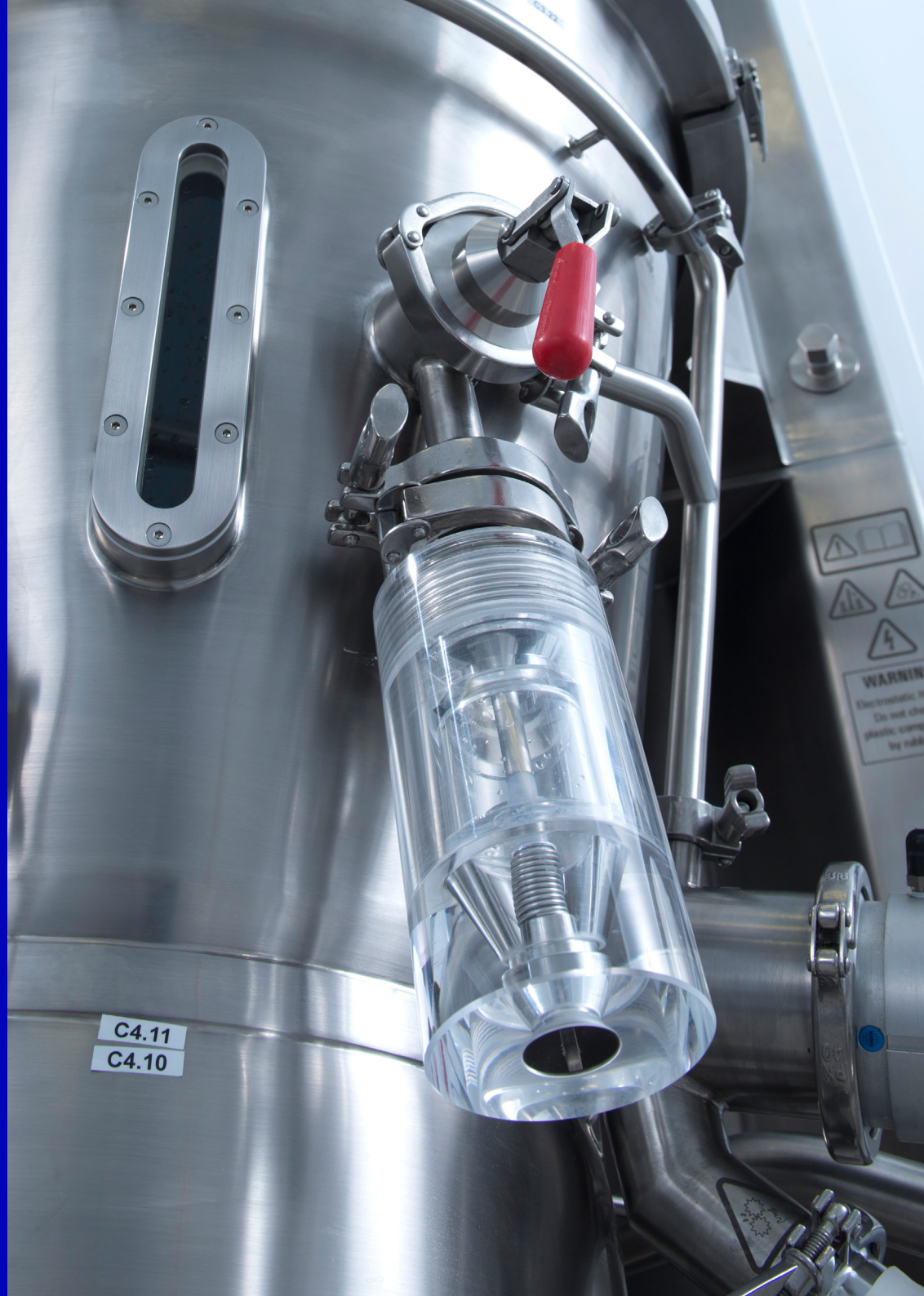
# CONTAMINATION-FREE PRODUCT SAMPLING.

In-process quality control for contained solid dosage lines.

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# CONTAMINATION-FREE PRODUCT SAMPLING.

