Doc. Rev.: 4 (2019-01-31)

Product No. TO650PO



Jets™ 50M Toilet is a pedestal pan design. With a focus on both simple elegant design and comfort, this floor mounted toilets contemporary look complements any installation.

## **Disclaimer**

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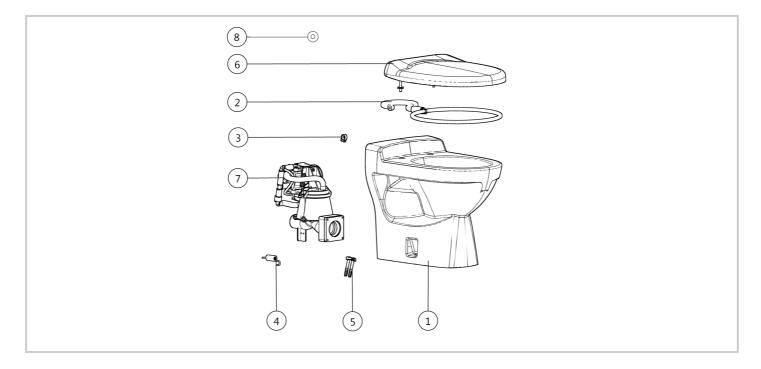
### **Technical Data**

Outside Dimensions550 x 385 x 475 m	nm (LxWxH)
WeightAp	prox. 25 kg
General ToleranceBowl dimen	nsions ±2%
Discharge Valve OutletOutside diamet	er Ø 50 mm
Water Connection	" male BSP
Generic Material	Porcelain
CoatingViti	reous China
Operating Data	
Flushing Time	. 5 seconds
Discharge Time	2 seconds
Water Pressure	2-7 bar
Operating VacuumRecommended 30-55	% Vacuum
Air ConsumptionApprox. 48 liters at 50	)% Vacuum
Water Consumption	1L (3 bar)
	inimum 1°C imum 60°C s are taken)
Note: Values may vary depending on selected c	omponents.

<sup>\*</sup> Water Consumption 1L (3bar) listed above is factory set. The water consumption can be adjusted between 0.4L and 3.2L depending on water pressure, selected valve and choice of nozzle on the VPC-V.

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# Components

1   Toilet Bowl JETS 50M	063600100*
2   Flushing ring	069510500*
3   Hose Clip 13-20mm	034233401*
4   Spring	053531725*
5   Fastening Kit, floor	069606301*
6   Seat & Cover	See selected product
7   Valve	See selected product
8   Release Button	See selected product

<sup>\*</sup> Component/s avaliable as replacement parts.

