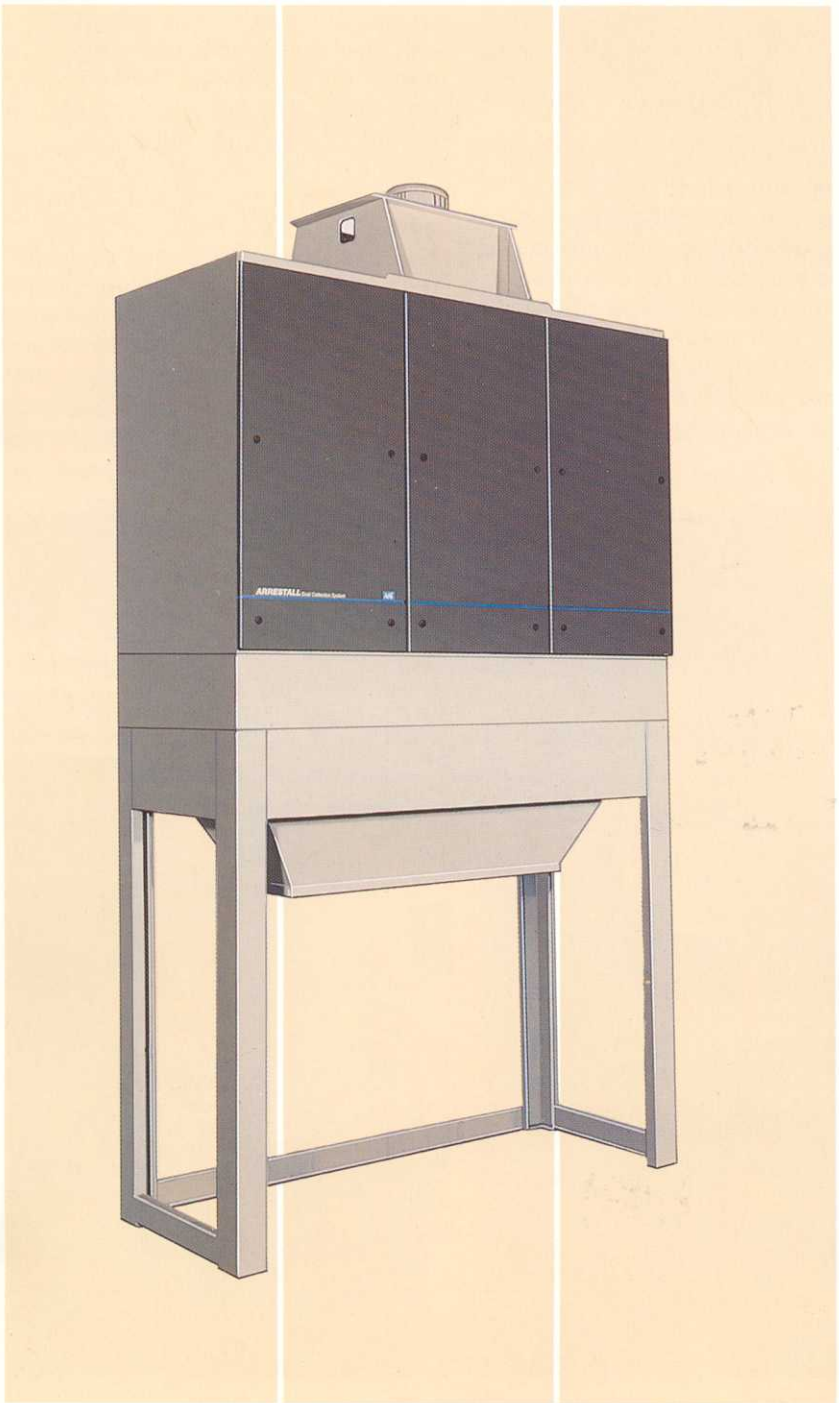
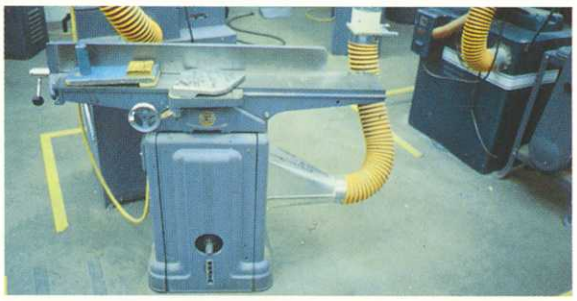
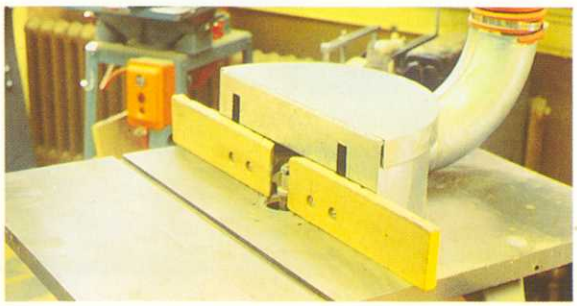
AAF INTERNATIONAL WOODWORKING DUST CONTROL







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Woodworking Dust Control

SHOP ENVIRONMENT

Environment is a key word in today's school shops. It's important for the physical layout to provide AN ENVIRONMENT FOR LEARNING. Good housekeeping practices are essential for a GOOD WORKING ENVIRONMENT and a good dust collection system safeguards the ENVIRONMENT WE BREATHE. A well designed dust collection system actually contributes to all environments as it complements equipment layout, minimizes housekeeping and removes airborne contaminants.

This brochure describes the problem of wood dust in school shops, the essentials of collection systems and the details of some commonly applied dust collectors.

Dust is a natural by-product of many industrial processes and dust control has become an essential part of those processes.

Woodworking dust is an obvious by-product of all school woodworking shops and a "state of the art" dust collection system is a necessity because it accomplishes the following:

- Improves shop safety.
- Encourages good industrial practices.
- Demonstrates good housekeeping.
- Reduces dust inhalation.
- Reduces potential fire hazards.
- Facilitates energy conservation.

