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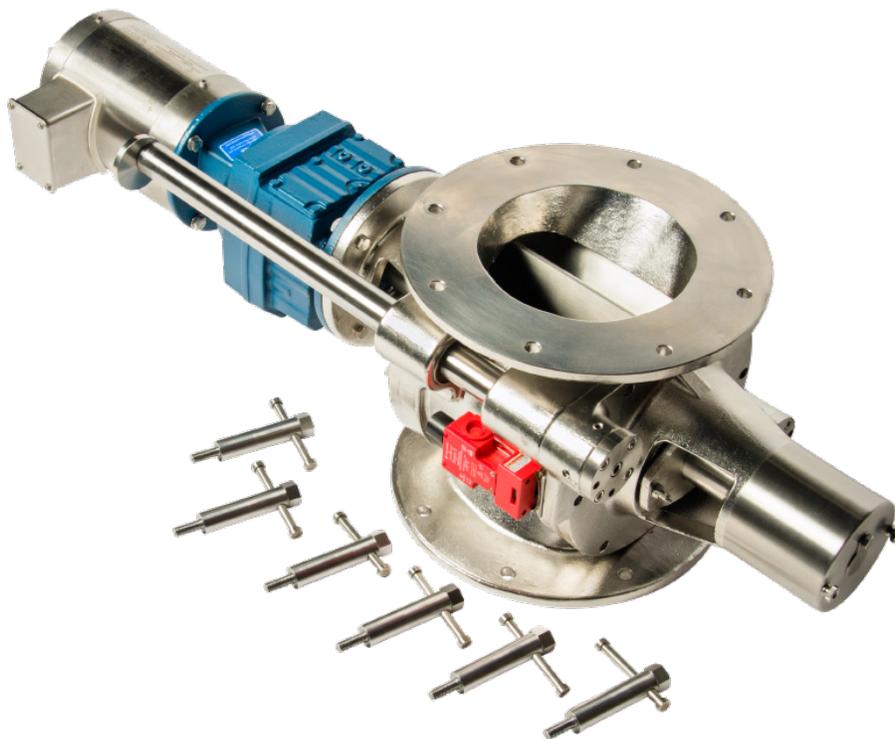
# KLEAN-IN-PLACE II Series Rotary Airlock Feeders

## INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS



Read this manual carefully before installing, operating or maintaining this equipment. Failure to do so could result in serious injury or death.

*Save this manual*



**Your Source for Bulk Handling/Air Process Equipment**

**Wm. W. Meyer & Sons, Inc.**

1700 Franklin Blvd • Libertyville, Illinois 60048-4407 • 800-963-4458 • 847-918-0111 • Fax: 847-918-8183  
e-mail: [sales@wmmeyer.com](mailto:sales@wmmeyer.com) • website: <http://www.meyerindustrial.com> or [www.wmmeyer.com](http://www.wmmeyer.com)

## TABLE OF CONTENTS

Safety Precautions .....	2
Application.....	7
Installation .....	7
Start-Up Procedure .....	9
Proper Handling and Maintenance.....	10



### SECTION I SAFETY PRECAUTIONS

TO THE OWNER, AND INSTALLATION, OPERATION AND MAINTENANCE PERSONNEL

The safety of the operator and those people that may come into contact with the Rotary Airlock Feeder Valve is of great importance to Wm. W. Meyer & Sons, Inc. (“Meyer”). The decals, shields, guards and other protective features designed, furnished or recommended for this machine are there for your protection. BEFORE attempting to install, operate or perform maintenance on this Equipment READ carefully and UNDERSTAND all safety instructions contained in this Installation, Operation, and Maintenance Instructions. Failure to do so could result in serious injury or death.

#### **Equipment owner responsibilities**

Equipment owners are responsible for understanding the contents of this document and compliance with applicable government laws and regulations and appropriate industry standards. Appropriate plant safety and equipment training is the responsibility of the plant owner. This Manual is intended to assist the owner in the training process. The installation, operation and maintenance of this equipment should be restricted based on the following:

- Installation and maintenance of equipment must be performed by qualified mechanics/millwrights/maintenance personnel that are familiar with the relevant contents of this manual.
- Installation of any electrical equipment must be completed by qualified electricians, in compliance with applicable codes and ordinances.

Because Meyer is not always aware of the application and does not always have access to the installation, your participation in the safe installation, operation and maintenance of your Rotary Airlock Feeder is critical. The owner/operator is responsible for any hazards related to the material that is being processed through the equipment. If you have any safety or operational questions pertaining to the design or applications of the Rotary Airlock Feeder we encourage you to contact the factory at (800) 963-4458.

Consult the factory for the availability of manuals in other languages.

## SIGNAL WORD DEFINITIONS

 **DANGER** Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING** Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

 **NOTICE** Indicates information that is important, which if not followed, may cause damage to the equipment.

## IMPORTANT SAFETY INFORMATION

 **WARNING** To reduce the risk of serious injury or death:

### Be qualified.

- Operation of this equipment must be limited to those that are properly trained in its use.
- Servicing or maintaining this equipment must be performed by trained maintenance personnel only.

### Read all safety information.

- Read and understand all the **safety related information contained in this manual** prior to attempting to perform any work on this equipment.
- Obey all the **safety labels** on the equipment. Do not remove any safety labels. If the equipment is missing any labels (see “SAFETY LABELING” section), contact the factory immediately, before putting the equipment into service.
- For **add on equipment**; motor, switches, etc. refer to the appropriate manufacturer’s safety information.

**Heavy – handle safely.** The weight of this equipment and its component parts could cause serious injury if dropped or mishandled during installation, service, or maintenance. Always use safe handling and rigging methods.

