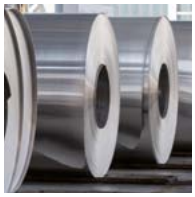
CMA CGM CONTAINERS

CHOOSING THE RIGHT EQUIPMENT TO SHIP YOUR CARGO

CMA CGM


CMA CGM
tex

SELECTING A CONTAINER

NEEDS	CONTAINER TYPE	
	GENERAL PURPOSE CONTAINERS Boxes, cartons, cases, sacks, bales, pallets, drums…	7
	REEFER CONTAINERS	8
	OPEN TOP CONTAINERS Bulk minerals, heavy machinery	9
	FLAT-RACK CONTAINERS Heavy and bulky semi-finished goods, out of gauge cargo	10
	HIGH CUBE PALLETWIDE CONTAINERS Europallet compatible	11
	TANK CONTAINERS Bulk, liquids	12

CMA CGM, the third largest container shipping company in the world, operates a container fleet of more than 2,300,000 TEU (1,480,000 containers). Almost any cargo can be carried in our containers. Whether the goods are loaded in bulk, bags, or cartons in standard containers, or out of gauge goods and project cargo on flat racks, or fruit, meat, fish and other goods requiring temperature control in reefer containers, CMA CGM always has the answer to meet the needs of its customers.

A WIDE OFFER

In addition to conventional containers (standards, reefers, platform, open top...), CMA CGM also offers specialized containers adapted to specific goods: 'Autotainers' for the transportation of vehicles and 'GOH containers' for the transport of garments on hangers. Our containers are suitable for multi-modal transport and can be seamlessly transferred from ship to rail, to barge, to truck.
All of our containers meet ISO standards 668, 1496/1 and 6346, C.S.C. criteria (Convention for Safe Containers), T.I.R. criteria (Customs Convention for the Road Transport of Goods) and U.I.C. criteria (International Union of Railway). Containers are monitored and maintained by our worldwide team of experts who ensure our units meet these standards as well as the requirements of CMA CGM to ensure a constant level of quality and customer satisfaction.
If your cargo is oversized and does not fit into a standard container, our teams of experts will find the best solution to ship it safely. We also have a wide range of "best practices" commodity guidelines.

Do not hesitate to contact your local CMA CGM office to get more information.

www.cma-cgm.com

FREIGHT CONTAINERS – TERMINOLOGY

The international standards relating to containers have been established by the Technical Committee of the International Standards Organization (I.S.O.) under ISO/TC 104 for freight containers.
Freight containers, as defined in the ISO 830 standards, is an article of transport equipment:

- **Of a permanent character and accordingly strong enough to be suitable for repeated use.**
- **Specially designed to facilitate the carriage of goods by one or more modes of transport, without intermediate reloading.**
- **Fitted with devices permitting ease of handling, particularly its transfer from one mode of transportation to another.**
- **So designed as to be easy to fill and empty.**
- **Having an internal volume of 1m³ (35.3ft³) or more.**

ISO Freight container: Freight container complying with all relevant ISO container standards in existence at the time of its manufacture. The term “freight container” does not include vehicles, or conventional packing.

SAFETY AND RELIABILITY ABOVE ALL

CMA CGM Group entire fleet of containers is continuously monitored by our maintenance and repair team. This team of experts is in charge of:

- **Systematic quality control on all containers,**
- **Cleaning (sanitary and odour controls)**
- **Regular inspections and maintenance procedures to ensure units condition**
- **Selecting the best units for our clients**
- **Phasing out the oldest containers**

The CMA CGM Group fully complies with ISM Standards. Our personnel is kept fully updated of new regulations and new standards affecting our containers.

