

# Shipper-Built Units Guidelines



cargolux



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*you name it, We fly it!*

**For Shippers or Shippers' agents tendering "Shipper-Built Units" and/or "Shipper Load Mixed Units" on flights of the CARGOLUX group.**

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# Revision Log

**Version 1**

Revision 1  
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# Revision Highlights

**Revision 1**

- Revised Content
- Update of ULDR and Dangerous Goods Training guidance references
  - Insertion of hyperlinks to Cargolux guidance material

Page(s) 6, 7, 11 and 12  
Effectivity 31 OCT 2024

# Introduction.

## General Provisions

This document defines procedural guidelines and requirements for Shippers/Shippers' Agents tendering "Shipper-Built-Units" and/or "Shipper Load Mixed Units" on Cargolux flights, with the aim of ensuring flight safety.

These guidelines are based on the Cargolux Ground Operations Manual (GOM) and contain reference to the following documents, which are therefore required in their latest published edition at a shipper/forwarder for delivering BUP/SMU to Cargolux:

- IATA Unit Load Device (ULD) Regulations (Section 1, 6, 7 and 9)

The following manuals might additionally be required depending on the content of the BUP/SMU:

- IATA Dangerous Goods Regulations (Section 9),
- IATA Perishable Cargo Regulations (Chapter 6),
- IATA Temperature Control Regulations (Chapter 10).

Cargolux reserves the right to amend these guidelines based on updates to the Cargolux Ground Operations Manual, national and/or international regulations and recommended practices.

## List of Abbreviations and Definitions

<b>AVI</b>	Live Animals
<b>AWB</b>	Air Waybill
<b>BUP</b>	Bulk Utilization Program
<b>CG</b>	Centre of Gravity
<b>CLX/CV</b>	Cargolux Airlines International S.A.
<b>DG</b>	Dangerous Goods
<b>DGR</b>	IATA Dangerous Goods Regulations
<b>GOM</b>	Ground Operations Manual
<b>HWB</b>	House Airwaybill
<b>IATA</b>	International Air Transport Association
<b>ICV/C8</b>	Cargolux Italia S.p.A.
<b>LAR</b>	IATA Live Animals Regulations
<b>ODLN</b>	Operational Damage Limits Notice
<b>PCR</b>	IATA Perishables Cargo Regulations
<b>TCR</b>	IATA Temperature Control Regulations
<b>TSO</b>	Technical Standard Orders
<b>ULD</b>	Unit Load Device
<b>ULDR</b>	IATA ULD Regulations

### Shipper

includes Shipper and Shipper's Agent.

### Build-up

Refers to the process of placing and securing baggage and/or cargo into/onto a ULD.

### Embargo

The refusal by a carrier, for a given period of time, to accept for transportation over any given route or segment thereof, to or from any given airport or country, for or from a given connecting carrier, any cargo in general or a given commodity.

### Overhang and Offsize Cargo

Cargo which does not meet the Contour and ULD dimensions as per "ULDs & Contours- B747 Acceptability" section, will be considered as Overhang or Offsize cargo.

### Shipper Built Units

(Bulk Utilization Program, BUP) are load units (ULDs) which are built up and handed over ready for carriage by the shipper/shipper's agent as complete units.

### Shipper Load Mixed Units

(SMU) are load units (ULDs) which are built up by the shipper's agent, with multiple shipment destinations and handed over ready for carriage as complete units.

### Temperature-Sensitive Cargo

Refers to:

- Cargo loaded into an active temperature controlled ULD,
- Cool goods
- Fish & Seafood
- Flowers
- Foodstuff
- Frozen goods
- Fruits & Vegetables
- Hatching Eggs
- Healthcare Products
- Meat
- Obnoxious Cargo
- Pharmaceuticals, Vaccines, and other Medicines.

# General Requirements.

Any party performing any function involving ULD handling such as build-up, storage, transport etc. shall:

1. Be aware of its responsibilities as outlined in ULDR Section 1.5 “Other Parties Responsibilities”.
2. Have adequate facilities and equipment to carry out ULD operations in accordance with ULDR Section 9 “Handling”.

