



Jets™ FD Valve is a vacuum operated flush and discharge valve.

Features:

- Low water consumption.
- Design optimized for easy maintenance.

IMPORTANT! Note: for deliveries to Australia and New Zealand the product delivery DOES NOT include the 035504000 Ball valve DN15. Please refer to Australian/New Zealand standards and contact your local plumber regarding approved installation methods.

Technical Data



Type.....	Vacuum Operated
Outside Dimensions.....	250 x 210 x 310 mm (LxWxH)
Discharge Valve Outlet.....	Outside diameter Ø 50 mm
Generic Material.....	PP
Water Connection.....	½" male BSP
Net Weight.....	2.11 kg

Operating Data

Water Pressure.....	2-7 bar
Operating Vacuum.....	Recommended 30-55 % Vacuum
Air Consumption.....	Approx. 48 liters at 50% Vacuum
Water Consumption.....	1L (3 bar)
Temperature Range.....	Minimum 1°C to Maximum 60°C (unless frost protection measures are taken)

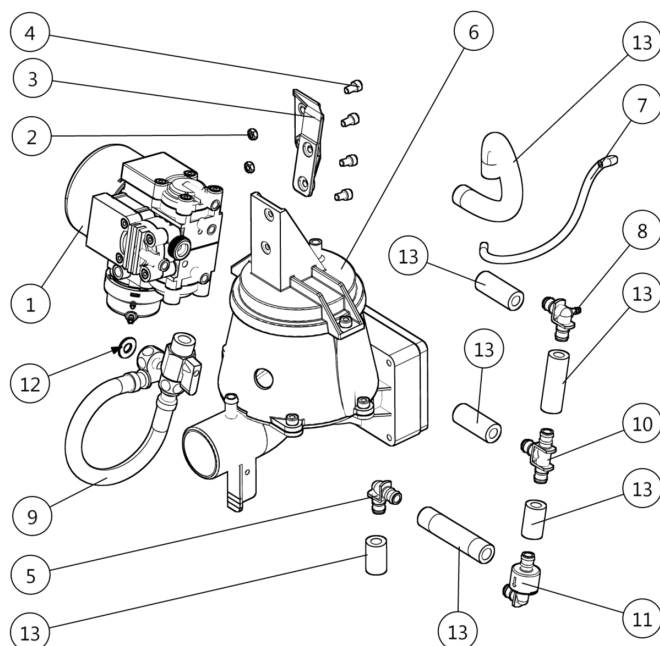
Disclaimer

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Components

1	VPC-V Controller	101100010*
2	Nut, M5	036304802*
3	Bracket	101102020*
4	Screw, M5x10	036531600*
5	L-Coupling	034532201*
6	FD Valve	054110110*
7	Hose	034509010*
	■ (1 of 034509010 = 1m in length)	
8	L-Coupling	034532203*
9	Hose w/ball valve 550mm	034509620*
10	T-Coupling	034502711*
11	Non-return Valve	034501706*
12	Gasket	037504200*
13	Hose	034509000*
	■ (1 of 034509000 = 1m in length)	

* Component/s available as replacement parts.



Function and Principle

Explanation of FD Valve w/VPC-V Function

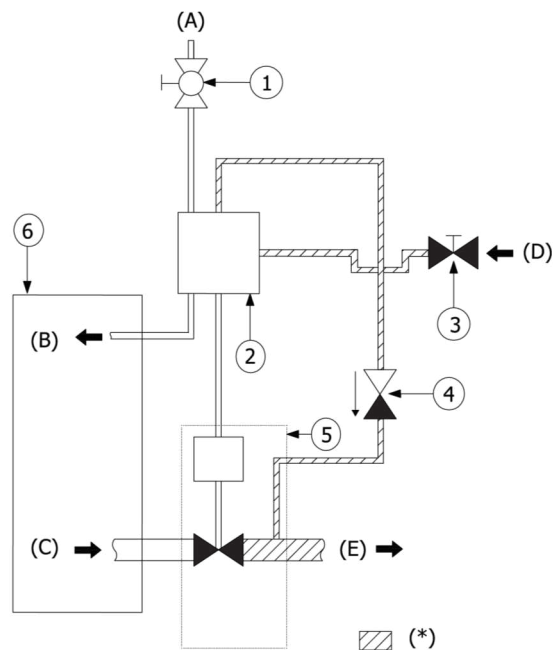
- ① Ball Valve Water Inlet
- ② VPC-V Controller
- ③ Release Mechanism
- ④ Non-return Valve
- ⑤ FD Valve
- ⑥ Source (toilet, urinal, etc.)

