FLUKE®

HydroGraph Software

Remote Operation

Users Manual

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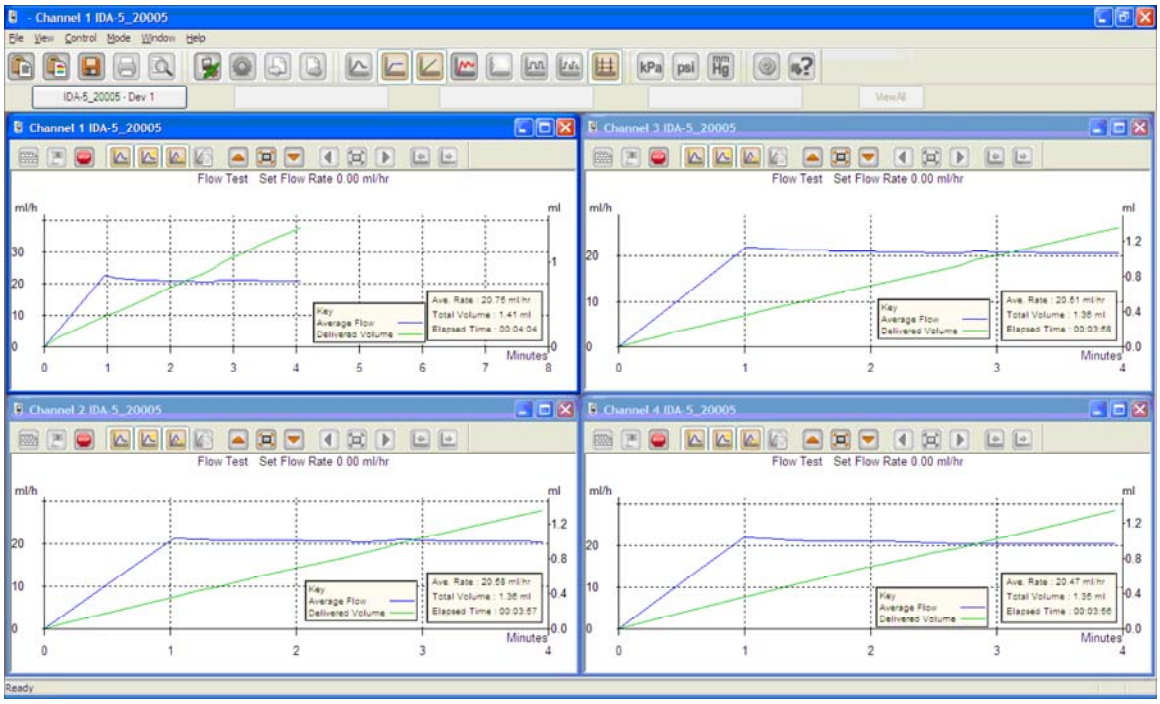
Introduction

This Users Manual tells you how to use the HydroGraph software to control tests on the IDA-1S and IDA-5 (the Products). Refer to the Users Manuals of the Products for detailed product operating instructions and important safety information.

If multiple channels are installed on the Product, HydroGraph shows graphs of all the installed channels at one time. See Figure 1.



hwh28.bmp

Figure 1. Main Screen

System requirements:

- Windows XP, Windows 7 (32 or 64 bit), Windows 8 (64 bit).
- 1 GB RAM, 500 MB available disk space.
- CD drive (for installation)
- USB port

Note

You must disable power save features (particularly on laptops) as these can disrupt the connection with the Product. If the connection is lost, the Product continues ongoing tests until the Product is turned off. The Product will recover the results at power on. Then you can import the results to HydroGraph.

Connect HydroGraph

1. Make sure the Product is NOT active on any channel when the software is started. On the IDA-5, go to the Status All Channels screen.
2. On the PC, start the HydroGraph application.
3. Connect the Product to a PC with the supplied USB cable. HydroGraph detects a Product connected to the PC.
4. The first time the Product connects to the PC, select the device name in the left and right boxes of the connection dialog. Thereafter, HydroGraph keeps the connection data.

Start Tests with HydroGraph

In the window for the applicable channel, click the **Test Setup** button (see Figure 2) to show the Test Setup dialog. The subsequent sections tell how to start each test type.

