

EMERGENCY PIPELINE REPAIR SYSTEMS (EPRS) AND CONTINGENCY

PRODUCT GROUP

CONTINGENCY & RENTAL

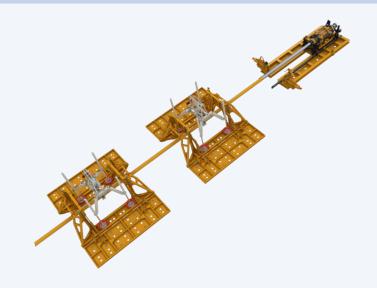


ABOUT

All pipelines are at risk of failure. The probability of damage might be very low but the costs associated with an emergency repair is incredibly high. Each operator needs to understand the risk profile and exposure on their assets. For those wishing to mitigate high risk assets, an EPRS or a stock of contingency repair tools might be a cost effective solution.

We have been providing EPRS products and services for over 30 years. We are experts in the field and able to provide the widest options and choices so every operator can select the EPRS that is specifically suited to their unique requirements.

At the core of our EPRS is the MORGRIP Connectors and Clamps which carry DNV-GL Type Approval for permanent repair and with over 3000 supplied in the last 30 years, we boast a 100% leak free in-service track record.



PRODUCTS & SERVICES

Mechanical Connectors	½" to 42" DNV-GL Type Approved for permanent repair
Clamps	½" to 42" DNV-GL Product Certification - Leak sealing or structural
Pipeline lifting & handling frames	Shallow or deepwater application
Pipeline coating removal, cutting and end preparation	Shallow or deepwater application
Clamp & Connector Installation Frames	Shallow or deepwater application
End terminations	Swivel or misalignment flanges, remote hubs and blinds

EPRS OPTIONS

Phased project completion/ State of manufactured readiness	This model enables the operator to decide how far along the manufacturing and testing plan an EPRS is developed prior to storage. It offers a balance between set up cost vs speed of emergency call off (mobilisation) which the operator must decide.
Common Components/ Club Membership	The use of common components across multiple assets simplifies management and

storage and can reduce overall quantities to reduce cost. An option (Club Membership) exists to share assets between mulitple operators, thus spreading the cost further. However, this could leave the assets vulnerable in case of mobilisation. The operator must assess the savings vs the risk.

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EPRS OPTIONS (CONTINUED)

Rental of Equipment	We can provide several tools as a rental option, reducing capital expenditure. However, the risk of the rental tools not being immediately available in an emergency must be weighed.
Location of Management	The operator can choose to store and maintain the system at their own facility or a third-party facility. We can provide options to support both scenarios.
Capital Expenditure Offset	CSS can provide a finance option which offsets up front capital expenditure into an annual operational cost.







01 // EPRS storage UK

02 // Raw material storage

03 // Remote EPRS storage Brazil

ADDITIONAL INFORMATION

EPRS Asset Management

Once the EPRS is built, it needs to be securely stored and maintained in order to remain fit for purpose. Storage can take place at either the operator's facility, the supplier's facility or at a third-party facility. An ongoing contract for inspection and maintenance is strongly recommended and should include the original equipment manufacturer for extended warrenty.

Dedicated Team

Our dedicated asset management team enables all CSS products to be stored and maintained at third party locations. Specialising in onsite inspection, maintenance and refurbishment, we can mobilise our trained technicians to perfrom routine maintenance, repair or modification to ensure the equipment remains fit-for-purpose.

Dedicated Locations

We currently have 6 global locations with facilities in Norway, UK, Croatia, Bosnia and Brazil. The largest of these is the new Kendricks Road site located in the West Midlands, UK. This facility boasts a large assembly area, dedicated testing facilities and extensive internal storage and external yard space. This is all supported by newly refurbished office and meeting spaces.

UK EPRS facility specification:

- Steel framed construction with brick/profiled sheeted walls
- 3,335sqm (35,887sqft) approx. internal area
- · Pitched insulated profiled roof
- Height to eaves is between 9.43m (31') to 9.8m (32'3")
- 3 x 5 mT Abus cranes (height between 6.44m and 6.94m approx.)
- 2 x 25 mT Demag cranes (height of 7.2m approx.)
- Fully configurable pressure test area
- · Access via three roller shutter doors
- Secure gated and fenced yard area
- Separate pedestrian and office access
- Dedicated workshop office and welfare facilities

We currently store, maintains and manage over 500 mT of contingency equipment for both private and consolidated EPRS. This accounts for over 10,000 items for approx. 15 clients servicing a global response strategy.