



RIGEL MEDICAL
GMC-INSTRUMENTS GROUP

How do I perform an occlusion test on B. Braun Space Series, Infusomat and Perfusor devices?

This document has been produced to aid in testing the B. Braun infusion pumps for the Space series, Infusomat and Perfusor occlusion performance. The B Braun pump has a unique auto rewind function when occlusion pressure limit is released to relieve the pressure and then continue to infuse when the pressure has been reduced.

Equipment required

- B Braun Pump and giving set
- Multi-Flo Infusion device

Optional:

- Med-eBase software for remote control (High resolution real time graphs)

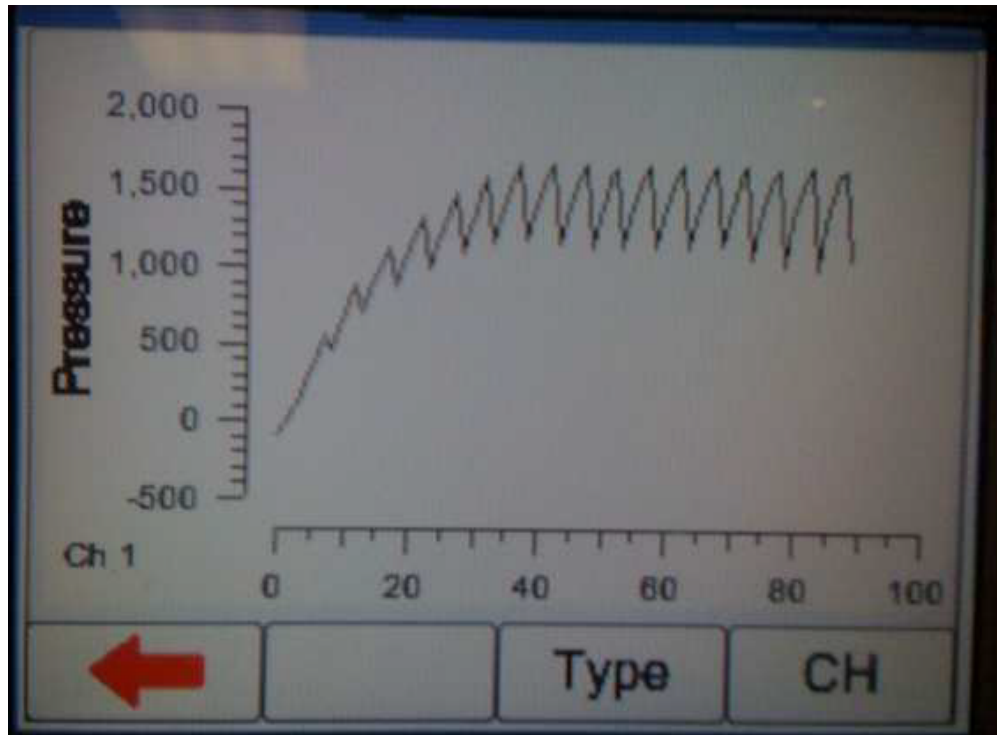
1) Connect the Rigel Multi-Flo and B Braun infusion device

2) If using Med-eBase; connect the Multi-Flo to the PC using a USB cable and load Med-eBase V2.4 (or higher) software and open the remote control dashboard.

Note: Please see the Med-eBase manual for setting up the Multi-Flo to the PC software.

3) The occlusion test needs to be set up in Manual mode

4) When the occlusion alarm sounds DO NOT press the green button on the Multi-Flo. This will allow the Braun device to reverse the pressure and begin to pump again. The user should end up with an image on screen or on the PC as follows:



5) Once enough results have been captured press the green button to stop the test or select manual stop in the software

6) If using the Multi-Flo as a standalone device in manual mode go back to the summary screen and select SAVE (F2); in

AUTO MODE these results save automatically. Download the results into Med-eBase using the USB cable. Detailed instructions on how to download can be found in the Med-eBase manual.

