

## The Maritime Consultants

### Marine Design and Naval Architecture

The name Burness Corlett Three Quays - BCTQ - is synonymous with naval architecture and vessel design. Throughout its history, the firm has designed hundreds of vessels of every possible type, from Ro-Ro ferries, bulk carriers and tankers, to high speed catamarans and luxury yachts. Our large international team of naval architects includes some of the most experienced professionals in the sector covering the commercial and large luxury yacht categories.



# BCTQ Naval Architecture and Design offers the most diverse range of services to the marine industry including:

## Design Services

naval architecture design services

Concept Design  
Artists Impressions and Renderings  
General Arrangements  
Lines, Plans and Surface Definition  
Performance  
CAD  
3d Rendered "Fly Past"  
Computer Visualisation/ Bridge Sightlines  
Technical Specifications  
Selection of Contractors  
Evaluation of Tenders  
Final Design  
Design Approval  
Model Testing  
Supervision of Construction  
Sea Trials  
Warranty

## Powering Analysis

naval architecture powering analysis

Resistance Prediction  
Propeller Design  
Model Testing  
Lines Optimisation  
Full Scale Trials  
Open Propellers  
Ducted Propellers  
Water jets  
Bollard Pull  
SRAD Units  
Voith Units  
Towmaster

## Stability Analysis

intact and damage stability

Intact and damage stability calculation for all types of vessel, with an emphasis on passenger and Ro-Ro passenger ships. New building concept and conversion feasibility studies assessed in respect of stability issues. Preparation of stability documentation and guidance in conjunction with senior officer training and the conduct of workshops/ lectures on stability issues. Attendance at model testing for Stockholm Agreement compliance and the preparation of supporting calculations. Probabalistic A265 calucations for Ro-Ro passenger vessels in conjunction with our work on the universal harmonization and stability standards at IMO.

## Intact Stability

IMO Criteria  
Severe Wind and Weather Criteria  
Tug Heeling Arms  
Fishing Vessels

## Damaged Stability

Passenger ships  
Deterministic  
A265 probabilistic  
Cargo ship A/R

## Seakeeping Analysis

roll reduction Passive tanks

Active tanks  
Fin stabilization  
At Anchor (active fins)  
Motion prediction (Strip Theory/ 3D Diffraction)  
Linked/ Moored bodies  
Shallow water effects  
Wave bending moments  
Operational analysis  
Model tests

## Structural Analysis

structural design

Analysis  
Classification Society drawings  
Detailed design  
Building design for shipyard construction  
Tendering design  
Refit drawings  
Finite Element Analysis

## Design Support

design support for shipbuilders

BCTQ provides shipbuilders with on-site design and drawing office teams to undertake or assist with:

Hull production design  
Whole ship production design  
Production planning  
Safety case and risk assessment work  
Procurement specifications



Burness Corlett Three Quays

[www.bctq.com](http://www.bctq.com)

Marine Design, Naval Architecture & Engineering Services • Marine Expert Services • Marine Safety Services • Marine Procurement • Marine Surveying Services

LONDON SOUTHAMPTON ISLE OF MAN DUBAI SYDNEY