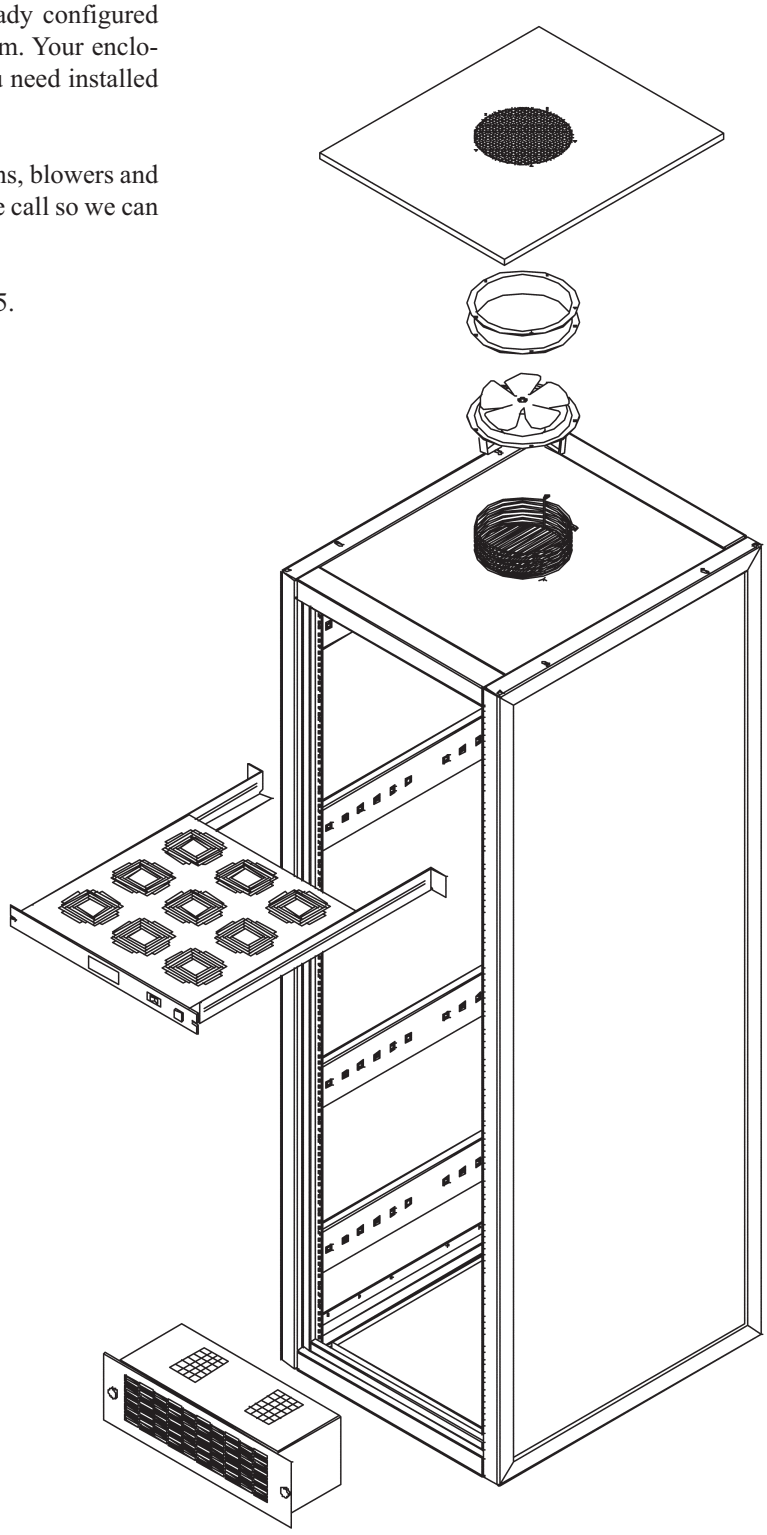
Equipt-Air Fans and Blowers

Fans and Blowers delivered with your enclosure

Equipto Electronics can deliver your enclosure already configured with the cooling accessories you need for your system. Your enclosure will be shipped with the cooling accessories you need installed at the locations you specify.

On the following pages, you can view our standard fans, blowers and fan trays. If you don't see the product you need, please call so we can custom configure the exact enclosure you require.

If you have any questions, please call (800) 204-7225.



Blower and Fan Selection Nomograph

This nomograph will assist you in making a rapid evaluation of the airflow required to cool the average electronics enclosure, if the approximate wattage to be dissipated and the acceptable temperature rise are known.

