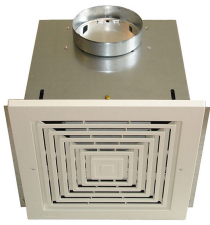# CEILING AND INLINE/CABINET VENTILATORS

MODELS AF,FF & FFC

MODELS AF, FF & FFC
CEILING AND INLINE/CABINET VENTILATORS

Model FF

MODEL AF, FF FEATURES
• Exhaust air up to 1500 CFM
• Forward curve centrifugal wheel for high static pressure capabilities to 1" w.g.
• Resilient mount, low RPM motor for quiet operation (except FF50 and AF80)
• Speed controllable
• AMCA Seal for Air Performance (except FF50)
• cULus Listed (except FF50 & AF80 which are UL only)
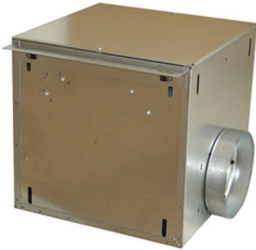
Model FFC

MODEL FFC FEATURES
• Exhaust air up to 1891 CFM
• Forward curve centrifugal wheel for high static pressure capabilities to 1" w.g.
• Resilient mount, low RPM motor for quiet operation
• Speed controllable
• AMCA Seal for Air Performance
• cULus Listed

MODEL OVERVIEW
The extremely quiet FF and FFC ventilators are available from 50 to 1,891 CFM, with static pressure capabilities to 1". All units have centrifugal blower wheels and low RPM motors on resilient mounts (except FF50 and AF80).

The forward curved centrifugal wheel with its high static pressure capability makes these ventilators suitable for either ducted or nonducted applications. They include removable blower assemblies and plug-in permanently lubricated motors for ease of servicing and cleaning.

QUICKSHIP

Models FF and FFC are available in our Quickship program. All sizes are available for next day shipping from stock.

1 year fan housing warranty, 1 year motor warranty

CONSTRUCTION/SPECIFICATION CHECKLIST

Grille
• Conceals interior.
• Low profile styling, blends with any decor.
• White polymeric (FF50 - FF300).
• Metal finished with white enamel finish (FF400-FF1500).

Blower
• Low RPM for quiet operation, speed controllable.
• Resilient anti-vibration mounts (FF50 & AF80 rigid mount).
• Balanced, polymeric, centrifugal blower wheel for quiet, efficient performance. (Metal wheel on FFC2000).
• Permanently lubricated, thermally protected motor.
• Plug-in motor.
• Designed for continuous operation.

Housing
• Rugged, 20 gauge galvanized steel.
• Duct connector.
• 1/2" acoustic insulation inside (except FF50, AF80 & FFC's).
• Integral automatic backdraft damper.
• Easy inline conversion available (FF100-FF1500).
• May be installed in ceiling or wall.
• Mounting brackets for easy installation and adaptability to numerous mounting requirements.
• Factory-shipped in horizontal discharge position, easily converted to vertical discharge.
• FFC inline units have a removable panel which allows for easy motor access without disturbing ductwork.

AMCA Seal
• AMCA Air and Sound Licensed (except FF50)

UL Label
• cULus listed (except FF50 & AF80 which are UL only).

OPTIONS/ACCESSORIES

Roof Cap and Wall Cap
• Weather resistant duct termination.

Inline Adapter Kit
• Converts FF units into inline units.
• Available for FF100 through FF1500

Radiation Damper
• UL rated for use in 1, 2, or 3 hour rated floor-ceiling, roof-ceiling design.
• Mounts directly to the fan, screws provided.
• Galvanized steel frame.
• High temperature, non-asbestos, reinforced fiber thermal fabric.
• 212°F fusible link.
• Stainless steel negator-type closure spring.
• Available for FF100 through FF1500.

Metal Grille Kit
• White enamel painted steel.
• Mounting screws included.

Duct Transition
• Allows for quick transition to round ducting.
• Galvanized steel construction.
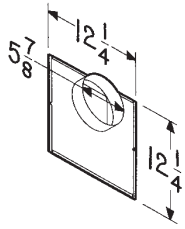
Vibration Dampening Hangers
• Rubber in shear.
• Heavy-gauge steel construction with neoprene vibration dampening cushion.
• For use with 3/8" threaded rod (by others).

Damper Kit (for FFC 2000)
• Twin damper flaps and mounting hardware.
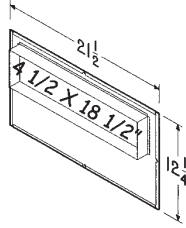• Foam cushion and magnetic catch assure quiet backdraft prevention.
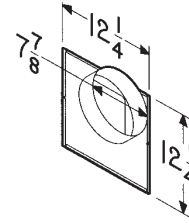
OPTIONS/ACCESSORIES (cont.)

