

# Omega HEC-12EC PRO Prohibitor™

Extended Coverage Quick Response (16'x18')  
Extended Coverage (16'x20')  
Institutional Sidewall Automatic Sprinkler

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

## Product Description

The Omega Prohibitor™ Model HEC-12EC PRO Automatic Sprinklers have been specifically designed for use in institutional occupancies, such as correctional facilities and mental health facilities, where the occupants may attempt to tamper with or otherwise employ the sprinkler to injure themselves or others.

The horizontal sidewall style Prohibitor™ HEC-12EC PRO sprinklers are recessed into the mounting surface with only a portion of the heat collecting fin assembly projecting into the protected space. The heat collecting assembly has an average breakaway load of 68 lbs., and a maximum breakaway load of 85 lbs. Unlike other institutional sprinklers, the escutcheon plate and optional closure plates are firmly attached to the recessed sprinkler body with tamper resistant retaining screws.

The Omega Prohibitor™ sprinklers are designed with an aesthetically pleasing, low profile silhouette. They feature a spray pattern that has been shown to be effective in the control or extinguishment of fire.

The Model HEC-12EC PRO carries two separate Listings\* by Underwriter's Laboratories for use as:

1. An Extended Coverage Quick Response Sprinkler that qualifies for installation at 4"-12" below the ceiling in light hazard occupancies in accordance with current NFPA 13 Standards (for up to 16' x 18' coverages).
2. An Extended Coverage Sprinkler that qualifies for installation 4"-6" below the ceiling in light hazard

occupancies in accordance with current NFPA 13 Standards (for up to 16' x 20' coverages).

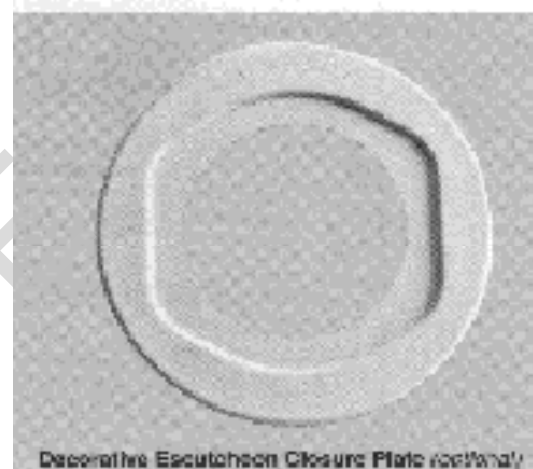
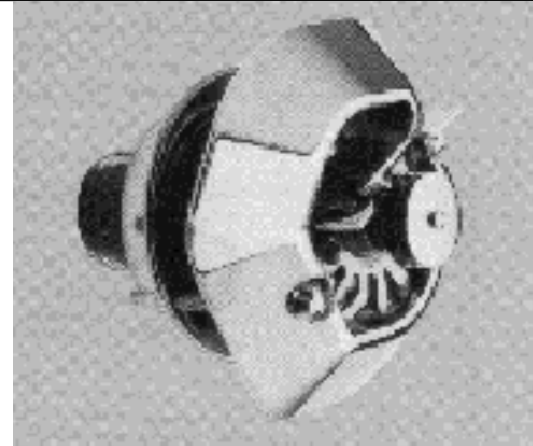
For all models of Prohibitor™ Sprinklers, an optional 3<sup>5</sup>/<sub>8</sub>" diameter light gauge escutcheon closure plate is available, for use where the wall penetration is greater than the recommended 2<sup>1</sup>/<sub>4</sub>" diameter. The escutcheon closure plate fits between the base of the escutcheon and the mounting surface.

For all models of Prohibitor™ Sprinklers, an optional 4<sup>1</sup>/<sub>2</sub>" diameter x 1/8" thick security closure plate is available for use where additional security is a consideration. The security closure greatly reduces the possibility of inserting a tool, prybar or other device behind the sprinkler. The security closure plate fits between the base of the escutcheon and the mounting surface.

