



OPERATING MANUAL

12" AXIAL FANS

MODELS:

CVF-12AC
CVF12CAN15
CVF12CAN25



AIR SYSTEMS INTERNATIONAL, INC.

829 Juniper Crescent, Chesapeake, Va, 23320

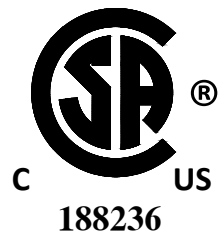
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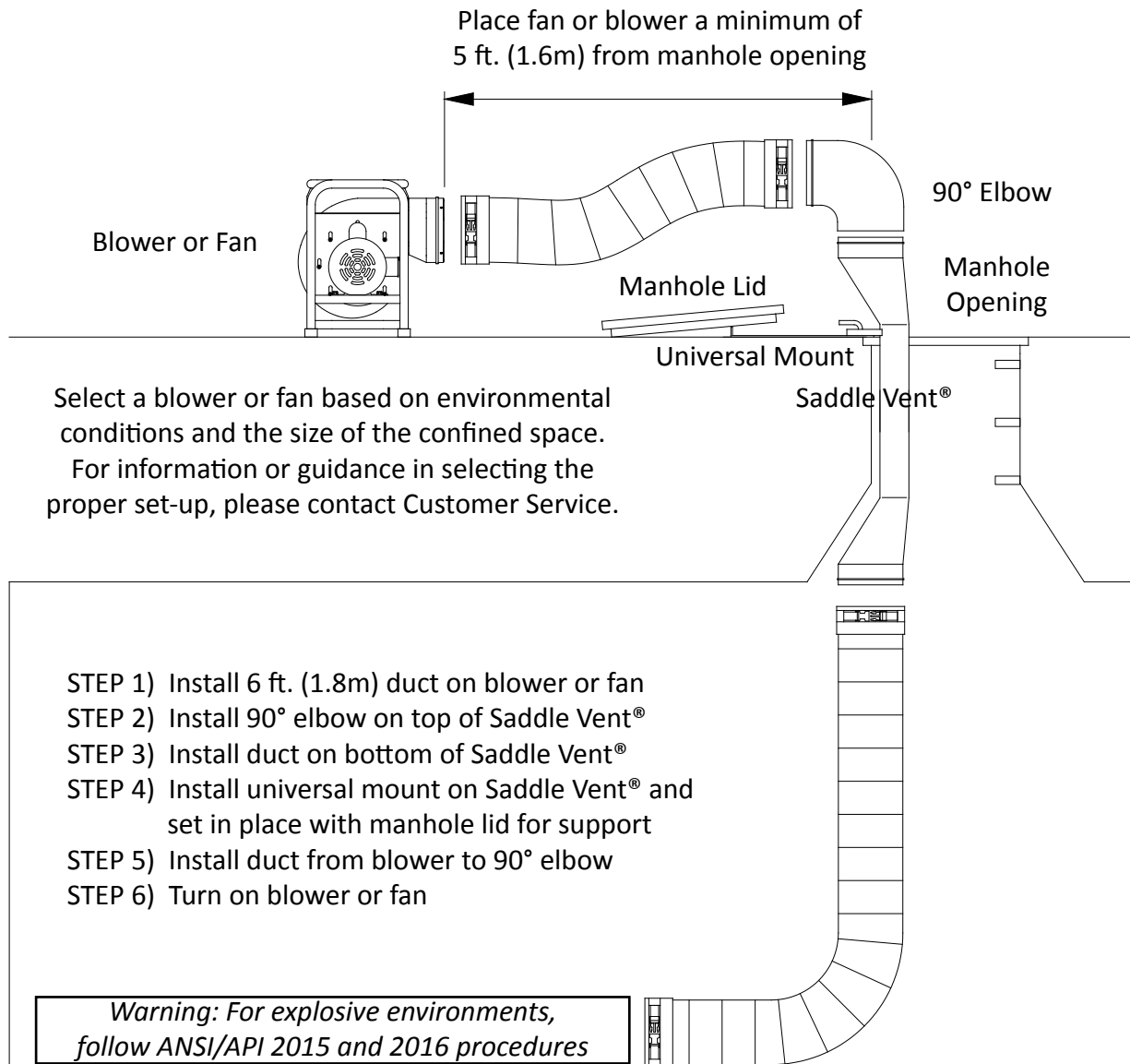
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The Saddle Vent® Ventilation System

