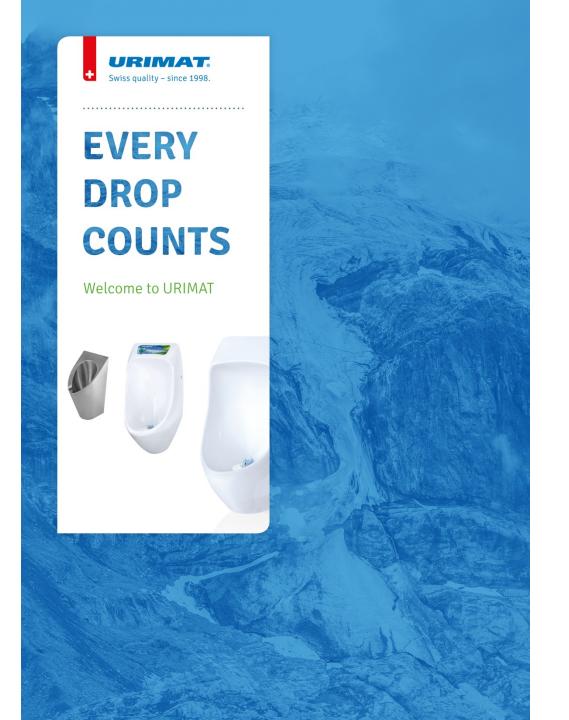


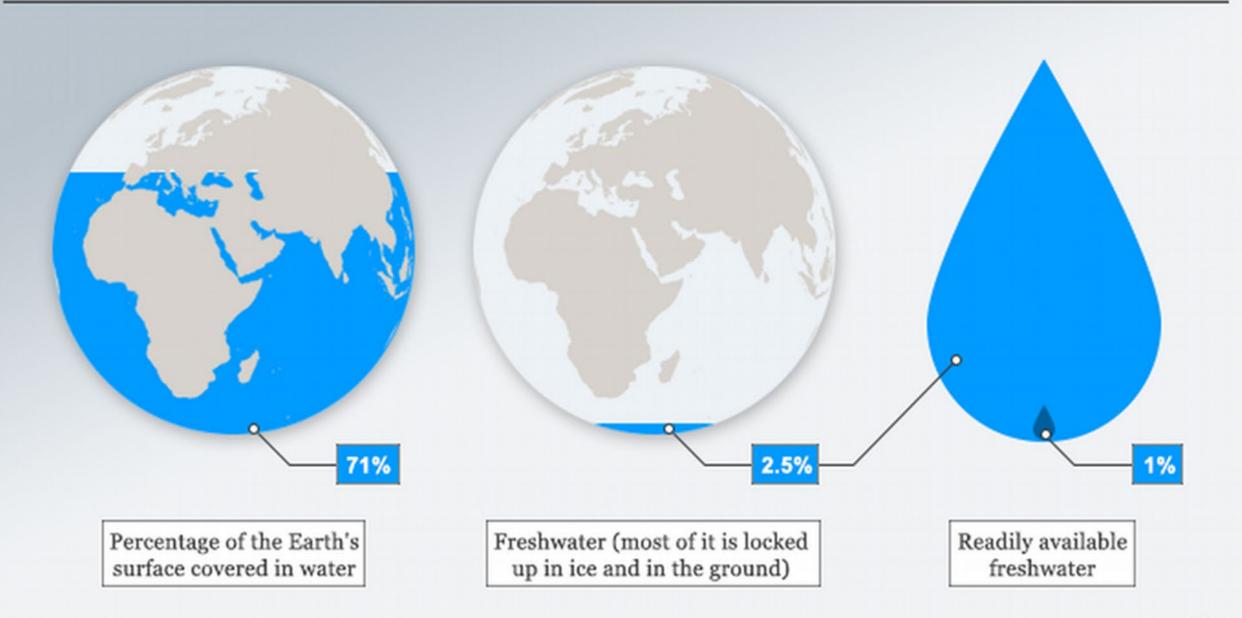


Practical Applications of Waterless Sanitation Technologies and Products





Freshwater makes up a very small fraction of the Earth's water



Source: USGS

World water facts



2.1

people lack access to safe water, free of billion any contamination.

844 million water service.

people still lack even a basic drinking

892 million

still practice open defecation.

263

mostly women and girls walk more than 30 min./day to get water.

Large increases in

water demand

are expected for industry and energy production.

of world's wastewater is discharged to water bodies without any treatment.

2.3 billion

people still lack even a basic toilet facility.

Extreme will increase

worldwide due to floods climate change.

500 million

people live in areas where water consumption is twice as high as locally available water.



