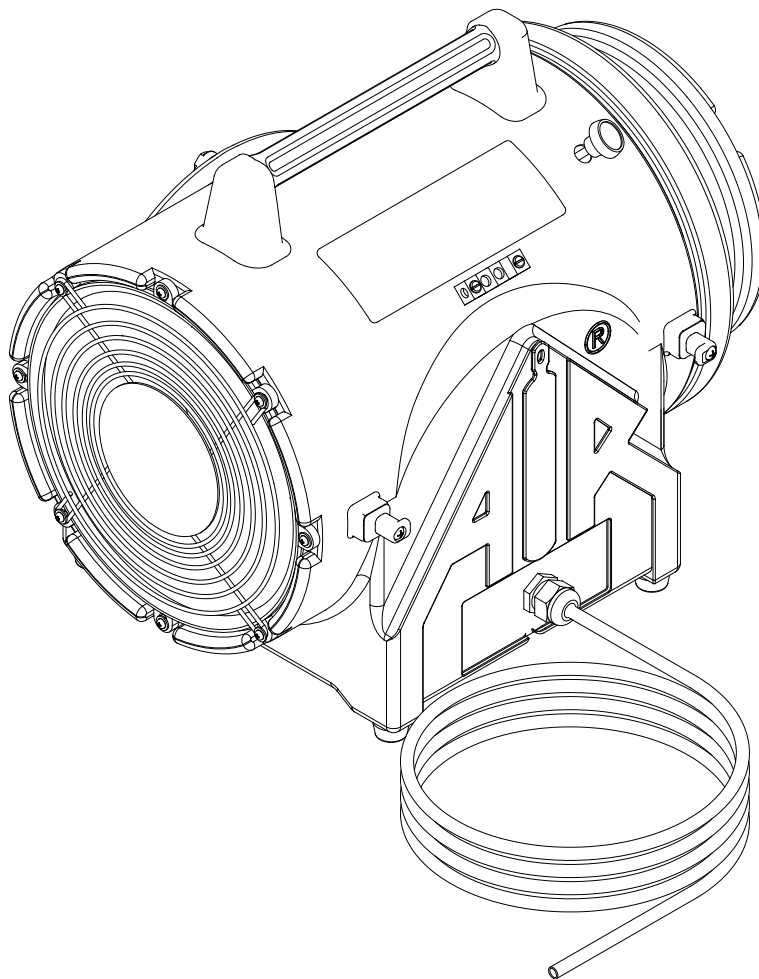




# **OPERATING MANUAL**

## **MODELS: CVF-8EXP AND SVF-10EXP**



### **AIR SYSTEMS INTERNATIONAL, INC.**

829 Juniper Crescent, Chesapeake, Va, 23320

Telephone (757) 424-3967

Toll Free 1-800-866-8100

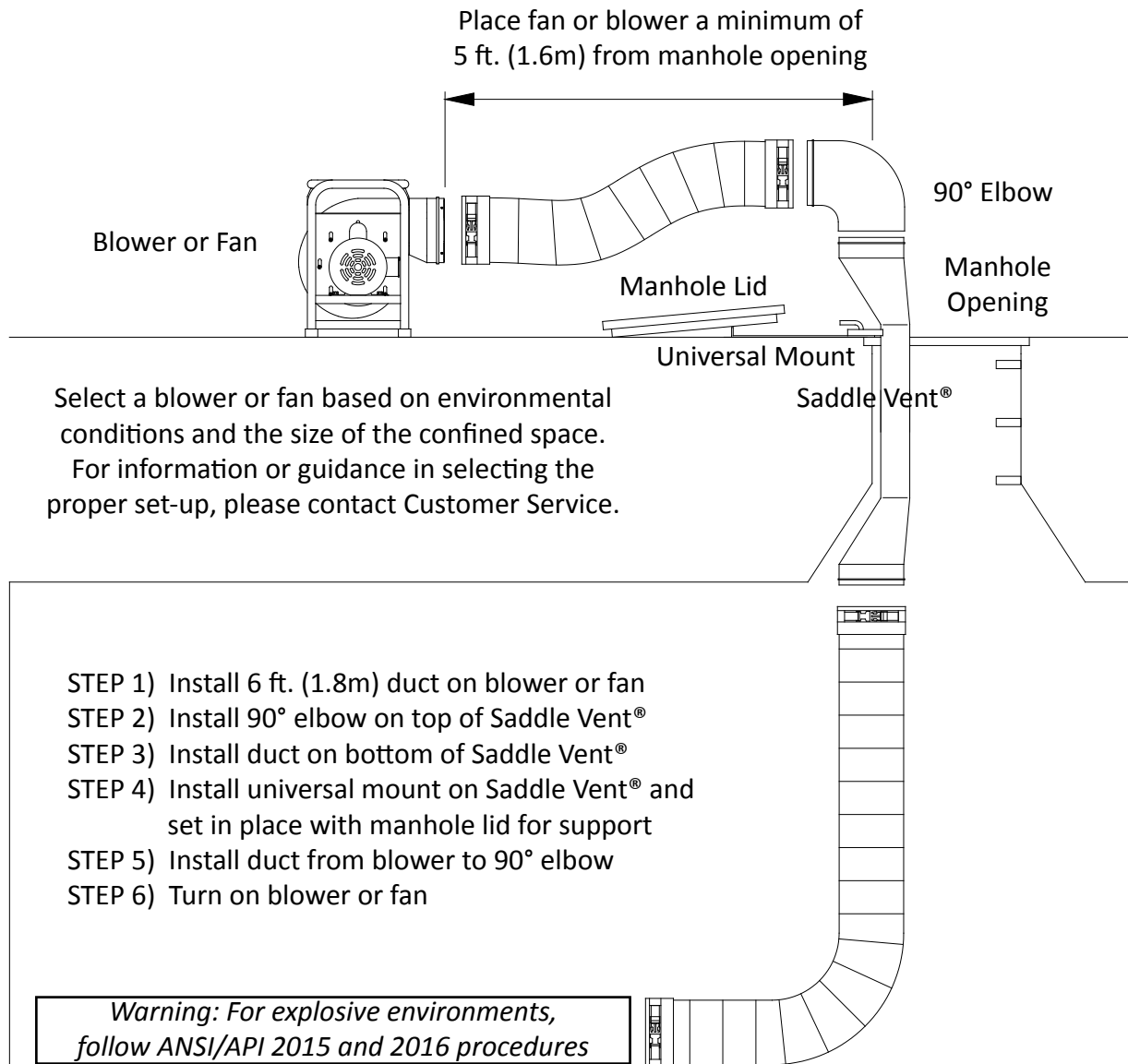
Fax No. (757) 424-5348

<http://www.airsystems.com>

e-mail: [sales@airsystems.com](mailto:sales@airsystems.com)

# 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 these fan units in a vertical position or with the flange or 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, Model SVB-E8EXP, explosion proof in-line fan, Model SVF-10EXP, explosion proof contractors fan, Model CVF-8EXP or Air Systems’ intrinsically safe pneumatic blower, Model SVB-A8.

**Note:** For confined space ventilation in non-hazardous locations, use Air Systems’ confined space ventilation kit, Model SV-CUP. For hazardous locations use ventilation kit, Model SV-CUPCND along with one of the above explosion proof blowers or fans.

### IMPORTANT

- Approved for outdoor use.
- Thermally protected.
- Attachment plug shall be a certified and/or listed for both Canada and the U.S., type suitable for the area of classification that it is used in.
- Caution!** To reduce the risk of electric shock, connect only to an outlet provided with a ground fault interrupting device.
- Warning!** Explosion hazard. Do not connect or disconnect while circuit is live unless area is known to be non-hazardous.

### SPECIFICATIONS

Motor Type	115 VAC, 50/60 Hz, 1/3 HP, 2.2 AMPS, .19 kw Class 1 & 2, Group C,D,E,F,G
Outlet Size	8” Diameter (203 mm)
CVF-8EXP Flow Rates	Free Air: 974 CFM (1655 CM/HR.) 15 ft. of Duct with one 90° bend: 786 CFM (1335 CM/HR.) 15 ft. of Duct with (2) 90° bends: 661 CFM (1123 CM/HR.)
SVF-10EXP Flow Rates	Free Air: 1390 CFM (2362 CM/HR.) 25 ft. of Duct with one 90° bend: 973 CFM (1653 CM/HR.)

