

# Ventilated Panels

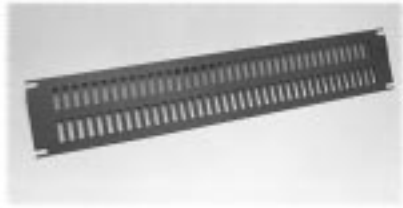


## LOUVERED PANELS

- Standard, 19" rack mount
- Formed 16 gauge steel construction
- Includes a 0.50" fold, top and bottom for added strength
- Designed with 3 columns of 4" wide louvers
- Smooth powder paint finish to match our standard panels
- Louvers face out
- Requires mounting hardware

Part Number		Panel Height		Rows of Louvers
Black Smooth	Beige Smooth	Inches	Units	
<a href="#">PVLL19005BK2</a>	<a href="#">PVLL19005CG2</a>	5.25	3	3
<a href="#">PVLL19007BK2</a>	<a href="#">PVLL19007CG2</a>	7.00	4	4
<a href="#">PVLL19008BK2</a>	<a href="#">PVLL19008CG2</a>	8.75	5	6
<a href="#">PVLL19010BK2</a>	<a href="#">PVLL19010CG2</a>	10.50	6	8
<a href="#">PVLL19012BK2</a>	<a href="#">PVLL19012CG2</a>	12.25	7	10

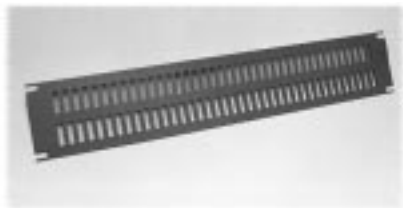
## SLOTTED STEEL PANELS



- Standard, 19" rack mount
- 14 gauge steel construction
- Slots are 0.25" x 1.0"
- Smooth powder paint finish to match our standard panels
- Requires mounting hardware

Part Number		Panel Height		Rows of Slots	Open Space (Cubic In.)
Black Smooth	Beige Smooth	Inches	Units		
<a href="#">PVSS19001BK2</a>	<a href="#">PVSS19001CG2</a>	1.75	1	1	9.7
<a href="#">PVSS19003BK2</a>	<a href="#">PVSS19003CG2</a>	3.50	2	2	19.4

## SLOTTED ALUMINUM PANELS



- Standard, 19" rack mount
- 0.13" thick aluminum construction
- Slots are 0.25" x 1.0"
- Smooth powder paint finish to match our standard panels
- Requires mounting hardware

Part Number		Panel Height		Rows of Slots	Open Space (Cubic In.)
Black Smooth	Beige Smooth	Inches	Units		
<a href="#">PVSA19001BK2</a>	<a href="#">PVSA19001CG2</a>	1.75	1	1	9.7
<a href="#">PVSA19003BK2</a>	<a href="#">PVSA19003CG2</a>	3.50	2	2	19.4

## PERFORATED ALUMINUM PANELS



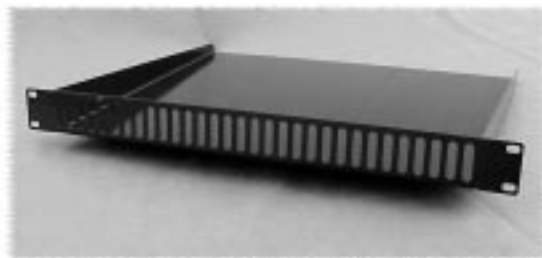
- Standard, 19" rack mount
- Folded (for extra strength) - 0.13" thick aluminum construction
- Smooth powder paint finish to match our standard panels
- Requires mounting hardware

Part Number		Panel Height	
Black Smooth	Beige Smooth	Inches	Units
<a href="#">PPFS19001BK2</a>	<a href="#">PPFS19001CG2</a>	1.75	1
<a href="#">PPFS19003BK2</a>	<a href="#">PPFS19003CG2</a>	3.50	2
<a href="#">PPFS19005BK2</a>	<a href="#">PPFS19005CG2</a>	5.25	3
<a href="#">PPFS19007BK2</a>	<a href="#">PPFS19007CG2</a>	7.00	4
<a href="#">PPFS19008BK2</a>	<a href="#">PPFS19008CG2</a>	8.75	5
<a href="#">PPFS19010BK2</a>	<a href="#">PPFS19010CG2</a>	10.50	6