The BUP/SMU built up by the Shipper/ Shipper’s Agent and delivered to Cargolux for transportation shall:

1. Not contain any of the following items:
  - A. Embargoed goods as detailed in [Embargoed Goods](#)
  - B. Personal items, household goods, unaccompanied baggage
  - C. Dangerous goods, except those items and articles described in IATA DGR 9.1.4
  - D. Piercing and cutting items, unless properly packed in order not to become a hazard
  - E. Human Remains
  - F. Live Animals.

2. Be thoroughly inspected to ensure ULD and equipment serviceability.
3. Only contain cargo that is “ready for carriage” as described in [Conditions of carriage - Cargolux](#)

As guideline, Cargolux has published the following guidance material:

- Ready for carriage - [Crating guidelines](#)
  - Ready for carriage - [Liquid cargo guidelines](#)
4. Only contain cargo that is secured in line with international aviation security standards taking into account the cargo destination and potential specific requirements (i.e.: ACC3 for EU, ACISP for US).
  5. Be protected from unauthorized interference to prevent the transportation of hidden dangerous goods and prohibited items.
  6. Comply with ULD build-up principles as described in these Cargolux Shipper-Built Unit Guidelines to ensure safety.

# Training Requirements.

Personnel responsible for supervising cargo/mail handling, storage and/or unitization shall receive training meeting the requirements and guidelines of the latest published IATA Manuals edition:

- Dangerous Goods Training Guidance, CBTA 7.4, current edition ([www.iata.org/dangerousgoods](http://www.iata.org/dangerousgoods))
- DGR Section 9 “Handling” and 9.1.4 “Acceptance of Freight Containers and Unit Load Devices”
- [Lithium Battery Guidance Document](#)
- ULDR Section 1.5 “Other Parties’ Responsibilities”
- ULDR Section 1.6 “Training Requirements”
- ULDR Section 1 “Applicability”, Table 1.6.A “Minimum Training Contents (ULD OPERATIONS)”, Functions ULD Handling & Build-up
- ULDR Section 6 “ULD Operating Specifications”, OS6/00 (ULD Serviceability Check)
- ULDR Section 6 “ULD Operating Specifications”, OS6/01, paragraph 4 “General Requirements” (weight, area/linear load, CG, contour, dimensions), 5.2 “Cargo Stacking”, 5.3 “Load Shifting Prevention”, 5.4 “Aircraft Pallet Net Installation”, 6 “Shoring”, 7 “Restraint” and 8 “Examples of Characteristics Associated with Special Loads”
- ULDR Section 7 “ULD Marking”, Standard Specification 40/3 (ODLN)
- ULDR Section 9 “Handling” (Handling and Storage of ULDs and Equipment), paragraph 9.8 “Buildup and Breakdown”
- TCR, Chapter 10 “Perishable Handling Procedures”
- PCR, Chapter 6.4 “Cargo and Ground Operations”.

# ULDs & Contours- B747 Acceptability.

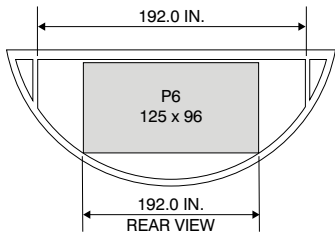
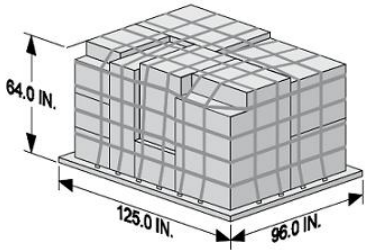
The following ULDs are loadable on board aircraft type B747F. Other side codes may be accepted with prior approval from the local Cargolux Office.

