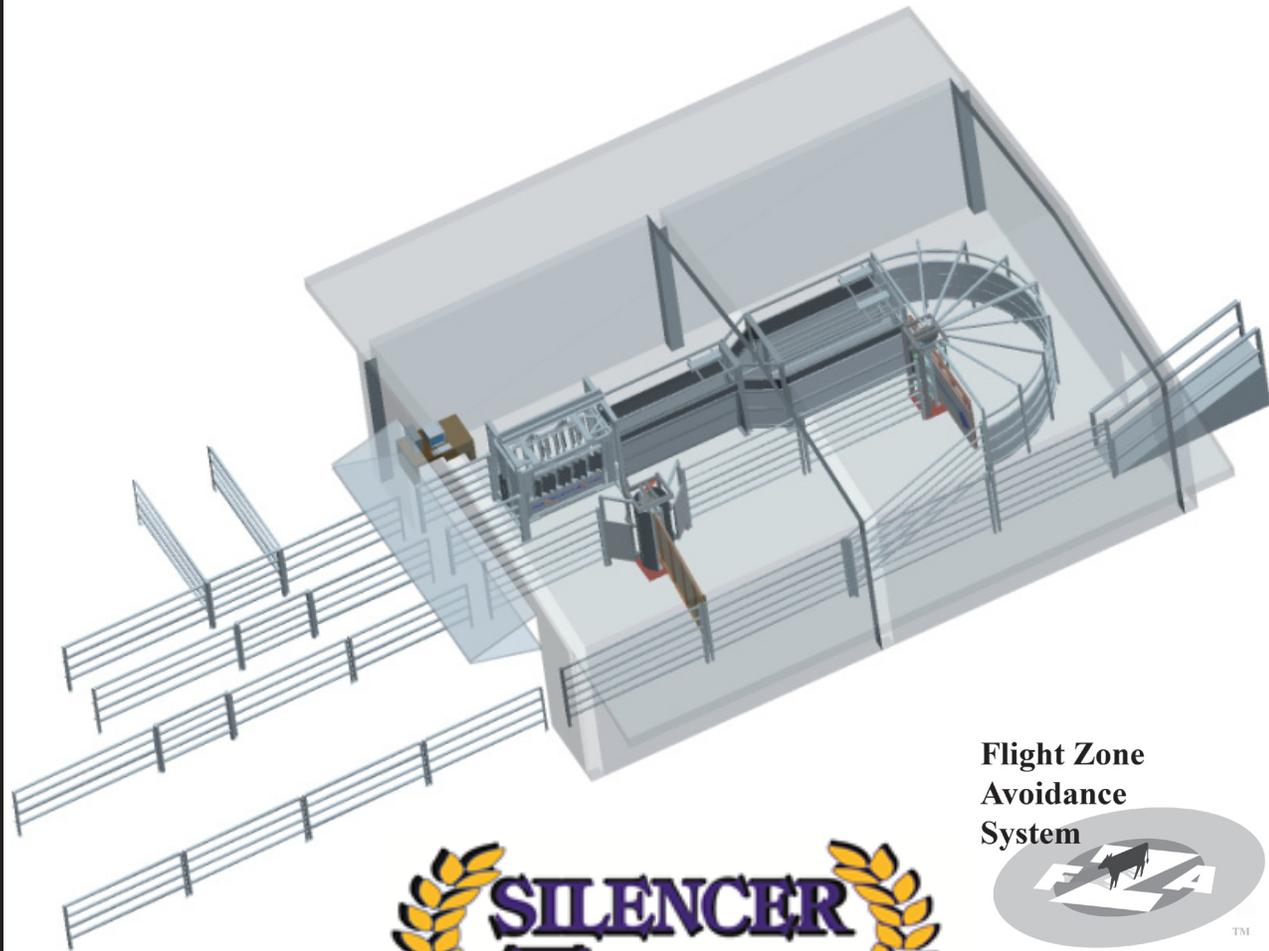


# OPERATOR'S MANUAL FLIGHT ZONE AVOIDANCE SYSTEM



Flight Zone  
Avoidance  
System



**M**oly Manufacturing, Inc.

2435 10<sup>th</sup> Road

Lorraine, Kansas 67459 U.S.A.

785-472-3388

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

Flight Zone Avoidance System



**MOLY MANUFACTURING, INC.  
2435 TENTH ROAD  
LORRAINE, KANSAS 67459 U.S.A.**

**READ ENTIRE MANUAL AND WARRANTY  
CAREFULLY BEFORE OPERATING EQUIPMENT.**

**For your records:**

Serial # \_\_\_\_\_

**Description of equipment purchased:** \_\_\_\_\_

**Purchased from:** \_\_\_\_\_

**Purchased from address:** \_\_\_\_\_

**Date purchased:** \_\_\_\_\_

**RETURN WARRANTY CARD**

**Must be returned within 10 days of purchase for warranty to be honored!**

Name of purchaser: \_\_\_\_\_

Company name of purchaser: \_\_\_\_\_

Purchaser's address: \_\_\_\_\_

\_\_\_\_\_ Zip \_\_\_\_\_

Purchaser's phone: Office: \_\_\_\_\_

Home: \_\_\_\_\_

Other: \_\_\_\_\_

Single Alley Section Serial Number(s): \_\_\_\_\_

Dual Alley Section Serial Number(s): \_\_\_\_\_

Turret Gate(s) Serial Number(s): \_\_\_\_\_

Description of equipment purchased: \_\_\_\_\_

Purchased from: \_\_\_\_\_

Purchased from address: \_\_\_\_\_

Date purchased: \_\_\_\_\_



Place  
Stamp  
Here

**MOLY MANUFACTURING, INC.**  
**2435 TENTH ROAD**  
**LORRAINE, KANSAS 67459 U.S.A.**

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# !! IMPORTANT !!

You will find the following  **WARNING** symbols throughout the manual. Pay careful attention to these segments to ensure your safety. The  **WARNING** symbol means that failure to heed and obey the safety instructions can cause serious injury.

## Routine Maintenance Instructions

### **WARNING**

1. Disconnect all power sources.
2. Clear area of by-standers, especially children.
3. Clean equipment before maintenance.

## SILENCER Hydraulic Squeeze Chutes

### **WARNING**

1. Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator's Manual.

## Installation

### **WARNING**

1. Use good communication between trained forklift or loader operator and ground crew.
2. Stand clear when lifting equipment.
3. Unload on flat, non-slippery surfaces.
4. Check and make sure all chains and straps are properly rated, and then connected properly, before lifting.

## Hydraulic Loading Chute

### **WARNING**

1. Use extreme caution when positioning Hydraulic Loading Chute higher or lower. The Loading Chute operator must check area to see that all personnel are clear of the equipment each time before operating any control levers directly or via remote control.
2. Always insert 4' Safety Rod on Hydraulic Loading Chute after it is adjusted to height needed.
3. Do not lift or lower chute once trailer is present at the Hydraulic Loading Chute.
4. Do not attempt to lift or lower chute when animals are present.
5. 4' Safety Rod must be in place when Hydraulic Loading Chute is not in use.

## Storage

### **WARNING**

1. Disconnect all power sources.
2. Store in an area away from human activity.
3. Do not allow children to play on or around the stored equipment, or any equipment, whether in use or not in use.

## Emergency Side Exits

### **WARNING**

1. Use extreme caution when working with cattle in the F.Z.A. (Flight Zone Avoidance) System. Cattle behavior is unpredictable.
2. Clear the area of by-standers, especially children, before raising or lowering the emergency side exits.
3. Have a plan for where the exiting animal will be directed, and remove person(s) lifting alley panels from the animal's way.

## Operating Instructions

### **WARNING**

1. Use extreme caution when working with cattle in the F.Z.A. (Flight Zone Avoidance) System. Cattle behavior is unpredictable.
2. Clear the area of by-standers, especially children, before starting.
3. Have a first-aid kit available for use, should the need arise, and know how to use it.
4. Secure loose clothing and long hair, so that it will be kept from moving parts.
5. Use extreme caution when using wireless remotes. The designated controls operator must check area to see all personnel are clear of the equipment each time before operating any control levers directly or via remote control.
6. Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator's Manual.

## 1. SAFETY



Look for this Safety Box throughout the manual for tips to ensure your safety. The  **WARNING** symbol means that failure to heed and obey the safety instructions can cause serious injury.

### **Operating Instructions**



1. Use extreme caution when working with cattle in the F.Z.A. (Flight Zone Avoidance) System. Cattle behavior is unpredictable.
2. Clear the area of by-standers, especially children, before starting.
3. Have a first-aid kit available for use, should the need arise, and know how to use it.
4. Secure loose clothing and long hair, so that it will be kept from moving parts.
5. Use extreme caution when using wireless remotes. The designated controls operator must check area to see all personnel are clear of the equipment each time before operating any control levers directly or via remote control.
6. Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator's Manual.

### **SILENCER Hydraulic Squeeze Chutes**



1. Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator's Manual.

Safe, efficient, and trouble free operation of your F.Z.A. (Flight Zone Avoidance) System requires that you, and everyone else who will be using or maintaining the system, read and understand the Safety and Maintenance information contained within the Operator's Manual.

Remember, you are the key to safety. Only authorized, trained operators should be allowed to operate the equipment described. Good safety practices protect you, and the people around you. Operators should read and be familiar with the complete operation present, service procedures, maintenance procedures, and follow all safety precautions. Do not risk injury or death by ignoring good safety practices.

Keep this manual handy for frequent reference and to pass on to new users or owners. Call your F.Z.A. System manufacturer if you need assistance, or for additional copies of the manual at 785-472-3388.

Read this manual carefully to learn how to use the equipment safely and for maximum efficiency. By following the instructions, and utilizing a good maintenance program, your F.Z.A. System will provide many years of use.

MOLY MANUFACTURING, INC.  
WARRANTY

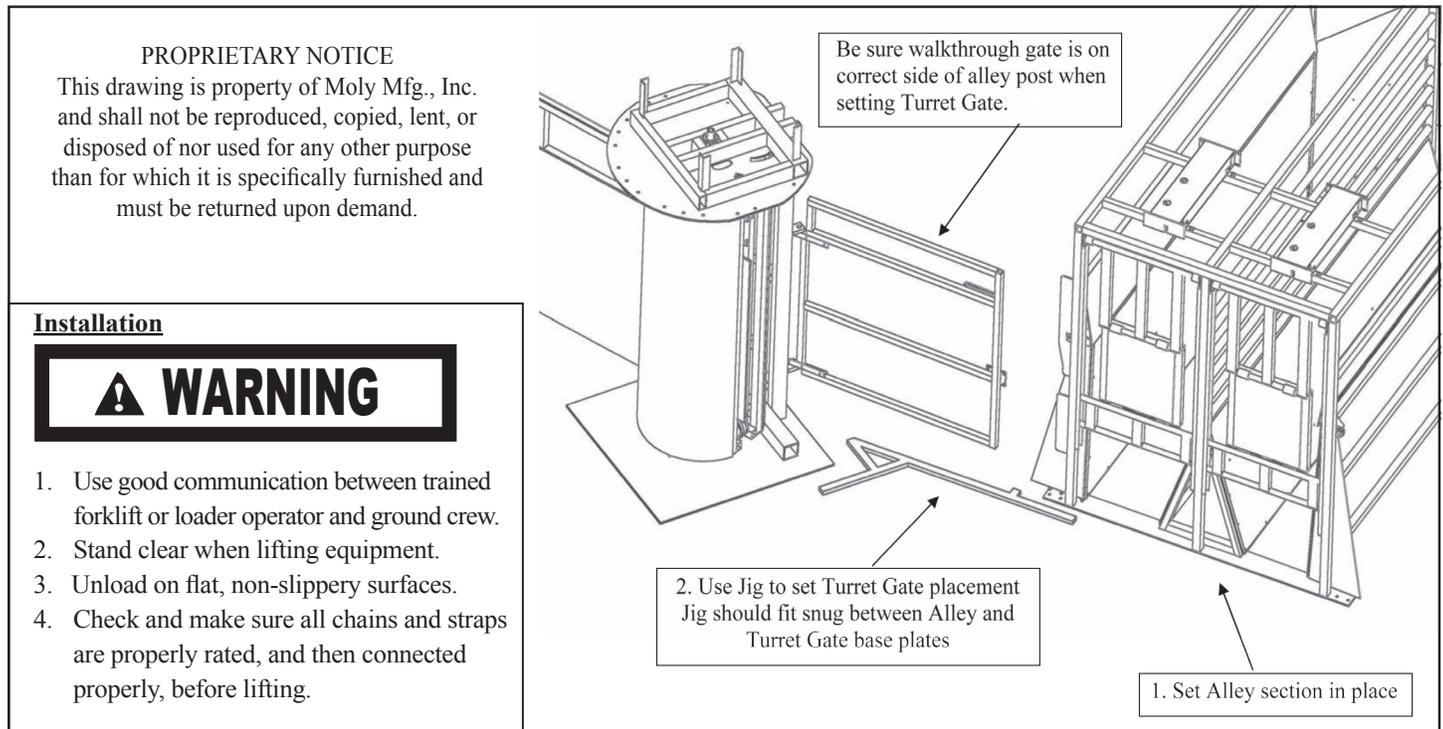
Please Read Carefully

This livestock working equipment is warranted to the original purchaser to be free from defects in material and workmanship under normal use and service for a period of one year (12 months) from date of delivery of the unit to the original purchaser. Any and all warranties regarding this unit are for the benefit of the original purchaser only and are non-transferable and limited to the replacement or repair of any parts found, upon inspection by Moly Mfg., Inc., to be defective. The sole obligation of Moly Mfg., Inc., will be to make this unit capable of being operated for the ordinary purpose for which this product is manufactured for use subject to the following conditions:

