



Quick-Lock® adhesive-bonded Joint



## First of Astute Class submarine fitted with Bondstrand® 2000M GRE pipe & fittings

The Astute Class submarine has been designed and engineered to be the quietest and highest stealth submarine of her type, equipped with the latest and most powerful sonar suite and secure communications facilities while exhibiting a low noise signature and optimum detection avoidance characteristics. The Astute was delivered to the British Royal Navy in August 2008. The Astute's reactor core will not require refuelling throughout her service life. The Bondstrand pipework will also not require replacing throughout the submarines service life. Her capabilities includes anti-submarine warfare, anti-surface vessel warfare, land attack, minelaying and intelligence gathering. The Astute will be 97m long, will have a surface displacement of 6700 tons and crew of 98.

### Scope of Supply

NOV Fiber Glass System's UK distributor Pipex was central in the execution of this project. Their scope included site survey, design assistance, fabrication of bespoke angle fittings, prefabrication of spools, delivery to Barrow, installation and commissioning of pipework.



### Project

£2 billion Astute Prime Contract for three next-generation submarines to replace the Swiftsure Class Submarines

### Location

Barrow-in-Furness, Cumbria - United Kingdom

### Client

BAE Systems (Submarine Division) - End user: The Royal Navy, Ministry of Defence

### Pipe system

Bondstrand 2000M GRE Pipes & Fittings

### Installation date

The GRE pipework installation was on the critical path requiring completion by February 2007 to allow the prestigious launch of the first of class in June 2007. From contract award in December 2006, Pipex NOV Fiber Glas Systems distributor for the UK and Ireland, achieved this critical installation window.