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# **Double Groove III Plastic Pellet Gate**

**Operation Manual**

**Revision A**

**10/29/2019**



## Section 1

# Double Groove III Plastic Pellet Gate

## Section 1

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## Section 2

# Double Groove III Plastic Pellet Gate

## Section 2

### General Information

This manual consists of information which will be useful in operating and maintaining your Double Groove III Plastic Pellet Gate equipped cars. It includes operating and maintenance procedures, along with illustrations to assist in identifying various components by name and part number.

It is extremely important, before proceeding with operation or maintenance of your cars, that you carefully read and understand the SAFETY PRECAUTIONS SECTION 3 of this manual.

These instructions are issued to supply acceptable methods for the operation, maintenance and troubleshooting of the Double Groove III Plastic Pellet Gate, and to supply safety information to the user, which is in addition to safety, precautions prescribed by the AAR, FRA and individual handling railroads.

It is expressly understood that issuance of these Miner instructions which were prepared in good faith and are believed to be complete and accurate, shall not be construed to mean that Miner Enterprises, Inc. assumes any liability on account of accidents to persons or property involving the Double Groove III Plastic Pellet Gate.

Miner Enterprises is not responsible for car construction or design, including modifications for mechanism application.



## Section 3

### Double Groove III Plastic Pellet Gate

#### Section 3

#### Safety Precautions

##### General Description

In addition to safety precautions prescribed by the car owner, loading site, unloading site, repair shop and handling railroad, the following safety precautions must be observed whenever a Double Groove III Plastic Pellet Gate is operated and whenever any maintenance is performed on it.

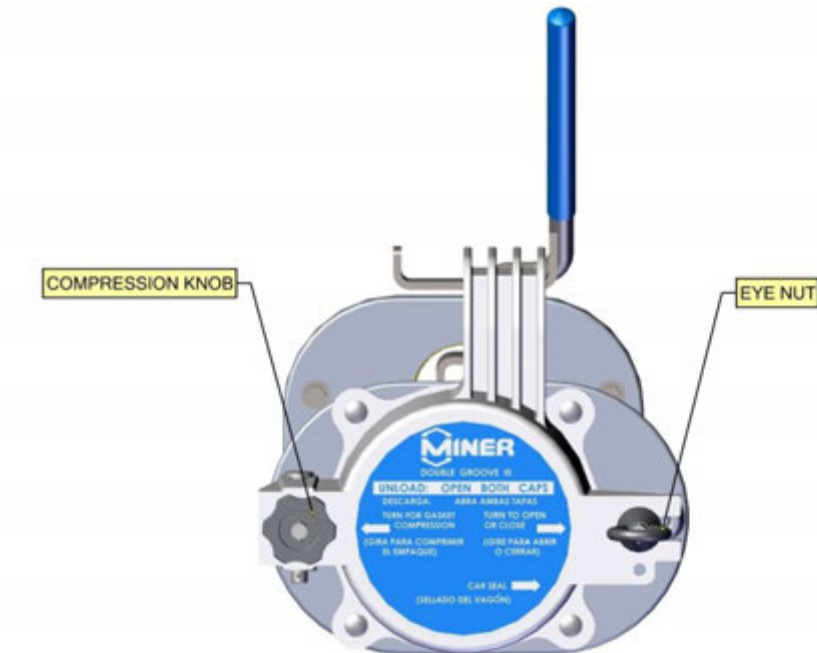
- 1) All maintenance, repair, or adjustment must be made on a shop or repair track where the car will not be moved.
- 2) Protective eye and ear wear should be used when gate is operated.
- 3) Read and follow Caution Notes found on the side of the car.
- 4) After unloading, confirm that the gate is completely closed, and the caps are locked.
- 5) Always report an inoperable or damaged gate to a foreman or supervisor so that it may be properly repaired or replaced.
- 6) The gate valve should only be operated by hand. Using non-approved tools to increase leverage or impact the operating lever could injure the operator and damage the gate.

