

JAMES JONES INSULATED WATER SERVICE LINE PRODUCTS



The solution to problems caused
by stray electrical currents.

JONES

James Jones Insulated Products allow cost effective control of stray currents.

In recent years, stray electrical currents — particularly their causes and effects — have caused increasing concern. The American Water Works Association, among other organizations, has sponsored a number of case studies on the stray current issue which point to certain problems that may result from the presence of stray currents in metallic piping systems, including:

- Accelerated corrosion of water distribution system components.
- Shock hazards for field personnel.

AWWA policy

Current AWWA policy* on the grounding of electrical circuits on water pipe states that:

"AWWA opposes the grounding of electric systems to pipe systems conveying drinking water to a customer's premises...a water utility should reserve the right to use nonmetallic pipe or pipe-jointing materials for mains or services, to use electrically insulating fittings or coatings on mains or services, and to disconnect any grounding connection that has been installed on its mains or services without its consent."

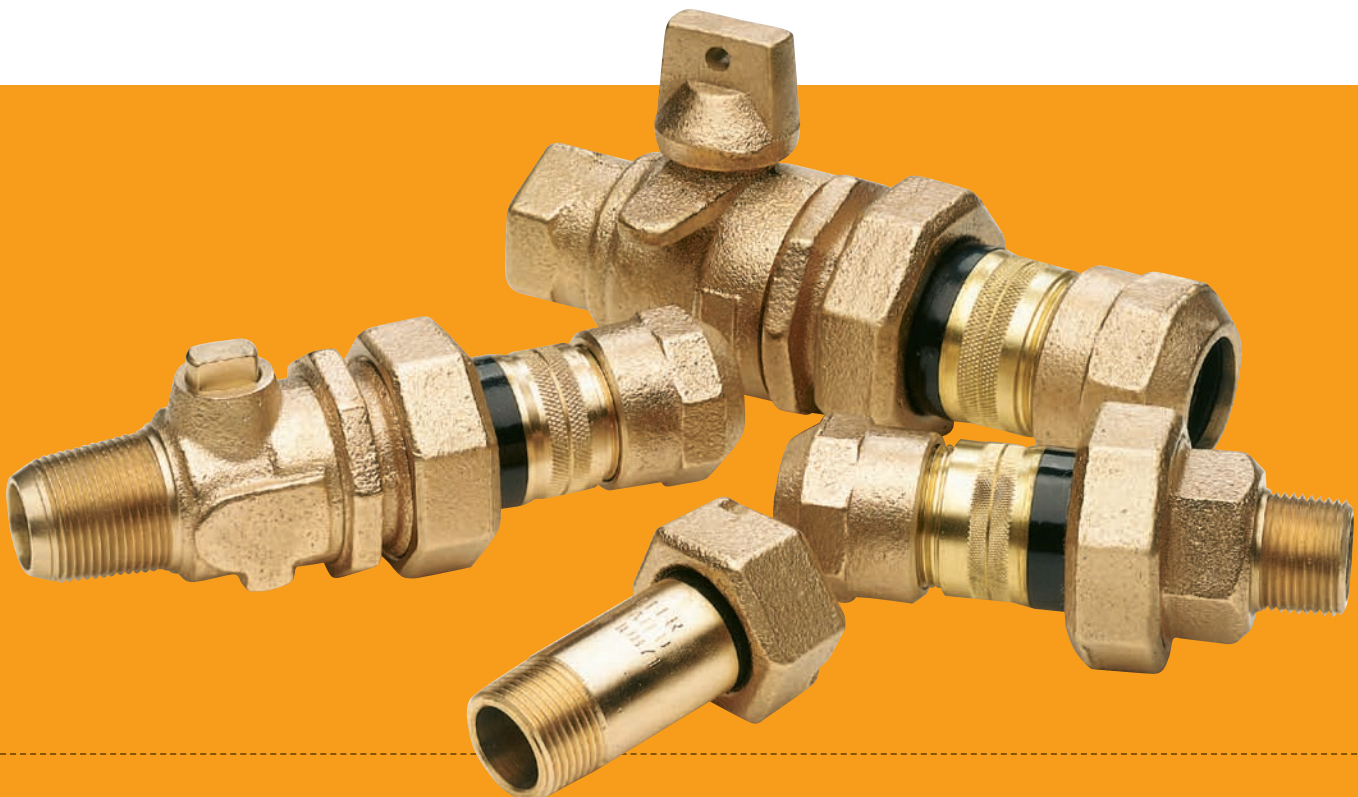
**As reaffirmed January 25, 1987.*

Wide range of James Jones products with insulating feature

James Jones Insulated Products provide the quality, dependability and extended service life you have come to expect from all James Jones products. The insulating feature is offered in James Jones 300™ Corporation, Curb and Meter Ball Valves in various inlet and outlet configurations. These valves offer a 300 psig working pressure rating. The nylon insulator is also available in straight service fittings in a number of inlet and outlet configurations. Insulated water meter couplings are also available. The chart on the back cover gives information about sizes, styles and end configurations of James Jones Insulated Products.

Some of the more common situations that can create stray electrical currents and, in their wake, significant problems in water distribution systems are:

- Use of the domestic plumbing as a ground for the electrical system.
- The proliferation of electronic and speed control appliances.
- Operation of an electrical mass transit system on rails.
- Proximity of cathodic-protected systems to water distribution mains.



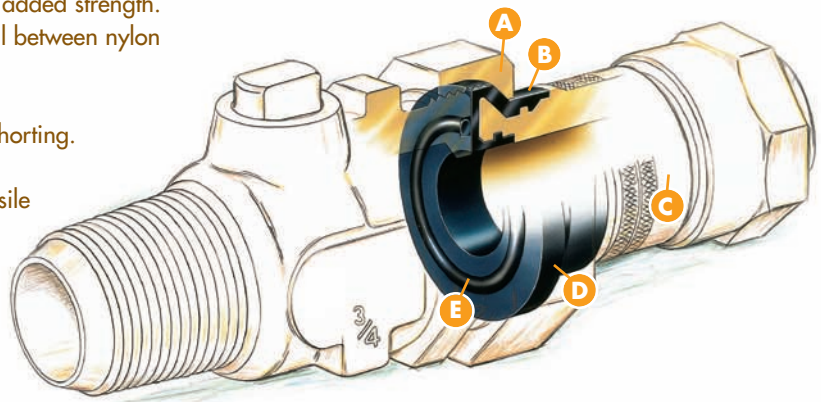
An effective way to fight stray currents

James Jones insulated products are a simple, cost effective way to fight stray currents and the problems associated with them in metallic service lines and mains — either in new installations, or to retrofit existing lines. They help utilities to insulate their systems with a minimum of change to existing service line materials, specifications and installation procedures, saving both time and money. The technology is proven effective in controlling stray currents and in resisting pipe stresses.

James Jones incorporates nylon with specially shaped 85-5-5-5 brass parts in a union that effectively stops the flow of electrical current without compromising the strength of the service line. The nylon insulating material is inert, stable and recommended for water service. The strong, beveled-flange design takes advantage of the nylon material's strength in compression and allows tensile and bending forces to be absorbed by the metallic parts of the union.

Note that the James Jones design uses an O-ring seal and does not depend upon threaded plastic components, which are notoriously weak and difficult to seal against leakage.

- A** Beveled flange increases bearing surface for added strength. Configuration reduces creep and assures seal between nylon and brass tailpiece.
- B** Extra long insulator skirt resists bridging or shorting.
- C** 85-5-5-5 brass parts designed to absorb tensile and bending forces from piping.
- D** Nylon insulator has high bearing and impact strength. Design capitalizes on nylon's strength under compression.
- E** Self-activating O-ring assures positive seal. Retained in groove if tailpiece is removed.



