



The first waterless mobile toilet
with sanitary bag system
Product Brochure Caravaning

Dear campers!

Have you ever asked yourself, what it is exactly, that drives you? Is it a desire for more freedom and independence? A longing for genuine encounters with people and nature, no strings attached?

If your answer to these questions is “Yes”, then you and us are driven by common goals. At Clesana we want to support all those who define life as constantly moving forward.

With our innovative, waterless toilet solution you can now travel without ever worrying about sanitary hygiene, no matter where the road may lead you.

From long journeys to short trips, with Clesana any place provides the clean comfort of home, far beyond camping sites, and ever with a clear ecological conscience.

Reinventing mobile sanitary solutions: flexible, reliable and eco-friendly.

Our philosophy



Leading the way. With pioneering technology.

All natural

When it comes to talking about toilet hygiene, awkward silence often ensues. But then: aren't we talking about the most natural thing in the world? One more reason for us to harmonize what is natural with what protects our nature.

As pioneers in the field of sustainable sanitary concepts we at Clesana use all our experience to enhance mobile toilet solutions that help to protect our environment. That's why the Clesana system not only operates water-free, but also makes the use of chemical additives obsolete ... and makes caravanning a truly gentle way of getting in touch with nature.

Sustainable

Thanks to the unique process of sanitary **bag welding** the Clesana toilet **works without water or sanitary additives**, while the disposal of excretions and toilet waste is **absolutely care-free**. The **automatically sealed bags** can be treated as simple household waste. One more reason why the **eco-balance** of the Clesana system is that **much superior** to **conventional chemical toilets**. And what's more: we are currently working on eco-friendly foils to make our sanitary solution even more sustainable.

Independent

Clesana **works without any connections to water** supply. This way waste water tanks or cassettes become obsolete – as does the need for special disposal stations. Installing and starting up a Clesana toilet is **absolutely simple** and the operation **close to maintenance-free**.

Hygienic

Awareness of the environment and awareness of the best hygienic standards – **at Clesana we don't compromise** on either goal.

In short: what-ever goes into a Clesana toilet won't come out again. That includes germs, bacteria and viruses. Our sanitary bags build a **reliable hygienic barrier, clean, leakproof** and **odor-free**. After every single use the toilet is automatically lined anew. Furthermore, there is no need to worry about any possible contact to the bag's contents during disposal. Even diapers and hygiene articles can now be discarded neatly and odor-free.

Simple

Handling of a Clesana toilet is fool-proof: big button for "big jobs", small button for "small jobs". And the disposal of the welded sanitary bags is no less simple: open compartment, **dispose of bags as household trash, close compartment... and you're done!** Clean and simple!

One solution...

For new horizons

Clesana not only offers great comfort and perfect hygiene, but also redefines the idea of caravanning.

