Hydratight’s MORGRIP® Subsea Connectors enable a mechanical alternative to hyperbaric welding. The connector is based on a unique pipe gripping and sealing system ensuring no derating of the pipe.

MORGRIP Connectors have been core Hydratight products since the late 1980’s and continue to provide innovative engineering solutions within the oil and gas industry.

Features and Benefits:
• Metal graphite composite sealing enables the seal to flow around the pipe OD, ensuring a chemically resistant, high temperature, high pressure seal that will not degrade in extreme environments.
• A gripping mechanism is mounted on a tapered housing and when activated this taper enables the balls to roll onto the pipe OD. The load exerted by the gripping element is an engineered value that is dependent on pipe strength and wall thickness. This mechanical design enables operation at any water depth, irrespective of ambient water pressure.
• An external facility pressure tests MORGRIP Connectors to determine joint integrity prior to commissioning.
• MORGRIP Connectors have full DNV GL, Lloyds and ABS approvals and can be used as permanent or temporary connections for emergency repair, planned shutdowns and tie-ins, or stored as contingency equipment.
• Approved connector design life of 50 years; and providing a totally maintenance free solution.
• Proven track record for remote connector installations through client and subsea contractors.

Technical Details:
All remote operated connections are engineered on a project-by-project basis. We have DNV GL Type Approvals for 1/2”–44” >2500# suitable for carbon steel, stainless steel and super duplex applications at any water depth.
Further details can be obtained from your local Hydratight representative or via the website hydratight.com.

Typical Installation Methods

Below are some typical installation methods used by operators and subsea installation contractors to install remote operated MORGRIP® Connectors. Hydratight can design custom connection solutions to suit the installation methods required by the client.

Remote Operated Vehicle Installation
Small connectors can be handled and installed by work class ROV’s through engineered ROV compatible installation frames and deployment tools, or via standard manipulators.

All MORGRIP remote connectors are “stab-on” designs that can be inserted onto a pipe and then activated through remote tensioning tools.

Sledge with Alignment Guides
For seabed conditions where the repair can be conducted in a relatively uncongested area, the utilisation of a connector mounted on a sledge/skid is a cost effective alternative option to a full deployment and handling frame.

In this scenario the equipment that is already subsea to conduct the pipe cutting can be used to mount alignment guides to a simple fabricated sledge that can be deployed and positioned over the cut pipe.

Deployment and Handling Frame (<16")
For deployment zones with either constrained spaces, volatile/harsh environments, existing subsea infrastructure or multiple repair operations, the operator can opt for a custom project installation frame.

These frames can be installed complete with pipe cutting and machining tools, connectors and /or test pressure equipment enabling the complete operation to be conducted in a shorter time frame.

Connector Installation Frame (>16")
For large operations that deploy significant subsea hardware, a more robust installation frame will need to be used. These frames are considerable investments and should be approached not as a project specific expenditure but as part of a wider operational contingency plan.