Size Code	Example ULD Identifier		Base Dimension (cm)	Maximum Permissible Weight	
	Pallet	Container		Main Deck	Lower Deck
<b>A</b>	PAG	RAP	318 x 224	6800kg	4625kg
<b>M</b>	PMC	AMD	318 x 244	6800kg	5034kg
<b>R</b>	PRA	/	498 x 244	11340kg	/
<b>G</b>	PGA	RGX	606 x 244	11340kg	/
<b>L</b>	PLA	RLP	318 x 154	/	3175kg
<b>K</b>	/	AKE	157 x 154	/	1588kg

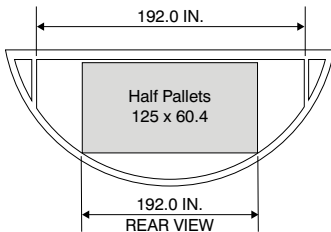
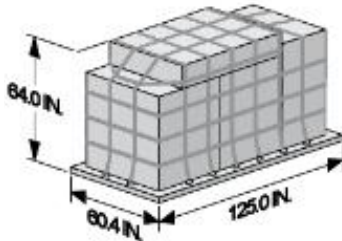
The following contours are acceptable as BUP/SMU. Other contours can only be accepted with prior approval from the local Cargolux Office.

