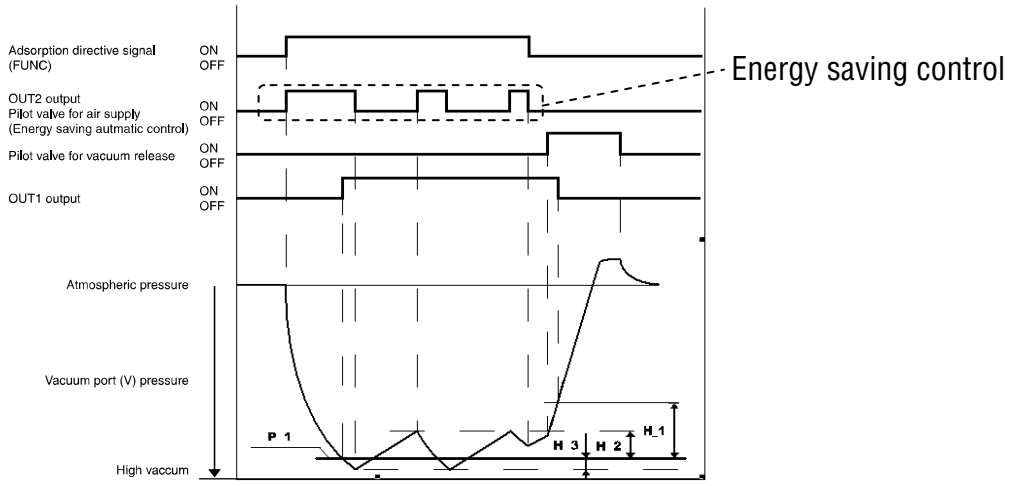
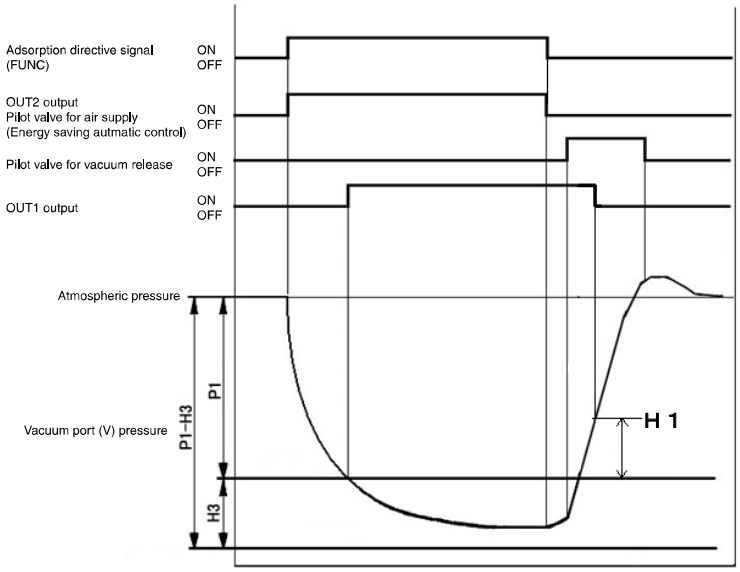
■ ZK2 Vacuum ejector with energy saving control function “Method of stopping the energy saving control function”

Sometimes when there is a lot of leakage from the adsorption surface of the workpiece, energy saving control (ON/OFF of valve for generating/stopping vacuum) takes place frequently. In such a case, you can stop energy saving control by changing the setting of the switch, thus preventing the above phenomenon from occurring. The method of doing this is described below.

Normal energy saving control function



Method of stopping energy saving control



When you wish to stop energy saving control, make a setting such that the value of H_3 is P_1 – H_3 −100.
Regarding the method of setting H_3, refer to “Function Setting: [F2] Setting of OUT2” in the operation manual for the ZK2-OM00401.
An extract from the operation manual is shown on the following page.

Example:
If P_1 has been set to –60 kPa, enter 45 in H_3.
[As a result, P_1 – H_3 = –60 – 45 = –105. This means that it is actually impossible for the vacuum pressure to reach the level at which the energy saving function operates.]

∗The minimum value of P_1 – H_3 is –105.
You cannot enter a value of H_3 which is lower than this value.

