

**Fire System Information – Job#1934403**

FIRE SYSTEM NO.	Tag	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		CORE Protection	0	0	Fire Cabinet Left	Left
2		CORE Protection	0	0	Fire Cabinet Left	Left
3		CORE Protection	0	0	Fire Cabinet Right	Right

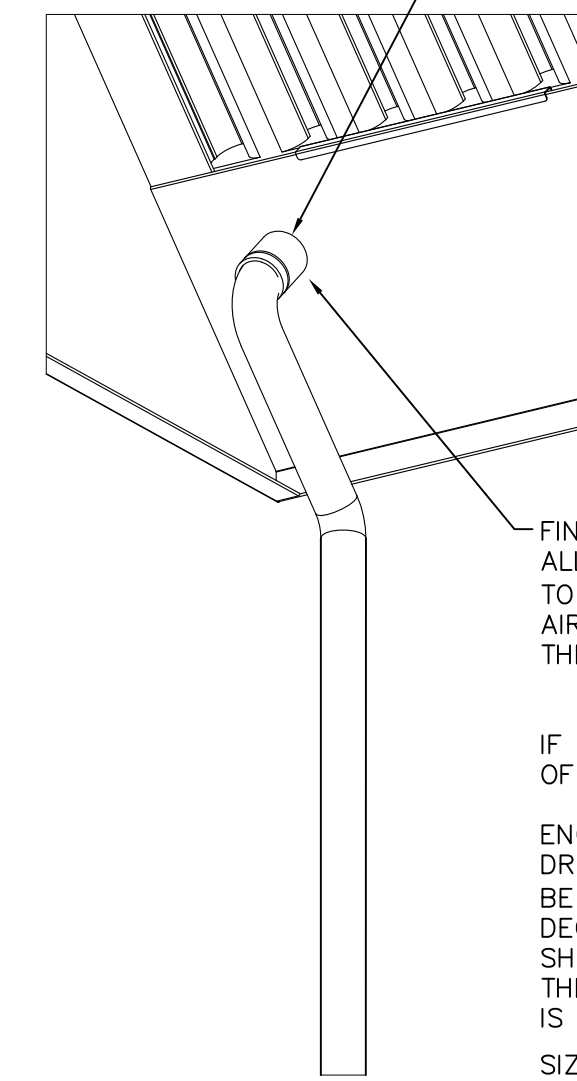
**GAS VALVE(S)**

FIRE SYSTEM NO.	TAG	TYPE	SIZE	SUPPLIED BY
1		SC Electrical	2.000	CaptiveAire Systems
2		SC Electrical	2.000	CaptiveAire Systems
3		SC Electrical	2.000	CaptiveAire Systems

