



STANDARD



VACUUM TOILET

# Jets Standard AS manufacture and sell

- Vacuum toilets
- Vacuum waste systems for buildings trains and buses.
- Special solutions for vacuum transport of liquids (emptying stations for sewage, system for collection of condensation water, transport system for the food industry etc).

We cover everything in the area of sanitation, from small cabin-toilets to comprehensive systems with several hundred vacuum toilets.

The company are located in Hareid district outside Ålesund, and are located in modern industrial premises.

# VACUUM TOILET

the solution for all country houses



- with mains water-supply
- without mains water-supply
- for 12V
- for 230V
- to sealed tanks
- for composting
- to sewage networks.





## Home comfort

With a toilet system from Jets Standard, the level of sanitary comfort will equal that of your home.

The toilet bowls are made of porcelain – the same as those on cruise ships - and you can choose between floor or wall mounting. Neither the toilet nor the room need ventilation as the vacuum toilet is in itself a self-contained ventilation mechanism. This provides you with a high level of comfort and an excellent level of sanitation.



To sewage



To composting tank



To collecting tank

## THE PERFECT TOILET SOLUTION FOR ALL

### 230V



#### ▶ WITH MAINS WATER SUPPLY

The Vacuumator can be plugged directly into a wall outlet with 10A fusing.

The water supply is connected directly to the toilet via ½" standard-connection. The water consumption is approximately 0.5 litres per. flush.

### 230V



#### ▶ NO MAINS WATER SUPPLY

The Vacuumator for operation of the system can be plugged directly into a wall outlet with 10A fusing.

With a water consumption of 0.5 litres per flush, a 25-litre water container will last up to 50 toilet visits.

### 12V



#### ▶ WITH MAINS WATER SUPPLY

A battery with solar cell capacity provides ample current to operate the Vacuumator.

The water supply is connected directly to the toilet via ½" standard-connection. The water consumption is approximately 0.5 litre per. flush.

### 12V



#### ▶ NO MAINS WATER SUPPLY

A battery with solar cell charge provides ample current to operate the Vacuumator.

With a water consumption of 0.5 litres per flush, a 25-litre water container will last up to 50 toilet visits.

# Jets vacuum toilet system, naturally...



Tried and tested system  
Independent of gravity  
Low emptying frequency  
Hygienic, top comfort  
Environmentally friendly

Extremely low water consumption  
Reliable quality product  
Good total economy  
Large capacity  
Flexible

## ECONOMICAL

Jets toilets have low installation costs with minimal adaptation required for installation. This makes the system perfect for refurbishment. The economy is otherwise dependent on local conditions in terms of costs for water, waste treatment and emptying of sealed tanks. When waste collection becomes necessary, a Jets toilet will rapidly pay for itself through reduced annual emptying costs. The energy consumption is also extremely low, at approximately 4 kwh per person/year.

## APPROVAL

Regulations are normally set by the individual districts, which govern the choice of waste solutions for cabins and country houses. In respect of this, Jets toilets are the most flexible solution available on the market, as they are adapted for connection both to gravity pipes, bio-unit and sealed tank.

## INDEPENDENT OF GRAVITY

With Jets vacuum toilet, slope is unnecessary, as the system can "raise" the waste to a higher tank, BIO- or sewage system. The height-raised is dependent on several factors. When using the Jets Vacuumarator® 10NT, the maximum height raised is 2 m. The maximum distance between Jets Vacuumarator® and collection is 30 m in a horizontal line. When using the Jets Vacuumarator® 15 M/MB, the maximum raising height is 5 m. The maximum distance between the Vacuumarator and the collection is 100 m in a horizontal line. With higher raising and/or greater distances, please contact the supplier.

## TRIED AND TESTED

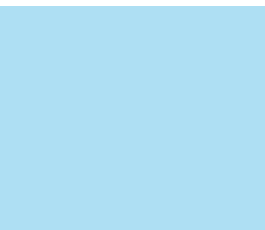
Since 1986, Jets have supplied more than 100,000 vacuum toilets to ships, buildings and trains.