961L In-Line Adaptor Kit
- Galvanized steel
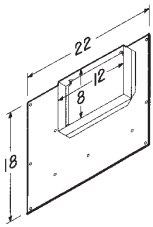- Fits FF100 & FF150
- For 6" round duct intake

982L In-Line Adaptor Kit
- Galvanized steel
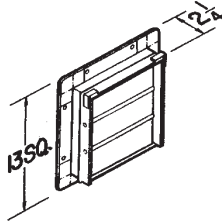- Fits FF400, FF500 & FF700
- 4 1/2 x 18 1/2" duct intake

981L In-Line Adaptor Kit
- Galvanized steel
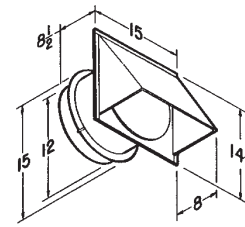- Fits FF200, FF250 & FF300
- For 8" round duct intake

983 In-Line Adaptor Kit
- Galvanized steel
- Fits FF900 & FF1500
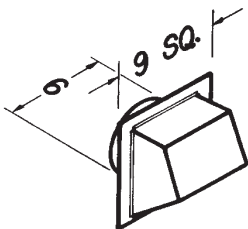- 8" x 12" round duct intake

Model 441 Wall Cap
- Gravity dampers
- Collar with birdscreen for attaching 10" round duct
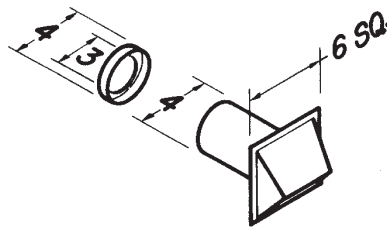- Steel construction with aluminum louvers

Model 613 Wall Cap
- High Capacity
- Built-in backdraft damper & birdscreen
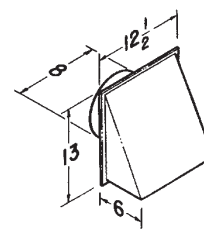- Aluminum natural finish
- For 12" round duct

Model 641 Wall Cap
- Aluminum natural finish
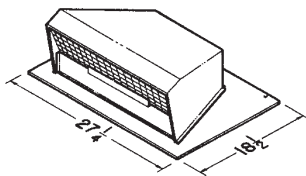- Built-in backdraft damper & birdscreen
- For 6" round duct

Model 642 Wall Cap
- Aluminum natural finish
- Built-in backdraft damper
- For 3" or 4" round duct
  (4" to 3" transition included)

Model 643 Wall Cap
- Aluminum natural finish
- Built-in backdraft damper
- For 8" round duct

Model 437 Roof Cap
- High capacity design - up to 1200 CFM
- Built-in spring-loaded backdraft damper & birdscreen
- Steel, black electrically - bonded epoxy finish
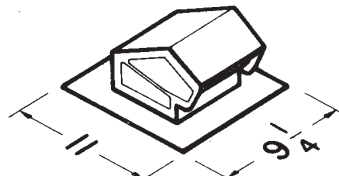
Model 636 Roof Cap
- Black electrically - bonded epoxy finish
- Built-in backdraft damper & birdscreen
- For 3" or 4" round duct

Model 636AL - Aluminum
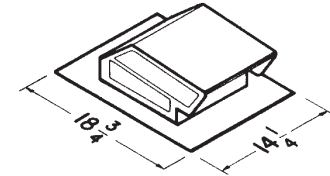
Model 634 Roof Cap
- Black electrically - bonded epoxy finish
- Built-in backdraft damper & birdscreen
- For 3 1/4" x 10" or up to 8" round duct

Model 644 - Aluminum

OPTIONS/ACCESSORIES (cont.)

Speed Control
- Adjust speed from 100 to 50%
- 5 amp & 10 amp - 120V
- 6 amp - 240V
- 6 amp - 277V

Model RCXIISF08 Flat Roof Cap
- For flat roof installation
- Spun Aluminum - natural finish
- Built-in birdscreen
- For up to 8" round duct

**Model RCXII08
Curb Mount Roof Cap**
- For curb mount installation
- Use 14-3/4" x 14-3/4" x 8" high curb
- Spun Aluminum - natural finish
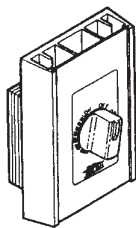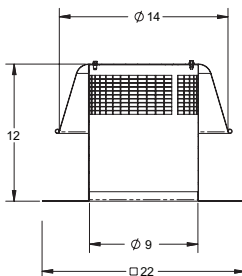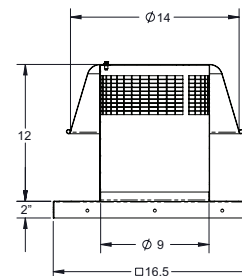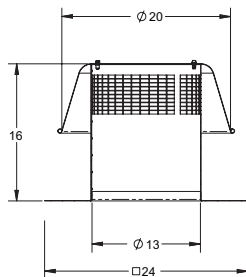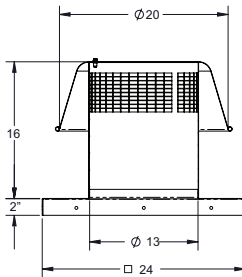- Built-in birdscreen
- For up to 8" round duct

Model RCXIISF12 Flat Roof Cap
- For flat roof installation
- Spun Aluminum - natural finish
- Built-in birdscreen
- For up to 12" round duct

