

Twin City Fan & Blower

SOUND POWER LEVELS

MIXED FLOW FANS

TYPE QCLB, QCLBR & QCLBSH



Twin City Fan & Blower certifies that the Type QCLB, QCLBR and QCLBSH Mixed Flow Fans shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Air performance ratings can be found in Bulletin 1070.



Sound power levels (Lw) have been determined by laboratory tests in accordance with AMCA Standard 300-96. The sound power levels shown are decibel (dB) levels referred to 10⁻¹² watts calculated per AMCA Standard 301. The AMCA certified Ratings Seal applies to 'A' Weight Lw (LwA) at inlet (LwiA) & outlet (LwoA) only. Procedure to obtain LwA is shown below. We have listed inlet and outlet values for eight octave bands with frequency ranges as shown below.

OCTAVE BAND	1	2	3	4	5	6	7	8
FREQUENCY RANGE	45 to 90	90 to 180	180 to 355	355 to 710	710 to 1400	1400 to 2800	2800 to 5600	5600 to 11200
CENTER FREQUENCY	63	125	250	500	1000	2000	4000	8000

Lw for the fans can be easily obtained using the Twin City Fan Selector Program. Lw can also be obtained using the specific sound power level method described below:

**Sound Power Level of a fan (Lw) =
Specific Sound Power Level (L_{wk}) + Capacity Fraction (M)**

Use of this method will be illustrated by the following example:

Calculate sound power levels for:
 Size 222 QCLB
 CFM 8,350
 SP 2.21" w.g.
 RPM 1400 RPM

1. How to determine L_{wk}

We have published values for L_{wk} at various speeds and operating points on pages 3 through 6 for both the inlet and outlet of the fan.

The operating point is found by using a ratio of design CFM to the wide open volume (WOV) for a given RPM. The WOV can be calculated by multiplying fan RPM by the factors (Rf) shown in the table.

SIZE	Rf	SIZE	Rf	SIZE	Rf
90	0.753	200	6.247	365	38.789
122	1.382	222	8.522	402	51.787
135	1.840	245	11.690	445	70.279
150	2.582	270	15.559	490	95.079
165	3.398	300	21.054	542	126.549
182	4.679	330	28.232	600	171.237

Thus, WOV for 1400 RPM = 8.522 x 1400 = 11,931 CFM.

Therefore, the operating point falls at 70% WOV (8,350 ÷ 11,931 x 100%). Referring to the table on page 5 for Size QCLB 222, the *specific* sound power levels can be read as follows:

Octave Band	1	2	3	4	5	6	7	8	'A' Weight
L _{wk} inlet =	34	35	38	36	35	33	26	20	40
L _{wk} outlet =	42	39	39	40	39	37	31	23	44

2. How to determine M

M can be calculated by: $M = 10 \log_{10} (CFM) + 20 \log_{10} TP$, where $TP = ((CFM \div OA) \div 4005)^2 + SP = ((8,350 \div 4.97) \div 4005)^2 + 2.21 = 2.39$

Thus, for 8,350 CFM and 2.21" SP, M is 47.

3. Combining L_{wk} and M gives sound power levels.

Octave Band	1	2	3	4	5	6	7	8	'A' Weight
L _{wk} =	34	35	38	36	35	33	26	20	40
M =	47	47	47	47	47	47	47	47	47
Lw (Lwi) at inlet =	81	82	85	83	82	80	73	67	87 (LwiA)
L _{wk} =	42	39	39	40	39	37	31	23	44
M =	47	47	47	47	47	47	47	47	47
Lw (Lwo) at outlet =	89	86	86	87	86	84	78	70	91 (LwoA)