WOODWORKING DUST

The characteristics of any industrial dust will affect the choice of a capture and collection system. Woodworking dust varies with the woodworking process, tool sharpness and type of wood. Sanding dust below 10 microns in size represents one end of the spectrum while planing curls up to several inches long represents the other. Tool sharpness affects shredding and tearing, producing larger sizes and softwoods produce larger particle sizes than hardwoods. The dominant characteristics of wood dust is the variation in size and the significant volume of dust that is normally produced.

Threshold limit values for wood dust are listed* as one milligram per cubic meter for certain hardwoods such as beech and oak and five milligrams per cubic meter for softwood. These are recommendations intended as industrial hygiene guidelines. They do, however, reflect concern on the part of health professionals and point to the need for effective system design. This is especially pertinent in situations where recirculation is desirable to reduce energy costs.

*Industrial Ventilation, 19th Edition, American Council of Government Hygienists, Lansing, Michigan.

Capture and Collection Systems

Total woodworking dust control implies an effective capture and efficient collection system. A typical dust control system is composed of four components: a hood to confine the dust at its source, a duct to convey the collection material, a fan to maintain suction in the hoods and ducts, and a collector to separate the dust from the exhaust air and deposit it in a storage container.

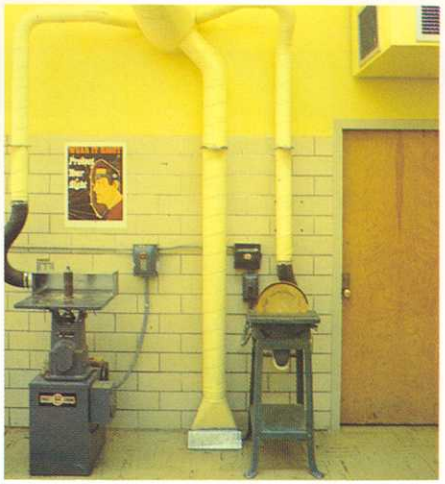
EXHAUST HOODS

Since the primary purpose of a dust collection system is to prevent the dispersion of dust from the point of generation, the exhaust hood is a critical part of any system. Properly designed hoods assure maximum efficiency of the system with minimum exhaust volume and permit unrestricted movement of the operators and the free flow of material being processed. Well designed hoods also lower the cost of the system by reducing the volume of exhaust air necessary to confine the dust at its source. The illustrations on page 5 show some typical hood arrangements for equipment normally found in the woodworking shop.

DUCTS

When designing a system, care must be taken to insure that the velocity of the air in the ducts is high enough to convey the entrained dust particles to the collector. The branch and main ducts must be sized proportionately to maintain proper distribution of the air through the hoods. Blast gates may be used to provide final adjustment of the system.

Exhaust ducts can be located along the ceiling or beneath the floor. The latter will usually be found only in new buildings since it is normally too expensive to install the ducts beneath the floors in existing



buildings. Each system offers certain advantages:

Overhead Ducts
Permits relocation of equipment.

Allows for easier changes in duct system.

Easier to balance airflow.

Duct maintenance easier.

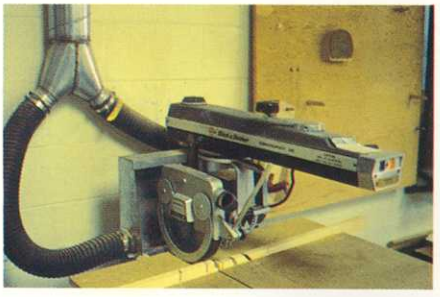
Under-the-Floor Ducts
Appearance does not obscure visibility around machines.

Will not interfere with light fixtures, eliminating shadows.

Shorter lengths of duct required.

FANS

It is imperative that the fans be properly sized in order to maintain sufficient velocity to carry the collected material through the ducts. Often fans are built in as an integral part of a self contained dust collector such as the ArrestAll collector or certain sizes of the Type M FabriPulse collector. Where a separate air mover is required selection criteria may include the need for silencing, non-sparking wheels and non-overloading operating characteristics.



COLLECTORS

The three types of collectors commonly used in woodworking shops are the ArrestAll shaker type fabric collector, Type M FabriPulse pulse-jet fabric collector and the Type D RotoClone. Final selection of the unit will depend upon the particular requirements of the shop. The ArrestAll unit is a simple, compact pocket type fabric unit which is often located inside the shop. The Type M FabriPulse collector offers continuous service with on-line cleaning utilizing compressed air to dislodge the dust. It is compact enough for inside installation. But may also be located outdoors. The Type D RotoClone is a dynamic precipitator that combines the functions of exhauster, dust separator and storage hopper in one compact unit. Where the exhaust air can be discharged outside, this dust collector is a practical solution to most woodworking dust problem. The skimmer precleaner is recommended where quantities of chips and shavings are contained in the exhaust air.

Exhaust Requirements for Woodworking Operations

RECOMMENDED DUCT VELOCITY 3500 — 4000 FPM

Equipment	Unit of Measurement	Size	Exhaust Volume - cfm		
			Bottom	Top	Total
SAWS Self-feed table rip	Dia. In Inches	Up to 16 incl.	440	350	790
		Over 16	550	350	900
Swing Saw	Dia. In Inches	Up to 20 incl.	—	—	350
		Over 20	—	—	440
Rip, table, mitre & variety saws	Dia. In Inches	Up to 16 incl.	—	—	350
		Over 16-24 incl.	—	—	440
		Over 24	—	—	550
Variety Saw with dado head			—	—	550
Gang Rip Saws	Dia. In Inches	Up to 24 incl.	550	350	900
		Over 24 to 36 incl.	800	440	1240
		Over 36 to 48 incl.	1100	550	1650
		Over 48	1400	550	1950
Band Saw (Note 1)	Blade Width In In.	2 Max.	350	350	700
Band Resaws	Blade Width In Inches	2-3 incl.	350	550	900
		Over 3-4 incl.	550	800	1350
		Over 4-6 incl.	550	1100	1650
		Over 6-8 incl.	550	1400	1950
SANDERS Disc Sander (Note 2)	Disc Dia. In Inches	Up to 12 incl. Duct A	—	—	350
		Over 12-18 incl. A	—	—	440
		Over 18-26 incl. A	—	—	550
		Over 26-32 incl. A-B	—	—	700
		Over 32-38 incl. A-B	—	—	900
		Over 38-48 incl. A-B-C	—	—	1250
Single Drum Sander	Surface Sq. In.	Up to 200 incl.	—	—	350
		200-400 incl.	—	—	550
		Over 400-700 incl.	—	—	785
		Over 700-1400 incl.	—	—	1100
		Over 1400-2400 incl.	—	—	1400
Multiple Drum Sander (Note 3)	Drum Length In Inches	Up to 31	—	—	550
		31 to 49	—	—	785
		49 to 67	—	—	1100
		Over 67	—	—	1400
Horizontal Belt Sander (Note 4)	Belt Width In Inches	Up to 6 incl.	440	350	790
		Over 6-9 incl.	550	350	900
		Over 9-14 incl.	800	440	1240
		Over 14	1100	550	1650