**Guard and avoid dangerous internal parts.** The internals of this equipment contains moving part(s) that will crush and cut any body parts they come in contact with, resulting in serious injury or death.

- **Equipment can start without warning.**
- **Inlet and outlet flanges** must always be permanently fastened to mating system components or permanently guarded. Components and guards must be designed such that no access to the interior of the equipment is allowed during operation. See “HAZARD IDENTIFICATION” for process integration and installation details.
- **Never open access covers/door or reach inside** the equipment for any reason while it is in operation.

**Keep clear.** Always keep hands, feet, or other body part, loose clothing, jewelry, away from the inlet/outlet, drive, components/accessories, and associated equipment.

**Lockout/Tagout all sources of energy and relieve pressure** before installing, servicing, or maintaining this equipment. This includes but is not limited to: motors, switches, cylinders, and solenoids.

- Equipment may start remotely, without warning, if energized.
- Hazardous voltage presents the risk of electrical shock.
- Equipment may be under pressure – pressurized gas and material could cause serious injury or death.
- Equipment surfaces may be hot; allow them to cool before performing any work.

## **HAZARD IDENTIFICATION**

### ***Principle of operation***

Rotary Airlock Feeders are components that are used as an airlock transition point, sealing pressurized systems against loss of air or gas while maintaining a flow of material between components with different pressure. They are a particularly versatile component which can be utilized in a wide variety of material handling applications. By their nature, Rotary Airlock Feeders are of no use by themselves; they are only useful when added as a component to a material handling system as part of a larger process.

### ***Amputation hazard***

Rotary Airlock Feeders have tight clearances and powerful motors. If either the inlet or discharge openings are left unguarded, the Rotary Airlock Feeder's rotor presents a serious personal injury hazard, including but not limited to amputation. Any part of the human body in the way of a rotor and the housing **will** be cut off.

### ***Guarding discharge***

As a courtesy, the Rotary Airlock Feeder is shipped with an attached **discharge** flange guard. This guard should not be removed and should remain in place during operation. However, due to the vast number of potential applications in which Rotary Airlock Feeders can be used, it is neither feasible nor practical for Meyer to supply a discharge guard which will be effective in every possible application or process. If the supplied **discharge** flange guard does not work for your specific application or process, alternative suitable guarding **must** be utilized to ensure safe operation. "Alternative suitable guarding" could be another piece of equipment, chute, bin or custom discharge guard. It is imperative that the Rotary Airlock Feeder should not be operated without the discharge opening fully guarded such that no contact can be made with the moving parts inside of the equipment. It remains the owner/operator's responsibility to ensure that the Rotary Airlock Feeder is safely integrated for the particular process and application for which it was purchased and that the discharge opening remains guarded at all times during operation.

### ***Guarding inlet***

In most applications, the Rotary Airlock Feeder will be integrated into a process, system or application where the **inlet** opening of the Feeder will be guarded by virtue of being attached to another piece of equipment (bin, hopper, etc.) However, there may be instances or situations where the **inlet** of

the Rotary Airlock Feeder becomes accessible (i.e. through a clean out door or access hatch on the attached equipment) to a user. As noted above, due to the vast number of potential applications in which a Rotary Airlock Feeder may be used, it is neither feasible nor practical for Meyer to design or supply an inlet flange guard that will work for every possible application or process. It is the owner/operator's responsibility to ensure that the Rotary Airlock Feeder is safely integrated for the particular process and application for which it was purchased and that the inlet opening remains guarded at all times during operation.

### **Training**

The owner also bears the responsibility to ensure that personnel who may be working around a rotary valve are properly trained. Personnel **must** be aware that: (1) anything coming into contact with the moving vanes **will** be cut off/amputated; (2) rotary valves can start without warning; (3) before working on, cleaning, repairing or maintaining a rotary valve, Lockout/Tagout procedures **must** be strictly followed; and (4) rotary valves **must not** be operated without guarding in place. Before working around a rotary valve, personnel **must** read the Operator's Manual.

### **SAFETY LABELING**

The safety labels shown are affixed to your Rotary Airlock Feeder. A Safety Supplement Data sheet and an auxiliary "DANGER" label have been packed with your equipment at the time of shipment. Because Rotary Airlock Feeders can be used in a vast number of applications and in a number of configurations, it is possible that the safety labels affixed to the equipment may be obscured when installed and integrated into a customer's particular application or process. Thus, Meyer supplies the auxiliary "DANGER" label for the installer's or plant manager's discretionary placement to best ensure that anyone approaching the unit is alerted to the hazards presented by rotating parts and how to safely interact with the equipment. Additional Safety Supplements and "DANGER" labels are available at no charge; contact Meyer (800-963-4458), sales@wmwmeier.com.



The following recommendations are offered to assist in the placement of the safety labels. The objective is for anyone who approaches the Rotary Airlock Feeder sees the label alerting him or her how to avoid the hazard.

Place labels in locations that all personnel operating and maintaining the Rotary Airlock Feeder or any other people that may have access to the equipment will readily see as they are preparing to work on the equipment and/or as they approach it.

Due to the location of the Rotary Airlock Feeder, labels may have to be located near it, for example; on nearby structural steel or adjacent equipment. This location needs to be the point of access where the label can be easily seen and the hazard is clearly associated with the Rotary Airlock Feeder.

If you have received a unit without labels or if labels fall off or are damaged, contact Meyer immediately (800-963-4458) to obtain replacements at no charge, prior to installation, use or maintenance.

Please provide unit operating temperature at time of request.