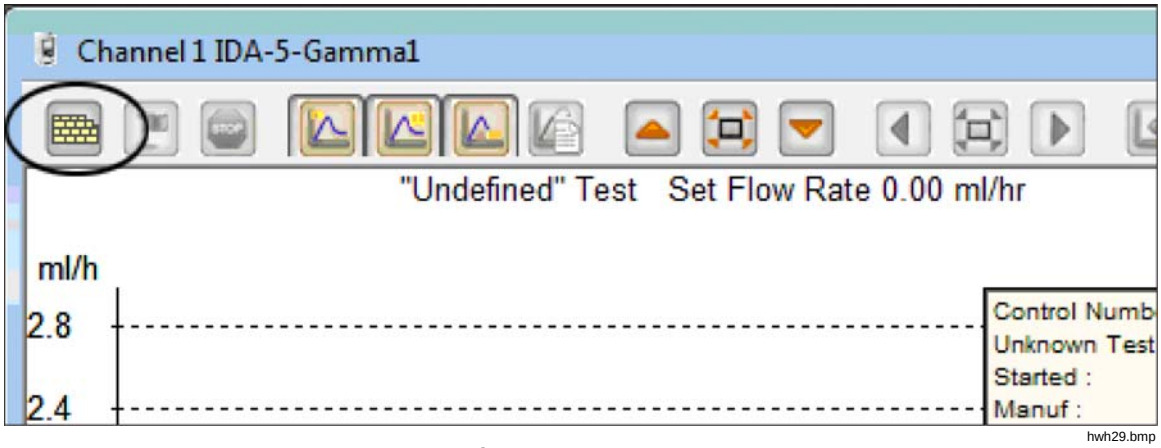


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Figure 2. Test Setup

Flow Test

1. Select the **Flow** tab. See Figure 3.

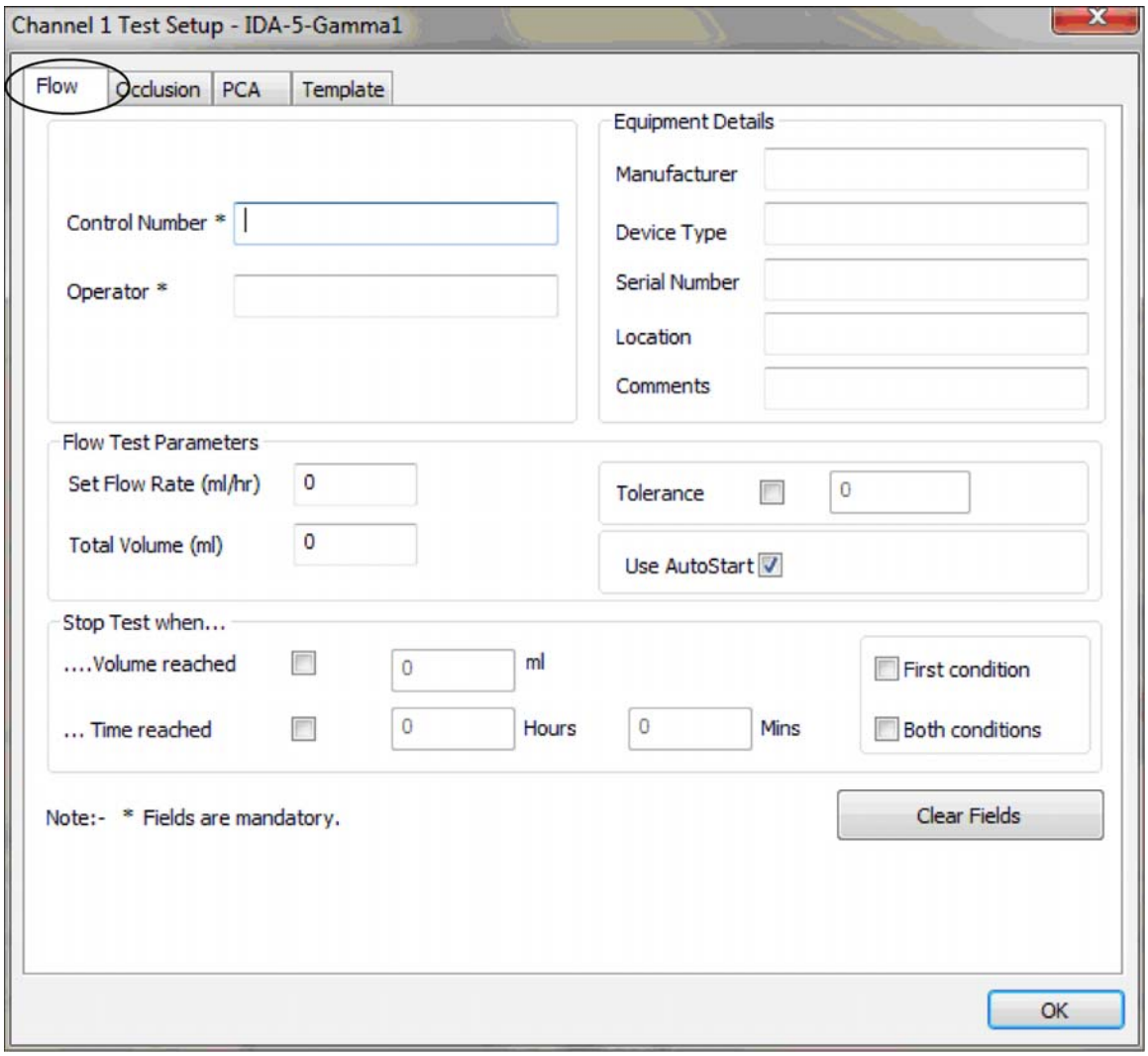

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Figure 3. Flow Setup Dialog

2. Fill in the data for the test and click **OK**. The syringe symbol (see Figure 4) shows that priming is necessary.

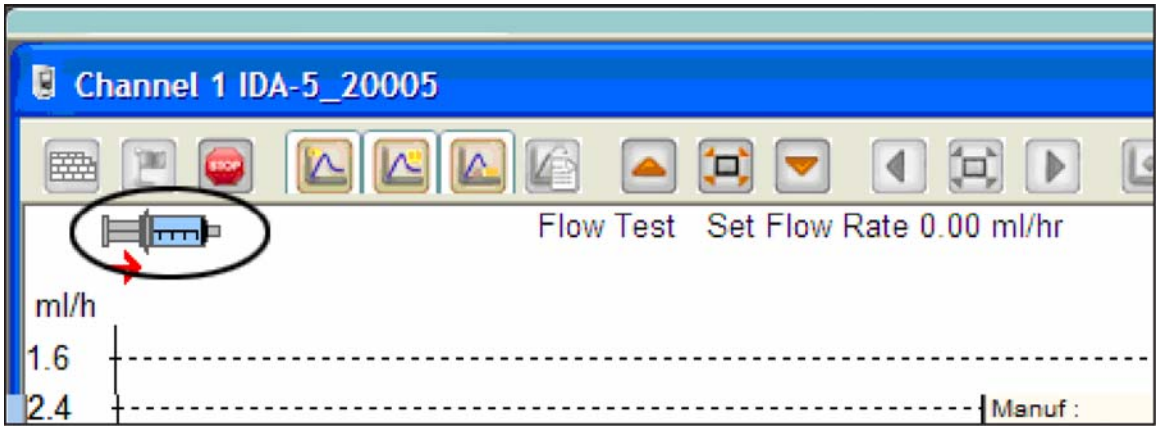

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Figure 4. Prime Indicator

3. Prime the channel. When the channel is primed, the syringe symbol goes away and the **Start Channel** (green flag) button is enabled (see Figure 5).
4. Click the **Start Channel** button to start the test.

