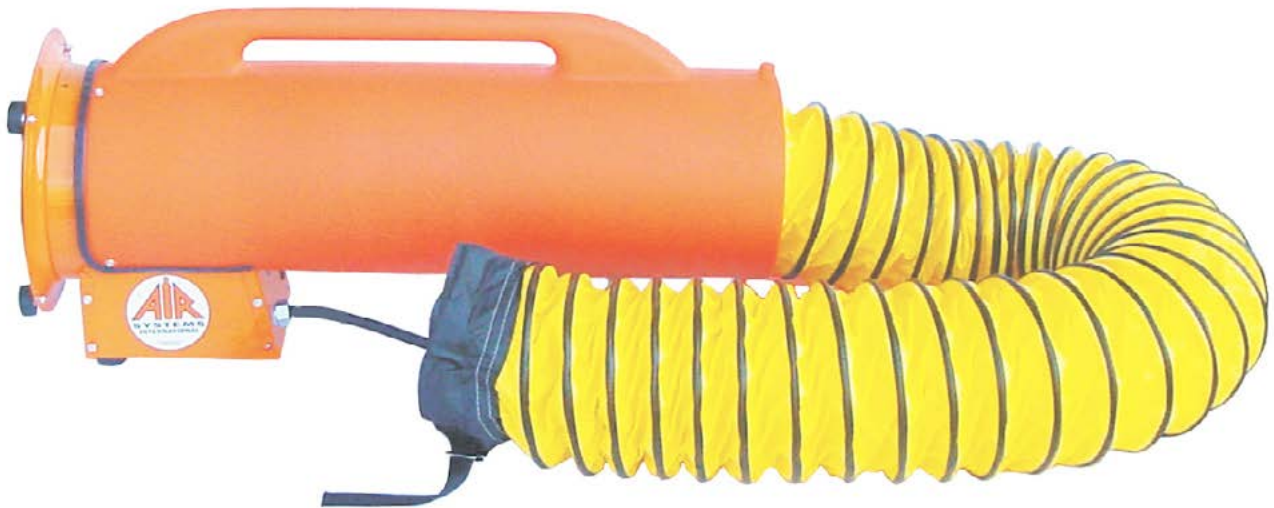




## **OPERATING MANUAL**

### **MODELS:**

<b>SVF-8AC</b>	<b>SVF-8DC</b>
<b>SVF-6ACAN</b>	<b>SVF-6DCAN</b>
<b>SVF-15ACAN</b>	<b>SVF-15DCAN</b>
<b>SVF-25ACAN</b>	<b>SVF-25DCAN</b>



