



## Operation

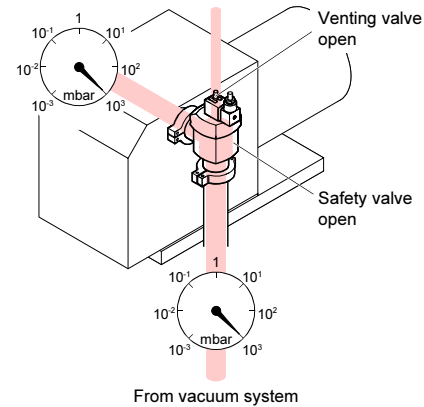
The Safety valve is ready for installation as soon as it has been installed.

**STOP DANGER**

**Caution: hot surface**  
Touching the hot surface (>55 °C) can cause burns.  
Wear protective gloves.

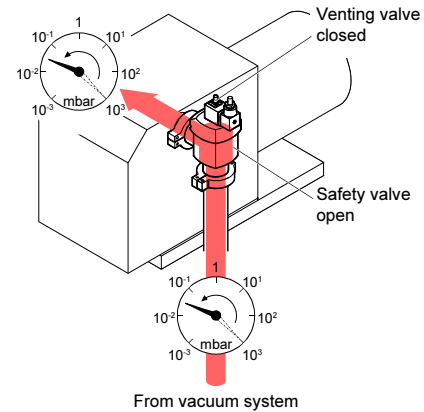
### Idle position

When the backing pump and vacuum system are under atmospheric pressure, both the venting and safety valve are open.



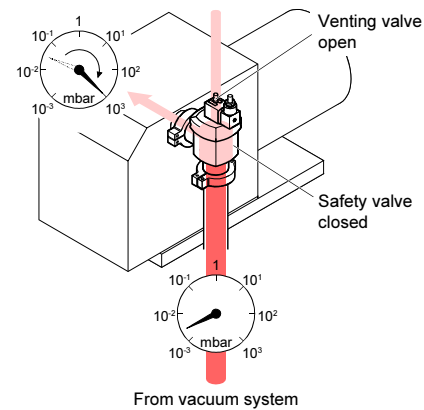
### Backing pump in operation

When the backing pump is switched on, the venting valve is closed and the vacuum system is evacuated.



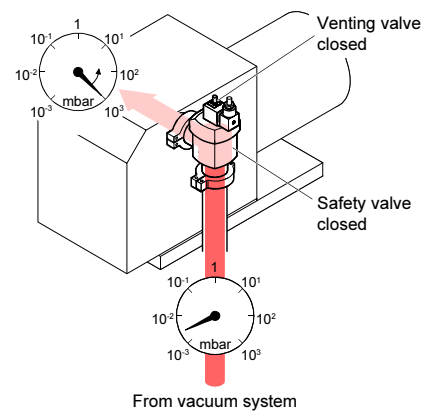
### Backing pump out of operation

When the backing pump is switched off or in the event of a power failure, the venting valve is opened. Due to the pressure difference between the inrushing air and the evacuated vacuum system, the safety valve is closed. Through the open venting valve, air is admitted to the backing pump.

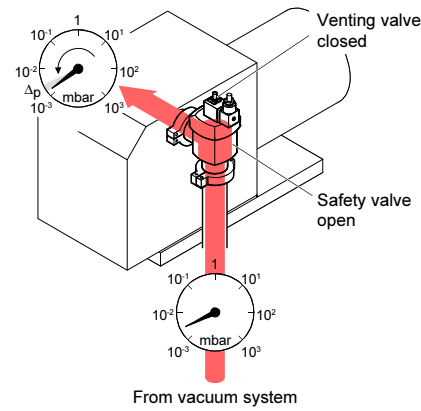


### Backing pump again in operation

When the backing pump is switched on again, the venting valve is closed. The safety valve is evacuated ...



... and is opened when the pressure difference  $\Delta p$  to the pressure in the vacuum system drops below 150 mbar.



## Deinstallation

**STOP DANGER**

**Caution: contaminated parts**  
Contaminated parts can be detrimental to health and environment.  
Before beginning to work, find out whether any parts are contaminated. Adhere to the relevant regulations and take the necessary precautions when handling contaminated parts.

**Caution**

**Caution: vacuum component**  
Dirt and damages impair the function of the vacuum component.  
When handling vacuum components, take appropriate measures to ensure cleanliness and prevent damages.

**Caution**

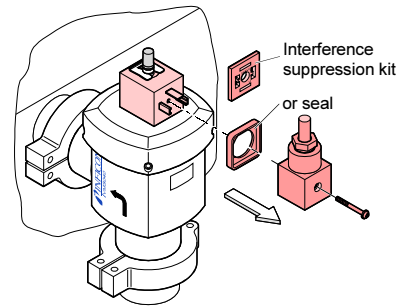
**Caution: dirt sensitive area**  
Touching the product or parts thereof with bare hands increases the desorption rate.  
Always wear clean, lint-free gloves and use clean tools when working in this area.

### Preconditions

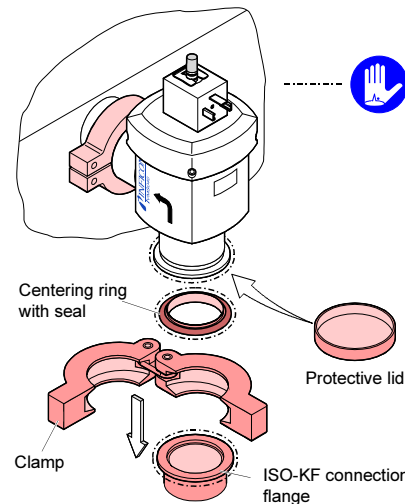
- Vacuum system vented
- Control system turned off
- Safety valve and venting valve cooled down to <55 °C

### Procedure

- 1 Unfasten the locking screw and unplug the cable socket.