For creators: manufacturing & retrofitting

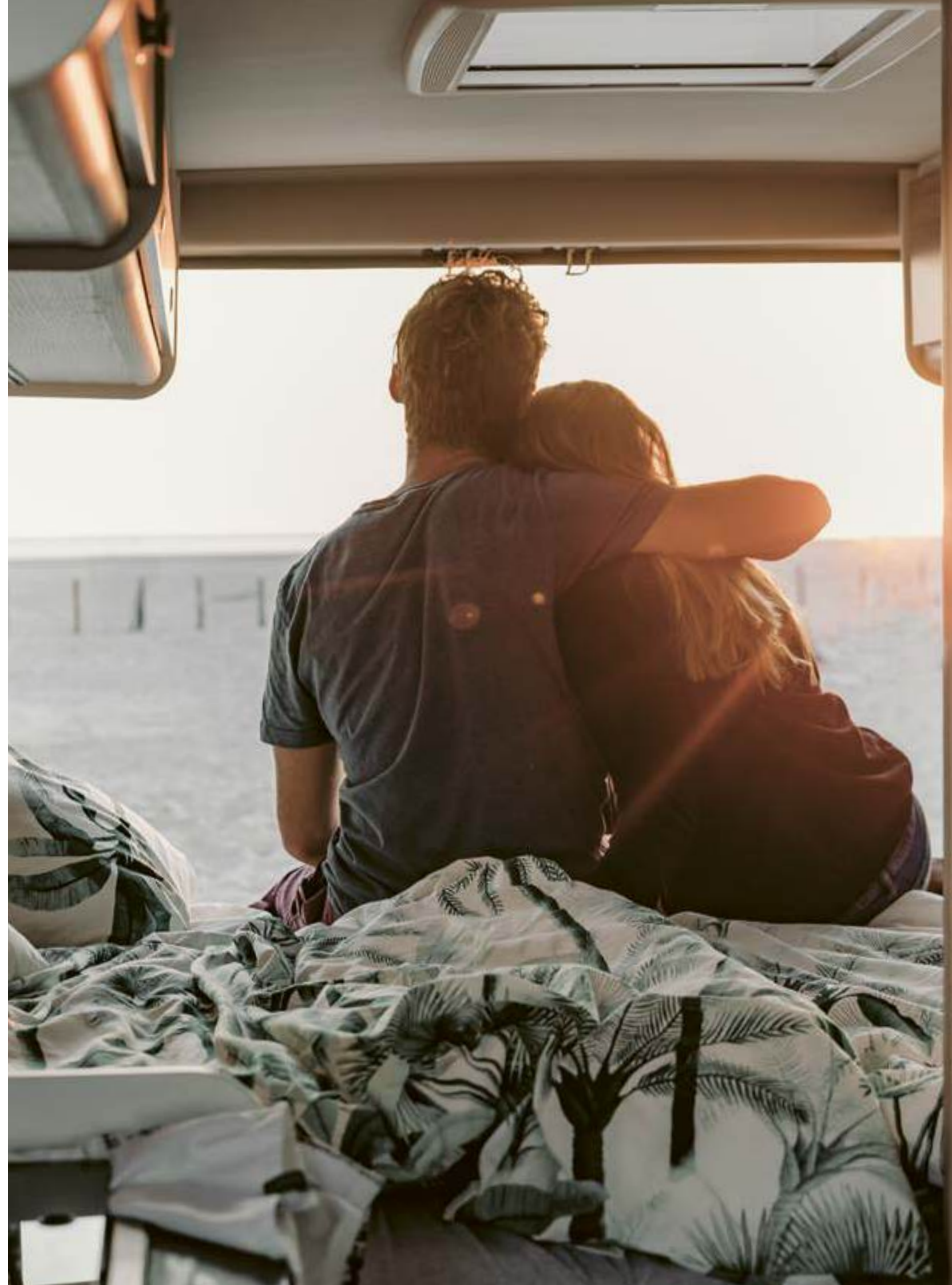
By eliminating waste-holding cassettes accessible through the outer wall of the vehicle caravan manufacturers with Clesana benefit from all new possibilities for layout and space planning. As the Clesana toilet can be positioned and installed in the designated sanitary area with the greatest flexibility, it allows for many new ideas in design & development – not only for professionals, but also for do-it-yourselfers, who want to retrofit their motorhome themselves.

For discoverers: camping wherever

Clesana redefines the way campers conquer their world, as caravanning enthusiasts now no longer have to rely on scarce camping pitches with sanitary facilities. Clesana meets the growing demand for more independence and flexibility, ensuring safe freedom of travel in times of the pandemic ... and beyond.

For everyone: simply intuitive

Not least Clesana is a game changer for the rental business: from experienced campers to newbies, handling of the Clesana toilet is so simple that an incorrect use and resulting damages are close to impossible. Also, the system is very low-maintenance, during times of use as well as during idle periods. No winter shutdown is needed, end cleaning can be restricted to surfaces.



Why Clesana?

