

AIR PURIFICATION SYSTEM TYPE: APS-400



INTRODUCTION

There are many applications that require both compact, low cost considerations with high efficiency air filtration. Circul-Aire's APS-400 (Air Purification System) is designed to effectively remove particulate and gaseous contaminants from confined spaces, while reducing the amount of outside air that would normally be required for dilution of contaminants.

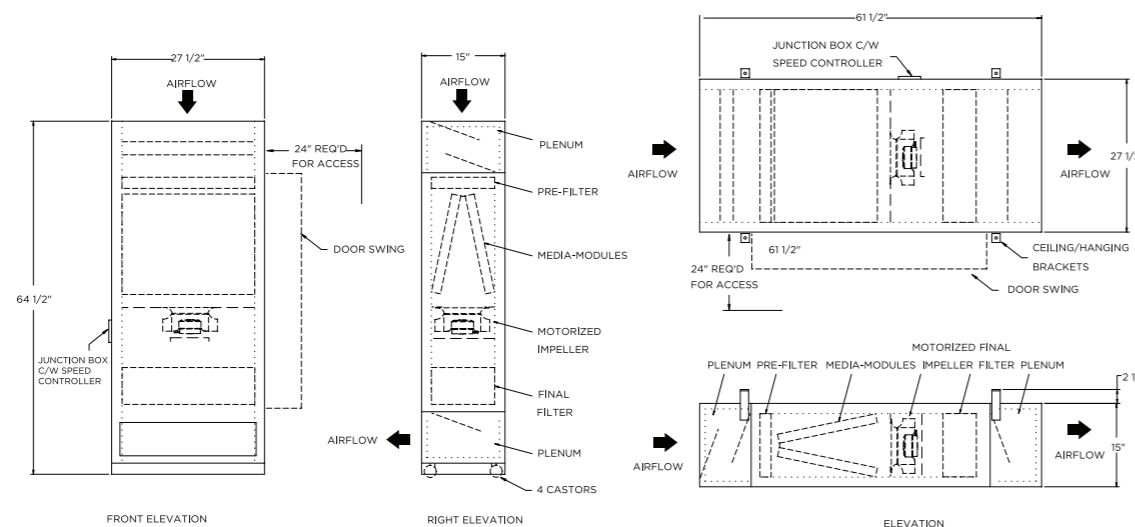
When considering an alternative to outdoor air dilution within a given space, the Circul-Aire APS-400 is used to reduce contaminant concentrations within a space while minimizing the requirement for costly outdoor air that is often contaminated from the onset. The APS-400 can be used to eliminate internally generated contaminants, through its multi-stage filtration system and recirculate the required maximum amount of room air. The result is clean, healthy, breathable air that has been filtered of contaminants, both internally generated and existing in the outside air.

The Circul-Aire APS-400 system is designed to meet the most stringent requirements of the latest building ventilation standards and codes on indoor air quality. This series of APS units feature multi-stage filtration incorporating high efficiency chemical and particulate filtration and are designed with ultra-high capacity providing longer filter operating life. The APS filter sections conform to all ASHRAE standard considerations and consist of:

Circul-Aire engineers have designed the APS-400 for low cost considerations in classrooms, hospitals, labs, penal institutions, restaurants, smoking lounges, conference rooms, etc. The Circul-Aire APS-400 will provide a single source solution to current indoor air quality problems.

SPECIFICATIONS

MODEL	APS-400-V VERTICAL	APS-400-H HORIZONTAL
Dimensions: Inches	LxWxH - 64 1/2" X 27 1/2" X 15"	LxWxH - 61 1/2" X 27 1/2" X 15"
Approximate Weight:	95 Wt%	95 Wt%
Particle Diameter:	160 Lb. (72.5 Kg)	150 Lb. (68 Kg)
Operating Weight:	225 Lb. (102 Kg)	215 Lb. (97.5 Kg)
Airflow Capacity:	200-500 Cfm (340-850 Cu. M/Hr.)	
Motor Characteristics:	External Rotor Motor, 240 Watts (1000-2840 Rpm) 120 Volts, 1 Phase, 60 Hertz, F.l.a.: 2.0 Amps	
Noise Level:	54 Dba	



GENERAL SPECIFICATIONS

The APS-400 is a compact self-contained air purification and recirculation-ton unit combining gas phase and particulate filtration. The APS-400 offers maximum odor and particulate removal at high efficiency. All select-ted particulate filters and chemical media are shipped in the unit for convenience. The unit on full speed does not exceed a sound pressure level of 54 dba at 5' distance. The unit is complete with a 5 foot plug, castors and a disconnect switch or optional speed controller.