## Boeing 747 Freighter Allowable Contours - Lower Deck

**PLD (Size A/M)**



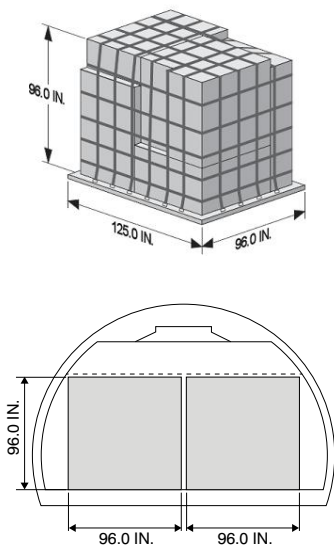
**PLD (Size L)**



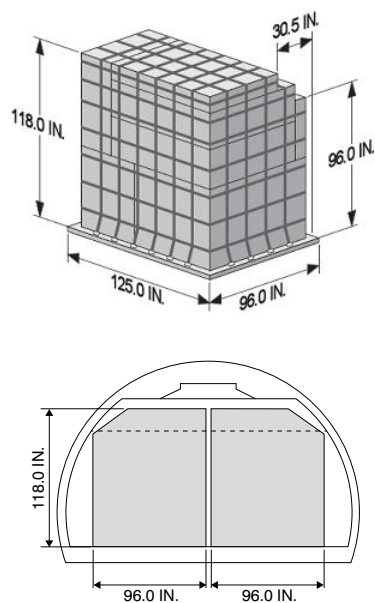


## Boeing 747 Freighter Allowable Contours - Main Deck

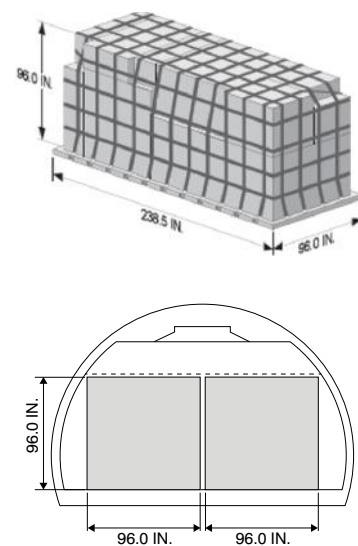
**Q6 (Size A/M)**



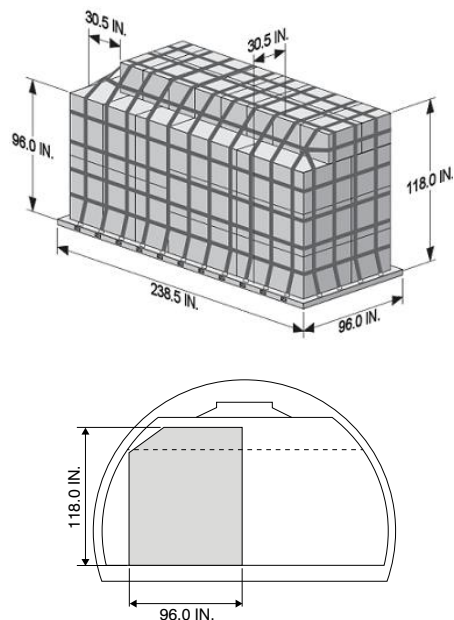
**Q7 (Size A/M)**



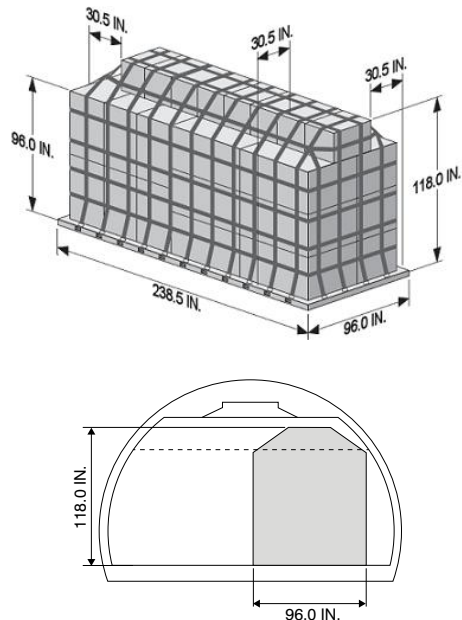
**S6 (Size R/G)**



**S7 Left Side (Size R/G)**



**S7 Right Side (Size R/G)**



In case of doubt or need for loadability check, contact the local Cargolux Office.

# ULD & Equipment Handling.

## Serviceability of ULDs & Equipment

- Prior to loading a ULD with Cargo it is essential to check the condition of the ULD / equipment, including but not limited to cargo nets and cargo straps. The check shall be performed as per ULDR Section 6, OS6/00.
- Any non-airworthy ULD, cargo net or cargo strap must not be used for buildup or securing cargo. Non-airworthy also includes a passed expiry date if it is stated on the equipment (e.g. ULD net).
- In case of an “Unserviceable” ULD, please contact the local Cargolux Office to arrange exchange.
- In case of doubt, the local Cargolux Office should be contacted.

## Handling and Storage of ULDs & Equipment

ULDs & Equipment shall be stored and handled in accordance with ULDR Section 9 “Handling”. A loaded ULD shall never be handled by forklift, but only be transferred via conveyor elements (e.g. roller beds).



**Do not forget to perform regular visual checks for any visually detectable damages to the ULD components while the ULD is still in your possession.**

# ULD Build-Up.

The following requirements must be observed:

## Build-Up

1. ULDs shall be prepared in accordance with ULDR Section 9 “Handling”, Paragraph 9.8 “Buildup and Breakdown” and in accordance with these guidelines.
2. ULDs shall conform to the base dimensions and contours of the B747F aircraft interior as detailed in the “ULDs & Contours- B747 Acceptability” section.
3. Unless otherwise agreed in the allocation agreement, ULDs shall not exceed the B747F maximum permissible weights as detailed in the “ULDs & Contours- B747 Acceptability” section.
4. ULDs shall be securely palletized as per the ULDR Section 6, OS6/01:
  - Paragraph 4 “General requirements” (weight, area/linear load, CG, contour, dimensions),
  - Paragraph 5.2 “Cargo Stacking” and 5.3 “Load Shifting Prevention”, in a manner that will prevent it from shifting or collapsing during ground transportation or during flight,
  - Paragraph 8 “Examples of Characteristics Associated with Special Loads”, for long or tall loads, reels and spools.
5. The edge rail of the pallet must be free of all kinds of cargo, to enable the attachment of the tie down devices and to allow the pallet to be secured by the locking system in the aircraft.
6. ULDs shall be covered with plastic sheeting, both under the load and over the top of the load, to protect the cargo from adverse weather. Containers may be covered, provided that the wrapping is transparent and does not obscure the TSO marking plate and the ULD ID Code.

