

CUSTOMER ORDER SPECIFICATION FOR HALE Qpak CAFSPro FIRE PUMP

Customer Name: _____ Customer P.O. NO.: _____
 Order Prepared By: _____ Hale Customer NO.: _____ Date: _____
 Fire Dept. Name: _____ City: _____ State: _____
 Fire Department Contact Information (For Delivery Program): _____
 Requested Delivery Date: _____ Max. Elevation for Pump Test: _____ FT
 Reference Specifications: _____
 Engine: Mfr: _____ Model: _____ Horsepower: _____ @ _____ RPM
 Full Load Governed RPM: _____ Peak Torque: _____ LB/FT @ _____ RPM
 Application confirmed with:(for applications not on list) _____

1. Pump Model (Circle Price of Model Desired): (Schedule B Discount)

FLOW (GPM)	500	750	1000
PUMP MODEL	50	75	100
QPAK	16,681	16,681	16,681

Pump Configuration includes:

- Thermal Relief Valve 120L
- (3) Zinc Anodes (2 suction, 1 discharge)
- TPM Relief Valve
- 4" Air Operated tank valve (includes tank to pump check valve)
- Openings at D, E Machined
- Tachometer Drive - no cable or panel adapter
- VPS Shift with Control

2. Pump Body Machining: (Schedule B Discount)

Standard machining N/C

3. Drive Unit: (Schedule B Discount)

DRIVE UNIT w/Mechanical Seal		
LC	Verify Ratio with Factory	9,520
XC		10,087

4. Drive Line Connection (Check One Box): (Schedule B Discount)

- Companion Flange Style N/C
 Spline Drive Connection \$1597

5. Drive Unit Shift and Tach Cable (VPS with control included in pump configuration) Schedule B Discount

- Pump Adapter Only \$ 123
 Cable & Panel Adapter \$ 230

B. MANUAL SHIFT OVERRIDE OPTION:

- Manual Shift Override, 72" cable \$1300
 Manual Shift Override, 55" cable \$1300
 Manual Shift Override, Turn Rod \$1300

6. Priming System (Circle Price of Model Desired): (Schedule B Discount)

PRIMER MODEL	ESP-12
PRIMING VALVE	PVG
SHIPPED LOOSE	1253

7. Master Intake Valve (Circle Price of Models Desired): (Schedule B Discount)

7A: LEFT	MIV Relief Valve	7B: RIGHT
2590	MIV-M (Side Mount)	2590
3674	MIV-E (Side Mount)	3674
130	ABV(Air Bleeder Valve)	130
140	EXTENSION HARNESS	140

7A: LEFT	MIV Relief Valve	7B: RIGHT
Standard	Stainless Steel 2-1/2" NPT	Standard
N/C	Stainless Steel 2-1/2" NST	N/C
N/C	Stainless Steel 2-1/2" VIC	N/C

8. Suction Tube (One for Each Side) (Circle Price of Items desired): (Schedule B Discount)

8B: SUCTION TUBE		
LEFT	NST x LENGTH	RIGHT
399	4-1/2 X 6	399
336	5 X 6	336
399	5 X 9	399
344	6 X 4	344
310	6 X 6	310
321	6 X 7	321
347	6 X 9	347
178	1" SPACER	178
35	OMIT	35
1704	FILL THIEF**	1704

* 1 inch spacer required on either side if MIV selected
 **NOTE: Fill Thief fitting is exposed and requires a notched pump panel.
 **NOTE: Fill thief requires an MIV

10. TANK SUCTION:

(Required CAFSPro Opening S: 40BDS with 4 NPT/5 Victaulic Connector, 8-bolt 3.5° Pump Mount Adapter, Corrosion Resistant Check Valve: \$1644) **Schedule B Discount**

10. SUCTION FLANGES				
	LEFT		RIGHT	
	U	BOTTOM	V	BOTTOM
OPEN/BLANK	12		12	
2-1/2	60		60	
2-1/2 Angled	67		67	
3	94		94	
3" Angled	100		100	
Magnesium Anode	176		176	
Zinc Anode	115		115	
Blank		87		87
4 NPT		142		142
4 NPT Angled		194		194

**4" Victaulic Not Available on Qpak pump
Please be sure to pick bottom flanges**

11 DISCHARGE FLANGES (SCHEDULE B DISCOUNT)

NOTE: If a flange IS NOT selected for an opening, Hale will add BLANK flanges to the order.

	STANDARD OPENINGS								
	B	D	E	H	N	O	P	Q	R
FLANGES (115 OR 2433 BOLT PATTERN UNLESS OTHERWISE INDICATED)									
BLANK/OPEN	12	12	12	29	12	12	12	12	12
1-¼ INCH NPT (115)	60	60	60		60	60	60	60	60
2 INCH NPT (115)	60	60	60		60	60	60	60	60
2-½ INCH NPT	60	60	60	119	60	60	60	60	60
2-½ INCH NPT 4° ANGLE	67	67	67	140	67	67	67	67	67
3 INCH NPT	94	94	94	120	94	94	94	94	94
3 INCH NPT 4° ANGLE	100	100	100	140	100	100	100	100	100
4 INCH NPT (2433)				140					
4 INCH NPT 4° ANGLE (2433)				194					
TRV WITH 115 FLANGE		428	428		428	428	428	428	428
TRV-L WITH 115 FLANGE		740	740		740	740	740	740	740
MAGNESIUM ANODE W/FLANGE	176	176	176		176				
ZINC ANODE W/FLANGE	115	115	115		115				
DIRECT MOUNT FOR VALVE	NC	NC	NC	NC	NC	NC	NC	NC	NC

