

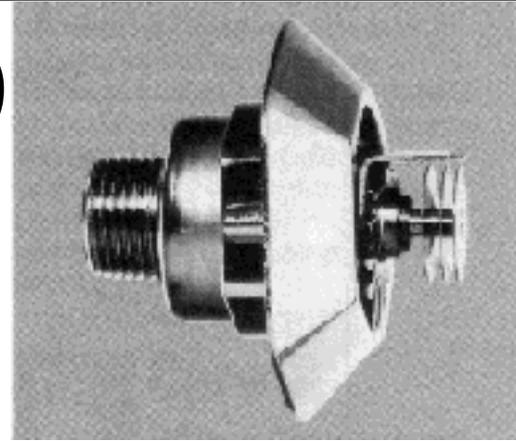
Omega HEC-20

Extended Coverage (16'x18')

Extended Coverage Quick Response (16'x18')

Horizontal Sidewall Automatic Sprinkler

Manufactured by: Central Sprinkler Company
451 North Cannon Avenue, Lansdale, Pennsylvania 19446



1/2" Orifice Horizontal Sidewall Automatic Sprinkler

Product Description

The Omega Model HEC-20 is an extremely versatile sidewall sprinkler. It may be used as either an extended coverage or extended coverage quick response horizontal sidewall. The HEC-20 operates five to six times faster than a standard sprinkler. It offers a high degree of protection for human life which features a spray pattern that has been shown to be effective in the control or extinguishment of fire in light hazard occupancies.

The Model HEC-20 Extended Coverage Horizontal Sidewall Sprinkler may be installed from 12 to 20 inches below the ceiling. It is ideally suited for installation in buildings where unusual ceiling obstacles, beams, soffits or mechanical equipment pose design difficulties.

The Model HEC-20 is Listed* by Underwriters Laboratories for use as an Extended Coverage and as a Extended Coverage Quick Response horizontal sidewall sprinkler that qualifies for installation in light hazard occupancies in accordance with current NFPA 13 and NFPA 13R Standards.

The Model HEC-20 is available in two standard finishes, chrome plated or brass plated. Its mating escutcheon plate is available in three standard finishes, chrome plated, brass plated or white painted. Additional special finishes are available.

* For specific listing requirements see the appropriate information contained in this brochure.

Operation: A fusible alloy pellet is compressed with a bearing disc into a copper housing by a ball plunger. Heat is absorbed by the heat collecting fins and conducted to the alloy pellet. At the rated temperature the alloy melts, causing the ball plunger to drop, freeing balls from the retaining groove. This movement allows system water pressure to force the orifice sealing mechanism and deflector assembly open. Water is then discharged in a designed flow pattern.

Technical Data

Model: HEC-20

Style: Horizontal Sidewall

Orifice Size: 1/2" (12.7 mm)

K Factor: 5.6 (80.08)

Thread Size: 1/2" (12.7 mm) N.P.T.

Temperature Rating: 145°F/63°C
160°F/71°C

Approvals: U.L., U.L.C., M.E.A.
(375-75-SA)

Maximum Working Pressure: 175 psi

Factory Hydro Test: 100% at 500 psi

Standard Finishes:

Sprinkler: chrome plated and
brass plated

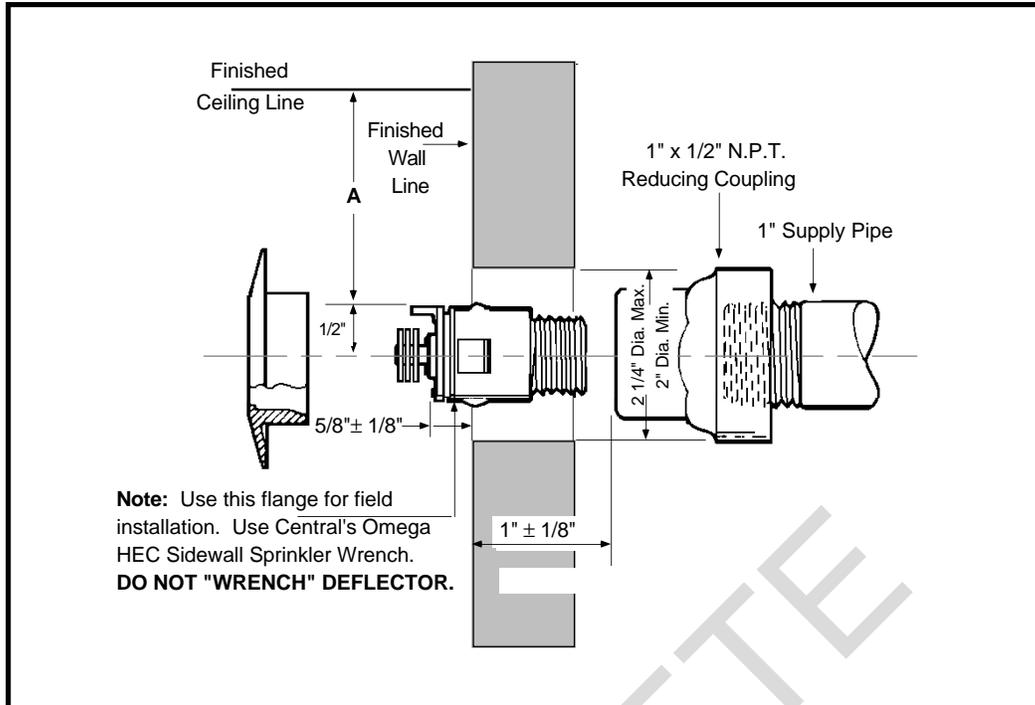
Escutcheon: chrome plated, brass
plated, white painted

