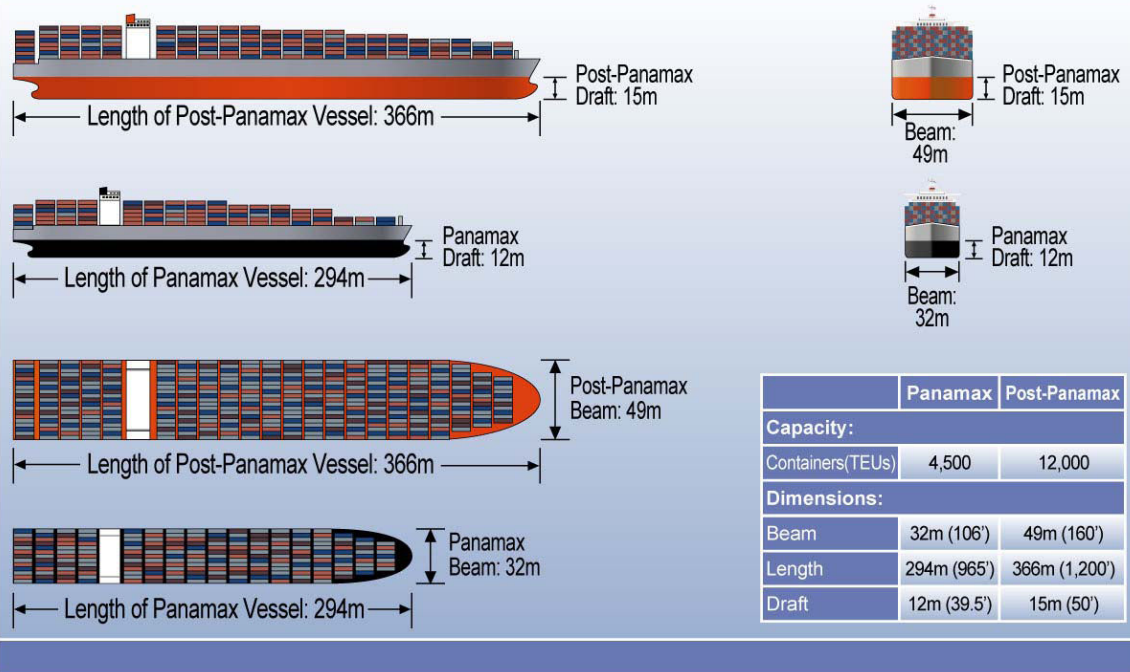


Comparison between Panamax and Post-Panamax Container Vessels



Comparison between the largest Panamax container vessel that can transit the current Panama Canal and a Post-Panamax size vessel with 12,000 TEUs container capacity. The larger vessel has 2.5 times the cargo carrying capacity of the Panamax vessel. Courtesy of the Panama Canal Authority (ACP).

To ensure safe navigation to both mariners and cargo owners, various vessel classifications are used to classify a vessel’s operation and to set minimum safety standards. There are five main types of vessels: 1) liquid bulk; 2) dry bulk; 3) general cargo; 4) container, and; 5) other vessels.

Liquid bulk vessels handle petroleum and related products. Normally, these vessels have piping systems throughout the vessel to load or unload the vessel. Dry bulk vessels carry a mix of cargos, from grains, iron ore, aggregate, etc. These vessels tend to be loaded or unloaded by mechanical dumpers or scoops.

When most people think about ships at a seaport, they are thinking about general cargo vessels, with various holds and hatches, each serving a variety of cargo types. Normally, these vessels are worked by either shoreside or ship’s gear.

Container vessels have become the global supply chains, with containers stacked both below and above the deck. Some of the smaller vessels may still have shipside cranes, but most are worked with shoreside cranes.

Finally, other vessels include specialized carriers, such as Ro-Ro (roll on-roll off vessels), chemical tankers, and ferries and passenger vessels.

Given the difference in vessel types, vessels are also configured on deadweight weight capacity. (Deadweight refers to vessel's displacement in the water, including calculations for cargo, stores, crew, etc., and reflects the maximum that a vessel can safely carry.)

Given the importance of the Panama Canal to worldwide shipping, vessels have been configured to maximize the volume of cargo that can transit the canal despite the size of the canal's locks. Generally, a Panamax vessel ranges from 50,000 to 80,000 deadweight tons (DWTs). Regarding physical dimensions, these vessels are normally 965 feet long, with a 106-foot beam, and a 39.5 -foot draft. For containers, a Panamax vessel can carry up to 4,500 twenty foot equivalent units (TEUs).

The third set of Panama Canal locks is planned to accommodate containerized vessels that are much longer (1200 feet), wider (160 foot beam) and deeper (50 feet of draft). Normally, vessels in this class carry 12,000 TEUS. N