

Combat® AT-Series

Indirect-Fired Air Turnover Units

Dimension and Selection Guide

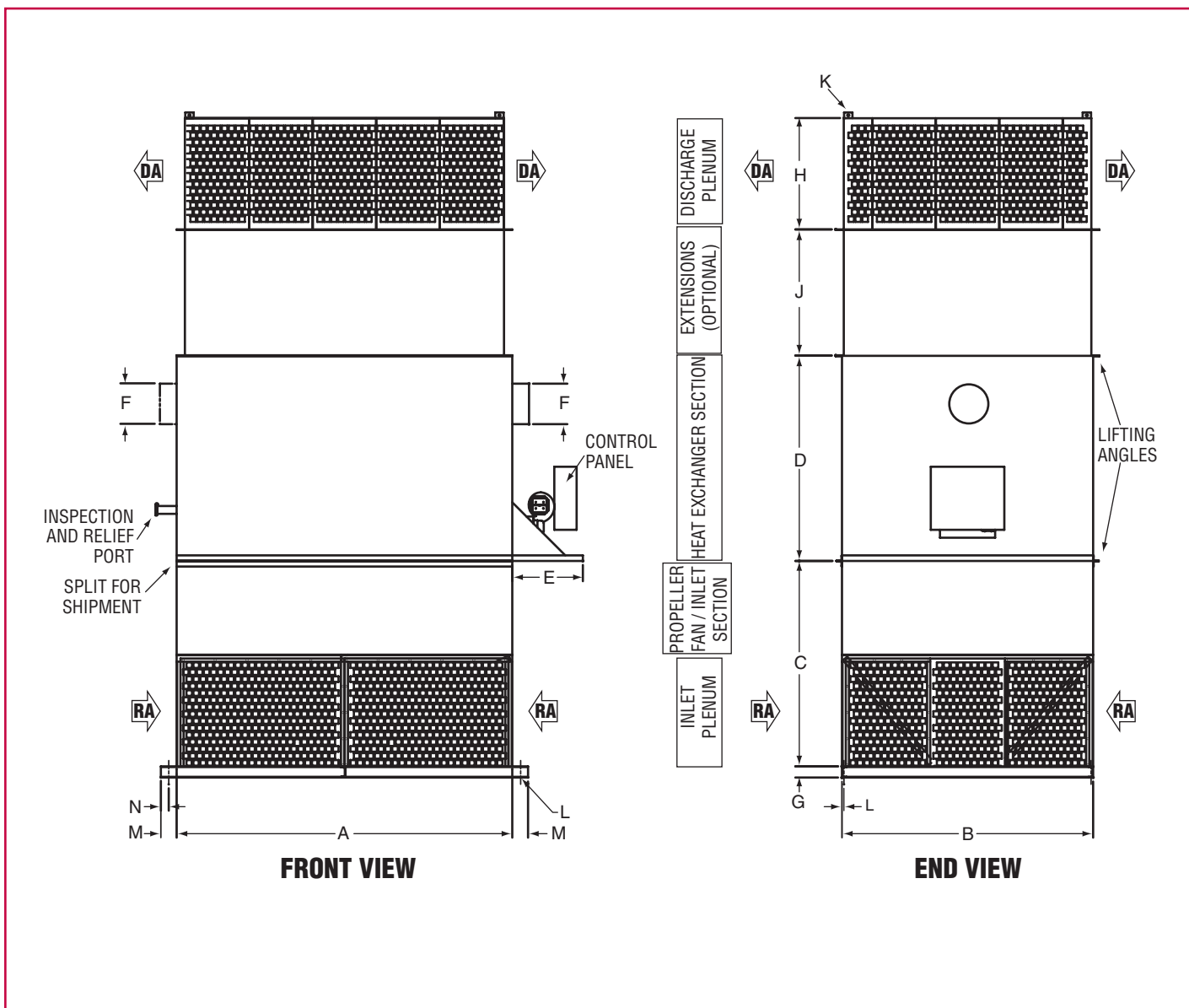


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Quality in Any Language™



AT-Series Heating Unit



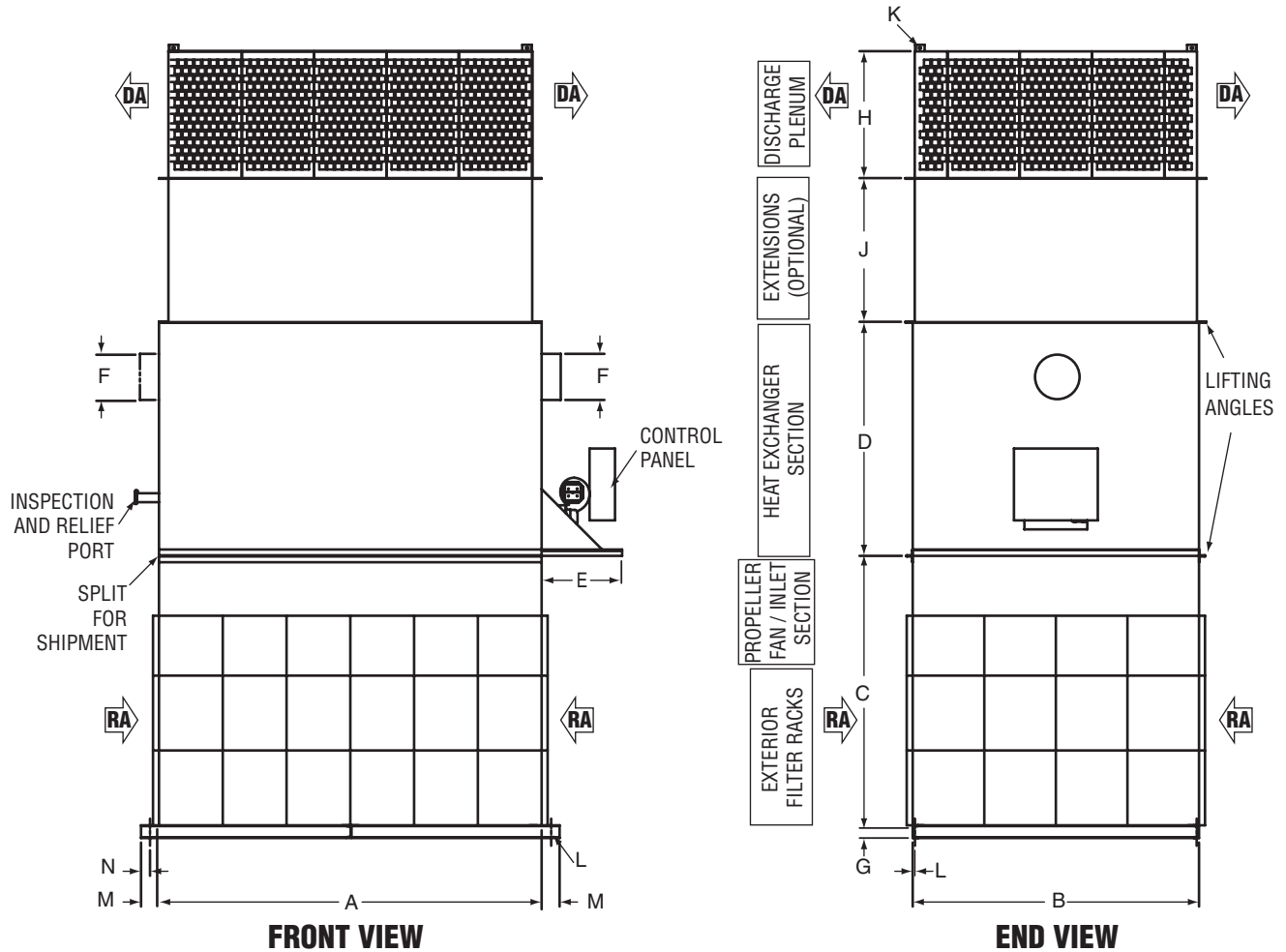
DIMENSIONS									
	AT-136	AT-148	AT-154	AT-236	AT-242	AT-248	AT-254	AT-260	AT-272
A	60	72	85	90	100	116	145	160	165
B	50	60	72	50	55	60	72	84	90
C	75	75	86	60	66	66	72	72	76
D	53	53	65	53	75 - 53 100 - 53 125 - 72	75 - 53 100 - 53 150 - 72 175 - 72	90	96	96
E	35	35	35	35	35	35	35	35	35
F	45 - 6 75 - 6 100 - 8	45 - 6 75 - 6 100 - 8	45 - 6 75 - 6 100 - 8 125 - 10	45 - 6 70 - 6 100 - 8	75 - 6 100 - 8 125 - 10	75 - 6 100 - 8 125 - 10 175 - 12	175 - 12 225 - 12 300 - 14	300 - 14 450 - 16	300 - 14 450 - 16
G	3	3	3	3	3	3	4	4	4
H	24	24	36	24	30	30	36	36	40
J	48	48	48	48	48	48	48	48	48
K	.75	.75	.75	.75	.75	.75	.75	.75	.75
L	.75	.75	.75	.75	.75	.75	.75	.75	.75
M	6	6	6	6	6	6	6	6	6
N	3	3	3	3	3	3	3	3	3