1. The malfunction must be proved attributable to a defect in material or workmanship, including repairs performed under this warranty. Malfunctions that are for any other reasons will not be remedied, including but not limited to reasons of misuse, negligence, accident, tampering with parts, or any repairs, or modifications made other than by Moly Mfg., Inc.
2. All warranty repairs or part replacements are F.O.B. the Moly Mfg., Inc. factory. The original purchaser must bear all packing, shipping, insurance costs, and other costs, except parts that are necessary to make repairs under this warranty.
3. This warranty does not apply to any malfunction arising out of any application of the unit other than to normal use. **WARRANTY VOID IF SILENCER CHUTE OR OTHER MOLY MFG., INC. EQUIPMENT IS OPERATED BY OTHER THAN A MOLY MFG., INC. POWER UNIT WITHOUT PRIOR WRITTEN PERMISSION FROM MOLY MFG., INC. HEADQUARTERS, LORRAINE, KANSAS U.S.A. 785-472-3388.**
4. This warranty is in lieu of all other express warranties that now or may hereafter arise. Any and all Implied Warranties, including warranties of merchantability and fitness for particular purpose, shall have no greater duration than the duration above stated for the express Limited Warranty. Some states do not allow limitation on length of an Implied Warranty.
5. Component parts, equipment, accessories, and other items not manufactured by Moly Mfg., Inc. are warranted only to the extent such items are warranted by the original manufacturer of such items. **This includes but is not limited to hydraulic pumps, motors, cylinders, hoses, remote controls, tires, belting, and poly sheeting.**
6. Incidental and consequential damages caused by malfunction, defect, or otherwise, and in respect to breach of any express or implied warranty, are not the responsibility of Moly Mfg., Inc. and to the extent permitted by law are hereby excluded both as to property damage and, to the extent not unconscionable, as to personal injury damage. Some states do not allow limitation or exclusion of incidental or consequential damage.
7. The provisions of this warranty are severable and if any provision shall be declared invalid, the remaining provisions shall remain in full force and effect. The purchaser claiming under this warranty shall submit a warranty claim in writing to Moly Manufacturing, Inc. for inspection by an authorized Company Representative.
8. Additional Valves added to operate other than Moly Mfg., Inc. equipment can void all warranties.
9. Warranty Card must be filled out in its entirety and returned to Moly Mfg., Inc., 2435 Tenth Road, Lorraine, Kansas 67459 within 10 days of purchase.

## 2. INTRODUCTION

Your F.Z.A. (Flight Zone Avoidance) System components have been designed and manufactured for the efficient processing of livestock. When properly used and maintained these components work together with your entire livestock handling system to handle and process livestock efficiently.



## 3. INSTALLING THE F.Z.A. (FLIGHT ZONE AVOIDANCE) SYSTEM

### ASSEMBLY SITE

The F.Z.A. (Flight Zone Avoidance) System components have been designed to operate on a flat, level, hard surface of concrete. The components are provided with holes for anchoring the bases to the concrete. Moly Mfg., Inc. recommends setting all components in place, bolting them together, and running them before anchoring, to ensure proper setup and clearances.

#### 3.1 Read the entire F.Z.A. (Flight Zone Avoidance) System Operator's Manual.

**NOTICE** - F.Z.A. System Equipment varies in weight from 300 lbs. to 4500 lbs. Check weight of equipment prior to unloading, in order to use forklift, tractor... with adequate capacity. Use care to stabilize equipment while unloading, moving, and placing.

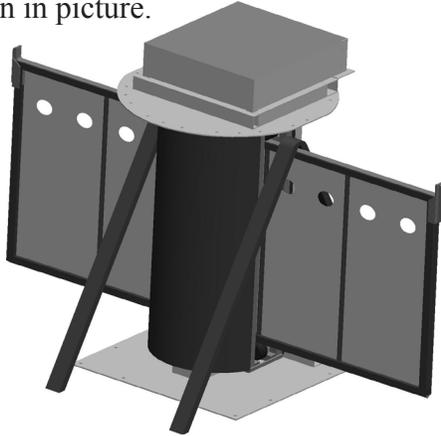
#### 3.2 UNLOADING /RE-LOCATING ALLEY

Lift Alley by chain connected **only to the main frame at its widest points**. Alley components vary in weight from 1500 lbs. to 3000 lbs. Check weight of shipment prior to unloading, in order to use forklift, hoist, etc... with adequate capacity. Use care to stabilize unit while unloading. If using forks, place them directly under the top main frame beams. Make sure forks are long enough to reach all the way through alley. \*Use caution and maintain a stable footing when working overhead positioning the equipment.

1. Position Dual Alley and Transition, then Single Alley, using forklift, tractor...
2. Bolt top of Alley section at two connection points.
3. Set SILENCER in place, making sure scales are free and clear. Scales are optional equipment.

### 3.3 SHIPPING/TRANSPORTING TURRET GATE

When shipping/transporting Turret Gate, make sure the shipping straps are routed over the Turret Gate Panel as shown in picture.



### 3.4 UNLOADING/RE-LOCATING TURRET GATE

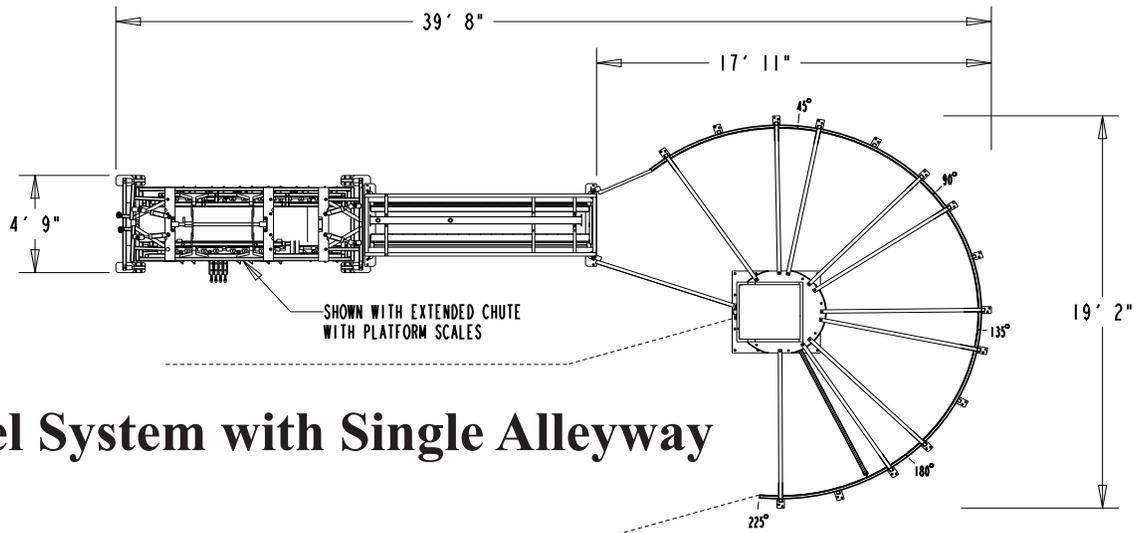
Lift Turret Gate by chain connected **only to main frame**. Turret Gates vary in weight from 1500 lbs. to 2000 lbs. Check weight of shipment prior to unloading in order to use forklift, hoist, etc... with adequate capacity. Use care to stabilize unit while unloading. Turret Gate can also be lifted by forklift. Position forks under the top flange of main frame or in fork slots in gate panel; keep the forks away from belting shields and inner workings of Turret Gate. \*Use caution and maintain a stable footing when working overhead positioning the equipment.

1. Use the alignment tool to position Turret Gate to Alleyway.
2. Place the Circular Fence, and adjust Circular Fence feet. Connect Circular Fence sections with bolts.
3. Position horizontal bars with bolts.
4. Lay hoses in Dual and Single Alley hose trays. Note that hoses are marked with numbers and letters to correspond to fittings.
5. Connect Turret Gate hoses at top of Alley using corresponding numbers and letters.
6. Position hoses to pump.

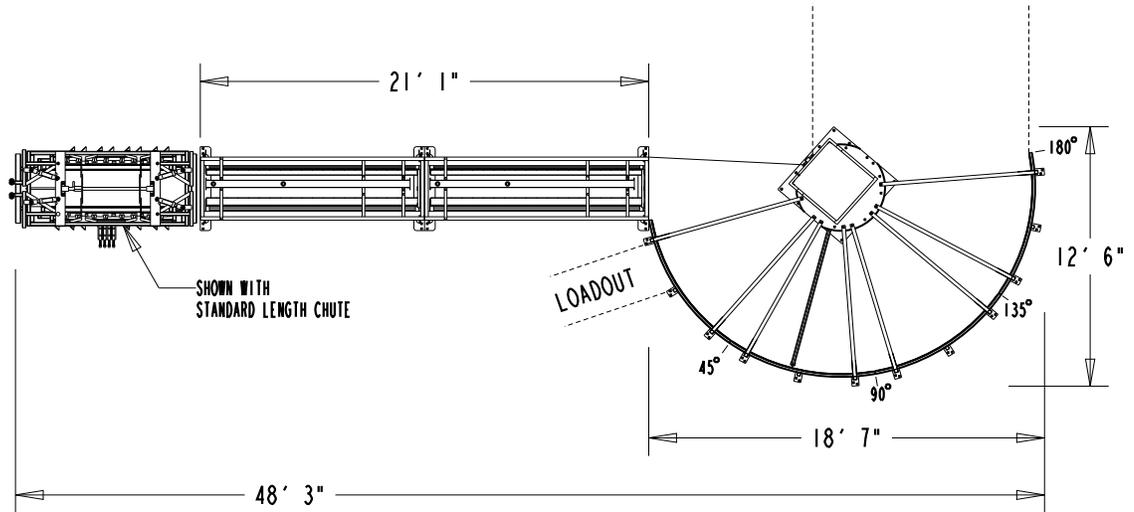
### 3.5 FINAL ADJUSTMENTS

1. Have a *qualified electrician* connect electrical system.
2. Your F.Z.A. (Flight Zone Avoidance) System components were serviced and operated at the factory. DO NOT re-adjust hydraulic pressure relief or flow adjustment valves without consulting Moly Mfg., Inc. (785-472-3388). Tampering with pressure relief and/or flow adjustment valves could potentially injure livestock. Failure to obtain written permission will void warranty.
3. Once power is connected, turn on and run the system, and check all hoses connections.
4. Check hydraulic lines for leaks.
5. Cycle all functions:
  - Swing Turret Gate
  - Shuttle Turret Gate
  - Folding Gates (lift and lower)
  - Dual Alley Hydraulic Centerwall
6. Anchor equipment into concrete.

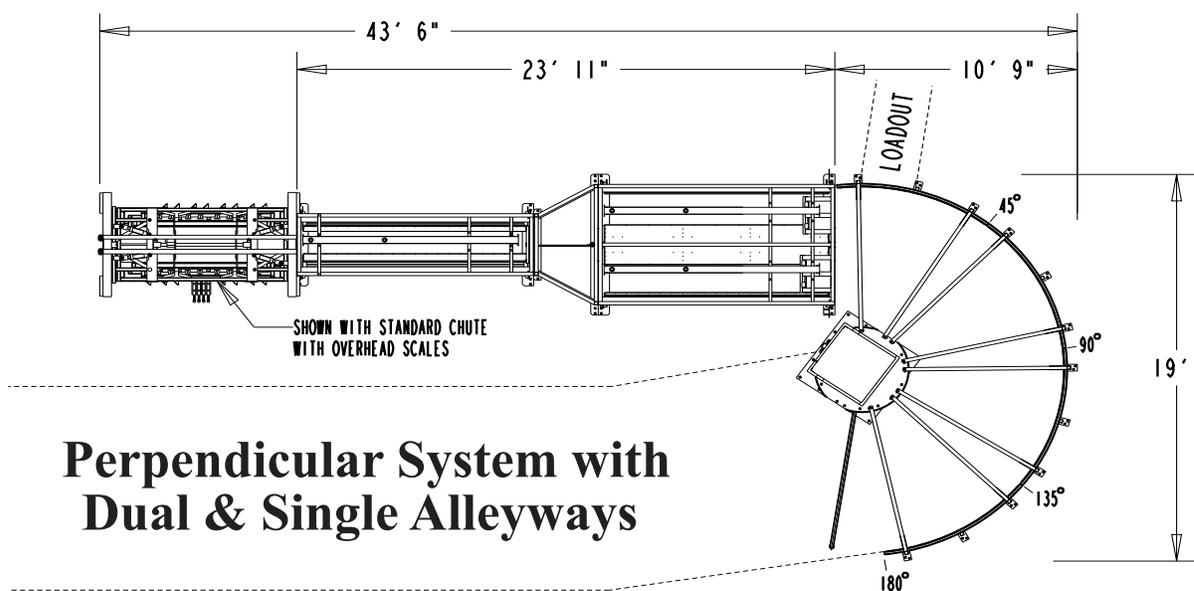
Approximate installation time with two men is four hours. If any questions arise, call Moly Mfg., Inc. at 785-472-3388.