## BAFFLE PANEL

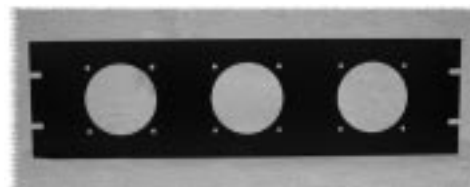
- Standard, 19" rack mount
- Rear sloping baffle for directing air flow
- 16 gauge steel construction
- Shown here, upside down to show construction
- Extends apx. 14" behind panel rails
- Smooth black powder paint finish to match our standard panels
- Requires mounting hardware



Part Number	Panel Height	
	Inches	Units
PVBB19001BK2	1.75	1

## FAN PANELS

- Standard, 19" rack mount
- Create your own 19" rack mount fan or filter fan panels
- Accepts standard square fans (see our cooling accessory section or use your own)
- For a filter fan panel use our filter fan grills (see our cooling accessory section)
- Perfect as an intake fan panel (when using "push-pull" cooling use the fan grill panel below for exhaust)
- Rugged textured black powder paint
- Requires mounting hardware
- Control your rack temperature with our economical, compact thermostat (see our cooling accessory section)



Part Number	Number of Fan Holes	Accepts Fan Size	Panel Height	
			Inches	Units
PPFP190802BK1	2	3.15"	5.25	3
PPFP190803BK1	3	3.15"	5.25	3
PPFP191202BK1	2	4.7"	7.00	4

## FAN GRILL PANELS

- Standard, 19" rack mount
- Create your own 19" rack mount fan panels
- Accepts standard square fans 4.7" (120 mm) see our cooling accessory section or use your own)
- Perfect for an exhaust fan panel (when using "push-pull" cooling use the fan panel above with filter grills for intake)
- Rugged textured black powder paint
- Requires mounting hardware
- Control your rack temperature with our economical, compact thermostat (see our cooling accessory section)



Part Number	Number of Fan Holes	Accepts Fan Size	Panel Height	
			Inches	Units
PPGP191202BK1	2	4.7"	5.25	3



# Cooling - General Selection

## Specifications

All Hammond blowers and filter fans are engineered for performance and built for reliability. This versatile line includes blowers, fan trays and filter fans.

Blowers and fans use forced convection cooling, which means ambient air flows through a filter into the enclosure to cool heated components. Both blowers and fans are sized in CFM (cubic feet per minute).

It is recommended that an exhaust filter be used in combination with the blower or filter fan to act both as an exhaust point for the hot internal air plus aid in the pressurization of the enclosure, reducing the chance of unfiltered air entering the enclosure. Whenever possible, the blower or filter fan should be located in the bottom third of the enclosure and the filtered exhaust grill placed as high as possible on the opposing side. Performance levels can be further increased by adding a second exhaust filter.

## Sizing Blowers and Fans

To determine the CFM (cubic feet per minute) required in any standard situation, use the following calculation, (non-standard situations would consist of high air density – significantly more than 0.075 lbs. per cubic foot.)

$$\text{C.F.M.} = \frac{\text{Power to be dissipated (Watts)} \times 3.17}{\text{Maximum Allowable Internal Temperature (°F)} - \text{Maximum Ambient Temperature(°F)}}$$

**Note:** The calculation above is exact, but adding an additional 25% to the CFM level is a standard safety factor. If the air density is high (significantly more than 0.075 lbs. per cubic foot), use the number calculated above in the following formula:

$$\frac{\text{CFM} \times (0.075)}{\text{Non-standard air Air Density (lbs per cubic foot)}}$$

**Note:** Ambient Temperature must be lower than maximum internal temperature for fan/blower to be effective.

## THERMOSTAT

- Designed to provide air temperature control and monitoring in cabinets
- Thermostat NO (Normally Open) for control of cooling equipment, or for switching signal transmitters in case of overheating
- Thermostatic bi-metal sensor element
- Available in Fahrenheit (Part Number **SKT011419NO**) or in Celsius (Part Number **SKT011419NO-C**)
- Compact 2.4" High x 1.3" Wide x 1.4" Deep, gray ABS flame retardant plastic (UL94VO)
- 2 pole terminal for AWG 14 wire
- Switching capacity of 15A (120VAC) or 10A (250VAC)
- Temperature range from 30-140 degrees F
- cUR & UR & CE listed



## FAN & BLOWER FILTER COAT

- Provides a filter adhesive with a grease like consistency which absorbs and traps dust particles
- 10 oz. bottle with environmentally friendly trigger spray
- Part Number **1475Q**



Accessories



Hammond Manufacturing Co. Ltd.  
394 Edinburgh Rd. North  
Guelph, Ontario N1H 1E5 CANADA  
© Phone: 519-822-2960 Fax: 519-822-0715