LEGEND
DA = Discharge Air
RA = Return Air

IMPORTANT NOTES:

- All dimensions are in inches.
- All dimensions are subject to change without notice.
- Due to height of unit, additional support is recommended on top of the unit.
- Dimension "F" is flue diameter. Flue located on left side of unit for 1,000 MBH heat exchanger and smaller; flue located on right side of unit for 1,250 MBH heat exchanger and larger.
- Dimensions "D" and "F" may vary depending on heat exchanger size (ex. 45 = 450 MBH heat exchanger).

AT-Series Heating Unit with Filtration



FRONT VIEW

END VIEW

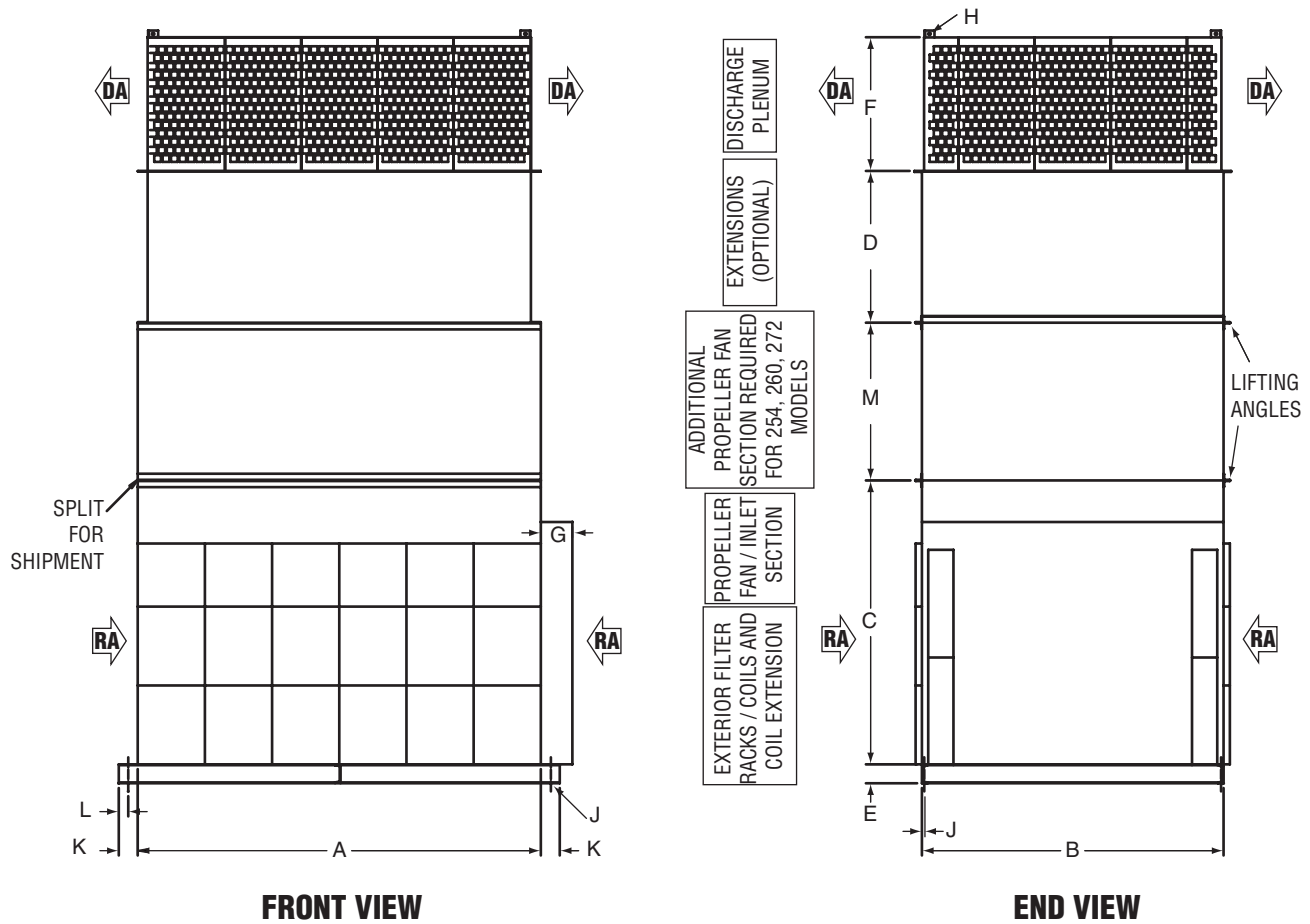
DIMENSIONS									
	AT-136	AT-148	AT-154	AT-236	AT-242	AT-248	AT-254	AT-260	AT-272
A	60	72	85	90	100	116	145	160	165
B	50	60	72	50	55	60	72	84	90
C	75	75	86	60	66	66	72	72	76
D	53	53	65	53	75 - 53 100 - 53 125 - 72	75 - 53 100 - 53 125 - 72 150 - 72 175 - 72	90	96	96
E	35	35	35	35	35	35	35	35	35
F	45 - 6 75 - 6 100 - 8	45 - 6 75 - 6 100 - 8	45 - 6 75 - 6 100 - 8 125 - 10	45 - 6 70 - 6 100 - 8	75 - 6 100 - 8 125 - 10	75 - 6 100 - 8 125 - 10 175 - 12	175 - 12 225 - 12 300 - 14	300 - 14 450 - 16	300 - 14 450 - 16
G	3	3	3	3	3	3	4	4	4
H	24	24	36	24	30	30	36	36	40
J	48	48	48	48	48	48	48	48	48
K	.75	.75	.75	.75	.75	.75	.75	.75	.75
L	.75	.75	.75	.75	.75	.75	.75	.75	.75
M	6	6	6	6	6	6	6	6	6
N	3	3	3	3	3	3	3	3	3

