Metal One

Document No. **MO-3TPRP-01 (Rev. 3)** August 6, 2026

Recommended Field Running Procedure for MO-3TP Connections

Rev. 3: Added 24” items.

1. IDENTIFICATION

MO-3TP is a threaded-and-coupled connection with the following features:

- Available in sizes from 16” through 24”.
- A robust thread design featuring a large thread height and a steep taper.
- The 3 TPI thread design helps prevent cross-threading, while the steep taper enables quick make-up.
- A special pin nose design ensures pin nose-to-pin nose contact when properly made up.

2. RUNNING

2.1 RUNNING PREPARATION

- Always use a stabbing guide.
- Use the thread compound recommended in Appendix A. The compound shall be clean, uncontaminated, and thoroughly stirred unless a special compound is specified by the customer.
- Ensure that the tong remains horizontal.
- Verify the alignment of the travelling block and rotary table (see Section 2.4, Stabbing).

2.2 THREAD INSPECTION

- Ensure that the connections are thoroughly clean and dry.
- Visually inspect the connections to confirm that they are free of burrs, tears, or other damage and that the thread surfaces are in good condition.
- Visually inspect the connections to ensure they are free from burrs or tears and that the thread surfaces are reasonably uniform throughout.
- Any “mash” on either the pin or the box connection is unacceptable.

2.3 THREAD COMPOUND (DOPE)

- Prior to stabbing, apply a moderate amount of thread compound to both the pin and box connections.
- Apply the thread compound uniformly to all thread surfaces using a soft brush.

2.4 STABBING

With the joint hanging freely in the derrick, verify vertical alignment to ensure that the pin is positioned directly above the box. Proper vertical alignment, whether achieved by a stabber, stabbing arm, or travelling block, shall be maintained throughout the make-up operation. Install the stabbing guide on the box connection in the rotary table. Lower the pipe slowly into the box connection to avoid thread damage. After stabbing, remove the stabbing guide and ensure that the pipe remains vertically aligned.

2.5 POWER MAKE-UP

Engage the power tong at least 100 mm (4 in.) above the thread runout on the pin to ensure that the dies do not contact the coupling face during make-up. If a backup tong is used, it shall never be applied directly to the coupling and shall always be positioned below the coupling.

The backup line shall be maintained at 90° to the tong and pipe axis in both the vertical and horizontal planes. Ensure that the elevators are not supporting any portion of the pipe weight.

Using the power tong, make up the connection at a speed not exceeding 25 rpm. Ensure that the tong does not slip during make-up and damage the pipe body.

Torque build-up normally does not begin until 4 to 5 complete turns have been made. Torque then increases gradually until the two pin noses come into contact, at which point the torque rises rapidly and a torque spike will be observed on the torque gauge.

Make up the connection to the specified torque and position using a torque gauge. Confirm that the final make-up meets the acceptance criteria specified in Section 2.6.

2.6 ACCEPTANCE CRITERION FOR MAKE-UP

Recommended torque values are provided in Appendix A. When a thread compound with a higher friction factor than those specified in this procedure is used during field running, the following torque conversions shall be applied.

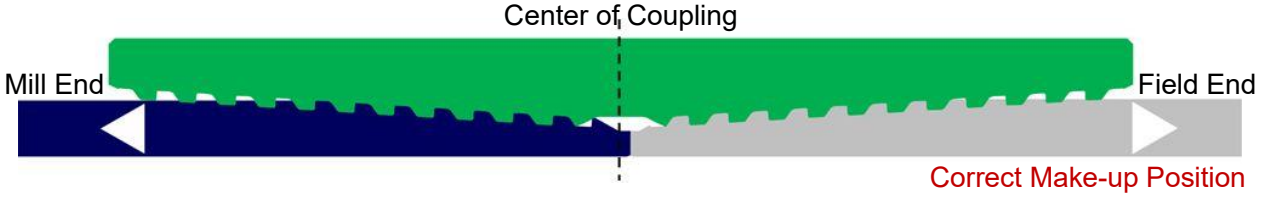
<table>
<tr><th>Friction Factor (FF)*</th><th>Conversion Coefficient</th><th colspan="2">Conversion of Recommended Torque</th></tr>
<tr><td>0.8 <= FF <= 1.2</td><td>1.0</td><td colspan="2">No conversion is needed.</td></tr>
<tr><td rowspan="3">1.2 < FF</td><td rowspan="3">FF minus 0.2</td><td>If FF is 1.5</td><td>Converted MUT shall be 1.3 x MO Recommended MUT.</td></tr>
<tr><td>If FF is 2.0</td><td>Converted MUT shall be 1.8 x MO Recommended MUT.</td></tr>
<tr><td>If FF is 2.5</td><td>Converted MUT shall be 2.3 x MO Recommended MUT.</td></tr>
</table>

* Friction Factor is relative to API RP 5A3

The connection shall initially be made up to the minimum specified torque. If shouldering does not occur, the torque may be gradually increased up to the maximum specified torque.

