295-B-005
Effective 8/1/2019

Kwik-Klean® Series

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@wmwmeyer.com · websites: http://www.meyerindustrial.com or www.wmwmeyer.com

TABLE OF CONTENTS

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

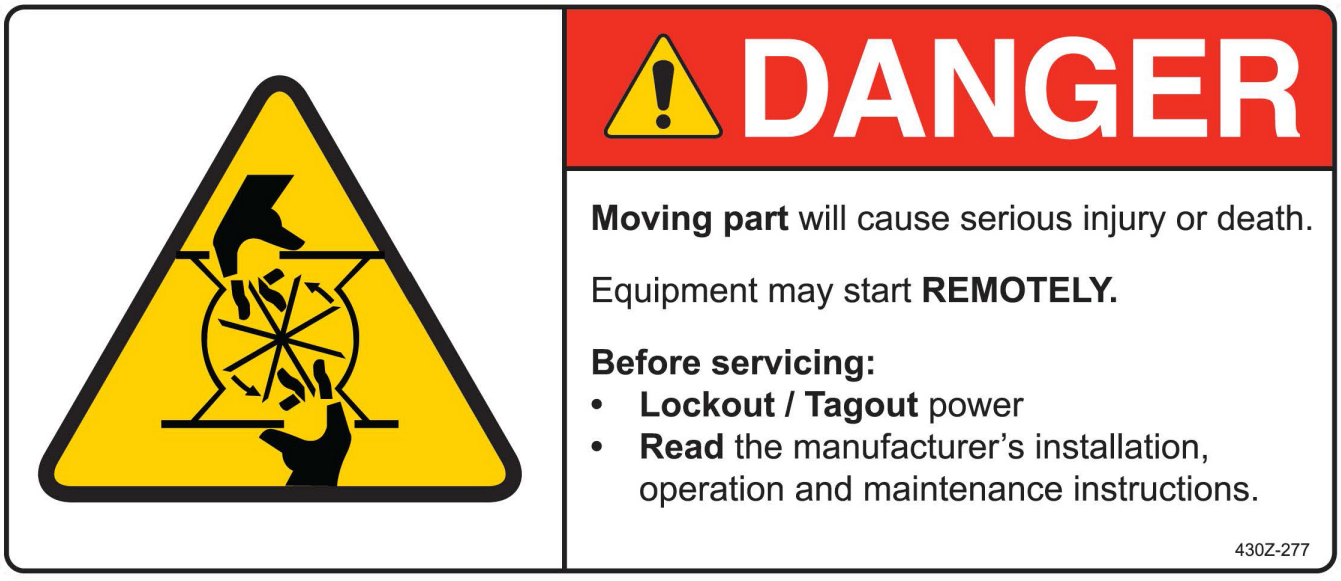
attached equipment) to a user. As noted above, due to the vast number of potential applications in which a Rotary Airlock Feeder may be used, it is neither feasible nor practical for Meyer to design or supply an inlet flange guard that will work for every possible application or process. It is the owner/operator's 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@wmwmeyer.com.

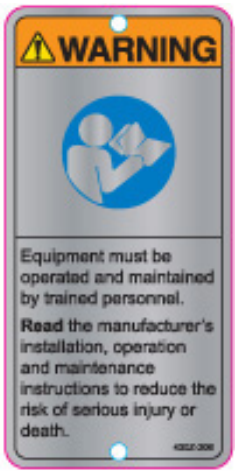


The following recommendations are offered to assist in the placement of the safety labels. The objective is for anyone who approaches the Rotary Airlock Feeder sees the label alerting him or her how to avoid the hazard.

- 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 Kwik Klean® Rotary Airlock Feeders (also called Rotary Valves, Valves, KK) 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.

Kwik Klean® Feeders have wide application in industry wherever dry flee-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 assure 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 a 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 (See "HAZARD IDENTIFICATION" section). 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 flowrate 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 Kwik Klean® 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 Kwik Klean® 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. 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 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 Stainless KK Feeders are supplied with Teflon Chevron packing within the packing gland. Optional packing includes; Teflon U-Cup and Braided Teflon.
    - o Maintenance is limited to tightening the packing gland wing nuts or replacement of the packing rings in each head plate when wear and leakage becomes excessive.
    - o Lantern rings will be supplied if gas/air purge seals are included. They should be cleaned or replaced when needed.

