



**THE AUTHENTIC
ROTARY AIRLOCK.**

www.RotaryAirlock.com

ROTARY AIRLOCK LLC

ROTARY VALVE I/O/M MANUAL

INSTALLATION / OPERATION / MAINTENANCE

INTRODUCTION

When you purchased your new Rotary Airlock equipment, you bought a dependable and quality-built product. The range of equipment manufactured by Rotary Airlock should satisfy nearly every conceivable industrial air-handling need.

We are proud of our products and the people at Rotary Airlock who build them. At Rotary Airlock, we start with American Steel and design, manufacture, and innovate standards that have proven superior for more than 25 years.

This owner's manual is intended as a guide for proper installation, operation, and maintenance to keep your Rotary Airlock equipment operating safely and efficiently. Service and reconditioning information is also included for your benefit.

Sincerely,
The Rotary Airlock Family

WARRANTY

Seller warrants the Products shall conform to the description stated in the Sales Quote and shall be free from defects in workmanship. This warranty shall be effective for a period of one (1) year from the date of the shipment of the Product by Seller. If within the term of the warranty, any of the Products are determined to be defective upon inspection by persons authorized by Seller, Seller will, at Seller's option, repair, replace, or reimburse Purchaser the Purchase Price paid for any defective Products at its cost. Any shipping costs associated with the delivery of replacement Products will be Seller's responsibility.

This warranty does not extend to or cover any damages or claims with respect to (i) any Products that in any way have been altered, processed, misused, or improperly handled or installed; (ii) damages or claims if Purchaser disassembles and/or attempts to repair the Products prior to notifying Seller of any problems; (iii) products not manufactured by Seller; or (iv) Products used in temperature applications other than as stated on the Sales Quote or/and on the airlock tag.

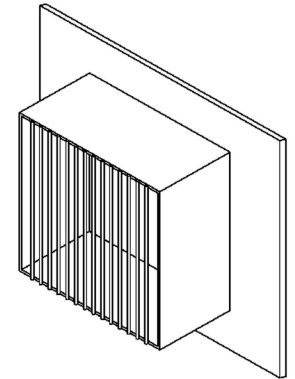
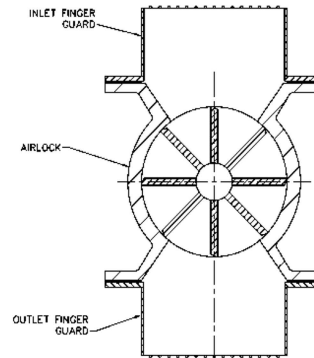
All other warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose, are hereby expressly excluded.

To make a claim under this warranty, contact Seller at 815-626-0388 or 301 W. 3rd St, Suite L, Sterling, IL 61081 and provide Seller with your name, address, telephone number, date of delivery of the Product, and a description of the defect or condition giving rise to the claim.

SAFETY

Warning

Do not install rotary airlock valves in an application, which leaves the inlet or the outlet flange opening exposed.



*Flange Guard not provided but available for purchase.

Safety Precautions



This Safety alert symbol is used to call your attention to an important safety message on equipment, safety decals and in manuals, to warn you of possible danger to your personal safety. When you see this symbol, be alert; your personal safety or the safety of the other persons is involved. Follow the instructions in the safety message.

The following definitions for identifying hazard levels are:



DANGER (RED) – Danger is used to indicate the presence of a hazard that **WILL** cause SEVERE personal injury, death, or substantial property damage if the warning is ignored.



WARNING (ORANGE) – Warning is used to indicate the presence of a hazard that **CAN** cause SEVERE personal injury, death, or substantial property damage if the warning is ignored.



CAUTION (YELLOW) – Caution is used to indicate the presence of a hazard that **WILL** or **CAN** cause **MINOR** personal injury or property damage if the warning is ignored.



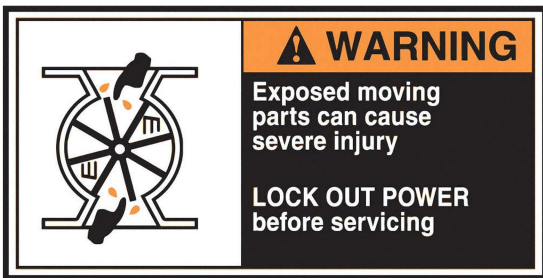
CAUTION: Read All Instructions contained in this manual before installing and operating this equipment.



WARNING: All owners and operators should read this manual, or be instructed in safe operating and maintenance procedures, before attempting to uncrate, install, operate, adjust, or service this equipment.



Disconnect all electrical power to airlock before performing any maintenance.



WARNING: ONCE PROTECTIVE FLANGE COVER IS REMOVED FROM VALVE, DO NOT PLACE HANDS OR FEET IN THE VALVE OR ATTEMPT TO TURN ROTOR ASSEMBLY BY HAND.



