Information letter

The information in this letter is valid for the Ettan™ LC system.

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Using very small columns

This information is valid for the systems with software version UNICORN™ 3.21 AB.

When using very small columns (volume below 100 µl) in Ettan LC, a new method in UNICORN is required. The new method is time-based instead of the commonly used "column volumes". The procedure below shows how to perform the required changes.

Procedure

1. Click on **Method Editor** in the Toolbar at the bottom of the screen.

2. Select **File:New**.

3. Select system. In the technique list, select **RPC**. Select a suitable template. Select **Any** from the column list. Click on **OK**.

4. Select **View:Text instructions**. Place the cursor on the first line, Base CV. In the Parameters box below, select **Time**. Click on **Change**.

5. Select **View:Run Setup**. On the Variables page, change **Pressure_Limit** in **Start_Conditions** to 35 Mpa.

6. Make sure that the equilibration time is long enough.

7. Modify the method settings as desired.

8. Save the method.

Setting the compression compensation

Pump P-905 has a function for compensating for flow losses due to liquid compression at high pressures. The pump also has a function called start compensation. It compensates for the short time it takes to reach the desired pressure when starting the pump.

Note! *The degree of compensation highly depends on the compressability value of the liquid that is used.*

The compensation functions should be activated at all times. To activate the functions and to set the compressability value of the liquid used follow the procedure below.

The compensation functions are further described in the *Pump P-905 User Manual.*

Procedure

The compensation functions are all found in main menu **Setup**.

To activate the compression compensation:

1. Select sub menu **Setup Compr. comp.** Press **OK**.

2. Select **On** to activate the compensation. Press **OK**.

To activate the start compensation:

1. Select sub menu **Setup Start comp.** Press **OK**.

2. Select **On** to activate the start compensation. Press **OK**.

To set the compressability value for pump module A (the value for pump module B is set accordingly):

1. Select sub menu **Setup Comp A.** Press **OK**.

2. Enter the compressability value for the liquid used. Press **OK**.
   The values of the most commonly used liquids are given below.

Liquid	*Value in Pa^{-1}*
Water	4.6×10^{-10}
Most organic solvents	11.0×10^{-10}