

# JUMPER IN A BOX

Assemble & Install Metrology  
Jumpers with No Delay

*Reliable Connected Technology Solutions!*

Subsea rigid jumpers are essential in subsea production systems and act as an interface between larger subsea structures (PLETs, manifolds, risers etc.)

GMC's Jumper in a Box is an innovative use of the GMC Mechanical Connector that allows jumpers/ spools to be installed offshore within hours of completing the metrology. It utilises pre-angled spool sections and the benefits of GMC's concentrically ringed connector and its non-rotational make-up.

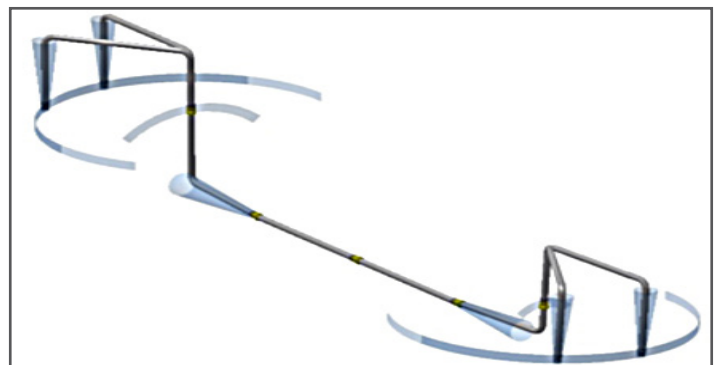
The Jumper in a Box meets the strictest requirements of the complex static/ dynamic loading mechanisms for the fatigue critical jumper.

GMC provides a complete Jumper with our mechanical box and pin connector. Fabrication of all components is performed onshore with the strictest requirement, removing the need for offshore welding on the critical path.

The Jumpers, with pre-angled spool sections, are quickly made-up offshore once metrology is received using GMC's make/break tooling. This eliminates vessel standby time during traditional onshore jumper fabrication and transportation, and provides a safe, efficient, time, and cost saving installation.

## Specifications

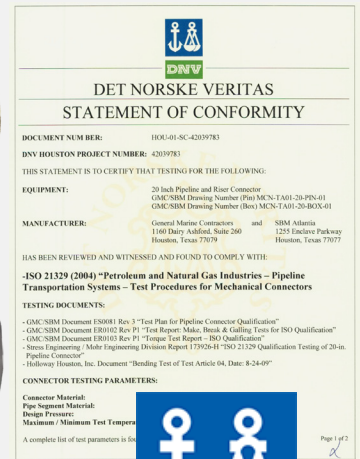
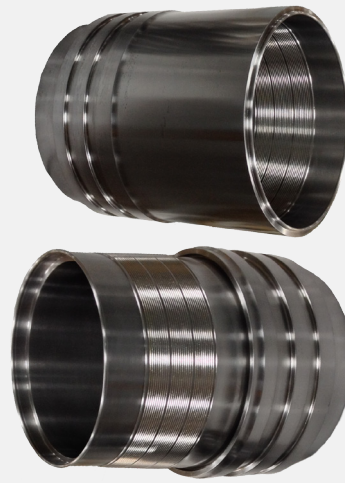
- Six Degree (6°) Angular Hub Misalignment Allowed
- 10m Horizontal End Misalignment Allowed (Depending on Jumper Design)
- Applicable for Any Pipe Size & Coating Requirement
- Meets Asme B31.8 for Piping Design
- Mechanical Connectors Qualified to ISO:21329:2004 & API:RP2RD:2013
- Highly Fatigue Resistant (>DNV C1 Curve)



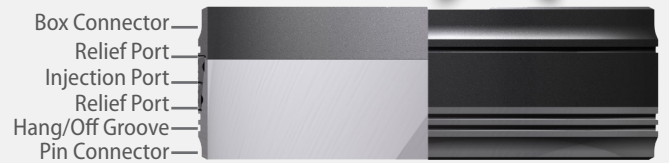
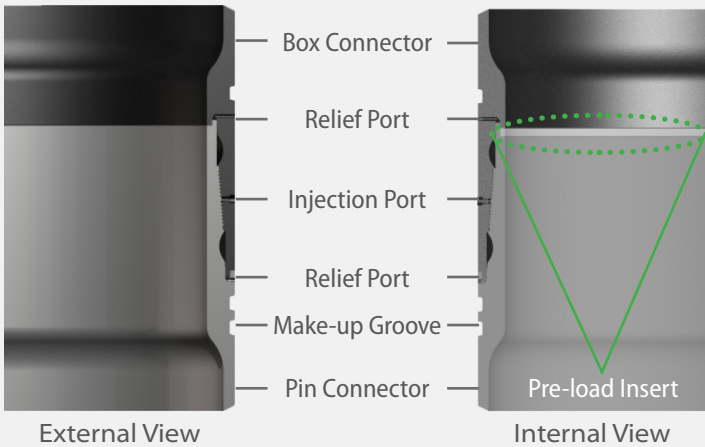
*Experience & Innovation in Tubular  
Connection Technology from Surface to Seabed*

# GMC Mechanical Connector Features

- Centrally Ringed Connector
- Non-Rotational Make-Up
- Low Connection Make-Up Time
- Multiple Metal-to-Metal Nib Seals
- Preload Spacer to Eliminate Crevice Corrosion
- Extremely Fatigue Resistant – 10x Better Fatigue Life Versus Welded
- Tested & Qualified By DNV to ISO21329:2004
- Field Proven for TLP's, Pipelines, & Risers
- Highly Configurable to Size & Material Specifications

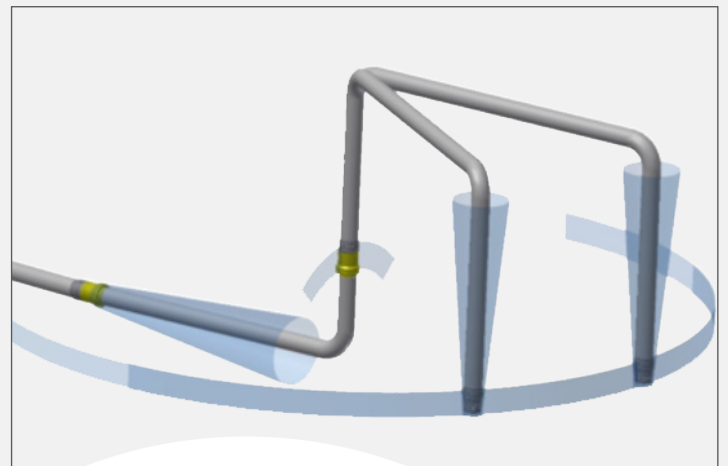


ISO 21329:2004



## Operation

- Jumper sections are prefabricated and tested onshore to meet all relevant requirements.
- Connectors in horizontal span are prefabricated with three degrees (3°) offset to pipe.
- Survey/Construction vessel loaded out with jumpers.
- Metrology completed offshore.
- Jumpers are assembled offshore to exact metrology by adjusting the rotation of the pipe elements between the Connectors. Rotation of Connectors in the vertical span are used to adjust the length of the jumper.



- Rotation of Connectors in horizontal span used to adjust the hub for orientation.
- Jumpers are installed within hours of completing the metrology.



For more information, visit [www.gmcdeepwater.com](http://www.gmcdeepwater.com), or contact [info@gmcdeepwater.com](mailto:info@gmcdeepwater.com)