**Inlet L_{wk} Values (L_{wki}) —
QCLB, QCLBR & QCLBSH 090–135**

RPM	% WOV	OCTAVE BAND								L _{wki} A
		1	2	3	4	5	6	7	8	
4000	90	41	43	45	45	46	47	45	38	52
	80	37	39	41	41	43	44	40	33	49
	70	36	37	39	39	40	41	37	30	46
	60	36	37	38	38	38	38	35	29	44
	50	36	37	38	38	38	38	35	29	44
3600	90	41	43	45	45	47	47	44	37	52
	80	37	39	41	41	44	43	39	32	48
	70	36	38	39	39	41	40	36	29	46
	60	36	38	38	38	39	38	34	28	44
	50	36	38	38	38	39	38	34	28	44
3200	90	41	44	47	47	48	47	44	36	53
	80	37	40	43	43	45	43	39	32	49
	70	35	38	41	41	42	40	35	29	46
	60	35	38	40	40	39	38	34	28	44
	50	35	38	40	40	39	38	34	28	44
2800	90	40	46	50	50	50	48	43	36	54
	80	37	42	46	46	46	43	38	32	50
	70	35	40	44	44	43	40	35	29	47
	60	35	40	43	42	40	37	33	28	45
	50	35	40	43	42	40	37	33	28	45
2300	90	39	51	54	53	52	48	42	35	56
	80	36	48	50	49	47	43	38	31	51
	70	34	46	48	45	43	39	35	28	48
	60	33	45	48	43	41	37	33	27	46
	50	33	45	48	43	41	37	33	27	46
1900	90	41	54	55	54	51	46	40	34	56
	80	38	51	52	49	46	42	37	30	51
	70	36	49	50	45	43	38	34	27	48
	60	36	48	49	42	40	36	32	26	46
	50	36	48	49	42	40	36	32	26	46
1600	90	45	55	55	53	50	45	39	33	55
	80	42	51	52	48	45	40	35	28	50
	70	40	49	50	44	42	37	32	25	47
	60	39	49	49	41	39	35	30	24	45
	50	39	49	49	41	39	35	30	24	45
1100	90	53	55	54	52	48	42	36	30	53
	80	50	52	50	47	43	38	31	25	49
	70	48	50	46	44	39	35	28	22	45
	60	48	49	42	41	37	33	27	21	43
	50	48	49	42	41	37	33	27	21	43
600	90	55	55	53	48	42	36	30	24	50
	80	52	50	48	43	38	32	25	19	45
	70	50	47	44	40	36	29	23	16	42
	60	49	44	41	38	34	28	22	16	40
	50	49	44	41	38	34	28	22	16	40

**Outlet L_{wk} Values (L_{wko}) —
QCLB, QCLBR & QCLBSH 090–135**

RPM	% WOV	OCTAVE BAND								L _{wko} A
		1	2	3	4	5	6	7	8	
4000	90	60	53	49	48	49	50	46	39	55
	80	57	50	46	44	46	46	42	34	51
	70	56	49	44	42	43	43	38	31	48
	60	55	48	43	42	42	41	37	30	47
	50	55	48	43	42	42	41	37	30	47
3600	90	60	52	49	47	50	50	45	38	55
	80	57	49	46	43	46	46	41	33	51
	70	56	47	44	41	44	43	38	30	49
	60	55	46	43	41	43	41	36	28	47
	50	55	46	43	41	43	41	36	28	47
3200	90	58	51	50	49	51	50	45	37	56
	80	56	49	47	45	47	46	40	32	51
	70	54	47	45	43	44	43	37	29	49
	60	53	46	44	42	42	40	35	27	47
	50	53	46	44	42	42	40	35	27	47
2800	90	56	52	52	52	52	50	44	36	56
	80	54	50	48	47	48	45	39	32	52
	70	52	48	46	45	45	42	36	28	49
	60	51	48	45	44	42	39	34	27	47
	50	51	48	45	44	42	39	34	27	47
2300	90	55	54	55	54	53	49	43	35	57
	80	52	53	51	49	49	45	38	31	53
	70	51	52	48	46	45	42	35	27	50
	60	50	51	47	43	41	38	32	25	46
	50	50	51	47	43	41	38	32	25	46
1900	90	55	55	56	54	52	48	41	33	57
	80	53	53	51	49	48	44	37	29	52
	70	51	52	49	45	44	40	33	26	49
	60	51	51	48	42	40	37	31	24	46
	50	51	51	48	42	40	37	31	24	46
1600	90	55	56	56	54	51	46	39	31	56
	80	53	52	51	49	47	42	35	27	51
	70	52	50	49	45	44	39	32	24	48
	60	51	49	48	42	40	35	29	22	45
	50	51	49	48	42	40	35	29	22	45
1100	90	55	56	54	53	49	42	34	26	54
	80	54	51	50	49	45	38	30	22	50
	70	53	49	46	45	42	35	27	20	47
	60	53	48	42	41	38	32	25	18	43
	50	53	48	42	41	38	32	25	18	43
600	90	56	55	53	50	43	35	27	19	51
	80	51	50	49	46	39	31	23	15	46
	70	49	47	45	42	36	28	21	13	43
	60	48	44	41	39	33	26	19	12	40
	50	48	44	41	39	33	26	19	12	40

