

# TenarisHydril PH6™ / PH4™ / CS® Connections

## Scope

These guidelines apply specifically to the use of TenarisHydril PH6™ / PH4™ / CS® connections. This document should be used in conjunction with the TenarisHydril Running Manual, which is the main document applicable to the running of all TenarisHydril premium connections.

Tenaris Field Service Representatives can modify these guidelines when circumstances dictate. Implementation will only occur if the representative deems the modification to be non-detrimental to product integrity. All modifications being explained and agreed with the client representative prior to implementation and fully documented in the running report.

## References

- TenarisHydril Running Manual.
- Premium Connection Approved Thread Compounds FTD29356.
- Recommended guidelines for the field inspection of TenarisHydril connections, GDL31457.

## Equipment, Material & Documents

1. Verify the appropriate thread compound is available.
2. Refer to document FTD29356 for a list of compounds approved by Tenaris.
3. Latest version of the specific Product Data Sheet can be obtained from Tenaris web site. In case this is unavailable, request the data sheet from the local Technical Sales Representative or [contact-tenarishydril@tenaris.com](mailto:contact-tenarishydril@tenaris.com).

## Pre-Running

1. Never move or handle pipe without the correct thread protectors securely in place.
2. Ensure connections are cleaned and free of all debris and / or contaminants, cleaning methods employed should conform to the recommendations contained within the TenarisHydril Running Manual.
3. Visually inspect threads and seal areas prior to running, ensuring no damage is evident.
4. Verify the connections to be assembled are genuine TenarisHydril manufactured connections.
5. Verify compatibility of the PH6™ / PH4™ / CS® connection with any accessories such as pup joints, cross overs, safety valves, etc.
6. Verify material grade of all accessories ensuring compatibility with main string.

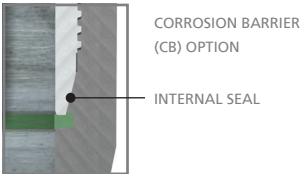
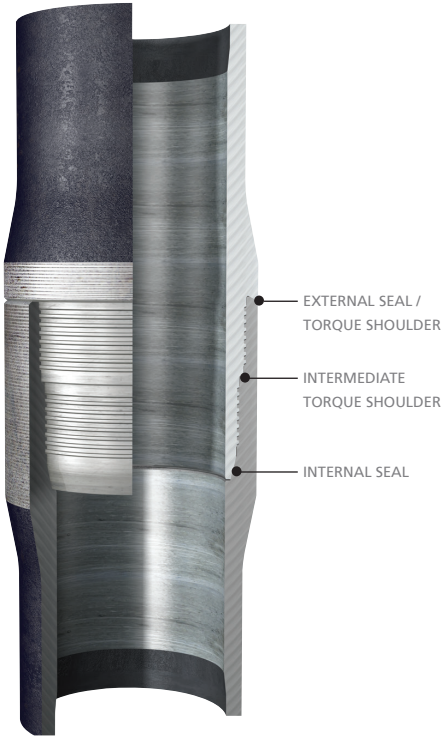
# PH6™ / PH4™ / CS® Configuration

PH6™ = 6 TPI

PH4™ = 4 TPI

CS® = 8 TPI ≤ 4 ½"

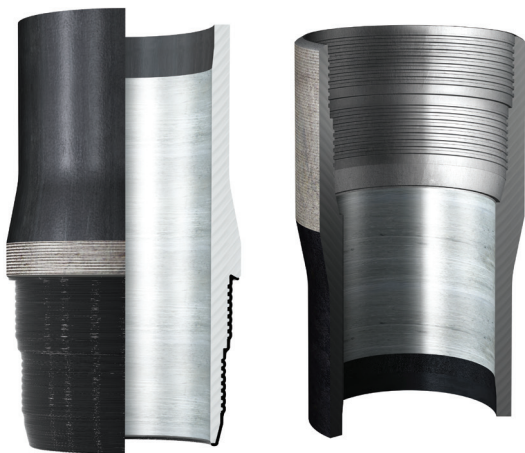
CS® = 4 TPI ≥ 5"



## Inspection

1. Inspection criteria for all TenarisHydril connections is as outlined in the Field Service Operative Guideline GDL31457.
2. Pay particular attention to seal areas.
3. Ensure the cylindrical areas before and after the seals have no tears, gouges or raised metal.
4. Ensure the intermediate torque shoulder has no dents, tears or raised material which would interfere with correct assembly.

