

PM-Series



Phoenix
AIR SYSTEMS™

Dimension & Selection Guide

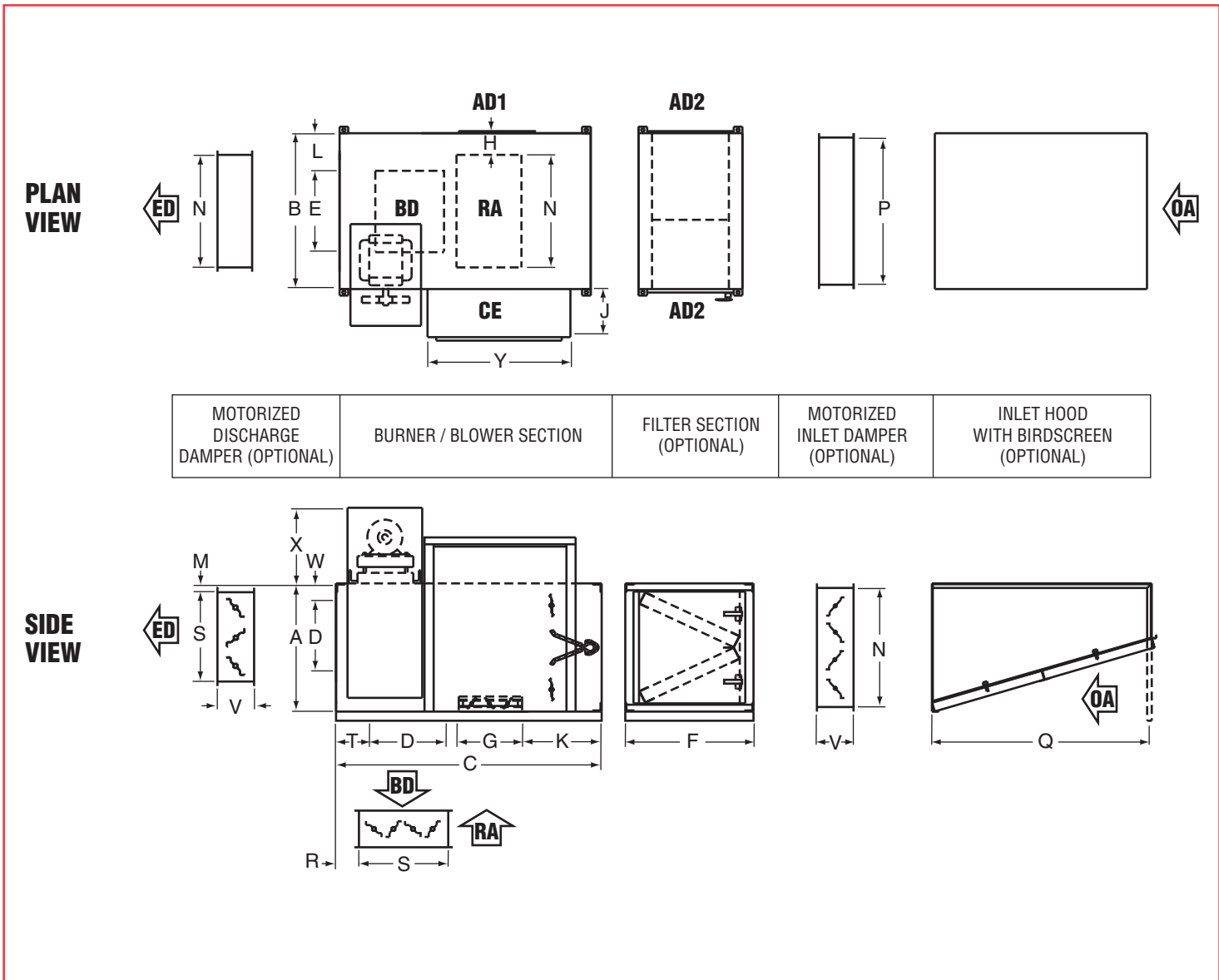


CANADA: 100% OUTSIDE AIR ONLY

+1.507.451.3524

www.phoenixairsystems.com

PCM112 and PCM115 Horizontal Model Dimensions



CABINET DIMENSIONS																						
MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	W	X	Y	V
PM112	28.0	36.0	58.0	13.4	15.6	24.0	15.0	5.0	17.2	16.0	10.2	1.0	26.0	34.0	48.0	5.0	19.5	7.0	1.0	18.5	33.0	8.0
PM115	28.0	36.0	58.0	15.9	18.6	24.0	15.0	5.0	17.2	16.0	8.9	1.0	26.0	34.0	48.0	5.0	19.5	8.3	3.8	18.5	33.0	8.0

FILTERS*	
MODEL	FILTER SECTION
PM112	3 - 2 x 20 x 20 3 - 2 x 16 x 20
PM115	3 - 2 x 20 x 20 3 - 2 x 16 x 20

*Permanent, Polyester or Pleated

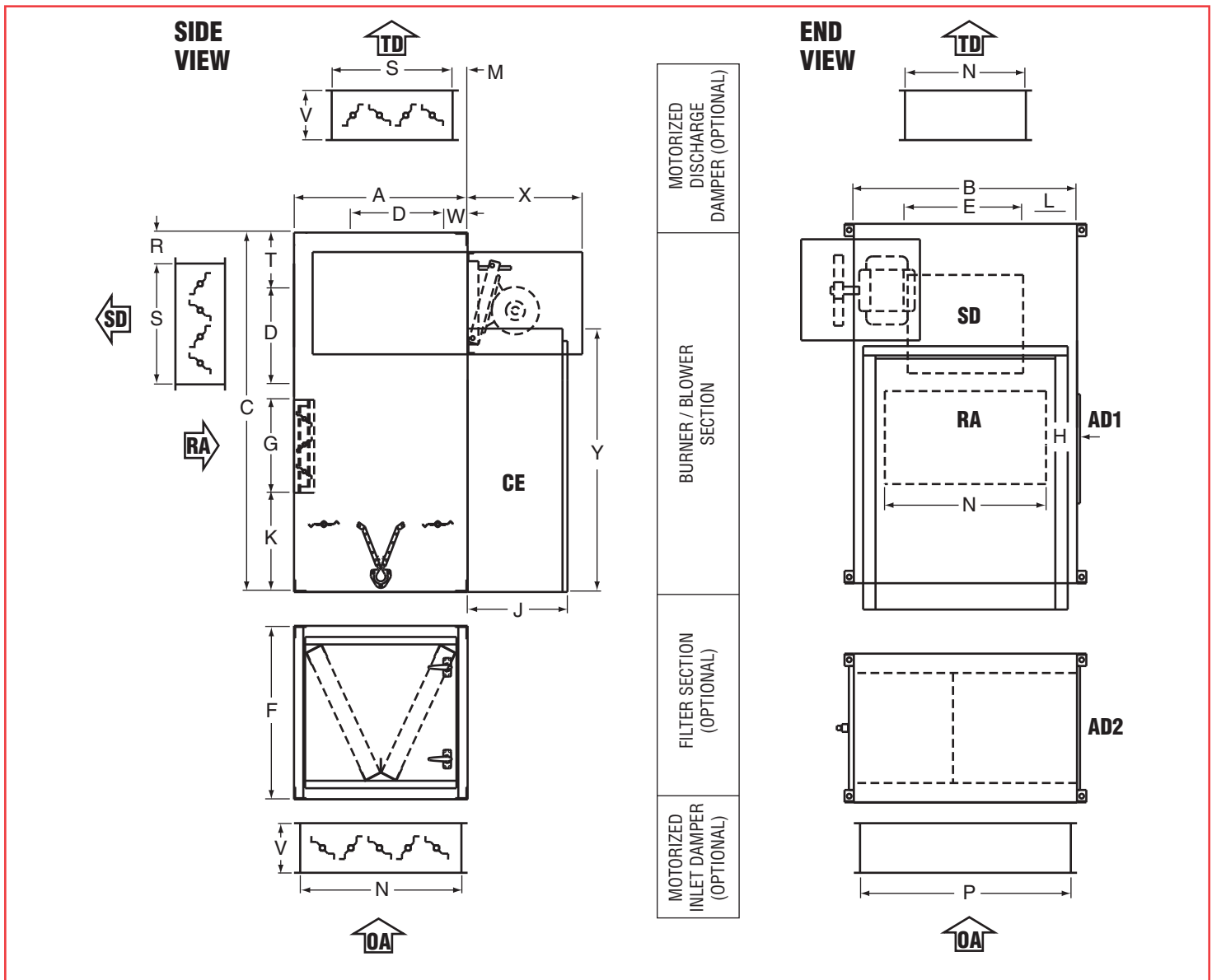
LEGEND	
RA = Return Air	BD = Bottom Discharge
OA = Outside Air	ED = End Discharge
CE = Control Enclosure	AD2 = Filter Access Door
AD1 = Unit Access Door	TD = Top Discharge
SD = Side Discharge	

IMPORTANT NOTES:

- All dimensions are in inches.
- All weights are in pounds.
- Shipping weights apply to both horizontal and upright models.
- All dimensions and weights are subject to change without notice.
- Some components may ship separately due to shipping constraints.
- Units only supplied with left-handed controls as shown.
- PM112 and PM115 inlet hoods must be supported.
- Dimensions for filter sections only apply to those sections using permanent, polyester or pleated filters. Contact Phoenix Air Systems for dimensions of sections using bag or cartridge filters.



PM112 and PM115 Upright Model Dimensions



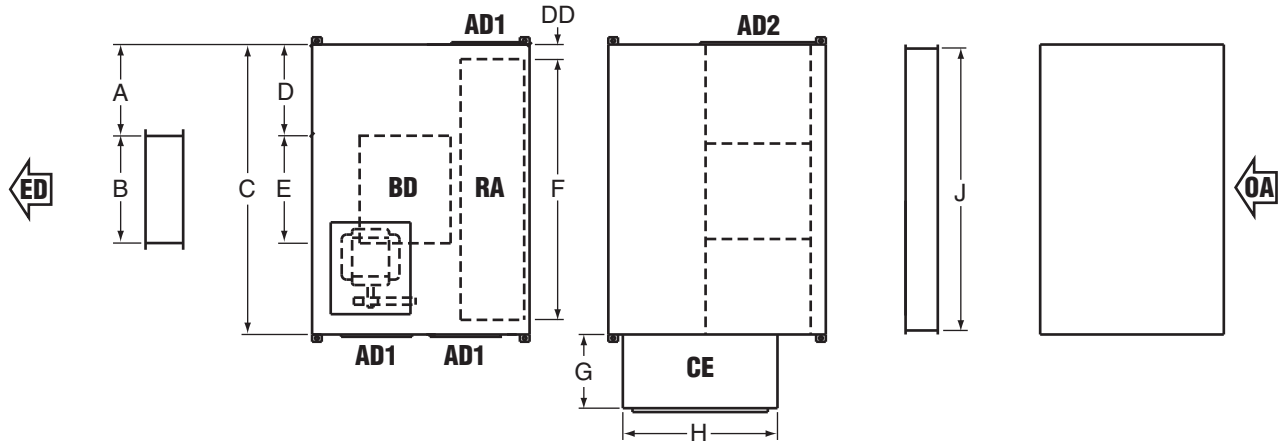
ESTIMATED SHIPPING WEIGHTS					
MODEL	BURNER / BLOWER SECTION	FILTER SECTION	INLET HOOD	WEATHERIZING	DISCHARGE OR INLET DAMPER
PM112	400	63	30	75	40
PM115	525	63	30	75	40

ESTIMATED SHIPPING WEIGHTS - MOTORS																
SIZE HP	.75	1	1.5	2	3	5	7.5	10	15	20	25	30	40	50	60	75
STD WEIGHT	35	35	45	45	70	85	130	155	220	275	300	360	500	550	800	950
2-SP WEIGHT	70	85	125	150	185	215	270	310	405	455	525	570	700	760	N/A	N/A