**Model RCXII12
Curb Mount Roof Cap**
- For curb mount installation
- Use 22-1/4" x 22-1/4" x 8" high curb.
- Spun Aluminum - natural finish
- Built-in birdscreen
- For up to 12" round duct
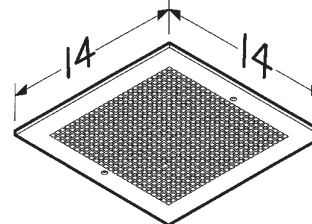
Model MG 1 Metal Grille Kit
- White enamel painted steel
- Mounting screws included
- Fits FF100, FF150, FF200, FF250 & FF300
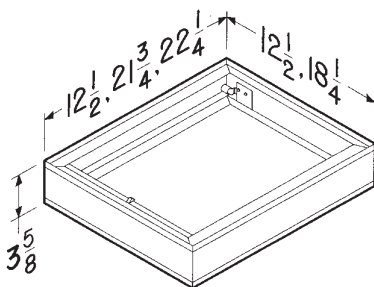
Models RD1, RD2 & RD3 Radiation Dampers
- UL rated for use in 1, 2 or 3 hour rated floor-ceiling, roof-ceiling design
- Galvanized steel frame
- High temperature, non-asbestos, reinforced fiber thermal fabric
- 212˚F fusible link
- Stainless steel negator-type closure spring
- RD1 (12 1/4' x 12 1/4") fits FF100 - FF300
- RD2 (211/2" x 18") fits FF400 - FF700
- RD3 (22" x 18") fits FF900 - FF1500

Model RD80AF Radiation Damper
- UL rated for use in 1, 2 or 3 hour rated floor-ceiling,roof-ceiling design
- Galvanized steel frame
- High temperature, non-asbestos, reinforced fiber thermal fabric
- 165˚F fusible link
- Stainless steel closure springs
- RD80AF fits AF80
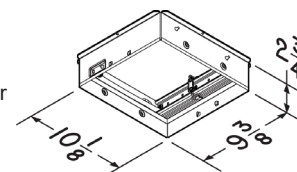
Models 423 & T81212 Duct Transitions
- Galvanized steel
- Allows for quick transition to easy-to-obtain-and-install round ducting
- 423 (4 1/2" x 18" to 10 round) for use with FF400 thru FF700
- T81212 (8" x 12" to 12" round) for use with FF900 and FF1500
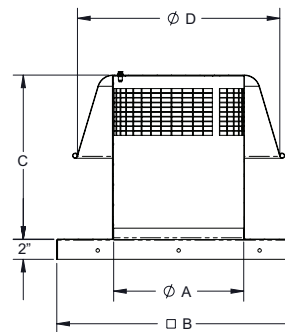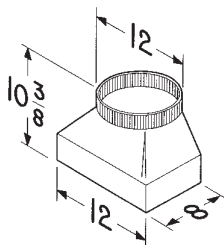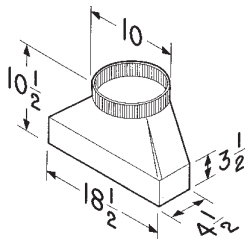
Model RCXII - 18" and 20" units

Size	A	B	C	D
18	19	29.5	22	27
20	21	29.5	22	30

OPTIONAL ACCESSORY COMPATIBILITY CHART

|	CEILING MOUNT MODEL FF							IN-LINE/CABINET MODEL FFC					
VARIABLE SPEED CONTROLS	FF50 AF80	FF100 FF150	FF200 FF250 FF300	FF400 FF500	FF700	FF900	FF1500	FFC100 FFC150	FFC200 FFC250 FFC300	FFC400 FFC500 FFC700	FFC900	FFC1500	FFC2000
2727.1 (5 AMP 120V)	X	X	X	X			X	X					
2828.1 (10AMP 120V)		X	X	X	X	X	X	X	X	X	X	X	X
80L **in-unit** speed control (3 amp 120 Volt) Ships separately for field mounting		X	X	X	X	X		X	X	X	X		
75V (240V)		X	X	X	X	X							
277V (277V)		X	X	X	X	X	X						
ROOF CAPS													
437				X	X					X			
RCXII08, RCXIISF08	X	X	X					X	X				
RCXII12, RCXIISF12				X	X	X	X			X	X	X	X
634M		X						X					
634,644		X	X					X	X				
636, 636AL	X												
RCXII18													X
RCXII20													
WALL CAPS													
441				X	X					X			
613						X	X				X	X	
641		X						X					
642	X												
643			X						X				
IN-LINE ADAPTERS													
961L		X											
981L			X										
982L				X	X								
983L						X	X						
UL RADIATION DAMPERS													
RD1		X	X										
RD2				X	X								
RD3						X	X						
RD for AF80	X												
METAL Grille KIT													
G102													X
G103													
MG1		X	X										
DUCT TRANSITIONS													
423				X	X					X			
T81212						X	X				X	X	
VIBRATION DAMPENING HANGERS (4)													
V102	X*	X	X	X	X	X	X	X	X	X	X		
V104	X	X	X	X	X	X	X	X	X	X	X	X	X

