



GENERAL	BUILDING SAFETY
0.8.1 GUIDELINE TO COMPLETING TASMANIA FIRE SERVICE HYDRANT TEST RESULT SHEETS	

1. APPLICATION

This guideline is to provide advice and guidance to fire industry professionals including Tasmania Fire Service (TFS) fire equipment and fire systems permit holders. It is a technical guideline.

2. PURPOSE

This guideline has been prepared to assist permit holders in the completion of hydrant test result sheets that are submitted to TFS to assess the operational suitability of feed hydrants, unassisted attack hydrants and assisted attack hydrants.

3. INTRODUCTION

It is a requirement to assess the operational suitability of a fire hydrant system to determine the flows and pressures for firefighting purposes. Reference should be made to Australian Standard 2419.1 (AS 2419.1) regarding the system design, installation type and commission and testing processes for the hydrant system. This guideline is not designed to specify how to undertake the testing regime.

4. IMPORTANT CONSIDERATIONS

To assist in capturing the correct information you may need to:

- Reference Australian Standard 2419.1 (relevant part and year nominated by National Construction Code (NCC) and/or Directors Determination)
- Seek advice from a Building Surveyor to determine the Class of the building or if it is for 'Open Yard' protection, the hazard of the building and the number of outlets required to discharge simultaneously
- Consider if the firefighting water supply is required under Part 4 Firefighting water supplies for timber, storage and freight yards in the *General Fire Regulations 2021*.

For new systems or additions to existing systems, provide evidence where a Hydrostatic Test has been undertaken along with the hydrant test results.

If the building requires hydrants operating simultaneously at the relevant required pressure the following is an example of calculations that may meet the operational requirements of TFS and may be used when conducting a test on a single outlet dependent on required flows:

- 1 hydrant required – minimum of 10L/s @ 200kpa (or 350kpa/700kpa)
- 2 hydrants required – minimum of 20L/s @ 200kpa (or 350kpa/700kpa)
- 3 hydrants required – minimum of 30L/s @ 200kpa (or 350kpa/700kpa)

5. REQUIREMENTS FOR FEED HYDRANTS ONLY

Definition – Fire hydrant - Feed

A fire hydrant used to supply a fire brigade pumping appliance, through the direct connection of fire hose(s) between the fire hydrant and the fire brigade pumping appliance.¹

Note: This hydrant test sheet is to be completed for most applications.

Hydrant types:

- Ground Ball (Generally, only permitted in public roadways or where unique circumstances have been approved by TFS)
- 'L' Type (these were permitted where vandalism may occur but are not referenced by Australian Standard 2419.1 – generally, no longer accepted)
- Riser:
 - The current requirement of AS2419.1 and are required to be 100mm riser with 2 X 65mm Storz outlets for external hydrants.
 - Tasmania Fire Service uses DIN or NEN Standard compliant forged 65mm Storz Hermaphrodite fittings. These must be fitted with a standard (delivery) flat washer (rated to 1800kpa working pressure and 2400kpa burst pressure) along with blank caps. Refer to TFS guideline 0.1.1 Storz Hose Connections 65mm for additional information and specifications².

6. UNASSISTED ATTACK HYDRANTS

Definition – Unassisted

The system performance characteristics achieved by a reticulated water supply system, or other elevated water source or supply, without the assistance of on-site fire hydrant pump set(s) or a fire brigade pumping appliance.³

Hydrant types:

- Riser
 - The current requirement of AS2419.1 and are required to be 100mm riser with 2 X 65mm Storz outlets for external hydrants and 1 X 65mm outlet for internal hydrants.
 - Tasmania Fire Service uses *DIN* or *NEN Standard* compliant forged 65mm Storz Hermaphrodite fittings. These must be fitted with a standard (delivery) flat washer (rated to 1800kpa working pressure and 2400kpa burst pressure) along with blank caps. Refer to TFS guideline 0.1.1 Storz Hose Connections 65mm for additional information and specifications.

¹ Definition taken from AS 2419.1-2017 (not referenced by the NCC)

² Tasmania Fire Service Building Safety Guideline, 0.1.1 Storz Hose Connections 65mm, available [here](#)

³ Definition taken from AS 2419.1-2017 (not referenced by the NCC)

7. ASSISTED ATTACK HYDRANTS

Definition for Fire hydrant, attack:

A fire hydrant located downstream of a fire brigade booster connections of the fire brigade booster assembly, for use by fire brigade personnel to directly attack a fire through the direct connection of fire hoses⁴

Note: This hydrant test sheet is to be completed where the system has a booster assembly or where there are on-site pump sets.

- These systems will generally have a Booster Assembly as required by AS2419.1 - 2005 section 7 and may be either attached or remote to the building.
- The Booster Assembly must contain a feed hydrant not less than 350mm and not more than 5m from the booster inlets.
- Feed hydrant results at Booster Assemblies **MUST** be completed on this sheet.
- This sheet has columns for flows at 350kpa and 700kpa – the intent is to complete the section ‘flow@350kpa’ for results without the use of pumps (unassisted) and ‘flow@700kpa for results with the use of pumps (assisted).

Hydrant types:

- Riser
 - The current requirement of AS2419.1 and are required to be 100mm riser with (relevant number of) 65mm Storz outlets for feed and external hydrants and 1 X 65mm outlet for internal hydrants.
 - Tasmania Fire Service uses *DIN* or *NEN Standard* compliant forged 65mm Storz Hermaphrodite fittings. These must be fitted with a standard (delivery) flat washer (rated to 1800kpa working pressure and 2400kpa burst pressure) along with blank caps. Refer to TFS guideline 0.1.1 Storz Hose Connections 65mm for additional information and specifications.

Approved by:



Andrew McGuinness
MANAGER, BUILDING SAFETY UNIT

(For and on behalf of the Chief Officer)

⁴ Definition taken from AS 2419.1-2017 (not referenced by the NCC)

REFERENCES

AS2419.1 - 2005, Fire hydrant installations system design, installation and commissioning

AS 2419.1 – 2017, Fire hydrant installations system design, installation and commissioning

Tasmania Fire Service Building Safety Guideline, 0.1.1 Storz Hose Connections 65mm, available [here](#)