## Section 4

### Double Groove III Plastic Pellet Gate

#### Section 4 Gate Operations

Remove car seal; turn the eye nut on the right-hand side of the cap until the eye nut and bolt can swing outboard, away from cap. Cap can then be swung open. To open a cap, it is not necessary to turn the “gasket compression” knob on the left-hand (hinge) side of the cap.



When closing and securing a cap; reverse the above procedure. If a visual inspection of cap and gasket on the hinge side reveals a gap or excess compression, the “gasket compression” knob needs to be turned to correct the condition.

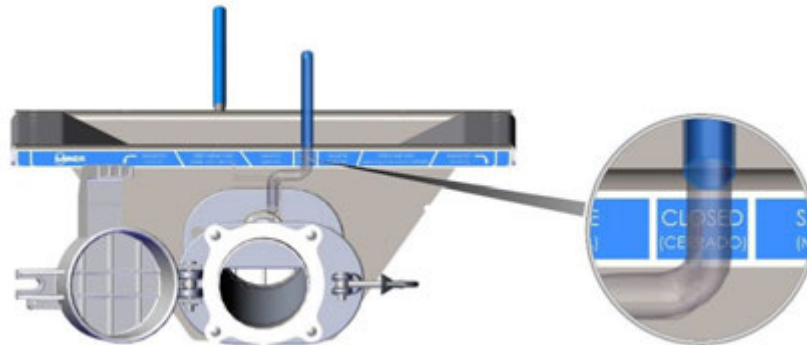
The “eye nut” and “gasket compression” knob should be hand tightened only. Do not use additional leverage to tighten these devices.

## Section 4

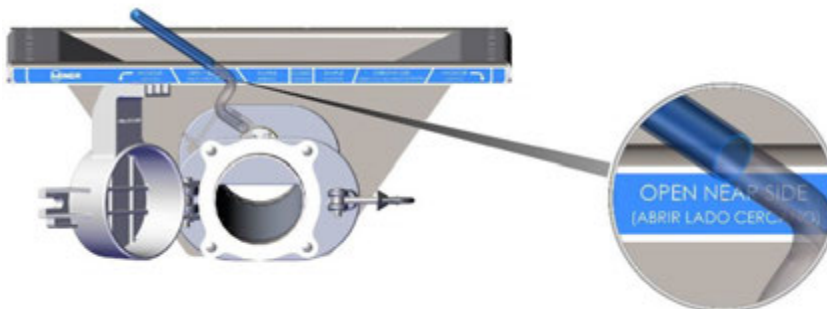
### Product Sampling Procedure:

If a material product sample is required, the sample may be taken from a roof hatch or from an outlet. If the sample is to be taken from the outlet, use the following procedure:

- Open one (1) cap only.



- Rotate handle to “sample” position (near side).



- Remove sample, rotate handle back to “closed” position, and close the cap.



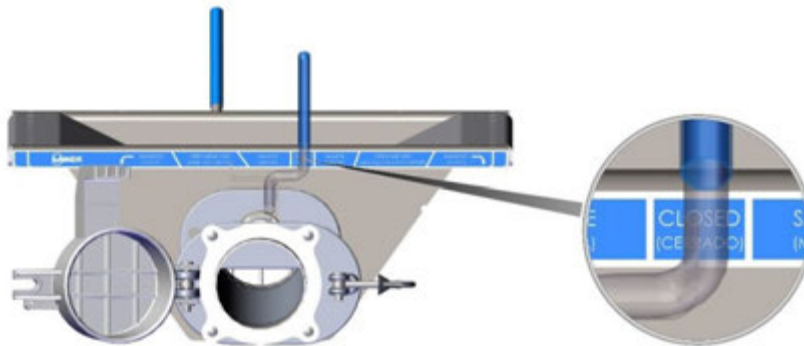
## Section 4

### Unloading Procedure:

- Follow the car builder's or chemical company's recommendation for car preparation. This should normally consist of opening at least one hatch in the compartment being unloaded and covering with a filter.
- Unlock the cap on the far side of the outlet and apply the filter.