**Parallel System with Single Alleyway**

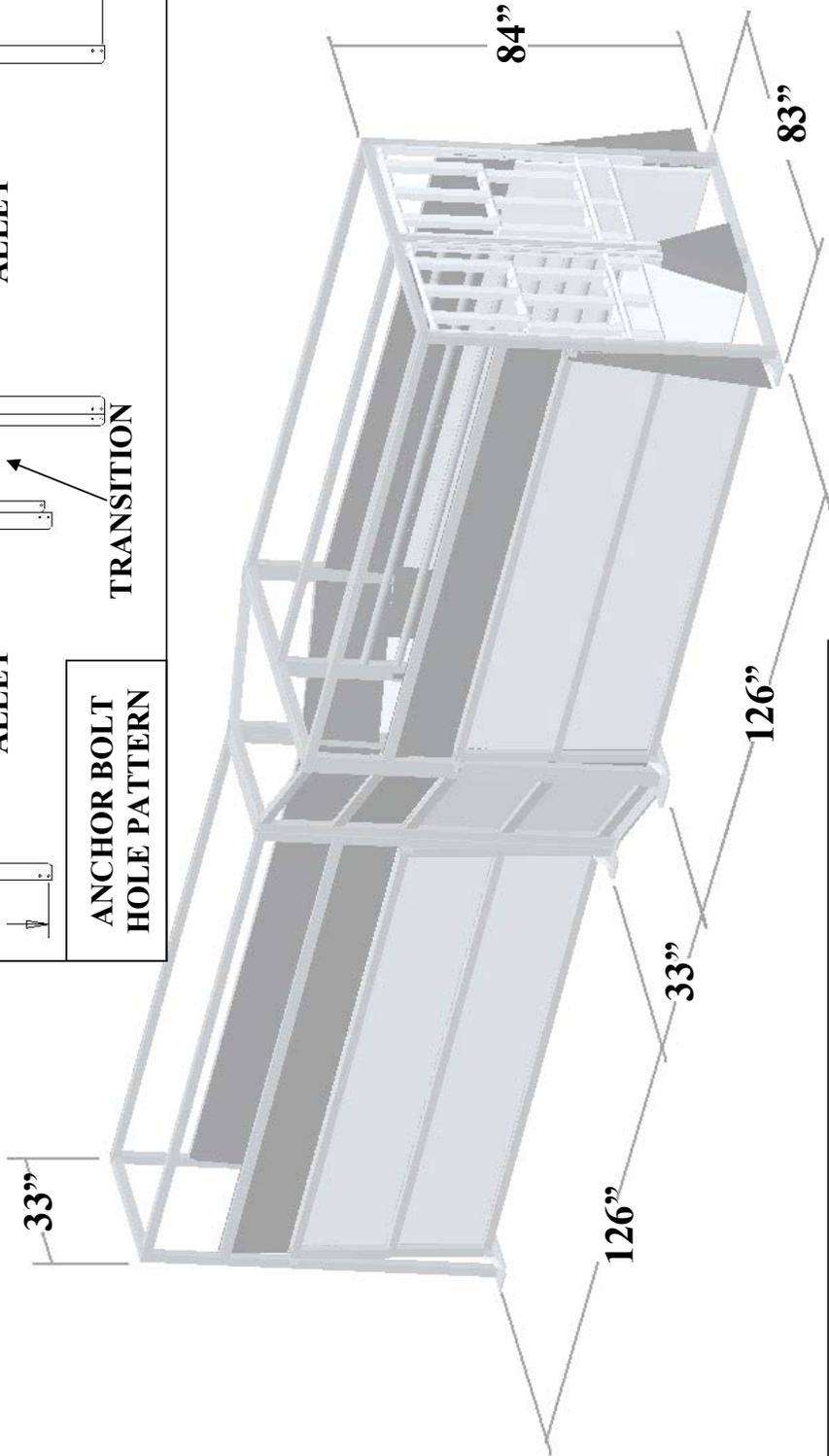
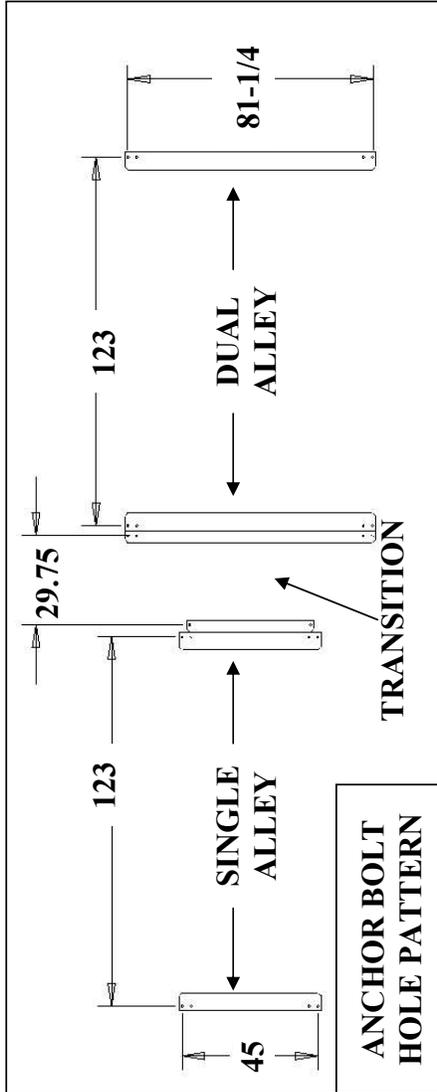


**In-Line System with Two Single Alleyways**



**Perpendicular System with Dual & Single Alleyways**





**DUAL ALLEY, TRANSITION, AND SINGLE ALLEY**

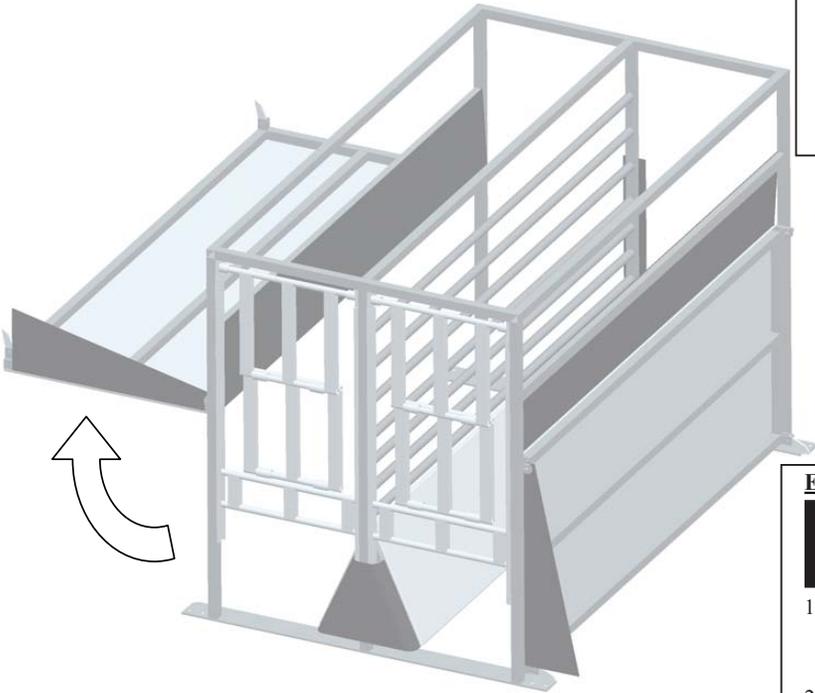
**NOTE: DIMENSIONS ARE APPROXIMATE**

MOLY MANUFACTURING, INC.  
 2435 Tenth Road • Lorraine, KS 67459  
 Phone: 785-472-3388  
 Fax: 785-472-2530  
[www.molymfg.com](http://www.molymfg.com)

**PROPRIETARY NOTICE**

This drawing is property of Moly Mfg., Inc. and shall not be reproduced, copied, lent, or disposed of nor used for any other purpose than for which it is specifically furnished and must be returned upon demand.

**Alley panels swing out for easy clean-out and emergency animal exit.**



**SILENCER Hydraulic Squeeze Chutes**

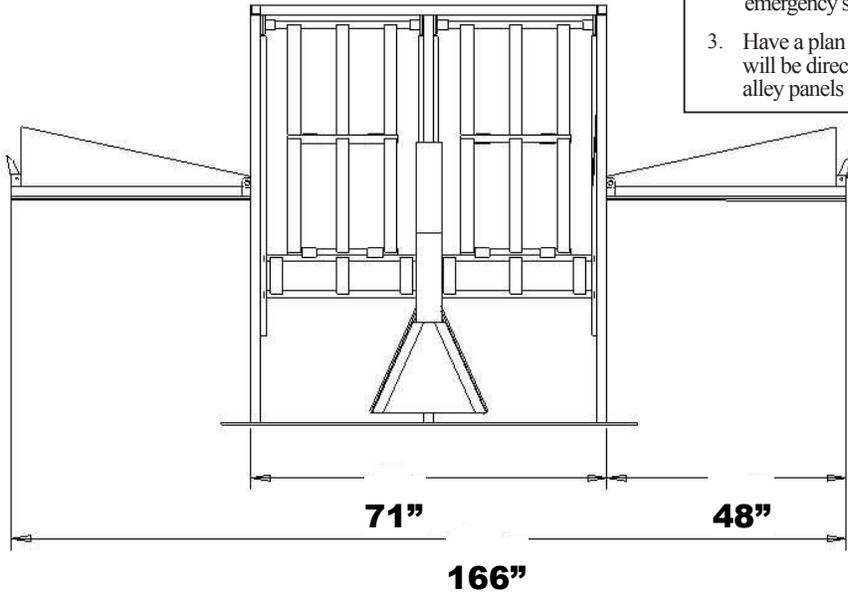
**⚠ WARNING**

1. Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator's Manual.

**Emergency Side Exits**

**⚠ WARNING**

1. Use extreme caution when working with cattle in the F.Z.A. (Flight Zone Avoidance) System. Cattle behavior is unpredictable.
2. Clear the area of by-standers, especially children, before raising or lowering the emergency side exits.
3. Have a plan for where the exiting animal will be directed, and remove person(s) lifting alley panels from the animal's way.

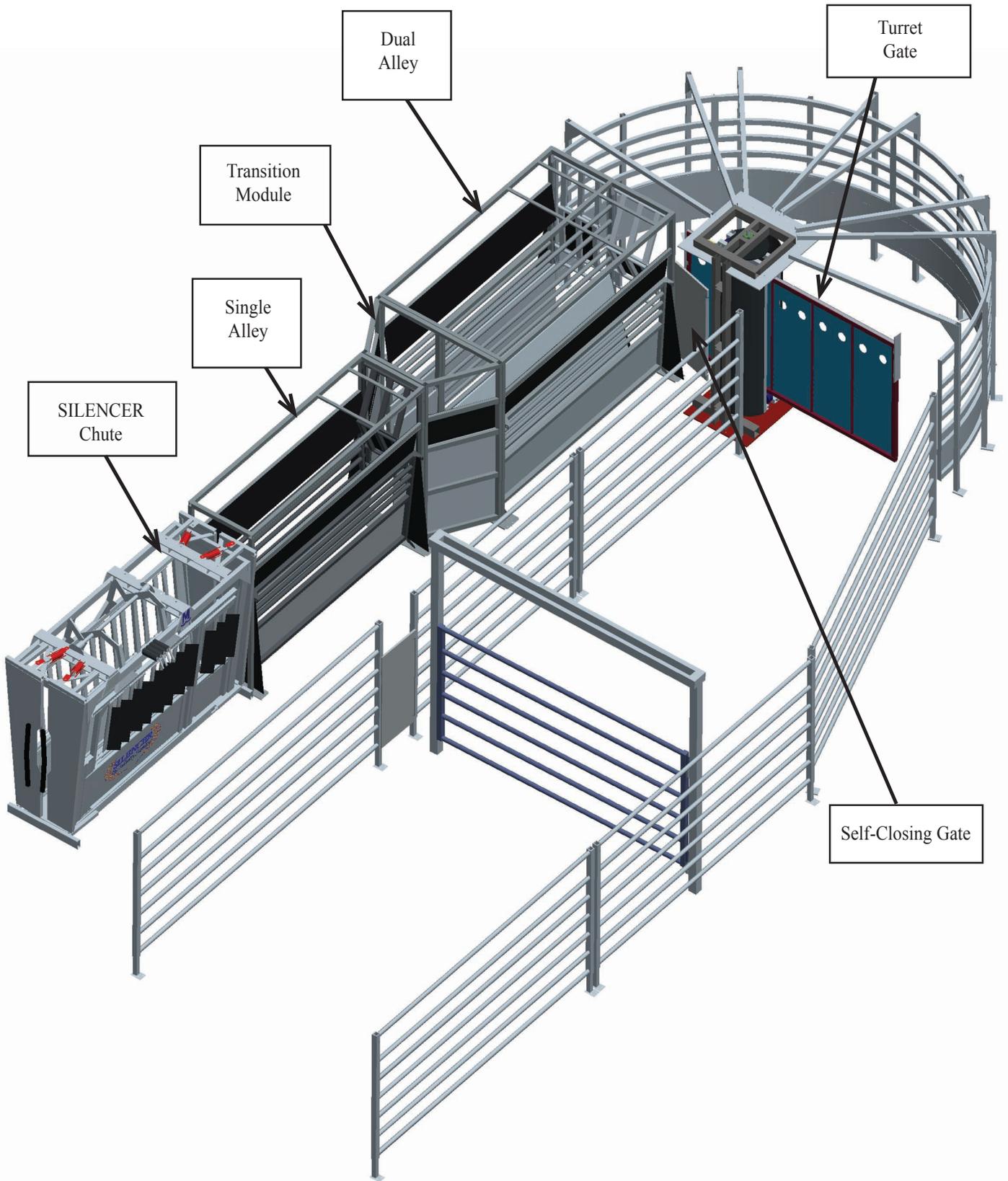


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# HYDRAULIC LOADING CHUTE

## PROPRIETARY NOTICE

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**WARNING** Serious injury could result if equipment is not operated in accordance with recommended hydraulic oil flow & pressure ratings as set forth in the Operator's Manual. ALL USERS MUST READ AND UNDERSTAND MANUAL BEFORE USE.