Typical Saddle Vent® Setup Procedure





WARNING: HAZARDOUS LOCATION OPERATIONS

Use an explosion-proof or intrinsically safe blower or fan, conductive ducting, and The Conductive Saddle Vent® System. Attach all grounding wires and assure a complete circuit to the blower or fan in order to remove static charges.

 **SAFETY PRECAUTIONS** 
READ AND FOLLOW ALL INSTRUCTIONS BELOW

All ventilation procedures should comply with federal, state, and local regulations. Air quality should be tested prior to ventilating a confined space. A purge chart is provided in this manual help assist in estimating the approximate time needed to ventilate confined spaces. Air quality should be tested continuously during confined space occupancy to ensure a stable atmosphere and worker safety as atmospheric conditions can change rapidly. Additional procedures and recommendations are available from federal, state, and local agencies.

**DO NOT OPERATE THIS FAN IN THE VERTICAL POSITION!
USE ONLY ON GFCI PROTECTED RECEPTACLES!
DO NOT OPERATE THIS FAN WITH INLET AND/OR OUTLET GUARDS REMOVED!**

 **WARNING** 
Fan and blower models with the “EX” or “X” designation are the only models approved for use in hazardous locations.

If volatile or explosive vapors are suspected, use Air Systems' explosion proof electric blower or Air Systems' intrinsically safe pneumatic blower.

GENERAL SET-UP AND OPERATION FOR CVF-12AC AND CVF-12AC50 MODELS

- 1) Place fan in a clean fresh air environment. Do not operate this fan in the vertical position.
- 2) Air quality of the confined space should be tested prior to ventilation. If air quality of the confined space is unacceptable, consult a trained professional.
- 3) Inspect fan for damaged or worn parts and ducting for air leaks prior to fan operation.
- 4) Install duct cuff to exhaust flange and secure. Keep bends and kinks in ducting to a minimum to maximize air flow. If canister model is used, secure canister with rubber connect straps, open lid and pull out ducting. Inspect for air leaks.
- 5) Set fan upwind from the work location and a minimum of 5 ft. (1.5m) from the manhole opening.
- 6) Connect fan to power source, 115 VAC / 60 Hz / 15 amp. Use only GFCI protected receptacles.
- 7) Push ON/OFF switch to "I" position to start.

