

Sidewall Sprinkler-HF^{17/32}

Extended Coverage (16' x 24' max.) Horizontal Sidewall Automatic Sprinkler

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

Product Description

The Central Model HF^{17/32} Extended Coverage Horizontal Sidewall Sprinklers are designed with special deflectors that discharge most of the water away from the nearby wall in a quarter-semispherical pattern with a limited portion of the discharge directed toward the wall behind the sprinkler. They embrace the ultimate in advanced design features via incorporation of a unique center strut design, which results in a smaller sprinkler than those manufactured with a more traditional design approach. The center-strut operating mechanism responds significantly faster than more traditional mechanisms, such as the glass bulb or link-and-lever.

The Model HF^{17/32} Horizontal Sidewall Sprinklers are intended for installation in accordance with current NFPA 13 and their extended coverage Listing* parameters. They are ideally suited for use in churches, clubs, schools, hospitals, offices, restaurants, auditoriums and similar occupancies. They are available in one orifice size, three temperature ratings and two standard finishes.

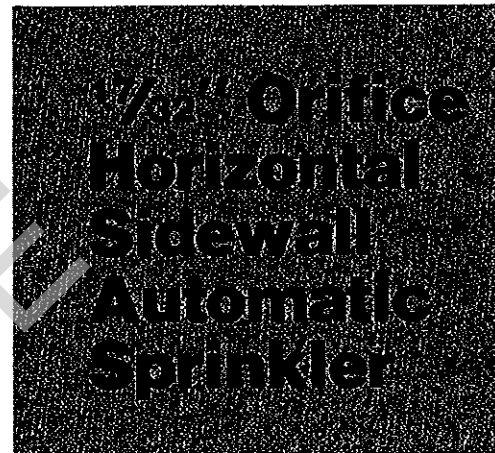
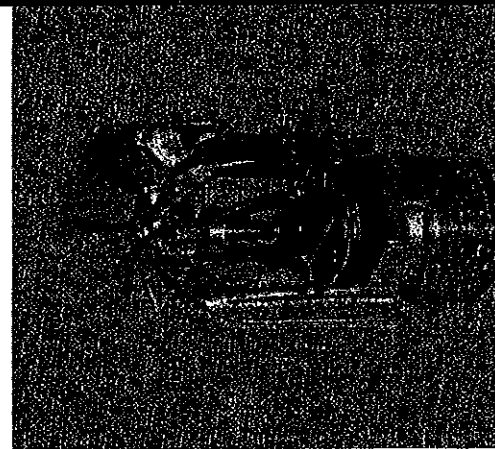
Operation: A fusible alloy is sealed into a bronze center strut by a stainless steel ball. When the alloy melts at its rated temperature, the ball is forced upward into the center strut releasing the two ejectors and operating the sprinkler. Unlike most other sprinkler designs, the alloy is not exposed to atmospheric conditions that could affect its proper

functioning. It is also less susceptible to mechanical damage since there are no fragile glass elements nor any protruding elements extending beyond the sprinkler frame.

