



GOLD Dispensing Unit

Grease One-Way Logistics and Distribution

Operating and
Service Instructions



For assistance concerning these operating and service instructions please contact your ExxonMobil Representative or,

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ExxonMobil
Lubricants & Specialties

GOLD Dispensing Unit

Operating and Service Instructions

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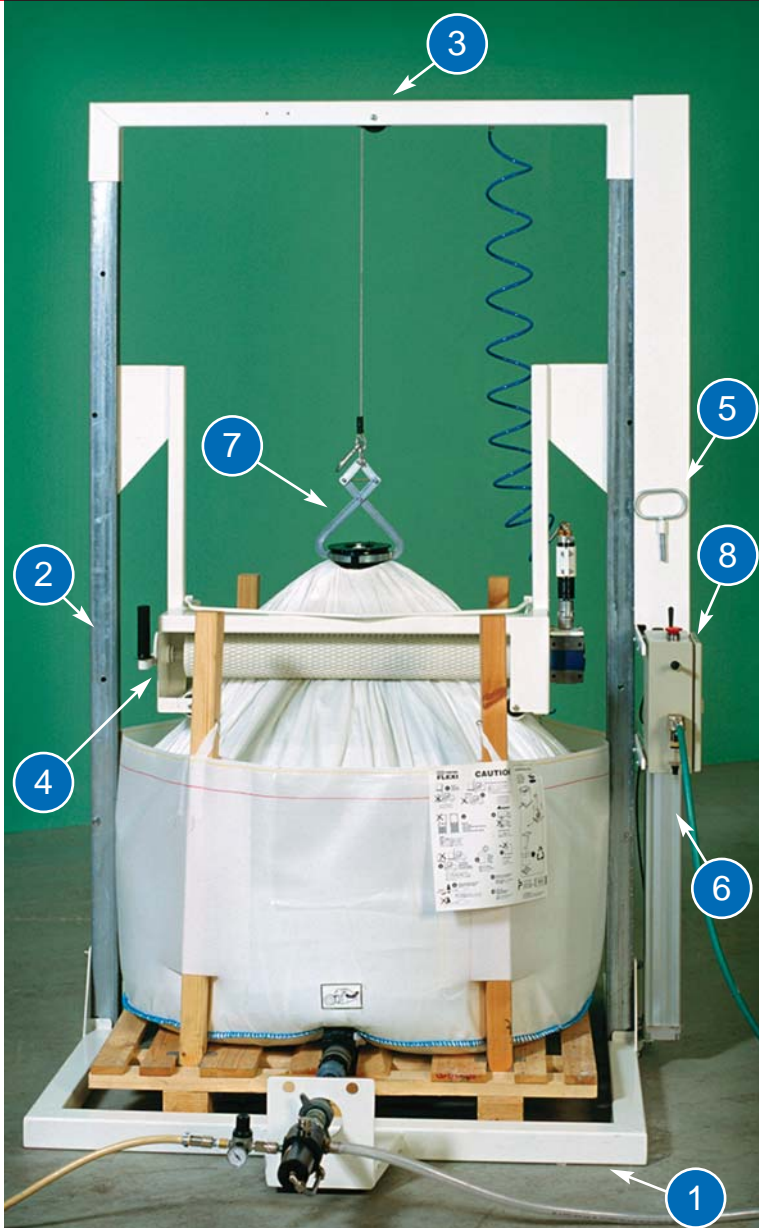


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Section 1 - The GOLD Dispensing Unit



The GOLD Dispensing Unit automatically dispenses bulk greases from sealed GOLD Flexi-Bags. This unique system offers these benefits:

- Reduces the labor costs of bulk grease handling
- Reduces lubricant costs by virtually eliminating lubricant waste
- Improves equipment reliability
- Decreases downtime

The GOLD Dispensing Unit consists of the parts shown in Figure 1:

- Base (1)
- Pillar Rails (2)
- Cross Bar (3)
- Roller Cradle: rollers, air motor, gearbox (4)
- Locking Pins, 2 each (5)
- Lifting Cylinder (6)
- Lifting Tongs (7)
- Control Unit (8)

Figure 1

GOLD Dispensing Unit

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Section 2 - Initial Setup



Figure 2

Confirm that all steps in the GOLD Assembly Instructions have been completed. Then complete the following two steps to prepare the Discharge Unit for initial operation.

