

REPAIR TECHNOLOGY DEVELOPED BY AN INTERNATIONAL TEAM OF ENGINEERS

EFFICIENCY

GC Wrap is the highest quality fiberglass and carbon fiber systems used to rehabilitate and restore the original working strength of damaged or corroded transmission pipelines and pressure vessels. With full compliance to ASME PCC-2 and ISO TS 24817 technical standards, service life extensions are possible up to 50 years.

PIPING PROTECTION

GC WRAP can be applied on tees, elbows, and, of course, straight runs of pipe, in confined spaces and on irregular surfaces – wherever structural reinforcement or leak containment is required. The adhesive properties of the urethane and the use of an epoxy primer allow it to be applied to most substrates.

COMPLIANT TECHNOLOGY

GC Wrap is compliant to the ISO TS 24817 technical standard, ASME B31, .8, .4, .G and PCC-2 Art. 4.1, 4.2, as well as API 570. Please refer to: API 570, Section 8.1.4 – Non-welding repairs (on stream). The repair technology with composite materials is approved by the UDT.

PROBLEM

One of the more popular applications for composite materials is the repair of mechanical defects and deformations detected during the pipeline inspection process. Such defects can be caused by errors in the production of the pipe, by external factors - such as being hit by an excavator bucket on the pipeline, or by an improperly conducted welding process of individual pipeline sections. Composite materials in each of these cases provide a quick and safe renovation that can extend the life of the pipeline up to 20 years (EN ISO 24817 standard) and restore the original operating pressure in the pipeline in question.

APPLIED SOLUTION

In the case in the issue on a DN 500 mm high-pressure gas pipeline running in the Kuyavian-Pomeranian province, two defects located on the outer surface of the pipe had to be repaired. Gascontrol Polska sp. z o.o. engineers, on the basis of the request form sent by the customer, made calculations, based on which the length of the repair muffle and the number of layers of material for each damage were determined. After sandblasting the surface, the application of the material began.

RESULT

A team of three pre-trained specialists carried out both repairs in just six hours (time includes surface sandblasting). Thanks to the efficiently performed work, the working pressure in the pipeline was restored the very next day. As-built documentation was provided to the client. The renovation was carried out without stopping gas transmission or performing work classified as gas-hazardous.

