

**IPSCO CONNECTIONS
RUNNIG MANUAL**

ULTRA™ DQX & DQX-HT

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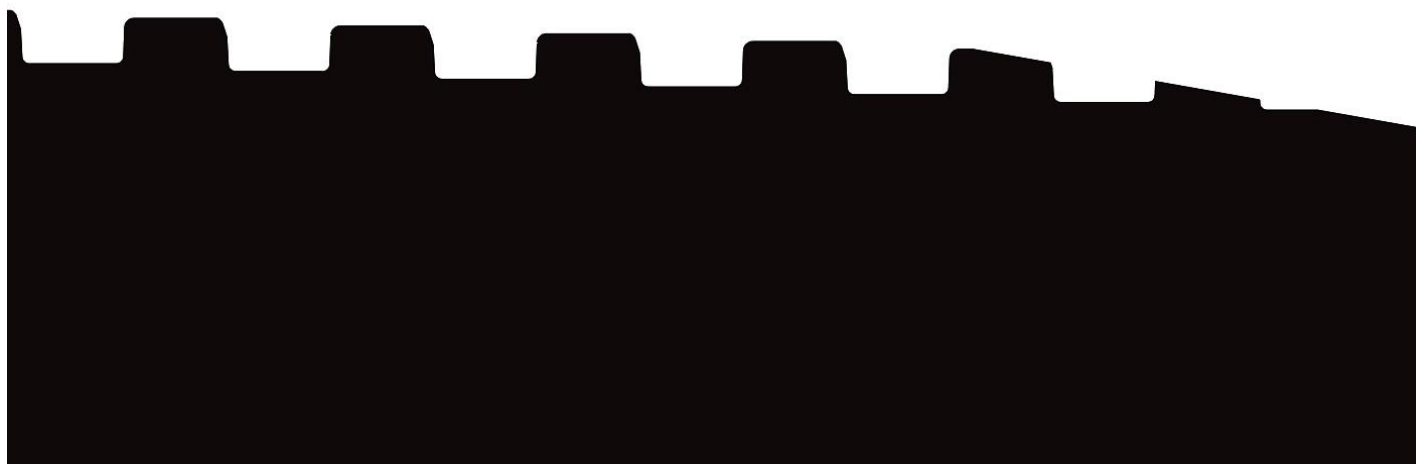


In addition to this section, ensure that all instructions from the GENERAL GUIDELINES section starting on page 9 are followed. Refer to the Pre-run Checklist on page **¡Error! No se encuentra el origen de la referencia.¡Error! No se encuentra el origen de la referencia.¡Error! Marcador no definido.¡Error! No se encuentra el origen de la referencia.** to aid in proper running of ULTRA™ DQX & DQX HT connections.

