



# BULLBOX

**20' DUOCON ISO 1CC**  
**TECHNICAL SPEC. BULLBOX**

STEEL DRY  
CARGO CONTAINER  
BULLBOX 20'(10'+10) x 8' x 8'6" DUOCON

MODELO NO:  
**BULLBOX 20' DUOCON CONTAINER**  
DATE OF ISSUE: **September 2021**



 **BULLBOX**

---

Contenedores y Embalajes Normalizados S.A.  
P.I. Silvota, Peñasanta 12, Llanera. 33192, Asturias- Spain  
T +34 985 265 095 [bullbox@bullbox.com](mailto:bullbox@bullbox.com)  
[www.bullbox.com](http://www.bullbox.com)

 **1.1 General**

This specification will cover the design, construction, materials, testing and inspection performances of 20'x8'x8'6" ISO 1CC type steel dry cargo containers.

These containers specified herein will be manufactured by Contenedores y Embalajes Normalizados, S.A (hereinafter referred to BULLBOX) under strict quality control by BULLBOX and be **approved by the classification society** (Bureau Veritas, China Classification Society, Lloyd's Register of Shipping, American Bureau of Shipping...)

The container will be designed and constructed for carriage of general cargo by marine (on or below deck), road and rail throughout the world. All materials used in the construction will be to withstand extremes of temperatura range from 40 °C to +70 °C without effect on the strength of the basic structure and watertightness.

Container will satisfy the following requirements, unless otherwise mentioned in this specification.

*ISO Container Standards:* ISO 668. ISO 830. ISO 1161. ISO 1496-1. ISO 6346

*T.I.R. Certification:* All the containers will be certified and complied with "The Customs Convention on the International Transport of Goods under the cover of T.I.R. Carnets." or "The Customs Convention on Containers."

*C.S.C. Certification:* All the containers will be certified and complied with the requirements of the "International Convention for the Safe Containers."

*T.C.T. Certification:* All exposed wooden components used for container will be treated to comply with the requirements of "Cargo Containers-Quarantine Aspects and Procedures" of the Commonwealth Department of Health, Australia.

*U.I.C. Registration:* All the containers will be registered and complied with the "International Union of Railways."

 **1.2 Handling and Transportation**

The container will be constructed to be capable of being handled without any permanent deformation under the following conditions:

a) Lifting, full or empty, at top corner fittings vertically by means of spreaders fitted with hooks, shackles or twistlocks.

b) Lifting, full or empty, at bottom corner fittings using slings with terminal fittings at any angles between vertical and 45 degrees to the horizontal.

c) Lifting, full or empty, at forklift pockets using forklift truck.

The container will be constructed to be suitable for transportation in the following modes:

a) Marine: In the ship cell guides of vessels, seven (7) high stacked.  
On the deck of vessels, four (4) high stacked and secured by vertical and diagonal wire lashings.

b) Road: On flat bed or skeletal chassis, secured by twistlocks or equivalent at the bottom corner fittings.

c) Rail: On flat cars or special container cars secured by twistlocks or equivalent at the bottom corner fittings.

 **2. Dimensions and Ratings****External**

<b>Length</b>	6,058 + 0 mm	20'
<b>Width</b>	2,438 + 0 mm	8'
<b>Height</b>	2,591 + 0 mm	8' 6"

**Internal**

<b>Length</b>	5,844 mm
<b>Width</b>	2,352 mm
<b>Height</b>	2,390 mm

**Door opening dimensions**

<b>Width</b>	2,343 mm
<b>Height</b>	2,280 mm

**Internal cubic capacity**

32.8 cu.m	1,159 cu.ft
-----------	-------------

**Forklift pockets**

<b>FULL</b>	<b>Width</b>	360 mm
	<b>Height</b>	115 mm
	<b>Center to center</b>	950 mm

**Ratings**

<b>Max. Gross Weight</b>	30,480 kg	67,200 lb
<b>Tare Weight</b>	2,750 kg	6,065 lb
<b>Max. Payload</b>	27,730 kg	61,135 lb

Dimensions and ratings are subject to small variations depending on the batch.



### 3. Construction

The container is constructed with Anti-corrosive steel: CORTEN A, SPA-H or equivalent.

The container will be constructed with steel frames, fully vertical-corrugated steel sides and front wall, horizontal-corrugated steel double doors at rear end, die- stamped steel roof and corner fittings.

All welds of exterior including the base frames will be continuous welding using CO<sub>2</sub> gas.

The corner fittings will be designed in accordance with ISO 1161 and manufactured at the works approved by classification society.

Each forklift pocket is built of 3.0 mm thick full depth flat steel top plate and two 200 mm deep x 6.0 mm thick flat lower end plates between two channel section cross members.

