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BULK PACKAGING

Sandy Vaughan¹

Bulk-Pack, Inc. was formed in May 1980, to meet the growing needs of the flexible intermediate bulk container (FIBC) industry. We are proud of our continued growth and success in meeting the needs of our customers with a top quality bulk bag to meet their needs. Quality is embodied in our people, in our products, and in our performance. We are committed to providing our customers products and services that conform to agreed requirements.

FIBC's (Bulk Bags) are designed as a "cost-effective" method of shipping and storing of dry bulk products...whether it be powder, pellets, flakes, or granular. FIBC's eliminate the need for pallets and elaborate packaging equipment.

Types and Characteristics

Bulk bags are made of woven polypropylene fabric for its strength, durability, and low cost. The bags are reinforced with polyester webbings and have polyester webbing lift loops and crane lift features as needed. Some bags are made with the fabric having a polycoating to the inside and others have a clear polyethylene liner inserted for added protection against moisture and contaminants.

Capacities range from 20 cu ft to 200 cu ft, usually 2000 lbs to 4000 lbs of product. There are some standards to start with... the shape, whether reusable or disposable, and the weight capacity.

The variety of products is endless: chemicals, minerals dyes, resins, feed, seed, grain, food products, salt, nuts, plastics, sand, clay, cement, pharmaceuticals, fertilizers, etc. not to mention special uses such as for waster from oil rigs.....or spills.

With the great variety of products, comes the need for special requirements that can be made into the design of the bulk bag to meet your needs to make the bag most efficient for the situation. The right combination of fabrics, filling spouts,

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discharge chutes, lifting devices, prints, color coding, etc. can make the bulk bag "that's right for your needs".

Advantages of Bulk Bags

The primary reason for using FIBC's (Bulk Bags) is the benefits that the user receives. The advantages are numerous:

- ◆ Labor costs can be dramatically reduced. Bulk bags can be filled and emptied in a fraction of the time it takes for smaller 50-100 lb bags to fill and empty. Compare the ease and speed of 1 bag w/3000 lbs. to fill and empty w/a draw string..... to 60 50 lb. bags or 30 100 lb. bags.
- ◆ Capital cost of developing FIBC systems is minimal. Filling equipment can be purchased for relatively low price or many companies simply modify their existing equipment...further reducing initial costs.
- ◆ Conventional equipment...standard handling device is for lift truck.
- ◆ Bulk bags can be stacked up to three high in a pyramid configuration. They can be stored outside, adding to their versatility. The polypropylene fabric is ultra-violet treated for protection from the sun.
- ◆ Bulk bags can be shipped by all modes of transportation. There is no need for pallets unless overhead lifting is restricted.
- ◆ Improved waster and dust control is possible with the use of bulk bags. Working conditions are improved due to the lack of physical handling of bulk by the plant operators.
- ◆ Bulk bags are economical. They are priced competitively with other industrial packaging and your savings go to your bottom line. For example:

- Bulk Bag: 35 cu ft w/duffle top discharge chute approx. \$15.00 product 58 lbs/cu ft 2000 lb/bag 2 abreast in 40' trailer (bag tare 6 lb pkg cost for 40,000 lbs...20 bulk bags \$300 or \$15 per ton.
- 50 lb. bag: A pallet of 40 bags approx. 20.50 \$0.35 each for polylined multi wall plus \$6.50 for pallet trailer capacity 19 pallets 39000 lbs \$396.50 or \$20.50 per ton.

This simple example of savings does not show the savings in other areas, labor intensive operation of manually palletizing paper bags, other costs for strapping, stretch wrap or shrink wrap. Use of the bulk bags reduces contamination and damage, faster turnaround in shipping, maximizes available space, reduces time, paperwork and cost of frequent bag, drum or pallet orders.

A company was using 50 lb. paper bags for storing delinted cotton seed. When his customer ordered seed the bags were torn open and dumped into the hopper and the seed treated as required by the customer. It was not only labor intensive and time consuming but costly too, in terms of storage bags and product waste as bags were not emptied completely.

Switching to bulk bags made a significant difference...by storing the delinted cotton seeds in bulk bags...each holding 50 bushel and the company was able to eliminate the expense of paper bags. One man operates the forklift to move to and from storage areas and empty the bulk bags into hoppers for treatment which takes only minutes without waste. After treatment the seed is packaged as required by the customer.

A similar experience....with similar savings was reported by a company that handles seven varieties of soybean seed...so storage could get complicated and expensive, "we modified our treatment equipment slightly to accommodate bulk bags and came out with a streamlined operation we are satisfied with."

Another "fringe benefit" revealed was that there was a reduction in damage from rodents....seems rats prefer paper over the polypropylene fabrics!