



**HD FIRE PROTECT PVT. LTD.**



**PROTECTING**  
WHAT MATTERS MOST TO YOU





HD Deluge Valves are automatic reset or field manual reset type. The valves are intended for use in deluge, pre-action, foam water system and many more fire protection applications. All valves are epoxy painted internally & externally.

All Deluge valves come with one or a combination of following actuation trims

- ▣ Wet pilot hydraulic release trim
- ▣ Dry pilot pneumatic release trim
- ▣ Electric release trim with 2 or 3 way solenoid Valve
- ▣ Priming shut off valve
- ▣ Pneumatic manual reset
- ▣ Hydraulic manual reset with pneumatic release
- ▣ Manual release trim
- ▣ Auto reset trim

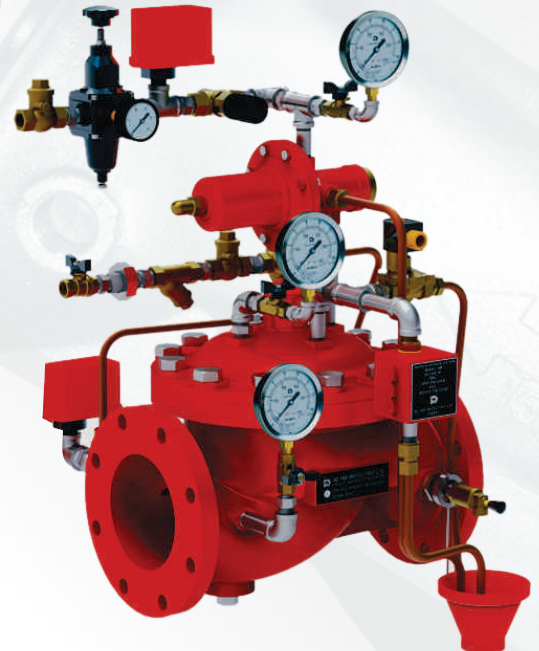


### Deluge Valve Model – A

- ▣ Cast iron construction
- ▣ Rated for maximum 12 Bar (175 PSI) operating pressure
- ▣ Size: 50, 80, 100, 150 & 200 NB
- ▣ Angle Pattern

### Deluge Valve Model – H2, H3 & H5

- ▣ Model H2 - Cast Steel ASTM A216 WCB construction
- ▣ Model H3 - Ductile Iron ASTM A536 construction
- ▣ Model H5 - Ni-Aluminium Bronze ASTM B148 construction
- ▣ Rated for maximum 17.5 Bar (250 PSI) operating pressure
- ▣ Size: 50, 80, 100, 150 & 200 NB
- ▣ Globe pattern
- ▣ Vertical or Horizontal mounting





### INTEGRATED DELUGE SYSTEMS



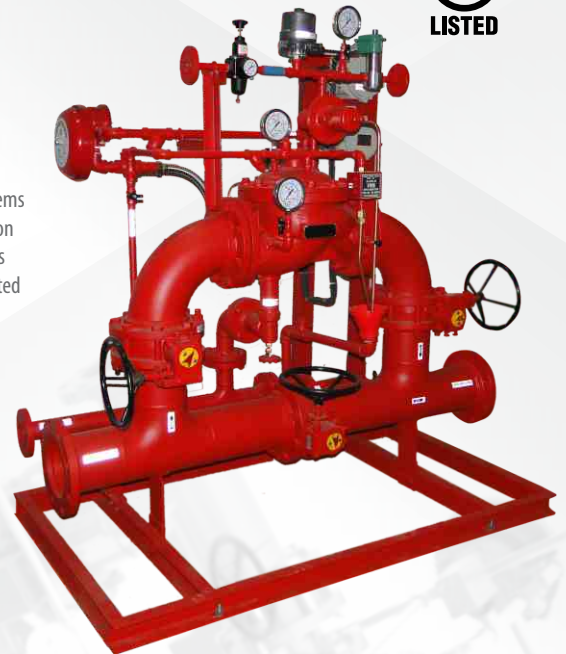
#### Integrated Deluge Cabinet Model – DPACK

