

Technical Solution Sheet 7.05

This technical solution sheet specifies the requirements for the safe discharge of water from an evaporative cooler. *This technical solution may be read in conjunction with the Technical Solution Sheet: 7.08 'Split System Air Conditioner' & 7.03 'Condensation Drainage Utilising Self-sealing Devices for Air Conditioning Systems'.*

It applies to:

- A discharge pipe to a roof gutter pop outlet
- Discharge to a downpipe via a tundish
- A discharge drain to a stormwater drain system
- A discharge pipe to a sanitary drainage system via a tundish to a disconnector gully
- A discharge pipe to a sanitary drainage system via a tundish to a floor waste gully
- A discharge pipe to a sanitary drainage system directly to a sanitary drain
- A discharge pipe to an absorption pit
- A discharge pipe over a tiled roof

Figure 1: A discharge pipe to a roof gutter pop outlet

As shown in Figure 1, the condensate drains and bleed down drains are not permitted to discharge to a system that is used for the collection of water for drinking use, *as per the PCA VIC G1.2.*

The height requirements of a minimum of 150mm is measured from the base of the evaporative cooler to the end of the drain termination.

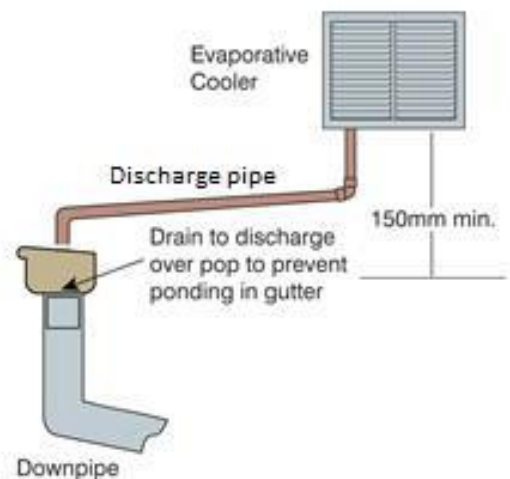


Figure 2: Discharge to a downpipe via a tundish

As shown in Figure 2, the condensate drains and bleed down drains are not permitted to discharge to a system that is used for the collection of water for drinking use, *as per the PCA VIC G1.2.*

The termination of the discharge pipe over the top of the tundish must have an air gap of a minimum of 25mm.

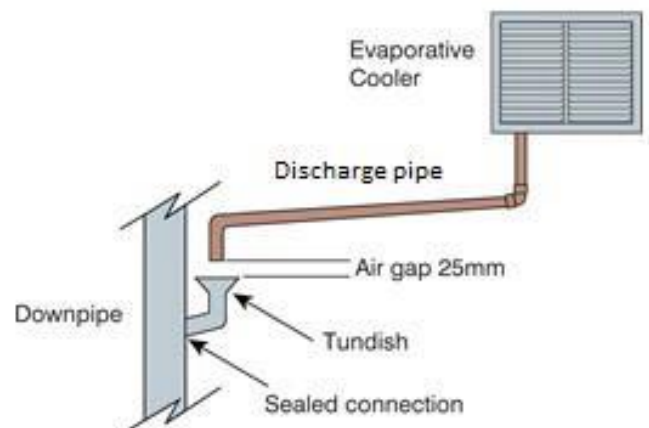


Figure 3: A discharge drain to a stormwater drain system

As shown in Figure 3, the surface must be graded away from the building, so that ponding does not occur, and the discharge does not create a safety risk to pedestrians, *as per the PCA VIC G1.2.*

