



Fire Suppression  
& Building Products

## FEATURES & BENEFITS

- ◆ Meets NFPA requirements for combustible concealed spaces
- ◆ Allows CPVC to be used in combustible concealed wood truss spaces requiring sprinkler protection
- ◆ Remote area is up to 30% smaller than using standard spray sprinklers

## GENERAL DESCRIPTION

The CC1 and CC2 Combustible Concealed Sprinklers allow the use of CPVC plastic pipe to be installed in most combustible concealed areas, with the benefit of superior sprinkler protection for wood truss spaces.

The CC1 and CC2 Combustible Concealed Sprinklers are fast response, upright specific application sprinklers designed to provide protection of specific light hazard combustible, as well as non-combustible, concealed spaces requiring sprinkler protection. The CC1 and CC2 Sprinklers meet all requirements for the protection of combustible concealed spaces as described in NFPA 13.

The effectiveness of the CC1 and CC2 Sprinklers in combustible concealed spaces was clearly evident during full-scale fire testing for this product. In concealed spaces between floors, as well as low pitch attics, standard spray sprinklers, by design, have an umbrella-like spray pattern that poses a difficult challenge when trying to achieve effective coverage within a shallow space.

# MODELS CC1™ & CC2™

## Combustible Concealed Space Sprinklers



### CC1 TECHNICAL DATA

**Approvals:** UL Listed and C-UL Listed  
*(Listings and approvals only apply to the service conditions indicated in the Design Criteria sections.)*

**Sprinkler Identification No.:** TY1189 Upright 2.8K

**Discharge Coefficient:**  $K = 2.8 \text{ GPM/psi}^{1/2}$   
(40,3 LPM/bar<sup>1/2</sup>)

**Minimum Distance Between Sprinklers:** 6 ft. (1,8 m)

**Maximum Distance Between Sprinklers:** 10 ft. (3,1 m)

**Maximum Coverage Area:** 100 ft<sup>2</sup> (9,3 m<sup>2</sup>)

**Minimum Operating Pressure:** 10 psi (0,7 bar)

**System Type:** Light Hazard, Wet Pipe

Second Floor

## INTERSTITIAL CONCEALED SPACE

First Floor

### CC2 TECHNICAL DATA

**Approvals:** UL Listed  
*(Listings and approvals only apply to the service conditions indicated in the Design Criteria sections.)*

**Sprinkler Identification No.:** TY2189 Upright 4.2K  
TY3189 Upright 5.6K

**Discharge Coefficient:**  $K = 4.2 \text{ GPM/psi}^{1/2}$   
(60,5 LPM/bar<sup>1/2</sup>)  
 $K = 5.6 \text{ GPM/psi}^{1/2}$   
(80,6 LPM/bar<sup>1/2</sup>)

**Minimum Distance Between Sprinklers:** 7 ft. (2,1 m)

**Maximum Distance Between Sprinklers:** 12 ft. (3,7 m)

**Maximum Coverage Area:** 144 ft<sup>2</sup> (13,4 m<sup>2</sup>)

**Minimum Operating Pressure:** 7 psi (0,48 bar)

**System Type:** Light hazard, wet pipe or dry pipe system



### COLLECTIVE TECHNICAL DATA

**Maximum Working Pressure:** 175 psi (12,1 bar)

**Pipe Thread Connection:** 1/2" NPT or ISO 7-R 3/4

**Temperature Rating:** 175°F (79°C)

**Finish:** Natural Brass

**Deflector Position:** 1-1/2" to 4" (40 to 100 mm) below upper deck for wood truss construction or concealed spaces of non-combustible bar joist construction. 1-1/2" to 2" (40 to 50 mm) below solid wood joists. 1-1/2" to 4" (40 to 100 mm) below non-combustible insulation filled solid wood joists or composite wood joists.

**Required Density:** 0.10 gpm/ft<sup>2</sup> (4,1 mm/min)

Always refer to the **Technical Data Sheet CC1 TFP630 & CC2 TFP632** for a complete description of all listing criteria, design parameters, installation instructions, care and maintenance guidelines and our limited warranty.

