Baker’s Flow Regime

The application is best viewed using a resolution of 1024x768 pixels. Please set your resolution to this if it is not set so.

Baker’s Flow Regime finder is an application to find flow regime as per Baker’s method for any gas-liquid or vapor-liquid two phase flow situation in horizontal pipes. The application shows the regime graphically in Baker’s flow regime map.

The inputs include operating conditions (flow rates of the two phases), properties of the two phases (density and viscosity of both the phases, surface tension of liquid phase), pipe characteristics (pipe inner diameter and pipe surface roughness). Users have the choice of selecting the units for these quantities.

Operating pressure is provided in user-selected units. User should provide the operating pressure. The pressure value provided is, however, not used in calculations in this version of the application. User may retain some or all the default value on the form or user may enter actual values available with him/her.

The application will open with the screen below:
On clicking the “BAKER’S FLOW REGIME” button, it will calculate and show the flow regime with a dot on the Baker’s map as shown below. It is possible that the dot is outside the frame of the regime map. In that case, the dot will not appear or appear outside the frame of the plot. However, user can also use the x-y coordinates (i.e. the Bx and By numbers in Baker’s method) to locate the position of the flow regime approximately. The regime is only indicative and suggests the type of flow expected for given flow parameters in horizontal pipes.