PM118 Horizontal Model Dimensions

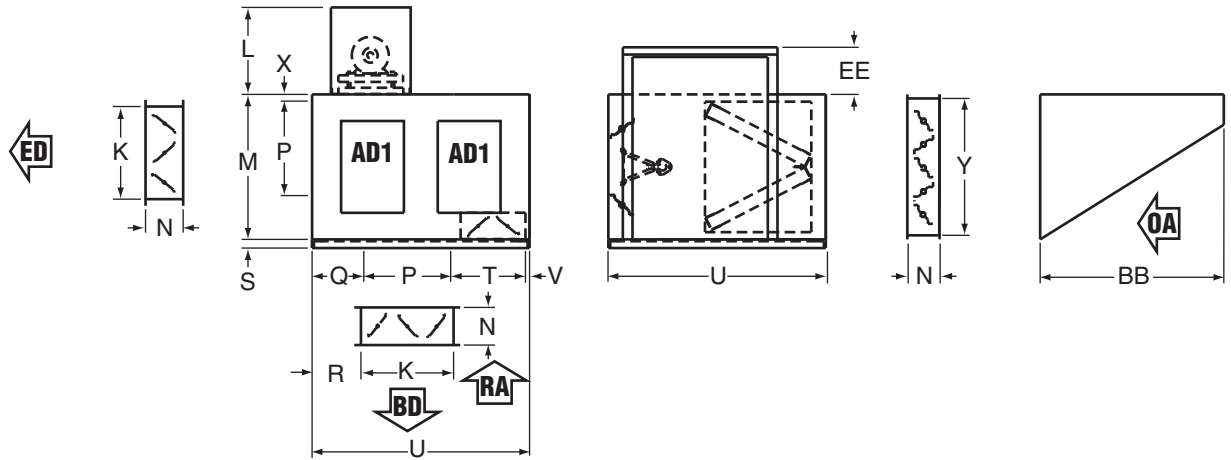


PLAN VIEW



MOTORIZED DISCHARGE DAMPER (OPTIONAL)	BLOWER SECTION	FILTER / BURNER SECTION	MOTORIZED INLET DAMPER (OPTIONAL)	INLET HOOD WITH BIRDSCREEN (OPTIONAL)
---------------------------------------	----------------	-------------------------	-----------------------------------	---------------------------------------

SIDE VIEW



CABINET DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	X	Y	BB	DD	EE
PM118	17.0	26.0	60.0	19.1	21.9	50.0	16.2	33.0	58.0	19.5	18.0	30.0	8.0	18.9	10.4	10.3	2.0	12.0	45.0	1.9	0.8	28.0	38.0	5.0	10.0

FILTERS*	
MODEL	FILTER SECTION
PM118	6 - 2 x 20 x 25

*Permanent, Polyester or Pleated

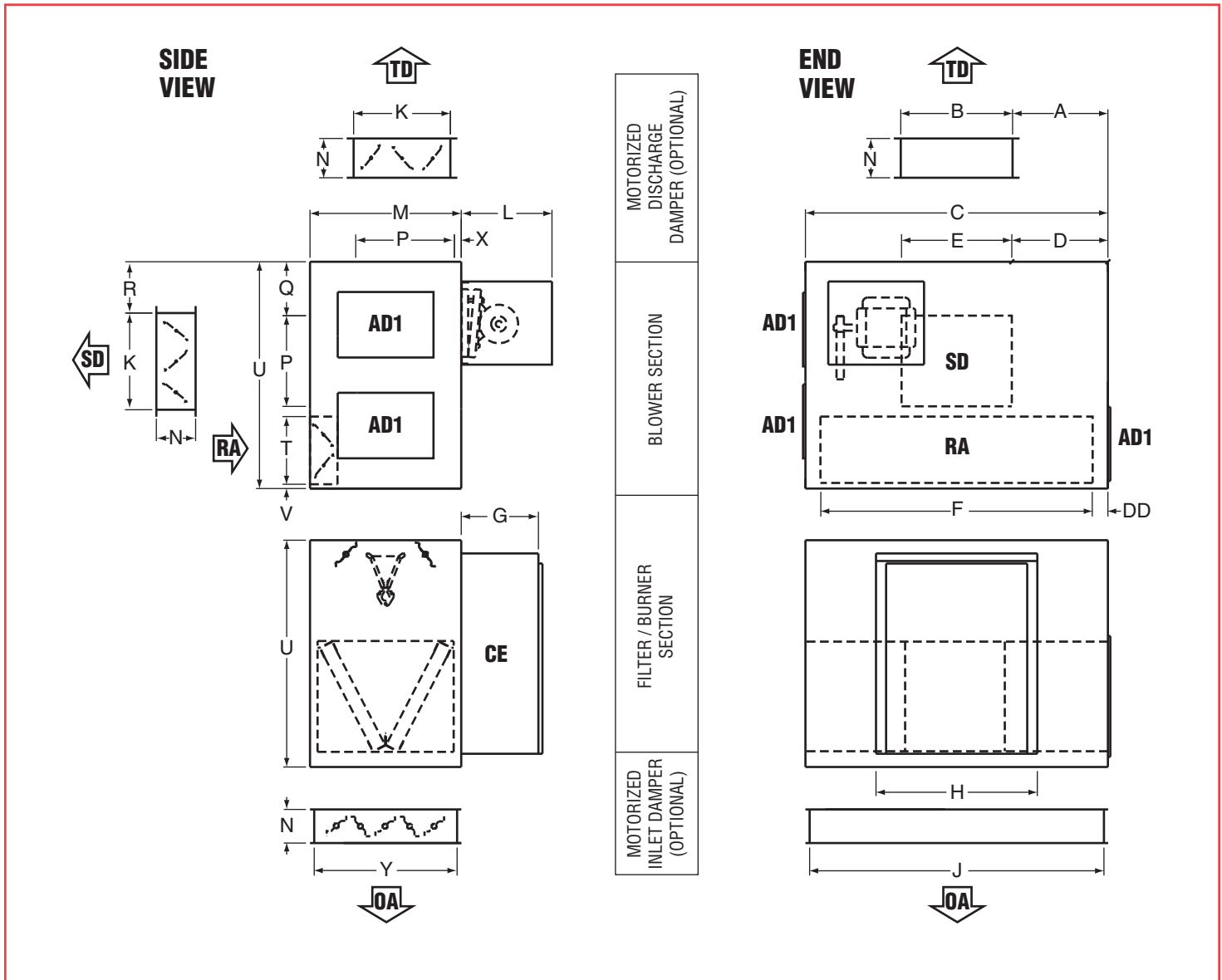
LEGEND	
RA = Return Air	BD = Bottom Discharge
OA = Outside Air	ED = End Discharge
CE = Control Enclosure	AD2 = Filter Access Door
AD1 = Unit Access Door	TD = Top Discharge
SD = Side Discharge	

IMPORTANT NOTES:

- All dimensions are in inches.
- All weights are in pounds.
- Shipping weights apply to both horizontal and upright models.
- All dimensions and weights are subject to change without notice.
- Some components may ship separately due to shipping constraints.
- Units only supplied with left-handed controls as shown.
- Dimensions for filter sections only apply to those sections using permanent, polyester or pleated filters. Contact Phoenix Air Systems for dimensions of sections using bag or cartridge filters.



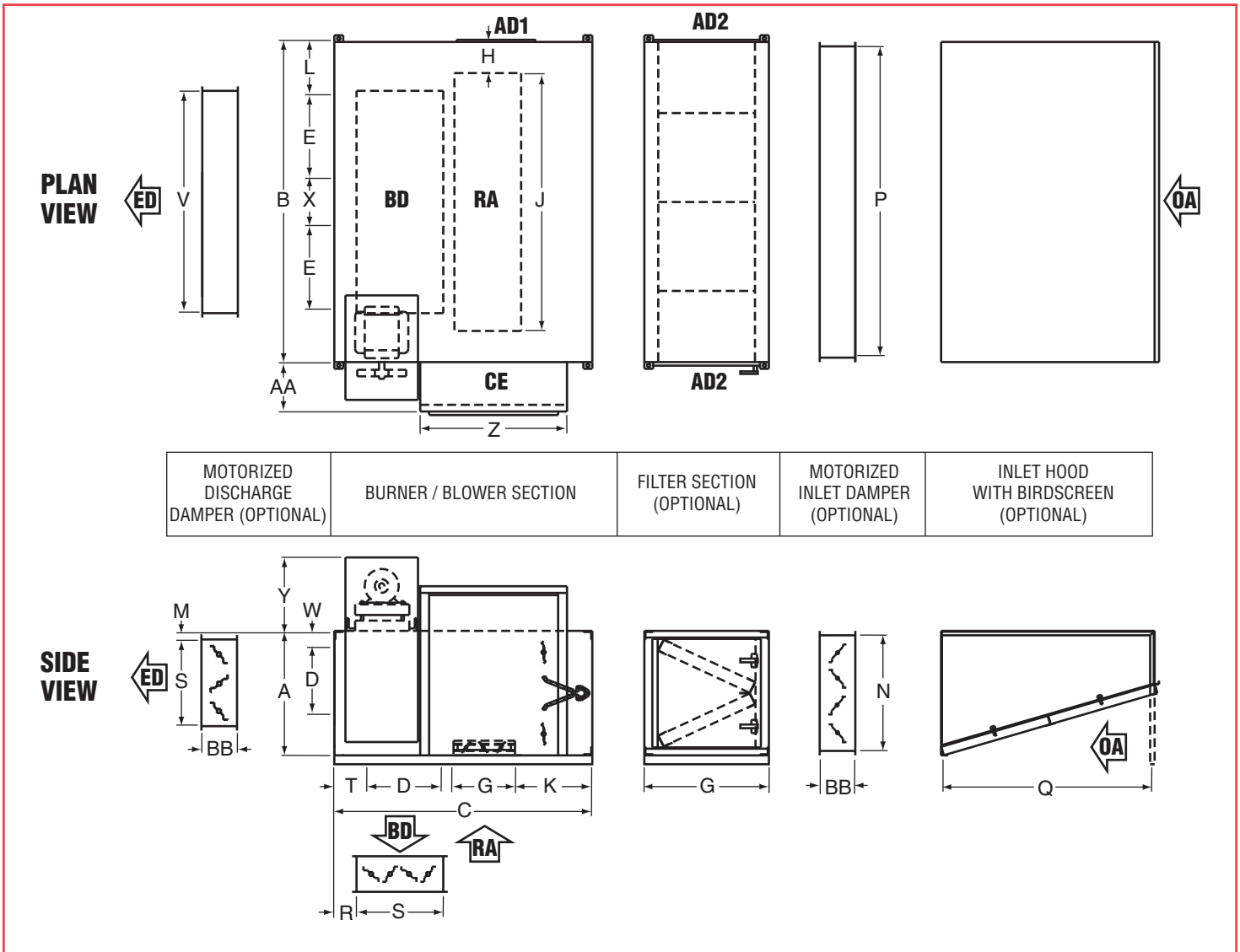
PM118 Upright Model Dimensions



ESTIMATED SHIPPING WEIGHTS				
MODEL	BURNER / BLOWER / FILTER SECTION	INLET HOOD	WEATHERIZING	DISCHARGE OR INLET DAMPER
PM118	700	55	75	70

ESTIMATED SHIPPING WEIGHTS - MOTORS																
SIZE HP	.75	1	1.5	2	3	5	7.5	10	15	20	25	30	40	50	60	75
STD WEIGHT	35	35	45	45	70	85	130	155	220	275	300	360	500	550	800	950
2-SP WEIGHT	70	85	125	150	185	215	270	310	405	455	525	570	700	760	N/A	N/A

