



APS

AIR PURIFICATION SYSTEM

TOTAL VERSATILITY IN AIR QUALITY CONTROL

- MULTI-STAGE FILTRATION
- VERTICAL OR HORIZONTAL MODELS



■ MULTI-STAGE FILTRATION

Circul-Aire's advanced technology of gas phase and particulate filtration offers maximum contaminant control efficiency. The multi-stage design allows for selection of the required filters in a specific sequence to meet the requirements of each application.

■ VERTICAL OR HORIZONTAL MODELS

The A.P.S. is available for vertical or horizontal air flow patterns with or without plenums.

■ OPTIONAL INTAKE AND DISCHARGE

Intake and discharge openings can be located on the top, at the bottom, or on any side of the unit to suit various air flow patterns.

■ EASY ACCESS TO FILTERS

The filters and modules can be inspected and replaced in an instant by opening the access doors.

■ QUIET OPERATION FOR NOISE SENSITIVE ENVIRONMENTS

Insulated double-wall construction ensures quiet unit operation.

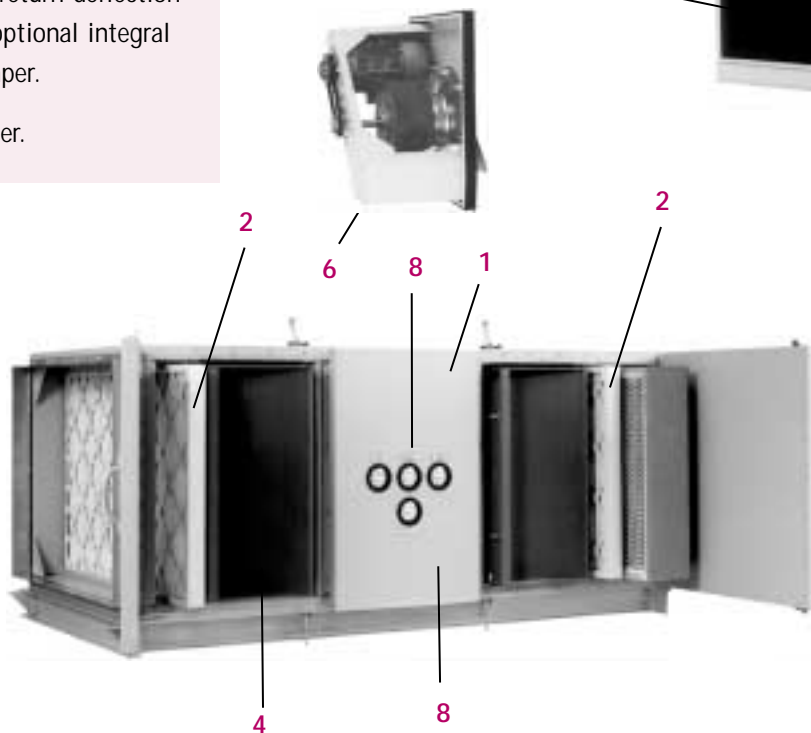
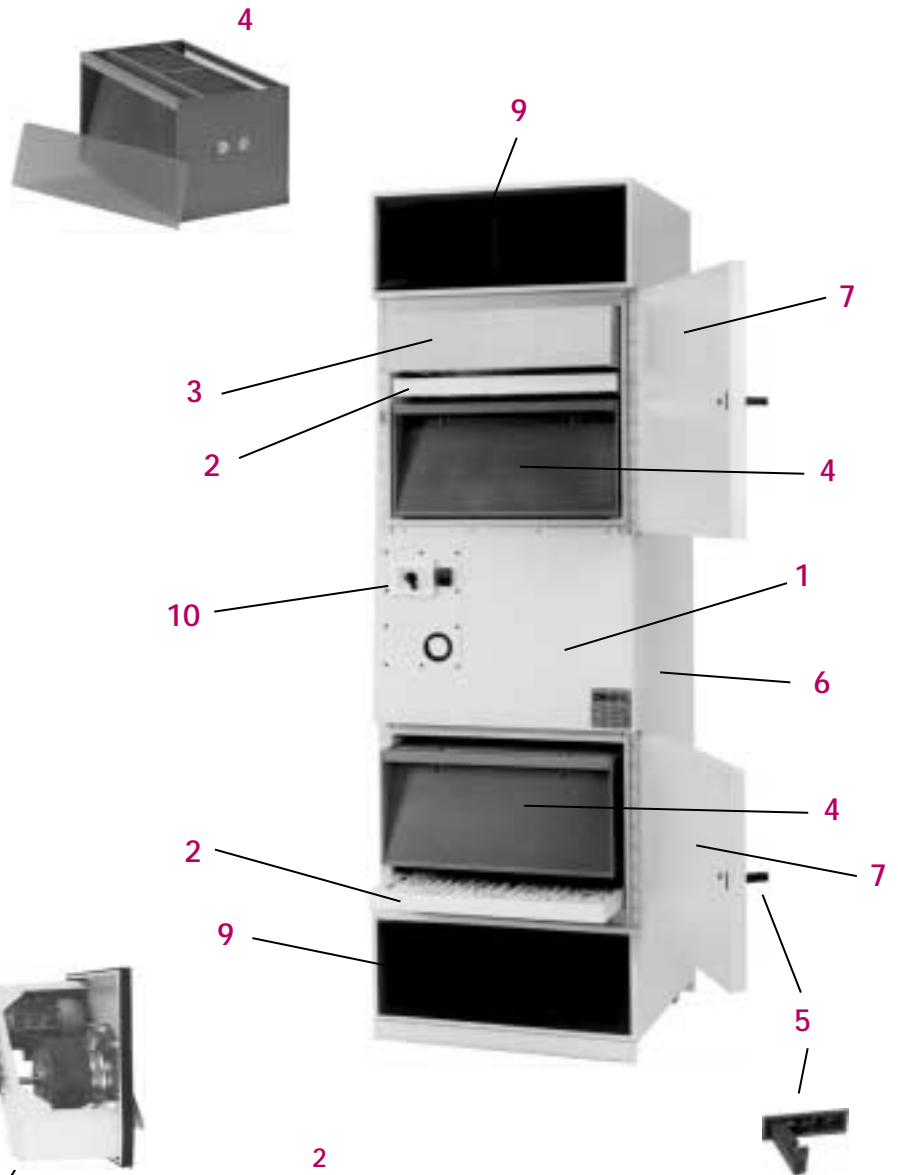
■ RECIRCULATION OR PRESSURIZATION