Equipment	Unit of Measurement	Size	Exhaust Volume - cfm			
			Bottom	Top		Total
Vertical Belt Sander	Belt Width In Inches	Up to 6 incl.	—	—		440
		Over 6-9 incl.	—	—		550
		Over 9-14 incl.	—	—		800
		Over 14	—	—		1100
Swing Arm Sander	—	—	—	—		440
JOINTERS	Knife Length In Inches	Up to 6 incl.	—	—		350
		Over 6-12 incl.	—	—		440
		Over 12-20 incl.	—	—		550
		Over 20	—	—		800
PLANERS Single Planer	Knife Length In Inches	Up to 20 incl.	—	—		785
		Over 20-26 incl.	—	—		1100
		Over 26-32 incl.	—	—		1400
		Over 32-38 incl.	—	—		1765
		Over 38	—	—		2200
Double Planer		20 incl.	550	785		1335
		Over 20-26 incl.	785	1100		1885
		Over 26-32 incl.	1100	1400		2500
		Over 32-38 incl.	1400	1800		3200
		Over 38	1400	2200		3600
MOLDERS, MATCHERS, SIZERS	Knife Length In Inches		Bottom	Top	Right	Left
		Up to 7 incl.	440	550	350	350
		Over 7-12 incl.	550	800	440	440
		Over 12-18 incl.	800	1100	550	550
		Over 18-24 incl.	1100	1400	800	800
		Over 24	1400	1770	1100	1100
FLOOR SWEEP	The volume exhausted for floor sweeps is generally not included in computing total exhaust requirements.					

Note 1 — Connect one branch pipe to hood under table; the second branch at a point near the floor on the up run side of the lower wheel. Enclose the entire lower wheel to form the hood.

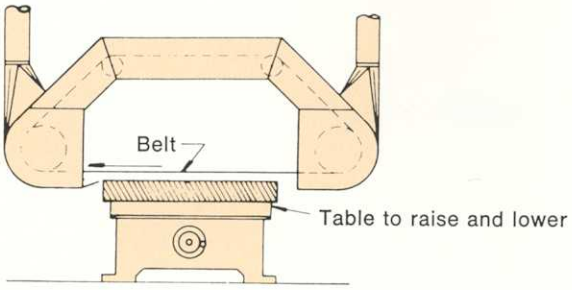
Note 2 — See sketch, page 5 for duct references.

Note 3 — All entries under exhaust volume are expressed in cubic feet per min. Multiple Drum Sander exhaust volume is expressed in terms of total exhaust for machine cfm/drum. One hood per drum is minimum. Additional hood at feed side is desirable.

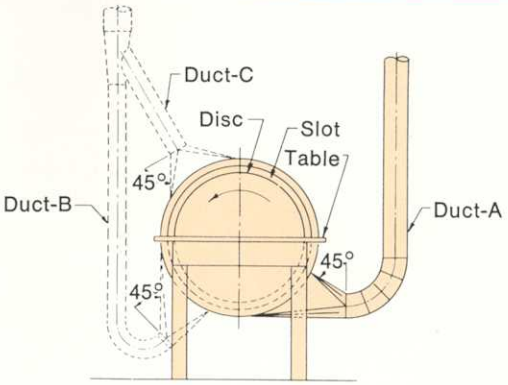
Note 4 — "Bottom" column refers to head end cfm and "top" column to tail end cfm.

Exhaust Hoods

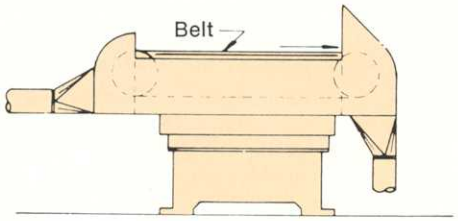
RECOMMENDED DESIGNS FOR VARIOUS EQUIPMENT



