AIRVAC 911
Engine Exhaust Removal System

1. Product Name

AIRVAC 911® Engine Exhaust Removal System

2. Manufacturer

Air Vacuum Corporation
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3. Product Description

Basic Use

AIRVAC 911® is a fully-automated, self-contained, hoseless system used to remove engine exhaust from indoor parking areas of public safety buildings. Manufactured and distributed directly since 1994 by Air Vacuum Corporation, the AIRVAC 911 system requires no hose connections, no structural modifications, and no exhausting to the outdoors. Ceiling hung, the system automatically removes harmful diesel or gasoline fumes and particulates, as well as hazardous backwash, without interference to daily operations.

The AIRVAC 911 system meets NFPA 1500, OSHA, IBOCA, EPA and GSA standards.

Composition and Materials

AIRVAC 911 is a self-contained unit enclosed in 16 or 18 gauge cold-rolled steel. The unit has four-sided adjustable discharge grills that maintain the 360-degree clean air output.

A standard AIRVAC 911 is equipped with a 3/4 HP, 60 Hz, 115/208-230 volt, single-phase motor. It includes a 4-stage filter pack:

- Stage 1 pre-filter: 3-ply polyester and heavy-gauge wire frame
- Stage 2 main media filter: HEPA Max 3000 filter and galvanized steel frame assembly
- Stage 3, 4 gas-phase extractor: Multisorb 3000 blended gas phase extractor and 24-gauge metal frame

Units are controlled through a UL® certified AVEC Smart Timer Panel (AVEC -2C, -4C, -6C, -8C, -10C), which controls multiple units (2, 4, 6, 8, 10 units, respectively).

Vehicle movement and overhead door movement triggers the standard photoelectric eye/door switch combination. Other triggering options are available. General run times are 15–20 minutes per cycle.

System and configuration options are available.

Size

See Table 1.

Color

Industrial, baked, gray powder coat finish

Benefits

- Provides a safe environment for workers and patients
- Eliminates “exhaust backwash” of fumes
- Multi-directional vertical and horizontal airflow cleans air in a uniform pattern
- Fully-adjustable air return vents maximize airflow
- Compact and quiet
- Easy to install and maintain
- Energy efficient — no heating or cooling loss
- Improved response time — nothing to disconnect
- Made in the USA

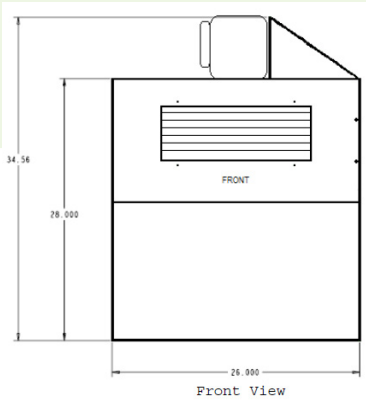
Table 1 Technical Data

AIRVAC 911

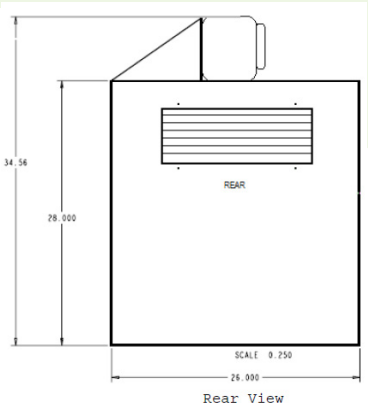
Cabinet Dimensions	26" wide x 25" deep x 35" high					
Weight	190 lbs with filtration; 135 lbs without filtration					
Construction	18 and 16 gauge steel					
Filters	**Stage 1**		**Stage 2**		**Stage 3, 4**	
Type	Pre-filter		Main media HEPA 3000		Gas-phase extractor, Multisorb 3000	
Size	24" x 24" x 1"		24" x 24" x 6"		24" x 24" x 4"	
Testing	--		UL/ULC classified; Class 2 filter ASHRAE 52.2 tested to MERV 16 (>98% efficiency)		--	
Motor						
Standard:	3/4 HP	115 Volt	1 Phase	60 Hz	13 FL amps	1.25 SF
Optional:	3/4 HP	208-230 volt	1 Phase	60 Hz	6.3-6.5 0 FL amps	1.25 SF
	3/4 HP	190 volt	3 Phase	50 Hz	3 FL amps	1.15 SF
	3/4 HP	380-415 volt	3 Phase	50 Hz	1.5-1.7 FL amps	1.25 SF
	1 HP	115/208-230 volt	1 Phase	60 Hz	14.7/7.2-7.4 FL amps	1.15 SF
	1 HP	208-230/460 volt	3 Phase	60 Hz	3.4-3.4/1.7 FL amps	1.15 SF