See Figure 2

1. On the Control Unit, check that the lubricator (A) is filled with air tool oil.
2. Connect plant air supply to the male quick-connect fitting on the Water Separator (B). See GOLD Assembly Instructions, page 6, step 10. Air supply should be regulated to 100 psi (6.9 bar) maximum. (1 bar = 14.5 psi.)

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Section 3 - Control Unit

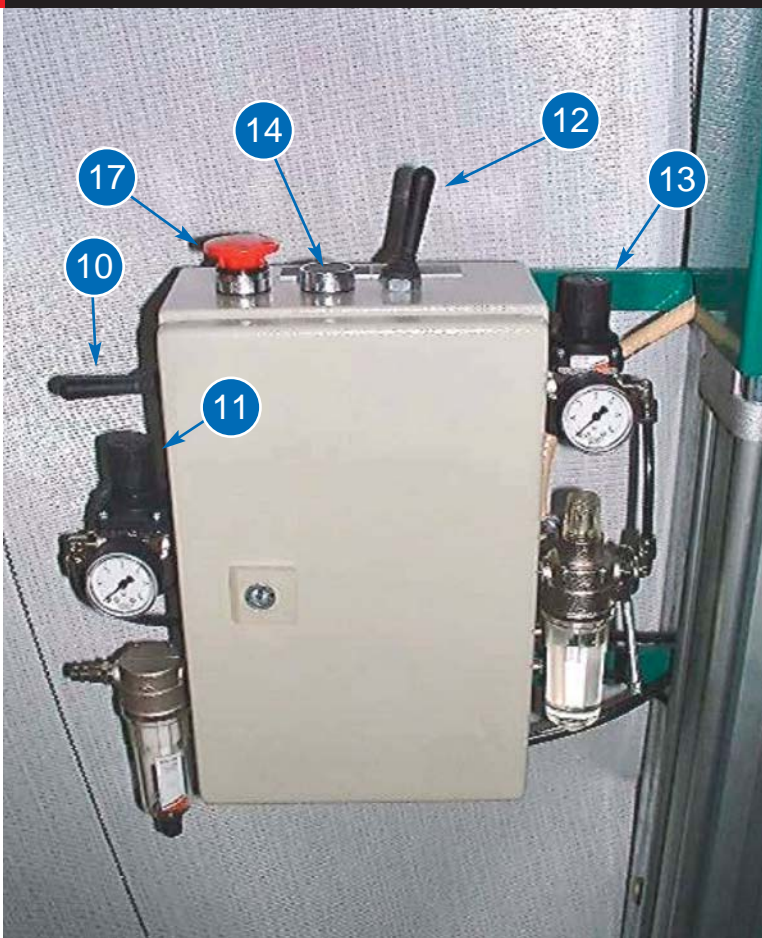


Figure 3

The control unit has two functions: A) To control the operation of the Rollers, and B) To control the Lifting Cylinder and attached Lifting Cable. Both functions are described here in more detail. Figure 3 identifies each of the pneumatic controls used to operate the GOLD Dispensing Unit.

See Figure 3

- Lifting lever (10)
- Air pressure regulator for lifting (11)
- Emergency stop for lifting air (not shown)
- Rollers rotation lever (12)
- Pressure regulator for rollers (13)
- Emergency stop for roller air (17)
- Reset button (14)

Roller Operation

An air-driven gear reducer drives the rollers through permanently coupled gears. Do not grease these gears. Keep the gears clean to avoid unnecessary wear. Also keep the rollers clean for good contact with the fabric of the GOLD Flexi-Bag.

The Roller control lever (12) is located on the top of the Control Unit. The On and Off positions of this lever control the air flow to the air motor gear drive. **This lever should always be in the ON position when the Roller Cradle is coupled to a GOLD Flexi-Bag in the automatic dispensing mode.** See Section 4, page 7.