The sound power level ratings obtained are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301.

The A-weighted sound ratings obtained have been calculated per AMCA Standard 301.

Values obtained are for inlet L_{wi}A sound power levels for Installation Type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction.

Values obtained are for outlet L_{wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Ratings include the effects of duct end correction.

The AMCA Certified Ratings Seal applies to L_{wi}A and L_{wo}A ratings only.

**Inlet L_{wk} Values (L_{wki}) —
QCLB, QCLBR & QCLBSH 150–200**

RPM	% WOV	OCTAVE BAND								L _{wkiA}
		1	2	3	4	5	6	7	8	
2700	90	42	40	41	42	43	42	41	33	48
	80	38	36	38	38	39	38	35	29	44
	70	36	34	37	36	37	36	32	27	42
	60	35	33	37	37	36	35	31	25	41
50	35	33	37	37	36	35	31	25	41	
2400	90	42	41	43	44	44	43	40	33	49
	80	39	38	40	40	40	39	35	29	45
	70	37	36	39	39	38	37	32	27	43
	60	36	35	39	39	37	35	31	25	42
50	36	35	39	39	37	35	31	25	42	
2100	90	43	42	46	46	46	44	40	33	50
	80	40	39	43	43	42	40	35	29	47
	70	38	37	41	41	40	37	32	26	44
	60	37	36	41	40	38	35	31	24	43
50	37	36	41	40	38	35	31	24	43	
1800	90	44	42	48	47	47	44	39	33	51
	80	42	39	45	44	44	40	35	28	48
	70	40	37	43	42	41	37	32	25	45
	60	38	36	43	40	39	35	30	23	43
50	38	36	43	40	39	35	30	23	43	
1500	90	44	45	49	47	47	43	38	32	51
	80	42	41	46	45	44	39	34	27	48
	70	40	39	44	42	41	36	31	23	45
	60	38	38	43	40	39	34	29	21	43
50	38	38	43	40	39	34	29	21	43	
1200	90	43	49	49	48	46	41	36	30	50
	80	41	46	46	44	42	38	32	24	47
	70	38	44	44	42	39	35	28	20	44
	60	37	43	43	40	37	33	26	18	42
50	37	43	43	40	37	33	26	18	42	
900	90	42	49	47	48	44	39	33	27	49
	80	39	46	45	44	41	36	28	21	46
	70	37	44	43	41	38	33	25	17	43
	60	35	43	41	39	36	31	23	15	41
50	35	43	41	39	36	31	23	15	41	
600	90	49	49	48	46	41	36	30	24	47
	80	46	46	44	42	38	32	24	17	43
	70	44	44	42	39	35	28	20	12	40
	60	43	43	40	37	33	26	18	10	39
50	43	43	40	37	33	26	18	10	39	
300	90	49	48	46	41	36	30	24	18	43
	80	46	44	42	38	32	24	17	10	39
	70	44	42	39	35	28	20	12	4	36
	60	43	40	37	33	26	18	10	2	34
50	43	40	37	33	26	18	10	2	34	