- UL Listed Modular Cabinet
- Aesthetically pleasing appearance
- All gauges externally visible through transparent polycarbonate window
- All side panels easily removable for ease of maintenance
- Comes with downstream, upstream and by pass butterfly valves
- 14 SWG cabinet red powder coated
- Pressure switch, solenoid valve mounted, pre-wired & terminated into junction box



#### Integrated Deluge Skids

- Professionally pre-assembled, factory tested deluge valve systems
- UL Listed modular package for quick and convenient installation
- Comes with downstream, upstream and bypass butterfly valves
- Pressure switch, solenoid valve mounted, pre-wired & terminated into junction box
- Can be custom designed and manufactured
- Cost effective and reduced installation time



#### Gate Valves

- OS&Y and NRS resilient Wedge Gate valves
- Rated for maximum 21 bar (300 PSI) operating pressure
- Size : 50 to 300 mm (2" to 12")
- UL Listed and FM Approved





## ALARM VALVES

Alarm Check Valves are used to actuate local and remote alarm in automatic sprinkler systems. HD Alarm Valves come with constant pressure or variable pressure trims.

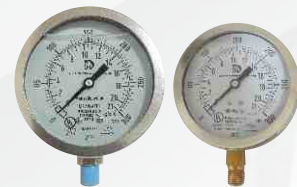
### Alarm Valve Model - H

- Ductile Iron material to ASTM - A536
- Epoxy painted internally & externally
- Rated for maximum 17.5 Bar (250 PSI) operating pressure
- Flanged X Flanged, Flanged X Grooved and Grooved X Grooved available
- Size: 80, 100, 150 and 200 NB
- UL Listed & FM approved



### Water Motor Gong Bell Model - GA

- Hydraulically operated mechanical bell used along with fire protection system valves
- Corrosion resistant Aluminium alloy material, epoxy coated all over
- Wall mounted or direct online mounting type
- UL Listed and FM Approved



### Pressure Gauges

- 0 to 21 kg/cmsq. (0 to 300 PSI) dual dial
- Polished Stainless Steel / Monel, weather proof case
- Toughened glass window
- UL Listed and FM approved



### Multiple Control Valve

- Quartzoid Bulb detects the fire and discharges the water to spray nozzle or to alarm

## SPRINKLERS



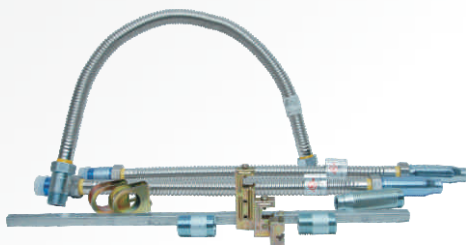
- Standard and quick response with standard & extended coverage
- Pendent, Upright, Recessed Pendent, Horizontal Sidewall & Concealed Sprinkler
- Temperature rating : 57°, 68°, 79° & 93°C
- K-factor 5.6 and 4.2
- Brass, Chrome or White/ custom colour finish
- UL Listed

## SPRINKLER ACCESSORIES



### Flexible Sprinkler Drops

- Size: 700 to 1830 mm
- UL Listed



Pressure Switch PS40/PS10



Tamper & Alarm Switch



VSR Water Flow Alarm Switch with Retard



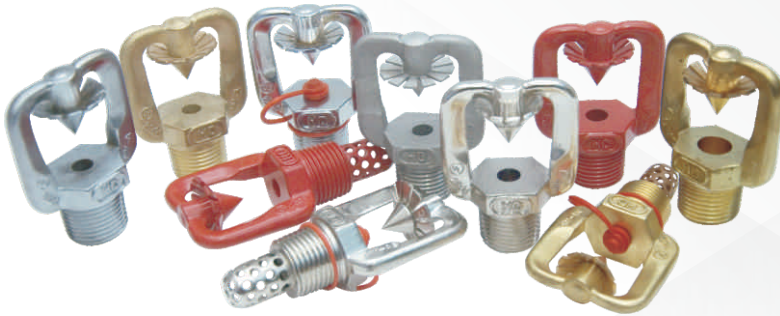
VSR Water Flow Alarm Switch For Small Pipe





