



USAF Advanced Design Refrigerator, 300 ft³ (ADR-300)



The ADR-300 is a lightweight, airmobile, refrigerated container system that was developed to replace the antiquated 150 cubic foot mobile refrigerators used by the Army and the USAF. The ADR-300 system uses a very thermally efficient insulated container that is designed specifically for internal air transport. The ADR-300 also uses a modified Commercial of the Shelf (COTS) vapor compression refrigeration unit that is energy efficient, reliable, easy to troubleshoot and maintain and uses environmentally safe refrigerant.

Why is it Needed?

The 150-ft³ refrigerator uses an ineffective, loose type of insulation and does not properly fit the pallet that integrates with the rail system inside military aircraft (like the C-130). Since the refrigeration unit hangs off the end of its pallet, only three of five available pallet positions can be used, which is inefficient and makes it difficult to balance loads on the aircraft. The ADR-300 provides a 100% increase in usable transport space aboard aircraft over the 150-ft³ refrigerator with no increase in the logistical footprint.

Key Features:

- The ADR-300 provides a minimum of 300 ft³ of storage per pallet position and can occupy all five-pallet positions on a C-130 aircraft.
- It has an empty weight of 3,500 pounds and a maximum gross weight of 10,000 pounds.
- It makes transport easier with forklift pockets on all four sides and removable 463L rails that easily interlock with the aircraft locking systems.
- It provides lifting rings for safe movement by tactical truck and external delivery by helicopter.
- It is Military certified for helicopter lift and internal air transport and has passed all required Developmental Testing.
- Its COTS refrigeration unit is fully supportable by field level military trained HVAC personnel.

Benefits:

Fresh Food...All United States military services require that cook-prepared, perishable meals (A-Rations) be served as soon as possible to the warfighter in the field. The ADR-300 offers reliable refrigeration to keep perishables and semi-perishable rations from spoiling during transportation and in the field.

Increased Storage...With 300 ft³ of internal storage space, the ADR-300 provides twice as much usable storage space as the 150-ft³ refrigerators in a similar exterior footprint.

Reduced Weight...advanced insulation and container materials reduce unit weight to 3500 pounds.

Environmentally Friendly...uses environmentally safe insulation and non-ozone depleting refrigerant.

Improved Handling...integrated 463L pallet provides roll-on/roll-off capability, forklift pockets and lifting rings provide for efficient handling by tactical truck on the ground and by military aircraft.

Point of Contact:

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