## Thread Compound Application



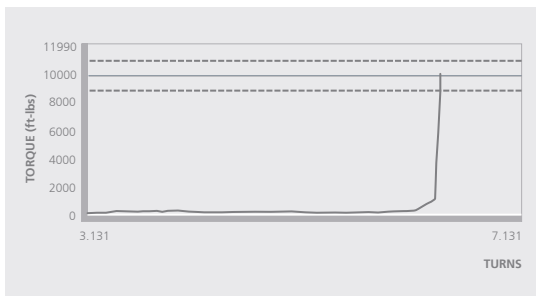
1. Apply a thin coating of thread compound on the full pin end only, threads, seals and pin nose, the thread form should be clearly visible.

2. Do not apply running compound to the box end.
3. Thread compound should be cleaned from the box if received 'rig ready'.
4. Do not apply the manufacturers indicated friction factor.

## Torque Application

1. The use of computer make up analysis equipment is strongly recommended when assembling PH6™ / PH4™ / CS® connections in chrome material.
2. There are no defined shoulder points for PH6™ / PH4™ / CS®, however a shoulder point must be in evidence.
3. Shoulder point must be lower than minimum make up torque.
4. Reference torque should be set at zero.
5. The dump valve should be set at optimum torque, verify correct operation on the pipe body prior to first make up.
6. Set the computer turns to 1 initially then adjust as necessary to attain good graph depiction.
7. Refer to the TenarisHydril running manual make up acceptance section for further explanation.

8. The computer make up profile for PH6™ / PH4™ / CS® should be similar to the one below.



9. PH6™ / PH4™ / CS® connections have limited same size different weight interchange capability, refer to TenarisHydril premium connections catalogue for interchange capability.

10. PH6™ / PH4™ / CS® are not interchangeable with each other.

11. If different weight or grade of connections are to be mixed apply the lower of the indicated make up torques.

## Running

1. The use of a stabbing guide is strongly recommended.
2. The use of a weight compensator is strongly recommended for chrome pipe.
3. Slip type elevators are strongly recommended, never use drill pipe elevators to run or pull PH6™, PH4™ or CS® connections.

4. To avoid cross threading stab pipe in a smooth controlled fashion ensuring the pipe is vertical when doing so, continue to support and stabilise the pipe throughout the stabbing and make up operation.
5. Upon commencement of initial rotation use low RPM (5 RPM or below) in order to ensure the pipe has not cross threaded during stabbing.
6. If cross threading is evident, immediately reverse rotate the pipe, completely disassemble, clean and inspect both connections.
7. Maximum spin in speed should not exceed 15 RPM.
8. Apply power tong at low RPM (do not exceed 5 RPM) for final make up.
9. Tong jaws must always be placed on the pipe body and never on the connection OD.
10. Walk chrome pipe all the way in to hand tight, then apply tong only for final make up.

## Pulling

1. Automatic stabbing system or stabber is highly recommended to maintain the pipe in a vertical position.
2. The use of a stabbing guide is recommended to assist in centralizing the pin to prevent hang up.
3. The use of a weight compensator is strongly recommended for chrome pipe.
4. The use of slip type elevators is strongly recommended.

5. Apply the back up tong jaw on the pipe body, do not grip the OD of the connections.
6. Apply power tong in low RPM (3-5 RPM) to break the connection, ensuring the pipe is stabilized during the break and spin out process.
7. Do not exceed 15 RPM during spin out.
8. Walk chrome pipe fully out after initial break out.
9. Visual inspection is recommended to classify the thread condition. Any rejected connections should be clearly marked and segregated for further investigation.
10. Apply clean, dry thread protectors after applying storage compound on clean, dry connections.
11. Storage / thread compound should always be applied to connections post job, even rejects.

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