
FLEXICON[®]
Power Cincher[™] Flow Control
Valve
Installation and Operation Manual

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NOTE: Please read this manual in its entirety along with all illustrations and schematics prior to installation and/or operation of the equipment. If you have any questions or comments, please call FLEXICON® Corporation at (610) 814-2400 and request our service department.

INTRODUCTION

The Flexicon **Power Cincher™ Flow Control Valve** has been engineered to interface with various bulk bag discharging systems.

Our standard design accommodates bulk bags with outlet spouts up to 18" diameter and securely cinches off all types of materials from granular through very light powders.

The **Power Cincher™ Flow Control Valve** can be purchased either factory installed or as a retrofit able unit in the field.

For more information, please contact your FLEXICON® Corporation representative, or our office directly.

MECHANICAL INFORMATION

CAUTION: A safety shield is supplied on the underside of the Power Cincher™ Flow Control Valve unit for operator and/or maintenance personnel protection. Removal of this guard could result in serious injury!

The Power Cincher™ Flow Control Valve has been designed to mount to a FLEXICON® Bulk Bag discharge frame via (4) bolts. The unit can also be mounted by alternative means such as weld studs, threaded inserts, etc.

All internal components, pivot arms and linkages as well as the lower safety shield, can be readily disassembled for ease of cleaning.

PNEUMATIC INFORMATION

The normal operating pressure range is **60** to **80** PSI.

Depending on the weight of the material that the bag spout is fabricated from and the type of material being controlled, the pressure setting may have to be adjusted by the operator to obtain proper operating performance but may **NOT** exceed a maximum of **90** PSI.

OPERATING FEATURES

The Power Cincher™ Flow Control Valve unit offers FULLY proportional pneumatic control via four control devices (3) pneumatic pushbuttons ("air supply", "open", "close") and a pneumatic selector switch ("air lock": "release"- "hold").

The operator can obtain multiple orifice positions for material flow control via *manual* mode. Or, the operator can select to maintain continuous pressure via *automatic* mode, which incorporates a timer and frees the operator's hands to perform the bag tying function while maintaining full closure pressure.

If at any time the operator removes either hand from the controls in *manual* mode, the unit will be rendered inoperable! However, the orifice position at that time will remain unchanged. Also, there will be NO air pressure resident in the airlines to the air cylinders for safety purposes.

OPERATION

CAUTION: The Power Cincher™ Flow Control Valve was designed to be operated by a single individual for maximum operator safety. If more than one operator is working within or around the unit during normal operation, **extreme caution** must be taken to prevent serious bodily harm. **REMEMBER, you as the operator are equally responsible for the safety of your co-worker(s) when operating this or any other piece of hazardous equipment!**

Additional safety can be achieved by the customer installing a plant air supply cut-off valve as close as possible to the **Power Cincher™ Flow Control Valve** pneumatic control panel. This will help prevent accidental operation of the unit and reduce the amount of residual air in the line between the cut-off valve and the connection at the panel. If the cut-off valve is placed to far from the panel, sufficient resident air in the incoming line could be used to operate the unit!!

NOTE: There is the possibility of a situation arising whereas due to a short bulk bag spout length, the bag outlet spout tie point may fall within the orifice of the Power Cincher. This would not pose a problem if the operator were to undo the spout tie and use the Power Cincher to control the discharge flow until the bag was empty.

If however, the operator wishes to completely close off the spout in a batch mode, where the spout must then be retied and the bulk bag removed from the process, this would present a problem. The tie would now be captured in the Power Cincher pivot arms and not be accessible to the operator.

The recommended procedure in that situation would be to place a secure secondary tie at a point just below the body of the Power Cincher.

That would be the tie that would then be used until that bag is emptied and therefore would not cause the same problem as initially encountered

where the original tie was at such a position whereas it was located in the center of the Power Cincher.

“AIR LOCK - RELEASE” Mode:

This mode would primarily be used for varying the flow of material from a bulk bag discharge spout. If the operator wishes to totally cinch off and maintain full closure of the bag spout for any reason, it is recommended to use the **“HOLD”** mode.

To operate the Power Cincher in **“release”** mode, set the **“air lock”** selector switch to the **“RELEASE”** position. This selector switch is located on the face of the control enclosure. (See figure 1)

To operate the unit, the operator **must** use **both** hands. **One hand** is required to **depress and hold** the **“AIR SUPPLY”** push button (located on the side of the control enclosure) which charges the system with air while **at the same time**, using the **other hand**, pressing the **“OPEN”** or **“CLOSE”** pushbutton (located on the face of the control panel) to control the Power Cincher orifice size.

Unlimited orifice settings can be obtained in order to control material flow. (See figure 2)

Once the operator removes either hand from the controls in **“release”** mode, the unit is rendered inoperable and bleeds off **all** air pressure resident in the system to maintain the current orifice setting. This feature was incorporated for operator safety.

“AIR LOCK- HOLD” Mode:

This mode would be particularly useful for those times when it is required to totally close off the bulk bag spout and maintain **full closure pressure** while freeing the operator to do other required manual tasks at the same time. This function is very useful in batch applications where partially emptied bags need to be closed, retied and removed.