MOLY MFG., INC.  
LORRAINE, KS 67459  
785 / 472-3388  
SERIAL NO.

**SAFETY FIRST**

\*Located on Left & Right Sides

**WARNING**



MOVING PARTS CAN PINCH/CRUSH. STAND CLEAR WHEN OPERATING

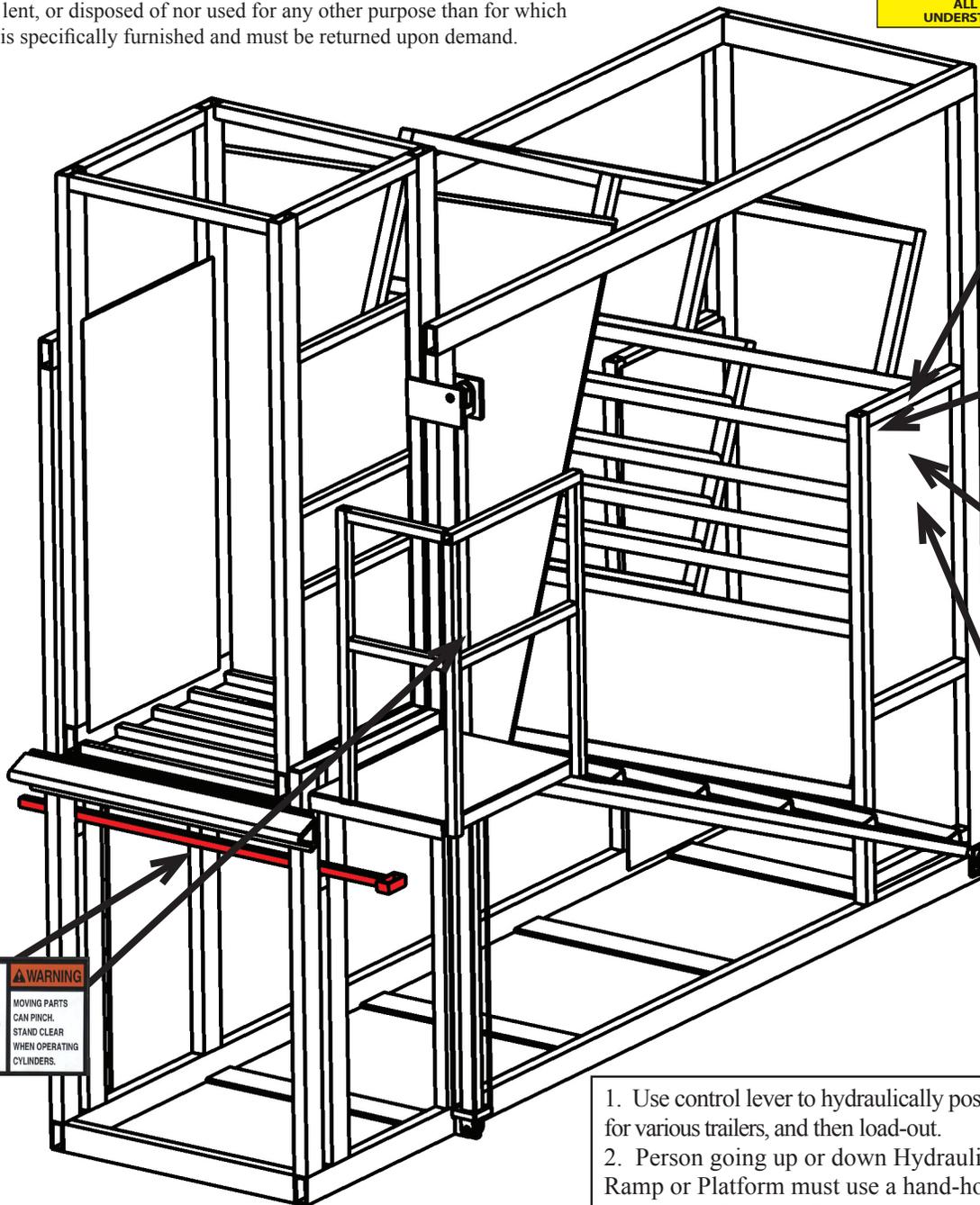
ALL OPERATORS MUST READ AND UNDERSTAND THE INSTALLATION INSTRUCTIONS AND OPERATOR'S MANUAL BEFORE USE.

\*Located on Left & Right Sides

**WARNING**



MOVING PARTS CAN PINCH. STAND CLEAR WHEN OPERATING CYLINDERS.



### Hydraulic Loading Chute

#### **WARNING**

1. Use extreme caution when positioning Hydraulic Loading Chute higher or lower. The Loading Chute operator must check area to see that all personnel are clear of the equipment each time before operating any control levers directly or via remote control.
2. Always insert 4' Safety Rod on Hydraulic Loading Chute after it is adjusted to height needed.
3. Do not lift or lower chute once trailer is present at the Hydraulic Loading Chute.
4. Do not attempt to lift or lower chute when animals are present.
5. 4' Safety Rod must be in place when Hydraulic Loading Chute is not in use.

1. Use control lever to hydraulically position height for custom fit for various trailers, and then load-out.
2. Person going up or down Hydraulic Loading Chute Ramp or Platform must use a hand-hold. Person is not to jump from Ramp or Platform.
3. The operator's Ramp and Platform may become slippery during wet and/or icy conditions. Use caution and hand-hold.
4. The operator's Ramp and Platform are for Loading Chute preparation only. They are not intended as an observation position or animal handling position.
5. Shut-off Gate at top of Loading Chute only to be operated when no animals are present.
6. Shut-off Gate should remain closed when Loading Chute is not in use.
7. Use caution near hinges and all moving parts for possible pinch points.

### Operating Instructions

#### **WARNING**

1. Use extreme caution when working with cattle in the F.Z.A. (Flight Zone Avoidance) System. Cattle behavior is unpredictable.
2. Clear the area of by-standers, especially children, before starting.
3. Have a first-aid kit available for use, should the need arise, and know how to use it.
4. Secure loose clothing and long hair, so that it will be kept from moving parts.
5. Use extreme caution when using wireless remotes. The designated controls operator must check area to see all personnel are clear of the equipment each time before operating any control levers directly or via remote control.
6. Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator's Manual.

### Routine Maintenance Instructions

#### **WARNING**

1. Disconnect all power sources.
2. Clear area of by-standers, especially children.
3. Clean equipment before maintenance.

### SILENCER Hydraulic Squeeze Chutes

#### **WARNING**

1. Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator's Manual.

## 4. OPERATOR RESPONSIBILITY

Your F.Z.A. (Flight Zone Avoidance) System has been designed and manufactured for the efficient processing of livestock. F.Z.A. System is part of your entire livestock handling system which works together to assist in handling and processing livestock.

You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the Operator's Manual. Read this manual carefully to learn how to use the equipment safely and for maximum efficiency. Call your F.Z.A. System manufacturer, if you need assistance at 785-472-3388.

\*\*Consult the separate manual for SILENCER Hydraulic Squeeze Chutes.

### 4.1 ROUTINE PRE-START CHECKLIST BEFORE OPERATING UNIT EACH TIME

1. Check F.Z.A. System for loose nuts or bolts.  
(DO NOT over-tighten linkage bolts or linkage stover nuts).
2. Check unit for pinched hydraulic lines, loose hydraulic fittings, cracks in hydraulic cylinder housings, cylinder leaks, and cracks in hydraulic valve bodies. Stay clear of any high-pressure hydraulic fluid, if leak is detected. Turn off and then disconnect power source before making repairs.  
•DO NOT re-adjust hydraulic pressure on pressure relief valves without written permission from Moly Mfg., Inc. (785-472-3388). Tampering with pressure relief could potentially injure livestock. Failure to obtain written permission will void warranty.
3. Check structural welds, structural tubing, and sheet metal for cracks. Contact Moly Mfg., Inc. for welding instructions before making repairs.
4. Scales: all four corners of Platform Scale pads must be free of rocks and debris to assure solid footing on all 4 corners of chute. Plate shims may be needed to shim chute corner.  
**NOTE:** Overhead Scales—Refer to the Overhead Scale Section of the SILENCER Hydraulic Squeeze Chute Operator's Manual.

## Operating Instructions

### **WARNING**

1. Use extreme caution when working with cattle in the F.Z.A. (Flight Zone Avoidance) System. Cattle behavior is unpredictable.
2. Clear the area of by-standers, especially children, before starting.
3. Have a first-aid kit available for use, should the need arise, and know how to use it.
4. Secure loose clothing and long hair, so that it will be kept from moving parts.
5. Use extreme caution when using wireless remotes. The designated controls operator must check area to see all personnel are clear of the equipment each time before operating any control levers directly or via remote control.
6. Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator's Manual.

## SILENCER Hydraulic Squeeze Chutes

### **WARNING**

Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator's Manual.

## 4.2 OPERATING F.Z.A. (FLIGHT ZONE AVOIDANCE) SYSTEM

### 4.2.1. TURRET GATE(S)

Remote Controls:      1 button for swing one direction  
                                 1 button for swing opposite direction  
                                 1 button for shuttle one direction  
                                 1 button for shuttle opposite direction

\*If Turret Gate(s) have manual operating handles present. Remote Control Operation over-rides manual handles operation.

\*\*Additional factory installed hydraulic componentry could potentially be powered by remote, per customer request. Non-factory hydraulic componentry not warrantied.

1. Initial loading of Turret Gate should be 4 head. Overcrowding of Turret Gate area is unproductive. After initial 4 head enter alley, cattle follow cattle simply by shuttling Turret Gate. If cattle refuse to proceed, reverse swing Turret Gate to allow room for animals to turn and flow.
2. The Turret Gate Operator must make sure Turret Gate is shuttled through completely before swinging gate, or damage could occur, and warranty is void.
3. Turret Gate panel must parallel a flat surface, such as a fence, at either end of the swing cycle. Turret Gate should not be exposed to objects which could potentially bend Turret Gate or Turret Gate panel, or warranty is void.

#### 4.2.2 DUAL ALLEY

Remote Controls:     1 button for each fold gate lift  
                              1 button for each fold gate lower  
                              1 button for Dual Alley Centerwall Adjustment outward  
                              1 button for Dual Alley Centerwall Adjustment inward

\*Alley Fold Gates and Dual Alley Centerwall Adjustment have manual operating handles present. Remote Control Operation over-rides manual handles operation.

\*\*Additional factory installed hydraulic componentry could potentially be powered by remote, per customer request. Non-factory hydraulic componentry not warranted.

1. Adjust alley width adjustment.
2. Adjust fold gate(s) height. Fold gate height can be pre-set approximately 6” lower than the top of animal’s back, so that animals lift fold gate, walk through, and fold gate then lowers behind animal to prevent backing up.

\*\*If cattle refuse to enter alley, check alley width adjustment and fold gate height.

#### 4.2.3 SINGLE ALLEY

Remote Controls:     1 button for each fold gate lift  
                              1 button for each fold gate lower

\*Alley Fold Gates have manual operating handles present. Remote Control Operation over-rides manual handles operation.

\*\*Additional factory installed hydraulic componentry could potentially be powered by remote, per customer request. Non-factory hydraulic componentry not warranted.

1. Adjust fold gate(s) height. Fold gate height can be pre-set approximately 6” lower than the top of animal’s back, so that animals lift fold gate, walk through, and fold gate then lowers behind animal to prevent backing up.

\*\*If cattle refuse to enter alley, check alley width adjustment and fold gate height.

#### 4.2.4 TRANSITION

1. Make certain gravity gate is free to move both directions.

#### 4.2.5 SILENCER Hydraulic Squeeze Chute

\*\*Consult the separate manual for SILENCER Hydraulic Squeeze Chutes.

##### **SILENCER Hydraulic Squeeze Chutes**

### **⚠ WARNING**

1. Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator’s Manual.

### Operating Yoke Carrier

#### **WARNING**

1. Stand Clear when Operating.
2. Check hitch coupler.
3. Check safety chain.
4. Check tire wear and pressure.
5. Check wheel bearings.
6. Make sure winch brake is operational.
7. Check cable for frays and strain.
8. Check clamps & hooks before operating.
9. Check rear frame hooks for cracks.

