

# Bulk Bag Conditioner Product Specifications



***Erie Technical Systems Inc.***

**Material Handling Equipment**

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## A. Bulk Bag Conditioner Overview

The bulk bag conditioners from Erie Technical Systems Inc. are designed to automatically break up material in bulk bags for ease of discharge. Our solidly built machines compress rock hard bulk bags from different angles and heights in a user-selectable automatic cycle to break up the entire contents of the bag. These machines are PLC controlled with a color touchscreen operator interface. They are designed to run in industrial environments for safe, long-term operation. Our bulk bag conditioners are commonly supplied as a pre-cursor to our UltiMAX® Bulk bag dischargers.

<b>Bulk Bag Conditioner Standard Features:</b>	
Minimum Bag Size:	36" Wide x 36" Deep x 36" Tall
Maximum Bag Size:	48" Wide x 48" Deep x 55" Tall
Maximum Pallet Size:	48" Wide x 48" Deep x 5" Tall
Maximum Bag Weight:	2,205 lbs. (1 metric Ton) 4,410 lbs. (2 metric Ton) Optional
Ram Height:	18"
Scissor Lift Range:	23" Range (18.8" to 41.8")
Maximum Crush Pressure:	23,000 lbs.
Conditioning Rate:	1-3 minutes – Varies based on product need, bag size and program selected.
Main Power:	480VAC, 3 Phase, 60 Hz
Control Power:	24VDC

Note that these are the standard and most common ranges. Custom sizes and designs are available.

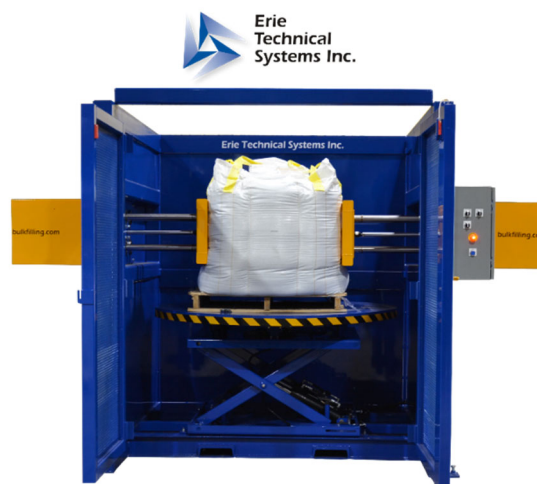


Figure 1 – Bag Conditioner showing scissor lift, rotary turntable and bag crushing rams extended.

## B. Bag Conditioner Standard Mechanical Features

- Heavy duty welded structural steel frame with 5" x 5" x 1/4" square tube.
- Enclosed cage with manual doors and safety rated door switch.
- Hydraulic scissor lift with 23" travel
- Rotary Turntable with 1/4 HP motor, chain drive and 60:1 gearbox
- 15 HP, 5.85 GPM Hydraulic power unit, 3,000 psi
- Two (2) 3.25" x 24" hydraulic cylinders with mis-alignment couplings
- Eight (8) 2" diameter ram support shafts with double wide flange bearings
- Proportional flow divider to evenly distribute pressure.
- Industrial Primer and Sherwin-Williams Polane+ Polyurethane finish
- Approximate Dimensions: 88" x 155" x 110" tall

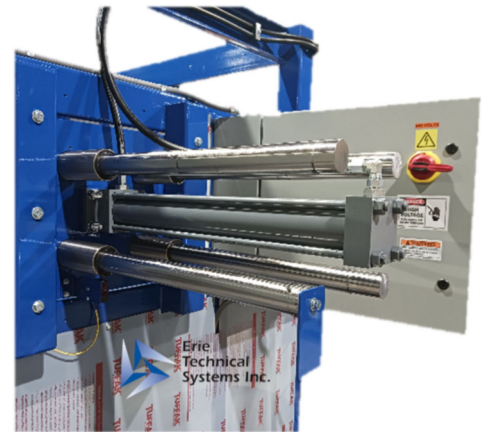


Figure 2 – Hydraulic Ram Cylinder and 2" heavy-duty guide rods.

## C. Bag Conditioner Standard Electrical Features

- NEMA 4/12 control enclosure
- Lockable 30 Amp fused through-the-door disconnect.
- 7" Color touch-screen HMI
- Allen-Bradley PLC control and ethernet communications
- 24VDC Power supply
- Contactor and branch circuit protection for hydraulic power unit and rotary turntable motor.
- Safety rated door switch and safety relay with manual reset.
- 5-port ethernet switch
- Adjustable Ram Extend and Retract limit switches.



Figure 3 – Control Panel with 7" Color HMI, E-Stop and Reset.

## **D. Sequence of Operation**

The bulk bag conditioner cycle begins with the operator opening the doors of the bag conditioner. A bag on a pallet is loaded onto the rotary table using a forklift. The operator then closes the doors and resets the safety circuit at the control panel. The cycle is started by pressing the cycle start on the color touchscreen.

The conditioner will automatically compress the bag, rotate 90 degrees, and compress again. The scissor lift table will raise to the 2<sup>nd</sup> lift position and compress, rotate 90 degrees and compress again. This process is completed at the 3<sup>rd</sup> lift position and the bag is lowered to the load position.

The operator can then open the doors and remove the fully conditioned bag and pallet with a forklift. For systems equipped with the optional light curtain, the operator needs to clear the light curtain and then reset the safety circuit before starting the cycle.

## **E. UltiMAX® Bulk Bag Unloading Systems**

Once the bulk bag has been conditioned, an UltiMAX® bulk bag discharger is a safe and effective solution to discharging bulk materials.

- Forklift and hoist load units.
- Dust-Free bulk bags discharge.
- Flow aids for difficult materials.
- Carbon steel and 304SS material of construction
- Loss-in-Weight control options
- Outlet Connections for:
  - Roller gate valves
  - Flexible screw conveyors
  - Rotary valves
  - Pneumatic pick-ups



**Figure 4 – UltiMAX® bulk bag unloader with  
FlexMAX® flexible screw conveyor.**