PM212 through PM221 Horizontal Model Dimensions



CABINET DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	V	W	X	Y	Z	AA	BB
PM212	28.0	60.0	58.0	13.4	15.6	24.0	15.0	5.0	50.0	16.0	8.9	1.0	26.0	58.0	48.0	5.0	19.5	7.0	50.0	1.0	11.0	18.5	33.0	16.9	8.0
PM215	28.0	72.0	58.0	15.9	18.6	28.0	15.0	7.0	58.0	16.0	11.9	1.0	26.0	70.0	48.0	5.0	19.5	8.3	50.0	3.8	11.0	18.5	33.0	16.9	8.0
PM218	36.0	72.0	62.0	18.9	21.9	24.0	15.0	7.0	58.0	14.0	7.0	6.0	33.0	69.0	72.0	6.0	26.0	10.5	58.0	10.5	14.3	20.0	33.0	16.9	8.0
PM221	42.0	100.0	72.0	24.8	22.8	26.0	20.0	10.0	80.0	14.0	15.5	1.0	38.0	96.0	72.0	6.0	33.0	11.3	76.0	4.81	23.5	20.0	33.0	16.9	8.0

FILTERS*	
MODEL	FILTER SECTION
PM212	9 - 2 x 20 x 20
PM215	4 - 2 x 20 x 25
	4 - 2 x 16 x 25
PM218	8 - 2 x 20 x 20
	8 - 2 x 16 x 20
PM221	16 - 2 x 20 x 25

*Permanent, Polyester or Pleated

IMPORTANT NOTES:

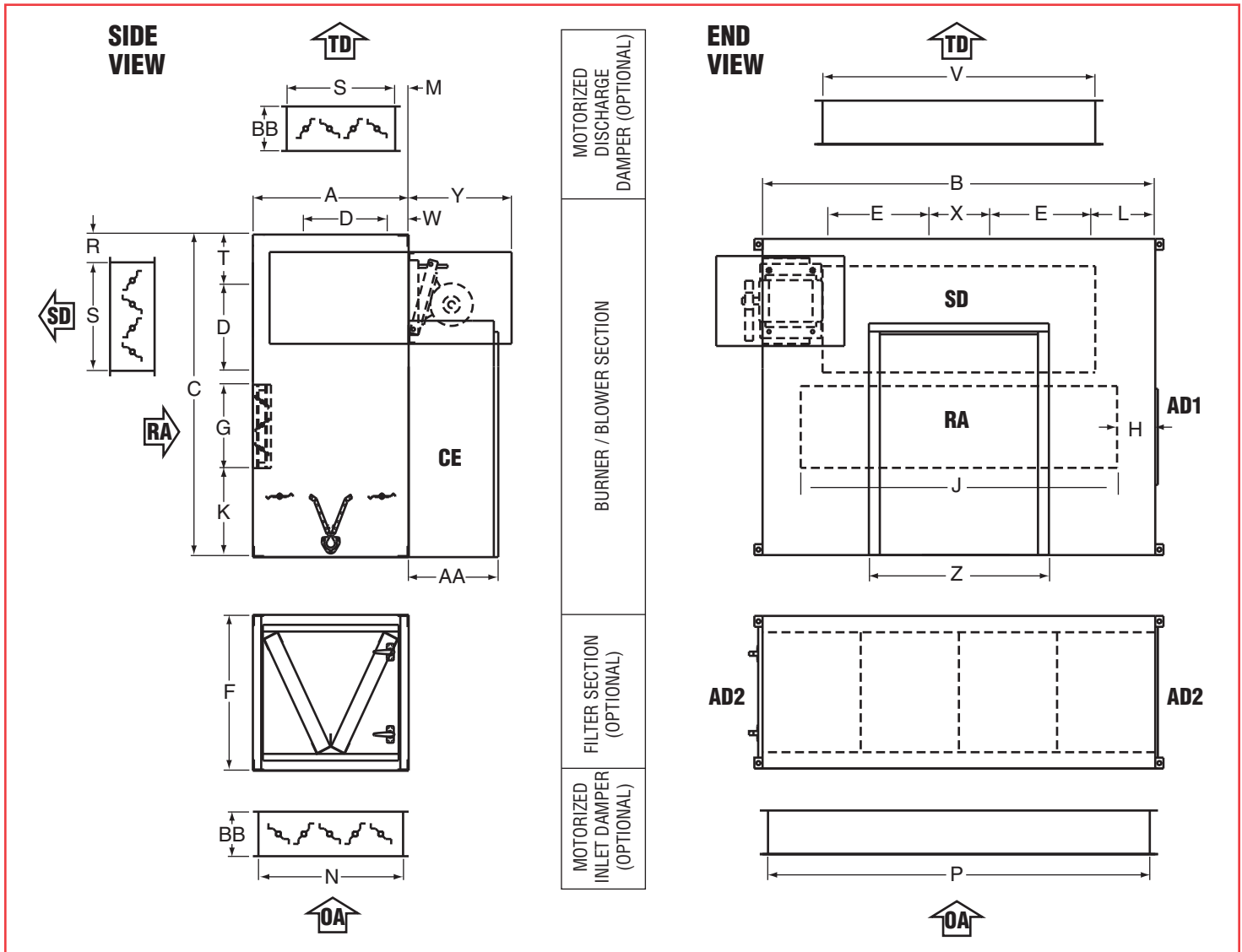
- All dimensions are in inches.
- All weights are in pounds.
- Shipping weights apply to both horizontal and upright models.
- All dimensions and weights are subject to change without notice.
- Some components may ship separately due to shipping constraints.
- Units only supplied with left-handed controls as shown.
- PM212 through PM221 inlet hoods must be supported.
- Dimensions for filter sections only apply to those sections using permanent, polyester or pleated filters. Contact Phoenix Air Systems for dimensions of sections using bag or cartridge filters.

LEGEND

RA = Return Air	BD = Bottom Discharge
OA = Outside Air	ED = End Discharge
CE = Control Enclosure	AD2 = Filter Access Door
AD1 = Unit Access Door	TD = Top Discharge
SD = Side Discharge	



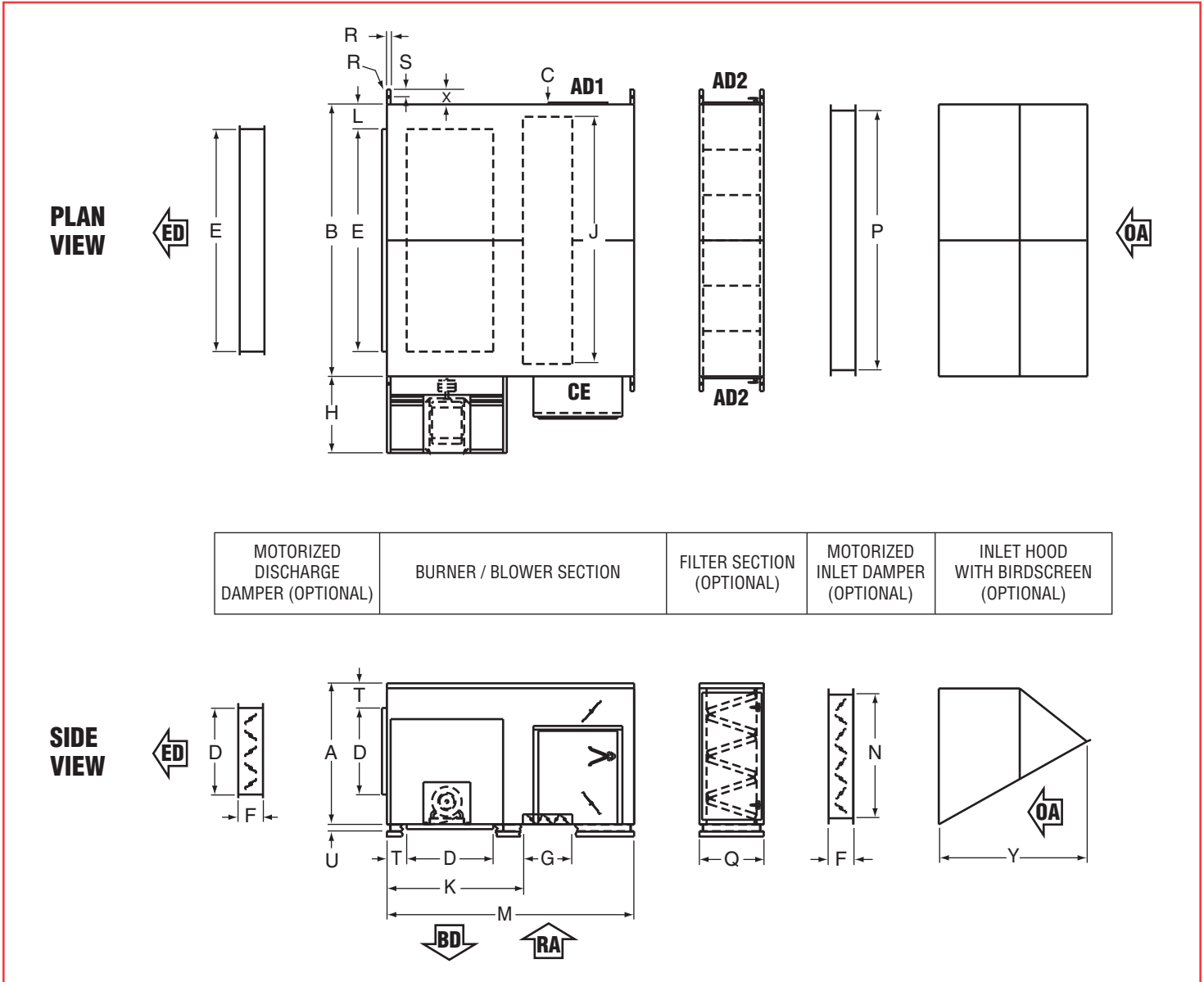
PM212 through PM221 Upright Model Dimensions



ESTIMATED SHIPPING WEIGHTS					
MODEL	BURNER / BLOWER SECTION	FILTER SECTION	INLET HOOD	WEATHERIZING	DISCHARGE OR INLET DAMPER
PM212	560	95	45	75	70
PM215	740	130	60	100	100
PM218	950	300	150	135	150
PM221	1,432	625	132	156	325

ESTIMATED SHIPPING WEIGHTS - MOTORS																
SIZE HP	.75	1	1.5	2	3	5	7.5	10	15	20	25	30	40	50	60	75
STD WEIGHT	35	35	45	45	70	85	130	155	220	275	300	360	500	550	800	950
2-SP WEIGHT	70	85	125	150	185	215	270	310	405	455	525	570	700	760	N/A	N/A

PM224 and PM230 Horizontal Model Dimensions



CABINET DIMENSIONS																							
MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y
PM224	55.0	110.0	5.0	35.0	90.0	10.0	20.0	31.0	100.0	55.0	10.0	100.0	51	106.0	26.0	.75	3.0	8.0	3.0	116.0	122.0	6.0	60.0
PM230	60.0	145.0	5.0	40.0	115.0	10.0	25.0	31.0	135.0	55.0	15.0	100.0	55	140.0	26.0	.75	3.0	5.0	4.0	151.0	157.0	6.0	60.0

FILTERS*	
MODEL	FILTER SECTION
PM224	18 - 2 x 20 x 20
	12 - 2 x 20 x 25
PM230	6 - 2 x 20 x 20
	30 - 2 x 20 x 25

