

# VERTICAL SIDEWALL SPRINKLER

## STANDARD & QUICK RESPONSE



### TECHNICAL DATA

|                                   |   |
|-----------------------------------|---|
| Style                             | Vertical Sidewall Sprinklers  |
| Temperature Response              | Standard Response with 5mm glass bulb, Quick Response with 3mm glass bulb |
| Coverage                          | Standard Coverage   |
| K-Factor                          | 5.6 US (80 metric)  |
| Nominal Thread Size               | 1/2" BSPT or NPT  |
| Max. Working Pressure             | 175 PSI (12 Bar)  |
| Factory Hydrostatic Test Pressure | 500 PSI (35 Bar)  |
| Min. Operating Pressure           | 7 PSI (0.5 Bar)   |
| Temp. Rating                      | 68°C (155°F)<br>79°C (175°F) / 93°C (200°F)                               |
| Approvals                         | UL Listed   |
| Finish                            | Chrome Plated   |
| Ordering Information              | Style, Temp. Rating & Response, Thread size                               |
| SIN Number                        | HD105 - Standard Response<br>HD205 - Quick Response                       |

### DESCRIPTION

HD vertical sidewall sprinklers are designed for use in light and ordinary hazards for standard installation. The design provides a crescent-shaped water discharge pattern for installation along a wall or side of a beam. The temperature response type is standard response (5 mm. glass bulb) and quick response (3mm glass bulb). The fast response type glass bulb and the special deflector combine speed of operation and area of coverage making it an ideal choice for standard coverage applications while being aesthetically pleasing. Chrome plating gives the sprinkler a good corrosion resistance in most types of corrosive environments.

### SPRINKLER OPERATION

The Sprinkler operating device is state of the art heat responsive frangible glass bulb supplied by a world leader in this innovative technology. The glass bulb contains a fluid which expands when exposed to heat.

When the rated temperature is reached, the bulb shatters and water flows through the sprinkler and strikes the deflector, forming a uniform water spray pattern to control or extinguish the fire.

### CARE AND HANDLING

The sprinkler must be handled with due care. They must be stored in cool place for best results. The storage as well as any onward shipment has to be made in original packing only. Sprinklers must be visually



inspected carefully before installation. Sprinklers visibly damaged, dropped or exposed to temperature in excess of the maximum ambient temperature permitted, should never be installed. Never install any glass bulb sprinkler if the bulb is cracked or if there is a loss of liquid from the Bulb.

Sprinklers must be installed after the piping is in place, to prevent mechanical damage.

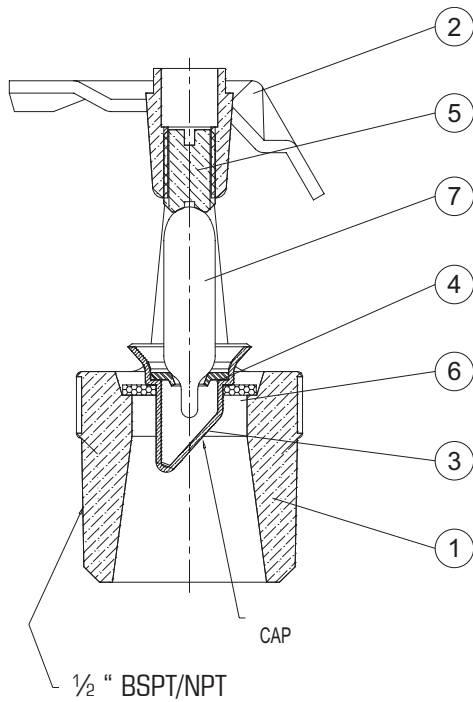
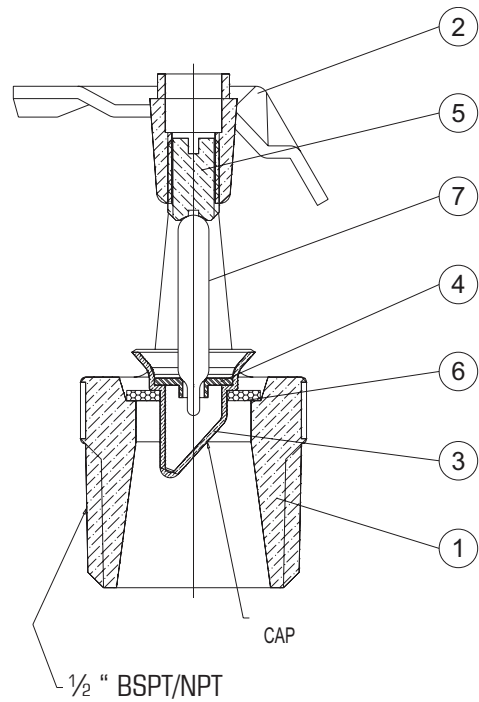
Use Teflon tape or soft thread sealant on male thread of the sprinkler for leak tight sprinkler joint. Use proper wrench. A leak-tight 1/2 NPT/BSPT sprinkler joint should be obtained by applying maximum torque of 19.0 N-m (14 lb-ft). Excessive tightening torque may distort the sprinkler inlet and cause leakage. Sprinklers must never be painted, plated or coated after they leave factory.

