

GW MISTERY HOOD UNIT







Overview

Commercial cooking kitchen – whether in a restaurant chain, a hotel, a school or hospital cafeteria, or the corner diner – all contain the elements necessary for a sudden fire – grease and heat form an ignition source – putting people and property at risk.

Almost 50% of all accidental fires in hotels, restaurants and fast-food outlets start in the kitchen and the majority of these involve cooking oil or fat. These fires are difficult to extinguish because they burn at a high temperature and re-ignite easily. Without effective suppression, cooking-oil fires can cause serious damage to property and loss of life.

Traditional kitchen systems tend to flood the kitchen area with extinguishment regardless of the point of fire. Since the Mistery Hood attacks the fire at source, containing and extinguishing in a localised area, damage and disruption along with food loss, clean up and down time of the kitchen operation is kept to a minimum.





Mistery Hood Unit

The GW Mistery Hood – Twin Nozzle system is a water-based twin fluid system for the automatic fire protection of commercial deep fat fryers.

A large proportion of kitchen fires start when the oil in the deep fat fryer ignites on reaching and exceeding its flash point.

The Mistery Hood – twin nozzle system is designed to attack the fire at the point of initiation and immediately contain and extinguish the fire before it has a chance to spread.



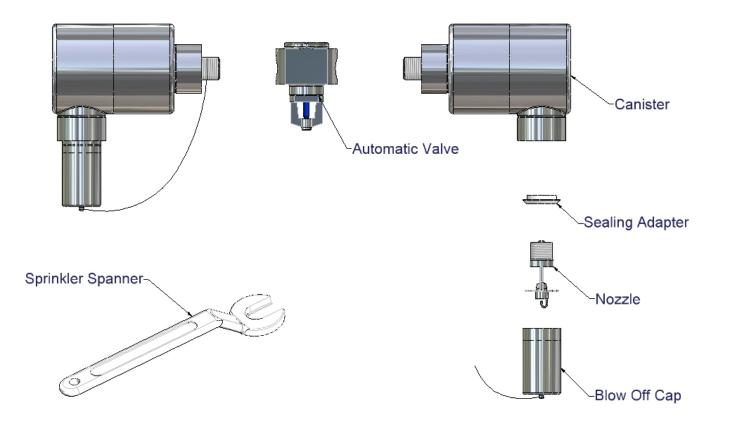
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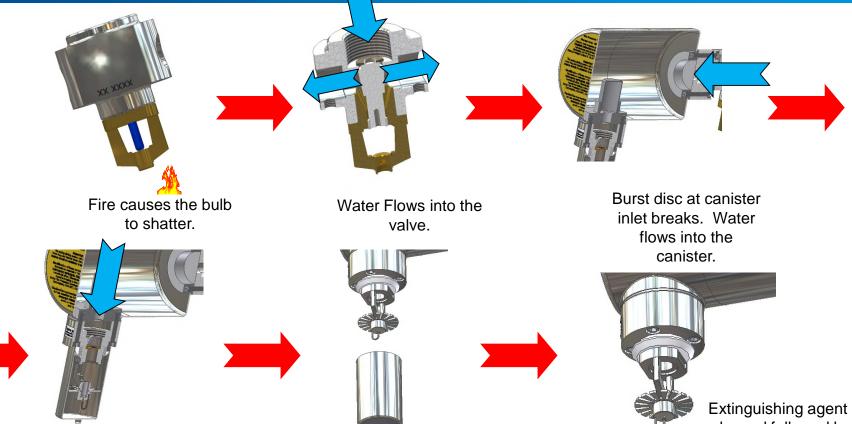
Mistery Hood Components







How It Works?



Burst disc at canister outlet breaks.

Protective cap blows off.







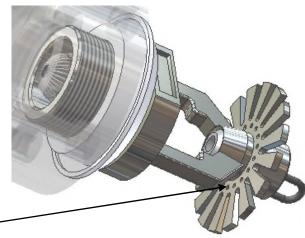
Close Up; K18 Nozzle



The J deflector is designed to break up the large water droplets to create water mist.

The 16 Holes in the deflector are designed to spray a water curtain of water mist around the heat source, _______ this confines the fire until suppressed.

The GW-S K18 Nozzle is designed to distribute foam concentrate and water mist onto the source of the fire.







Installation Guidelines

The GW Mistery Hood Unit must be installed, operated and maintained according to the GW Mistery Hood Twin Nozzle System Installation Manual.