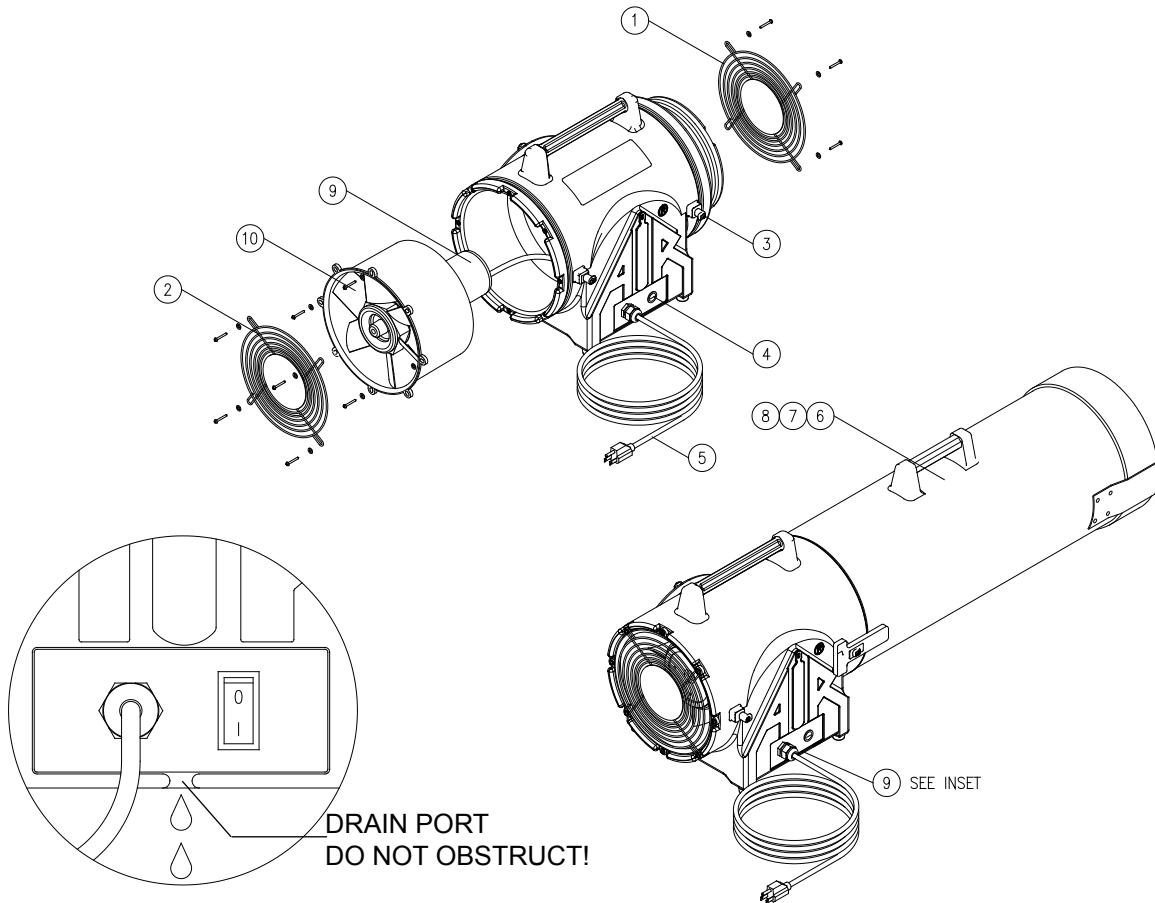
TO CONVERT THE VENTILATION FAN TO A STATIONARY VENTILATOR FOLLOW THE STEPS BELOW:

- 1) Remove the rubber isolation feet and screws from the metal inserts.
- 2) Install a threaded stud (male/male thread) into the 4 metal inserts.
- 3) Affix the fan to a location that will allow nuts to be installed on the threaded studs.
- 4) Put a threaded nut on each stud and tighten. The fan is now stationary.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Excessive vibration	Air intake blocked	Turn fan off and clear debris from intake.
	Possible internal damage	Turn off and inspect fan blades, shaft, and housing for debris, damage, and loose screws. Note: Never run fan for extended periods without installing duct on the exhaust flange.
	Possible external damage	Turn fan off and inspect for loose guards, broken welds, etc.
Circuit breaker trips CVF-12AC series only	Voltage output insufficient	Test outlet with volt meter.
	Motor Overheated	Once motor cools, it will restart automatically