The HD sprinkler described herein must be installed and maintained in accordance with the latest edition of HD technical data, latest standards of the National Fire Protection Association (NFPA) and Factory Mutual (FM) or to the standard of any other authorities having jurisdiction. The owner is solely responsible for maintaining their fire protection system and devices in proper operating condition.

Exposure to ultraviolet or direct sunlight for extended period may cause the liquid dye in glass bulb to fade or lose colour. Colourless or faded coloured bulbs are not a problem, as long as the fluid level has not been affected. The loss of colour in the liquid will not effect sprinkler performance, as long as the bulb is intact and not damaged. The loss of colour may be an issue in identifying sprinkler temperature rating, but the temperature rating is still stamped on the sprinkler deflector.

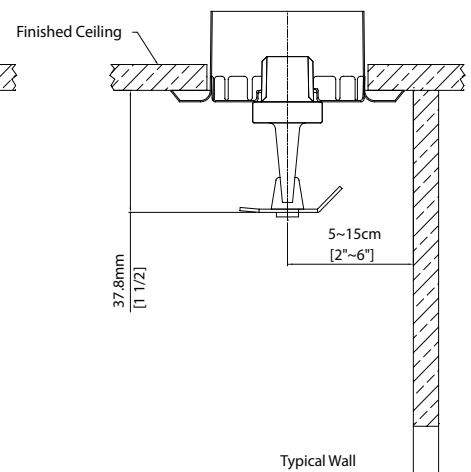
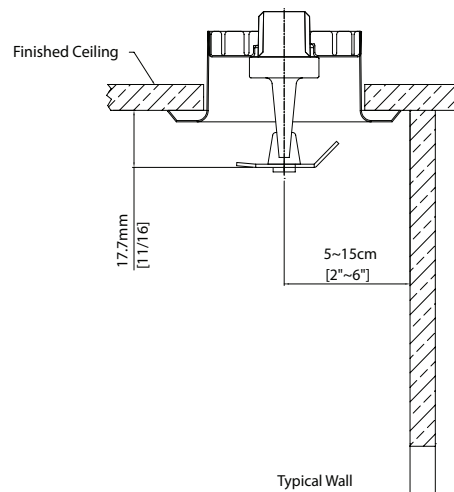
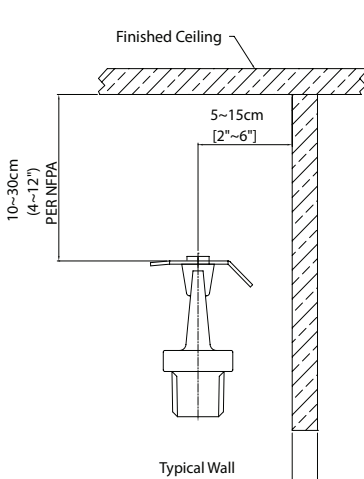
### INSPECTION TESTING AND MAINTENANCE

Refer to NFPA 25 for inspection, testing and maintenance requirement or to the authority having jurisdiction. For detail of warranty refer HD's current conditions of sale or contact HD Sales directly.