## LARGE CAPACITY

Jets vacuum system can cope with waste from toilets, water-traps and washstands. Many units can be connected to the same Vacuumarator. A few seconds after flushing the toilet is once more ready for use. As long as the holding capacity is large enough, there are no limitations in the number of toilet visits.

## FROST PROTECTION

Where possible, the Vacuumarator is to be placed in a frost-protected room with some floor heat. The outlet pipe must be dug down to frost-free ground or protected with a warming cable.

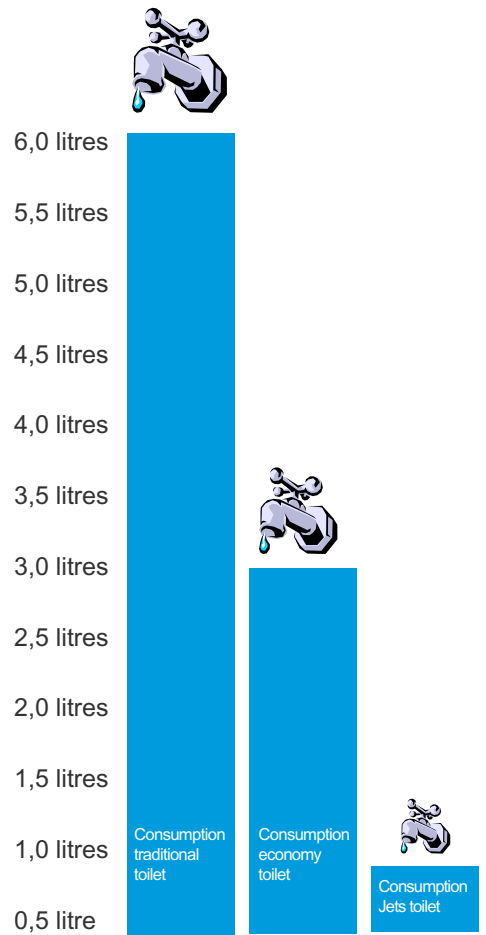




# HYGIENIC AND ENVIRONMENTALLY FRIENDLY

## REDUCED WATER CONSUMPTION

A traditional toilet uses 6 litres of water per flush. Jets vacuum toilet uses approximately 0.5 litre per. flush. This provides a reduction of approximately 90%!



## REDUCTION OF WASTE

Low water consumption provides a reduced quantity of waste. Compared to a traditional toilet, the quantity of waste will be reduced by approx. 90%!





# Jets vacuum toilet system

## LOCATION



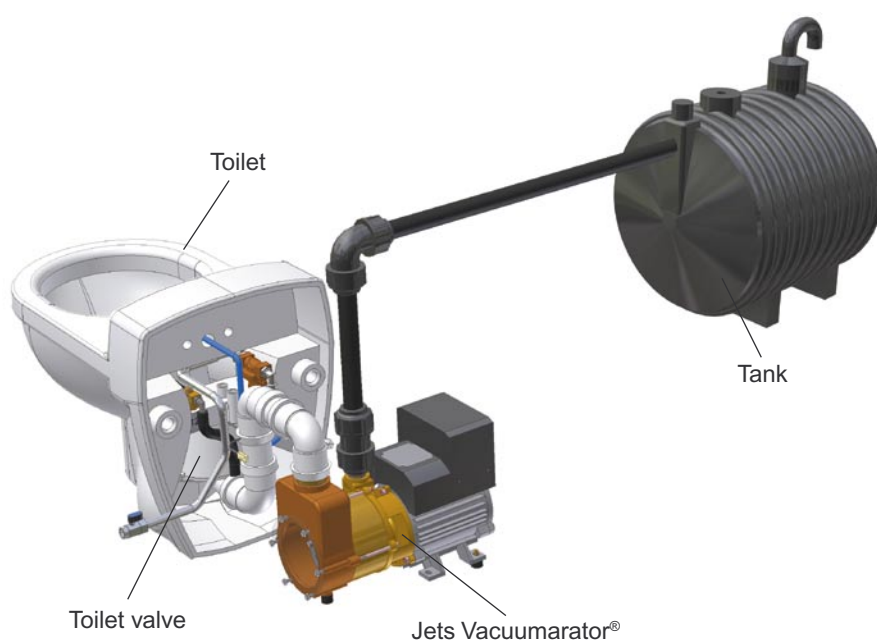
The Vacuumator can be located separately from the toilet. In the installation shown overleaf, it is built into a cupboard in the room containing the toilet. If more appropriate, it can just as easily be located in another room, e.g. in the cellar.