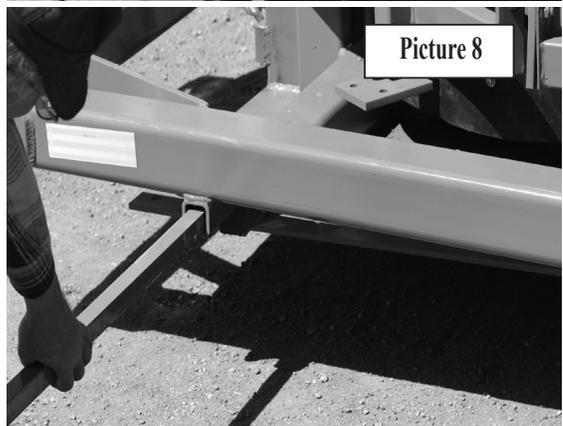
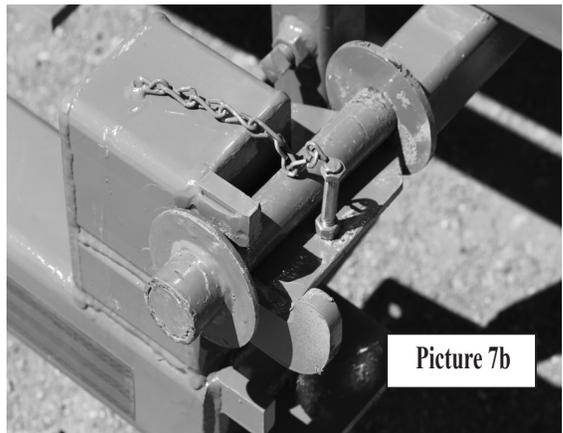
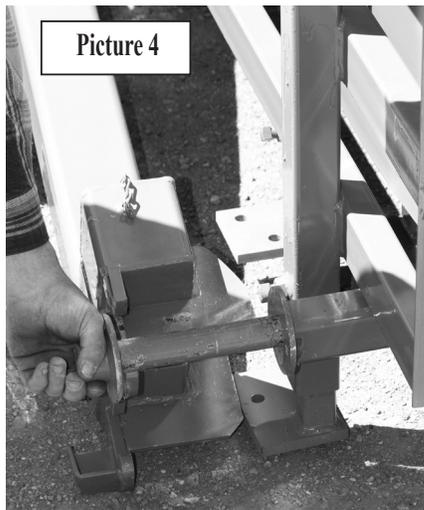
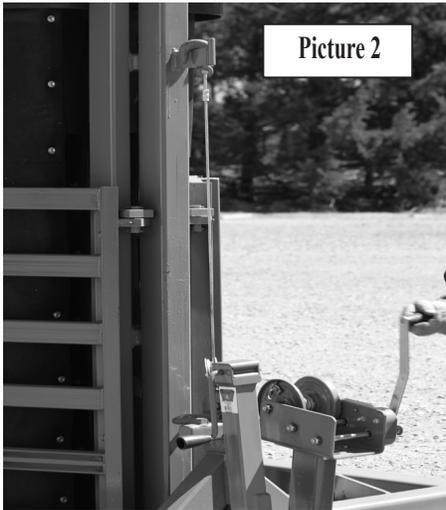
### Operating Carriers

#### **WARNING**

1. Clear area of by-standers, especially children; clear area of livestock.
2. Check for adequate clearance, check overhead clearance.
3. Make sure hydraulic lines will not interfere with loading and unloading.
4. Do not transport carrier with pump in operation.
5. Observe all traffic laws.

#### 4.2.6 PORTABLE TURRET GATE YOKE CARRIER

1. To Load the Turret Gate, do not hook Yoke Carrier to vehicle. Manually wheel the carrier to straddle the front of the Turret Gate.
2. Attach the cable and grab hook to the Overhead Bar protruding from the Turret Gate Main Frame (See Picture 2).
3. Use winch to raise the front and lower the back of the Yoke Carrier (See Picture 3).
4. With front of carrier suspended by cable, hook the round crossbar to the upper two hook plates at the rear of the trailer (See Picture 4).
5. Remove the hook and cable from the Overhead Bar. Attach the Pulley Hook to the Lower Lifting Loop on the Turret Gate Main Frame. Attach the grab hook to the Lifting Loop on the Carrier – near the Winch (See Picture 5).
6. Wind Cable onto winch, lowering front of Yoke Carrier, and raising back of Turret Gate. When Carrier Jack reaches the ground, continue to wind cable onto the winch, raising front of Turret Gate. Take care when Turret Gate Base reaches the Guide Plates on Carrier – Guide Plates should move Turret Gate into position for Front Crossbar – If binding occurs: **DO NOT OVERLOAD WINCH/CABLE.**
7. When front of Turret Gate is high enough for front crossbar to be inserted:
  - 7a. Bring Front Crossbar to back of carrier, use Crossbar to pry the rear, round crossbar snug into hooks (See Picture 7a).
  - 7b. Insert safety bolts into the holes on rear hook plates (See Picture 7b).
8. Return to front of Carrier, insert Square Crossbar through square tubing on carrier and rectangular tubing at Turret Gate Main Frame Base. Install Square Crossbar Retaining Clip (See Picture 8).
9. Lower front of Turret Gate so that Square Crossbar is carrying the load.
10. Hook Carrier to vehicle ensuring safety chain is also attached. To unload Turret Gate from Carrier, reverse this procedure.



## SETTING UP THE PORTABLE TURRET GATE



1. Unhook Carrier from vehicle.



2. Lower Turret Gate to ground and remove carrier. (Refer to Turret Gate Yoke Carrier Instructions).



3. Remove Gate Strap Connector.



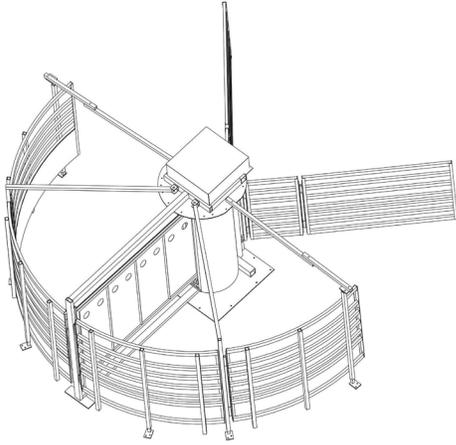
4. Swing Straight Panels out.



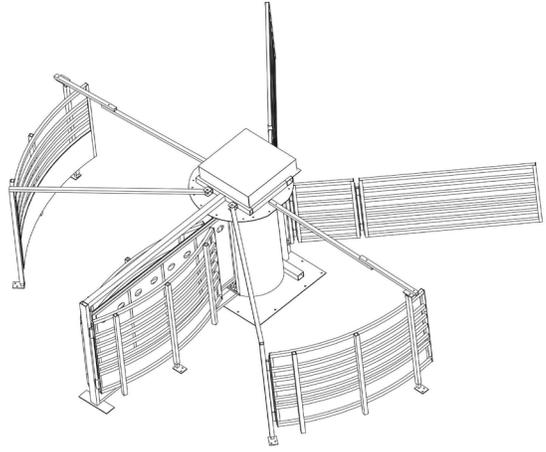
5. Pull Circular Panels away until panels match and hook. You may have to adjust foot-pad height to square up panels. (Refer to Portable Turret Gate Setup DVD).

6. Hook Lower Chains to Circular Fence Foot Pads – Chains should be tight enough to keep lower part of circular fence from spreading away from the Turret Gate.

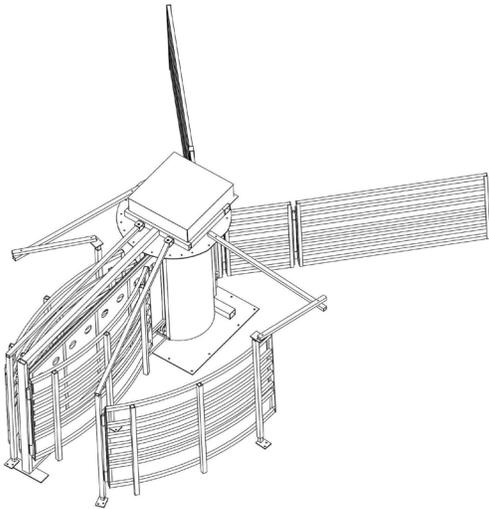
## TEARING DOWN THE PORTABLE TURRET GATE



1. Center the Turret Gate Panel before shutting off hydraulic power.



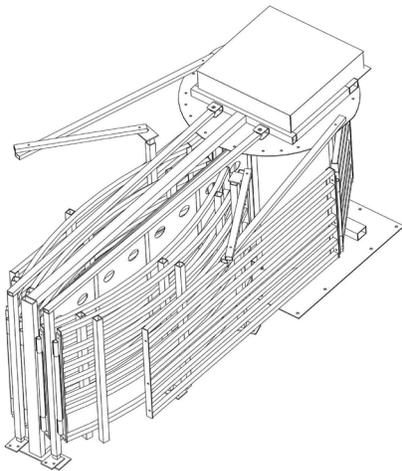
2. Unhook all lower chains from Circular Fence Foot Pads. Swing in the Center Circular Fence Panels.



3. Swing in the Outer Circular Fence Panels.



4. Ensure that the Outer Panels are resting on the Inner Panel Bump-Rests. Wrap and attach chains snugly, as shown.



5. Swing in the Straight Panels.



6. Attach the Gate Strap Connector by going around the ends of the Straight Panels and back around the end of the Frame – connect with bungee cord.

#### 4.3 EMERGENCY SHUT-DOWN

The electrician-installed switch at the power source of hydraulic pump should be readily accessible for emergency shutdown of unit. Before making adjustments or repairs to the F.Z.A. System unit or hydraulic pump, all power sources should be disconnected.

#### 4.4 MAINTENANCE

##### 4.4.1 DUAL ALLEY, SINGLE ALLEY, AND TRANSITION MODULES

1. Check Alley Modules for loose nuts or bolts, missing roll/cotter pins, and loose cable connections.  
(Do not over-tighten bolts or stover nuts at pivot and linkage points.)
2. Check Polyethylene sheeting for cracks and loose bolts/nuts. Sheets should be snug against steel, but do not over tighten the fasteners. The fastening method has been specially designed to allow for thermal expansion and contraction of the sheets.
3. Check for pinched hydraulic lines, loose hydraulic fittings, and cracked or leaking hydraulic cylinders and valve bodies. Stay clear of any high pressure oil, if hydraulic fluid leak is detected. Turn off and then disconnect power source before making repairs.
4. DO NOT re-adjust hydraulic pressure relief valves or hydraulic flow control valves without first consulting Moly Mfg., Inc. (785-472-3388). Tampering with pressure relief or flow settings could potentially injure livestock. Failure to obtain written permission will void warranty.

##### 4.4.2 TURRET GATE

1. Check Turret Gate for loose nuts or bolts, missing roll/cotter pins, deformed springs, and improper chain routing.
2. Check unit for pinched hydraulic lines, loose hydraulic fittings, and cracked or leaking hydraulic motors and valve bodies. Stay clear of any high pressure oil, if hydraulic fluid leak is detected. Turn off and then disconnect power source before making repairs.
3. DO NOT re-adjust hydraulic pressure relief valves or hydraulic flow control valves without first consulting Moly Mfg., Inc. (785-472-3388). Tampering with pressure relief or flow settings could potentially injure livestock. Failure to obtain written permission will void warranty.

##### 4.4.3 HYDRAULIC LOADING CHUTE

1. Check Hydraulic Loading Chute for loose nuts or bolts & cylinder leaks.
2. Check unit for pinched hydraulic lines, loose hydraulic fittings, and cracked or leaking hydraulic cylinders and valve bodies. Stay clear of any high pressure oil, if hydraulic fluid leak is detected. Turn off and then disconnect power source before making repairs.
3. DO NOT re-adjust hydraulic pressure relief valves or hydraulic flow control valves without first consulting Moly Mfg., Inc. (785-472-3388). Tampering with pressure relief or flow settings could potentially injure livestock. Failure to obtain written permission will void warranty.

#### 4.5 ADJUSTMENTS

Disconnect power sources before making adjustments. Clear area of by-standers, especially children. Your F.Z.A. (Flight Zone Avoidance) System was serviced and operated at the factory. DO NOT re-adjust hydraulic pressures on pressure relief valves without specific written permission from Moly Manufacturing, Inc. (785-472-3388). Tampering with pressure relief could potentially injure livestock. Failure to obtain written permission will void warranty.

#### Routine Maintenance Instructions

### **WARNING**

1. Disconnect all power sources.
2. Clear area of by-standers, especially children.
3. Clean equipment before maintenance.