**Fire System Parts List Key**

FIRE SYSTEM NO.	TAG	KEY NUMBER – PART DESCRIPTION	QTY. BY FACTORY	QTY. BY DIST.
1		0 – 0 – 100–BW 2x4 Blank Plate for J–Box	4	0
1		0 – 0 – 12–F28021–005360 Duct Fire Thermostat. NO, Close on temp rise at 360°F.	4	0
1		0 – 0 – 59361–1/2 2x4 Extension Ring	2	0
1		0 – 0 – SLPCON–03FT Supervised Loop Connection Kit. Contains the parts needed to connect the supervised loop between End to End hoods with less than a 2' gap. Kit contains 5 Feet of Black MG wire, 5 Feet of Tan MG wire, 3 Feet of Flexible Conduit, and two 7/8" connectors.	1	0
1		16 – 16 – 3070–3/8H–10–SS NOZZLE – CORE Protection Appliance Coverage Nozzle (Includes Metal Blow Off Cap and Lanyard)	6	0
1		34 – 34 – A0019852 24VDC or 120VAC Single Action Pull Station With Protective Cover, Two (2) Normally Open Contacts	1	0
2		0 – 0 – 100–BW 2x4 Blank Plate for J–Box	4	0
2		0 – 0 – 12–F28021–005360 Duct Fire Thermostat. NO, Close on temp rise at 360°F.	4	0
2		0 – 0 – 59361–1/2 2x4 Extension Ring	3	0
2		16 – 16 – 3070–3/8H–10–SS NOZZLE – CORE Protection Appliance Coverage Nozzle (Includes Metal Blow Off Cap and Lanyard)	9	0
2		34 – 34 – A0019852 24VDC or 120VAC Single Action Pull Station With Protective Cover, Two (2) Normally Open Contacts	1	0
3		0 – 0 – 100–BW 2x4 Blank Plate for J–Box	4	0
3		0 – 0 – 12–F28021–005360 Duct Fire Thermostat. NO, Close on temp rise at 360°F.	4	0
3		0 – 0 – 59361–1/2 2x4 Extension Ring	4	0
3		0 – 0 – SLPCON–15FT Supervised Loop Connection Kit. Contains the parts needed to connect the supervised loop between End to End hoods with less than a 14' gap or Back to Back hoods. Kit contains 17 Feet of Black MG wire, 17 Feet of Tan MG wire, 15 Feet of Flexible Conduit, and two 7/8" connectors.	1	0
3		16 – 16 – 3070–3/8H–10–SS NOZZLE – CORE Protection Appliance Coverage Nozzle (Includes Metal Blow Off Cap and Lanyard)	12	0
3		34 – 34 – A0019852 24VDC or 120VAC Single Action Pull Station With Protective Cover, Two (2) Normally Open Contacts	1	0

HOOD DRAIN 1 1/2" x 1 1/2" NPT  
4" FROM WALL TO CENTER. BOTTOM  
OF NIPPLE FLUSH WITH BOTTOM OF  
TROUGH – ONE END THREADED.  
(112CL304POLTOEO)



FINAL DRAIN DROP LOCATION  
ALL NECESSARY FITTINGS FROM THE VENTILATOR  
TO THE BUILDING WASTE LINE(S), I.E. FLOOR SINKS,  
AIR GAPS, OR OTHER DEVICES REQUIRED BY  
THE GOVERNING CODES, ARE FURNISHED.

IF NECESSARY, INSTALL TRAPS IN VERTICAL SECTION  
OF DRAIN LINE, SIZED FOR MAXIMUM WATER VOLUME.

ENGINEER IS RESPONSIBLE FOR DRAIN LINE DESIGN BEYOND THE HOOD  
DRAIN LINE MUST BE INSTALLED PER LOCAL CODES, DRAIN LINE MUST  
BE SLOPED (MINIMUM 1/4 INCH PER FOOT), AVOID ANY UNNECESSARY 90  
DEGREE TURNS, IF COMBINED WITH OTHER DRAIN LINES, THEN PIPE SIZE  
SHOULD BE INCREASED ACCORDINGLY; P-TRAPS SHOULD NOT BE USED IN  
THE GREASE DRAIN LINE AND HEAT TAPE MUST BE USED WHERE DRAIN LINE  
IS RUN IN ENVIRONMENTS THAT WOULD SOLIDIFY GREASE.

SIZE BUILDING GREASE INTERCEPTOR ACCORDINGLY.

**DRAIN KIT DETAIL**

**24V CORE BASIC OPERATING INSTRUCTIONS**

5/08/2013 Rev. 2

**CORE PROTECTION FIRE SYSTEM**

THE DAILY BASIC OPERATION OF THE CORE PROTECTION SYSTEM IS IDENTICAL TO THE SELF CLEANING HOOD. IN THE EVENT OF A HOOD FIRE, CORE PROTECTION IS ACTIVATED.