First, determine the amount of heat to be removed, in watts. Then identify the acceptable rise in temperature. Theoretically , this is the maximum allowable component temperature minus the maximum anticipated ambient temperature.

Lay a straight edge across the nomograph to intersect these two points. The straight edge will intersect the required volume on the airflow scale. The nomograph automatically includes a "safety factor" of 25 percent more air than is dictated by strict adherence to theoretical considerations. This is expressed by the constant, 1.25, in the first two equations.

Based on standard air density (0.075 lbs. per cubic foot), the nomograph furnishes quick solutions for the following equations:

$$CFM = \frac{3.17P}{T_F}(1.25)$$ for temperature rise in degrees Fahrenheit

$$CFM = \frac{1.76P}{T_C}(1.25)$$ for temperature rise in degrees Celsius

The average temperature rise (T_F or T_C) in the cabinet equals the cabinet outlet temperature minus the cabinet inlet temperature.

CFM = Volume flow of cooling air in cubic feet per minute.
P = Power to be dissipated in watts.

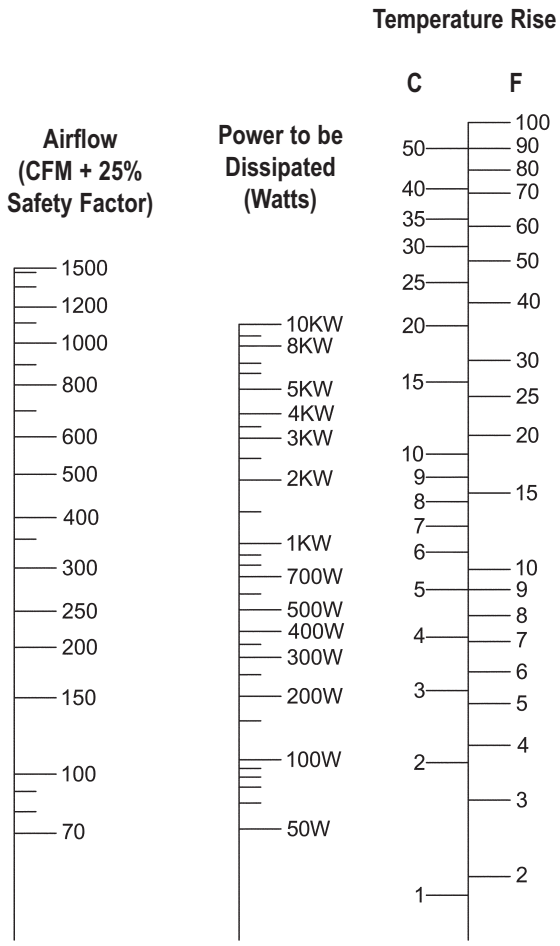
The constant, 1.25, represents the "safety factor" discussed above.

Specific heat of air is considered constant in these formula. If the atmosphere density at which the equipment is to operate deviates significantly from standard air density, the following formula will convert the approximation obtained from the nomograph to the CFM required at the different density:

$$CFM_n = CFM_{0.075}\frac{(0.075)}{Pn}$$

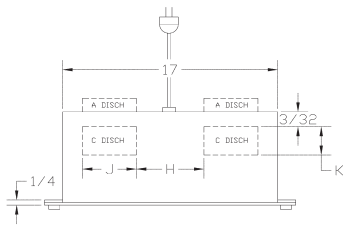
Where:

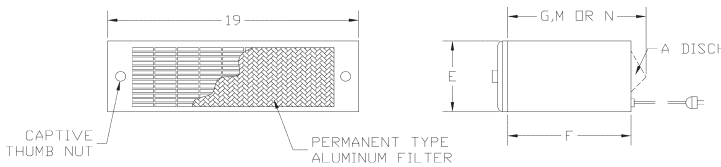
Subscript n = non-standard air density;
Subscript 0.075 = nominal standard air density;
*P*n = non-standard air density (lbs. per cubic foot).



How to Order

Add discharge suffix to the basic Model Number from the table on the opposite page when ordering. Example: 031-020-701A is a seven-inch high, 360 CFM unit with diagonal rear discharge.





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Blowers

In presenting to you the Equipt-Air line of Blowers and Fans for cooling electronic equipment and instrumentation, we have combined the engineering experience of Equipto engineers who are the originators, designers and developers of the modular concept of cabinetry for housing electronic equipment and instrumentation, with the achievements of the engineers at the Kooltronic® Fan Company, who are recognized authorities in the field of designing and building dependable, efficient cooling units for electronic cabinets.