SECTION VI
DISASSEMBLY PROCEDURE

(See exploded view of feeder on page 18 to identify item numbers shown in parenthesis)

⚠ 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.

DISASSEMBLY

To remove the rotor (2) from the valve housing (1), follow these steps:

See Figure A

1. Unscrew (counter-clockwise) the head plate release handles (4) and remove.
2. Loosen, but do not remove, the wingnuts (8) on the packing gland nut (9) on each head plate (3) and (13).

Option A - Removal of rotor and head plate as a single unit (this should only be done if there is appropriate overhead lifting equipment). On larger units, Option A may not be possible due to the combined weight of the parts, go to Option B.

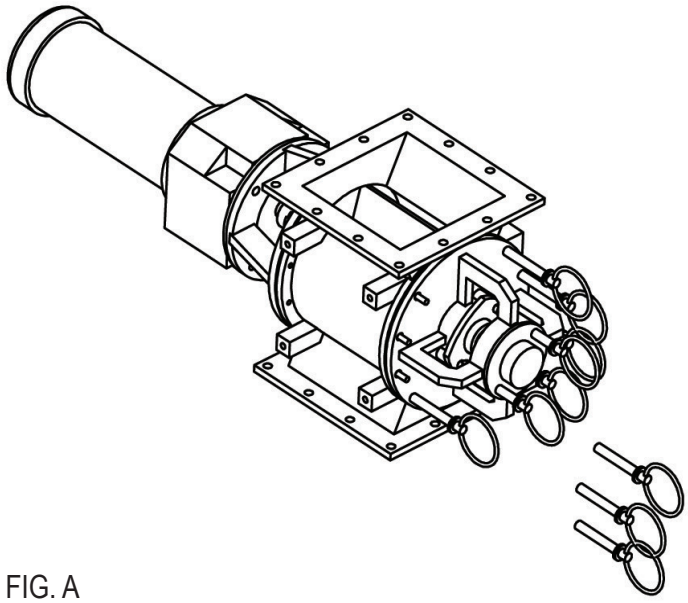


FIG. A

See Figure B

3. With proper rigging attached to the part(s), use the bearing carrier spokes as handles and slowly pull the blind end head plate (3) straight away from the housing (1). Do not pull the head plate off in an uneven “side to side” manner; doing so can cause damage to the drive end seal. The rotor will slide out as a unit with the head plate. Slowly and evenly pull the rotor straight out of the housing and off the gearhead drive shaft. Be careful to avoid striking the housing bore with any edge of the rotor or dropping the rotor. Support the weight of rotor and head plate as it is removed from the housing. The rotor and housing can now be inspected and cleaned.

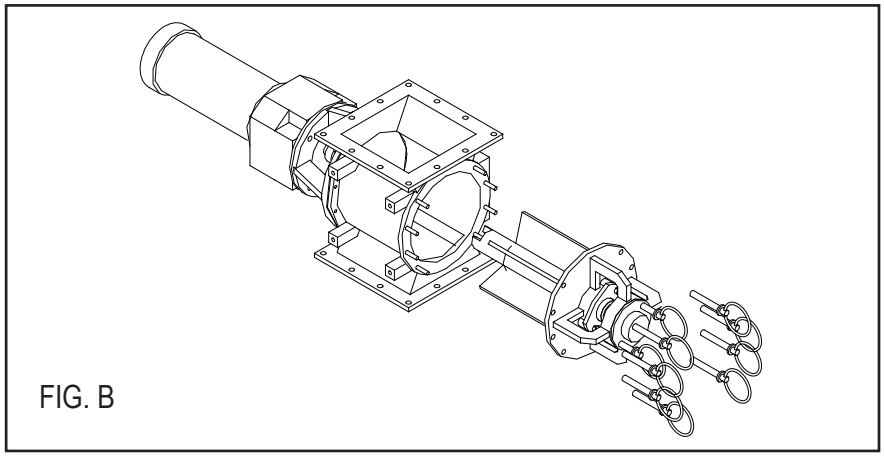


FIG. B

Option B - Removal of rotor and head plate separately

See Figure C

4. Unscrew (counter-clockwise) the bearing cap release handles (7) and remove.
5. Remove the bearing cap (6) and gasket (16). Be careful not to damage the gasket.
6. Utilizing the hex key on the end of a bearing cap release handle (7), unscrew (counter-clockwise) the socket head capscrew (15) and remove along with the bearing retainer (11) and lockwasher.