IF THE HOOD FIRESTAT INSTALLED IN THE RISER SENSES A TEMPERATURE HOTTER THAN ITS INTERNAL SET POINT OR IF THE REMOTE MANUAL PULL STATION IS PULLED THE FIRE SYSTEM IS ACTIVATED. AN ELECTRIC WATER SOLENOID IS ENERGIZED ALLOWING THE FLOW OF WATER TO THE HOOD DUCT AND PLENUM THROUGH THE SELF CLEANING HOOD SPRAY BAR. AT THE SAME TIME A SECOND WATER SOLENOID IS ENERGIZED AND ALLOWS THE FLOW OF WATER TO THE APPLIANCES. SURFACTANT IS CONTINUALLY INJECTED INTO THE WATER STREAM TO HELP SUPPRESS THE FIRE.

ONCE THE FIRE SYSTEM IS ACTIVATED, A FIRE SYSTEM ACTIVATED LIGHT IS ILLUMINATED ON THE HOOD CONTROL PANEL AND AN AUDIBLE ALARM SOUNDS. ALL GAS AND ELECTRIC APPLIANCES UNDER THE HOOD MUST BE ELECTRICALLY INTERLOCKED TO SHUT OFF. THIS IS ACHIEVED VIA A GAS VALVE RELAY AND/OR A SHUNT TRIP BREAKER. A TIMER IS ALSO ENERGIZED UPON FIRE SYSTEM ACTIVATION. THE TIMER IS SET FOR 30 MINUTES AND KEEPS THE WATER SPRAY SYSTEM RUNNING FOR A MINIMUM OF 30 MINUTES. THIS IS NECESSARY TO HELP EXTINGUISH ALL REMAINING DUCT FIRE POTENTIAL.

THE FIRE SYSTEM IS ELECTRICALLY OPERATED AND THUS REQUIRES A BATTERY BACKUP SYSTEM. IN THE EVENT OF A LOSS OF ELECTRICAL POWER, ALL GAS AND ELECTRIC APPLIANCES UNDER THE HOOD MUST BE ELECTRICALLY INTERLOCKED TO SHUT OFF. THIS IS ACHIEVED VIA A GAS VALVE RELAY AND/OR A SHUNT TRIP BREAKER. THE BATTERY BACKUP WILL AUTOMATICALLY ENERGIZE UPON A LOSS OF POWER. THE BATTERY BACKUP WILL MONITOR THE FIRE SYSTEM CIRCUIT FOR ONE DAY AND BE ABLE TO OPERATE THE FIRE SYSTEM CIRCUIT FOR A MINIMUM OF 30 MINUTES. ONCE POWER IS RESTORED, THE BATTERY WILL AUTOMATICALLY RECHARGE.

**CORE PROTECTION RESET OVERVIEW**

THERE ARE MULTIPLE ACTIONS REQUIRED TO RESET THE FIRE SYSTEM. FIRST, THE DUCT FIRESTAT MUST BE COOLED TO BELOW ITS INTERNAL SET POINT AND THE REMOTE PULL STATION MUST BE RESET USING A STANDARD ALLEN WRENCH KEY. ONCE BOTH OF THESE DEVICES HAVE BEEN RESET, THE TIMER WILL AUTOMATICALLY STOP THE FIRE SYSTEM. ONCE ITS TIME DURATION HAS ENDED, AN ALTERNATIVE METHOD TO BYPASSING THE TIMER IS TO PRESS THE FIRE SYSTEM RESET BUTTON ON THE FACE OF THE CORE CONTROL CABINET. THIS WILL DE-ENERGIZE THE TIMER AND RESET THE SYSTEM. NOTE: THE FIRESTAT MUST BE COOL AND THE REMOTE PULL STATION MUST BE RESET FOR THIS BUTTON TO WORK.

THE FIRE SYSTEM MUST BE FILLED WITH SURFACTANT AND NOZZLE CAPS MUST BE REINSTALLED.

AFTER A FIRE, FULL INSPECTION BY A CERTIFIED PROFESSIONAL MUST BE CONDUCTED PRIOR TO RESTARTING THE FIRE SYSTEM.

