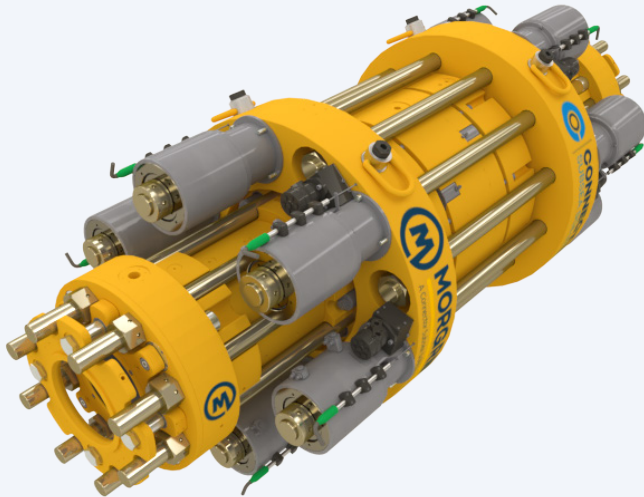


# REMOTE CONNECTORS

## PRODUCT GROUP

## MORGRIP CLAMPS & CONNECTORS



### PRODUCT DESCRIPTION

MORGRIP Subsea Remote Connectors enable subsea pipelines to be joined or terminated in a hub/flange or end cap, in locations that are difficult or impossible to reach by divers.

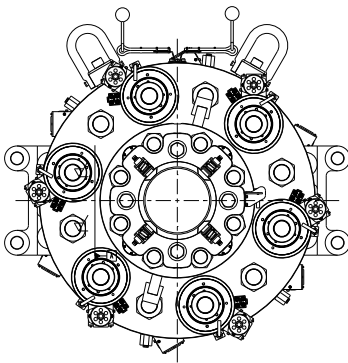
Developed to be installed remotely, our connectors are field proven throughout the world and we are the only supplier with relevant track record having supplied 95% of all in-service units.

A DNV-GL Type Approved Product, the MORGRIP enables a certified permanent repair for a wide range of pipe materials, pressures, diameters and temperatures.

The unique gripping and sealing technology ensures a connection that is at least as strong as the pipe itself, outperforming quality welds in fatigue loading.

With over 90 remote units supplied since the 1980's providing a 100% success during infield operation, MORGRIP holds the industry records for highest pressure, deepest water location, largest pipe diameter and is the only unit deployed in a vertical riser application at 1350mwd.

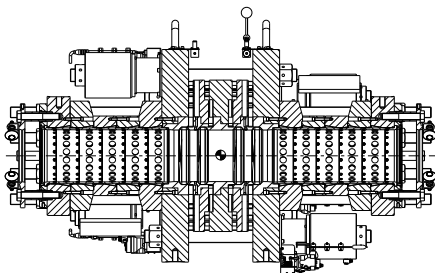
### CAPACITIES



<b>Pipeline size</b>	1/2in to 42in
<b>Material</b>	Carbon steels, stainless steels, duplex steels
<b>Temperature</b>	-40degC to 250degC
<b>Working Pressure</b>	Up to and including ANSI 2500 rating (638bar test pressure)

*For applications outside of this scope, bespoke engineered solutions are available.*

### INTERFACES



<b>Activation</b>	Single activation with remote bolt tensioners
<b>Gripping Technology</b>	Collet or ball & taper
<b>Seal Material</b>	Dual graphite
<b>Back Seal Pressure Test</b>	Yes
<b>Installation</b>	Remote installation & activation frames



**REMOTE CONNECTORS**  
MORGRIP CLAMPS & CONNECTORS



**ADDITIONAL INFO**

<b>Design code</b>	DNVGL-ST-F101/ F113 Pipeline Repair ASME BPVC VIII Div.1 ASME B31.3 API 5L Linepipe specification ASME BPVC VIII Div.2 on request
<b>Coating</b>	Jotamastic 87, Interzone 954 or NORSOK M-501 System 7C & 7B Compliant
<b>Maintenance</b>	Not required post installation
<b>Packing</b>	Steel assembly & shipping frames
<b>Design Life</b>	40 years

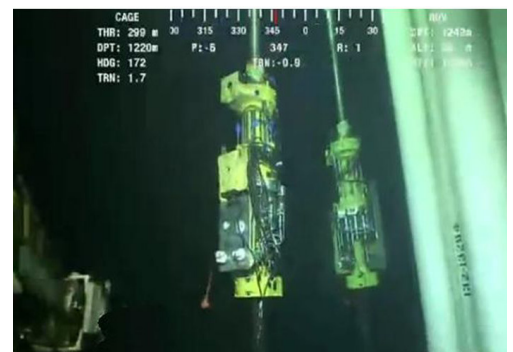
**TRACK RECORD**

**Our full remote installation history as of August 2020.**

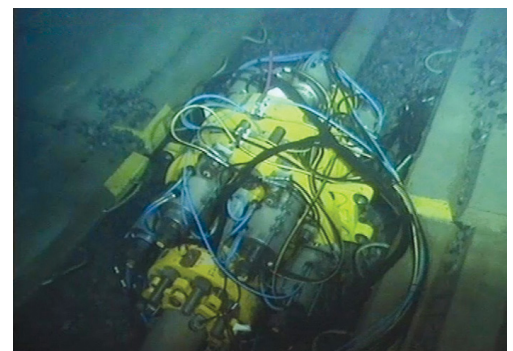
<b>1996</b>	Halten Pipe	2off 16" MORGRIP 190Barg Remote Couplings
<b>1996</b>	YME Pipe	1off 4" MORGRIP 170Barg Remote Coupling
<b>2002</b>	Snorre Vigdis Riser	1off 12" MORGRIP 285Barg Remote Coupling
<b>2009</b>	Kvitebjorn Pipeline	2off 28" MORGRIP 178Barg Remote Couplings
<b>2010</b>	Troll C Manifold	1off 6" MORGRIP 340Barg End Cap (Duplex)
<b>2015</b>	Gullfaks Pipeline	1off 12" MORGRIP 389Barg Remote Coupling (Duplex)
<b>2017</b>	Greater Plutonia Hybrid Riser	2off 4" MORGRIP 334Barg Remote Flange Adaptors
<b>2017</b>	Snorre Vigdis	2off 16" MORGRIP 120Barg Remote Couplings
<b>2017</b>	Snorre Vigdis	1off 12" MORGRIP 251Barg Remote Coupling
<b>2018</b>	Asgard	1off 10" MORGRIP 440Barg Remote Coupling (Duplex)
<b>2018</b>	Snorre A	2off 8" MORGRIP 200Barg Remote Couplings
<b>2020</b>	Greater Plutonia	1off 12" MORGRIP 200Barg Remote Flange Adaptor
<b>2020</b>	Barracuda	2off 12" MORGRIP 310Barg remote Couplings



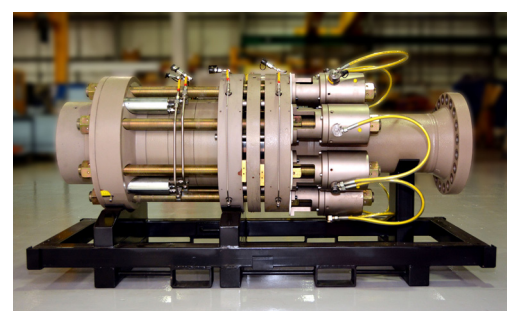
01 // Factory Acceptance Testing



02 // World first remote riser repair



03 // Installed Subsea



04 // Example of 12" Remote Flange Adaptor available for conferences and customer visits