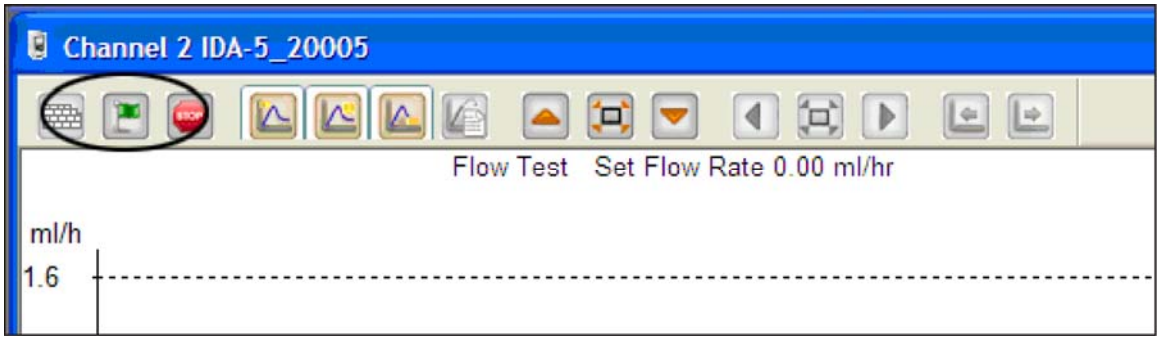

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Figure 5. Start Channel

Occlusion Test

1. Select the **Occlusion** tab. See Figure 6.

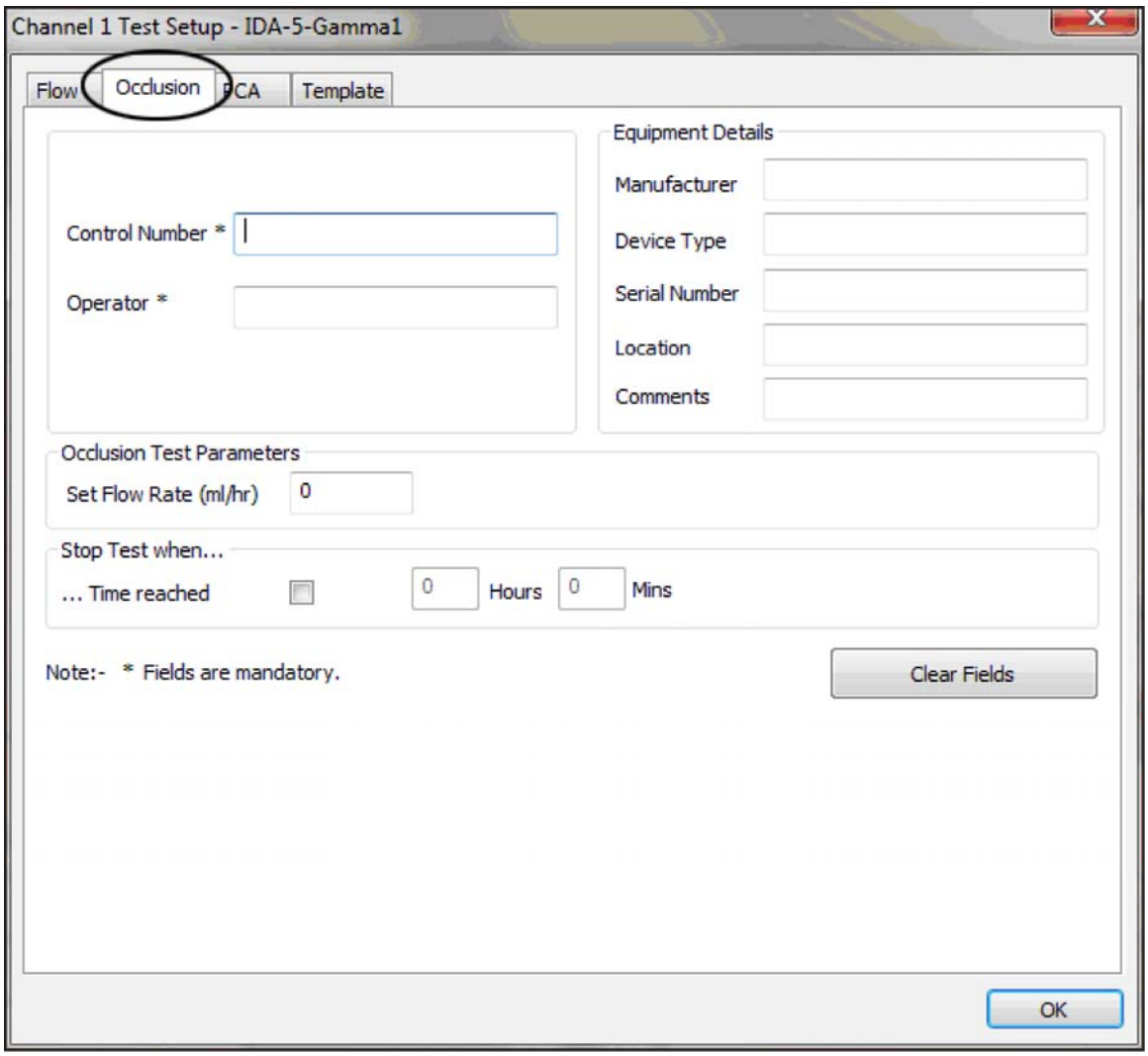

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Figure 6. Occlusion Test Dialog

2. Fill in the data for the test and click **OK**. When the Product is ready, the **Start Channel** button (green flag) is enabled.
3. Click the **Start Channel** button to start the test.

