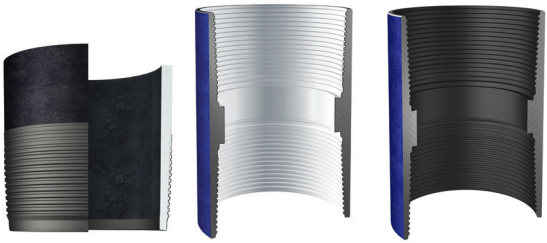
11.Dopeless® Technology Make up Acceptance

This document addresses products sold and marked as Dopeless®, Dopeless® 3.0 or Dopeless® 3.1, and does not address the use of versions identified as Dopeless® SP. If the product has been procured with Dopeless® SP version please contact our regional Technical Sales team.

TenarisHydril Dopeless® and Dopeless® 3.0/3.1 proprietary technologies removes the requirement for thread compounds to be applied to the connections for assembly.

Dopeless® and Dopeless® 3.0/3.1 technologies are recognizable by the surface color on the the connections:



DOPELESS® AND DOPELESS®3.0/3.1 PIN

DOPELESS® BOX

DOPELESS® 3.0/3.1 BOX

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After make up and break out the appearance of the connections with Dopeless® and Dopeless® 3.0/3.1 technologies changes appreciably:

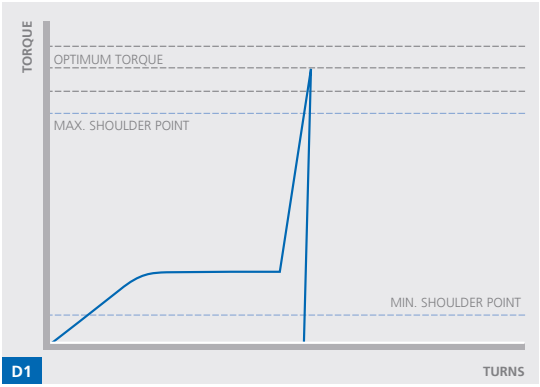
DOPELESS® PIN AND BOX AFTER BREAK OUT

DOPELESS® 3.0/3.1 PIN AND BOX AFTER BREAK OUT

Connections with Dopeless® or Dopeless® 3.0/3.1 technologies which have been broken out should be cleaned off with either a clean soft bristle brush or clean rags. This is to remove any excess coating which has 'balled up' during assembly. Shiny silver areas will be evident on some parts of the connection, this is standard and indicates the high contact areas where the coating has compressed. The box on connections with Dopeless® technology will have some of the white coating removed, again this is normal behaviour. As long as no damage has occurred to the connection itself or the coating has not peeled off substantially exposing bare steel, the connections can be re-assembled.

For connections with Dopeless® or Dopeless® 3.0/3.1 technologies graphs generally exhibit similar profiles to those of the doped variant of whichever connection is being assembled. Therefore the graphs indicated in the Make Up Acceptance sections for Blue®, Legacy and Wedge™ Series are also applicable to Dopeless® and Dopeless® 3.0/3.1 technologies. There are however some graph profiles particular to shouldered connections with Dopeless® and Dopeless® 3.0/3.1 technologies which must be treated differently when witnessed during a run.

COMPUTER GRAPHS BLUE® SERIES AND LEGACY SERIES WITH DOPELESS® OR DOPELESS® 3.0/3.1 TECHNOLOGIES



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ACCEPTABLE

Plateau prior to shoulder point.

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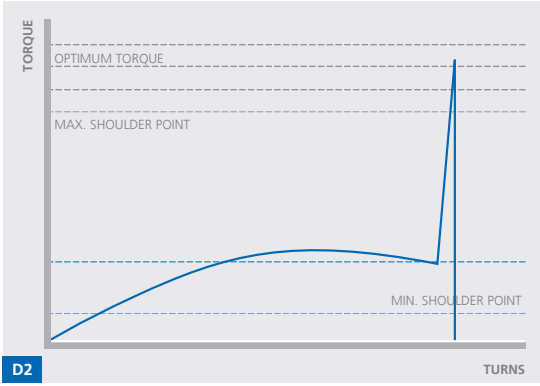
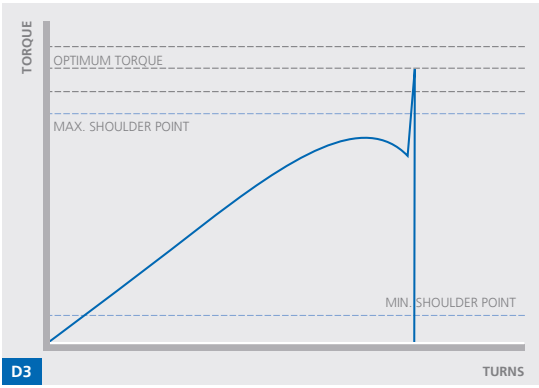


D2

ACCEPTABLE

Curved thread and seal interference build with smooth, continuous profile, no humps or erratic peaks.



D3

Thread and seal interference build with a smooth, continuous profile, exhibiting no erratic or jagged peaks with a hump higher than shoulder point.

The process to follow when this type of profile is witnessed:

- Break out the first graph exhibiting this profile and inspect for damage.
- If no damage is found re-make the connections.
- Thereafter accept any similar graph ensuring it displays a smooth profile.

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