Your benefits at a glance

- Hygiene in accordance with medical standards
- Simple and secure disposal of sanitary bags as household waste
- Completely odor-free
- Multi-purpose (diapers, leftovers, hygiene products etc.)
- Easy handling and cleaning
- Eco-friendly by making chemical additives and water supply obsolete
- More freedom and independence
- Instantly ready to use, even after long idle periods
- No winter shut down needed
- Supports much more spontaneity on short and long trips
- Low maintenance

Clesana

The highest degree of comfort – on every degree of latitude

To truly be out and about means to **experience freedom without limitations**. With the Clesana toilet you can now **camp away from sites**, without compromising on **comfort** and **hygiene**. Our open secret is the so called **»thermo-pressure-welding«**. What might sound complicated is incredibly simple in handling. Spend your nights at your **dream places**, however remote they might be: between the **vines of a vineyard**, **at the shores of a quaint lake**, **in the forrests of Scandinavia** or simply at a beautiful camp site, Clesana is with you all the way – flexible, eco-friendly and safe.

What's more: Clesana offers the **perfect solution** even for **little trips at short notice**. The toilet is **designed** even for **sporadic use**. Once the foil liner has been inserted and power supply is secured, a Clesana toilet remains fully operational throughout. With the opening of the lid the system will reset from standby to standard mode, no matter how long the preceding downtimes.



Clesana C1 (lid open and closed)



Smart design
Clesana C1



(Retro)fit for the future

With Clesana you never compromise in comfort and hygiene and still save valuable resources and a lot of space with a truly revolutionary sanitary system ... and, not least, a lot of time, thanks to an unbeatably simple installation process.



Easy installation and deinstallation

- To install the Clesana toilet only a 12V power source is required.
- The floor-mounting of the Clesana toilet is done swiftly via a round socket with only five screws.
- The Clesana toilet is highly flexible: it can be positioned freely within the vehicle and turned up to 180°.
- Simply retrofit chemical toilets to a C1 by using an L-Adapter.
- Once installed, the toilet can be deinstalled anytime with the greatest ease.

Clesana C1 - Data and facts for easy installation and retrofitting

To more freedom in just a few steps ...

The highest degree of independence now comes with very low hurdles. Retrofitting to Clesana's sanitary solution is simple – and simply the best way to become independent of disposal stations and avoiding contact with excretions and chemical additives. Clesana brings together innovative technology and a design that is as appealing as it is space-saving.

Facts and numbers

Dimensions and weight

Dimensions (H x L x D)	515 x 363 x 516 mm
Sitting height	478 mm
Gross weight	14 kg

Technical data

Nominal voltage	12 V
Max. power consumption (short term)	27 A
Energy consumption in standby mode	0,14 W
Max. energy consumption (short term)	324 W

Smart solutions



Panel for intuitive handling with info screen. Dimensions in accordance with panel of Thetford C260 series.



L-adapter for retrofitting a chemical toilet to a Clesana C1.

Discover car(e)avaning

Eco-friendly by design

We know: many believe that environmental consciousness comes with sacrifices. At Clesana we want to prove that true **sustainability** and **superior performance don't have to exclude each other**.

The outstanding **eco-compatibility** of Clesana becomes very obvious if we look at the overall ecological balance, from production to use and on to waste disposal. Here we rely on the tried and tested **balancing method ReCiPe***, aimed at evaluating the overall impact of products on both humans and the environment.

These studies have shown that **Clesana** is **superior to conventional chemical toilets** in every single category of environmental compatibility – including the **impact on climate change** as well as **terrestrial acidification**, **contamination of waters** and not least possible **health risks for humans**. Already the **CO₂-footprint of Clesana** is **10% smaller than that of chemical toilets**. And we tirelessly continue to work on sanitary solutions that are even more sustainable.

