Metal One

Document No. **FLUSHMAX RP- 02** (Rev.8)

January 11, 2023

Field Inspection and Repairing Procedure

Rev.8

- 4.4.3 WAS REVISED.

This document is applicable to the following Metal One Proprietary Connections:

1. **FLUSHMAX-SML**
2. **FLUSHMAX**
3. **FLUSHMAX-II**
4. **FLUSHMAX-III**
5. **FLUSHMAX-HW2**
6. **INTEGMAX**
7. **MO-FXL**
8. **MO-XFC**

1. Pipes should be placed on the inspection table to provide enough space so that they can be rotated in a full turn for cleaning and inspection.

2. Box and pin protectors shall be removed and each end shall be cleaned thoroughly to remove storage compound and dirt.
   - 2.1 Remove protectors. Should a pipe wrench be used, care must be exercised to ensure that jaws of the wrench do not come in contact with thread.
   - 2.2 Blow out the pipe ID with high pressure air (Box to Pin) to completely remove and possible dirt and rust.
   - 2.3 Clean connections using one of the following methods:
     - A) Non-metallic brush and cleaning solvent
     - B) Steam cleaner used in conjunction with a cleaning solvent
     - C) A rotary non-metallic bristle brush used in conjunction with high pressure water and cleaning solvent
     - D) High Pressure water blaster (Pressure Washer)
   - 2.4 Dry the connections and wipe or blow out solvents and water from thread roots.
   - 2.5 Clean thread protectors and replace any damaged ones.

3. Thread inspection

3.1 The full crested thread area should be free from burrs, tears, cuts or any imperfections which can break the continuity of the thread. Burrs on the starting threads should be removed using a fine file or emery cloth. Minor scratches, discoloration and minor corrosion pitting are acceptable provided the surface does not protrude from the original contour of the thread crest or thread flanks. Threads that are found to have such slight imperfections or discoloration may be hand repaired using a fine file or emery cloth.

3.2 Imperfection in the full crest thread length on the pin are acceptable unless the imperfection protrudes on the thread flanks. Minor protrusions on the crest of the thread is acceptable.

3.3 Box Thread defects which cannot be touched up with emery cloth shall be rejected due to the difficulty of proper repairing by hand.

3.4 If connections have been damaged from transportation and handling. (Mashed, egg-shaped dented) the connection should be rejected and identified in such a manner to assure that they are not used during the running operation.

3.5 Used Connections

A) Carefully check the threads for distortion from previous running operations and hand repair if possible with a fine file and emery cloth.

B) Minor distortion may be hand repaired.

4. Inspection of external and internal shoulders

4.1 Internal and external shoulders shall be visually inspected for transportation and handling damage.

4.2 Internal and External Shoulders shall be free from any imperfections which protrude from the original contour of the shoulders.

4.3 For MO-FXL and MO-XFC connections, the minimum remaining wall thickness (RWT) at end face may be checked using a micrometer with both-spherical shaped contact points. The minimum RWT is shown in a table below.

Connection	Size	Pin RWT (Min.)	Box RWT (Min.)
MO-FXL	7-5/8” x 29.70# (0.375”)	0.041”	0.050”
	8-5/8” x 32.00# (0.352”)	0.050”	0.050”
MO-XFC	7-5/8” x 29.70# (0.375”)	0.043”	0.033”
	8-3/4” x 36.98# (0.415”)	0.046”	0.047”

5. Before placing thread protectors back on the pipe ends after visual inspection, remove all dirt and foreign particles from protectors.
   All damaged protectors shall be replaced.
   Threads shall be re-doped with a suitable thread compound.
   Ensure that the entire threads are covered with compound.

6. Connection found to be unserviceable should be clearly identified.