WARNING

**All technical data given for these containers are non-contractual data.
They do reflect the majority of our container fleet but are non-exhaustive and given as examples.
For further information, please contact our logistic department at CMA CGM Head Office,
or our Agent in your country.**

THE CMA CGM CONTAINER FLEET

The following table defines the size and types of containers available within CMA CGM fleet:

	20'- 8'6"	40' - 8'6"	40' - 9'6"	45' - 9'6"	45' PW - 9'6"
General Purpose	X	X	X	X	X
Open Top	X	X			
Flat Rack	X	X			
Reefer	X		X		X
Tank	X				

Note: Some general purpose containers are specially equipped for transport of vehicle (40' HC Autotainers) or garments (20' and 40' HC GOH).

General purpose containers

Reefer containers


Open top Containers

Flat-rack Containers

High cube palletwide Containers


Tank containers

GENERAL PURPOSE CONTAINERS

Definition A freight container, totally enclosed and weatherproof, with a rigid roof, rigid side walls, and floor, having at least one of its end walls equipped with doors and intended to be suitable for the transport of a variety of cargoes.

Use This is by far the most common type of container. It is suitable for the carriage of most types of "Dry" goods, including those packed in boxes, cartons, cases, bags, bales, pallets, drums etc... With some suitable adaptations, such as liner bags, flexi-tanks, etc.) and adequate loading/unloading equipment, this type of container may also be used for certain types of bulk cargo (dry and liquid).

Technical Data

	20' x 8' x 8'6"	40' x 8' x 8'6"	40' x 8' x 9'6"	45' x 8'x 9'6"
Size and Type grouping code	**20GP**	**40GP**	**40HC**	**45HC**
Dimensions & type code	**22G1**	**42G1**	**45G1**	**L5G1**
Internal dimensions				
Length (mm)	5,900	12,034	12,034	13,556
Width (mm)	2,352	2,352	2,352	2,352
Height (mm)	2,393	2,395	2,700	2,700
Door opening				
Width (mm)	2,340	2,340	2,340	2,340
Height (mm)	2,280	2,280	2,585	2,585
Nominal capacity (cu.m.)	**33.2**	**67.8**	**76.4**	**86.0**
Maximum gross weight (kg)	**30,480**	**30,480/32,500**	**30,480/32,500**	**30,480**
Average tare (kg)	**2,230**	**3,720**	**3,900**	**4,700**
Maximum payload (kg)	**28,250**	**26,760/28,780**	**26,580/28,600**	**25,780**
Securing rings				
Quantity	20	32	32	40
Resistance (kg/each)	1,500	1,500	1,500	1,500

REEFER CONTAINERS

Definition

Thermal container equipped with an electrical appliance (mechanical compressor) for the purposes of cooling or heating the air within the container.

The CMA CGM Reefer fleet consists of 20', 40'High Cube and 45'32/33 Pallet Wide containers (Euro pallet type).

Use

Transport of perishable goods in a temperature-controlled environment (Usual temperature range, from -25°C to +25°C. For temperatures beyond or above, please contact your CMA CGM Local Office).

Technical Data

	20' x 8' x 8'6"	40' x 8' x 9'6"	45' x 2550 mm x 9'6"
Size and Type grouping code	**20RE**	**40RH**	**45RH**
Dimensions & type code	**22R1**	**45R1**	**LNR1**
Internal dimensions			
Length (mm)	5,456	11,584	13,280
Width (mm)	2,294	2,294	2,440
Height (mm)	2,273	2,557	2,582
Door opening			
Width (mm)	2,290	2,284	2,440
Height (mm)	2,264	2,567	2,567
Nominal capacity (cu.m.)	**28.6**	**68**	**83.7**
Maximum gross weight (kg)	**30,480**	**34,000**	**34,000**
Average tare (kg)	**3,010**	**4,700**	**6,180**
Maximum payload (kg)	**27,470**	**29,300**	**27,820**
Height usable for cargo (mm)	**2,158**	**2,394**	**2,482**
Capacity in use (cu.m.)	**27.3**	**64.9**	**80,420**
Lashing bars in the ventilation floor side gutters			
Quantity	8	12	0
Resistance (kg/each)	500	1,000	1,000
Some series are certified ATO and/or USDA Fresh air exchange venting system (adjustable)			

OPEN TOP CONTAINERS

Definition

Freight container similar in all respect to general purpose container except that it has no rigid roof but have a flexible and movable or removable tarpaulin cover normally supported on movable or removable roof bows.