Length: 2 3/8" (60.33 mm)

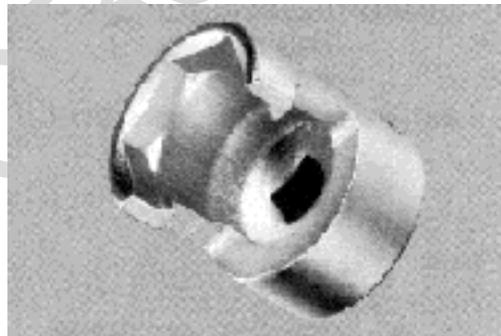
Width: 1 3/8" (34.93 mm)

Weight: 4.5 oz. (128 grams)

**Installation Diagram
Omega HEC-20 Horizontal Sidewall Sprinkler**



Omega HEC Sidewall Sprinkler Wrench





Design Data

Design Requirements — Extended Coverage Applications

Coverage Area		Flow (Pressure)	Deflector Distance Below Ceiling	Temperature Rating
Width (Ft.)	Throw (Ft.)			
16	16	26 GPM (21.6 psi)	12" to 20"	160°F/71°C
16	18	29 GPM (26.8 psi)	12"	160°F/71°C

In Extended Coverage applications, the Model HEC-20 sprinkler is listed for installation 12 to 20 inches below ceilings in light hazard occupancies in accordance with current NFPA 13 Standards.

Design Requirements—Extended Coverage QuickResponse Applications

Coverage Area		Flow (Pressure)	Deflector Distance Below Ceiling	Temperature Rating
Width (Ft.)	Throw (Ft.)			
16	16	26 GPM (21.6 psi)	12"	145°F/63°C
16	18	29 GPM (26.8 psi)	12"	145°F/63°C

In Extended Coverage Quick Response applications, the Model HEC-20 sprinkler is listed for installation 12 inches below ceilings in light hazard occupancies in accordance with current NFPA 13 Standards.



Installation

The Model HEC-20 Sprinkler must be installed in accordance with current NFPA 13 and NFPA 13R Standards. Deviations from these standards and requirements or any alteration to the sprinkler itself will void any warranty made by Central Sprinkler Company. In addition, installation must also meet local government provisions, codes and standards as applicable.

The system piping must be properly sized to ensure the minimum required flow rate from the sprinkler.

Prior to installation, check for proper model, style, orifice size and temperature rating. Install sprinklers after the piping is in place to avoid mechanical damage; replace any damaged unit. Wet pipe systems must be protected from freezing.

Upon completion of the installation, the system must be tested per recognized standards. In the event of a thread leak, remove the unit, apply

new pipe joint compound or tape, and reinstall.

Installation Sequence

Step 1. The unit must be installed in the horizontal position.

Step 2. The face of the sprinkler fitting should be installed 1" (plus or minus 1/8") behind the finished wall line. Adjustments are made via the push-on escutcheon plate to compensate for variations in the fittings.

The sprinkler will function properly, only when the system piping is anchored to the building structure. Otherwise, reaction forces from system initiation could alter the sprinkler alignment and disrupt the distribution pattern.

Step 3. Use only a non-hardening pipe joint compound or Teflon* tape. Apply to the male threads only.

*Teflon is a trademark of the DuPont Corp.

Step 4. Hand tighten the sprinkler into the fitting. Use a Central Omega HEC Sidewall Sprinkler Wrench to tighten the unit into the fitting. **DO NOT** use the deflector to tighten sprinkler. A leak tight joint requires the application of only 7 to 14 ft.-lbs. of torque. A tangential force of 14 to 28 lbs. delivered through a 6" handle will deliver adequate torque. Torque levels over 21 ft.-lbs. may distort the orifice seal, resulting in leakage.

