



# TBS 1000/3000 - AUTOMATIC BAG SLITTER

TECHNICAL BROCHURE

## COMPANY PROFILE

Luxme International Ltd. is a customer-oriented company which has extensive experience in solids handling systems.

The company operates primarily in manufacturing, mining, chemical, pharmaceutical and food industries. We engineer and manufacture complete systems to meet individual customer needs at very competitive prices.

Prior to delivery we invite our clients to witness the purchased equipment in operation at our manufacturing facility. They are given the necessary training to achieve the maximum potential from our products.

Luxme International's in-house development and research activities, together with our close collaboration with companies worldwide, allow us to maintain a competitive edge. The result is improved design and reliability in addition to technological innovation.

Luxme offers customers the opportunity of testing their product in our Tubular Chain Conveyors, Automatic Bag Openers, and other ancillary equipment manufactured by Luxme. The test laboratory is equipped with different loop arrangements with variable speed capabilities for each equipment while offering a dust free environment.

Different types of brush assemblies and valves are operational in closed loops, allowing the customer to view their product being recirculated and witness the end result. This provides the customer with an accurate method of determining conveying reliability and efficiency.

For the last 40 years Luxme products have received international recognition and today we enjoy global success.



*Headquarters*



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# AUTOMATIC BAG SLITTER

## Standard Features

**The Twin Blade Automatic Bag Slitter (TBS) incorporates the following unique features as part of our standard supply:**

- » Retractable spikes, thrust into the bag by specially designed torsional springs, ensure that lightweight and inner-lined bags, which tend to ride during the slitting and discharging cycles, are securely held in place on the conveyor.
- » Spike conveyor is driven by an independent motor complete with electronic protection against machine overload.
- » A high frequency vibratory collection hopper with screen ensures complete sifting and discharge of product. The slitter is completely isolated from the vibratory hopper through a well engineered damping system.
- » Exterior and interior surfaces of the bag slitter are primed with zinc rich epoxy and finish painted with grey epoxy enamel.
- » Following the slitting and gravity discharge cycle, the product and empty bags are separated and do not come into contact again.

The TBS 1000 or 3000 Automatic Bag Slitters have an enclosed design and rotary knives that open a great variety of bags in an efficient and dust-free manner.

## OPTIONAL FEATURES

The following optional features are also available:

- » Integral dust filter complete with exhaust fan.
- » Stainless steel product contact parts or complete stainless steel construction.
- » Explosion proof motors and instrumentation.
- » External accumulation feed conveyor interlocked with the bag slitter controls.
- » Pneumatic conveying equipment with blower package and rotary airlock valve.
- » Bag Crusher to loosen hardened material before slitting.
- » Digital bag counter.
- » Bag Brusher to brush the bags before slitting, suitable for food applications.
- » Bag elevators for layouts requiring mezzanine arrangements.
- » Free standing, floor mounted Compactor which can be integrated with the bag slitter for elevated gravity product discharge.
- » Automated controls are engineered and integrated into systems, complete with the following options: Relay logic, Explosion proof or P.L.C. panels, NEMA 7, Mimic display or NEMA 9.

Luxme International Ltd. offers customers the opportunity to perform system simulations, by conveying their materials, using Luxme manufactured products, that include: tubular chain conveyors, automatic bag slitters, clean-in-place systems, product blenders, and more.

These trials are conducted in a dust free environment. Tubular chain conveyors, cooling conveyor, clean in place (CIP) washing system and other ancillary equipments manufactured by Luxme are used to run tests with the customer's material. The test laboratory is equipped with different loop arrangements using variable chain speed capabilities on each piece of equipment. Different types of brush assemblies and valves operating in closed loops for lengthy recirculation gives an opportunity for the customer to witness the effects of their product being continuously conveyed for a period of many hours. Only one or two drums of product\* is needed to run these tests. This provides the customer with an accurate method of determining conveying reliability and efficiency.

\* Restrictions are applicable for toxic and hazardous materials.



## Testing Options

The following testing options are available to our customers:

- |  |  |
|--|--|
| 1 Conveying product in Luxme chain conveyors using different loops in closed circuit.    | 6 Mass flow measurements using impact flow measuring units.                                  |
| 2 Product discharge via slide valve, drop bottom valve and drive assembly.               | 7 Checking the effect of pneumatic and motorized chain knock-out for sticky products.        |
| 3 Chain and disc cleaning by drive assembly brush station and in-line brush station.     | 8 Checking the possibilities of product build-up inside pipe with customer supplied product. |
| 4 Product heating or cooling in Luxme tubular chain conveyors.                           | 9 Clean in Place (CIP) washing system and Clean-Trace ATP Swab testing.                      |
| 5 Wear tests on different types of conveyor discs establishing the disc life expectancy. | 10 Manual dump station and other Luxme parts and accessories.                                |