REPLACEMENT PARTS - AC VOLTAGE FAN MODEL CVF-12AC SERIES



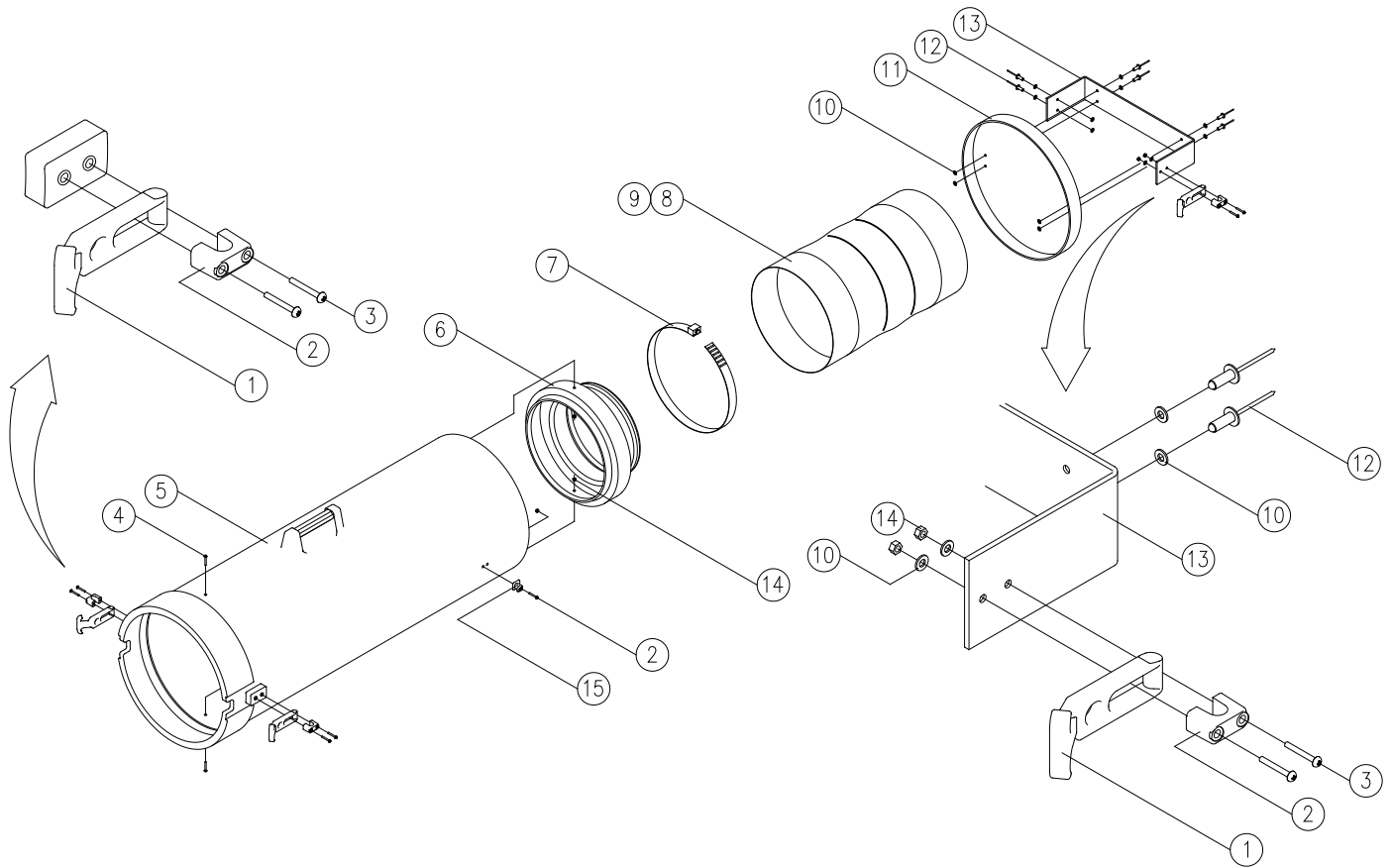
ITEM #	DESCRIPTION	PART #
1	DISCHARGE GUARD	CVF-FG12
2	INTAKE GUARD	CVF-RG12
3	DUCT CANISTER LATCHING POST	CVF-POST
4	ON/OFF SWITCH	CVF-SWITCH
5	POWER CORD	ELCB012
6	DUCT CANISTER WITH 15' OF DUCT	CVFCAN1215
7	DUCT CANISTER WITH 25' OF DUCT	CVFCAN1225
8	115 VAC / 60Hz MOTOR	MTR076CN
9	ELECTRICAL COMPARTMENT DRAIN HOLE	N/A

An optional GFI (Ground Fault Interrupter) plug can be supplied to comply with the 1996 NEC code requirement: Section 305-6. Order P/N ELCB013. (This part number includes both the GFI plug and a 7' power cord.)