## Medium Velocity Water Spray Nozzles

- Non-automatic, open orifice with external detector
- Model – A & AS, Brass material with or without Copper strainer
- Model – B & BS, Stainless Steel material with or without Stainless Steel strainer
- Model – MV-E, Aluminium Bronze material for sea water application
- Combination of wide K-factor and spray angle
- K-factors: K-18, K-22, K-30, K-35, K-41, K-51, K-64, K-79, K-91, K-102.
- Spray Angle: 65°, 80°, 90°, 100°, 110°, 120°, 140°
- ½" BSPT/NPT connection
- Finish: Natural Brass finish. Chrome plated and natural Stainless Steel
- Nozzle also available with FM Approved Blow-off plug
- UL Listed and FM approved



## High Velocity Water Spray Nozzles

- Non-automatic, open orifice, directional spray nozzle
- Model - HV-AS and HV-HB in Brass material with Copper strainer
- Model - HV-BS and HV-H in Stainless Steel material with Stainless Steel strainer
- K-factor: [¾"] K-22 x 75°, K-18 x 80°, K-26 x 100°, K-32 x 90°, K-42 x 115° and K-23 x 120°
- K-factor: [1"] K-48 x 100°, K-58 x 100°, K-61 x 75°, K-78 x 90°
- ¾" / 1" BSPT/NPT connection
- Nozzle also available with Blow-off cap
- UL Listed



## Water Curtain & Tank Cooling Nozzles

- Model - WC & WCS – Water Curtain Nozzle with ½" & ¾" end connection
- Model - TC & TCS – Tank Cooling Nozzle with ½" end connection
- Various K-factor from K-23 to K-140
- Brass / Stainless Steel material



## Reverse Action Water Spray Nozzles

- Non-automatic, open orifice with external deflector
- Solid cone discharge in opposite direction of water inlet
- ½" BSPT/NTP connection
- Brass material



## Revolving Nozzle Model - RH

- Size: 65, 80 & 100 NB, flanged end
- Rotates under water pressure
- Flow 285 to 900 LPM at 2 Bar
- 10 meters diameter water spray coverage
- Brass material



## Jumbo Water Curtain Nozzle

- Model-JC with Bronze material, Model-JCS with Stainless Steel material
- Flow 1000 to 3000 LPM at 7 Kg/cm.sq.





## Monitor M Series

Galvanized Carbon Steel or Stainless Steel Water way



- Manual twist lock and handle
- Size: 65, 80 and 100 NB (2.5", 3" & 4")
- Flow upto 4750 LPM (1250 GPM)
- Flanged inlet & BSP (M) outlet
- Double row of Stainless Steel ball bearing
- Maximum operating pressure 12 Bar (175 PSI)
- FM Approved (3" size) and ISI marked (2.5", 3" & 4" size)

## Monitor Varun Series

Galvanized Carbon Steel or Stainless Steel Water way



- Low profile
- Single or double hand wheel driven fully enclosed worm gear
- Size: 65, 80, 100 & 150 NB (2.5", 3", 4" & 6")
- Flow upto 12500 LPM (3300 GPM)
- Maximum operating pressure 12 Bar (175 PSI)
- FM Approved (Model VARUN 613)



## Monitor MG Series

Galvanized carbon steel or stainless steel water way



## Monitor Vajra Series Cast Bronze

- Manual twist lock, single or double hand wheel driven fully enclosed worm gear
- Size: 80 and 100 NB (3" & 4")
- Flanged inlet & BSP (M) outlet
- Flow up to 7580 LPM (2000 GPM)
- Maximum operating pressure 12 Bar (175 PSI)
- FM Approved (Model VAJRA 433)