## TEST FACILITIES



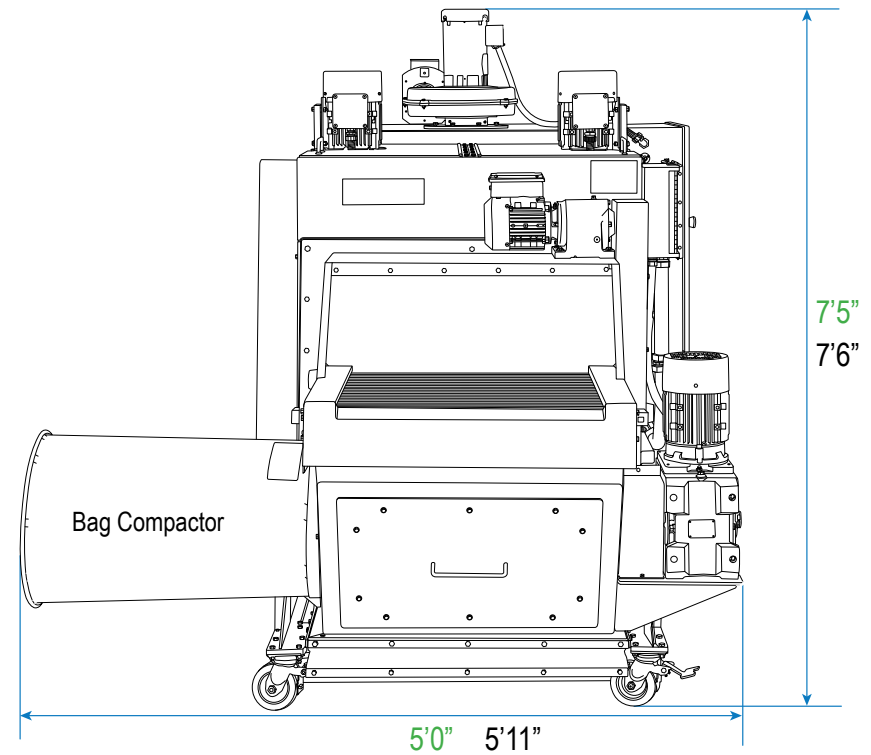
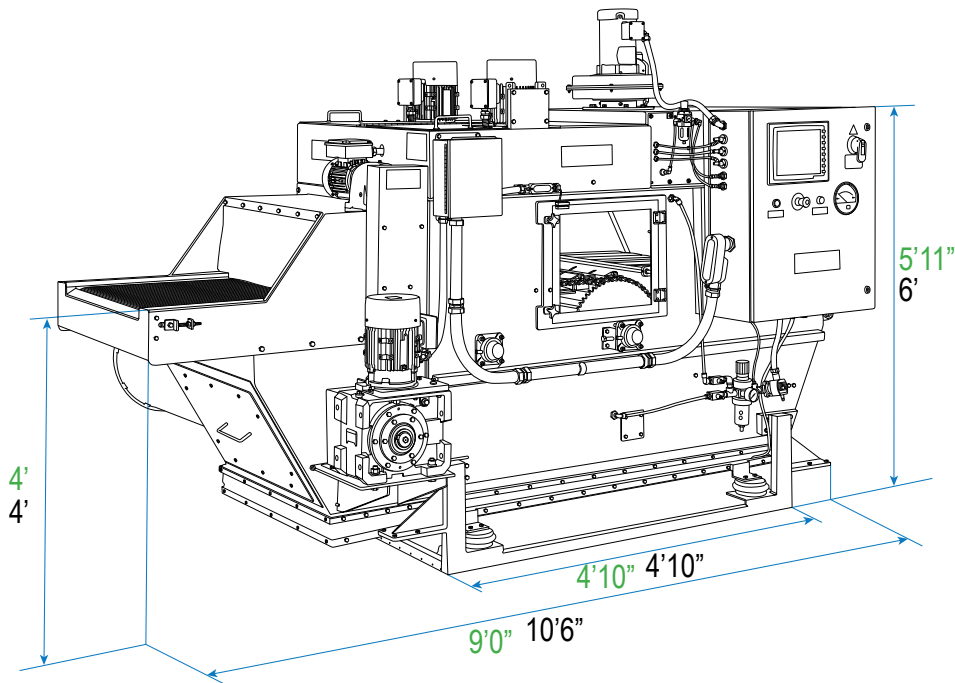
Test Facility



Clean-in-Place  
Sanitary Test Facility  
for Food Applications

## DIMENSIONS SHEET

The TBS Automatic Bag Slitter has a compact design and is comprised of an infeed conveyor, bag emptying chamber, dust control unit (Optional) and waste bag disposal unit.