Equipto Electronics Corporation is not a manufacturer of Blowers and Fans. The Blowers and Fans shown in this catalog have been carefully selected by Equipto engineers from the line of Kooltronic products to enable you to confidently purchase high-quality cooling for use with Equipto Electronics products.

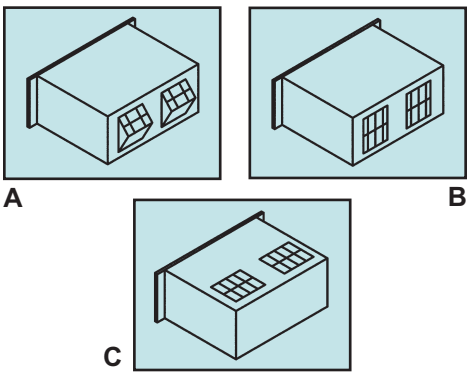
The technical data shown in this catalog should enable you to specify the proper Equipt-air Blowers and Fans for a great many of your cooling requirements, designed to be used with enclosures at our factory and shipped to you as part of the enclosure assembly. Many other blowers, not shown in this manual are available. So, no matter what problem you may have in cabinet cooling, we believe that we have the answer.

Product Features

- All units have 19" wide grills with blower enclosure 17" wide. Standard EIA notched flanges located behind grill
- Standard stainless steel grill contains knurled captive fasteners for easy removal. Grill area is 65% open
- Viscous impingement permanent filter is washable and reusable with multiple layers of corrugated aluminum grids
- Precision Ball bearing motors with UL component recognition. Bearings meet Federal Specification FF-B-171A
- Three wire power cable with ground and molded plug
- Medium hammertone gray baked enamel finish is standard

Model 031-020-528C with vertical cooling air discharge shown above.

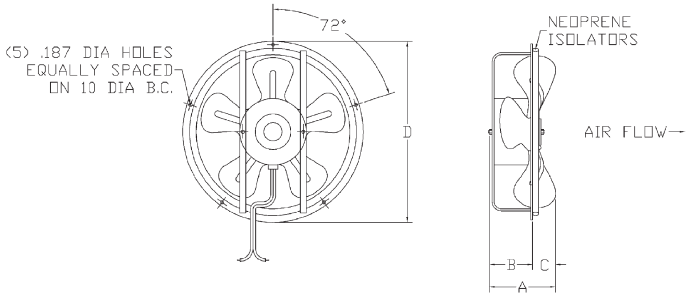
Model 031-020-528A with diagonally upward discharge shown above.



