

How to add a water supply curve to a FHC project.

The FHC program can use a water supply curve when calculating a pipe network; this can be a pump, towns main, or a fixed pressure device such as a pressurized cylinder. For any type of supply curve you must supply 8 data points (pressure and flow).

The first step is to get a copy of the water supply curve and find the 8 data points. The first data point will be the 0 flow at the maximum pressure and the last data point will be the minimum pressure and flow you wish to use. You should now find 6 more data points evenly distributed between the first and last data points.

Now that you have the 8 data points you can enter this information into the FHC program. Open the 'Project and design area' dialog [Ctrl+P] and select the 'Water Supply' tab along the top. Press the 'Add another pump' button and the 8 data boxes bellow will open and the curser will be placed into the first flow data point.

The data should be entered with the first point having the maximum flow and all other point will have the same or a decreased flow, enter all the data points as requested.

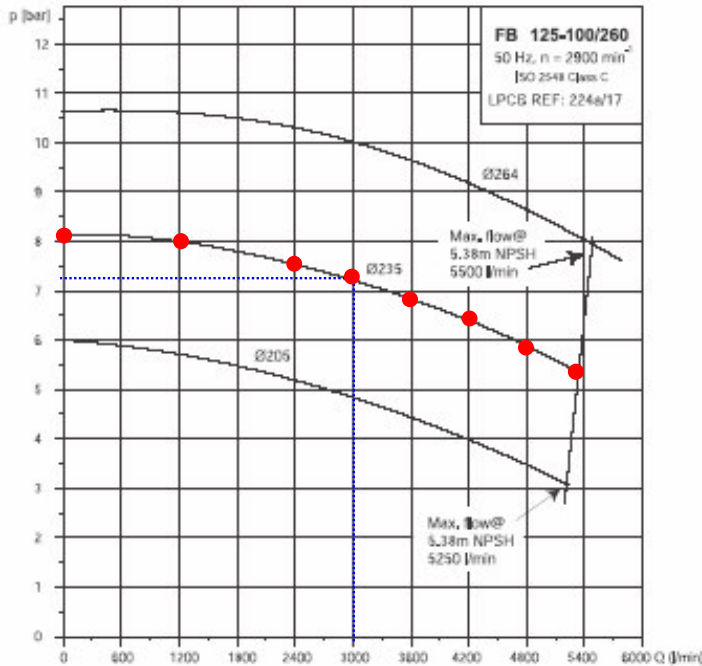
Once this information has been entered you must enter a reference name for the water supply into the text box provided.

In the next text box you can enter a value, which will modify the pump curve by adding (or subtracting) a given pressure, this value is entered in metres head. This can be useful if you wish to determine a pump curve with different water levels in the suction tank. However for normal use you will enter 0.

In some cases you may wish to modal a constant pressure pumps or pressurized cylinder. For instance if we had a constant pressure pump with a duty of 120 bar @ 200 l/min you would require the following data.

Point No	1	2	3	4	5	6	7	8
Flow - l/min	0	200	200	200	200	200	200	200
Pressure - bar	120	120	120	120	120	120	120	120

Example of using a manufacturers pump curve



With the manufacturers pump curve, mark the first point on the curve with 0 flow then mark the last point with the maximum flow. We now need six extra points between points 1 to 8. Mark the curve so the points are equal distance apart as possible, but also make the points easy to read of one of the scales. It is also more important to have more points as the curve drops in this example between points 3 and 8. With all the points make complete a table as below.

Point No	1	2	3	4	5	6	7	8
Flow - l/min	0	1200	2400	3000	3600	4200	4800	5300
Pressure - bar	8.10	8.00	7.55	7.25	6.80	6.45	5.90	5.40

To enter this information into FHC open a new or existing project. Then open the 'project data' [ctrl+p] and select the 'water supply' tab across the top. To add new water supply curve press the 'add another pump' button. Then fill-in the data as required. Don't forget to add a water supply / pump reference and then press the 'Save pump values' button.