

Liquid and Grease on the Move...

Safeguarding cleanliness



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Since the beginning of mankind there has been a need to store and transport liquids in one way or another – one of the earliest examples of logistics. Today safe storage, transportation of lubricants and logistics are synonymous.

Traditionally 200 litre drums and 1000 litre Intermediate Bulk Containers (IBC) have been used for storage and transportation of a whole range of lubricants. For greases, drums have dominated in workshops around the world.

Since the mid 1950's there has been widespread container innovation aimed not only at safe transportation and storage, but more recently at endeavouring to take into account a gamut of environmental issues.

Contaminated lubricants, whether they be moisture or any other form, do not sit well with machinery.

Fluid-Bag's engineers in Finland during the mid 1980s worked on designing a 1000 litre container to meet a number of perceived market needs and raised the bar for container design and performance.

- Recyclable, environmentally friendly
- Single trip, one-way system
- Long term storage
- Preserves lubricant integrity
- Complete protection from contamination
- Minimises residue

This resulted in the Fluid-Bag "Flexi" followed a few years later with the

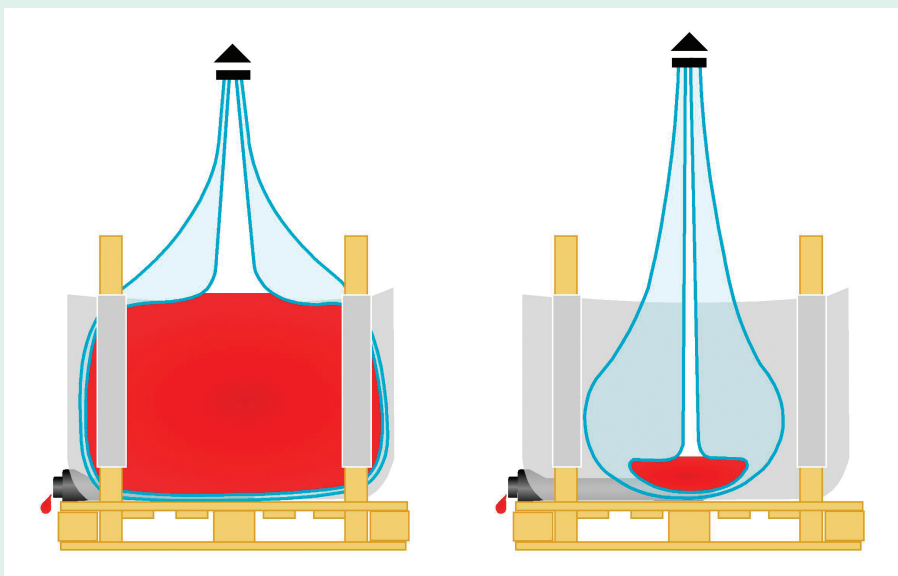
"Multi" – a multi trip version based on either galvanised or stainless steel pallets. From a logistics perspective Fluid-Bags are shipped in containers (18000 litre), transported by road and rail.

These unique 1000 litre containers are based on plastic multi-layer foil technology. The inner container holding the liquid is therefore flexible.

How does a flexible container contribute to cleanliness and efficiency?

The flexibility allows the stretching of the inner container ensuring:

- Maximum filling level is guaranteed, leaving no air-filled space in the container avoiding moisture contamination even under the harshest climatic conditions.
- No risk of moisture ingress due to temperature variations when stored externally, as is the case with any rigid container. Inevitably pressure variations occur in rigid containers when trapped air and the content inside expands or contracts with changing ambient temperatures creating an under pressure in the container, drawing in air with resultant moisture. In addition, this phenomenon can cause rust particles to accumulate in the lubricant because of the moisture. The Fluid-Bag being flexible, stretches with the temperature variations. No under pressure is created, and no contaminant ingress. The container is made of plastic, so no metal is present.



- Minimised residue to less than 1% in the case of grease, and even 0.3% in the case of oils. Approximately 10 kg grease residue is left in a 1000 litre Fluid-Bag after discharge, in comparison 25-30 kg is left / 5 drums.

It is not necessary to open the top of the container when discharging avoiding possible airborne contamination.

The right container is key for preventive maintenance

One of the first things to consider in lubrication management is contamination control. Well planned lubricant storage and handling is an important and cost-effective way to enhance equipment reliability and lifecycle. Lubrication is not only finding the right lubricant and defining the correct service intervals, but equally important is keeping the lubricant clean.

On the issue of contamination, recent trials with Fluid-Bag stored transformer oil exposed to the elements only at 23 months showed the first signs of moisture ingress with the product still within specification.

Machinery of whatever type requires contaminate free lubrication and maintenance with repairs and resultant down time costly. The Fluid-Bag provides a unique, safe, contaminant free environment in which to store and dispense all forms of lubricant under the most arduous conditions.

Dispensing directly from Fluid-Bags into the equipment further avoids contamination. Fluid-Bag handling equipment has also been designed to allow containers to be loaded onto maintenance trucks servicing vehicles and equipment in the field. Specialist equipment is also available allowing Fluid-Bags to be taken underground in mining operations.

The inner container is single-use, consequently there is no risk of contamination from reused or topped up containers.

Health and disposal

Handling and labour costs are reduced, a single 1000 litre container compared to 5 standard 200 litre drums. The heavy lifting of drums is avoided, thus safeguarding operator health and safety. This provides operators with an easy to use, efficient and clean system naturally contributing to the overall success of any maintenance programme.

Empty Fluid-Bags can be refilled with waste oil in the workshop. Disposal costs are minimal - all components are recyclable or can be incinerated.

In the wider picture Fluid-Bag sets out to provide the lubricant supplier and machinery user, in whatever industry, with a unique system that ensures complete lubricant protection and with it peace of mind.

Please see here for more information:

<https://www.fluid-bag.com/media/video-gallery/equipment-discharge-roller-semi-automatic>

LINK

www.fluid-bag.com/applications/lubes-and-greases
[vimeo.com/126128229](https://www.youtube.com/watch?v=126128229)