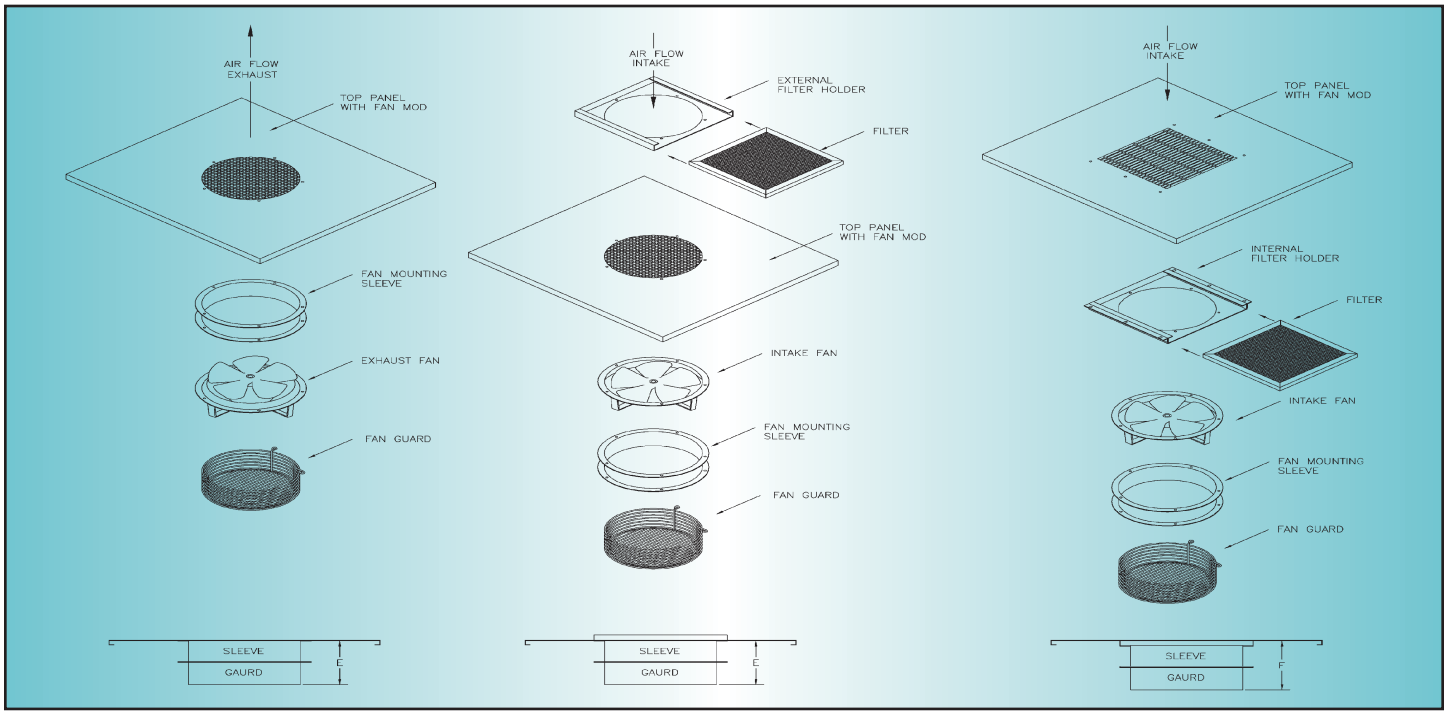
PERFORMANCE DATA						DIMENSIONS (Inches)							
Model No.	CFM@ 0-Inches	Motor Speed (RPM NOM.)	Power		Discharge Available	Panel Height E	F	G A Discharge	M B Discharge	N C Discharge	H	J	K
			AMPS	WATTS									
031-020-350	160	1500	12	90	AB	3 1/2"	8 3/4"	10 1/2"	8 3/4"	N/A	N/A	N/A	N/A
031-020-528	130	3150	0.8	65	ABC	5 1/4"	6 1/4"	7 11/16"	6 1/4"	6 1/4"	3 1/4"	2 1/2"	1 15/16"
031-020-701	330	1600	1.1	85	ABC	7"	8 1/4"	10 1/16"	8 1/4"	8 1/4"	3 1/4"	4 3/4"	3 5/16"
031-020-729	470	3250	1.7	185	ABC	7"	8 1/4"	10 1/4"	8 1/4"	8 1/4"	4 5/8"	4 3/4"	2 1/2"
031-020-877	525	1500	1.3	140	ABC	8 3/4"	10"	11 9/16"	10"	10"	2"	5 15/16"	3 5/8"
031-020-1051	800	1500	2.5	260	ABC	10 1/2"	11 1/2"	13 1/8"	11 1/2"	11 1/2"	4"	4 9/16"	4 3/4"

Space Saver Fans and Accessories

The Space Saver Fans are unusually compact fans, designed especially for cooling electronics, and have a substantial radial component to their delivery to ensure broad distribution of cooling air throughout an enclosure. They are available in a wide range of sizes from 220 CFM to 750 CFM. Specify if the fan is mounted in the top panel, front or rear panels or doors. No matter how restricted the area, chances are a Space Saver fan and its mounting accessories can be fitted in.



Space Saver Fan



Exhaust Fan Assembly Suffix BOO

Intake Fan Assembly w/External Filter Suffix AEF

Intake Fan Assembly w/Internal Filter Suffix AIF

PERFORMANCE DATA					DIMENSIONS (Inches)								
Assem. No.	CFM@ 0-Inches	Motor Speed (RPM NOM.)	Power		A	B	C	D	Mounting		Blade Dia.	Space Required		Replacement Filter
			AMPS	WATTS					HOLE	BC		E	F	
141-220-*	210	1600	.35	30	3 5/8"	2"	1 5/8"	8 1/2"	7 3/8"	8	6 1/2"	4 5/8"	5 1/4"	161-141-006
141-300-*	350	3100	1.0	74	3 7/8"	2 3/8"	1 1/2"	8 1/2"	7 3/8"	8	6 1/2"	4 5/8"	5 1/4"	161-141-006
141-400-*	400	1500	.7	55	3 3/8"	1 3/4"	1 5/8"	10 1/2"	9 3/8"	10	8	4 3/8"	5"	161-141-008
141-550-*	560	1600	1.6	100	4 1/2"	2 1/4"	2 1/4"	11 1/2"	10 3/8"	11	9	5 1/4"	5 7/8"	161-141-009
141-750-*	750	1550	1.5	105	4 3/4"	2 1/2"	2 1/4"	12 1/2"	11 3/8"	12	10	5 1/2"	6 1/8"	161-141-010

*Add suffix, BOO, AEF, or AIF from the drawings above.

