The GMC Mechanical Connector sets a new industry standard for the mechanical connection of tubular products.

Utilised for multiple high-fatigue applications, GMC’s connector offers higher fatigue-resistance, faster connectivity, no torquing, and reusability, whilst employing a variety of multifunctional vessels.

ISO 21329 certified and DNV witnessed, the GMC Connector is one of the first mechanical connectors to meet this high standard.

**The GMC Mechanical Connector Design**
- Binary, Pin & Box Mechanical Connector
- Concentrically Grooved
- Multiple Metal-to-Metal Nib Seals
- ID & OD Preloaded Contact Shoulder
- Highly Fatigue Resistant (=DNV B1 Curve)
- Mechanical Lock Out of Torque Effects
- Fast Make-Break Cycles with Pressure Tool

**GMC Mechanical Connector Benefits**
- Superior to Welded Connection
- Stronger
- Longer Fatigue Life
- Rapid Connection
- Reusable Make/Break
- Consistent Quality
- Available in a Range of Sizes
- Dynamic Applications
- Patent Protection

**ISO 21329 Testing & Qualification**

ISO 21329 – The international standard specifying requirements and providing guidance for the testing of mechanical connectors for use in pipeline transportation systems for the petroleum and natural gas industries.

**Fatigue Cycle Testing** - All tested connectors met or exceeded DNV “B1” curve. The fatigue life tested 10X better than field welded pipe (DNV E) in all series of tests.

The GMC Mechanical Connector successfully completed all DNV ISO 21329 required testing and was awarded certification in 2010.

In September 2013, ISO:21329:2004 was classified to meet the API Standard 2RD:2013, Dynamic Risers for Floating Production Systems.
**GMC’s No-Weld Technology**

Mechanical Connectors of 6” - 16” diameters are jointed to the pipe using friction joining. This results in pipe joints that are 100% parent metal and exhibit fatigue and strength properties comparable to the parent pipe.

GMC Connectors of 16” - 48” diameters are welded in a controlled environment; onshore, off critical path, and monitored in a quality-controlled environment.

**Connector Dimensions**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Coupled Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter</td>
<td>6” - 16”</td>
</tr>
<tr>
<td>Riser Grade</td>
<td>P110 &amp; Q125</td>
</tr>
<tr>
<td>Pipe Grade</td>
<td>X52 – X100</td>
</tr>
</tbody>
</table>

- High grade steel with integrated mechanical connectors
- High strength steel construction up to and including Q125

**GMC’s Intelligently Connected Pipe (ICP)**

The GMC Mechanical Connector is the core technology behind our pipe connection technology, Intelligently Connected Pipe, or ICP.

ICP delivers a more robust pipeline, whilst simplifying and reducing installation costs. ICP allows the time consuming joining operation to be performed onshore, off the critical path. During offshore operations, only the fast coupling of the male and female connector is performed by a single connector station.

As a result, the offshore installation contractor can effectively reduce the stand-by time and the actual operation time of the installation vessel and personnel with better planning and with more efficient technology.

**GMC Mechanical Connector Applications**

- Hybrid Free Standing Risers — Inline Connections
- Standard & Lazy Wave SCRs — Abandon Heads
- Offset SCRs (OSCRs) — Wet/Dry Recovery Heads
- Top Tension Risers — Flow Line Jumpers
- Drilling & Production Risers — Subsea Tree
- Marine Drilling Risers — Stab/Hinge Over
- Work Over Risers — Large Diameter Fatigue Resistant Conductors
- Pipe-in-Pipe — Tension Leg Platform Tendons
- End Terminations — Platform Caissons
- Top Hole Conductors

**About GMC**

GMC is an industry leader in innovative engineering, project management, and installation solutions and products, from the seabed to the surface, for offshore oil and gas SURF, drilling, and production projects. Established in 1990, GMC has offices in the UK and USA.