PCA / Dual Flow Tests (IDA-5 only)

1. Select the **PCA / Dual Flow** tab. See Figure 7.

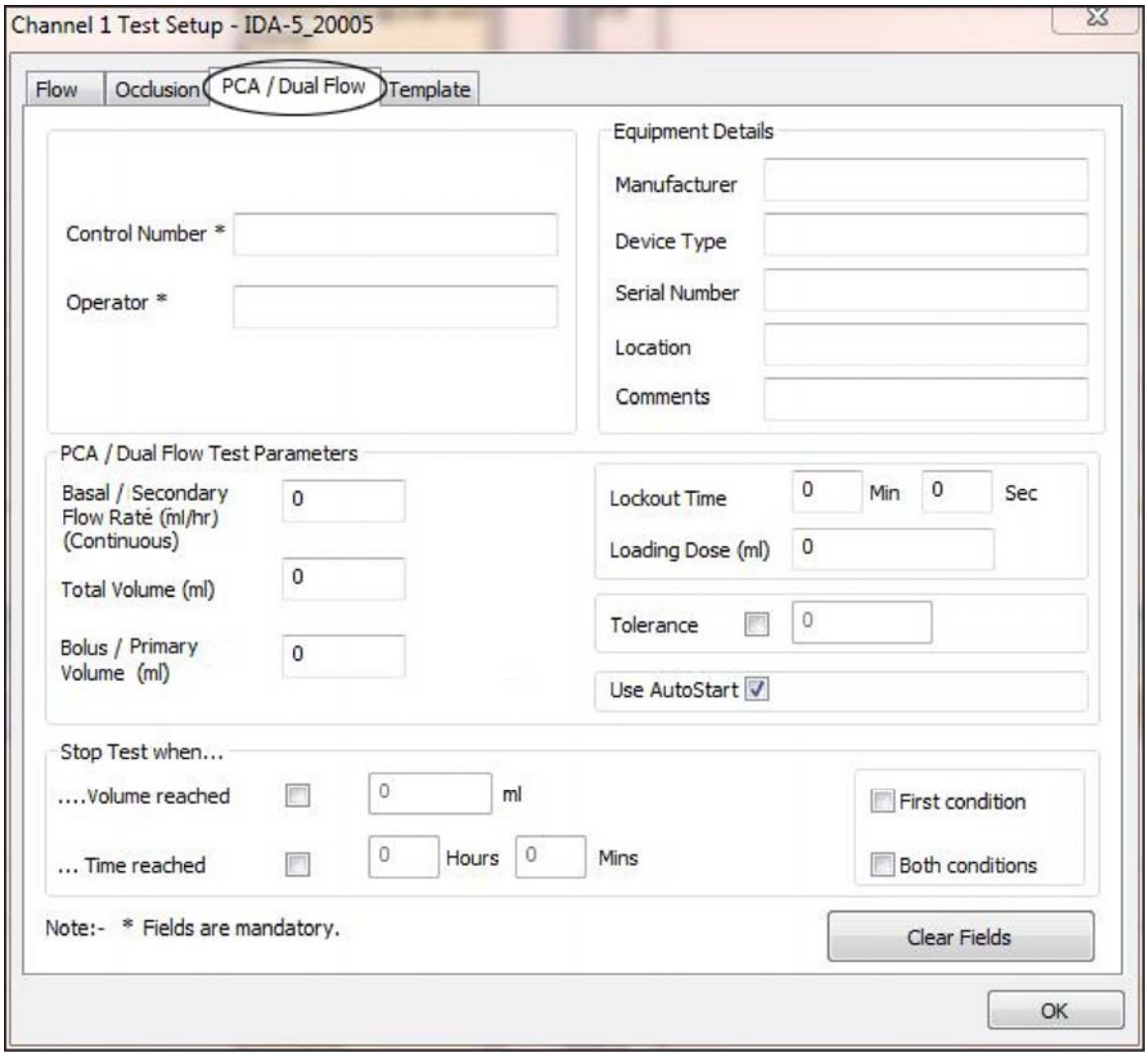

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Figure 7. PCA / Dual Flow Dialog

2. Fill in the data for the test and click **OK**.
3. Prime the Product and start the test as described in the *Flow Tests* section.

Template-Controlled Tests (IDA-5 only)