LEGEND
DA = Discharge Air
RA = Return Air

IMPORTANT NOTES:

- All dimensions are in inches.
- All dimensions are subject to change without notice.
- Due to height of unit, additional support is recommended on top of the unit.
- Dimension "F" is flue diameter. Flue located on left side of unit for 1,000 MBH heat exchanger and smaller; flue located on right side of unit for 1,250 MBH heat exchanger and larger.
- Dimensions "D" and "F" may vary depending on heat exchanger size (ex. 45 = 450 MBH heat exchanger).

AT-Series Cooling Unit with Filtration



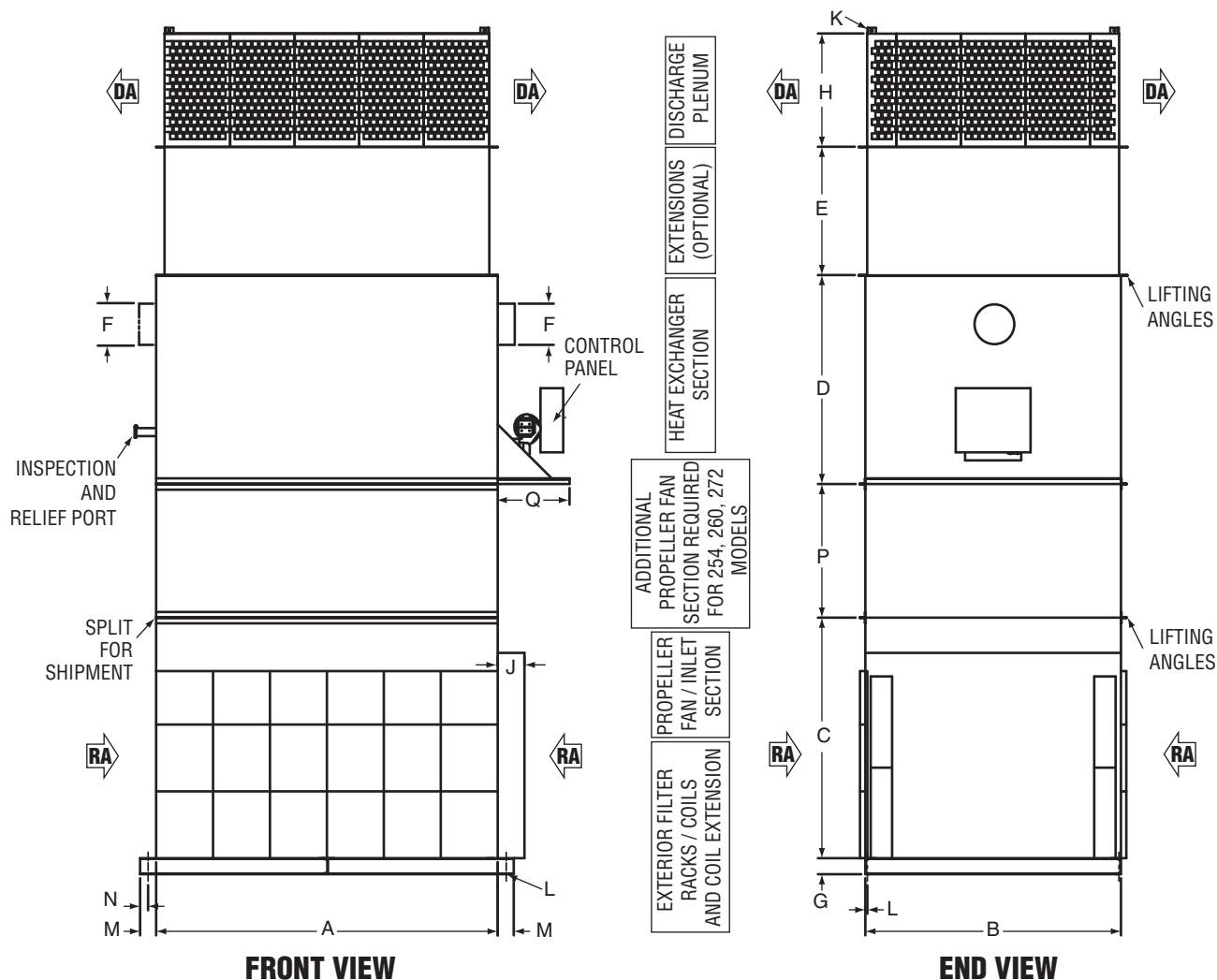
DIMENSIONS									
	AT-136	AT-148	AT-154	AT-236	AT-242	AT-248	AT-254	AT-260	AT-272
A	60	72	85	90	100	116	145	160	165
B	50	60	72	50	55	60	72	84	90
C	75	85	95	85	85	95	90	90	90
D	48	48	48	48	48	48	48	48	48
E	6	6	6	6	6	6	6	6	6
F	24	24	36	24	30	30	36	36	40
G			10	10	16	6			10
H	.75	.75	.75	.75	.75	.75	.75	.75	.75
J	.75	.75	.75	.75	.75	.75	.75	.75	.75
K	6	6	6	6	6	6	6	6	6
L	3	3	3	3	3	3	3	3	3
M	N/A	N/A	N/A	N/A	N/A	N/A	50	50	50

LEGEND