In direct comparison with conventional chemical toilets Clesana C1 takes the lead in all categories under review:

1. up to 10% smaller CO₂-footprint [kg CO_{2e}] with barrier foil liner
2. up to 124% less terrestrial acidification [kg SO_{2e}]**
3. up to 63% lower ecotoxicity in fresh water [kg 1,4-DCB_e]**
4. up to 115% lower human toxicity [kg 1,4-DCB_e]**
5. ca. 170l of water saved as a valuable resource

In comparison: 5 uses*** with barrier foil equal the CO₂-footprint of just the production of 1 glas of wine (0,2l) or 2 bottles of beer (0,33l) or a driving distance of 1,4 km in a camper van (Fiat Ducato 130 Multijet, Diesel, Euro 6**).

This is how we understand innovation: protecting people while protecting our nature.

* Developed in cooperation of the Dutch Institute for Public Health with the Universites of Nijmegen and Leiden as well as analysts of the Agency for Sustainability Pré. **by residue-free burning of materials that cannot be processed by waste water plants. *** equals the average number of uses per person and day.



Clesana toilet - For all the best reasons

The Clesana system protects your health by establishing an effective infection barriere.

The Clesana system saves the environment by saving resources.

The Clesana system reduces negative impacts on water quality.

The Clesana system prevents terrestrial acidification.

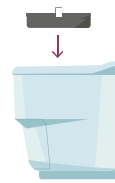
We are proud to have reduced our CO₂-footprint by 10% compared to chemical toilets.

Eco balance compared

Clesana toilet

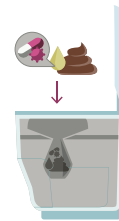
1

Insert foil liner
before use



2

Waterless bagging
and welding



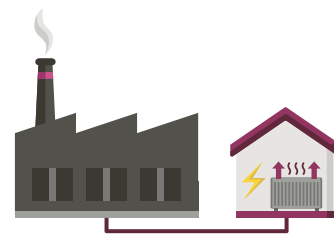
3

Dispose of bags as simple
household waste



4

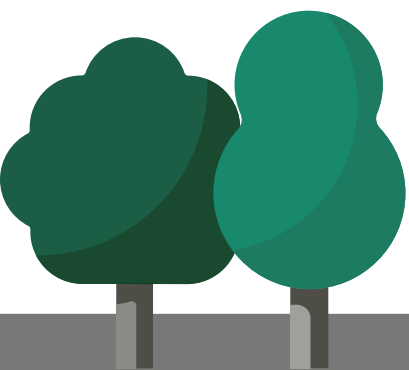
Energy production / district heating
from waste incineration plants



5

Eco balance Clesana toilet

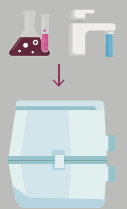
Saves precious fresh water. All bag contents are
burned completely and without any residues.



Conventional chemical toilet

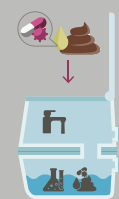
1

Refilling of fresh water and sanitary
additives before use



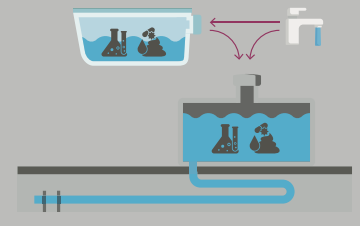
2

Every flush consumes
fresh water



3

Emptying of cassette at disposal stations
and cleansing with fresh water



4

Sewage plant for
purification

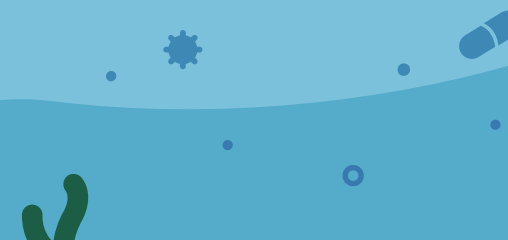
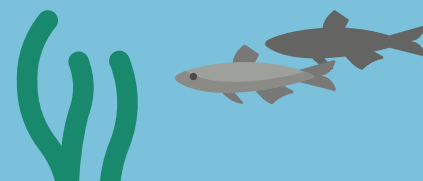


5

Eco balance chemical toilet

ø 170 Liter* water consumption per person and year. Residues
from chemicals, hormones & pharmaceuticals in waters & soils.