Circul-Aire's A.P.S. can be engineered for recirculation as well as pressurization applications.

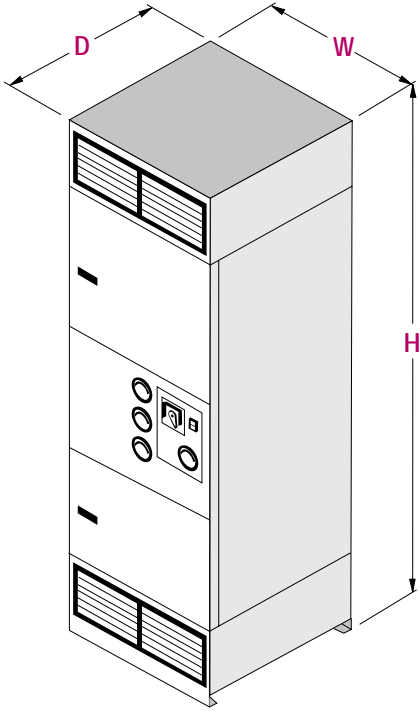


■ FEATURES

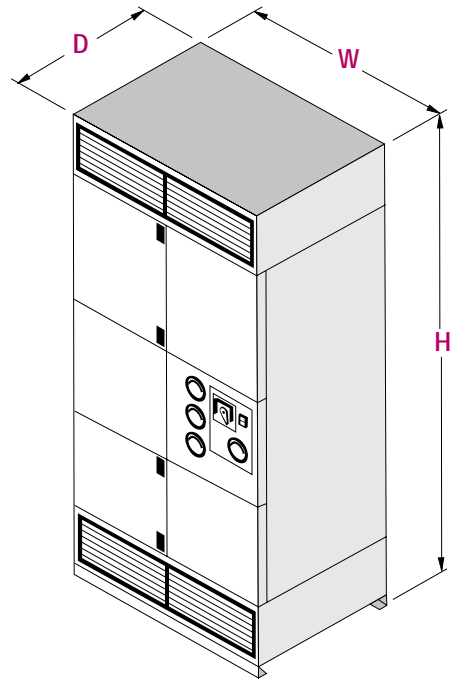
1. Insulated double-wall panel construction. Corrosion resistant polyurethane enamel paint.
2. 30% efficiency filters for larger particulates.
3. 90% efficiency particulate filter.
4. Up to three MULTI-MIX® media stages for odors and gases.
5. Quick release latches with positive seal mechanism.
6. Belt-driven airfoil plug blower assembly with adjustable sheaves.
7. Full service access doors with piano hinges.
8. Optional Differential Pressure Monitoring System (DPMS).
9. Supply and return deflection grills with optional integral manual damper.
10. Manual starter.



