

# HORIZONTAL SIDEWALL SPRINKLER

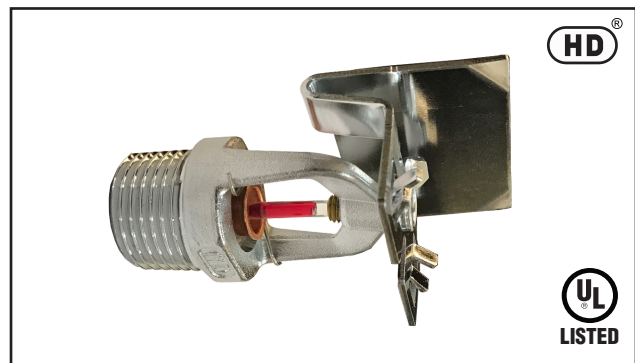
EXTENDED COVERAGE & QUICK RESPONSE



**HD FIRE PROTECT  
PVT. LTD.**

## TECHNICAL DATA

Style	Horizontal Sidewall Sprinklers
Temperature Response	Quick Response with 3mm glass bulb
Coverage	Extended Coverage
K-Factor	5.6 US (80 metric)
Nominal Thread Size	1/2" BSPT (NPT Optional)
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	57°C (135°F) / 68°C (155°F) 79°C (175°F) / 93°C (200°F)
Approvals	UL Listed
Finish	Chrome Plated
Ordering Information	Style, Temp. Rating, Thread type & Finish
SIN Number	HD243



## INSTALLATION

All HD Sprinklers must be installed according to NFPA 13 Standards. Deviations from these requirements and standards or any alteration to the sprinkler itself will void any warranty made by HD Fire. In addition, installation must also have local government provisions, codes and standards as applicable. The system piping must be properly sized to insure the minimum required water flow rate at the sprinkler. Check for the proper model, style, orifice size and temperature rating prior to installation. Install sprinklers after the piping is in place, to avoid mechanical damage. Wet pipe systems must be protected from freezing. Upon completion of the installation, the system must be tested as per recognized standards.

### Escutcheon Installation

Use HD escutcheon plate to ensure proper sprinkler distribution and coverage. To install the escutcheon plate on recessed sprinklers, align with it and push or thread over the sprinkler body into the upper support piece, until the outer edge of the escutcheon meets the mounting surface.

### Installation Sequence

- Step1. The unit must be installed in horizontal position only.
- Step2. Use teflon tape or soft thread sealant only to the male-threads.
- Step3. Hand tighten the sprinkler into fitting.
- Step4. For Horizontal Sidewall Sprinklers, use a standard wrench. Tighten the unit into the fitting. A leak-tight joint requires only 14.7 to 19.6 N-m of torque. Once torque level reach over 29.4 N-m it may distort the orifice seal, resulting in leakage. For exposed piping systems, the sprinkler should be oriented so the frame are parallel with the branch line pipe. The word 'Top' on the deflector is to face towards the ceiling.

## DESCRIPTION

### Horizontal Sidewall Sprinklers (EC & QR)

HD Extended Coverage Horizontal Sidewall Sprinklers are Quick Response with 3mm glass bulbs. These sprinklers are designed for use in light hazard, commercial occupation such as hotels, restaurants, offices, etc. The horizontal sidewall sprinklers are used in place of upright or pendent sprinklers, due to aesthetics or the building construction where piping across the ceiling is not desirable. They are installed along a wall or the side beam just beneath the ceiling. The sprinkler can also be installed with two pieces of Recessed Escutcheon. The sprinkler can cover 16 feet wide by 24 feet long area.

### 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 fluid which expands when exposed to heat.

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



## CARE AND HANDLING

Sprinklers must be handled with due care, they must be stored at ambient temperature for best results. Storage as well as any onward shipment is 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. Use appropriate torque. Excessive tightening torque may distort the sprinkler inlet and cause leakage. Sprinklers must never be painted, plated or coated after they leave factory.

## INSPECTION TESTING & 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 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) 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 bulbs are not a problem, as long as the fluid level has not been affected. The loss of colour in the liquid will not affect 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.

### Material Specification

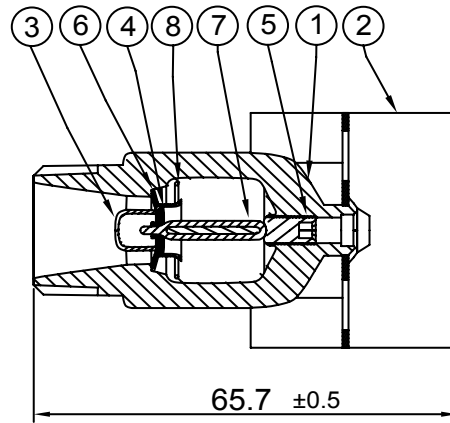
Deflector	Brass
Bulb	Glass
Load Screw	Brass
Cap	Copper
Frame	Brass
Seal	Belleville Washer coated on both sides with Teflon Tape
Bulb Nominal Diameter	Quick Response 3.0mm