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Section 3 - Control Unit

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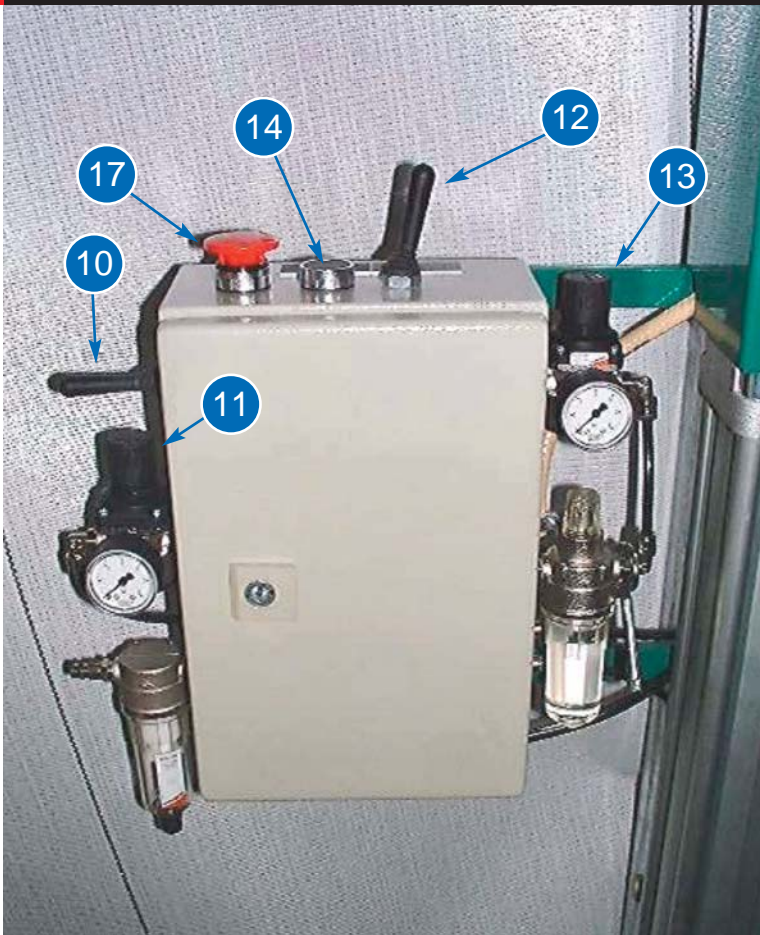


Figure 2

Emergency stop

Either of the two red emergency stops (17) on the Control Unit will stop all air-driven functions on the GOLD dispensing Unit. Emergency stops do not affect the operation of the pump.

Start after emergency stop

Release the activated emergency stop button from its depressed position by turning it clockwise. Then press the RESET button (14) to restart the air-driven Roller and Lifting functions.

Lifting Operations

The air-operated lifting cylinder and cable have two functions: (1) To lift and lower the Roller Cradle while a GOLD Flexi-Bag is being installed or removed, and (2) To stretch the GOLD Flexi-Bag while grease is being dispensed.

The Lift operating lever (10) is located on the left side of the Control Unit. It has three positions. In the center, the air flow is OFF. The UP and DOWN positions control the motion of the cable.

This lever should always be in the UP position when the Roller Cradle is coupled to a GOLD Flexi-Bag in the automatic dispensing mode.

Emergency stop

Either of the two red emergency stops (17) on the Control Unit will stop all air-driven functions on the GOLD Dispensing Unit, Emergency stops do not affect the operation of the pump.

Start after emergency stop

Move the Lift lever to the desired position: UP, OFF, or DOWN. Release the emergency stop button from its depressed position by turning it clockwise. Then press the RESET button (14) to restart the air-driven Roller and Lifting functions.

Loss of supply air pressure

Interruption of supply air pressure to the GOLD Dispensing Unit will automatically shut down the Roller and Lift functions. To re-start, follow the "Start after emergency stop procedure" above.

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Section 4 - Dispensing Grease

Confirm that the airline Lubricator is filled with air tool oil, and the plant air supply is connected to the Control Unit. See Section 2 – Initial setup.

Set the Lifting Pressure Regulator (11) to 5.5 bar and the Roller Pressure Regulator (13) to 2.0 bar. These initial pressure settings will be adjusted later, depending on the grease being dispensed. Then follow the instructions below to use the first Flexi-Bag with the Dispensing Unit.