**AUTOMATIC BAG SLITTER**  
(MODEL: TBS 1000 / TBS 3000)



The Luxme fully automatic Twin Blade Bag Slitter (TBS) has been designed to handle different types of bag sizes containing powder or granular materials of a dusty or noxious nature, within a fully enclosed system to prevent atmospheric contamination..

TECHNICAL SPECIFICATIONS

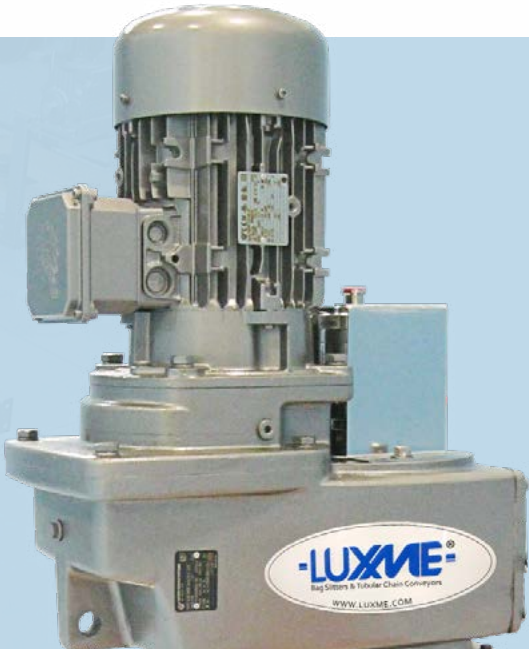
Maximum bag Size:	Width x Lenght x Height: <b>TBS 1000</b> (20 in. x 36 in. x 9 in.) - <b>TBS 3000</b> (36 in. x 46 in. X 12 in.)
Bag Weights:	<b>TBS 1000</b> (10 lb to 110 lb) - <b>TBS 3000</b> (10lb - 200 lb)
Bag Construction:	All types of bags and sacks*
Material Handled:	All loose and compacted powder and granular material in paper bags. Beans, peanuts, etc. in jute/burlap sacks.
Throughput:	6 - 8 bags per minute
Empty Bags:	10 - 15 bags/foot for compaction and disposal waste bag
Sifter Screen Size:	Square mesh 1/4 in. to 2 in.
Emptying Efficiency:	99.5% to 99.9% depending on size and composition of the bag, free flowability of the product and rate of operation.
Instrumentation Air Consumption:	5.0 S.C.F.M. @ 80 P.S.I.
Equipment Standards:	Manufactured in compliance with O.S.H.A., A.N.S.I., N.E.C., standards using North American parts and hardware.

\*Multi-ply paper with plastic or metal foil inner liners, jute/burlap

POWER CONSUMPTION

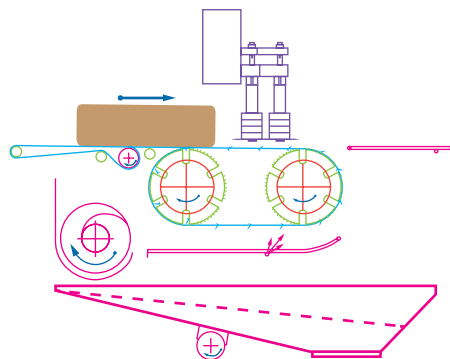
ELECTRIC MOTORS

	H.P.	
	TBS 1000	TBS 3000
• Infeed Conveyor	1/3	1/2
• Spike Conveyor	1/2	1/2
• Rotatory Knives (Two)	1.0	1.0
• Compactor	2.0	2.0
• Hopper/Sifter Vibrator	1/8	1/8
• Filter Shaker (Optional)	1/4	1/4
• Filter Exhaust Fan (Optional)	1.0	1.0



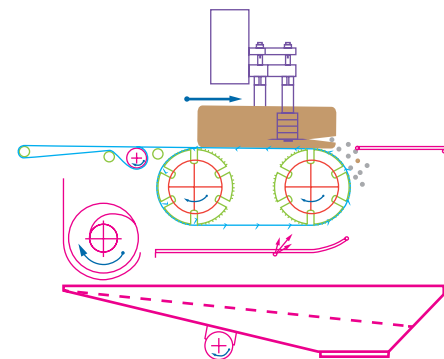
# SEQUENCE OF OPERATION

To see our Automatic Bag Slitters in action, please visit our YouTube channel or our website!



