

# Case Study: IBC Lift Systems

## Introduction

A major UK-based pharmaceutical company had recently created a new corridor which required IBCs to be sampled from the clean room above, due to the dangerous nature of the powder. Hanningfield were approached to develop a solution to this problem – the answer was an IBC lift that docked the vessel into the ceiling for sampling through a dust-tight hatch from a clean room located on the floor immediately above.

## Our Solution

The corridor was a focal point of the process area, with various containers and equipment being wheeled through the area. This defined the area as a contaminated space, meaning the room was unsuitable for sampling to occur. Consequently the vessels needed to be docked into the above clean room for sampling, in a way which maintained the integrity of the clean room.

The solution was an IBC lift which enabled up to a 1,500 kg IBC to be lifted into a ceiling hatch. The inspection hatch was only accessible from the room above once the sensor confirmed the IBC was in position. A safety interlock switch ensured the lift system was fail safe, protecting the immediate working area below whilst the IBC was suspended.

There was also a dust extraction system around the hatch opening to ensure no contaminated material passed into the clean room. This system allowed the IBC lid to be accessible from the above room for sampling of the powder within. The IBC could then be lowered back down to ground level and continue to a downstream process. Meanwhile, another IBC can then be docked ready for sampling.

## Results and Conclusions

This solution saved time as vessels no longer needed to be transported long distances to an upper floor, whilst the clean room was protected from contaminated material through the dust-tight docking mechanism integrated with a dust extraction system.

This greatly improved the validity of the process, as the contaminated material was kept safely contained. There were also vast efficiency improvements through time-saving, and an excellent return on investment through cost savings as the clean room no longer needed to be cleaned down after each sampling.

## Installation Photograph



## Key Facts

**Total Containment Solution:** The dust tight connection and dust extraction system ensured the solution kept contaminated material entirely contained. This ensured the clean room was never compromised reducing the need for clean downs.

**Increased Efficiency:** Hanningfield designed an ergonomic solution which made the task of transporting a vessel to an upper floor much easier and quicker.

**Safe and Hygienic:** A safety interlock switch ensured the system was fail-safe against faults, meaning the IBC would not have fallen had the system failed. This design feature helps protect workers and ensure the safety of the process.

**Return on Investment:** Efficiency improvements and cost savings resulted in a quick return on investment. This helped cost-justify the project as the system has paid for itself many times over.

**IBC Docking:** Hanningfield's experience with IBC docking was vital here as the system needed to be fully contained, whilst prioritising safety. The use of dust-tight connections and a dust extraction system ensured we were not just supplying a hoist, but a bespoke sampling system to meet the customer's exact requirements.