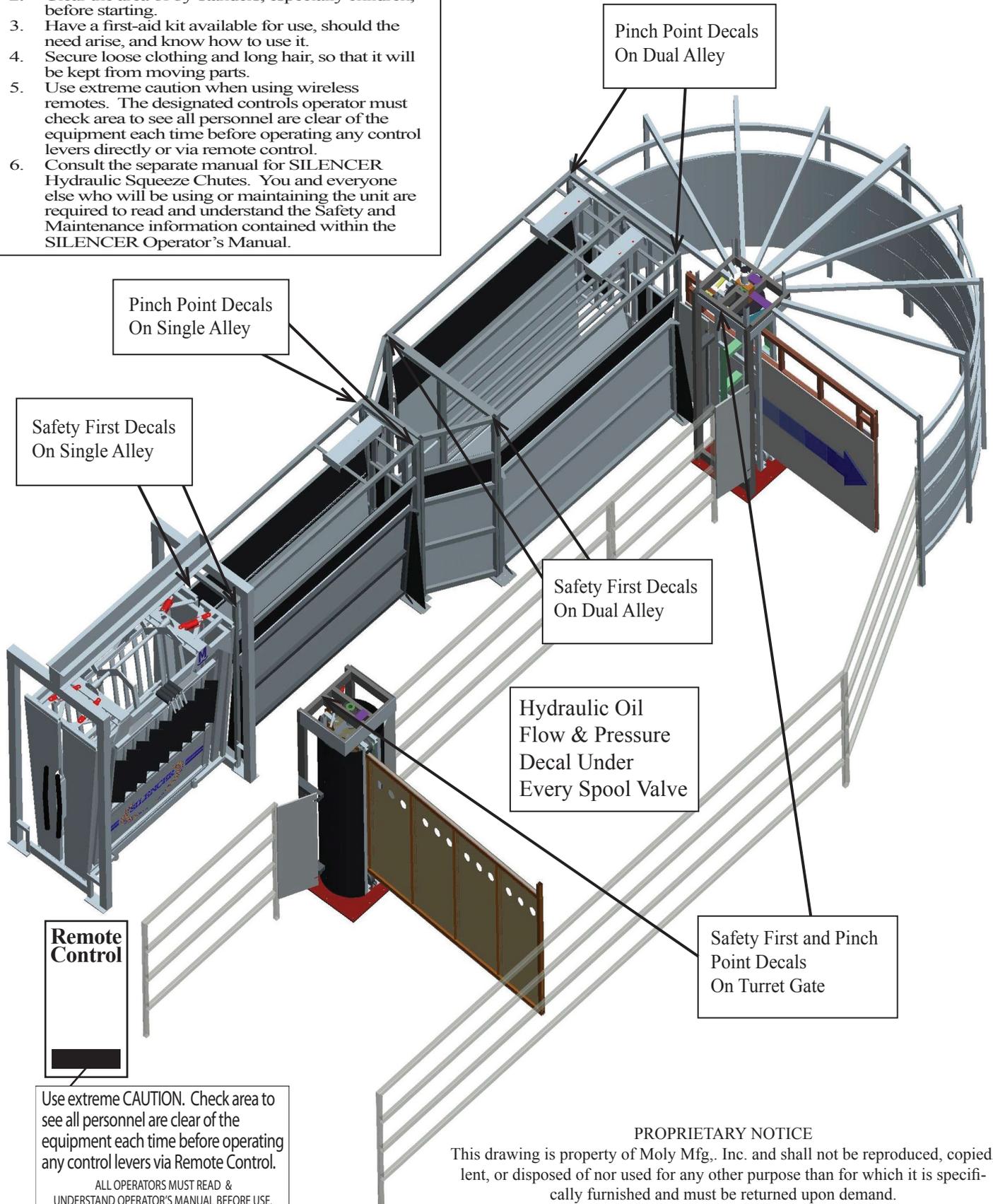
1. Check to make sure the SILENCER Chute Headdoors and Taildoors are clearing existing alley, walls, or fences.
2. Grease all roller bearings, cylinder pins, and greaseable linkage points on all F.Z.A. (Flight Zone Avoidance) System equipment. Use 1 pump only on a standard grease gun. \*\*\* Grease maintenance must be completed each time 500 cumulative head of livestock pass through chute.
3. Inspect hydraulic pump for oil leaks.
4. Check pump reservoir oil level. Oil level should be within 2" of top of reservoir; total capacity 4.5 gal. Texaco MERCON/DEXRON III is used widely in industrial equipment, because of its superior flexibility. Your Moly Mfg., Inc. hydraulic pump is filled with MERCON/DEXRON III at the factory. Oil changes are needed only every 25,000 hours.
5. Replace hydraulic oil filter each 500 hours of use or annually.
6. Inspect all safety decals of F.Z.A. System. Call 785-472-3388 for replacement decals. To replace decals, clean surface of old decal material, dirt, and moisture. Smooth on new, self-adhering replacement decal, smoothing out trapped air from behind decal.



**Operating Instructions**

**⚠ WARNING**

1. Use extreme caution when working with cattle in the F.Z.A. (Flight Zone Avoidance) System. Cattle behavior is unpredictable.
2. Clear the area of by-standers, especially children, before starting.
3. Have a first-aid kit available for use, should the need arise, and know how to use it.
4. Secure loose clothing and long hair, so that it will be kept from moving parts.
5. Use extreme caution when using wireless remotes. The designated controls operator must check area to see all personnel are clear of the equipment each time before operating any control levers directly or via remote control.
6. Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator's Manual.



**Remote Control**

Use extreme CAUTION. Check area to see all personnel are clear of the equipment each time before operating any control levers via Remote Control.  
ALL OPERATORS MUST READ & UNDERSTAND OPERATOR'S MANUAL BEFORE USE.

**PROPRIETARY NOTICE**

This drawing is property of Moly Mfg., Inc. and shall not be reproduced, copied, lent, or disposed of nor used for any other purpose than for which it is specifically furnished and must be returned upon demand.

7. Inspect for loose nuts or bolts. (Do not over-tighten linkage bolts or linkage stover nuts).
8. Inspect unit for pinched hydraulic lines, loose hydraulic fittings, cracks in hydraulic cylinder housings, and cracks in hydraulic valve bodies. Stay clear of any high-pressure hydraulic fluid, if leak is detected; turn off and then disconnect power source before making repairs.
9. The cylinders and motors on the F.Z.A. (Flight Zone Avoidance) System are designed and built for specific operations. **Cylinders on the SILENCER chute are NOT interchangeable.** Please call Moly Mfg., Inc. at 785-472-3388 for cylinder information.
10. Inspect structural welds, structural tubing, and sheet metal for cracks. Contact Moly Mfg., Inc. for welding instructions before making repairs.

#### 4.6 PAINT

In the future, should touch-up paint be desired, Krylon Smoke Gray Gloss #51608 Spray Paint can be readily found at discount stores such as Wal-mart, etc.

## 5. LUBRICANTS

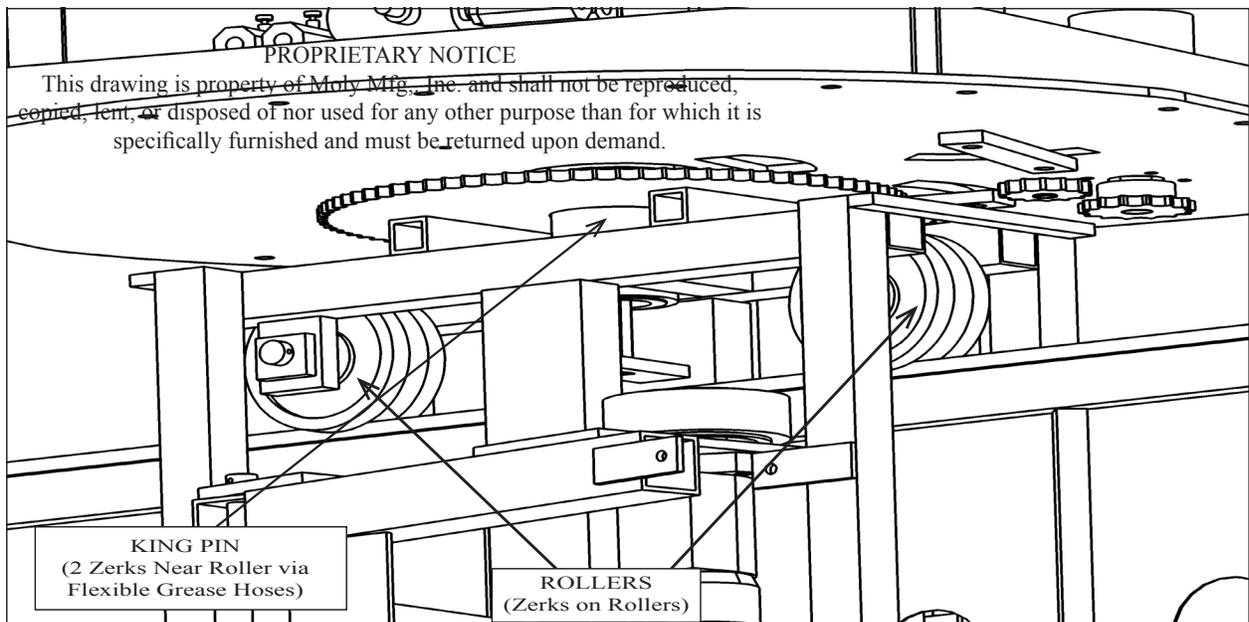
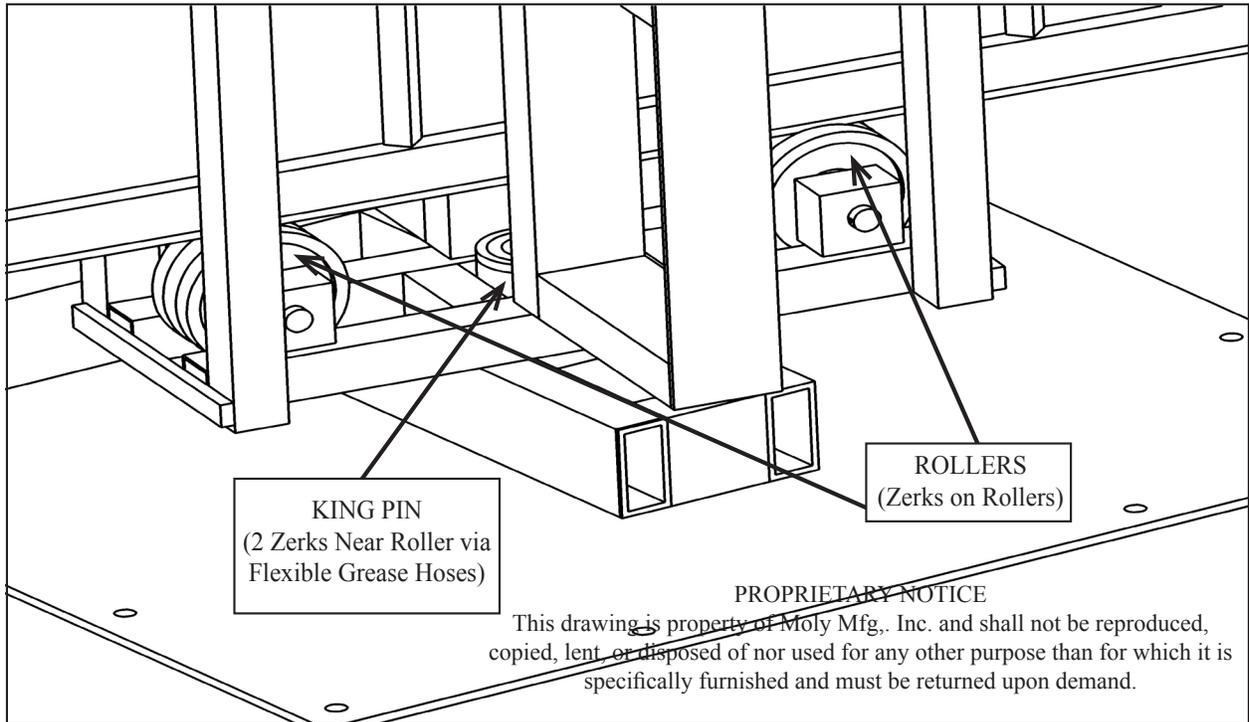
Proper lubrication is vital to continued life and operation of your F.Z.A. (Flight Zone Avoidance) System components. Use a SAE Multi-Purpose Lithium based grease or one with higher performance specifications. It is important to use only clean lubricants. Use only a hand-held grease gun for all greasing. Wipe grease fittings with clean cloth before greasing. Replace and repair broken fittings immediately. If fittings will not take grease, remove and clean the fitting and lubricant passageway. Replace fitting, if necessary.

### Routine Maintenance Instructions

**⚠ WARNING**

1. Disconnect all power sources.
2. Clear area of by-standers, especially children.
3. Clean equipment before maintenance.

## TURRET GATE GREASE POINTS



### 5.1 Texaco MERCON/DEXRON III

1854 Havoline MERCON/DEXRON III hydraulic and automatic transmission fluids are formulated from selected highly refined base oils blended with a specially balanced additive combination. They have outstanding high temperature oxidation resistance, dispersancy, and detergency; offer excellent protection against corrosion, wear, and rust; and are compatible with the various automatic transmission components such as elastomeric seals and plastic parts. In addition, their high viscosity index characteristics permit use over a wide temperature range by providing excellent low temperature fluidity and, at the same time, retaining the desired viscosity at high temperature conditions. Special friction modifiers provide the smooth lock-ups required by the DEXRON III and MERCON specifications.

### 5.2 BENEFITS

In service, Havoline hydraulic and automatic transmission fluid MERCON/DEXRON provides:

- Excellent low temperature fluidity for good cold-start shifting
- Protects against rust, corrosion, and wear
- Excellent shift quality throughout service life
- Cleaner transmissions by minimizing sludge and varnish deposits
- Compatibility with all transmissions and hydraulic seal materials
- Multiple approvals for lower inventory requirements

HMIS:            Health: 1  
                    Reactivity: 0  
                    Flammability: 1

Special:--

Health Emergency: 914-831-3400    WARNING: Escaping fluid under pressure may penetrate skin causing serious injury. If an accident occurs, see a doctor immediately.