Top panels ordered seperately.

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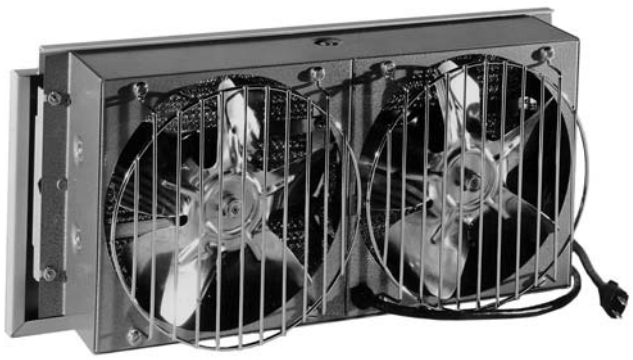
Twin Fans and Accessories

The popular Equipt-Air Twin Fan is an exclusive design which uses propeller type fan blades as the air impeller in a packaged electronic cooling unit which provides some features that are unattainable with a conventional centrifugal blower. With a thickness of just 4 1/2", it frees the remainder of the cabinet depth for power supplies or other equipment. It is available for intake or exhaust applications.



Model Number 144-020-875 packaged Twin Fan
Exhaust Guards are standard

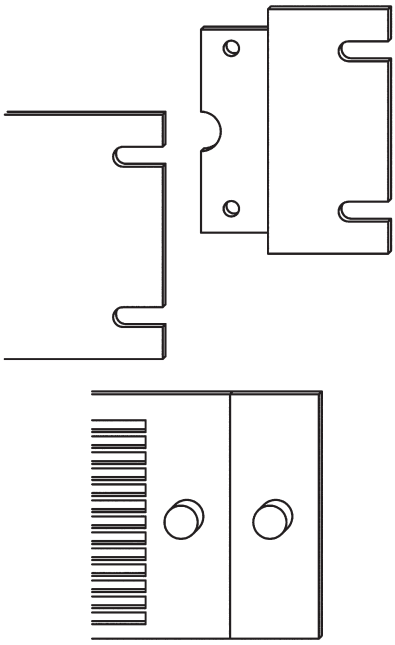
How to Order

Add discharge suffix (A-intake; B-exhaust) to the basic Model Number when ordering.

PERFORMANCE DATA					DIMENSIONS (Inches)		
Assem. No.	CFM@ 0-Inches	Motor Speed (RPM NOM.)	Power		Discharge Available	Panel Height	Unit Depth
			AMPS	WATTS			
144-020-875	440	1500	1.2	98	AB	8 3/4"	4 1/4"

Adapters

Adapters permit mounting of any 19" Equipt-Air packaged blower or twin fan in a cabinet designed for 24" panels. A gauge flange, with appropriate EIA notching at each end, bolts to both the channel and the blower flanges. After installation, a rectangular plate with a captive nut, identical in finish to the adjoining grill, covers the adapter.



Adapter for Blower or Twin Fan

Permanent Filters

All Filters used in standard Equipt-Air products are of the washable and reusable viscous impingement type. Replacement, although not normally required, can be made using the following which fit all standard Equipt-Air packaged blowers and twin fans. They are all 1/2" thick.

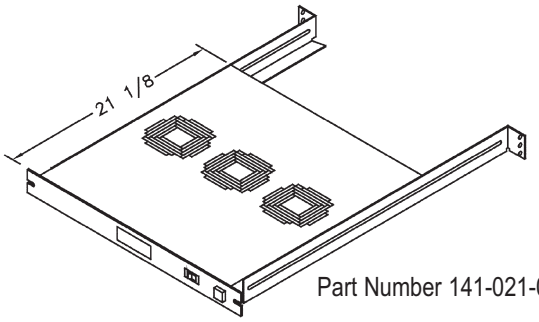
Part No.	Panel Size	Height	Width
161-030-003	3 1/2"	3 3/16"	16 5/8"
161-030-005	5 1/4"	4 7/8"	16 5/8"
161-030-007	7"	6 3/4"	16 5/8"
161-030-008	8 3/4"	8 3/8"	16 5/8"
161-030-010	10 1/2"	10 1/8"	16 5/8"

Adapter Kit No.	For Panel Height (inches)
031-000-003	3 1/2"
031-000-005	5 1/4"
031-000-007	7"
031-000-008	8 3/4"
031-000-010	10 1/2"

Fan Tray

Fan Tray Assemblies for Cabinet Depths 25 1/2", 29", 30 3/4", and 36"

If you plan to use one of the three Fan Trays shown in a 24" wide Rack, add "-AK" to the fan tray part number to specify an adapter kit. The kit consists of a 24" wide front panel and two 2 1/2" spacer side channels.

