

Case Study

IBC Cleaning

An Industrial Bulk Container or IBC is a reusable industrial container used for the transport and storage of oil, chemicals, food / beverages, solvents, pharmaceuticals and other liquids.

IBC's are made of polythene or polypropylene, encased within a metal cage and fixed to a wooden or metal pallet suitable for transportation by forklift, the most popular size is 1000 litre capacity.

IBC's currently account for around 15% of the global packaging market and due to the high operational performance and cost efficiency the annual growth rate is around 9.5%.

The demand for recycled IBC (Intermediate Bulk Container), IBC totes and pallet tanks has also increased dramatically over the past few years mainly driven by legislation to reduce, re-use and recycle packaging material. Recycling of these containers usually requires high pressure jet washing of the internal and external surfaces with heated water. Automatic cleaning heads have been developed to rotate and oscillate while spraying high pressure water jets, which greatly speed up the internal cleaning process. External cleaning using high pressure heated water is used to remove the IBC labelling.

Cat Pumps UK have been working with an IBC recycling company to deliver two Wash-Saver units, designed to provide a cost effective and reliable pumped feed solution for their high pressure centralised washing systems. These Wash-Saver units replace old individual fixed speed pump packages that ran at a full rpm speed whatever the cleaning demands. This inefficient use of energy and water, combined with the increase in IBC cleaning requirements resulted in a re-think of the cleaning philosophy and a requirement of a more modern, environmentally friendly approach. The use of Cat Pumps Wash-Saver systems was the obvious answer.

One Wash-Saver unit will provide 160 l/min at 90 bar (at a temperature of 65°C) for the IBC internal cleaning system having four automatic cleaning heads connected. Another Wash-Saver unit will provide 80 l/min at 160 bar (at a temperature of 65°C) for the IBC external cleaning system which has four jet wash lances connected. Because the customer's cleaning operations can vary in use, the flow requirement from the high pressure system is constantly changing, making this an ideal application for the Cat Pumps Wash-Saver units.



Application Specifications (Dual Pump Wash-Saver)

IBC Cleaning – Internal (Automatic Cleaning Heads)

Cat Pumps Model	2 nos. 3520
Pressure	90 bar
Flow	40 to 160 lpm (total)
Fluid	Clean Water
Temperature	65oC
Drive	2 nos. 15kW, 4 pole electric motor, belt and pulley

IBC Cleaning - External (Jet Wash Lances)

Cat Pumps Model	2 nos. 3560
Pressure	160 bar
Flow	20 to 80 lpm (total)
Fluid	Clean Water
Temperature	65°C
Drive	2 nos. 15kW, 4 pole electric motor, belt and pulley