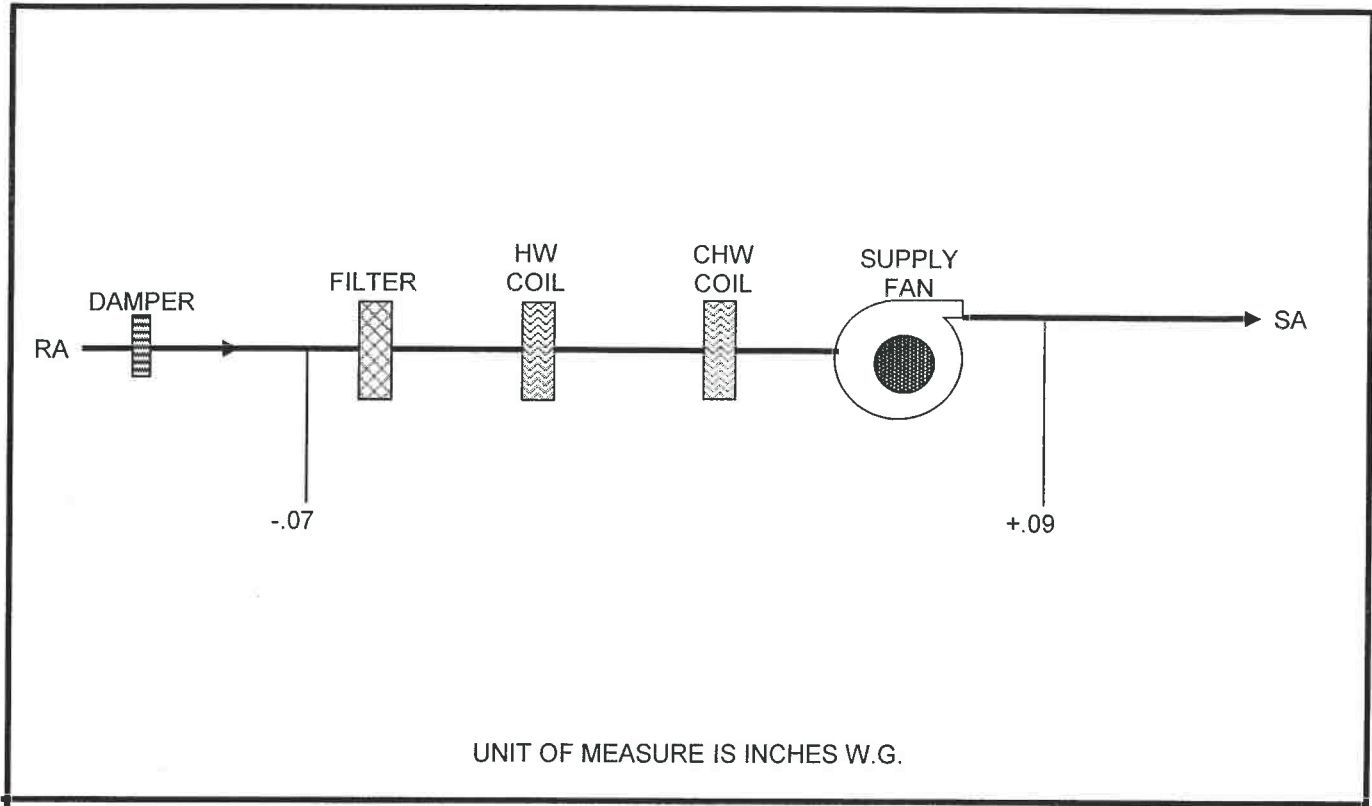
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-245

NEBB CERTIFIED #2453

SHEET NO. 245

FC-12-341

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-246

NEBB CERTIFIED #2453

SHEET NO. 246

FC-12-341

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
341	STAFF ROOM		1	9X9	200	186	
341	STAFF ROOM		2	9X9	200	187	
TOTAL CFM					400	373	
	RETURN						
341	STAFF ROOM		1	2410	400	262	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-247

NEBB CERTIFIED #2453

SHEET NO. 247

FC-30-342

** DIRECT DRIVE SUPPLY FAN REPORT **

AREA SERVED: CLASSROOM 1

FAN LOCATION: CEILING

FAN PERFORMANCE DATA		
	DESIGN	ACTUAL
CFM:	1000 / 900 (NOTE)	894
EXT SP (" WG):	.50	.56
FAN SPEED:	1420	MED
VOLTS/PHASE/CYCLE:	208/3/60	N/A
T1-T2/T2-T3/T1-T3:	N/A	209/210/209
AMPS T1/T2/T3:	2.4	1.5/1.4/1.5

