

CASE STUDY

BlazeMaster® FIRE PROTECTION SYSTEMS

ELF ENTERPRISE CALEDONIA'S CLAYMORE OFFSHORE OIL COMPLEX

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

BLAZEMASTER® FIRE SPRINKLER SYSTEM PROVIDES LONG-TERM RELIABILITY IN OFFSHORE ACCOMMODATION PLATFORMS

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 Sprinkler System for the project. The mix of long-term reliability, simplified installation as well as cost savings sold SLP on BlazeMaster's merits for the job—despite the fact that other sprinkler systems were typically used in offshore platform applications.

"BlazeMaster® products demonstrated a reduction of 90 percent 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 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

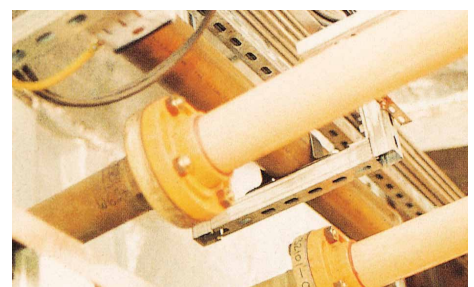
in confined spaces. We saved many hours on the project and the handling and assembly of the pipes and fittings could not have been quicker or easier." The BlazeMaster® Fire Sprinkler System was subjected to numerous fire tests as well as physical property and pressure tests.

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 last 10 years.

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 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



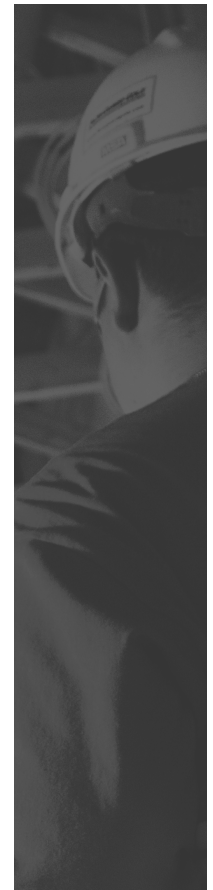
lighter: an important consideration particularly for offshore rigs. The pipe and fittings are easily solvent-weldable and offer superior hydraulic properties (Hazen-Williams C Factor of 150). Thinner bore pipe can also be used without performance issues. For example, in the Claymore accommodation area, 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® 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® system 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® system 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 BlazeMaster® products.”



BlazeMaster®

FIRE PROTECTION SYSTEMS

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