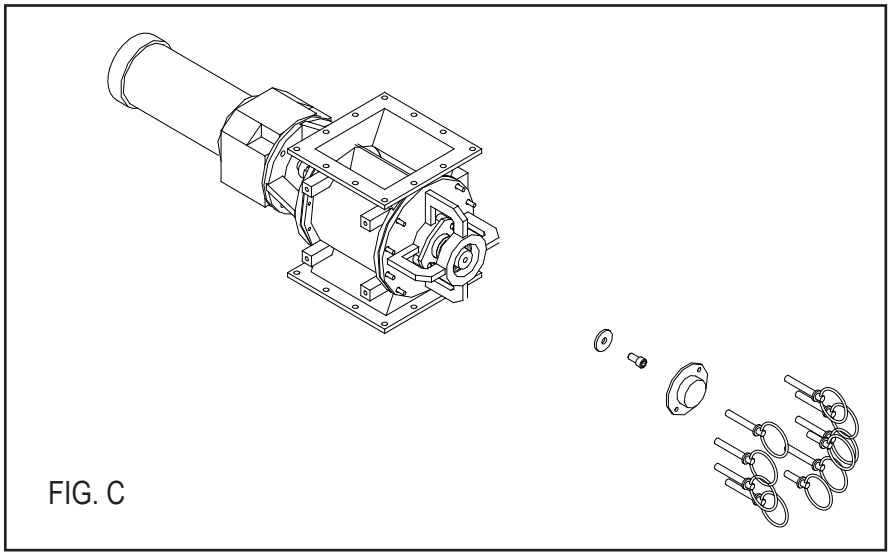


FIG. C

See Figure D

7. Using the bearing carrier spokes as handles, slowly pull the blind end head plate (3) straight away from the housing (1). Do not pull the head plate off in an uneven “side to side” manner; doing so can cause damage to the blind end seal. The bearing (5) will remain in the head plate and slide off the shaft with very little resistance.

8. Remove the bearing shims (17) from the rotor shaft. DO NOT DISCARD OR DAMAGE SHIMS.

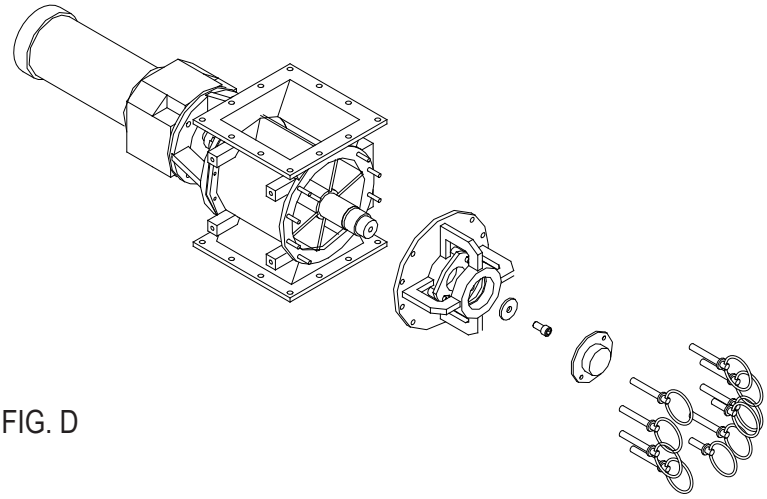


FIG. D

See Figure E

9. Remove the rotor (2) by gripping the non-drive end of the shaft. Slowly and evenly pull the rotor straight out from the housing and off the gearhead drive shaft. Be careful to avoid striking the housing bore with any edge of the rotor or dropping the rotor. Support the weight of rotor as it is removed from the housing. The rotor as well as interior of the valve is now open and exposed for cleaning and inspection. To remove the seals (10) from each head plate, follow these steps:

    a. Unscrew (counter-clockwise) and remove the wingnuts (8) from the packing gland nut (9) on each head plate (3).

    b. Slide the packing gland nut (9) off the threaded studs and remove from the head plate (13).

    c. Remove the packing rings by reaching into the gland with a probe (screwdriver, pick etc.) and work the rings straight out individually. The rings may be Teflon Chevron or a woven fiber.

If the head plate is going to be cleaned by submerging it in a tank, for example, the bearing will need to be removed. Be aware that the bearing may be damaged in the removal process and need to be replaced.