- Single or Double hand wheel driven, fully enclosed worm gear
- Size: 65, 80 & 100 NB (2.5", 3" & 4")
- Flow upto 4750 LPM (1250 GPM)
- Flanged inlet & BSP (M) outlet
- Maximum operating pressure 12 Bar (175 PSI)
- FM Approved (Model MG413)

## Fix & Variable Flow Foam Monitor



- Low profile design
- Stainless steel waterway
- 100 or 150 mm (4" or 6") flanged inlet with 4" BSP male threaded outlet
- Fully enclosed worm gear
- 360° continuous horizontal rotation & +90°, -65° vertical elevation
- Variable flow with nozzle model H4V (500/750/1000 GPM)
- Fixed flow with nozzle model H4 (500/750/1000 GPM)
- Maximum operating pressure 12 bar (175 PSI)
- UL Listed



## Mobile Monitors





## MASTER STREAM NOZZLES



### Varsha Series

- Fixed gallonage Monitor Nozzle
- Flow from 1500 to 12500 LPM (400 to 3300 GPM)
- Size 65, 80, 100 and 150 NB (2.5", 3", 4" & 6")
- Maximum operating pressure 12 Bar (175 PSI)

- Bronze, hard anodized Aluminium or Stainless Steel material
- Swivel BSP (F) inlet base or flanged end
- With or without spinning teeth ring for full fog pattern
- FM Approved



## HYDRO-FOAM NOZZLES

### Varsha-HF & H Series

- Fixed gallonage Monitor Nozzle
- Flow up to 7580 LPM (2000 GPM)
- Size: 65, 80, 100 & 150 NB (2.5", 3", 4" & 6")
- Bronze, hard anodized Aluminium or Stainless Steel material
- Swivel BSP (F) inlet base or flanged end
- With or without spinning teeth ring for full fog pattern
- Self-inducting 3 or 6% foam concentrate
- Non-aspirating water foam nozzle
- UL Listed Variable Flow Foam Nozzle with Stainless Steel Monitor

**Fix & Variable Flow Nozzle available**



### Mobile Foam Unit

- Model MF-A, fiber glass tank with 160 liters (42 gal.) capacity
- Model MF, Stainless Steel tank with 100 to 225 liters (26 to 60 gal.) capacity
- Fitted with 220 or 440 LPM Bronze Inductor and a Branch Pipe

### Water Foam Sprinkler

- Air aspirating type
- Pendent mounting
- K-factor 42 (K 3.0), other K-factors available
- Bronze / Stainless Steel material
- UL Listed





## FOAM DISCHARGE DEVICES



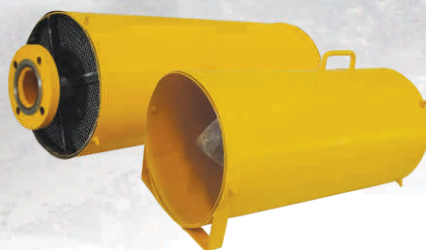
### Foam Chamber Model – FCA

- 5 sizes
- Flow from 100 to 4000 LPM (26 to 1056 GPM)
- Carbon Steel or Stainless Steel material
- Working pressure 2.8 to 7 Bar (40 to 100 PSI)
- Epoxy painted from inside and outside
- Supplied with Stainless Steel orifice plate
- Frangible glass vapour seal
- Choice of various deflectors



### Foam Maker & Rim Seal Pourer Model – FMA & RPA

- Size: 50, 65, 80 NB (2", 2.5" & 3")
- Flow 80 to 1400 LPM (21 to 370 GPM)
- Carbon Steel or Stainless Steel construction
- Working pressure 2.8 to 7 Bar (40 to 100 PSI)
- Epoxy painted from inside and outside
- Supplied with Stainless Steel orifice
- Choice of various pourers