## SETUP AND OPERATION

### STEP 1)

Place fan in a clean fresh air environment. **Note: Inspect fan for damaged or worn parts. Inspect all ducting and couplings for possible air leaks prior to fan operation.**

**Note: 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.**

### STEP 2)

Install duct cuff to exhaust flange and tighten cinch strap. Keep bends and kinks in ducting to a minimum to maximize air flow.

**NOTE: The use of conductive ducting is recommended when operating in potentially explosive environments. Assure that the fan is properly grounded before operating and the ground wire in the conductive ducting is attached to the fan and Saddle Vent®, if used.**

### CAUTION:

If explosive or volatile vapors are suspected or present, follow ANSI/API procedure 2015 and 2016 for proper grounding of the fan. All static electricity must be removed from the fan and attached ducting prior to energizing the fan. Conductive ducting should be tested semi-annually to assure resistance (ohms) does not exceed 300k. If sufficient resistance is not achieved, the duct should be removed from service.

### STEP 3)

Explosion-proof models should be fitted with an approved explosion-proof plug to meet hazardous locations specifications. The plug should not be disconnected or connected in an explosive environment when the fan is energized.

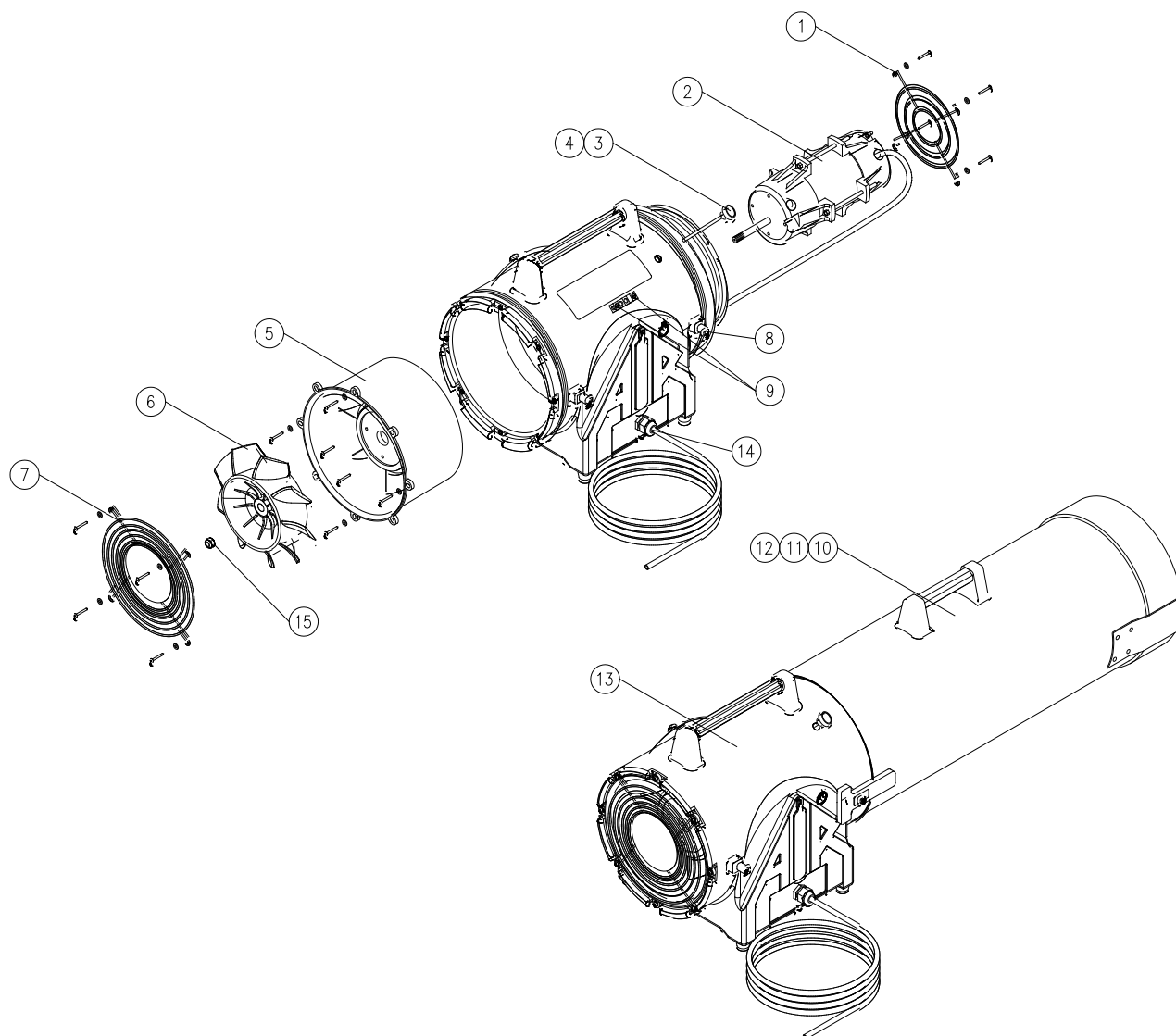
### STEP 4)