* Compatible with AF80 but not FF50

MODEL FF PERFORMANCE

FF CEILING VENTILATORS

MODEL FF	CFM / Sones at Static Pressure (PS - Inches of H$_2$O)										AMPS @ 60HZ/ WATTS	RPM @ 1/8	Voltage	Average Ship Wt. Lbs
	0	1/10	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1				
50	52	49	47	42	29	-	-	-	-	-	0.8/48	1870	120	4
	3.9	4.3	4.4	4.6	5.5	-	-	-	-	-				
100	136	115	109	93	80	65	44	-	-	-	1.1/87	640	120	23
	0.5	0.8	0.9	1.3	1.8	2.3	3.0	-	-	-				
150	181	161	157	141	132	124	114	94	62	-	1.3/100	710	120	23
	1.3	1.4	1.5	2.2	2.6	3.1	3.6	4.1	4.6	-				
200	231	214	210	196	186	177	165	144	113	51	1.8/127	740	120	23
	1.6	1.8	1.7	2.3	2.9	3.5	4.1	4.9	5.3	5.3				
250	272	261	259	250	242	233	218	201	165	99	2.1/166	830	120	23
	2.1	2.3	2.2	2.9	3.3	3.9	4.4	4.8	5.5	5.8				
300	312	309	308	303	296	287	273	254	219	125	2.6/212	905	120	23
	2.8	2.9	2.9	3.3	3.5	3.9	4.3	4.7	5.1	5.6				
400	480	442	434	388	344	299	229	182	114	-	1.4/146	735	120	34
	2.0	2.4	2.3	2.8	3.3	3.8	4.5	4.8	5.4	-				
500	538	520	514	491	463	434	389	339	282	186	2.2/232	810	120	34
	3.0	3.1	3.3	3.6	4.0	4.4	5.0	5.7	6.2	6.7				
700	722	704	701	667	640	607	571	534	453	333	2.9/313	960	120	34
	4.5	4.6	4.7	4.8	5.0	5.2	5.6	6.2	7.1	7.2				
900	918	905	901	877	842	793	725	636	536	390	3.0/306	650	120	64
	3.8	4.0	4.1	4.0	4.2	4.3	4.4	4.9	4.5	5.3				
1500	1578	1526	1513	1438	1371	1285	1198	1103	1000	816	5.0/468	955	120	64
	8.6	8.4	8.4	8.1	7.5	7.0	6.7	6.2	5.8	5.8				
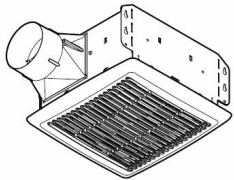
Model FF50 is not AMCA certified for Air & Sound

MODEL AF80   AMCA Certified Performance

AMPS @ 60HZ/WATTS	CFM / Sones at Static Pressure (in wc)								Volts	Nominal (RPM)	Duct Size	Average Ship Wt. (lbs)
	0.0	0.1	0.15	0.2	0.25	0.3	0.35	0.4				
0.3/27	89	79	72	65	58	51	44	36	120	1,110	4" Round	8
	0.6	0.9	-	-	2.1	-	-	-				

Performance ratings include the effects of inlet grille and backdraft damper. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5' (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels. Performance certified is for installation Type B: Free inlet, Ducted outlet.

S&P USA Ventilation Systems, LLC., Div. of Soler & Palau Ventilation Group, certifies that the Models FF 100 through 1500 and AF80 shown herein are licensed to bear the AMCA Seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirement of the AMCA Certified Ratings Program.

MODEL AF80   HVI Certified Performance

AMPS @ 60HZ/WATTS	CFM / Sones at Static Pressure (in wc)	
	0.1	0.25
0.3/27	80	60
	1.5	-

MODEL FFC PERFORMANCE

FFC INLINE/CABINET VENTILATORS

MODEL FFC	CFM / Sones at Static Pressure (PS - Inches of H$_2$O)										AMPS @ 60HZ/ WATTS	RPM @ 1/8	Voltage	Average Ship Wt. Lbs.
	0	1/10	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1				
100	121	108	106	97	93	86	70	44	-	-	1.0/87	760	120	23
	0.5	0.7	0.7	1.1	1.4	1.8	2.1	2.4	-	-				
150	153	148	147	140	134	125	111	91	54	-	1.3/100	920	120	23
	0.9	1.0	1.1	1.4	1.6	1.9	2.1	2.2	2.4	-				
200	205	196	195	190	185	175	158	135	96	47	1.8/127	865	120	23
	1.7	1.9	1.9	2.1	2.3	2.4	3.0	3.3	3.4	3.4				
250	248	245	245	241	235	224	208	183	141	84	2.1/166	1005	120	23
	2.0	2.3	2.3	2.8	2.8	3.2	3.4	3.6	3.9	3.8				
300	300	294	293	285	274	259	243	214	168	113	2.6/212	1145	120	23
	2.9	3.0	3.1	3.3	3.4	3.5	3.6	3.7	4.0	3.9				
400	450	415	406	360	313	271	223	167	90	6.0	1.4/146	775	120	34
	1.4	1.6	1.6	1.9	2.2	2.6	2.9	3.4	3.6	3.9				
500	546	526	519	496	472	447	407	364	306	232	2.2/232	890	120	34
	2.4	2.4	3.4	3.7	3.9	3.8	3.9	4.0	4.3	4.3				
700	704	686	681	656	631	604	575	533	480	412	2.9/313	1090	120	34
	3.6	3.8	3.7	3.9	4.0	4.2	4.3	4.4	4.7	5.0				
900	930	902	894	853	807	754	685	587	442	300	3.0/306	810	120	64
	3.7	3.8	3.8	3.8	3.7	3.8	3.9	4.0	4.0	4.1				
1500	1275	1228	1214	1152	1092	1029	958	871	764	631	5.0/468	1055	120	64
	6.8	6.8	6.7	6.5	6.3	6.0	6.0	6.0	6.0	6.1				