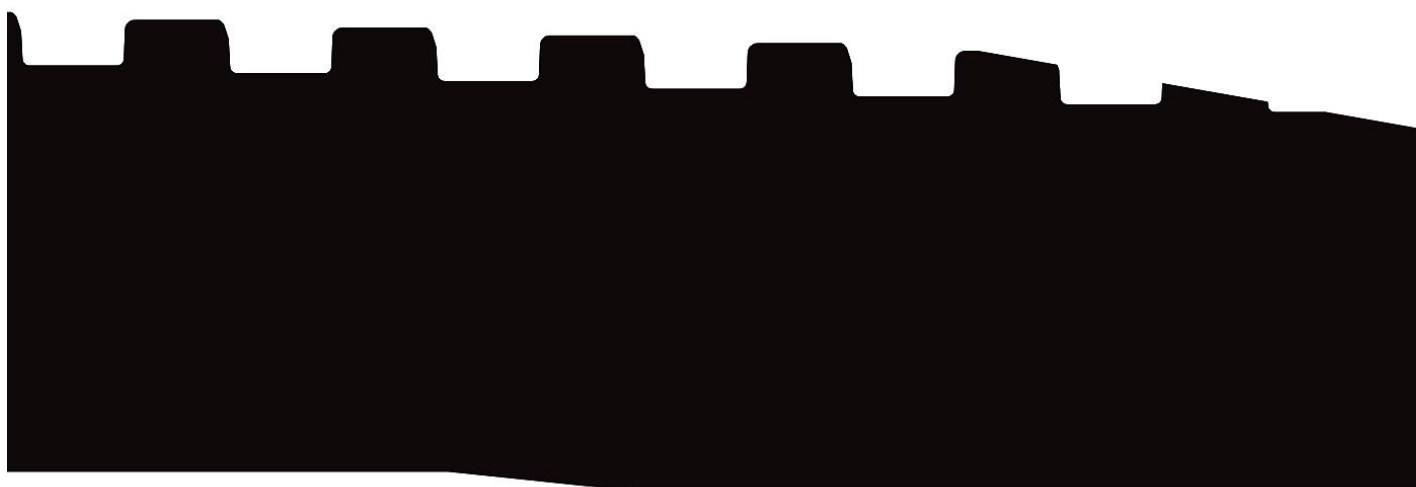
Interchangeability

1. ULTRA™ DQX and DQX-HT pins are interchangeable between both connections and with different weights of the same nominal OD. However, the connection is limited to all the mechanical properties of the weakest pin including the make-up torque and downhole rotation.

2. Interchanging pins between connections and weights will not provide an internally flush connection.
3. ULTRA™ DQX and DQX-HT can be distinguished by inspecting the pin nose ID. ULTRA™ DQX has a non-machined ID surface and ULTRA™ DQX-HT has a swaged and bored ID surface.



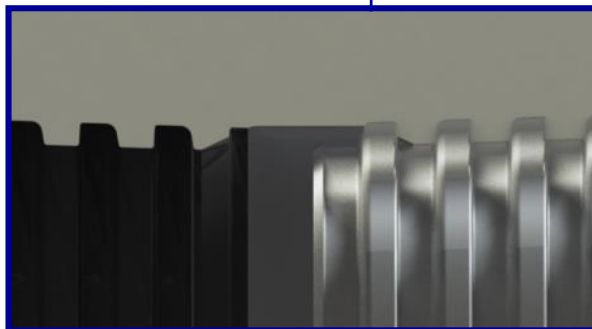
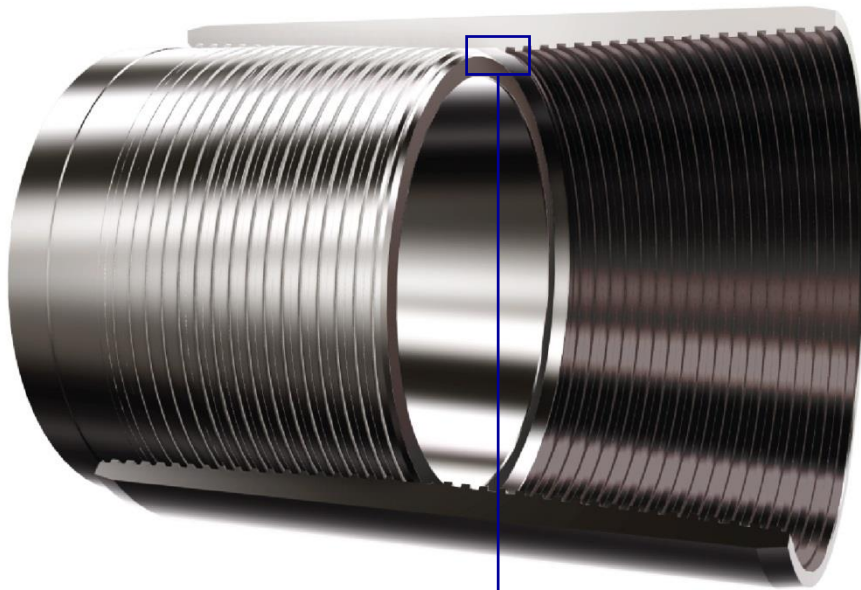
ULTRA™ DQX



ULTRA™ DQX-HT

Thread Compound Application

1. Tenaris recommends the use of thread compounds that meet or exceed ISO 13678 or API RP 5A3 requirements.
2. The use of an applicator “moustache” brush is recommended for the box and a paintbrush for the pin to best control the application and quantity of thread compound.
3. Inspect that the brush is clean and free of any dirt. If the brush has been recently cleaned, make sure that no water or other foreign debris remains in the bristles.
4. Water that is on the brush, connection, or in the running compound bucket must be completely removed before applying the compound. The brush and connection can be dried with a clean rag.
5. Apply an evenly distributed light coat of thread compound to the pin face and full threads and to the coupling threads as demonstrated in the graphics below. A “light coat” means that the machined thread profile can be clearly and distinctly seen, with no more than 30% of the thread height filled with thread compound. Do not fill the dope pocket (see coupling diagram).