## **Accessories**

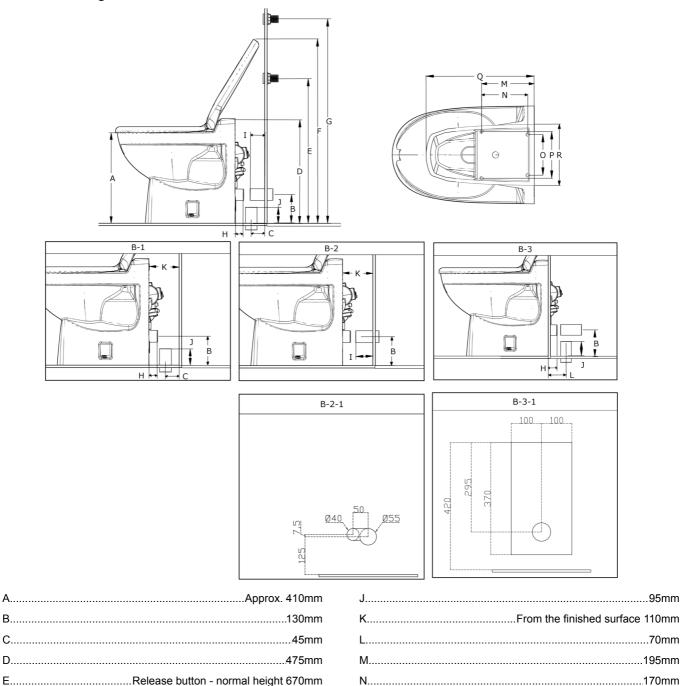
Construction Characteristics

Vacuum Breaker Kit	034507320
Rubber Elbow, ø50 w/Hose Clip	034505450
Rubber Sleeve, ø50 w/Hose Clip	034505550
Rubber Elbow, ø50/ø60 w/Hose Clip	034512802
Rubber Sleeve, ø50/ø60 w/Hose Clip	034512902
Rag Hook, 15mm w/support	034102902
Rag Hook, 25mm w/support	034102904
Pipe Packet	034399400
Cover, Complete	063602121
Base plate	063608700

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## **Dimension Drawings**



B-1 / B-2 / B-3 Pipe Connection Dimensions - All measurements given are based on use of a Jets™ rubber elbow/sleeve (required between the pipe and the valve).

B-2-1 Minimum wall cutout for water connection/vacuum breaker/release button.

B-3-1 Wall cutout for: • valves that protrude from the bowl.

F......Approx. 860mm

G.....Release button - public toilet height 950mm

H......25mm

• service access where maintenance can be carried out from behind the toilet without removing the bowl.

O.......150mm

Q......410mm

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## Important Health and Safety Information

Installation, operation and maintenance must be carried out in strict accordance with this guide and with all applicable regulations. For your own protection and the protection of others, it is necessary to familiarize yourself with, and always follow, the contained safety and environmental precautions for our products.

This manual is an integral part of the product/delivery. Always keep it in a safe place for future reference. It is entirely the owner's responsibility to ensure that all safety and environmental measures, in accordance with local, state and federal laws are followed. Jets Vacuum AS assumes no responsibility for equipment damage, personal injury or death and/or delays that result from a lack of respect for the instructions for installation and/or use as stated in this documentation. Disregarding these instructions may invalidate all warranties.

Safety information references are in accordance with Jets Vacuum AS documentation system. If you do not understand the warnings, stop work immediately and contact Jets Vacuum AS (citing the safety reference number) for further clarification.

For further information about the included warnings or any other safety concerns please contact Jets Vacuum AS.

# **Safety Warning Symbols**

General information to all users

Symbol denotes required personal protective equipment is required

CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or equipment damage

## Important Health and Safety Warnings



Jets Vacuum AS recommend qualified person(s) in accordance with all applicable codes and standards to carry out all installation work, electrical wiring, plumbing and operate this product. Equipment damage, injury to personnel or death could result from improper installation/use.



## 1.3 Warning

Failure to properly lift and support equipment can result in serious physical injury and/ or equipment damage. Lift equipment only at specifically identified lifting points or as instructed in the current IOM. Note: Lifting devices (eyebolts, slings, spreaders, etc.) must be rated, selected, and used for the entire load being lifted



## 1.5 Personal Protective Equipment - Goggles

Wear safety glasses with side shields at all times when working with equipment.



1.7 Warning Keep other persons at a safe distance from work area



2.14 Warning
The equipment safety is guaranteed only if used in compliance with the instructions provided. Do not exceed the limits provided.



# Symbol denotes required personal protective equipment is required.

DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury or equipment damage.



#### 1.2 Warning

Be thoroughly familiar with the controls and the proper use of the equipment prior to installing, starting or using the equipment. Know the equipment application, limitations and potential hazards.



#### 1.4 Caution

Safety equipment (PPE) necessary for the prevention of accidents at the installation and operating site must be provided in accordance with local regulations



## 1.6 Warning

Keep work area clean, uncluttered and ensure adequate lighting



1.9 Personal Protective Equipment - Gloves

Wear suitable protective gloves at all times when working with equipment.