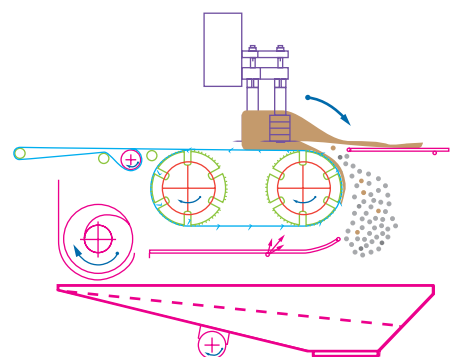
## 1 FEEDING

Operator/Robot loads the bags onto the infeed conveyor which conveys the bags to the retractable spike wheel where the bags are spiked and held in position during the sitting cycle.



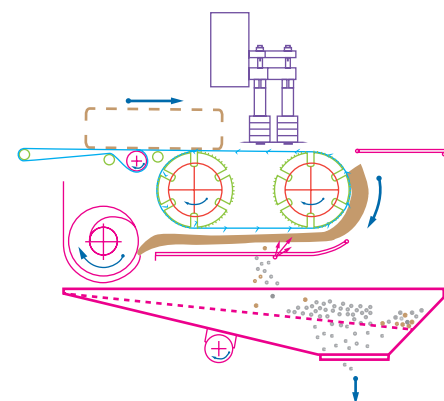
## 2 SLITTING

Two rotary cutting blades automatically adjust to the different bag sizes and neatly slit the bag on three sides for a thorough gravity discharge of the product.



## 3 PRODUCT DISCHARGE

The bottom of the bag is firmly held by the spikes and drawn around and under the spike wheel in one long sheet. In the process, the bag is turned inside out and the product discharged by gravity.



## 4 SIFTING AND COMPACTION

Any residue clinging from the bag is removed by a blast of air. Oversized foreign particles are sifted on a fine mesh screen in the collection hopper, which is vibrated a high frequency. Spikes are retracted and the empty bag extruded via the compactor, into a dust free, plastic waste receiving bag.



With a unique compact design, the Automatic Bag Slitter can easily fit in most spaces while protecting the material from external contamination.

## DESIGN & PERFORMANCE

### OVERVIEW

The Luxme Twin Blade Automatic Bag Slitter offers:

- » Three unique Bag Slitter models offered with or without HMI interface.
- » Handles all types of bags, weighing 15 lbs. to 200 lbs., multi-ply bags inner lined with plastic or metal foil, polywoven bags and burlap/jute sacks.
- » A high frequency vibratory collection hopper with screen provides the action required to ensure complete sifting and discharge of product. The slitter is completely isolated from the vibratory hopper through a well engineered damping system.



BACK VIEW



FRONT VIEW

### PERFORMANCE RELIABILITY

All Luxme products enjoy worldwide reputation for proven reliability as vouched for by customer preference. Complete systems with the machines and automated controls are engineered, manufactured, assembled at our Montreal plant and tested in the presence of purchasing officials before delivery.



# BAG DESCRIPTION

Below you will find a description of some of the bags that can be opened using the Automatic Bag Slitter.

## GENERAL FEATURES

Luxme Automatic Bag Slitters can easily process a wide variety of bags include but are not limited to:

- Multi-ply paper bags (with plastic/metal foil inner liners)
- Woven Polypropylene Bags
- Laminated woven sacks
- Burlap/jute bags
- Plastic bags
- Poly mesh bags
- Polyethylene bags

The bag's weight and size may vary as follows:

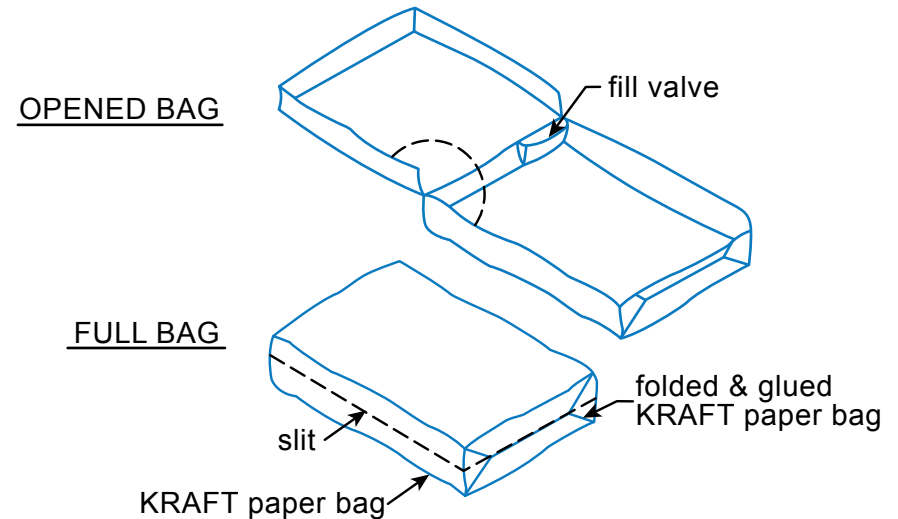
- **Weight:** 15 lbs - 200 lbs
- **Width:** 20 in - 36 in
- **Length:** 36 in - 40 in
- **Hight:** 10 in - 14 in

A summary of bag constructions and characteristics can be found in the following pages.