**Outlet L_{wk} Values (L_{wko}) —
QCLB, QCLBR & QCLBSH 150–200**

RPM	% WOV	OCTAVE BAND								L _{wkoA}
		1	2	3	4	5	6	7	8	
2700	90	50	46	47	47	48	46	43	36	52
	80	48	42	43	43	44	42	38	32	48
	70	46	40	40	40	42	39	35	29	46
	60	45	39	39	39	40	38	33	27	44
50	45	39	39	39	40	38	33	27	44	
2400	90	52	47	48	48	49	46	42	35	53
	80	50	44	44	44	45	42	38	31	49
	70	48	42	41	42	42	39	35	28	46
	60	49	41	41	40	40	38	33	26	44
50	49	41	41	40	40	38	33	26	44	
2100	90	55	48	49	49	49	47	42	35	53
	80	52	45	45	45	46	43	37	31	50
	70	51	43	43	43	43	39	34	27	47
	60	53	42	42	41	40	37	32	25	44
50	53	42	42	41	40	37	32	25	44	
1800	90	59	49	49	50	50	47	41	34	54
	80	55	46	46	46	47	43	37	30	50
	70	54	44	44	43	43	39	33	26	47
	60	58	43	43	41	40	36	31	23	45
50	58	43	43	41	40	36	31	23	45	
1500	90	56	50	50	51	50	46	39	32	54
	80	52	46	46	47	46	41	35	28	50
	70	51	44	44	44	43	38	32	24	47
	60	54	43	43	41	40	35	29	21	44
50	54	43	43	41	40	35	29	21	44	
1200	90	50	50	50	51	49	44	37	30	53
	80	47	46	46	47	45	40	33	26	49
	70	44	44	44	44	41	36	29	22	46
	60	44	43	42	41	38	33	26	18	43
50	44	43	42	41	38	33	26	18	43	
900	90	50	50	51	51	47	41	34	27	52
	80	46	46	47	47	43	37	30	23	48
	70	44	44	44	44	39	34	26	19	45
	60	43	43	41	40	37	31	23	15	42
50	43	43	41	40	37	31	23	15	42	
600	90	50	50	51	49	44	37	30	23	50
	80	46	46	47	45	40	33	26	19	46
	70	44	44	44	41	36	29	22	15	42
	60	43	42	41	38	33	26	18	10	39
50	43	42	41	38	33	26	18	10	39	
300	90	50	51	49	44	37	30	23	16	45
	80	46	47	45	40	33	26	19	12	41
	70	44	44	41	36	29	22	15	7	37
	60	42	41	38	33	26	18	10	2	34
50	42	41	38	33	26	18	10	2	34	

The sound power level ratings obtained are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301.

The A-weighted sound ratings obtained have been calculated per AMCA Standard 301.

Values obtained are for inlet L_{wiA} sound power levels for Installation Type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction.

Values obtained are for outlet L_{wkoA} sound power levels for Installation Type B: free inlet, ducted outlet. Ratings include the effects of duct end correction.

The AMCA Certified Ratings Seal applies to L_{wiA} and L_{wkoA} ratings only.

