

# BAG COMPACTOR

Installation, Operation,  
and Maintenance  
Manual



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**FOREWORD**

This manual contains instructions for installation, operation, and maintenance of Young Industries bag compactors. The care taken during receiving, storage, installation, operation and continued maintenance will add to the reliable operation and long service life of this equipment.

**This manual should be read and understood in its entirety by the operator and the director of plant safety before performing any work on or operating a bag compactor. Contact Young Industries for additional copies which may be required to insure the bag compactor is being operated safely and according to the recommended procedures included in this manual.**

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SAFETY

**READ AND FULLY UNDERSTAND THIS MANUAL PRIOR TO OPERATING OR PERFORMING ANY WORK ON A YOUNG BAG COMPACTOR.**

If you have previously received delivery of a Young bag compactor and are just now receiving this manual, insist that both the bag compactor operator and the director of plant safety read and fully understand this manual prior to continued use of and/or performing any maintenance on the bag compactor.

Notify Young Industries if your bag compactor does not include safety warning labels or devices recommended within this manual, which you believe may be important to improve the safe operation or maintenance of your bag compactor installation. Contact the Engineering Manager for assistance at 570/546-3165 prior to continued use or maintenance.

Notify Young Industries if you have sold, leased, rented or given any Young bag compactor to another user. Your assistance will allow Young Industries to contact the new user with updated safety and/or operational recommendations.

Safety is a fundamental factor that must be considered at all times in the operation and maintenance of mechanical equipment. Use of proper tools and methods can prevent serious accidents that may result in injury to you and your fellow workers.

A number of safety precautions are listed throughout this manual. Study them carefully and follow them; insist that those working with you do the same. Remember: an accident can easily be caused by someone's carelessness or negligence.

The various precautions and recommendations detailed within this manual **are not necessarily** all inclusive. Young Industries has attempted to provide SAFETY AND OPERATIONAL GUIDANCE relating to typical installations with which we are familiar. We urge you to review your particular bag compactor installation to determine whether there are potential hazards beyond the warnings of this manual.

If you have any safety or operational questions pertaining to the design or application of a Young bag compactor as it relates to your particular installation, please contact the Engineering Manager, Young Industries, telephone 570/546-3165.

Failure to observe and follow the safety precautions may result in serious personal injury or property damage.

Young Industries looks to our customer to achieve a cooperative effort for the purpose of making each bag compactor installation as safe for the operator as is reasonably possible and to insure proper maintenance and operating procedures are followed. Many times we do not have access to the installation; therefore, your participation in the safe installation, operation and maintenance of each compactor is critical.

**WARNING - ELECTRICAL GROUNDING AND BONDING ARE REQUIRED**

- Ungrounded machinery presents a potential hazard of fatal electrical shock from electrical power sources. Static electricity may also accumulate on ungrounded equipment. Static electricity discharge may cause an explosion or fire if flammable vapor or dust is present.
- Electrical equipment must be installed by a certified professional electrician.

## SAFETY AND INSTALLATION

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- Before operating any equipment, grounding and bonding must be completed in accordance with the National Electrical Code (NFPA 70) published by the National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02269-9101, and any other applicable national, state or municipal codes. Codes for safe control of static electricity must also be observed, including the National Fire Code NFPA 77 "Recommended Practice on Static electricity" and any of the applicable national, state or municipal codes.
- To avoid hazardous static discharge, mobile, movable or portable equipment which may contact or come near to other equipment and which is not specifically prohibited by codes from being connected to ground must be safely grounded and bonded before close approach or contact is made. This warning also applies to movable containers such as drums, totes, boxes and bags.
- Sections of pipe, duct and gravity spout must be bonded to adjacent sections of pipe, duct, spout or equipment and must have a conductive path to electrical ground.
- Regular periodic safety inspections of electrical systems and grounding/bonding systems are required.

## INSTALLATION

### A. Receiving and Inspection

1. Upon receipt of equipment and material from Young Industries the following basic steps should be taken:

a. Use the packing list to determine that all the items shipped have been received. Your equipment order was carefully crated or packaged for safe shipment when given to the carrier. Check for damage.

(1) Damage in transit is the responsibility of the carrier. Be sure to have the driver sign a copy of the freight bill with a notation about any damage.

(2) If a shipment was sent to you by parcel post, have the postmaster complete a damage claim report.

(3) Concealed damage: If equipment or goods are discovered to be damaged by shipment at a later date, contact the carrier and Young Industries immediately.

