

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



*1 The numbers in the table above are from when experimented with the one position evaporator and water. The indicated reference suction flow rates may vary according to the types of containers or solvents.

2) The reference vacuum pumps

<Diaphragm vacuum pump>

Reference suction flow rate	Compatible diaphragm vacuum pump
13L/min	Vacuubrand ME 2C NT
15L/min	
30L/min~33L/min	ULVAC DA81-S
50L/min	Vacuubrand ME 4C NT
58L/min	

* For multiple-channel models, the suction flow rate required can be obtained by multiplying above rate by the number of channels. (K4: ~ 232L/min / C10: ~ 300L/min -> ULVAC DA-241S / Vacuubrand ME 16C NT)

** If you select a vacuum pump beside the above, please refer to “3) Important notes when selecting a vacuum pump”, for selecting an appropriate vacuum pump for your use.

3) Important notes when selecting a vacuum pump

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

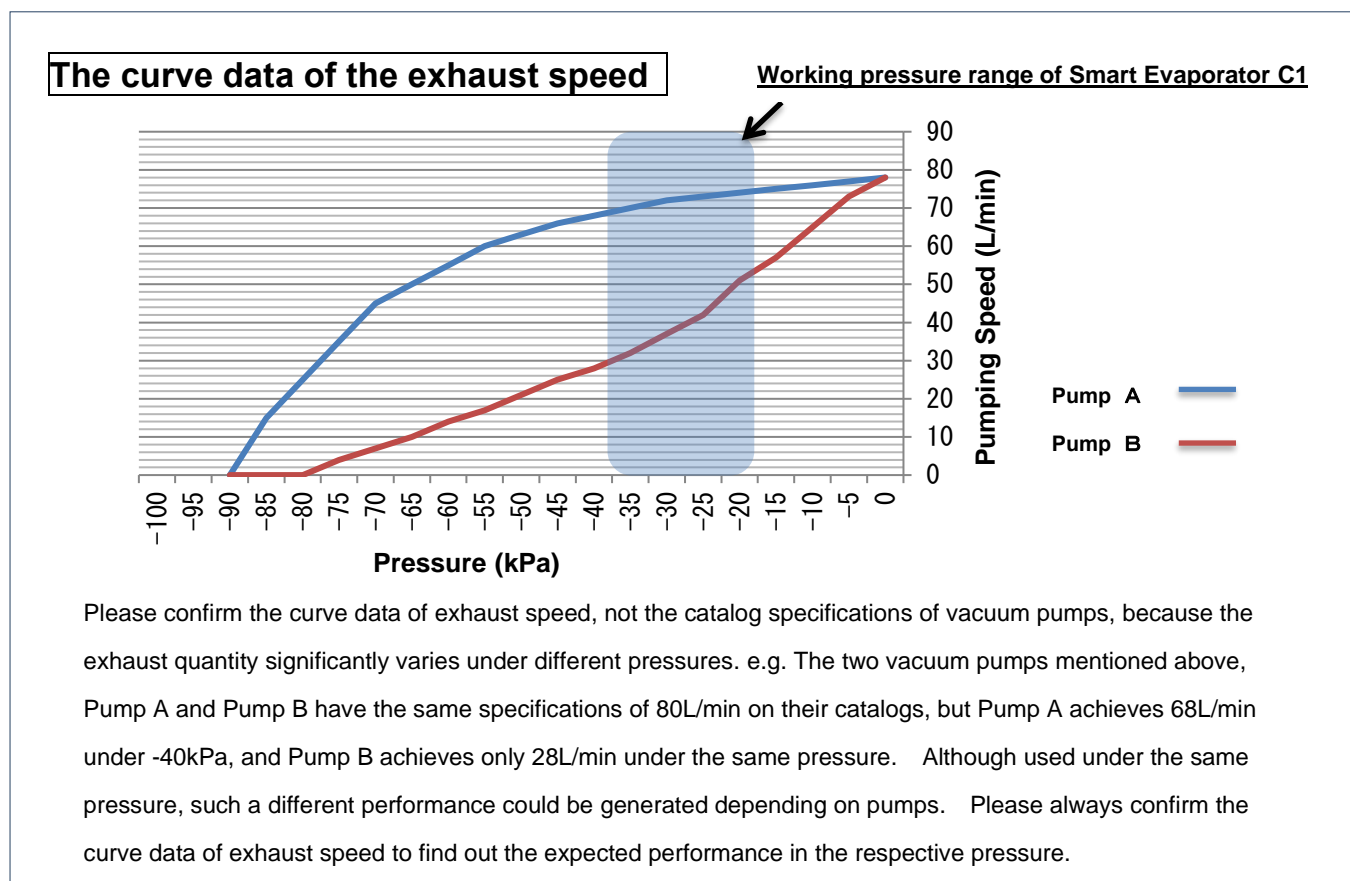
< Exhaust quantity of vacuum pumps >

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 -20kPa~ -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 >



< About the continuous suction of atmospheric pressure >

Please use a vacuum pump which is capable of 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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