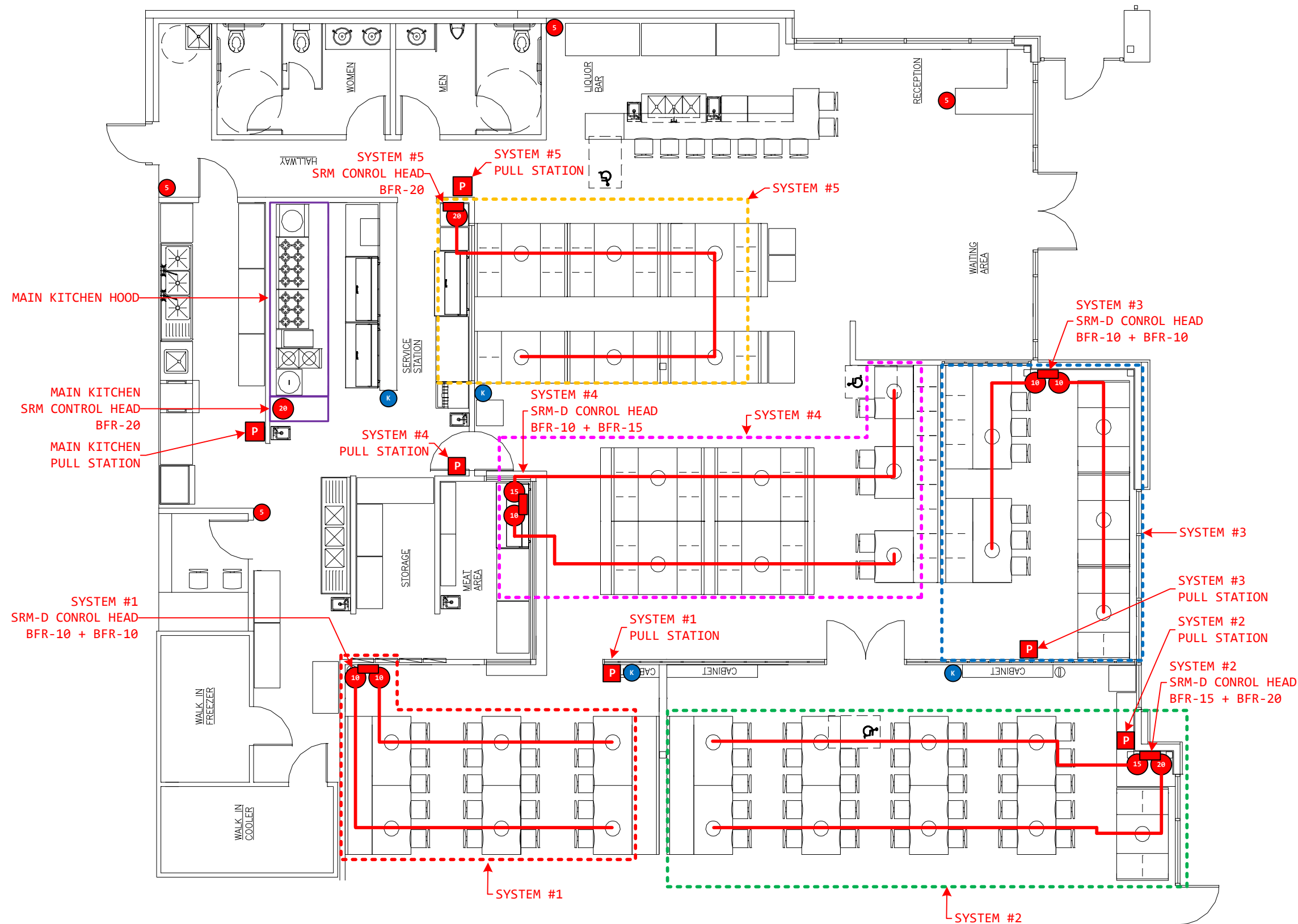




SYSTEM 1
BUCKEYE - 10 + 10
SRM-D CONTROL HEAD
(6 TABLES)

SYSTEM 2
BUCKEYE - 15 + 20
SRM-D CONTROL HEAD
(9 TABLES)

SYSTEM 3
BUCKEYE - 10 + 10
SRM-D CONTROL HEAD
(5 TABLES)

SYSTEM 4
BUCKEYE - 10 + 15
SRM-D CONTROL HEAD
(7 TABLES)

SYSTEM 5
BUCKEYE - 20
SRM CONTROL HEAD
(6 TABLES)

K 6L K CLASS FIRE EXTINGUISHER

5 5LB. ABC FIRE EXTINGUISHER

GV1 MASTER 1" ELECTRIC GAS VALVE FOR ALL DOWNDRAFT TABLES

REMOTE PULL STATION LOCATION MARKED WITH **P**

MANUAL PULL STATIONS SHALL HAVE A SIGN INDICATING WHICH HOOD SYSTEM PULL STATION WILL ACTIVATE.

ALL HOODS SHALL HAVE A SIGN INDICATING THE HOOD DESIGNATION RELATIVE TO THE MANUAL PULL STATION.

FLOOR PLAN VIEW OF RESTAURANT
(For example only)



MINIMUM PIPING REQUIREMENTS

NOTE:

MINIMUM PIPING REQUIREMENTS ONLY APPLY WHEN PROTECTING A WOK, DEEP FAT FRYER OR RANGE.

- 1.MINIMUM NUMBER OF ELBOWS BEFORE THE CLOSEST NOZZLE PROTECTING A FRYER, RANGE OR WOK SHALL BE FIVE (5)
- 2.THE MINIMUM PIPING VOLUME BEFORE THE CLOSEST NOZZLE PROTECTING A FRYER, RANGE OR WOK SHALL NOT BE LESS THAN 360 ML
- 3.THE TOTAL SYSTEM PIPE VOLUME SHALL NOT BE LESS THAN 660 ML FOR ALL CYLINDER SIZES.
- 4.A SYSTEM SHALL HAVE A MINIMUM OF THREE (3) FLOW POINTS.

GENERAL PIPING REQUIREMENTS

- 1.ALL PIPING SHALL BE 3/8” OR 1/2”
- 2.SPLIT PIPING AND STRAIGHT LINE PIPING ARE ALLOWED ON ALL SYSTEM AS LONG AS THE TOTAL PIPING PARAMETERS ARE NOT EXCEEDED.
- 3.WHEN THE DISCHARGE PIPING IS SPLIT, NO NOZZLES CAN BE INSTALLED BEFORE THE SPLIT.
- 4.THE MAXIMUM NUMBER OF ELBOWS ALLOWED PER SYSTEM ARE:
BFR-5 20 ELBOWS MAXIMUM
BFR-10/15/20 25 ELBOWS MAXIMUM
- 5.THE MAXIMUM NUMBER OF ELBOWS BETWEEN ANY TWO NOZZLES IS FIVE(5)
- 6.THE MAXIMUM VERTICAL RISE OF THE SUPPLY LINE IS TEN (10) FEET; THIS IS EITHER THE MAXIMUM ELEVATION DIFFERENCE BETWEEN TANK OUTLET AND THE HIGHEST NOZZLE OR TANK OUTLET AND THE HIGHEST OF LOWEST POINT IN THE PIPING SYSTEMS.
- 7.THE MAXIMUM VERTICAL RISE OF ANY NOZZLE ABOVE THE SUPPLY LINE IS TWO (2) FEET.
- 8.NO TRAPS ARE ALLOWED IN THE PIPING SYSTEM.
- 9.WHEN DIFFERENT SIZE PIPING IS USED IN THE SAME SYSTEM, THE LARGEST DIAMETER PIPING MUST BE CLOSEST TO THE CYLINDER AND SIZES ARE TO DECREASE AS THEY REACH THE NOZZLE. SO PIPING ALWAYS RUNS FROM LARGER TO SMALLER DIAMETER

10.ELBOWS OR SWIVEL ADAPTORS USED AT THE NOZZLE FOR AIMING DO NOT COUNT TOWARD THE TOTAL ELBOWS ALLOWED PER SYSTEM OR THE NUMBER OF ELBOWS ALLOWED BETWEEN TWO (2) NOZZLES.

11.FOR THE BFR-15 AND BFR-20 ONLY, THE MAXIMUM VOLUME OF PIPING BETWEEN THE NOZZLE NEAREST THE SUPPLY LINE FROM ONE BRANCH TO THE CLOSEST NOZZLE FROM THE NEXT BRANCH SHALL NOT EXCEED 500 ML.

Buckeye *KITCHEN MISTER* Coverage Summary Sheet

This summary sheet is provided as a quick reference, a complete understanding of the technical manual (BFR-TM) is required. The most current Buckeye *Kitchen Mister* Restaurant Cooking Area Fire Suppression System Technical Manual (Part Number: BFR-TM) supersedes this reference sheet. It is essential that this reference sheet be compared with the current technical manual before using. Dimensions given in inches (cm) unless otherwise noted.