10. Remove the bearing (5) from the blind end head plate (3), by inserting a drift punch through the shaft hole in the head plate. Tap on the end of the punch with a hammer against the inner race of the bearing until the bearing comes out of the bore. The bearing is press fit into the head plate so some force will be necessary.

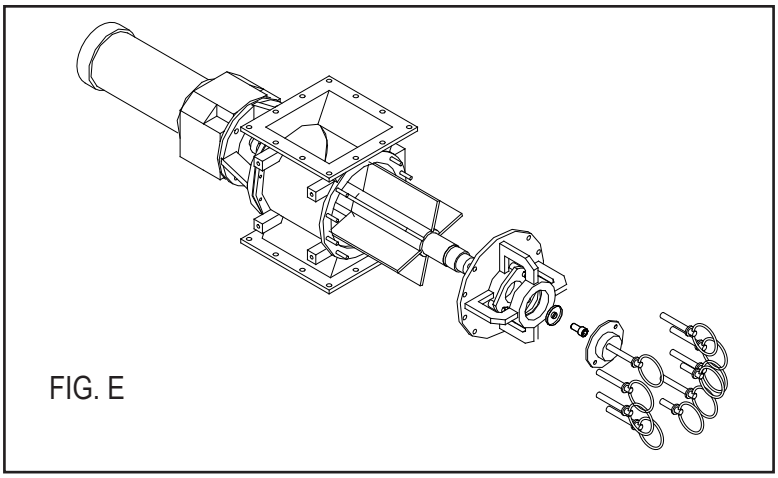


FIG. E

See Figure F

11. The valve is now ready for inspection and cleaning. The gear reducer, coupling, and drive head plate may be removed as shown in Fig F.

Note: On sanitary units the drive head plate is integral with the housing and cannot be removed.

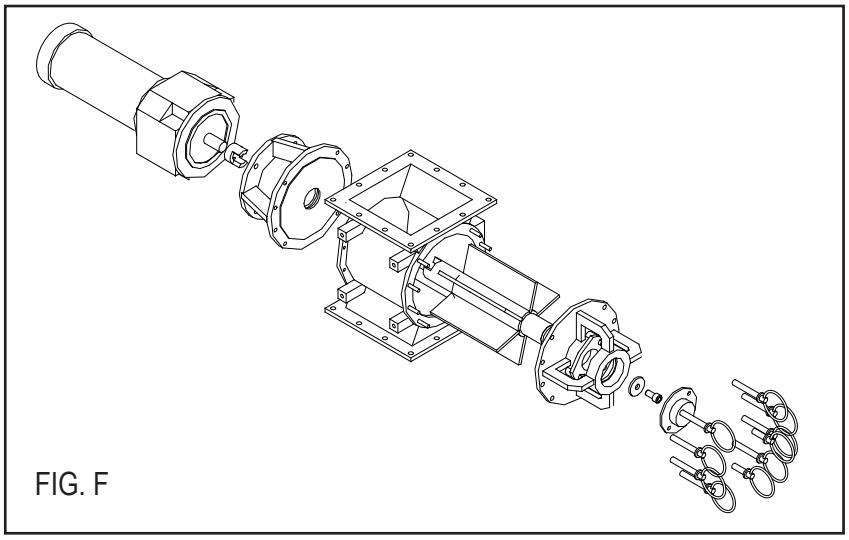


FIG. F

SECTION VII
REASSEMBLY PROCEDURE

(See exploded view of feeder on page 18 to identify item numbers shown in parenthesis)

1. Rest the blind head plate (3) “face down” on a clean surface so that the bearing housing is pointed up. Inspect the bearing housing to insure it is clean and smooth.
2. Inspect the bearing to assure it is clean, turns freely and does not drag or bind at any point.
3. Do not install the bearing (5) into its housing at this time.
4. With the head plate still “face down”, inspect the packing gland to insure it is clean and smooth.
5. Fit the packing rings (10) into the gland. The lip of the packing ring should face down or toward the interior of the valve.

6. Install the packing gland nut (9) over the hold down studs and slide the shoulder into the packing gland. Evenly tighten the two wing nut fasteners (8) on either side of the gland nut until snug - then back off ½ turn.