1. When starting or changing Flexi-Bags, the Roller Cradle (4) must be lifted to the top position by moving the Lifting Lever (10) to the UP position. Secure the Roller Cradle in the top position by inserting a Locking Pin (5) through the upper holes in both Right and Left Pillar Rails. Then move the Lifting Lever to the OFF (center) position.
2. Position a full Flexi-Bag in the Base so that it is centered under the Roller Cradle.
3. Attach the Kamlok Adapter (shipped with the GOLD Dispensing Unit) to the 3-inch discharge pipe of the Flexi-Bag.
4. (a) Insert a grease pump all the way into the pipe, then withdraw it 2 to 3 inches and lock it in place with Kamlok Adapter, or,
 - (b) Connect a flexible suction hose from an external grease pump to the Kamlok Adapter. In either case, the connections between the pump and Flexi-Bag discharge pipe must be airtight.
5. By gravity flow to the pump, dispense about one-third to one-half of the grease out of the Flexi-Bag before coupling the Roller Cradle to the fabric of the Flexi-Bag.
6. Couple the Roller Cradle to the Flexi-Bag as follows:
 - (a) Lift the Roller Cradle off the locking pins by moving the Lifting Lever (10) to the UP position
 - (b) Remove the Locking Pins (5)
 - (c) Use the Lifting Lever to lower and stop the Roller Cradle just above the partially empty GOLD Flexi-Bag
 - (d) Disengage the cam-locking lever on the left end of the Roller Cradle and spread the two rollers apart
 - (e) By hand, feed the black top valve of the bag up between the rollers. Position the slack fabric of the bag between the rollers so that it is clear of the bottom frame of the cradle at both ends
 - (f) Re-close the rollers with the cam-locking lever that was opened in step (d) above
 - (g) Release the snap-lock to disconnect the Lifting Wire from the lifting bar of the Roller Cradle
 - (h) Attach the snap-lock on the Lifting Wire to the Lifting Tongs (7)
 - (i) Fit the Lifting Tongs around the black top valve of the bag. Be sure that the tongs fit under the top lip of the valve all the way around. **NOTE: Do not grasp the top cover of the valve.**
 - (j) Move the Lifting Lever to the UP position to stretch the slack Flexi-Bag fabric above the rollers. Leave the Lifting Lever in the ON position until the Flexi-Bag is empty.
 - (k) Move the Roller Lever to the ON position to start the rollers. Adjust the Roller air pressure until the rollers start to slip. Note the pressure and decrease it to 60% of the slip value. For example, if the rollers start to slip at 4.0 bar, reduce the pressure to 2.4 bar. Leave the Rollers ON at that pressure until the Flexi-Bag is empty.

The GOLD Dispensing System will now operate automatically until the Fluid-Bag is empty.

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Section 5 - Maintenance



1. Maintain the Lifting Wire as detailed in Attachments A and B, ISO Standard 4309 :1990 (E), Annex C and D
2. Keep the rollers clean of dirt and grease. Dirty rollers may slip. Slipping can result in reduced discharge capacity and more product residue in the Flexi-Bag when the dispensing operation is complete.
3. Check and fill the airline lubricator weekly. Set the oil feed rate at 1 drop every 15 minutes. Use Mobil DTE Light, Exxon Teresstic 33, or similar airline oil.
4. Empty the water separator weekly to protect the air motor on the roller drive.
5. Check the air system safety functions regularly, or as required by local regulations, as follows:
 - a) Disconnect the air supply to the Control Unit. The Roller Cradle should move slowly downward at a safe speed of about an inch in 5 seconds.
 - b) Check the same safety function by disconnecting the air supply between the Control Unit and the lifting cylinder. The Roller Cradle should again move slowly downward at a safe speed of about an inch in 5 seconds.
6. Check the emergency stop functions regularly, or as required by local regulations, by pressing the red buttons. All operations of the GOLD Dispensing Unit must stop immediately. These buttons do not affect the operation of the grease pump.

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Appendix A - Wire Rope Inspection Frequency

Annex C ISO 4309:1990 (E)

C.1 Scope

This annex recommends guidelines for frequency of examination of rope.

