



INTREPID SP RECOMMENDED PRACTICE



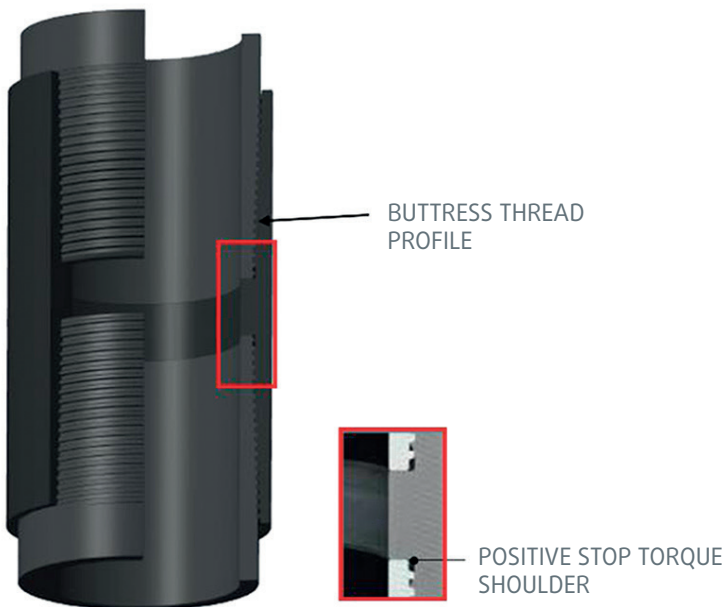
INTRODUCTION

This present guideline contains recommended practice for the field running best practices of INTREPID-SP connection that should be used in conjunction with Interpipe Running Manual, which is the main document applicable to the running and handling of all premium and semi premium connections of INTERPIPE.

INTREPID-SP HIGH PERFORMANCE CONNECTION

INTREPID-SP is a Buttress threaded connection with a positive stop torque shoulder, compatible with API Buttress connection.

INTREPID SP configuration



NORMATIVE REFERENCES

- INTERPIPE's RUNNING MANUAL (latest version)
- API RP 5A3/ISO 13678 Recommended Practice on Thread Compounds for Casing, Tubing and Line Pipe
- API RP 5A5 Recommended Practice for Field Inspection of New Casing, Tubing, and Plain-End Drill Pipe
- API RP 5B1 Gaging and Inspection of Casing, Tubing and Pipe Line Threads
- API RP 5C1 Recommended Practice for Care and Use of Casing and Tubing
- ISO 10405 Petroleum and Natural Gas Industries – Care and Use of Casing and Tubing

HANDLING AND PRE-RUNNING PROCEDURES

Handling and pre-running procedures as outlined in INTERPIPE RUNNING MANUAL (latest version).

VISUAL INSPECTION

Visual inspection in conjunction with API RP 5A5, INTERPIPE RUNNING MANUAL (latest version) should be applied.

THREAD COMPOUND APPLICATION

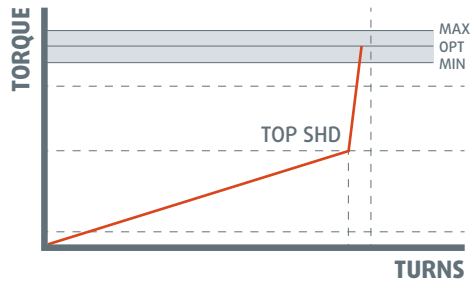
Thread compound application as outlined in INTERPIPE RUNNING MANUAL (latest version). API 5A3 Thread Compound shall be used. Any brand that fulfills the chemical composition stated in API RP 5A3 is acceptable. For other thread compounds, please contact to the local Technical Sales representative or info@interpipe.biz.

THREAD LOCK APPLICATION

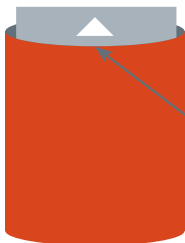
Thread lock application as outlined in INTERPIPE RUNNING MANUAL (latest version).

MAKE-UP PROCEDURES

1. Make-up torque values for INTREPID-SP should be taken from latest CONNECTION DATA SHEET (CDS) for the specific size, weight, and grade. Latest version of the specific CDS can be obtained from INTERPIPE web site. In case it is not available, request the data sheet from the local Technical Sales representative or info@interpipe.biz.
2. A torque/turn monitoring system is preferred. If torque/turn monitoring equipment is used, the guidelines indicated in the RUNNING MANUAL (latest version) make-up acceptance section are applicable.
3. A make-up torque/turn graph should be generated for every connection and should look similar to the ones beneath.



4. Shoulder torque point should be clearly defined on the make-up curve.
5. The connection can be accepted if the make-up curve meets in the make-up graphs section of the INTERPIPE RUNNING MANUAL guidelines (latest version).
6. Make-up without torque/turn monitoring system shall be performed based on make-up torques value and the make-up triangle on the pin (Figure 1), applied by the manufacturer. A triangle stamped on the pin end that is used as a visual verification of correct assembly of the connection.

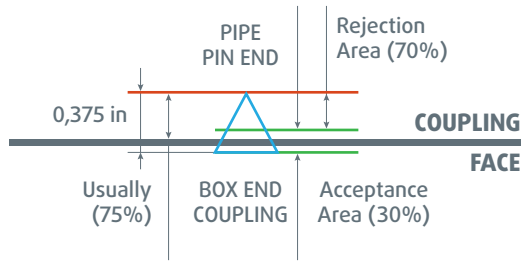


API 5B STATES:

The face of the coupling advances to within one full thread turn of the base of the triangle stamp for minimum power tight make up and to the apex of the triangle for maximum make up

Figure 1

- Final position of the coupling face after proper make-up should be anywhere from the base. See diagram 1 below.



- Those connections falling outside the acceptable torque values should be broken out and checked for damage. If no damages, the connection may be made-up again.
- During make-up of pins and couplings made of steels of different grades, the make-up torque value shall be chosen according to the lowest steel grade of both pin and coupling.
- Use back-up tongs for the first 15 joints or until sufficient weight is generated in the slips to prevent the string from rotating.
- Make-up the connection power-tight using a make-up speed between 2 and 15 RPM. Maximum spin in speed should not exceed 15 RPM.
- Rotation speed during make-up, see table 1.

| Initial stage of assembling | | End of make-up (rotation on shoulder) |
|---|----------------------------|--|
| First two turns | Further turns | |
| Speed maximum 5 rpm, Manually is preferred | Speed not more than 15 rpm | Speed maximum 2 rpm |

Table 1

PULLING

1. Breaking-out string

Use power tongs with adequate torque for break-out without damaging pipe. Apply the back-up tong on the coupling (below centerline) leaving the field end free. Pipe wrenches or chain tongs shall not be used as back-ups. Speed of connection break-out by power tong, specified in Table 2.

| Start of break-out | | End of break-out |
|---------------------|----------------------------|---------------------|
| First two turns | Further turns | |
| Speed maximum 2 rpm | Speed not more than 15 rpm | Speed maximum 2 rpm |

Table 2

2. Clean both, pin and box, and inspect for damages. Any rejected connections shall be clearly marked and segregated for further investigation.
3. Apply proper storage compound (like «Kendex» or equivalent) or preservation thread compound on external and internal threads, even rejects.
4. Install clean protectors on the tubulars before laying down.

INTERCHANGEABILITY

During making-up a non INTERPIPE API Buttress pin thread into an INTREPID-SP box the coupling face should not exceed the triangle base, even if shoulder contact is not achieved.