For more information on bags, please contact us at 450-619-1999 or e-mail us at [info@luxme.com](mailto:info@luxme.com).

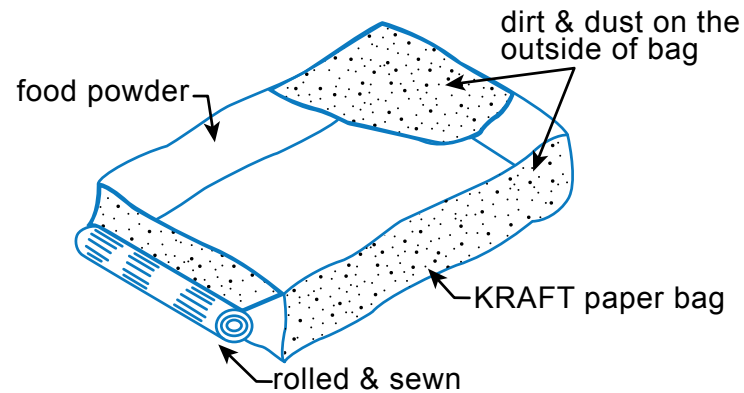
### Paper Bag Opened in Luxme Automatic Bag Slitter

Weight = 50-100 lbs/bag



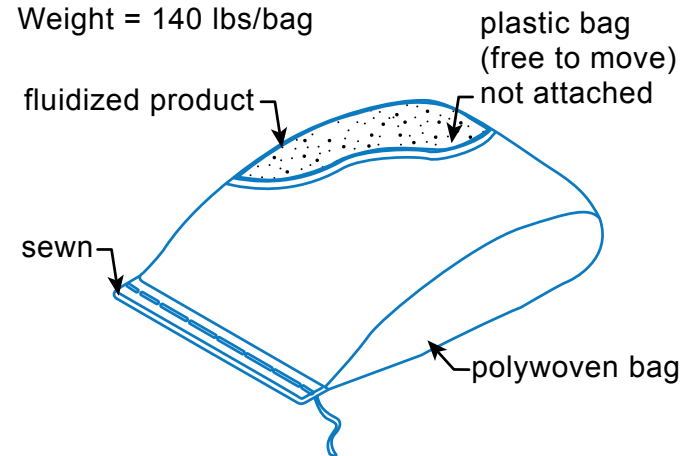
### KRAFT Paper Bag Containing Food

Weight = 50-100 lbs/bag



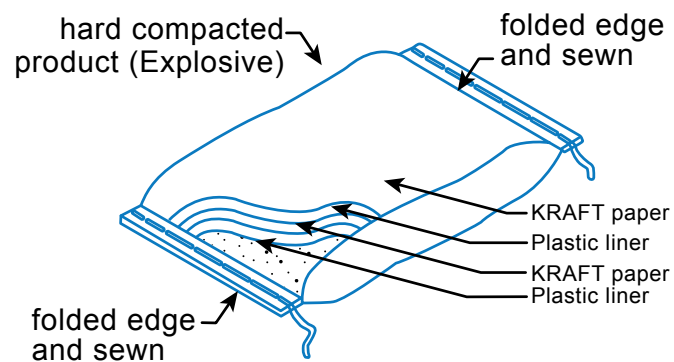
### Polywoven Bag With Plastic Inner Liner

Weight = 140 lbs/bag



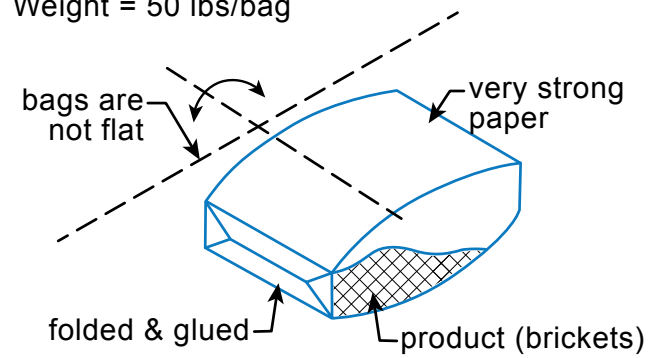
### KRAFT Paper Bag w/ Plastic Inner Liner

