

ACS

Damage control.

AeroBox™ ULD: The most durable air cargo container on the market.

The superior solution — The AeroBox ULD (Unit Load Device) is the next generation of high-performance air cargo containers; leading the trend to replace traditional all-aluminum containers. The incredible toughness of the unique, all-composite upper structure is far more damage-tolerant than either, aluminum or thin sheet composite ULDs.

Engineered to provide high performance at a reduced weight, the 141lb/64Kg AeroBox ULD (LD-3 AKE Series) is reducing maintenance and fuel costs for customers throughout the world. The units survive the blistering heat of summer in the Arabian Gulf and the severe cold of the Arctic. AeroBox ULDs have been proven to be highly resilient to the impacts that occur on a daily basis on cargo ramps — looking nearly new after years of operation.

The patented AeroPlaz™ composite panels that form the body of the container are comprised of two tough, fiberglass/polypropylene composite skins thermofused to a resilient polypropylene honeycomb core. This combination of materials absorbs impact to an extraordinary degree and evenly deflects forces across the panels, reducing damage and significantly increasing uptime. The unique patented process that closes and strengthens the edges of our panels, permits the joining of all sides of the containers using industry standard lockbolts. This eliminates the traditional damage-prone post and beam framework/superstructure that is used in both, aluminum and thin-sheet composite ULDs.

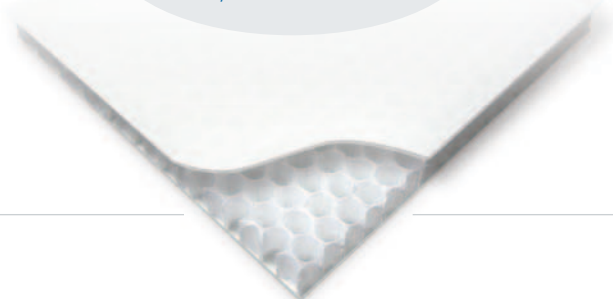
Each AeroBox ULD comes with a **3-year standard warranty**.



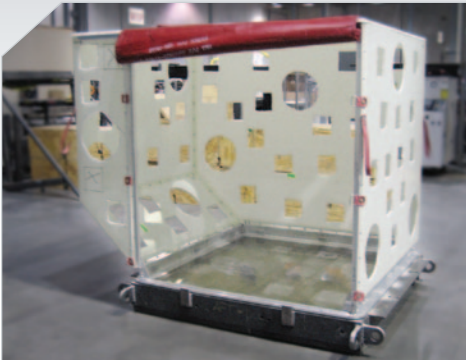
AeroBox™ ULD Features & Advantages

- Ultra-durable for long service life and rapid ROI
- Resistant to weather, contamination and corrosion
- Lower damage rates, reduced repair costs
- Improve fleet efficiency with less downtime of units
- Lighter construction provides fuel savings
- Self-extinguishing composite skin material
- Environmentally friendly & 100% recyclable
- U.S. FAA TSO C90c and EASA ETSO C90c certified
- 3-year standard warranty

ACS patented **AeroPlaz™**
Thermo-fused polypropylene
composite panel with
honeycomb core



AeroBox ULD Stress Testing



Box loaded with 9600 lbs., hanging upside down

The AeroBox ULD can withstand and continue to perform even in the most extreme conditions.

Dubbed the “Swiss Cheese” test, 25% of the unit’s body panel material is removed. The unit is then loaded with 9600 lbs. and lifted upside down according to the NAS3610 airworthiness test. This test shows that an expensive trip to the repair station can be avoided by applying a non-structural cosmetic patch in the event of a forklift puncture - saving both, time and money.

The patented AeroPlaz™ panels allow the unit to maintain its strength and core structural properties.

Product Specifications

Model	LD-3 IATA Designation: AKE
Dimensions	Base: 60.4 in. x 61.5 in. (153.42 cm x 156.21 cm) Height: 64 in. (162.56 cm) Top: 79 in. x 60.4 in. (200.66 cm x 153.42 cm)
Tare Weight	64 kg (141 lb.) w/2.5mm base; 65 kg (143 lb.) w/2.7mm base
Metal Components	
Base Sheet	7075-T6, 7021-T6 aluminum
Structural Metals	All 7000 Series Aluminum for durability and ease of repair
Body Panels	13.0 mm (0.53 in.) reinforced thermoplastic composite honeycomb core panel. Composite skin material self-extinguishes and meets all requirements of FAR 25 horizontal burn test.
Structural Summary	Meets NAS3610 ultimate load criteria and restraint conditions. Panel bending modulus is 245,000 psi.
Optimum Operating Temperature Range	-35°F to +150°F (-37.2°C to +65.6°C)
Fatigue	No damage or fastener loosening for 1,000,000 cycles at 3 Hz. and 1/8 in. displacement
Tie Downs	Standard seat track, 6 per container
Door	Vinyl-coated polyester, tear-resistant, and safety door options
Certification	FAA TSO C90c and EASA ETSO C90

About ACS

ACS supplies thermoplastic composite air cargo products. Our engineered solutions create lighter, stronger, tougher and environmentally friendly products as an alternative to traditional materials.

Phone: 505.332.7709 • Fax: 505.332.9546 • www.acsinvents.com
540 Silver Creek NW • Albuquerque, NM 87121 USA