DUCT, SMALL [50" (127) MAXIMUM PERIMETER]

NOZZLE: N-1LP
FLOW PTS.: 1
COLOR BAND: RED

HOOD/PLENUM

LONGEST SIDE: 16-3/4" (43)

DUCT, LARGE [150" (381) MAXIMUM PERIMETER]

NOZZLE: N-2W
FLOW PTS.: 2
COLOR BAND: WHITE

HOOD/PLENUM

LONGEST SIDE: 50" (127)

PLENUM, SINGLE & "V" BANK

NOZZLE: N-1HP
FLOW PTS.: 1
COLOR BAND: BLUE

V BANK

SINGLE BANK

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RANGE, TWO BURNER (LOW PROXIMITY)

NOZZLE: N-1LP
FLOW PTS.: 1
COLOR BAND: RED

MAX. HEIGHT: 30" (76)
MIN. HEIGHT: 16" (41)
MAX. HAZARD LENGTH: 12" (30.5)
PLACEMENT: 3" (7.6) FROM FRONT OR BACK EDGE, ON LONG CENTER LINE

RANGE, FOUR BURNER, (HIGH PROXIMITY)

NOZZLE: N-1LP
FLOW PTS.: 1
COLOR BAND: RED

MAX. HEIGHT: 40" (102)
MIN. HEIGHT: 30" (76)
BURNER TO BURNER LENGTH: 24" (61)

RANGE, FOUR BURNER, (LOW PROXIMITY)

NOZZLE: N-2W
FLOW PTS.: 2
COLOR BAND: WHITE

MAX. HEIGHT: 30" (76)
MIN. HEIGHT: 16" (41)
BURNER TO BURNER LENGTH: 24" (61)

RANGE, SIX BURNER

NOZZLE: N-2LP
FLOW PTS.: 2
COLOR BAND: YELLOW

MAX. HEIGHT: 43" (109)
MIN. HEIGHT: 35" (89)
BURNER TO BURNER LENGTH: 36" (91)
WIDTH: 24" (61)

RANGE/GRIDDLE COMBINATION

NOZZLE: N-1LP
FLOW PTS.: 1
COLOR BAND: RED

MAX. HEIGHT: 40" (102)
MIN. HEIGHT: 30" (76)
MAX. LENGTH: 30" (76)
MAX. WIDTH: 24" (61)

RANGE, WITH BACKSHELF, (HIGH PROXIMITY)

NOZZLE: N-2LP
FLOW PTS.: 2
COLOR BAND: YELLOW

MAX. HEIGHT: 40" (102)
MIN. HEIGHT: 30" (76)
MAX. LENGTH: 30" (76)
MAX. WIDTH: 24" (61)

DEEP FAT FRYER, LG. SINGLE VAT

NOZZLE: N-2HP
FLOW PTS.: 2
COLOR BAND: GREEN

MAX. HEIGHT: 45" (114)
MIN. HEIGHT: 24" (61)
MAX. LENGTH: 20.25" (51)
MAX. WIDTH: 24" (61)

TILTING SKILLET

NOZZLE: N-2HP
FLOW PTS.: 2
COLOR BAND: GREEN

HAZARD COVERAGE AREA: 20.25" (51) x 24" (61)
COVER MUST NOT INTERFERE WITH NOZZLE DISCHARGE

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BPN: PIS10374

REV. 5; DATE: JANUARY 1, 2013

Buckeye *KITCHEN MISTER* Coverage Summary Sheet

This summary sheet is provided as a quick reference, a complete understanding of the technical manual (BFR-TM) is required. The most current Buckeye *Kitchen Mister* Restaurant Cooking Area Fire Suppression System Technical Manual (Part Number: BFR-TM) supersedes this reference sheet. It is essential that this reference sheet be compared with the current technical manual before using. Dimensions given in inches (cm) unless otherwise noted.

GRIDDLE, STANDARD [42" (107) MAX.]

NOZZLE: N-1LP
FLOW PTS.: 1
COLOR BAND: RED

MAX. LENGTH: 42" (107)
MAX. WIDTH: 30" (76)

GRIDDLE, LARGE [48" (122) MAX.]

NOZZLE: N-1LP
FLOW PTS.: 1
COLOR BAND: RED

MAX. HEIGHT: 43" (109)
MIN. HEIGHT: 30" (76)
MAX. WIDTH: 30" (76)
MAX. LENGTH: 48" (122)

GRIDDLE, X-LARGE [60" (152) MAX.]

NOZZLE: N-2LP
FLOW PTS.: 2
COLOR BAND: YELLOW

MAX. HEIGHT: 48" (122)
MIN. HEIGHT: 24" (61)
MAX. LENGTH: 60" (152)
MAX. WIDTH: 30" (76)

GRIDDLE, LOW PROXIMITY

NOZZLE: N-2W
FLOW PTS.: 2
COLOR BAND: WHITE

MAX. HEIGHT: 30" (76)
MIN. HEIGHT: 16" (41)
MAX. LENGTH: 42" (107)
MAX. WIDTH: 30" (76)

GRIDDLE, EXTRA LOW PROXIMITY

NOZZLE: N-2W
FLOW PTS.: 2
COLOR BAND: WHITE

MAX. HEIGHT: 30" (76)
MIN. HEIGHT: 16" (41)
MAX. LENGTH: 42" (107)
MAX. WIDTH: 30" (76)

WOK

NOZZLE: N-1HP
FLOW PTS.: 1
COLOR BAND: BLUE

MAX. HEIGHT: 48" (122)
MIN. HEIGHT: 30" (76)
MAX. WOK DIA.: 30"
MIN. WOK DIA.: 12"

RADIANT CHARBROILER

NOZZLE: N-1HP
FLOW PTS.: 1
COLOR BAND: BLUE

MAX. HEIGHT: 48" (122)
MIN. HEIGHT: 30" (76)
MAX. LENGTH: 36" (91)
MAX. WIDTH: 24" (61)

LAVA ROCK CHARBROILER

NOZZLE: N-2HP
FLOW PTS.: 2
COLOR BAND: GREEN

MAX. HEIGHT: 40" (102)
MIN. HEIGHT: 24" (61)
MAX. LENGTH: 24" (61)
MAX. WIDTH: 24" (61)

BROILER AND UPRIGHT BROILER

NOZZLE: N-1LP
FLOW PTS.: 1
COLOR BAND: RED

MAX. LENGTH: 36" (91)
MAX. WIDTH: 24" (61)

MAXIMUM PIPING PER CYLINDER SIZE				
CYLINDER SIZE	MAX. FLOW POINTS	MAX. PIPE VOLUME ALLOWED (mL)	MAX. PIPE VOL BETWEEN ANY TWO NOZZLES (mL)	MAX. # OF ELBOWS
BFR-5	5	1500	1000	20
BFR-10	10	2500	2000	25
BFR-15	15	2800*	2500	25
BFR-20	20	2800*	2500	25

* Total volume of 3/8" piping allowed is 2500 mL.

Piping Limitations:

- > 3/8" (17.1 mm OD) or 1/2" (21.3 mm OD) Sch. 40 black pipe.
- > Pipe sized largest to smallest only.
- > No "traps" allowed.
- > Max. number of elbows between any (2) nozzles: 5.
- > Max. vertical rise: 10 feet (3 m).
- > Max. vertical rise from nozzle to supply line: 2 feet (0.6 m).

Minimum Piping Requirements (Wok, Range, & DFF only):

- > Min. # of elbows before closest nozzle: 5.
- > Min. pipe volume before closest nozzle: 360 mL.
- > Total system pipe volume: 600 mL.
- > Minimum number of flow points in system: 3.

CONDUIT AND BUCKEYE SHIELDED CABLE (BSC) LIMITATIONS						
FUNCTION	MAX. CONDUIT LENGTH FT (M)	MAXIMUM NUMBER OF CORNER PULLEYS	MAX. LENGTH OF BSC FT (M)	MAXIMUM NUMBER OF BENDS IN THE BSC (MIN. BEND RADIUS)	MAXIMUM NUMBER OF TRANSITIONS (NUMBER OF BSC)	MAXIMUM NUMBER OF FUSIBLE LINKS AND HOLDERS
FUSIBLE LINK LINE; CONDUIT & BSC	25 (7.6)	8	35 (10.7)	6 [9" (23)]	6	10
GAS VALVE LINE; CONDUIT & BSC	25 (7.6)	8	35 (10.7)	6 [9" (23)]	6	NA
RPS-M LINE; CONDUIT & BSC	25 (7.6)	8	35 (10.7)	6 [9" (23)]	6	NA
FUSIBLE LINK LINE; CONDUIT ONLY	150 (45.7)	35	NA	NA	NA	20
GAS VALVE LINE; CONDUIT ONLY	150 (45.7)	35	NA	NA	NA	NA
RPS-M LINE; CONDUIT ONLY	150 (45.7)	35	NA	NA	NA	NA
FUSIBLE LINK LINE; BSC ONLY	NA	NA	35 (10.7)	6 [9" (23)]	6	10
GAS VALVE LINE; BSC ONLY	NA	NA	35 (10.7)	6 [9" (23)]	6	NA
RPS-M LINE; BSC ONLY	NA	NA	35 (10.7)	6 [9" (23)]	6	NA

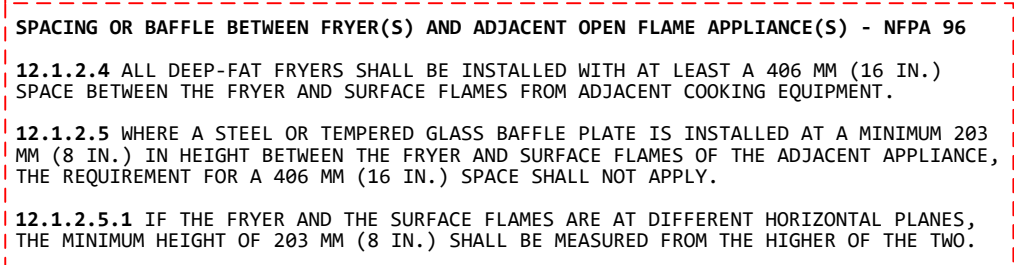
> BSC CAN NOT BE coiled or looped when installed.

