Simple and Reliable Cold Chain Solutions for the Distribution of COVID-19 Vaccines
AEROSAFE SOLUTIONS ON THE INTERNATIONAL SPACE STATION
AeroSafe Global’s Cold Chain as a Service ensures the safe, efficient and sustainable delivery of temperature sensitive biopharmaceuticals.
COVID-19 VACCINE DISTRIBUTION MODELS

SIMPLE AND RELIABLE SOLUTION FOR THE DISTRIBUTION OF COVID-19 VACCINES

From manufacturer to distribution hub to point of use (POU)

PRIMARY DISTRIBUTION
1,000 to 5,000 doses

PHARMA PRODUCTION OR WHOLESALER

SECONDARY DISTRIBUTION
5 to 2,000 doses | 4-day duration

HOSPITALS, PHARMACIES, & DOCTOR’S OFFICES

HOSPITAL SYSTEMS, PHARMACY DEPOTS, & STATES

LAST MILE
5 to 500 doses | 24-hour duration

SMALL AND MEDIUM SIZE VACCINATION SITES, LONG-TERM CARE FACILITIES

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AEROSAFE GLOBAL WORKS SIDE-BY-SIDE WITH CVS AND WALGREENS FOR SAFE DELIVERY OF COVID-19 VACCINES TO LONG-TERM CARE FACILITIES

CHALLENGE

→ 1,000s of pharmacies are urgently required to safely store and deliver COVID-19 vaccines at varying temperatures.

→ Must develop program to safely deliver COVID-19 vaccines from pharmacies to vaccination sites throughout the United States.

→ Pharmacists need a carry case to easily transport vaccines to multiple sites daily.

SOLUTION

→ Easy-to-use AeroCase provides 24-hour temperature protection for 500 doses of all types of vaccines.

→ The hi-tech carry case is easily ‘recharged’ nightly, to provide unparalleled repeatable performance.

→ Supporting multiple vaccines, the case is ‘set’ to specific temperatures with the use of advanced thermal plates.

RESULT

→ Pharmacies are currently safely providing thousands of doses of vaccines to tens of thousands of long-term care facilities around the country with ease.

“CVS said it will transport COVID19 vaccines in a special reusable cooling container about the size of a briefcase made by Rochester, N.Y.-based AeroSafe Global”

“AeroSafe Global is providing CVS with 4,000 containers, each capable of holding at least 250 doses”

SOURCE:
wsj.com/articles/covid-19-vaccine-race-turns-deep-freezers-into-a-hot-commodity
LAST-MILE DELIVERY TO LONG-TERM CARE FACILITIES
AEROCASE | DISTRIBUTION OF SMALL VACCINE QUANTITIES (5 TO 500 DOSES, 24-HOUR DURATION)

COOLING PLATES qualified to multiple temp. ranges with change in coolant

SCALABLE PAYLOAD BOX

PERSONALIZED EMBROIDERY WITH COMPANY LOGO

AEROCASE

- Reliable transport and 24-hour storage for temperature-sensitive products
- Durable, washable canvas exterior case
- Convenient handle and strap for easy transport
- Custom embroidery on exterior (company logo)
- High-performing combinations of Vacuum Insulated Panels (VIP), Phase Change Material (PCM), and dry ice prequalified using ISTA temperature profiles for a broad range of temperature needs

Temperature Ranges

-70°C with Dry Ice
-25 to -15°C with PCM Plates
2 to 8°C with PCM Plates
AeroSafe’s easy-to-use solutions accommodate a wide range of temperatures, durations and volumes.

**Room Temp**  
CRT | 15 to 25°C

**Refrigerated**  
RF | 2 to 8°C

**Frozen**  
FRZ | -25 to -15°C

**Ultra-Frozen**  
ULTR | ≤-60°C

**Efficiency**  
Adaptable for all temperatures

**Duration (hrs)**  
24 48 72 96 120+

**Samples**

**Solid Dose**

**Clinical**

**Blood**

**Syringe**

**Vaccine**

**Reference Material**

**R&D**

**Vaccine**

**Tissue**

**Clinical**

**Syringe**

**Vaccine**

**Reference Material**

**R&D**

**Vaccine**

**Tissue**
ANY THERAPY, ANY TEMPERATURE, ANY DURATION

DIFFERENTIATED ADVANTAGES | SIMPLICITY AND FLEXIBILITY

**SIMPLICITY | REDUCE HUMAN ERROR, LABOR & COSTS**

- **Industry Standard**
  - 14 Components
  - 2 Coolant Temperatures
  - 4 Different Packout Scenarios