Hammond Manufacturing Co. Inc.  
256 Sonwil Dr.  
Cheektowaga, NY 14225 USA  
Phone: 716-651-0086 Fax: 716-651-0726

## FANS (TUBEAXIAL)



- Choice of 4.70" (120mm) or 3.15" (80mm)
- 1.50" deep
- Choice of either 115 or 230 VAC, 50/60 Hz.
- Impedance protected motor
- Class-B insulated
- Ball bearing construction, metal blades
- Diecast aluminum body
- Rotation is counter clockwise (looking at the rotor - as pictured)
- Airflow is over the struts (out the back as pictured)
- 4.70" (120 mm) fans have male plug terminations (requires fan cords below)
- 3.15" (80 mm) fans have 11" long lead wires
- UL recognized, CSA listed, CE certified
- With mounting hardware



### 115 VAC Fans

Part Number	Size		CFM	Use With Fan Guard Part Number	Use with Filter Grill Part Number
	Inches	mm			
<a href="#">FAN80AC115</a>	3.15	80	32	FAN80FG	XPFA80...
<a href="#">DNMF100AC115</a>	4.70	120	100	DNFG	XPFA120...

### 230 VAC Fans

Part Number	Size		CFM	Use With Fan Guard Part Number	Use with Filter Grill Part Number
	Inches	mm			
<a href="#">FAN80AC230</a>	3.15	80	32	FAN80FG	XPFA80...
<a href="#">DNMF100AC230</a>	4.70	120	100	DNFG	XPFA120...

## FAN CORDS

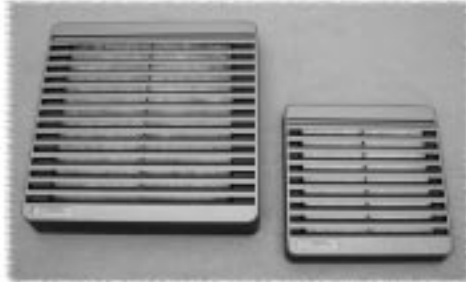


- For 115 VAC wiring
- Save time with these stock fan cords
- Molded female fan plug (0.91" x 0.68")

Part Number	Description	Lead Length	Fan Connector	115VAC Plug
<a href="#">DNMFC</a>	Single Fan Cord	24"	Straight	No
<a href="#">DNFC48P</a>	Single Fan Cord	48"	45 degree	Yes
<a href="#">DNFC72P</a>	Single Fan Cord	72"	45 degree	Yes
<a href="#">DNFCDC2P</a>	Daisy Chain	24"	Qty. 2- 45 degree, 24" apart	Yes
<a href="#">DNFCDC3P</a>	Daisy Chain	24"	Qty 3 - 45 degree, 24" apart	Yes

## FILTER FAN GRILLS

- Create your own filter fans or exhaust grills
- Mounts easily with 4 screws using template and hardware provided
- Complete with flame retardant ABS plastic grill and flame retardant synthetic filter
- Integral gasket on rear of grill (see photo below), seals against mounting surface
- Can be used with standard 3.15" (80 mm) or 4.7" (120 mm) square fans (available opposite page or use your own) or alone as an exhaust grill
- Molded in a choice of 3 colors to match our racks & accessories



Two Sizes



Open View



Assembled  
(fan not included)



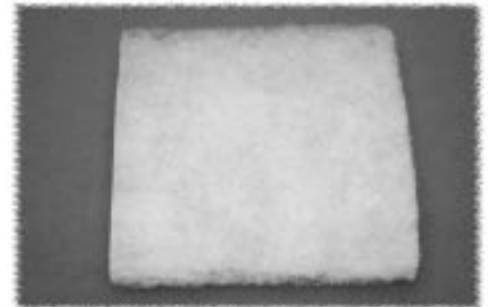
Rear View

Part Number			Grill Size		Use with Square Fan Size
Black	Beige	Grey	H	W	
<a href="#">XPFA80BK</a>	<a href="#">XPFA80CG</a>	<a href="#">XPFA80GY</a>	4.13"	4.13"	3.15"
<a href="#">XPFA120BK</a>	<a href="#">XPFA120CG</a>	<a href="#">XPFA120GY</a>	5.91"	5.91"	4.70"