REMOTE CYLINDER ACTUATION LIMITATIONS			
ACTUATION CARTRIDGE PART NUMBER	NUMBER OF CYLINDER(S) THAT CAN BE ACTUATED	MAX. LENGTH OF 1/4" (0.6) OD COPPER TUBING	MAX. LENGTH OF TUBING BETWEEN CYLINDERS
BFR-AC-S	1-3	15 FEET (4.6 m)	3 FEET (0.9 m)
BFR-AC-L	1-5	25 FEET (7.6 m)	3 FEET (0.9 m)

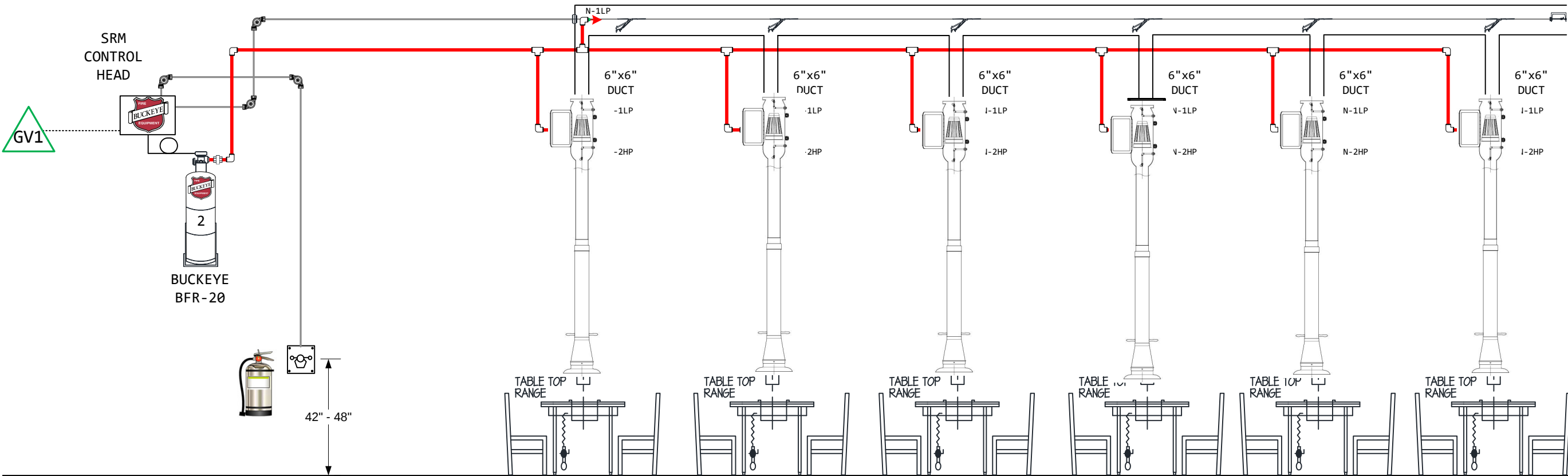
BPN: PIS10374

REV. 5 DATE: JANUARY 1, 2013

8.ALL REQUIRED PLUMBING WORK BE PERFORMED BY OTHERS AND
IS NOT INCLUDED ON THIS SHOP DRAWING

The logo for Gaon Trading, featuring the word "gaon" in a stylized, rounded purple font, with a small green heart-like shape above the "n". Below "gaon" is the word "TRADING" in a smaller, spaced-out, purple, uppercase sans-serif font.

FUSIBLE LINK DETECTOR
450 DEG F



REMOTE PULL STATION

SHALL BE INSTALLED 42" - 48" ABOVE THE FINISHED FLOOR AND A DISTANCE OF AT LEAST 10FT FROM THE HAZARD BUT NOT MORE THAN 20FT. IT SHALL BE INSTALLED IN THE PATH OF EXIT AND REQUIRE A MAXIMUM FORCE OF 40 LBS AND A MAXIMUM MOVEMENT OF 14" FOR ACTUATION

CLASS K WET CHEMICAL EXTINGUISHER
SHALL BE INSTALLED NO MORE THAN 60" ABOVE THE FINISHED FLOOR WITHIN 30 FT FROM THE HAZARD.

SAVORX-LITE

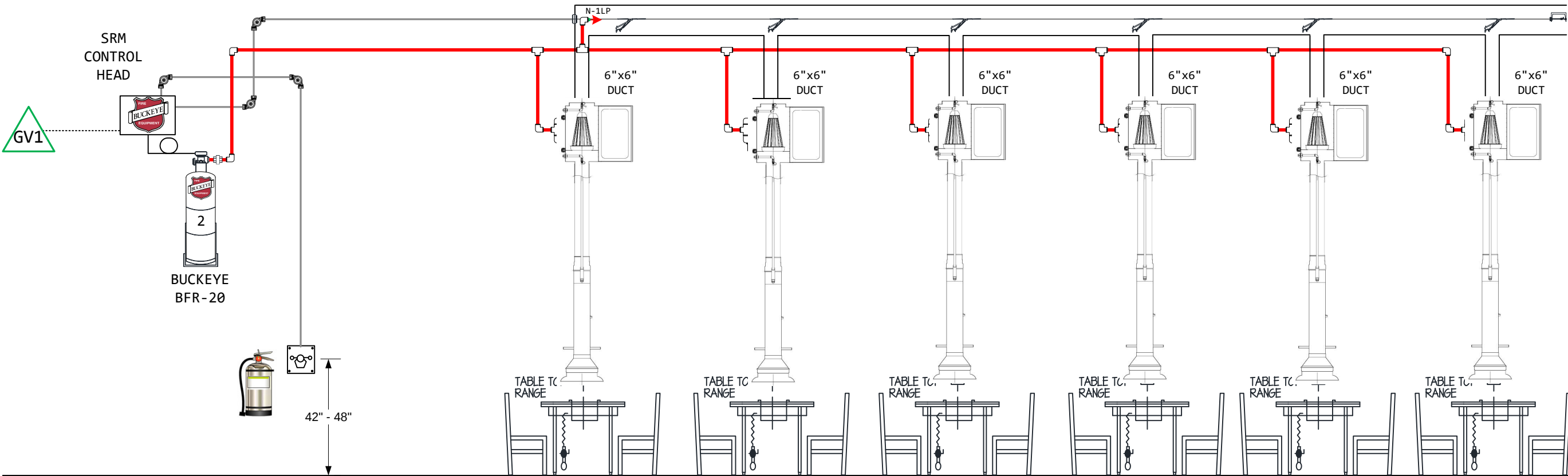
BUCKEYE KITCHEN MISTER
TANK 1 - BFR-20 USES 19 OF 20 FLOW POINTS

NOZZLE TABLE							
HAZARD	QTY	NOZZLE	BAND COLOR	PTS	TOTAL	MIN Nozzle Height	MAX Nozzle Height
TANK 1							
DYNAMIC TABLE	6	N-2HP	GREEN	2	12	24	45
DUCT	7	N-1LP	RED	1	7	50" PERIMETER MAX	
					19		



PRE-ENGINEERED SYSTEM SHOP DRAWING ONLY - NOT TO SCALE

FUSIBLE LINK DETECTOR
450 DEG F



REMOTE PULL STATION

SHALL BE INSTALLED 42" - 48" ABOVE THE FINISHED FLOOR AND A DISTANCE OF AT LEAST 10FT FROM THE HAZARD BUT NOT MORE THAN 20FT. IT SHALL BE INSTALLED IN THE PATH OF EXIT AND REQUIRE A MAXIMUM FORCE OF 40 LBS AND A MAXIMUM MOVEMENT OF 14" FOR ACTUATION

CLASS K WET CHEMICAL EXTINGUISHER
SHALL BE INSTALLED NO MORE THAN 60" ABOVE THE FINISHED FLOOR WITHIN 30 FT FROM THE HAZARD.

SAVORX-MONSTER

BUCKEYE KITCHEN MISTER
TANK 1 - BFR-20 USES 19 OF 20 FLOW POINTS

NOZZLE TABLE							
HAZARD	QTY	NOZZLE	BAND COLOR	PTS	TOTAL	MIN Nozzle Height	MAX Nozzle Height
TANK 1							
DYNAMIC TABLE	6	N-2HP	GREEN	2	12	24	45
DUCT	7	N-1LP	RED	1	7	50" PERIMETER MAX	
					19		



PRE-ENGINEERED SYSTEM SHOP DRAWING ONLY - NOT TO SCALE



BULLETIN

September 20, 2024

Re: Proper Protection for SavorX – EH101823 Korean BBQ Hood System w/Cone Filter

To: Buckeye Certified Kitchen Mister Distributors

Underwriters' Laboratories, Inc. (UL) does not currently have a testing procedure for this specific type of appliance; however, Buckeye Fire Equipment's recommended protection is the following:

Cooking surface and retractable duct section of the SavorX Korean BBQ Hood System use:

- One (1) Model N-2HP nozzle which must be located 0" – 2" in the top section of the hood system and aimed down the center of the retractable duct. The maximum cooking area a single nozzle can protect is 20" wide by 20" deep and the maximum height of the hood opening above the cooking surface is 40".