UNIT / MOTOR DATA	
FAN MANUFACTURER:	TRANE
FAN MODEL NO:	BCHE030
MOTOR HP:	1/2

NOTE: FAN DESIGN / OUTLET TOTAL

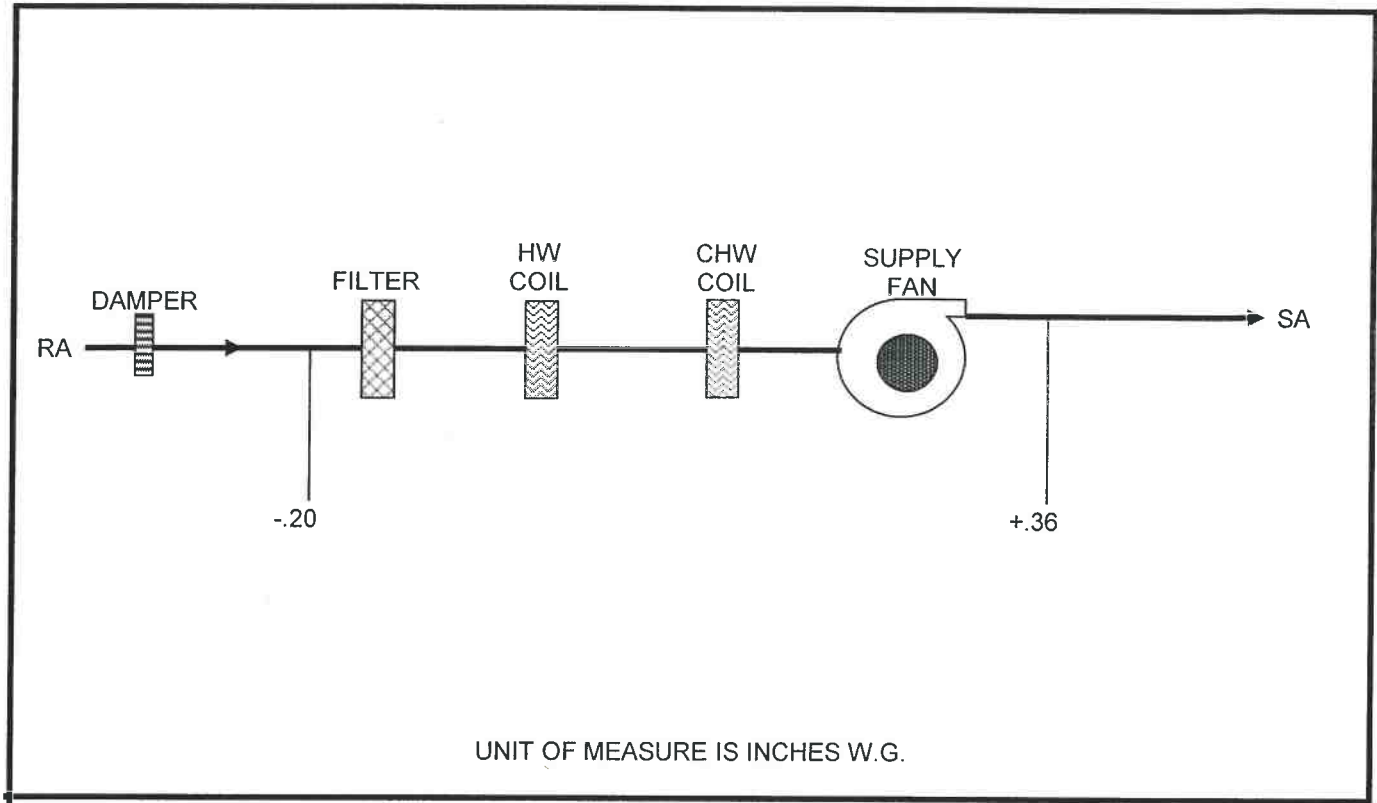
PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-248

NEBB CERTIFIED #2453

SHEET NO. 248

FC-30-342

**** STATIC PRESSURE PROFILE ****



PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-249

NEBB CERTIFIED #2453

SHEET NO. 249

FC-30-342

** AIR OUTLET/ INLET REPORT **

ROOM NO.	DESIGNATION		NO.	SIZE	DESIGN CFM	ACTUAL CFM	NOTES
	SUPPLY						
342	CLASSROOM 1		1	9X9	225	241	
342	CLASSROOM 1		2	9X9	225	222	
342	CLASSROOM 1		3	9X9	225	215	
342	CLASSROOM 1		4	9X9	225	216	
TOTAL CFM					900	894	
	RETURN						
342	CLASSROOM 1		1	2414	900	834	1

NOTE 1: 1.10 HOOD FACTOR

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-250

NEBB CERTIFIED #2453

SHEET NO. 250

Firm Certification Number: 2453

Firm Name: Air Balancing Service Company

Certification: Testing, Adjusting and Balancing of Environmental Systems

Certified Professional Name: CHARLES W. BRUMLEY

Expiration Date: 12/31/24



Ch W. Brumley

**** WATER INSTRUMENT CALIBRATION REPORT ****

INSTRUMENT SERIAL NUMBER	APPLICATION	CALIBRATION
SHORTRIDGE HYDRODATA MULTIMETER HDM-250 SERIAL NO. W18060	FLUID DIFFERENTIAL PRESSURE, TEMPERATURE	8/4/2025
EXTECH DIG THERMOMETER RH390 SERIAL NO. A21031496	TEMPERATURE / HUMIDITY	8/4/2025
FLUKE 52/II SERIAL NO. 7092090	TEMPERATURE	8/4/2025
FLUKE AMMETER 323 SERIAL NO. 37642839WS	VOLTAGE AND AMPERAGE	8/4/2025

