Procedure No: FT-RP-003 Rev: 02

# Fermata<sup>™</sup> Technologies



#### **Approvals**

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#### **Revision Control**

Rev	Description of Changes	Date Issued
00	Issued for use	3/1/2021
01	Added Jet-Lube Seal-Guard to section 2.1	6/8/2021
02	Triangle stamp make up verification	11/10/2021

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#### 1. General Running Procedure

1.1 Refer to General Running Procedure No. FT-RP-000 latest revision.

#### 2. Thread Compound Application

- 2.1 Fermata™ recommends the use of Jet-Lube Seal-Guard. As an alternative BOL 72733 can be used. Ensure thread compound is properly mixed prior to using. Thread compound shall be in good condition without any debris or contaminants.
- 2.2 The use of a fine brush is recommended to best control the application of thread compound. The brush should be free of any water. Water that is on the brush, connection, or in the running compound bucket must be completely removed before applying the compound. Apply a light coat of thread compound to the pin threads and the seal of the pin. DO NOT apply any thread compound on the box connection.
- 2.3 Under certain circumstances dope application may be altered only if approved by Fermata™ engineering.



Figure 1: Correct way to apply thread compound.

#### 3 Compatibility

3.1 Anaconda™ GT does NOT have compatibility with differing weights within the same OD.

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#### 4. Make-up

- 4.1 Fermata™ recommends targeting the optimum make-up torque listed on the current connection data sheet. Any make-up torque between the minimum and maximum make-up torque is acceptable, but the optimum make-up torque is ideal for most conditions and common equipment. Add 10% to all specified make-up torque values when using thread locking compound. A Constrictor™ lock point must be visible for proper make-up. See Figure 2.
- 4.2 Spin in the connection in high gear at Revolutions Per Minute (RPM) at or below that listed in Table 1.
- 4.3 Move to low gear prior to the Constrictor™ lock point and keep the RPM at or below that listed in Table 1.
- 4.4 RPM may occasionally be adjusted based on makeup profile if approved by Fermata™ field service management or engineering.
- 4.5 Secondary verification of Anaconda GT connection make-up can be made by checking that the base of the triangle is aligned within +/-.062 of the box face. See Figure 2



Figure 2 triangle stamp make up

- 4.6 A 1" wide X 24" long white paint stripe is applied to the field (Pin) end to aid in locating the triangle stamp location.
- 4.7 The following (Table 1) is the recommended maximum make-up RPM.

Pipe Diameter	High Gear not to exceed	Low Gear not to exceed
4-1/2" to 5-1/2"	20 RPM	5 RPM
7" to 7-5/8"	15 RMP	5 RPM
9-5/8" and greater	10 RPM	4 RPM

Table 1

4.8 The Constrictor™ Lock Point is the point on the graph where the torque-turn slope begins to change

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from curved to linear. It is required to be between 5% and 80% of makeup torque. See Figure 3.

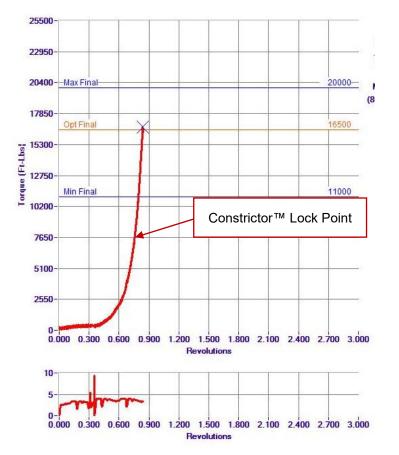


Figure 3: Correct make-up graph

#### 5. Downhole Rotation

- 5.1 The maximum operating torque listed on the current connection data sheet is the maximum torque for downhole rotation unless reviewed and approved by engineering. Speed should not exceed 40 RPM. RPM's and operating torque can be evaluated and adjusted on a case-by-case basis, if approved by the engineering group
- 5.2 Take care to gradually increase or decrease rotation speed and torque to prevent potential dynamic loading scenarios.

# 6. Break out and Inspection.

- 6.1 Verify back-up tongs are equipped with the appropriately sized dies prior to break-out.
- 6.2 Place the back-up tongs on the pipe body below the swaged area of the box.
- 6.3 Break-out the connection in low gear to ensure adequate torque capability.
- 6.4 Keep break-out speed low to prevent galling (preferably 5 RPM or less)
- 6.5 Break-out slowly until the pin "jumps", indicating disengagement.

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- 6.6 Use a stabbing guide prior to disengagement to prevent damage to the connection.
- 6.7 Alignment is equally important during break-out as during make-up. Verify alignment prior to breakout.
- 6.8 If re-running, fully break-out the connection, remove all thread compound and debris, inspect, and follow the make-up procedure. If laying down, apply storage compound and thread protectors free of grime and debris.

#### 7. Marking Instructions

7.1 All used, rejected, repairable, and or prime pipe left on rig locations will be identified into a classification based on the below chart and must be submitted to Field Service Management as soon as possible via email.

Summary of Pipe left on Rig Location				
Customer: String 1	String 2	Rig: Well Name:		
String 1	String 2	Prime Joints, conduct VTI leave insructions to apply storage compound prior to having thread protectors placed back on. (Joints that never left the pipe rack)		
		Rig Returns, identified by 1 White band near mill end & 1 Yellow band at repairable end / area.  (Joints that were made up never went below the rig floor, broken out, laid down, and passed VTI.)		
String 1	String 2	Used Pipe, identified by a 1 Orange band 6 inches each side of the defect, damage, or made up end and near the mill end.  (Joints failed VTI or went below rig floor.)		
String 1	String 2	1		
		Rejected Pipe, identified by a 1 Red band 6 inches each side of the defect, damage, or made up end and near the mill end.  (Joints rejected with signs of galling, pitting, or other damage.)		

Figure 3: Pipe classification summary.