# 12.5 Notice

Use this equipment only in the manner intended by Jets Vacuum AS. If you have questions after reading these instructions contact Jets Vacuum AS directly.

### Delivery, Receipt of Goods and Transportation

Goods to be protected against shock, dust, humidity and frost. Suitable adequately dimensioned transporting equipment is to be used. Note that the equipment may contain components that are easily damaged as a result of inappropriate handling. Jets Vacuum AS is not responsible for or liable for delivery delays resulting from occurrences outside of Jets Vacuum AS' immediate control. On receipt of goods, check for visual damage. Any damage detected after dispatch should be reported immediately to Jets Vacuum AS. Damages and/or discrepancies must be reported in writing no later than eight (8) days after receipt of goods. Commissioning must be postponed until the equipment has been inspected. Do not dispose of damaged items. Your direct supplier will advise you of the procedure to follow.

Unless otherwise specified, goods are to be stored in a dry environment between -30°C and +40°C prior to installation. The storage location must be dust free, low humidity (≤95%) and be free from moisture. Keep clear of foreign objects.

# Installation to End Use

Site to be a dry environment between +0°C and +60°C. Use in environments below 0°C requires use of antifreeze in liquids. The site location is to be low vibration Vrms <0.2 mm/s) with vibration resistance to acceleration up to 0.7g. The site is to be dust free and protected from grinding and welding. Goods are to be stored as per the instructions for delivery, storage and transport. A visual inspection is to carried out on receipt of goods as well as at the time of installation to ensure that storage and transport conditions after receipt have not compromised the quality of the product/s.

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#### **Pre-Installation**

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## Standards and Regulations

To install a Jets™ product, it is first required that the room be prepared according to all local, state and federal standards and requirements. Industry specific standards must also be met. Considerations that must be made include but are not limited to:

- Appropriate dimensioned drain pipes.
- Water barrier or membrane.

Installations required to meet AS/NZS 3500 series of Standards must adhere to the following: (Ref: Australian and New Zealand Standards: AS/NZS 3500 - AS3500 Part 2 Sanitary Plumbing and Drainage)

- Discharge by a vacuum toilet system shall be regarded as "pumped discharge" and shall be pumped according to AS/NZ3500 "Pumped Discharge" requirements.
- Installation of the vacuum toilet system shall be according to the requirements of AS/NZ 3500.2 Sanitary Plumbing and Drainage.

## **Tools and Training**

No special tools other than those used in standard plumbing installations are required. No special training is required to install this product.

### **Water Barrier**

Note that in some countries, and as per the majority of standards and regulations, it is prohibited to mount toilets directly onto the wall if mounting requires that the water barrier be compromised. Check requirements according to local codes and standards before beginning any installation work.

#### **Pre-Installation Considerations**

It is recommended that items such as wall mounted release buttons, drainage and piping etc. is installed prior to installation of the toilet.

Suitable floor material for screw mounting must be used. When installing the toilet, a water level is to be used to ensure a horizontal surface on the bowl.

## **Connection with Mains Water**

The toilet valve connection required is a 1/2" BSP standard connection. The water pressure must be a minimum of 2 bar and must not exceed 7 bar.

## **Connection without Mains Water**

The toilet valve may be connected to a local water supply such as a container, tank or can. A water pump must be used. Refer to the individual product data sheet for further instructions regarding connections.

## **Backflow Prevention**

**Backflow Prevention** 

Please refer to local, state, federal and/or international regulations regarding the extent of backflow requirements for your specific installation.

For installations whereby the valve is to be connected to a drinking water supply, it is recommended that the water connection is installed with a backflow prevention device. Please refer to the local regulations in your area. If backflow prevention is required in Australia, refer to AS/NZ3500.1 Backflow Prevention.

### **Toilet Seat Cover**

Note: Be aware that the toilet seat cover (when opened) may not rest on the back wall if the toilet is mounted away from the wall. Care should be taken not to force the lid open beyond it's natural limitations.