Pro-Calibration, LLC Calibration Data Sheet

Submitted by: Air Balancing Service Co.
 Manufacturer: Shortridge Instruments
 Model Number: HDM-250
 Serial Number: W18060
 Description: Hydrodata Multimeter

Asset Number #: ABSC-023
 Cal. Technician: CT2
 Cal. Date: 8/04/24
 Due Date: 8/04/25
 Cal. Procedure: Manufacturer Specifications
 Cal. Interval: 12 Months

Page 1 of 1

Standards Used:

1066 1082 1124

Temperature: 21Deg.C.

Barometric Pressure: 29.97"HG.

Humidity: 45%RH.

#	Tested Function	Range	Standard	Unt. Meas. Val.	After Adj.	Allowable Range
1	Differential Pressure	0.01 - 250/psi	1.000	1.00		+0.980 / +1.020
	±2.0%, ±last digit		10.00	10.0		+9.80 / +10.20
			50.00	50.1		+49.0 / +51.0
			100.00	100.1		+98.0 / +102.0
			200.00	200.2		+196.0 / +204.0
			240.00	240.2		+235.2 / +244.8
2	Temperature	-65/+250°F	5.00	5.2		4.5 - 5.5°F
	+/- 0.5°F		32.00	32.2		31.5 - 32.5°F
	+/- 0.5°F		77.00	77.2		76.5 - 77.5°F
	+/- 1.0°F		100.00	100.2		99.0 - 101.0°F
	+/- 1.0°F		230.00	230.2		229.0 - 231.0°F

Note;

Pro-Calibration, LLC 480 Harwich Rd. Brewster, MA 02631
 774-323-3662

www.pro-calibration.com
 Veteran owned and operated

Pro-Calibration, LLC Calibration Data Sheet

Page 1 of 1

Cal. Technician: CT2
Cal. Date: 8/04/24
Due Date: 8/04/25
Cal. Procedure: Manufacturer Specifications
Cal. Interval: 12 Months

Standards Used:

1057

1081

Barometric Pressure: 29.97" HG.

Humidity: 45%RH

#	Tested Function	Range	Standard	Uut. Meas. Val.	After Adj.	Tolerance
1	Temperature	-20 / +70°C	22.39	22.0		± 1.0°C
2	Relative Humidity	0.0 – 100.0 %rh	33.07	34.8		±2%RH
			55.33	56.8		
			75.47	77.1		(20%-90%)
3	Wet Bulb	0 - 80°C	16.7	16.8		Calculated
4	Dew Point	-30 / 100°C	13.1	13.8		Calculated

Pro-Calibration, LLC Calibration Data Sheet

Submitted by: Air Balancing Service Co.
 Manufacturer: Fluke
 Model Number: 52/II
 Serial Number: 7092090
 Description: Digital Thermometer

Asset Number #: ABSC-046
 Cal. Technician: CT2
 Cal. Date: 8/04/24
 Due Date: 8/04/25
 Cal. Procedure: Manufacturer Specifications
 Cal. Interval: 12 Months

Page 1 of 1

Standards Used:

1153

Temperature: 21Deg.C. Barometric Pressure: 29.97HG. Humidity: 45%RH

#	Tested Function	Range	Standard	Unt. Meas. Val.	After Adj.	Tolerance
1.	Temperature T1	-200 /+1370°C	-100.00 °C	-99.8		± 0.1% rdg +0.7°C
			-20.00 °C	-19.8		± 0.1% rdg +0.7°C
			0.00 °C	0.1		± 0.1% rdg +0.7°C
			100.00 °C	100.1		± 0.1% rdg +0.7°C
			1200.00°C	1200		± 0.1% rdg +0.7°C
2	Temperature T2	-200 /+1370°C	-100.00 °C	-99.9		± 0.1% rdg +0.7°C
			-20.00 °C	-19.9		± 0.1% rdg +0.7°C
			0.00 °C	-0.0		± 0.1% rdg +0.7°C
			100.00 °C	100.1		± 0.1% rdg +0.7°C
			1200.00°C	1200		± 0.1% rdg +0.7°C

Pro-Calibration, LLC Calibration Data Sheet

Page 1 of 1

Submitted by: Air Balancing Service, Co.
 Manufacturer: Fluke
 Model Number: 323 True RMS
 Serial Number: 37642839WS
 Description: Clamp Meter
 Asset Number: ABSC-010

Cal. Technician: CT2
 Cal. Date: 8/04/24
 Due Date: 8/04/25
 Cal. Procedure: Manufacturer Specifications
 Cal. Interval: 12 Months

Standards Used:

1153

Temperature: 21Deg.C Barometric Pressure: 29.97"HG Humidity: 45%RH

#	Tested Function	Range	Standard	Unt. Meas. Val.	After Adj.	Tolerance
1.	DC Voltage	0 - 600.0 V	10.0000V	10.0		1% +/- 5 counts
			100.000V	99.8		1% +/- 5 counts
			500.00V	499.5		1% +/- 5 counts
2.	AC Voltage @ (60Hz)	0 - 600.0 V	10.0000V	10.0		1.5% +/- 5 counts
			100.000V	100.0		1.5% +/- 5 counts
			500.00V	499.6		1.5% +/- 5 counts
3.	AC Current @ (60 Hz)	0 - 400.0 A	10.0000A	10.0		2.0% +/- 5 counts
			100.000A	100.0		2.0% +/- 5 counts
			390.00A	391.3		2.0% +/- 5 counts
4.	Resistance	0 - 400.0 Ω	10.0000 Ω	10.0		1% - 5 counts
			100.000 Ω	100.0		1% - 5 counts
			375.00 Ω	376		1% - 5 counts
5	Continuity / Audible	$\leq 30\Omega$	Check	OK		$\leq 30\Omega$

Pro-Calibration, LLC 480 Harwich Rd. Brewster, MA 02631
 774-323-3662

www.pro-calibration.com
 Veteran owned and operated

WATER GLOSSARY

ABBREVIATION / MEANING

ABBREVIATION / MEANING

ACT	ACTUAL	GPM	GALLONS PER MINUTE
AMP	AMPERAGE	HP	HORSE POWER
AVAIL	AVAILABLE	HWC	HOT WATER COIL
BAL	BALANCE	IU	INDUCTION UNIT
BB	BASEBOARD	LAT	LEAVING AIR TEMPERATURE
CWC	CHILLED WATER COIL	LVG	LEAVING
CONV	CONVECTOR	LWT	LEAVING WATER TEMPERATURE
CS	CIRCUIT SETTER	MFR	MANUFACTURER
CS	CARBON STEEL (ULTRASOUND ONLY)	N/A	NOT APPLICABLE/NOT AVAILABLE
CU	COPPER	NO.	NUMBER
CUH	CABINET UNIT HEATER	OD	OUTSIDE DIAMETER
CV	CONTROL VALVE	PRESS	PRESSURE
DEL	DELIVERED	PSI	POUNDS PER SQUARE INCH
DES	DESIGN	RCP	RADIANT CEILING PANEL
DIFF	DIFFERENTIAL	RHC	REHEAT COIL
EAT	ENTERING AIR TEMPERATURE	RPM	REVOLUTIONS PER MINUTE
ELEM	ELEMENT	SF	SERVICE FACTOR
ENT	ENTERING	SS	STAINLESS STEEL
EWT	ENTERING WATER TEMPERATURE	TDH	TOTAL DYNAMIC HEAD
FCU	FAN COIL UNIT	TEMP	TEMPERATURE
FPS	FEET PER SECOND	UH	UNIT HEATER
FTR	FINTUBE RADIATION	VFD	VARIABLE FREQUENCY DRIVE
GPH	GALLONS PER HOUR	WTR	WATER

CHWP-1

** PUMP REPORT **

PUMP LOCATION: BOILER ROOM 345

AREA SERVED: FCU'S

PUMP PERFORMANCE DATA		
	DESIGN	ACTUAL
GPM:	243.6 / 311.3 (NOTE 1)	267 (NOTE 2)
TDH ('):	97.2	81.2
RPM:	4173	4509
VOLTS/PHASE/CYCLE:	460/3/60	N/A
T1-T1/T2-T3/T1-T3:	N/A	481/479/482
AMPS T1/T2/T3:	N/A	12.1/11.8/12.2

PUMP / MOTOR DATA	
PUMP MANUFACTURER:	ARMSTRONG
PUMP SIZE:	2X2X5
HP:	10
DISCHARGE PRESSURE ('):	142.3
SUCTION PRESSURE ('):	61.1
PRESSURE DIFFERENTIAL ('):	81.2
BALANCE VALVE POSITION:	100% OPEN
MOTOR MANUFACTURER:	ARMSTRONG
MOTOR FRAME:	IEC 112
IMPELLER SIZE ("):	4.97
SYSTEM PRESSURE (PSI):	38
VFD SETTING:	60 HZ
DIFF. PRESSURE SETPOINT:	30 PSI

NOTE: TOTAL DYNAMIC HEAD AT NO FLOW CONDITION = 142.1' - 41.2' = 100.9'

NOTE 1: PUMP DESIGN / ELEMENT TOTAL

NOTE 2: 266 GPM ON VFD

PROJECT: CES CLASSROOMS

SUBMITTED BY: AIR BALANCING SERVICE CO.