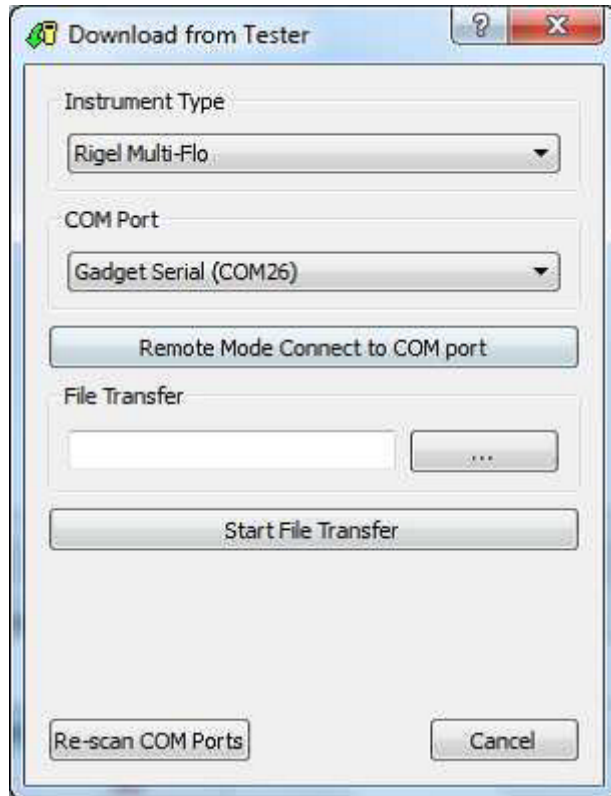
7) From Med-eBase the results can be viewed by searching for the Asset ID of the device. Select the TEST RESULTS tab and select the test. On the test results scroll down to the graph section and select the pressure graph.

8) Hover the mouse on the maximum and minimum points to record the pressure readings at each point.

9) Alternately the results can be exported as a CSV file from Med-eBase to a location of your choice for further analysis.

Med-eBase remote control Multi-Flo

1) Open Med-eBase and select Tools > download. Select the gadget serial to open the Multi-Flo remote control dashboard.



2) Once the software is opened in remote control. Set up the occlusion test as a Manual Occlusion by select the correct channel and then Add Occlusion test. Select Start test and assign the test to an Asset ID.

Multi-Flo Manager Window

Multi-Flo S/N : PP1-1111

Add Flow / Volume Test
Add Occlusion Test
Add PCA Test
Start Test Sequence
Close Manager

Channel 1 : 26D-0038
Channel 2 : 26D-0037
Channel 3 : Not Fitted
Channel 4 : Not Fitted

