

Case Study

How a Cooler Solution Saved Siemens Healthineers Both Time and Money



Wins

5,240kg

reduction of EPS per year

96%

of shipments using
smaller coolers

Cost savings

due to smaller packages

At a Glance

Leading

MedTech company

66K

employees

70+

countries



Having BlackBox has been extremely useful as a quick and effective way to check an idea. We didn't initially know how many orders would fit in the smaller cooler, and within a day, we were able to get exact numbers by using historical shipment data."

Kelsee Todd

Siemens Healthineers Industrial Engineer

The Challenge

Siemens Healthineers' American Distribution Center (ADC) located in Plainfield, IN, is responsible for distributing the reagents, assays, and parts used to support the delivery of MedTech equipment to customers. They have three cooler sizes for their dry ice frozen shipments to domestic U.S. customers and have historically used only the middle-sized cooler for all shipments. They needed to make sure they were using the best cooler size for each shipment.

How MagicLogic Helped

The team at Siemens was hoping to decrease packaging size by using smaller coolers without increasing the quantity of coolers required to fulfill an order. They made the decision to go with MagicLogic's Cube-IQ and BlackBox solutions. BlackBox gave them the ability to run multiple simulations with different conditions so they could determine the best cooler size for each shipment and predict the stock needed for both sizes of coolers.

MagicLogic has given Siemens a way to run large amounts of data through a simulation to make data-based decisions, empowering the engineering team to quickly and fully vet and pitch new ideas and concepts that would otherwise not be possible. Because the BlackBox output is customizable, they can edit the output for each project to fit their changing needs.

Results

The simulations proved that 96% of the company's domestic U.S. dry ice shipments could ship in the smallest size cooler—reducing waste and cost for the majority of U.S. shipments. They predict a 5,240 kg reduction of expanded polystyrene (EPS) per year.

These adjustments not only save Siemens Healthineers money by reducing parcel size, but they also represent a significant sustainability win. Additionally, the use of smaller coolers frees up valuable warehouse space. Customers also benefit, as smaller coolers are easier to receive and dispose of. The company has future projects planned to investigate the coolers used for the export of dry ice shipments.