VERTICAL MODELS

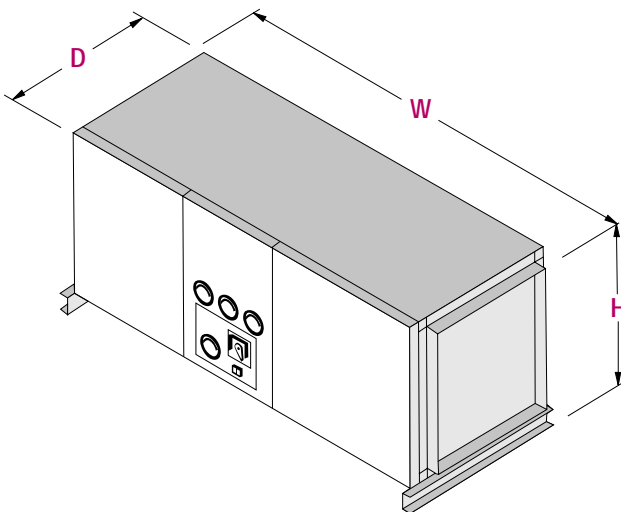


A.P.S.-1000-V

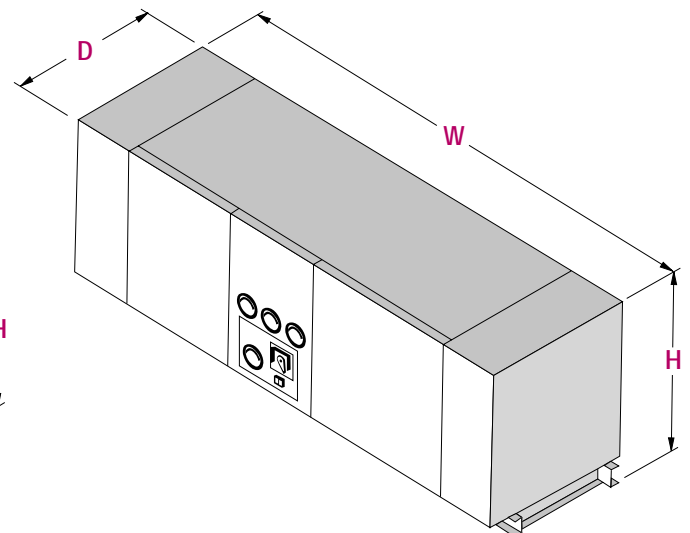


A.P.S.-1500-V, 2000-V & 3000-V
(Double Access Doors)

HORIZONTAL MODELS



A.P.S.-1000-H
Horizontal Model without Plenums



A.P.S.-1000-HP
Horizontal Model with Plenums

VERTICAL MODELS											
A.P.S. MODELS	AIR FLOW RANGE		STAGES OF MEDIA	OVERALL DIMENSIONS						OPERATING WEIGHT*	
				H		W		D			
	CFM	m ³ /h		in.	mm	in.	mm	in.	mm	lb.	kg
A.P.S.-1000-V	500 TO 1200	850 TO 2039	1 OR 2	87.0	2210	27.0	686	27.0	686	650 OR 750	295 OR 340
			3	101.0	2565	27.0	686	27.0	686	900	408
A.P.S.-1500-V	1300 TO 1700	2209 TO 2889	1 OR 2	87.0	2210	39.0	991	27.0	686	825 OR 975	374 OR 442
			3	101.0	2565	39.0	991	27.0	686	1200	544
A.P.S.-2000-V	1800 TO 2200	3059 TO 3738	1 OR 2	87.0	2210	54.0	1372	27.0	686	1250 OR 1650	567 OR 748
			3	101.0	2565	54.0	1372	27.0	686	2100	952
A.P.S.-3000-V	2800 TO 3200	4758 TO 5437	1 OR 2	102.0	2591	54.0	1372	39.0	991	1675 OR 2275	760 OR 1031
			3	118.0	2997	54.0	1372	39.0	991	2925	1326

