

PUMP PERFORMANCE TEST

This is a guide to help inExpose system users evaluate the performance of their pumps to ensure they are performing within specifications for reproducible exposures.

NOTE: Depending on care and use, annual servicing is recommended to maintain and recalibrate inExpose pumps.

REQUIRED EQUIPMENT FOR TEST

The following equipment is required for the pump performance test:

- » inExpose Pump (IX-PU or IX-PU-01)
 - » Mounted on any inExpose Base Unit (IX-BU) pump slot
- » inExpose Buffer Chamber (IX-BC)
- » Provided Rotameter
- » Extra pieces of inExpose tubing
 - » Vinyl (ID: 1/8", W: 1/16")

EQUIPMENT CONFIGURATION

Please setup the required equipment in the following configuration, connecting each piece of hardware via tubing:

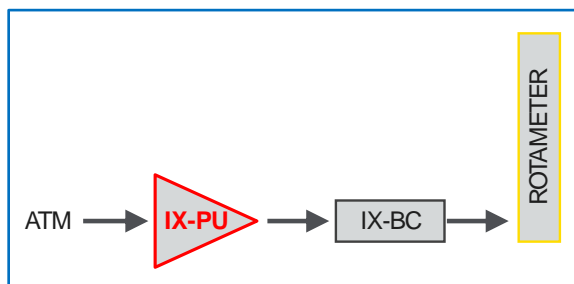


Figure 1. Layout for pushing configuration of pump performance testing

NOTE: Ensure that the pump inlet remains open to atmosphere (ATM).

Before moving on to the System Flow Test, verify that all tubing connections are tightly connected and the setup is leak free.

For reference, please consult the document: *TechNote 051- Validation Steps of a Leak Free inExpose Circuit.*

PUMP PERFORMANCE TEST

To test the pump performance, please follow the steps below:

1. Launch the flexiWare software to enter an Experimentation Session, and move through the start-up sequence
2. When prompted by the System Flow Test wizard, click *Next* to *Step 2: Pump Selection*, to choose a pump to evaluate

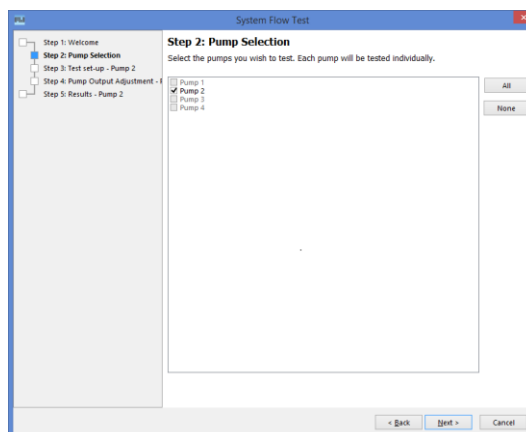


Figure 2. The System Flow Test wizard

- Click *Next* twice to *Step 4: Pump Output Adjustment*, corresponding to selected pump

NOTE: Selected pump should now be active.

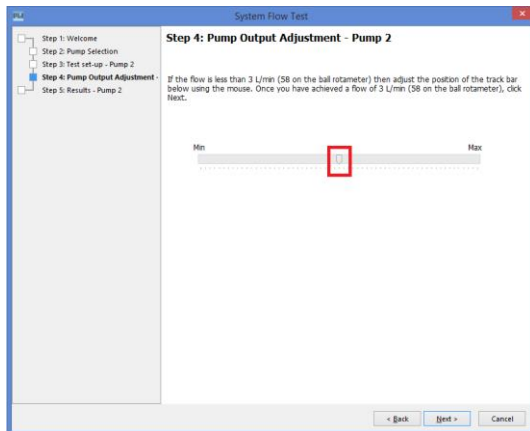
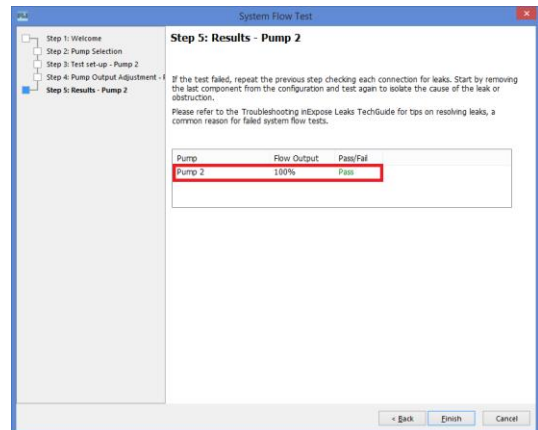


Figure 3. Pump Adjustment Scale

- Make note of the level of the ball on the rotameter without adjusting the software slider

NOTE: At the default software setting, the inExpose pump should produce a flow of 3L/min, equivalent to roughly 58 on the ball rotameter (flexiWare 8.1.3 and earlier) or 30, flow of 1.5L/min (flexiWare 8.2 and later).

- If the ball level is not at the appropriate reading modify the rotameter ball by moving the slider (outlined in red above) left or right, which will adjust the output of the pump
- Once the rotameter ball reads appropriately, click *Next*
- Step 5: Results*, will provide a measure of *Flow Output* in percentage of the expected flow, as well as a Pass/Fail criterion



- If the value remains low, please refer to *TechNote 051 - Validation Steps to a Leak Free inExpose Circuit*
- If the value is too high, please review the layout to make sure a buffer is between the pump and rotameter (Figure 1)

CONTACT INFORMATION

North America

TechSupport@scireq.com

Tel: 1 (514) 286-1429 option 2

Toll Free: 1 (877) 572-4737 option 2

Europe & Middle East

sales@emka.fr

Tel: +33 (1) 40 60 76 00

China

info@bjgyd.com

Tel: +86 (0)10-85376382

Japan

info@emkatech.jp

Tel: +81 (0)6-6476-7135