In addition, the plenum and duct shall be protected with:

- One (1) Model N-1HP nozzle placed in the plenum area above the filter.
- One (1) Model N-1LP nozzle shall be placed at the entrance of the duct (or N-2W depending on duct perimeter).

For more details refer to Figure 1.

Any common ductwork upstream of the unit beyond 75 feet of the last unit may require additional duct protection (refer to NFPA 96) and must be protected as a duct in accordance with Buckeye Kitchen Mister Technical Manual, Model BFR-TM (page 3-1).

Detector Placement

Each hood system shall have at least one (1) detector installed in the plenum area centered in the duct entrance and no more than 12" into the ductwork. A temperature study is required to determine the maximum ambient temperature at the detector location.

If you have any questions, please contact Kitchen Mister Technical Support at 704-739-7415.

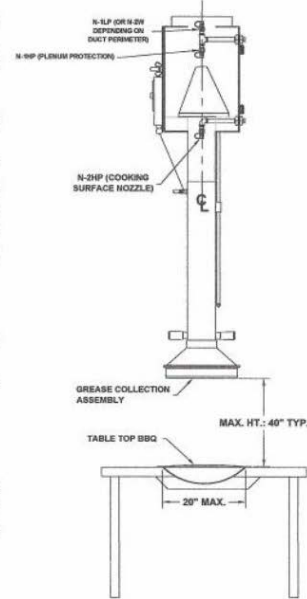


Figure 1.
SavorX Korean BBQ Grill
and Hood System
Surface Area, Plenum
Nozzle, and Duct Nozzle
Placement and Aim Point.

P.O. Box 428 • 110 Kings Road • Kings Mountain, N.C. 28086-0428 • Tele: 704-739-7415 • Fax: 704-739-7410

E-mail: bfec@buckeyef.com • Internet: <http://www.buckeyefire.com>



BULLETIN

Date: September 20, 2024

Re: Proper Protection for SavorX-Monster Korean BBQ hood System w/Cone Filter

To: Buckeye Certified kitchen Mister Distributors

Underwriters' Laboratories, Inc. (UL) does not currently have a testing procedure for this specific type of appliance; however, Buckeye Fire Equipment's recommended protection is the following:

Cooking surface and retractable duct section of the SavorX Korean BBQ hood system use:

- One(1) Model N-2HP nozzle which must be located 0" - 2" in the top section of the hood system and aimed down the center of the retractable duct. The maximum cooking area a single nozzle can protect is 20" wide by 20" deep and the Maximum height of the hood opening above the cooking Surface is 40"

In addition the plenum and duct shall be protected with:

- One(1) Model N-1LP nozzle shall be placed at the entrance Of the duct (or N-2W depending on duct perimeter)

For more details refer to Figure 1.

Any common ductwork upstream of the unit beyond 75 feet of the Last unit may require additional duct protection (refer to NFPA 96) And must be protected as a duct in accordance with Buckeye Kitchen Mister Technical Manual, Model BFR-TM (page 3-1)

Detector Placement

Each hood system shall have at least one (1) detector installed in the Plenum area centered inn the duct entrance and no more than 12" into the ductwork. A temperature study is required to determine the maximum ambient temperature at the detector location.

If you have any questions, please contact kitchen Mister technical Support at 704-739-7415

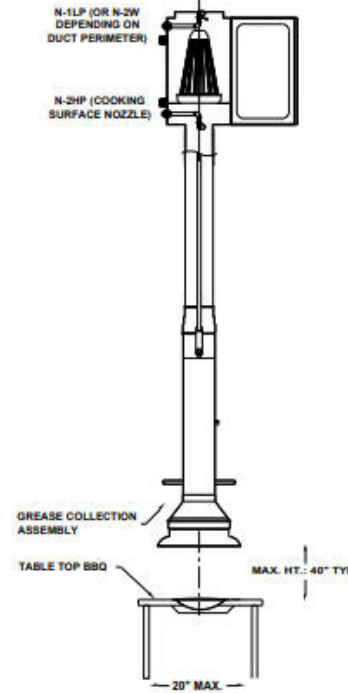


Figure 1.
SavorX Korean BBQ Grill
and Hood System
Surface Area, Plenum
Nozzle, and Duct Nozzle
Placement and Aim Point.

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E-mail: bfec@buckeyef.com • Internet: <http://www.buckeyefire.com>



BULLETIN

Date: September 20, 2024

Re: Proper Protection for SavorX-Lite Korean BBQ hood System w/Cone Filter

To: Buckeye Certified kitchen Mister Distributors

Underwriters' Laboratories, Inc. (UL) does not currently have a testing procedure for this specific type of appliance; however, Buckeye Fire Equipment's recommended protection is the following:

Cooking surface and retractable duct section of the SavorX Korean BBQ hood system use:

- One(1) Model N-2HP nozzle which must be located 0" - 2" in the top section of the hood system and aimed down the center of the retractable duct. The maximum cooking area a single nozzle can protect is 20" wide by 20" deep and the Maximum height of the hood opening above the cooking Surface is 40"

In addition the plenum and duct shall be protected with:

- One(1) Model N-1LP nozzle shall be placed at the entrance Of the duct (or N-2W depending on duct perimeter)

For more details refer to Figure 1.

Any common ductwork upstream of the unit beyond 75 feet of the Last unit may require additional duct protection (refer to NFPA 96) And must be protected as a duct in accordance with Buckeye Kitchen Mister Technical Manual, Model BFR-TM (page 3-1)

Detector Placement

Each hood system shall have at least one (1) detector installed in the Plenum area centered inn the duct entrance and no more than 12" into the ductwork. A temperature study is required to determine the maximum ambient temperature at the detector location.

If you have any questions, please contact kitchen Mister technical Support at 704-739-7415

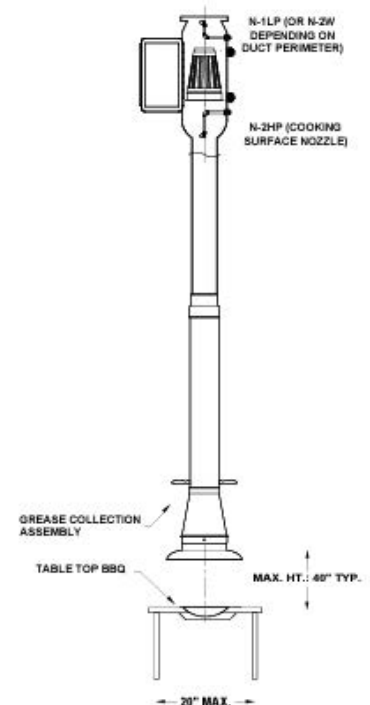


Figure 1.
SavorX Korean BBQ Grill
and Hood System
Surface Area, Plenum
Nozzle, and Duct Nozzle
Placement and Aim Point.

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**SavorX-EH101823
(Model 1)**

