



SIRCOS

DEEPWATER PIPELINE REPAIR SYSTEM

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SiRCoS is the deepwater pipeline repair system and club managed by Saipem, which provides availability of a full spread of Common Installation Equipment (CIE) supporting subsea construction and repair operations.

SiRCoS also gives access to an unique design of DNV type-approved cold-forging/metal-to-metal deepwater connection and telescopic spooling system, and deepwater repair clamping system, which can be made available for the Pipeline Repair Components in both local repairs and short/long section replacements.

As part of SiRCoS support, Saipem can provide a wide spectrum of engineering and operational services, ranging from Emergency Pipeline Repair basic and detail analyses and procedures (including temporary decommissioning, isolation and recommissioning requirements) to vessel availability for repair and construction operations.

TECHNICAL SPECIFICATIONS

MAIN FEATURES

- Operational water depth:
50 to 2200 m
- Gas pipelines
- Fully diverless
- 4 x 60 t Handling Frames
- 2 x 65 t Jacking Clamps
- Cutting and coating removal tools
(up to 100 mm concrete thicknesses)

COLD-FORGED END CONNECTOR

Permanent repair, weld-equivalent

- Metal to metal seal and excellent pipeline load capacity
- No need of in-situ pipe machining for installation
- Able to accommodate large tolerances over diameter
- No requirement for coating removal prior to installation
- DNV Type Approval Certificate in compliance with:
 - DNV OS-F101 "Submarine Pipeline Systems"
 - DNV RP-F113 "Pipeline Subsea Repair"
 - DNV RP-B401 "Cathodic Protection Design"
- Diameter range: from 20" to 48"
- Thicknesses range:
17.4 mm to 41.0 mm
- Soil slope up to 15° (long.) 10° (tran.)

REPAIR CLAMP FOR LOCAL REPAIRS

- Light and flexible design, fully diverless
- Elastomeric seals
- Option for grout injection for local strengthening
- DNV Type Approval Certificate in compliance with:
 - DNV OS-F101 "Submarine Pipeline Systems"
 - DNV RP-F113 "Pipeline Subsea Repair"
 - DNV RP-B401 "Cathodic Protection Design"
- Diameter range: from 18" to 48"
- Soil slope up to 30° (long.) 10° (tran.)

KEY SERVICES

- Quality assurance and control
- Qualification and test campaigns at need
- FEM and analyses for pipe repair assessment
- PMT, co-ordination and reporting, management of permits,
- EPRS maintenance, preservation, spares and obsolescence management & regular testing of equipment
- Regular training of key personnel:
- Emergency drills
- Frame agreements and procurement services
- Logistic base
- Vessel monitoring for intervention

TARGET MOBILIZATION TIME

- 2 weeks for first reaction (survey)
- 6 weeks for mob of the local repair
- 8 weeks for mob of short repair
- 20 weeks for mob of long repair, other non-SiRCoS repair methods to be negotiated