Open Top containers have movable or removable top end transverse members above their end doors.

Use

These containers are primarily used to carry heavy and or bulky finished products, whose handling and loading can only be performed with a crane or a rolling bridge.

Technical Data

	20' x 8' x 8'6"	40' x 8' x 8'6"
Size and Type grouping code	**20OT**	**40OT**
Dimensions & type code	**22U1**	**42U1**
Internal dimensions		
Length (mm)	5,898	12,032
Width (mm)	2,352	2,352
Height (mm)	2,348	2,348
Door opening		
Width (mm)	2,340	2,340
Height (mm)	2,280	2,280
Height under top-rail (mm)	2,200	2,000
Top Opening dimensions		
Length between end lintels (mm)	5,682	11,806
Width between gussets (mm)	1,840	1,650
Length between end gussets (mm)	5,397	11,531
Width between roof rails (mm)	2,252	2,232
	1,940	1,940
Nominal capacity (cu.m.)	**32**	**66**
Maximum gross weight (kg)	**30,480**	**30,480**
Average tare (kg)	**2,200**	**3,880**
Maximum payload (kg)	**28,280**	**26,600**
Securing rings		
Quantity	20	40
Resistance (kg/each)	1,500	1,500

FLAT-RACK CONTAINERS

Definition

Flat-rack containers have no side walls and are available either with fixed or collapsible end-walls. The flush folding collapsible flat-rack, the most sophisticated of its type, has end walls which fold flush with the base.

Use

Flat-racks are dedicated for the carriage of items which are heavy, bulky and those which are over height and/or over width. Their base is often designed to transport heavy material. Some 40' flats are suitable to carry as much as 45 metric tons of cargo. The flat racks with collapsible ends also permit the transportation of over length cargo.

Technical Data

	20' x 8' x 8'6"	40' x 8' x 8'6"
Size and Type grouping code	**20PC**	**40PC**
Dimensions & type code	**22P3**	**42P3**
Internal dimensions		
Length between end headers (mm)	5,920	12,054
Length between corner posts (mm)	5,634	11,652
Width between corner posts (mm)	2,224	2,227
Width of floor (mm)	2,208	2,374
Height (mm)	2,213	1,959
Maximum gross weight (kg)	**34,000**	**45,000/50,000**
Average tare (kg)	**2,750**	**4,900/5,100**
Maximum payload (kg)	**31,250**	**40,100/44,900**
Securing rings		
Number per side	12	32

HIGH CUBE PALLETWIDE CONTAINERS

Definition

40'/45' High Cube Pallet Wide units were specifically designed with the 1.2 m "Europallet" in mind. The equipment, with its 2.45 m internal width, ensures optimum utilization of space. Shippers benefit by being able to load more Europallets than they would in a standard ISO container.

Pallet capacity

	40' HC	40' HC PW	45' HC	45' HC PW
1 m x 1.2 m pallets	**21**	**24**	**24**	**26**
1.2 m x 0.8 m Europallets	**25**	**30**	**27**	**34**

Technical Data

	40' x 2462mm x 9'6"	40' x 2462mm x 9'6"
Size and Type grouping code	**40 HW**	**45HW**
Dimensions & type code	**4EG0**	**LEG0**
Internal dimensions		
Length (mm)	12,095	13,624
Width (mm)	2,444	2,420
Height (mm)	2,692	2,687
Door opening		
Width (mm)	2,400	2,360
Height (mm)	2,584	2,580
Cubic capacity (cu.m.)	**79.60**	**85.25**
Maximum gross weight (kg)	**34,000**	**34,000**
Tare weight (kg)	**4,260**	**4,980**
Maximum payload (kg)	**29,740**	**29,020**

TANK CONTAINERS

Definition

A freight container which includes two basic elements, the tank and the framework.