**Inlet L_{wk} Values (L_{wki}) —
QCLB, QCLBR & QCLBSH 222–330**

RPM	% WOV	OCTAVE BAND								L _{wkiA}
		1	2	3	4	5	6	7	8	
1800	90	39	41	43	44	45	44	38	29	49
	80	36	35	39	39	39	38	32	25	44
	70	34	33	38	36	35	35	28	23	40
	60	34	33	40	36	34	32	27	22	39
	50	34	33	40	36	34	32	27	22	39
1600	90	39	42	43	44	45	43	36	27	49
	80	36	36	39	39	39	38	31	24	44
	70	34	33	38	36	35	34	27	22	40
	60	34	34	40	35	33	32	26	21	39
	50	34	34	40	35	33	32	26	21	39
1400	90	40	42	43	44	45	42	35	26	49
	80	36	37	39	39	39	36	29	22	43
	70	34	35	38	36	35	33	26	20	40
	60	34	37	40	35	33	31	25	20	39
	50	34	37	40	35	33	31	25	20	39
1200	90	40	43	43	45	45	41	33	24	48
	80	36	39	39	39	39	35	28	21	43
	70	33	38	38	35	35	31	25	19	39
	60	33	40	40	34	33	29	24	19	38
	50	33	40	40	34	33	29	24	19	38
1000	90	41	43	44	45	44	39	30	21	48
	80	36	39	39	39	38	33	26	19	42
	70	33	38	37	35	35	29	23	18	38
	60	33	40	38	34	33	28	22	17	37
	50	33	40	38	34	33	28	22	17	37
800	90	42	43	44	45	43	36	27	18	47
	80	36	39	39	39	38	31	24	17	41
	70	34	38	36	35	34	27	22	16	38
	60	34	40	35	33	32	26	21	16	36
	50	34	40	35	33	32	26	21	16	36
600	90	43	43	45	45	41	33	24	15	46
	80	39	39	39	39	35	28	21	14	40
	70	38	38	35	35	31	25	19	14	36
	60	40	40	34	33	29	24	19	14	35
	50	40	40	34	33	29	24	19	14	35
400	90	43	44	45	43	36	27	18	9	43
	80	39	39	39	38	31	24	17	10	38
	70	38	36	35	34	27	22	16	10	34
	60	40	35	33	32	26	21	16	11	33
	50	40	35	33	32	26	21	16	11	33
200	90	44	45	43	36	27	18	9	0	38
	80	39	39	38	31	24	17	10	3	33
	70	36	35	34	27	22	16	10	5	30
	60	35	33	32	26	21	16	11	6	28
	50	35	33	32	26	21	16	11	6	28

**Outlet L_{wk} Values (L_{wko}) —
QCLB, QCLBR & QCLBSH 222–330**

RPM	% WOV	OCTAVE BAND								L _{wkoA}
		1	2	3	4	5	6	7	8	
1800	90	45	44	44	47	47	45	41	32	51
	80	43	39	39	43	43	40	35	27	47
	70	43	36	36	40	39	37	32	24	43
	60	43	35	35	39	38	36	30	23	42
	50	43	35	35	39	38	36	30	23	42
1600	90	46	45	45	47	47	45	40	31	51
	80	43	40	40	43	42	40	35	26	46
	70	42	37	37	41	39	37	31	23	44
	60	43	37	37	39	38	35	29	22	42
	50	43	37	37	39	38	35	29	22	42
1400	90	48	46	47	47	46	44	38	29	51
	80	44	41	42	43	42	40	34	25	46
	70	42	39	39	40	39	37	31	23	44
	60	43	38	39	39	38	35	29	22	42
	50	43	38	39	39	38	35	29	22	42
1200	90	49	48	46	47	46	44	37	28	50
	80	46	43	42	43	42	39	33	24	46
	70	44	40	40	41	40	37	30	22	44
	60	44	40	40	39	38	36	29	21	43
	50	44	40	40	39	38	36	29	21	43
1000	90	50	48	46	47	45	43	35	26	50
	80	47	44	42	43	42	39	31	22	46
	70	45	42	40	41	40	36	29	20	44
	60	46	42	40	40	38	36	28	20	43
	50	46	42	40	40	38	36	28	20	43
800	90	49	48	46	47	45	40	32	23	49
	80	45	44	43	43	41	36	28	18	45
	70	42	42	41	40	39	34	26	17	43
	60	43	42	40	39	38	33	25	17	42
	50	43	42	40	39	38	33	25	17	42
600	90	48	47	47	46	44	37	28	19	48
	80	44	43	43	42	40	33	24	14	44
	70	42	41	41	40	38	31	22	13	42
	60	42	40	40	39	37	30	22	14	41
	50	42	40	40	39	37	30	22	14	41
400	90	48	46	47	45	40	32	23	14	46
	80	44	43	43	41	36	28	18	9	42
	70	42	41	40	39	34	26	17	7	39
	60	42	40	39	38	33	25	17	9	38
	50	42	40	39	38	33	25	17	9	38
200	90	46	47	45	40	32	23	14	5	41
	80	43	43	41	36	28	18	9	-1	37
	70	41	40	39	34	26	17	7	-2	35
	60	40	39	38	33	25	17	9	1	34
	50	40	39	38	33	25	17	9	1	34