**INFORMATION FOR SAFETY AND SERVICE**

Because of the wide variety of material handling systems for which a Rotary Airlock Feeder must be tailored, many considerations determine the proper size, design, materials of construction, operating speed, type of driver, etc. A description of every Meyer Rotary Airlock Feeder is kept on file at the factory for a substantial period of time. These specifications can be referenced by supplying the serial number to your local Meyer Representative. If you have any safety or equipment related questions, we encourage you to contact the Meyer factory based on the cover contact information.

The serial number is located on a metal identification label permanently affixed to every Rotary Airlock Feeder before it leaves the factory. To aid us in providing you with service, application assistance and help with spare part requirements, please record the following:

Type/Size \_\_\_\_\_

Serial Number \_\_\_\_\_

Date of Installation \_\_\_\_\_



## SECTION II APPLICATION

Meyer Klean-In-Place II Rotary Airlock Feeders (also called Rotary Valves, Valves, KIP II) are used in pneumatic conveying systems, dust control equipment, and as volumetric feed-controls to maintain an even flow of material through processing systems.

The rotary airlock is used to separate two vessels or areas of differing pressure while allowing the transfer of material. Rotary Airlock Feeders are also widely used as volumetric feeders for metering materials at precise flow rates from bins, hoppers or silos into conveying or processing systems.

KIP II Feeders have wide application in industry wherever dry free-flowing powders, granules, crystals, etc. are used. Typical materials include: sugar, minerals, grains, plastics, dust, flour, coffee, cereals, pharmaceuticals, etc.



## SECTION III INSTALLATION

### A. RECEIVING AND INSPECTION

Upon receipt of equipment and material from Meyer, the following basic steps should be taken. The equipment is heavy and proper handling procedures should be used (See the “**Heavy - handle safely**” information in the “IMPORTANT SAFETY INFORMATION” section).

1. Use the packing list to determine that all the items shipped have been received. Your equipment was carefully crated for safe shipment when given to the carrier. If items are missing, contact Meyer, per the contact information at the end of this section.
2. Check for damage. Damage in transit is the responsibility of the carrier. Title to your equipment and all other items in the shipment were transferred to you as soon as the shipment left our dock, thus it is your responsibility to handle any claim. In the event damage has occurred:
  - a. Be sure to have the driver sign a copy of the freight bill with a notation about any damage and contact their office before the driver leaves your premises.
  - b. Contact the carrier to arrange for an independent inspector to come out to inspect the damage and to prepare the inspection report. It is imperative that this inspection is done before you start to unpack or use any of the equipment.
  - c. If there are any visible problems with your unit or any other items in the shipment, you or the driver must note in detail the damage on all copies of the freight bill before signing for the shipment. Then immediately call Meyer.
  - d. Photographic records of the damage are helpful to communicate the extent and type of damage as well as provide a clear record.
  - e. In addition to inspecting damaged equipment you should also check the condition of the safety labels to ensure they have not been damaged or come off. If they have, contact the factory for replacements prior to installation.

- f. **Concealed Damage:** If Equipment or goods are discovered to be damaged in shipment at a later date, contact the carrier and Meyer, immediately.
- g. In all cases of damage in transit, contact Meyer, for assistance in determining whether or not this damage may, in any way, affect safety or proper operation. Please contact us so that we can assist you with replacement parts or with any questions about the claim process, using the following contact information:

Wm. W. Meyer & Sons, Inc.  
1700 Franklin Blvd  
Libertyville, IL 60048

800-963-4458 or 847-918-0111  
sales@wmwmeyer.com

## **B. STORING THE ROTARY VALVE**

### *Short Term Storage (Up to 4 weeks)*

1. If moved to storage, the equipment should be located in a dry area, preferably inside. Outside storage will require adequate protection from the weather.
2. The inlet and outlet of the Rotary Valve should be securely covered to protect the interior while in storage. See the motor and reducer manuals for storage instructions.
3. After storage and prior to start-up, the Rotary Valve and its drive train should be inspected by qualified personnel.

### *Long Term Storage*

1. Provide and install gasketed or sealed metal covers for inlet and outlet flanges with at least four cap screws in each flange. Keep covers on unit until ready for service.
2. Read and follow the motor, speed reducer, and other equipment manufacturer's instructions for long term storage.
3. Plug all conduit box openings on motors and switches.
4. Store off the floor in a dry, adequately ventilated, indoor area not subject to extreme temperature changes.
5. If stored for more than 6 months, turn the rotor 20 revolutions every month. Leave the rotor in a different angular position after turning.

### *Placing In Service after Long Term Storage*

1. Drain and re-fill gear the speed reducer per the manufacturer's recommendation.
2. Follow the motor manufacturer's instructions for removing the motor from storage.

## **C. INSTALLATION**

When installing, verify that the openings will be properly guarded and that the labels will be visible (see "HAZARD IDENTIFICATION" section).

 **DANGER** The internals of this equipment has parts that can crush and cut. Before installing the equipment ensure that Lockout/Tagout procedures have been followed. Failure to do so will lead to serious injury or death if a body part contacts a moving internal part.

1. We recommend that inlet and outlet flanges remain covered until the valve is ready to be attached to the mating equipment.
2. Prior to installing the valve and with the power disconnected, check to ensure no foreign objects have been left inside or have accidentally fallen into the valve.
3. Rotary Valves must be installed with the top and bottom flanges parallel to the mating system flanges and adequately supported to prevent distortion.
4. Ensure that the inlet and outlet flanges are permanently fastened to mating components or are permanently guarded.
5. If the valve is supplied with gas/air purge make the required connections. Depending on what was specified on the order, this may mean connecting tubes to fittings on the head plates or connecting plant air to a filter/regulator mounted on the valve. The gas is fed into the seal area via a lantern ring.
6. If electrical connections are made as part of the installation, they must be done by a qualified electrician, in accordance with applicable codes and standards.
7. Test the motor rotation.
  - Standard rotation for this equipment is clockwise as viewed from the drive end, unless otherwise stated.
  - Rotation should only be checked after proper guarding has been completed.

