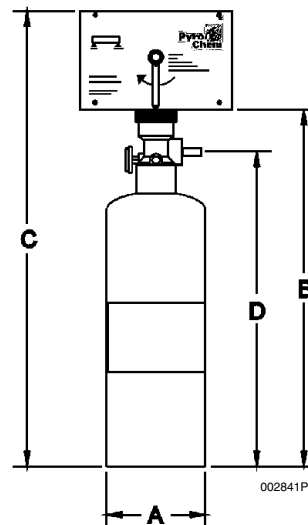
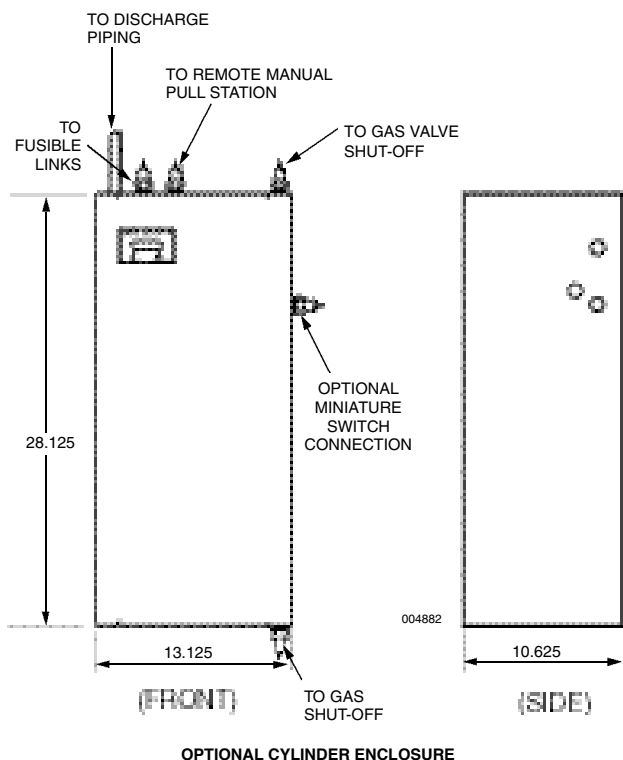
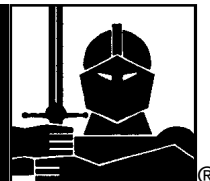


# Data/ Specification Sheet

## KITCHEN KNIGHT® II Wet Chemical Restaurant Kitchen Fire Suppression System



Model No.	A	B	C	D	Flow Point Capacity	Weight	Mounting Bracket Used
PCL-160	7.00	19.62	25.37	17.31	5	33 lb	MB-15
PCL-300	8.00	25.06	30.81	22.75	10	53 lb	MB-15
PCL-460	10.00	25.06	30.81	22.75	15	83 lb	MB-15
PCL-600	10.00	35.81	41.56	33.50	20	108 lb	MB-1

ALL DIMENSIONS IN INCHES

### FEATURES

- UL and ULC Approved
- Complies with NFPA Standard 17A and 96
- Meets the requirements of the Building Officials and Code Administrators (BOCA)
- Approved by the City of New York Material and Equipment Acceptance Division (MEA)
- ▶ • CE Marked

### GENERAL

The KITCHEN KNIGHT® II Restaurant Kitchen Fire Suppression System is a pre-engineered solution to appliance and ventilating hood and duct grease fires. The system is designed to maximize hazard protection, reliability, and installation efficiency. Automatic or manual system activation releases a throttle discharge of potassium carbonate solution on the protected area in the form of fine droplets to suppress the fire and help prevent reignition after the discharge is complete.

### SYSTEM OPERATION

The KITCHEN KNIGHT II Restaurant Kitchen Fire Suppression System has been designed for protecting kitchen hood, plenum, exhaust duct, grease filters, and cooking appliances (such as fryers, griddles, rangetops, upright broilers, charbroilers and woks) from grease fires. The versatile state-of-the-art wet chemical distribution technique, combined with dual, independent activation capability – automatic fusible link or manual release – provides efficient, reliable protection the moment a fire is detected. Once initiated, the pressurized wet chemical extinguishing agent cylinder discharges a potassium carbonate solution through a pre-engineered piping network and out the discharge nozzles. The wet chemical discharge pattern is maintained for a duration of time to ensure suppression and inhibit reignition. Expanded capability provides remote manual actuation, gas equipment shutdown, and electrical system shutdown. This optional equipment will enhance the basic system functions and be applicable when designing custom configurations to suit a particular customer's needs and/or comply with local codes.