Sequence Name

Occlusion Test

Configuration
Graphs

Test Name

Start Test

Stop Test

Infusion Pump Type
Manual

Expected Pump Occlusion Pressure (alarm limit)
0.00
mmHg

Upper Limit
0.00
mmHg

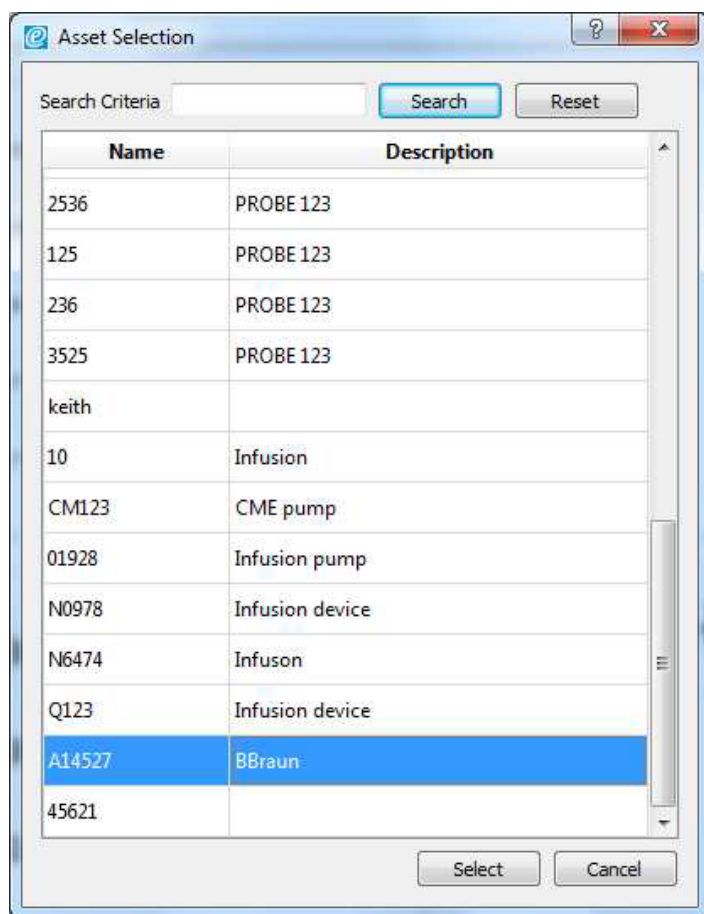
Lower Limit
0.00
mmHg

Right click to import, export, copy & paste tests and sequences...

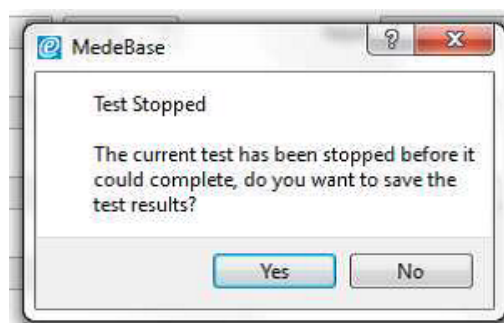
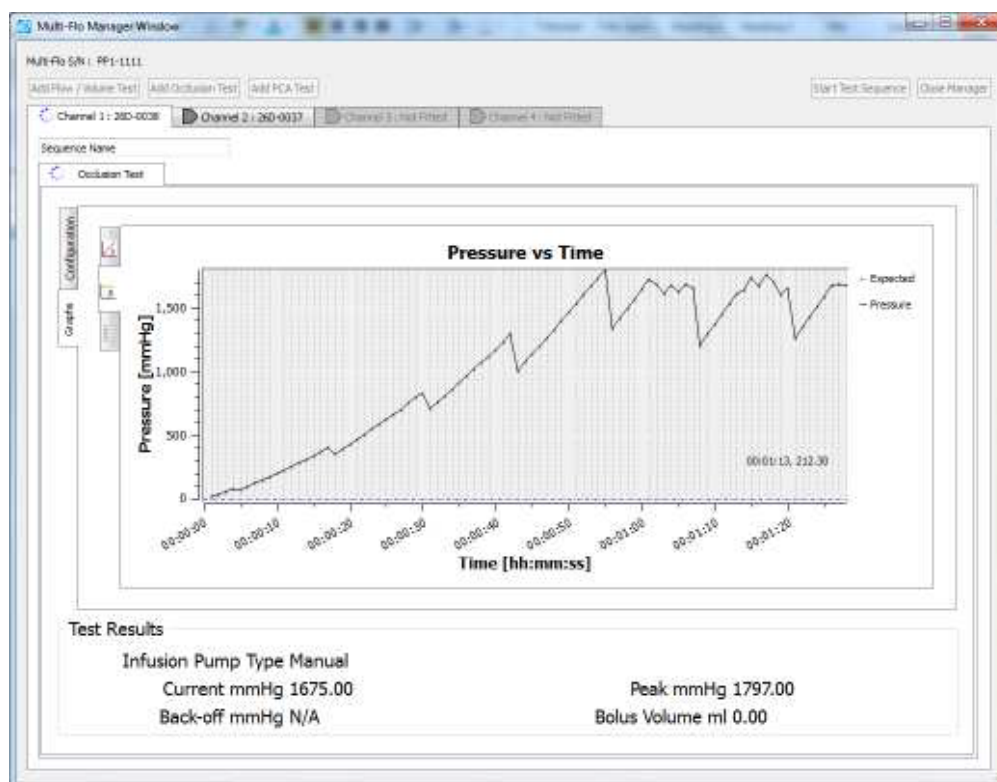
Test Results