### Medium Expansion Foam Generator

- Model MEFB (Handheld)
- Model MEFG (Fixed installations, Flanged)
- Model MEBP (Bund Pourer, Flanged)
- Flow from 135 to 1900 LPM (35 to 500 GPM)
- Expansion 1:50

## FOAM CONCENTRATES

### Aqueous Film-Forming Foam Concentrates (AFFF)

- HDAFFF3
- HDAFFF6

### Fluoroprotein Foam Concentrates (FP)

- HDFP3
- HDFP6

### Alcohol Resistant Aqueous Film-Forming Foam Concentrates (AR-AFFF)

- HD AR AFFF 3/3
- HD AR AFFF 3/6
- HD S AR AFFF 3/3
- HD S AR AFFF 3/6







## BLADDER TANK PROPORTIONING SYSTEM

### Vertical Bladder Tank



### Horizontal Bladder Tank



- Vertical or Horizontal unit
- Maximum working pressure 12 Bar (175 PSI)
- Carbon Steel or Stainless Steel Construction
- Tank made to ASME Code Section VIII Div 1
- Capacity up to 15,000 liters (4000 gal.)
- Compatible with all foam concentrates
- Nylon reinforced Buna-n-rubber bladder
- Proportioner pre-piped on to the tank
- UL Listed



### Ratio Controller

- Size: 65 to 200 NB
- Flow: 160 to 18500 LPM (42 to 4895 GPM)
- 3 or 6% induction rate
- Maximum working pressure 14 Bar (200 PSI)
- Used with Bladder and inline balance pressure proportioning system
- Suitable for all types of foam concentrates
- Stainless Steel / Bronze Material
- UL Listed



### Atmospheric Foam Concentrate Storage Tank

- Stainless Steel 316/304
- Made up to 15000 liters (4000 gal.) storage capacity
- Comes with ladder, sight glass and air vent
- Expansion dome of 2% tank capacity
- Flat end or dome end
- Natural, Custom or Red RAL 3000 epoxy painted
- Tank can be custom made with inline inductor mounted on the tank



### Foam Concentrate Control Valve Model – CV

- Hydraulically operated concentrate control valve
- Used with Bladder Tank & Inline Balance
- Pressure proportioning system
- Size: 40, 50 & 65 NB
- Stainless Steel construction
- Easy to operate for manual override



### Inline Foam Inductor Model - IG, IA & IS

- Size: 65, 80, 100 & 150 NB
- Flow: 80 to 3500 LPM (21 to 925 GPM)
- 3 or 6% induction rate
- Bronze, Aluminium or Stainless Steel material
- Working pressure 6.5 to 12 Bar (90 to 175 PSI)
- Each unit factory calibrated for flow, induction & back pressure
- Suitable for all types of foam concentrates



### Inline Balance Pressure Proportioner Model - IB & IBS

- Size: 65, 80, 100, 150 and 200 NB
- Flow: 150 to 18500 LPM (40 to 4885 GPM)
- Bronze or Stainless Steel material
- Maximum working pressure 14 Bar (200 PSI)
- Induction orifice set for 3% or 6% induction
- Suitable for all types of foam concentrates
- Suitable for accurate proportioning at multiple locations remote from pumping unit



### Foam Concentrate By - Pass Valve Model – BV

- Used with balance pressure proportioning system to bypass excess foam concentrate to the tank
- Bronze or Stainless Steel material
- Operates automatically with nylon reinforced diaphragm



HD provides design, supply, installation and consultancy services for total fire protection systems for oil, gas, power and petrochemical sectors.

Our expertise lies in custom engineered, Pre-fabricated, factory tested "INSTA – FIT" piping, Deluge and Foam skids for easy, quick, trouble free and organized installation. System design and engineering as per Indian and International Standards.

Projects division comprises of dedicated, qualified and experienced teams to make sure that all of the client's requirements are completely fulfilled.

With backup of HD manufacturing plant and wide panel of suppliers in both domestic and international regions, all teams are well-equipped to handle projects right from conceptual studies through field engineering and support.