#### Routine Maintenance Instructions

 **WARNING**

1. Disconnect all power sources.
2. Clear area of by-standers, especially children.
3. Clean equipment before maintenance.

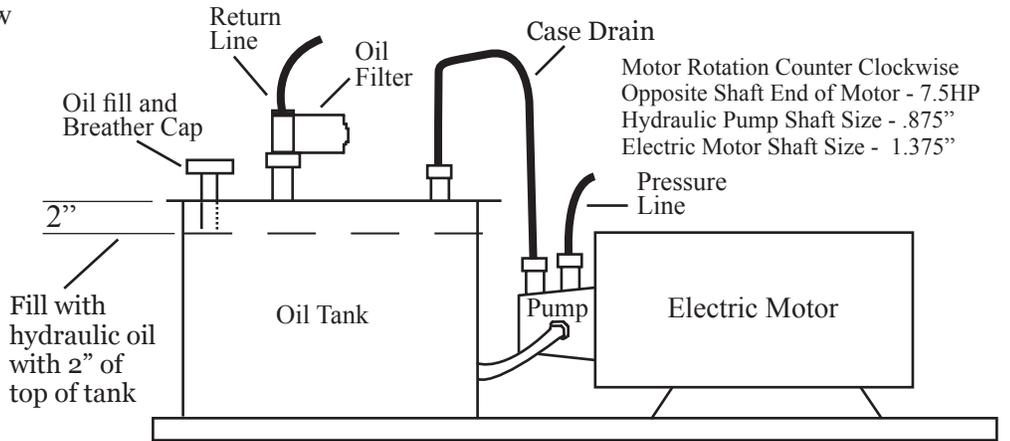
**Performance Data: Catalog=FDL 3733TM Spec. Number=37K227T879G2 Baldor Electric Company**

1 Phase Motor Specifications Below  
Frame: 213TC

| RATING-NOMINALS  |              |
|------------------|--------------|
| Rated Output     | 7.5          |
| Volts            | 230          |
| Full Load Amps   | 30           |
| Speed            | 1730         |
| Hertz            | 60           |
| Phase            | 1            |
| NEMA Design Code | L            |
| LR KVA Code      | H            |
| Efficiency       | 84           |
| Power Factor     | 97           |
| Service Factor   | 1            |
| Rating-Duty      | 40C AMB-CONT |

| CHARACTERISTICS                       |            |
|---------------------------------------|------------|
| Full Load Torque                      | 22.6 LB-FT |
| Break Down Torque                     | 81.3 LB-FT |
| Locked-Rotor Torque                   | 88.4 LB-FT |
| Starting Current                      | 222.4      |
| No-Load Current                       | 8.67       |
| Line-line Resistance @ 25 Degrees C   | 0.199      |
| Temperature Rise, in degrees C @ F.L. | 87         |

| LOAD CHARACTERISTICS-TESTED AT 230 VOLTS |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|
| % of Rated Load                          | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
| Power Factor                             | 79   | 90   | 94   | 96   | 96   | 96   | 0    |
| Efficiency                               | 68   | 81.1 | 84.7 | 85.2 | 83.8 | 80.6 | 0    |
| Speed (rpm)                              | 1782 | 1767 | 1750 | 1731 | 1708 | 1680 | 0    |
| Line Amperes                             | 11.3 | 16.5 | 22.6 | 29.6 | 37.5 | 46.9 | 0    |



Motor Rotation Counter Clockwise  
Opposite Shaft End of Motor - 7.5HP  
Hydraulic Pump Shaft Size - .875"  
Electric Motor Shaft Size - 1.375"

\*\*Change hydraulic oil filter each 500 hours of use or annually.

Electric Pump Dimensions: Length: 49"  
Width: 18"  
Height: 30"  
Weight: 300 lbs.

Operating Electric Hydraulic Pump

**WARNING**

1. Motor must be grounded in accordance with the National Electric Code and Local Codes, by trained personnel to prevent serious electric shocks.
2. To service motor, disconnect power source from motor and any accessory devices and allow motor to come to a complete stand still.

**Performance Data: Catalog=CM3710T Spec. Number=37G814S150H1 Baldor Electric Company**

3 Phase Motor Specifications Below  
Frame: 213TC

| RATING-NOMINALS  |              |
|------------------|--------------|
| Rated Output     | 7.5HP        |
| Volts            | 208-230/460  |
| Full Load Amps   | 22-20.2/10.1 |
| Speed            | 1770         |
| Hertz            | 60           |
| Phase            | 3            |
| NEMA Design Code | A            |
| LR KVA Code      | K            |
| Efficiency       | 89.5         |
| Power Factor     | 77           |
| Service Factor   | 1.15         |
| Rating-Duty      | 40C AMB-CONT |

| CHARACTERISTICS                       |            |
|---------------------------------------|------------|
| Full Load Torque                      | 22.2 LB-FT |
| Break Down Torque                     | 77.2 LB-FT |
| Locked-Rotor Torque                   | 47.4 LB-FT |
| Starting Current                      | 77.5       |
| No-Load Current                       | 5.25       |
| Line-line Resistance @ 25 Degrees C   | 1.37       |
| Temperature Rise, in degrees C @ F.L. | 69         |

| LOAD CHARACTERISTICS-TESTED AT 230 VOLTS |       |       |       |      |      |      |      |
|--|-------|-------|-------|------|------|------|------|
| % of Rated Load                          | 25    | 50    | 75    | 100  | 125  | 150  | S.F. |
| Power Factor                             | 38    | 58    | 71    | 77   | 81   | 83   | 79   |
| Efficiency                               | 81.8  | 88.1  | 89.7  | 89.8 | 89.2 | 88.1 | 89.4 |
| Speed (rpm)                              | 1792  | 1786  | 1778  | 1770 | 1761 | 1751 | 1765 |
| Line Amperes                             | 11.44 | 13.56 | 16.66 | 20.2 | 24.4 | 28.8 | 22.8 |

**ELECTRICAL REQUIREMENTS**

|                | 1PH  | 3PH                           |
|----------------|--|-------------------------------|
| <b>Breaker</b> | <b>50-Amp</b>  | <b>50-Amp</b>                 |
| <b>Wire</b>    | <b>1-gauge up to 300-foot<br/>4-gauge up to 150-foot</b> | <b>4-gauge up to 300-foot</b> |

\*\*Texaco MERCON/DEXRON III is used widely in industrial equipment because of its superior flexibility.

Empty tank 4.5 gallons



**Routine Maintenance Instructions**

**WARNING**

1. Disconnect all power sources.
2. Clear area of by-standers, especially children.
3. Clean equipment before maintenance.

## 6. TROUBLESHOOTING

### 6.1 SINGLE ALLEY

1. Panels don't swing freely.
  - Lubricate hinge points with penetrating oil.
  - Check for obstructions along sides and bottom of panels.

### 6.2 DUAL ALLEY

1. Panels don't swing freely.
  - Lubricate hinge points with penetrating oil.
  - Check for obstructions along sides and bottom of panels.
2. Hydraulically Adjustable Centerwall doesn't move.
  - Lubricate hinge points.
  - Check hydraulic fittings and hoses for leaks.
  - Check flow adjustment settings.

### 6.3 TRANSITION MODULE

1. Gate doesn't move or won't re-center.
  - Clean hinge pipes of any debris.
  - Lubricate hinge points with penetrating oil.

### 6.4 HYDRAULIC TURRET GATE

1. Gate won't shuttle
  - Check the rubber wheels that drive the gate shuttle. Adjust the bolts that hold the wheels against the gate. If the bolts are over tightened, the hydraulic motors will stall. And, if the bolts are too loose, the wheels will not grip the gate adequately. Be sure to adjust both wheels evenly, ensuring that the gate stays centered on the V-groove rollers. Over time, the bolts may need re-adjusting, as the rubber wheels wear. Replace worn out rubber wheels.
  - The top rail of the gate (where the wheels grip) should be kept clean and dry; otherwise, excessive slipping may occur.
  - Check the hydraulic fittings and hoses for leaks.
  - Consult with Moly Mfg., Inc. (785-472-3388) before adjusting pressure relief or flow controls settings. Failure to obtain written permission will void warranty.
2. Gate won't rotate
  - Check the chain for wear and/or misalignment.
  - Make sure the chain is fully on the sprockets and not bound up.
  - Check the path of the gate for any debris or obstructions.
  - Check hydraulic fittings and hoses for leaks.
  - Remove the chain and ensure the drive motor operates properly.
  - With the chain removed, swing the gate by hand, and check for binding.
  - Consult with Moly Mfg., Inc. (785-472-3388) before adjusting pressure relief or flow controls settings. Failure to obtain written permission will void warranty.

#### Routine Maintenance Instructions

**⚠ WARNING**

1. Disconnect all power sources.
2. Clear area of by-standers, especially children.
3. Clean equipment before maintenance.

#### Operating Instructions

**⚠ WARNING**

1. Use extreme caution when working with cattle in the F.Z.A. (Flight Zone Avoidance) System. Cattle behavior is unpredictable.
2. Clear the area of by-standers, especially children, before starting.
3. Have a first-aid kit available for use, should the need arise, and know how to use it.
4. Secure loose clothing and long hair, so that it will be kept from moving parts.
5. Use extreme caution when using wireless remotes. The designated controls operator must check area to see all personnel are clear of the equipment each time before operating any control levers directly or via remote control.
6. Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator's Manual.

## 6.5 FOLD GATES

1. Gates “jump” when lever is pulled.
  - Check cable tension when gate is down. Remove any slack in the cable.
2. Gates won’t go all the way up or all the way down.
  - Check for and clear any obstructions on the tracks of the gate.
  - Check that the cable has not jumped off of a pulley or gotten tangled in the control box.
  - Check the control box to make sure the cylinder can fully extend and retract.

## 6.6 KEYCHAIN REMOTE CONTROLS

1. Nothing happens when a button on remote is pressed.
  - Make sure the 12-Volt DC adapter is plugged in.
  - The hydraulic pump must be on in order to move the handles.
  - Ensure there are no loose wires.
  - Check the battery in the remote transmitter. There is a red indicator light on the remote controls; the light should be on whenever a button is pressed. If the light starts to blink when a button is held down, the battery is running low. The remote should continue to operate while the light is blinking, but a new battery should be on hand. To replace a battery, remove the key ring from the remote, unscrew the back plate, and pop the front plate loose. Note: the negative end of the battery goes to the spring. Radio Shack and similar retailers should carry equivalent batteries.
  - Reprogram remotes (See Page 26 for Keychain Remote). Contact Moly Mfg., Inc. at 785-472-3388 for Heavy Duty Remotes.

### Operating Instructions

#### **WARNING**

1. Use extreme caution when working with cattle in the F.Z.A. (Flight Zone Avoidance) System. Cattle behavior is unpredictable.
2. Clear the area of by-standers, especially children, before starting.
3. Have a first-aid kit available for use, should the need arise, and know how to use it.
4. Secure loose clothing and long hair, so that it will be kept from moving parts.
5. Use extreme caution when using wireless remotes. The designated controls operator must check area to see all personnel are clear of the equipment each time before operating any control levers directly or via remote control.
6. Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator’s Manual.

### Routine Maintenance Instructions

#### **WARNING**

1. Disconnect all power sources.
2. Clear area of by-standers, especially children.
3. Clean equipment before maintenance.

## 6.7 HEAVY DUTY REMOTE CONTROLS

### EMERGENCY STOP

Remote will not function if the red E-STOP button is pressed.

To release, twist the button and allow it to pop up.

You will need to re-start the remote after releasing the E-STOP



### ON/OFF/START

To start remote: Turn switch to 'START' and hold for a second. Then let switch return to 'ON'.

If remote sets idle for a long period of time, you may need to activate the 'START' function again.

When finished, turn the remote to 'OFF' to save battery life and prevent accidental use.

If Remote is a '16-button' style, use the 'START' function to toggle between buttons 1-8 and 9-16.

### BATTERIES – 2x AA batteries.

Remove the protective rubber boot (if present)  
Remove bottom 4 screws on lower part of back side of remote – replace batteries and re-attach cover.

#### Operating Instructions

#### **WARNING**

1. Use extreme caution when working with cattle in the F.Z.A. (Flight Zone Avoidance) System. Cattle behavior is unpredictable.
2. Clear the area of by-standers, especially children, before starting.
3. Have a first-aid kit available for use, should the need arise, and know how to use it.
4. Secure loose clothing and long hair, so that it will be kept from moving parts.
5. Use extreme caution when using wireless remotes. The designated controls operator must check area to see all personnel are clear of the equipment each time before operating any control levers directly or via remote control.
6. Consult the separate manual for SILENCER Hydraulic Squeeze Chutes. You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the SILENCER Operator's Manual.

#### Routine Maintenance Instructions

#### **WARNING**

1. Disconnect all power sources.
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3. Clean equipment before maintenance.