Who we are

- URIMAT is a leading manufacturer of environmental friendly waterless urinals
- SME with Swiss origin
- Offices in Switzerland and Germany
- For more than 20 years active in waterless technologies in Rheinland-Pfalz
- More than 20 years of experience in the waterless industry
- Export to more than 40 countries
- CO2-neutral production process
- Innovative leader in waterless urinal technologies
- Worldwide patented technology









Swiss quality – since 1998.

URIMAT

The ecological environmental system.

- High-tech polycarbonate bowl, carbon-neutral manufacturing, 100% recyclable
- Unique odour trap technology with integrated cleaning system Saving minimum 100,000 litres of drinking water a year per urinal = 17.5 kg less CO₂
- Microbiological cleaning system
- Financing possibility through advertising



URIMAT sets standards

As a leading company for waterless sanitary technology, URIMAT is continually redefining the quality standard. Our constant striving for new solutions to protect that precious resource, water, have been endorsed over recent years by numerous renowned international environmental awards and certifications.













URIMAT is a leading producer of environmentally friendly products in the sanitary ware industry







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The original.

The waterless urinals from the market leader at a glance!







Ultimately ony hard facts count

- Annual savings of 100'00 litres of drinking water per urinal per year
- No urine scale build-up
- No chemicals
- CO2 reduction (175g per m3 water)
- CO2 neutral manufacturing
- Microbiological cleaning system
- Refinancing option with Advertiding Display
- Worldwide patented system and design



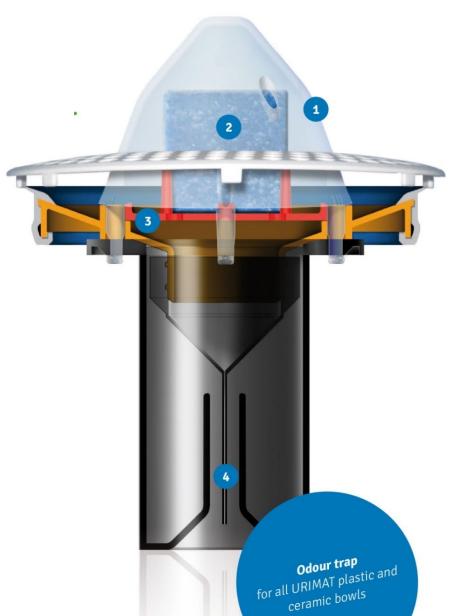


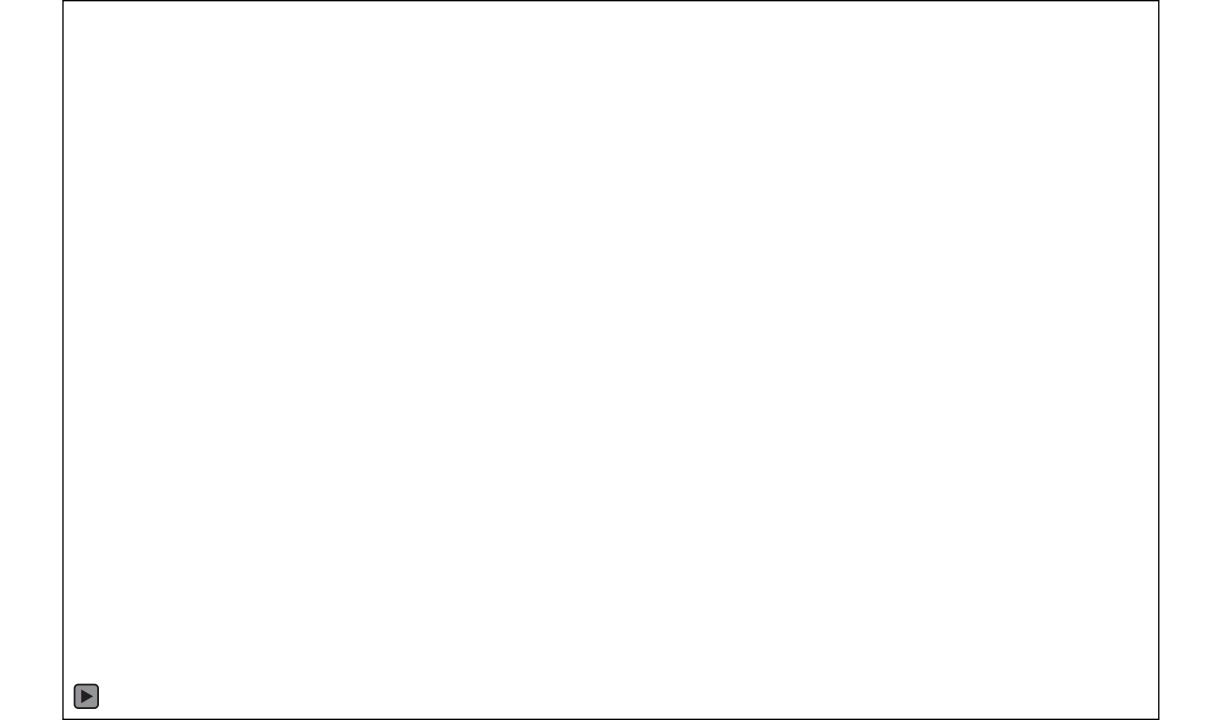


MB-ActiveTrap

Sophisticated technology for the most basic of needs.

