

## Wet / Dry Riser System

A fire hydrant system comprises water supply pipe work and valves to which fire brigades can connect their hose for fire fighting purposes.

In the U.K. the pressurised mains laid under public roads which distribute water to consumers are also used by fire brigades. Underground hydrant valves to BS 750 are permanently connected to the mains at intervals. Fire hose is connected to the valves via a standpipe.

Tall buildings should have a permanently installed rising main which consists of a vertical pipe with brigade connections to BS 5041 at different levels of the building.

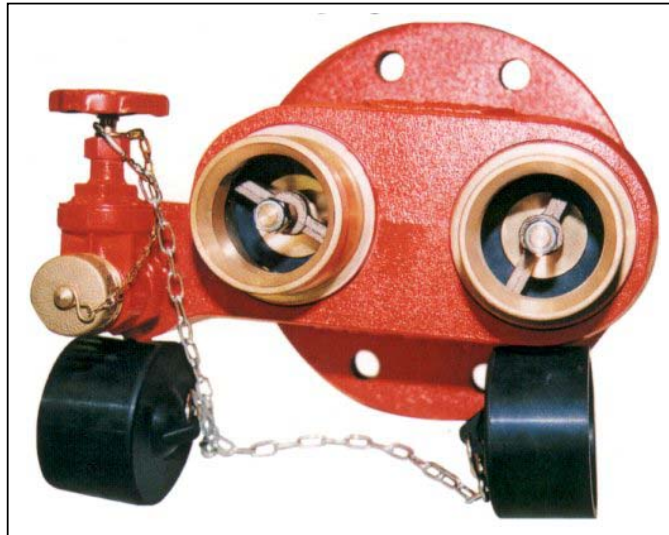
There are two types of rising main systems these are:

### **a) Dry Riser**

This is normally dry but is capable of being charged with water by pumping from a fire service appliance via an inlet breeching valve / connection fitted on the outside of the building at ground level. An air release valve is fitted at the highest point to enable the riser to be fully charged as water is pumped in (This closes automatically under water pressure). There are fire hydrant gate valves on each floor so that the brigade can connect into the water supply at any level of the building these are usually mounted in Landon Kingsway Dry Riser Outlet Cabinets.

### **b) Wet Riser**

A wet riser is a pipe kept permanently charged with water which is then immediately available for use on any floor at which a fire hydrant globe valve (also known as a landing valve) is provided. Wet risers are necessary for buildings which are too high for brigade pumps to supply the necessary water pressure via a dry riser. If the mains pressure is higher than maximum brigade operating pressure it is necessary to use pressure regulating landing valves.



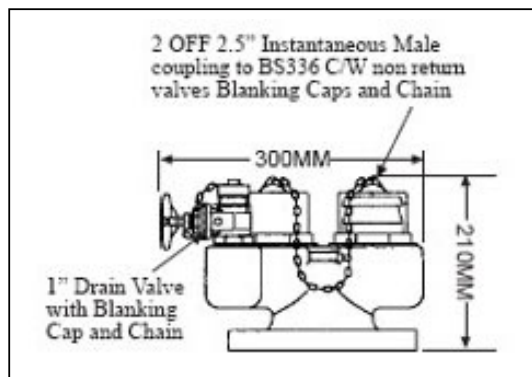
### **INLET BREECHING (CONNECTION TO DRY RISER MAIN)**

Complying with BS 5041 Part 3, inlet breechings are used to feed water into a dry rising main feeding outlet dry riser cabinets on other floors of the building with water, thus giving quick hook up connection. They are fitted with a drain valve to BS 5154 and have either two (two-way) or four (four-way) non-return valve instantaneous inlets which are normally fitted with rubber blank caps and chains.

#### Standard Flanged Outlets

Two-way - 4" BS10 Table D or  
100mm BS 4504 PN16  
Four way - 6" BS10 Table D or  
150mm BS 4504 PN16

Non standard connections and materials are available



## **FIRE HYDRANT GATE VALVES (OUTLETS ON DRY / WET RISER SYSTEM)**

Dry riser outlets complying with BS 5041 Part 2.  
Body and internals designed for 20 bar working pressure.  
Compact with excellent flow characteristics.  
Standard inlets are flanged 2½" BS10 Table D or 65mm BS 4504 NP16.  
Standard outlets are 2½" female instantaneous (BS 336).  
Other connections are also available.  
Straps and padlocks, blank plugs and chains are provided.

## **FIRE HYDRANT GLOBE VALVES**



HORIZONTAL



BIB NOSED



RIGHT ANGLE



OBLIQUE

Wet riser outlets complying with BS 5041 Part 1.  
Body and internals designed for 20 bar working pressure.  
Compact, with excellent flow characteristics.  
Oblique, bib-nosed, horizontal and right angle configurations available.  
Standard Inlets are flanged 2½" BS10 Table D or 65mm BS 4504 NP16.  
Standard outlets are 2½" female instantaneous (BS 336).  
Other connections are available.  
Blank plugs and chains are also available.