7. Repeat this procedure for the packing ring replacement on the drive head plate.

8. Press the bearing (5) into the blind end head plate (3). Be careful to press on the outer race only.

9. Inspect the rotor (2) and housing (1) to assure they are clean and dry, the surfaces smooth and free of nicks, divots, or any rough spots that will interfere with the mated fit.

10. Inspect the gear reducer drive shaft and coupling to assure it is clean, dry and free of any nicks that will interfere with the mated fit between it and the rotor shaft.

11. Apply a light coat of anti-seizing compound (such as Never-Seez by Bostik Mfg. or equal) to the gear reducer drive shaft.

12. Install the drive head plate (13) on the housing (1). Note: On sanitary units the drive head plate is integral with the housing. Install coupling (12) and key on the gear reducer drive shaft and install the gear reducer (14) on the drive head plate (13). Be sure the gear reducer pilot seats in the mating surface of the drive head plate.

13. Grip the rotor drive shaft on the non-drive end. Slowly and carefully begin working the rotor into the housing. Avoid dragging the rotor vanes along the housing bore walls. Never force the rotor into the housing. Although manufactured to very close tolerances, there is sufficient clearance to permit the rotor to slide into the housing with a minimal effort.

14. When the rotor passes through the drive end head plate and out past the packing gland, align it with the gearhead shaft and slide it partially onto the shaft. Turn the rotor until the coupling (12) and shaft are aligned and can be engaged. Continue to slide the rotor until completely seated in the housing.

15. Check the internal blind end head plate (3) surface and rotor shaft to assure both are clean and void of nicks, etc.

16. Install the bearing shims (17) onto the rotor shaft and up against the shaft shoulder.

17. With the packing and bearings properly installed in the head plate, carefully slide the head plate (3) onto the rotor shaft. The bearing will slide onto the end of the shaft and up against the shims. Carefully press the head plate the rest of the way over the shaft and into the housing, while avoiding contact with the housing threaded studs. It is critical that the machined step or lip around the perimeter of the head plate is seated square and snug in the housing. If misaligned or not fully seated, the internal clearances will be off and this will cause serious damage to the valve when operated.

18. Screw (clockwise) the head plate release handles (4) back onto the threaded housing studs. Hand tighten in a sequential “criss-cross” pattern until the head plate is securely and squarely fastened to the housing.

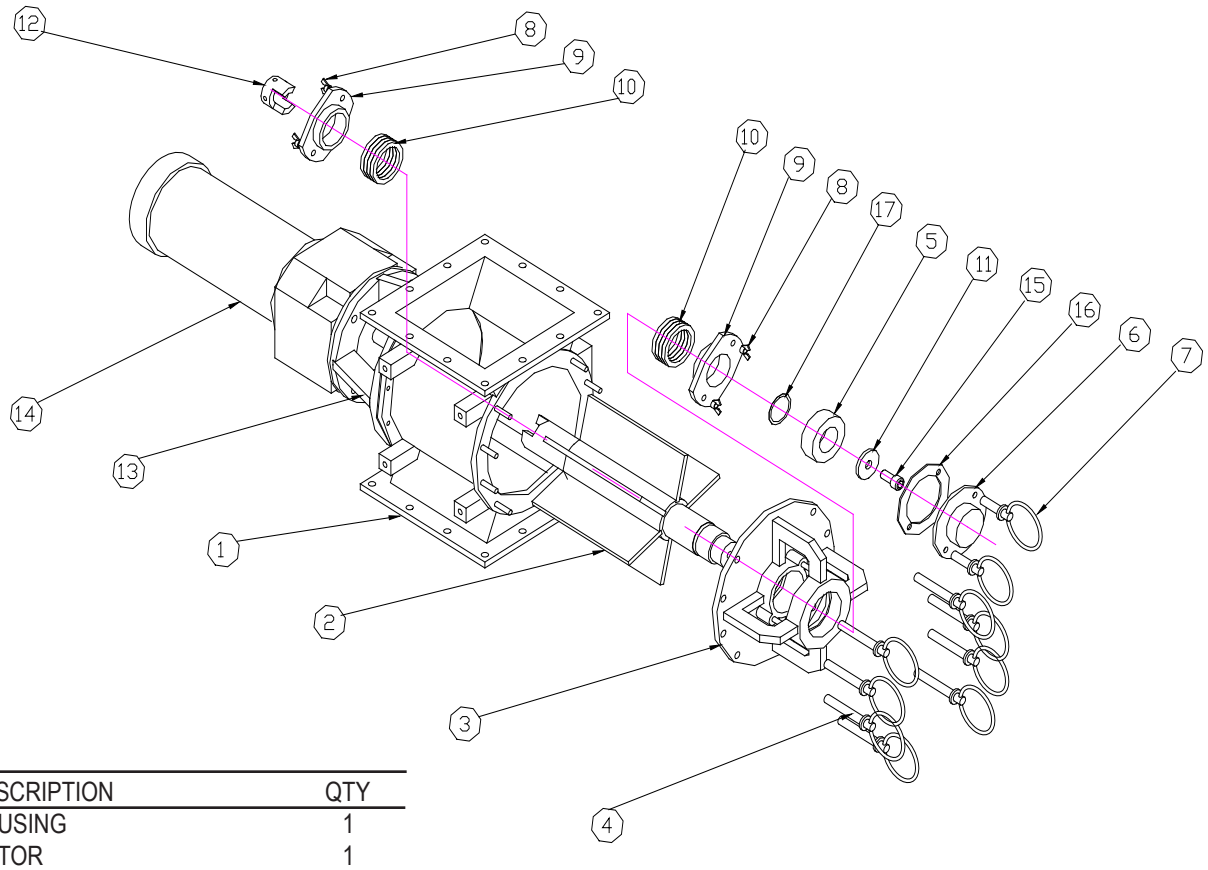
19. Install the lockwasher and bearing retainer (11) on the socket head capscrew (15). Screw (clockwise) the socket head capscrew into the shaft and tighten with the hex key on the end of a bearing cap release handle (7).