Performance ratings include the effects of backdraft damper. Speed (RPM) shown is nominal. Performances based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5" (1.5m) in a hemispherical free field calculated per AMCA Std. 301. Values shown are for installation Type D: ducted inlet fan sone levels. Ratings do not include the effect of duct end correction. Performance ratings include the effects of 18 feet of round inlet duct and, if needed, a rectangular to round duct transition in the airstream. Performance certified is for Installation Type D; Ducted inlet, Ducted outlet.

FFC CABINET VENTILATORS

MODEL FFC	CFM / Sones at Static Pressure (PS - Inches of H$_2$O)										AMPS @ 60HZ/ WATTS	RPM @ 1/8	Voltage	Average Ship Wt. Lbs.
	0	1/10	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1				
2000	1891	1803	1791	1657	1508	1347	1165	808	-	-	5.8/590	965	120	92
	10.3	9.8	9.4	9.0	8.6	9.1	8.9	7.0	-	-				

Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5' (1.5m) in a hemispherical free field calculated per AMCA Std. 301. Values shown are for installation Type D: ducted inlet fan sone levels. Ratings do not include the effect of duct end correction. Performance certified is for Installation Type D: Ducted inlet, Ducted outlet.
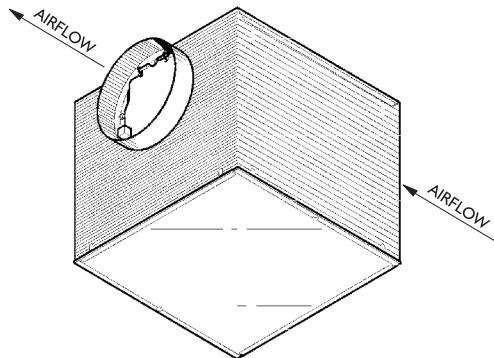
amca CERTIFIED RATINGS
SOUND and AIR PERFORMANCE
AIR MOVEMENT AND CONTROL ASSOCIATION INTERNATIONAL, INC.

S&P USA Ventilation Systems, LLC., Div. of Soler & Palau Ventilation Group, certifies that the Models FFC shown herein are licensed to bear the AMCA Seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirement of the AMCA Certified Ratings Program.
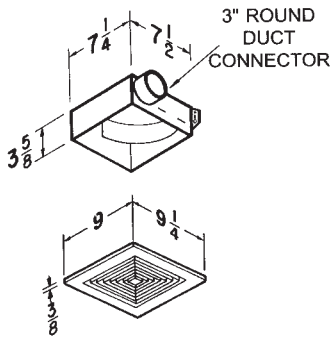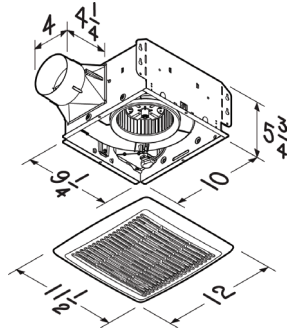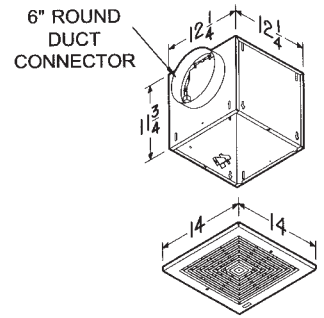
c UL us

DIMENSIONS

CEILING VENTILATOR

FF50

3" ROUND DUCT CONNECTOR

AF80

FF100 & 150

6" ROUND DUCT CONNECTOR

FF200, 250 & 300

8" ROUND DUCT CONNECTOR

FF400, 500 & 700

4 1/2" x 18 1/2" DUCT CONNECTOR

FF900 & 1500

8" x 12" DUCT CONNECTOR
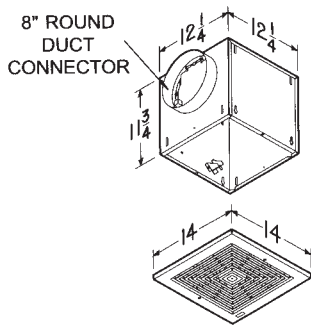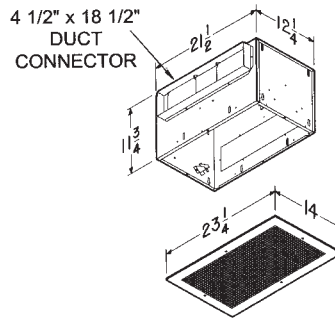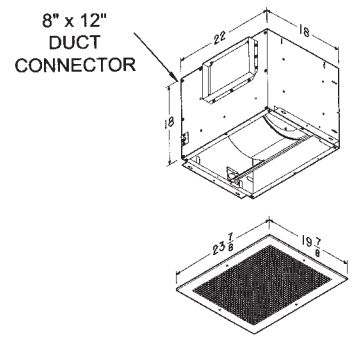
INLINE/CABINET VENTILATOR

