

CLOCK SPRING®

Application Note Temporary Repair of Internal Defects

Introduction

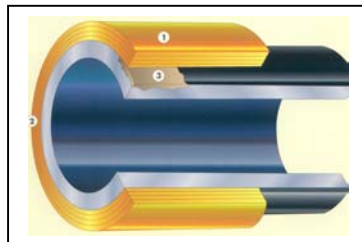
At times, it might be necessary to repair an internal defect using an externally applied Clock Spring® sleeve. This will be classed as a "temporary" repair.

Clock Spring® composite repairs are considered a permanent repair for external corrosion or other blunt defects. The permanency of the repair stems from the fact that the corrosion, or growth mechanism, will be eliminated by the application of the repair and the defect will not grow.

Internal corrosion, or other internal blunt defects can be restrained and reinforced by use of an external sleeve. The corrosion, or growth mechanism, of internal defects will not be arrested by the application of the repair sleeve. The defect can continue to grow and may, in time, exceed the capability of the repair.

If an internal defect is repaired using an externally applied sleeve, an Engineering Critical Assessment (ECA) should be undertaken to determine the time duration for which the repair will be effective.

The ECA should include consideration of the service history and loading, anticipated service conditions, the mechanism of imperfection formation, imperfection dimensions, failure mode and material properties. Where internal corrosion growth has not been arrested, the ECA will include corrosion abatement effectiveness, the re-inspection interval and the possible need for a pressure containment repair.



Simply the smartest pipeline repair decision you can make!

Clock Spring Company L.P. • 14107 Interdrive West • Houston, Texas, 77032
Telephone 281.590.8491 • 800.471.0060 • Fax 281.590.9528
Clock Spring • UK 4A The Causeway, Godmanchester, Huntingdon, Cambs, PE29 2HA, England
Telephone 011 44 1480 414 703 • Fax 011 44 1480 414 705
www.clockspring.com