

Case Study
24” Repair of Sea Water Header
(Leaking Tee Joint) using Clock Spring®
Contour Composite Wrapping



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1 Defect area

A 24” Tee joint sea water header had through wall metal loss and water was Leaking due to internal corrosion. The leak was arrested by welding a 10” pipe branching off at the 6 O'clock position.



2 Clock Spring® Contour Application

Clock Spring® Contour composite wrapping technology was proposed by SKPS as a repair for the geometry. The complete configuration of the pipe including the branches was reinforced.



3 Clock Spring® Contour Application

3.5 meters in total where applied on the pipe and the relevant branches. The application, including the surface preparation and necessary safety precautions where completed in 2 days.



4 Design Criteria

Operating Temperature	: Ambient (35°C- 50°C)
Operating Pressure	: 8 PSI
Defect Type	: Internal Corrosion
Size	: 24 inch
Material	: Carbon Steel-Cement lined
Defect Analysis	: Wall metal lose due to internal corrosion
Orientation of leak	: 6 o'clock
Lifetime	: 3Years