AVEC Smart Timer

Single zone:
- AVEC-2C (operates 1-2 units)
- AVEC-4C (operates 2-4 units)
- AVEC-6C/T2 (operates 4-6 units with sequential start-up)
- AVEC-8C/T3 (operates 6-8 units with sequential start-up)
- AVEC-10C/T4 (operates 8-10 units with sequential start-up)



Front View



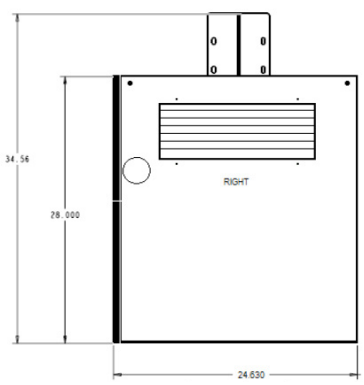
Rear View

Zoned:
- AVEC-4C/Z (2 zone; operates 1-2 units per zone)
- AVEC-6C/Z (4C + 2C)
- AVEC-6C/Z2 (2C + 2C + 2C)
- AVEC-8C/Z (4C + 4C)
- AVEC-8C/T2/Z (6C/T2 + 2C)
- AVEC-8C/Z2 (4C, 2C, 2C)
- AVEC-10C/T2/Z (4C + 4C)
- AVEC-10C/T3/Z (8C/T3 + 2C)
- AVEC-10C/T2/Z2 (6C/T2, 2C, 2C)

System Activation Devices

Standard
- Magnetic door switch (one per overhead door)
- Photoelectric eyes (detect vehicle movement)

Optional
- Manual push button
- Spring wound timer
- Vehicle ignition wireless transmitter and receiver
- Standalone CO sensor 24V
- Standalone CO sensor 120V
- CO and NO^2 combo sensor 24V
- CO and NO^2 combo sensor 120V
- Tone alert activation



4. Technical Data

Applicable Standards

American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE)

- ASHRAE 52.2 Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size

National Fire Protection Association (NFPA)

- NFPA 1500 Standard on Fire Department Occupational Safety and Health Program, 2013 Edition

Underwriters Laboratories, Inc. (UL)

- UL 508 Standard for Industrial Control Panels
- UL 900 Standard Method of Fire Tests for Air Filter Units

Underwriters Laboratories of Canada (ULC)

- ULC/CAN S111 Standard Method of Fire Tests for Air Filter Units

Approvals

Stage 2 filter

- UL Classified by Underwriters Laboratory, Inc.
- ULC Classified by Underwriters Laboratories of Canada

AVEC Smart Timer control panel

- UL 508 certified

Performance

Installed in accordance with the manufacturer's instructions, the AIRVAC 911 system meets NFPA 1500, OSHA, IBOCA, EPA and GSA standards.

AmerSeal filters are UL and CUL classified to UL Standard 900 and ULC/CAN S111.

Physical & Technical properties

See Table 1.

5. Installation

Preparatory Work

AIRVAC 911 does not require structural changes to the building or vehicle tailpipe, exhausting to outdoors or manual connections. Consult an AIRVAC 911 representative for preparatory electrical requirements on new building construction.

Methods

Installation is performed by an AIRVAC 911 technician or local licensed electrician. Units are ceiling hung via chain or threaded rod and mounted between bays to eliminate interference with vehicle movement. Power is supplied to each unit location from the building's main electrical panel through the AVEC Smart Timer. Low Voltage connections are necessary for the activation devices.

Building Codes

Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

Precautions

For installation safety, Stage 2 total weight should not exceed 16 lbs.; total unit weight should not exceed 190 lbs. Stage 3 and 4 filters should not exceed 28 lbs. Allow airflow to incorporate a vertical and horizontal airflow pattern.

6. Availability and Cost

AIRVAC 911 is distributed globally by Air Vacuum Corporation. Contact Air Vacuum Corporation for availability and cost information.

7. Warranty

The AIRVAC 911 Engine Exhaust Removal System comes with a five-year warranty on all unit components excluding consumable filters. Contact Air Vacuum Corporation for details.

8. Maintenance

Filter life expectancy is dependent upon station activity. Consult Air Vacuum Corporation for a detailed estimate. The filter gauge on the unit indicates filter load.

General life expectancy:

- Stage 1 prefilter: 1–6 months
- Main filters (Stages 2-4): 12–24+ months

9. Technical Services

Technical assistance, including detailed information, product literature, test results, project lists, assistance in preparing project specification or installation supervision is available by contacting Air Vacuum Corporation.

For questions about specifications, code regulations, product usage or product installation, visit Air Vacuum Corporation website: www.airvac911.com.

10. Filing Systems

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- Additional product information is available from Air Vacuum Corporation upon request