

Flexible Intermediate Bulk Containers (FIBCs)

Strong, Economical and Designed to fit your needs.



Flexible Intermediate Bulk
Container Association

Phone: (866) 600-8880

Email: info@fibca.com

Web: www.fibca.com

FIBCA MISSION STATEMENT

The mission of The Flexible Intermediate Bulk Container Association is to promote the use of members' products and to serve as a source of information to its members.

FIBCA ENVIRONMENTAL POLICY

It is the policy of the Flexible Intermediate Bulk Container Association (FIBCA) to promote the environmentally sound use and disposal of Flexible Intermediate Bulk Containers by continually researching and distributing information to the end users. All members are committed to environmentally sound manufacturing procedures.

FIBCA POLICY FOR THE REUSE OF BAGS

FIBCA recommends that any bulk bags manufactured by its members intended for reuse meet the following performance standards:

Regulated (Hazardous) Products. Code of Federal Regulations 49 (CFR 49) required by law

- i) General requirements for packagings and packages (sec 173.24),
- ii) Hazardous materials in IBC's (sec 173.35),
- iii) Standards for flexible IBC's (sec 178.710),
- iv) Subpart O - Testing of IBC's (sec 178.801 - 178.819); and
- v) Subpart - Qualifications & Maintenance of IBC's (sec 180.350 - 180.352).

Non regulated products

- i) For overseas shipments the bags should meet the performance standards CEN EN 1879 or British standard BS EN 1898 - 2001,
- ii) For Domestic shipments FIBCA recommends as a minimum standard proposed ISO/DIS 21898; and
- iii) Particular attention should be paid to Annex D.



**Flexible Intermediate Bulk
Container Association**

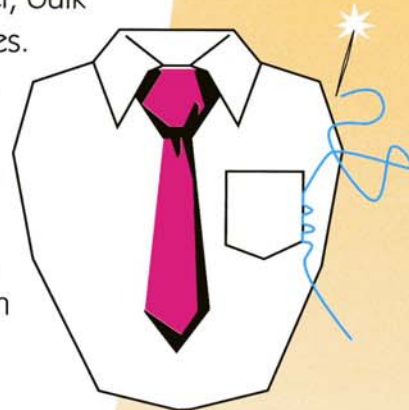
Today, everyone is looking for an edge.

Effective shipping and handling of dry bulk products is becoming more and more critical to a company's competitiveness. Wasted time, cumbersome handling systems and expensive shipping charges are a thing of the past. Flexible Intermediate Bulk Containers (FIBCs) offer handlers of dry bulk products an edge by being designed to a customer's specific needs.



FIBCs are a cost effective method of shipping and storing dry bulk products. FIBCs can be likened to a room in a house; the most efficient cost effective use of space. A ceiling, floor and four walls can be modified for many uses i.e., bedroom, kitchen, bath. Like a room, FIBCs can be designed to fit a variety of uses and users. The ability to create design changes for intake or discharge outlets, liners, and handling straps is as easy as sewing on a shirt pocket. This flexibility to produce en-mass, plus the elimination of the costly pallet system of shipping, handling and storage makes FIBCs the obvious choice for many handlers of dry bulk material.

Although usually made from woven polypropylene (a tough lightweight material) FIBCs employ varying fabrics and fabric weights depending on container strength and factors of safety. Sizes vary from 15 cu. ft. to 95 cu. ft. However, bulk bags can be manufactured for smaller or larger capacities. For bulk bags with capacities greater than 95 cu. ft. the base dimensions of the bag will need to be increased if it is to be shipped in a truck or container. Refer to the general specifications on page 6. However, most bags are about the same size as a typical pallet grid unit. This enables shippers and users of FIBCs to handle them with existing in-plant equipment, such as lift trucks, jib cranes or overhead cranes.