20. Install the bearing cap (6) and gasket (16). Screw (clockwise) the bearing cap release handles (7) back onto the threaded studs.

21. Finish tightening the gland nut wing nuts (8) on each head plate until snug.

22. The valve is now ready to return to service. Follow the “Start-Up Procedure” in Section IV.

SECTION VIII
PARTS LISTS & DRAWING



ITEM	DESCRIPTION	QTY
1	HOUSING	1
2	ROTOR	1
3	BLIND END HEADPLATE	1
4	HEADPLATE RELEASE HANDLES	8 SEE NOTE #2
5	BEARING	1
6	BEARING CAP	1
7	CAP FASTENERS	2
8	WING NUT FASTENERS	4
9	PACKING GLAND NUT	2
10	SHAFT SEAL (PACKING RINGS)	2
11	BEARING RETAINER	1
12	COUPLING	1
13	DRIVE END HEADPLATE	1
14	GEARMOTOR	1
15	SOC HD CAPSCREW	1
16	GASKET	1
17	SHIMS	as required
18	FLANGE GUARD	(not shown)

NOTES	
1.	ITEM #1 & #13 WELDED TOGETHER FOR SANITARY APPLICATIONS
2.	ONLY (4) OF ITEM #4 REQ. FOR 6X6 KK FEEDERS.

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@wmwmeyer.com · websites: http://www.meyerindustrial.com or www.wmwmeyer.com

SAFETY SUPPLEMENT

Effective 8/1/2019

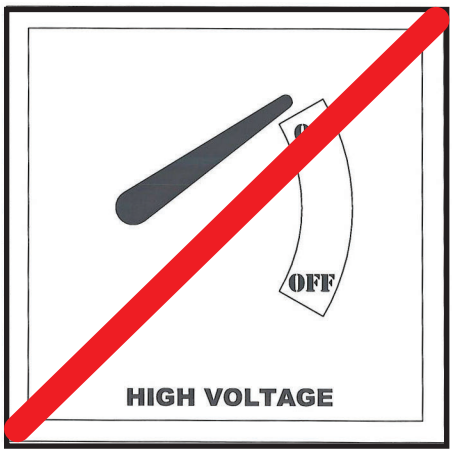
ATTENTION INSTALLERS/OPERATORS FOR YOUR PROTECTION:

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.