## MAIN PRINCIPLE

A Vacuum toilet system uses air and not water as the transport agent for toilet waste. A Jets Vacuumator® works by evacuating air via the waste pipes. This takes place automatically with activation of the flush button (VOD-system). On flushing a valve is opened to the toilet. The air difference thereby occurring ensures that transport of toilet waste takes place.

Jets Vacuumator® ensures that toilet waste is macerated at the same time as it is pumped to a collecting tank, a BIO-tank or to a sewage outlet. At the same time the toilet is supplied with a small amount of water. This ensures that the toilet is kept clean with minimum water consumption. The whole operation takes only a few seconds.

Presented in this brochure are VOD (VOD = Vacuum On Demand) type toilets and sanitation plant-systems with 1 to 10 toilets. These are also used in "public areas" (waiting rooms, restaurants etc). The same technology is used in principle as is used in trains and buses.



The toilet system functions just the same -  
irrespective of the type of receiving system in use

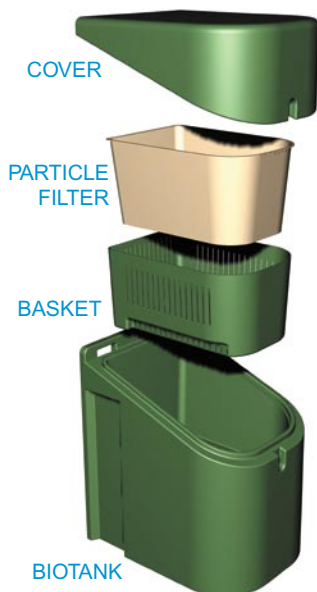


## Waste treatment



### JETS CLOSED SYSTEM

- is a solution for collection of waste in a closed tank. The waste goes to a valve in a sealed tank, which is emptied as required by a drainage vehicle. The tank can stand on the ground or be dug down. The entire system; toilet, pipes and tank are completely sealed and nothing can either enter or leave the system. Tank size may vary. The standard volume is 900 litres. The tank may be placed in the most suitable part of the site. Capacity: see technical data.



### JETS TO BIO (COMPOSTING)

- is the solution for customers that like to take care of things themselves. Maceration of the waste in the Vacuumator gives the composting process an excellent start.

The Biotank from Jets Standard is especially designed for effective composting. It is frost-isolated and can remain temperate with the aid of a warming cable, supplied as an optional extra.

The Biotank is placed in the most suitable part of the site. If desired, it may be placed in an outbuilding, under the cabin, dug into the ground, by the cabin wall etc.

With each toilet visit, the macerated waste is automatically pumped into the particle filter in the Biotank. The excess waste will be filtered out of the chamber in the bottom of the tank. This fluid can be used for manure, or emptied into an external sewage network.

When the basket is full, it is lifted out and placed for post-composting. A new particle filter is placed in the Biotank and is immediately ready for use. An extra basket for post-composting can be ordered. Two Biotanks can simply be connected together in order to increase capacity.

As an alternative composting unit, a previously installed toilet or normal outside toilet can be used.

Capacity: see technical data.



### JETS TO WASTE

- is a solution for connecting the system to an external sewage main. This can be small-diameter sewage piping, or heavy-duty waste piping. In such systems, each unit can have its own Vacuumator or several units can have one common Vacuumator.