- Open caps on both sides of car. (See note on filters under Car Unloading Procedures)

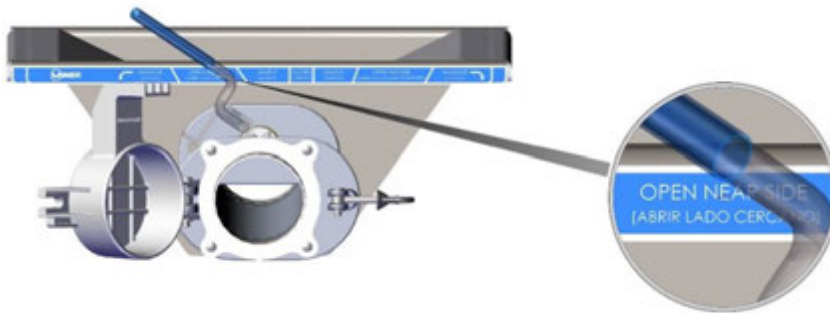


- Attach vacuum hose to nozzle.
- Rotate handle to "far side". Open and adjust flow rate by positioning handle between "open" and "closed" positions.

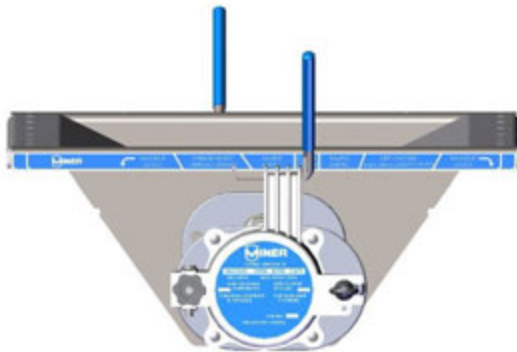


## Section 4

- Rotate handle to “near side”. Open and adjust to complete unloading operation when needed.



- When unloading is completed, rotate handle to “closed” position, vacuum all remaining pellets, remove vacuum hose and close and secure caps on both sides of car.

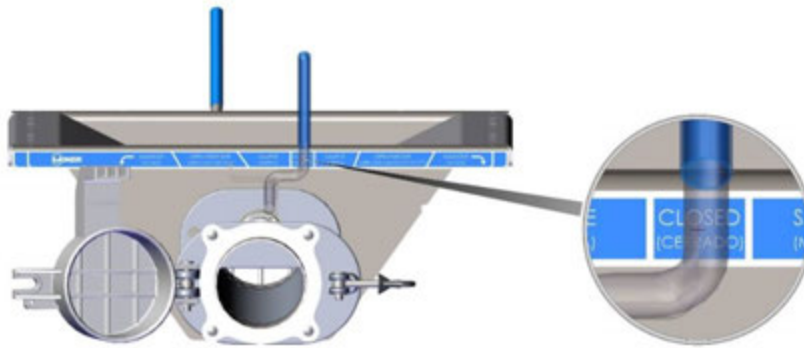




## Section 4

### To Wash and Clean – Prepare for Loading:

- Follow the car builder's or chemical company's recommendation for car washing.
- Open caps on both sides of the car.



- Rotate either handle to the “wash out” position. Valve is now fully open.



- Wash and dry car.
- Rotate handles to the “closed” position and close and secure all caps.





## **Section 4**

### Empty Car Preparation

When contents from all hoppers have been transferred, the car is to be prepared for its return trip. Filters are to be removed from all hatches and outlets. All hatches and outlets are to be closed and secured.

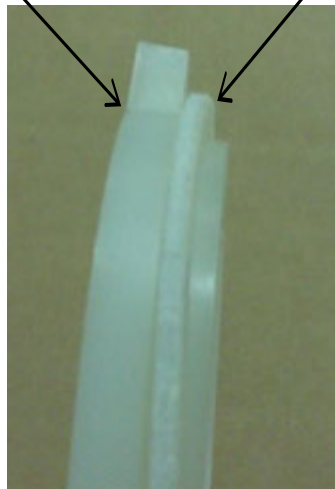
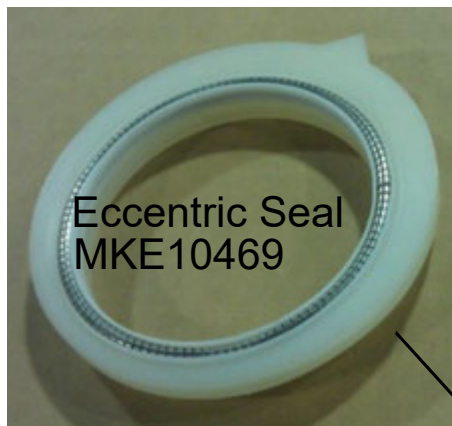
### Maintenance