### STATUS LIGHT

#### 1 RED BLINK + 2 SECOND PAUSE

Low Batteries

#### 2 RED BLINKS + 2 SECOND PAUSE

Pushbutton is defective after power – on

#### CONSTANT GREEN FOR 2 SECONDS

Transmitter power on – OK – before START function

#### BLINKING GREEN

Pushbutton pressed, signal transmitted

#### SLOW RED BLINKS

Stop command initiated – Need restart

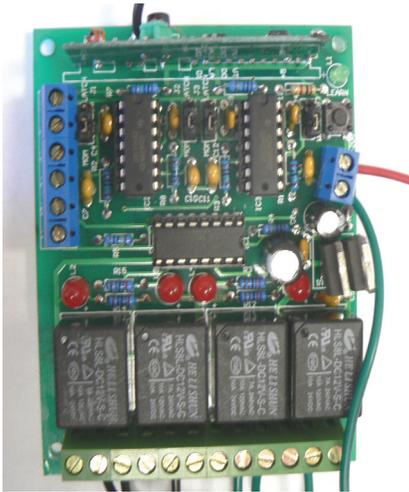
#### 1 ORANGE BLINK EVERY 4 SECONDS

Transmitter on STANDBY – ready to run.

## 7. PROGRAMMING A KEYCHAIN REMOTE CONTROL TO THE RECEIVER

\*\*Any time a new remote is installed it must be programmed to the receiver board.

- 7.1 Remove the cover from the box that houses the receiver board.
- 7.2 Plug in the 12Vdc adapter.
- 7.3 Note: while programming the remotes, if you hold down the “learn” button for more than 10 seconds, all remotes will be erased from the receiver board, and will have to be reprogrammed.
- 7.4 Press and hold the “learn” button on the board. While holding the learn button press and hold the #1 button on the remote for about 1 second, release the #1 button then release the “learn” button. The whole operation should only last about 2 seconds.
- 7.5 After completing step #4, press the #1 button on the remote again for about 1 second. Wait for 10 seconds and the remote should start to work.
- 7.6 Repeat for any additional remotes.



### Routine Maintenance Instructions

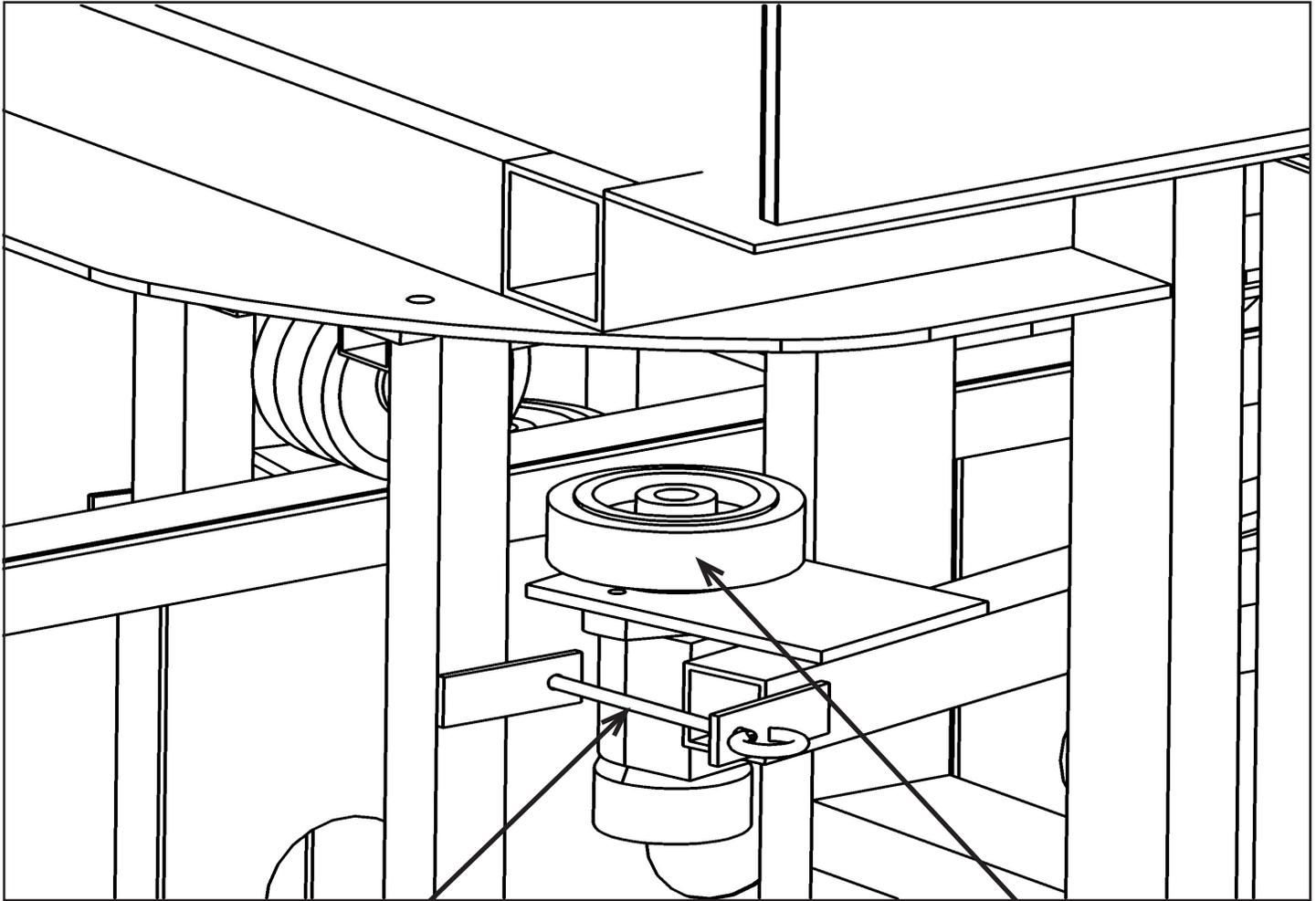
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TIGHTEN  
BOLT

SHUTTLE  
DRIVE ROLLER

### Routine Maintenance Instructions

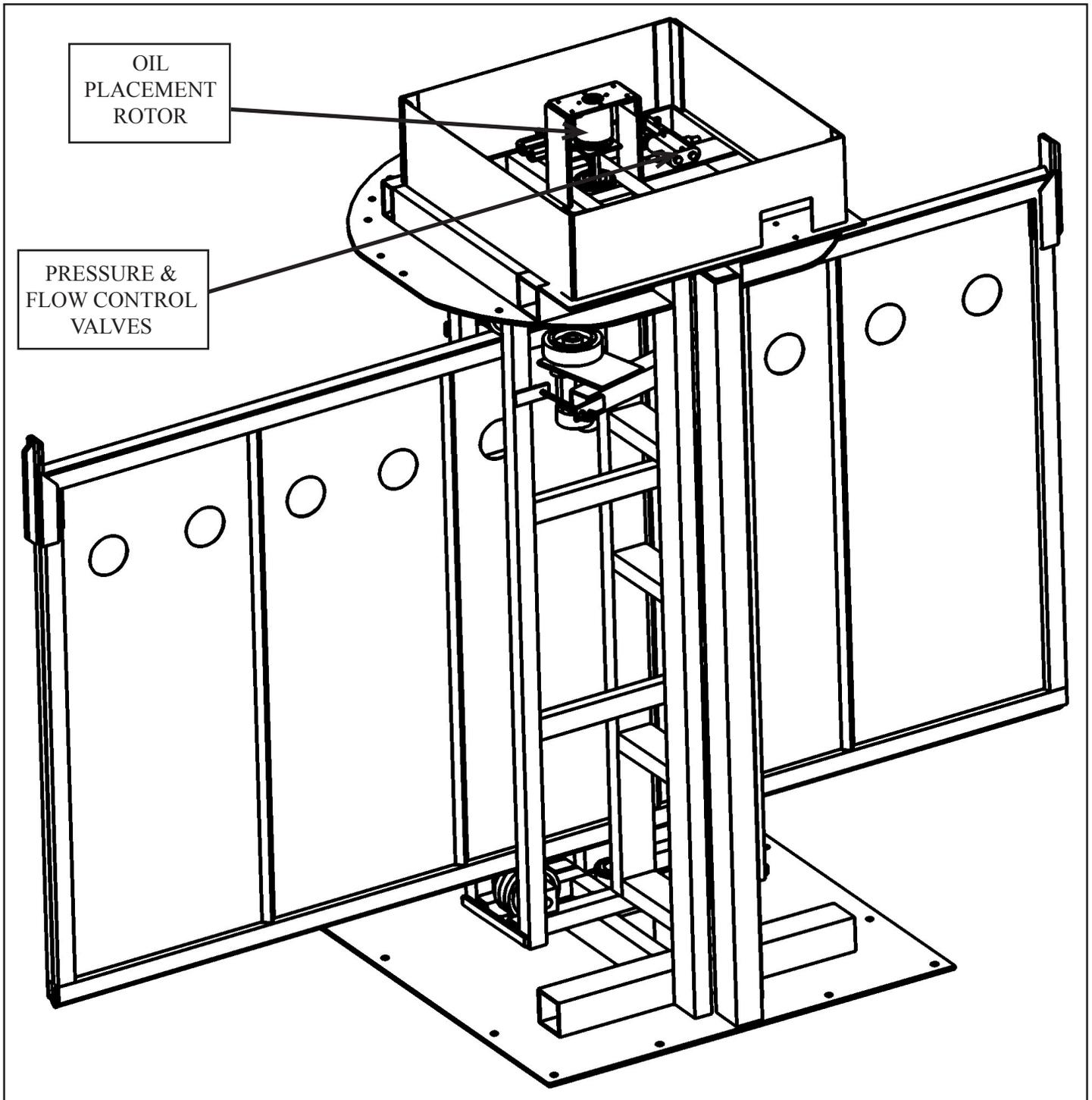
**! WARNING**

1. Disconnect all power sources.
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**Routine Maintenance Instructions**



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## **PART# DESCRIPTION**

### **CLOSED CENTER PUMP AND MOTOR**

|        |  |
|--------|--|
| 050076 | Closed Center Pump - Left Hand, $\frac{7}{8}$ keyed shaft, SAE B mount   |
| 050083 | 7.5HP 3PH Electric Motor 213TC Frame                                     |
| 050075 | 7.5HP 1PH Electric Motor 213TC Frame                                     |
| 050080 | Pump/Motor Flange Adapter  |
| 050077 | Flexible Jaw Coupling (Spider)   |
| 050078 | Lovejoy L100 $\frac{7}{8}$ Bore, $\frac{1}{4}$ x $\frac{1}{8}$ Key       |
| 050079 | Lovejoy L100 1-3/8 Bore, $\frac{5}{16}$ x $\frac{5}{32}$ Key             |
| 080305 | Pump Pressure Fitting Adapter Flange Pad to #12 ( $\frac{3}{4}$ " ) pipe |
| 080303 | Pump Suction Fitting Adapter Flange Pad to #20 ( $1\frac{1}{4}$ " ) pipe |
| 080304 | Pump Suction Hose Fitting  |
| 050005 | Hydraulic Filter Head  |
| 050006 | Hydraulic Filter Element (ZINGA AE-10 & NAPA 1551)                       |
| 050052 | Hydraulic Filler Cap   |

### **HYDRAULICS**

|        |  |
|--------|--|
| 080343 | Closed Center Inlet Valve Section                |
| 080288 | Spool Valve Section with Solenoid, DIN Connector |
| 080201 | Spool Valve Section, no Solenoid                 |
| 080309 | Closed Center Outlet Valve Section               |
| 080203 | Work Section Handle                              |
| 120001 | Dual Pressure Relief Valve (Turret Gate)         |
| 120002 | Inline Flow Control Valve (Turret Gate)          |
| 080198 | Open Center Valve Inlet Section - SVI14          |
| 080199 | Open Center Outlet Section - SVE21               |

### **REMOTES**

|        |  |
|--------|--|
| 120312 | Additional 4-Button Heavy Duty Remote  |
| 120313 | Additional 8-Button Heavy Duty Remote  |
| 120314 | Additional 12-Button Heavy Duty Remote |
| 120325 | Wired Joystick Controller              |
| 120327 | Additional 16-Button Heavy Duty Remote |

### **TURRET GATE**

|        |   |
|--------|---|
| 120135 | Hydraulic Motor For Turret Sweep            |
| 080377 | Hydraulic Motor For Turret Shuttle          |
| 120199 | 6" Rubber Wheel for Turret Shuttle          |
| 120012 | V-Groove Wheel, 6" OD, 1" ID                |
| 120194 | Hydraulic Rotary Union                      |
| 120010 | Sweep Sprocket - 19.54" Dia, 60x80, Weld On |
| 120134 | Drive Sprocket - 14 Tooth, 1"-6B Spline     |
| 120007 | Idler Sprocket - 11 Tooth, 5/8" Bearing     |
| 120006 | #60 Heavy Chain                             |
| 120005 | #60 Heavy Chain Connection Link             |
| 120127 | #60 Heavy Chain Offset Link                 |
| 120016 | 6" Extension Spring - Chain Tensioner       |

**PART#      DESCRIPTION (cont.)**

**ALLEYS & FOLD GATES**

|        |  |
|--------|--|
| 010249 | 3/4" HDPE, Plastic Sheet, Moly Gray                              |
| 080210 | Hydraulic Centerwall Cylinder                                    |
| 080383 | Hydraulic Fold Gate Cylinder                                     |
| 090004 | Pulley for Wire Rope - 2-1/2" OD, 1/2" ID - Plain Bronze Bearing |
| 090006 | 1/4" Wire Rope   |
| 120014 | 1/4" Wire Clamp  |
| 040187 | Pulley for 1/2" Rope - Manual Fold Gate                          |
| 110189 | 1/4" Quick Link - Manual Fold Gate                               |
| 010232 | 1/2" Nylon Rope - Manual Fold Gate                               |













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