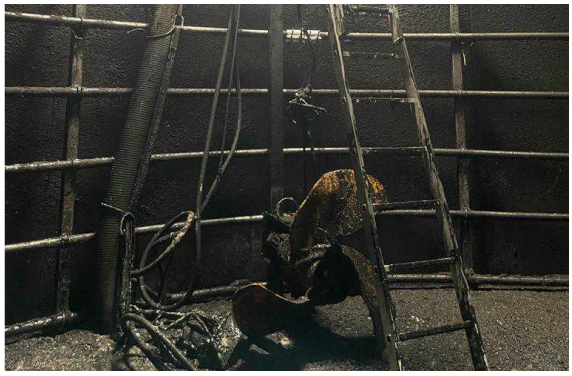
SYLWRAP Case Study

WRAS APPROVED PRODUCT

Biodigester Tank Steel Heating Pipe Repair

A pig farm seal a leaking stainless steel heating pipe in a biodigester tank after an initial repair made via patch welding was discovered to have failed



Propeller mixer blade was attached to a metal pillar inside the biodigester tank which had moved back to collide with a steel heating pipe, causing a breach

An initial repair attempt involving patch welding failed, leaving multiple pinhole leaks in the pipe

Wrap & Seal was applied along the entire 600mm length of the area which had been patch welded

SylWrap HD encompassed the repair with a rock hard shield to protect against future impact from the pillar and mixer blade

Defect

The circular tank was 20 metres in diameter and five metres high. Several stainless steel pipes inside the tank heated digestate whilst it was mixed by a propeller blade attached to a metal pillar.

Over time, the mixer blade pushed the pillar backwards to the point where it collided with one of the heating pipes, causing a breach in the steel.

A noticeable drop off in biodigester efficiency led the farm to access the inside of the tank, discover the leak and attempt to seal via patch welding.

When the biodigester began underperforming again, another inspection revealed water sprouting from multiple pinholes in the patch welding.

Solution

A **SylWrap Universal Pipe Repair Kit** was used by the farm for the second repair attempt. The pipe was cleaned and the patch weld ground down.

Wrap & Seal Pipe Burst Tape was wrapped across the length of the 600mm area which had been patch welded, sealing all pinholes in the pipe.

To reinforce and protect the repair, **SylWrap HD Pipe Repair Bandage** was applied to encompass the pipe with a rock-hard, impact resistant sleeve.

Result

The application took one hour to complete and the biodigester went back into service the next day.

With no issues regarding the efficiency or performance of the system reported following the repair, the farm deemed it a success.

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