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The Ultimate Guide to Ship Sizes

By Raunek | In: [Types of Ships](#) | Last Updated on March 30, 2017

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SHARES



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Merchant ships are broadly classified on the basis of their sizes and areas of operation. The classification of the ship is decided right at the design stage on the basis of route of operation and purpose of the ship. The ship's dimensions play an important part in determining the areas of operation of any type of merchant vessel.

A variety of parameters such as draft, beam, length overall, gross tonnage, dead weight tonnage etc. are taken into consideration while designing and constructing a merchant ship. For e.g. for designing a ship that would be able to pass through the Suez Canal, the dimensions of the ship would be decided in such a way that the ship is able to smoothly transit through the narrowest and shallowest areas of the canal, in both fully loading and unloading conditions.

Ship sizes chiefly vary on their load carrying capacitance, just as their variance alters on the constructional capacitance of the various ports and harbors. Considering the above mentioned factors, the ships are classified into the following categories on the basis of their size:

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Bulk Carrier Vessel

Oil Tanker Ships

Health and Safety Course

Vessel Containers

Panamax and New Panamax

Panamax and New Panamax are terms used for ships that are designed to travel through the Panama Canal. The ship classification indicates the minimum dimensions required by the ship to able to pass smoothly through the Panama Canal. The sizes of Panamax ships are determined by considering the dimensions of the smallest lock of the canal. Those ships which do not fall under the dimension criteria of the panama vessel are known as Post-Panamax Vessels.



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The expansion of Panama Canal by making new locks have given birth to a new class of ships called New Panamax vessels. New Panamax classification of ship sizes denotes those kinds of cargo ships that have been built in accordance with the new locks of the Panama Canal. These vessels have a load carrying capacitance of about 13,000 Twenty-foot Equivalent Units (TEUs) with lengths up to 427 meters. The expansion of the canal with bigger size locks allows larger ships to pass through the canal with utmost ease.

	Locks	Panamax	New locks	New Panamax ¹
Length	1,050 ft (320.04 m)	965 ft (294.13 m)	1,400 ft (427 m)	1,200 ft (366 m)
Width	110 ft (33.53 m)	106 ft (32.31 m)	180.5 ft (55 m)	160.7 ft (49 m)
Draft²	41.2 ft (12.56 m)	39.5 ft (12.04 m)	60 ft (18.3 m)	49.9 ft (15.2 m)
TEU		5,000		12,000
¹ New Panamax sizes are published in metric system ^[2]				
² Draft in Tropical Freshwater (TF)				

Those ships which cannot pass Panama Canal are known as Post-Panamax Vessels.

Aframax

The term Aframax is usually used for medium sized oil tankers with approximate weight of 1,20,000 DWT. These ship sizes gain their title from the Average Freight Rate Assessment schematic devised by the shipping conglomerate Shell in the mid-1950s. Mainly oil tanker vessels, Aframax vessels can be loaded with over 7, 00,000 crude oil casks. Aframax tankers ply in areas which have limited port facilities or lack large ports to accommodate giant oil carriers. The beam of the vessel is restricted to 32.3 meters or 106 feet.

Chinamax

Chinamax vessels are one of the largest bulk carrier ships in the world and often classified under Very Large Ore Carriers (VLOC). Unlike other cargo carrying vessels which are measured in terms of their size, the Chinamax cargo ships are measured not just in terms of their size but also in terms of their length. These vessels were initially custom built to cater between the Chinese port facilities and the South American nation of Brazil, though presently the development of appropriate harbor facilities have ensured their applicability beyond these two regions. Also commonly famous as Valemax vessels, Chinamax ships

have a Dead Weight Tonnage (DWT) of up to 4,00,000 tonnes and measure about 360 meters lengthwise with a breadth of about 65 meters and a draft of about 25 meters.



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Handymax

Handymax vessels, often classified as Handymax bulk carriers, are small sized cargo ships with load carrying capacity of up to 60,000 tonnes. One of the most commonly used vessels of the global merchant vessel fleet, Handymax vessels are typically 150-200 m in length. These vessels can gain easy entrance through most port and harbor facilities, just like their counterparts – the **Supermax bulk** cargo vessels, with slightly more DWT capacities. At times, certain classification of ship sizes also incorporate Handysize cargo vessels under the Handymax categorization.