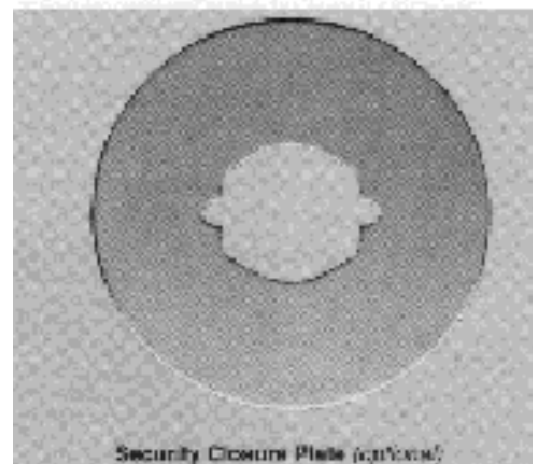
For all models of Prohibitor™ Sprinklers, the optional Ident-A-Fire™ feature is available to provide an alarm signal upon activation of the sprinkler.

Prohibitor™ Sprinklers are available in two standard finishes, brass and chrome plated. Their mating escutcheon is available in three standard finishes, brass, chrome plated and white painted, with additional special finishes available.

**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.



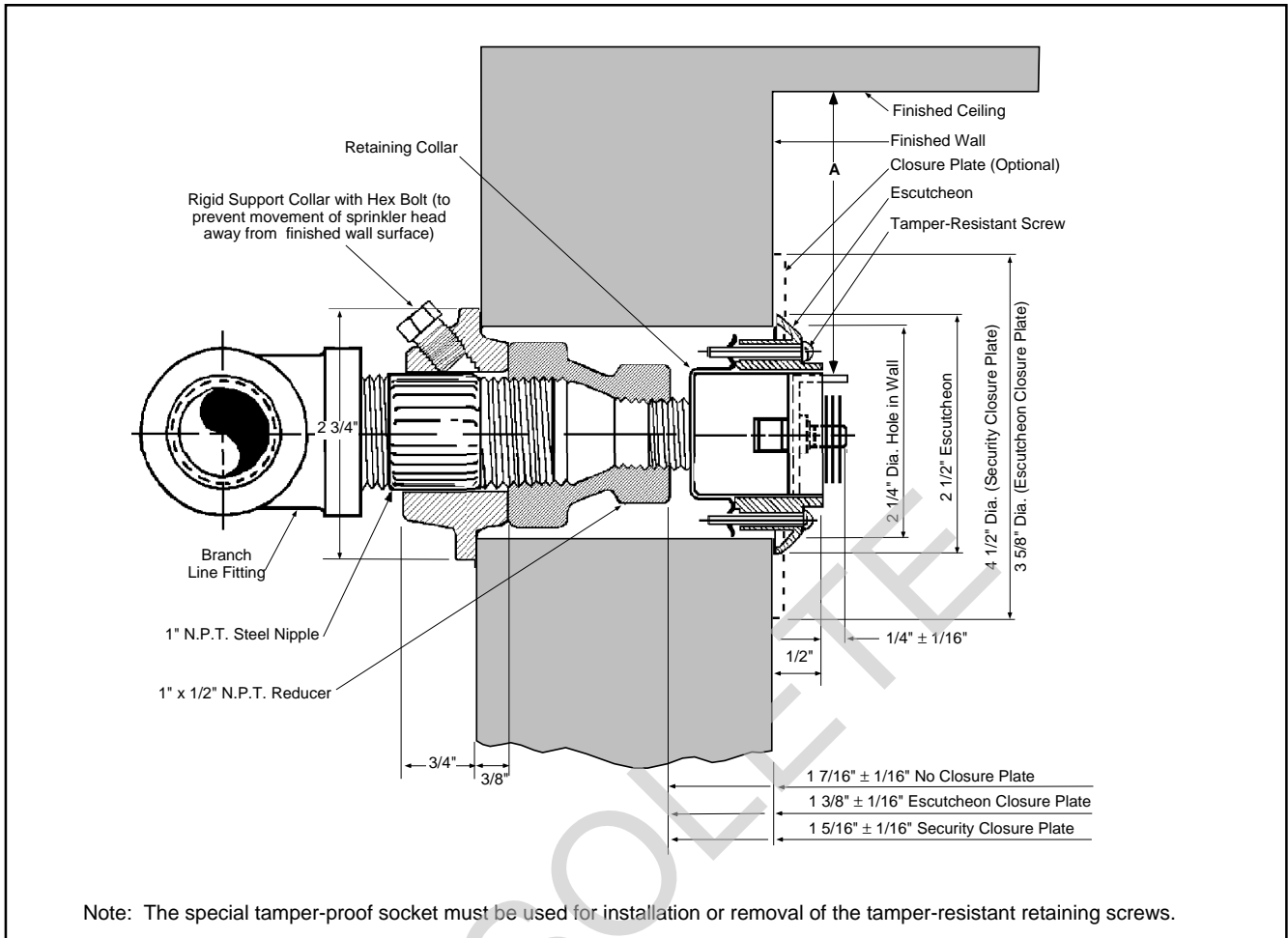
Decorative Escutcheon Closure Plate (optional)