Do not fill thread compound

Make-up Torque

1. ULTRA™ DQX and DQX-HT connections shall be made up to the torque specified on the most current Connection Data Sheet.
2. The specified minimum make-up torque in the data sheet is the minimum torque to which the connection should be assembled the first time.
3. The specified optimum make-up torque in the data sheet should be used as the target make-up torque for optimum performance.
4. The specified maximum make-up torque in the data sheet should be used as the highest recommended make-up torque for normal operations.
5. Add 10% to the optimum make-up torque when using thread locking compound. A torque shoulder must be visible for proper make-up.

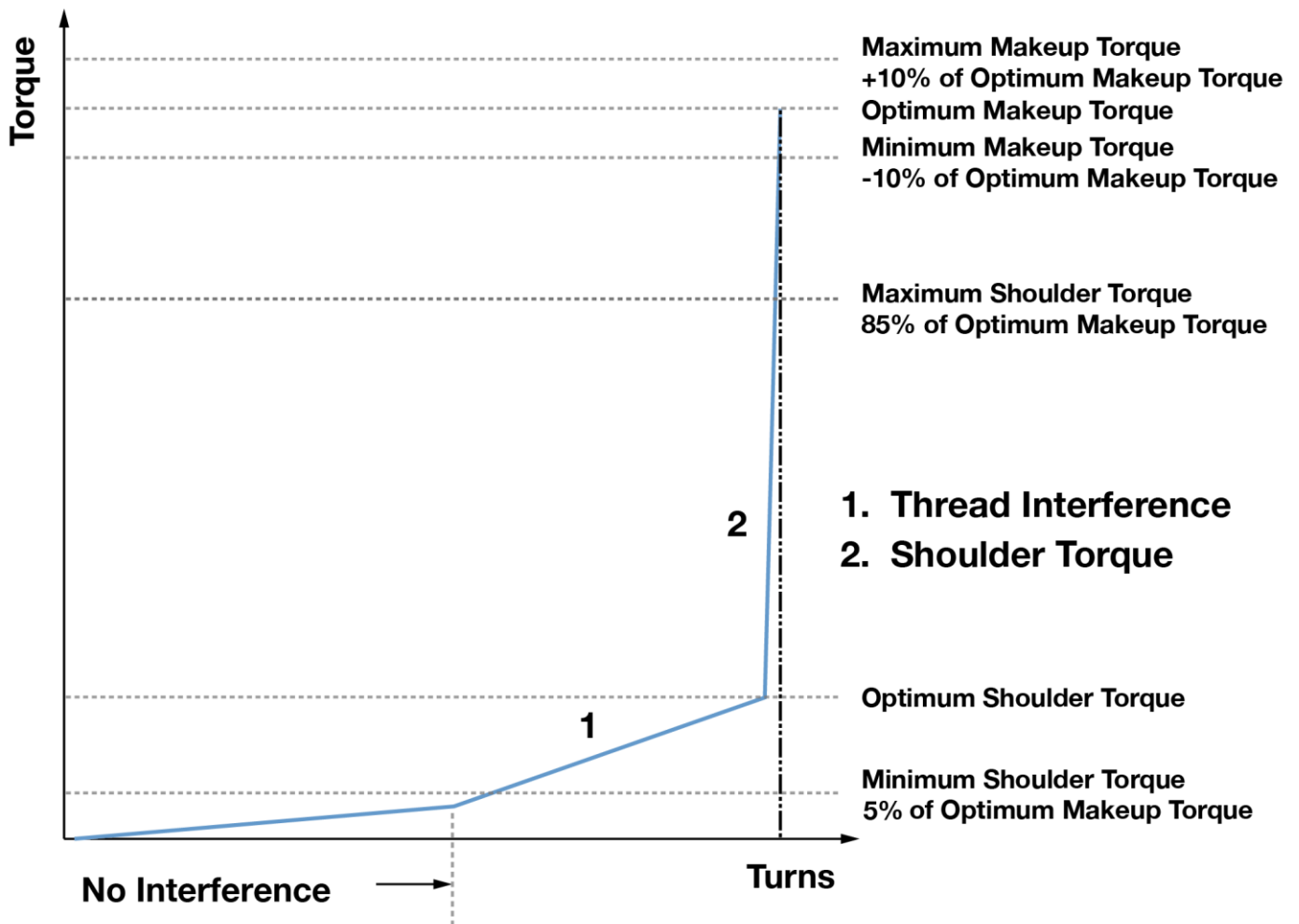
Make-up RPM

1. Initial RPM shall start in high gear with a low torque and high RPM.
2. Switch to low gear before the shoulder engagement appears in the torque turn graph.
3. The below table lists the approximate recommended make-up RPM for the ULTRA™ DQX and DQX-HT connections.

