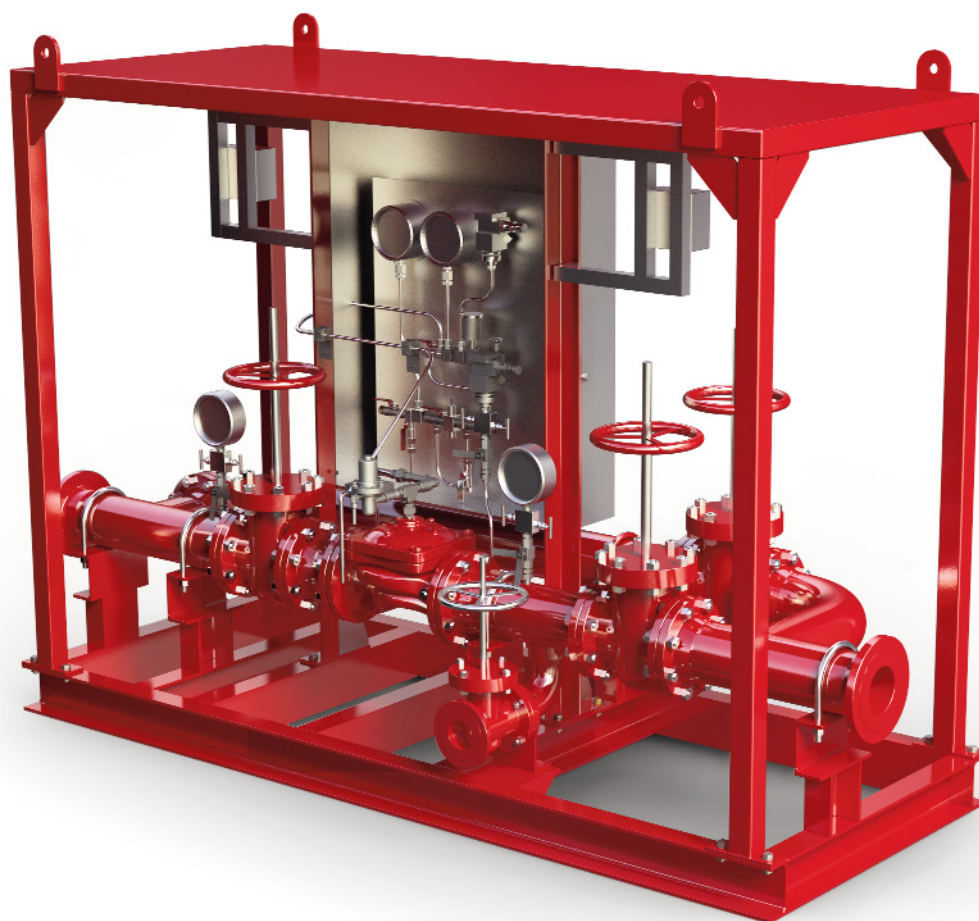


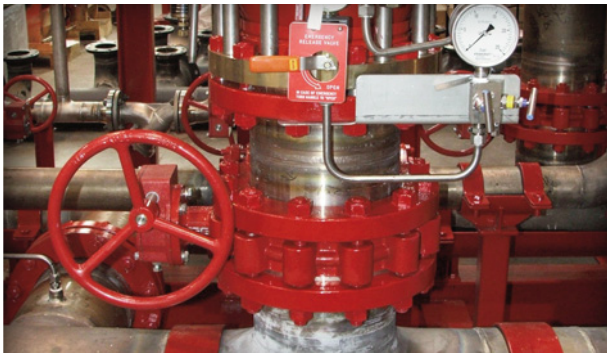
DELUGE SKID



Knowsley SK Limited - Designer and Manufacturer of Fire Fighting Equipment & Systems

Strategic fire protection - when and where its needed most





Established in 1896, Knowsley SK Ltd has an enviable reputation for manufacturing quality fire fighting equipment and systems for high-value asset protection that can be relied upon whenever danger strikes.

01 Product Overview

- Bespoke design to suit any environment: arctic/tropical/temperate/desert.
- Ergonomic design ensures ease of maintenance.
- Quality assured construction and components ensure reliability.

Deluge systems are used extensively in the fire protection industry and service a multitude of applications including: cooling, extinguishment, asset, and personnel protection. The deluge skid is the heart of the system and our vast experience enables us to design and manufacture to suit every conceivable scenario.

02 Dimensions

Each project is unique requiring a bespoke solution. We therefore do not offer 'standard packages' - rather we design our skid layouts to suit the precise constraints of each project. Every conceivable configuration can be catered for - horizontal, vertical, single leg, multi leg, open frame, fully enclosed, insulated and heated, etc .

Many client facilities have limited space available and our experienced design office utilise state of the art 3D solid modelling thus enabling skid footprint/volume to be kept to a minimum without compromising operation and maintenance.



Figure 1. Typical open box frame deluge skid

03 Product Materials

All common and high-grade materials are utilised, as the project specification or geographical location demands. Our fabricators are fully coded and certified to the highest standards. Typical materials include:

Skid Frames: Carbon Steel, Low temperature carbon steel

Pipework: Galvanised Carbon Steel, FBE lined CS, SS316, and Cupronickel 90/10

Valves: Cast Steel, Stainless Steel, and Aluminium Bronze

Instruments/tubing: SS304/316L, 904L, Monel, Hastalloy.

In addition to a vast range of materials, any protective coating requirements can also be applied as appropriate to combat both corrosive media and harsh environmental conditions. Our deluge skids are deployed in some of the harshest environments imaginable from extremes of temperature, high winds and blast overpressures, marine and offshore locations, desert or arctic locations.

