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## **INSTALLATION INSTRUCTIONS – CAST IRON THREADED FITTINGS**

### **Scope:**

This instruction sheet is applicable to all cast iron threaded fittings and includes various steps involved in the installation.

### **General Description:**

Cast iron material manufactured with material grade conforming to ASTM A 126 Class B has a tensile strength of 31,000 psi with good damping capacity, excellent machinability and brittle in nature when compared which ductile iron or steel.

Threads conform to ANSI/ASME B1.20.1 NPT which is the same as ductile iron threaded fittings.

### **Installation Instruction:**

- Clean the threads of the fitting and pipe of any rust or debris before applying the pipe sealant or tape.
- Apply the recommended Teflon tape or high quality sealant as required on the male thread to cover the entire length of the thread.
- To prevent galling during installation the sealant may have lubrication properties.
- Hand tighten the fitting onto the pipe with hand till it is “SNUG”.
- As per ASME B1.20.1 standard the NPT threads are made up wrench tight with sealant to attain a pressure-tight, leak-free joints.
- Joint tightening torque to be used during the assembly of cast iron fittings depends on the variables such as materials, wall thickness, operating pressure etc. and is not specified in the standard. However joints need to be tightened beyond the hand-tight engagement position to create interference between external & internal thread flanks to produce a seal (with the use of a sealant) and helps prevent loosening of the joint.
- Out of roundness of mating parts can negatively affect their ability to seal when made up wrench tight.
- Mating parts elasticity & ductility will also affect sealing.

**PLEASE NOTE THAT OVER TIGHTENING THE FITTINGS WILL RESULT IN DAMAGE OF THE THREADS AND INTURN FAILURE OF THE JOINT.**

### **Maintenance:**

Cast Iron fittings do not require any special maintenance and should be maintained as per the local codes and requirements including the current version of NFPA 25 – Standard for the inspection, testing and maintenance of water-based fire protection systems.