CODE: 24071-251

NEBB CERTIFIED #2453

SHEET NO. 251

CHWP-2

** PUMP REPORT **

PUMP LOCATION: BOILER ROOM 345

AREA SERVED: FCU'S

PUMP PERFORMANCE DATA		
	DESIGN	ACTUAL
GPM:	243.6 / 311.3 (NOTE 1)	266 (NOTE 2)
TDH ('):	97.2	81.3
RPM:	4173	4484
VOLTS/PHASE/CYCLE:	460/3/60	N/A
T1-T1/T2-T3/T1-T3:	N/A	480/477/483
AMPS T1/T2/T3:	N/A	11.7/12.2/12.0

PUMP / MOTOR DATA	
PUMP MANUFACTURER:	ARMSTRONG
PUMP SIZE:	2X2X5
HP:	10
DISCHARGE PRESSURE ('):	144.6
SUCTION PRESSURE ('):	63.3
PRESSURE DIFFERENTIAL ('):	81.3
BALANCE VALVE POSITION:	100% OPEN
MOTOR MANUFACTURER:	ARMSTRONG
MOTOR FRAME:	IEC 112
IMPELLER SIZE ("):	4.97
SYSTEM PRESSURE (PSI):	38
VFD SETTING:	60 HZ
DIFF. PRESSURE SETPOINT:	30 PSI

NOTE: TOTAL DYNAMIC HEAD AT NO FLOW CONDITION = 143.3' - 40.1' = 103.2'

NOTE 1: PUMP DESIGN / ELEMENT TOTAL

NOTE 2: 284 GPM ON VFD

PROJECT: CES CLASSROOMS

SUBMITTED BY: AIR BALANCING SERVICE CO.

CODE: 24071-252

NEBB CERTIFIED #2453

SHEET NO. 252

** CHILLED WATER REPORT **

ROOM NO.	DESIGNATION		NO.	ELEMENT	CS SIZE (INCHES)	DIFFERENTIAL PRESSURE (INCH)	CS FINAL SET	DESIGN GPM	FINAL GPM	NOTES
	FC-36-301		1	CHWC	3/4	5.8	55	1.40	1.44	
	FC-12-341		2	CHWC	3/4	15.3	50	2.30	2.35	
	FC-36-342		3	CHWC	3/4	91.7	20	5.70	5.75	
	FC-12-320B		4	CHWC	3/4	15.3	50	2.30	2.35	
	FC-18-340		5	CHWC	3/4	37.6	40	3.70	3.68	
	FC-18-339		6	CHWC	3/4	35.9	40	3.70	3.59	
	FC-36-338		7	CHWC	3/4	88.7	30	5.70	5.65	
	FC-24-328		8	CHWC	3/4	70.3	30	4.90	5.03	
	FC-24-327		9	CHWC	3/4	68.3	30	4.90	4.96	
	FC-18-326		10	CHWC	3/4	35.8	40	3.70	3.59	
	FC-18-325		11	CHWC	3/4	36.6	40	3.70	3.63	
	FC-18-336		12	CHWC	3/4	37.1	40	3.70	3.65	
	FC-18-324		13	CHWC	3/4	37.3	40	3.70	3.66	
	FC-12-320A		14	CHWC	3/4	16.7	45	2.30	2.45	
	FC-18-323		15	CHWC	3/4	36.6	35	3.70	3.63	
	FC-24-322		16	CHWC	3/4	70.9	25	4.90	5.05	
	FC-24-321		17	CHWC	3/4	67.3	30	4.90	4.92	
	FC-24-319		18	CHWC	3/4	68.1	30	4.90	4.95	
	FC-12-320C		19	CHWC	3/4	16.3	40	2.30	2.42	
	FC-18-312		20	CHWC	3/4	36.9	40	3.70	3.65	
	FC-24-310		21	CHWC	3/4	15.4	50	2.30	2.35	
	FC-12-320D		22	CHWC	3/4	38.0	40	3.70	3.70	
	FC-18-302		23	CHWC	3/4	N/A	N/A	3.70	N/A	
	FC-18-308		24	CHWC	3/4	39.1	40	3.70	3.75	
	FC-30-305		25	CHWC	3/4	95.9	25	5.70	5.88	
	FC-30-304		26	CHWC	3/4	86.9	25	5.70	5.59	
	FC-30-201		27	CHWC	3/4S	26.8 FT	34	3.70	3.75	2
	FC-12-242		28	CHWC	3/4	16.1	45	2.30	2.41	
	FC-24-244		29	CHWC	3/4	65.6	30	4.90	4.86	
	FC-12-223B		30	CHWC	3/4	14.0	45	2.30	2.24	

