ACO QuAD-VFC

Vortex Flow Control Design Software – Quick Guide

- Log in/ register on the QuAD-VFC start page https://www.aco.co.uk/vortex-flow-calculator
- Once logged in, the software opens at the main screen (see below), populated with the project and chamber that was last worked on. If a project has not yet been created, the screen will populate with default data.
- You can use Project Manager (on LHS) to:
  - Create a New project (Note: each of your projects must have a unique name)
  - Add a New Chamber - up to 99 chambers (Note: each chamber will have a different **number** but can have a non-identical chamber **name**)
  - Select Project and Chamber: 'current' project and chamber being worked on is shown in top bar.
  - Edit name of a project or chamber
  - Delete a project or chamber
  - Search for a previous project - any sequence of characters (letters and numbers) can be typed into the search box. Pressing the enter button will return all projects that contain that sequence of characters in any part of the project name. (You can also search by the Design Identification Number, if known.)

- Select Q-Brake (Vortex Flow Control) or Q-Plate (Orifice Plate)

- Enter your design head and flow rate
  - Head < 3m, flow rate between 2 l/s and 99 l/s
- Select the back plate type you want: Flat / Curved / PN16 (Q-Brake only)
- Select your outlet pipe diameter (if known)
- Enter your chamber details – type of material and diameter (if known). Note that the diameters shown in the drop down box are standard diameters and there are some differences between concrete and plastic.
- For Q-Plate, you have the option of Standard or Drain Down (size dependent)

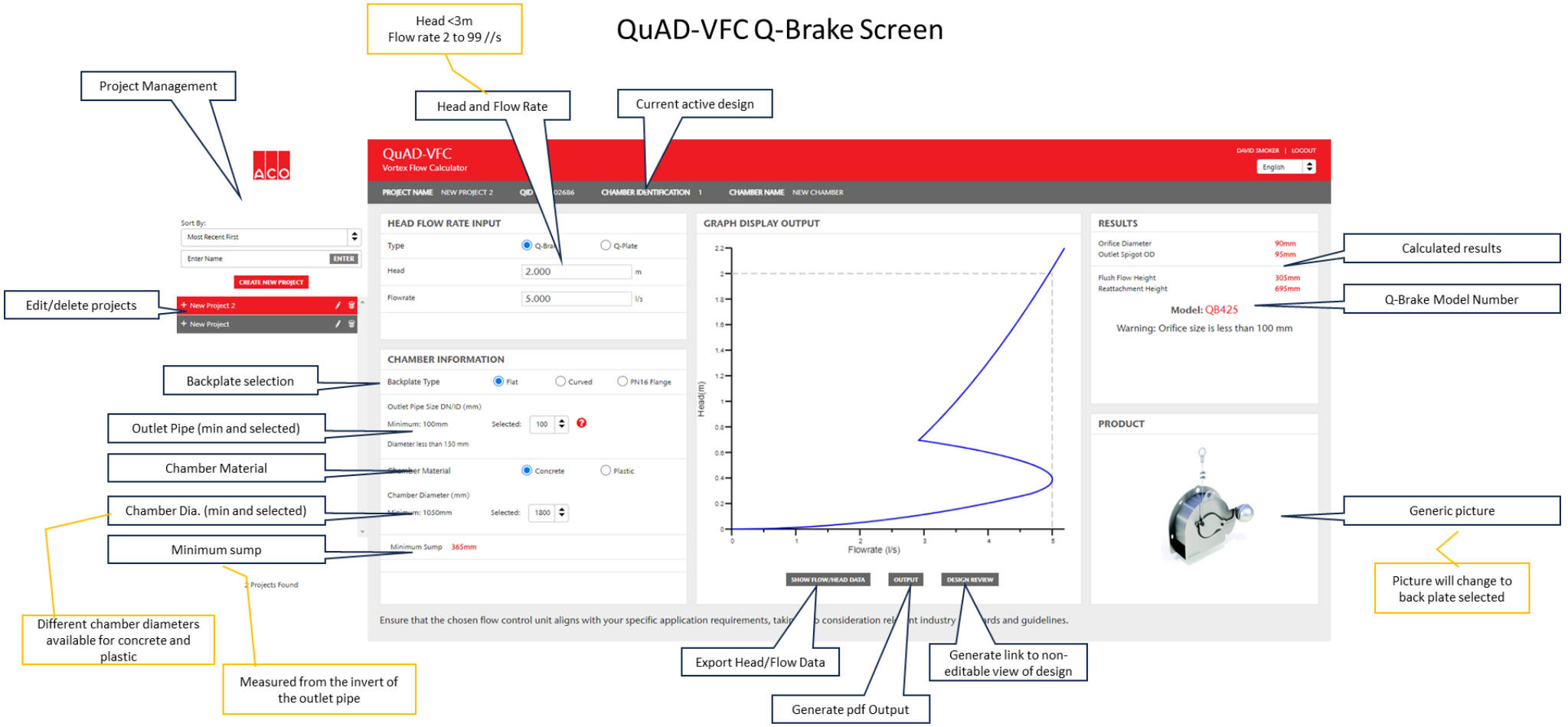
- Your results are shown at top right
  - Q-Brake: Orifice diameter; outlet spigot OD; Flush Flow and Reattachment height; Model Number
  - Q-Plate: Orifice diameter, Plate width, outlet spigot OD (Curved back Drain Down only); Model Number

- Head vs Flow Rate:
  - Graphical representation on screen
  - Detailed Head vs Flow Rate data can be exported in various formats via SHOW HEAD/FLOW DATA button

- OUTPUT button opens a detailed pdf

- DESIGN REVIEW button allows you to send a link to a third party, or parties, to view your design. They do not have to be registered on the software to view the design. *Note: some spam filters may put the email in the recipient's junk folder.*
  - When the recipient clicks on the link, they will be taken to a facsimile view of your design. The facsimile view is 'dumb' - there is no calculation carried out in the view. It is non-editable - only you can change any of the parameters of your design - and has no functionality to output the data points or the summary pdf – only you control the outputs you want. The third party cannot see any of your projects – only you can access them.

QuAD-VFC Q-Brake Screen



QuAD-VFC Q-Plate Screen