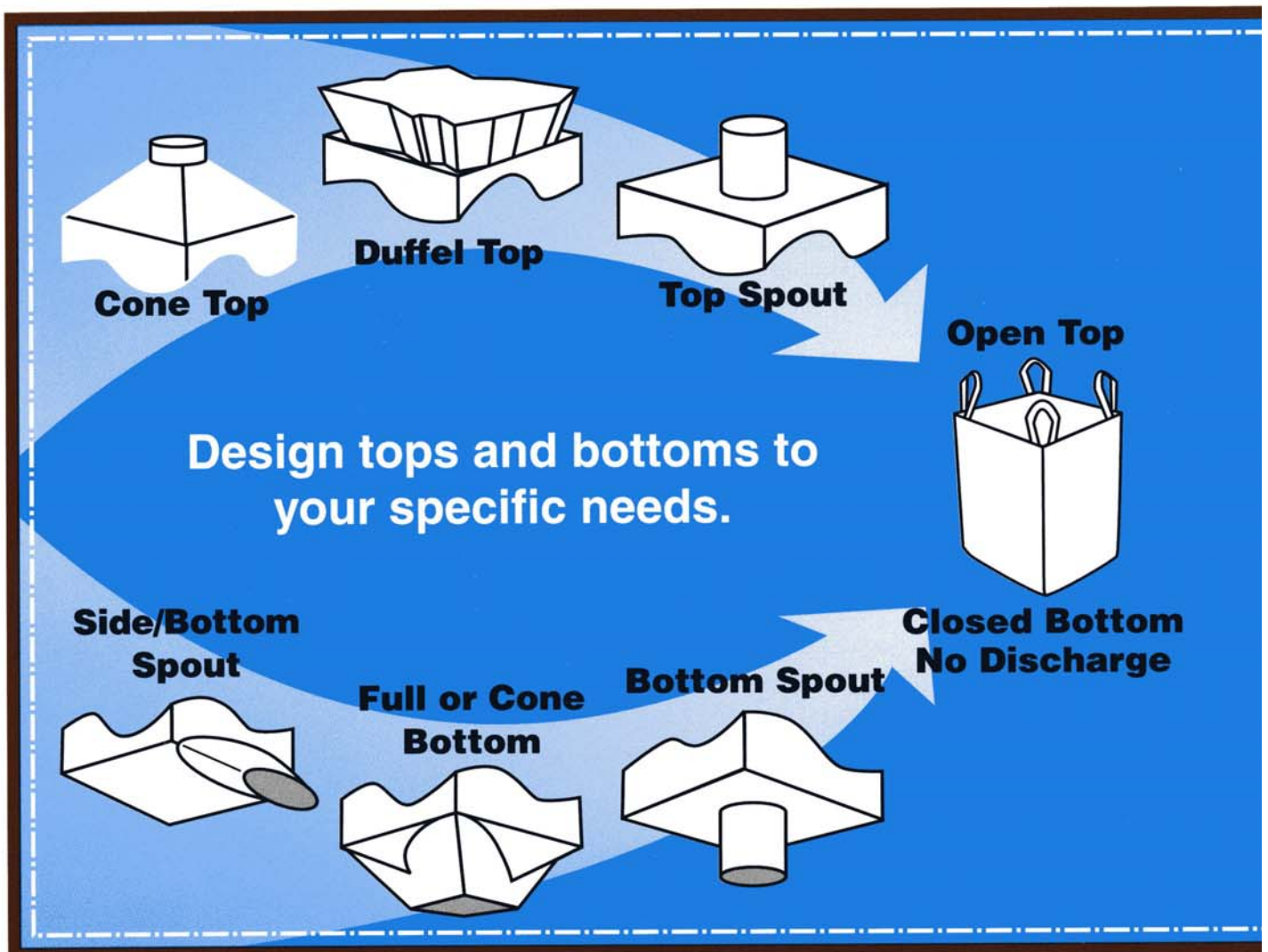


It seems simple enough, fill a container with dry bulk material, deliver it to a destination and remove the material. Life isn't that simple and neither is handling dry bulk goods. Other dry bulk containers such as paper bags and fiber drum containers start with built in limitations. Filling can only be done through the open top. Paper bag tops are then sewn together and fiber drum containers come with a lid. These limitations reappear when discharging the bulk material. The paper bags must be cut open and the lid of the fiber drum container must be removed. To remove the dry bulk material, workers must scoop out, or lift and pour the product. Spillage becomes a problem, as well as dust. Workers become more

involved with heavy lifting and inconsistent blending occurs because there is no way to control the flow of product.

Here is the advantage of FIBCs

Instead of being stuck with a container that limits the user to one way of filling, moving, storing, and discharging the product, FIBCs allow you to design the bag to your specific needs. A variety of fill and discharge methods have been developed. A flexible spout can be sewn to either top, bottom or bottom/side, then secured with a tie to aid in filling and discharging the product. Liners can be installed for special products. Straps or sleeves aid in lifting, moving and handling the product.



Even the over all shape—square or circular for example—can be altered to accommodate your specific needs. And, FIBCs use less space than fiber drums.

In addition, a system of bulk bag holding racks, bag filling and bag emptying equipment allow FIBCs to be processed accurately, and handled safely. Spillage is practically eliminated. Dust collection rings can be attached if necessary, keeping dust problems to a minimum. Discharge spouts can be used as hoppers, allowing for more accuracy when blending material. This over all system allows users a clean, safe and



consistent method for handling dry bulk material. Bulk bags are designed according to cu. Ft. capacity. The bulk density of your product must be determined for sizing. Bags can be “tailored to fit” each customer’s need. FIBCs are manufactured as small as 5 cu. ft. to 15 cu. ft. — for handling high bulk density weight products or smaller weight capacities. Standard sizes vary from 25 to 75 cu. ft. and are used for domestic truck shipments and export containerization. They fit most pallets. Oversize bags are excellent where the bulk density weight of the product is very low. Every company and product has a list of requirements that must be met. FIBCs give you the ability to create the perfect bag for your needs.

