

## Providing a Service Point for Motorcaravans

Service points are very important for responsible and environmentally friendly disposal of waste

### Basic requirements

- Fresh water tap.
- Grey Waste (washing up and shower water) a simple drain away from the building can be sufficient but some motorhomes have to empty from underneath the vehicle so require a drive over drain. Again, this can be a simple drain or longer grill.
- Black waste (toilet cassette) emptying point this can be as simple as lifting an existing manhole connected to a sewer or septic tank but preferably a ready-made or self-build unit. If possible, there should be a separate tap with a short hose attached to allow rinsing of cassette (away from the drinking water tap and labeled (not drinking water)).
- Refuse bin if possible.

### Solutions

Here is a guide for approximate costs of the following solutions. Local conditions will cause variations and self-build will be the cheapest. These are only a guide as every situation is different and installation cost will vary from nothing for a volunteer to the cost of builders and/or plumbers.

#### Grey Water Disposal Point

Simply dealt with by a drive over channel drain gulley connected to a soak away or sewer. Does not need the water supply tower shown in the photo if that is supplied elsewhere. Construction by local builder or self-build.



Cost: 3m channel drain, 3mx2m concrete slab  
Soakaway 2m3

£600-700 (less if DIY)  
approx. £1100

### Black Water or Chemical WC Disposal Point

There are a number of solutions available with varying costs depending on the services already present on the site.

#### Elementary

Existing manhole on existing foul sewer.  
Adapt manhole cover so it is easily opened and closed. A water standpipe close by with 1m hose is desirable for washing out cassettes.

Cost – Tap and pipe – a few ££



#### Basic A

Use old WC & cistern with lid connected to existing foul sewer or a DIY unit. Water tap for cleaning cassette is desirable.

COST: approx. £200



#### Basic B

As Elementary but fit hopper over manhole to avoid splash back during cassette emptying.

COST: approx. £320 + VAT & delivery

Contact: [www.ctdp.co.uk](http://www.ctdp.co.uk) 01460 240 069





**Basic +**

As Basic B but with flushing hopper, therefore needs water connection.

COST: approx. £680 + VAT & delivery & water connection.

Contact: [www.ctdp.co.uk](http://www.ctdp.co.uk) 01460 240 069



Examples of waste points



## Temporary Waste Storage

If you do not have a connection to either the mains sewage system or a septic tank/biodigester, you can still provide services using a temporary storage tank.

For example, a 2300 litre plastic effluent storage tank with tipping point hopper. It would need emptying when full. It just needs placing on a firm level surface. A water standpipe with non-concussive tap close by for washing cassettes would be preferable. NB a non-concussive tap has to be pressed to allow a discharge of water so controls water use and reduces waste.

### COST:

2300L Effluent Tank	£1470
Tipping point (Hopper)	£260
High level alarm	£162
Water standpipe say	£150
Emptying approx.	£150/visit

As a guide to running costs a 2300L tank would hold approx. 75 cassette empties so emptying would cost approx. £2/cassette. Water for cleaning is approx. £0.03/10L

Other effluent tank capacities are available:

3400L - £2,130

4450L - £2,400



Contact: [www.asapseptictanks.co.uk](http://www.asapseptictanks.co.uk)

01623 232 240

## Example Costs of Emptying

Biffa Waste disposal - Domestic Tanker Services/Household Waste

Toilet waste does not always contain chemicals – from our survey only 9% of motorcaravans use non-bio chemicals in their toilet.

Calculations assume that each emptying consists of 20 litres for the toilet cassette and 30 litres for the waste tank. Therefore a 700-gallon tank (3182 litres) would take approximately 63 visits from motorcaravans to fill. The cost of removal is approximately £2 per 50 litres. A charge of £5 per motorcaravan would generate a £3 profit per emptying.


Base charge – Initial 700 gallons – Maximum 3 pipes	£130.00
Additional Charge – Per 100 gallons	£7.75
Additional Charge – Pipe lengths 4 – 5	£15.00
Additional Charge – Pipe lengths 6+	£60.00
Additional Charge – Emergency Emptying (within 48 hrs)	£56.00
Abortive Visit Charge	£46.25

## Professional Units



These are self-contained towers often in stainless steel complete with water outlets for cassette rinsing and for fresh water refill. They can also be coin / token operated or will accept card payment

if a power supply is available. No UK supplier yet found so supplied from EU. Suitable for larger or more popular Aires where the capital cost can be justified.

## EURO-RELAIS Multi-Service MINI Point – No payment system



**Mini Point for 1 VEHICLE**  
Discreet and elegant, the Mini Point is perfect for seasonal use (e.g. outdoor hotel services).