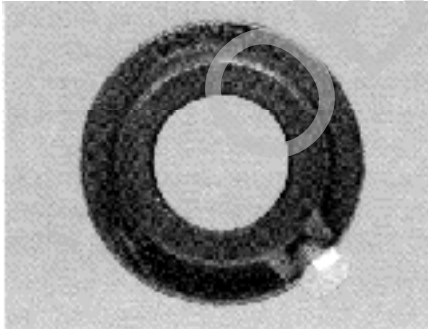
Security Closure Plate (optional)

## 1/2" Orifice Horizontal Sidewall Automatic Sprinkler

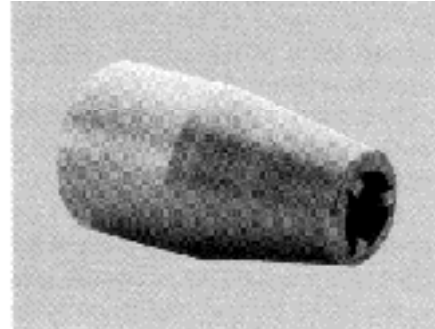
**Figure 1**  
**HEC-12EC PRO**



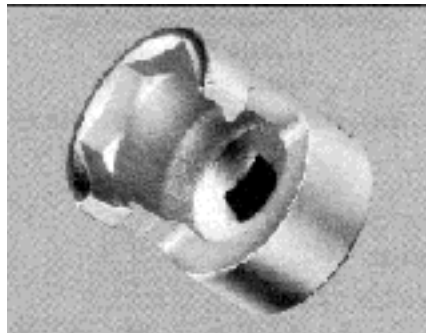
**Rigid Support Collar with Bolt**  
**(Part #162-018-01)**



**Tamper-proof Socket**  
**(Part #160-07-000)**



**Omega HEC Sprinkler Wrench**  
**(Part #15932000)**





## Technical Data

Model: HEC-12EC PRO  
 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. (46-92-M Vol. II)  
 Maximum Working Pressure: 175 psi  
 Factory Hydro Test: 100% at 500 psi  
 Standard Finishes:

Sprinkler: brass, chrome plated  
 Escutcheon: brass, chrome plated,  
 white painted  
 Escutcheon Closure Plate: brass,  
 chrome plated, white painted  
 Security Closure Plate: chrome  
 plated, brass plated,  
 white painted

Length: 2 3/8" (60.3 mm)  
 Width: 2" (50.8 mm)  
 Weight: 6.8 oz. (193 grams)



## Installation

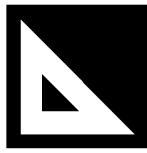
Prohibitor™ sprinklers must be installed in accordance with current NFPA 13. Deviations from these requirements and standards, or any alteration to the sprinkler itself, will void any warranty made by Central Sprinkler Company. In addition, installation must also meet local government provisions, codes,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

The system piping must be properly sized to ensure the proper flow rate at 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.