See “HAZARD IDENTIFICATION” for process integration and installation details.

- In order to check for the proper rotation, a portion of the rotor shaft will need to be observed. The drive coupling that is connected to the reducer shaft has a set screw visible between the head plate spokes.
- Use this set screw as mark to determine rotation.
- If that is not practical, the non-drive end bearing cap can be removed so that the end of the shaft is visible. For standard clockwise rotation the non-drive end of the shaft will rotate counter clockwise. Do not touch the exposed rotor shaft.
- “Bump start” the motor and check for proper rotation. Replace the bearing cap after rotation has been established.



#### SECTION IV START-UP PROCEDURE

**WARNING** Prior to use, the operator must read and understand all the safety related information including all warnings and guarding instructions. Verify that all guarding is in place and area is clear of all non-essential personnel. Failure to do so could lead to serious injury or death.

1. The general appearance of the rotary airlock feeder and surrounding area should be visually inspected to determine that the unit can be operated safely and without causing any damage. Be sure all guards are in place and access to the inlet or outlet is not possible.
2. The speed reducer was filled with lubricant prior to shipping but the level should be checked before initial use.
3. Gas/Air Purge should be turned on (if supplied) at least 5 minutes before the valve is started and turned off a minimum of 5 minutes after the valve has stopped to ensure dust does not enter the lantern ring. The required gas flow rate is application dependent however, the pressure should be typically set 10-15 PSIG above the valve operating pressure.

Note: On a multiple pick up pressure conveying system, the gas purge should be left on even when the valve is not feeding the system. It can be shut off a least 5 minutes after the entire conveying system is shut down.

4. Start the KIP II and be alert for unusual noise; scrapping/squealing, or vibration. If noise or vibration occurs shutdown the unit. Do not attempt to correct the problem without first contacting the factory. Doing so could void warranty coverage.
5. There is no “break-in” period with rotary airlock feeders. It is, however, recommended that it should be monitored during the initial operation and on a regular schedule with particular attention paid to the following:
  - a. Motor and Speed Reducer – monitor for excessive heat, vibration or unusual noise which may indicate a problem.
  - b. Bearings – check for excessive heat, vibration or unusual noise.
  - c. Seals – the type of seal depends on the model and options on the unit. If there is leakage around the shaft carefully tighten the packing gland nuts until the leakage stops.
  - d. Drive – the drive should run smoothly with minimal vibration. If an issue exists contact the factory for an application review.

In general, observe the equipment for any unusual vibration, heat, or noise. Check the flange and purge connection fasteners for tightness and leaks. Any utility service piping and associated valves and gauges should also be checked. Make sure all accessories are operating properly.



**SECTION V**  
**PROPER HANDLING AND MAINTENANCE**

 **DANGER** The internals of this equipment has parts that can crush and cut. Follow Lockout/Tagout information in the “IMPORTANT SAFETY INFORMATION” section before service or maintenance. Failure to do so will lead to serious injury or death if a body part contacts a moving internal part. In addition the equipment and parts are heavy, see the “Heavy – handle safely” information in the “IMPORTANT SAFETY INFORMATION” section.

The Meyer KIP II Rotary Airlock Feeder has been manufactured from the finest materials available and to exacting standards of workmanship. Very close and precise tolerances ensure the best possible fit

and seal between all components. For specific cleaning instructions see the Klean-In-Place II Rotor Removal Addendum to 295-O-001 Version D. In general:

- Never switch a rotor from one rotary valve to another without contacting the factory. Due to temperature and application considerations, not all parts are interchangeable. Some housings and rotors are “mated”.
- Use special care and handling to avoid damaging (i.e., nicking, scoring, gouging, galling, etc.) any internal surface, edge or contour of the housing, rotor or head plate. Any degradation of these machined surfaces may upset the internal clearances, cause the valve to bind and cause extensive damage.
- Sealed and pre-lubricated bearings are supplied in the KIP II feeder. If the components are to be submerged in a cleaning tank or similar type of bath, the bearings must first be removed from the head plate.
- Always clean and inspect one valve at a time and reassemble immediately to avoid mismatching parts.
- Speed Reducer
  - o Lubrication instructions are published by the particular reducer manufacturer.
- Seals/Packing
  - o Standard KIP II Feeders are supplied with Teflon Chevron packing within the packing gland housing. Optional packing includes; Teflon U-Cup and Braided Teflon.
  - o Maintenance is limited to replacement of the packing rings in each head plate when wear and leakage becomes excessive.
  - o See the Klean-In-Place II Rotor Removal Addendum to 295-O-001 for instructions on to remove/replace the seals.
  - o Lantern rings will be supplied if gas/air purge seals are included. They should be cleaned or replaced when needed. See the Klean-In-Place II Rotor Removal Addendum Version 295-O-001 for instructions to remove/replace the seals.



## KLEAN-IN-PLACE II ROTOR REMOVAL

Addendum to 295-O-001

Version D

Effective: 5-1-2019

Supersedes Version C

**WARNING** Before attempting to remove the rotor from the housing, Read and Understand the manual and all the safety warnings. You must follow your plant's Lockout/tagout procedures prior to servicing or maintaining the equipment. Failure to do so could result in serious injury or death.

### Instructions for opening the Meyer KIP II Rotary Airlock Feeder for cleaning:

**WARNING** By opening the feeder and having access to the internal surfaces, the interior of the equipment directly above and below will also be exposed. All adjacent and directly connected equipment must be shut off and locked out according to your company's Lockout/Tagout procedures. Failure to do so could result in serious injury or death.

