

Omega HEC-12 RES

Residential Horizontal Sidewall Sprinkler

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

Product Description

The Omega Model HEC-12 RES Horizontal Sidewall Automatic Sprinkler is an extremely versatile horizontal sidewall sprinkler. It is a low profile, aesthetically pleasing, wall mounted sprinkler that operates five to six times faster than a standard sprinkler. It offers a high degree of protection for human life and features a spray pattern that has been shown to be effective in the control or extinguishment of fire.

The Model HEC-12 RES carries a Listing* by Underwriters Laboratories for use as a residential sprinkler that is Listed for installation 4"-6" (101.2mm-152.3mm) below the ceiling in residential occupancies in accordance with current NFPA 13, NFPA 13D and NFPA 13R.

The Model HEC-12 RES is available in three standard finishes, chrome plated, brass plated and white painted. Its mating escutcheon plate is available in three standard finishes, chrome plated, brass plated and white painted, with additional special finishes available upon request.

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-12 RES

Style: Horizontal Sidewall

Wrench: Omega Sidewall Wrench
(Part #15932000)

Orifice Size: 1/2" (15mm)

K Factor: 5.6 (80.8)

Thread Size: 1/2" (15 mm) N.P.T.

Temperature Rating: 160°F/71°C

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

Maximum Working Pressure: 175 psi
(12.1 bar)

Factory Hydro Test: 100% at 500 psi
(34.5 bar)

Standard Finishes:

Sprinkler: chrome plated, brass plated, white painted or off-white

Escutcheon: chrome plated, brass plated, white painted or off-white

Length: 2 3/8" (60.3 mm)

Width: 1 3/8" (34.9 mm)

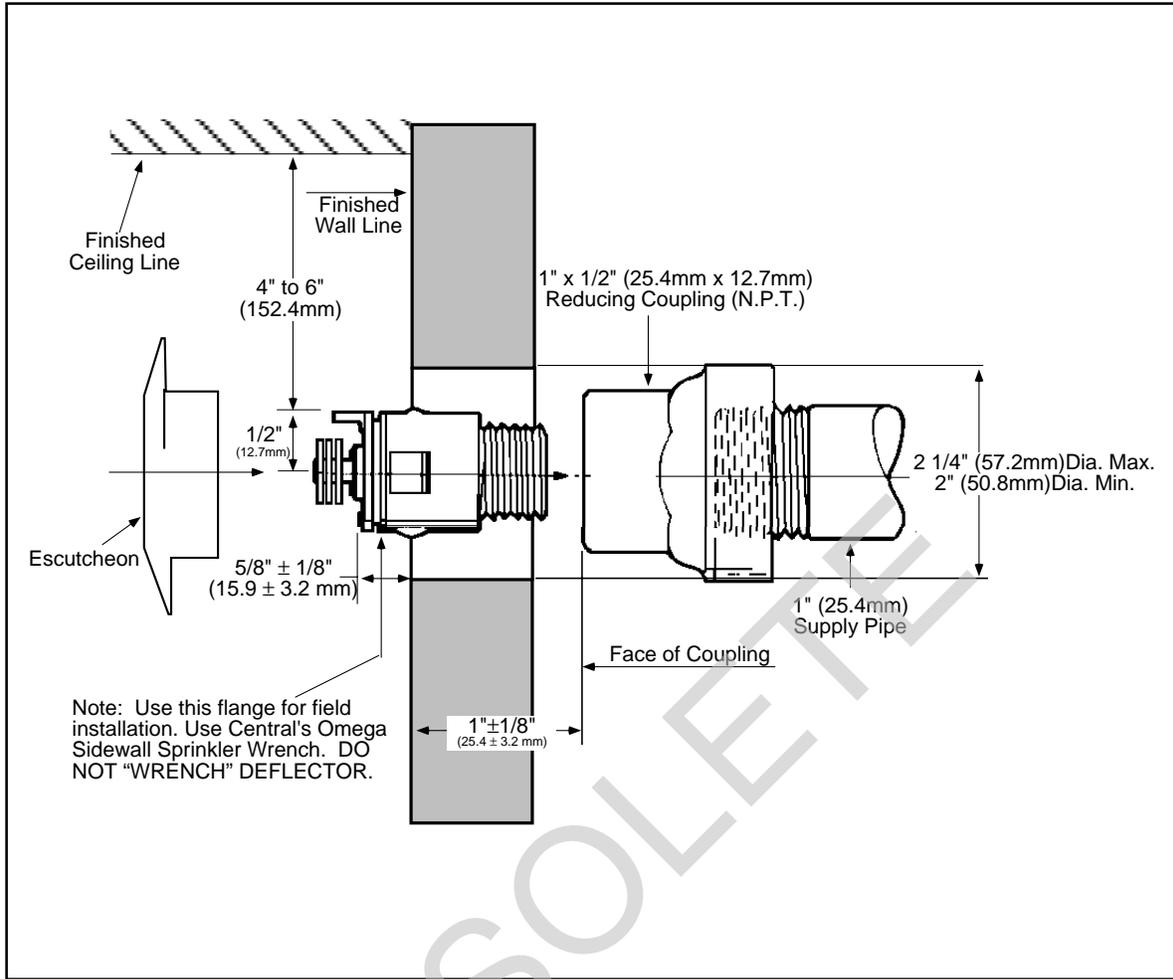
Weight: 4.5 oz. (128 grams)