## Design Data

### Design Requirements — Extended Coverage Quick Response Applications

Coverage Area Width (Ft.)	Throw (Ft.)	Minimum Flow (pressure)	"A" Deflector Distance Below Ceiling	Temperature Rating
16	16	26 gpm (21.6 psi)	4" - 12"	145°F/63°C; 160°F/71°C
16	18	29 gpm (26.8 psi)	4" - 6"	145°F/63°C
16	18	30 gpm (28.7 psi)	6" - 12"	145°F/63°C

*In Extended Coverage Quick Response Applications, the Model HEC-12EC PRO Sprinklers are listed for installation in light hazard occupancies only.*

### Design Requirements — Extended Coverage Applications

Coverage Area Width (Ft.)	Throw (Ft.)	Minimum Flow (pressure)	"A" Deflector Distance Below Ceiling	Temperature Rating
16	18	29 gpm (26.8 psi)	4" - 6"	160°F/71°C
16	18	30 gpm (28.7 psi)	6" - 12"	160°F/71°C
16	20	32 gpm (32.7 psi)	4" - 6"	160°F/71°C

*In Extended Coverage Applications, the Model HEC-12EC PRO Sprinklers are listed for installation in light hazard occupancies only.*

### Installation Sequence

**Step 1.** The sprinkler must be installed in the horizontal position 4" to 12" below ceiling.

**Step 2.** Install the steel nipple into the branch line fitting, then slide the rigid support collar over the nipple prior to installing the 1" x 1/2" reducing coupling. The face of the sprinkler fitting should be installed:

- 1 7/16" (±1/16") behind the finished wall if no closure plate is utilized.
- 1 3/8" (±1/16") behind the finished wall if the light gauge escutcheon closure plate is utilized.
- 1 5/8" (±1/16") behind the finished wall if the security closure plate is utilized.

The sprinkler nipple must be fitted with the rigid support collar to prevent movement of the sprinkler away from the finished wall surface (see installation diagram on page 2).

**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 reducing coupling. Use an Omega HEC sprinkler wrench to tighten the unit into the fitting. 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" long handle will deliver adequate torque. Torque levels over 21 ft.-lbs may distort the orifice seal, resulting in leakage.

**Step 5.** During installation of the sprinkler, check the alignment of retaining collar holes with final orientation of sprinkler escutcheon.

**Step 6.** To install the escutcheon plate (and closure plate if applicable), align it (them) with and press it (them) over the sprinkler body until the outer edge of the escutcheon (or closure plate) meets the mounting surface. Do not over or under tighten the sprinkler to compensate for inaccurate escutcheon plate adjustment.

**Step 7.** Install the tamper resistant retaining screws through the escutcheon and into the retaining collar, thereby drawing the escutcheon

(and closure plate) up tight against the mounting surface. The tamper resistant retaining screws can only be installed or removed using the special tamper-proof socket.

**Caution:** Special care must be taken when installing with a CPVC system. Sprinklers must be installed after the 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 a 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 discharge 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 special 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.



### Central Sprinkler Company

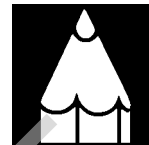
451 N. Cannon Avenue, Lansdale, PA 19446

Phone (215) 362-0700

FAX (215) 362-5385

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 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. Please specify the quantity, model, style, orifice size, temperature rating, sprinkler finish, escutcheon finish, closure plate(s) and finish, sprinkler wrench and special tamper-proof socket.

For special painted escutcheon finishes, the customer must provide quick-dry paint preferably in a lacquer base to ensure proper color duplication. Without which 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 Prohibitor™ Automatic Sprinklers are 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 = 1.36 Nm  
1 psi = 6.895 Kpa  
= 0.0689 bar  
= 0.0703 kg/cm<sup>2</sup>  
1 U.S. gallon = 3.785 dm<sup>3</sup>  
= 3.785 liters

Conversions are approximate.