**NOTICE** This unit is heavy and if not properly mounted in place could tip over when opened.

1. Shut off material flow to the feeder. Remove any pressure above and below the feeder. In addition, the equipment must be allowed to cool to at least 80°F before servicing.
2. Follow your plant's Lockout/Tagout procedures to de-energize the feeder and any other equipment that is attached to the feeder-above and below.

The slide rails move through the bearings mounted on the housing. The rails must be 100% perfectly clean with absolutely no material build up on them. Closing or opening the feeder with "dirty" rails will result in rail bearing failure. **DO NOT** pressure wash the rails. Doing so could force water into the linear bearings which will lead to premature failure. Also make sure that the rails can move without interference with any other equipment or conduit etc. The rails must be able to move freely and must not be forced.

3. Loosen both wing nuts one full turn counter clockwise on the drive end packing gland nut. This will allow the rotor shaft to slide through the shaft seals.
4. Remove the hex head handles on the non-drive end. The head plate/rotor assembly is supported by the slide rails [Photo 1].



Photo 1

There are two threaded holes located near the slide rail attachment locations on the non-drive end head plate. The hex head handles can be threaded into these holes to aid in separating the head plate from the housing. Before the holes can be used, the threads must be cleaned thoroughly, removing any debris, either with compressed air or a soft instrument. Using a pick or other hard tool could damage the threads.

5. Thread two of the hex head handles into these holes until they make contact with the housing [Photo 2].
6. Alternating between each handle, make no more than a quarter turn at a time so as not to cause the head plate to bind, separate the head plate from the housing.

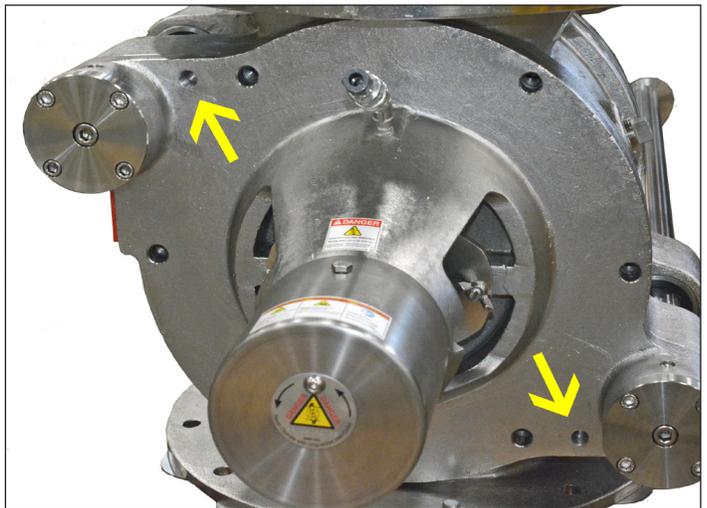


Photo 2

7. Slowly pull the non- drive head plate/rotor assembly away from the housing. [Photo 3]  
**DO NOT** use a hammer or other device to “Bang” on the rails. Doing so will damage them and void any warranty.
8. Clean the rotor and internals per your plant’s cleaning procedure.



Photo 3

The feeder’s interior surfaces must be **100% perfectly clean** before reassembly in order for the parts to fit up correctly. No partial cleaning is allowed as this could prevent proper alignment of the parts and lead to the feeder failing during operation.

9. Visually inspect the rotor and housing for any nicks, gouges, scrapes, or other raised areas or damage. If anything is found contact Meyer Service at 800-963-4458 before reassembly for further instructions.

If part of your plant’s cleaning procedure is to clean the shaft seals, see the following instructions. If not, skip to the instructions for closing the Meyer KIP II Rotary Airlock Feeder.

#### Instructions for cleaning or replacing shaft seals

**⚠️WARNING** The KIP II rotor must be properly secured/supported during removal. The area around the equipment must be cordoned off per your plant’s procedures. The rotor is of sufficient weight that if allowed to drop and strike a person, could cause series injury or death.

If the feeder has air purge shaft seals there will be a Teflon lantern ring included with each set of seals. The position of the lantern ring in the packing gland is crucial for proper operation of the air purge. The lantern ring will be the innermost ring of the set - closest to the inside of the feeder. In addition, the Teflon Chevron seals are installed with the flat seal ring first, towards the inside of the valve. Then the “V” rings, with the open part of the “V” facing in or towards the inside of the valve.

1. With the non-drive head plate/rotor assembly in the extended position, remove the drive side packing gland nut retainer and remove the seals. Clean the packing gland/stuffing box and clean or replace the seals. Re-install the seals, (lantern ring is the innermost ring for air purge) and packing gland nut; leaving the wing nut finger tight. These will need to be tightened after the feeder is closed.

To access the non-drive head plate packing gland follow steps 1 and 2 in the “Instructions for closing the Meyer KIP II Rotary Airlock Feeder”.

2. With the non-drive head plate/rotor assembly in the closed position, remove the non-drive head plate end cap by removing the bolt that secures the cap to the head plate. Removal of the cap will expose a nut and oversized washer. This nut holds the rotor in the non-drive head plate.

3. Remove the nut and washer [Photo 4]. Push the rotor towards the drive while pulling the head plate away from the feeder. This will allow the feeder to be opened while the rotor stays in the housing. There is no need to pull the rotor out of the housing at this time.