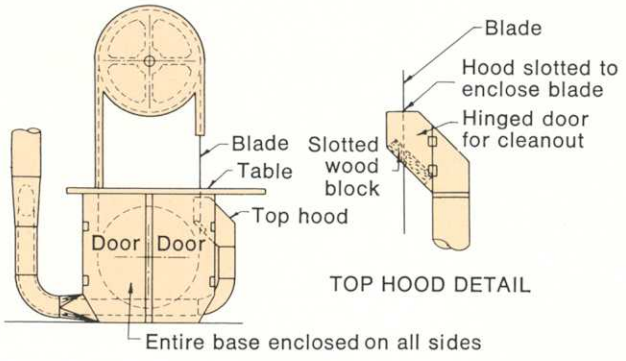
BELT SANDER



DISC SANDER



HORIZONTAL BELT SANDERS



BAND SAW

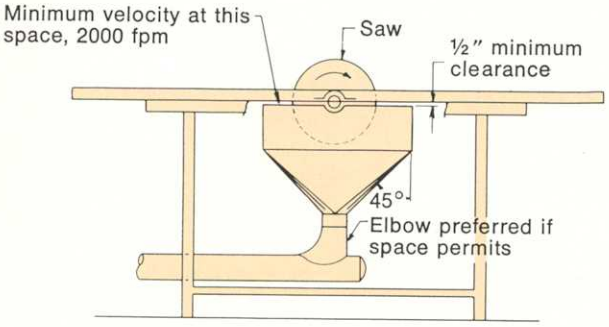
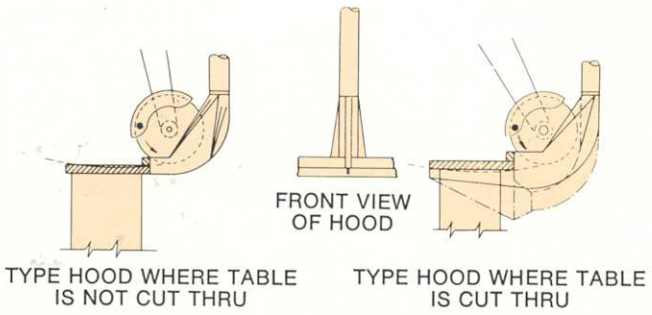
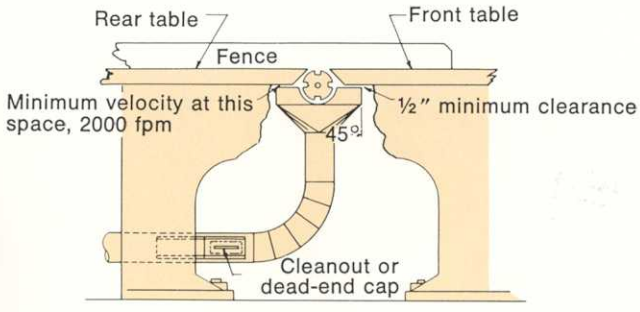


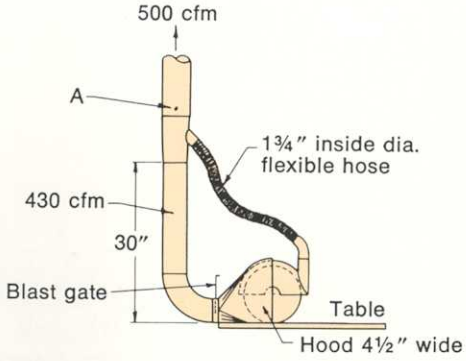
TABLE SAW



SWING SAW



JOINTER



RADIAL SAW

Design Problem

For most installations, the data included in the following tables normally will be sufficient to provide an adequate dust collection system. Their application can best be seen by means of a practical shop layout.

Equipment to be exhausted:

A. One 7″ jointer
B. One 10″ table saw
C. One 18″ planer
D. One 2″ band saw
E. One floor sweep

BRANCH PIPE SIZES AND REQUIRED EXHAUST VOLUMES

The first step in designing a dust control system is to determine the exhaust volume and branch pipe size required for each dust source beginning with the one located farthest from the dust collector. For most operations these exhaust volumes requirements are specified by:

1. State codes or regulations.
2. Professional society codes of recommended practice.
3. Necessary inward velocities through hood openings to prevent dust escapement.

The general range of indraft velocities, Page 4, will serve as a guide where recommendations for specific applications are not available. Branch size is readily determined to the nearest practical diameter by determining the total air volume from the exhaust hood and selecting the suitable conveying velocity. Standard duct diameters will vary with the fabricator, but generally increase through 5½″ diameter in ½″ increments; 6″ through 20″ in 1″ increments; 22″ and above in 2″ increments.

The exhaust requirements for woodworking operations are shown on Page 4. Actual velocities and volumes will vary as much as 10% from design values to utilize typical duct diameters for a specified exhaust volume.

The branch size and exhaust volume from the equipment listed above could, therefore, be:

A. 7″ jointer	1″ - 4½″ duct	440 CFM
B. 10″ table saw	1″ - 4″ duct	350 CFM
C. 18″ planer	1″ - 5″ duct	785 CFM
D. 2″ band saw	1″	700 CFM

E. Floor sweep exhaust volume need not be included in computing total exhaust requirements unless state code requires doing so.

SYSTEM LAYOUT

A single line diagram is most helpful in calculating the pressure loss of the system. Location of the equipment will be determined by shop layout. The various branches should be connected by a main duct located to give as short a run to the dust collector inlet as possible. Where practical, branches having the greatest resistance should be of the shortest possible lengths and should enter the main duct as close to the dust collector as possible.

Frequently the compactness of the dust collector permits sufficient latitude in location to allow system design for minimum resistance and consequently slightly lower horsepower consumption. In other cases, it will be located where space is available and where disposal of the collected material is most convenient. These considerations often outweigh the slight savings in power of a better balanced system.

Typical layout for the equipment in this layout can be seen on Page 7, using the basic engineering data from Page 4.

From this example all essential exhaust system information has been obtained including:

1. Exhaust volume and pressure losses which determine the collector size, and horsepower.
2. Sizing of main branch and ducts of exhaust sizing.
3. Selection of proper hood design.

			Component Lengths of Machine Branch Ducting		
Key	Machine	Branch CFM	Straight Run	Elbows	Entries
1	7″ Jointer	440	11.83′	3-90°L 1-60°L	1-30°E
2	10″ Table Saw	350	13.25′	3-90°L 1-60°L	1-30°E
3	18″ Planer (Single)	785	13.25′	3-90°L	1-45°E
4	Floor Sweep	800-1400			
5	2″ Band Saw	Bottom 350 Top 350 } 700	12.00′	4-90°L 1-30°L	1-30°E 1-45°E

NOTES:

1. Floor sweep consideration is not generally included in calculations.
2. All elbows are 30, 60, or 90° and 2D radius is preferred.
3. 30° entries are preferred except as noted.