Outlet inspection should be made on a regular basis. Damaged or broken parts should be replaced. Should the stainless steel be ground on during maintenance or repairs, it should be passivated again to maintain corrosion resistance. Eccentric seals should be replaced every 10 years. Miner Enterprises offers parts and replacement outlets to assist you in your maintenance program.

## Section 5 Double Groove III Plastic Pellet Gate

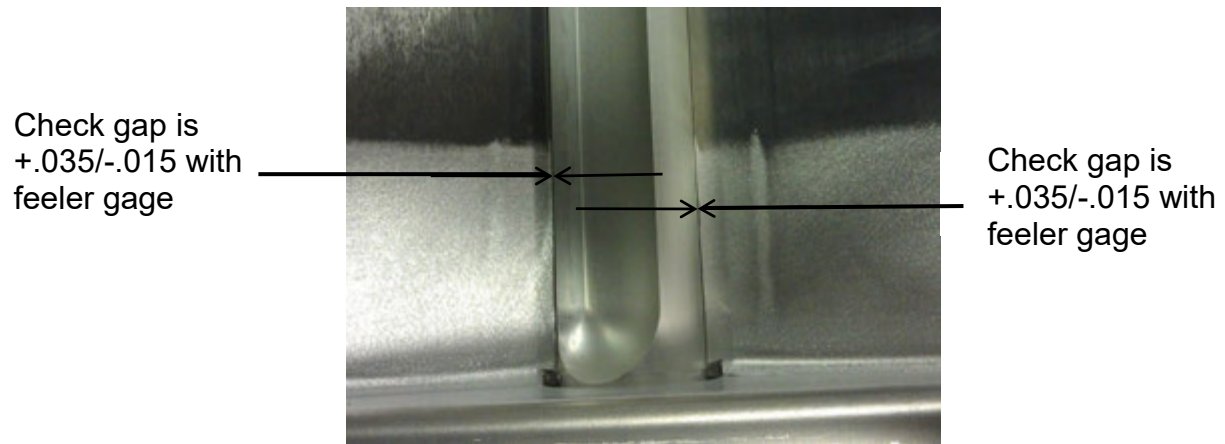
### Section 5 Eccentric Seal Installation and Valve Adjustment

#### 1) Install Gasket on Eccentric Seal



## Section 5

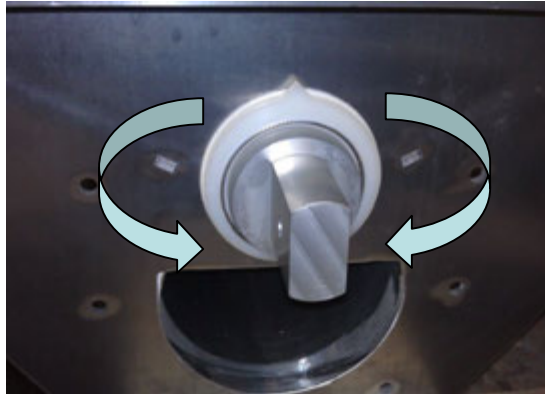
2) Install the Eccentric Seal and Valve Gasket Assembly:



## Section 5

### 3) Adjust Valve Gap:

- Check Gap (both Sides) with Feeler gage. The gap should be checked in each valve position (closed, open near, open far, etc.).
- Rotate Eccentric Seal to Even Gap on Both Sides.