The “ON/OFF” switch is integrated in the motor. Pull the “ON/OFF” switch knob outward to turn the fan “ON”. The unit is now operational. To turn the fan “OFF,” push the switch knob in toward the fan housing.

## TROUBLESHOOTING

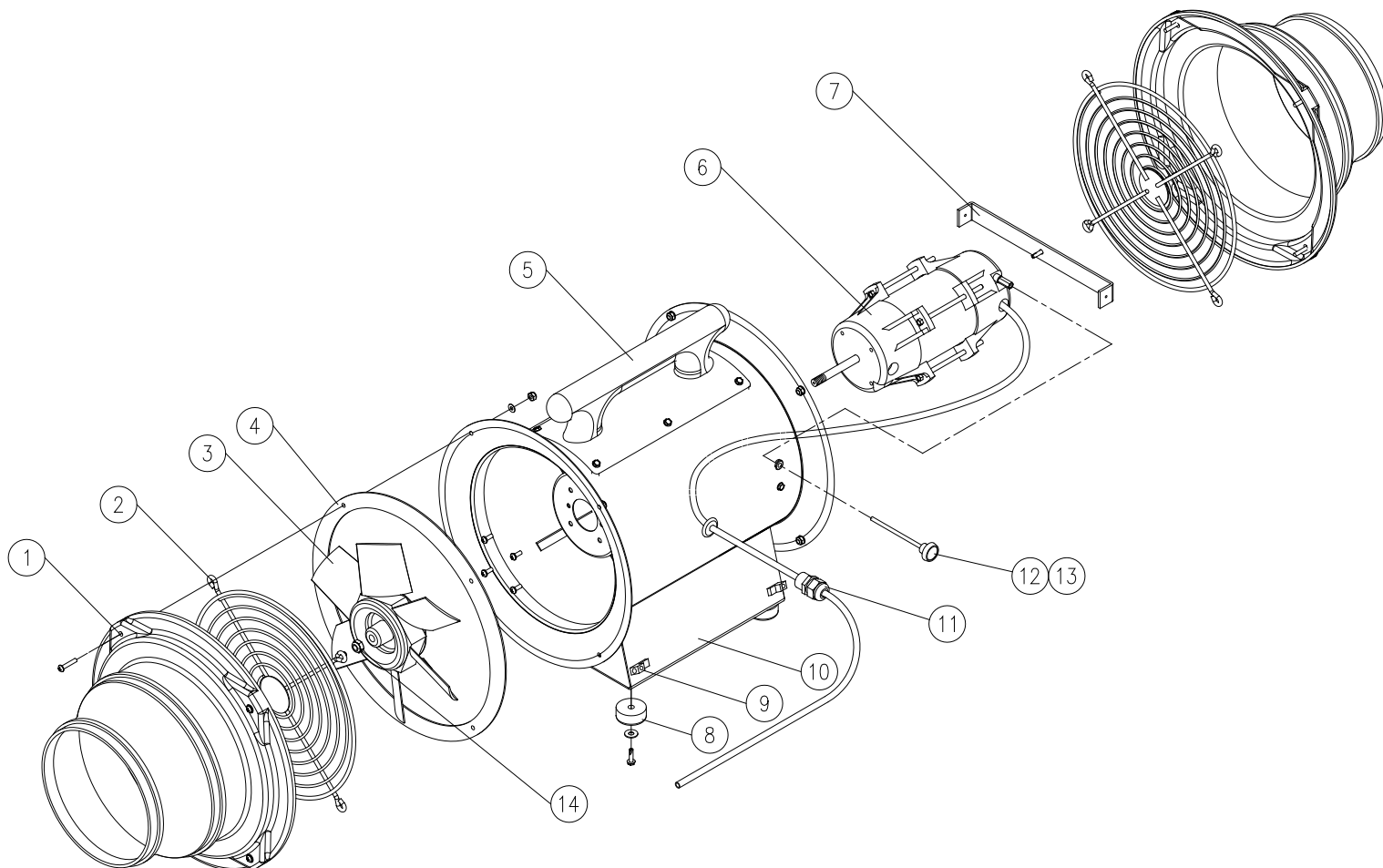
PROBLEM	POSSIBLE CAUSE	SOLUTION
Excessive vibration	Air intake blocked	Turn fan off and clear debris from intake.
	Possible internal damage	Turn off and inspect fan blades, shaft, and housing for debris, damage, and loose screws. Note: Never run fan for extended periods without installing duct on the exhaust flange.
	Possible external damage	Turn fan off and inspect for loose guards, broken welds, etc.
Circuit breaker trips	Voltage output insufficient	Test outlet with volt meter.