# Jets toilet system



## GREY-WATER

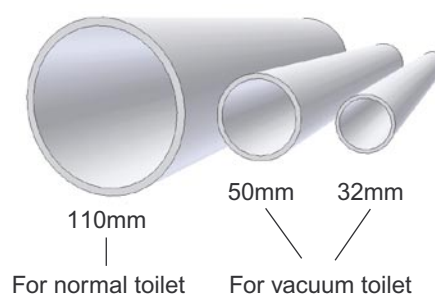
Grey-water tank is used where it is wished to connect waste from washing, showering etc, to the Vacuum system. The water is channelled to the grey-water tank via a drop channel. The grey-water tank is equipped with an emptying valve, connected to the vacuum system. A full tank is automatically emptied by the Vacuumator. This solution is not intended for use with Jets Bio.



## SMALL - DIAMETER PIPING

On normal water-flush toilets, 110mm waste piping is used. The dimension of the piping between the Jets toilet and the Vacuumator is 50 mm. Normal waste piping may be used.

Because the blades in the Vacuumator finely macerate the waste, the pipe dimensions from the Vacuumator are reduced to 32mm. This creates numerous possibilities for location of the waste outlet!



# TECHNICAL DATA

## JETS 50 FLOOR MODEL



**External dimensions:** 382 x 535 x 465 (b x l x h)  
**Material:** Porcelain  
**Total weight:** 22,3 kg

## JETS 59 WALL MODEL



**External dimensions:** 365 x 535 x 425 (b x l x h)  
**Material:** Porcelain  
**Total weight:** 20,2 kg

## GREY-WATER TANK



**External dimensions:** 363 x 200 x 405 (l x b x h)  
**Material:** PEH  
**Total weight:** 3,6 kg  
**Capacity:** 12 litres

## JETS VACUUMARATOR® 10NT DC



**External dimensions:** 163 x 361 x 294 (b x l x h)  
**Material:** bronze and stainless steel  
**Total weight:** 18 kg  
**Capacity:** 100 flushes per hour  
**Voltage:** 12V  
**Output:** 0,9kW

## JETS VACUUMARATOR® 10NT AC



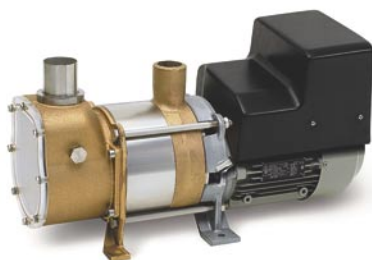
**External dimensions:** 163 x 365 x 292 (b x l x h)  
**Material:** bronze and stainless steel  
**Total weight:** 18 kg  
**Capacity:** 100 flushes per hour  
**Voltage:** 230V  
**Output:** 0,75kW

## JETS VACUUMARATOR® 15M DC



**External dimensions:** 214 x 564 x 263 (b x l x h)  
**Material:** bronze and stainless steel  
**Total weight:** 34 kg  
**Capacity:** 150 flushes per hour  
**Voltage:** 12V  
**Output:** 1,1kW

## JETS VACUUMARATOR® 15MB AC



**External dimensions:** 214 x 554 x 263 (b x l x h)  
**Material:** bronze and stainless steel  
**Total weight:** 34 kg  
**Capacity:** 150 flushes per hour  
**Voltage:** 230V  
**Capacity:** 1,5kW

## COLLECTING TANK



**External dimensions:**  
**900 litres** (53 kg) - 1125 toilet visits:  
1100 x 1240 x 1195 mm (b x l x h) ø1100mm  
**3000 litres** (120 kg) - 3750 toilet visits:  
1600 x 2150 x 1665 mm (b x l x h) ø1600mm  
**6000 litres** (240 kg) - 7500 toilet visits:  
1600 x 3580 x 1665 mm (b x l x h) ø1600mm  
**Material:** PEH

## BIOTANK



**External dimensions:** 556 x 730 x 815mm (b x l x h)  
**Material:** PEH  
**Weight:** 35 kg  
**Capacity:** 300 man days



V A C U U M T O I L E T

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