

We work together

TO MEET GLOBAL DEMAND FOR COVID-19 VACCINES

WIPOTEC OCS
WEIGHING AND INSPECTION SOLUTIONS



The background

The global COVID-19 pandemic has shaken the globe to its core over the past two years. The cause of both a public health and an economic crisis, the pandemic has been described as the biggest threat to civilization since the end of the Second World War II.

One of the main defenses against COVID-19 is the effective roll-out of the vaccines which were researched, developed, tested, regulated and rolled out in just two years. By any stretch of the imagination, this is a remarkable achievement, especially when you consider that many people around the world have now received their third dose.

This achievement is even more significant when you consider the challenges that the pharmaceutical supply chain has had to overcome. Some vaccines require ultra-cold development, storage, and delivery conditions, sometimes in temperatures of -80°F (-62°C), conditions which many suppliers had never had to consider before.

The availability and subsequent delivery of COVID-19 vaccines in such a short time, against such a challenging and evolving landscape, and with the eyes of the world watching is highly commendable.

The challenges

One of the main ongoing logistical issues with the vaccine centers around distribution and storage, due to a need for some of the vaccines to be stored at extremely low temperatures. This led to Thermo Fisher Scientific looking for a bespoke packaging solution, one that enabled work to be carried out within the low temperatures and specific timescales needed.

In addition to the large quantities needed to meet worldwide demand for the vaccines, the packaging material had to be frequently adapted to meet various scenarios. Thus, the optimal solution would also have to satisfy additional, unprecedented requirements—most notably relating to serialization and traceability of vaccine packaging up and down the global supply chain.

ThermoFisher
S C I E N T I F I C

Furthermore, the frequent changes to packaging size, aggregation hierarchy, and machinery involved meant the serialization solution had to be adapted within a short timescale.

The advanco solution

Advanco deployed its state-of-the-art serialization and aggregation solution, ARC Cold Chain, to meet these complex logistical challenges.



Working with its partner, WIPOTEC-OCS, a serialization and aggregation equipment supplier, advanco developed for Thermo Fisher Scientific a custom track-and-trace solution that would oversee movement of the vaccines through the following processes in the supply chain:



Serialization and aggregation without bundle labeling on the WIPOTEC-OCS line



Cold storage for 48 hours in the freezer



Aggregation from bundle to special ultra-low temperature (ULT) shipper



Exception management through the ARC Platform rework function

The ultra-low temperature needed by specific vaccines requires these functions to be completed within a narrow time window to minimize exposure to room temperatures. The ARC deployment and processes were especially designed to meet these operational time constraints.

Advanco introduced virtual aggregation hierarchies and capabilities to manage exceptions involving label damage and absence. The duration between initial requirements specification and final software delivery was exceptionally short, even though the requirements were changed multiple times.

In view of the overall urgency dictated by a need for a swift global rollout of the vaccine, advanco implemented the overall solution for Thermo Fisher in record time. This was achieved by overcoming challenges specific to cold chain products, such as integrating manual operations into a process, aggregation with virtual labels on bundles and scale, and speed requirements.

Advanco was able to achieve these results by quickly mobilising multiple resources from different specialist areas, while ensuring adherence industry leading quality control standards.

As a result, the vaccines have been in steady production for some time now, and are being delivered safely and quickly to countries around the world.