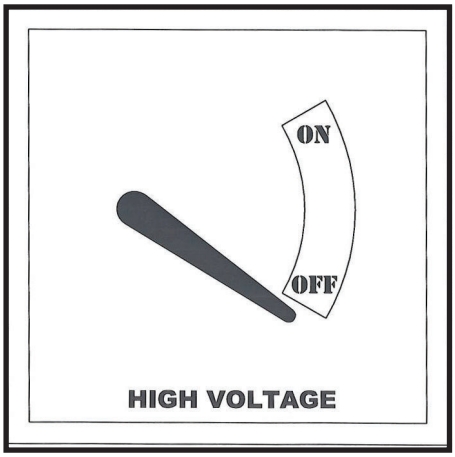
   Every unit is shipped with an attached discharge flange guard. DO NOT OPERATE equipment with unguarded inlet or outlet.
6. Never operate the valve with the drive chain guard or drive coupling guard removed or loose.
7. ***Always follow LOCKOUT-TAGOUT procedure*** before performing any work.
8. Always 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.

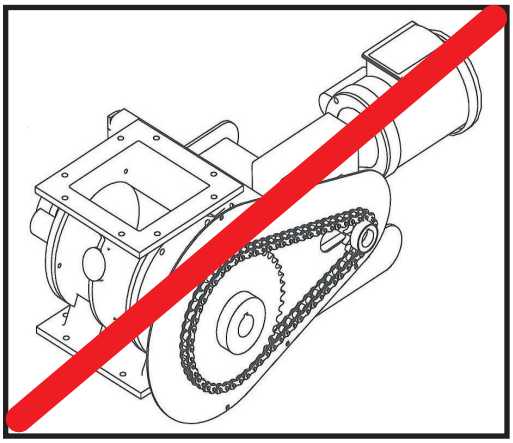
Wm. W. Meyer & Sons, Inc.
1700 Franklin Blvd • Libertyville, IL 60048 • Phones: 800-963-4458, 847-918-0111• Fax: 847-918-8183
Website: http://www.meyerindustrial.com

ROTARY AIRLOCK FEEDER/VALVE SAFETY PRECAUTIONS

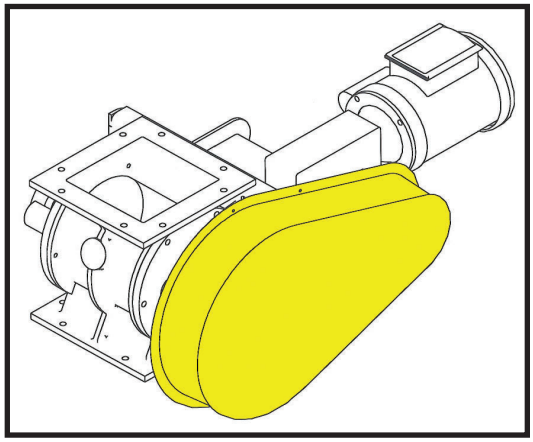


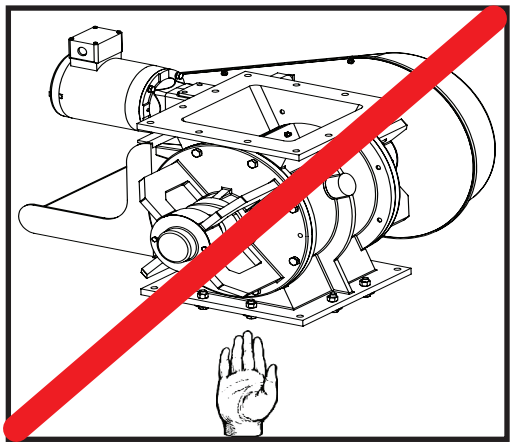
ALWAYS DISCONNECT POWER WHEN WORKING ON THE VALVE. FOLLOW **LOCKOUT-TAGOUT** PROCEDURE.