## REPLACEMENT PARTS: MODEL CVF-8EXP



ITEM #	DESCRIPTION	PART #
1	DISCHARGE GUARD	CVF-FG
2	EXPLOSION PROOF MOTOR WITH 25 FT. SJOW CORD (NO PLUG)	MTR043EXP
3	10-24 X 3-1/2" LONG THREADED STUD	FS10X350TS
4	ON/OFF SWITCH KNOB	HDWR070
5	MOTOR MOUNT	CVF-MM
6	FAN BLADE ASSEMBLY	CVF-FANCN
7	INTAKE GUARD	CVF-RG
8	DUCT CANISTER LATCHING POST	CVF-POST
9	GROUND LUG	ELA051
10	CONDUCTIVE DUCT CANISTER WITH 6 FT. OF CONDUCTIVE DUCT	CVF-CND6
11	CONDUCTIVE DUCT CANISTER WITH 15 FT. OF CONDUCTIVE DUCT	CVF-CND15
12	CONDUCTIVE DUCT CANISTER WITH 25 FT. OF CONDUCTIVE DUCT	CVF-CND25
13	CONDUCTIVE HOUSING (INCL. ITEMS 1, 5, 7, AND 8)	CVF8EXP-NM
14	STRAIN RELIEF	ELA001
15	FAN BLADE LOCK NUT	FNM8X1ESN

## REPLACEMENT PARTS: MODEL SVF-10EXP



ITEM #	DESCRIPTION	PART #
1	8" to 10" DUCT TRANSITION	SVF-108ADP
2	INTAKE/DISCHARGE GUARD	MGDAXFAN1
3	FAN BLADE ASSEMBLY	SV-FAN-8MM
4	INLET/OUTLET FLANGE GASKET	ILF-G
5	HANDLE	SVF-10HNDL
6	EXPLOSION PROOF MOTOR WITH 25 FT. SJOOW CORD (NO PLUG)	MTR043EXP
7	MOTOR SUPPORT BRACKET	MBSVF10EXP
8	RUBBER FOOT	HDWR026
9	GROUND LUG	ELA051
10	RED POWDER-COATED STEEL HOUSING	MILF-10BR
11	STRAIN RELIEF	ELA001
12	10-24 X 3-1/2" LONG THREADED STUD	FS10X350TS
13	ON/OFF SWITCH KNOB	HDWR070
14	FAN BLADE LOCK NUT	FNM8X1ESN

## **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.



**AIR SYSTEMS INTERNATIONAL, INC.**

829 Juniper Crescent, Chesapeake, Va, 23320

Telephone (757) 424-3967

Toll Free 1-800-866-8100

Fax No. (757) 424-5348

<http://www.airsystems.com>

e-mail: [sales@airsystems.com](mailto:sales@airsystems.com)