DA = Discharge Air
RA = Return Air

IMPORTANT NOTES:

- All dimensions are in inches.
- All dimensions are subject to change without notice.
- Due to height of unit, additional support is recommended on top of the unit.

AT-Series Heating and Cooling Unit with Filtration



DIMENSIONS

	AT-136	AT-148	AT-154	AT-236	AT-242	AT-248	AT-254	AT-260	AT-272
A	60	72	85	90	100	116	145	160	165
B	50	60	72	50	55	60	72	84	90
C	75	85	95	85	85	95	90	90	90
D	53	53	65	53	75 - 53 100 - 53 125 - 72	75 - 53 100 - 53 125 - 72 150 - 72 175 - 72	90	96	96
E	48	48	48	48	48	48	48	48	48
F	45 - 6 75 - 6 100 - 8	45 - 6 75 - 6 100 - 8	45 - 6 75 - 6 100 - 8 125 - 10	45 - 6 75 - 6 100 - 8	75 - 6 100 - 8 125 - 10	75 - 6 100 - 8 125 - 10 175 - 12	175 - 12 225 - 12 300 - 14	300 - 14 450 - 16	300 - 14 450 - 16
G	6	6	6	6	6	6	6	6	6
H	24	24	36	24	30	30	36	36	40
J			10	10	16	6			10
K	.75	.75	.75	.75	.75	.75	.75	.75	.75
L	.75	.75	.75	.75	.75	.75	.75	.75	.75
M	6	6	6	6	6	6	6	6	6
N	3	3	3	3	3	3	3	3	3
P	N/A	N/A	N/A	N/A	N/A	N/A	50	50	50
Q	35	35	35	35	35	35	35	35	35