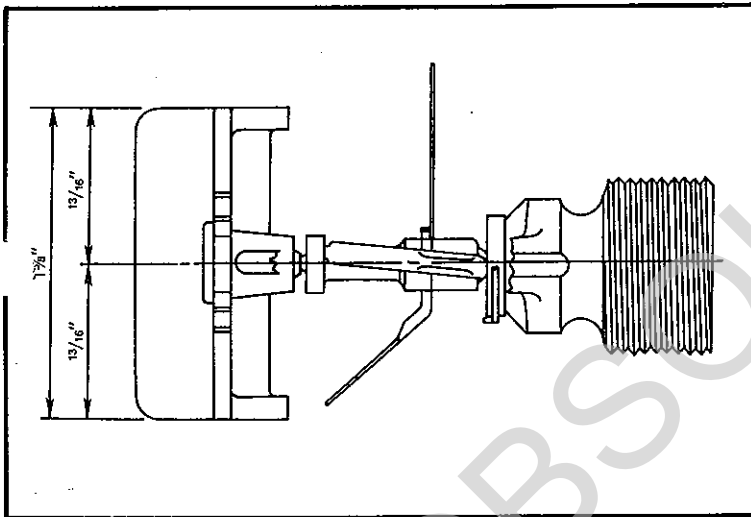
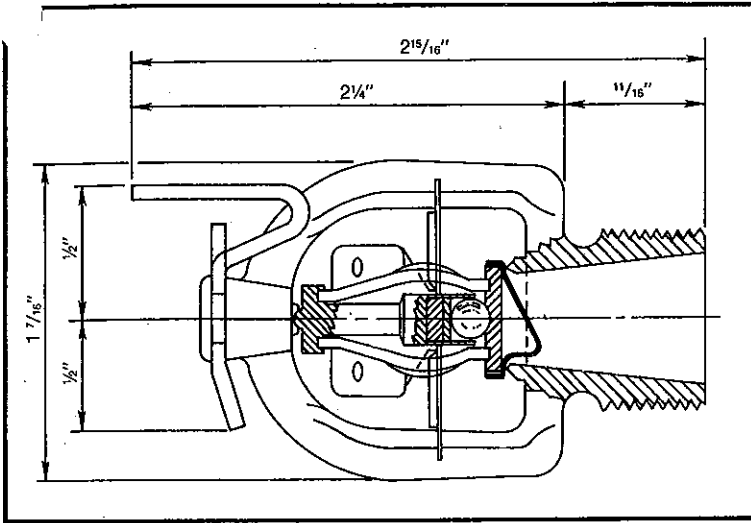
Technical Data

Model Number: HF^{17/32}
Style: Extended Coverage Horizontal Sidewall
Orifice size: ^{17/32}"
K Factor: 8.1
Thread Size: ^{3/4}" N.P.T.
Temperature Rating & Frame Arm
Color:
135° F (57° C) Uncolored
145° F (63° C) Uncolored
165° F (74° C) Uncolored
NOTE: Color identification is not required for plated sprinklers.
Approvals:
U.L., U.L.C., B.S.&A.
Cal. No. 375-75-SA
Maximum working pressure: 175 p.s.i.
Factory hydro test: 100% at 500 p.s.i.
Standard finishes: Brass, chrome
Length: 2^{15/16}"
Width:
Frame Arms: 1^{7/16}"
Deflector: 1^{5/8}"
Weight: 4.3 oz.

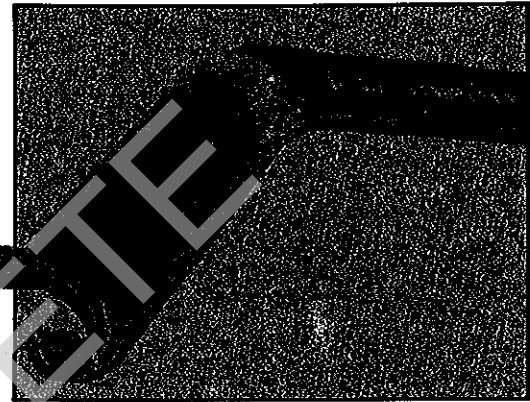
NOTE: Metric units shown in parenthesis



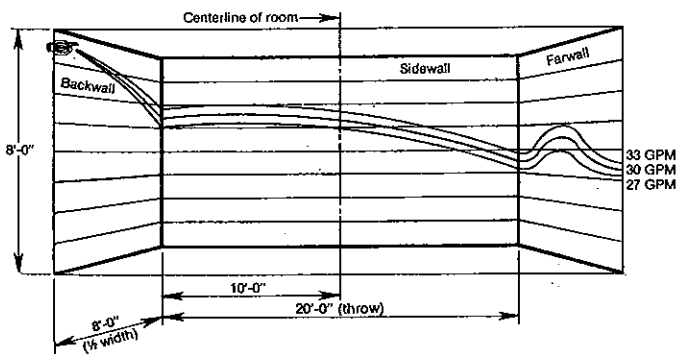
Partial Sections - Model HF^{17/32} Horizontal Sidewall Sprinkler