**SavorX-Monster
(Model 2)**

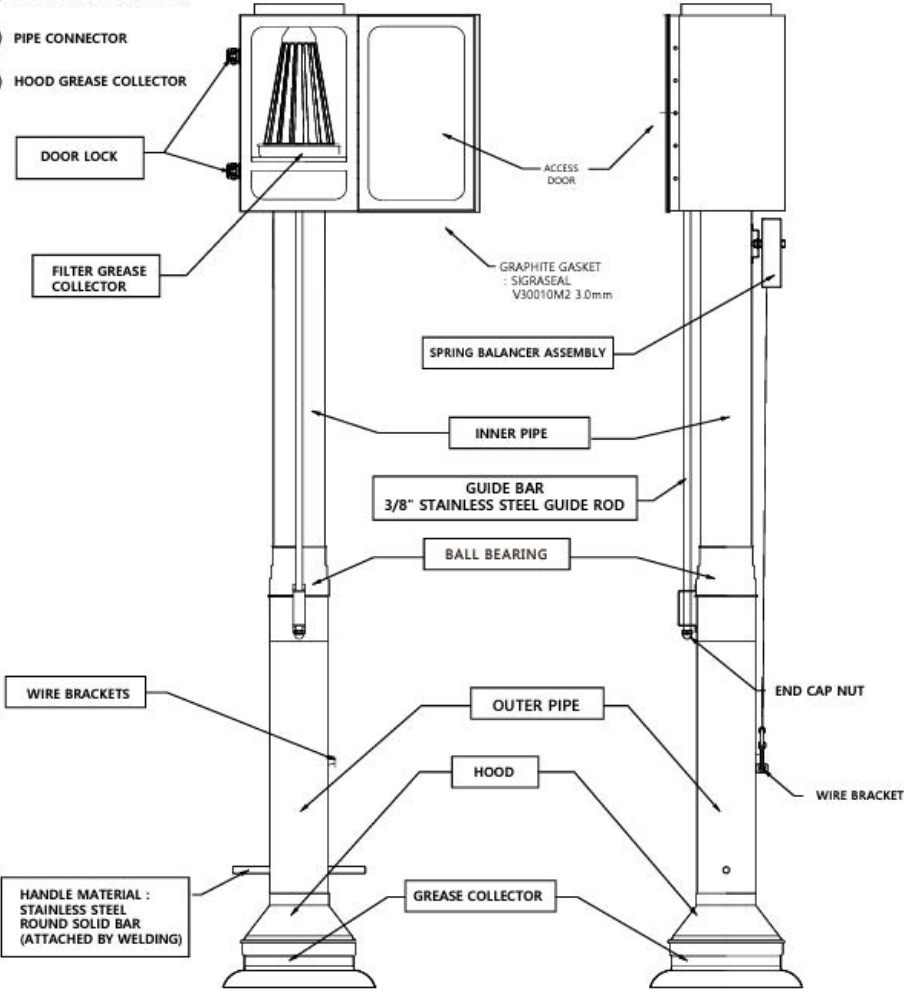
**SavorX-Lite
(Model 3)**



BOM LIST



- ① FILTER BOX ASSEMBLY
- ② GREASE FILTER ASSEMBLY
- ③ FILTER GREASE COLLECTOR
- ④ HOOD PIPE ASSEMBLY
- ⑤ SPRING BALANCER ASSEMBLY
- ⑥ PIPE CONNECTOR
- ⑦ HOOD GREASE COLLECTOR



SavorX-Monster



Listings and Approvals

The *Kitchen Mister* Fire Suppression System is Listed and Approved by the following agencies:

- Underwriters Laboratories, Inc. (Listed to the requirements of UL-300/UL-1254) UL-EX 6885
- Underwriters Laboratories of Canada, ULC-EX 6885
- Approved by the New York City Fire Department COA # 5550
- CE Compliant
- ISO-9001 Registered

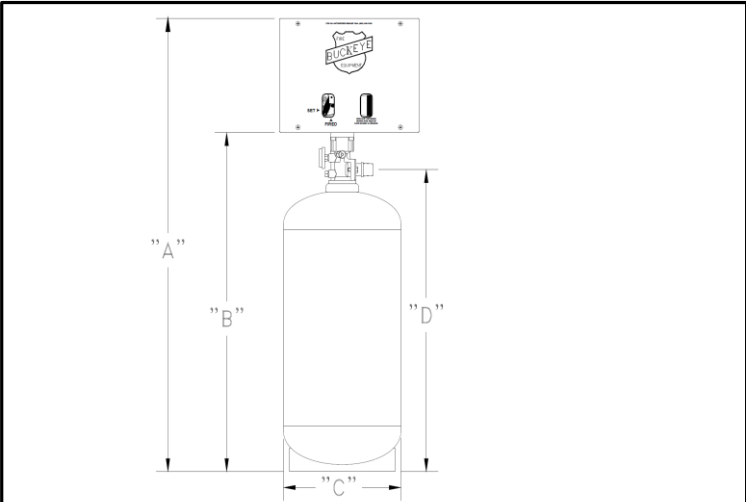


Figure 2-1.
Cylinder and Valve Assembly Dimensions.

Model Number	A inches (cm)	B inches (cm)	C inches (cm)	D inches (cm)	Max. Flow Points	Weight lbs. (kg)	Mounting Bracket
BFR-5	24.8 (63)	16.2 (41)	10 (25)	13.4 (34)	5	42 lbs. (19)	MB-1
BFR-10	34.4 (87)	25.8 (66)	10 (25)	23 (58)	10	74 lbs. (33)	MB-2
BFR-15	44.8 (114)	36.2 (92)	10 (25)	33.4 (85)	15	107 lbs. (48)	MB-2
BFR-20	42.4 (108)	33.8 (86)	12 (31)	31 (79)	20	130 lbs. (60)	MB-2

MAXIMUM PIPING PER CYLINDER SIZE

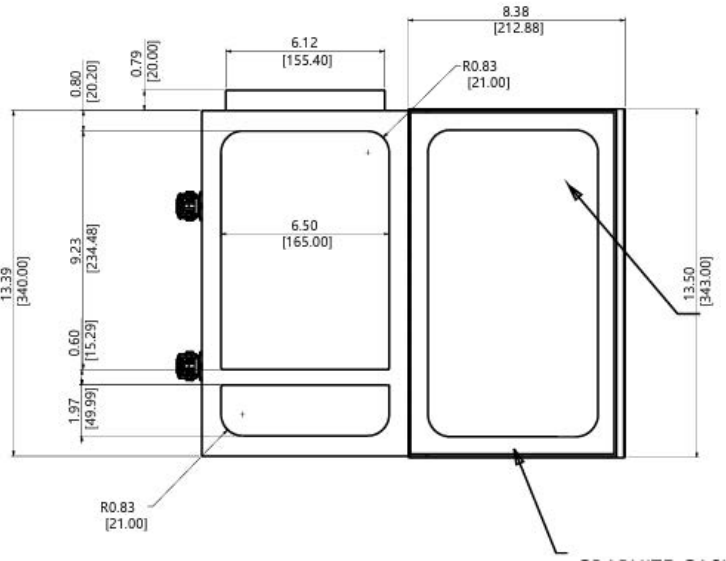
Cylinder Size	Max. Flow Points	Max. Pipe Volume (mL.)	Max. Pipe Vol. Between any two (2) Nozzles. (mL.)
BFR-5	5	1500	1000
BFR-10	10	2500	2000
BFR-15	15	2800*	2500
BFR-20	20	2800*	2500

* Total volume of 3/8" (17.1 mm OD) piping allowed on the BFR-15 or BFR-20 is 2500 mL.

Minimum Piping Requirements

Note: Minimum piping requirements **ONLY** apply when protecting a wok, deep fat fryer, or range.

1. Minimum number of elbows before the closest nozzle protecting a fryer, range, or wok shall be five (5).
2. The minimum piping volume before the closest nozzle protecting a fryer, range, or wok shall not be less than 360 mL.
3. The total system pipe volume shall not be less than 660 mL. for all cylinder sizes.
4. A system shall have a minimum of three (3) flow points.



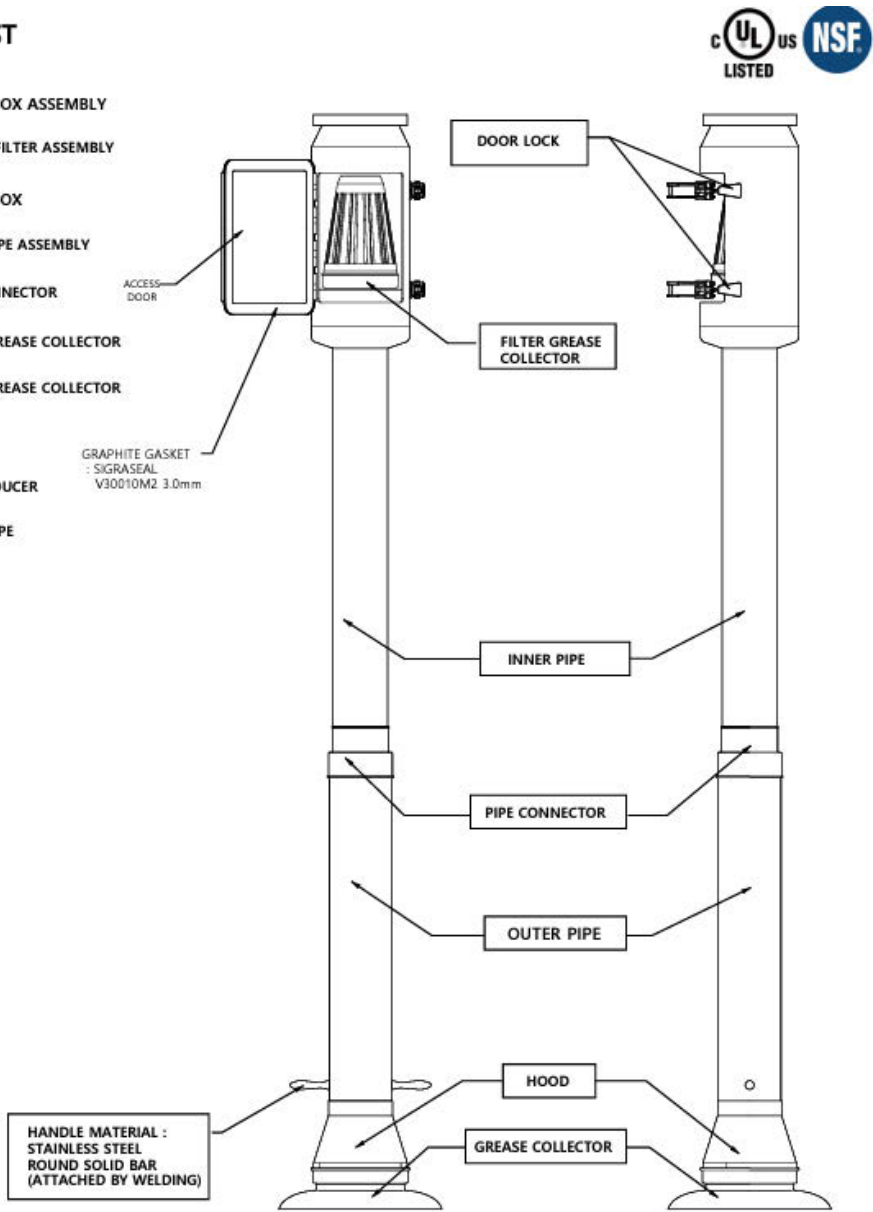
PIPING VOLUME CHART

Allowable Pipe Sizes	Volume Per foot
3/8 in. (17.1 mm OD) pipe	37.5 mL./ft. (123mL/m)
1/2 in. (21.3 mm OD) pipe	59.8 mL./ft. (196mL/m)