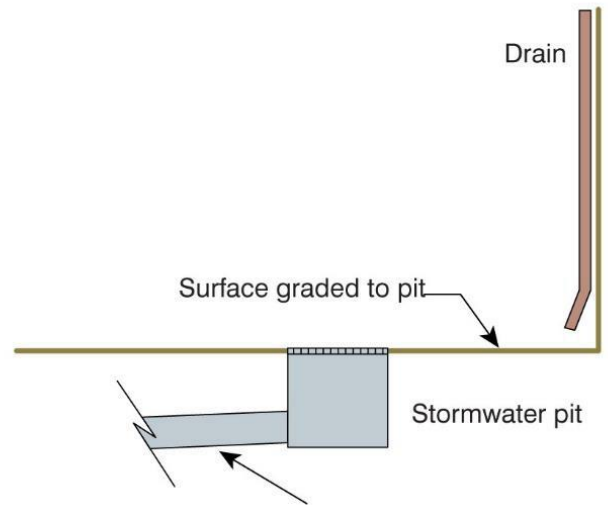


Figure 4: A discharge pipe to a sanitary drainage system via a tundish to a disconnector gully

As shown in Figure 4, the termination of the discharge pipe over the top of the tundish must have an air gap of a minimum of 25mm.

The size of the pipe must be a minimum of 40mm to a disconnector gully of up to 6m.

This is in accordance with AS/NZS 3500.2: 2018, table 4.6.3, and Appendix B.

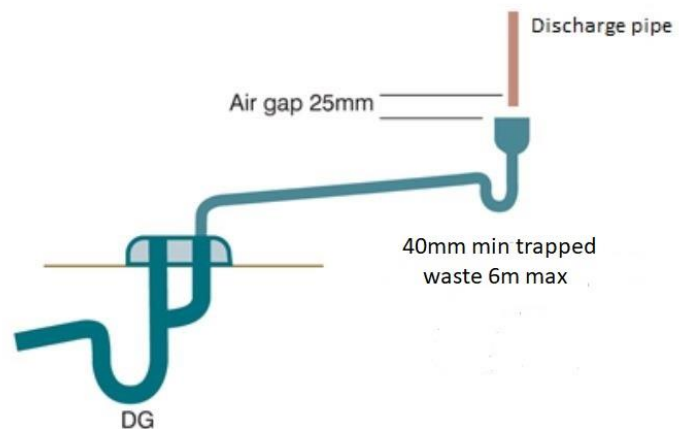


Figure 5: A discharge pipe to a sanitary drainage system via a tundish to a floor waste gully

As shown in Figure 5, the termination of the discharge pipe over the top of the tundish must have an air gap of a minimum of 25mm.

The size of the pipe must be a minimum of 25mm with a maximum of up to 10m in length.

This is in accordance with AS/NZS 3500.2: 2018, clause 4.6.7.8, and 13.21.

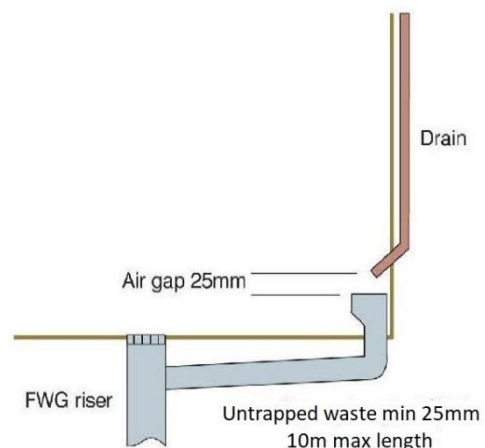


Figure 6: A discharge pipe to a sanitary drainage system directly to a sanitary drain

As shown in Figure 6, the termination of the discharge pipe over the top of the tundish must have an air gap of a minimum of 25mm.

- a) The size of the pipe must be a minimum of 40mm for the connection of a tundish to a sanitary system, with a maximum distance of 2.5m to a stack.
- b) The size of the pipe must be a minimum of 40mm for the connection of a tundish to a sanitary system, with a maximum distance of 2.5m to a 65mm drain.

This is in accordance with AS/NZS 3500.2: 2018, clause 13.2.1 and Appendix B.