Characteristics of the Euro-Relais 2021 MINI Point	
Mini Point: 1 Vehicle	
Payment	None
Lighting	None
Drinking water taps	1
Rinsing taps	1
Toilet drainage	Yes
Grey water drainage	Yes
Anti-freeze kit	Yes
Wi-Fi	No
Material	Base and cap: polyester, Column: 304-grade stainless steel, painted white
Control type	Push button PRESTO timer system
Locking	2-point locked door
Base (included)	To be interred and pre-connected with shared grey and wastewater drainage pipes

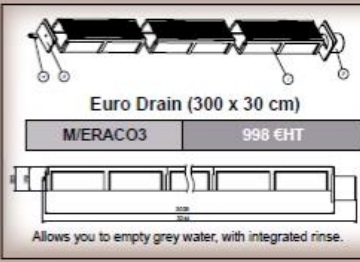
**Mini point: 1 vehicle**

M/ERMx1    2218 €HT

**Base (required)**

M/ERCE1    100 €HT






**Euro Drain (300 x 30 cm)**

M/ERACO3    998 €HT

Allows you to empty grey water, with integrated rinse.

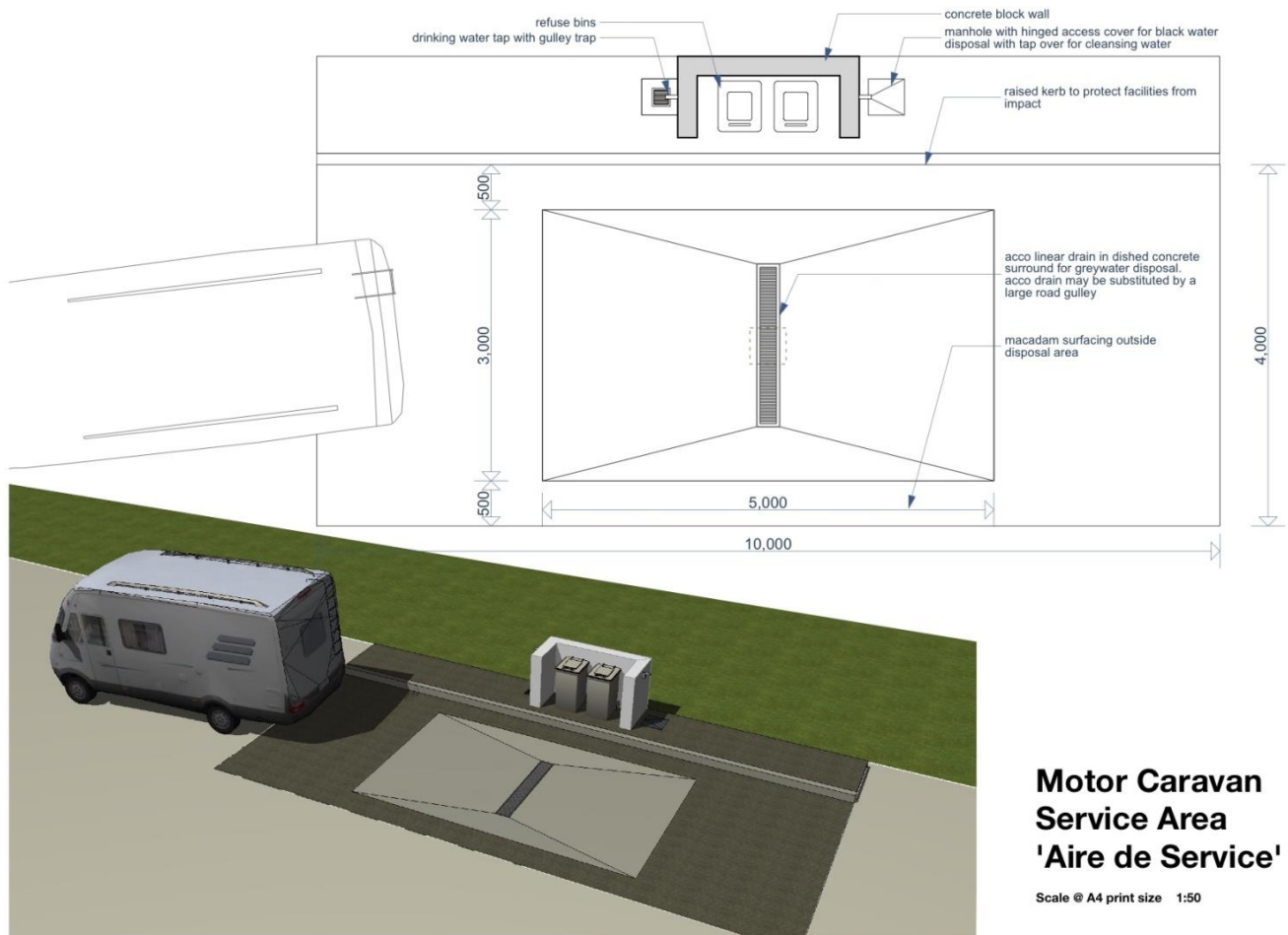


COST : £2000 +

Contact: [www.bornes-eurorelais.fr](http://www.bornes-eurorelais.fr)



