



## Royal Navy - Type 45 Anti-Air Warfare Destroyer's

Provision of temporary access solutions and protective coatings incorporating grit blasting services for six new advanced warships commissioned by the Ministry of Defence and built by BAE Systems.

Location: **Glasgow**



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The Type 45 Anti-Air Warfare Destroyers built and launched in Glasgow by BAE Systems will equip the Royal Navy in providing air defences for much of the first half of the 21st century. All six warships HMS Daring, Dauntless, Diamond, Dragon, Duncan and Defender, cost £6 billion to build. Every vessel has a weight displacement of 7,500 tons and is over 150m in length. The advanced warships designed for multi-threat environments have specialist anti-air warfare (AAW) capability. To help protect national, allied or coalition forces against enemy aircraft and missiles.

### Project Summary

Enigma was awarded a £20m contract by BAE Systems to assist with the warship construction throughout the 7-year project by providing temporary access solutions. Including the provision of specialist protective coatings, grit blasting and cleaning services at there Glasgow shipyard. Also, to deliver programme time-savings with the construction of HMS Diamond. The dry dock was loaded with scaffold materials before flooding, enabling work to commence quickly once the warship settled on dock blocks.

The bow to bridge block, masts and funnels were built at the BAE Systems Portsmouth site, whilst the stern and mid sections of the warships were manufactured at the Glasgow shipyard, where engineers also undertook final systems integration, outfitting, testing and commissioning of the Type 45 class destroyers.

### Value Engineering

To assist with the launch of HMS Daring, HMS Dauntless and HMS Diamond by HRH the Countess of Wessex. Enigma constructed bandstand and press gallery structures at the BAE Systems shipyard on the River Clyde on all three launch days. Also, after completion of the project, Enigma was the only subcontractor recognised in the Construction Industry News BAE Systems' RoSPA Gold Safety Award article feature.



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