

## **Custom Solutions Bulletin**

Industry: Petroleum

Application: Deluge Fire Protection

Product Description: UL Approved NCK

**Situation:** A global engineering and construction firm contacted Applications Engineering in pursuit of nozzles for a deluge fire protection system on an offshore oil-drilling platform. The nozzles would be mounted 26 ft (~ 8 m) above the protected area. A 30 degree full cone spray angle would Technical Questions? Please contact: Applications Engineering (appeng@bete.com) 413-772-0846 App#051709

be required for a highly concentrated pattern. They needed a flow rate of 30 gpm (114 L/min) per nozzle at 50 psi (3.45 bar). The firewater supply would be unfiltered sea water, so the nozzles would need to feature large free passage to prevent clogging. In addition, it was a customer requirement that the nozzles be approved by Underwriters Laboratories (UL).

**BETE's solution:** BETE Engineers specified the 1"NC1012K-30 in brass. This nozzle was perfect for the job with its hard driving spray and even distribution. The NCK was not among the BETE nozzle series that carried UL approval. This would need to be done as a requirement for the order. Members of Quality Control and Applications Engineering worked closely with UL engineers, providing the required performance data necessary for UL's evaluation. The nozzles were shipped on time, marked with the UL stamp of approval.



041