



Simple solutions for connecting portable grey water waste tanks.

The New Zealand, Gasfitters and Drainlayers Board Self-contained Vehicle Regulations require that wastewater connections to waste water tanks safely convey the waste water and are watertight. (Regulation 18 (1) applies)

- NZ Lifestyle Camping Ltd is approved by the Plumbers, Gasfitters and Drainlayers Board as a NZ wide Certifying Authority for self-containment of motor vehicles (green warrants).
- NZ Lifestyle Camping Ltd continues to be a NZ wide Issuing Authority for self-containment under NZS 5465:2001 (blue warrants).

The following diagrams show examples of some simple methods to connect portable waste water tanks using commonly available fittings. These fittings or similar are available from agricultural and irrigation service agents, retailers and wholesalers including but not limited to Farmlands, Irrigation Express, Bunnings etc. All fittings are available through NZ Lifestyle Camping Ltd.

The following items used with standard 25mm flexible waste water hose/conduit work well in most situations. While the following examples use standard threaded and barbed connections click fit, camlock fittings can also be used and come with the same 25mm BSP thread.



By using a 32mm drill bit or hole saw to drill a neat hole into the top of the waste tank cap or container the 25 mm threaded connectors will screw in tightly with no leakage. Plumbing tape or silicone can be used for additional seal if needed.

The following illustrations show various ways of fitting these connectors.



In this image the 25mm threaded hex nipple is screwed into the waste container cap and a 25 mm nut and tail (with washer) is screwed onto the hex nipple.

25mm flexible hose/conduit can be slid over the barbed end of the nut and tail fitting.

The drilled screw cap remains on the waste container and the nut and tail fitting can be simply unscrewed when the waste container needs to be removed for emptying.

To ensure that there is no leakage when emptying the container a 25mm threaded cap can be used to seal the container.

25mm threaded plugs are also available (or can be made) to seal the open nut and tail fitting and prevent accidental draining of waste water from the hose into the vehicle.



In this image a 32mm to 25mm reducing hex nipple is screwed into the drilled cap (25mm thread end fits into 32mm opening).

A barbed 25mm connector with waste hose fitted will fit tightly into the 32mm open end of the reducing hex nipple. Applying a small quantity of silicone to the threaded end of the barbed connector will ensure that no waste water will transfer up the thread when inserted.

This fitting method allows for the waste hose to be simply plugged in to the 32mm opening. A 32mm threaded cap can be used to seal the container when removed for emptying.

Other options as shown below can be used for these connections and to enable a 1 piece waste water and vent connection for simple emptying and removal

In this image a 25mm threaded tee is used To connect both a 25mm nut and tail with waste hose and standard 13mm hose for venting using snap on connectors. There are various horizontal and vertical configurations that can be created with these connections at low cost. When removing the waste tank standard 25mm and 32mm threaded caps will seal the waste container.



Below are some images of connections that may be useful.



Inline vent connection using 25mm to 15mm barbed tee



Waste connection using threaded tee connector incorporating vent hose.

I hope these examples are useful to you.

There are many ways to adapt water hose fittings to ensure leak free connections. An advantage of feeding the vent hose off the waste hose and not the container is that only one connection needs to be removed and sealed for emptying. It is important that any connection that tees the vent hose off the waste hose is below the installed water seal / smell trap.



Example of waste connections incorporating clip, camlock fittings with male hose fitting and plug to seal.