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



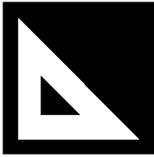
1/2" (15mm)
Orifice
Horizontal
Sidewall
Automatic
Sprinkler

Figure 1
Omega HEC-12 RES Horizontal Sidewall Automatic Sprinkler



Omega Sidewall Sprinkler Wrench
(Part #15932000)





Design Data

Design Requirements — Residential Applications

Coverage Area		Minimum Flow (Pressure) Req'd		Temperature Rating
Width (Ft.)	Throw (Ft.)	Single Sprinkler	Two Sprinklers	
12 (or less) <i>(3.7m)</i>	12 (or less) <i>(3.7m)</i>	26 gpm (21.6 psi) <i>(98.5L (1.5 bar))</i>	18 gpm (10.3 psi) <i>(68.2L (0.7 bar))</i>	160°F/71°C
14 <i>(4.3m)</i>	14 <i>(4.3m)</i>	27 gpm (23.2 psi) <i>(102.3L (1.6 bar))</i>	21 gpm (14.1 psi) <i>(79.6L (1.0 bar))</i>	160°F/71°C

In residential applications, the Model HEC-12 RES, 160°F rated sprinklers are Listed for installation 4" to 6" below the ceiling.



Installation

Model HEC-12 RES sprinklers must be installed in accordance with current NFPA 13, NFPA 13R or NFPA 13D. Deviations from these requirements and standards 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" ($\pm 1/8"$) (25.4mm ($\pm 3.2mm$)) behind the

finished wall line. Adjustments are made via the adjustable sliding 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.

Step 4. Hand tighten the sprinkler into the fitting. Use an Omega Sidewall Sprinkler Wrench to tighten the assembly into the fitting. A leak tight joint requires the application of only 7-14 ft.-lbs. (9.5-19.0 Nm) of torque. A tangential force of 14-28 lbs. (62.3-124.5 N) delivered through a 6" (152.4mm) long ratchet handle will deliver adequate torque. Torque levels over 21 ft.-lbs. (28.6 Nm) 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.

* Teflon is a trademark of the DuPont Corp.

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 accumulate 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 25 entitled, "Inspection, Testing and Maintenance of Water-Based Fire Protection 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.

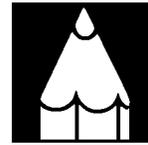
Do not attempt to re-assemble or otherwise reuse a sprinkler that has operated. Replace any sprinkler exhibiting corrosion or damage; always use new sprinklers of the same type and temperature rating as replacements.

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.

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



Ordering Information

Ordering Information: When placing an order, indicate the full product name. 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 paint in a quick-drying or lacquer-base finish to insure proper color duplication. Without such a guide, Central Sprinkler Company cannot be responsible for acceptable color matching.

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

Conversion Table:

1 inch	= 25.400 mm
1 foot	= 0.3048 M
1 pound	= 0.4536 kg
1 foot pound	= 1.36 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.



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