NOTE 1: CIRCUIT SETTER MANUFACTURER: TACO

NOTE 2: CIRCUIT SETTER MANUFACTURER: BELL & GOSSETT - MEASURED IN FEET

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO
CODE: 24071-253

NEBB CERTIFIED #2453

SHEET NO. 253

** CHILLED WATER REPORT **

ROOM NO.	DESIGNATION		NO.	ELEMENT	CS SIZE (INCHES)	DIFFERENTIAL PRESSURE (INCH)	CS FINAL SET	DESIGN GPM	FINAL GPM	NOTES
	FC-18-241		31	CHWC	3/4	37.5	40	3.70	3.69	
	FC-18-240		32	CHWC	3/4	36.6	45	3.70	3.63	
	FC-36-239		33	CHWC	3/4	92.6	40	5.70	5.77	
	FC-24-232		34	CHWC	3/4S	15.8 FT	22	4.90	4.77	2
	FC-24-231		35	CHWC	3/4S	15.8 FT	22	4.90	4.77	2
	FC-18-230		36	CHWC	3/4	38.4	35	3.70	3.72	
	FC-18-229		37	CHWC	3/4	43.3 FT	40	3.70	3.74	2
	FC-12-224		38	CHWC	3/4S	37.7	40	3.70	3.68	
	FC-18-228		39	CHWC	3/4	39.5	40	3.70	3.77	
	FC-12-223A		40	CHWC	3/4	15.6	50	2.30	2.37	
	FC-18-227		41	CHWC	3/4	37.5	30	3.70	3.67	
	FC-24-226		42	CHWC	3/4	69.2	30	4.90	4.99	
	FC-24-221		43	CHWC	3/4	65.2	35	4.90	4.84	
	FC-24-222		44	CHWC	3/4	65.3	30	4.90	4.85	
	FC-12-223C		45	CHWC	3/4	16.7	45	2.30	2.45	
	FC-18-213		46	CHWC	3/4	39.2	35	3.70	3.76	
	FC-12-223D		48	CHWC	3/4	16.1	50	2.30	2.41	
	FC-24-202		49	CHWC	3/4	74.8	30	4.90	5.19	
	FC-24-212		50	CHWC	3/4	71.1	30	4.90	5.06	
	FC-36-203		51	CHWC	3/4	157.9	15	7.5	7.54	
	FC-24-101		52	CHWC	3/4	36.3	35	3.70	3.61	
	FC-18-144		53	CHWC	3/4	41.1	40	3.70	3.85	
	FC-36-102		54	CHWC	3/4	174.2	15	7.50	7.92	
	FC-18-140		55	CHWC	3/4	38.5	35	3.70	3.72	
	FC-12-127D		56	CHWC	3/4S	3.36 FT	20	2.30	2.37	2
	FC-18-139		57	CHWC	3/4	36.5	35	3.70	3.62	
	FC-36-138		58	CHWC	3/4	92.8	0	5.70	5.78	
	FC-12-135		59	CHWC	3/4	16.3	0	2.30	2.42	
	FC-24-133		60	CHWC	3/4	71.1	30	4.90	5.06	

NOTE 1: CIRCUIT SETTER MANUFACTURER: TACO

NOTE 2: CIRCUIT SETTER MANUFACTURER: BELL & GOSSETT - MEASURED IN FEET

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO
CODE: 24071-254

NEBB CERTIFIED #2453

SHEET NO. 254

** CHILLED WATER REPORT **

ROOM NO.	DESIGNATION		NO.	ELEMENT	CS SIZE (INCHES)	DIFFERENTIAL PRESSURE (INCH)	CS FINAL SET	DESIGN GPM	FINAL GPM	NOTES
	FC-18-132		61	CHWC	3/4	42.3	30	3.70	3.89	
	FC-18-131		62	CHWC	3/4	40.6	40	3.70	3.82	
	FC-18-130		63	CHWC	3/4	38.5	40	3.70	3.72	
	FC-36-128		64	CHWC	3/4	173.2	0	7.50	7.89	
	FC-18-129		65	CHWC	3/4	41.5	36	3.70	3.85	
	FC-12-127A		66	CHWC	3/4	16.3	45	2.30	2.42	
	FC-12-125		67	CHWC	3/4	17.7	45	2.30	2.52	
	FC-36-123		68	CHWC	3/4	93.7	20	5.70	5.81	
	FC-24-119		69	CHWC	3/4	66.7	25	4.90	4.79	
	FC-18-113		70	CHWC	3/4	34.3	40	3.70	3.51	
	FC-18-126		71	CHWC	3/4	41.8	36	3.70	3.86	
	FC-12-127B		72	CHWC	3/4	17.2	50	2.30	2.48	
	FC-18-111		73	CHWC	3/4	36.2	40	3.70	3.61	
	FC-18-110		74	CHWC	3/4	39.1	40	3.70	3.75	
	FC-36-107A		75	CHWC	3/4	171.3	0	7.50	7.85	
	FC-36-107B		76	CHWC	3/4	162.8	0	7.50	7.66	
	FC-12-127C		77	CHWC	3/4	17.4	50	2.30	2.50	
	FC-36-108		78	CHWC	3/4	163.8	0	7.50	7.68	

NOTE 1: CIRCUIT SETTER MANUFACTURER: TACO

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO
CODE: 24071-255

NEBB CERTIFIED #2453

SHEET NO. 255

HWP-1

** PUMP REPORT **

PUMP LOCATION: BOILER ROOM 345

AREA SERVED: FCU'S

PUMP PERFORMANCE DATA		
	DESIGN	ACTUAL
GPM:	63.3 / 187.97 (NOTE 1)	64
TDH ('):	72.8	71.1
RPM:	2965	2992
VOLTS/PHASE/CYCLE:	460/3/60	N/A
T1-T1/T2-T3/T1-T3:	N/A	481/482/482
AMPS T1/T2/T3:	N/A	3.4/3.5/3.6