Weight = 50-100 lbs/bag



### KRAFT Paper Bag Containing Brickets

Weight = 50 lbs/bag



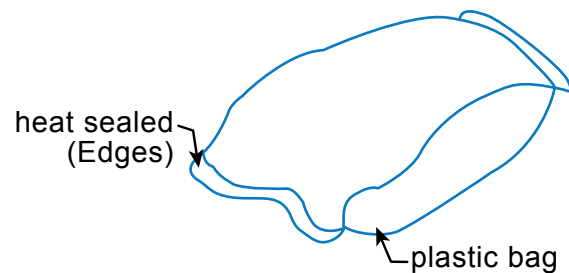


## BAG DESCRIPTION

From paper, to plastic, and jute bags, to burlap and multi-ply bags, the Automatic Bag Slitter can open a great variety of bags with efficiency and care.

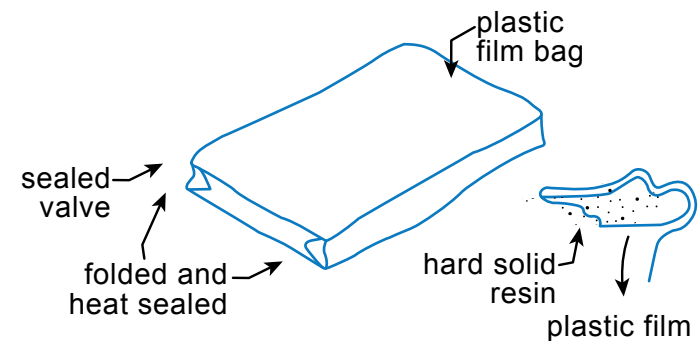
### Out of Shape Bag

Weight = 50 lbs/bag



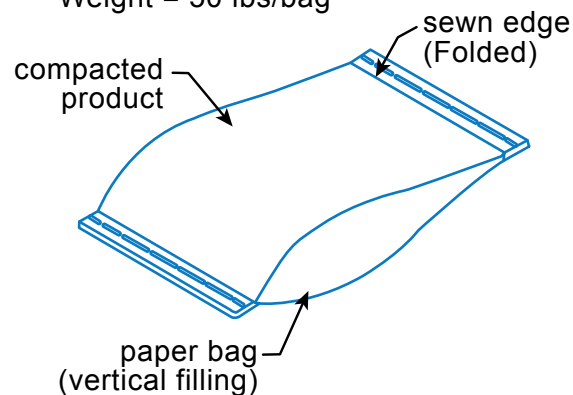
### Plastic Bag Containing Hardened Resin (Vacuum Packed)

Weight = 50-100 lbs/bag



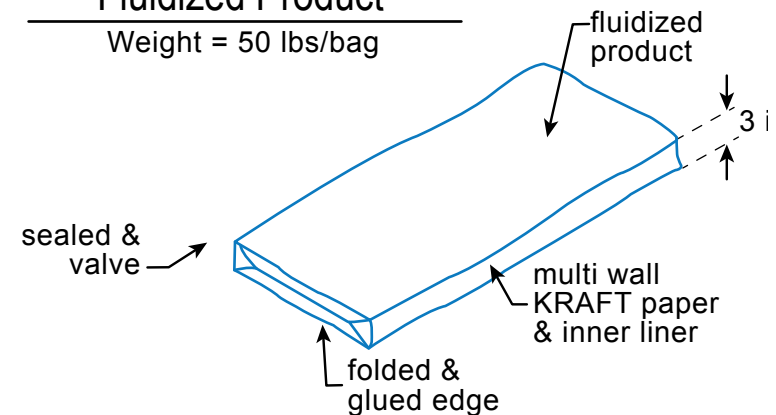
### Bag Containing Compacted Product

Weight = 50 lbs/bag



### Thin Flat Bag Containing Fluidized Product

Weight = 50 lbs/bag

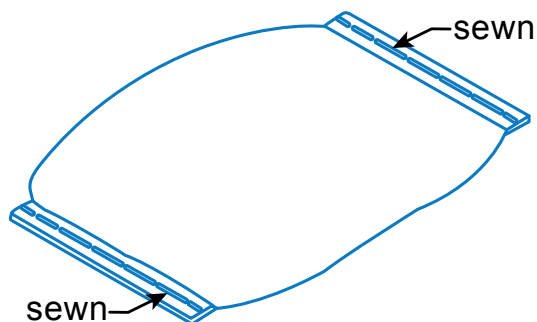


Depending on the construction of the bag, Luxme will offer you the right set of knives to open it. Ask us about the different knife options we offer.