*Permanent, Polyester or Pleated

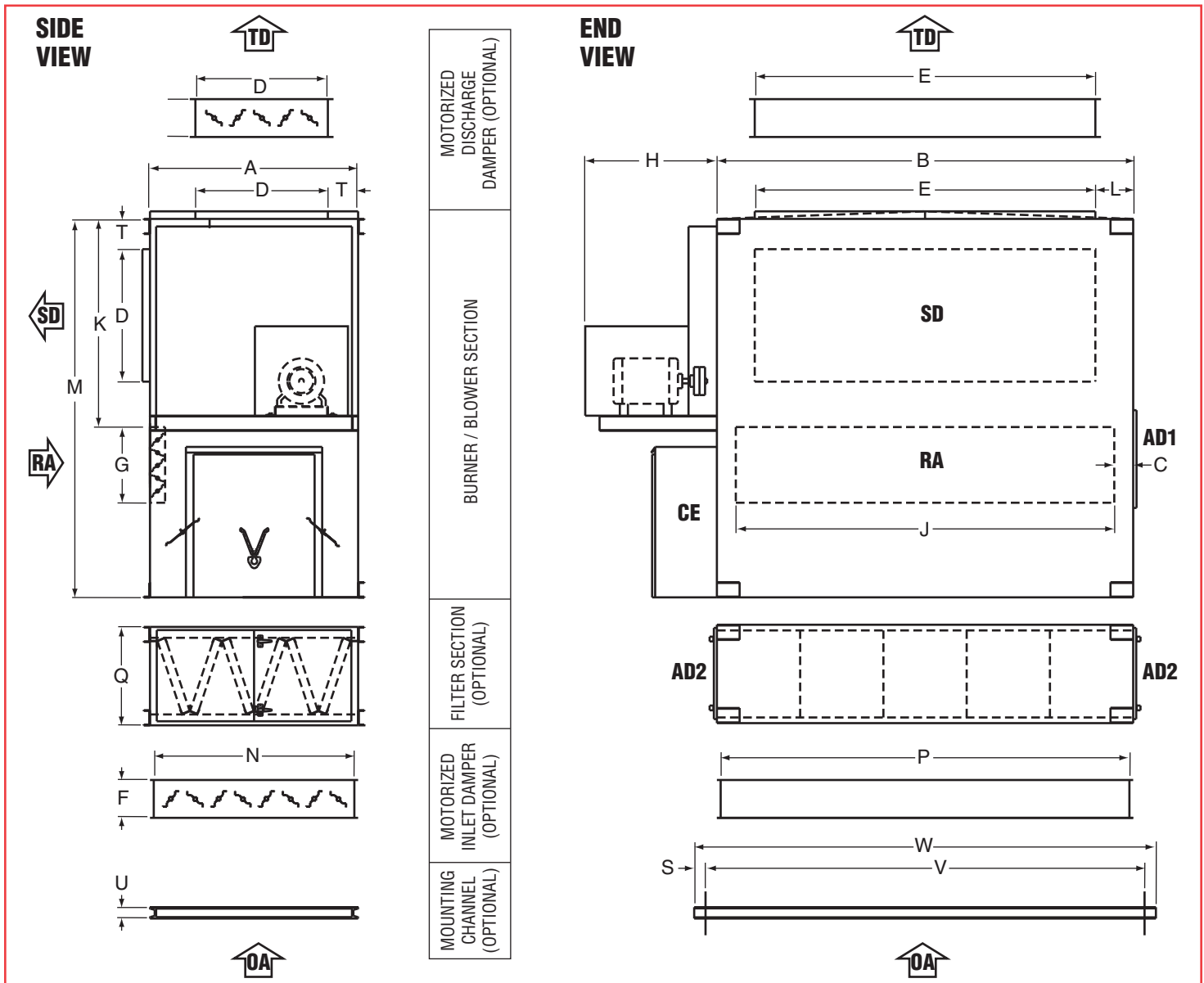
LEGEND	
RA = Return Air	BD = Bottom Discharge
OA = Outside Air	ED = End Discharge
CE = Control Enclosure	AD2 = Filter Access Door
AD1 = Unit Access Door	TD = Top Discharge
SD = Side Discharge	

IMPORTANT NOTES:

- All dimensions are in inches.
- All weights are in pounds.
- Shipping weights apply to both horizontal and upright models.
- All dimensions and weights are subject to change without notice.
- Some components may ship separately due to shipping constraints.
- Units only supplied with left-handed controls as shown.
- Dimensions for filter sections only apply to those sections using permanent, polyester or pleated filters. Contact Phoenix Air Systems for dimensions of sections using bag or cartridge filters.



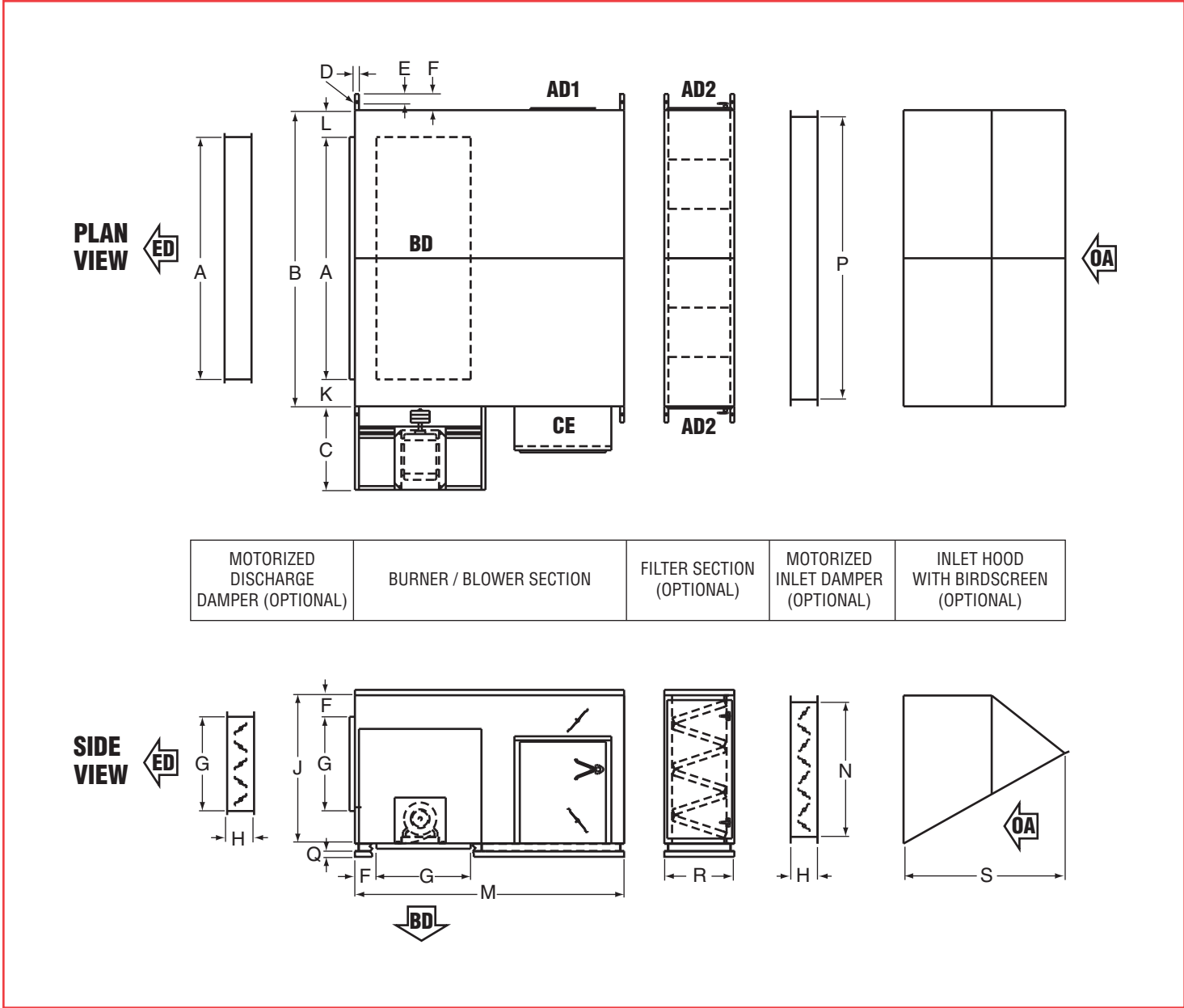
PM224 and PM230 Upright Model Dimensions



ESTIMATED SHIPPING WEIGHTS					
MODEL	BURNER / BLOWER SECTION	FILTER SECTION	INLET HOOD	WEATHERIZING	DISCHARGE OR INLET DAMPER
PM224	2,975	980	182	200	470
PM230	4,300	1,140	281	300	560

ESTIMATED SHIPPING WEIGHTS - MOTORS																
SIZE HP	.75	1	1.5	2	3	5	7.5	10	15	20	25	30	40	50	60	75
STD WEIGHT	35	35	45	45	70	85	130	155	220	275	300	360	500	550	800	950
2-SP WEIGHT	70	85	125	150	185	215	270	310	405	455	525	570	700	760	N/A	N/A

PM233 & PM236 Non-Recirculating Horizontal Model Dimensions



MOTORIZED DISCHARGE DAMPER (OPTIONAL)	BURNER / BLOWER SECTION	FILTER SECTION (OPTIONAL)	MOTORIZED INLET DAMPER (OPTIONAL)	INLET HOOD WITH BIRDSCREEN (OPTIONAL)
---------------------------------------	-------------------------	---------------------------	-----------------------------------	---------------------------------------

CABINET DIMENSIONS																			
MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	V	W
PM233	133.0	160.0	31.0	.8	3.0	6.0	43.0	10.0	72.0	17.0	10.0	110.0	67.0	155.0	4.0	26.0	60.0	166.0	172.0
PM236	133.0	180.0	31.0	.8	3.0	6.0	43.0	10.0	72.0	22.0	25.0	110.0	67.0	175.0	4.0	26.0	60.0	186.0	192.0