*Based on 150 uses per person and year (4x Small, 1x Big
per day, 30 days of travel)



Setup

Little effort, great comfort.

Before the first use of the Clesana toilet the foil liner has to be inserted. Just follow these 4 simple steps:

Step 1

Remove lid, take out foil cassette and place on table upside down (oval side downwards).

Step 2

Put liner onto foil cassette and adjust. Flip cassette, pull foil tube up and over the rim inwards, leaving it overlapping downwards.

Step 3

Reinsert foil cassette into toilet.

Step 4

Place lid back on and initiate reset. The foil tube is now automatically welded to a bag and the counter is reset. The toilet is now ready to use!

A fresh barrier liner allows for 36 uses. The digital counter reliably indicates when it is time to change the liner.

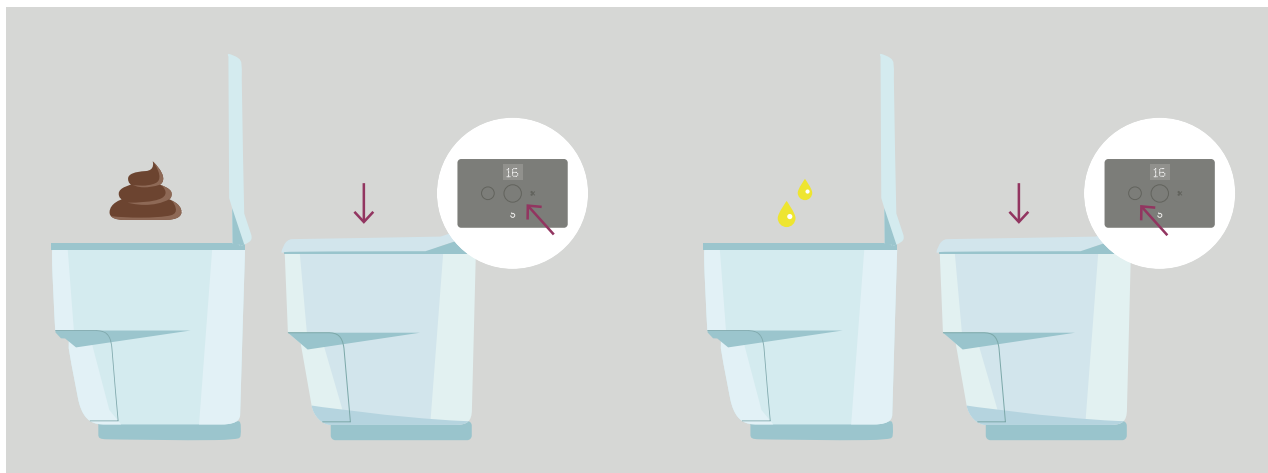


Handling & Use

Sophistication simply done.

The use of the Clesana system is so easy, you won't even notice a difference to the sanitary comfort of your home ... except for not needing any water to feel hygienically safe, without compromise.