## BAG DESCRIPTION

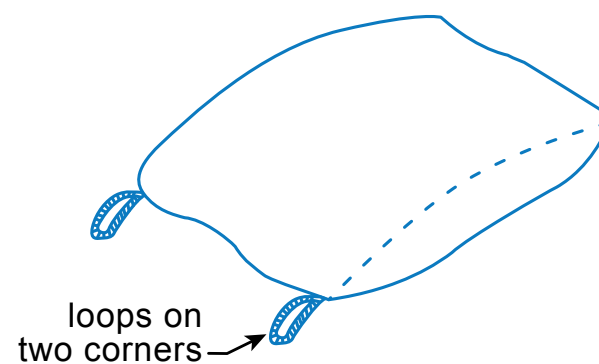
### Jute Bag

Weight = 140 lbs/bag



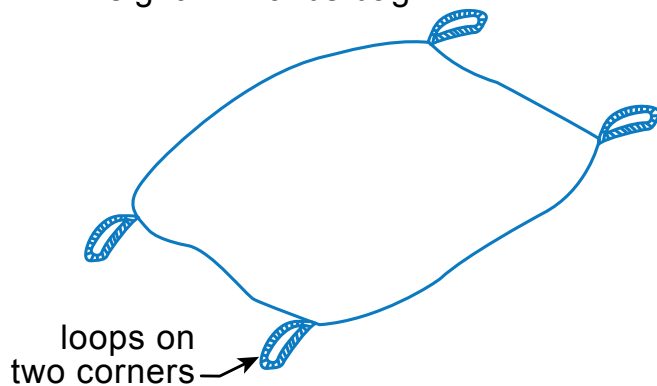
### Burlap Bag

Weight = 140 lbs/bag



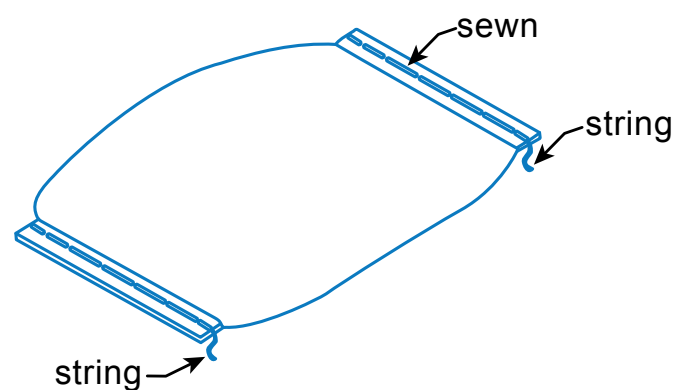
### Jute Bag

Weight = 140 lbs/bag



### Grass Bag

Weight = 140 lbs/bag



## BAG DESCRIPTION

Below you will see some sample photos that illustrate the variety of bags our Bag Slitters can open.



