Exchange Unit – Piston Blocked Error

Troubleshooting ‘piston blocked error’ on an exchange unit.

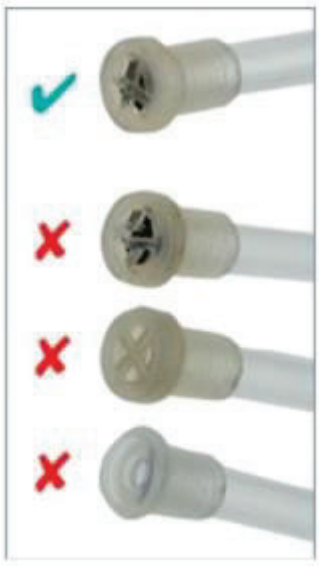
Technology: Titration

How do you know you have this problem?

The piston blocked error occurs due to some sort of resistance applied to the piston of the exchange unit when in motion.

What can I try to resolve it?

- The tubing, buret tip and/or antidiffusion valve are often the culprits.
- Inspect the tubing from the dosing unit to the titration vessel for blockages.
- Inspect the antidiffusion valve (replace if necessary, part number 6.2726.090):



Antidiffusion Tips

- Disassemble and clean the exchange unit per the following video: Titration – How to clean the exchange unit | Metrohm

What are some ways to prevent the problem?

- Metrohm recommends replacing glass cylinder and dosing piston annually.
- Exchange units must be monitored regularly and cleaned from time to time.
- Monthly inspections are called for in the event that alkaline, corrosive or high-concentration reagents are used. If non-problematic reagents are used, then the inspection intervals can be extended to several months.
- It is recommended to disassemble and clean the exchange unit when replacing the reagent. At the same time, the dosing piston and cylinder of the exchange unit can be checked.

- When using alkaline, corrosive or high-concentration reagents, it should be checked whether the glass cylinder has been attacked by e.g. aggressive alkalis or whether solids have crystallized out of the solution.
- In the event of that the exchange unit is not in use for > 2 days, the exchange unit should be emptied without fail, because even water can corrode the buret glass in the event of prolonged periods of disuse. Remove the exchange unit from the titrator base in the event of prolonged periods of disuse (longer than one week).

Other ideas

'Submit a request' for further assistance from Metrohm Technical Support at support.metrohmusa.com.