VELOCITY PRESSURE METHOD OF SYSTEM DESIGN

The example has been calculated using the velocity pressure method as outlined in Chapter 5 of "Industrial Ventilation, A Manual of Recommended Practice", 19th Edition, published by the American Conference of Governmental Industrial Hygienists. Refer to the manual for additional calculations and loss factors.

$$Q_{corr} = Q_{design} \sqrt{\frac{SP_{gov.}}{SP_{duct}}}$$

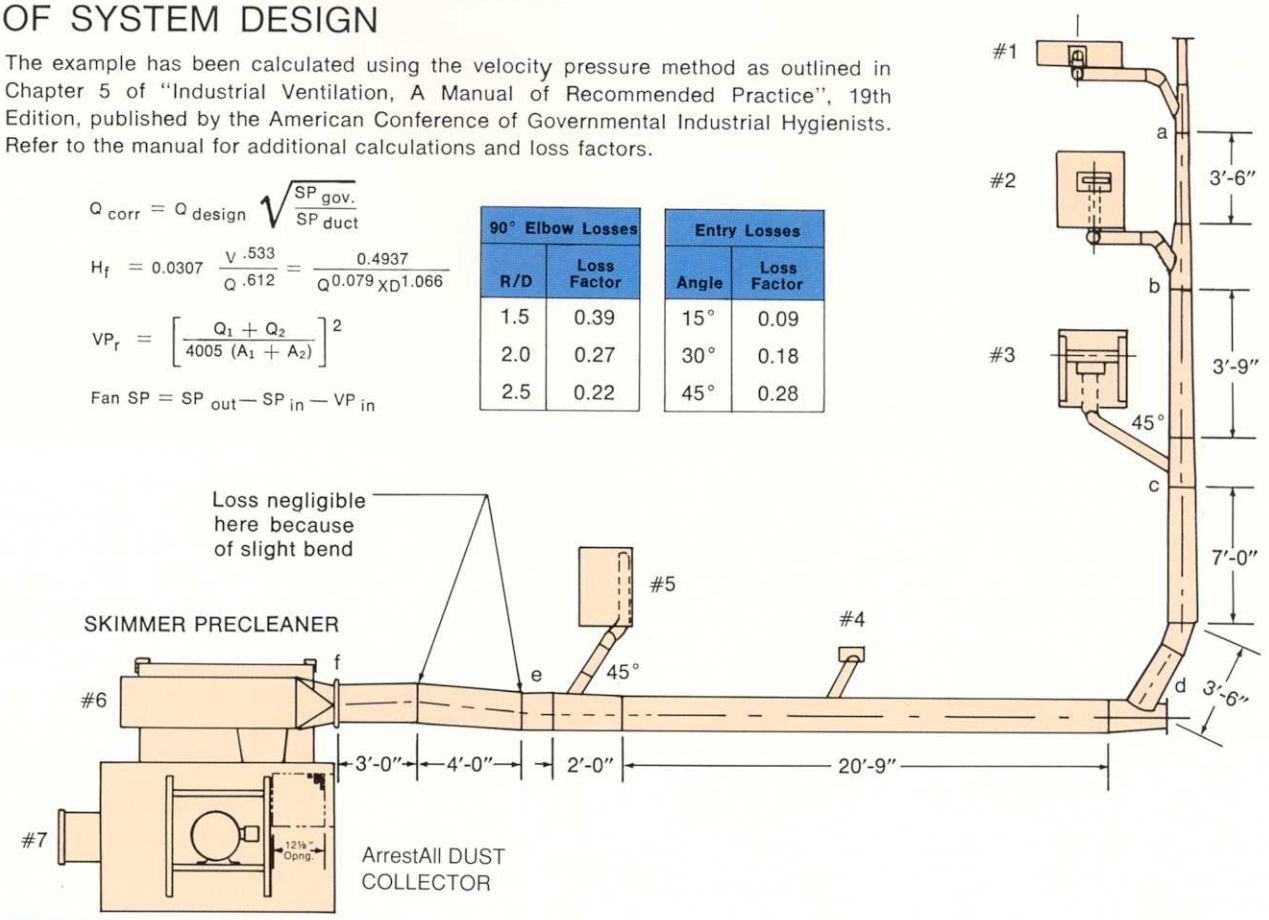
$$H_f = 0.0307 \frac{V^{.533}}{Q^{.612}} = \frac{0.4937}{Q^{0.079} XD^{1.066}}$$