(4) IN ALL CASES OF DAMAGE IN TRANSIT, CONTACT THE YOUNG INDUSTRIES ENGINEERING MANAGER AT 570/546-3165 FOR ASSISTANCE IN DETERMINING WHETHER OR NOT THIS DAMAGE MAY IN ANY WAY AFFECT SAFETY OR PROPER OPERATION OF A BAG COMPACTOR

(5) If shipped UPS, **DO NOT THROW ORIGINAL CARTON AWAY.** Keep all evidence for the inspector.

#### **NOTE:**

YOUNG INDUSTRIES CANNOT ASSUME ANY LIABILITY FOR SHORTAGES OR DAMAGED GOODS. CLAIMS MUST BE NEGOTIATED WITH THE CARRIER. CONTACT THE YOUNG INDUSTRIES ENGINEER MANAGER AT 570/546-3165 FOR ASSISTANCE IN RECTIFYING ANY SHORTAGE OR DAMAGE AS IT RELATES TO SAFE AND PROPER OPERATION OF A BAG COMPACTOR.

2. Moving the Bag compactor

a. Moving and installation should always be performed by trained, experienced personnel, using safe and accepted rigging practices.

#### **CAUTION:**

WHEN MOVING A BAG COMPACTOR OR COMPONENT PARTS, BE SURE THAT MOVING PRACTICES USED ARE SAFE FOR BOTH PERSONNEL AND EQUIPMENT. CONTACT THE YOUNG INDUSTRIES ENGINEERING MANAGER IF THERE ARE ANY QUESTIONS RELATING TO WHAT CONSTITUTES SAFE AND ACCEPTED RIGGING PRACTICES FOR MOVEMENT AND/OR INSTALLATION OF A BAG COMPACTOR.

b. Care and caution should be exercised to prevent damaging the housing, flanges

and the pneumatic system.

3. Storing the Bag compactor

- a. If moved to storage, the equipment should be located in a dry area, preferably inside. Outside storage will require adequate protection from the weather.
- b. The bag compactor has been shipped with temporary guards or covers. Do not remove these guards or covers while the bag compactor is in storage.
- c. After prolonged storage and prior to start-up, the bag compactor shall be inspected by a qualified person. Contact Young Industries Engineering Manager at 570/546-3165 for assistance.

**CAUTION:**  
USE CAUTION TO PROTECT AGAINST FALLING OBJECTS OR DEBRIS FROM ENTERING OR DAMAGING THE BAG COMPACTOR.

**B. Supports**

- 1. A Young Industries bag compactor is designed to be supported and anchored to a rigid support base.
  - a. A bag compactor is supplied with four support legs with anchor bolt holes.
- 2. Securely anchor the bag compactor by bolting.
  - a. The support for a bag compactor must be structurally adequate to support an operating bag compactor with the chamber full of compacted bags.

**C. Assembly**

- 1. Locate the bag compactor with provision for sufficient clearance to allow opening of the bag removal door.
- 2. If the bag compactor is to be connected to a bag dump or other machine, make the appropriate connection.

**D. Compressed Air Installation**

- 1. Connect the plant compressed air supply to the bag compactor.
  - a. The compressed air supply must be clean and dry with a pressure of 80 to 90 psi. Use a minimum 1" IPS air supply line.

**CAUTION:**  
COMPRESSED GAS-SHUT OFF AND BLEED SYSTEM BEFORE SERVICING

**E. Precommissioning**

- 1. Prior to operating or test running the bag compactor and with the compressed air shut off, check internally for cleanliness, using caution to avoid physical harm to personnel and equipment.
- 2. Inspect the installation to assure the bag compactor is installed properly and mounted securely.
- 3. Determine that the compressed air supply is properly installed and operative.

**CAUTION:**  
BAG COMPACTOR – DO NOT OPERATE WITH DOOR OPEN

- 4. Inspect the bag compactor to assure that all guards, covers and safety equipment are in place and working properly.
- 5. We urge the installation crew to notify the plant safety committee and/or the plant engineer when installation is complete and prior to initial operation. Those in your plant responsible for plant safety should review your bag compactor installation prior to operation for safety in light of the extensive operating recommendations made within this manual. Contact the Engineering Manager at Young Industries, telephone 570/546-3165, if this review results in additional questions or uncertainty.

