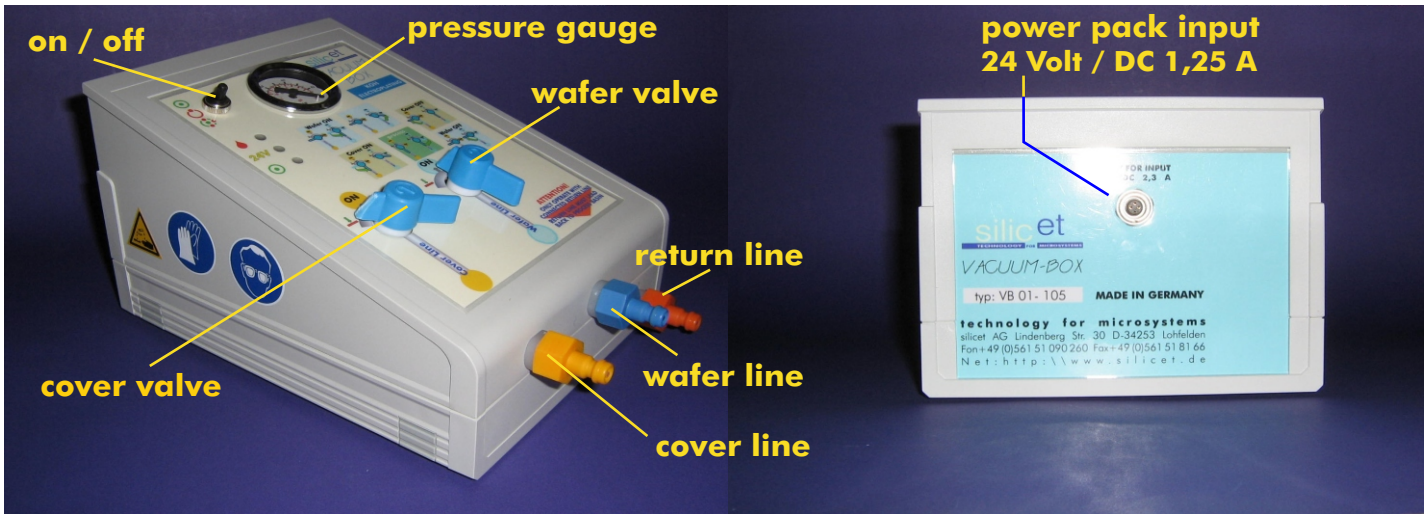
Technologies
for microsystems
Process units
Wafer holder systems

silicet AG
Lindenberg Str. 30
D-34253 Lohfelden
Germany

Fon +49 (0) 561 51 090 260
Fax +49 (0) 561 51 81 66
Mail info@silicet.de
Net http:\\www.silicet.de

VACUUM-BOX

OPERATING INSTRUCTION -ABSTRACT-
Vacuum-Box type VB 01 / 02



This operating instruction is only a guideline for the daily use. It does not replace detailed operating instruction!
Before startup of the Vacuum-Box the detailed operating instruction has to be studied!
For the operation of the Wafer Holder please read the appropriate operating instruction!

Application:
- Vacuum supply for the wafer holder function. To suck off penetrating liquid out of the vacuum area in worst case (wafer breaks or the masking of the wafer is not correct).

Connection:
- Connect the blue coupling of the wafer holder with the blue plug of the Vacuum-Box. (Supply line of the sealing lips of the wafer).
- Connect the yellow coupling of the wafer holder with the yellow plug of the Vacuum-Box. (Supply-line of the sealing lips of the cover).
- Connect the orange coupling of the return line with the orange plug of the Vacuum-Box. Guarantee by general operating, possible liquid supply with additional rinsing routine, that the liquid and/or the nitrogen are riskless drained! Connect the return line to the current basin.

The operation without connected return line is not permitted!

- Put the plug of the delivered power pack (type NT 01) into the socket of the Vacuum-Box. (secondary: 24 VDC, 1,25 A)
- Connect the power supply plug with the plug socket of your voltage supply. (primary: 120 - 240 VAC, 50/60 Hz, 1,5 A)

Light emitting diode (LED)

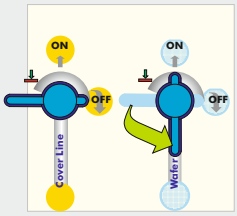
green LED: **The Vacuum-Box is ready for operation.**
orange LED: Pump is working - yellow LED: Leak detection

Safety regulations:
Consider the relevant safety regulations and guidelines for handling dangerous materials absolute!

VACUUM-BOX

OPERATING INSTRUCTION -ABSTRACT-
Vacuum-Box type VB 01 / 02

fig. 1a



Wafer ON

- apply the wafer with light pressure (use the silicet press-assistance)
- put the selector switch downward, (pressure switch mode)  the pump is working
- 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)

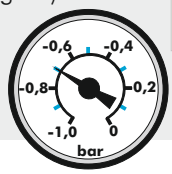


fig. 1b

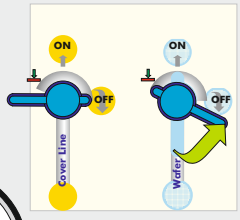
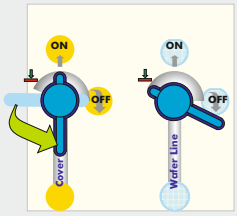


fig. 2a



Cover ON

- 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)

the Wafer Holder is ready for operation

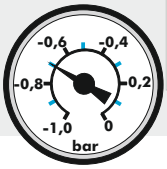


fig. 2b

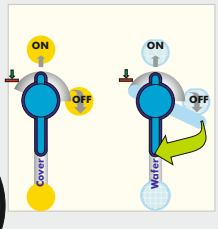
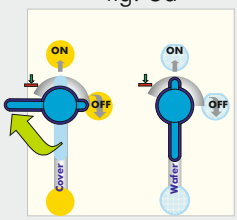


fig. 3a



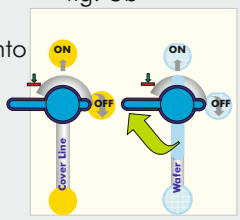
Cover OFF

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

Wafer OFF

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

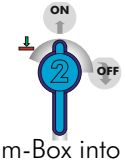
fig. 3b

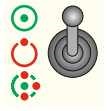
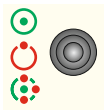


In case of Wafer Holder BASIC application, please proceed according to fig. 1a and fig. 3b

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 yelolow 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.