



# INSTRUCTIONS

FOR

## PNEUMATIC BOX TILTER

FLOOR LEVEL LOADING - 2000 LBS. CAPACITY



MODEL NO.

**BT1600**

SERIAL NO.

PPE Box Tilters are manufactured and sold direct by Plastic Process Equipment, Inc. We are not associated with any other manufacturer. Always specify genuine PPE Machinery! Do not accept substitutes.

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**PLASTIC PROCESS EQUIPMENT, INC.**

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# PNEUMATIC BOX TILTER

## KNOW YOUR WARNING SIGNS AND SYMBOLS!

This instruction manual and our products may use the following signal words Caution and/or Danger symbols to call attention to the degree or level of possible hazard seriousness. Pay attention to them!

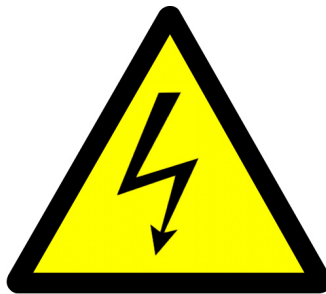
1. **CAUTION:** A warning to indicate a potentially hazardous situation which, if ignored, may result in personal injury or threat of health. Also used to alert against unsafe practices which could cause property damage or accidents. See labels B & BB.
2. **WARNING:** Warns of a potentially hazardous situation which, if not avoided, could result in serious injury. Warning signs are a yellow triangle with a black border and black symbols. See Label A.
3. **DANGER:** Indicates an imminently hazardous situation which, if not avoided, may result in serious injury or death. This signal word is limited to the most extreme situations. Always follow the warnings or instructions that accompany the danger label, such as: High Voltage, Acid, Hot Surface, etc, etc, etc. See Labels C & CC.
4. **SYMBOL/PICTORIAL:** Conveys a message without words. See labels A & B.
5. **SAFETY ALERT SYMBOL** (an exclamation point inside a triangle): Is a general warning and indicates a potential personal injury hazard. Follow instructions and read labels and/or product information before you proceed! See Label A.

Label A



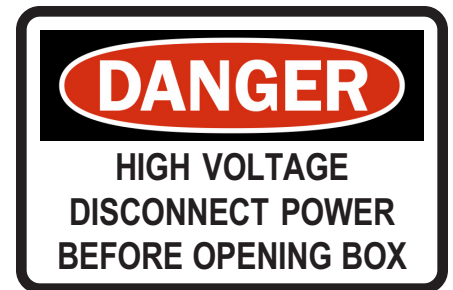
General Warning Sign

Label B



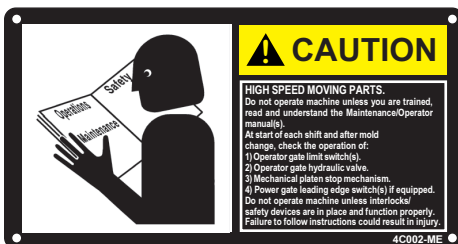
Hazard Warning Sign

Label C



Danger Warning Sign

Label BB

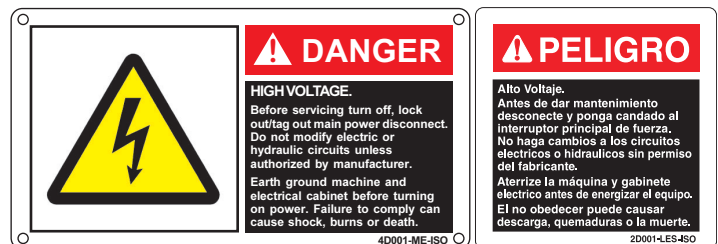


PRECAUCION

Partes bajo alta velocidad.  
No opere la máquina si no está entrenado, haya leído y entienda el manual de Mantenimiento y Operación. Al empezar cada turno y después de un cambio de molde, revise la operación de lo que sigue:  
1) Interruptor (es) de límite puerta del operador.  
2) Válvula hidráulica de la puerta del operador.  
3) Barra de seguridad de la platina móvil.  
4) El switch(es) de paro de puerta motorizada.  
No opere la máquina a menos que todos los aparatos/entradas de seguridad estén en su lugar y trabajando debidamente.  
El no obedecer estas instrucciones puede resultar en daño personal.