1. Select the **Template** tab. See Figure 8.

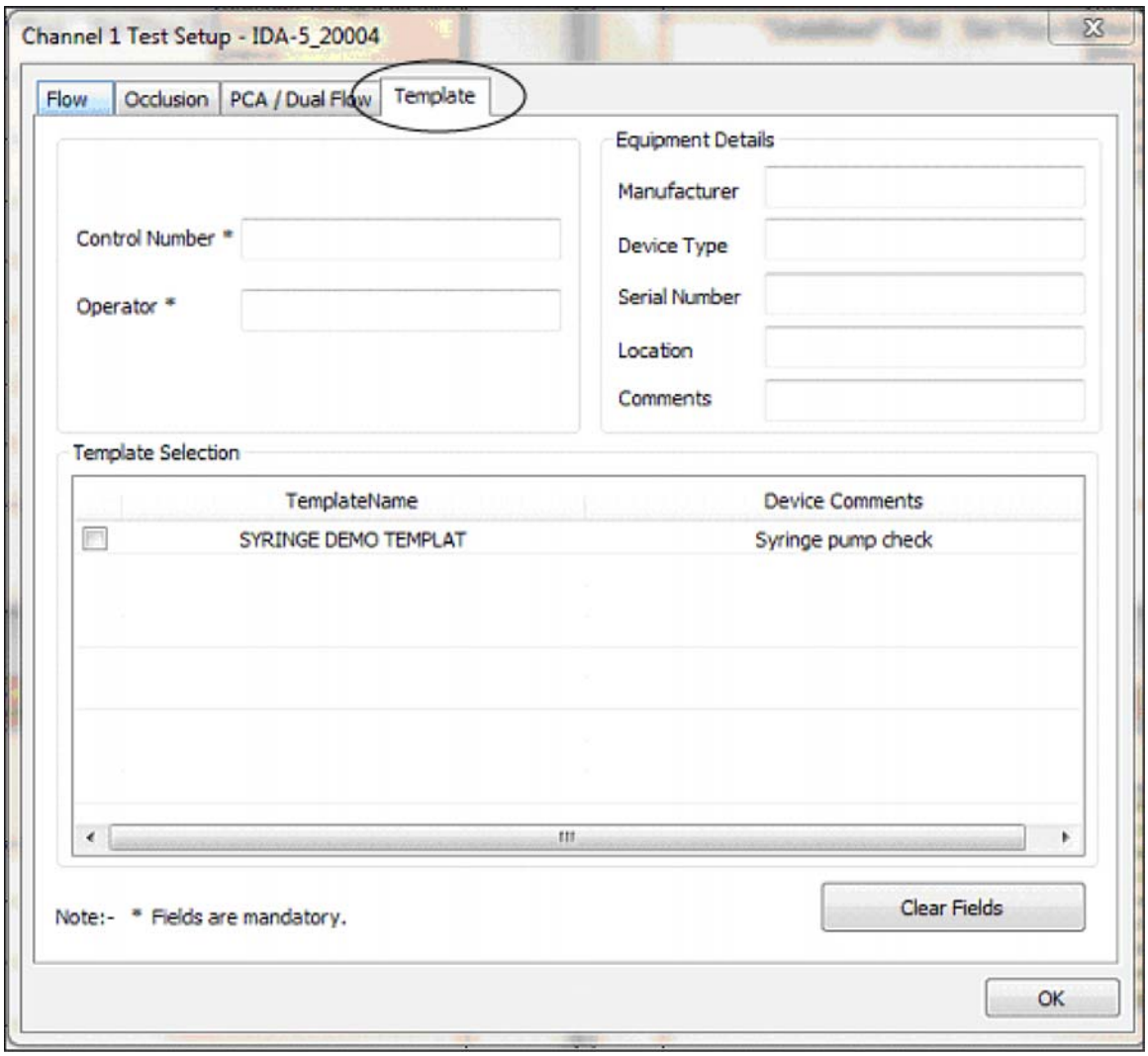

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Figure 8. Template Dialog

2. Fill in the infusion device data and select the template from the list.
3. Click **OK**. Each step of the template starts like a manual test of the same type.