HORIZONTAL MODELS (WITH PLENUMS)											
A.P.S. MODELS	AIR FLOW RANGE		STAGES OF MEDIA	OVERALL DIMENSIONS						OPERATING WEIGHT*	
				H		W		D			
	CFM	m ³ /h		in.	mm	in.	mm	in.	mm	lb.	kg
A.P.S.-1000-HP	500 TO 1200	850 TO 2039	1 OR 2	30.0	762	91.0	2311	27.0	686	660 OR 760	299 OR 345
			3	30.0	762	106.0	2692	27.0	686	910	413
A.P.S.-1500-HP	1300 TO 1700	2209 TO 2889	1 OR 2	30.0	762	91.0	2311	39.0	991	835 OR 985	379 OR 447
			3	30.0	762	106.0	2692	39.0	991	1210	549
A.P.S.-2000-HP	1800 TO 2200	3059 TO 3738	1 OR 2	30.0	762	106.0	2692	51.0	1295	1270 OR 1670	576 OR 757
			3	30.0	762	122.0	3099	51.0	1295	2300	1043
A.P.S.-3000-HP	2800 TO 3200	4758 TO 5437	1 OR 2	42.0	1067	106.0	2692	51.0	1295	1695 OR 2295	769 OR 1041
			3	42.0	1067	122.0	3099	51.0	1295	2945	1336

HORIZONTAL MODELS (WITHOUT PLENUMS)											
A.P.S. MODELS	AIR FLOW RANGE		STAGES OF MEDIA	OVERALL DIMENSIONS						OPERATING WEIGHT*	
				H		W		D			
	CFM	m ³ /h		in.	mm	in.	mm	in.	mm	lb.	kg
A.P.S.-1000-H	500 TO 1200	850 TO 2039	1 OR 2	30.0	762	71.0	1803	27.0	686	625 OR 725	283 OR 329
			3	30.0	762	86.0	2184	27.0	686	885	401
A.P.S.-1500-H	1300 TO 1700	2209 TO 2889	1 OR 2	30.0	762	71.0	1803	39.0	991	795 OR 945	361 OR 429
			3	30.0	762	86.0	2184	39.0	991	1170	531
A.P.S.-2000-H	1800 TO 2200	3059 TO 3738	1 OR 2	30.0	762	86.0	2184	51.0	1295	1215 OR 1615	551 OR 732
			3	30.0	762	102.0	2591	51.0	1295	2245	1018
A.P.S.-3000-H	2800 TO 3200	4758 TO 5437	1 OR 2	42.0	1067	86.0	2184	51.0	1295	1630 OR 2230	739 OR 1011
			3	42.0	1067	102.0	2591	51.0	1295	2880	1306

* Based on MM-1000 Media @ 50 lb./cu. ft.

STANDARD MOTORS				
A.P.S. MODELS	VOLTAGES	HORSEPOWER		FULL LOAD RPM
		HP	kW	
A.P.S.-1000	575/3/60	1.0	0.75	1700
A.P.S.-1500		1.5	1.1	1700
A.P.S.-2000	460/3/60	2.0	1.5	1710
A.P.S.-3000	230/240/3/60	3.0	2.2	1740
A.P.S.-1000	230/240/1/60	1.0	0.75	1755
A.P.S.-1500	115/1/60	1.5	1.1	1735

- Standard motors are TEFC.
- High efficiency and hostile environment motors are available as options.
- 50 Hz motors also available.

■ SOUND POWER LEVELS

Based on standard non-ducted units with plenums, sound power levels range from 60 to 63 dBA at 5 ft.

Readings may vary with specific conditions.

■ AIR LEAKAGE VS STATIC PRESSURE DIFFERENTIAL

Leakage into housing from ambient atmosphere is less than 0.9% at 4 IWG. differential.

■ STANDARD FEATURES

- Painted 18-gauge satin coated steel
- Double-wall construction
- 2.0 lb./cu. ft. insulation
- Airfoil plug blower with adjustable sheaves, TEFC motor
- Particulate filters - 30% and 90% efficiency
- Selection of MULTI-MIX® media
- 0.25 IWG. external static
- Various intake and discharge locations and air flow patterns

■ OPTIONAL FEATURES

- Aluminum or galvanized housing
- Heavy-duty casters
- Deflection grills with integral manual damper
- Duct collar connection
- Manual or motorized damper
- Stainless steel modules
- DPMS (Differential Pressure Monitoring System)
- Manometer
- Manual starter
- NEMA-1, 12 or 4 starter
- Higher efficiency motor
- Increased external static pressure
- Weatherized housing for outdoor applications
- 95% or 99.97% HEPA D.O.P. rated filter

■ 1. GENERAL

The equipment, a self-contained air purification system, Model No. A.P.S.- _____, as manufactured by Circul-Aire.

The A.P.S. shall be designed to remove both organic and inorganic contaminants from gaseous and vaporous atmospheres and operate as either a pressurization or recirculation unit. The A.P.S. shall be arranged for (vertical) or (horizontal) air flow with intake and discharge openings constructed with (duct connection) or (grill covers). All unit dimensions and options shall be as per drawing No. A.P.S.- _____.

