

Case Study

BlazeMaster® Fire Sprinkler System provides lasting results in offshore accommodation platforms.

Type of Construction:
Marine/Oil Rig

Installation Type:
New

Location:
North Sea

Scope of Project:
Heads: 500
Feet: ~72,000
Stories: 7

Fire Sprinkler Contractor:
SLP Engineering Ltd.

When a leading marine offshore engineering company, SLP Engineering of Lowestoft, U.K., constructed the free-standing accommodation platform for the Claymore offshore oil platform complex on behalf of Elf Enterprise Caledonia Limited, one of the key aspects to be considered was the installation of an effective, reliable fire sprinkler system.

A BlazeMaster® Fire Sprinkler System was selected for its uncompromised safety and considerable cost savings compared to other systems commonly used in offshore platform installations.

"BlazeMaster® products demonstrated a reduction of 90% in installation costs when compared with Cunifer," said Andy Bogg, senior mechanical engineer at SLP. "Although this was the first time that we had used BlazeMaster® products, we did not experience any problems whatsoever with the installation. We found it to be cleaner, healthier to work with and more maneuverable even in confined spaces. We saved many hours on the project and the handling and assembly of the pipes and fittings could not have been quicker or easier."



Offshore Issues

In the early stages of the project, there was some skepticism about the use of new materials in this type of application. Also, the BlazeMaster® system

was not approved for this environment in Europe, although it did have both Underwriter's Laboratories (UL), USA approval, and provisional approval from the Loss Prevention Council (LPC).

By the time that the accommodation platform was completed, full approvals were obtained from the LPC, from Lloyds offshore and from the Health and Safety Executive (HSE). The system can now be used in process areas as well.



"The BlazeMaster® Fire Sprinkler System was subjected to numerous fire tests as well as physical property and pressure tests," said Jon Thomson, BlazeMaster® marketing manager, U.K. "During the direct fire exposure,

peak temperatures exceeded 500°C (930°F), and the system maintained operating integrity. The pipe has also been approved for continuous operating pressures up to 12 bar (175 psi) and 50°C (120°F) and has an excellent track record over the last 10 years."

The Claymore accommodation platform contract includes over 500 concealed sprinkler heads. The pipes were manufactured by Harvel Plastics Inc. and the fittings by Spears Manufacturing Co. Inc. Training for the installers was provided on-site by BlazeMaster® representatives to ensure accurate assembly and to eliminate any uncertainties that the installers may have had in handling the BlazeMaster® Fire Sprinkler System for the first time.

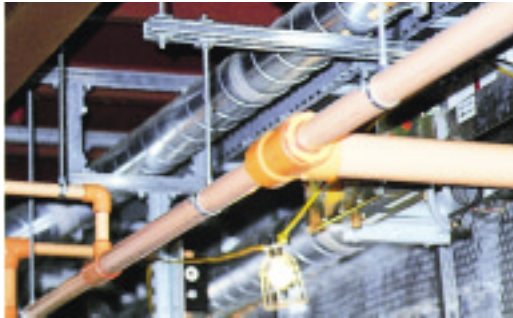
Cunifer Comparison

When compared directly with Cunifer, BlazeMaster® pipes and fittings are much lighter, which is an important consideration particularly for offshore rigs. The pipe and fittings are easily solvent-weldable and offer superior hydraulic



**Now listed
for more types
of applications
than any other
non-metallic
system.**

properties (Hazen-Williams C Factor of 150). Thinner bore pipe can be used to provide the same performance as a wider bore Cunifer pipe. In the Claymore accommodation area, a 3 in. bore pipe was used where normally a 4 in. Cunifer pipe would be required. This was an added benefit because of the complex arrangement of pipes and service ducts. With easy handling, long sections could be assembled in corridors and lifted into place without much effort or the use of special equipment.



The long-term reliability of BlazeMaster® CPVC Fire Sprinkler Systems is supported by outstanding corrosion resistance, low flame spread, low smoke emission levels and a 50-year life expectancy. A further benefit was a reduction in inspection costs;



the BlazeMaster® pipe and fittings did not require radiology or dye penetration examinations. The system was hydro-tested up to 18 bar (260 psi) when it was first installed. The platform was then moved a considerable distance to its operative site. Subsequent tests have proven that the sprinkler system on the platform at its location in the North Sea has not experienced any damage. The system was found to be leak free and sound.

“Now that we have worked with the BlazeMaster® Fire Sprinkler System and seen how fast and easy it is to handle, assemble and install, with all the other benefits that this system can offer, we will not go back to using anything else,” said Boggs. “We plan to specify BlazeMaster® CPVC as an option on all new jobs, and for in-house work, we will always use BlazeMaster® products.”

The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained therefrom. The information is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance. Because of the variations in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the applications disclosed. Full-scale testing and end product

performance are the responsibility of the user. Noveon shall not be liable for and the customer assumes all risk and liability of any use or handling of any material beyond Noveon's direct control. THE SELLER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendation, nor as an inducement to practice any patented invention without permission of the patent owner.

For more information, call 888-234-2436, e-mail blazemaster@blazemaster.com or visit www.blazemaster.com