H & HF Sprinkler Wrench

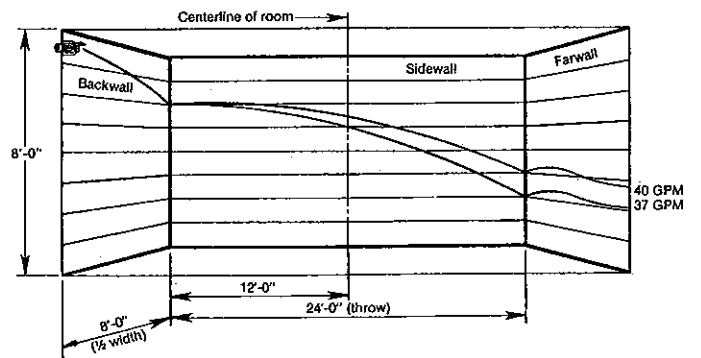


Model HF^{17/32} Horizontal Sidewall Sprinkler Extended Coverage



Nominal Wetting Pattern for 16' x 20' Room

Model HF^{17/32} Horizontal Sidewall Sprinkler Extended Coverage



Nominal Wetting Pattern for 16' x 24' Room

Design Requirements — Extended Coverage Applications

Coverage Area		Minimum Flow (gpm)	Minimum Pressure (psi)	Maximum Ceiling Height (Ft.) (For Multiple Sprinklers)	Temperature Rating (°F/°C)
Width (Ft.)	Throw (Ft.)				
16 (or less)*	16 (or less)*	27	11.1	9	135/57*, 145/63*, 165/74
16*	18*	30	13.7	9	135/57*, 145/63*, 165/74
16*	20*	33	16.6	9	135/57*, 145/63*, 165/74
16	22	37	20.9	9	135/57, 145/63
16	24	40	24.4	9	135/57, 145/63

*NOTE: For 16' wide (or less) x 20' throw (or less), the Model HF 1⁷/₃₂, 135°F or 145°F rated sprinklers may be installed from 4" to 12" below the ceiling. For this configuration the minimum flow rate is 42 gpm at 26.9 psi.

Except as noted above, the **Model HF 1⁷/₃₂ Horizontal Sidewall Sprinklers** should be installed with the deflector from 4" to 6" below ceilings and not more than 6" away from the wall or lintel through which they are mounted, "unless special construction arrangements make a different position advisable for prompt operation and effective distribution" (see NFPA 13-1987, sections 3-16.2.1 and 4-5.5).

The **Model HF 1⁷/₃₂ Horizontal Sidewall Sprinklers** are U.L. Listed for Extended Coverage applications in Light Hazard occupancies. The maximum ceiling height limitation is applicable only when two or more sprinklers are installed in one room at extended coverage spacings that exceed the standard spacing specified in NFPA 13.



Installation

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

The system piping must be properly sized to insure the minimum required 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; replace any damaged units. Wet pipe systems must be protected from freezing. Refer to the Central Bulletins on the Model H-1 Dry Horizontal Sidewall Sprinklers for use in dry pipe sprinkler installations.

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

Step 3. Hand tighten the sprinkler into the fitting. Then use a Central Sprinkler H & HF Wrench to tighten the unit into the fitting. A leak-tight joint requires 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.

CAUTION: Do not "wrench" or turn the deflector, as this action may damage the sprinkler and cause it to leak under pressure.

*Teflon is a trademark of the DuPont Corp.



Care & Maintenance

Sprinklers must be handled carefully. They should not be transported or stored where ambient temperature may exceed 100°F/38°C. For best

results, store them in a dry, cool location in the original shipping package.

Do not install sprinklers that have been dropped or visibly damaged. Sprinklers should 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 operating 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 recommended that sprinkler systems be 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 reassemble 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.

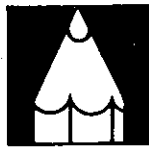
Because the discharge pattern is critical to protection of life and property, nothing should be hung or attached to the sprinkler unit that would disrupt the pattern. Such obstructions must be removed. In the event that construction has altered the original configuration, additional sprinklers should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



Ordering Information

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

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 distribution centers. You may write directly to Central Sprinkler Corporation, or call 1-800-523-6512 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.

*Not a recognized International System Unit.



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