$$VP_r = \left[\frac{Q_1 + Q_2}{4005\ (A_1 + A_2)}\right]^2$$

$$\text{Fan SP} = SP_{out} - SP_{in} - VP_{in}$$

90° Elbow Losses	
R/D	Loss Factor
1.5	0.39
2.0	0.27
2.5	0.22

Entry Losses	
Angle	Loss Factor
15°	0.09
30°	0.18
45°	0.28



VELOCITY PRESSURE METHOD CALCULATION SHEET

				1-a	a-b	2-b	b-c	3-c	c-d	4	d-e	5-e	e-f	6	7
1	Duct Segment Identification														
2	Volumetric Flow Rate		cfm	440	440	350	790	785	1650	N	1650	700	2350	2350	2350
3	Minimum Transport Velocity		fpm	3500	3500	3500	3500	3500	3500	E	3500	3500	3500	—	—
4	Duct Diameter		inches	4.5	4.5	4	6	6	9	G	9	5.5	10	—	—
5	Duct Area		square feet	0.1105	0.1105	0.09	0.1964	0.1964	0.4418	L	0.4418	0.165	0.5454	—	—
6	Actual Duct Velocity		fpm	3982	3982	4009	4022	3997	3739	E	3739	4242	4312	—	—
7	Duct Velocity Pressure		" wg	0.945	0.945	1.00	1.01	1.00	0.87	C	0.87	1.12	1.16	—	—
8	HOOD SUCTION SLOTS	Slot Area	square feet	0.22		0.175		0.390		T					
9		Slot Velocity	fpm	2000		2000		2000							
10		Slot Velocity Pressure	" wg	0.25		0.25		0.25		F					
11		Slot Loss Factor *Section 5 or Fig. 6-10		1.00		1.00		1.00		L					
12		Acceleration Factor	0 or 1	—		—		—		O					
13		Plenum Loss per VP Items 11 + 12		1.00		1.00		1.00		O					
14		Plenum SP Items 10 x 13	" wg	0.25		0.25		0.25		R					
15	Duct Entry Loss Factor *Section 5 or Fig. 6-10			0.25		0.25		0.25				1.75	—	—	—
16	Acceleration Factor		1 or 0	1.0		1.0		1.0		S		1.0	—	—	—
17	Duct Entry Loss per VP Items 15 + 16			1.25		1.25		1.25		W		2.75	—	—	—
18	Duct Entry Loss Items 7 x 17		"wg	1.18		1.25		1.25		E		3.08	—	—	—
19	Other Losses		" wg	—		—		—		E		—	0.22	2.30	1.00
20	Hood Static Pressure Items 14 + 18 + 19		" wg	1.43		1.50		1.50		P		3.08	0.22	2.30	1.00
21	Straight Duct Length		feet	11.83	3.50	13.25	3.75	13.25	10.5		22.75	12.0	9.0		
22	Friction Factor (Hf) *Figure 6-13 or equation			0.062	0.062	0.070	0.042	0.041	0.026		0.026	0.021	0.023		
23	Friction Loss per VP Items 21 x 22			0.73	0.217	0.93	0.158	0.54	0.273		0.592	0.25	0.207		
24	No. 90 Degree Elbows (or equivalents)			3⅔	—	3⅔	—	3	⅔		—	4⅓	—		
25	Elbow Loss per VP Item 24 x Loss Factor			0.99	—	0.99	—	0.81	0.18		—	1.17	—		
26	No. Entries			1-30°	—	1-30°	—	1-45°	1-30°		—	1-45°	—		
27	Entry Loss per VP Item 26 x Loss Factor			0.18	—	0.18	—	0.28	0.18		—	0.28	—		
28	Special Fittings Loss Factors per VP (" wg)			—	—	—	—	—	—		—	—	—		
29	Duct Loss per VP Items 23 + 25 + 27 + 28			1.90	0.217	2.10	0.158	1.63	0.633		0.592	1.70	0.207		
30	Duct Loss Items 7 x 29		" wg	1.80	.205	2.10	0.160	1.63	0.55		0.52	1.904	0.24		
31	Duct Static Pressure Loss Items 20 + 30 (28)		" wg	3.23	.205	3.60	0.160	3.13	0.55		0.52	4.98	0.46	2.30	1.00
32	Cumulative Static Pressure		" wg	- 3.23	- 3.44	- 3.60	- 3.76		- 4.31		- 4.85	- 4.98	- 5.44	- 7.74	- 8.74
33	Governing Static Pressure		" wg		- 3.60			- 3.76			- 4.98				
34	Corrected Volumetric Flow Rate (Q_{corr})		cfm					86.0							
35	Resultant Velocity Pressure (VP_r)		" wg		0.97			1.10				0.94			

COLLECTOR SELECTION AAF SIZE #10 SKIMMER PRECLEANER AND SIZE AR-45 ARRESTALL COLLECTOR

*See Industrial Ventilation Manual referenced above.

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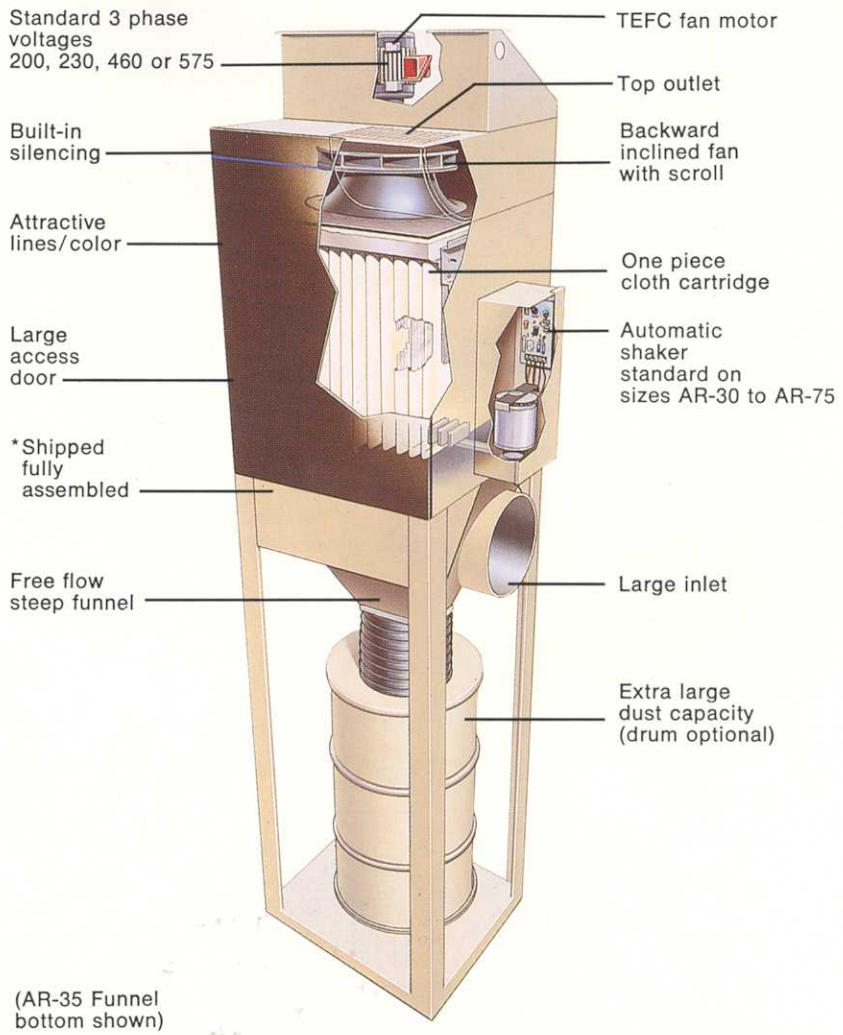
Model AR ArrestAll Self-Contained Dust Collector

The Model AR **ArrestAll** dust collector is a compact and efficient solution to small and medium volume dry dust problems. Designed to serve a single source or a system of multiple sources, it saves energy by recirculating clean air.

The ArrestAll system includes these features which are important in woodworking dust collection:

- Wide pocket spacing.
- Funnel bottom.
- Large dust containers.
- Quiet operation.
- Non-overloading BI fans.
- Non sparking wheels.
- Final filter option.
- Drop out chamber option.

See Product Bulletin APC-1-240 for additional details.