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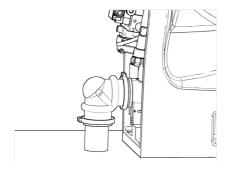
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### **Toilet Connections**

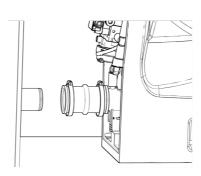
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Installation may vary depending on plumbing arrangements. Note that the following methods are available for the toilet type.

## Installation Alternative 1.



### Installation Alternative 2.



### **General Installation Information**

To avoid leakage between the toilet valve and the toilet bowl, it is important that the pipe installation is properly clamped and aligned. Water hoses must be secured with hose clips.

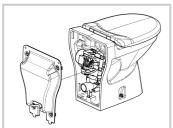
## Installation

## **General Disclaimer**

Drawings provided in the following examples are for illustration purposes only. Product details may vary from your individual purchase.

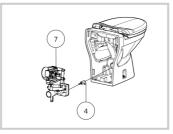
### Installation Instructions

Toilet installation requires the following procedures to be carried out. For more specific technical details, refer to the individual data sheet. For further information on any of the instructions supplied, any questions regarding installation or the products, please contact your local supplier or Jets™ Service Department.



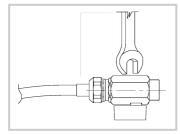
1

For installations with a pre-installed valve, go to step 3.



2

Install the toilet valve  ${\mathfrak D}$  and the spring  ${\mathfrak A}$  as per the products instructions found in the products technical data. Note: Only for deliveries supplied without a preinstalled valve.



3

Move the toilet close to the wall.

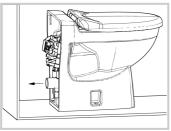
Connect the ball valve from the toilet valve to the water main.

Note: Do not over tighten.



Connect the release button to the toilet valve.

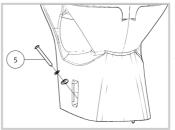
For connection information see the installation description provided in the Release Button's technical data sheet.



5

Press the valve into the pipe connection securely.

Note: Refer to Toilet Connections - Installation Alternative 1 and Alternative 2.



6

Using the fastening kit floor ⑤, securely fasten the toilet to the floor.

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## **Function Check to be Completed Prior to Use**

- Check that the inside of the toilet bowl is empty of packaging material etc.
- 2. Ensure that the discharge valve has been securely connected to the outlet pipe.
- Check that the water supply is connected and water pressure is adequate.
- 4. Turn on the water supply.
- 5. Press the release button to activate the valve.
- 6. Check that the bowl fills with water.
- Check that sufficient vacuum is created when activating the release button to release the contents of the bowl.
- 8. Check that the water level in the bowl is restored.
- Check that water is dispersed on the bowl surface by the flushing mechanism.
- 10. Check that there are no water or air leaks.

#### Service and Maintenance

#### Out of Use

The following procedures are to be followed if a toilet is to be out of use over a longer period of time (i.e. for cabins and recreational houses).

- 1. Close the water supply to the toilet.
- 2. Activate the release button to run a flush cycle, emptying the toilet of water.
- 3. Close the toilet seat cover.
- 4. CAUTION: This toilet is not intended for use in temperatures below freezing without appropriate antifreeze measures being taken. For locations where freezing may occur, certain protection measures must be taken. For further information contact Jets Vacuum AS or your nearest supplier for a copy of technical information regarding freezing protection measures.
- 5. CAUTION: Never use automotive antifreeze (ethylene glycol) in the toilet system.
- 6. Turn off the power.

NOTE: Failure to adequately protect the toilet system from damages may result in void of your warranty coverage.

NOTE: Jets Vacuum AS reserves the right to deny any warranty claim submitted if the claim is caused by freezing damage.