The sound power level ratings obtained are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301.

The A-weighted sound ratings obtained have been calculated per AMCA Standard 301.

Values obtained are for inlet L_{wiA} sound power levels for Installation Type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction.

Values obtained are for outlet L_{wkoA} sound power levels for Installation Type B: free inlet, ducted outlet. Ratings include the effects of duct end correction.

The AMCA Certified Ratings Seal applies to L_{wiA} and L_{wkoA} ratings only.

**Inlet L_{wk} Values (L_{wki}) —
QCLB, QCLBR & QCLBSH 365–600**

RPM	% WOV	OCTAVE BAND								L _{wkiA}
		1	2	3	4	5	6	7	8	
1100	90	41	49	44	43	44	44	32	24	49
	80	37	45	40	38	37	35	27	19	42
	70	34	42	37	35	33	30	24	17	38
	60	34	42	35	33	31	27	23	18	36
	50	34	42	35	33	31	27	23	18	36
1000	90	43	48	44	43	43	42	31	23	48
	80	39	45	39	38	37	34	26	19	41
	70	37	42	36	34	32	29	23	17	37
	60	36	42	35	32	30	27	22	17	36
	50	36	42	35	32	30	27	22	17	36
900	90	45	47	43	43	43	40	30	22	47
	80	42	44	39	37	36	32	25	18	40
	70	40	42	36	34	32	28	22	16	37
	60	39	41	34	32	30	26	21	16	35
	50	39	41	34	32	30	26	21	16	35
800	90	46	46	43	43	42	38	29	21	46
	80	44	43	38	37	35	31	24	17	40
	70	42	40	35	33	31	27	21	15	36
	60	40	39	34	31	29	25	20	15	34
	50	40	39	34	31	29	25	20	15	34
700	90	46	45	43	42	41	37	28	20	45
	80	44	40	38	36	35	30	23	16	39
	70	42	38	35	32	31	25	20	14	35
	60	40	37	34	31	29	25	19	14	34
	50	40	37	34	31	29	25	19	14	34
600	90	46	44	43	42	40	35	26	19	44
	80	44	39	38	36	34	28	21	14	38
	70	42	37	34	32	30	24	19	12	34
	60	40	36	33	30	28	23	17	12	33
	50	40	36	33	30	28	23	17	12	33
500	90	46	44	43	42	39	33	24	17	44
	80	44	39	37	35	32	26	20	13	37
	70	42	36	33	31	28	23	17	11	33
	60	40	35	32	30	27	22	16	11	32
	50	40	35	32	30	27	22	16	11	32
400	90	45	43	42	41	38	29	22	15	42
	80	42	38	36	35	31	24	17	10	36
	70	39	35	32	31	26	21	15	9	32
	60	38	34	31	30	26	20	15	10	31
	50	38	34	31	30	26	20	15	10	31
300	90	44	43	42	40	35	26	19	12	41
	80	39	38	36	34	28	21	14	7	35
	70	37	34	32	30	24	19	12	6	31
	60	36	33	30	28	23	17	12	7	29
	50	36	33	30	28	23	17	12	7	29

