

CASE STUDY

Enclosure Repair

CHEMICAL & FERTILISER PRODUCTION



THE BRIEF

The project took place at a major chemical and fertiliser production complex in Western Australia.

Medium pressure steam at 380°C and 4000kPa was leaking from an existing leak sealing enclosure that had been installed on a failed section of pipework. Radiographs revealed that the pipework had completely separated inside the currently installed repair.

Steam supply is critical to the continued operation of the complex.

SRJ was engaged to design, engineer and fabricate an enclosure repair to encapsulate the existing repair as well as an exposed drain valve and seal the leak allowing for safe continued operation.

THE SOLUTION

SRJ delivered a bespoke repair solution that accommodated the complicated geometry and site restrictions. A unique 'top hat' arrangement was used to fully enclose the failed clamp and the drain valve.

The enclosure incorporated peripheral seals in a two part upper endcap that sealed against the 3" pipe. The 'top hat' section was then drawn up over the failed arrangement and sealed against the upper endcap.

The enclosure was securely held in place by a pair of strongback beam supports situated on the top of the horizontal pipework above.

The solution delivered a safe and secure repair to the failed pipework.

VALUE DELIVERED



CUSTOMISED SOLUTION

Delivered a bespoke enclosure repair designed for the unique arrangement of the defected pipework and pre-existing repair.



IMPROVED SAFETY

The enclosure fully encapsulates a section of separated pipework that had the potential to come loose from the pre-existing repair arrangement.



RAPID RESPONSE

Engineering and design was fast tracked to allow for material purchase prior to the end of the working week which allowed fabrication to take place over the weekend. This allowed installation at the earliest opportunity.



CONTINUOUS OPERATION

The facility's MP Steam supply was uninterrupted during the enclosure installation.