The operating temperature range of the PYRO-CHEM® KITCHEN KNIGHT II System is 32 °F to 120 °F (0 °C to 49 °C).



Tyco Safety Products  
One Stanton Street  
Marinette, WI 54143

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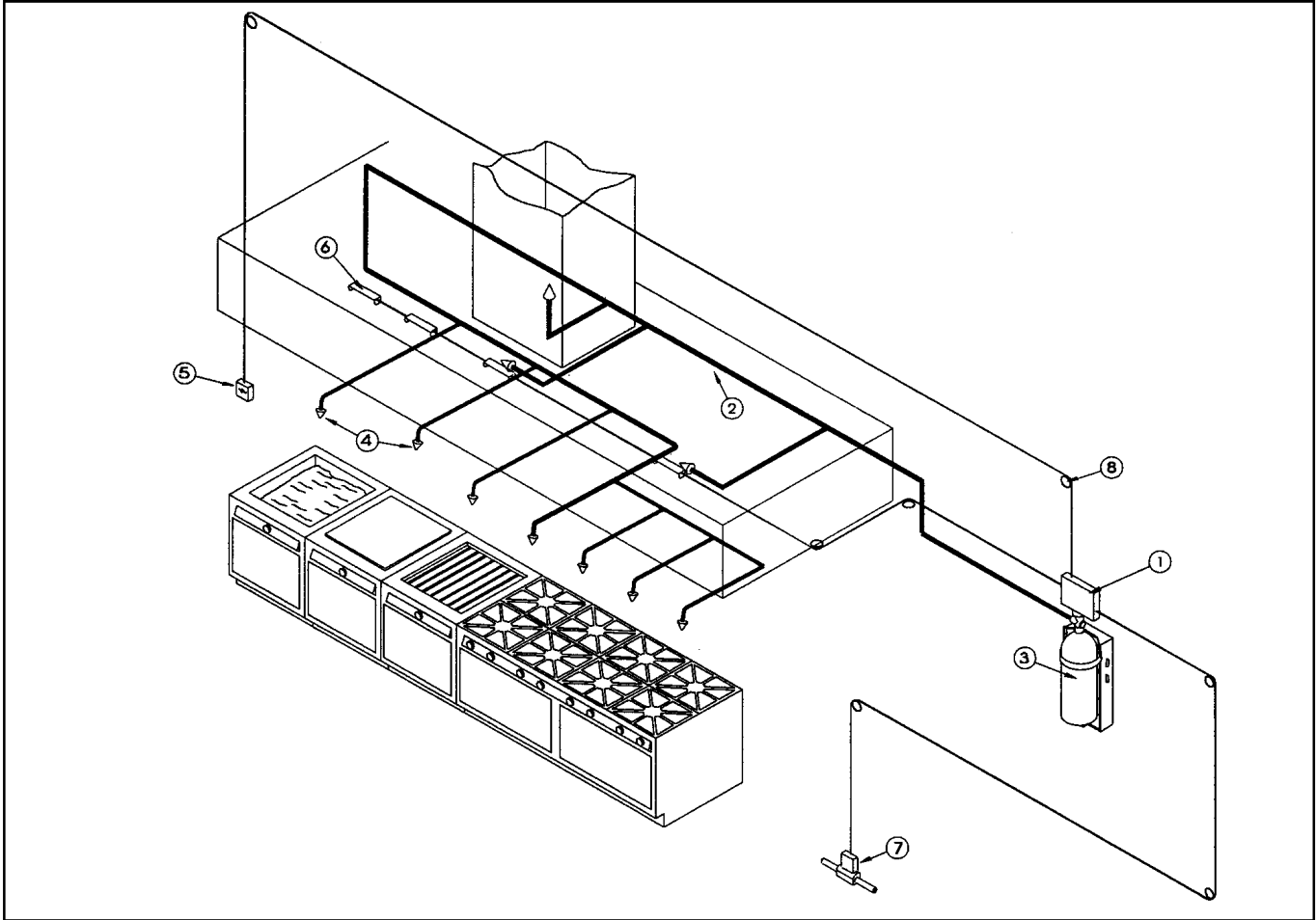
## SUGGESTED ARCHITECT'S SPECIFICATIONS

