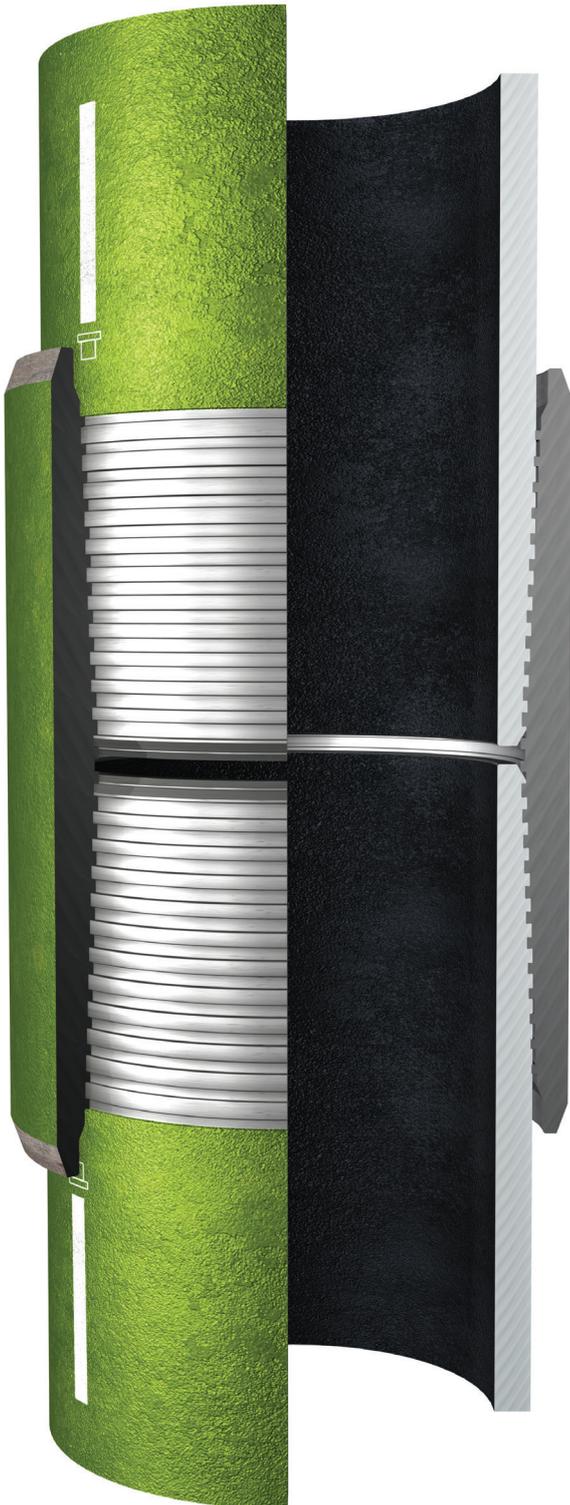


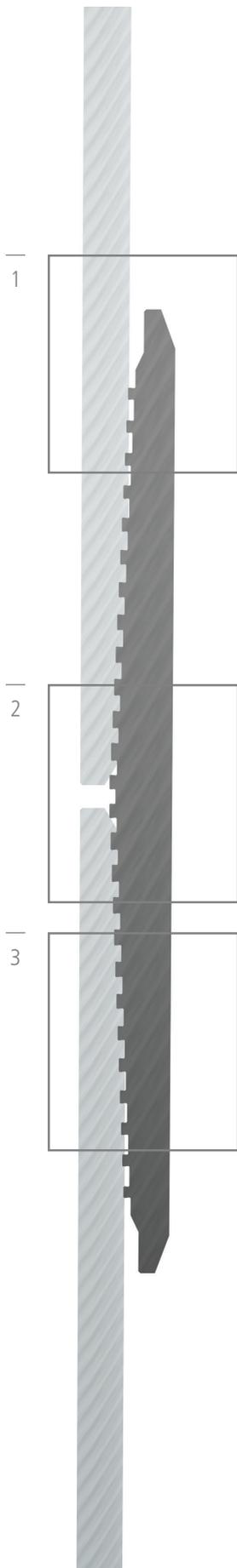
Wedge 461™ connection | 4 1/2" TO 7"

The TenarisHydril Wedge connection with extreme torque performance for longer laterals



The TenarisHydril Wedge 461™ connection represents a further evolution of the original Wedge technology, providing the exceptional over-torque performance needed in many production strings typically used in horizontal wells for shale applications. The connection's torque capacity is achieved thanks to the renowned robustness of the Wedge thread design combined with a pin-to-pin backup mechanism.

Maximizing the value for oil and gas operators, the TenarisHydril Wedge 461™ connection reduces running times thanks to lower threads per inch of the profile and a rugged thread design that significantly decreases rejects and re-makeups. Connection make-up is easy enough to avoid the need for a torque-turn chart. With a reliable development based on detailed design program, the Wedge 461™ connection has been evaluated and validated through FEA and full-scale testings including shales ad-hoc protocols.



1



- Easy make-up: no need of make-up torque vs turns chart
- Make-up indicator: a 24" x 1" colored locator stripe on pin allows visual confirmation of appropriate make-up, even at operating torque

2



- Pins provide extra torque capacity when subjected to incremented torque resulting in pin-to-pin contact

3



- Exceptional torque capability and compression efficiency developed through the simultaneous engagement of opposing flanks of the dovetail thread.
- Unrivaled running reliability and robustness given by the Wedge thread

FEATURES

- Low TPI thread profile and deep stabbing for speed of installation, with 15 sec/joint spinning time
- Robustness of Wedge profile minimizes rejects / re-makeups
- Hoop stresses on coupling are strongly reduced compared to BTC-profile connections
- TenarisHydril Wedge thread design provides maximum over torque capacity to manage longer laterals
- Pin-to-pin backup mechanism grants additional torque capability to handle rotation
- 100% tension and compression ratings
- Evaluated following shales ad-hoc protocol, simulating installation,

hydraulic fracturing and production loads

- 20° standard bevel

APPLICATIONS

- Shales
- Casing while drilling
- Rotating while cementing
- Production casing and liners

For further information please visit:
www.tenaris.com