Infusion Pump Type --
Current mmHg 0.00
Back-off mmHg 0.00

Peak mmHg 0.00
Bolus Volume ml 0.00



3) Allow the B Braun pump to reach the peak pressure limit a number of times before ending the test by selecting Stop Test in the Configuration tab. A user message will appear indicating that the test has stopped and to ask whether to save the results. Select Yes and the results are automatically saved to the Asset ID select at the start of the test.



4) Once the test is complete the user can hover the mouse over specific points and record readings. From the service manual the pressure stages and ranges are indicated below:

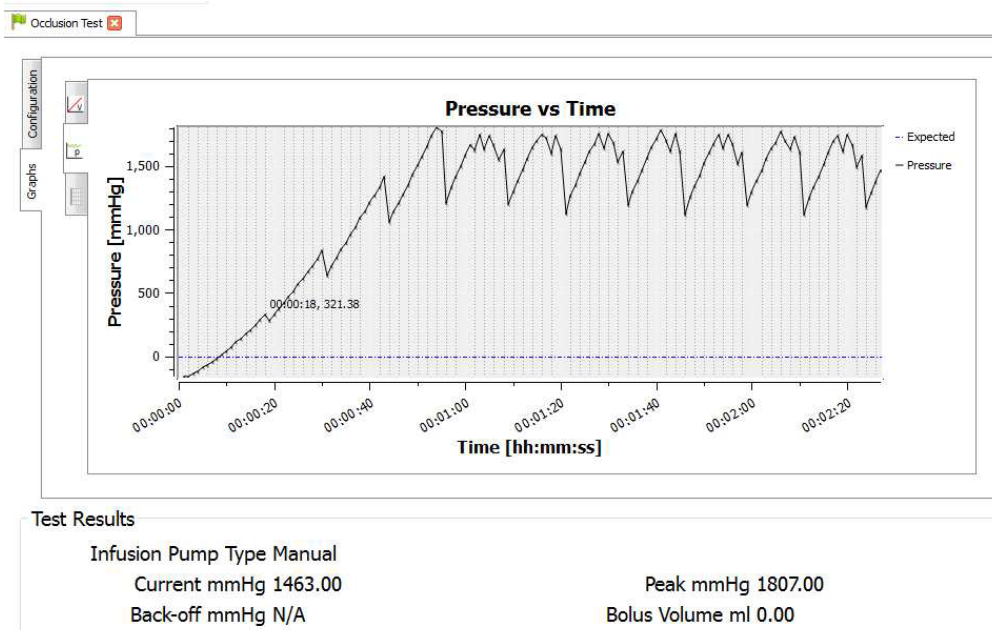
Pressure stage 1 range 75 – 450 mmHg

Pressure stage 5 range 300-750 mmHg

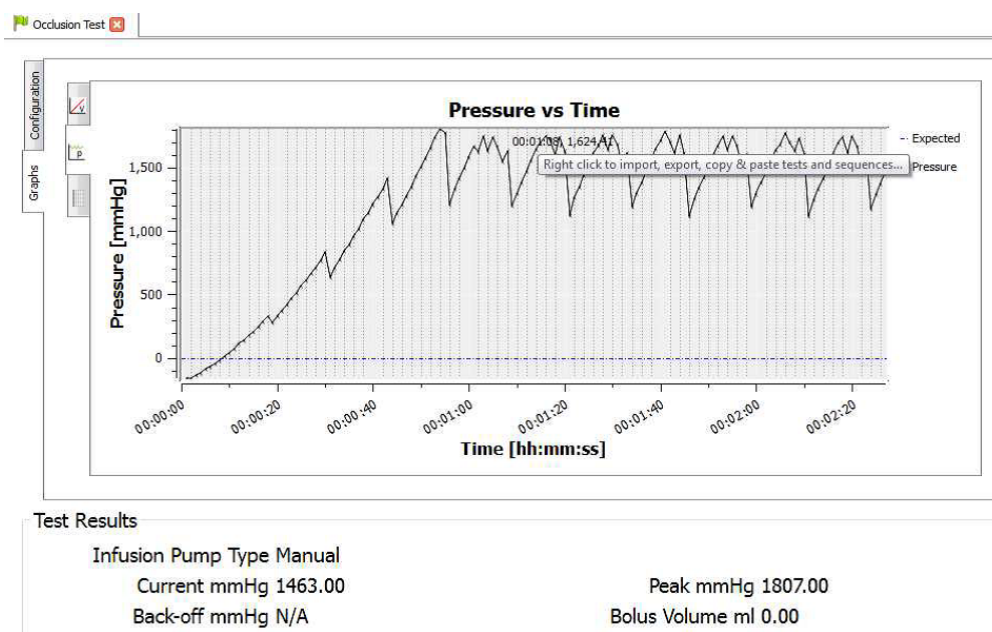
Pressure stage 9 range 600 – 1050 mmHg

Example:

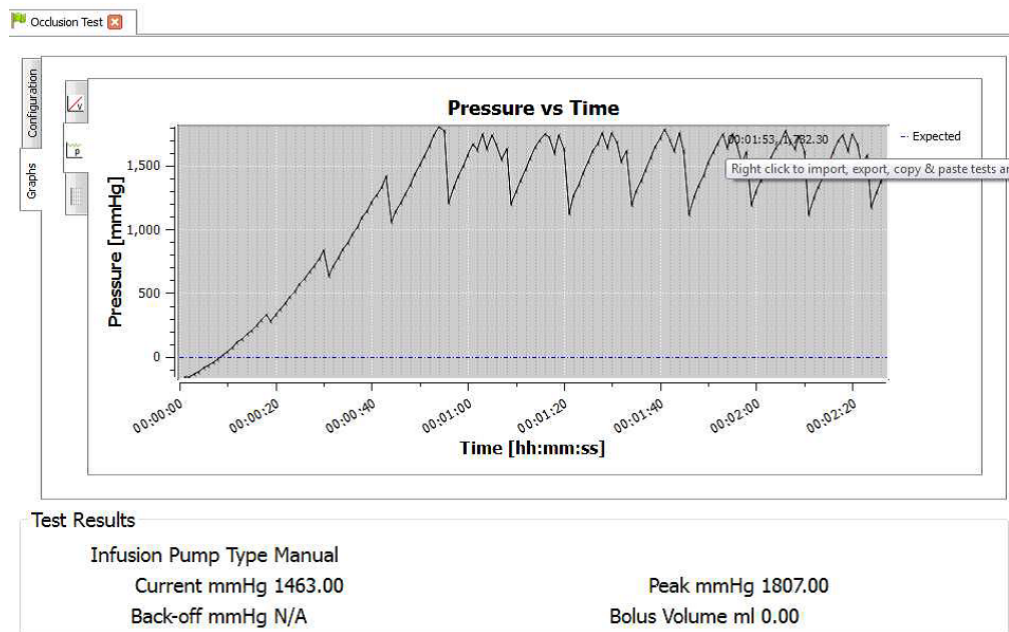
Pressure stage 1: 321mmHg



Pressure stage 5: 624 mmHg



Pressure stage 9: 782mmHg



If you require more help, please contact us at
<https://www.seaward.com/gb/enquire/>.