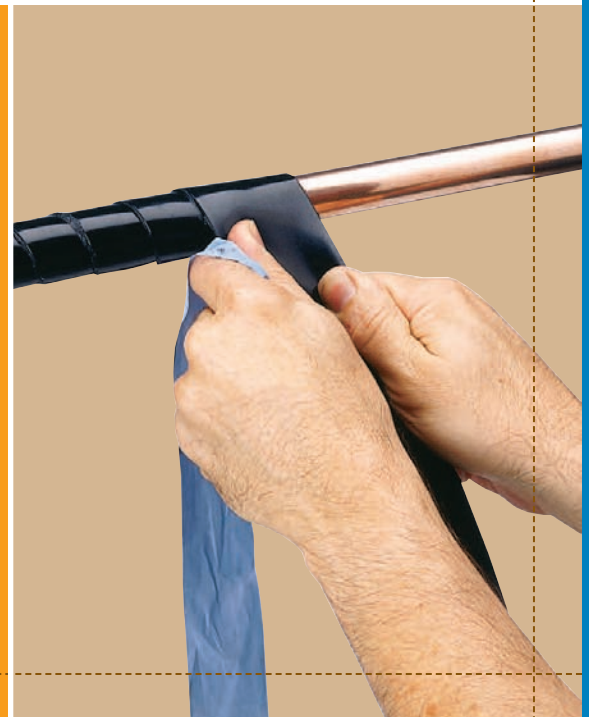
Wrapping: a key to dependable performance

For buried installations, the insulator and the adjacent piping must be wrapped at least 3 feet in both directions from the insulator to avoid the possibility of stray currents traveling through the soil around the insulator.

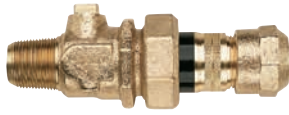
Polyken primer and #932 Hi-Tack Joint Wrap Tape or equal are recommended for wrapping the insulator and service line pipe. The main pipe must be tape-wrapped or encased with 8 mil polyethylene.

All wrapping should be in accordance with the wrapping manufacturer's instructions; ANSI/AWWA C209 Standard for Cold Applied Coatings for the exterior of special sections, connections and fittings for steel water pipelines; and ANSI/AWWA C105/A21.5 Standard for Polyethylene Encasement for Ductile Iron Pipe Systems.

There must be no breaks in the wrapping. Care should be taken to assure that the wrapping is not damaged during backfill.



James Jones Insulated Products: configurations and styles (in 3/4", 1" and 2")



James Jones 300™ Corporation Ball Valves

- CC thread x James Jones 110° Compression Connection (CTS)
- IP thread x James Jones 110° Compression Connection (CTS)
- CC thread x James Jones Pack Joint Connection (CTS)
- IP thread x James Jones Pack Joint Connection (CTS)
- CC thread x Copper Flare Connection
- IP thread x Copper Flare Connection
- CC thread x FIP
- IP thread x FIP



James Jones 300™ Curb Ball Valves

- James Jones 110° Compression Connection (CTS) both ends
- James Jones Pack Joint Connection (CTS) both ends
- Copper Flare Connection both ends
- FIP x James Jones 110° Compression Connection (CTS)*
- FIP x James Jones Pack Joint Connection (CTS)*
- FIP x Copper Flare Connection*
- FIP both ends



James Jones 300™ Meter Ball Valves

- James Jones 110° Compression Connection (CTS) x Meter Swivel Nut (with lockwing)
- James Jones 110° Compression Connection (CTS) x Meter
- Flange (with lockwing)
- FIP x Meter Swivel Nut (with lockwing)*
- FIP x Meter Flange (with lockwing)*



Straight Service Fittings

- James Jones 110° Compression Connection (CTS) both ends
- James Jones Pack Joint Connection (CTS) both ends
- FIP both ends
- FIP x James Jones 110° Compression Connection (CTS)**
- MIP x James Jones 110° Compression Connection (CTS)**
- Iron Meter Bar Lock Nut x James Jones 110° Compression Connection (CTS)**
- FIP x James Jones Pack Joint Connection (CTS)**
- MIP x James Jones Pack Joint Connection (CTS)**
- Iron Meter Bar Lock Nut x James Jones Pack Joint Connection (CTS)**
- Female Copper Flare thread x James Jones 110° Compression Connection (CTS)**
- Female Copper Flare thread x Copper Flare Connection**



Water Meter Couplings[†]

- MIP x Meter Swivel Nut (various lengths available)

*FIP is on insulator end

**FIP, MIP, iron meter bar lock nut, or copper flare thread is on end opposite of insulator

†Design of this product differs from that of other products featured in this brochure

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All products must be installed and maintained in accordance with applicable instructions and/or standards.

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