



Power-Lift®

The Flexible Intermediate Bulk Container (FIBC) has stormed ahead to capture the market for industrial bulk goods. NNZ has developed its own FIBC, under the brand name of Power-Lift®. This is frequently used for the storage and transportation of chemical products and products for the food and

offshore industry. The Power-Lift® has a storage capacity of 500 up to 2500 litres. Needless to say this bulk container satisfies stringent international quality requirements. The Power-Lift® is tested in independent testing institutes in accordance with NEN-EN 1898 and/or EFIBCA standards.



Basic specifications

Bottom dimensions (mm)	800 x 800
	910 x 910
	990 x 990
	1050 x 1050
	1100 x 1100
	1200 x 1200

It is possible to make up combinations of the above bottom dimensions. In this way, every Power-Lift® can be accommodated to a specific pallet size. The Power-Lift® is available in heights from 500 up to 2400 mm. To ensure guaranteed optimum stability, NNZ uses the following basic rule when determining height: height = 2 x bottom dimension.



Technical specifications and use of materials

- 100% woven polypropylene fabric, in white, yellow or black
- UV stabilised to 150 kty (kilolangleys)
- Safe working load from 250 up to 2000 kilogram
- Safety Factor:
 - 5:1 for single trip
 - 6:1 for multi trip
- Lifting loops made from heavy duty woven polypropylene belt (1-point, 2-point, 4 loops and sleeves)
- Various filling and emptying options
- Available in different variations:
 - without coating
 - with coating
 - with liner

Extras

The Power-Lift® can be provided with:

- Printing on one to four sides up to a maximum of three colours
- Document pockets
- Extra information sheets
- Extra straps



Power-Lift® product range:

- Standard Power-Lift®
- Square shaped Power-Lift® (Q-bag)
- Electrically conductive Power-Lift®
- UN approved Power-Lift®

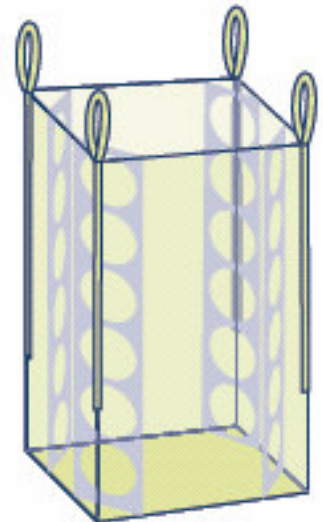
Standard Power-Lift®

The standard Power-Lift® is used for the packaging, transportation, and storage of powders, granules, and minerals.

Square shaped Power-Lift® (Q-bag)

The Q-bag is a Square shaped Power-Lift® which is particularly suitable for the filling and transportation of fluid materials.

The Q-bag's stability is due to its sewn-in internal section. After filling, this Power-Lift® retains its original external dimensions, with bulging being kept to a minimum. This provides a substantial space saving during transportation and storage.



Top view
Square shaped Power-Lift®



Electrically conductive
Power-Lift®

Electrically conductive Power-Lift®

Some bulk materials generate static electricity during filling, transportation and emptying. The electricity arises both in the Power-Lift® and on the surface of the fabric. If this electrical charge comes into contact with dust or gas, this can lead to a fire or explosion hazard. The use of an Electrically conductive Power-Lift® prevents this risk. NNZ supplies these in four classifications: type A, B, C, and D.

Bulk storage Median diameter < 0.1 mm	Non-hazardous atmosphere	Explosive atmosphere	Flammable gas or vapours
Non-explosive dusts MCE>10 J	A	B	C
MCE > 3 mJ	B	B	C
1 mJ < MCE < 3 mJ	C	C	C
MCE < 1 mJ	C+D	C+D	C+D
MCE > 3 mJ, R < 10 ¹¹ Ω.m	B	B	C or D
1 mJ < MCE < 3 mJ, R < 10 ¹¹ Ω.m	C or D	C or D	C or D

This table is based on research carried out by INERIS (France) and the Swiss Institute for Hygiene and Safety

- A. - any Power-Lift® can be used
- B. - any Power-Lift® without inside liner. Wall tension inferior to 4 kV.
- C. - conductive Power-Lift®. Electrical resistance inferior to 10¹¹ Ω. Obligatory earth for the Power-Lift® during filling and discharge.
- D. - Power-Lift® containing isolated woven conductive fibres. These do not need to be earthed. The electrostatic charges are partially released into the atmosphere by conductive fibres.
- O. - special supplementary measures (inerting).

MCE: minimum combustion energy for dispersed dust particles
R : volume resistance of stocked product
mJ : millijoules.