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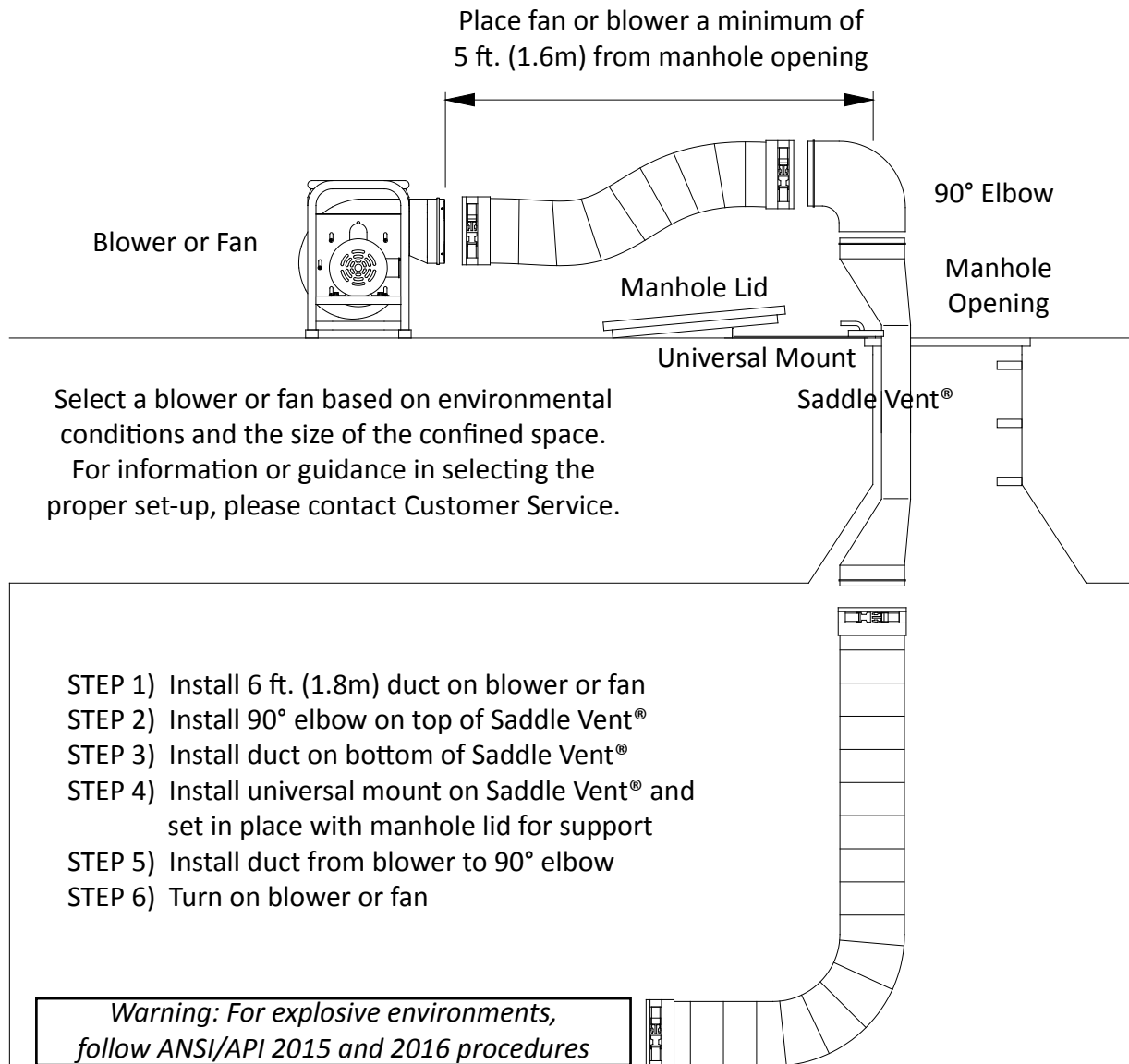
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# The Saddle Vent<sup>®</sup> Ventilation System

## Typical Saddle Vent<sup>®</sup> Setup Procedure





### **WARNING: HAZARDOUS LOCATION OPERATIONS**

Use an explosion-proof or intrinsically safe blower or fan, conductive ducting, and the conductive Saddle Vent<sup>®</sup> 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.

## GENERAL SET-UP AND OPERATION FOR SVF-8AC AND SVF-8DC MODELS

- 1) Place fan in a clean, fresh air environment.
- 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 inspect 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 connect straps, open lid and pull out ducting. Inspect for air leaks.

**Note:** Maximum recommended duct hose length is 25 ft.

- 5) Set fan upwind from the work location and a minimum of 5 ft. from the manhole opening.
- 6) Connect fan to power source.

DC versions require 12 VDC. Attach the red connector to the positive (+) terminal and the black connector to the negative (-) terminal. This unit must be run in the positive pressure mode as this model is not approved for extracting (sucking) air. **DO NOT REVERSE WIRING.**

**WARNING:** Vehicle electrical systems must be able to handle 15 amp service or electrical damage may occur.

AC versions require 115 VAC/60Hz, 15 amp service or 220 VAC/50Hz.