JUTE/BURLAP BAG



POLYPROPYLENE BAG



MULTI-WALL PAPER BAG

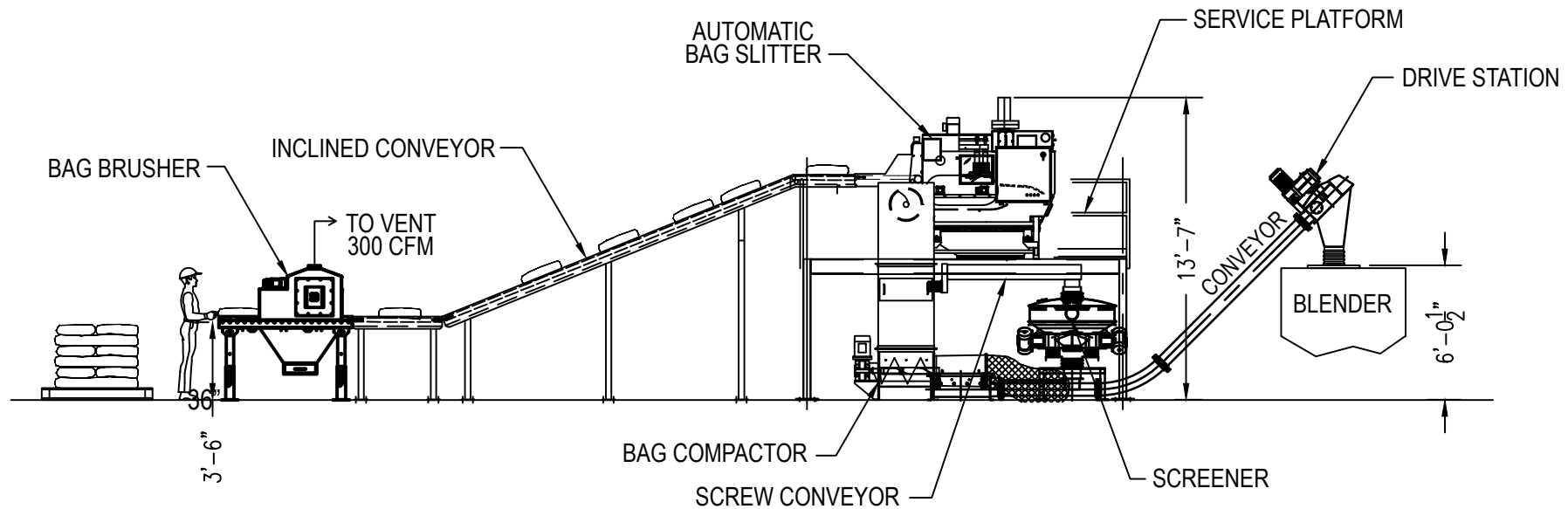


POLYETHYLENE BAG



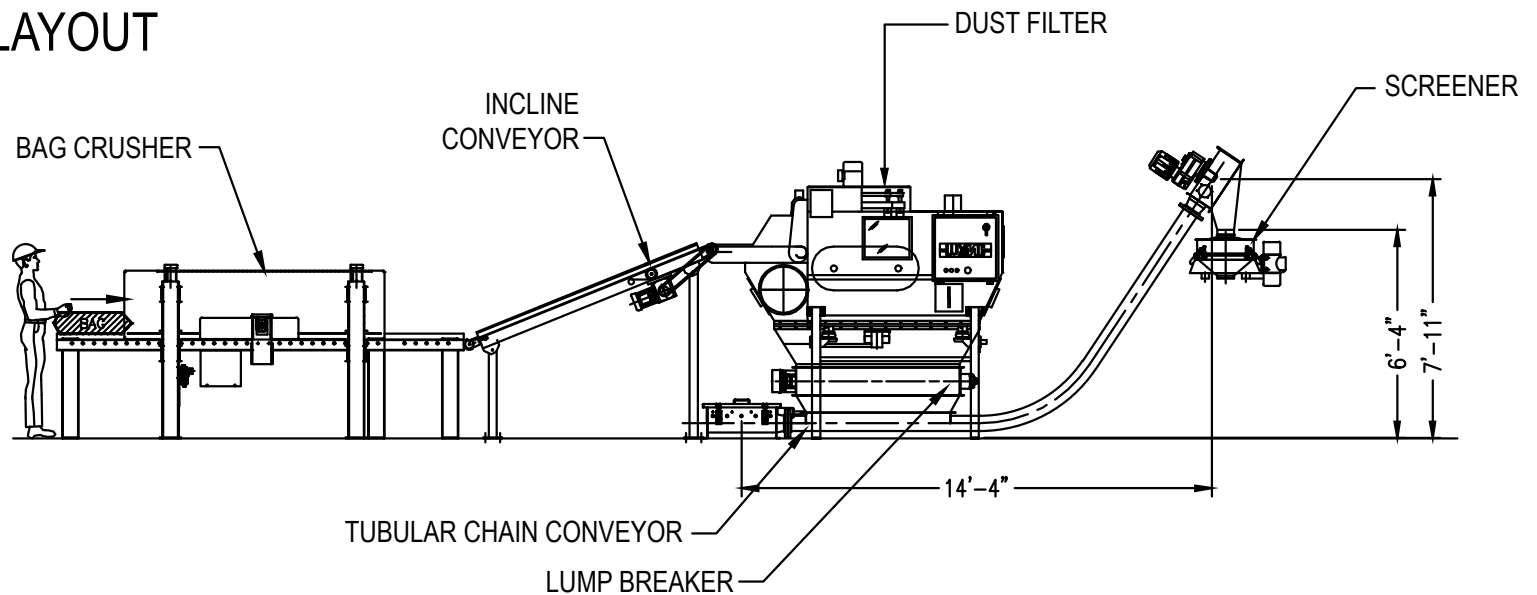
## TYPICAL PLANT LAYOUT

1



## TYPICAL PLANT LAYOUT

2



## TYPICAL INSTALLATIONS

The following installations depict several ways in which an Automatic Bag Slitter can be designed and adapted to a material handling application.





An Automatic Bag Slitter can be complemented by a variety of ancillary equipment including bag elevators, bag compactors, bag conditioners, dust filters, bag brushers, among many others.

## TYPICAL INSTALLATIONS





## TYPICAL INSTALLATIONS

Visit our website and check out our Minilux® Automatic Bag Slitter, a smaller version of the TBS Automatic Bag Slitter that includes a sanitary, food-grade design.





To view more installations, please visit our website at [wwwAutomaticBagSlitter.com](http://wwwAutomaticBagSlitter.com).

## TYPICAL INSTALLATIONS







Better Engineering • Better Equipment • Better Value



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