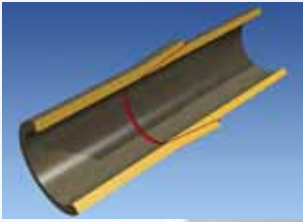




Quick-Lock® adhesive-bonded Joint



Taper/Taper adhesive-bonded Joint

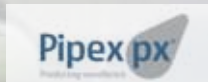


Type 45 Anti-Air Warfare Destroyers fitted with Bondstrand® Glassfiber Reinforced Epoxy (GRE) pipe

The revolutionary Type 45 destroyer, a state of the art anti aircraft vessel that will be in the frontline of the UK's defence capabilities for the next 40 years - will come into service in 2010 when the first of 12 ships takes to the seas under the £ 2 billion programme. Type 45 will be a vital British asset, designed and built in the UK and drawing on the latest technologies to provide world-class capabilities. In concert with the projected Future Aircraft Carrier, the Type 45 will provide the backbone of the Royal Navy's air defences.



Pipex px®, NOV Fiber Glass System's marine representative for the United Kingdom, identified Bondstrand Glassfiber Reinforced Epoxy (GRE) materials as ideally suited to the type 45 Destroyer newbuilds as they offer significant weight savings onboard compared to Cuni and other traditional naval pipe materials, along with superior corrosion resistance resulting in major through life costs savings.



Bondstrand 2000M was therefore proposed for a three year cost and feasibility study. This included extensive smoke, fire, impact and shock testing that was passed to achieve approval for Royal Navy frontline military applications. As First of Class Pipex px® was responsible for Bondstrand material supply, fabrication, detailed project management and on site field service engineers.

Installation date

	<i>Start</i>	<i>Launch</i>	<i>Status</i>
First of Class HMS Daring	03-2003	02-2006	In service
Ship 2 HMS Dauntless	08-2004	01-2007	In service
Ship 3 HMS Diamond	02-2005	11-2007	Stage 2 trials
Ship 4 HMS Dragon	12-2005	11-2008	Stage 1 trials
Ship 5 HMS Defender	07-2006	10-2009	Fitting out
Ship 6 HMS Duncan	01-2007	10-2010	Fitting out

Project

6 new Royal Navy Type 45 Anti-Air Warfare Destroyers

Client

BAE Systems for the Ministry of Defence - United Kingdom

Pipe system

Bondstrand 2000M, 7000M and 3400 with Quick-Lock or Taper/Taper adhesive-bonded joints

Service

Chilled Water Ring Main Flow & Return
Air Escapes (non fuel tanks only)
Soundings (non fuel tanks only)
Magazine Drains
Internal Deck Drains

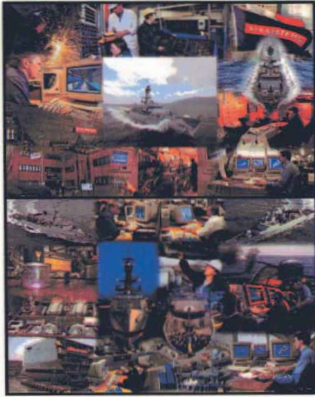
Design pressure

10 - 16 bar

Work pressure

2, 2 (LPSW), 4, 5, 8 bar

ON-SITE SUBCONTRACTOR ACCREDITATION



THIS IS TO CERTIFY THAT
PIPEX
HAVE ACHIEVED
ACCREDITATION FROM BAE
SYSTEMS, NAVAL SHIPS

FROM
1st NOVEMBER 2004 - 30th
OCTOBER 2005

(David Houston - Head of Procurement & Logistics)

Accreditation from BAE Systems, Naval Ships to Pipex px® for Bondstrand GRE pipe systems



HMS Daring



HMS Dauntless



HMS Diamond



HMS Dragon



HMS Defender



HMS Duncan



Ministry of Defence
Equipment Support (Sea)
Warships Support Agency
Marine Auxiliary Systems
MXSPE2, Fir 1b, Bay J16, #4110
MoD Abbey Wood
Bristol BS34 8JH
Tel : 0117-91-39574
Fax : 0117-91-39903



Pipex Ltd Pipex House Lowman Way Tiverton Devon EX16 6SR Attn. Mr Tom Smith	Our Ref: MXSPE/760/2/1 Your Ref: 040716THSLO1 Date: 01/03/2005
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Reference: Acceptance of Pipex Ameron Bondstrand Glass Reinforced Epoxy (GRE) 2000M, 7000M & 3400 Composite Pipe Systems for Royal Navy Applications

As a result of testing carried out on behalf of the Defence Procurement Agency acceptance is hereby conferred subject to meeting project specific requirements, for the specification and installation of Pipex Ameron Bondstrand Glass Reinforced Epoxy (GRE) pipe systems. This acceptance covers new build and retrofit piping applications on board HM Surface Ships.

This type of GRE Pipe System has been selected for use on board the new Type 45 (Daring Class) Destroyer and numerous back fit installations on the Carrier and Type 42 Destroyer fleets. System applications include: Ballast, Cooling Water, Bilge, Fuel, Drains, Sewage, Sounding/Vent Tubes, Exhaust etc., other Systems may be considered on a case by case basis.

Yours faithfully

Christopher G Elly
For
DG ES/CE WSA

Ministry of Defence (MOD) approval to use Bondstrand 2000M, 7000M and 3400 pipe systems for Royal Navy Applications

BAE SYSTEMS

June 2006: BAE - Supplier Performance - Gold Award