2C002-LES

Label CC



Alto Voltaje.  
Antes de dar mantenimiento desconecte y ponga candado al interruptor principal de fuerza. No haga cambios a los circuitos eléctricos o hidráulicos sin permiso del fabricante.  
Atérrese la máquina y gabinete eléctrico antes de energizar al equipo. El no obedecer puede causar descarga, quemaduras o la muerte.

2D001-LES-450



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# PNEUMATIC BOX TILTER

Thank you for purchasing a Pneumatic Box Tilter from Plastic Process Equipment, Inc. These instructions are intended as a guide for your new product. If you have any additional questions, contact PPE at 800-321-0562.

## RECEIVING

Upon receiving, inspect for damage and report any damage to the motor freight carrier before uncrating for setup. They are responsible for any damage incurred during transit.

## SETUP

Your PPE Pneumatic Box Tilter must be securely fastened to the floor before operation. We recommend using 1/2" anchor bolts. Make sure the entry to the unit is not restricted. **WARNING Do Not inflate this unit unless fully secured to the floor.** Once the unit is secured to the floor check the hand control valve to make sure it is pushed down. Pull the regulator knob up and turn counterclockwise until it stops and lock it back down. Connect the air hose.

## GAYLORD MATERIAL PROBE HOLDER SETUP

- 1) Attach pick up material probe holder with the supplied hardware to the lower frame. Four (4) bolts & lock washers to threaded holes. See parts blow-up numbers 2, 3 & 4.
- 2) Slide gaylord support hook onto pick up material holder.
- 3) Insert pick up material holder into pick up material holder bracket.
- 4) Adjust height accordingly.

## OPERATION

Once your PPE Tilter is fastened to the floor and connected to an air supply it is ready to use. Locate the regulator, the adjustment knob pulls up to adjust and locks down once you have set the pressure. With the tilter empty, set the regulator at 0 psi, and pull the hand control valve up. When the valve is pulled up the exhaust port is closed and air flows to the regulator. The regulator adjusts the amount of lift pressure that flows to the air bag, the greater the pressure the higher the unit will tilt.

**WARNING Never Exceed 40 psi of pressure.**

To adjust the pressure pull the regulator knob up and turn to the desired lift pressure, then lock in place by pushing down. Next to the regulator is a flow control valve, this valve adjusts the speed at which the platform rises. To set the flow control valve push the hand control valve down so the unit lowers, then turn the flow control valve clockwise until it stops and pull the hand control valve back up. The unit will not raise until you open the flow control valve, you can now set it at the desired lift speed. When you have set the lift speed, turn the regulator to 0 and push the hand control valve down.

You are now ready to load the unit. If your material box is full, tilting it could cause it to spill, we recommend you wait until it is about 1/2 empty before continuing. If you are using the floor level tilter make sure the gaylord hook is installed prior to operation, this will keep the box secure.

**WARNING Never adjust the regulator beyond 40 psi.**

With the material box half empty turn the regulator knob until the box just begins to lift. Lock the regulator in this position. As the material is drawn out, the box will become lighter and the tilter will automatically lift it higher the lighter it gets.

## WARRANTY

All PPE machinery is warranted to be free of defective material and workmanship for a minimum period of 1 year from date of invoice. Some machinery components may carry a longer warranty per our suppliers policies which are passed on to our customers.

## LUBRICATOR

(Lubricator is only available on units with vibrator option) All Lubricators are filled with SAE10 oil prior to shipping. Check lubricator to make sure no leakage has occurred during shipment. Always make sure lubricator has oil in it to prevent premature failure of the vibrator units.

To initially set your lubricator, use a mirror at the air outlet of the vibrator unit and adjust the drip rate of the lubricator so that it is set just below the setting needed generate an oil film on the mirror. Full instructions for the oiler are included elsewhere in the instruction package.



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# PNEUMATIC BOX TILTER

## VIBRATOR OPTION INSTALLATION INSTRUCTIONS

Floor Level Unit Only

The optional vibrator assembly has been preassembled for easy field installation.