- (A) Water Supply
- (B) Water Inlet to the Source
- (C) Outlet from the Source
- (D) Air Inlet
- (E) FD Valve Outlet

(*) Vacuum in the piping as indicated.

Normal Position: Closed Valve

- VPC-V Controller ② - CLOSED
- FD Valve ⑤ - CLOSED



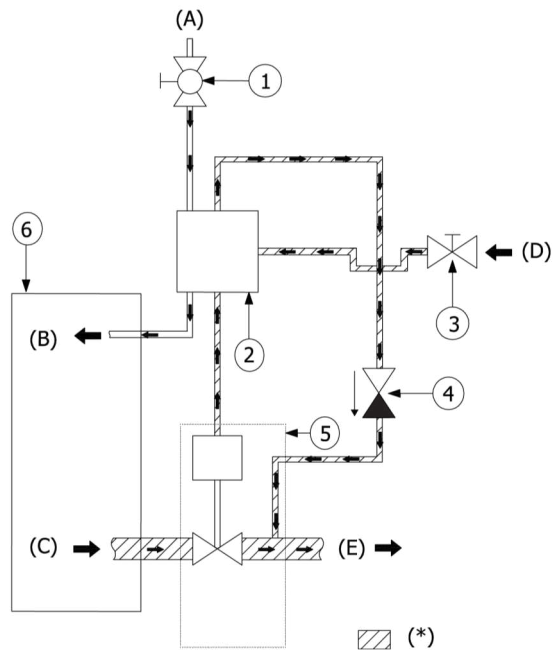
Emptying Sequence

1. Release Mechanism ③ - OPEN
2. VPC-V Controller ② - OPEN
3. FD Valve ⑤ - OPEN

Closing Sequence

1. Release Mechanism ③ - CLOSED
2. Air is sucked into the VPC-V Controller ②.
3. FD Valve ⑤ - CLOSED

Result: Effluent is sucked by vacuum from the source. Water flows to the source.



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



Indicates recyclable material/recycling information.



General information to all users.



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



WARNING: Indicates a potentially hazardous situation which, if not avoided could result in death or serious injury or equipment damage.



Symbol denotes required personal protective equipment is required.



NOTICE: Indicates important information, which if not followed, may cause damage to equipment.

Important Health and Safety Warnings



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.



1.9 Personal Protective Equipment - Gloves

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



2.9 Warning

Do not disassemble, repair or modify the product without contacting a qualified tradesman.



2.14 Warning

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



11.7 Notice

Never leave packaging residues unattended. Separate the various packaging materials by type and consign them to the nearest disposal center.



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.



12.7 Notice

Additional and replacement parts should only be obtained from the manufacturer or distributor.



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.



2.2 Warning

The client is responsible for installation, service and maintenance by a qualified person.



2.13 Caution

Installation, service and maintenance are to be carried out with due care. Shock, inappropriate handling, incorrect use of tools and general mishandling of the product may result in damage to components.



11.6 Notice

Discarded products should not be disposed of together with household waste. Deliver this product at the nearest depot for safe treatment.



11.8 Notice

Jets™ supports responsible recycling and disposal of all packaging materials and refuse.



12.6 Notice

Do not use the Jets™ sanitary system if any component is damaged or missing.

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.

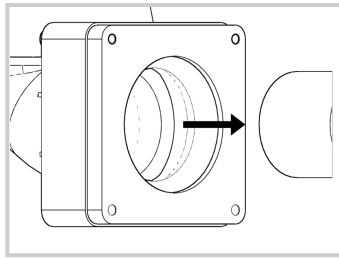
Storage

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

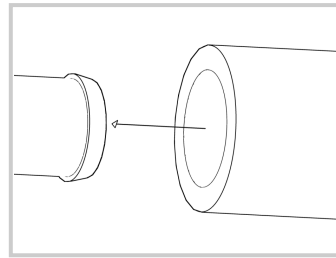
Site to be a dry environment between +0°C and +60°C. Use in environments below 0°C requires use of antifreeze in liquids. The site location is to be low vibration Vrms <0.2 mm/s) with vibration resistance to acceleration up to 0.7g. The site is to be dust free and protected from grinding and welding. Goods are to be stored as per the instructions for delivery, storage and transport. A visual inspection is to be 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.