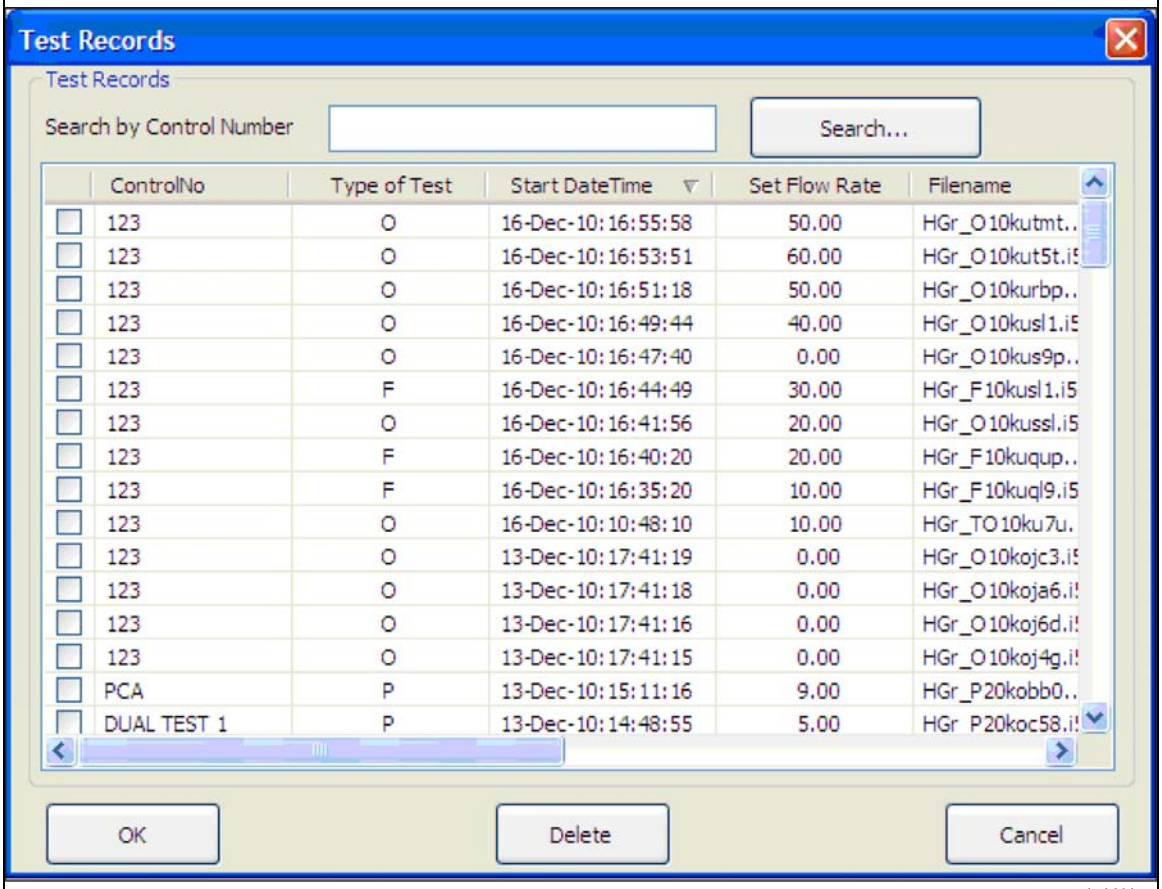
Stop Tests with HydroGraph

Wait for the test to complete or click **Stop** to end the test. The system prompts you to save and print the results, answer **Yes** or **No** to each question.

Recall, View, and Print Results

Select **File | Test Records** or click on the top toolbar, to open the Test Records Dialog. The stored records show with the most recent records at the top. Table 1 tells how to use the Test Record dialog.

Table 1. Test Record Dialog Functions



Function	Process
Change the sort order	Click the column heading to sort by. Click again to reverse the order.
Open a test result	Select the check box for the test result and then click **OK** or double-click anywhere on the test result line.
Delete a test result	Select the test result and then click **Delete**.
Toggle the view between graph and table data	Click the **View Data Table** button. See Figure 9.
Print the graph or data	Select **File	Print** or click the **Print** button on the toolbar.

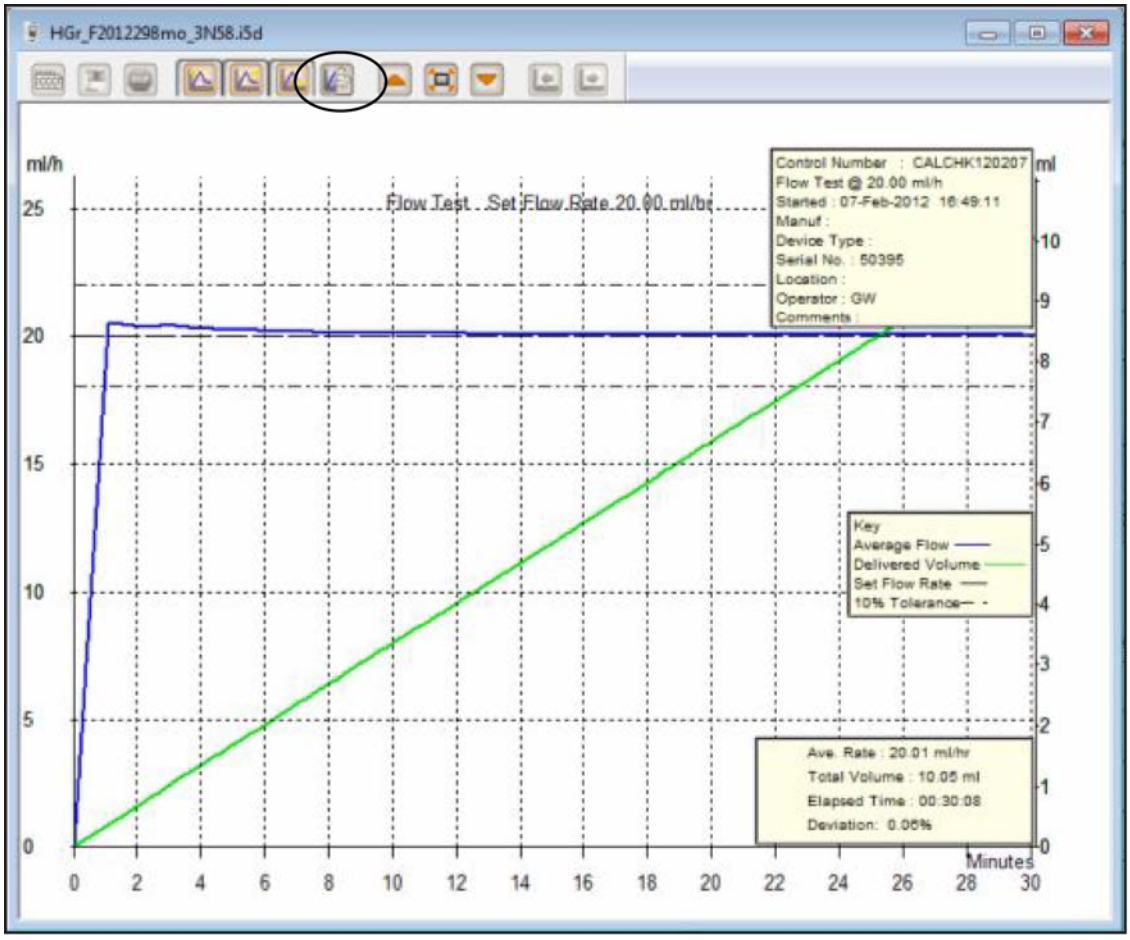


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Figure 9. Flow Test - Graph View

Default Parameters

You can set default parameters for HydroGraph. From the main menu, select **Control | HydroGraph Parameters**. Figure 10 shows the Default Parameters dialog. See Table 2 for a description of the fields.