PUMP / MOTOR DATA	
PUMP MANUFACTURER:	ARMSTRONG
PUMP SIZE:	1.5X1.5X5
HP:	3
DISCHARGE PRESSURE ('):	123.1
SUCTION PRESSURE ('):	52.0
PRESSURE DIFFERENTIAL ('):	71.1
BALANCE VALVE POSITION:	100% OPEN
MOTOR MANUFACTURER:	ARMSTRONG
MOTOR FRAME:	IEC 90
IMPELLER SIZE ("):	4.96
SYSTEM PRESSURE (PSI):	25
VFD SETTING:	54 HZ
DIFF. PRESSURE SETPOINT:	28 PSI

NOTE: TOTAL DYNAMIC HEAD AT NO FLOW CONDITION = 133.2' - 53.9' = 79.3'

NOTE 1: PUMP DESIGN / ELEMENT TOTAL

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-256

NEBB CERTIFIED #2453

SHEET NO. 256

HWP-2

** PUMP REPORT **

PUMP LOCATION: BOILER ROOM 345

AREA SERVED: FCU'S

PUMP PERFORMANCE DATA		
	DESIGN	ACTUAL
GPM:	63.3 / 187.97 (NOTE 1)	63
TDH ("):	72.8	73.1
RPM:	2965	2995
VOLTS/PHASE/CYCLE:	460/3/60	N/A
T1-T1/T2-T3/T1-T3:	N/A	482/481/481
AMPS T1/T2/T3:	N/A	3.5/3.7/3.3

PUMP / MOTOR DATA	
PUMP MANUFACTURER:	ARMSTRONG
PUMP SIZE:	1.5X1.5X5
HP:	3
DISCHARGE PRESSURE ("):	125.2
SUCTION PRESSURE ("):	52.1
PRESSURE DIFFERENTIAL ("):	73.1
BALANCE VALVE POSITION:	100% OPEN
MOTOR MANUFACTURER:	ARMSTRONG
MOTOR FRAME:	IEC 90
IMPELLER SIZE ("):	4.96
SYSTEM PRESSURE (PSI):	25
VFD SETTING:	54 HZ
DIFF. PRESSURE SETPOINT:	28 PSI

NOTE: TOTAL DYNAMIC HEAD AT NO FLOW CONDITION = 134.4' - 54.1' = 80.3'

NOTE 1: PUMP DESIGN / ELEMENT TOTAL

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO.
CODE: 24071-257

NEBB CERTIFIED #2453

SHEET NO. 257

**HOT WATER REPORT **

ROOM NO.	DESIGNATION		NO.	ELEMENT	CS SIZE (INCHES)	DIFFERENTIAL PRESSURE (INCH)	CS FINAL SET	DESIGN GPM	FINAL GPM	NOTES
	FC-36-301		1	HWC	3/4	2.40	90	.20	.93	
	FC-12-341		2	HWC	3/4	0.5	90	.30	.42	
	FC-36-342		3	HWC	3/4	4.3	0	1.50	1.24	
	FC-12-320B		4	HWC	3/4	1.9	45	.80	.83	
	FC-18-340		5	HWC	3/4	1.8	90	.80	.80	
	FC-18-339		6	HWC	3/4	2.3	90	.70	.91	
	FC-36-338		7	HWC	3/4	6.9	0	1.50	1.58	
	FC-24-328		8	HWC	3/4	2.0	40	.80	.85	
	FC-24-327		9	HWC	3/4	5.1	0	1.40	1.35	
	FC-18-326		10	HWC	3/4	1.7	45	.80	.78	
	FC-18-325		11	HWC	3/4	9.7	90	.60	1.87	
	FC-18-336		12	HWC	3/4	2.3	90	.40	.91	
	FC-18-324		13	HWC	3/4	1.1	55	.60	.63	
	FC-12-320A		14	HWC	3/4	1.4	90	.50	.71	
	FC-18-323		15	HWC	3/4	1.5	50	.70	.73	
	FC-24-322		16	HWC	3/4	5.5	15	1.40	1.41	
	FC-24-321		17	HWC	3/4	6.5	0	1.50	1.53	
	FC-24-319		18	HWC	3/4	0.8	60	.50	.54	
	FC-12-320C		19	HWC	3/4	0.8	60	.50	.54	
	FC-18-312		20	HWC	3/4	0.7	90	.40	.50	
	FC-24-310		21	HWC	3/4	1.6	55	.70	.76	
	FC-12-320D		22	HWC	3/4	1.5	50	.70	.73	
	FC-18-302		23	HWC	3/4	1.0	65	.60	.60	
	FC-18-308		24	HWC	3/4	1.6	60	.80	.76	
	FC-30-305		25	HWC	3/4	6.3	30	1.50	1.51	
	FC-30-304		26	HWC	3/4	6.8	35	1.50	1.56	
	FC-30-201		27	HWC	3/4S	.30 FT	20	.70	.71	2
	FC-12-242		28	HWC	3/4	1.1	85	.30	.63	
	FC-24-244		29	HWC	3/4	6.4	45	1.50	1.52	
	FC-12-223B		30	HWC	3/4	9.3	85	.80	1.82	