The fire suppression system should be of the stored pressure, wet chemical pre-engineered fixed nozzle type manufactured by PYRO-CHEM. A carbon dioxide cartridge is designed in compliance with Military Specification "MIL-C-601G" and shall be used as the pneumatic releasing device for the system. The cartridge shall be an integral part of the control head assembly. The wet chemical storage cylinder shall be a DOT-rated cylinder for stored pressure of 225 psig, and a pressure gauge shall be provided on the cylinder valve for visual inspection. The system shall be capable of automatic and manual actuation. Automatic actuation shall be provided by an appropriate number of fusible link detectors mounted in series on a stainless steel wire input line to the control head. Manual actuation shall be provided by turning a handle on the primary head and/or by

an optional remote pull station with a dedicated stainless steel input line to the control head.

The system shall have been tested to the UL Standard for Fire Extinguishing Systems for Protection of Restaurant Cooking Area, UL300, and Listed by Underwriters Laboratories, Inc. It shall be installed in accordance with the National Fire Protection Association Standard No. 17A Wet Chemical Extinguisher Systems, and No. 96 Standard for the Installation of Equipment for the Removal of Smoke and Grease Laden Vapors from Commercial Cooking Equipment, and comply with all local and/or state codes and standards. Refer to PYRO-CHEM KITCHEN KNIGHT II Restaurant Fire Suppression System Manual, Part No. 551274, for detailed installation and maintenance instructions.

## TYPICAL INSTALLATION



1. CYLINDER CONTROL HEAD – Integral design requires no separate release pressure cylinder. Separate wire cable activation lines for automatic fusible links and optional remote pull station provide an added measure of safety. An easily accessible manual release mechanism provides an option for the automatic fusible link and, depending on local codes, can be used in place of a remote manual pull station. Unique foolproof technique for achieving necessary input wire cable tension.
2. PIPING – Unbalanced piping network simplifies application design and installation. Requires no separate piping to connect system pressure cylinders to extinguishing agent container. Schedule 40 black iron, chrome-plated, or stainless steel pipe can be used.
3. CYLINDERS – Contain PYRO-CHEM Potassium Carbonate wet chemical solution stored at 225 psig. Includes pressure gauge for visual maintenance checks. 1.6, 3.0, 4.6, and 6.0-gallon sizes provide 5, 10, 15, and 20 flow point coverage respectively, offering a broad range of application coverage.
4. NOZZLES – Can be fixed or fitted with a swivel adaptor allowing the nozzle to be rotated approximately 30° in all directions.
5. REMOTE MANUAL PULL STATION – Simple operating instructions with double action release avoids careless system discharge. Maximum limitations of 150 ft cable run with 1/16 in. cable and 40 corner pulleys apply. A dedicated wire cable input line to the cylinder control head provides a true back up in the event the fusible links are fouled.
6. FUSIBLE LINK DETECTION EQUIPMENT – Accommodates both series and terminal placement to minimize inventory and simplify ordering. All necessary components are included for efficient assembly and installation. Fusible links rated for maximum ambient temperature must be ordered separately. Maximum limitations of 20 fusible links on a 150 ft cable run with 40 corner pulleys provide substantial hazard coverage.
7. AUTOMATIC GAS SHUT-OFF VALVE – Complies with requirements pertaining to the shut off of fuel as described by NFPA 17A. Can be reset at control head after regular maintenance/service check for convenience to service technician. Maximum limitations of 100 ft cable run with 30 corner pulleys provide mounting flexibility.
8. CORNER PULLEYS AND ACCESSORIES – Designed to ensure reliable system function as tested by Underwriters Laboratories.