## Shoring

If necessary, shoring shall be applied in accordance with ULDR Section 6, OS6/01, paragraph 6 “Shoring”.

## Securing Cargo

1. Cargo must be restrained in accordance with ULDR Section 6, OS6/01, paragraph 5.4 “Aircraft Pallet Net Installation” and paragraph 7 “Restraint”.
2. Other than for vehicles, primary restraint by means of straps instead of the cargo net (as outlined in OS6/01 paragraph 7) is not acceptable as BUP/SMU.

# Additional Requirements for Special Cargo.

## Airmail

1. Only if coordinated with the local Cargolux Office, Airmail may be offered for transportation in BUP/SMU.
2. When mail bags are stacked over a pallet, additional means of protection shall be applied in accordance with ULDR Section 6, OS6/01, paragraph 5.3 "Load Shifting Prevention" to prevent pallet contour shifting.

## Dangerous Goods

1. Only Dangerous Goods listed in IATA DGR 9.1.4 "Acceptance of Freight Containers and Unit Load Devices" are accepted in BUP/SMU.
2. Dangerous Goods shall be prepared for loading in accordance with the requirements of DGR Section 9 "Handling".
3. Packages of Dangerous Goods must be:
  - Inspected prior to being loaded on a ULD and found free of any damage or leak,
  - Protected from damage on a ULD, including by the movement of other cargo or mail, and secured to prevent any movement in flight, which could change the orientation of the packages,
  - Removed from the ULD if they appear damage or leaking.
4. For Lithium Batteries, refer to the [IATA Lithium Battery Guidance Document](#)
5. Coordination with the local Cargolux Office is required whenever the BUP/SMU includes:
  - Dry Ice
  - Radioactive Material.

## Crated Cargo

1. As guideline, please refer to the recommendations outlined in Ready for carriage - Crating guidelines.
2. Contact the local Cargolux Office in case of questions.

## Heavy cargo

1. Unless otherwise agreed with the local Cargolux Office, Cargolux will not accept Heavy Cargo in BUP/SMU if the weight per available footprint exceeds 400kg/m<sup>2</sup> (Main Deck and Lower Deck ULDs).
2. During unitization, the minimum requirements as shown in ULDR Section 6, OS6/01, paragraph 6 "Shoring" must be followed.
3. Contact the local Cargolux Office in case of questions.

## Liquid Cargo

1. Coordination with the local Cargolux Office is required prior to offering liquid cargo for transportation in BUP/SMU.
2. Refer to the recommendations outlined in [Ready for carriage - Liquid cargo guidelines](#).

## Live Animals

Live Animals may not be offered for transportation in BUP/SMU.

## Overhang and Offsize cargo

Contact the local Cargolux Office for a specific quote for overhang and offsize cargo, which will also include a dedicated loadability evaluation.

## Temperature Sensitive Cargo

1. Coordination with the local Cargolux Office is required prior offering Temperature Sensitive Cargo in BUP/SMU.
2. Temperature Sensitive Cargo shall be prepared for loading in accordance with the TCR, Chapter 10 “Perishable Handling Procedures” and PCR, Chapter 6.4 “Cargo and Ground Operations”.
3. ULDs used to built-up Temperature Sensitive Cargo shall be clean and free of any deposits or spilled liquids.
4. Packages of Temperature Sensitive Cargo must be inspected prior to being loaded on a ULD and found free of any damage or leak.
5. Temperature Sensitive shipments must be segregated within themselves and/or separated from other special cargo, in regard of their temperature requirements, ethylene production, moisture level, odors or incompatibility. Contact the local Cargolux Office to get information about segregation requirements to be observed on a ULD.
6. The buildup of Cargo in Temperature Controlled Container shall be performed in accordance with the guidelines provided by the container’s manufacturers.

## Valuable Cargo

Only if coordinated with the local Cargolux Office, Valuable Cargo may be offered for transportation in BUP/SMU.

## Vehicles

Only if coordinated with the local Cargolux Office, vehicles may be offered for transportation in BUP/SMU.