- **AeroSafe Global**
  - 3 Components
  - 1 Coolant Temperature
  - Universal Packout

**Single size PCM plates**

**FLEXIBILITY | EXPAND SHIPPING OPTIONS WITH MODULAR DESIGN**

- **Small (13L)**
- **Medium (26L)**
- **Large (39L)**
- **X-Large (59L)**
**THE SUSTAINABILITY ADVANTAGE**

**SAVINGS USING AEROSAFE VS. TYPICAL EPS THERMAL PACKAGING**

- **120 MILLION KG** of CO₂ emissions reduced
- **3 MILLION KG** of landfill reduced
- **340 MILLION GALLONS** of water saved
- **1 MILLION MWh** saved
- **1B VACCINE DOSES**

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- Pharma produces **55% more GHGs** and waste than the automobile industry*
- About **one-third** of an average landfill's waste is made up of packaging material*
- Every day, **1,400 tons of EPS** is buried into U.S. landfills*
- Hundreds of communities worldwide have banned the commercial use of EPS*

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*Source: pharmaceutical-technology.com/comment/big-pharma-pollution-2019/
AEROLOOP REUSE PROGRAM

98% RECOVERY RATE
Significant reduction in carbon footprint, energy usage and waste

Customer
AeroSafe Global

YOUR SITE
Packages prepared & shipped

YOUR SHIPPING DESTINATION
Packages recovered & sent for refurbishment

REFURBISHMENT CENTER
Packages sent to storage for later use

DISTRIBUTION CENTER
Packages returned to you for reuse

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AEROSAFE COLD CHAIN AS A SERVICE

1. Solution Development
   - Engineering design
   - Production
   - Refurbishment

2. Contract Services
   - Preconditioning, kitting
   - Inventory management
   - JIT delivery

3. Operational Efficiencies
   - Lean warehouse operations
   - Packout efficiencies
   - Asset utilization

4. Supply Chain Intelligence
   - Visibility
   - Compliance
   - Information

5. Customer Experience
   - Quality assurance
   - Sustainable solution
   - Customer interaction

6. Reverse Logistics
   - Track packages through delivery to end users
   - Recover and refurbish

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LEADING THE PHARMA INDUSTRY WITH INNOVATION & SERVICE

“Cradle-to-grave solution: AeroSafe deals with ensuring we have everything when and where we need them.”
– Director of Procurement

MONEY
Rochester, New York company AeroSafe playing pivotal role in ‘last mile’ of COVID vaccine delivery

AeroSafe Global in Rochester pivoted seven years ago to a full-service, cold-chain packaging and services operation.

By Brian Sharp Rochester Democrat and Chronicle
Published 8:47 a.m. ET Dec. 23, 2020 | Updated 1:14 p.m. ET Dec. 23, 2020

ROCHESTER, N.Y. — Inside a sprawling, nondescript production facility on the west side of this city, dozens of employees are putting in long days and weekends to help end the pandemic.

Their work is essential.

Developing vaccines for COVID-19 has been a herculean task. Getting those millions of vials safely into the hands of hospitals and pharmacies, and out to nursing homes, is another.

Customized solutions

The universe of companies capable of (and thus working on) the tightly controlled, cold-chain shipping necessary for the vaccines is “very, very small,” he said. AeroSafe is sole contractor making the sails for Walgreens and CVS, for example.

Other local partners include IEC Electronics, Fishers, CT Plastics and Canals Fridleys. Irish Propene is also

CVS, Walgreens Gear Up to Deliver Covid-19 Vaccines to Nursing Homes

Effect will need to navigate robust details that may vary by state and potential reluctance by staff to get the novel shots

By Jared S. Hopkins and Anne Wilkis Matheson
Dec. 2, 2020 10:00 am ET

CVS Health Corp. and Walgreens Boots Alliance Inc. are preparing to bring Covid-19 shots to long-term care facilities, but the effort will need to navigate robust details that may vary by state, vaccines that require more than one dose and potential reluctance by staff to get the novel shots.

An advisory panel to the U.S. government recommended on Tuesday that residents of long-term care facilities be included with doctors, nurses and health-care workers to be first in line for vaccines. States, which will ultimately decide how to allocate Covid-19 vaccine supplies, don’t need to follow the guidelines, though they usually do. But logistics and other aspects of the effort may differ among states, even among those that broadly accept the panel’s conclusions.

“We chose AeroSafe as much for who they are as for what they can do.”
– Director of N.A. Operations

AEROSAFEGLOBAL.COM/NEWS