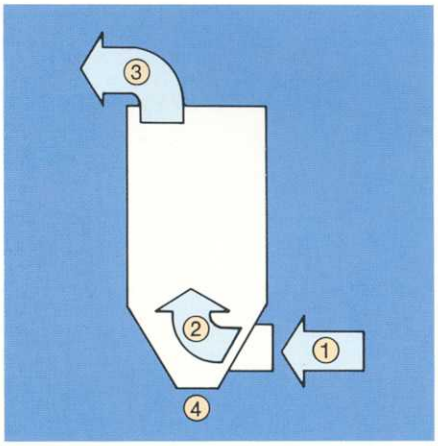
*AR-40 Thru 75 ships in two assembled sections

BENEFITS

- **Clean Air . . .**
  Removes over 99% of general industrial dusts by weight.
- **Energy Savings . . .**
  Recirculates clean air, reduces exhaust.
- **Quiet Operation . . .**
  Silencer is standard on every AR ArrestAll unit.
- **Attractive . . .**
  Clean, crisp lines—earthtone colors.
- **Low Maintenance . . .**
  Self cleaning—extra-large dust containers.
- **Saves Space . . .**
  Compact design conserves valuable floor space.
- **Movable . . .**
  Self-contained—can be moved or reapplied as needed.

PRINCIPLE OF OPERATION

1. Dust laden air is drawn into the inlet where it turns 90° causing the heavier particles to fall into the container.
2. The fine particles are drawn to the fabric pockets and trapped on the surface, forming a dust cake which increases efficiency.
3. The clean air flows from the pockets into the fan and is discharged.
4. The collected dust is periodically removed from the fabric pockets by an automatic (or manual) shaker system.



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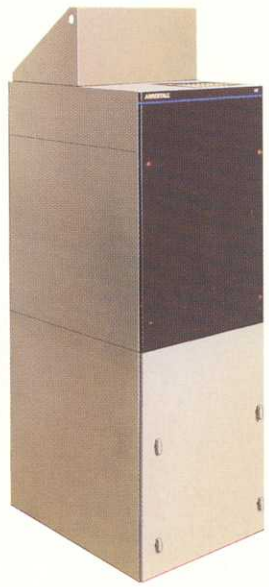
Sizes and Arrangements



AR-35
Flat Bottom

AR-50
Funnel Bottom

AR-50
Flat Bottom

Size Designation	Motor Horsepower	Arrangements	Drive
AR-10	3/4	Flat Bottom	Direct
AR-20	1 1/2		
AR-30	2	Flat Bottom Funnel Bottom Bin Vent	Direct
AR-35	3		
AR-40	5	Flat Bottom Funnel Bottom Hopper Bottom Bin Vent	Direct and Belt
AR-45	7 1/2		
AR-50	10		
AR-55	15		
AR-60	20		Belt
AR-65	25		
AR-70	25		
AR-75	30		

Design M FabriPulse Model 2 Pulse-Jet Fabric Dust Collector

PERFORMANCE AND ECONOMY IN A COMPACT PACKAGE

The Design M FabriPulse Model 2 pulse-jet fabric dust collector was designed to fill the need of the many industrial dust collection applications that require small, compact filter sizes and low air volumes.

The Design M dust collector offers these features that make it the best dust cleaning value in its class:

- Provides continuous dust collection at a 99%+ collection efficiency. It also features topside dust entry and a positive seal between the clean and dirty sides.
- Utilizes unique, small-diameter filter bags with built-in venturis and expanders to pack up to 1,500 square feet of media into a small space.
- Requires significantly less compressed air horsepower than competitive pocket-pulse collectors.
- Ships with bags installed on all sizes.

See Product Bulletin APC-1-411 for additional details.

ECONOMY

- Pressure loss across the fabric is reduced by an effective cleaning system, so horsepower is lower than that of competitive designs.

STANDARD DESIGN M FABRIPULSE DUST COLLECTOR (WITH HOPPER BOTTOM)

- The pulsing system uses a fraction of the compressed air horsepower needed for pocketpulse collectors.
- Maintenance costs are reduced significantly because venturis and cages are built into the bags. No tools or bag clamps are needed. Filter bags can be easily replaced, either individually or as an assembly of 42 bags.

COMPACT SIZE

- Available with 100 to 1,500 square feet of fabric for air volumes to 15,000 cfm in a single unit.
- Requires less floor space than most competitive units because it can operate at air-to-cloth ratios as high as 10:1.

OPTIONS

- Hoppers—45° and 60° hoppers are available.
- Leg extensions—Standard leg height provides a 12½" clearance from the hopper outlet to the base. Leg extensions in 6" increments providing up to 7' ½" hopper clearance are available. Outdoor (30 psi windload) leg extensions are also available.
- NEMA 4 or NEMA 9 controls.
- Explosion vents—Explosion vents for positive or negative pressure systems are available.
- Pressure switch controls—Minimizes compressed air usage and maximizes bag life by initiating bag cleaning only when the pressure drop across the baghouse reaches a preset level.