Step 5. To install the escutcheon plate, align it with and press it over the sprinkler body until the outer edge of the escutcheon meets the mounting surface. Do not over- or under-tighten the sprinkler to compensate for inaccurate escutcheon plate adjustment.

Caution: Special care must be taken when installing with a CPVC system. Sprinklers must be installed after the CPVC manufacturer's recommended setting time for the primer and cement to ensure that neither accumulates within the sprinkler.

Special care must be taken when installing with a copper system. Sprinklers must be installed only after the inside of the sprinkler nipple and associated fittings have been wire brushed to remove any flux. Residual flux can cause corrosion and in extreme cases can impair proper sprinkler operation.



Care & Maintenance

Sprinklers must be handled carefully. They must not be transported or stored where ambient temperatures may exceed 100°F/38°C. For best results, store them in a cool, dry location in the original shipping package.

Do not install sprinklers that have been dropped or visibly damaged. Sprinklers must never be painted, coated, plated, or altered in any other way from manufactured condition or they may not function properly. Any sprinklers altered in such manner must be replaced.

The owner is responsible for the proper working condition of all fire protection devices and accessories. The NFPA Standard 13A entitled, "Care and Maintenance of Sprinkler Systems", contains guidelines and minimum maintenance requirements. Furthermore, the local *Authority Having Jurisdiction* may have additional regulations and requirements for maintenance, testing, and inspection that must be obeyed.

It is advisable to have sprinkler systems inspected regularly by a qualified inspection service. Length of time between such inspections can vary due to accessibility, ambient atmosphere, water supply, and site activity.

Do not attempt to re-assemble or otherwise reuse a sprinkler that has operated. Replace any sprinkler exhibiting corrosion or damage. Always use new sprinklers of the same type and temperature rating as replacements.

Because the discharge pattern is critical to protection of life and property, nothing should be hung or attached to the sprinkler unit that would disrupt the pattern. Such obstructions must be removed. In the event that construction has altered the original configuration, additional sprinklers may need to be installed to maintain the protection level.

Do not attempt to replace sprinklers without first removing the fire protection system from service. Be certain to secure permission from all *Authorities Having Jurisdiction*, and notify all personnel who may be affected during system shutdown. A fire watch during maintenance periods is a recommended precaution.

To remove the system from service mode, first refer to the system operating guide and valve instructions. Drain water and relieve

pressure in the pipes. Remove the existing unit and install the replacement, using only the recommended sprinkler wrench. Be certain to match model, style, orifice, and temperature rating.

A fire protection system that has been shut off after activation should be returned to service immediately. Inspect the entire system for damage and replace or repair as necessary. Sprinklers that did not operate but were subjected to corrosive elements of combustion or excessive temperatures should be inspected, and replaced if need be. The *Authority Having Jurisdiction* will detail minimum replacement requirements and regulations.

Guarantee: Central Sprinkler Company will repair and/or replace any products found to be defective in material or workmanship within a period of one year from the date of shipment. Please refer to the current Price List for further details of the warranty.

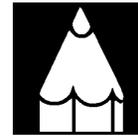


Central Sprinkler Company

451 North Cannon Avenue, Lansdale, PA 19446

Phone: 215-362-0700

FAX: 215-362-5385



Ordering Information

Ordering Information: When placing an order, indicate the full product name. Please specify the quantity, model, style, orifice size, temperature rating, type of finish, escutcheon plate finish, and sprinkler wrench.

For special painted escutcheon finishes, the customer must provide quick-dry paint preferably in a lacquer base finish to ensure proper color duplication. Without such a guide, Central Sprinkler Company cannot be responsible for acceptable color matching.

Availability and Service: Central sprinklers, accessories, and other products are available throughout the U.S. and Canada, and internationally, through a network of Central Sprinkler Company distribution centers. You may write directly to Central Sprinkler Company, or call (215) 362-0700 for the distributor nearest you.

Patents: The Omega Model HEC-20 Automatic Sprinkler is protected under U.S. Patent No. 4,491,182. Additional patents are pending.

Conversion Table:

1 inch	= 25.400 mm
1 foot	= 0.3048 M
1 pound	= 0.4536 kg
1 foot pound	= 1.356 Nm
1 psi	= 6.895 kpa
	= 0.0689 bar
	= 0.0703 kg/cm ²
1 U.S. gallon	= 3.785 dm ³
	= 3.785 liters

Conversions are approximate.