**The floor** will consist of six pieces plywood boards, floor center rail, and self-tapping screws.

The wooden floor to be constructed with 28 mm thick hardwood plywood boards are laid longitudinally on the transverse members between the 4.0 mm thick flat bar floor center rail to the bottom side rails.

1) Wood species: Apitong, Hardwood plywood or bamboowood composite

2) Glue: Phenol-formaldehyde resin.

The **rear and end frame** will be composed of one door sill, two corner posts, one door header and four corner fittings, which will be welded together to make the door-way.

Each container will have double wing doors at rear end frame, and each door will be capable of swinging approximately 270 degrees.

Two sets of galvanized bolts on model locking assemblies with forged steel handles are fitted to left door, and one set (with lengthened pressed steel handles) is fitted to the right door, using zinc plated steel bolts and Huck bolts according to TIR requirements. The left hand door can not be opened without opening the right hand door when the container is sealed in accordance with TIR requirements.

**Middle structure** will be composed of four corner posts, two top rail, two bottom rail and eight corner fittings, which are welded together.

The bottom rail to be made of a 4.0 mm thick pressed open section steel is reinforced by three internal gussets.

There is cut out at each end of the bottom end rail and reinforced by 200x75x9.0 mm channel steel as protection against handling equipment damages.

Each corner post is made of 6.0 mm thick pressed open section steel in a single piece reinforced with "C" section of 3.0 mm thick steel and designed to give a sufficient strength against stacking and racking forces.

The top end rail is made of 3.0 mm thick pressed open section steel.

The trapezium section front wall is constructed with 1.6 mm thick vertically corrugated steel panels. The front wall will be not welded to the front frame, but tack welded to the side wall

Customs seal and padlock provisions are made on each locking handle retainer to cover the sealed area in accordance with TIR requirements.

Six (6) lashing hoop rings are welded to each top and bottom side rail at recessed corrugations of side panels but not extruded any cargo space (total 24 rings).

Two (2) lashing rods are welded to each corner post at the position of 150 mm higher from the floor and 200 mm lower from the bottom surface of top corner fitting and middle of the corner post.

A shoring slot, having a size of 60 mm width x 40 mm depth is provided on each rear corner post so that 2 1/4" thick battens can be arranged to be able to prevent doors from damage due to shifting cargo.

Each container will have 4 labyrinth type small plastic ventilators. Each ventilator is fixed to the right- & left-hand upper part of each side wall by three 5.0 mm dia. Stainless steel Huck bolts in accordance with TIR requirements after drying of top coating, and caulked with sealant around the entire periphery except underside to prevent the leakage of water.

Two Lock Box welded on the both ends are provided

Coating specifications will be provided on request.

#### **4. Marking**

The containers will be marked in accordance with ISO, TCT, UIC, CSC and TIR requirements, owner's marking specifications and other required regulations.

##### *Materials*

- 1) Decal: - Self-adhesive, high tensile PVC film for seven (7) years guarantee without peeling off, tenting or color fading.
- 2) Certification plate: Stainless steel plates to be chemically etched by acid.

#### **5 Guarantee**

##### **Structure**

All the containers shall be guaranteed by manufacturer to be free from defects in materials, workmanship, and structure for a period of one (1) year from the date of production certificate.

##### **Painting**

The paint system coated on the container surface shall be guaranteed to be free from corrosion and failure for a period of three (3) years from the date of production certificate.

Corrosion is defined as rusting which exceeds RE3 (European Scale of degree of Rusting) on at least ten (10) percent of the total container surface, excluding that resulting from impact or abrasion damage, contact with solvents or corrosive chemicals and abnormal use.

If the corrosion exceeds RE3 as defined above within the guarantee period, inspection of the corrosion shall be carried out by the buyer, BULLBOX and paint manufacturer to detect the cause. As the result of the inspection, if it is mutually agreed and accepted that the corrosion has been caused by the defective paint quality and/or poor workmanship, BULLBOX and/or paint manufacturer shall correct the defect on their accounts.

##### **Decals**

Decals applied on the container shall be guaranteed for a period of seven (7) years without peeling off, tenting or color fading.



**STEEL DRY CARGO CONTAINER BULLBOX 20'(10'+10') x 8' x 8'6" DUOCON ISO 1CC**



Contenedores y Embalajes Normalizados S.A.  
P.I. Silvota, Peñasanta 12, Llanera. 33192, Asturias- Spain  
T +34 985 265 095 [bullbox@bullbox.com](mailto:bullbox@bullbox.com)  
[www.bullbox.com](http://www.bullbox.com)