

KY PIPES 2006

Cholamandalam MS Risk Services Ltd. (CMSRS) has been using the KY PIPE 2006 Professional version with 1000 pipes as suitable software for network analysis study for fire water network in Industrial premises belonging to Refineries, Petrochemical, chemical, pharmaceutical sector and in commercial township areas also.

The special features of the software are given below:

- Developed by Civil Engineering Department and Software Development and support team of University of Kentucky, USA after continuous research and development over the past 20 years.
- Hydraulic engineering based models are developed and being sold in the past 39 years by the suppliers
- Suitable for hydraulic calculations and designing of fire protection system piping as per the hydraulic engineering principles like Hazen William's equation and Darcy- Weisbach equation
- Useful for verifying the fire protection system design adequacy as National Fire Protection System Association, USA and Tariff Advisory Committee and Oil Industry Safety Directorate Standards
- Can be used for the piping carrying any liquid including water
- Allows to use several types of back ground images at the same type which will guide the pipeline layout and provide scale to determine pipeline length
- The quantity of water flow and water pressure can be calculated from any fire protection outlet considering the material of construction, age of the piping, type of water outlet etc.
- The consequence contours can be developed in case of any leaks from the pipe
- Can be used for fire protection design study of any type of industry including refinery where complex fire water network is possible
- Data base for various materials of constructions is available for easy reference and use
- Can be used for review of fire protection system study for insurance underwriting purposes also
- Various models developed by the supplier are being used by various industries including refineries all over the world.
- Provides powerful graphical user interface for laying out comprehensive fire system models
- Using a scaled background map or grid lines will allow the pipelines to be precisely scaled
- Can calculate the actual simulations for pump and valve conditions/ positions
- Provides the necessary data like roughness factor for standard pipes
- Simulation of age based performance of pipes is possible
- Pump characteristics based on electrical load can be developed.
- Pump head and flow will develop the performance curve for the pump depending on the demand.
- Operation of required number of water outlets and developing results are possible.
- Simulation of leaks/ pipe breaks in the network system and developing results
- Options for selection of equations like Hazen- Williams or Darcy Weisbach etc.
- Can take care of elevations, directions of flow and analyze the scenarios suitably
- Can give results in terms of pressure , volume and velocity and contours
- Extended Period Simulation for water reservoir level is possible thereby variation of level is taken appropriately for hydraulic analysis.
- The present software model can model the scenario for 1000 pipe sections.
- Selection of pumps can be made based on the system demand and real time modeling is possible.
- Water quality analysis is available and the impact of the presence of chemicals in the water like chlorine on the pipeline can be found out precisely.