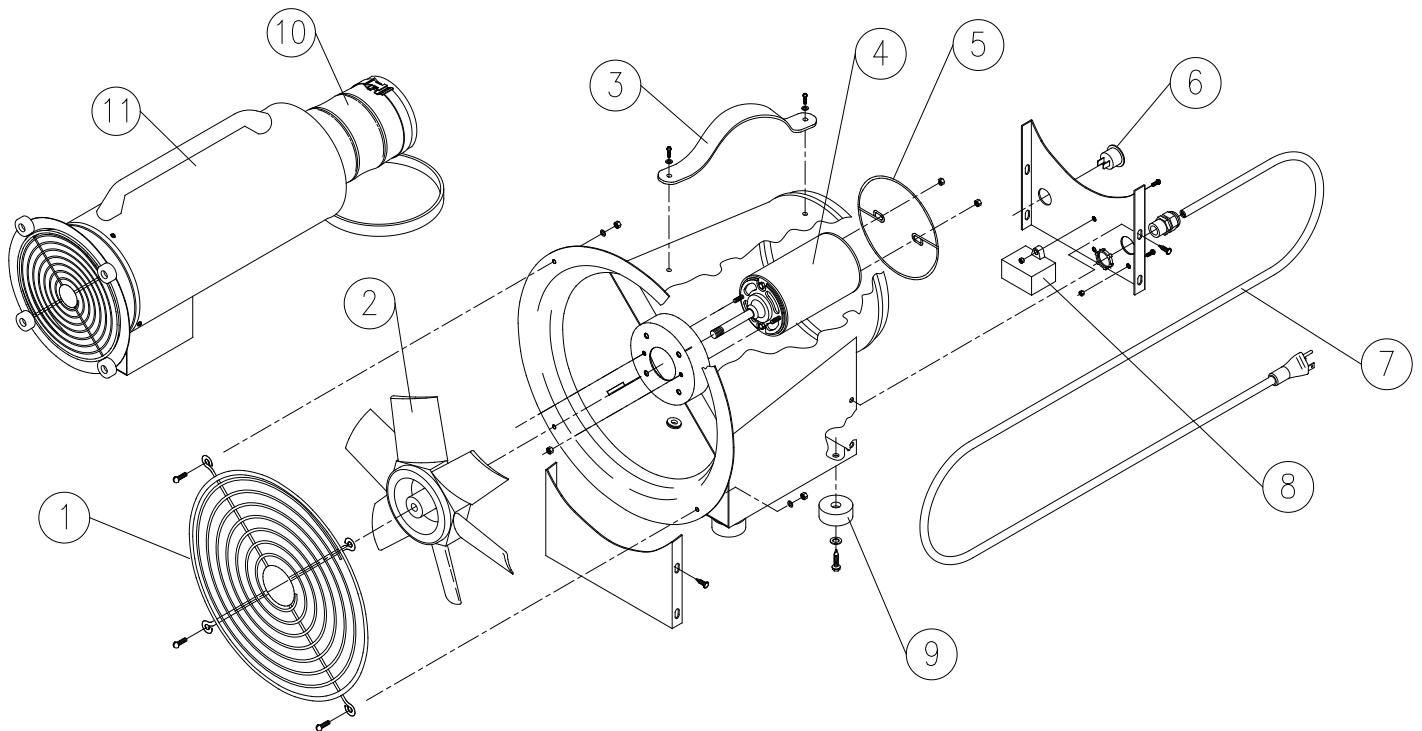
Note: If an extension cord is required, the minimum recommended size is 14 AWG up to 25 ft. For further information refer to the National Electric Code Tables, Article 400.

- 7) Push ON/OFF switch to "I" position.

## 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 SVF-8AC series only	Voltage output insufficient	Test outlet with volt meter.
	Extension cord improperly sized	Use 14 AWG extension cord up to 25 ft.
	Faulty Capacitor	Check and Replace with P/N MTRA089
Fan will not run SVF-8DC only	Blown fuse (DC version only)	Check and replace. Use only a 20A/32 VDC slow blow fuse.
	Battery connection	Ensure proper connection from battery clips to battery terminal posts. On battery pack units, recharge battery.

