

CASE STUDY

PROJECT:

Elf Enterprise Caledonia's
Claymore Offshore Oil Complex

LOCATION:

North Sea

INSTALLATION TYPE:

Offshore Platform

SCOPE OF PROJECT:

Heads: 500
Stories: 7

CONTRACTOR:

SLP Engineering

BENEFIT:

Reduction in
Inspection Costs

BlazeMaster[®] CPVC Provides Long-Term Reliability in Offshore Facility

When a leading marine offshore engineering company, SLP Engineering of Lowestoft, U.K., constructed the free-standing accommodation platform for the Elf Enterprise Caledonia's Claymore offshore oil complex, the installation of an effective, reliable fire sprinkler system was critical.

That's why SLP chose a BlazeMaster[®] Fire Protection Systems for the project. The mix of long-term reliability, simplified installation as well as cost savings sold SLP on BlazeMaster CPVC's merits for the job—despite the fact that other sprinkler systems were typically used in offshore platform applications.

"BlazeMaster CPVC 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 CPVC, 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."

BlazeMaster CPVC subjected to numerous fire tests as well as physical property and pressure tests. 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 years.

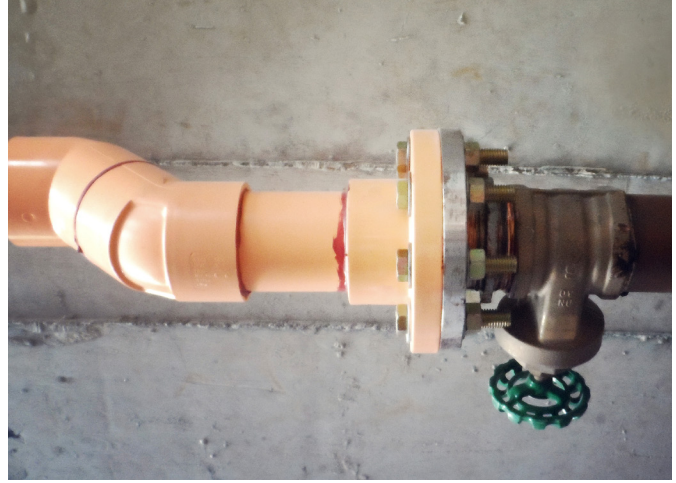
“

Now that we have worked with the BlazeMaster fire sprinkler systems and seen how fast and easy it is to handle, assemble and install, we will not go back to using anything else

Andy Bogg
Senior Mechanical Engineer,
SLP

”





The Claymore accommodation platform contract includes over 500 concealed sprinkler heads. The pipes were manufactured by Harvel Plastics Inc., now GF Piping Systems. Training for the installers was provided on-site by representatives from BlazeMaster Fire Protection Systems to ensure accurate assembly and to eliminate any uncertainties that the installers may have had in handling the BlazeMaster pipe and fittings for the first time.

Cunifer Comparison

When compared directly with Cunifer, BlazeMaster pipes and fittings are much lighter. That's an important consideration for offshore rigs. The pipe and fittings are easily solvent-weldable and offer superior hydraulic properties (Hazen-Williams C Factor of 150). Thinner bore pipe can also be used without performance issues. For example, in the Claymore accommodation area, installers utilized a 3-inch bore pipe instead of the 4-inch Cunifer pipe that would have been required. This was an added benefit given the limited amount of space in the area. With easy handling, installers could assemble long sections in corridors and lift them into place without the use of special equipment. The long-term reliability of BlazeMaster fire sprinkler systems is supported by outstanding corrosion resistance, low flame spread,



low smoke emission levels and a 50-year life expectancy when installed to specifications. A further benefit was a reduction in inspection costs as BlazeMaster CPVC did not require radiology or dye penetration examinations. The system was hydro-tested up to 18 bar (260 psi) after 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 systems and seen how fast and easy it is to handle, assemble and install, we will not go back to using anything else," said Boggs. "We plan to specify BlazeMaster CPVC as an option on all new jobs. For in-house work, we will always use these products."



The Lubrizol Corporation, a Berkshire Hathaway company
 9911 Brecksville Road ■ Cleveland, Ohio 44141-3201 USA
 216.447.5330 ■ blazemaster@lubrizol.com

The information contained herein is reliable based on current information but the advertiser makes no representations, guarantees or warranties, express or implied, including any implied warranties of merchantability or fitness for a particular purpose, or regarding the completeness, accuracy, or timeliness of any information. Always consult your pipe and/or fitting manufacturer for current recommendations.



©The Lubrizol Corporation 2025, all rights reserved.
 All marks are property of Lubrizol Advanced Materials,
 a Berkshire Hathaway Company.