## Is there a safe and effective way to take in-process product samples?

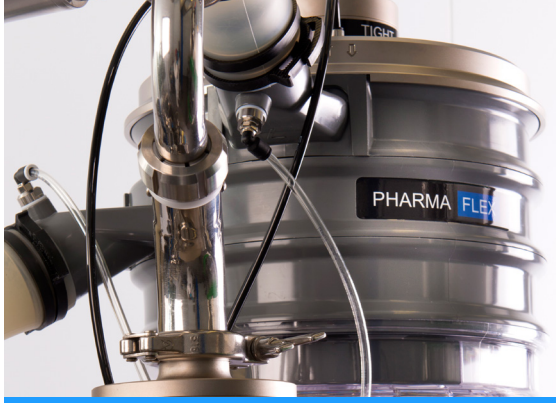
**BUCK® Sampler**
Based on split valve technology, the Sampler was specifically developed for gravity based process sampling applications in combination with commonly used product sampling equipment in processes such as granulation and drying.

The Sampler offers a fully contained sampling process, even maintaining a process-related pressure resistance during all stages of docking, sampling and undocking.

**Disposable Hicoflex® Sampling Technology**
The Hicoflex® Sample Bag is a fully contained sampling device that enables a process sample or the bulk material in a Hicoflex® charge bag to be taken through an adaptor.

**Compression Sampling: Complete tablet production lines for potent/toxic drugs**
As powder in-feeding, tablet handling, sampling and tablet collection all have to be done under “high containment” conditions, it became imperative to design complete lines that also integrate the peripheral equipment, such as the powder discharge station, tablet deduster, metal detector, dust extractor and tablet analyzer.

Initially, the most commonly used technique was to build isolators around the equipment and provide wash-in-place capability. However, the latest design favors at-source containment and off-line washing, as these concepts allow equipment to be smaller, easier to install and operate, and lower priced.