FFC100 & 150

6" ROUND DUCT CONNECTOR

FFC200, 250 & 300

8" ROUND DUCT CONNECTOR

FFC400, 500 & 700

4 1/2" x 18 1/2" DUCT CONNECTOR

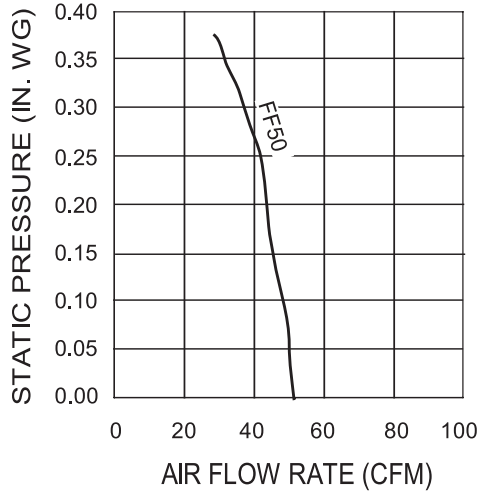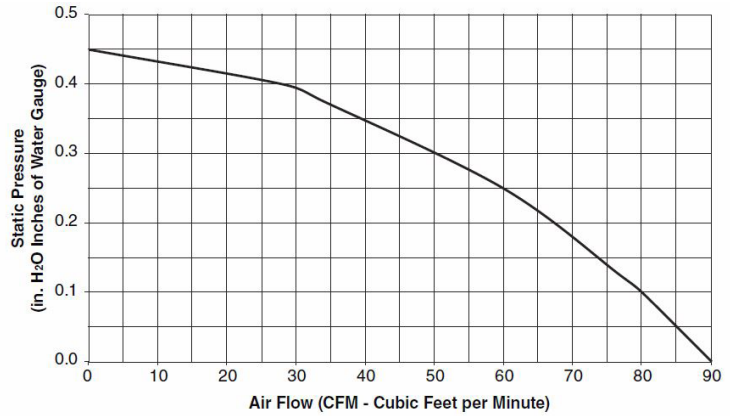### FFC900 & 1500

8"x 12" DUCT CONNECTOR
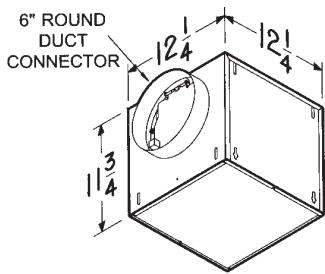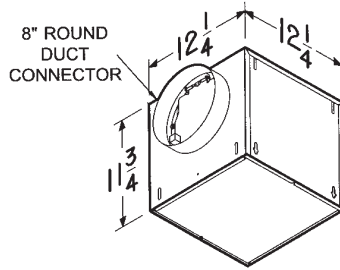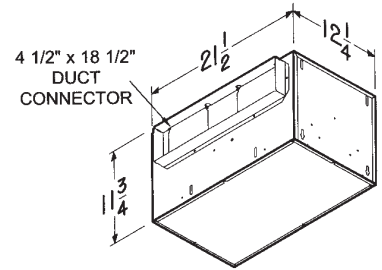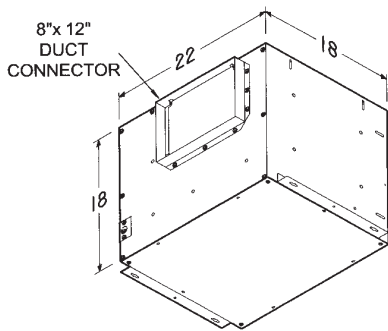
FFC2000
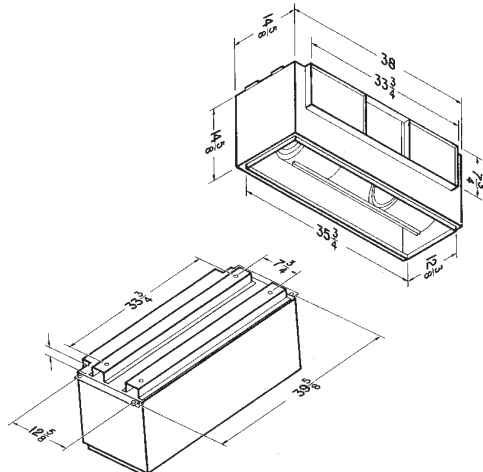
FFC3500
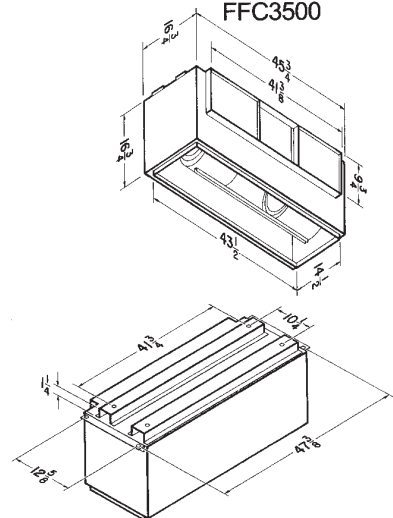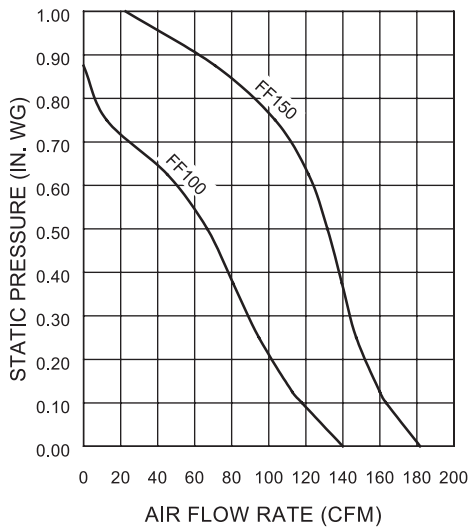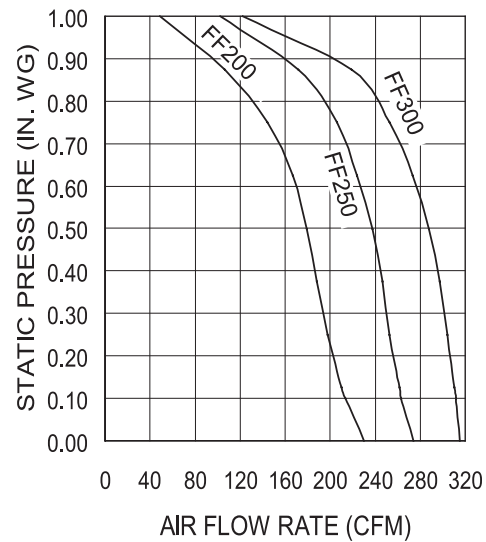
FF CEILING VENTILATORS QUICK SELECTION GUIDE