## REPLACEMENT PARTS - AC VOLTAGE FANS



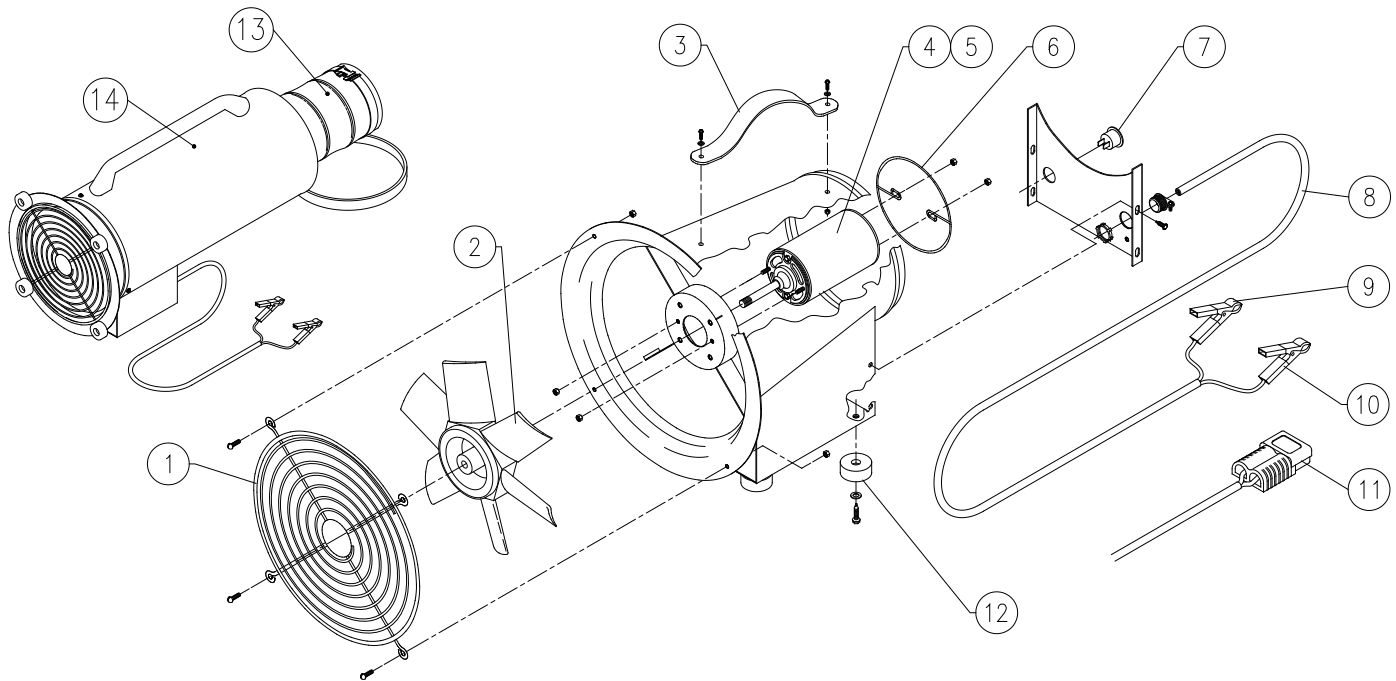
An optional GFI (Ground Fault Interrupter) cord/plug can be supplied to comply with the 1996 NEC Code requirement: Section 305-6. Order P/N ELCB013.

ITEM #	DESCRIPTION	PART #
1	INTAKE GUARD	MGDAXFAN1
2	FAN	SVF-FAN-8MM
3	HANDLE	HDWR056
4	ELECTRIC MOTOR WITH CAPACITOR	SVF-8AC-MA
5	DISCHARGE GUARD	MGDAXFAN2
6	ON/OFF SWITCH	ELSW038R
7	POWER CORD	ELCB012
8	CAPACITOR	MTR043CNC
9	RUBBER FOOT	HDWR026
10A	8" DIA.X 6' LONG DUCT	SVF-H6
10B	8" DIA. X 15' LONG DUCT	SVF-H15
10C	8" DIA. X 25' LONG DUCT	SVF-H25
11	DUCT CANISTER	SVF-CAN

## SPECIFICATIONS

MOTOR TYPE	1/3 HP (.23 kw) electric, 115 VAC/60 Hz, 2.6 amps, Capacitor Start, Single Speed, 3200 RPM, CSA Approved
OUTLET SIZE	8" Diameter (203mm)
FLOW RATES	Free Air: 1395 cfm 15 ft. duct with one 90° bend: 840 cfm 15 ft. duct with two 90° bends: 750 cfm