**HD 105**

**HD 205**

|     |            |     |                                   |
|-----|------------|-----|-----------------------------------|
| 7   | BULB       | 1   | NOR BULB N5                       |
| 6   | SEAL       | 1   | BERY NICKEL SPRING<br>TEFLON TAPE |
| 5   | LOAD SCREW | 1   | ASTM C36000                       |
| 4   | CAP SEAT   | 1   | ASTM S30400                       |
| 3   | CAP        | 1   | ASTM C11000                       |
| 2   | DEFLECTOR  | 1   | ASTM C26800                       |
| 1   | FRAME      | 1   | ASTM C37700                       |
| Sr. | PART NAME  | QTY | STD. DESIGNATION                  |

|     |            |     |                                   |
|-----|------------|-----|-----------------------------------|
| 7   | BULB       | 1   | NOR BULB N3                       |
| 6   | SEAL       | 1   | BERY NICKEL SPRING<br>TEFLON TAPE |
| 5   | LOAD SCREW | 1   | ASTM C36000                       |
| 4   | CAP SEAT   | 1   | ASTM S30400                       |
| 3   | CAP        | 1   | ASTM C11000                       |
| 2   | DEFLECTOR  | 1   | ASTM C26800                       |
| 1   | FRAME      | 1   | ASTM C37700                       |
| Sr. | PART NAME  | QTY | STD. DESIGNATION                  |



## APPROVALS AND LISTINGS

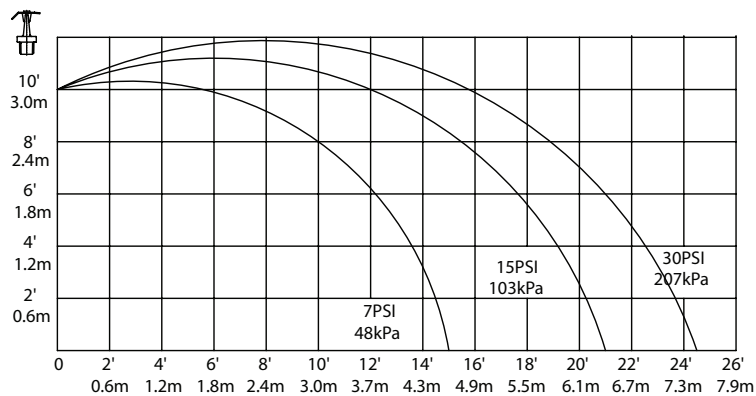
| K-Factor Imperial S. I. | Response | Sprinkler Type    | Approvals   |
|-------------------------|----------|-------------------|-------------|
| 5.6/80                  | Standard | Vertical Sidewall | UL - Listed |
| 5.6/80                  | Standard | Recessed          | UL - Listed |
| 5.6/80                  | Quick    | Vertical Sidewall | UL - Listed |
| 5.6/80                  | Quick    | Recessed          | UL - Listed |

## TEMPERATURE RATING

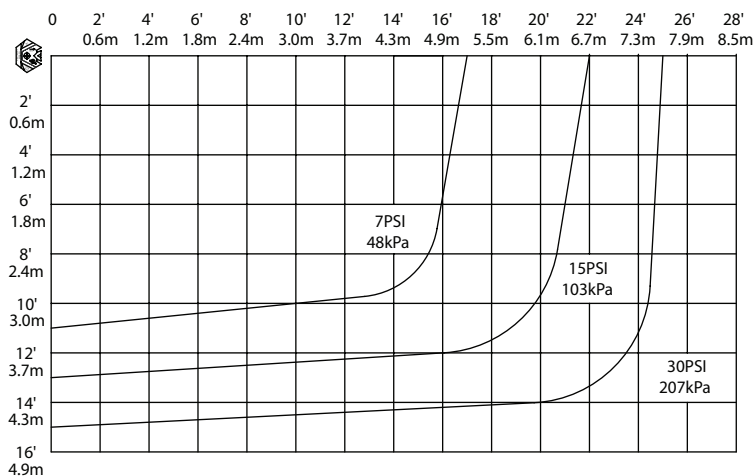
| Sprinkler Temperature Classification | Nominal Sprinkler Temperature Rating | NFPA Maximum Ambient (Ceiling) Temp. Allowed | Glass Bulb Color |
|--------------------------------------|--------------------------------------|--|------------------|
| Ordinary                             | 155°F/68°C                           | 100°F/38°C                                   | Red              |
| Intermediate                         | 175°F/79°C                           | 150°F/66°C                                   | Yellow           |
| Intermediate                         | 200°F/93°C                           | 150°F/66°C                                   | Green            |