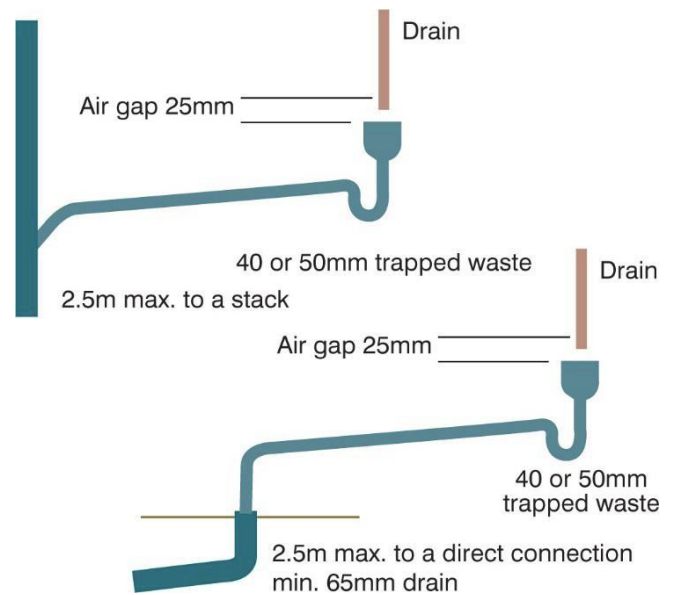


Figure 7: A discharge pipe to an absorption pit

As shown in Figure 7, this scenario is only permitted where there is no sanitary drain or stormwater system available.

The pit can only be constructed in permeable (porous) ground.

It must be of a size appropriate to the volume of discharge and located so the discharge water will not cause building damage by changing moisture content, *as per the PCA VIC G1.2.*

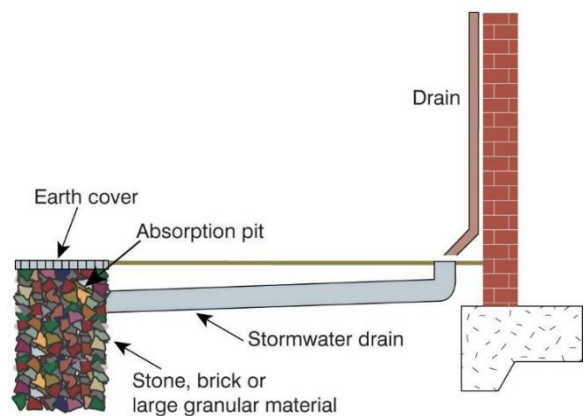
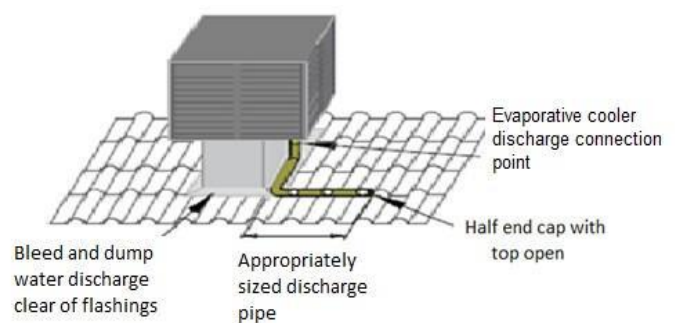


Figure 8: A discharge pipe over a tiled roof

As shown in Figure 8, the discharge pipe from a roof-mounted evaporative cooler may only be directed onto a tiled roof via a spreader. The spreader is to be in the direction of the flow of water, be secured, appropriately sized, and discharged evenly over the roof tiles. It must also be clear of roof tile joints and any roof flashings.

The end of the spreader should be half capped (e.g., top half open) and the discharge pipes should not drain to a system that is used for the collection of water for drinking use, *as per the PCA VIC G1.2.* The spreader must also not be discharged over metal roofs.



Related Documentation

- This technical solution may be read in conjunction with Technical Solution Sheet: 7.08 'Split-System Air-conditioning' and 7.03 'Condensation Drainage Utilising Self-sealing Devices for Air Conditioning Systems'.
- National Construction Code, Volume 3, Plumbing Code of Australia (PCA) 2019: VIC G1.2.
- HB276-2016 Residential heating, cooling, and air conditioning plant and equipment.

Contact Us

If you have a technical query, please email plumbingtechnicaladvice@vba.vic.gov.au or call 1300 815 127