■ 2. CONSTRUCTION

The housing shall be constructed of 18 gauge steel and consist of 1 1/2" deep double wall panels filled with 2.0 lb./cu. ft. dense insulation. All interior seams shall be sealed to prevent leakage. All filters shall be supported by formed metal tracks attached to the inside walls. All filter tracks shall contain a 1" x 1/8" nylon pile with plastic fin to prevent air bypass. Access doors shall be 1 1/2" deep double wall filled with 2.0 lb./cu. ft. insulation. All doors shall have positive locking latches to secure and compress the PVC closed cell gasket to prevent leakage. The fan section, intake and discharge plenums shall be lined with flexible polyester urethane foam acoustic insulation that is non-allergenic and inert, meeting flammability classification UL 94 MF-1. All metal surfaces shall be coated with a lift resistant alkyd primer, followed by a two component polyurethane coating with a light grey, low-sheen finish.

■ 3. FILTER SECTION

In the direction of air flow, the A.P.S. filter section shall consist of the following filter sequence:

- 2", 30% ASHRAE rated pre-filter
 - 6", (95%) or (99.97%) HEPA D.O.P. rated filter (for environmental tobacco smoke applications)
- or
- _____ Stages of MULTI-MIX® media as manufactured by Circul-Aire
 - 2", 30% ASHRAE rated after-filter
 - 6", 90% ASHRAE rated final filter (if required).

MULTI-MIX® media section shall consist of: Each stage shall contain MM-(1000 or 3000 or 9000) MULTI-MIX® media as manufactured by Circul-Aire providing a minimum of 0.12 second (per stage) residence time.

- 1st Stage _____ lb. of MM- _____,
- 2nd Stage _____ lb. of MM- _____,
- 3rd Stage _____ lb. of MM- _____.

■ 4. BLOWER SECTION

The blower shall be located between the 1st & 2nd stages of MULTI-MIX® media. The fan shall be a backward inclined, airfoil impeller molded from glass reinforced polyamid. The impeller shall be factory balanced and complete with bearings, adjustable V-belt drives and belts rated at 150% of the design horsepower. The entire blower assembly shall be isolated from the housing by a neoprene closed cell gasket. The blower motor shall be _____ HP, _____ volts, _____ phase, _____ Hz, TEFC. The blower shall deliver _____ CFM, at _____ IWG. external static pressure.

MEDIA VOLUME (CU. FT.)			
A.P.S. Models	One Stage	Two Stages	Three Stages
A.P.S.-1000	2	4	6
A.P.S.-1500	3	6	9
A.P.S.-2000	4	8	12
A.P.S.-3000	6	12	18

Media Densities: MM-1000 = 50 lb./ft³ (800 Kg/m³)
 MM-3000 = 30 lb./ft³ (480 Kg/m³)
 MM-7000 = 45 lb./ft³ (720 Kg/m³)
 MM-9000 = 36 lb./ft³ (576 Kg/m³)

ENDLESS APPLICATIONS INCLUDING...		
SECTORS	APPLICATIONS	AREAS
HEALTH	Contaminant Control	<ul style="list-style-type: none"> • Operating & autopsy rooms • Medical research centers • Laboratories • Daycare centers <ul style="list-style-type: none"> • Cafeterias • Smoking rooms • Senior citizens homes
EDUCATIONAL	Air Quality Control	<ul style="list-style-type: none"> • Classrooms • Locker rooms <ul style="list-style-type: none"> • Sport facilities • Cafeterias
INDUSTRIAL	Corrosion & Odor Control	<ul style="list-style-type: none"> • Computer rooms • Rack rooms • Clarifiers <ul style="list-style-type: none"> • Digesters • Exhaust • Processor areas
MUSEUMS & ART GALLERIES	Preservation of Artifacts	<ul style="list-style-type: none"> • Exhibition halls • Archives • Libraries <ul style="list-style-type: none"> • Restricted storage areas • Public museums & art galleries

■ **MULTI-MIX® MEDIA & TECH-CHEK™ SERVICE**

Circul-Aire's MULTI-MIX® is a proven filter media which provides continuous purification of corrosive, odorous and toxic contaminants in industrial and commercial environments. MULTI-MIX® media combines the adsorption properties of activated carbon with the oxidation properties of chemically impregnated alumina. For more information on MULTI-MIX® media, refer to our brochures on this product.

Media analysis through our TECH-CHEK™ Program ensures maximum efficiency of our products. A complete computerized report establishes media replacement schedule for each unit. Circul-Aire's laboratory can also provide additional performance tests for specific air contaminants.



Circul-Aire is a subsidiary of Dectron Internationale

Circul-Aire reserves the right to make any changes in the design or specifications of any product at any time without notice.

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