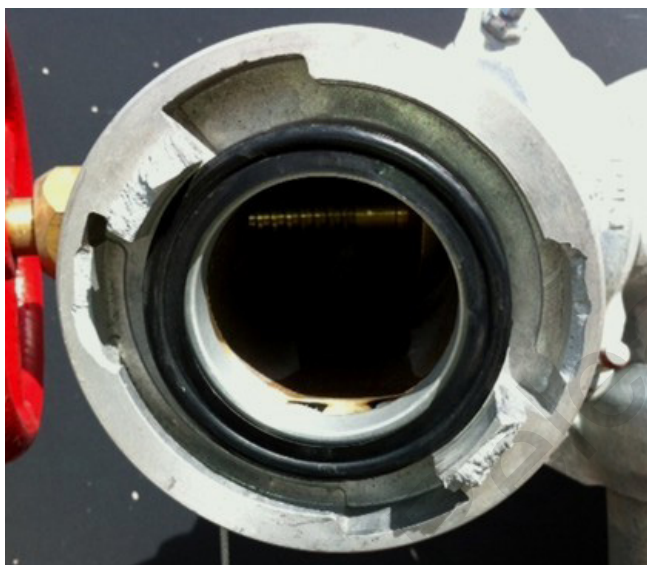


The relevant certifier or regulatory authority is responsible for assessing the compliance of fitted hose connections. Any direction or Order to replace incompatible hose connections should be followed up and re-issued until the installer has fitted compliant ones.

Why are these now an issue?

The rate of installation of incompatible hose connections has been increasing over time due to lack of rigorous scrutiny and detailed awareness. The issue became prominent for FRNSW when a hose connection failed during the operation of a fire hydrant booster.

Even if your fire hydrant or fire sprinkler system has previously been certified and passed the annual fire safety inspections, any incompatible hose connections will need to be replaced as a matter of priority before any fire occurs.



Failure of a hose connection during operations

Further assistance

Fire and Rescue NSW (FRNSW) is committed to providing a safer community to NSW. The Fire Safety Branch provides technical advice, assessment and consultancy services to the building and fire safety industries, and guidance to regulatory authorities and government agencies.

For further information please visit:

www.fire.nsw.gov.au/connections

or contact us at:

Fire Safety Branch

Community Safety Directorate

Phone (02) 9742 7434

Email firesafety@fire.nsw.gov.au



Version 01, 1 November 2018



Hose connections on fire hydrant systems and fire sprinkler systems

A guide for owners and managers, fire safety system installers and maintainers, certifying authorities and regulatory authorities

About hose connections

What are hose connections?

Hose connections are fitted to the inlets and outlets of a fire hydrant and fire sprinkler system that allow firefighters to connect a fire hose to the system. For older systems (i.e. pre 2008) these will be a 'Fire Brigade Thread' connection, while newer or updated systems should be fitted with a 'Storz' hermaphrodite hose connection.

Do I need to install hose connections?

No. The fire hydrant and/or fire sprinkler system has been commissioned with hose connections fitted. Only the appropriate regulatory authority can direct you to install new hose connections (e.g. Council Order).

However, if you intend to modify or upgrade your existing fire hydrant and/or fire sprinkler system, the current standard of performance will apply which includes fitting compatible hose connections.

What are compatible hose connections?

Australian Standard AS 2419.1-2005 requires any fire hydrant and/or fire sprinkler system be compatible with local fire brigade equipment.

The document *FRNSW compatible hose connections* details the requirements for hose connections fitted to any new or upgraded fire hydrant and/or fire sprinkler system.

Storz hermaphrodite hose connections are to be manufactured to a standard not less than *NEN 3374 Fire fighting equipment – Fire hose couplings and ancillary equipment*. This standard specifically applies to firefighting equipment as used by FRNSW

What's an incompatible hose connection?

The deregulated market and competition has resulted in cheap low quality connections being fitted. These are intended for industrial or agricultural applications and may use the wrong material, be improperly manufactured, have incorrect dimensions and tolerances etc.

The greatest concern to firefighters is the use of cast aluminium. Australian Standards state forged aluminium is to be used and cast aluminium is specifically prohibited.

Cast aluminium does not have the minimum required material strength for firefighting usage, and is prone to catastrophic failure even when used at normal firefighting operating pressures.

Checking hose connections

How do I know if correct ones are fitted?

The document *Inspecting hose connections on installed fire systems* can be used to identify if correct hose connections are fitted. Some cast aluminium hose connections cleverly mimic being forged, and the only way to identify them may be to undertake a physical test to identify the internal material composition.

If your fire hydrant and/or fire sprinkler system are fitted with hose connections that don't comply with the minimum standard, and not compatible with FRNSW equipment, they will need to be replaced with compliant ones.

Replacing hose connections

How do I replace them?

You should engage a fire protection installer to replace any non-compliant hose connections. An installer can be found by a phone or internet search, or *Fire Protection Association Australia* also provides a list of members which adhere to an industry code of conduct.

Who's responsible if they are not correct?

The property owner is responsible for their fire hydrant and fire sprinkler systems. However, the owner also has the reasonable expectation that any installed components will be compliant.

The installer is responsible for purchasing and installing compatible hose connections from a reputable supplier, and may need to change supplier if hose connections are non-compliant.

The cost of incompatible hose connections

Incompatible hose connections are often much cheaper than compliant ones, but if identified during a fire safety inspection then costly rectification works may be ordered. However, if an incompatible hose connection was to fail during fire the sudden loss of firefighting water may directly jeopardise the life safety of firefighters and building occupants. Potentially the immediate impact to firefighting operations may also result on greater fire damage and property loss.