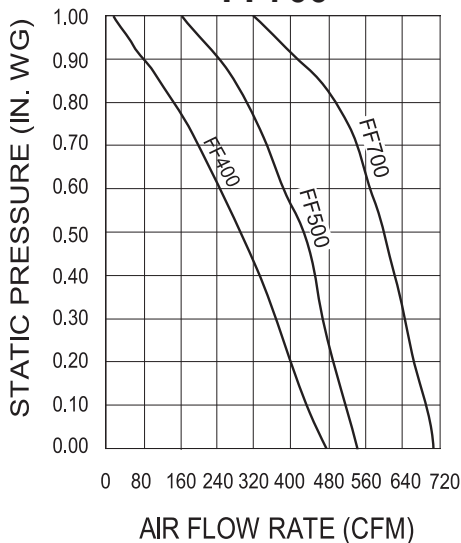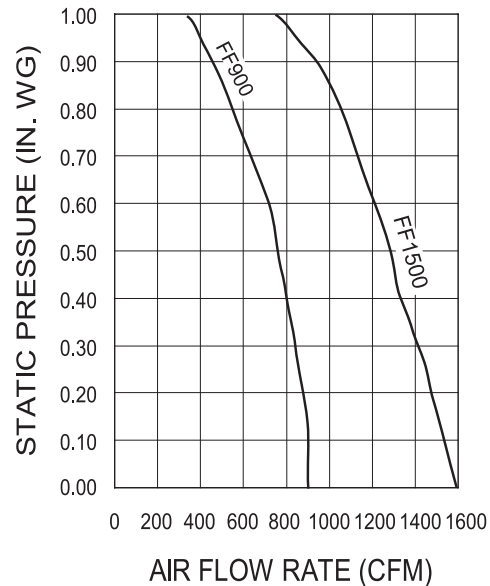## FF50