- 1. Patented three-way control
- 2. Integrated MB-ActiveCube
- 3. Lifecycle indicater
- 4. Vertically sealing mambrane system





MB-ActiveCleaner

PH-neutral, biological and sustainable.

- PH-neutral
- Value for money
- Skin-friendly
- Biological
- No harmful vapors
- Eco-friendly





pH-neutral Value for money Skin-friendly Biological Hygienic









References



































































Case story One – Remote projects



Remote areas (all over the world)

Why

- Water scarcity in remote areas, no public water supply
- Not connected to public wastewater treatment plant

Case study Restaurant Diavolezza, CH

- Altitude: 3000m above sea level
- No public water supply
- Wastewater has to be treated at site
- 6 waterless urinals installed in 2014



Case story two – Water saving in public restrooms



Case study Tottenham Hotspur Stadium, GB

- Place for 62'000 persons
- > 40 matches/year
- High usage peaks

First trial installation:

- 11 Urimat urinals were installed
- 6 week operation with 5 matches
- Result: No damage, no replacement of Trap, easy to clean and operate



Source: Hzh Fottenham Hotspur Stadium - view from High Road February 2019, CC BY-SA 4.0



Source: Ecoprod UK





Savings with 850 pcs URIMAT waterless urinals

50,000 liters per urinal/year

42,500,000 litres or 42,500 cubic metres/year

water tariff £2.30/cubic metre

= savings of £97,750.00







Benefits

- Water savings up to 100'000 litres per year/urinal
- Short return on investment (average ROI 18 month)
- Guaranteed odour free
- Lower cleaning and maintenance cost (easier and quicker cleaning, less likely to suffer from blockages)
- Lower carbon footprint (1m3 = 175g CO2 saved)
- Improved fan experience (same efficiency but more privacy vs troughs, aesthetics)
- Strong environmental mission statement





Struvite/Fertilizer





Case study Heinecken Music Hall, Amsterdam, NL

"The idea of a circular city is a city that produces no waste."

Why

- Urine contains phosphorus (struvite is magnesium ammonium phosphorus), a fertiliser commodity that is becoming ever more scarce. > 1 liter pure urine delivers approx. 2 g struvite
- According to most projections current global supplies will be depleted in thirty years



Source: https://www.adformatie.nl/carriere/het-einde-van-de-heineken-music-hall



How it works

- Installation of waterless urinal
- All toilet drains are hooked up to a large storage tank.
- The tank will measure three by four meters, capable of storing up to 13.000 liters of urine
- A separate installation converts the phosphate from the urine into struvite

Benefits (examples from waternet.nl)

- The Status Quo concert yielded 4,125 liters of urine. That is enough for more than 8 kilos of struvite.
- Three full tanks of urine provide enough struvite for fertilizing a soccer field.





Source: https://www.waternet. nl/nieuws/2016/12/am sterdam-maaktkunstmest-vanmannenurine/











Struvite from urine





Capital pees for phosphate at Heineken music hall







Lifestyle Society f y in W December 21, 2016

Beer-drinking music lovers can feel proud – every drop they produce in the toilets of the Heineken Music Hall will be turned into fertiliser, according to the Parool.

The hall, which will be known as AFAS Live from 2017, will collect all urine from male concert-goers in a large tank and transport it to Amstel water board's treatment plant in Amsterdam's western harbour area. There it will be turned into a phosphate-rich kind of fertiliser.

According to the Parool, three full tanks containing a total of almost 40,000 litres of urine are enough to fertilise a football field. An average of 3,000 men visit the gents during each musical event, and they are being targeted because they don't need to flush or use toilet paper – which could block up the tank.

Case story four – Ministry of Den Haag



Ministry of Den Haag







To sum up



- Waterless urinals have proven themselves as part of a sustainable and economical system
- The waterless systems are hygienic and trouble-free with low investment costs compared to flushing systems
- Short return on investment (average ROI 18 month)
- Urine can be a major future raw material for fertilizers

We are only at the beginning of changing the sanitation world and restroom experience!







Thank you