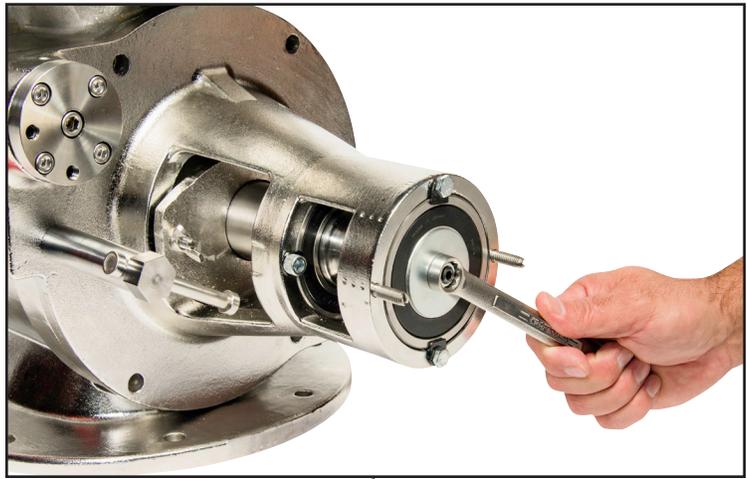


Photo 4

**DO NOT** force the rotor out by any means. If it cannot be freed from the non-drive head plate the most likely reason is that something is not loosened enough or the parts are “stuck” together and need to be cleaned first.

Forcing the rotor out of the head plate will damage the rotor and void any warranty!

4. With the rotor removed from the non-drive head plate, remove the packing gland nut and pull out the shaft seals.
5. Clean or replace the shaft seals per your plant’s procedures. The seals are installed by pushing them into the packing gland. Be sure the shaft seals are fully seated in the gland and in the correct order if a lantern ring is present. Reinstall the packing gland nuts. Leave the wing nut finger tight until the rotor has been installed.
6. Carefully close the non-drive head plate. **DO NOT** force or slam the head plate closed. If it will not close completely something is preventing it from closing. Install the washer and nut on the set screw. Tighten the nut securely against the washer. This will seat the rotor in the non-drive head plate and set the rotor/non-drive head plate end clearance. Tighten the packing gland wing nuts on both head plates.
7. Re-install the hex head handles and tighten to secure the non-drive head plate to the feeder.

#### Instructions for closing the Meyer KIP II Rotary Airlock Feeder

**⚠️ WARNING** The internals of equipment above and below the KIP II are exposed when the rotary airlock feeder is open. Verify that power to the feeder and the equipment above and below is still Locked out. Failure to do so could result in serious injury or death.

Note: The drive end of the rotor shaft (drive shaft) must be aligned with the drive coupling for the feeder to be closed properly. Failure to align the shaft and coupling correctly will result in damage to one or both pieces. To aid in this alignment, [Photo 5] there is a black alignment mark on the end of the drive coupling that is connected to the reducer. Also, there is a drilled hole in the drive shaft outer surface near the end of the shaft. Before closing the feeder locate these two markers. The shaft and coupling have a close tolerance fit, ensure that the mating surfaces are 100% perfectly clean. Failure to do so will result in damage to one or both pieces.

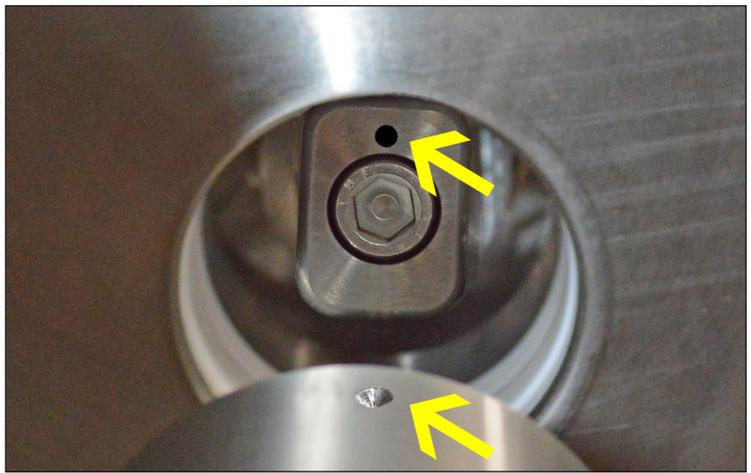


Photo 5

On the end of the non-drive head plate is a cap with a circular nameplate [Photo 6]. This nameplate can be moved to expose a small hole. Inside the cap is an Allen head set screw [Photo 7]. This set screw is threaded into the end of the rotor and holds the rotor in the non-drive head plate.



Photo 6



Photo 7

1. Using the correct sized Allen wrench [3/16" (6" & 8"), 1/4" (10"), and 5/16" (12")], slowly turn the set screw clockwise (ONLY) to align the markers of the shaft and coupling [Photo 8 & 9].

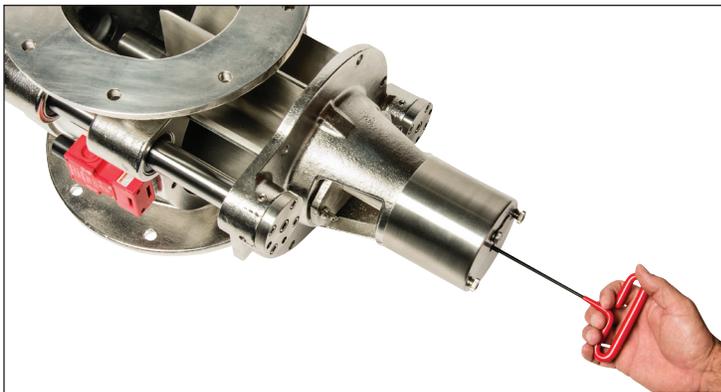


Photo 8



Photo 9

2. Slowly push the non-drive head plate/rotor assembly in or towards the housing approximately 3/4 of the way until you feel the drive end of the rotor shaft contact the drive coupling.
3. Continue pushing the assembly in and use the Allen wrench to make fine adjustments by turning the rotor clockwise until full coupling engagement is felt and the head plate is flush against the housing mating surface.