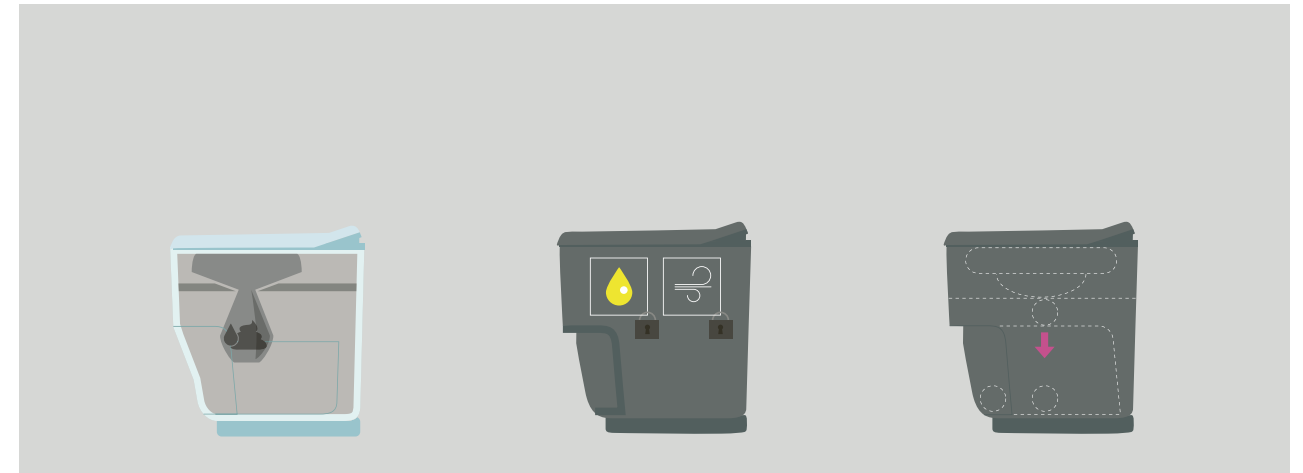
1



As soon as the foil liner has been inserted, the Clesana toilet is ready to use. Flushing is very similar to your toilet at home: simply close the lid and choose between the buttons "Flushing BIG" and "Flushing SMALL". As an option and to bind fluid, the Clesana absorber may be added to the toilet "bowl". Then, again close the lid and select "Flushing SMALL".

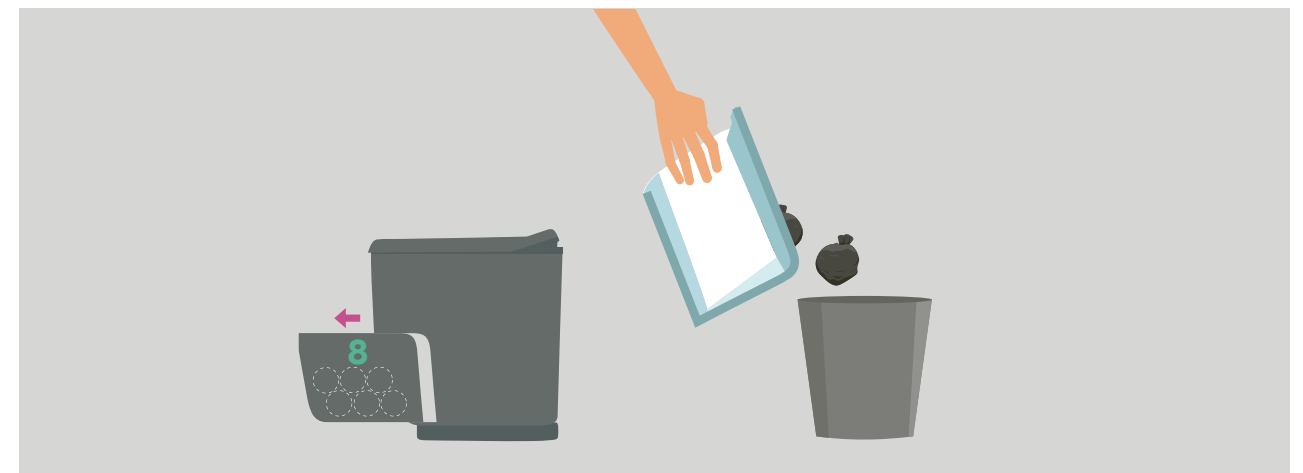
By the way: with Clesana even the disposal of toilet waste is now trouble-free. From toilet paper, feminine hygiene products to diapers, the foil-bag-system securely seals everything at the push of a button.

2



After pressing the flush button the system takes over. Excretions and toilet waste are automatically sealed in foil bags and collected in a special compartment beneath the toilet seat, without any odors, germ-free and with no need for water. The system now automatically lines the toilet "bowl" with fresh foil for subsequent use.