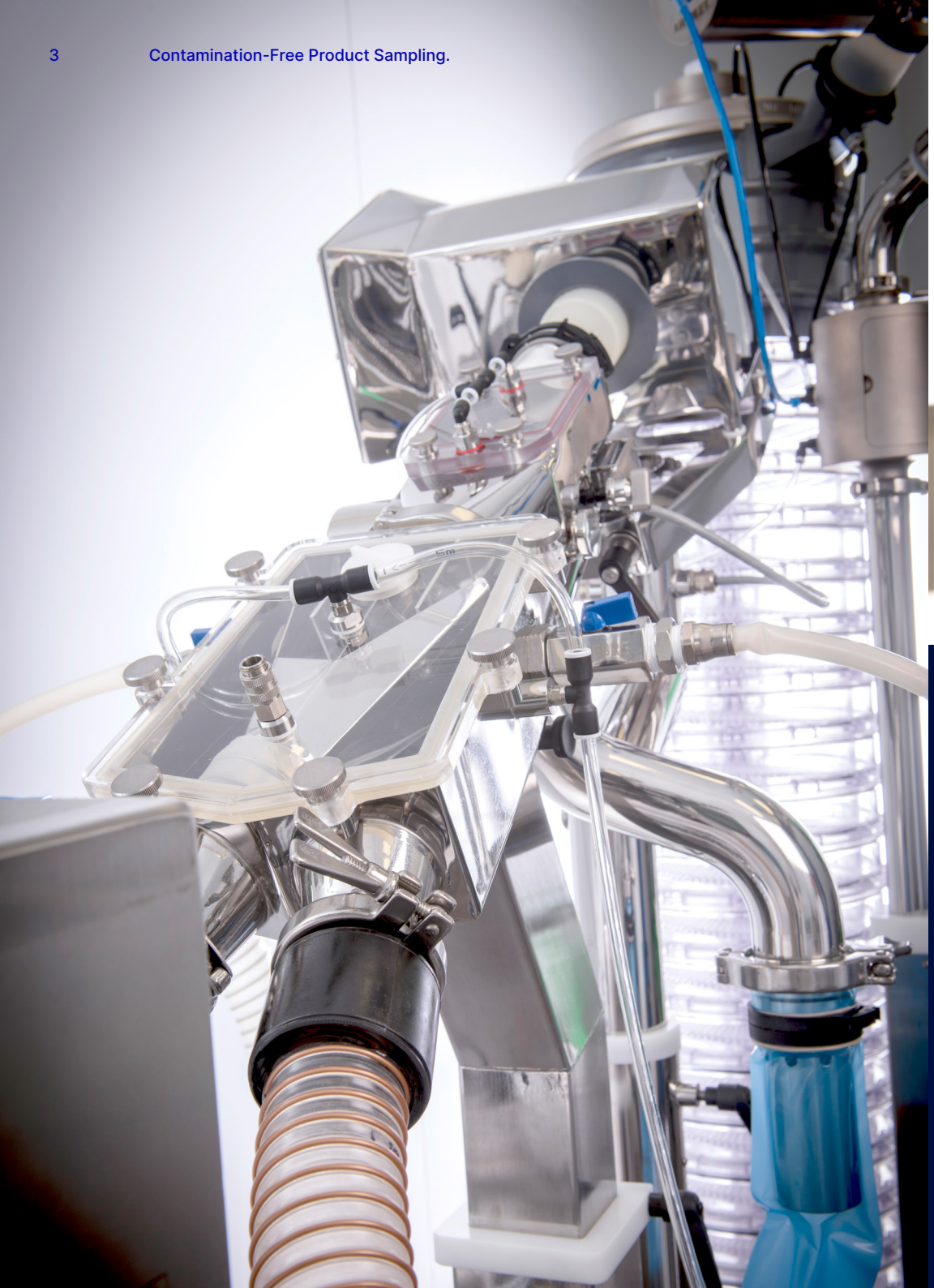

## Case Study
Servier, Ireland

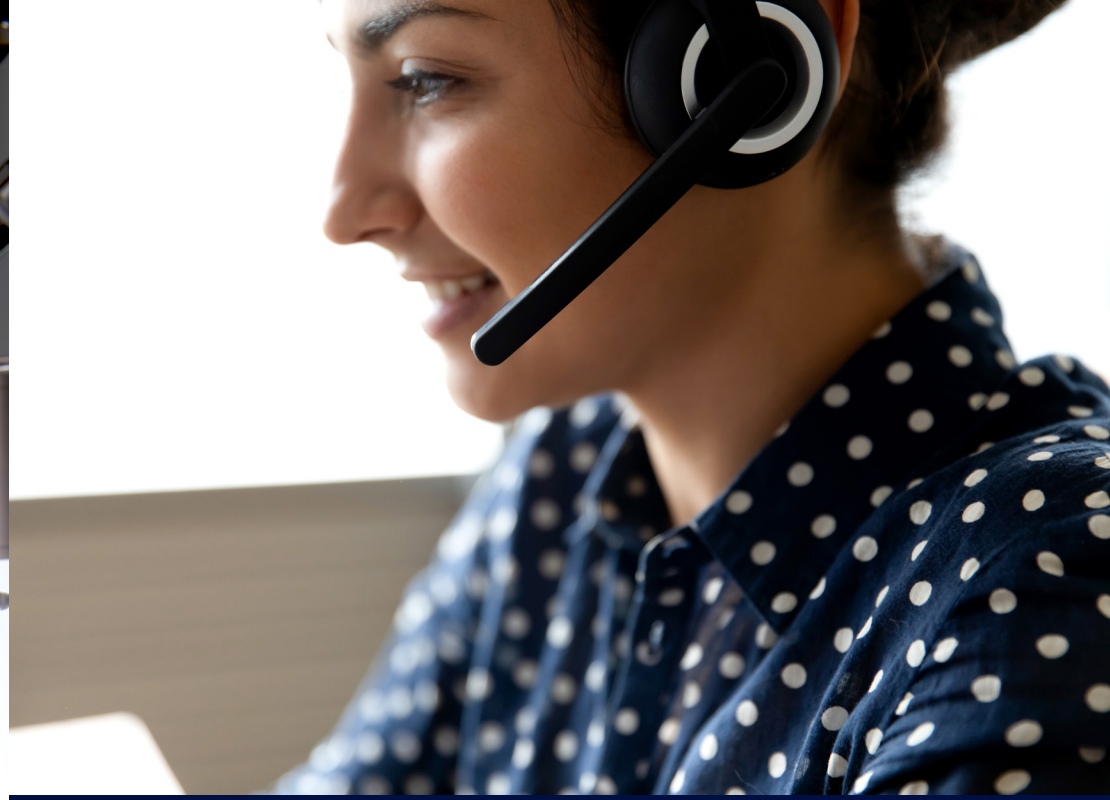
**High-containment tablet compression**
Servier, Ireland, invested in three high-containment MODUL S tablet presses with WOL-ECM. The raw material is delivered in IBCs, which are lifted above the press with a post hoist. The material is fed into the press through a split butterfly valve.

A custom-designed high-containment Pharma Flex deduster (Pharma Technology Inc.) was installed for dedusting and to check for metal particles, including a buffer system that releases the tablets into an IBC after every Combi-Test tablet check.

Accepted tablets are collected in an IBC, which is connected via an SBV, whereas rejected tablets are taken to a closed bin.

A separate Kraemer-Elektronik washable high-containment Combi-Test tablet weight, hardness and thickness tester performs automatic tablet sampling and measuring for batch reporting and process control.





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