



Aircraft Carrier - Queen Elizabeth Class

General:	The Queen Elizabeth Class supercarriers are a two-ship class of aircraft carrier being built for the Royal Navy. The first, HMS Queen Elizabeth, is expected to enter service in 2020 and HMS Prince of Wales will follow in 2022. These ships, at 284 metres long, will displace about 65,600 tonnes (full load) and be capable of carrying up to 40 aircrafts.	
Main Particulars:	Displacement	65,600 t
	Length	284.00 m
	Beam	39.00 m (waterline), 73.00 m overall
	Draught	11.00 m
Capacity:	Complement	1,450 with an additional 600 persons when required
	Aircraft carried	max. 40 (mission dependent)
Speed:	Speed	25.00+ knots
Machinery and Equipment:	Electric power is generated by	Two Rolls-Royce Marine Trent MT30 36 MW gas turbine generator units
	Four Wärtsilä Diesel generator sets	(two 9 MW and two 11 MW sets)
Miscellaneous:	Deck area	16,000 square metres
	Range	10,000 nautical miles (18,520 km)
Scope of Work:	<p>We were responsible of developing the Detail Design (coordination) of the HVAC for Damage Control Zones 4 & 5 (half of the vessel). Our work consisted of developing the manufacturing drawings, the installation drawings (3D) Detail Design of 10 ATU rooms, including penetrations, foundation and bill of materials. Modules of the vessels were being built in 3 different locations before assembly in one place. This placed a high demand on coordination and cooperation between the subcontractor's quality systems.</p> <p>We were working in cooperation with one of the world's largest HVAC Installation companies, Imtech, under high level Military Security. The Detailed Design was performed in 3D by using Foran software for DCZ4 DCZ5 and AutoCad, MagiCad software for ATU rooms.</p>	
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