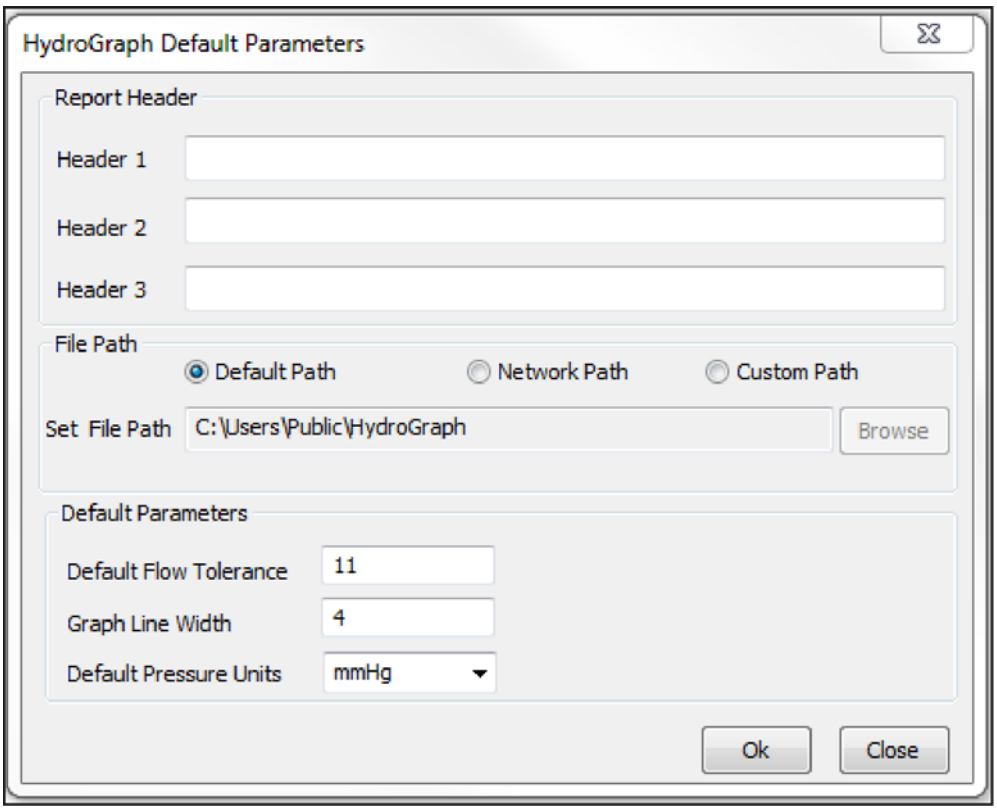

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Figure 10. Default Parameters Dialog

Table 2. Default Parameter Fields

Parameter	Description
Header 1, Header 2, Header 3	These three lines are printed on all reports. Set the first line to the name of the establishment.
File Path **Set File Path**	The type of path and the file path name where HydroGraph stores the test results. Select **Default Path** to set the file path to the default location for the version of Windows where HydroGraph is installed. • For Windows 7 it will be: `C:\Users\Public\HydroGraph` • For Windows XP it will be: `C:\Documents and Settings\All Users\Application Data\HydroGraph` Select **Network Path** to set the file path to a network folder. The folder must have read/write access. If HydroGraph is on more than one PC, you can keep and get results from a common location. Select **Custom Path** to set the file path to a folder on the local computer.
Default Flow Tolerance	The default flow tolerance percentage for the limit lines in the Flow Graphs. You can override this setting on individual tests.

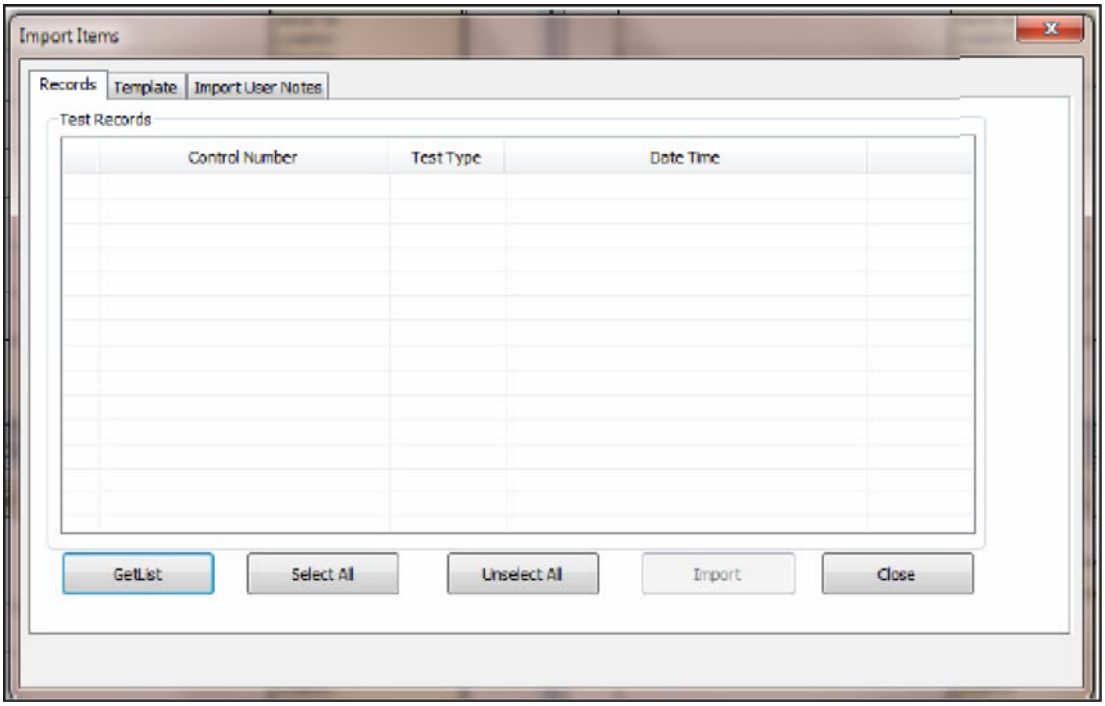
Table 2. Default Parameter Fields (cont.)