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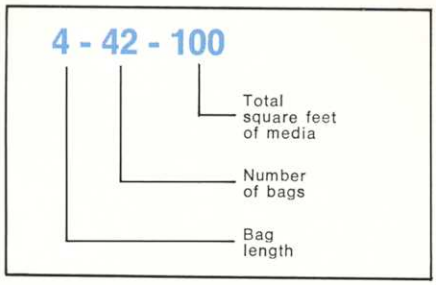
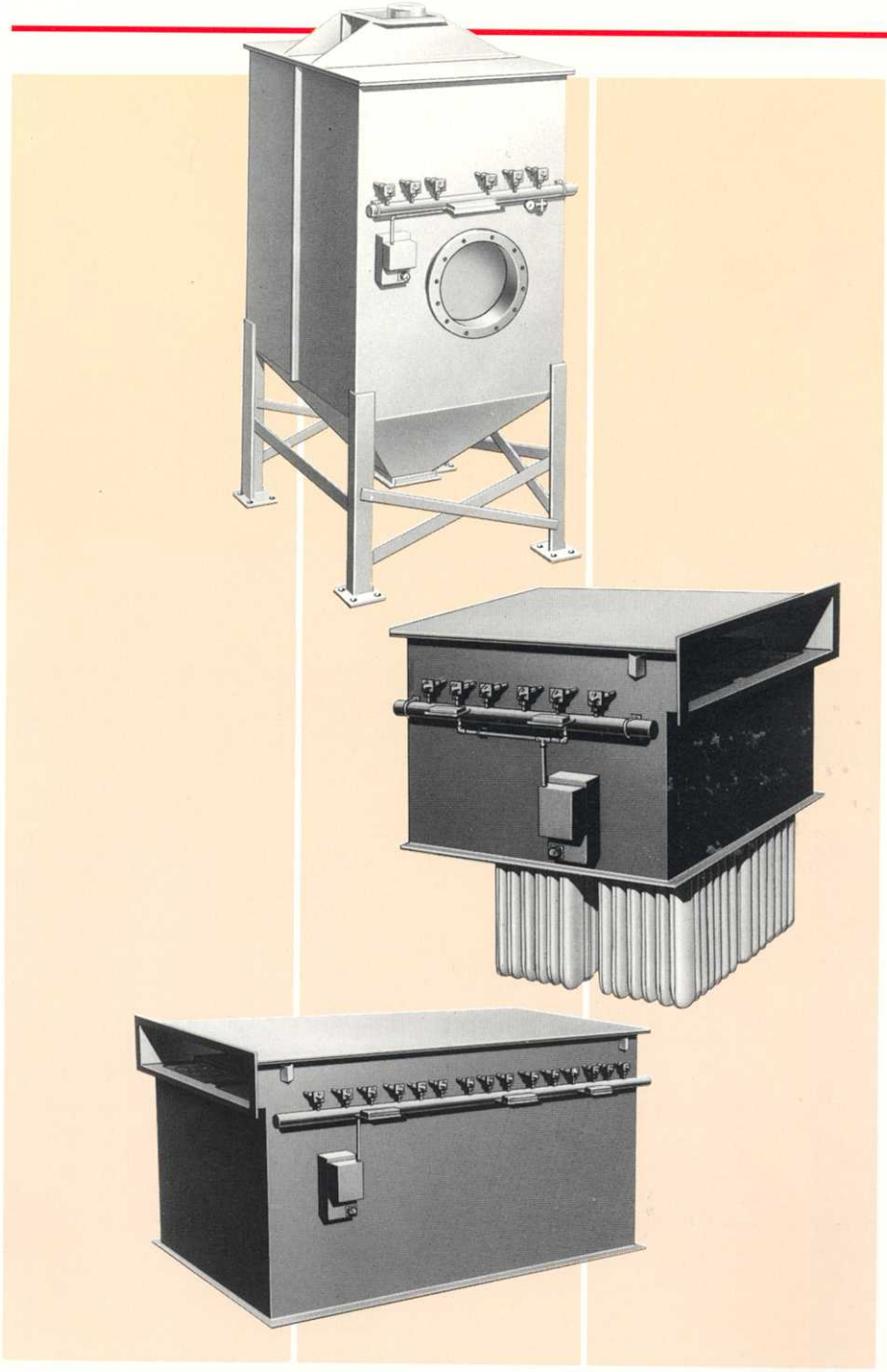
Sizes and Arrangements

EQUIPMENT SIZE



Bag Length (Ft)	Bag Quantity	Media Area (Ft.²)	Bag Length (Ft)	Bag Quantity	Media Area (Ft.²)
4	42	100	4	252	600
6	42	150	6	252	900
4	84	200	4	336	800
6	84	300	6	336	1200
4	168	400	4	420	1000
6	168	600	6	420	1500



DESIGN M FabriPulse DUST COLLECTOR (WITH INTEGRAL FAN)*

- Quick, easy assembly.
- Requires less floor space than mounting the fan externally from the collector.
- No fan pedestal required.
- Eliminates interconnecting duct work.
- Weather hood or silencer enclosure for blower assembly available (optional).

DESIGN M FabriPulse DUST COLLECTOR (INSERTABLE)

- For custom bins and dust enclosures.
- Uses lower fan horsepower than a conventional system.
- Outlet weather hood w/bird screen available (optional).
- Sizes 4-42 to 6-168.

DESIGN M FabriPulse DUST COLLECTOR (BIN VENT)

- Full size range available.
- For bins and custom enclosures.
- Outlet weather hood w/ bird screen available (optional).

*Also available for appropriate size Design M FabriPulse Collector, insertable bin vent units.

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Type D RotoClone Dust Collector with Skimmer Precleaner

TYPE D RotoClone AND SKIMMER PRECLEANER

The Type D RotoClone dry centrifugal dust collector is a dynamic precipitator in which the functions of exhauster and dust separation are combined in a single, compact unit. When mounted on its dust storage hopper and provided with a motor, it becomes a complete dust control system.

The high collection efficiency of the Type D RotoClone is not affected by changes in air volume or operating speeds and remains constant over the entire pressure volume range. Simplicity of design makes for trouble-free performance, ease of installation and small space requirements.

Where exhaust air contains quantities of chips, shavings and other large particles, the Skimmer Precleaner is recommended as a precleaner to the Type D RotoClone.

The Type D RotoClone dust collector is recommended when cleaned air can be discharged outdoors.

BENEFITS—

- Minimum space requirements
- Constant exhaust volume
- High dust separating efficiency
- Rugged construction for long life
- Simplified design for ease of maintenance

See Product Bulletin APC-1-501 for additional details.

Size	CFM	Dust Storage Capacity in Cu. Ft.	
		RotoClone Hopper	Skimmer Hopper
6	500-1,050	5.5	9.8
8	800-1,800	12.2	12.3
10	1,600-2,700	11.8	18.0
12	2,000-3,800	26.8	27.0
14	3,300-5,500	25.9	48.9
16	4,250-7,000	49.5	49.5
20	6,600-11,000	49.5	61.6

AAF INTERNATIONAL
PO BOX 35690 215 Central Avenue Louisville KY 40232-5690
AAF-McQuay Canada Inc. 225 Guthrie Dorval PQ H9P 2P5

For additional information on AAF products, *Call the Answer Center* **800.477.1214**

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