





# Bates Heavy Paper dunnage bag

## Prevent cargo damage

With 40 years experience we know how to protect your goods in trucks, containers, ships and rail wagons.

# Reliable performance

Made from three layers of quality paper from FSC certified suppliers & an inner PE film bladder, ensuring an ultimate airtight seal. Made in Denmark.

## Time & cost saving

Quick and safe installation. Clean and cost effective. Fast loading for shipper. Fast unloading for receiver. Airbags can be reused numerous times.

# Fast & simple inflation

Operator friendly inflation using compressed air. Unique reusable valve which allows quick inflation and deflation of the airbag.



# **BATES HEAVY** Paper dunnage bag

Heavy airbags are used to secure cargo which is to be transported by sea, container, rail or road and is at risk of being exposed to loads up to 42 tons. Heavy is equipped with a patented reusable valve which allows for very quick inflation and quick deflation. Heavy airbags can be used numerous times and have no loose parts. Heavy is available in seven sizes, comes in handy box quantities and are easy to store.

### **Benefits and features**

Maximizes load security

Filling the void by inflating the airbag, secures the goods during transport all the way from the sender to the receiver. Clean, simple and easy to use.

Reduces loading & unloading time
Placing the airbags is a very fast and time saving way of securing your goods before departure.
And when unloading the goods the airbags are simply deflated by opening the valve.

#### • Environmentally friendly materials Entirely made from environmentally friendly materials. High wet strength due to the choice

of materials and composition. Can withstand up to 90% relative humidity (RH) at 60°C.



Reusable valve system



Heavy airbag inflated in position



Large opening for quick deflation

Inflation Time						
Size in cm	60x110	100x220				
Standard Inflation	11 sec	46 sec				
Quick Inflation	8 sec	35 sec				
Deflation	11 sec	43 sec				

#### Inflation

We recommend that the Bates Quick or Standard Inflator is used to inflate the airbags. After inflation push the stopper fully into the valve to seal. The airbag must not come into contact with sharp or pointed objects and should be kept min. 5cm clear of the floor to avoid contact with water or other liquids. The table shows filling time based on a 3/4" hose and a pressure of 4 bar (56 psi).



Heavy reusable valve

Inflation with Standard Inflator

Packaging Specifications							
Size in cm	60x110	85x120	100x140	188x185	100x220	120x180	120x240
Item Number	711020	711050	711060	711070	711090	711280	711295
Pcs per Carton	25	20	15	10	10	10	10
Pcs per Pallet	200	160	120	80	80	80	80
Gross Weight per Carton	19.4	22.6	22.8	20.1	23.4	24.1	31.9
Gross Weight per Pallet	168.5	193	195	173	200	215.7	278.1



#### Deflation

The airbag is deflated by pushing down the pushbutton which opens the valve and releases the air. The airbag can then be removed from the load, rolled up ready to be reused. It is very important to close the valve after deflating, so the valve is protected against damages and dirt.

Inflation with Quick inflator



## Working Pressure & Strength

Technical Specifications								
Size in cm		60x110	85x120	100x140	100x185	100x220	120x180	120x240
Load in Tons in a Gap of:	10cm	8.5	13.5	19.0	26.0	30.5	31.5	42.0
	20cm	4.0	7.5	12.0	16.5	20.5	22.1	29.5
	45cm			2.0	3.5	4.5	6.0	8.0
Max Gap in cm		25	37	45	45	45	55	55

\*All specifications are provided in metric tons

The maximum load depends on the size of the airbag and the gap between the cargo. The table above shows what load the various sizes of airbags can withstand in a gap from 10 to 45cm. For example, if there is a gap of 10cm and an airbag of the size 120 x 240cm is used, the airbag can withstand a load of 42 metric tons.

#### Working pressure

The maximum recommended working pressure is 0,4 bar (5,8 psi). Compared with the high bursting pressure this gives a security margin of factor 3-8 depending on the gap. If changes in temperature, you should take into consideration the following:

- If the air in the airbag becomes significantly colder after inflation, the pressure in the airbag drops. It is possible to compensate for this during inflation by increasing the working pressure slightly.
- If the air in the airbag becomes significantly warmer after inflation, the pressure in the airbag increases. It is possible to compensate for this during inflation by reducing the working pressure slightly.
- Consideration should also be given to the working pressure at different altitudes, from high to low and low to high.

During inflation consideration should of course be given to whether the cargo and packaging can withstand the selected working pressure.

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