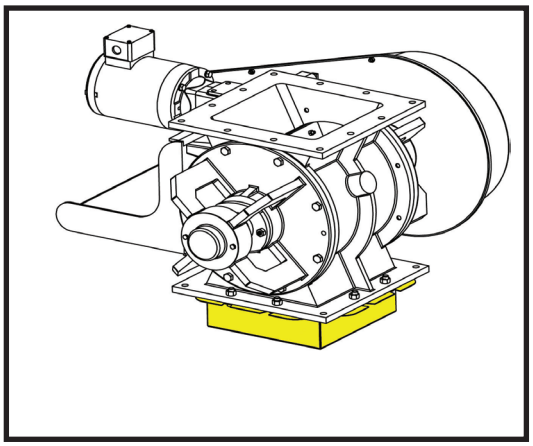


NEVER OPERATE VALVE WITH THE DRIVE CHAIN GUARD REMOVED



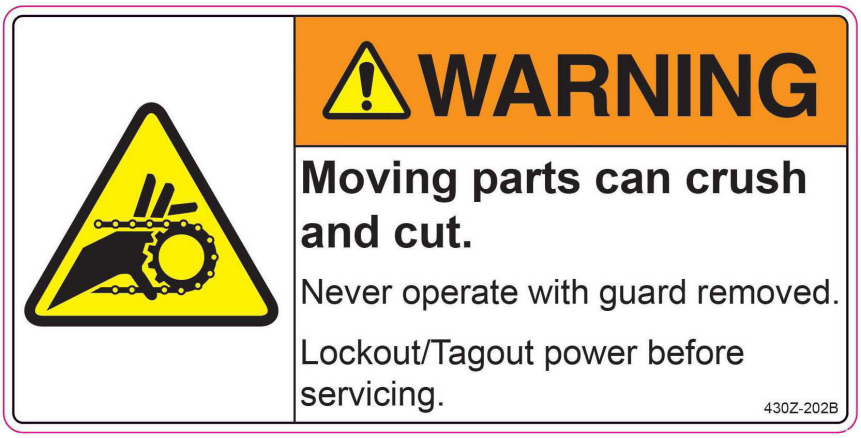


DO NOT OPERATE VALVE WITH UNGUARDED INLET OR OUTLET. A FLANGE GUARD IS SHIPPED WITH THE VALVE.



SAFETY LABELS

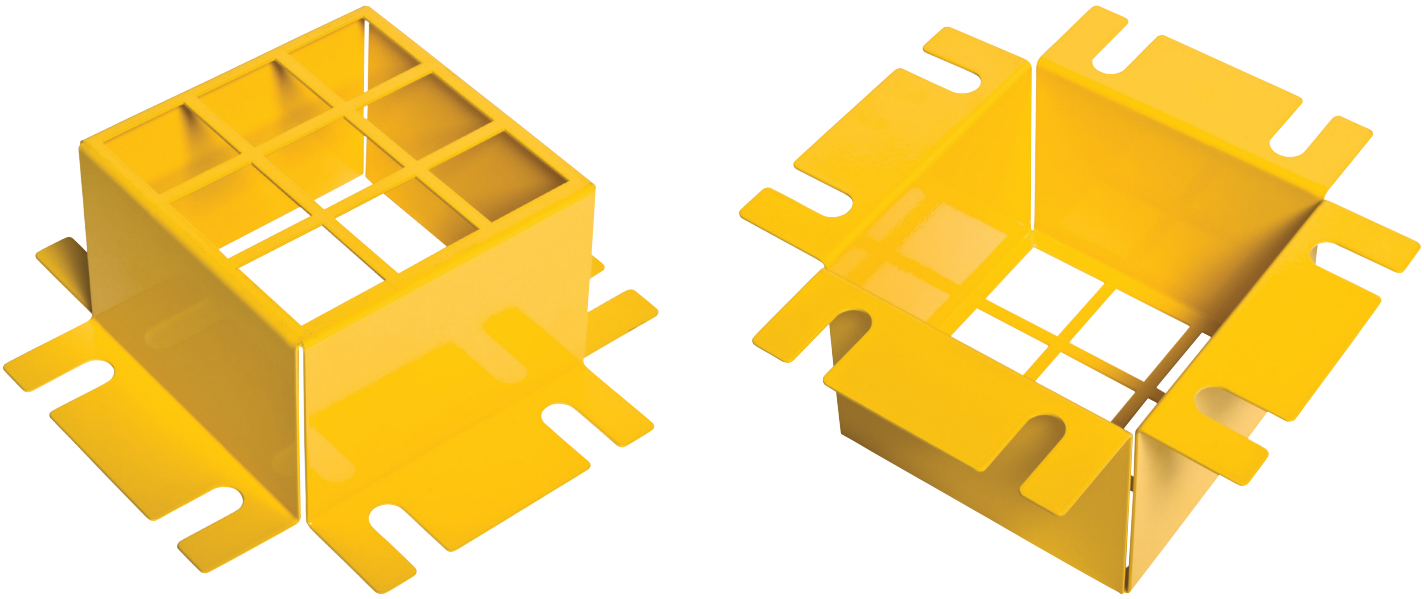
Locate all of the safety labels on your equipment and know their meaning before operating your Rotary Airlock Feeder.



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

295-J-006
Effective 8/1/2019