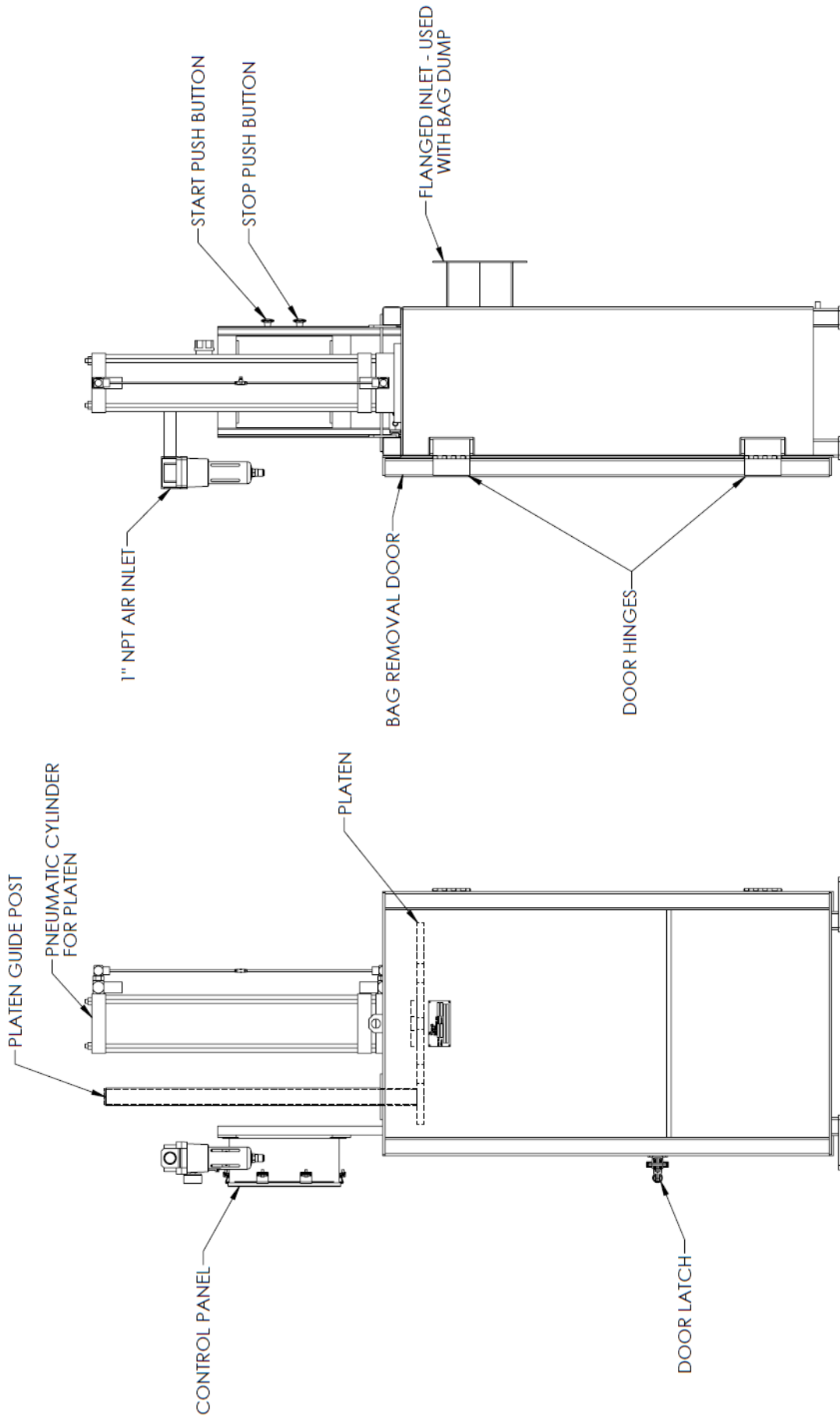


Figure One – Typical Bag Compactor Assembly

## OPERATION

### A. Start -Up

1. Prior to actual operation, the operator must familiarize himself with the method of starting and stopping the bag compactor and the status of supporting utilities.
2. The general appearance of the bag compactor and surrounding area should be visually inspected to determine that the bag compactor can be operated safely and without damage.

**CAUTION:**  
SHUT OFF COMPRESSED AIR AND BLEED SYSTEM BEFORE SERVICING.

3. If your particular installation has an unsafe condition unforeseen by Young Industries and beyond typical operating conditions, CEASE FURTHER OPERATION of the bag compactor and immediately notify both your safety committee and the Engineering Manager at Young Industries, telephone 570/546-3165. The Young Industries Engineering Manager can assist you in speeding the return of your bag compactor to a recommended operating condition.

### B. Continuous Operation

**CAUTION:**  
GUARDS, DOORS, COVERS AND ALL SAFETY INTERLOCKS MUST BE IN PLACE AND WORKING WHENEVER THE COMPACTOR IS IN SERVICE.

1. Loading Chamber
  - a. Place plastic bag inside bag liner (hand holes up) to protect bag.
  - b. Fold top of bag back down around outside of bag liner.
  - c. Place bag and liner in compactor chamber so plastic bag is between bag liner and chamber walls.
  - d. Close and latch chamber door.
2. Filling Chamber/Bag
  - a. With platen (compacting ram) in the UP position, load the chamber through the charge opening. Material must be evenly distributed in the chamber.