## Typical Layout for a Service Point



## Motor Caravan & Caravan Toilet Chemicals

### Overview

Today very few people use a traditional bucket type toilet (Elsan, Bristol or similar), most use a portable flushing toilet (Porta-Potti or similar) or a built-in cassette toilet. Generally, these hold around 20L and need some form of chemical to break down solids. Originally most products were formaldehyde based, then in the 1990's more environmentally friendly biocides were introduced, a lot of which are still used. More recently, products have been developed which contained enzymes and Probiotics.

### Formaldehyde Products

Formaldehyde is a very good cheap biocide as it kills pretty much everything - the reason it was used for embalming. Unfortunately, formaldehyde smells and leading scientists believe it may be carcinogenic. It will also harm septic tanks and similar systems.

Formaldehyde is the main biocide in Elsan Blue and Elsan Double Blue, a number of products from Blue Diamond and a lot of the cheap toilet fluids sold in discounters and online.

### Non formaldehyde fluids

Because of the hazards of using formaldehyde and the issues around septic tanks, manufacturers introduced more environmentally friendly biocides. Thetford and 40shot are the most popular of

these. The biocide is generally spent after treating the waste in a 20L tank and as such makes it safe for septic tanks. Thetford and 40shot use only this type of biocide so their standard product is septic tank safe; other brands dress this up as Organic, ECO, Green and often dye the product green to make you feel it is something special - it is normally just Formaldehyde free. There are also soluble tabs on the market which are usually a powdered form of the non-formaldehyde biocide. However, they are designed to dissolve more effectively in heat, not a cold-water cassette, and if they get damp they will start to dissolve in the tub. Some companies are now introducing liquid sachets, which are 1 shot tear top sachets with normal cassette toilet fluid in them.

### Enzymes, Probiotic, ECO Fluids

In the last few years we have seen the addition of enzyme based products, which are great for large tanks and long periods (it is usually added to septic tanks). Probiotics and microbes work in a similar way, but take around 12-14 hours to start to work. This usually means you are probably emptying your 20L tank before anything has happened. 40shot launched a revolutionary biocide, enzyme and probiotic free fluid which works in a totally different way to ensure you only smell a pleasant floral fragrance and not nasty smells and is totally safe for septic tanks and the environment.

### No Chemicals or cheap washing tabs.

You can invest in a SOG unit or other similar products which extract the smells from your cassette tank to send them outside to your fellow campers. This works well for the owner but is most unpleasant for your neighbour! Washing tablets are cheap but they are not designed for treating human waste and many contain bleach. Again, unless they are septic tank safe (which they are usually not) they could harm the eco system of the tank, and could also damage the toilet cassette tank and/or seals.

### General advice

Buy a specifically designed product for the job (you wouldn't put sunflower oil in your engine because it's cheaper), avoid formaldehyde-based products and be cautious of enzymatic and probiotic products.

Try to measure your dose or buy a product which is a one shot or comes in a measuring bottle to avoid under or overdosing your tank. If you want value for money shop around and look at how many doses you get from the bottle for the price you pay (e.g. a 40shot Cassette Toilet Fluid will cost £10.00 in most retailers, using it for waste only you will get 50 doses per bottle that equates to 20p per dose).

Again, if you have a separate flush tank, not mains fed, ensure you use a formaldehyde free pink flush or use a flush and waste all-in-one toilet fluid.

Most products are dyed; a lot of manufacturers use powder dye which stains. Today a number of companies use polymeric liquid which are generally easy to rinse.

### Advice to site owners

We would suggest the best option for anyone considering installing a toilet waste facility, would be to provide direct access to a mains sewer. However, if this is not an option, then access to a holding tank/septic tank would be acceptable and both toilet and grey waste water would go in to the same tank.

This would increase the dilution of any biocide used, though we would also suggest that ideally motorcaravan owners use a non-biocidal fluid or ideally one that isn't enzymatic or probiotic.

This is because being biocide free won't kill any enzymes in the septic tank and enzyme or probiotic free won't affect the balance of the tank.

**Products claimed to be suitable for septic tanks:-**

- Qualkem 40shot ECO Cassette Toilet Fluid
- Blue Bio
- Dometic GreenCare tabs
- Aqua Chem Green
- Towsure Toilet Green
- Kampa Green

Others are available.

[Examples of Toilet Cassettes](#)