FILTERS*	
MODEL	FILTER SECTION
PM233	56 - 2 x 20 x 20
PM236	63 - 2 x 20 x 20

*Permanent, Polyester or Pleated

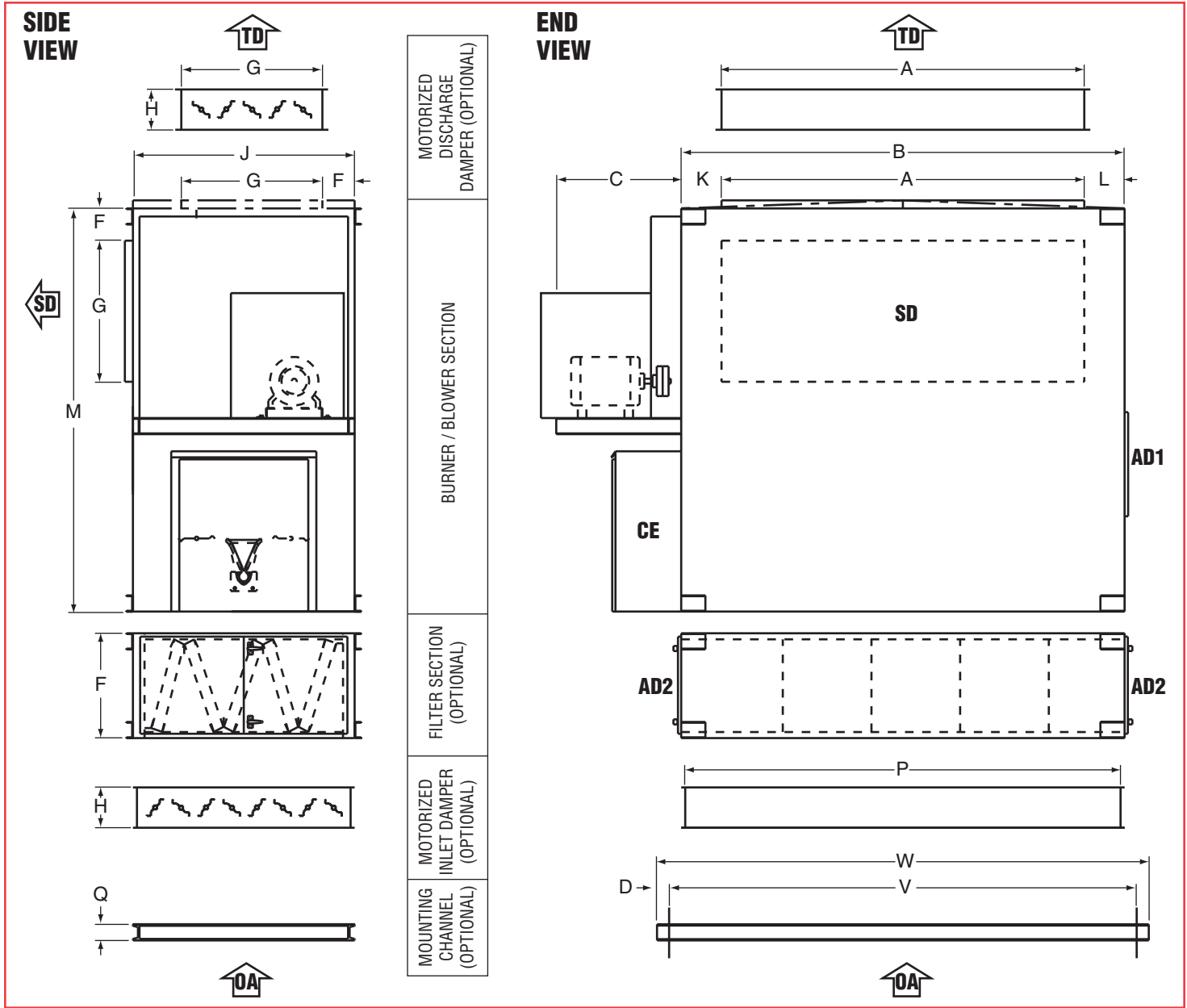
LEGEND	
RA = Return Air	BD = Bottom Discharge
OA = Outside Air	ED = End Discharge
CE = Control Enclosure	AD2 = Filter Access Door
AD1 = Unit Access Door	TD = Top Discharge
SD = Side Discharge	

IMPORTANT NOTES:

- All dimensions are in inches.
- All weights are in pounds.
- Shipping weights apply to both horizontal and upright models.
- All dimensions and weights are subject to change without notice.
- Some components may ship separately due to shipping constraints.
- Units only supplied with left-handed controls as shown.
- Dimensions for filter sections only apply to those sections using permanent, polyester or pleated filters. Contact Phoenix Air Systems for dimensions of sections using bag or cartridge filters.



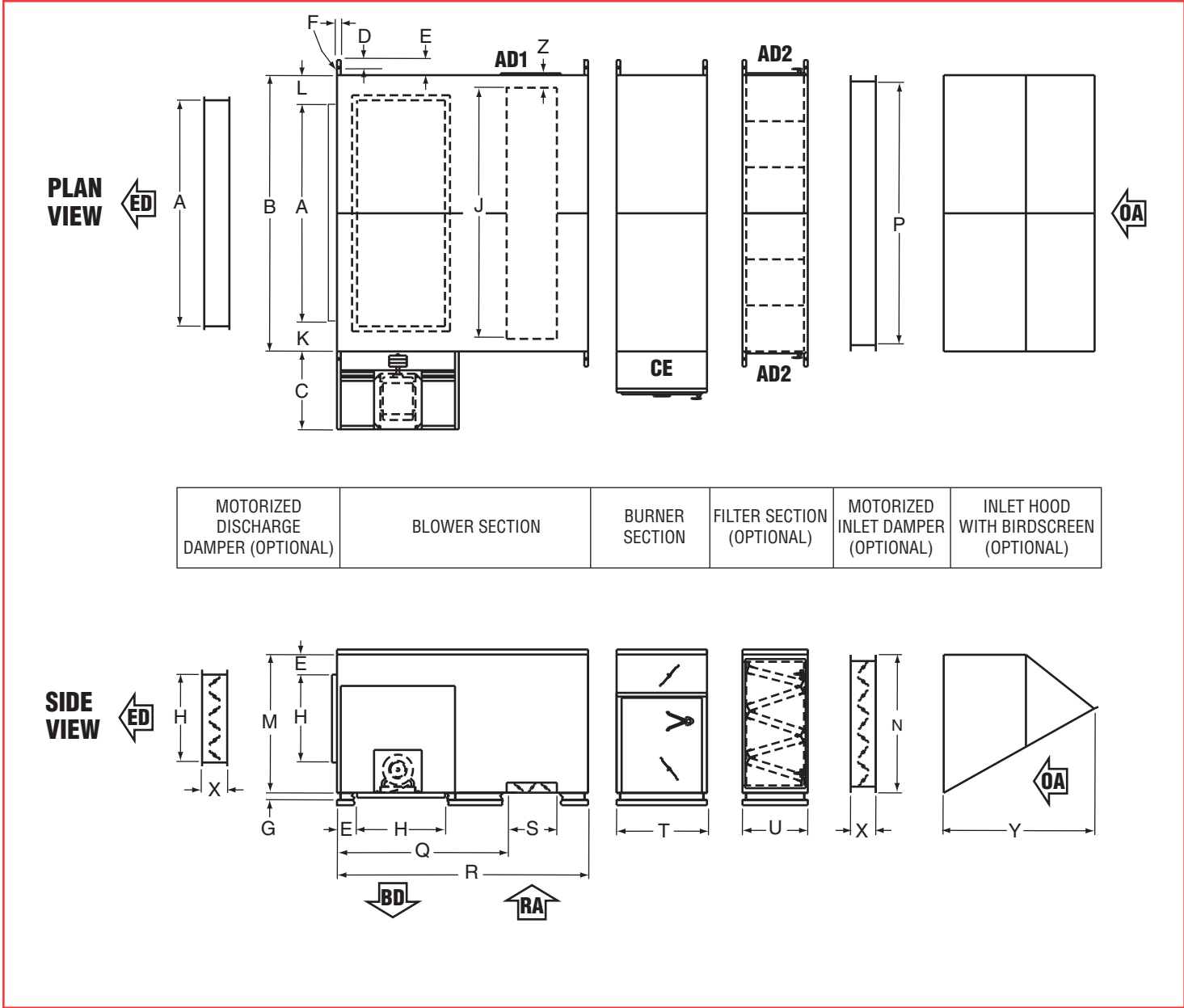
PM233 & PM236 Non-Recirculating Upright Model Dimensions



ESTIMATED SHIPPING WEIGHTS					
MODEL	BURNER / BLOWER SECTION	FILTER SECTION	INLET HOOD	WEATHERIZING	DISCHARGE OR INLET DAMPER
PM233	5,600	1,300	365	325	690
PM236	5,900	1,430	400	325	690

ESTIMATED SHIPPING WEIGHTS - MOTORS																
SIZE HP	.75	1	1.5	2	3	5	7.5	10	15	20	25	30	40	50	60	75
STD WEIGHT	35	35	45	45	70	85	130	155	220	275	300	360	500	550	800	950
2-SP WEIGHT	70	85	125	150	185	215	270	310	405	455	525	570	700	760	N/A	N/A

PM233 and PM236 Recirculating Horizontal Model Dimensions



CABINET DIMENSIONS																								
MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z
PM233	133.0	160.0	31.0	3.0	6.0	.8	4.0	43.0	150.0	17.0	10.0	72.0	67.0	155.0	75.0	110.0	25.0	36.0	26.0	166.0	172.0	10.0	60.0	5.0
PM236	133.0	180.0	31.0	3.0	6.0	.8	4.0	43.0	170.0	22.0	25.0	72.0	67.0	175.0	75.0	110.0	25.0	36.0	26.0	186.0	192.0	10.0	60.0	5.0

FILTERS*	
MODEL	FILTER SECTION
PM233	56 - 2 x 20 x 20
PM236	63 - 2 x 20 x 20

*Permanent, Polyester or Pleated

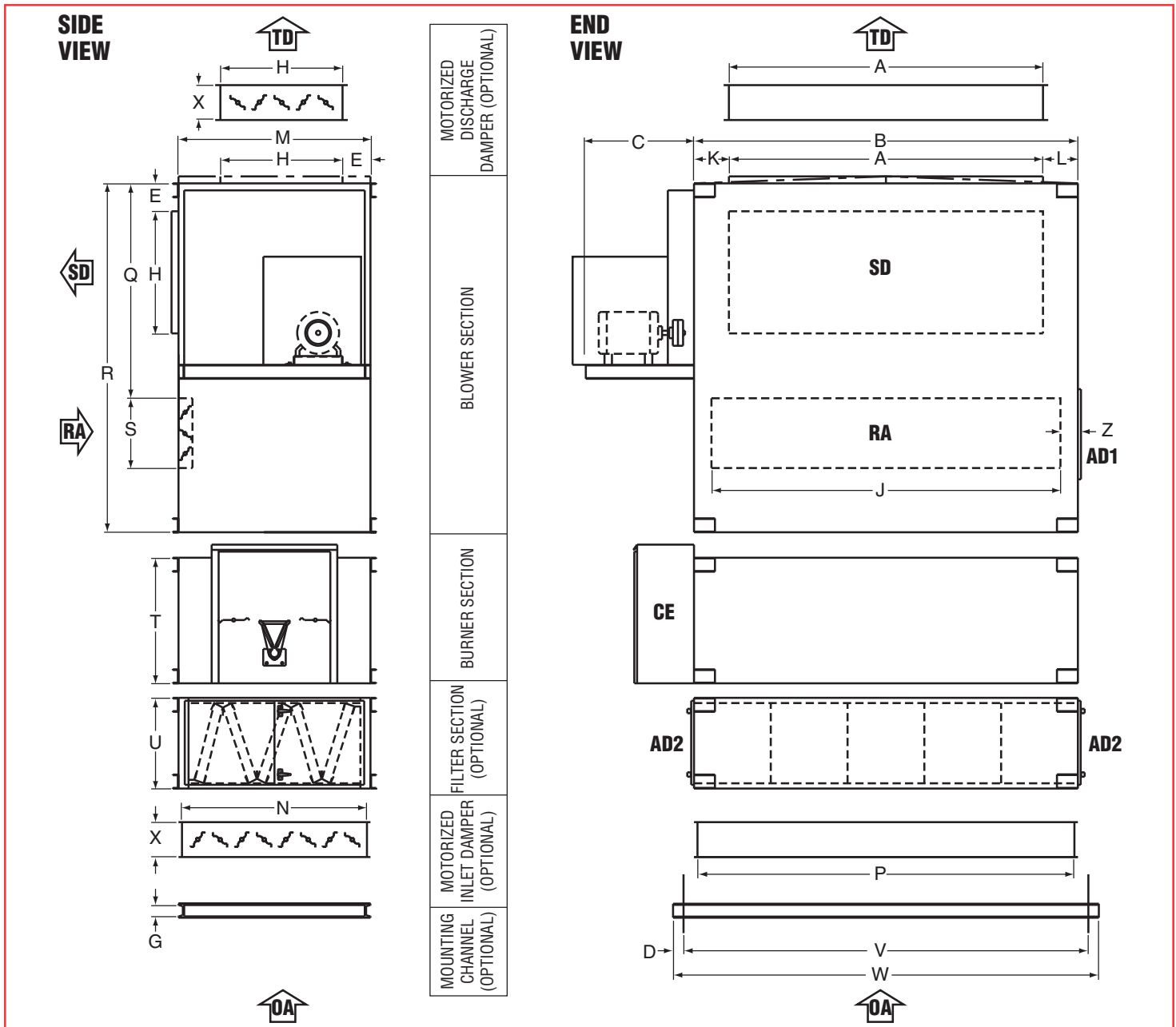
LEGEND	
RA = Return Air	BD = Bottom Discharge
OA = Outside Air	ED = End Discharge
CE = Control Enclosure	AD2 = Filter Access Door
AD1 = Unit Access Door	TD = Top Discharge
SD = Side Discharge	

IMPORTANT NOTES:

- All dimensions are in inches.
- All weights are in pounds.
- Shipping weights apply to both horizontal and upright models.
- All dimensions and weights are subject to change without notice.
- Some components may ship separately due to shipping constraints.
- Units only supplied with left-handed controls as shown.
- Dimensions for filter sections only apply to those sections using permanent, polyester or pleated filters. Contact Phoenix Air Systems for dimensions of sections using bag or cartridge filters.