### Distribution Patterns - Trajectory

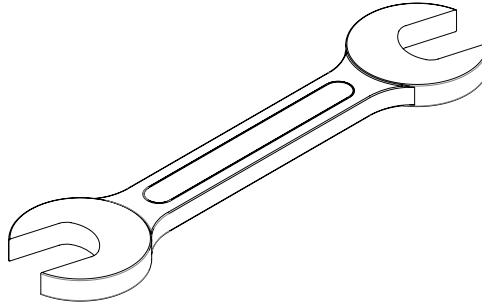
K5.6 Standard Vertical Sidewall and Recessed - Trajectory



K5.6 Standard Vertical Sidewall and Recessed - Plain View



## SPRINKLER WRENCH



### LIMITED WARRANTY

HD FIRE PROTECT PVT. LTD. hereby referred to as HD FIRE warrants to the original purchaser of the fire protection products manufactured by HD FIRE and to any other person to whom such equipment is transferred, that such products will be free from defect in material and workmanship under normal use and care, for two (2) years from the date of shipment by HD FIRE. Products or Components supplied or used by HD FIRE, but manufactured by others, are warranted only to the extent of the manufacturer's warranty. No warranty is given for product or components which have been subject to misuse, improper installation, corrosion, unauthorized repair, alteration or un-maintained. HD FIRE shall not be responsible for system design errors or improper installation or inaccurate or incomplete information supplied by buyer or buyer's representatives. HD FIRE will repair or replace defective material free of charge, which is returned to our factory, transportation charge prepaid, provided after our inspection the material is found to have been defective at the time of initial shipment from our works. HD FIRE shall not be liable for any incidental or consequential loss, damage or expense arising directly or indirectly from the use of the product including damages for injury to person, damages to property and penalties resulting from any products and components manufactured by HD FIRE. HD FIRE shall not be liable for any damages or labour charges or expense in making repair or adjustment to the product. HD FIRE shall not be liable for any damages or charges sustained in the adaptation or use of its engineering data & services. In no event shall HD Fire's product liability exceed an amount equal to the sale price. The foregoing warranty is exclusive and in lieu of all other warranties and representation whether expressed, implied, oral or written, including but not limited to, any implied warranties or merchantability or fitness for a particular purpose. All such other warranties and representations are hereby cancelled.

### NOTICE :

The equipment presented in this bulletin is to be installed in accordance with the latest publication standards of NFPA or other similar organisations and also with the provision of government codes or ordinances wherever applicable.  
The information provided by us are to the best of our knowledge and belief, and are general guidelines only. Site handling and installation control is beyond our reach. Hence we give no guarantee for result and take no liability for damages, loss or penalties whatsoever, resulting from our suggestion, information, recommendation or damages due to our product.  
Product development is a continuous programme of HD FIRE PROTECT PVT. LTD. and hence the right to modify any specification without prior notice is reserved with the company.



**HD FIRE PROTECT PVT. LTD.**  
Protecting What Matters Most to You

C-3/6, THE NANDANVAN IND. ESTATE, L.B.S. MARG, THANE 400 604., INDIA.  
• PHONES : + (91) 22 2583 5434 • 2582 6958 • 2582 6793  
• FAX : +(91) 22 2581 2524 • 6796 9049  
• EMAIL : info@hdfire.com WEBSITE : www.hdfire.com