- 1) Disconnect the air supply at the quick coupler (see **Figure 1**). **NOTE: MAKE SURE THE UNIT IS IN THE DOWN POSITION BEFORE DOING THIS!!**

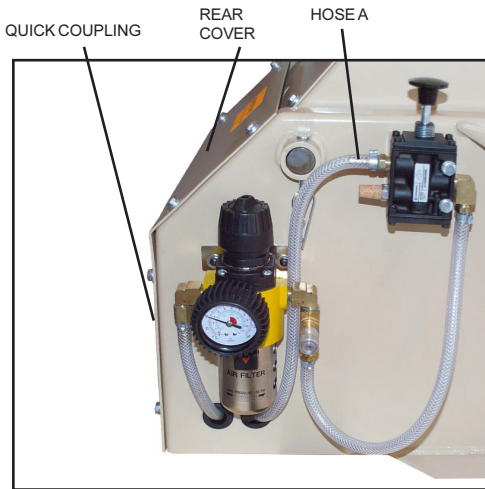


Figure 1

- 2) Remove the quick coupler and set aside, you will need to reuse this coupler later.
- 3) Remove the rear cover of the tilter.
- 4) Fasten the anchor coupling to the back cover and screw the quick coupler into the outside port.
  1. Screw the T fitting into the inside port.
- 5) On the opposite side of the base from the regulator, bolt the Oiler/Regulator assembly (see **Figure 2**).
- 6) Pass hose A and hose B thru the holes in the base and connect them to the T fitting.
- 7) Connect Hose C to the vibrator ball valve.

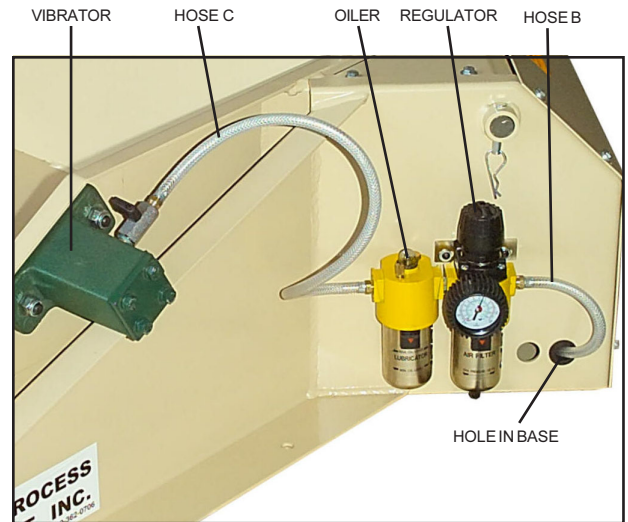


Figure 2

- 8) Bolt the vibrator to the pad on the platform (see **Figure 3**), making sure the button head end of the bolts face inward towards the center of the platform.

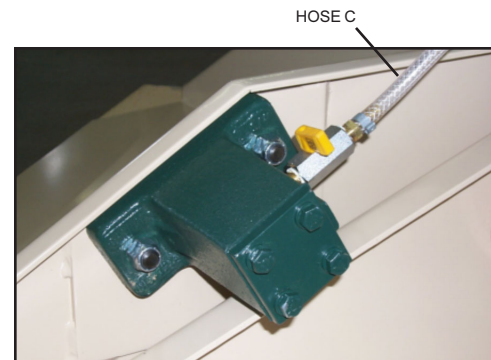


Figure 3

- 9) At this point you can reconnect the air supply hose.

## VIBRATOR OPTION OPERATING INSTRUCTIONS

The vibrator package includes a vibrator, a shut off valve and a pressure regulator/oiler. The vibrator is turned on and off by the shut off valve and the vibration intensity is controlled by the regulator. Pull the regulator knob up and turn it to the desired pressure for the level of vibration you need and lock in place by pressing down.



