

Using FHC for water mist systems calculations

To successfully use the FHC program for the calculation of water mist fire protection systems in accordance with NFPA 750 the following points should be noted:

FHC04 - Project and Design Area Information - C:\FHC_CANUTE\TEST FOG TEC JOB.FHC

On this page you may type in the replies to the various questions or click on the 'arrow' to the right to see a list of the previous answers, that you can 'click' on to use for that question. On 'Authority' you may only select from the choices offered.

Project data | Water supply | Design area | Head codes | Nodes / pipes

Press TAB to move down list of replies

Project name: ---

Address / location: ---

Project number: ---

Designers reference: ---

Design authority: National Fire Protection Association

Insurance company: ---

Fluid: Water NFPA 750

Welded elbows above mm: 65

Pipe types data file: FHCDATA.TXT

Apply changes made | Printout all data | Cancel

For water mist systems you should add NFPA 750 to the fluid line in the *Project & design area*. See page 2 of the FHC manual for more information. FHC will then use the Darcy-Weisbach equation for its calculations instead of the Hazen-Williams equation. Please refer to *NFPA 750 Chapter 6 Calculations* for more information.

If you are using NFPA as the *Design Authority* then it is important that the *Pipe type data file* that you are using contains equivalent lengths for valves and fittings in feet (ft) as defined in NFPA 750 table 6-3.6.1 or determined by the manufacture of the system. If this information is not defined correctly no equivalent lengths for fittings and valves will be used by FHC when calculating. This can be clearly seen in the print out of the calculations, as the *Eq. Len* values will be zero. You can find more information about how to define Pipe Data information files in the FHC user manual on page 35

NFPA 750 allows the use of Hazen-Williams equation only for system with no additives and a working pressure not exceeding 12 bar or for intermediate and high pressure systems having a minimum pipe size of 20mm and the systems flow velocity does not exceed 7.6 m/s otherwise the Darcy-Weisbach equation should be used.