HOUSING AND MATERIAL FINISH

Walls are 1.5" thick double panels made of 22 gauge zinc coated steel primed with a high sheen light grey paint. The paint is a two part polyurethane with high abrasion chemical and solvent resistance. Housing is acoustically and thermally insulated with 2 lb./cu. ft. fiberglass insulation within the double walls. All seams are caulked to maintain leakage lower than 0.9% to the ambient under operating conditions. The door has a positive pressure latch to provide an airtight seal on the pvc closed cell door frame gasket.

COMPONENTS IN DIRECTION OF AIR FLOW

1.0 Intake Plenum

Section is acoustically insulated, complete with a non-allergenic and inert polyester foam. Optional intake grill or duct connections.

2.0 Particulate Pre-Filter

Pre-filter for larger particulates; 30% efficiency, based on ASHRAE Standard 52-76. Standard filter size (12" x 24" x 2") in a multi-pleat at configuration is a non-woven synthetic media.

3.0 MULTI-MIX® Media Bank

Application specific granular media is available in refillable trays. Capacity: 0.75 cu. ft. Chemical media residence time is approx. 0.10 sec. at 450 CFM.

4.0 Fan Section

The blower operates on 120/01/60 voltage and provides 200-500 CFM of purified air. The blower is a high efficiency motorized impeller mounted on vibration isolators. The backward curved airfoil impeller is non overloading, corrosion resistant, and provides very stable performance. The 240 watt (1000-2840 RPM) external rotor motor has a full load amp rating (FLA) of 2.0 amps. The motor is complete with permanently lubricated ball bearings and thermal overload with automatic reset.

5.0 High Efficiency Final Filter

Optional 95% ASHRAE rated filter or HEPA 95% DOP for sub-micron particles. Standard filter size (12" x 24" x 6") in a multi-pleat configuration is composed of ultra-fine glass fiber media. High efficiency filters are gasket to prevent air bypass.

6.0 Discharge Plenum

Section is acoustically insulated, complete with a non-allergenic and inert polyester foam. Optional discharge double deflection grill or duct connections are available.

APPLICATIONS

SECTORS	APPLICATIONS	AREAS	
Health	Contaminant Control	<ul style="list-style-type: none"> Airports And Terminals Operating & Autopsy Rooms Medical Research Centers Laboratories 	<ul style="list-style-type: none"> Daycare Centers Cafeterias Smoking Rooms Senior Citizens Homes
Educational	Air Quality Control	Classrooms Locker Rooms	Sport Facilities Cafeterias
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

OPTIONS

- Bi-Polar Ionization Section
- Variable speed controller, unit mounted or remote**
- Michelin pressure differential gauge for monitoring system pressure
- Hot water heating coil
- DX or chilled water cooling coil

FEATURES

- Satin coat housing
- Insulated double-wall panel construction
- Corrosion resistant polyurethane paint
- 30% efficiency pre-filter for larger particulates
- One MULTI-MIX® media stage for odor and gas control (0.75 cu. ft. capacity)
- 95% ASHRAE or 95%HEPA final filter
- Double deflection grill(s) and/or ducted connections* on intake and discharge openings
- Quick release latch with positive seal
- Motorized impeller
- One full service access door with piano hinge located on the right side of the unit
- Castors (vertical unit) or suspend-ion brackets (horizontal unit)
- 6 foot plug (120/01/60) on vertical units
- Disconnect switch

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 compu-terized report establishes media replacement schedule for each unit. Circul-Aire's laboratory can also provide additional performance tests for specific air contaminants.