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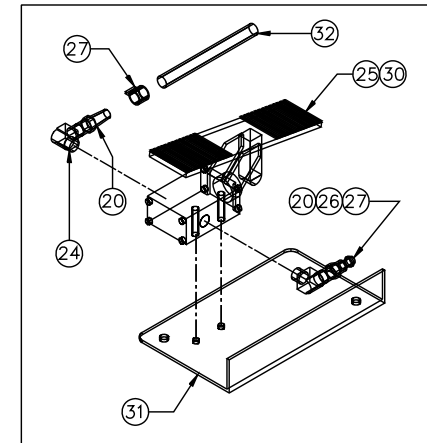
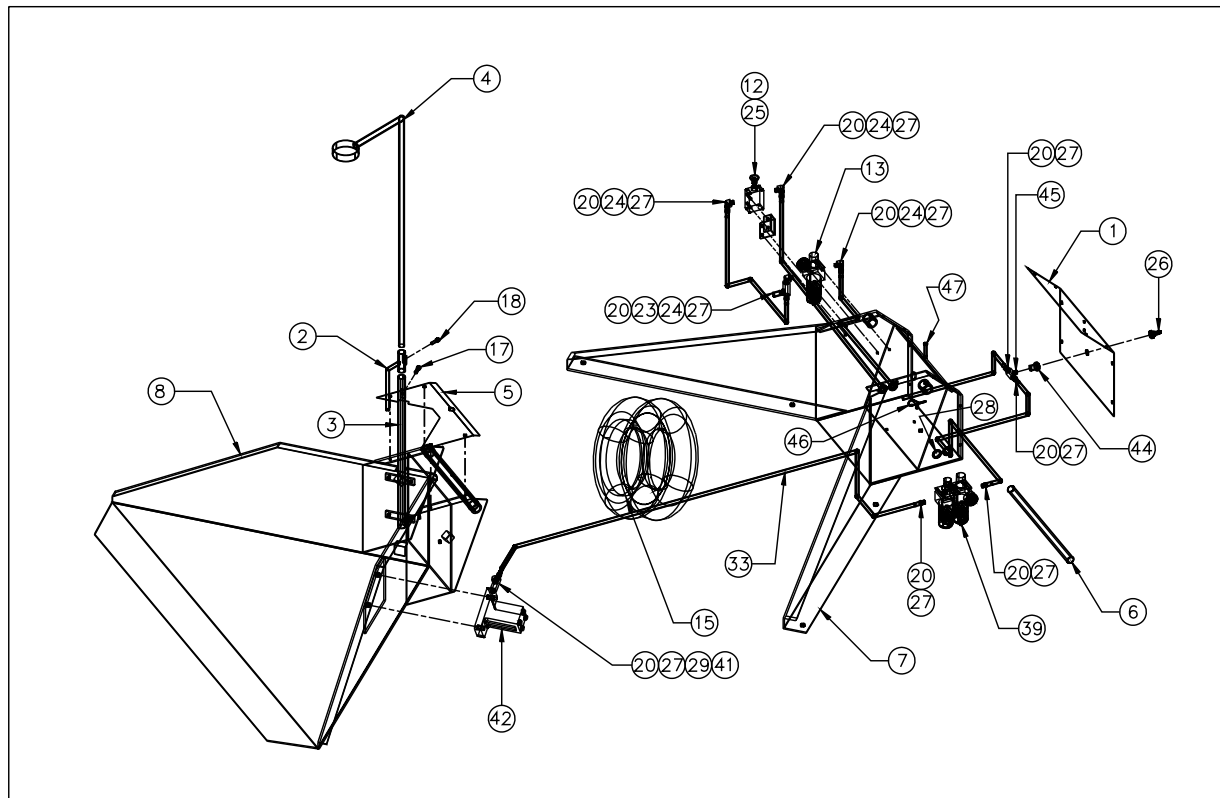
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# GROUND ENTRY BOX TILTER PARTS



OPTIONAL FOOT VALVE



PLASTIC PROCESS EQUIPMENT, INC.