TARGET MAKE-UP RPM		
OD	INITIAL RPM	FINAL RPM
4 ½ – 5 ½	30	15
6 ⅝ – 7 ⅝	20	10
8 ⅝ – 9 ⅝	15	7
10 ¾ – 14	10	5
16 ≥	8	4

Shoulder Torque

1. The shoulder torque shall be clearly visible at a minimum of 5% of optimum make-up torque and at a maximum of 85% of optimum make-up torque, with a minimum delta torque of 10% of shoulder torque and with a 0.020 – 0.100 delta turn range.
2. If the shoulder torque is outside of these specifications, break out and inspect the pin and coupling.
3. A large torque increase prior to 1 turn from shouldering may indicate a problem in make-up such as cross threading or galling.
4. Ensure the mill end pin is made up to the center of the coupling to prevent a low or high shoulder torque.
5. See the example graph below that demonstrates the make-up limits for ULTRA™ DQX and DQX-HT connections.



Spinning Coupling

1. Ensure the mill end pin is made up to the center of the coupling to prevent spinning couplings.
2. Tenaris allows coupling movement of no more than $\frac{1}{2}$ turn on the mill end during make-up.
3. Back-up tongs can be placed on the lower half of the coupling if the coupling spins during make-up.
4. A ruler or caliper may be used to verify the coupling position. Measure from the coupling face to the pin nose face. The acceptable length is $\frac{1}{2}$ the overall coupling length $\pm \frac{1}{32}$ ". Take two readings 180° apart and verify that both readings are within tolerance, if either reading is out of tolerances, take two more and average the four readings.

Downhole Rotation

1. Tenaris recommends using the minimum amount of torque necessary to break the friction between the tubing or casing and the well bore if downhole rotation of the string is required.
2. The ULTRA™ DQX and DQX-HT connection should not be rotated beyond the specified operating torque and RPM should be limited to 40 RPM or lower.
3. Care should be taken to gradually increase and decrease torque when rotating to allow the stored kinetic energy to dissipate and prevent downhole connection yielding or break out.
4. Tenaris advises caution as the torque measurement accuracy and dump-valve response time may vary depending on the specific equipment used.

Re-run

1. The ULTRA™ DQX and DQX-HT connections may be used as work strings.
2. It is recommended to apply the backup tongs to the lower half of the coupling or make a paint mark that extends from the mill side of the coupling to the mill end pin to help monitor any movement of the coupling on the mill end during pin field end break out.
3. The pin and coupling must be thoroughly cleaned and visually inspected for any damage after each break out.
4. Any subsequent make-up of the connection must be performed to a torque equal or greater than the previous torque to which the connection has experienced. If a different pin is made up into a coupling, the make-up torque must be greater than that which either pin or coupling member has previously experienced.
5. The joint must be laid down if for any reason it is determined that a coupling must be bucked-off.
6. Do not re-run the string if any portion of the string has been taken beyond the specified operating torque.

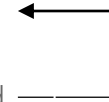
Field Repair

1. Field repair of ULTRA™ DQX and DQX-HT connections shall only be conducted by Field Service Technicians certified by Tenaris.
2. Minor tears, galls, dents or burrs on the thread profile may be able to be repaired by qualified personnel in the field.
3. Galling on pin face may be repaired if it does not exceed 25% of the pipe circumference. The repair shall fully remove any protrusions which may cause galling on subsequent make-up.
4. Repair connections using a file, stone, sandpaper or appropriate abrasive tool, and Scotch-Brite™ sponge or equivalent.
5. Only qualified personnel may make the decision regarding the serviceability of a given connection.
6. ***Loose burrs and sharp raised edges must be removed or rounded down.***

Entire threaded area of Pin may be repaired



Minor tears and scratches on pin nose face may be repaired



Repairs may be made to the entire coupling