Add a variety of straps, sleeves and liners to aid in lifting, moving and handling a variety of products.

Strap Variations



8 Point Attachment



Lift Straps



Sleeves



Stevedore/straps

Liners



Liners of polyethylene and polypropylene can be installed for special products.

This flexibility of design is indeed a great advantage, but there are more reasons to consider FIBCs.

Number One... The setup, filling and closure is less complicated with one large container rather than many smaller ones. The low cost of each FIBC often justifies one way trips.

Number Two... Bags store in a small space both before and after using. Handling and freight costs are slashed.

Number Three... FIBCs are safer to use. No spillage problems or dust. They are adaptable for all uses.

Number Four... The cube shape of FIBCs affords better utilization in warehousing, railcar, over-the-road vehicles or ocean going vessels.

Number Five... FIBCs with outlet spouts can be used as hoppers for dispensing material through start/stop procedures.

Number Six... Bulk bags can be manufactured with anti-static fabric that does not require a ground attachment. For more static sensitive environments the bags can be manufactured to work in conjunction with grounding devices during product discharge.

Number Seven... Bulk bags can be supplied with poly liners that are glued in place or liners with tabs that are attached to the outer bag at the corners. Both techniques keep the liner from sliding down into the spout when discharging product.

As you can see there are many reasons to put FIBCs at the center of your dry bulk handling system. Here are some specifics you may need to know.

Materials:

- Woven Polypropylene (coated and breathable);
- Fabrics treated for UV resistance;
- Anti-static fabrics that meet the standards of Type C and Type D static control;
- Fabrics that comply with the FDA criteria for food stuffs and pharmaceuticals;
- Specialized liners can be provided for moisture protection; and
- Lift loops and straps from polypropylene and polyester.

When purchasing Flexible Intermediate Bulk Containers you should buy from a member of The Flexible Intermediate Bulk Container Association (FIBCA) ... and here is why.

The Flexible Intermediate Bulk Container Association is the only professional organization representing the manufacturers of bulk bags and those companies that are suppliers to the industry. Members must comply with association requirements before acceptance. The importers of bulk bags and component parts are also members so that they are always informed of the changes and progress in the industry. FIBCA has world wide affiliation with other Bulk Bag Manufacturer Associations and keeps its members updated to industry changes and developments.

FIBCA recommends minimum performance standards for containers made in the NAFTA countries. FIBCA keeps its members informed on the following regulations that apply to export bulk bag shipments:

- United Nations: UN recommendations on the transport of dangerous goods (Model Regulations - Orange Book),

- USA: Department of Transportation Title 49 CFR,
- Canada: Canadian General Standards Board. CAN/CGSB-43.146,
- Mexico: Draft Official Mexican Standard NOM-029-SCT2,
- Maritime: International Maritime Dangerous Goods Code (IMDG),
- CEN and BSI standards for non dangerous goods. EN 1898 and BS EN 1898:2002; and
- CEN FINAL DRAFT EN ISO 16104. Transport packaging for dangerous goods test methods (ISO/FDIS 16104:2002).

With so much on the line, i.e. proper bag design, your employee's safety and your customers' satisfaction, doesn't it make good sense to buy from the best — A Member of the Flexible Intermediate Bulk Container Association?



Flexible Intermediate Bulk
Container Association

GENERAL BAG SPECIFICATIONS (SIZES AND USES)

CAPACITY (in cubic feet)	EMPTY SIZE (width x depth x height)	FILLED DIAMETER (approximate)	APPLICATIONS
15 to 20	29" x 29" to 31" x 31" x appropriate height	38"	For higher bulk density products or smaller weight requirements
21 to 75	35" x 35" to 37" x 37" x appropriate height	46"	Most common sizes for all products. Used in truck shipments and export containers.
76 and up	41" x 41" to 43" x 43" x appropriate height	53"	For smaller bulk density products or where height restrictions occur. Used for rail shipments.

The following is a listing of some of the industries which typically use Bulk Bags. The common denominator is that there is a dry, flowable product.

Chemicals - which obviously cover a multitude of industries

Ferro Alloys

Crushed Stone, Sand, Gravel, Cement

Food - Sugar, Salt, Flour, Dextrose, Starch, Food Additives

Pharmaceutical

Plastics - Resin, Pellets, Etc.

Absorbent Polymer

Refractories - Abrasive Grit, Ceramics, Clays, Lime, Powdered Metals, Shot

Rubber

Carbon Black

Agriculture - Seed, Grain, Popcorn, and Beans

Minerals and Specialty Minerals