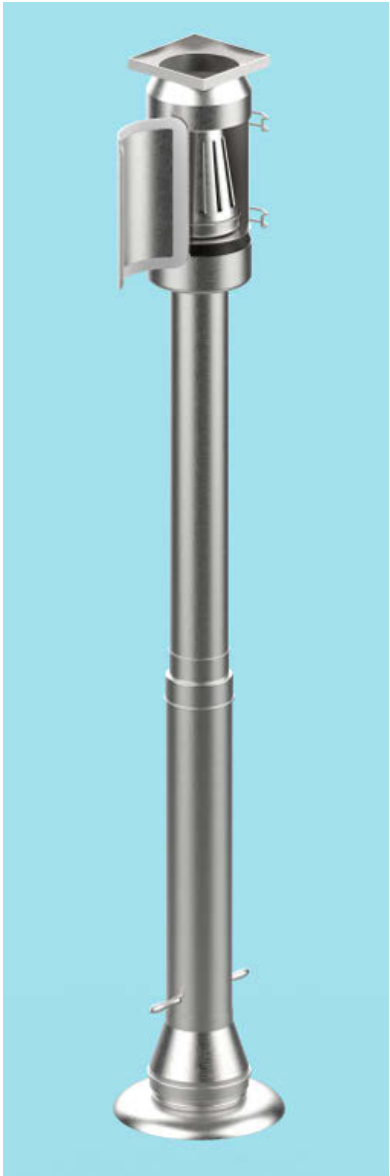


BOM LIST

- 1 FILTER BOX ASSEMBLY
- 2 GREASE FILTER ASSEMBLY
- 3 FILTER BOX
- 4 HOOD PIPE ASSEMBLY
- 5 PIPE CONNECTOR
- 6 FILTER GREASE COLLECTOR
- 7 HOOD GREASE COLLECTOR
- 8 HOOD
- 9 BALL REDUCER
- 10 INNER PIPE



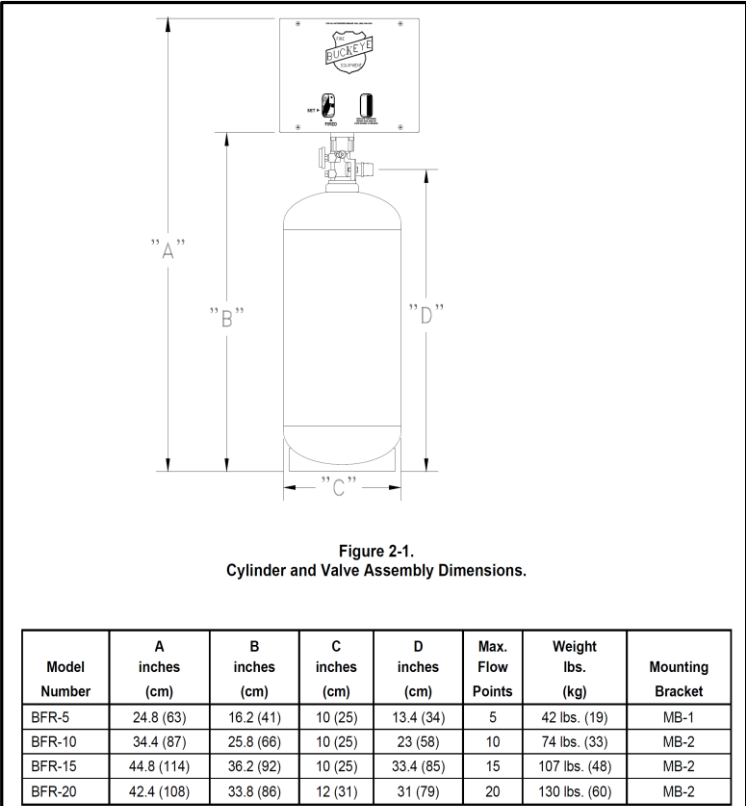
SavorX-LITE



Listings and Approvals

The *Kitchen Mister* Fire Suppression System is Listed and Approved by the following agencies:

- Underwriters Laboratories, Inc. (Listed to the requirements of UL-300/UL-1254) UL-EX 6885
- Underwriters Laboratories of Canada, ULC-EX 6885
- Approved by the New York City Fire Department COA # 5550
- CE Compliant
- ISO-9001 Registered



MAXIMUM PIPING PER CYLINDER SIZE

Cylinder Size	Max. Flow Points	Max. Pipe Volume (mL.)	Max. Pipe Vol. Between any two (2) Nozzles. (mL.)
BFR-5	5	1500	1000
BFR-10	10	2500	2000
BFR-15	15	2800*	2500
BFR-20	20	2800*	2500

* Total volume of 3/8" (17.1 mm OD) piping allowed on the BFR-15 or BFR-20 is 2500 mL.

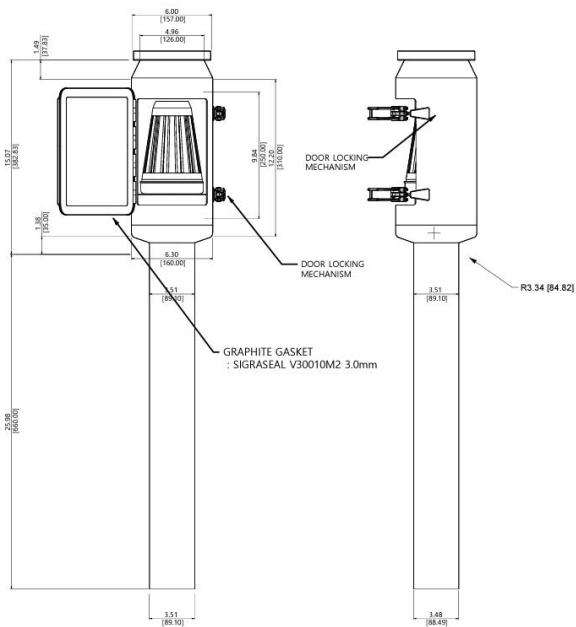
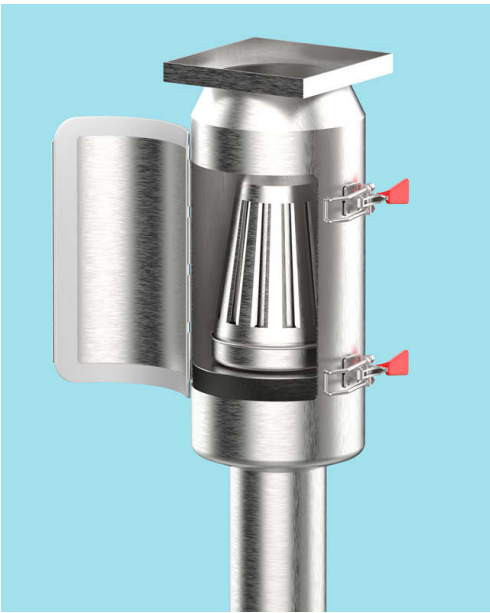
Minimum Piping Requirements

Note: Minimum piping requirements **ONLY** apply when protecting a wok, deep fat fryer, or range.

1. Minimum number of elbows before the closest nozzle protecting a fryer, range, or wok shall be five (5).
2. The minimum piping volume before the closest nozzle protecting a fryer, range, or wok shall not be less then 360 mL.
3. The total system pipe volume shall not be less then 660 mL. for all cylinder sizes.
4. A system shall have a minimum of three (3) flow points.

PIPING VOLUME CHART

Allowable Pipe Sizes	Volume Per foot
3/8 in. (17.1 mm OD) pipe	37.5 mL./ft. (123mL/m)
1/2 in. (21.3 mm OD) pipe	59.8 mL./ft. (196mL/m)



Systems Releasing Module - SRM

The **Model SRM** Systems Releasing Module is a fully mechanical control head that can be connected directly or remotely to the system valve and is required for system actuation. The Systems Releasing Module will support the following system inputs and outputs:

- One Fusible Link Detection Line
- One Gas Valve Line
- One Remote Pull Station Line

Two windows in the front cover of the **Model SRM** allow for visual verification of the actuation cartridge presence and the status of the puncture pin mechanism. See **Figure 2-5**.