Even gap on both sides by turning eccentric seal

### 4) Transition Tube Installation:

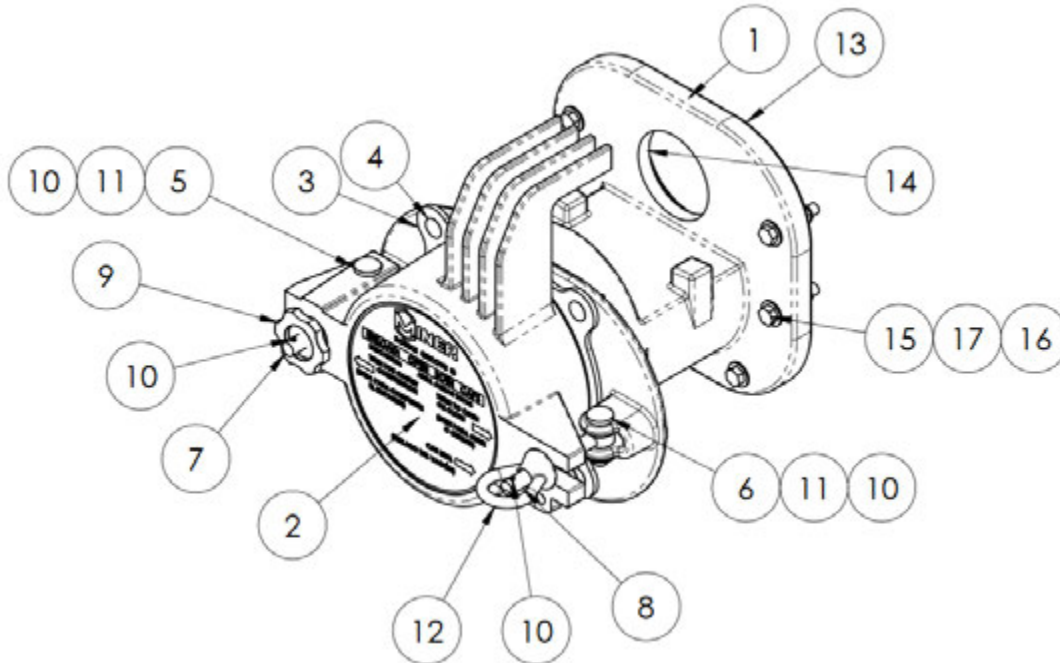


Bolting Flange  
Gasket MKE10467

1. Apply a small amount of anti-seize to the bolt threads.
2. Tighten in an alternating pattern.
3. Torque to 50-70 foot pounds.
4. Retorque after 1 hour.