LEGEND

DA = Discharge Air

RA = Return Air

IMPORTANT NOTES:

- All dimensions are in inches.
- All dimensions are subject to change without notice.
- Due to height of unit, additional support is recommended on top of the unit.
- Dimension "F" is flue diameter. Flue located on left side of unit for 1,000 MBH heat exchanger and smaller; flue located on right side of unit for 1,250 MBH heat exchanger and larger.
- Dimensions "D" and "F" may vary depending on heat exchanger size (ex. 45 = 450 MBH heat exchanger).

AT-Series Estimated Shipping Weights

ESTIMATED SHIPPING WEIGHTS - BURNERS (ALL MODELS)								
GAS BURNER	Input MBH	300 - 625	626 - 938	939 - 1250	1251 - 1875	1876 - 2500	2501 - 3125	3126 - 5000
	Weight	155	190	230	290	300	340	340
#2 OIL BURNER	Input GPH	2.5 - 4.5	4.6 - 6.7	6.8 - 8.9	9.0 - 13.4	13.5 - 17.9	18 - 22	22.1 - 36
	Weight	125	125	220	220	310	360	385
COMBINATION GAS / #2 OIL BURNER	Input MBH	300 - 625	626 - 938	939 - 1250	1251 - 1875	1876 - 2500	2501 - 3125	3126 - 5000
	Input GPH	2.5 - 4.5	4.6 - 6.7	6.8 - 8.9	9.0 - 13.4	13.5 - 17.9	18 - 22	22.1 - 36
	Weight	200	240	270	360	400	450	500

IMPORTANT NOTES:

- All weights are in pounds.
- All weights are subject to change without notice.
- To determine total unit weight, add the appropriate burner weight to the appropriate base unit weight (as listed in performance information tables).

AT-Series Selection Guide

To create a complete air turnover unit, choose one base unit and one burner/manifold package using the tables on the following pages. Prices apply for natural gas or LPG units.

1. Choosing A Base Unit Package

Base Unit Package choice is based on model choice. First locate the correct set of tables on the following pages which corresponds to the required type of unit. Locate CFM and MBH requirements on the appropriate set of tables to determine the unit model. If more than one model is applicable, choose the smaller model.

$$\text{Btu/h Output Required} = \text{CFM} * 1.08 * \text{Temperature Rise}$$

$$\text{MBH} = \text{Btu/h} / 1,000$$

2. Choosing A Burner/Manifold Package

Choose Burner/Manifold Package based on input, burner type and insurance requirements. Choose a Burner/Manifold Package that can fulfill the maximum output of the model. Note that burner INPUTS are listed rather than outputs.

$$\text{Burner Input} = \text{Burner Output} / .8$$

Tables A: Air Turnover Heating Unit Performance Information

(Additional configurations are available upon request.)

AT-136					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
4,500	1 (1 motor)	240	450	49 to 93	2,225
9,000	2 (1 motor)	240	450	25 to 46	2,280
12,000	3 (1 motor)	240	450	19 to 35	2,305

AT-148					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
10,000	3 (1 motor)	240	450	22 to 42	3,255
16,000	3 (1 motor)	240	750	14 to 43	3,300

AT-154					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
14,000	3 (1 motor)	240	450	16 to 30	3,880
22,000	5 (1 motor)	240	750	10 to 32	3,940
30,000	7.5 (1 motor)	520	1,000	16 to 31	4,115
30,000	7.5 (1 motor)	560	1,250	17 to 39	4,220

AT-236					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
9,000	1 (2 motors)	240	450	25 to 46	3,945
18,000	2 (2 motors)	240	750	12 to 39	3,990
24,000	3 (2 motors)	520	1,000	20 to 39	4,115

AT-242					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
21,000	2 (2 motors)	240	750	11 to 33	4,990
31,000	3 (2 motors)	520	1,000	16 to 30	5,115
31,000	3 (2 motors)	560	1,250	17 to 37	5,240

