

Petrol PLAZA

OPW's Pre-Fitted Fibrelite Remote Fill Sumps & KPS Piping Simplify Installation for Major Oil Company in Spain



Project Overview

A suite of Fibrelite and KPS products was adopted for this Cádiz filling station to eliminate potential installation issues and streamline site construction, providing a trustworthy long-term solution requiring minimal maintenance. Key to this project was an easy-install replacement for previously used conventional cast iron spill chambers.

Following the success of this installation, the oil company adopted Fibrelite below ground remote fill sumps as standard for all Spanish sites.



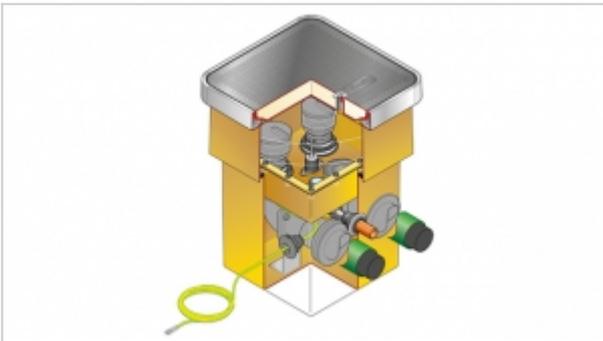
Problem

Previously in Spain, the oil company had been installing traditional cast iron spill chambers, one per fill line. These required time-consuming exacting installation on site, relying on local installer's expertise.

To be installed, chambers had to be perfectly aligned to the threaded metallic termination of the pipe system beneath before attaching, often requiring a metal frame and support beneath pipes. Any errors or misalignment during installation would result in a non-liquid-tight system, leading to potential water ingress and fuel egress.

To access fill points required unsafe lifting techniques, the position and weight of the cast iron covers requiring users to stoop, risking back and finger injuries. This was exacerbated if covers corroded over time with exposure to water and fuel which could cause fusing of covers to chambers or leaks. The metal surface of the covers was also slippery when wet, causing a slip hazard for station users.

A long-term liquid-tight solution for all sumps and piping was required.



Solution

The oil company, OPW's Spanish distributor, and OPW, have a long-standing relationship, developed over many years of working with Fibrelite and KPS products. Following the recommendation of their Portuguese branch, our Spanish distributor was approached for a solution.

After considering site requirements, Fibrelite S2-360 OFD BPP K2 sumps were specified. These arrive at site preassembled, installation as simple as attaching the two fill lines to those emerging from the sump, without the need for frames or supports. It's also a more compact system than previously installed, each sump containing two fill lines or one fill and one vapour recovery line. This increases speed of fuel delivery as there are only half the number of covers to remove, each one topped by a lightweight Fibrelite composite cover enabling fast safe removal. Fibrelite covers also provide a safe walking surface for station users due to their unique anti-skid tread pattern and are made from an inert composite material which will not corrode with exposure to fuel or water.

These factors combine to result in a huge reduction in installation time while eliminating the risk of leakage due to incorrect installation or corrosion.

For piping, KPS was chosen to further simplify installation. 125/110mm conductive piping was used for fill lines and 63mm conductive for suction, vapour recovery and vent lines. Designed for easy installation, KPS' compact fittings require the minimum welding time possible. In fact, KPS double wall fittings require less welds than any other system available. KPS piping can be trusted to perform year after year, with approvals from DIBT Germany, EN 14125, UL 971, ATEX 137 and EN 13463-1 as well as a number of other country and fuel specific standards ([KPS certifications and approvals](#)).

For this site, it was decided to use a full range of Fibrelite and KPS products to simplify supply, control lead times and ensure quality and traceability. All products were supplied by an experienced local distributor whose stock comes directly from OPW's manufacturing facilities (all OPW products are manufactured at OPW facilities to ensure quality and enable quick design-to-delivery capabilities). This site used Fibrelite tank sumps, remote full sumps, dispenser sumps and covers (all Fibrelite sumps are vacuum tested before leaving the factory).



Results

Construction of this site went far faster than previous sites where cast iron spill containers were used.

Together, the Fibrelite sumps and KPS piping created a high-performance low-maintenance long-term solution which increased the overall efficiency and safety of the station.

The oil company has now adopted this solution as standard in Spain. Fibrelite and KPS products are also specified by the company's UK and Portuguese branches.

Innovation is one of OPW's core values, holding more patents than any other equipment manufacturer. Backed by their parent company Dover Corporation, OPW continually develops and refines its product range to solve customer's current and future problems. The products in this case study are just a few recent examples.



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