

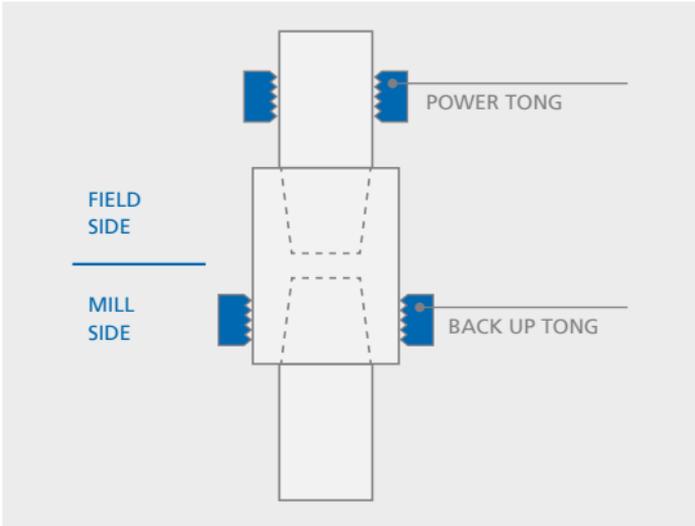
Pulling

BREAK OUT

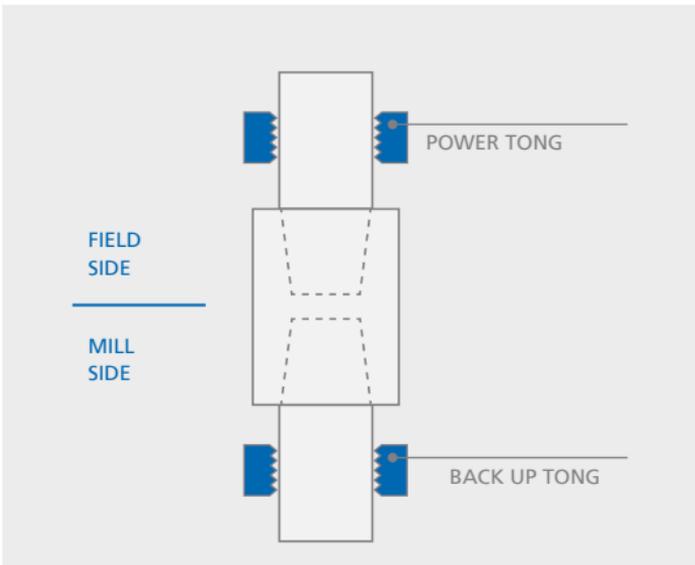
1. A weight compensator should be used to avoid thread damage.
2. Use power tongs in low gear to break out connections.
3. Do not hammer on connections to assist breakout as this may cause damage.
4. During break and spinout, the pipe must be vertical and allowed to spin freely which may necessitate slacking off or unlatching elevators.
5. To break out a Blue® Series, Legacy Series or TXP® Buttress coupled connection, the back up tongs must be set on the mill side of the coupling, leaving the field side free to disengage.

For Wedge Series 500™ coupled connections, place the back up tongs on the pipe body below the coupling. This will extend connection life. Coupling turn should not occur due to the higher buck on torque applied to the mill end.

If gripping the coupling of Wedge Series 500™ cannot be avoided, use a full wraparound back up tong and grip the coupling as close to the pipe end as possible. The back ups must be released as soon as the field end is disengaged, and re-set on the pipe body for spin out completion if necessary.



Tong positioning for breaking out of Blue® Series, Legacy Series or TenarisXP® Buttress coupled connections.



Tong positioning for break out of Wedge Series 500™ coupled connections.

6. Never grip the connection OD of any integral connection.
7. Rotation speed should not exceed 15 RPM.
8. Slow rotation speed towards the end of spin out to prevent heavy pipe 'drop' especially for large OD and heavy weight pipe. Count rotations until complete spin out of first joint then slow spin out speed prior to final rotation on subsequent joints.
9. Chrome and CRA connections should be walked out by hand with the use of a strap wrench.
10. Excess torque during break out or irregular rotation speed indicates poor alignment that may cause damage. Any rotational movement should be stopped until the cause is determined and corrected.
11. If excess torque is required to break out any connection check the pipe body for indications of crushing by the tong jaws.
12. Exercise care when lifting the pin out of the box. Maintaining breakout rotation and keeping the pin centered in the box when disengaging can prevent thread hang up and damage. The use of a stabbing guide will help in this process.
13. A safety clamp should be used when pulling Flush, Near Flush and Special Clearance Couplings.
14. Always use slip type elevators with special clearance and special bevel couplings.

Laying Down

- Wash connections with fresh water to remove any corrosive well fluid.
- Ensure all threads and seal areas are adequately covered with thread or storage compound.
- Install a clean, undamaged thread protector on box and pin ends. The protector should be on straight and tight.
- Do not apply thread compound to Dopeless® connections.
- Dry the connections and protectors prior to fitting securely.
- Always use the correct Dopeless® protectors with the rubber rings firmly in place for Dopeless® connections.
- Ideally the bore of the pipe should be flushed clean of well fluid.

Surplus pipe

- Once running is completed, immediately clean and dry all remaining connections.
- Apply appropriate storage compound to the connections.
- Do not apply storage compound to Dopeless® connections.
- Install clean, dry thread protectors of the correct type.
- Ensure no corrosive fluids, debris or water come into contact with the connections during transportation and / or storage.

- Dopeless® connections should be clean and dry prior to installing the correct Dopeless® protectors.
- Any pulled pipe should be treated in the same manner.

End of job / storage

- Clean any used connections to remove dope, mud and corrosive fluids using the methods indicated in the cleaning section.
- Thoroughly flush the bores of pipe to remove all contaminants and / or debris.
- Inspect cleaned connections for damage.
- Apply a corrosion-inhibiting storage compound on clean, dry connections.
- For Dopeless® connections ensure they are clean of any contaminants and dry, do not apply any compound.
- Install clean, dry, undamaged thread protectors, ensure the correct protectors are used for Dopeless® connections with the rubber rings in place.
- For long term storage of Dopeless® connections, refurbishment by qualified personnel is recommended.
- Damaged and rejected connections should also be protected in order to prevent the connection sustaining irreparable damage and possibly rendering the whole joint as scrap.

- Rejected connections must be properly marked.
- All pipe returned from the rig should be fully cleaned and inspected as soon as possible.
- Dopeless® pipe returned from the rig should be inspected and refurbished by a Tenaris representative as soon as possible.