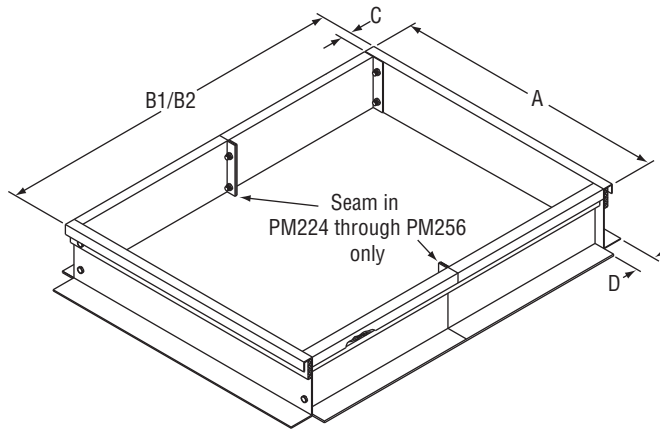


PM233 and PM236 Recirculating Upright Model Dimensions



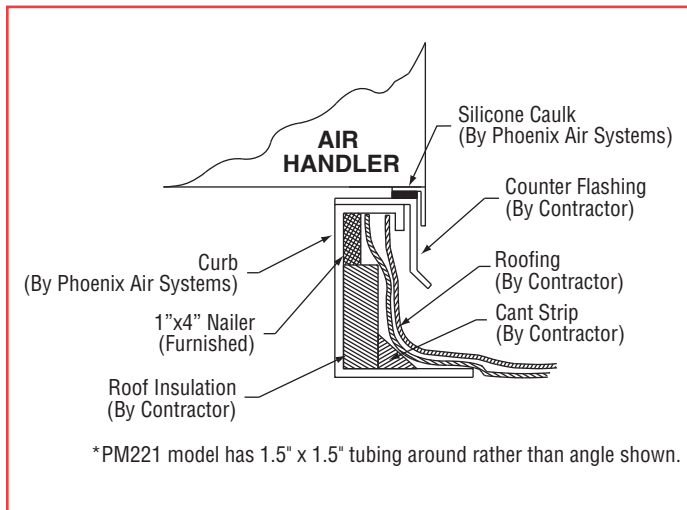
ESTIMATED SHIPPING WEIGHTS					
MODEL	BURNER / BLOWER SECTION	FILTER SECTION	INLET HOOD	WEATHERIZING	DISCHARGE OR INLET DAMPER
PM233	5,600	1,300	365	325	690
PM236	5,900	1,430	400	325	690

ESTIMATED SHIPPING WEIGHTS - MOTORS																
SIZE HP	.75	1	1.5	2	3	5	7.5	10	15	20	25	30	40	50	60	75
STD WEIGHT	35	35	45	45	70	85	130	155	220	275	300	360	500	550	800	950
2-SP WEIGHT	70	85	125	150	185	215	270	310	405	455	525	570	700	760	N/A	N/A



MODEL	WIDTH	LENGTH*	LENGTH*	DEPTH	BOTTOM FLANGE DEPTH	WEIGHT 1*	WEIGHT 2*
	A	B1	B2	C	D		
PM112	35.2	57.2	81.2	1.9	3.0	75	98
PM115	35.2	57.2	81.2	1.9	3.0	75	98
PM118	59.2	89.2	89.2	1.9	3.0	N/A	100
PM212	59.2	57.2	81.2	1.9	3.0	100	130
PM215	71.2	57.2	85.2	1.9	3.0	125	163
PM218	71.2	61.2	85.2	1.9	3.0	150	195
PM221	99.2	71.2	97.2	1.9	3.0	200	260
PM224	109.0	99.0	125.0	1.9	3.0	300	450
PM230	144.0	99.0	125.0	1.9	3.0	375	488
PM233	159.0	109.0	135.0	1.9	3.0	500	650
PM236	179.0	109.0	135.0	1.9	3.0	500	650

*The length indicated by dimension “B1” is for a roof curb designed to support the burner and blower sections. The weight for this type of roof curb is indicated by “Weight 1.” The length indicated by dimension “B2” is for a roof curb designed to support the burner, blower and filter sections. The weight for this type of roof curb is indicated by “Weight 2.”

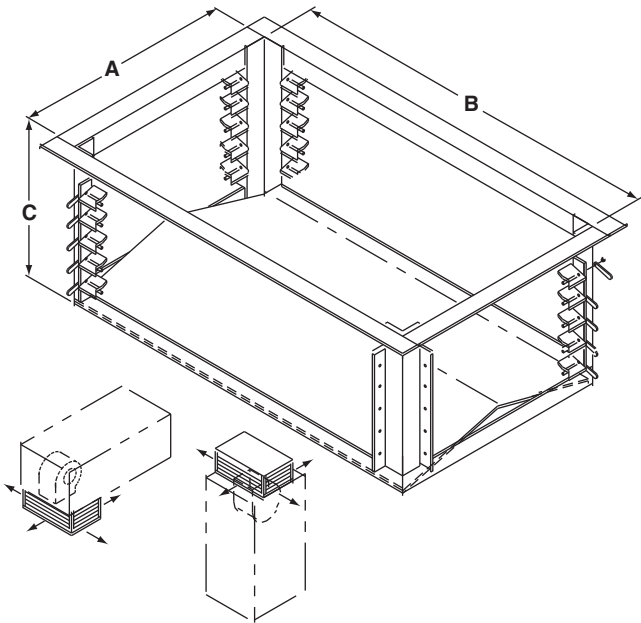


IMPORTANT NOTES:

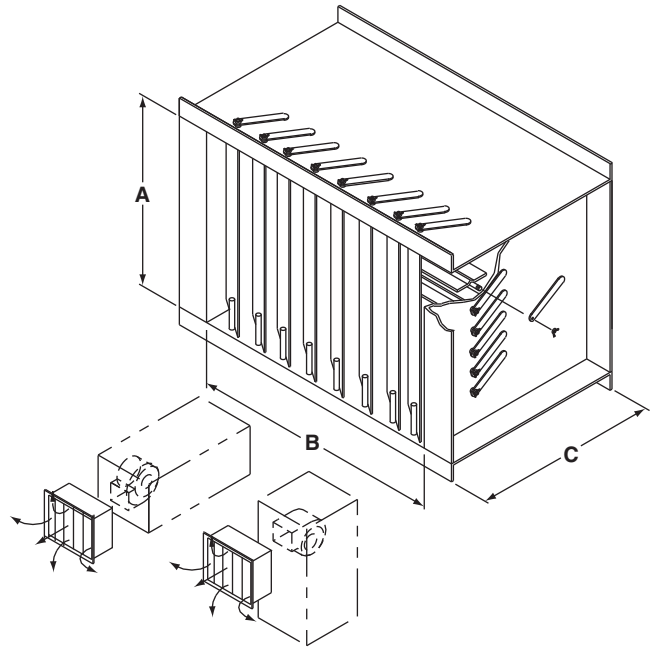
- All dimensions are in inches.
- All weights are in pounds.
- All dimensions and weights are subject to change without notice.
- Some components may ship separately due to shipping constraints.
- Curb is shipped broken down and must be field assembled (bolted together).
- The curb can be used with most conventional flat roofs. (e.g. bonded, corrugated etc.)
- When used with downblast PM-Series, the roof curb kit seals roof openings, preventing water leaks into the building.
- If other accessories extend beyond the curb, additional supports should be provided by the contractor and placed under the furthest section.
- Curbs are available in heights of 16" or 24".



FOUR-WAY DISCHARGE PLENUM



DOUBLE DEFLECTION DISCHARGE LOUVERS



MODEL	A	B	C	WEIGHTS	
				FOUR-WAY DISCHARGE PLENUM	DOUBLE DEFLECTION DISCHARGE LOUVERS
PM112	19.5	26	24	80	70
PM115	19.5	26	24	80	70
PM118	19.5	26	24	80	70
PM212	19.5	50	24	80	70
PM215	19.5	50	24	105	95
PM218	26	58	24	140	130
PM221	33	76	24	270	260
PM224	35	90	24	385	375
PM230	40	115	24	410	400
PM233	43	133	24	510	500
PM236	43	133	24	510	500

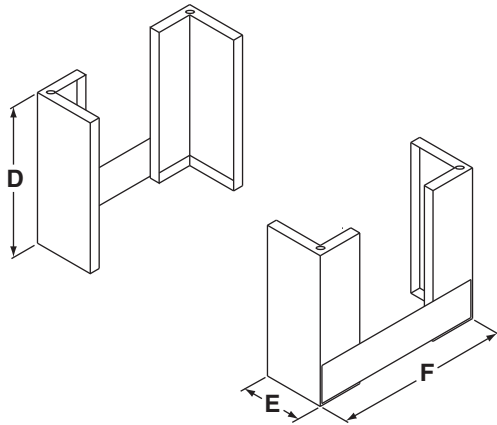
IMPORTANT NOTES:

- All dimensions are in inches.
- All weights are in pounds.
- Shipping weights apply to both horizontal and upright models.
- All dimensions and weights are subject to change without notice.
- Some components may ship separately due to shipping constraints.



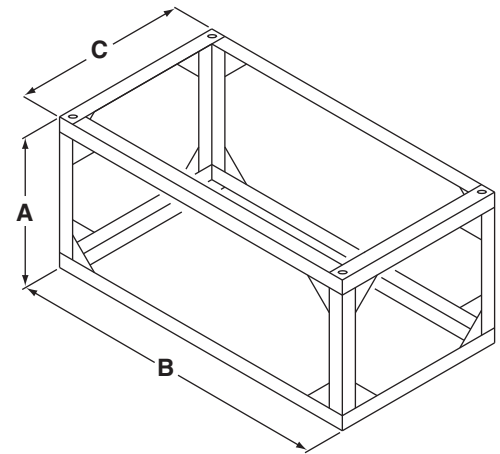
PM-Series Mounting Stand/Legs/Service Platform

MOUNTING LEGS

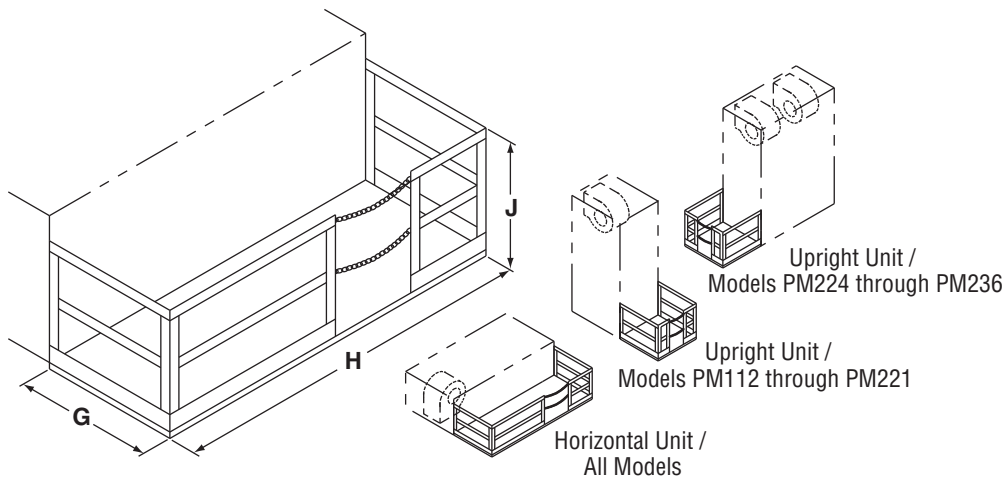


(Available on Upright PM112 through PM218 Models Only.)