Installation



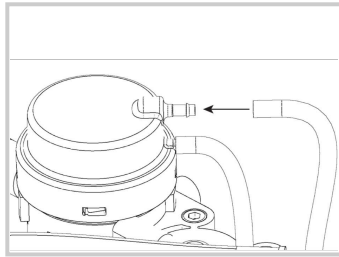
1

Push the valve onto the pipe sleeve/
stud connection.



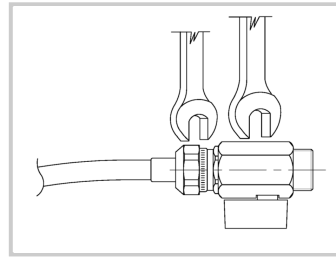
2

Connect the flushing device to
the valve.



3

Connect the release mechanism.

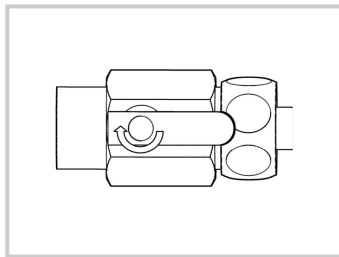


4

Connect the water supply.

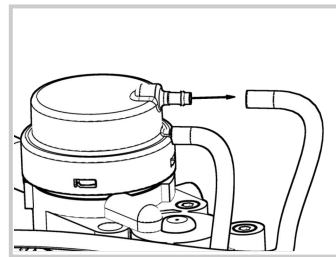
Note: Do not over tighten.

Service and Maintenance - Disassembly Instructions



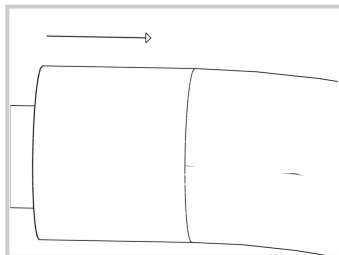
1

Close the ball valve for the water
supply to the valve. Release any
liquid in the water source (i.e. toilet,
urinal etc.). Disconnect the flexible
water supply hose from the ball
valve.



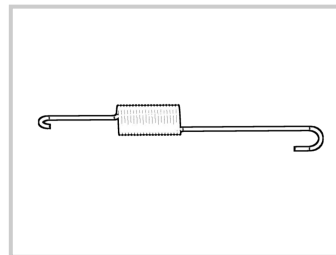
2

Pull the release mechanism hose
from the controller.



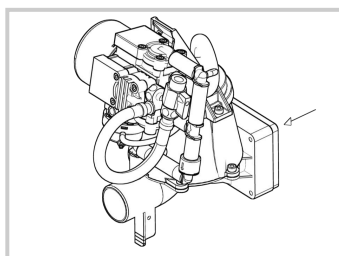
3

Remove the hose clip and pull to
remove the flushing device.



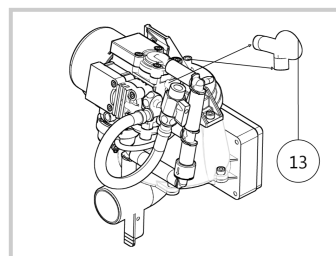
4

If a transport spring is installed,
release the spring (connecting
the lower housing of the valve to
the bowl) and remove it.



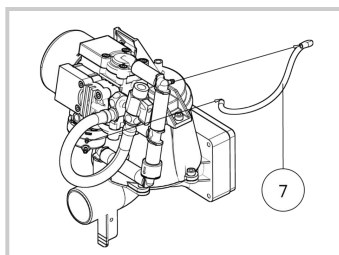
5

Pull the complete valve to release it.



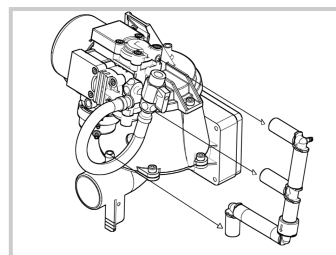
6

Remove the Hose (250mm) ⑬
between the FD Valve and the
VPC-V Controller.