# MODELS CC1™ & CC2™ ORDERING PROCEDURE & SPECIFICATIONS

Part Numbers indicate style, K-factor and temperature ratings

## SPECIFICATIONS

	CC1	CC2
Normal K-factor	2.8	4.2 / 5.6
Temperature	175°F (79°C)	175°F (79°C)
Thread Size	1/2" NPT	1/2" NPT
Finish	Brass	Brass
Application	Combustible	Concealed Space

## ORDERING PROCEDURE

### CC1 (TY1189)

2.8 K-factor, 175°F/79°C, Upright

P/N: 50-300-1-175

Specify: W-Type 20 Sprinkler Wrench

P/N: 56-000-1-106

### CC2 (TY2189)

4.2 K-factor, 175°F/79°C, Upright

P/N: 51-311-1-175

Specify: W-Type 6 Sprinkler Wrench

P/N: 56-000-6-387

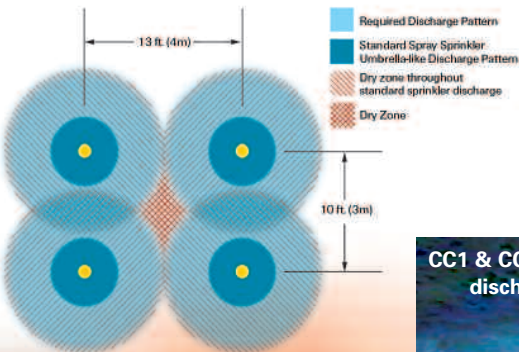
### CC2 (TY3189)

5.6 K-factor, 175°F/79°C, Upright

P/N: 51-301-1-175

Specify: W-Type 6 Sprinkler Wrench

P/N: 56-000-6-387



Standard spray sprinkler umbrella-like discharge pattern is not as effective in small concealed spaces and therefore, is no longer allowed.

Standard Spray Sprinkler

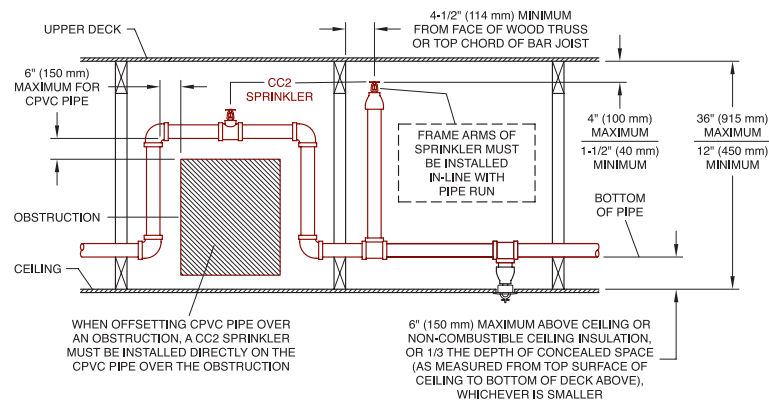


CC1 & CC2 Combustible Concealed Space Sprinklers discharge a broader distribution pattern and reduce coverage area dry zone.

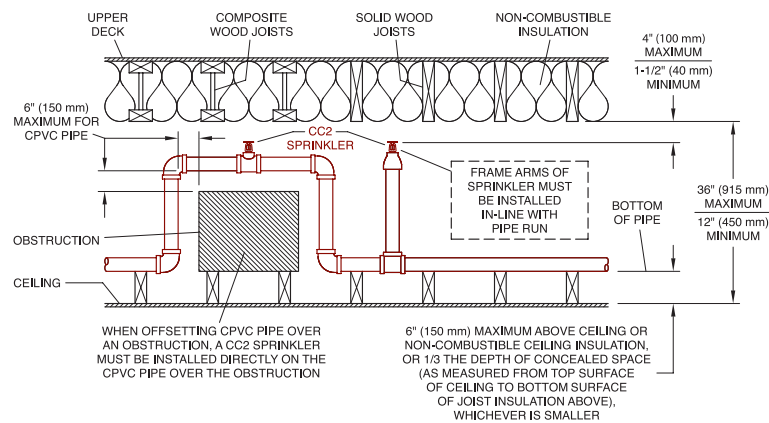
BLAZEMASTER® CPVC

## Model CC2 (CPVC Pipe) Installation Criteria Cross Section Elevation View

### Wood Truss Construction or Combustible Joist Construction



### Non-combustible Insulation Filled Upper Deck Solid Wood or Composite Wood Joist Construction



CC1 & CC2 sprinkler technology allows the use of CPVC pipe installed in some combustible concealed spaces with the benefit of superior sprinkler protection for this type of occupancy. (Refer to Tyco Fire Suppression & Building Products CPVC Installation Handbook for more information.) Based on the unique spray pattern and special design characteristics of the CC1 and CC2 sprinklers, the ability to use CPVC is now available.

For CC1 installation refer to Technical Data Sheet TFP630

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Phone: 800-381-9312  
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