AF80

FF100, FF150

FF200, FF250, FF300
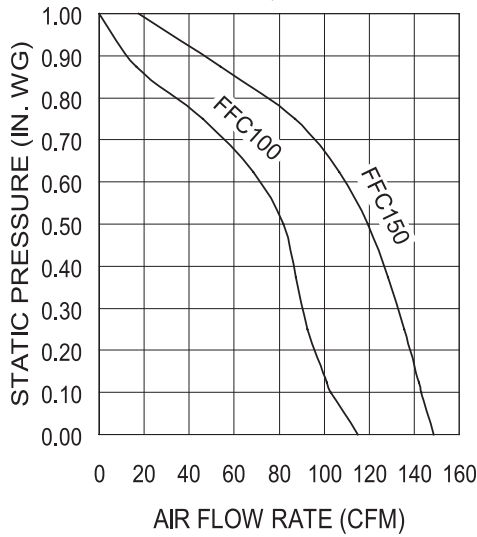

FF400, FF500, FF700

FF900, FF1500

Models AF80, FF50, 100, 150, 200, 250, 300, 400, 500, 700, 900, and 1500 Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of inlet grille and backdraft damper.
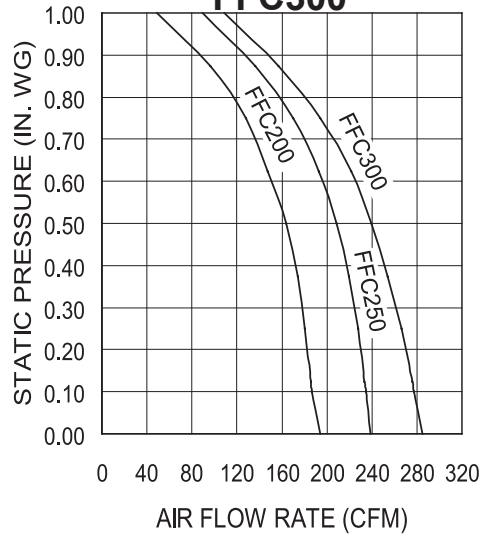
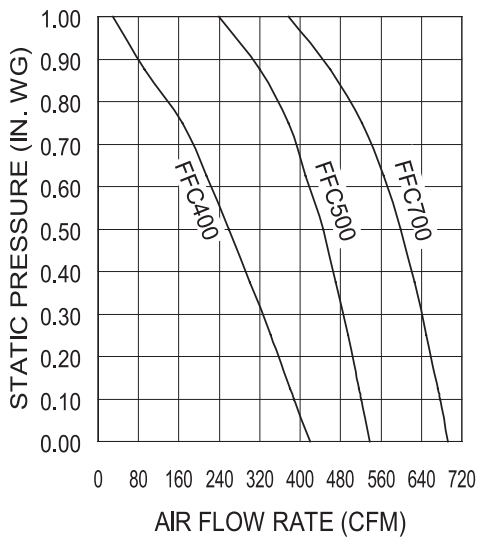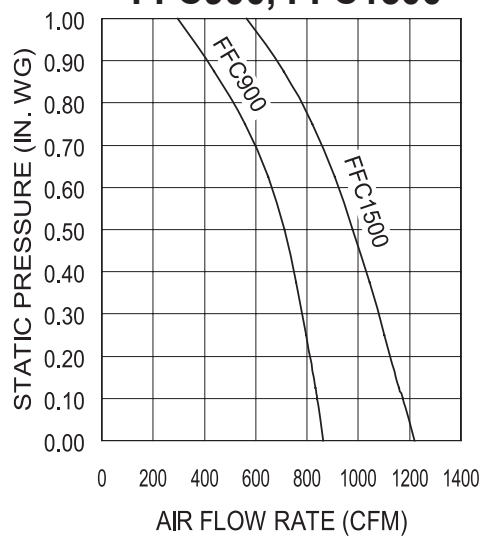# FFC INLINE/CABINET VENTILATORS QUICK SELECTION GUIDE

FFC100, FFC150

STATIC PRESSURE (IN. WG)

1.00 0.90 0.80 0.70 0.60 0.50 0.40 0.30 0.20 0.10 0.00

FFC100
FFC150

0 20 40 60 80 100 120 140 160

AIR FLOW RATE (CFM)

FFC200, FFC250, FFC300

STATIC PRESSURE (IN. WG)

1.00 0.90 0.80 0.70 0.60 0.50 0.40 0.30 0.20 0.10 0.00

FFC200
FFC300
FFC250

0 40 80 120 160 200 240 280 320

AIR FLOW RATE (CFM)

FFC400, FFC500, FFC700

STATIC PRESSURE (IN. WG)

1.00 0.90 0.80 0.70 0.60 0.50 0.40 0.30 0.20 0.10 0.00

FFC400
FFC500
FFC700

0 80 160 240 320 400 480 560 640 720

AIR FLOW RATE (CFM)

FFC900, FFC1500

STATIC PRESSURE (IN. WG)

1.00 0.90 0.80 0.70 0.60 0.50 0.40 0.30 0.20 0.10 0.00

FFC900
FFC1500

0 200 400 600 800 1000 1200 1400

AIR FLOW RATE (CFM)

FFC2000

STATIC PRESSURE (IN. WG)

1.00 0.90 0.80 0.70 0.60 0.50 0.40 0.30 0.20 0.10 0.00

FFC2000

0 600 1200 1800 2400 3000 3600

AIR FLOW RATE (CFM)

FF & FFC QUICK SELECTION GUIDELINES

1. Locate desired CFM on bottom horizontal axis of graph.

2. Locate system static pressure on left vertical axis of graph.

3. Determine intersection of CFM and static pressure.

4. Select fan curve to the right of this intersection.

5. Solid state speed control may be used for selections left of curve, up to 50% CFM reduction.

Models FFC100, 150, 200, 250, 300, 400, 500, 700, 900 and 1500 Performance certified is for installation type D: Ducted inlet, Ducted outlet. Performance ratings include the effects of backdraft damper, 18 feet of round inlet duct and, if needed, a rectangular to round duct transition.

Models FFC2000 Performance certified is for installation type D: Ducted inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).