**CORE APPLICATION SPECIFIC DETAILS**

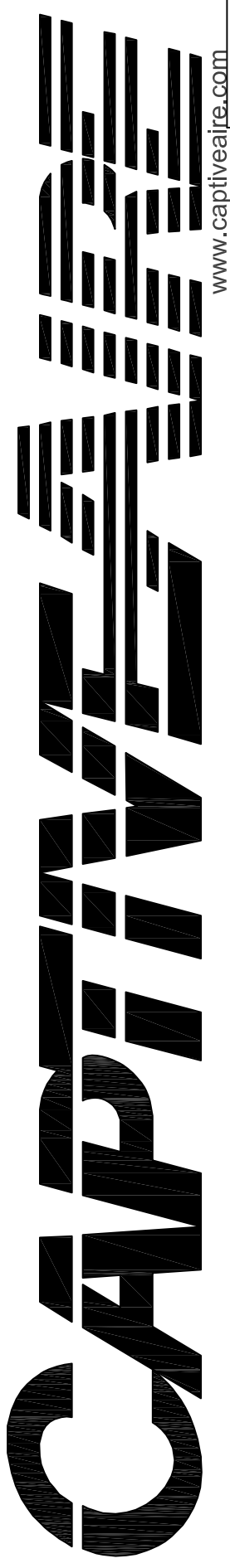
**SELF CLEANING HOODS**  
SELF CLEANING HOOD OPTION IS REQUIRED TO APPLY CORE PROTECTION. HIGH EFFICIENCY, HIGH VELOCITY CARTRIDGE, SOLID, OR COMBO FILTERS ARE REQUIRED. IF SUBSTITUTE FILTERS ARE UTILIZED, PRODUCT WARRANTY IS VOID AND THERE IS NO GUARANTEE IN PERFORMANCE.

**SOLID FUEL APPLIANCES**  
SOLID FUEL APPLIANCES PRODUCE SPARKS THAT CAN TRAVEL INTO DUCTWORK. THESE APPLIANCES REQUIRE SOLID FILTERS AND AN ADDITIONAL FIRESTAT AT THE DUCT DISCHARGE NEAR THE FAN IF THE DUCTWORK EXCEEDS 10 FEET IN LENGTH OR CONTAINS HORIZONTAL DUCT RUNS. INDICATE ON DUCTWORK DRAWING WHERE FIRESTAT IS TO BE INSTALLED WITH QUICK SEAL. ALL ADDITIONAL FIRESTATS ARE WIRED INTO THE SUPERVISED LOOP WITH THE FIRST FIRESTAT. DUCT SHOULD BE INSULATED PER CODE REQUIREMENTS. IF SUBSTITUTE FILTERS ARE UTILIZED, PRODUCT WARRANTY IS VOID AND THERE IS NO GUARANTEE IN PERFORMANCE. SELF CLEANING HOODS AND ETL LISTED DUCTWORK ARE ALSO REQUIRED.

**DUCT FIRESTATS**  
A FIRESTAT MUST BE INSTALLED AT 50 FEET INTERVALS WHEN THE DUCT LENGTH EXCEEDS 50 FEET.

**IMPORTANT:**  
ANY DEVIATION FROM ANY OF THE MANUFACTURER'S RECOMMENDATIONS IN THIS DOCUMENT OR THE OPERATION AND INSTALLATION MANUAL MUST BE APPROVED BY THE OWNER OF THIS EQUIPMENT AND VOIDS THE WARRANTY AND PERFORMANCE GUARANTEE OF THIS PRODUCT.

REVISIONS	
DESCRIPTION	DATE



www.captiveaire.com  
MAINE OFFICE  
PO Box 66, 179 South Rd., Topshfield, ME, 04480 PHONE: (207) 796-2590 FAX: (919) 227-5646 EMAIL: reg2@captiveaire.com

Maine Wharf Restaurant  
PORTLAND, ME

**DATE:** 12/18/2013  
**DWG.#:** 1934403  
**DRAWN BY:** BFC-21  
**SCALE:** 3/4" = 1'-0"  
**MASTER DRAWING**

**SHEET NO.**  
8