MOUNTING STAND



SERVICE PLATFORM



IMPORTANT NOTES:

- All dimensions are in inches.
- All weights are in pounds.
- All dimensions and weights are subject to change without notice.
- Some components may ship separately due to shipping constraints.
- Service platform will be located on same side as control panel.
- Dimension "H" only applies to service platforms on upright units. For horizontal units, dimension "H" can be determined by adding the length of the unit's sections together.

MODEL	A	B	C	D	E	F	G	H	J	WEIGHTS		
										MOUNTING LEGS	MOUNTING STAND	SERVICE PLATFORM
PM112	36	36	28	36	9.5	26	48	36	42	70	125	400
PM115	36	36	28	36	9.5	26	48	36	42	70	125	400
PM118	36	60	30	36	9.5	30	48	60	42	70	140	400
PM212	36	60	28	36	9.5	26	48	60	42	70	140	400
PM215	36	72	28	36	9.5	26	48	72	42	70	150	480
PM218	36	72	36	36	9.5	33	48	72	42	70	160	480
PM221	36	100	42	N/A	N/A	N/A	48	100	42	N/A	175	520
PM224	46	110	55	N/A	N/A	N/A	72	55	42	N/A	300	575
PM230	47	145	60	N/A	N/A	N/A	72	60	42	N/A	425	650
PM233	55	160	72	N/A	N/A	N/A	72	72	42	N/A	700	700
PM236	55	180	72	N/A	N/A	N/A	72	72	42	N/A	700	700

Blower Motor Horsepower Selection (continued)



PM115	TOTAL S.P.		PERCENTAGE OF CAPACITY	.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
	CFM	O.V.		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	2,250	1,119	20	497	0.31																
2,500	1,243	30	501	0.36	608	0.50															
3,000	1,492	40	513	0.47	613	0.63	702	0.81													
3,500	1,741	50	528	0.62	623	0.81	708	0.99	786	1.19	860	1.40									
4,000	1,990	60	548	0.82	637	1.00	720	1.22	793	1.43	863	1.66	928	1.89	993	2.14					
4,500	2,238	70	574	1.07	654	1.27	732	1.49	805	1.73	872	1.96	935	2.22	995	2.47	1053	2.73	1110	3.00	
5,000	2,487	80	607	1.37	675	1.57	748	1.80	819	2.00	884	2.32	945	2.58	1003	2.86	1058	3.13	1112	3.42	
5,500	2,736	90	645	1.74	703	1.94	767	2.18	833	2.45	897	2.73	957	3.00	1014	3.30	1068	3.60	1119	3.90	
6,000	2,985	100	686	2.18	734	2.38	791	2.62	851	2.90	913	3.20	971	3.50	1027	3.81	1079	4.13	1130	4.44	

PM118	TOTAL S.P.		PERCENTAGE OF CAPACITY	.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
	CFM	O.V.		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	5,000	1,742	0	463	0.99	544	1.28	617	1.57	685	1.87	746	2.17	803	2.49						
5,500	1,916	10	476	1.18	554	1.50	625	1.81	690	2.14	750	2.47	806	2.81	860	3.15	910	3.50			
6,000	2,090	20	490	1.41	564	1.75	633	2.09	696	2.44	755	2.80	810	3.15	862	3.52	913	3.89	960	4.27	
6,500	2,264	30	504	1.67	576	2.04	642	2.41	704	2.77	762	3.15	816	3.53	867	3.92	917	4.33	963	4.73	
7,000	2,439	40	521	1.96	590	2.35	653	2.74	713	3.14	769	3.54	823	3.96	872	4.37	921	4.79	967	5.21	
7,500	2,613	50	538	2.29	603	2.71	666	3.12	724	3.54	779	3.98	830	4.41	880	4.85	926	5.29	972	5.74	
8,000	2,787	60	557	2.66	619	3.10	678	3.54	735	4.00	788	4.45	839	4.91	887	5.37	934	5.83	978	6.31	
8,500	2,961	70	576	3.08	636	3.53	693	4.01	747	4.48	799	4.96	848	5.44	896	5.93	941	6.42	985	6.92	
9,000	3,135	80	596	3.53	653	4.02	708	4.52	761	5.00	810	5.52	859	6.03	905	6.54	950	7.06	993	7.50	
9,500	3,310	90	616	4.04	671	4.55	724	5.00	774	5.60	823	6.13	870	6.67	916	7.21	959	7.74	1001	8.29	
10,000	3,484	100	638	4.60	690	5.14	741	5.68	789	6.22	837	6.78	883	7.34	926	7.91	970	8.47	1011	9.04	

PM212	TOTAL S.P.		PERCENTAGE OF CAPACITY	.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
	CFM	O.V.		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3,600	1,250	20	609	0.55																
4,000	1,388	30	617	0.64	741	0.87															
4,400	1,527	40	627	0.76	746	1.00	852	1.24													
4,800	1,666	50	641	0.87	754	1.15	858	1.41	953	1.69											
5,200	1,805	60	656	1.03	763	1.31	864	1.59	956	1.89											
5,600	1,944	70	673	1.20	775	1.49	872	1.79	962	2.10	1047	2.42									
6,400	2,222	80	712	1.60	805	1.92	894	2.25	978	2.60	1058	2.95	1135	3.31	1208	3.67					
7,200	2,500	90	759	2.11	841	2.45	922	2.81	1001	3.19	1077	3.57	1149	3.97	1219	4.37	1286	4.77	1350	5.18	
8,000	2,777	100	808	2.74	881	3.09	956	3.47	1029	3.87	1100	4.29	1169	4.72	1235	5.45	1300	5.59	1362	6.05	

PM215	TOTAL S.P.		PERCENTAGE OF CAPACITY	.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
	CFM	O.V.		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	5,000	1,244	0	501	0.72																
6,000	1,492	15	513	0.95	613	1.28															
7,000	1,741	30	528	1.26	624	1.61	708	1.99													
8,000	1,990	40	548	1.64	637	2.03	720	2.45	793	2.87	863	3.32									
9,000	2,238	55	574	2.12	654	2.53	732	2.98	805	3.45	872	3.94	935	4.42	995	4.94					
10,000	2,487	70	607	2.73	675	3.14	748	3.61	819	4.13	884	4.64	945	5.17	1003	5.72	1058	6.27	1112	6.84	
11,000	2,736	85	645	3.47	703	3.88	767	4.37	833	4.90	897	5.45	957	6.02	1014	6.60	1068	7.20	1119	7.80	
12,000	2,985	100	686	4.37	734	4.78	791	5.25	851	5.80	913	6.38	971	6.99	1027	7.62	1079	8.25	1130	8.89	



PM-Series Selection Guide

Step 1 - Model Identification: Locate CFM requirement on Tables B - L. If several units can deliver the same air volume, the smaller unit should be selected, unless a significant savings in horsepower can be realized.

Step 2 - Horsepower Requirements: First, refer to the "Percentage of Capacity" (third column in Tables B-L) data provided for the unit chosen in Step 1. Locate this same percentage of capacity on the horizontal axis of Chart A. Draw a vertical line through that percentage, intersecting the curved lines of all the components. At the applicable intersection of points, go horizontally to the vertical axis and read the individual static pressures of each component.

Next, add all of the individual components plus the external static pressure (from the job requirement) together to determine the total static pressure. Add drive losses to this figure by multiplying total static pressure by a factor of 1.08.

Finally, return to the row of data (in Tables B-L) provided for the unit chosen in Step 1. Go horizontally across until under the total static pressure required. Read the brake horsepower (BHP) and select the next highest horsepower motor for the job.

Step 3 - Burner or Electric Heating Coil Capacity: To compute necessary output of direct-fired burner, use the following formulas:

$$\text{Btu/h output required} = \text{CFM} \times 1.08 \times \text{temperature rise}$$

$$\text{MBH} = \text{Btu/h} / 1000$$

To compute the necessary output of electrical heating coil, use the following formulas:

$$\text{Btu/h output required} = \text{CFM} \times 1.08 \times \text{temperature rise}$$

$$1 \text{ kW} = 3,412 \text{ Btu/h}$$

Step 4 - Gas Train Size: To compute necessary gas train size, locate the required burner capacity level in Table A. Choose the appropriate gas train size based on project's inlet gas pressure. For gas pressures above those listed in Table A, a high gas pressure regulator is required.

Chart A: Internal Static Pressures (ISP)

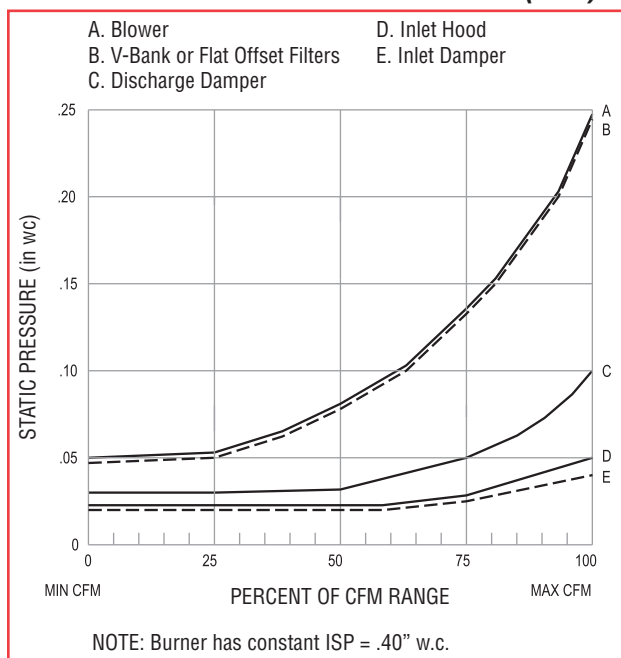


Table A: Gas Train Selection

BURNER CAPACITY	GAS PRESSURE	GAS TRAIN DIAMETER
Under 1,000 MBH	7" w.c. - 11" w.c.	1"
	12" w.c. - 1PSI	1"
1,000 - 1,650 MBH	7" w.c. - 11" w.c.	1.25"
	12" w.c. - 5PSI	1"
1,651 - 2,499 MBH	7" w.c. - 11" w.c.	1.5"
	12" w.c. - 5PSI	1.25"
2,500 - 3,000 MBH	7" w.c. - 11" w.c.	2"
	12" w.c. - 5PSI	1.5"
3,001 - 4,000 MBH	7" w.c. - 11" w.c.	2.5"
	12" w.c. - 5PSI	2"
4,001 - 5,000 MBH	8" w.c. - 11" w.c.	3"
	12" w.c. - 20" w.c.	2.5"
	21" w.c. - 5PSI	2"
5,001 - 6,000 MBH	11" w.c. - 20" w.c.	3"
	21" w.c. - 5PSI	2.5"
6,001 - 8,000 MBH	12" w.c. - 5PSI	3"
8,001 - 9,000 MBH	12" w.c. - 5PSI	3"