## REPLACEMENT FILTERS

- Flame retardant synthetic filter (as supplied with above)
- Five per pack

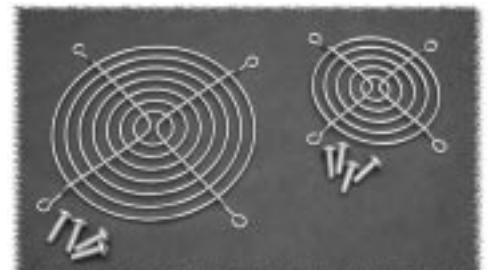
Part Number	Use with Square Fan Size
<a href="#">PFF1000</a>	3.15" (XPFA80 series)
<a href="#">PFF2000</a>	4.7" (XPFA120 series)



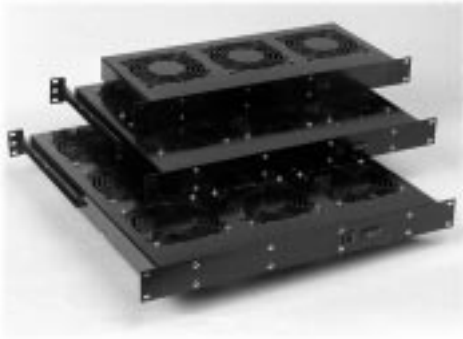
## FAN FINGER GUARDS

- Mounts to either the 3.15" (80 mm) or 4.7" (120 mm) fans
- Steel construction
- Chrome plated finish
- Includes mounting hardware

Part Number	Description	Use with Fan Size
<a href="#">FAN80FG</a>	Wire mesh, nickel plated	3.15"
<a href="#">DNFG</a>	Wire mesh, nickel plated	4.70"

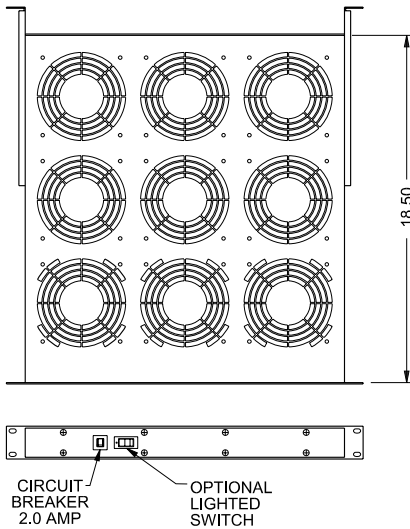


## FAN TRAYS

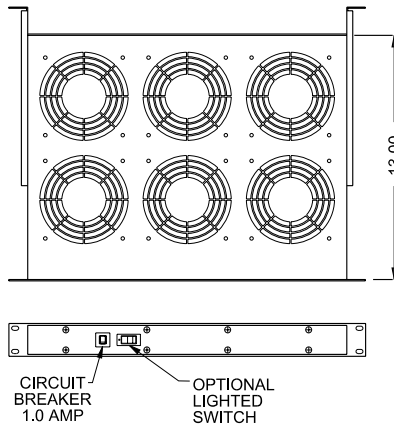


- Standard 19" rack mount
- Compact and economical rack cooling solution
- Fan trays can be positioned at the bottom of a rack to force air through the cabinet, at the top to exhaust air out or below specific pieces of equipment for spot cooling
- 115VAC 50/60 Hz., thermally protected, ball bearing fans  
UR/cUR listed
- Circuit breaker protected
- Low profile 1.75" (1U) of panel space
- 6' 14/3 STJW cord with molded 3 prong plug included
- Integral finger guards above and below fans
- Case width is 17"
- 6 and 9 fan units include an adjustable rear mounting bracket (mounts to rear panel rails) for extra stability
- Shipped fully assembled
- Available with or without on/off switch
- Finished in smooth black powder paint
- Control your rack temperature with our economical, compact thermostat

