How to select the vacuum pump used with Smart Evaporator C1

1) Please confirm the “Plug Size” and the “Reference suction flow rate of vacuum pumps” according to the inner diameter of sample containers you wish to use.

<Table: Plug size and Reference suction flow rate corresponded to the respective container sizes>

Inner diameter of container	Plug Size	Reference suction flow rate *1
4~7mm	**Plug Size** : 1	13L/min
7~11mm	**Plug Size** : 2	15L/min
11~17mm	**Plug Size** : 3	30L/min～33L/min
15~24mm	**Plug Size** : 4	50L/min
24~32mm	**Plug Size** : 5	58L/min

* The water is used as a sample.

*1 The numbers in the table above are from when experimented with the one position evaporator.

The indicated reference suction flow rates may vary according to the types of containers or solvents.

2) Important notes when selecting a vacuum pump

Please confirm the followings if you wish to select a vacuum pump besides the references.

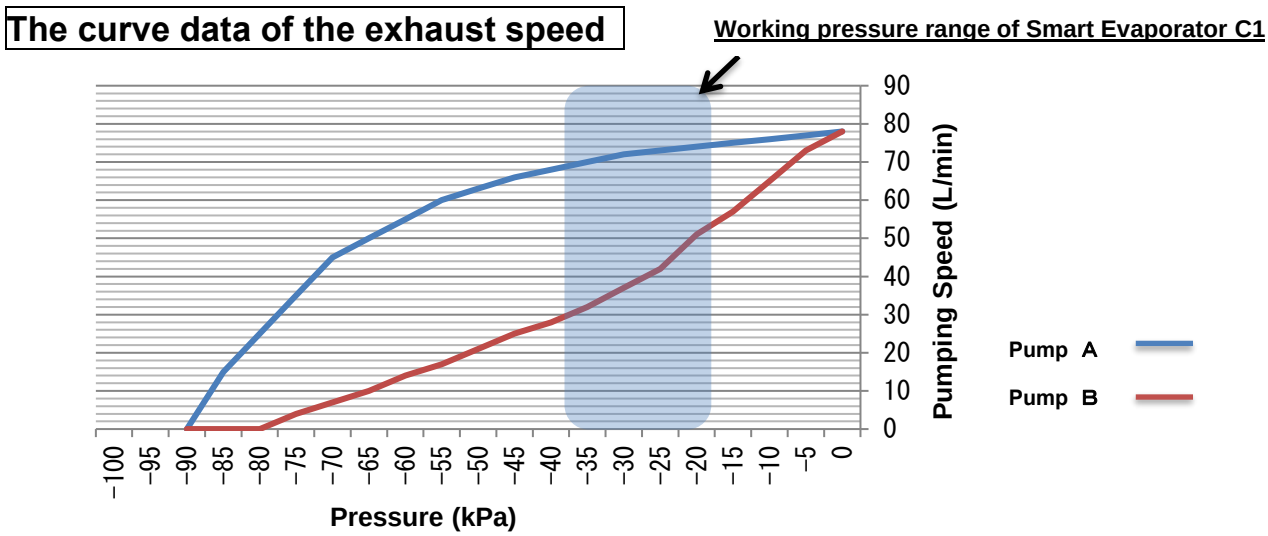
< Exhaust quantity of vacuum pumps>

You will require a vacuum pump that has more exhaust quantity than the reference suction flow rate. In the case of the multiple sample evaporation, the product of the reference suction flow rate and the number of positions indicates the required exhaust quantity. And also, confirm the curve data of the exhaust speed of the vacuum pump, and select the one which achieves the reference suction flow rate under the working pressure of -20kPM~ -40kPa.

< Attainment pressure >

Please use a vacuum pump that reaches higher than the vacuum degree of -50kPa.
The working pressure of this device is -20kPa～-40kPa.

< The necessity of confirming the curve data of the exhaust speed >



Please confirm not the catalog specifications of vacuum pumps, but the curve data of exhaust speed because the exhaust quantity significantly varies under different pressures. The two vacuum pumps, Pump A and Pump B mentioned above, have the same specifications of 80L/min on their catalogs, but Pump A achieves 68L/min under -40kPa, and Pump B achieves only 28L/min under the same pressure. Although used under the same pressure, such a different performance could be generated depending on pumps. Please always confirm the curve data of exhaust speed to find out the expected performance in the respective pressure.

< About the continuous suction of atmospheric pressure >

Please use a vacuum pump which enables the continuous suction of atmospheric pressure.
The product life of the vacuum pumps beside the above may occasionally be reduced.

< Notice >

Any failures or detects of the vacuum pump is not covered with the warranty.
BioChromato assumes no responsibility in any case of damages to your property, health or life.
Please contact us if you have any questions about this document.

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