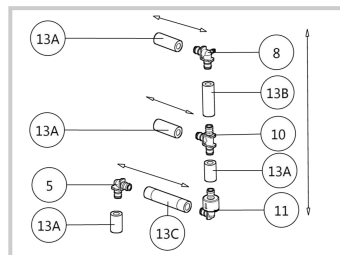
7

Remove the Hose (250mm) ⑦.



8

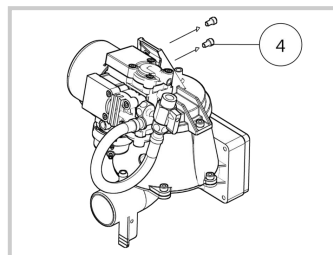
Remove the distributor.



9

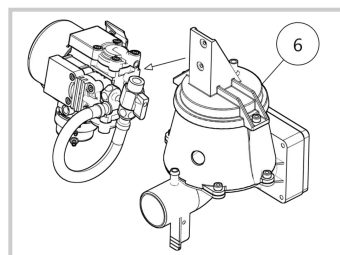
Disassemble the distributor.

- ⑤ L-Coupling
- ⑧ L-Coupling
- ⑩ T-Coupling
- ⑪ Non-return Valve
- ⑬ Hose
- A-30mm
- B-55mm
- C-80mm



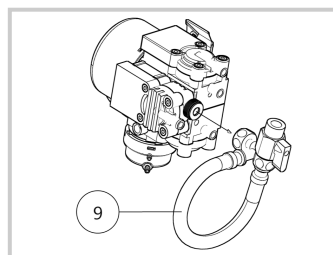
10

Remove the two (2) screws (Screw, M5x10) ④.



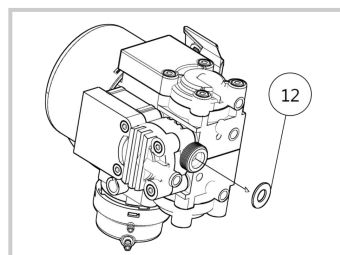
11

Remove the VPC-V Controller from the FD Valve ⑥.



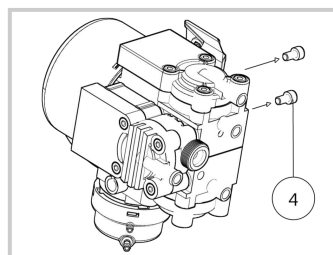
12

Unscrew and remove the Hose w/ball valve 450mm ⑨ from the VPC-V Controller.



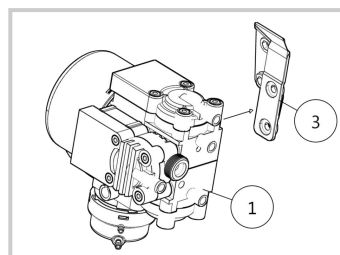
13

Remove the Gasket ⑫.



14

To remove the Bracket unscrew the two screws (Screw, M5x10) ④.



15

Remove the Bracket ③ from the VPC-V Controller ①.

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
No reaction or insufficient flushing when pressing the release button.	No vacuum in the discharge pipe line.	Check the vacuum.
	The release button does not open.	Replace the release button.
	Dirt/blockage in the Non-return Valve, located on the toilet valve.	Clean the Non-return Valve.
Only flushing and no discharge is taking place.	The vacuum is below 25%.	Check the vacuum level and take action to increase the vacuum.
	Leakage in the lifting membrane.	Replace the lifting membrane.
The toilet bowl slowly fills up with water.	The water valve is leaking.	Replace the sealing flap.

Flushing and discharge does not stop.	The valve in the release button does not close.	Replace the release button.
	The signal hose between the release button and the start cylinder is leaking.	Check the signal hose and connections for air leakages. Replace if required.
The normal water level in the toilet bowl is reducing or low.	Low pressure on the water supply.	Increase pressure on the water supply.
	Impurities prevent the shut-off membrane from closing.	Lower housing to be cleaned.
	Dirt in the water supply filter.	Clean or replace the filter.
	Shut-off membrane is damaged.	Replace the shut-off membrane.
Flushing and discharge cycles are incorrect.	The air orifice is dirty.	Clean the orifice.
	A sealing flap in the VPC-V Controller is leaking.	Replace the sealing flap.