## **Cleaning Instructions**

- 1. Mild soap or biological cleaners are recommended for cleaning the toilet. See Jets™ product range for suitable cleaning solutions.
- 2. Do not use cleaners that create foam.
- 3. The toilet is to be cleaned regularly to maintain hygiene. Also note that maintaining water in the toilet bowl will prevent odors.
- 4. Do not use drain cleaner, bleach or other caustic cleaners. These types of cleaners can damage components in the toilet system and damage the seat and cover hinges.
- 5. For mineral scale buildup, we recommend use of Jets Vacuum AS biological descale products. Contact your Jets Vacuum AS supplier for information.

## **Spare Parts and Accessories**

Available spare parts are indicated in the component list for the toilet. Spare parts and accessories can be ordered via your local Jets Vacuum AS supplier. For multi-toilet installations, a complete recommendation for spare parts is available. Contact your Jets Vacuum AS supplier for details.

# Service and Maintenance

Jets Vacuum AS provides all customers with 24 hour worldwide technical assistance. For urgent matters please contact Jets Vacuum AS service department directly at +47 70039100. For other matters, please contact your nearest Jets Vacuum AS supplier.

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- 1. Disassembly of the toilet must be carried out by a licensed professional.
- 2. All local, state and federal regulations regarding water barriers and plumbing must be adhered to.
- 3. Refer to the individual product data sheets for more specific information. Refer to the products troubleshooting information for general maintenance.
- 4. It is recommended that service and maintenance routines be carried out in accordance with the information in this document.

When making enquiries, please have the following information available.

- 1. Toilet model number.
- 2. For valve enquiries: Valve serial number (the serial number identification is located on the label applied to the valve).
- 3. Part number, description, quantity (see the product component list for details).

## **Locating a Water Leak**

Make a practice of regularly checking around the toilet, piping and pump for any signs of a water leak. Check for wetness, mold or foul smells, as that might indicate a leak.

If you suspect a leak anywhere in your plumbing system, call in a professional to make a repair as soon as possible.

## **Scheduled Maintenance**

Interval	Action	Note
Regularly - dependent on frequency of use.	Clean the toilet.	Clean the toilet as per instructions provided in the products technical information.
As required.	Check for damage to equipment. Replace or repair damaged equipment and take measures to prevent future damage to the system.	Note that frost or freezing may damage sanitary systems if precautions have not been taken. Contact your nearest Jets™ supplier for information on Jets™ range of frost protection products for installations in cold climate locations.

## **Troubleshooting**

Jets Vacuum AS provides the following troubleshooting information to assist in resolving issues that may arise with your installation. For more detailed information or assistance, please contact Jets Vacuum AS.

Problem	Cause	Action
Water is refilled in the toilet, but the content is not discharged	Loss of vacuum in the toilet system or piping system.	Check the vacuum level to ensure that it is adequate.
		Check the water level in the pump to ensure that it is adequate.
		Check the pipes and any connected equipment including the valve, pump etc. for foreign objects. Remove any blockages in the system.
		Check that there is no damage to the piping system.
The normal water level in the toilet bowl is reducing or low.	Low water pressure.	Increase the water pressure.
		Check the filter in the water connection or ball valve to ensure that it is not blocked. Replace the filter if required.
The toilet bowl is slow to empty.	The pump or pipes are blocked.	Check for foreign objects and remove the blockage.
	Build up of urine scale in the pipes and/or pump.	Check for mineral scale build-up and descale the affected areas. See Jets™ selection of cleaning products for this purpose.
Air bubbles in the toilet bowl.	Blocked pipe outlet.	Check for blockages and remove. Note blockages may be caused by freezing, etc.

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Backflow in the installation.	Check the pipes have been correctly installed.
The Non-return Valve on the discharge line (if installed) is malfunctioning.	Clean the Non-return Valve.
If connected to a tank, the tank could be full or the air overflow blocked.	Check that the air overflow is open.
	Empty the tank

Empty the tank.