



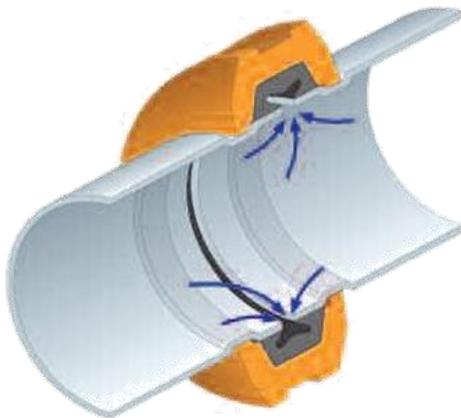
# QUICK RESPONSE

*Saving life and property through effective licensing, plan review,  
and inspection of fire protection systems.*

December 2012

## Coupling Gaskets for Dry Pipe Service

Grooved connections of fitting or valves need to be installed properly per their specific application. Not all couplings or gaskets are intended nor listed to be used for dry pipe service. As such, **NFPA 13** requires that grooved couplings, including gaskets used on dry pipe, preaction, and deluge systems, shall be listed for dry pipe service.



**Coupling gaskets** utilized for dry pipe service typically are exposed to extreme temperatures. The issue is not only freezing temperatures, but also the performance of the gasket when exposed to heat from a fire before it fills with water.

**Coupling gaskets** commonly referred to as Flush Seal or Tri-Seal Gaskets (**Exhibit 1**) differ from standard gaskets (**Exhibit 2**) by closing off the gap between the pipes or gasket cavity. This closure is accomplished by positioning the center “rib” of the gasket over the gap between the pipes. These gaskets have two tapered sealing edges, in addition to the center rib, for additional strength and sealing.

In addition to verifying that the coupling and gasket are correct for the application, it is important to verify the proper lubricant is used during installation. Standard lubricant is not recommended for dry pipe and freezer applications as it freezes and can cause leakage. For dry pipe and freezer applications, the use of a petroleum-free silicone lubricant may be required as part of the listing. Also petroleum based lubricants can deteriorate some grades of gaskets.

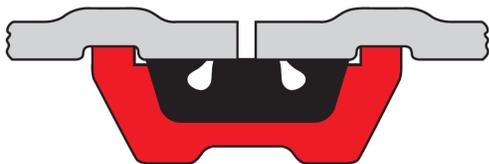


Exhibit 1 – Flush Type Coupling Gasket



Exhibit 2 – Standard Coupling Gasket

*Quick Response* is presented monthly by the  
**Minnesota State Fire Marshal – Fire Protection Section**

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