

AON SPRINKLER CERTIFICATION



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Aon Sprinkler Certification Technical Note

Note Number: TN-14-13	Issue: One	Date: 10 March 2014
Subject	Pipe Work Fabrication Standards	
Notice: Aon Sprinkler Certification Technical Notes provide guidance notes which may be used in certification of sprinkler installations by Aon New Zealand. If sprinkler installations are being certified by any other Sprinkler System Certifier, these Technical Notes may not apply.		

This note has been issued as a result of discussion within sectors of the industry with respect to best practice for pipe work fabrication standards.

There have been some concerns as to whether welding galvanised pipe work will create potential for accelerated corrosion issues, following an investigation into a system that failed after a very short service life. The installation was fabricated out of light-wall lightly pre-galvanised pipe, with welded outlets.

An article in Sprinkler Age¹ indicates that these concerns may be warranted. This article implies that galvanising is not acceptable for any wet or dry pipe installations.

While this article implies that all galvanised pipe may not be sound in fire protection systems. Aon is unaware of any issues with pipework hot dip galvanised after fabrication.

Aon believes that the following types of pipe are best practice:

- Black (usually pre-primed) steel pipe – fabrication by cutting and screwing, welding or roll grooving.
- Galvanised steel pipe
 - Hot dip galvanised after fabrication via welding
 - Pre-galvanised pipe
 - Cut and screw
 - Fabrication using roll groove fittings and mechanical tees

Aon does not consider welding pre-galvanised pipe as best practice due to:

- Potential accelerated corrosion issues.
- Potential porosity of the weld, due to vaporisation of zinc coating.
- Potential health and safety issues due to zinc fumes.

With respect to pre-galvanised pipe work, best practice would be to treat raw edges using a cold galvanized protective system prior to assembling any joints.

Aon also notes that it will not recognise any listings of pipe provided by other organisations, such as Verifire or ICONZ. This is due to an increase in the knowledge of the performance of such pipes after their use in installations.

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If any suppliers wish to use pipe work not specifically listed in NZS4541:2007 Table 4.3 that were previously listed by these organisations, they will need to reapply for listing with Aon.

Technical Services Manager



Technical Services Manager

ⁱ <http://digital.turn-page.com/i/32031> (p.19)
<http://digital.turn-page.com/i/34016> (p. 23)