

# DELUGE VALVE MODEL- A (CAST IRON)



## TECHNICAL DATA

MODEL	A
NOMINAL SIZE	200, 150, 100, 80 & 50NB
MAXIMUM SERVICE PRESSURE	12 Bar (175 PSI)
THREADED OPENING	BSPT
MOUNTING	90° pattern inlet to outlet vertical mounting
FACTORY HYDROSTATIC TEST PRESSURE	25 Kg./sq.cm. (350 PSI)
FLANGE CONNECTION	ANSI B 16.1 FF # 125 (Flange drilling matching to ANSI B 16.5 # 150)
TRIM	Galvanized Steel with Brass Valves
FRictional LOSS IN TERMS OF EQUIVALENT LENGTH OF PIPE (C-120)	200NB - 26.00 Mtrs. 150NB - 19.00 Mtrs. 100NB - 11.00 Mtrs. 80NB - 5.50 Mtrs. 50NB - 1.80 Mtrs.
WET PILOT SPRINKLER HEIGHT LIMITATION	As per graph in the catalogue
NET WEIGHT WITHOUT TRIM	200NB - 214 Kg 150NB - 131 Kg 100NB - 77 Kg 80NB - 50 Kg 50NB - 47 Kg
FINISH	Red RAL 3000
APPROVAL	UL Listed
ORDERING INFORMATION	Specify 1) Size of valve 2) Trim type - Dry Pilot, Wet Pilot, Electric Release, Test & Alarm

## DESCRIPTION

Deluge Valve is known as a system control valve in a deluge system, used for fast application of water in a spray system. Deluge valve protects areas such as power transformer installation, storage tank, conveyor protection and other industrial application etc. With the addition of foaming agent deluge valve can be used to protect aircraft hanger and inflammable liquid fire.



## VALVE OPERATION

Deluge valve is a quick release, hydraulically operated diaphragm valve. It has three chambers, isolated from each other by the diaphragm operated clapper and seat seal. While in 'SET' position, water pressure is transmitted through an external bypass check valve and restriction orifice from the system supply side to the top chamber, so that supply pressure in the top chamber acts across the diaphragm operated clapper which holds the seat against the inlet supply pressure because of differential pressure design. On detection of fire the top chamber is vented to atmosphere through the outlet port via opened actuation device(s). The top chamber pressure cannot be replenished through the restricted inlet port, thus it reaches less than half the supply pressure instantaneously and the upward force of the supply pressure lifts the clapper allowing water to enter the system piping network and alarm devices.

## TRIM DESCRIPTION

### a) BASIC TRIM

The basic trim is required on deluge valve regardless of the release system. It contain those components which are required in all types of installation, such as the main drain valve, priming connection, drip check valve, emergency release valve and pressure gauges.

### b) DRY PILOT TRIM (PNEUMATIC RELEASE)

Dry pilot operation uses a pilot line of closed Sprinklers / QB detectors containing air under pressure, located in the area to be protected. It requires regulated dry air supply with main