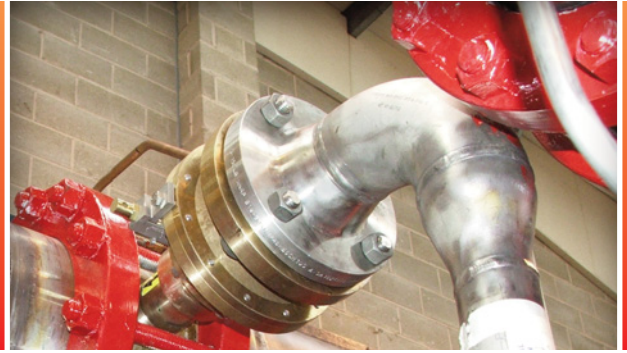


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Registered in England No. 1789152 VAT No:383475131



Our Century of experience, continuous product development and world-wide support network provides the confidence for clients to select Knowsley SK as their first choice for asset protection whatever, whenever and wherever the risk



04 Product Details

Central to the deluge skid is the deluge valve itself. All variations of valve type and modes of actuation can be incorporated, such as clack, butterfly, globe, and elastomeric sleeve, electric, pneumatic, electro-pneumatic, and hydraulic. Once again our vast experience and technical expertise enables selection of the right valve in the right material to suit all applications.

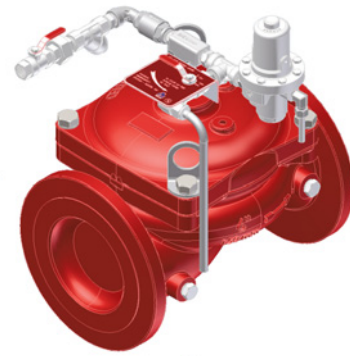


Figure 2. Deluge Valve

05 Performance Data

Each potential fire scenario is unique requiring detailed calculations to determine water flow and pressure. Our design team utilizes their vast experience as well as state of the art hydraulic calculation software to ensure optimum performance for any given fire hazard or combination of hazards.

06 Spares Information

Our dedicated spares department can supply parts or complete items for all the skid components such as isolation valves, deluge valves, instrumentation, joint sets etc.

Contact our dedicated spares department. spares@knowsleySK.co.uk

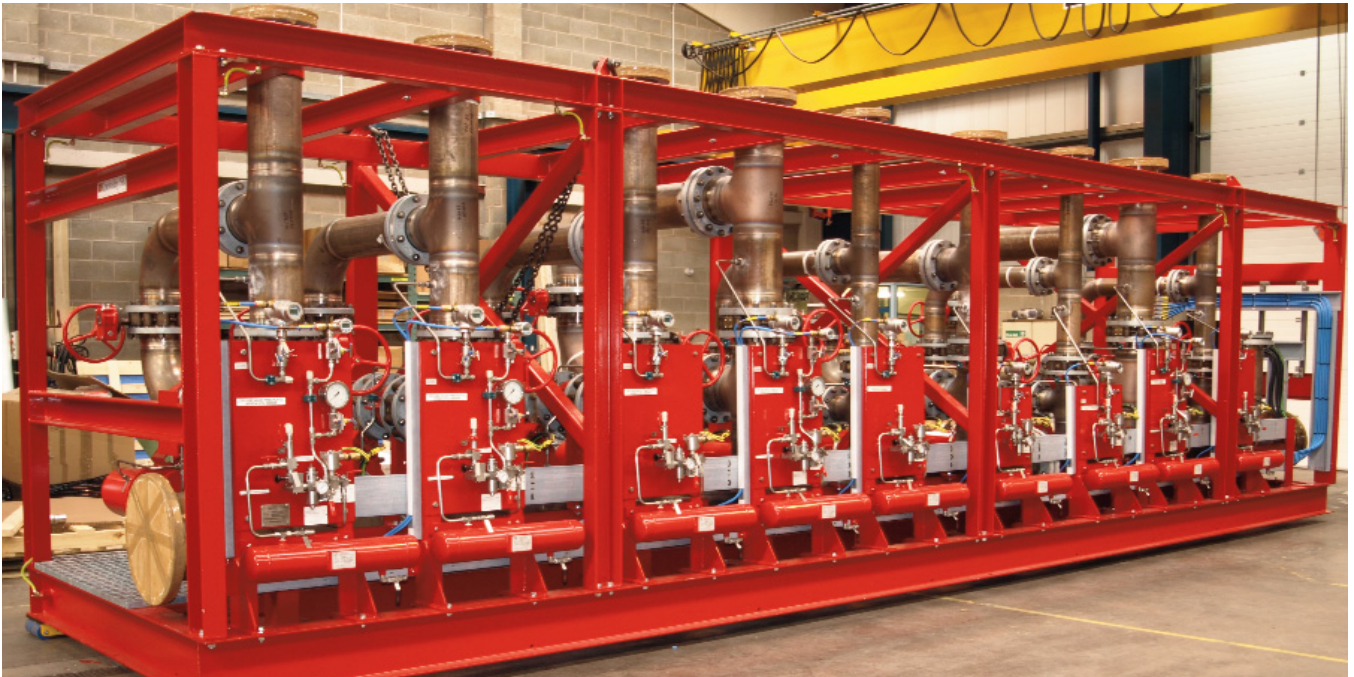


Figure 3. Multi-leg Deluge skid with low temperature carbon steel frame, cupronickel pipework and aluminium bronze valves - Designed for the Kashagan Field in Kazakhstan.



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