Tables B - L: Blower Motor Horsepower Selection

PM112	TOTAL S.P.		PERCENTAGE OF CAPACITY	.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
	CFM	O.V.		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	1,600	1,111	0	603	0.23																
1,800	1,250	20	609	0.27	737	0.38															
2,000	1,388	30	617	0.33	741	0.43	850	0.55													
2,200	1,527	40	627	0.38	746	0.50	852	0.62	951	0.76											
2,400	1,666	50	641	0.44	754	0.57	858	0.71	953	0.84	1041	0.99									
2,600	1,805	60	656	0.52	764	0.65	864	0.80	956	0.94	1043	1.10	1125	1.24							
2,800	1,944	70	673	0.60	775	0.75	872	0.90	962	1.06	1047	1.21	1127	1.37	1203	1.54					
3,200	2,222	80	712	0.80	805	0.96	894	1.13	970	1.17	1058	1.48	1135	1.66	1208	1.83	1278	2.03	1345	2.22	
3,600	2,500	90	759	1.06	841	1.22	922	1.40	1001	1.59	1077	1.78	1149	1.98	1219	2.18	1286	2.38	1350	2.58	
4,000	2,777	100	808	1.37	881	1.54	956	1.73	1029	1.94	1100	2.14	1169	2.36	1235	2.57	1300	2.80	1362	3.00	



Blower Motor Horsepower Selection (continued)

PM218	TOTAL S.P.		PERCENTAGE OF CAPACITY	.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
	CFM	O.V.		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	9,000	1,071		0	453	1.64	537	2.16	612	2.69											
10,000	1,745	10	463	1.97	544	2.55	617	3.13	685	3.73											
11,000	1,920	20	476	2.37	554	3.00	625	3.63	690	4.27	750	4.94									
12,000	2,094	30	489	2.83	564	3.50	633	4.19	696	4.88	755	5.59	810	6.31	863	7.04					
13,000	2,269	40	504	3.34	576	4.06	642	4.80	704	5.55	762	6.31	816	7.07	867	7.85	917	8.64			
14,000	2,443	50	521	3.92	590	4.71	653	5.49	713	6.29	769	7.09	823	7.91	872	8.74	921	9.57	970	10.42	
15,000	2,618	60	538	4.59	603	5.41	666	6.26	724	7.10	779	7.95	830	8.82	880	9.70	926	10.55	973	11.39	
16,000	2,792	70	557	5.33	619	6.20	678	7.09	735	7.99	788	8.90	839	9.81	887	10.66	934	11.61	975	12.55	
17,000	2,967	80	576	6.15	636	7.08	693	8.02	747	8.97	799	9.93	848	10.87	896	11.82	941	12.77	985	13.82	
18,000	3,141	90	596	7.07	653	8.04	708	9.03	761	10.03	810	10.97	859	12.03	905	13.08	950	14.03	993	15.16	
20,000	3,490	100	638	9.19	690	10.27	741	11.29	789	12.45	837	13.50	883	14.66	926	15.72	970	16.88	1011	18.04	

PM221	TOTAL S.P.		PERCENTAGE OF CAPACITY	.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
	CFM	O.V.		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	10,000	1,278		0	382	1.53	458	2.06													
12,000	1,534	10	397	2.11	466	2.72	531	3.35													
14,000	1,790	20	415	2.85	480	3.54	540	4.26	595	4.99	648	5.75									
16,000	2,046	30	436	3.77	497	4.56	554	5.36	606	6.17	655	7.01	703	7.85	748	8.72					
18,000	2,301	40	460	4.91	516	5.78	570	6.67	619	7.57	667	8.49	711	9.41	754	10.35	795	11.29	837	12.23	
20,000	2,557	50	487	6.30	538	7.24	589	8.22	636	9.21	682	10.22	724	11.18	765	12.24	805	13.19	843	14.24	
22,000	2,813	60	517	7.97	563	8.98	610	10.03	654	11.08	697	12.13	739	13.29	779	14.35	817	15.51	853	16.67	
24,000	3,069	70	548	9.94	590	10.97	633	12.13	675	13.29	716	14.45	755	15.61	793	16.88	830	18.04	866	19.31	
26,000	3,324	80			619	13.29	658	14.56	697	15.72	736	16.99	774	18.36	810	19.62	846	20.89	881	22.26	
28,000	3,580	90					686	17.30	722	18.67	759	19.94	794	21.31	829	22.68	864	24.16	897	25.53	
30,000	3,836	100					714	20.57	749	21.94	783	23.32	817	24.79	850	26.16	883	27.64	915	29.22	

PM224	TOTAL S.P.		PERCENTAGE OF CAPACITY	.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
	CFM	O.V.		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	25,000	1,862		0	327	4.94	376	6.16	420	7.46	463	8.84	503	10.32							
27,000	2,011	10	338	5.79	384	7.09	426	8.45	467	9.89	506	11.39	544	12.98	580	14.66					
29,000	2,160	20	348	6.75	392	8.13	434	9.56	473	10.97	511	12.55	546	14.24	581	15.93	616	17.72			
31,000	2,309	30	359	7.83	402	9.31	442	10.76	480	12.34	516	13.93	551	15.61	584	17.41	617	19.20	650	21.10	
33,000	2,459	40	370	9.03	413	10.55	452	12.13	487	13.72	522	15.40	556	17.20	588	18.99	620	20.89	651	22.79	
35,000	2,608	50			423	11.92	461	13.61	496	15.30	530	17.09	593	18.88	593	20.68	624	22.68	654	24.58	
37,000	2,757	60			435	13.50	471	15.30	505	17.09	538	18.88	599	20.68	599	22.58	629	24.58	658	26.59	
39,000	2,906	70					481	17.09	515	18.99	546	20.78	606	22.79	606	24.69	635	26.69	663	28.80	
41,000	3,055	80					492	19.10	524	20.99	555	23.00	614	24.90	614	27.01	641	29.01	669	31.23	
43,000	3,204	90							535	23.21	565	25.21	622	27.32	622	29.43	649	31.54	675	33.76	
45,000	3,353	100							545	25.64	575	27.75	631	29.86	631	32.07	657	34.29	683	36.50	

PM230	TOTAL S.P.		PERCENTAGE OF CAPACITY	.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
	CFM	O.V.		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	30,000	1,612		0	252	4.86	298	6.35	339	8.00											
33,000	1,774	10	260	5.82	302	7.40	341	9.09	379	10.87											
36,000	1,935	20	267	6.93	307	8.61	345	10.38	381	12.24	415	14.24									
39,000	2,096	30	276	8.20	314	9.98	350	11.82	384	13.72	417	15.83	448	18.04							
42,000	2,258	40	285	9.62	322	11.50	357	13.40	388	15.51	420	17.62	450	19.94	479	22.26	507	24.79			
45,000	2,419	50			330	13.19	363	15.30	395	17.48	424	19.62	453	21.94	481	24.37	509	29.60	536	29.64	
48,000	2,580	60			339	15.19	370	17.41	401	19.62	429	21.94	457	24.27	484	26.80	511	29.33	537	32.07	
51,000	2,741	70					379	19.62	407	21.94	436	24.41	462	26.80	488	29.43	514	32.07	539	34.82	
54,000	2,903	80					387	22.16	415	24.58	442	27.11	468	29.69	493	32.28	518	35.03	542	37.77	
57,000	3,064	90							423	27.43	449	30.07	475	32.71	499	35.47	522	38.19	545	41.04	
60,000	3,225	100							431	30.49	457	33.23	481	36.08	505	38.82	529	41.76	550	44.63	

Blower Motor Horsepower Selection (continued)



	TOTAL S.P.		PERCENTAGE OF CAPACITY	.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
	CFM	O.V.		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
PM233	40,000	1,659	0	239	7.36	276	9.20	312	11.15												
	43,000	1,784	8	246	8.53	282	10.50	315	12.45	347	14.66										
	46,000	1,908	16	252	9.84	287	11.92	320	14.03	350	16.29	380	20.36								
	49,000	2,033	25	258	11.29	293	13.50	324	15.72	353	18.07	382	20.50								
	52,000	2,157	33			300	15.19	329	17.62	358	19.94	385	22.47	411	25.14						
	55,000	2,282	41			306	17.09	335	19.62	363	22.16	389	24.77	415	27.44	440	30.23				
	58,000	2,406	50			342	21.83	342	21.84	368	24.48	394	27.11	419	29.95	442	32.80	466	35.76		
	61,000	2,531	58					348	24.27	373	27.01	399	29.85	423	32.60	446	35.55	468	38.62	492	41.67
	64,000	2,655	66					354	26.80	380	29.79	404	32.71	427	35.55	450	38.64	473	41.67	494	44.91
	67,000	2,780	75					361	29.65	386	32.71	410	35.76	433	38.82	455	41.88	476	45.05	497	48.32
	70,000	2,904	83							392	35.76	416	39.05	438	42.20	460	45.37	481	48.68	501	51.91
	73,000	3,029	91							400	39.21	422	42.52	444	45.79	465	49.17	485	52.43	505	55.92
	7,5000	3,112	100									426	44.94	448	48.32	468	51.81	488	55.18	509	67.20

	TOTAL S.P.		PERCENTAGE OF CAPACITY	.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
	CFM	O.V.		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
PM236	50,000	1,953	0	244	10.76	274	12.98	303	11.15	330	17.51	358	20.02								
	53,000	2,070	8	250	12.24	281	14.66	308	12.45	334	19.38	360	21.89	385	24.55						
	56,000	2,187	16	256	13.93	287	16.35	313	14.03	339	21.31	364	23.96	387	26.65						
	59,000	2,304	25			293	18.36	320	15.72	344	23.55	368	26.16	391	28.97	414	31.83				
	62,000	2,421	33			299	20.41	326	17.62	349	25.85	372	28.65	394	31.48	417	34.41	438	37.46		
	65,000	2,539	41					332	19.62	356	28.44	378	31.23	399	34.18	420	37.14	441	40.30	462	43.53
	68,000	2,656	50					339	21.84	362	31.12	383	34.08	404	37.14	424	40.22	444	43.36	464	46.63
	71,000	2,773	58					345	24.27	367	34.08	389	37.14	409	40.29	429	43.46	448	46.63	468	50.02
	74,000	2,890	66					351	33.87	373	37.14	395	40.42	415	43.57	435	46.84	454	50.24	472	53.59
	77,000	3,007	75							381	40.41	401	43.78	421	47.16	440	50.60	458	54.02	476	57.49
	80,000	3,124	83							387	43.89	407	47.48	426	50.96	445	54.51	463	58.04	481	61.51
	83,000	3,242	91							394	47.69	414	51.38	433	54.97	452	58.67	468	62.30	486	65.94
	85,000	3,320	100							398	50.29	418	54.02	437	57.85	455	61.50	473	65.20	490	69.01

Installation Code and Annual Inspections:

All installation and service of PHOENIX AIR SYSTEMS™ equipment must be performed by a contractor qualified in the installation and service of equipment sold and supplied by Phoenix Air Systems and conform to all requirements set forth in the PHOENIX AIR SYSTEMS™ manuals and all applicable governmental authorities pertaining to the installation, service and operation of the equipment. To help facilitate optimum performance and safety, Phoenix Air Systems recommends that a qualified contractor conduct, at a minimum, annual inspections of your PHOENIX AIR SYSTEMS™ equipment and perform service where necessary, using only replacement parts sold and supplied by Phoenix Air Systems.

Further Information: Applications, engineering and detailed guidance on system design, installation and equipment performance is available through PHOENIX AIR SYSTEMS™ representatives. Please contact us for any further information you may require, including the Installation, Operation and Service Manual.

These products are not for residential use.

This document is intended to assist licensed professionals in the exercise of their professional judgment.

Phoenix Air Systems

170 Landmark Drive, Suite B
 Owatonna, Minnesota 55060
 Telephone: +1.507.451.3524
 Fax: +1.507.451.9185

www.phoenixairsystems.com

© 2010 Weather-Rite LLC All rights reserved. No part of this work covered by the copyrights herein may be reproduced or copied in any form or by any means – graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems – without written permission of Weather-Rite LLC.