**DO NOT** turn the set screw Counter Clockwise and **DO NOT** force the non-drive head plate closed. If it will not close fully, the drive shaft and coupling are not aligned or there is some kind of interference. Inspect the feeder and clear any interference and turn the set screw again (CW only) to align the drive shaft and drive coupling.

4. Replace the hex head handles and tighten as required.
5. Tighten the wing nuts on the drive end packing gland nut.

Meyer does not recommend CIP washing of the KIP II rotary airlock. Material from the equipment above the feeder and material from the feeder itself can become lodged in the tight clearances, even if the rotor is turning. If CIP is part of your plant's cleaning procedure, the rotor must be removed from the housing. Contact Meyer for special parts that will allow for this type of cleaning.

Your Meyer KIP II is now ready to be put back in service. If assistance is needed please call 800-963-4458.

**Wm. W. Meyer & Sons, Inc.**

an ISO9001:2015 certified company

1700 Franklin Blvd. · Libertyville, IL 60048 · USA

Phone: (800) 963-4458, 847-918-0111 Fax: 847-918-8183 · Email: sales@wmwmeyer.com · web: www.meyerindustrial.com



# SAFETY SUPPLEMENT

## ATTENTION INSTALLERS/OPERATORS FOR YOUR PROTECTION:

1. Read and understand the Operating Manual accompanying this equipment before performing any work.
2. Additional safety label kits available from Meyer upon request at no charge. This is part of our effort to ensure this equipment is installed, operated and maintained in the safest possible manner. Affix these labels in locations to achieve maximum visibility and thereby alert any personnel that may ever be on-site that a potential for injury could occur.
3. Under no circumstances should this equipment be installed or operated in a manner that permits access to the interior of the valve.
4. Inlet and Outlet Flanges must always be permanently fastened to mating system components.
5. In the event that the inlet or outlet is ever exposed, proper guarding to prevent access to the valve interior must be installed immediately and prior to start-up.  
Every unit is shipped with an attached discharge flange guard. **DO NOT OPERATE** equipment with unguarded inlet or outlet.
6. Never operate the valve with the drive chain guard or drive coupling guard removed or loose.
7. ***Always follow LOCKOUT-TAGOUT procedure*** before performing any work.
8. Always keep loose clothing, hands, feet or any parts of your body, tools and/or any foreign objects away from all moving equipment and away from any potential pinch point.
9. Never remove any access doors (inspection port covers) above, below, or on the valve itself without first locking out power.
10. Consult your plant safety director, system designer, installation manager or the Meyer factory if you have any questions regarding the proper installation, operation and maintenance of this equipment.

Wm. W. Meyer & Sons, Inc.

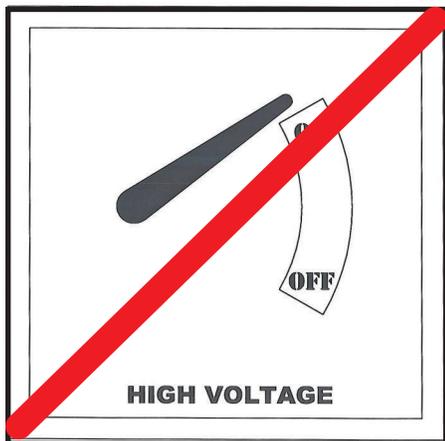
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Website: <http://www.meyerindustrial.com>

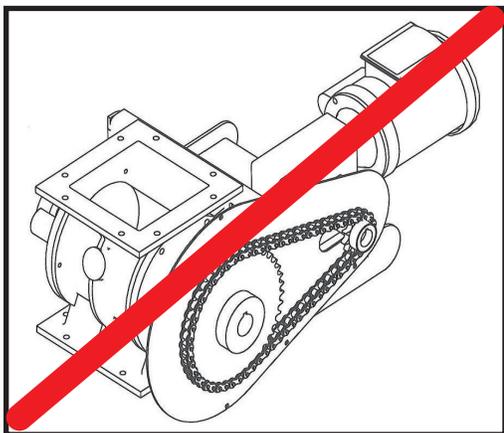
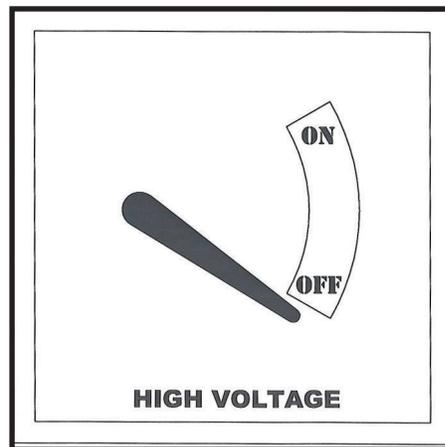
File # 295-N-002

