



Composite Pipe Supports

Value Tracking Case Study



Composite Pipe Supports

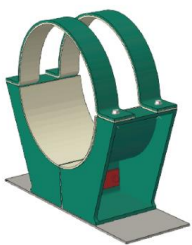
Background

The existing style pipe supports in use across the UK Gas National Transmission System (NTS) are currently made of steel. While they are fit for purpose, they're at risk of corrosion and are challenging to inspect and maintain.

Due to the integral nature of the supports, there is often (depending on pipe size) a requirement to break out the concrete plinth beneath the support to allow the support to be lowered away from the pipe, thereby providing access to the concealed pipe and support surfaces. The process involves temporarily supporting the pipe and requires onsite lifting equipment to manoeuvre the heavy steels support.

What's new?

A project was initiated under the National Innovation Allowance (NIA_NGGT0011 "Composite Pipe Supports") to develop a pipe support to address these issues. No such composite pipe supports exists and hence for the project to be realised there is a requirement for the undertaking of a complete design programme working from conceptual design, through testing and analysis; thus, eliminating the inherent corrosion risk with existing metallic pipe support materials and design.



The design splits the base of the support into two halves such that each can be removed (slid out from under the pipe) without there being a need to break out the concrete plinth. This also aids in the placement of the supports. In addition, it uses lightweight Glass

Reinforced plastic (GRP) to address the weight issue.

The benefits

The main benefit of the composite pipe support is the ease with which the support can be removed to allow future inspection of the pipework, which is estimated to reduce post RIIO-2 inspection costs for all pipe supports replaced with composite versions on the network by up to £3k per support.

Outcome



To date we have installed one composite pipe support at Bishop Auckland Compressor Station through our National AGI Renovation Campaign (NARC). We are monitoring this to ensure its' fitness for purpose in the field.

We have not applied an adjustment to our unit cost for pipe support replacements in RIIO-2, as:

- the activity to install a new composite pipe support to replace an existing steel one is expected to be largely the same as a like-for-like replacement of steel with steel
- removal of the old steel support will still require the plinth to be broken out and lifting equipment will still be required
- the old plinth will still need rebuilding
- only the task of installing the new composite pipe support will be different
- the procurement cost of the composite pipe support is expected to be marginally lower than its steel equivalent, but only after the initial set up of new mouldings with each new supplier for each different pipe support size required



As mentioned above the real benefit of this solution will be in maintenance and inspection of the pipework around these supports in the future.