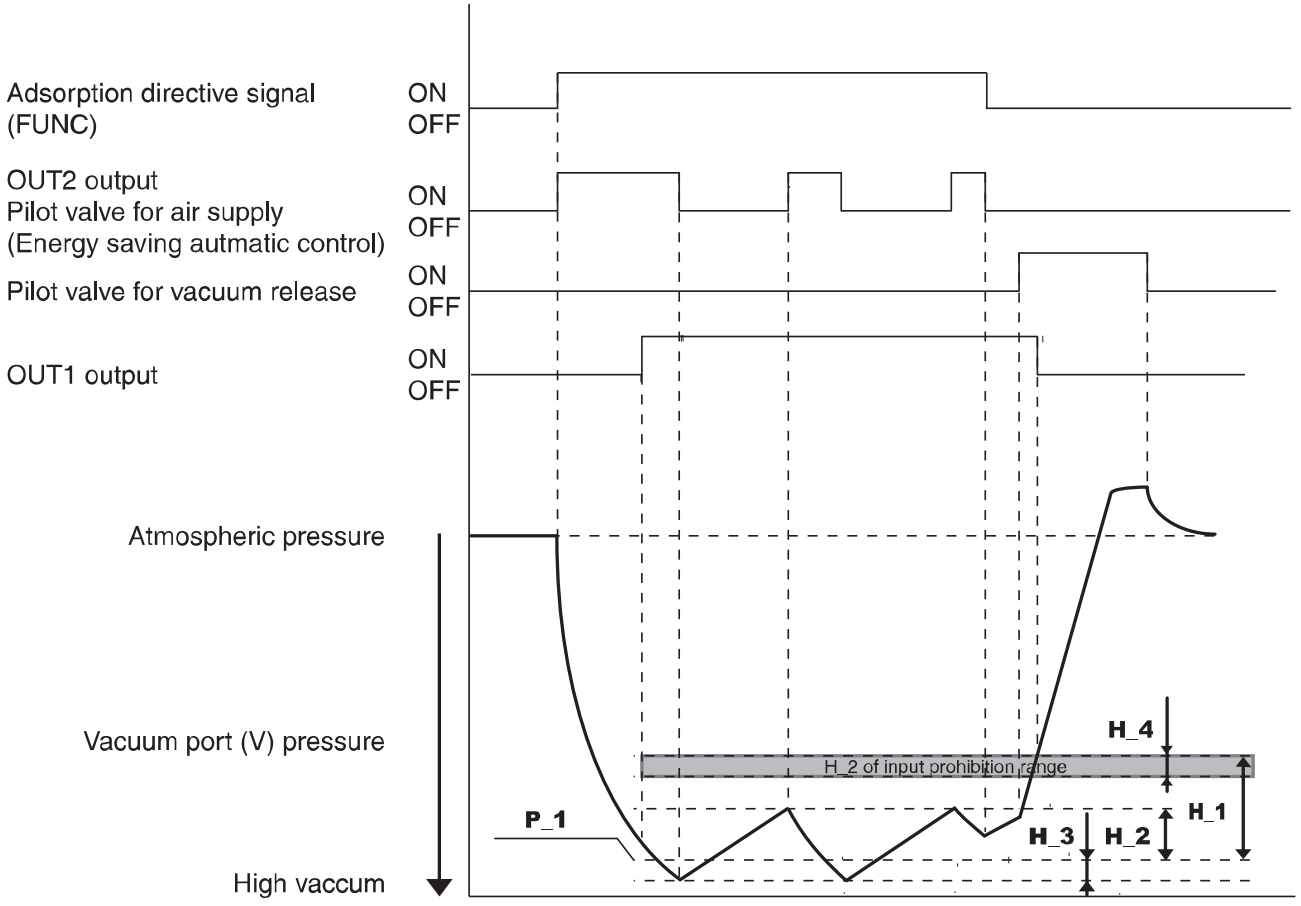
∗Each time you change the value of P_1, you must change the value of H_3 as well so that P_1 – H_3 −100.

■[F 2] Setting of OUT2

Set OUT2.
Set reversed output, ON and OFF points of the supply pilot valve, and the range in which an input is not allowed.

Operation of OUT2

Supply pilot valve: OUT2 is turned on by the signal for suction. Suction starts by the generation of vacuum pressure.
When the vacuum pressure reaches the set value (P_1 - H_3: OFF point of supply pilot valve signal), the supply pilot valve is turned off.
After that, when the vacuum level decreases and reaches the suction switch ON point (P_1 + H_2: Supply pilot valve signal ON point), the supply pilot turns on again to maintain the vacuum.
After the supply pilot valve is turned off, the vacuum pressure will decrease.
When the vacuum pressure reaches the suction switch ON point (P_1 + H_2: ON point of supply pilot valve signal), the solenoid valve for supply will turn ON again and increase the vacuum pressure.
Afterwards, The supply pilot valve repeats this ON and OFF cycle.
Area in which setting of H_2 is prohibited can be set by the range in which H_4: supply pilot valve signal is prohibited to input.
The default settings are P_1 : -70.0 kPa, H_1:10.0 kPa, H_2:5.0 kPa, H_3:0.0 kPa, H_4:1.0 kPa



<Operation>

Press the △ or ▽ button in function selection mode to display [F 2].

Press the S button to set. ↓ Move on to setting of reversed output.

Check of reversed output

Check the set value same as the display shown to the right, then move on to next setting.
If the display is not correct, press the △ or ▽ button to change the display.

Displays in turn

Reversed output　　Set value

Press the S button to set. ↓ Move on to setting of pressure.

Press the △ or ▽ button to change the set points.

Setting ON point of the supply pilot valve

Displays in turn

Set value

Press the S button to set. ↓ Move on to the next parameter.

Setting OFF point of the supply pilot valve

Displays in turn

Set value

Press the S button to set. ↓ Move on to the next parameter.

Set the range in which ON point of the supply pilot valve input is prohibited

Displays in turn

Set value

Press the S button to set. ↓ Return to function selection mode.

[F 2] Setting of OUT2 complete.

*1: Selected parameter become effective after pressing the S button.

*2: After setting is made valid by the S button, it is possible to move to measurement mode by pressing the S button for 2 seconds or longer.

*3: OFF point (H_2) of the supply pilot valve is automatically corrected by setting the input prohibited range (H_4) of ON point of the supply pilot valve.