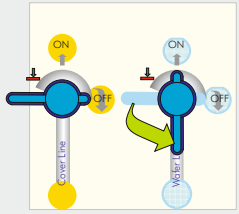


# VACUUM-BOX


## OPERATING INSTRUCTION -ABSTRACT-

**ATTENTION!**  
ONLY OPERATE WITH  
CONNECTED RETURN LINE  
RETURN LINE MUST LEAD  
BACK TO PROCESS BASIN

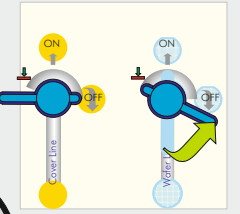
**fig. 1a**




**Wafer ON - 1st Wafer Holder BASIC**

- apply the wafer with light pressure (use the silicet press-assistance)
- put the selector switch downward, (pressure switch mode) 
- put the wafer valve switch into the shown position (fig.1a)
- the pump and the orange LED is switched off
- the wafer is sucked in
- put the wafer valve into the shown position (fig.1b)

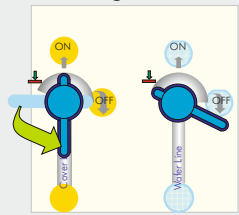
**fig. 1b**



the pump is working 



**fig. 2a**

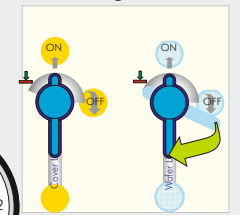
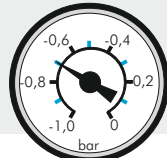


**Wafer ON - 2nd Wafer Holder BASIC**

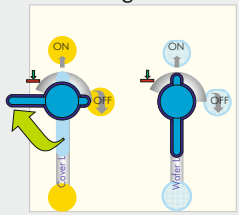
- apply the cover with light pressure
- put the cover valve into the shown position
- the pump and the orange LED is switched off
- the cover is sucked in
- put the wafer valve into the shown position (fig. 2b)

Both Wafer Holders are ready for operation

**fig. 2b**

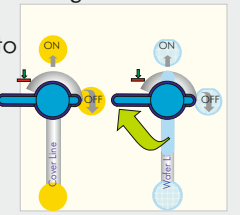
**fig. 3a**



**2nd Wafer OFF**

- put the cover valve into the shown position
- the cover is released
- remove the cover

**fig. 3b**



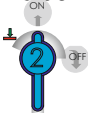
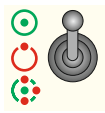
**1st Wafer OFF**

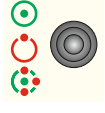
- put the wafer valve into the shown position
- the wafer is released
- remove the wafer

In case of Wafer Holder BASIC application, please proceed according to fig. 1a and fig. 3b

### Cleaning:

If process medium should have been sucked in, respective pumped during the process, the Wafer Holder and the Vacuum Box has to be cleaned as follows:

1. Turn the wafer and cover valve into the shown position 
2. Put the return line of the Vacuum-Box into the rinse basin. Attend that liquid, respectively the nitrogen are riskless drained. The connection to the rinse basin has to be kept until the rinse process is finished.
3. Put the Wafer Holder without wafer and cover, approx 2 cm below the screw connections of the tubes into the rinse basin.
4. Turn the selector switch upward into the shown position. Continuous operation mode. 
5. Rinse with DI-water approx 3 - 4 minutes.
6. Pick up the Wafer Holder out of the rinse basin. Dry running approx. 1 minute.

7. Uncouple the couplings from the Vacuum-Box.
9. Deposit the Wafer Holder.
8. Connect the delivered cleaning connection (Y-connector) with the blue and yellow coupling of the Vacuum-Box.
9. Pick up the tube end out of the rinse basin and connect the tube end of the cleaning connection with the nitrogen link of your plant system. Max. flow pressure: 0,5 bar (7,25 psi)!
10. Dry with nitrogen approx 2 - 3 minutes until yellow LED lapsed. Attend that the nitrogen is riskless drained!
11. Turn the selector switch into the central position. Pump OFF 
12. Uncouple the cleaning connection at the Vacuum-Box.

## OPERATING INSTRUCTIONS for Wafer Holder BASIC with a SILICET Vacuum-Box

For the operation of the Vacuum-Box please read the appropriate operating instruction!

### **Application:** Chemical etching

**With the silicet Vacuum Box two Wafer Holders BASIC can be used at the same time.  
By using only one Holder BASIC only fig 1 a and 3b (see page 2) are applicable.**

### **Description:**

- The Wafer Holder is equipped with 2 Norprene<sup>®</sup> / FPM connecting tubes (dimension 6,4x3,2mm).
- The vacuum tube with the blue coupling is connected with the wafer sealing lip;
- The second tube (without coupling) is connected with the protected area behind the wafer to care the necessary pressure compensation. In every case this connection tube has to be held open to guarantee a connection to the atmospheric pressure. Keep it disconnected in every case.

### **Wafer:**

**- Before first use, the positioning pins (PTFE-pins) possibly have to be adapted to the scope of the wafer. Adapt the notches of the pins carefully to the wafer scope with a sharp blade.**

- Do not use wafers which show markings, qualifications or similar unevenness within the contact-area of the vacuum-sealing lips. In case of non-observance, leakages can occur during process.

### **Cleaning:**

- Clean vacuum sealing lips and cover with detergent and DI water. Don't use dissolver!

### **Wafer ON ( Wafer Holder BASIC 1):**

- Turn up the selector switch (pressure switch mode).
- Center up the wafer on the vacuum sealing lips. Use the positioning pins. Press the wafer evenly within the range of the sealing lips. The wafer must cover the sealing lips completely.
- Turn the wafer valve of the Vacuum-Box into the shown position (fig. 1a) "Wafer ON".  
The wafer is sucked in. The vacuum is developed. The pump and the orange LED is switched off.
- Turn the wafer valve into the shown position (fig. 1b)

### **Wafer ON ( Wafer Holder BASIC 2):**

- Center up the wafer on the vacuum sealing lips. Use the positioning pins. Press the wafer evenly within the range of the sealing lips. The wafer must cover the sealing lips completely.
- Turn the cover valve of the Vacuum-Box into the shown position (fig. 2a) "Cover ON".  
The wafer of the second BASIC Holder is sucked in.
- Turn the wafer valve into the shown position (fig. 2b). Both Wafer Holders are ready for operation.

### **Wafer 2nd Wafer Holder OFF:**

- Turn the cover valve of the Vacuum-Box into the shown position (fig. 3a) "Cover OFF".  
The 2nd wafer is released. Remove it with our vacuum tool, with a vacuum wand or usual tweezers.

### **Wafer 1st Wafer Holder OFF:**

- Turn the wafer valve of the Vacuum-Box into the shown position (fig. 3b) "Wafer OFF"
- The wafer is released.
- Remove the wafer with our vacuum tool, with a vacuum wand or usual tweezers.

**For easy handling we recommend our Silicet Vacuum Tool and our Silicet Press Assistance**