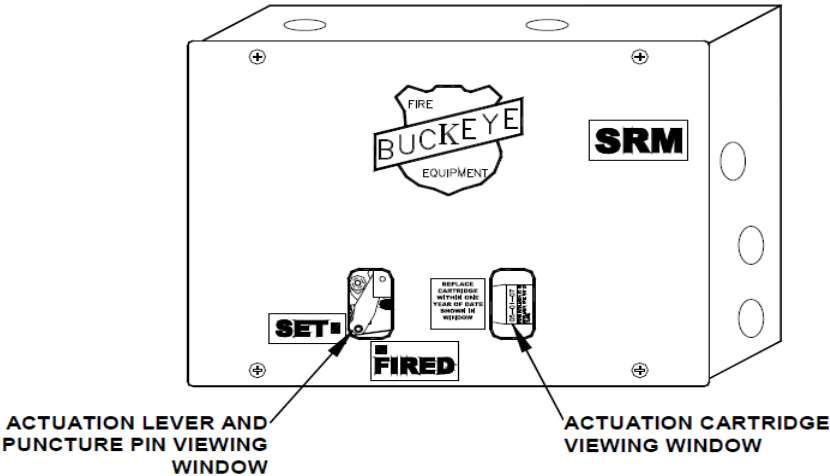


Figure 2-5.
Model SRM,
Systems Releasing Module

Model SRM-D

The **Model SRM-D** (Systems Releasing Module –Dual) is the same as the **Model SRM** except that it supports a second independent fusible link detection line. See **Figure 2-6**.

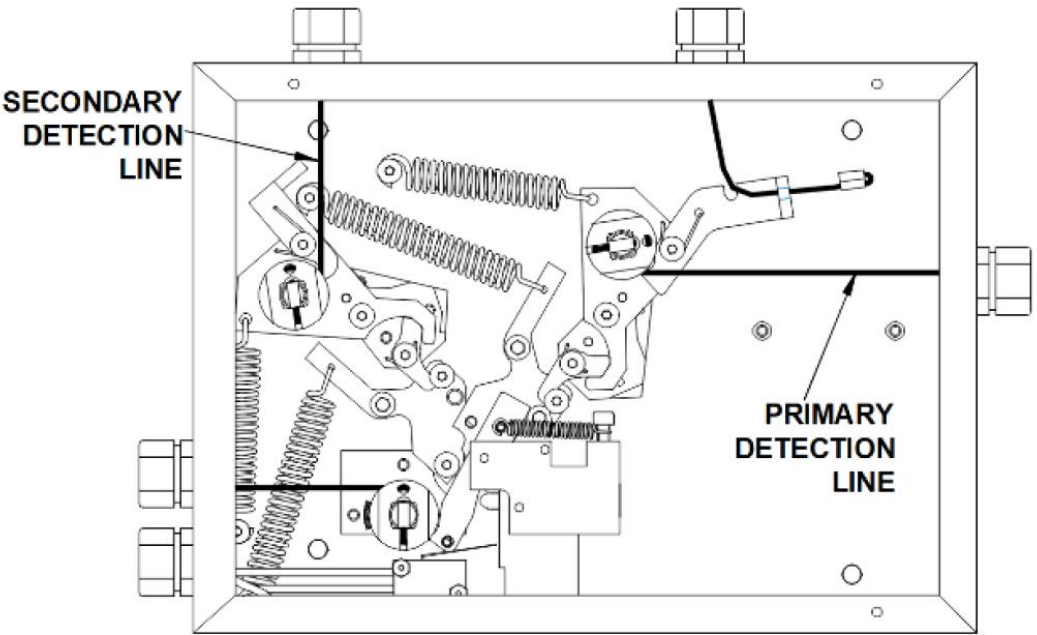


Figure 2-6.
Model SRM-D,
Systems Releasing Module-Dual

Remote Mechanical Pull Station

The **Model RPS-M** Remote Mechanical Pull Station provides remote mechanical actuation of the Systems Releasing Module. It is connected to the Systems Releasing Module with:

- 1/16" (0.16 cm) stainless steel cable enclosed in 1/2" (1.3 cm) EMT conduit with a corner pulley at each change of direction.
- Buckeye Shielded Cable which does not require a corner pulley at each change of direction or conduit.
- A combination of both.

A remote pull station is required at the point of egress from the hazard area being protected. See **Figure 2-9**.

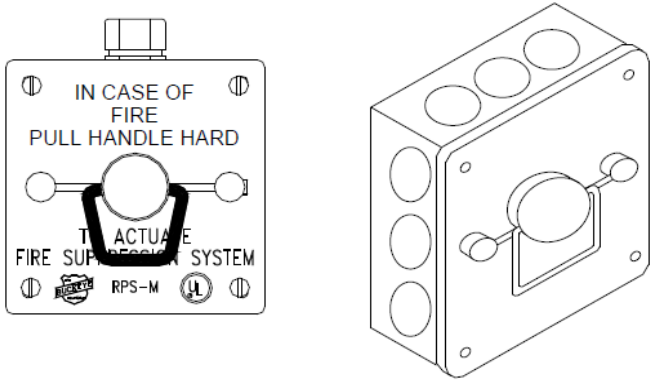
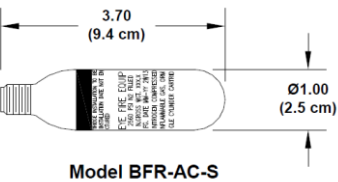


Figure 2-9.
Model RPS-M,
Remote Mechanical Pull Station

NITROGEN
ACTUATION
CARTRIDGE

Model **BFR-AC-S** is a small nitrogen cartridge (included with System Releasing Module) that can actuate up to three (3) agent cylinders.

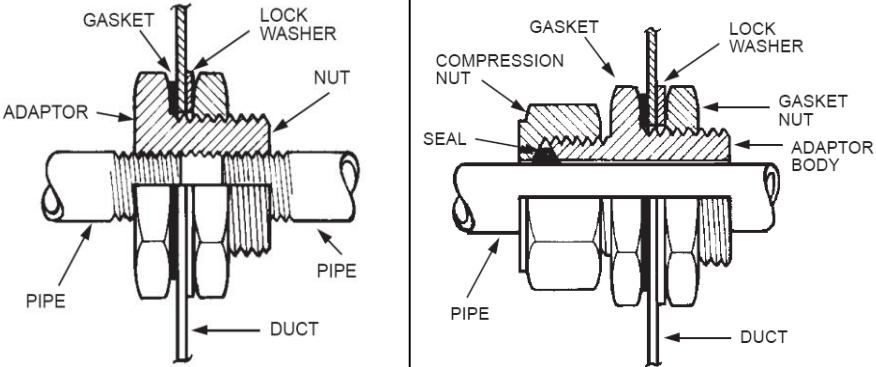


Limitations For Remote Cylinder Actuation

Number Of Cylinders	Maximum Length Of 1/4" (0.6 cm) Copper Tubing	Actuation Cartridge Required
1 – 3	15 feet (4.6 m)	BFR-AC-S*
1 – 5	25 feet (7.6 m)	BFR-AC-L**

REFRIGERATION TYPE COPPER TUBING SHALL BE USED FOR REMOTE CYLINDER ACTUATION. THIS TUBING SHALL HAVE AN OUTSIDE DIAMETER OF 1/4" (0.6 CM) AND A MINIMUM WALL THICKNESS OF 1/32" (0.08 CM).

ALL PENETRATIONS TO THE HOOD SHALL BE SEALED WITH AN APPROVED QUICK SEAL DEVICE



Mechanical Gas Shutoff Valves

A gas shutoff valve is required for all systems protecting gas fueled appliances. A mechanical means of stopping gas flow is provided by the **Models BFGV-75 / 100 / 125 / 150 / 200 / 250 / 300** Gas Shutoff Valves. It is connected to the Systems Releasing Module with:

- 1/16" (0.16 cm) stainless steel cable enclosed in 1/2" (1.3 cm) EMT conduit with a corner pulley at each change of direction.
- Buckeye Shielded Cable which does not require a corner pulley at each change of direction or conduit.
- A combination of both.

The valves are rated for natural or LP gas (see **Figure 2-10**) and are available in the following sizes:

Model Number	Valve Size In (cm)	Maximum Operating Pressure
BFGV-75	¾ (1.9)	5 psi (.4 bar)
BFGV-100	1 (2.5)	5 psi (.4 bar)
BFGV-125	1 ¼ (3.2)	5 psi (.4 bar)
BFGV-150	1 ½ (3.8)	5 psi (.4 bar)
BFGV-200	2 (5.1)	5 psi (.4 bar)
BFGV-250	2 ½ (6.4)	5 psi (.4 bar)
BFGV-300	3 (7.6)	5 psi (.4 bar)

Note: Gas valve size must be no smaller than the size of the gas line it is connected to.

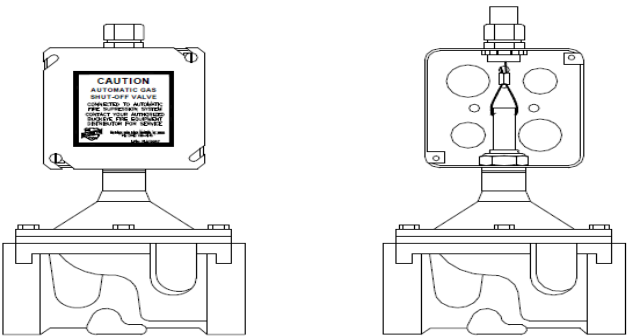


Figure 2-10.
Model BFGV-XXX,
Mechanical Gas Valve

Fusible Link Holder

The **Model FLH** Fusible Link Holder is designed to allow for the use of a continuous fusible link line, thus eliminating the need to cut and crimp each individual fusible link. They can be used either with or without fusible link brackets. They are available in packages of 25 (**Model FLH-25**). See **Figure 2-24**.