# ROTARY AIRLOCK FEEDER/VALVE SAFETY PRECAUTIONS

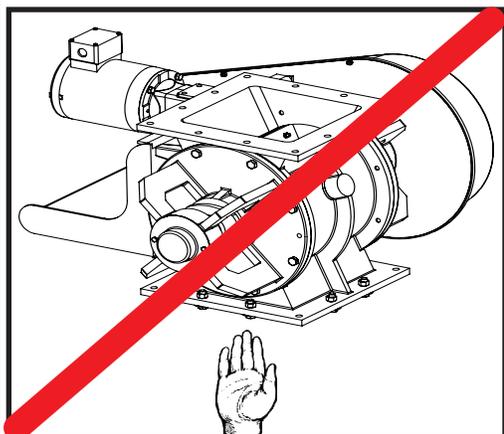
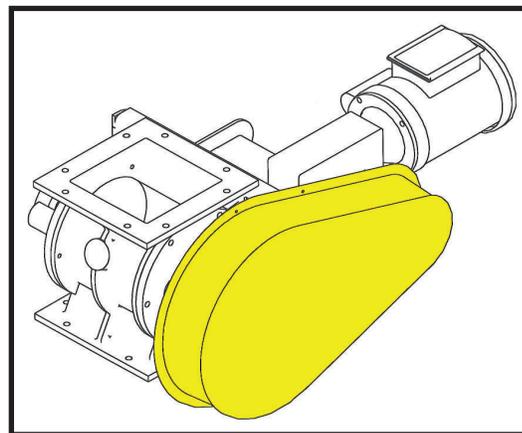
TYPICAL ROTARY AIRLOCK FEEDER, IMAGE FOR REFERENCE ONLY.



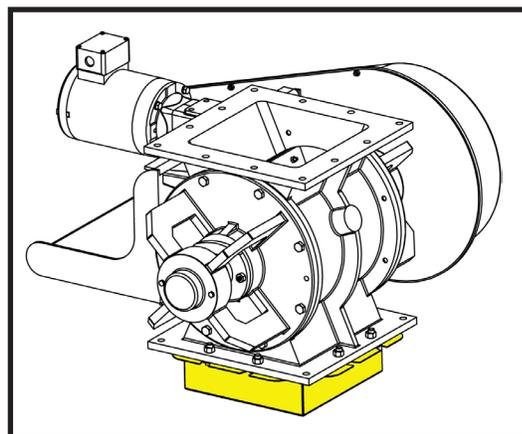
ALWAYS  
DISCONNECT  
POWER WHEN  
WORKING ON THE  
VALVE. FOLLOW  
**LOCKOUT-  
TAGOUT**  
PROCEDURE.



NEVER OPERATE  
VALVE WITH THE  
DRIVE CHAIN  
GUARD REMOVED



**DO NOT OPERATE**  
VALVE WITH  
UNGUARDED INLET  
OR OUTLET. A  
FLANGE GUARD IS  
SHIPPED WITH THE  
VALVE.



## SAFETY LABELS

Locate all of the safety labels on your equipment and know their meaning before operating you Rotary Airlock Feeder.



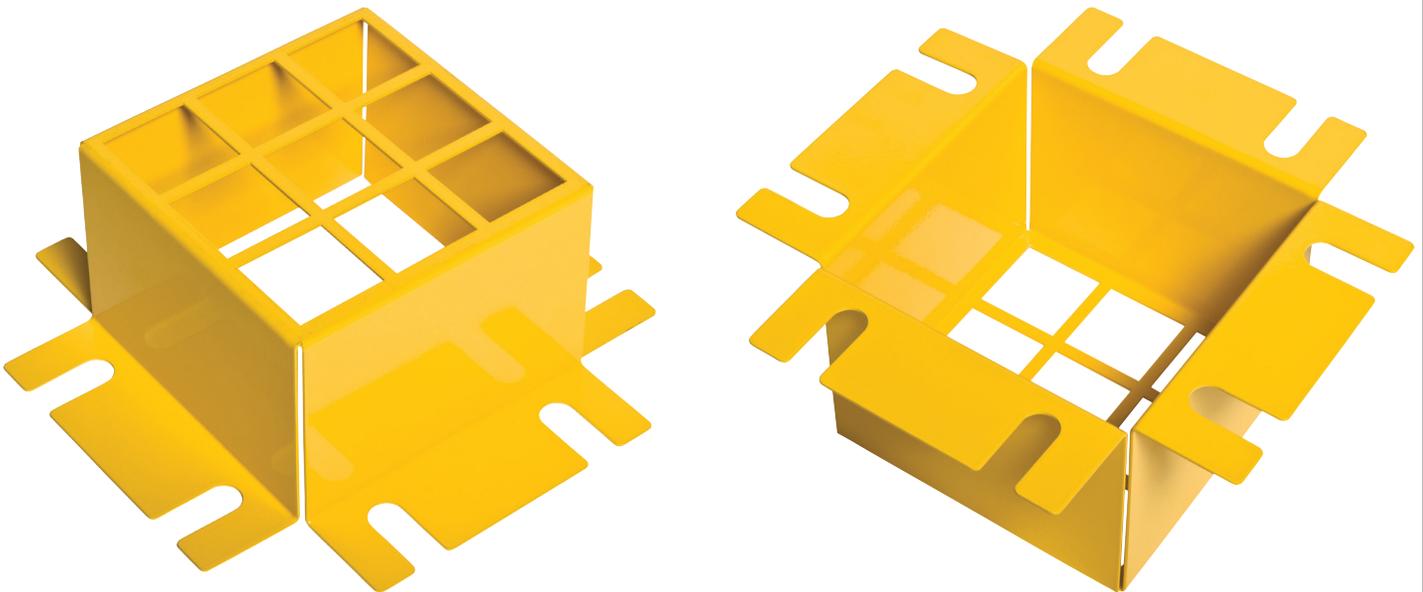
NOTE: Contact Wm. W. Meyer & Sons, Inc. at 800-963-4458 for free replacement safety label kit.

**DANGER**

**STOP**

**DANGER**

**NEVER OPERATE EQUIPMENT WITH UNGUARDED  
INLET OR OUTLET**



FLANGE GUARD

Wm. W. Meyer & Sons, Inc., Libertyville, IL

**800-963-4458**

[www.meyerindustrial.com](http://www.meyerindustrial.com)