AT-248					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
22,000	3 (2 motors)	240	750	10 to 32	5,990
35,000	5 (2 motors)	520	1,000	14 to 26	6,145
45,000	5 (2 motors)	560	1,250	12 to 26	6,270
45,000	5 (2 motors)	560	1,500	12 to 31	6,270

AT-254					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
40,000	5 (2 motors)	560	1,750	13 to 41	7,670
60,000	7.5 (2 motors)	600	2,250	9 to 35	8,060
65,000	7.5 (2 motors)	600	2,500	9 to 36	8,310

AT-260					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
54,000	5 (2 motors)	600	3,000	10 to 51	10,870
61,000	7.5 (2 motors)	720	4,000	11 to 61	11,135
74,000	7.5 (2 motors)	720	4,000	9 to 50	11,135

AT-272					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
62,000	5 (2 motors)	600	3,000	9 to 45	11,720
88,000	10 (2 motors)	720	4,500	8 to 47	12,185
100,000	10 (2 motors)	720	4,500	7 to 42	12,185

Tables B: Air Turnover Heating Unit with Filtration Performance Information

(Additional configurations are available upon request.)

AT-136					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
4,500	1 (1 motor)	240	450	49 to 93	2,425
9,000	3 (1 motor)	240	450	25 to 46	2,505
12,000	5 (1 motor)	240	450	19 to 35	2,520

AT-148					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
10,000	3 (1 motor)	240	450	22 to 42	3,455
16,000	5 (1 motor)	240	750	14 to 43	3,470

AT-154					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
14,000	3 (1 motor)	240	450	16 to 30	4,080
22,000	5 (1 motor)	240	750	10 to 32	4,140
30,000	10 (1 motor)	520	1,000	16 to 31	4,210
30,000	10 (1 motor)	560	1,250	17 to 39	4,420

AT-236					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
9,000	1 (2 motors)	240	450	25 to 46	4,145
18,000	3 (2 motors)	240	750	12 to 39	4,240
24,000	5 (2 motors)	520	1,000	20 to 39	4,270

AT-242					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
21,000	3 (2 motors)	240	750	11 to 33	5,240
31,000	5 (2 motors)	520	1,000	16 to 30	5,270
31,000	5 (2 motors)	560	1,250	17 to 37	5,445

AT-248					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
22,000	3 (2 motors)	240	750	10 to 32	6,190
35,000	5 (2 motors)	520	1,000	14 to 26	6,345
45,000	7.5 (2 motors)	560	1,250	12 to 26	6,575
45,000	7.5 (2 motors)	560	1,500	12 to 31	6,730

AT-254					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
40,000	5 (2 motors)	560	1,750	13 to 41	7,870
60,000	10 (2 motors)	600	2,250	9 to 35	8,310
65,000	10 (2 motors)	600	2,500	9 to 36	8,560

AT-260					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
54,000	5 (2 motors)	600	3,000	10 to 51	11,070
61,000	7.5 (2 motors)	720	4,000	11 to 61	11,335
74,000	10 (2 motors)	720	4,000	9 to 50	11,385

AT-272					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
62,000	7.5 (2 motors)	600	3,000	9 to 45	12,160
88,000	10 (2 motors)	720	4,500	8 to 47	12,385
100,000	15 (2 motors)	720	4,500	7 to 42	12,515

Tables C: Air Turnover Cooling Unit with Filtration Performance Information

(For cooling applications, consult factory. Base Unit Weights do not account for inclusion of cooling coils or exclusion of heat exchanger. Additional configurations are available upon request.)

AT-136		
CFM	Motor (HP)	Base Unit Weight (lbs.)
4,500	1 (1 motor)	2,425
9,000	3 (1 motor)	2,505
12,000	5 (1 motor)	2,520

AT-148		
CFM	Motor (HP)	Base Unit Weight (lbs.)
10,000	3 (1 motor)	3,455
16,000	5 (1 motor)	3,470

AT-154		
CFM	Motor (HP)	Base Unit Weight (lbs.)
14,000	5 (1 motor)	4,080
22,000	5 (1 motor)	4,140
30,000	10 (1 motor)	4,210
30,000	10 (1 motor)	4,420

AT-236		
CFM	Motor (HP)	Base Unit Weight (lbs.)
9,000	2 (1 motors)	4,145
18,000	3 (2 motors)	4,240
24,000	5 (2 motors)	4,270

AT-242		
CFM	Motor (HP)	Base Unit Weight (lbs.)
21,000	3 (2 motors)	5,240
31,000	5 (3 motors)	5,270
31,000	5 (3 motors)	5,445