- 2 Disconnect the small flange fittings and put the protective lids in place.



## Maintenance, Repair

See Operating Manual sina82e1, which can be downloaded from our website.

## Returning the Product

**WARNING**

**Caution: forwarding contaminated products**  
Contaminated products (e.g. radioactive, toxic, caustic or biological hazard) can be detrimental to health and environment.  
Products returned to Inficon should preferably be free of harmful substances. Adhere to the forwarding regulations of all involved countries and forwarding companies and enclose a duly completed declaration of contamination.

Products that are not clearly declared as "free of harmful substances" are decontaminated at the expense of the customer.

Products not accompanied by a duly completed declaration of contamination are returned to the sender at his own expense.

## Disposal

**STOP DANGER**

**Caution: contaminated parts**  
Contaminated parts can be detrimental to health and environment.  
Before beginning to work, find out whether any parts are contaminated. Adhere to the relevant regulations and take the necessary precautions when handling contaminated parts.

### Separating the components

After disassembling the product, separate its components according to the following criteria:

- Contaminated components  
Contaminated components (radioactive, toxic, caustic, or biological hazard etc.) must be decontaminated in accordance with the relevant national regulations, separated according to their materials, and disposed of.
- Other components  
Such components must be separated according to their materials and recycled.

## Declaration of Contamination

The service, repair, and/or disposal of vacuum equipment and components will only be carried out if a correctly completed declaration has been submitted. Non-completion will result in delay. This declaration may only be completed (in block letters) and signed by authorized and qualified staff.

- 1 **Description of product**  
Type \_\_\_\_\_  
Part number \_\_\_\_\_  
Serial number \_\_\_\_\_
- 2 **Reason for return**  
\_\_\_\_\_
- 3 **Operating fluid(s) used**  
(Must be drained before shipping.)  
\_\_\_\_\_
- 4 **Process related contamination of product:**

|                          |                                |                                 |
|--------------------------|--------------------------------|---------------------------------|
| toxic                    | no <input type="checkbox"/> 1) | yes <input type="checkbox"/>    |
| corrosive                | no <input type="checkbox"/> 1) | yes <input type="checkbox"/>    |
| biological hazard        | no <input type="checkbox"/>    | yes <input type="checkbox"/> 2) |
| explosive                | no <input type="checkbox"/>    | yes <input type="checkbox"/> 2) |
| radioactive              | no <input type="checkbox"/>    | yes <input type="checkbox"/> 2) |
| other harmful substances | no <input type="checkbox"/> 1) | yes <input type="checkbox"/>    |

1) or not containing any amount of hazardous residues that exceed the permissible exposure limits

2) Products thus contaminated will not be accepted without written evidence of decontamination!

The product is free of any substances which are damaging to health: yes
- 5 **Harmful substances, gases and/or by-products**  
Please list all substances, gases, and by-products which the product may have come into contact with:  

| Trade/product name manufacturer | Chemical name (or symbol) |
|---------------------------------|---------------------------|
|                                 |                           |
|                                 |                           |
|                                 |                           |
|                                 |                           |
|                                 |                           |
|                                 |                           |
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|                                 |                           |
|                                 |                           |

| Precautions associated with substance | Action if human contact |
|---------------------------------------|-------------------------|
|                                       |                         |
|                                       |                         |
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|                                       |                         |
|                                       |                         |
|                                       |                         |
|                                       |                         |
|                                       |                         |
- 6 **Legally binding declaration:**  
I/we hereby declare that the information on this form is complete and accurate and that I/we will assume any further costs that may arise. The contaminated product will be dispatched in accordance with the applicable regulations.  
  
 Organization/company \_\_\_\_\_  
 Address \_\_\_\_\_  
 Post code, place \_\_\_\_\_  
 Phone \_\_\_\_\_ Fax \_\_\_\_\_  
 Email \_\_\_\_\_  
 Name \_\_\_\_\_  
  
 Company stamp \_\_\_\_\_  
  
 Date and legally binding signature \_\_\_\_\_

This form can be downloaded from our website.  
Copies: Original for addressee  
1 copy for accompanying documents  
1 copy for file of sender

## Manufacturer's Declaration

as defined by the Directive relating to machinery 98/37/EC, Appendix IIb.

We, Inficon, hereby declare that putting the incomplete equipment mentioned below into operation is not permitted until evidence is given that the system into which that incomplete equipment shall be installed is in accordance with the provisions of the EC Directive relating to machinery.

We also declare that the equipment mentioned below complies with the provisions of the Directive relating to electrical equipment designed for use within certain voltage limits 73/23/EEC.

## Safety Valves VSM016 ... 040-AA

### Part numbers

|         |         |         |
|---------|---------|---------|
| 253-000 | 253-010 | 253-020 |
| 253-002 | 253-012 | 253-022 |
| 253-004 | 253-014 | 253-024 |

### Standards

Harmonized and international/national standards and specifications:

- EN 292-1/-2 (Safety of machinery)
- EN 294 (Safety distances to prevent danger zones being reached by the upper limbs)
- EN 60204-1 (Electrical equipment of machines)
- DIN 28403 (ISO-K small flange connections)
- ISO 1609 (Vacuum technology, flange dimensions)
- ISO 2861/1 (Quick release couplings, dimensions, clamped type)
- ISO 9803 (Pipeline fittings, mounting dimensions)

### Signatures

INFICON AG, Liechtenstein

8 October 2001

8 October 2001

*Hans-Christoph Gehlhar*  
Hans-Christoph Gehlhar  
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