

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

Composite repair materials are an effective repair method not only for gas pipelines. They are ideal for repairing all kinds of pipelines made of steel, cast iron or PVC. In the case described here, the repair involved a water leak on a tee, which worked as part of an artesian well installation - a working pressure of 4 bar. The repair was located inside an underground bunker at a depth of about 2 meters. An additional difficulty was the inability to take the water supply out of service and the high humidity inside the bunker.

APPLIED SOLUTION

Called to the site of the leak, a team of specialists from Gascontrol Polska sp. z o.o. first closed the leak using a two-component epoxy putty and special rubber tape. Then, after preparing the appropriate surface profile, epoxy primer was used and finally the entire tee was wrapped with urethane-soaked fiberglass material. An important point in the selection of the material was the fact that the fiberglass material is activated with water and moisture from the air. This is the only factor necessary during the activation and hardening of the composite system.

RESULT

Thanks to the use of composite repair materials, the leak could be repaired without taking the installation out of service. All work was carried out by two pre-trained specialists from Gascontrol Polska sp. z o.o. in less than two hours. The use of modern repair technology extended the life of the pipeline by 10 years.