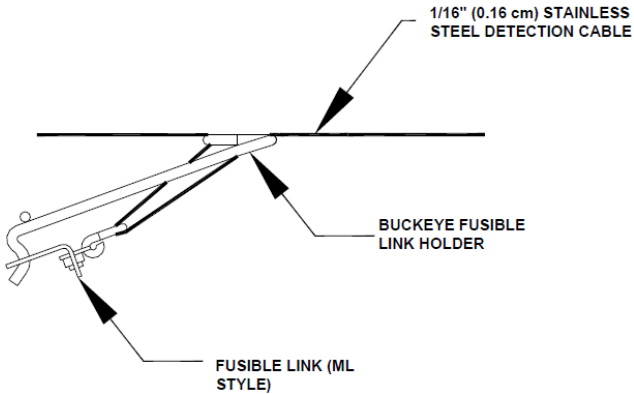


Figure 2-24.
Model FLH,
Fusible Link Holder

Compression Type Corner Pulley

When Buckeye Shielded Cable **IS NOT** used to connect the fusible link system, gas valve, and/or remote pull station to the control head, a corner pulley is required whenever a change in stainless steel cable direction is necessary. The **Model CPCT-1** corner pulley is equipped with a compression type fitting that connects to standard 1/2" (1.3 cm) EMT conduit. See **Figure 2-16**.

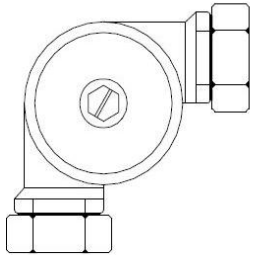
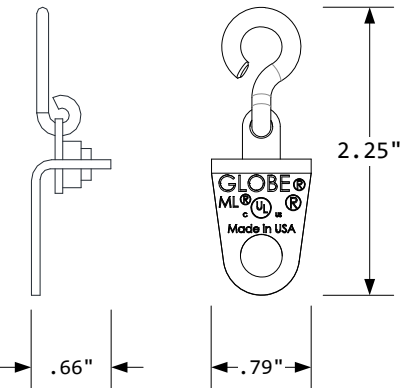


Figure 2-16.
Model CPCT-1,
Compression Type Corner Pulley

SYSTEM SHALL UTILIZE GLOBE ML[®] FUSIBLE LINKS FOR AUTOMATIC SYSTEM ACTIVATION.

FUSIBLE LINKS ARE DESIGNED TO SEPARATE AT SPECIFIC TEMPERATURES, RELEASING TENSION FROM THE FUSIBLE LINK DETECTION LINE AND CAUSING SYSTEM ACTUATION.

CORRECT FUSIBLE LINK SELECTION IS AN ESSENTIAL ELEMENT IN THE DESIGN OF ANY FIRE SUPPRESSION SYSTEM. AFTER PERFORMING A TEMPERATURE STUDY TO DETERMINE THE MAXIMUM AMBIENT TEMPERATURE AT THE FUSIBLE LINK LOCATION, THE CORRECT FUSIBLE LINK SHOULD BE SELECTED FROM THE FOLLOWING CHART:



TEMPERATURE RATING		MAX AMBIENT TEMPERATURE		LOAD RATING	
°F	°C	°F	°C	MIN	MAX
135°	57°	100°	38°	10 LBS	40 LBS
165°	74°	100°	38°	10 LBS	40 LBS
212°	100°	150°	66°	10 LBS	40 LBS
280°	138°	225°	107°	10 LBS	40 LBS
360°	182°	300°	149°	10 LBS	40 LBS
450°	232°	375°	191°	10 LBS	40 LBS
500°	260°	430°	217°	10 LBS	40 LBS

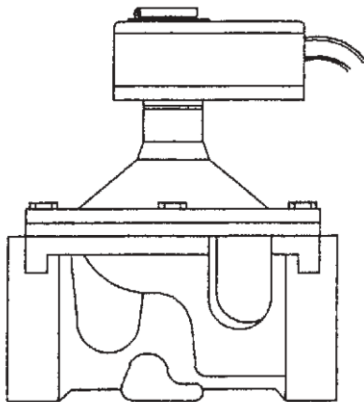
- UL LISTED TO UL 33, HEAT RESPONSIVE LINKS FOR FIRE PROTECTION SERVICE
- DATE STAMPED WITH YEAR OF MANUFACTURE
- CORROSION RESISTANT CONSTRUCTION
- STAINLESS STEEL COMPONENTS
- FLEXIBLE EYE HOOK CONNECTION
- 21/64" MOUNTING HOLE DIAMETER
- LISTED FOR USE IN ALL FIRE PROTECTION SYSTEMS



ELECTRIC GAS VALVE DETAIL - TYPICAL

ALL FIRE SYSTEMS IN THE DINING ROOM SHALL BE CONNECTED TO A SINGLE 1" ELECTRIC GAS VALVE AND RESET RELAY. ALL SYSTEMS SHALL BE WIRED IN SERIES SO THAT ANY SYSTEM DISCHARGE SHALL SHUT OFF THE GAS SUPPLY TO ALL COOKING TABLES.

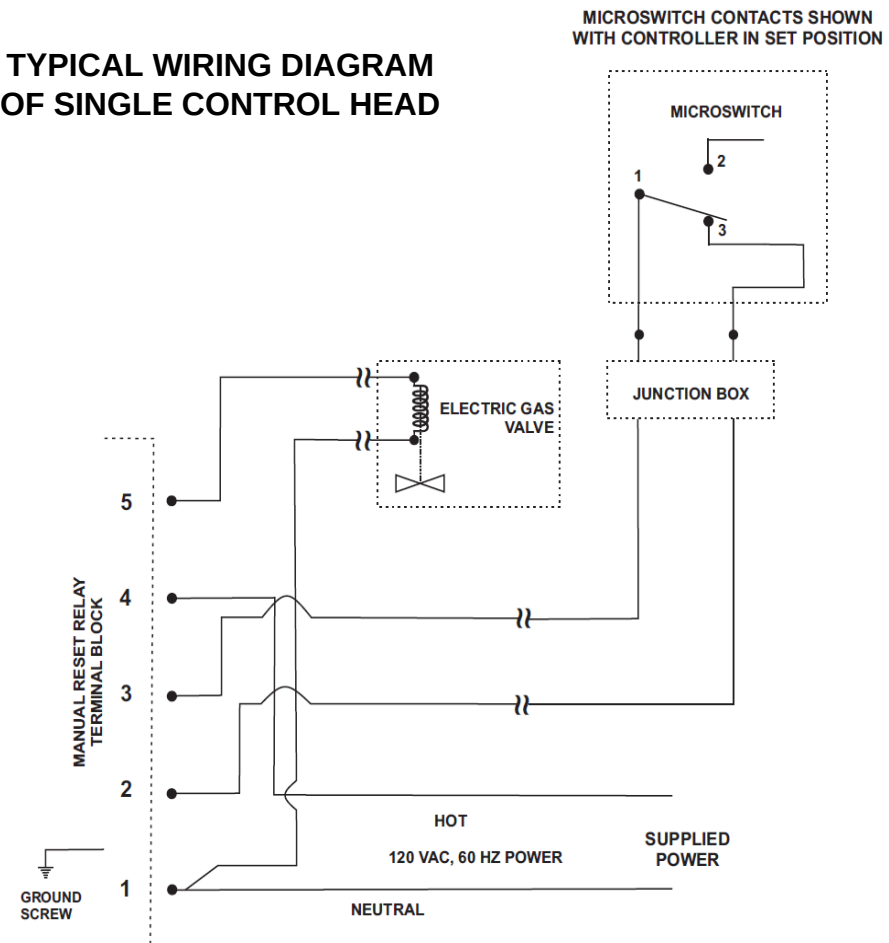
GAS VALVE SHALL BE INSTALLED BEFORE FIRST COOKING APPLIANCE – BY OTHERS



FUEL SUPPLY FOR ALL TABLES SHALL BE TIED INTO A SINGLE ELECTRICAL GAS VALVE WITH A SINGLE UL LISTED RESET RELAY

FIRE SYSTEM CONTROL HEADS SHALL BE WIRED IN SERIES TO ENSURE GAS SHUT OFF TO ALL TABLES WHEN ANY CONTROL IS ACTIVATED

TYPICAL WIRING DIAGRAM OF SINGLE CONTROL HEAD



Certificate of Completion

The Issuance of this Document
Certifies that

Chaug Chae

CL Frontier Fire Protection

Has successfully met the requirements of the Buckeye Fire Equipment Kitchen
Mister Training Program and is hereby authorized to design, install, perform
maintenance, and recharge the Buckeye Kitchen Mister Restaurant Cooking Area
Fire Suppression System.

Educational Credit Hours Earned: 8

Certification Valid Until 11/07/2026


Keith Willett
Training & System Development Manager
Buckeye Fire Equipment Company