Connection make-up shall be considered acceptable when all of the following criteria are satisfied:

- The two pin noses come into contact, as indicated by a sudden increase in torque ("spike") on the torque gauge.
- The base of the 3/8” triangle stamp on the pipe body is aligned with the coupling face.



3. PULLING

The equipment required for pulling is basically the same as that used for running.

The back-up tong should be placed on the lower half of the coupling. Use of the rig tongs for this operation is not recommended. If a back-up tong is not available, ensure that the mill-end side of the coupling does not rotate. A paint line may be used as a visual indicator.

Proper vertical alignment, whether maintained by a stabber, stabbing arm, or travelling block, shall be maintained throughout the breakout operation.

Engage the power tong at the same location on the pipe used during make-up. Break out the connection using controlled torque. Do not “jerk” the connection. The rotational speed during breakout and spin-out shall not exceed 15 rpm. Once the threads have disengaged, a slight drop ("bump") of the pin into the box may be felt. Rotate the connection approximately 1/3 of a turn before lifting the pipe out of the box. When lifting out, care should be taken to ensure the threads are fully disengaged to prevent jump-out.

The use of a stabbing guide is recommended to protect the pin and facilitate lifting the pipe out of the box.

4. MINOR THREAD DAMAGE

Minor thread imperfections or light surface corrosion are acceptable. Minor damage to pin-end threads, such as burrs, can be repaired using a fine file, honing stone, or emery paper.

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APPENDIX-A MO-3TP RECOMMENDED TORQUE AT FIELD END FOR REGULAR COUPLING (W)

1. RECOMMENDED TORQUE (ft-lb)

OD	Weight	WT	J/K55			N/L80			P110		
Inch	lbs/ft	inch	Min	Max	Operational. Max.	Min	Max	Operational. Max	Min	Max	Operational. Max.
16”	65.0	0.375	15,600	19,000	42,000	18,300	22,300	49,300	24,700	30,100	66,600
	75.0	0.438	22,900	27,900	61,600	27,100	33,100	73,000	36,900	45,100	99,500
	84.0	0.495	26,000	31,800	70,300	30,900	37,700	83,200	41,900	51,300	113,200
	94.5	0.562	31,300	38,300	84,600	37,200	45,400	100,300	50,800	62,000	137,000
	109.0	0.656	41,100	50,300	111,000	49,100	60,000	132,300	67,400	82,400	181,900
18-5/8”	87.5	0.435	21,800	26,600	68,700	25,800	31,600	81,200	35,000	42,800	110,200
	94.5	0.468	26,300	32,100	82,700	31,100	38,100	97,900	42,400	51,800	133,500
	112.0	0.579	27,800	34,000	112,400	33,100	40,500	133,800	45,500	55,700	183,900
	126.0	0.636	33,000	40,400	133,300	39,400	48,200	159,100	54,300	66,300	219,300
20	94.0	0.438	18,600	22,800	66,200	22,100	27,000	78,500	30,200	36,900	107,000
	106.5	0.500	26,200	32,000	93,000	31,100	38,100	110,800	42,800	52,400	152,300
	133.0	0.635	42,000	51,400	149,500	50,400	61,600	179,300	69,900	85,500	248,600
22”	146.5	0.625	30,200	36,900	167,600	36,300	44,300	201,400	50,400	61,600	280,000
	173.0	0.762	41,000	50,200	227,900	49,400	60,400	274,300	68,900	84,200	382,600
	180.0	0.781	43,700	53,400	242,500	52,600	64,200	292,000	73,400	89,700	407,600
	226.0	1.000	60,500	73,900	336,000	73,000	89,200	405,400	102,200	124,900	567,300
24”	125.7	0.500	29,900	36,500	124,500	-	-	-	-	-	-
	159.2	0.625	47,400	58,000	197,800	-	-	-	-	-	-

Note 1: Operational Max. Torque can be applied in the following cases.

1) When the actual make-up torque (MUT) exceeds the recommended Max. Torque shown in the table, the connection shall be considered acceptable if the torque does not exceed the Operational Max. Torque.
2) If the connection cannot be properly made up within the recommended Max. Torque range, the MUT may be increased up to the Operational Max. Torque.

Note 2: For material grades not specified in the table above, the following conversion shall be applied:

Material Grade	Applicable Torque
85 ksi	Use N/L80 torque values
90 ksi	Use N/J80 torque values x 1.1
95 ksi	Use P110 torque values
125 ksi	Use P110 torque values x 1.1

2. THREAD COMPOUND (DOPE) RECOMMENDED

1) API Modified
2) Bestolife 2000 series
3) Topco TK-II for thermal application