C.2 Daily observation

As far as possible, and where visible, any wire rope shall be observed each working day with the object of detecting general deterioration and deformation. Particular attention shall be paid to the wire rope at points of attachment to the crane.

C.3 Periodic examination

In order to determine the frequency of such examination, consideration is given to the following:

- a) the statutory requirements covering the crane in the country of use;
- b) the type of appliance and the environmental conditions in which it operates;
- c) the classification group of the crane;
- d) the results of previous examinations.

In all cases, an examination shall take place after any incident, and every time the rope is brought back into operation after a dismantling operation followed by a re-assembly.

C.3.1 General construction-site cranes

Mobile cranes and tower cranes shall be examined a minimum of once per week.

C.3.2 Cranes on which ropes are expected to have extended performance

In the case of cranes on which ropes are expected to have extended performance, the periodic examination shall take place at least once a month.

NOTE – When defects occur, it is prudent to reduce the time-interval between examinations.

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Appendix B - Wire Rope Examination

Annex D ISO 4309:1990 (E)

D.0 Introduction

Experience of examining wire rope and discarding it from service shows that internal deterioration, mainly as a result of corrosion and the normal progress of fatigue, is the prime cause of many rope failures. Normal external examination may not reveal the extent of internal deterioration, even to the point when fracture is imminent.

Internal examination shall always be carried out by a competent person.

D.1 Scope

All types of stranded wire ropes can be opened up sufficiently to permit assessment of their internal condition. It is difficult for large rope sizes. However, the majority of ropes fitted to cranes can be examined internally provided that they are at zero tension.

D.2 Method

The method consists in attaching firmly to the rope two clamping jaws of suitable size and distance apart.

By applying a force to the clamping jaws in the opposite direction to the rope lay, the outer strands separate and move away from the core.

Care should be taken during the opening process to ensure that the clamping jaws do not slip about the periphery of the rope. The strands should not be displaced excessively.

When the wire rope only opens slightly, a small probe, such as a screwdriver, may be used to remove grease or debris which could hinder observation of the interior of the rope.

The essential points which should be observed are

- a) the state of the internal lubrication;
- b) the degree of corrosion;

- c) indentation of wires caused by pressure or wear;
- d) presence of broken wires (these are not necessarily easily visible).

After examination, insert a service dressing into the opened part and effect rotation of the clamping jaws with moderate force to ensure correct replacement of the strands around the core. After removal of the jaws, the outer surface of the rope should normally be greased.

D.3 Rope portions adjacent to termination

In examining these portions of rope, it is sufficient to use a single jaw, since the end anchorage system, or a bar suitably located through the end portion of the termination, will ensure the necessary immobilization of the other end.

D.4 Portions which should be examined

Since it is impracticable to examine the interior of the wire rope over the whole of its length, suitable sections must be selected.

In the case of wire ropes which wind onto a drum, or pass over pulleys or rollers, it is recommended that the lengths which engage the pulley grooves when the crane is in a loaded condition should be examined. Those localized areas in which shock forces are arrested (i.e. adjacent to drum and jib lead pulleys) and those lengths which are particularly exposed to the weather for long periods should be examined.

Attention should be given to the area of rope close to its termination: this is particularly important in case of fixed ropes, such as stays or pendants.

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Appendix C - Replacement Components

Ready Spares

If downtime on your GOLD Dispensing Unit is critical, the following parts are recommended as ready spares on site.

OrderCode	Description	Drawing Reference	Recommended Quantity	Price each FOB VA US \$	Availability Days
DS-GDU-2	Lifting tongs	FB620023D pos. 27	1	call	7
DS-GDU-3	Wire wheel with bearing, cylinder	FB620023D pos. 13	1	call	7
DS-GDU-4	Lifting wire	FB620023D pos. 25	1	call	7
DS-GDU-11	Wire wheel, cross bar	FB001209A pos. 4	2	call	7

The above ready spares and all other replacement components are available from:

Distribution Specialists, Inc.

43671 Trade Center Place, Suite 110

Sterling, VA 20166-2118

Order Desk:

Tel: 703.996.8142

Toll free in US: 1.800.726.8853

E-mail: sales@DSI-Ltd.com

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