AT-248		
CFM	Motor (HP)	Base Unit Weight (lbs.)
22,000	3 (2 motors)	6,190
35,000	5 (2 motors)	6,345
45,000	7.5 (2 motors)	6,575
45,000	7.5 (2 motors)	6,730

AT-254		
CFM	Motor (HP)	Base Unit Weight (lbs.)
40,000	5 (2 motors)	7,870
60,000	10 (2 motors)	8,310
65,000	10 (2 motors)	8,560

AT-260		
CFM	Motor (HP)	Base Unit Weight (lbs.)
54,000	5 (2 motors)	11,070
61,000	7.5 (2 motors)	11,335
74,000	10 (2 motors)	11,385

AT-272		
CFM	Motor (HP)	Base Unit Weight (lbs.)
62,000	7.5 (2 motors)	12,160
88,000	10 (2 motors)	12,385
100,000	15 (2 motors)	12,515

Tables D: Air Turnover Heating/Cooling Unit with Filtration Performance Information

(For cooling applications, consult factory. Base Unit Weights do not account for inclusion of cooling coils or exclusion of heat exchanger. Additional configurations are available upon request.)

AT-136					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
4,500	1.5 (1 motor)	240	450	49 to 93	2,425
9,000	5 (1 motor)	240	450	25 to 46	2,505
12,000	5 (1 motor)	240	450	19 to 35	2,520

AT-148					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
10,000	5 (1 motor)	240	450	22 to 42	3,455
16,000	7.5 (1 motor)	240	750	14 to 43	3,470

AT-154					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
14,000	5 (1 motor)	240	450	16 to 30	4,080
22,000	7.5 (1 motor)	240	750	10 to 32	4,140
30,000	10 (1 motor)	520	1,000	16 to 31	4,210
30,000	10 (1 motor)	560	1,250	17 to 39	4,420

AT-236					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
9,000	1.5 (2 motors)	240	450	25 to 46	4,145
18,000	5 (2 motors)	240	750	12 to 39	4,240
24,000	5 (2 motors)	520	1,000	20 to 39	4,270

AT-242					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
21,000	5 (2 motors)	240	750	11 to 33	5,240
31,000	7.5 (2 motors)	520	1,000	16 to 30	5,270
31,000	7.5 (2 motors)	560	1,250	17 to 37	5,445

AT-248					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
22,000	5 (2 motors)	240	750	10 to 32	6,190
35,000	7.5 (2 motors)	520	1,000	14 to 26	6,345
45,000	10 (2 motors)	560	1,250	12 to 26	6,575
45,000	10 (2 motors)	560	1,500	12 to 31	6,730

AT-254					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
40,000	5 (2 motors)	560	1,750	13 to 41	7,870
60,000	10 (2 motors)	600	2,250	9 to 35	8,310
65,000	15 (2 motors)	600	2,500	9 to 36	8,560

AT-260					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
54,000	7.5 (2 motors)	600	3,000	10 to 51	11,070
61,000	10 (2 motors)	720	4,000	11 to 61	11,335
74,000	15 (2 motors)	720	4,000	9 to 50	11,385

AT-272					
CFM	Motor (HP)	Output (MBH) Minimum	Output (MBH) Maximum	Temp. Rise Range (°F)	Base Unit Weight (lbs.)
62,000	7.5 (2 motors)	600	3,000	9 to 45	12,160
88,000	15 (2 motors)	720	4,500	8 to 47	12,385
100,000	15 (2 motors)	720	4,500	7 to 42	12,515

Installation Code and Annual Inspections:

All installations and service of ROBERTS GORDON® equipment must be performed by a contractor qualified in the installation and service of equipment sold and supplied by Roberts-Gordon and conform to all requirements set forth in the ROBERTS GORDON® manuals and all applicable governmental authorities pertaining to the installation, service and operation of the equipment. To help facilitate optimum performance and safety, Roberts-Gordon recommends that a qualified contractor annually inspect your ROBERTS GORDON® equipment and perform service where necessary, using only replacement parts sold and supplied by Roberts-Gordon.

Further Information: Applications, engineering and detailed guidance on systems design, installation and equipment performance is available through ROBERTS GORDON® representatives. Please contact us for any further information you may require, including the Installation, Operation and Service Manual.

This product is not for residential use.

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

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