SAFETY-TENSIONING-ADAPTER FLANGE-CONNECTOR SYSTEM

Minimizing rig downtime through increased BOP-stack installation speed and safety
CONNECT IN MINUTES

Reduce rig downtime while enhancing operational safety

Connecting a blowout preventer (BOP) stack can take hours while exposing your personnel to hazardous conditions. Our safety-tensioning-adapter (STA) system provides a safer, more efficient alternative to most drilling, fracturing, and production flange-connection systems.

Using a unique hydraulic bolt-tensioning system, the STA system produces a more accurate, consistent flange connection in a fraction of the time required by other systems. Installed in minutes rather than hours, the system eliminates the need for hammer wrenches, pneumatic torque tools, or hydraulic torque tools that are typically used to make up a flange connection.

Speedy flange connections result in more than rig-time savings, they also enhance operational safety. Our technology reduces wellhead cellar time and significantly limits the risk exposure to your personnel.

THE STA SYSTEM ADVANTAGE
• Eliminates the need for torque tools, hammer wrenches, and sledge hammers
• Reduces BOP-stack installation time, pinch points, and personnel requirements
• Provides equal and simultaneous tension distribution on all studs
• Seals with a uniform load on ring gaskets
• Eliminates nut-surface galling

SAVES HOURS of rig time for each installation
MINIMIZES PERSONNEL exposure to hazardous spaces
CUTS COSTS on rental-equipment
ENHANCE FLANGE-CONNECTION SAFETY

A typical BOP installation requires personnel to handle heavy equipment under suspended loads in the confined spaces below a drilling rig. The STA system connects and pressurizes in minutes, which enables a consistent flange connection with fewer personnel in the well cellar at a fraction of the time.

MAXIMIZE EFFICIENCY AT EVERY TURN

API-6A monogrammed, the STA system integrates into the lower connection for safer and quicker makeup capabilities. It enables the BOP to quickly connect to any API-rated flange because the system does not require a proprietary BOP quick-connect interface, such as a hub profile, threaded hubs, or a clamp profile.

APPLICATIONS
• Drilling operations
• Production operations
• Fracturing operations
• Repetitive flange connections

STA SYSTEM SPECIFICATIONS IN EE-NL AND FF-NL CONFIGURATIONS

<table>
<thead>
<tr>
<th>SIZE</th>
<th>WORK PRESSURE</th>
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<tbody>
<tr>
<td>4-1/16 in.</td>
<td>15,000 psi (103.42 MPa)</td>
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<tr>
<td>5-1/8 in.</td>
<td>15,000 psi (103.42 MPa)</td>
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<tr>
<td>7-1/16 in.</td>
<td>3,000 psi (20.7 MPa)</td>
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<td>5,000 psi (34.5 MPa)</td>
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<td>10,000 psi (68.9 MPa)</td>
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<td>15,000 psi (103.42 MPa)</td>
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<td>9 in.</td>
<td>3,000 psi (20.7 MPa)</td>
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<td>5,000 psi (34.5 MPa)</td>
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<td>11 in.</td>
<td>3,000 psi (20.7 MPa)</td>
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<tr>
<td>13-5/8 in.</td>
<td>3,000 psi (20.7 MPa)</td>
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<td>10,000 psi (68.9 MPa)</td>
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<td>18-3/4 in.</td>
<td>10,000 psi (68.9 MPa)</td>
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Additional sizes and pressure ratings are available upon request.
ACHIEVE AN ACCURATE FLANGE CONNECTION IN A FRACTION OF THE TIME

The Weatherford safety-tensioning-adapter system increases BOP-stack installation speed and enhances safety. To learn how our technologies can work for you, please visit WEATHERFORD.COM.