### K5.6 Extended Coverage Horizontal Sidewall Sprinkler

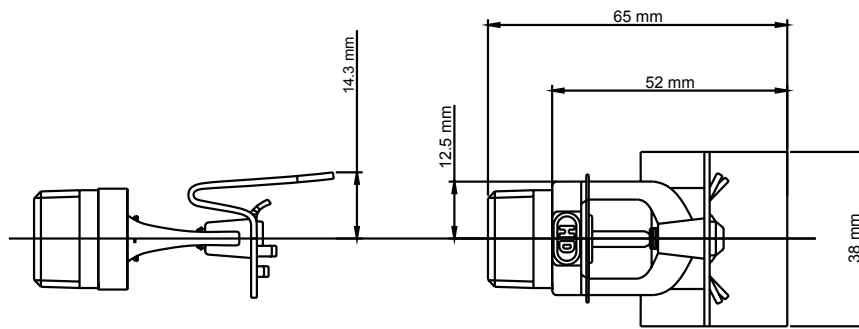
Response Rating	Coverage Area Ft x Ft	Minimum Flow GPM	Minimum Pressure psi (kg/cm <sup>2</sup> )	Deflector-to-Ceiling Distance Inches(mm)	Sprinkler Temperature Rating °F	Minimum Spacing Ft(m)
Quick	16x16 (4.9x4.9)	26	21.6 (1.48)	4 to 12 (100 to 300)	135,155,175,200	10 (3.1)
Quick	16x18 (4.9x5.5)	29	26.8 (1.85)	4 to 12 (100 to 300)	135,155,175,200	10 (3.1)
Quick	16x20 (4.9x6.1)	32	32.7 (2.25)	4 to 12 (100 to 300)	135,155,175,200	10 (3.1)
Quick	16x22 (4.9x6.7)	36	41.3 (2.85)	4 to 6 (100 to 150)	135,155,175,200	10 (3.1)
Quick	16x22 (4.9x6.7)	42	56.3 (3.88)	8 to 12 (200 to 300)	135,155,175,200	10 (3.1)

**DIMENSIONS**

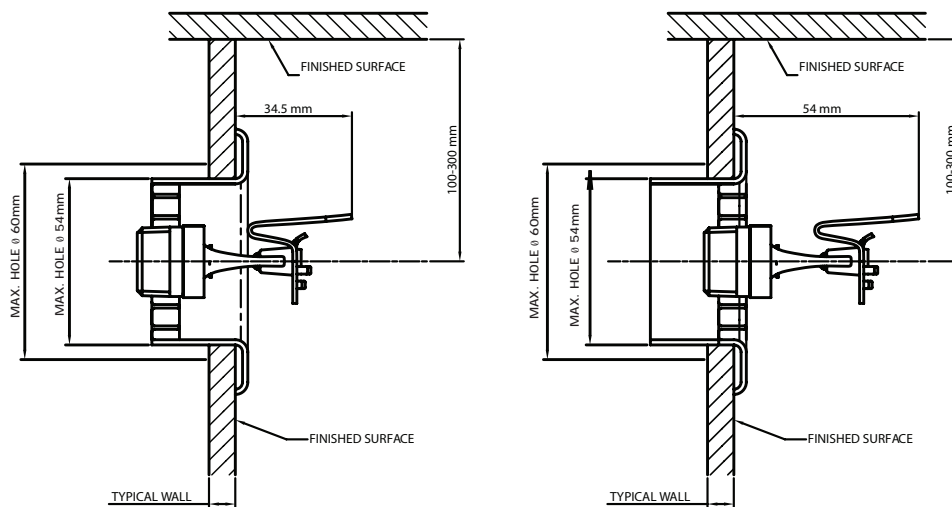
PART NO	PART NAME
1	FRAME
2	DEFLECTOR
3	CAP
4	CAP SEAT
5	LOAD SCREW
6	SEAL
7	BULB
8	SPRING



**EXTENDED COVERAGE HORIZONTAL SIDEWALL SPRINKLER**

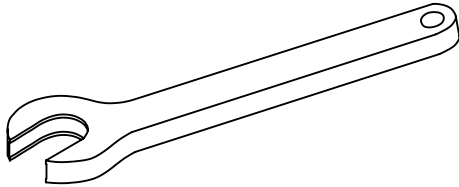
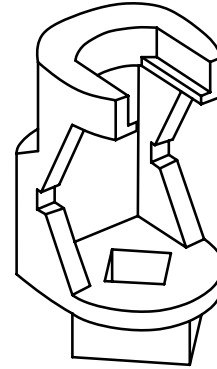


**RECESSED EXTENDED COVERAGE HORIZONTAL SIDEWALL SPRINKLER**



MAXIMUM RECESS

MAXIMUM EXTENSION

**SPRINKLER WRENCH****RECESSED 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 is to the best of our knowledge and belief, and consist of general guidelines only. Site handling and installation control is not in our scope. 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

D-6/2, ROAD NO. 34, WAGLE INDUSTRIAL ESTATE, THANE 400 604, INDIA.

• TEL: + (91) 22 2158 2600

• FAX: +(91) 22 2158 2602

• EMAIL: info@hdfire.com

• WEB: www.hdfire.com