**Outlet L_{wk} Values (L_{wko}) —
QCLB, QCLBR & QCLBSH 365–600**

RPM	% WOV	OCTAVE BAND								L _{wkoA}
		1	2	3	4	5	6	7	8	
1100	90	50	48	46	47	46	43	36	27	50
	80	47	44	42	43	42	39	32	23	46
	70	45	41	40	41	40	37	30	21	44
	60	46	41	40	40	39	36	29	21	43
	50	46	41	40	40	39	36	29	21	43
1000	90	50	48	46	47	45	43	35	26	50
	80	47	44	42	43	42	39	31	22	46
	70	45	42	40	41	40	36	29	20	44
	60	46	42	40	40	38	36	28	20	43
	50	46	42	40	40	38	36	28	20	43
900	90	50	48	46	47	45	41	33	24	49
	80	46	44	43	43	42	38	30	20	46
	70	44	42	40	41	39	35	28	18	43
	60	44	42	40	39	38	35	27	19	42
	50	44	42	40	39	38	35	27	19	42
800	90	49	48	46	47	45	40	32	23	49
	80	45	44	43	43	41	36	28	18	45
	70	42	42	41	40	39	34	26	17	43
	60	43	42	40	39	38	33	25	17	42
	50	43	42	40	39	38	33	25	17	42
700	90	48	48	47	46	44	39	30	21	48
	80	44	44	43	43	41	35	26	17	45
	70	42	41	41	40	38	33	24	15	42
	60	42	41	40	39	37	32	24	16	41
	50	42	41	40	39	37	32	24	16	41
600	90	48	47	47	46	44	37	28	19	48
	80	44	43	43	42	40	33	24	14	44
	70	42	41	41	40	38	31	22	13	42
	60	42	40	40	39	37	30	22	14	41
	50	42	40	40	39	37	30	22	14	41
500	90	48	46	47	45	43	35	26	17	47
	80	44	42	43	42	39	31	22	12	43
	70	42	40	41	40	36	29	20	10	41
	60	42	40	40	38	36	28	20	12	40
	50	42	40	40	38	36	28	20	12	40
400	90	48	46	47	45	40	32	23	14	46
	80	44	43	43	41	36	28	18	9	42
	70	42	41	40	39	34	26	17	7	39
	60	42	40	39	38	33	25	17	9	38
	50	42	40	39	38	33	25	17	9	38
300	90	46	47	46	44	37	28	19	10	44
	80	43	43	42	40	33	24	14	5	40
	70	41	41	40	38	31	22	13	3	38
	60	40	40	39	37	30	22	14	6	37
	50	40	40	39	37	30	22	14	6	37

The sound power level ratings obtained are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301.

The A-weighted sound ratings obtained have been calculated per AMCA Standard 301.

Values obtained are for inlet L_{wiA} sound power levels for Installation Type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction.

Values obtained are for outlet L_{woA} sound power levels for Installation Type B: free inlet, ducted outlet. Ratings include the effects of duct end correction.

The AMCA Certified Ratings Seal applies to L_{wiA} and L_{woA} ratings only.

