



## Safety Precautions for Rotary Valves (Airlocks)



# Introduction

Rotary Valves (also called airlocks) allow free flowing solids to pass from one space to another space with a different pressure. Rotary valves are of no use by themselves. They are only useful as one component in a material handling system.

In order to function, rotary valves must have tight clearances and powerful motors. Any part of the human body in the way when a blade closes with the housing will be cut off.

Fortunately, in the vast majority of applications, rotary valves operate in fully enclosed systems so people cannot accidentally contact the rotating blades. However, accidents can still happen if people are careless using these valves.

## Safety Rules



### Training

Teach everyone who works around a rotary valve that:

- Anything coming into contact with the blades will be cut off.
- Rotary valves can start without warning.
- Before working anywhere near a rotary valve they must follow the approved Lockout/Tagout procedure.
- The rotary valves must not be operated without the guards in place.



### Installation

- Whenever possible, avoid placing any opening within arm's reach of the rotary valve.
- If any access must be closer, interlock it so the valve will shut off whenever the cover is opened.
- If either inlet or discharge are open, they must be guarded.
- Have a lockout panel and a lockout procedure that is enforced.



### Maintenance/Service/Cleaning

- Read your Operation & Maintenance Manual.
- Follow Lockout/Tagout Procedures before working on any equipment.

# Safety Decals

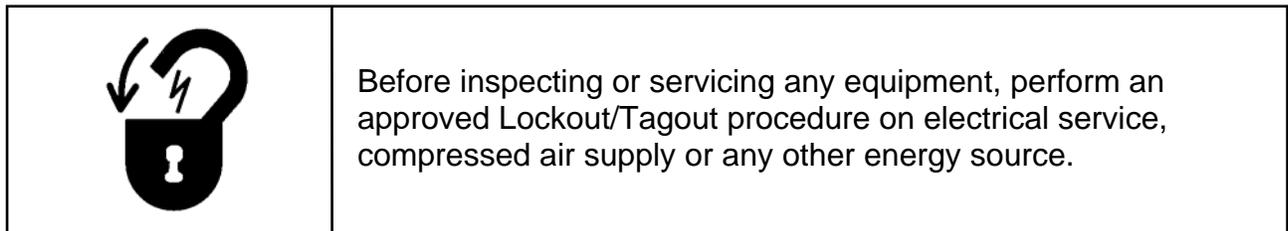
Locate all of the safety decals on your equipment and know their meaning before operating your rotary valves.



Replacement decals are available from REYCO Systems® at  
ph. 208-888-2449 fax 208-887-9848

Note: MAC is more concerned with preventing accidents than with avoiding lawsuits. Please feel free to put MAC safety decals on our competitor's airlocks. (But be fair, if someone does get injured on one anyway, please tell them and their lawyer that MAC only supplied this flyer and the labels -for free- but MAC did not supply the airlock.)

## Lockout/Tagout

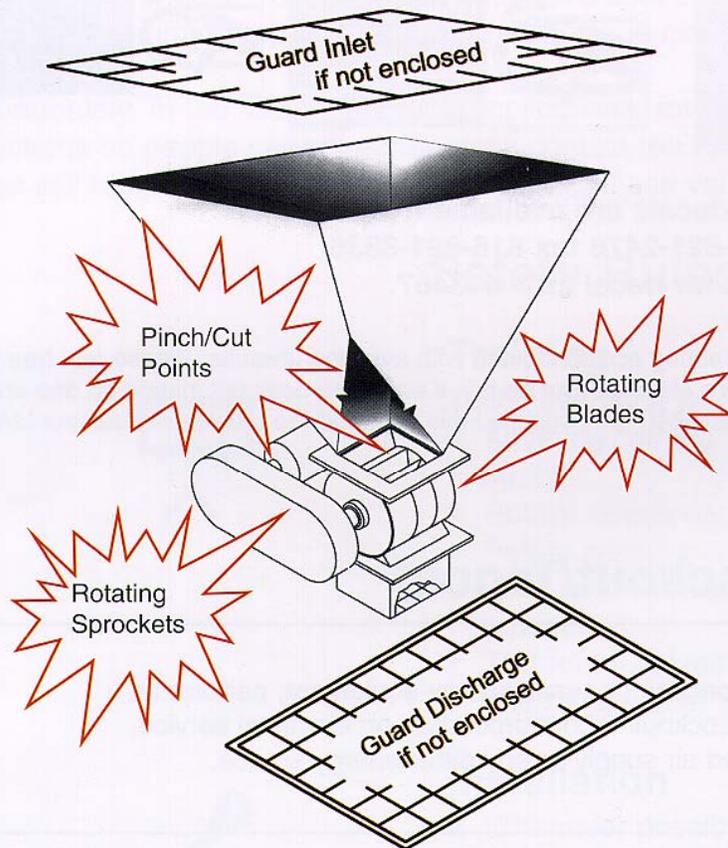


Like anything else in a factory, control of an airlock must be in accordance with OSHA Standard 29 CFR 1910.147 "The Control of Hazardous Energy (Lockout/Tagout)". This standard "requires employers to establish a program and utilize procedures for affixing appropriate lockout devices or tagout devices to energy isolating devices and to otherwise disable machines or equipment to prevent unexpected energizing, start-up or release of stored energy in order to prevent injury to employees".

An appropriate Lockout/Tagout procedure must be designed specifically for each application. In general, however, a Lockout/Tagout procedure is intended to ensure that each worker attaches his own lockout device which puts the system into a safe state and de-energizes the airlock and anything else that might hurt him. Because he has his own lock de-energizing the system, each worker can prevent accidental start-up until he has removed his own lockout device.

For further information on your Lockout/Tagout requirements, refer to the OSHA standard.

# Develop Safe Work Habits



Know Your Equipment.



Keep Drive Guard in place while operating.



Use Lockout/Tagout Procedure.

## Rotary Valves

Dangerous if not used properly.

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