Use

This type of container is used to carry hazardous or non-hazardous liquids (foodstuff). It is equipped with accessories to facilitate filling and emptying and has safety devices.

Tank containers are pressure tested under periodical examination every 2.5 years.

Technical Data

	BUILT Since 2001 **20' x 8' x 8'6"**
Size and Type grouping code	**20KL**
Dimensions & type code	**T11**
Internal dimensions Length (mm) Width (mm) Height (mm)	 N/A N/A N/A
Nominal capacity Litres	**26,000**
Maximum gross weight (kg)	**36,000**
Average tare (kg)	**3,420**
Maximum payload (kg)	**32,580**
Max. Operating Pressure (bar)	**4**
Safety Valve setting (bar)	**4.4**
Manhole (mm)	**500**
Discharge coupling Type Diameter (mm)	 3" BSP 80

INNOVATIVE AREAS

Bamboo Floors

Traditionally container floors are made of wood sourced from endangered primary forests. To help protect these resources, CMA CGM now uses bamboo floors for all new container orders. Better than a tree, bamboo grows as quickly as grass and can be cut after 4 to 7 years compared to 60 years for traditional tropical wood. The CMA CGM bamboo container fleet will exceed more than 180,000 TEU by the end of 2013.

Light steel

In September 2008, the Group began a new era with the introduction of the first 'Light Steel' containers into its fleet. This new generation of containers is made from high tensile steel, saving 550 kg tare per High-Cube while retaining the structural qualities of the container.
On a ship of 10,000 TEU, the use of these containers can save 1-2 tons of fuel per day, which represents 3 -6 tons less of CO^2 emissions.

Solvent free paint

Traditional paint solvents generate volatile organic compounds (V.O.C.) which have a negative carbon footprint and a significant impact on air pollution. CMA CGM was one of the first to integrate containers using solvent free paints into its fleet.

Low consumption reefers

In the reefer sector (requiring energy and refrigerant gases), the Group uses the latest technological developments in order to benefit from the most environmentally friendly solutions in terms of energy consumption and the release of CO^2. In 2009, the Group started investing in low consumption refrigerated containers. These containers help reduce electricity and therefore fuel consumption by 3, saving tens of tons of fuel per voyage.

CONTAINER STUFFING BASIC RULES

1. Cargo weight must be evenly spread over the largest possible floor area.

2. Center of gravity of the cargo is to be as close as possible to the container center and as low as possible. The higher the center of gravity, the higher must be the wedging devices.

3. The cargo load units must support (be in contact with) each other with no large gaps in between and must be secured to the container (wedges, lashings, etc.) so that they cannot move nor collapse. All containers are fitted with several lashing rings and bars.

4. If the cargo load units are not homogeneous the heaviest ones must be on floor level and the lighter ones on top (and liquid ones underneath solid ones).

5. The maximum gross mass/weight of the container (usually marked as “Max gross” on the container right hand side door) must never be exceeded (there are also maximum limits related to different local inland transport regulations). It is illegal for cargo weight to exceed the net weight (payload) value marked on same right hand side door.

6. Cases of concentrated cargo load.
As per rule 1, the cargo must lay over as many floor cross members as possible so that the weight distribution is as close as possible to the ideal one based on container max payload value and length. For instance the limit for a 20 GP is about 5 T per linear meter (based on max payload 28T, length 6 m). The below basic guideline can be used:

Cargo distribution over container length	50%	66%	75%	100%
Max admissible container payload	66%	75%	80%	100%

Whenever necessary the cargo must be put on some additional supports / longitudinal members to comply with above recommendations.


CMA CGM JULES VERNE
CMA CGM JULES VERNE

www.cma-cgm.com
Head Office: 4, quai d'Arenc – F 13235 Marseille Cedex 02 – France
Tel.: +33 (0)4 88 91 90 95