Transforming a customer’s request into a new technology

A major North Sea E&P company wanted to eliminate dope from its well bores. In response, Tenaris developed its Dopeless® technology that allows operators to completely eliminate thread compound in casing and tubing.

Summary

**A milestone technology**
The operator approached Tenaris for the first time in 2001 with a request. The energy company wanted to develop a dope-free connection that would guarantee the cleanliness of its wells and the tubular products used in its operations. It was looking to eliminate thread compound because excess dope inside tubular products and well bores cause a number of operational problems. Dope also contaminates drilling fluids and the reservoir.

Tenaris’s R&D team took on the challenge. Throughout the next two years, it worked alongside the customer to develop and test Dopeless® technology. In 2003 the TenarisHydril Blue™ Dopeless® premium connection debuted in the first horizontal, offshore well in the demanding Norwegian North Sea environment. Based on initial field experiences, Tenaris continued to improve its premium connection technology to meet the customer’s requirements.

**Solutions for the Customer**

**Performance without the mess**
When tractor tools were run inside well bores, the excess dope would cause the tractor wheels to lose traction. TenarisHydril Blue™ Dopeless® connections eliminate all dope-related, operational side effects, assuring optimal performance even in tough working environments.

**Environment**
The Norwegian government established a zero-discharge regulation for all E&P companies working in offshore wells to protect the local fishing industry and reduce the risk of harming the environment. TenarisHydril Blue™ Dopeless® connections help operators achieve this goal by completely eliminating dope discharges from OCTG.

![Image of well bores with TenarisHydril Blue™ Dopeless® connections](image-url)

*Over the past three years, the operator has chosen Dopeless® technology for more than 20 wells.*

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**PROJECT PROFILE**

<table>
<thead>
<tr>
<th>Location</th>
<th>Running speed</th>
</tr>
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<tbody>
<tr>
<td>North Sea, Norway</td>
<td>• 12 joints/hour</td>
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<table>
<thead>
<tr>
<th>Field type</th>
<th>Services provided</th>
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</thead>
<tbody>
<tr>
<td>Offshore, horizontal well</td>
<td>• Running assistance</td>
</tr>
<tr>
<td></td>
<td>• Offshore preparation</td>
</tr>
<tr>
<td></td>
<td>• Rig-returns inspection</td>
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</table>

<table>
<thead>
<tr>
<th>Products provided</th>
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</thead>
<tbody>
<tr>
<td>• 5 ½” TenarisHydril Blue™ Dopeless®</td>
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DOPELESS® TECHNOLOGY
**Results**

Following the debut running experience, Tenaris continued to improve its premium technology. Over the past three years, the same operator has used Dopeless® technology in more than 20 wells.

Currently, the following liners and tubing with Tenaris-Hydril Blue™ Dopeless® connections are being used for operations in Norway.
- 5.5” L80 grade
- 5.5” Q125 grade