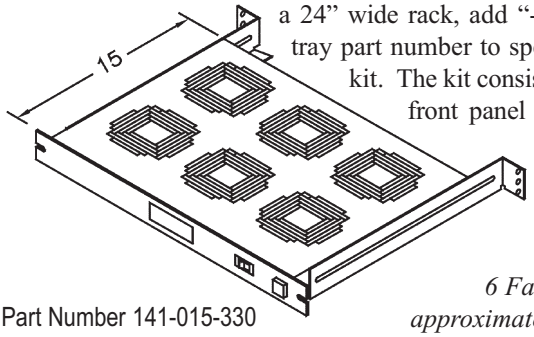


Part Number 141-021-030

3 Fan Tray approximately 315 CFM

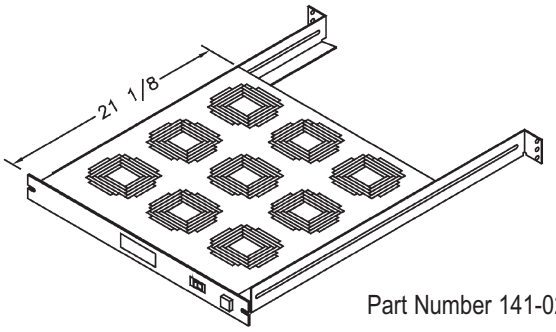
Fan Tray Assemblies for Cabinet Depths 17", 18 1/2", 22", and 24"

If you plan to use one of the two Fan Trays shown to the right, in a 24" wide rack, add "-AK" to the fan tray part number to specify an adapter kit. The kit consists of a 24" wide front panel and two 2 1/2" spacer side channels.



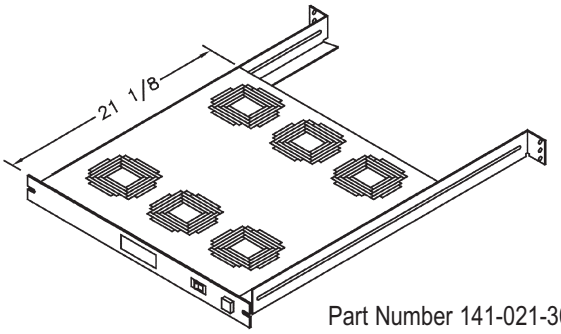
Part Number 141-015-330

6 Fan Tray approximately 630 CFM



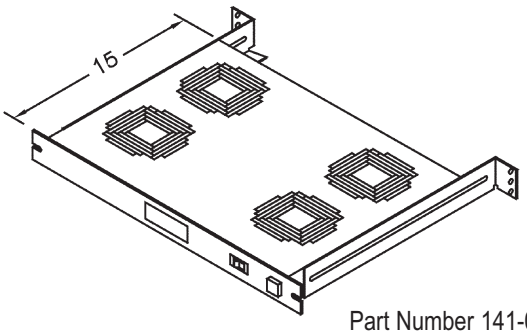
Part Number 141-021-333

9 Fan Tray approximately 945 CFM



Part Number 141-021-303

6 Fan Tray approximately 630 CFM



Part Number 141-015-220

4 Fan Tray approximately 420 CFM

Product Features

- UL/CSA Ball-bearing motors
- Integral OSHA/UL fingerguards
- Fused Power protection accessible from face plate
- Lighted Power Switch
- Five foot type SJ 3-wire cord and molded plug
- Front mounting panel painted in your choice of color and balance painted grey
- Universal rear mounting brackets will accommodate recessing angles
- One year warranty

Specifications

- Up to 105 CFM per fan
- Up to .34" H_20 S.P.
- 115V 50/60 HZ
- Fits standard 19" width in 1 3/4" height
- Meets NC-50 noise level curve
- Bearings rated for 20° C to 70° C temperature range
- Can be used with our ball bearing slide and mounting kit assemblies. Consult catalog page A-85 for Heavy Duty and Page C-51 for Challenger, Solid Side, Quiptron and Heavy Duty Desks.

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