Installation in kitchen hoods: Water supply capacity: Spray Nozzles (K-Factor)

Connection to water supply: Minimum water pressure: Max. fryer pool size: Fat Fryer Volume:

Nominal release temperature:

1.2-1.25m above the Fat Fryer,min. 67 l/min @ 3.5 bar,2 off K-18 (protected by blow off caps)

3/4 inch BSPT (or NPT), 3.5 bar, 0.35m x 0.53m, (14" x 21" incl. drip board) 40 Litres

200°F	(93ºC)	Green
286ºF	(141ºC)	Blue
360°F	(182ºC)	Black

Heat response class:

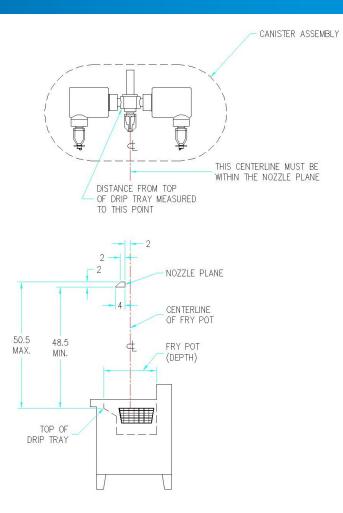
Standard response





Maximum Coverage Area

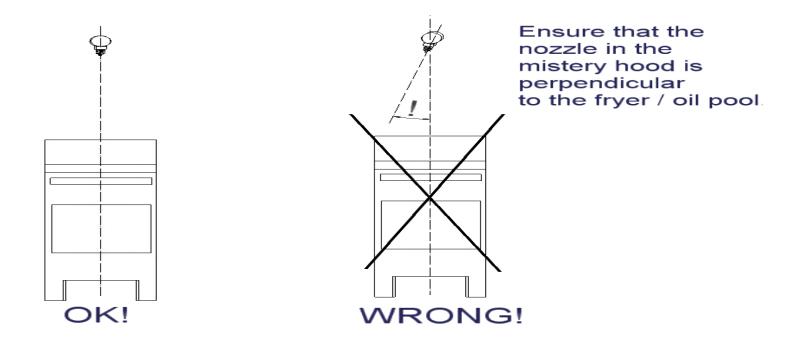
The Mistery Hood System is suitable for the protection of fat fryer baths with a maximum pool surface area (including drip board area) not exceeding 14in. x 21in. (0.35m x 0.53m). The GW Mistery Hood System must be installed with the two canisters in parallel with the length of the fryer pool. The unit nozzles shall always be installed in the pendant position (tip of the nozzles/blow off caps pointing downwards).







Orientation Of The Mistery Hood







Benefits of Mistery Hood Unit Over Wet Chemical Systems

MISTERY HOOD:

- Controlled Discharge: only nozzles activated discharge,
- Unlimited Discharge Media (by sprinkler system water supply),
- Reduction in Food Loss and Clean up Time,
- Easy & immediate return to service,
- UL-listed, tested to UL199E



CHEMICAL SYSTEMS:

- Whole system discharge,
- Discharge media limited to system capacity,
- Large clean up and lengthy kitchen down times,
- Recharge system, replace links, actuators and Agent,







Mistery Hood Unit - referenced in NFPA 13

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7.10.8 Cooking Equipment.

7.10.8.1 General. Cooking equipment (such as deep fat fryers, ranges, griddles, and imers) that is considered to be a source of ignition shall be protected in accordance with provisions of 7.10.1.

7.10.8.2 Deep Fat Fryers.

7.10.8.2.1 A sprinkler or automatic spray nozzle used for protection of deep fat fryen to be listed for that application.

7.10.8.2.2 The position, arrangement, location, and water supply for each sprinkler or any matic spray nozzle shall be in accordance with its listing.

As of the printing of this handbook, no sprinklers using water only are listed for the princ tion of deep fait invers, as required by 710.8.2.1. The remaining cooking equipment can sale protected with standard spray sprinklers. One potential local application solution is container within the sprinkler device, as shown in Exhibit 716, and is supplied as part of a standard we pipe system.

EXHIBIT 7.16 Mistery Hood Deep Fat Fryer Sprinkler. (Courtesy of GW Sprinkler)



7.10.8.3 Fuel and Heat Shutoff.

7.10.8.3.1 The operation of any cooking equipment sprinkler or automatic spray nozzlesh automatically shut off all sources of fuel and heat to all equipment requiring protection.

7.10.8.3.2 Any gas appliance not requiring protection but located under ventilating equi ment shall also be shut off.

7.10.8.3.3 All shutdown devices shall be of the type that requires manual resetting prior fuel or power being restored.

7.10.9 Indicating Valves.

A listed indicating valve shall be installed in the water supply line to the sprinklers and sp nozzles protecting the cooking and ventilating system.

7.10.10 Strainers.

A listed line strainer shall be installed in the main water supply preceding sprinklers of a matic spray nozzles having nominal K-factors smaller than K-2.8 (40).

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