TO TEST ROTATE THE ROTOR, USE THE PROPER PPE INCLUDING GLOVES, AND THE SAFETY TOOL DESIGNED FOR YOUR VALVE AND AVAILABLE FOR PURCHASE FROM ROTARY AIRLOCK BY APPLYING IT CORRECTLY TO YOUR SHAFT KEYWAY AS SHOWN IN FIGURE 1.

OR TO TEST ROTATE THE ROTOR, USE THE PROPER PPE INCLUDING GLOVES, USE A SOFT PUSH BAR (2x4) AS SHOWN IN FIGURE 2.

WE RECOMMEND ALL OWNERS AND/OR OPERATORS OF THIS EQUIPMENT READ THIS MANUAL. FOLLOW SAFE OPERATING & MAINTENANCE PROCEDURES. SAFETY COMES FIRST!

DELIVERY INSPECTION

As soon as the equipment is received, it should be carefully inspected to make certain the unit is in good condition and all items listed on the packing list are received. Even though the equipment is mounted on heavy shipping skids at our plant, it is possible for it to be damaged in shipment. All damages or shortages should be noted on the Bill of Lading. Purchaser should take immediate steps to file reports and damage claims with the carrier. All damages incurred to the units in transit are the responsibilities of the common carrier since it is the manufacturer's policy to make shipment F.O.B. its factory: i.e., Ownership passes to purchaser when the unit is loaded and accepted by trucker. Any claims for in transit damage or shortage must be brought against the carrier by the Purchaser.

If the unit is not going to be installed soon after arrival, it should be stored in a warm, dry location to protect from corrosion to the machined surfaces. Unit should be covered for duration of storage.

Figure 1



Rotary Airlock Safety Tool for Rotor Rotation

Figure 2



2 x 4 Push Block

INSTALLATION

Numerous types of bulk materials feeding devices can be connected to the inlet opening of an airlock. Bins, hoppers, mixers, sifters, screw conveyors, etc. all can be adapted for attachment to the airlock. In all cases, except sifters, rigidly attach the feeding device to the airlock flange, using silicone caulk to obtain an air-tight connection. Be sure all seams in the feeding device are air-tight.

If the airlock is to be hung from a hopper, storage tank, etc. it may be necessary for some type of structural steel support. However, in most cases, the hopper or tank flange will have sufficient strength to support the weight of the airlock package.

Normally, it is not good practice to use the airlock to support equipment loads either in compression on the top flange or in tension from the bottom flange. Excessive loads will cause the housing to distort, which will result in the loss of precise clearances. Loss of clearance between the rotor and housing can result in excessive noise, binding and galling.

Flanges of components, which attach to the airlock, must be flat and “square” with the airlock flanges. The machines flanges of fabricated airlock housing must not be forced to conform to warped or twisted flanges. This practice can result in broken airlock housing or loss of clearances noted above voiding the equipments warranty.



If the airlock is to be installed with either the inlet or discharge exposed, a guard must be mounted to the appropriate flange in order to reduce the risk of personal injury to operators, maintenance personnel, or others who may be near the equipment. Any object placed in the inlet area or discharge area of the airlock will be sheared off. Inlet and discharge guards are available from Rotary Airlock.



Disconnect all electrical power to airlock before performing any maintenance.

AIRLOCK MAINTENANCE

Blade clearance should be checked as part of the maintenance program. Each airlock is built to a standard, which is determined by its size and design operating conditions. The appropriate standard established for any airlock can be determined by checking the order acknowledgement.

TROUBLESHOOTING



Disconnect all electrical power to airlock before performing any maintenance.

- A. If airlock is not operating efficiently or satisfactorily, remove from system, inspect and repair in accordance with preceding information.
- B. Inspect airlock for wear and damage.
- C. Inspect base structure, chain guard, and brackets for damage and deformation. Replace defective parts.
- D. Check all accessory equipment to assure proper operation. Replace any components found to be defective.

When requesting service assistance, please have the following information at hand prior to calling system engineer.

Important

Write down the MODEL and SERIAL NUMBER of the Rotary Valve, along with the same information for the auxiliary equipment. (Airlock valves, fans, speed reducers, motors, and sheaves size, type and any special modifications to standard).

For additional information, application assistance or special service, you should contact Rotary Airlock, LLC. We'll need to know the MODEL and RA NUMBER of your Rotary Valve. For ready reference, please record this information and the date of delivery or installation and the date of delivery or installations on the lines below. See the general information section for the location of model and RA number.

MODEL _____

RA NUMBER _____

DATE OF DELIVERY or INSTALLATION ____ / ____ / ____

Contact your Rotary Airlock support team for questions or issues:
 Phone: (815) 626-0388
 Email: info@rotaryairlock.com



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