



POSITION STATEMENT SUMMARY

Fire brigade booster operating pressure

Position

Effective 5 December 2024, the following is a position of Fire and Rescue NSW (FRNSW):

FRNSW requires the fire brigade booster installed on a fire hydrant or fire sprinkler system to have a 'PN' rating not less than the fire brigade boost inlet pressure necessary to operate the most hydraulically disadvantaged outlet/s, including when in full-flow bypass mode.

Table 1.1 of AS 2419.3-2012 identifies both 'allowable operating pressure' and 'maximum allowable operating pressure' for each PN rated fire brigade booster. The fire brigade booster on any given fire hydrant system must have an allowable operating pressure not less than the maximum design fire brigade boost pressure of the hydrant system.

Note: The higher maximum allowable operating pressure allows for intermittent and sporadic pressure surges or spikes (e.g. water hammer).

Reference should also be made to FRNSW position [FRNSW pump performance for high rise buildings](#). The maximum design fire brigade boost pressure should exclude any fire hydrant pumpset input (i.e. the fire brigade booster is operating in full-flow pumpset bypass mode).

Reference must be made to the FRNSW website to ensure this position is current at the time of use, and this position has not been superseded or revoked.

Summary

This position statement stipulates that the fire brigade booster installed on a fire hydrant or fire sprinkler system must have a 'PN' rating, or pressure nominal rating, not less than the design fire brigade boost pressure necessary to operate the most hydraulically disadvantaged outlet/s. The design includes operation of the fire brigade booster in full-flow bypass mode, which often requires a higher pressure than the system's 'boost pressure'.

Informative commentary indicates that higher maximum allowable operating pressure accounts for irregularities in water pressure surges or spikes, such as hydraulic shock colloquially known as water hammer, but not prolonged operation above the allowable operating pressure.

Informative commentary also directs all building proponents to the FRNSW position [FRNSW pump performance for high rise buildings](#) where high-rise buildings are concerned, detailing the requirement for full-flow pumpset bypass mode in case of pump failure.

Note: The booster input pressures as detailed in Table 12.4.3 of AS 2419.1:2021 may be used during commissioning of the fire hydrant system.

This position statement has been authorised for release by Chief Superintendent Fire Safety, FRNSW.

Contact us

For further information contact the Fire Safety Branch on (02) 9742 7434 or email firesafety@fire.nsw.gov.au.

Fire and Rescue NSW

Community Safety Directorate
Fire Safety Branch
1 Amarina Avenue
Greenacre NSW 2190

Phone +61 (02) 9742 7434
Email firesafety@fire.nsw.gov.au
Web www.fire.nsw.gov.au/firesafety
Linkedln linkedin.com/showcase/frnsw-firesafety

www.fire.nsw.gov.au