3



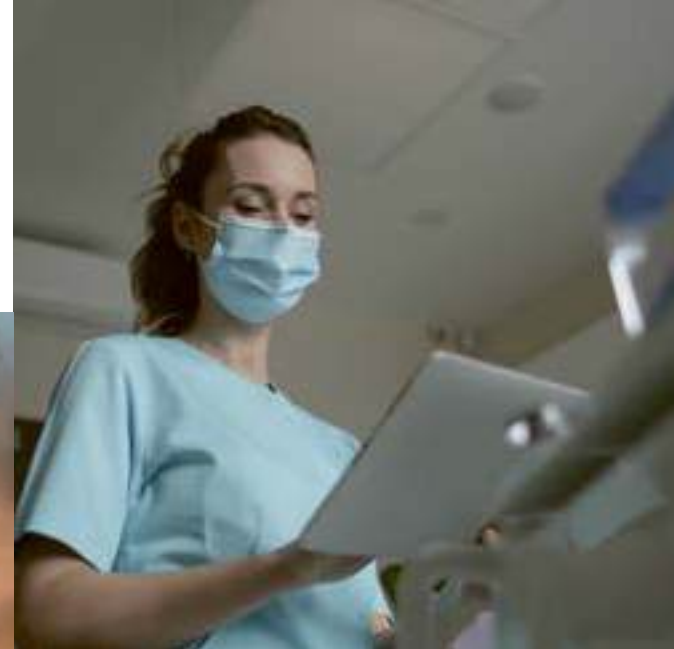
The fill level indicator integrated in the display shows the need for emptying the bag compartment. To empty, simply pull out the compartment and discard sanitary bags as household waste, care-free and without ever having to fear contact with the contents.

Clesana. Clean. Care. Comfort.

Many challenges. One solution. **Offroad. On track.**



With Clesana C1 we have left the beaten track in mobile sanitary solutions for good ... and also for the better, as by choosing our very own path enabled us to develop a unique technology that has converted our innovative spirit and our love for the environment into one solution to many challenges. The Clesana system is not only the perfect companion in caravanning, but already in use in many other areas with high demand for uncompromising hygiene. To us, this is perfect proof for having chosen the right path ...



Health care

Clesana offers **hygienic sanitary solutions** for **people in need of care**, who are **limited in their mobility**. Clesana's mobile toilet can **easily be placed at the side of a patient's bed** and is guaranteed to **operate completely free of odors**, thanks to **sealable foil bags**. This helps to protect patients and caregivers from germs and viruses. Also any excreted residues from pharmaceuticals, **antibiotics**, **contrast agents** or **hormones** are safely prevented from entering our waters – an important **contribution** to **pollution control**.

Shipbuilding

Hygienic comfort always aboard: Clesana provides the **perfect sanitary solution on water – without any need for water**. From small boats to big yachts the Clesana toilet upholds the hygienic standards you would expect on dry land. Whether on a short harbor cruise or on a full-blown sea crossing, **excretions and waste** will be kept **sealed securely** even for weeks without emitting any odors. Even more important: **Clesana helps you to preserve** what you love: rivers, lakes and the ocean.



Military / Civil protection

In any crisis situation **maintaining hygiene is crucial**. Immediate threats to the public, as posed by pandemics or natural catastrophes, call for an extensive provision of **toilets and sanitary facilities that operate independent of water supply**.

With the Clesana toilet any person under acute threat, as by sickness or injuries, can be isolated quickly. The system is **ready to use anywhere**, from your own home to quarantine facilities. This **helps to minimize the risk of infection**, as contagious excretions can be discarded safely anytime.



Excited?

Product demonstration & further details

Want to know more about Clesana or book a test demonstration with us? Simply get in touch via telephone or e-mail. For straight-forward inquiries you may also use the contact form on our website. Our team of experts is looking forward to supporting you!

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– Ray Bradbury



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