### **CAUTION:**

**DO NOT PLACE LARGE RIGID OBJECTS OR SEALED CONTAINERS IN THE COMPACTOR CHAMBER. SERIOUS DAMAGE MAY OCCUR TO THE COMPACTOR.**

3. Operating the Platen (Compacting Ram)
  - a. With the compactor chamber door closed and latched, close the charge door and press the START button(s). The platen will compact the contents then it will return to the UP position.
  - b. Reload the chamber and operate the platen as described above. Continue this sequence until the bag liner is filled.
4. Unloading the Compactor Chamber
  - a. Platen should be in full UP position before opening the chamber door.
  - b. Open chamber door and remove bag, bag liner and contents from chamber.
  - c. Remove plastic bag from bag liner, leaving the contents in the bag.
5. Emergency Reverse
  - a. A pneumatic selector valve is furnished to provide an EMERGENCY REVERSE for the platen. Placing the selector valve in the reverse position will interrupt the cycle and the compactor platen will move in an upward direction. The platen will move to the full UP position and stop.
6. The bag compactor is designed and selected to meet specific operating conditions. Care shall be exercised to assure that the compactor is operated within safe limits. The compactor should be used only for the purpose for which it is designed, Refer to Young Industries quotation to determine the application for which this compactor was intended. Contact the Sales Manager at Young Industries, Painter Street, Muncy, PA 17756, if you need assistance in determining the proper application of this Young Industries bag compactor.

### D. Shut Down

1. When shutting down a bag compactor, shut off supporting utilities in accordance with plant operating procedures.
2. When cleaning or servicing is required on

## OPERATION AND MAINTENANCE

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the bag compactor, proper lockout of compressed gas and mechanical equipment should be completed before the work is started.

**CAUTION:**  
SHUT OFF COMPRESSED AIR AND BLEED SYSTEM BEFORE CLEANING OR SERVICING.

### MAINTENANCE

#### A. General Inspection

- a. Observe the pneumatic ram cylinder and valves for any unusual noise or vibration.
- b. Inspect the pneumatic cylinder, valves, and piping for leaks. Replace all air lines that are worn or show signs of leaks.
- c. Check support to assure the compactor is securely anchored.
- d. Inspect all safety equipment, guards, covers and labels to assure the bag compactor and auxiliary equipment can be operated safely. If an unsafe condition is observed, cease further operation of the bag compactor and immediately notify both your safety committee and the Engineering Manager at Young Industries, telephone 570/546-3165.

nameplate. When ordering, please provide (a) SHOP NUMBER and (b) SERIAL NUMBER. Contact the Parts Department Manager at Young Industries, telephone 570/546-3165, for assistance.

**DANGER:**  
SHUT OFF AND BLEED AIR SUPPLY BEFORE SERVICING.

#### B. Troubleshooting

- a. When properly installed, operated and maintained your Young Industries bag compactor will give years of service. Table One, "Troubleshooting Bag Compactors," gives symptoms, causes and remedies for most problems that may be encountered.

#### C. Spare Parts

- a. A nameplate is furnished with each bag compactor. The necessary information for ordering spare parts is found on this



## MAINTENANCE

TABLE ONE – TROUBLESHOOTING BAG COMPACTORS

| SYMPTOM  | CAUSE | REMEDY |
|--|-------|--------|
| Ram drifts downward when not in service (Normal drift is 2 inches or less in 8 hours.) |       |        |
| Ram will not operate   |       |        |
| Low ram pressure   |       |        |
| Ram does not return to up position after compacting                                    |       |        |
|  |       |        |
|  |       |        |

TABLE ONE - TROUBLESHOOTING FILTER DUMP STATIONS

| SYMPTOM                      | CAUSE  | REMEDY  |
|------------------------------|--|---|
| <b>Insufficient dust</b>     | Poor filter tube or cartridge cleaning<br><br>Fan running Backwards                                    | Adjust sequence timer.<br>No compressed air supply or low pressure<br><br>Sequence timer or valve solenoid not operating.<br>Filter tubes or cartridges need to be cleaned or replaced.<br>Check fan rotation<br>See paragraph F5, INSTALLATION |
| <b>Dust at clean air</b>     | Tubes or Cartridges not clamped<br>Small holes in filter tubes or cartridges<br><br>Dirty filter bags. | Check tubes or cartridges position<br>Repair or replace filter bag(s).  |
| <b>Noise or vibration in</b> | Fan rotor loose on shaft   | Check timer and solenoids for proper operation. Clean or replace filter bags.<br>Align and secure rotor to motor  |