SPECIFICATIONS

MOTOR TYPE	1.0 HP (.75 kw) electric, 115 VAC, 60 Hz, 8.3 amps, Single Speed, 3450 RPM, Thermally Protected, Max. Ambient Temperature: 122° Fahrenheit (50°Celsius)
OUTLET SIZE	12" Diameter (305mm)
FLOW RATES	Free Air: 1866 cfm (3170 cmh) 15 ft. duct with one 90° bend: 1497 cfm (2458 cmh) 15 ft. duct with two 90° bends: 1282 cfm (2178 cmh)

REPLACEMENT PARTS - NON-CONDUCTIVE DUCT CANISTER MODEL CVF-CAN SERIES



ITEM #	DESCRIPTION	PART #
1	RUBBER LATCH	CVF-RHOOK
2	RUBBER LATCH SECURING HOOK	CVF-UPOST
3	10-32 X 1" SCREW	FS1032X100
4	10-32 X 1/2" SCREW	FS1032X050
5	ORANGE DUCT CANISTER, NON-CONDUCTIVE	CVFCAN12ND
6	ORANGE DUCT ADAPTER, NON-CONDUCTIVE	CVF-CANA12
7	12" HOSE CLAMP	SV-HC12
8	12" X 15' NON-CONDUCTIVE DUCT	SVH-1215
9	12" X 25' NON-CONDUCTIVE DUCT	SVH-1225
10	#10 STAINLESS STEEL FLATWASHER	FW#10SS
11	ORANGE DUCT CANISTER LID, NON-CONDUCTIVE	CVFCANL12
12	3/16" POP RIVET	FR3/16XMAL
13	DUCT CANISTER LID STRAP	CVF-BELT
14	10-32 NUT WITH NYLON INSERT	FN1032ESN
15	PLASTIC LATCHING POST	CVF-POST

WARRANTY DISCLAIMER

Air Systems' manufactured equipment is warranted to the original user against defects in workmanship or materials under normal use for one year from the date of purchase. Any part which is determined by Air Systems to be defective in material or workmanship will be, as the exclusive remedy, repaired or replaced at Air Systems' option. This warranty does not apply to electrical systems or electronic components. Electrical parts are warranted, to the original user, for 90 days from the date of sale. During the warranty period, electrical components will be repaired or replaced at Air Systems' option.

NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AS TO DESCRIPTION, QUALITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER MATTER IS GIVEN BY AIR SYSTEMS IN CONNECTION HEREWITH. UNDER NO CIRCUMSTANCES SHALL THE SELLER BE LIABLE FOR LOSS OF PROFITS, ANY OTHER DIRECT OR INDIRECT COSTS, EXPENSES, LOSSES, OR DAMAGES ARISING OUT OF DEFECTS IN, OR FAILURE OF THE PRODUCT OR ANY PART THEREOF.

The purchaser shall be solely responsible for compliance with all applicable Federal, State and Local OSHA and/or MSHA requirements. Although Air Systems International believes that its products, if operated and maintained as shipped from the factory and in accordance with our "operations manual", conform to OSHA and/or MSHA requirements, there are no implied or expressed warranties of such compliance extending beyond the limited warranty described herein. Product designs and specifications are subject to change without notice. Rev. 2, 12/98

Air leaks are not covered under warranty except when they result from a defective system component, i.e. an on/off valve or regulator or upon initial delivery due to poor workmanship. Air leaks due to poor delivery or damage will be covered under delivery claims. Minor air leaks are part of routine service and maintenance and are the responsibility of the customer just as are filters and oil changes.



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