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# BT1600 TILTER PARTS

| ID<br>NUMBER | PART<br>NUMBER  | DESCRIPTION                        | 02/13/19 | UOM |
|--------------|-----------------|------------------------------------|----------|-----|
| 1            | A-4637          | AIR SPRING COVER FOR BT1600        | EA       |     |
| 2            | A-4638          | GAYLORD SUPPORT BRACKET            | EA       |     |
| 3            | A-4639          | PICK-UP TUBE HOLDER SUPPORT BACKET | EA       |     |
| 4            | A-4640          | PICK-UP TUBE HOLDER                | EA       |     |
| 5            | A-4641          | TOP COVER FOR BT1600               | EA       |     |
| 6            | A-4642          | SHAFT FOR BT1600                   | EA       |     |
| 7            | A-11337         | UPPER FRAME - TILTER               | EA       |     |
| 8            | A-11332         | LOWER FRAME                        | EA       |     |
| 9            | A-4669          | "GREASE DAILY" STICKER             | EA       |     |
| 10           | A-4669A         | "IMPORTANT" STICKER                | EA       |     |
| 12           | K41DA00-KC0-KB0 | HAND VALVE                         | EA       |     |
| 13           | AMC403D         | AIR REGULATOR                      | EA       |     |
| 15           | 2B12-311        | AIR BAG                            | EA       |     |
| 16           | 1293K11         | ZIRK FITTING (ZIEGLER #AUV15420)   | EA       |     |
| 17           | 3/8-16X1        | 3/8-16X1 BUTTON HEAD BOLTS         | EA       |     |
| 18           | 37C75MT         | ZINC PLATED THUMB SCREW            | EA       |     |
| 19           | 2214P-4-4       | 1/4 X 1/4 45deg ELBOW ON AIR BAG   | EA       |     |
| 20           | 125HBL-4-4      | 1/4 X 1/4 MALE BARBED INSERT       | EA       |     |
| 21           | 102-04          | 1/4 HOSE PER INCH                  | 22"      |     |
| 22           | 102-04          | 1/4 HOSE PER INCH                  | 18"      |     |
| 23           | JF2             | FLOW CONTROL VALVE                 | EA       |     |
| 24           | 2202P-4-4       | 1/4 X 1/4 90deg STREET ELBOW MxF   | EA       |     |
| 25           | 4450K2          | MUFFLER FILTER 4450K2              | EA       |     |
| 26           | H2C             | HOSE NIPPLE                        | EA       |     |
| 27           | EC1315          | HOSE CLAMPS                        | EA       |     |
| 28           | Z2168           | RUBBER GROMMET                     | EA       |     |
| 29           | 215PN-4         | 1/4" CLOSE NIPPLE                  | EA       |     |
|              | BTW100          | BOX TILTER WARNING SIGN            | EA       |     |
| 46           | 90149A032       | HAIR PIN                           | EA       |     |
| 47           | 98306A278       | LEG CLEVIS PIN 3/8 dia             | EA       |     |

## OPTIONAL FOOT VALVE PACKAGE

|    |                 |                                      |     |  |
|----|-----------------|--------------------------------------|-----|--|
| 20 | 125HBL-4-4      | 1/4 X 1/4 MALE BARBED INSERT         | EA  |  |
| 24 | 2202P-4-4       | 1/4 X 1/4 90deg STREET ELBOW MxF     | EA  |  |
| 25 | 4450K2          | MUFFLER FILTER 4450K2                | EA  |  |
| 26 | H2C             | HOSE NIPPLE                          | EA  |  |
| 27 | EC1315          | HOSE CLAMPS                          | EA  |  |
| 30 | K41DA00-KC0-KT0 | FOOT VALVE (OPTIONAL)                | EA  |  |
| 31 | A-4643          | FOOT VALVE MOUNTING PLATE (OPTIONAL) | EA  |  |
| 32 | 102-04          | 1/4 HOSE PER INCH                    | 72" |  |

## OPTIONAL VIBRATOR PACKAGE

|    |            |                              |     |  |
|----|------------|------------------------------|-----|--|
| 20 | 125HBL-4-4 | 1/4 X 1/4 MALE BARBED INSERT | EA  |  |
| 27 | EC1315     | HOSE CLAMPS                  | EA  |  |
| 29 | 215PN-4    | 1/4" CLOSE NIPPLE            | EA  |  |
| 32 | 102-04     | 1/4 HOSE PER INCH            | 72" |  |
| 33 | 102-04     | 1/4 HOSE PER INCH            | 36" |  |
| 39 | AMC420D    | AIR REGULATOR/LUBRICATOR     | EA  |  |
| 41 | FMV-0014   | 1/4" BALL VALVE              | EA  |  |
| 42 | 125        | VIBRATOR (QUIET TYPE)        | EA  |  |
| 43 | 4450K2     | MUFFLER FILTER 4450K2        | EA  |  |
| 44 | 207ACBH-4  | ANCHOR COUPLING              | EA  |  |
| 45 | 2224P-4    | 1/4 X 1/4 X 1/4 TEE          | EA  |  |