## Section 6 Double Groove III Plastic Pellet Gate

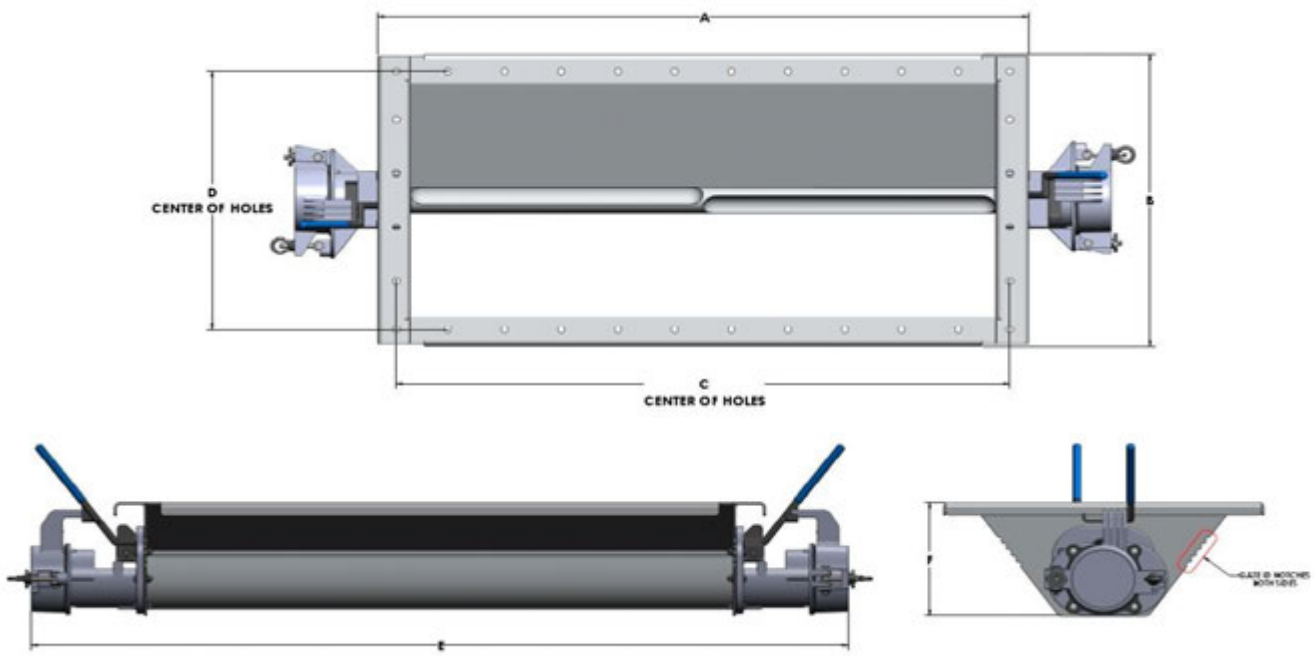
### Section 6 Transition Tube Replacement Parts



ITEM	MKE10492	PART NUMBER	DESCRIPTION	DRAWING NUMBER
1	1	MKE10476	TRANSITION TUBE W/VACUUM NECK, PLAIN FINISH	M-157-4
2	1	MKE10470-1	CAP W/LABEL	M-157-17-1
3	1	MKE10468	CLOSURE CAP GASKET	M-157-13
4	4	P30000230	RATCHET FASTENER	M-157-25
5	1	P30000657	CLEVIS PIN, 3.25L, 1/2 DIA.	M-157-29
6	1	P30000656	CLEVIS PIN, 1.75L X 1/2 DIA.	M-157-29
7	1	P30000661	ROD END, 3.62L X 1/2 DIA.	M-157-24
8	1	P30000660	ROD END 4.25L X 1/2 DIA	M-157-24
9	1	P30000659	COMPRESSION KNOB	M-157-21
10	4	P30000120	COIL PIN, $\phi$ .156 X 5/8", SS	M-157-112
11	2	P30000662	WASHER, 1/2 SAE, Zn PLATE	P30000662
12	1	P30000658	EYE NUT, 1/2-13 UNC	M-157-20
13	1	MKE10467	BOLTING FLANGE GASKET	M-157-12
14	1	MKE10471	VALVE SEAL ASSEMBLY GASKET	M-157-18
15	6	P30000460	3/8-16 X 2 HHCS OR SHCS, SS	P30000460
16	6	P30000423	3/8-16 NYLOK NUT 18-8 SS	P30000423
17	12	P30000445	WASHER, 3/8", SS OR CAD	P30000445

## Section 7 Double Groove III Plastic Pellet Gate

### Section 7 Gate Identification



DIMENSIONS GIVEN ARE FOR REFERENCE ONLY

Part Number	ID NOTCHES (OPTIONAL)	A	B	C	D	E	F	HOLES
MKE10480-1 (271-M)	1	70.00"	34.38"	67.13"	31.50"	87.85"	13.31"	32
MKE10483-1 (289-C)	2	78.69"	32.69"	75.81"	29.81"	96.13"	13.78"	38
MKE10637-1 (TQ)	3	78.69"	32.31"	74.31"	28.31"	96.13"	13.78"	38
MKE10675-1 (LP)	4	70.00"	34.38"	67.13"	31.50"	87.85"	11.50"	32
MKE10647-1 (Pin Lock)	4	70.00"	34.38"	67.13"	31.50"	87.85"	11.50"	32
MKE10658-1 (AQ)	5	70.00"	34.38"	66.00"	30.38"	87.85"	13.31"	32