

Pipework and Public Health Program

Once the Building Energy results have been completed, the heating and chilled water pipework design can be completed, to scale, on a floorplan with all routings design, pump duty and resistance calculations as well as Bills of Quantities, all defined in one easy operation. Unlike some less sophisticated packages that treat floor plans separately, you can route services seamlessly between floors as in reality, as opposed to creating nodal junctions and linking these up separately. This method of working allows far more accuracy when designing systems where head losses and pressure drops for pump neutral point locations are critical.

Using an extensive pipe database that can be fully edited by the engineer, pipe selection rules can be applied to each separate entry point to each separate system. This enables a mixture of piped systems where characteristics such as pressure drops, flow and return temperatures and different classes of pipework can be used on the same project without resorting to changing general details. Each system has its own "entry point" where data associated with that particular system is defined.

Edit Selection Rules

Details

Selection Criteria
Chilled Water 6-12 deg Mapress, Crown SA insulation

Pipe Medium
Chilled Water 6/12

Heating/Cooling (Piping)

Overriding Rules

- DIN 1988 Part 3 Table 5 Velocity Limits - Public Health
- Max System Velocity [] (m/s)
- Max Unit Length Pressure Drop 250 (Pa/m)

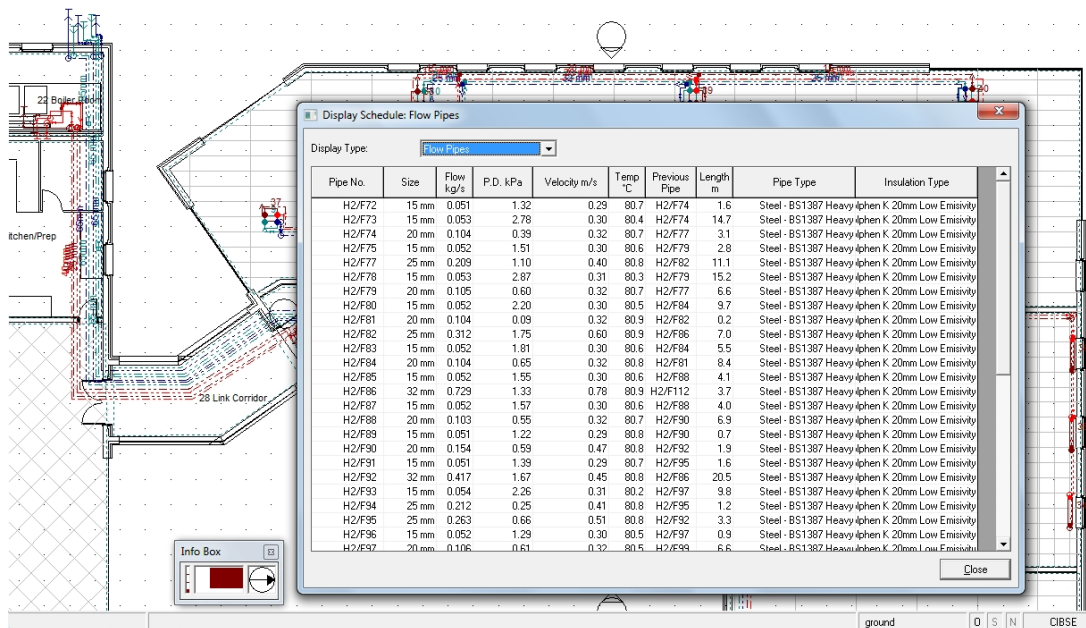
Selection Rules

- Basic
 - Pipe Type: Steel - BS1387 Heavy
 - Insulation Type: [None]
- Detailed

Scope	Size	Size	Rule	Value	Pipe	Insulation
Up to	100		Max Velocity	1.00	Geberit Mapress Carbon Ste	Crown SA Grade 25mm
Over	100		Max Velocity	1.50	Geberit Mapress Carbon Ste	Crown SA Grade 25mm
n/a						
n/a						

OK Cancel

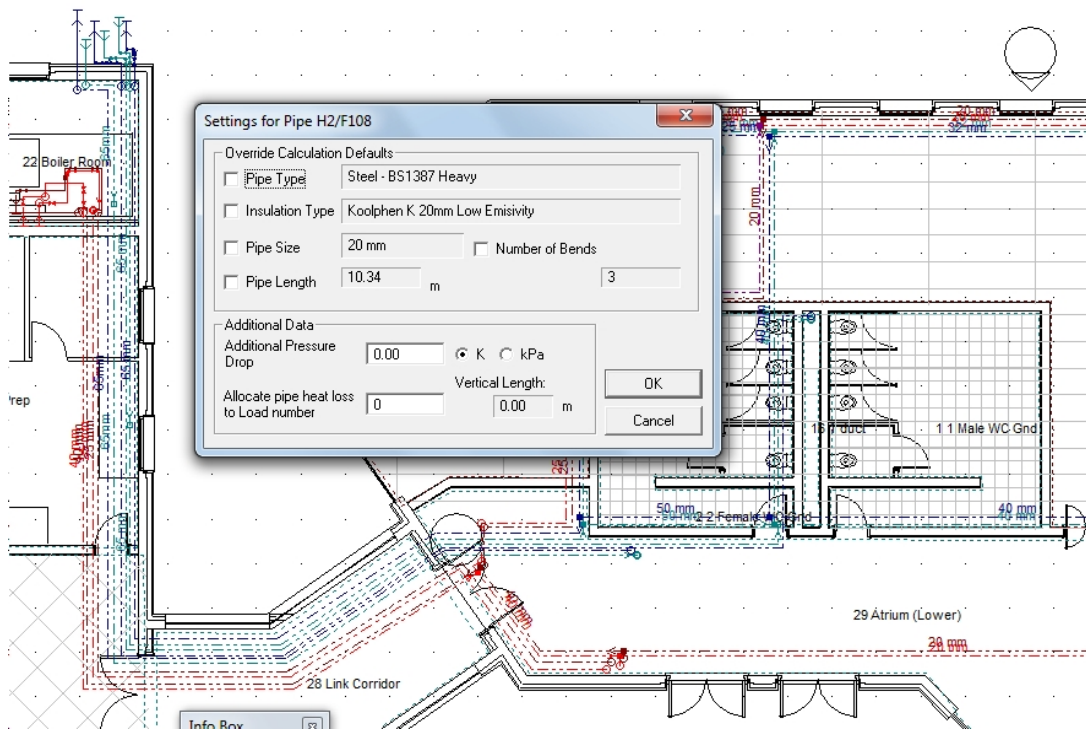
Pipe selection rules in database



Pipe schedule

From an extensive range of manufacturers heat emitters, radiators and other heat emitters can be placed in the room space (based on heat gains and loss information dynamically transferred across to the program) and sized. Connection details, mounting heights etc can be ascertained before placing the heat emitters. The ability to re-set and size heat emitters with pipe connections maintained is useful for architectural changes such as changes to window sill heights.

The pipework can then be very simply routed from the load back to the supply point in the plant room, with other parts of the system built up to complete the whole network of pipework routes. As the engineer is using the DXF back drop, all pipe lengths in any plane are to scale, however, each individual run of pipe between nodes can have its attributes edited to enable existing systems to be modelled. Additional resistances, bends and lengths can be input by quickly selecting a pipe.



Editing individual pipe