Parameter	Description
Graph Line Width	The width of the graph lines on the screen. Change this for best visibility.
Default Pressure Units	Sets the units of pressure used for Occlusion tests. The units are mmHg, kPA, and psi. You can override this setting on individual tests.

Import from the Product

When a Product is connected, select **Control | Import** or click . The Import Items dialog shows with the **Records** tab selected. Table 3 tells about the controls.

Table 3. Import Items Settings



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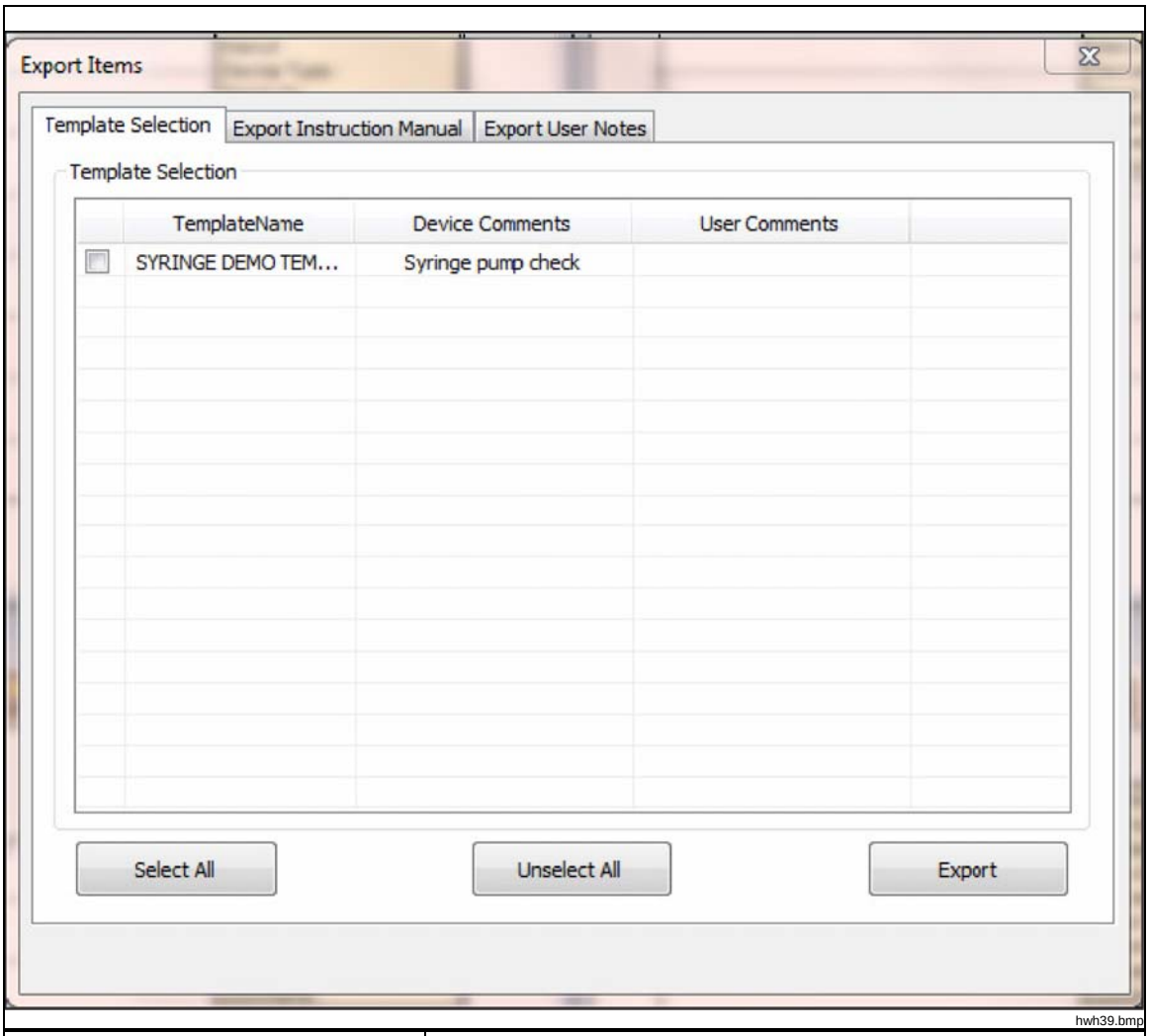
Control	Description
Get List	Retrieves the list of test results stored in the Product. To select individual records, click the select boxes.
Select All	Selects all the records.
Unselect All	Unselects all the records.
Import	Imports all the selected records.
Template tab (IDA-5)	Use this tab to import template definitions from the IDA-5 to HydroGraph. The selection method is the same as for records.
Import User Notes tab (IDA-5)	Use this tab to import user notes from the IDA-5. User notes are stored in a text file on the PC.

Export to the Product (IDA-5 only)

When a Product is connected, select **Control | Export** or click . The Export Items dialog shows with the **Templates Selection** tab selected. Table 4 tells about the tabs.

Table 4. Export Item Tabs



Tab	Description
Template Selection	Exports the selected template. Select the template and click **Export**.
Export Instruction Manual	Exports user instructions that are supplied by your IDA-5 vendor.
Export User Notes	Exports user notes. Use in conjunction with the Import User Notes feature to share user notes between multiple IDA-5 products on a site.