## REPLACEMENT PARTS - DC VOLTAGE FANS

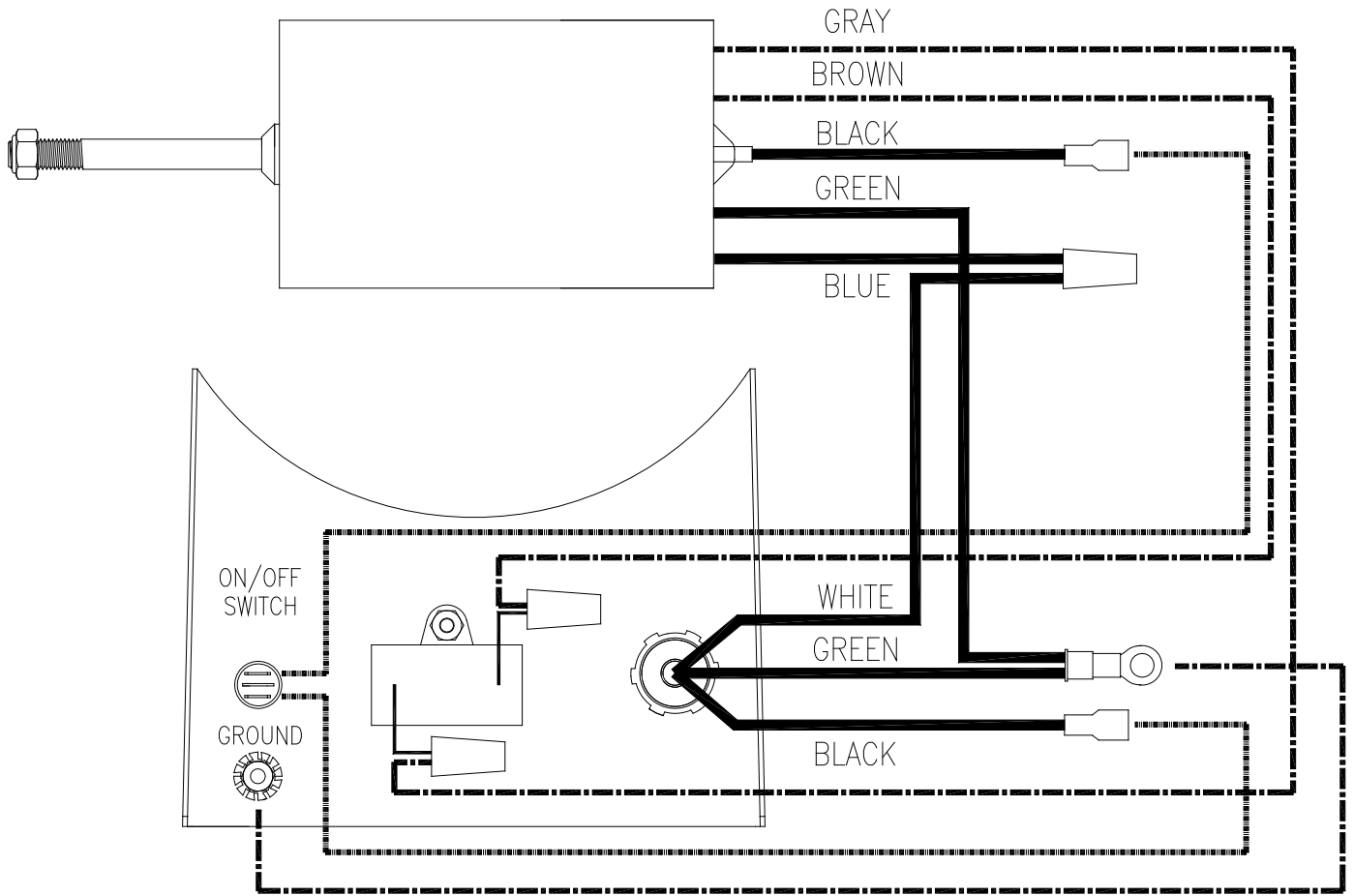


ITEM #	DESCRIPTION	PART #
1	INTAKE GUARD	MGDAXFAN1
2	FAN	SV-FAN-8MM
3	HANDLE	HDWR056
4	12 VDC ELECTRIC MOTOR WITH INLINE FUSE/FUSE HOLDER	MTR044CN
5	20A 32 VDC IN-LINE FUSE	ELF022
6	DISCHARGE GUARD	MGDAXFAN2
7	ON/OFF SWITCH	ELSW038R
8	POWER CORD	ELCB045
9	RED BATTERY CLAMP	ELA083R
10	BLACK BATTERY CLAMP	ELA083B
11A	BATTERY CONNECTOR FOR OPTIONAL BATTERY PACK (P/N BP-950)	ELA127
11B	1 PAIR OF CONTACTS FOR ELA127	ELA126
12	RUBBER FOOT	HDWR026
13A	8" DIA.X 6' LONG DUCT	SVF-H6
13B	8" DIA. X 15' LONG DUCT	SVF-H15
13C	8" DIA. X 25' LONG DUCT	SVF-H25
14	DUCT CANISTER	SVF-CAN

## SPECIFICATIONS

MOTOR TYPE	1/6 HP, 13.5 VDC, 15 amps, Single Speed, 4200 RPM, 20 amp/32 VDC Slow Blow Fuse
OUTLET SIZE	8" Diameter (203mm)
FLOW RATES	Free Air: 1170 cfm 15 ft. duct with one 90° bend: 815 cfm 15 ft. duct with two 90° bends: 796 cfm

### WIRING SCHEMATIC - SVF-8AC-MA



## **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.