To operate the Power Cincher in **“hold”** mode, set the **“air lock”** selector switch to the **“HOLD”** position. This switch is located on the face of the control panel.

As in the release mode, the operator **must** use **both** hands on the controls to engage the timer.

In order to engage the timer and enable the **“HOLD”** function, one hand is required to **depress and hold** the **“AIR SUPPLY”** push button while, **at the**

same time, using the other hand, **press and hold the "CLOSE" pushbutton for at least 4 seconds**. The timer is factory set to engage after 3 seconds.

Once the timer has engaged, the operator can release both the push buttons.

The Power Cincher will remain in a full closure, full pressure mode. That is to say that as the material flows through the spout, the cincher will automatically close off the bag spout by maintaining full pressure until completely closed. The operator can then tie off the bag spout.

Once the bag spout has been tied off, the operator must disengage the "hold" mode in order to open the cincher and remove the bag.

This is accomplished by first turning the "air lock" selector switch back to the "release" position and then using the "AIR SUPPLY" and "OPEN" push buttons simultaneously as described in the "release" mode of operation. The operator can then open the Power Cincher to release the bag spout and remove the bag.

The "HOLD" mode is then disengaged until activated again through the proper sequence.

PERIODIC MAINTENANCE

CAUTION: Shut off all plant air to the Power Cincher control panel before performing any work on the unit.

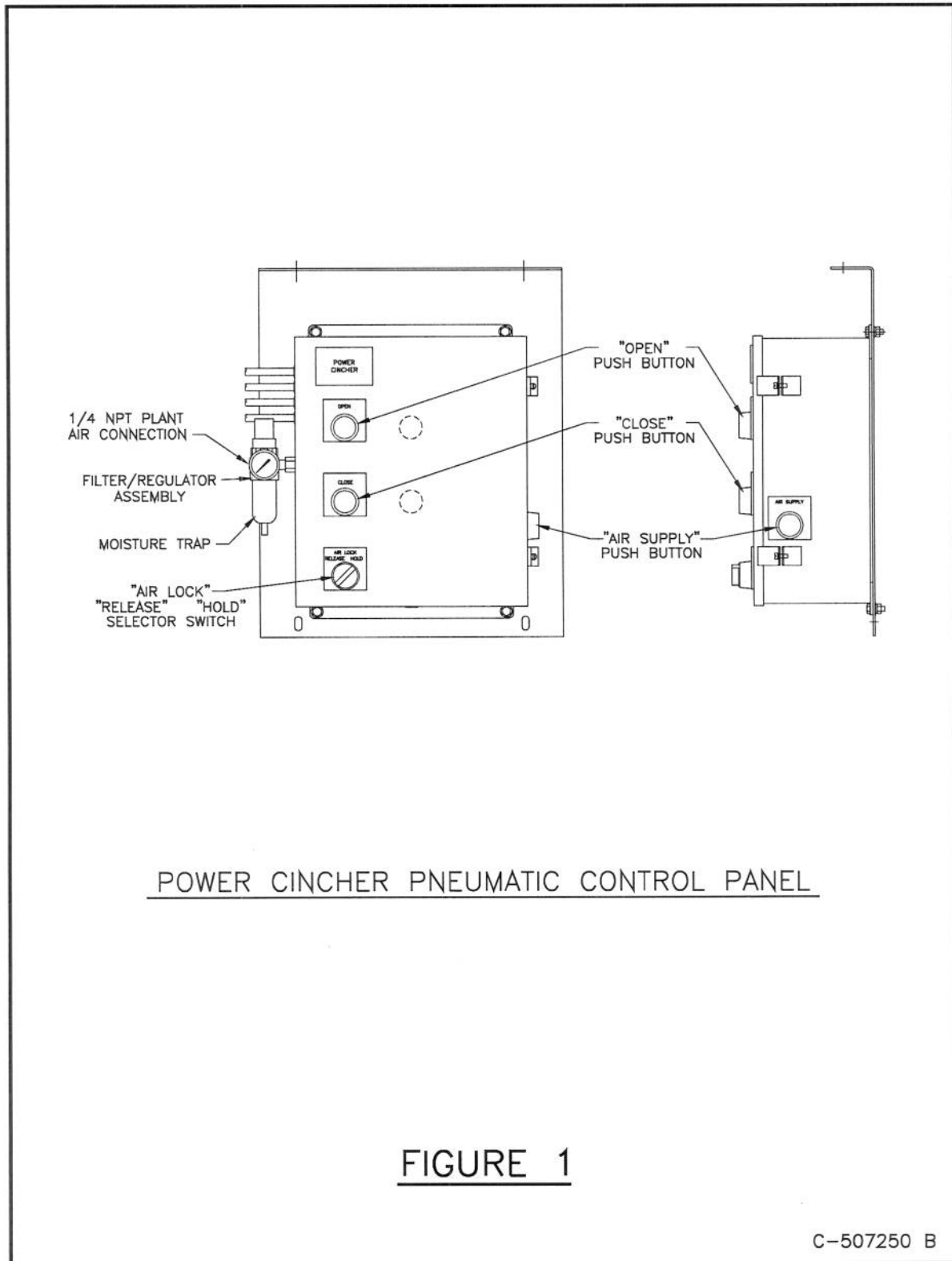
Power Cincher™ Flow Control Valve:

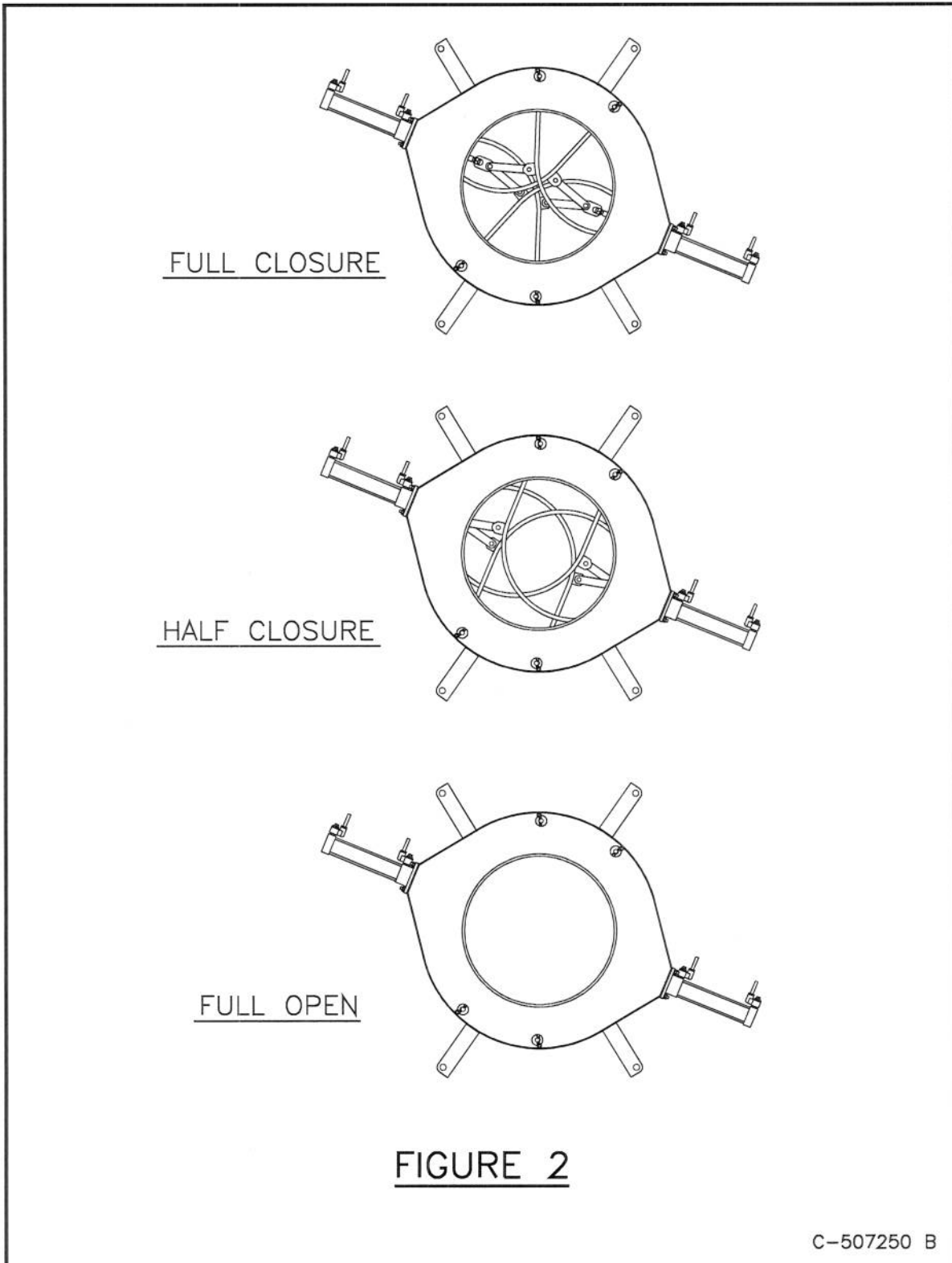
The unit itself does not require any periodic maintenance. However, it may be necessary to periodically clean the interior of the unit due to dust and or material build-up inside the housing.

No lubrication is required on any of the components in the unit with exception to the lubricator associated with the air supply.

Filter/Regulator: Check and drain the filter/regulator if it has accumulated any amount of moisture in the trap.

Lubricator: Check and maintain the oil level in the lubricator.





RECOMMENDED SPARE PARTS FOR STANDARD POWER CINCHER ASSEMBLY

Please contact Flexicon for special application parts

FLEXICON PART #	DESCRIPTION	U/M	QTY
PN00465	CYLINDER AIR 2" BORE 8" STROKE	EACH	2
PN00170	FILTER / REGULATOR / GAUGE 1/4" NPT	EACH	1