M Capacity Fraction

CFM	TOTAL PRESSURE AT DENSITY = 0.075 lbm/ft ³																		
	1/4	3/8	1/2	5/8	3/4	7/8	1	1¼	1½	2	2½	3	3½	4	4½	5	5½	6	6½
100	8	11	14	16	18	19	20	22	24	26	28	30	31	32	33	34	35	36	36
150	10	13	16	18	19	21	22	24	25	28	30	31	33	34	35	36	37	37	38
200	11	14	17	19	21	22	23	25	27	29	31	33	34	35	36	37	38	39	39
300	13	16	19	21	22	24	25	27	28	31	33	34	36	37	38	39	40	40	41
500	15	18	21	23	24	26	27	29	31	33	35	37	38	39	40	41	42	43	43
750	17	20	23	25	26	28	29	31	32	35	37	38	40	41	42	43	44	44	45
1000	18	21	24	26	28	29	30	32	34	36	38	40	41	42	43	44	45	46	46
1500	20	23	26	28	29	31	32	34	35	38	40	41	43	44	45	46	47	47	48
2000	21	24	27	29	31	32	33	35	37	39	41	43	44	45	46	47	48	49	49
3000	23	26	29	31	32	34	35	37	38	41	43	44	46	47	48	49	50	50	51
5000	25	28	31	33	34	36	37	39	41	43	45	47	48	49	50	51	52	53	53
7500	27	30	33	35	36	38	39	41	42	45	47	48	50	51	52	53	54	54	55
10000	28	31	34	36	38	39	40	42	44	46	48	50	51	52	53	54	55	56	56
15000	30	33	36	38	39	41	42	44	45	48	50	51	53	54	55	56	57	57	58
20000	31	34	37	39	41	42	43	45	47	49	51	53	54	55	56	57	58	59	59
30000	33	36	39	41	42	44	45	47	48	51	53	54	56	57	58	59	60	60	61
50000	35	38	41	43	44	46	47	49	51	53	55	57	58	59	60	61	62	63	63
75000	37	40	43	45	46	48	49	51	52	55	57	58	60	61	62	63	64	64	65
100000	38	41	44	46	48	49	50	52	54	56	58	60	61	62	63	64	65	66	66
150000	40	43	46	48	49	51	52	54	55	58	60	61	63	64	65	66	67	67	68
200000	41	44	47	49	51	52	53	55	57	59	61	63	64	65	66	67	68	69	69

CFM	TOTAL PRESSURE AT DENSITY = 0.075 lbm/ft ³																			
	7	8	9	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
100	37	38	39	40	42	43	44	45	46	47	48	48	49	50	50	51	51	52	52	
150	39	40	41	42	43	45	46	47	48	49	49	50	51	51	52	52	53	53	54	
200	40	41	42	43	45	46	47	48	49	50	51	51	52	53	53	54	54	55	55	
300	42	43	44	45	46	48	49	50	51	52	52	53	54	54	55	55	56	56	57	
500	44	45	46	47	49	50	51	52	53	54	55	55	56	57	57	58	58	59	59	
750	46	47	48	49	50	52	53	54	55	56	56	57	58	58	59	59	60	60	61	
1000	47	48	49	50	52	53	54	55	56	57	58	58	59	60	60	61	61	62	62	
1500	49	50	51	52	53	55	56	57	58	59	59	60	61	61	62	62	63	63	64	
2000	50	51	52	53	55	56	57	58	59	60	61	61	62	63	63	64	64	65	65	
3000	52	53	54	55	56	58	59	60	61	62	62	63	64	64	65	65	66	66	67	
5000	54	55	56	57	59	60	61	62	63	64	65	65	66	67	67	68	68	69	69	
7500	56	57	58	59	60	62	63	64	65	66	66	67	68	68	69	69	70	70	71	
10000	57	58	59	60	62	63	64	65	66	67	68	68	69	70	70	71	71	72	72	
15000	59	60	61	62	63	65	66	67	68	69	69	70	71	71	72	72	73	73	74	
20000	60	61	62	63	65	66	67	68	69	70	71	71	72	73	73	74	74	75	75	
30000	62	63	64	65	66	68	69	70	71	72	72	73	74	74	75	75	76	76	77	
50000	64	65	66	67	69	70	71	72	73	74	75	75	76	77	77	78	78	79	79	
75000	66	67	68	69	70	72	73	74	75	76	76	77	78	78	79	79	80	80	81	
100000	67	68	69	70	72	73	74	75	76	77	78	78	79	80	80	81	81	82	82	
150000	69	70	71	72	73	75	76	77	78	79	79	80	81	81	82	82	83	83	84	
200000	70	71	72	73	75	76	77	78	79	80	81	81	82	83	83	84	84	85	85	



Twin City Fan & Blower

A Twin City Fan Company

5959 Trenton Lane · Minneapolis, MN 55442-3237
 Phone (763) 551-7600 · Fax (763) 551-7601 · www.tcf.com