NOTE 1: CIRCUIT SETTER MANUFACTURER: TACO

NOTE 2: CIRCUIT SETTER MANUFACTURER: BELL & GOSSETT - MEASURED IN FEET

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO
CODE: 24071-258

NEBB CERTIFIED #2453

SHEET NO. 258

**** HOT WATER REPORT ****

ROOM NO.	DESIGNATION		NO.	ELEMENT	CS SIZE (INCHES)	DIFFERENTIAL PRESSURE (INCH)	CS FINAL SET	DESIGN GPM	FINAL GPM	NOTES
	FC-18-241		31	HWC	3/4	1.82	40	.80	.81	
	FC-18-240		32	HWC	3/4	1.2	85	.60	.66	
	FC-36-239		33	HWC	3/4	4.9	0	1.40	1.39	
	FC-24-232		34	HWC	3/4S	.35 FT	20	.70	.77	2
	FC-24-231		35	HWC	3/4S	.30 FT	0	1.30	1.23	2
	FC-18-230		36	HWC	3/4	2.00	30	.80	.85	
	FC-18-229		37	HWC	3/4	.06 FT	0	.50	.55	2
	FC-12-224		38	HWC	3/4S	.55	45	.40	.44	
	FC-18-228		39	HWC	3/4	1.0	20	.60	.60	
	FC-12-223A		40	HWC	3/4	1.0	90	.50	.60	
	FC-18-227		41	HWC	3/4	.9	85	.60	.60	
	FC-24-226		42	HWC	3/4	5.4	70	1.40	1.39	
	FC-24-221		43	HWC	3/4	.80	60	.50	.54	
	FC-24-222		44	HWC	3/4	5.6	70	1.40	1.42	
	FC-12-223C		45	HWC	3/4	.74	80	.30	.52	
	FC-18-213		46	HWC	3/4	1.0	80	.60	.60	
	FC-12-223D		48	HWC	3/4	1.52	70	.70	.74	
	FC-24-202		49	HWC	3/4	1.8	60	.80	.80	
	FC-24-212		50	HWC	3/4	3.7	30	1.1	1.15	
	FC-36-203		51	HWC	3/4	13.4	0	2.30	2.20	
	FC-24-101		52	HWC	3/4	1.8	75	.80	.80	
	FC-18-144		53	HWC	3/4	.50	70	.40	.42	
	FC-36-102		54	HWC	3/4	8.0	45	1.70	1.70	
	FC-18-140		55	HWC	3/4	1.2	90	.40	.66	
	FC-12-127D		56	HWC	3/4S	15.4 FT	D	.50	.91	2
	FC-18-139		57	HWC	3/4	1.10	60	.60	.63	
	FC-36-138		58	HWC	3/4	6.1	50	1.50	1.48	
	FC-12-135		59	HWC	3/4	3.6	90	.40	1.14	
	FC-24-133		60	HWC	3/4	4.8	60	1.40	1.31	

NOTE 1: CIRCUIT SETTER MANUFACTURER: TACO

NOTE 2: CIRCUIT SETTER MANUFACTURER: BELL & GOSSETT - MEASURED IN FEET

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO
CODE: 24071-259

NEBB CERTIFIED #2453

SHEET NO. 259

**** HOT WATER REPORT ****

ROOM NO.	DESIGNATION		NO.	ELEMENT	CS SIZE (INCHES)	DIFFERENTIAL PRESSURE (INCH)	CS FINAL SET	DESIGN GPM	FINAL GPM	NOTES
	FC-18-132		61	HWC	3/4	1.5	55	.60	.73	
	FC-18-131		62	HWC	3/4	1.0	70	.60	.60	
	FC-18-130		63	HWC	3/4	2.2	85	.60	.88	
	FC-36-128		64	HWC	3/4	0.8	75	.50	.54	
	FC-18-129		65	HWC	3/4	5.1	85	.60	1.34	
	FC-12-127A		66	HWC	3/4	3.3	60	1.10	1.09	
	FC-12-125		67	HWC	3/4	1.3	90	.30	.68	
	FC-36-123		68	HWC	3/4	6.7	45	1.50	1.55	
	FC-24-119		69	HWC	3/4	9.0	85	1.30	1.60	
	FC-18-113		70	HWC	3/4	4.9	85	.70	1.33	
	FC-18-126		71	HWC	3/4	.80	70	.50	.53	
	FC-12-127B		72	HWC	3/4	1.3	85	.20	.68	
	FC-18-111		73	HWC	3/4	1.60	80	.70	.76	
	FC-18-110		74	HWC	3/4	1.40	85	.40	.71	
	FC-36-107A		75	HWC	3/4	8.7	50	1.70	1.77	
	FC-36-107B		76	HWC	3/4	8.3	45	1.70	1.73	
	FC-12-127C		78	HWC	3/4	4.9	45	.50	1.33	
	FC-36-108		79	HWC	3/4	9.4	50	1.70	1.84	

NOTE 1: CIRCUIT SETTER MANUFACTURER: TACO

PROJECT: CES CLASSROOMS
SUBMITTED BY: AIR BALANCING SERVICE CO
CODE: 24071-260

NEBB CERTIFIED #2453

SHEET NO. 260