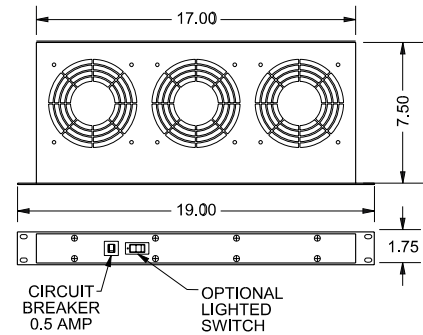
FT900HA1BK



FT600HA1BK



FT300HA1BK



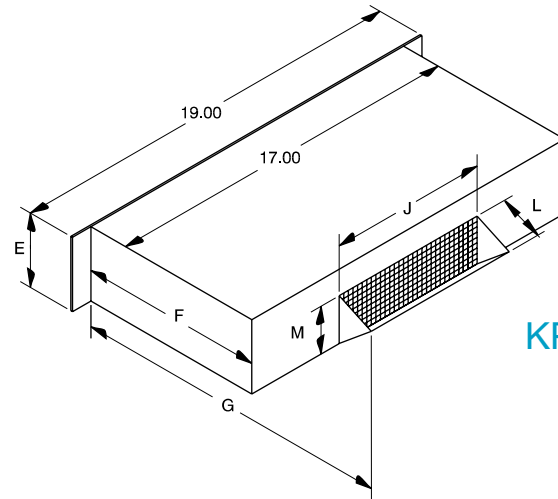
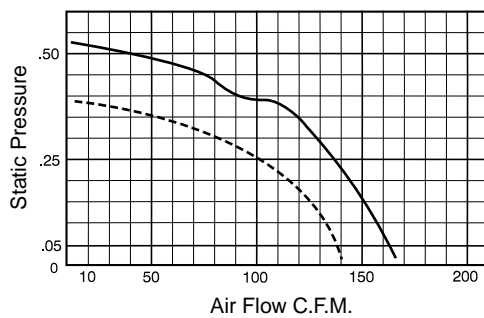
Part Number		CFM	Running Amps	Watts	Panel Width	Case Width	Case Depth	Rear Bracket Depth	
Without Switch	With Lighted Switch							Min.	Max.
FT300TA1BK	FT300HA1BK	300	0.5	40	19	17	7.5	n/a	n/a
FT600TA1BK	FT600HA1BK	600	1.0	80	19	17	13	2.40	19.20
FT900TA1BK	FT900HA1BK	900	1.5	120	19	17	18.5	7.90	24.70

## PACKAGED TWIN BLOWERS

- Standard 19" rack mount
- All blowers contain a quadruplex centrifugal blower powered by a single precision ball-bearing motor
- These widely used packaged twin blowers deliver air from more than 50% of their 17" width
- 115VAC 50/60 Hz., UR/CSA listed ball bearing motor
- Internal neoprene isolation mounts reduce transmission of vibration to the enclosure
- Heavy duty steel enclosure
- Includes permanent filter & attractive stainless steel grill
- Inlet air (front of unit) cools motor for long life
- Exhaust guards included
- Six foot (minimum) SJTW 3-wire cord

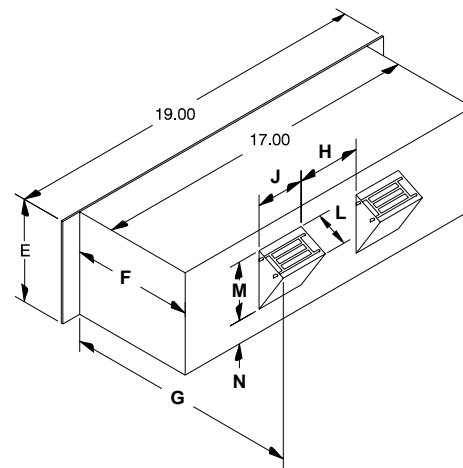
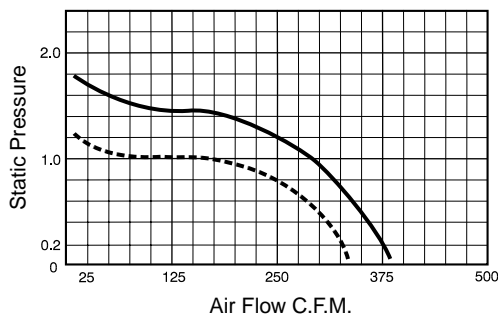


**KP350A**



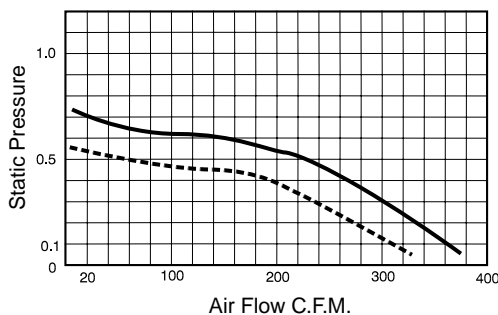
**KP350A**

**KP529A**



**KP350A  
&  
KP729A**

**KP729A**



Part Number	Free Flow Air Delivery (CFM)	RPM Nominal	Ambient Temp.		Panel Height		Dimensions (Inches)						
			Min. °F	Max. °F	E	Units	F	G	H	J	L	M	N
KP350A	150	1500	-20	250	3.50	2	8.75	10.50	-	7.50	2.25	2.25	-
KP529A	300	3000	-20	250	5.25	3	6.25	7.69	4.50	4.50	1.88	3.00	1.19
KP729A	470	3250	-20	250	7.00	4	8.25	10.25	4.63	4.75	2.50	4.00	1.44

Accessories