UN approved Power-Lift®

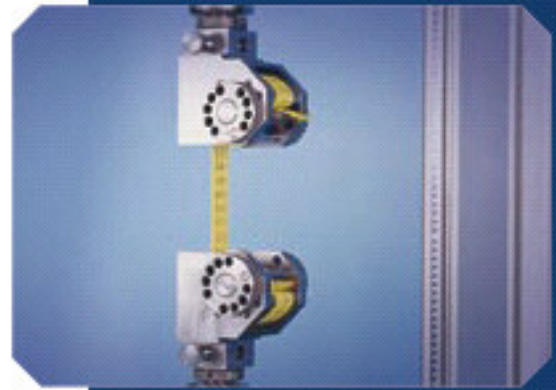
For the transportation and storage of hazardous substances, NNZ supplies the UN approved Power-Lift®. This Power-Lift® is only available with the 6:1 safety factor. Which UN approved Power-Lift® is the correct one depends upon the hazard class of the product to be packed (X, Y, or Z):

- *13H1 -uncoated woven polypropylene fabric without liner
- *13H2 -coated woven polypropylene fabric without liner
- *13H3 -uncoated woven polypropylene fabric with liner
- *13H4 -coated woven polypropylene fabric with liner

*This specific Power-Lift® is produced and certified in conformity with the recommendations of the United Nations for the transportation of hazardous substances and is tested for transportation by road (ADR), rail (RID), and overseas transportation (IMDB).

Hygiene

Hygiene requirements in the pharmaceutical and food industries are becoming ever more stringent. As is the case with packaging. To be able to satisfy these requirements, a special clean room has been set up. In this totally germ-free area, the Power-Lift® is produced in conformity with Directive 95/35/EG. During production in the clean room, temperature and air humidity are continuously monitored. All materials are cut using ultrasonic equipment. Before the Power-Lift® leaves the clean room, it is fully inspected and then packed for transportation.



Tensile load measurement



Clean rooms

Type description



P1



P2



P3



P4



P5



P6

Strap options



standard



cross-corner

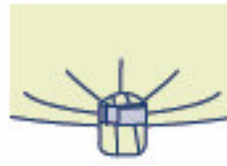


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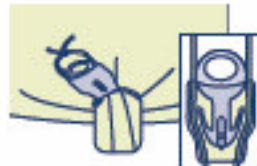
Closures



cord



velcro



b-lock

Filling and emptying options

Top



filling spout



conical top



skirt

Bottom



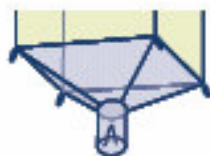
closed base



discharge spout



double discharge spout



conical



iris protection



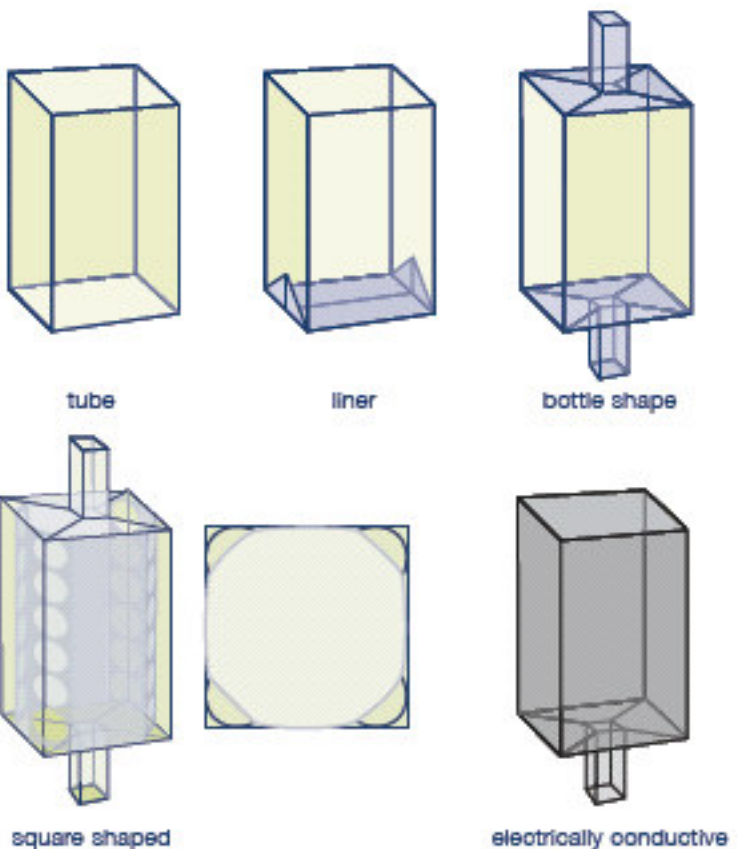
bottom flap



Dust proof and liners

To prevent fine powders and dust sifting through the seams of the Power-Lift®, these can be provided with a coating and/or dustproof or siftproof seams. Another way of siftprevention is by using a liner. Additionally a liner offers a strong moist barrier and is available in different types, from a basic polythene tube to bottleshaped liners (provided with filling and/or discharge spout). Thanks to the use of modern coextruded or laminated foils, flavourings and fragrances remain contained. Conductive properties can also be added to the liner.

Liners:



NNZ is a leading organisation in the world of innovative packaging for the agricultural and the industrial sector. The company undertakes intensive market and product research and continually anticipates market developments. In doing so, NNZ has earned a central position at international level within the world of packaging.

Storage

The quality of synthetic fibres (and thus also of woven polypropylene fabric) is affected by weather conditions, including ultraviolet radiation in sunlight. This causes the strength of these fibres to decline in the course of time. NNZ therefore advises that both filled and unfilled Power-Lift® products should be stored under cover.



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