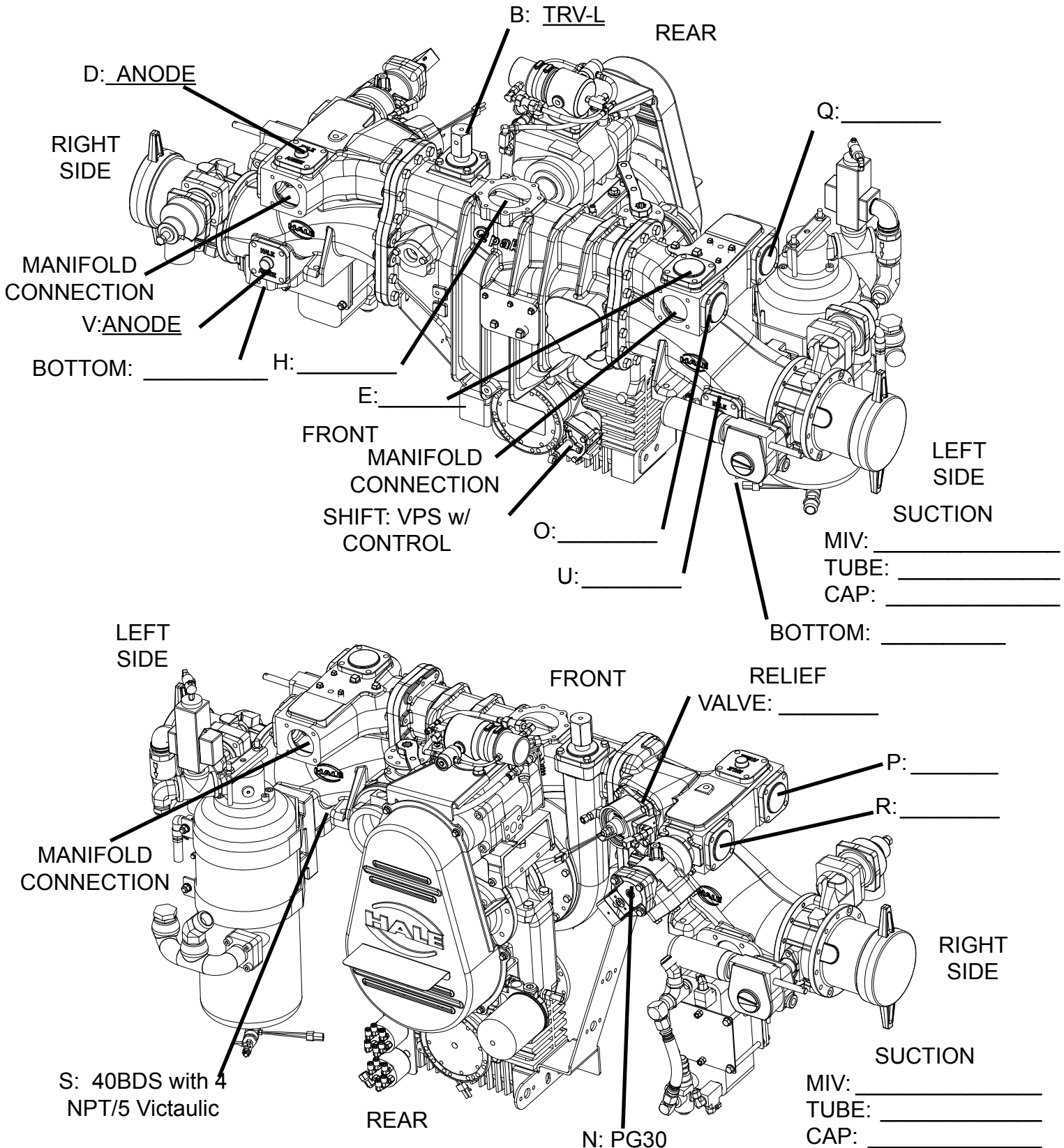
FOR ADDITIONAL OR LOOSE ACCESSORIES, VALVES, FLANGES, SEE SEPARATE ACCESSORY PAGE PRICE LIST AND ATTACH TO PUMP ORDER

Qpak CAFSPro MIDSHIP 2009

PUMP MODEL, CAPACITY, RATIO, DRIVE UNIT: _____

PRIMER: _____

PUMP BODY IS 48 INCHES WIDE



CAFSPro System

Please Note: All CAFSPro and foam system component pricing is subject to schedule E discount.

Operator panel (For valve orientation): Top Side

Pump compartment width (from inside operator panel to inside officer side panel): _____ Inches

CAFSPro Manifold Selection

NOTE: Manifold flow rating refers to rated capacity for all manifold discharges combined during water operations.

NOTE: Manifolds are built standard with Hale valve flanges. See Manifold configuration sheets for valve configuration or other flange options.

- 750 GPM manifold with Hale valve flange connections (up to 5 CAFS discharges)
P/N 546-2550-00-0 \$41,263

Standard CAFSPro system includes the following:

- 210 CFM rotary screw air compressor mounted and driven by the pump gearbox
 - Air pressure regulator assembly integrated into compressor
- Oil reservoir/separator tank mounted to pump and plumbed
- Water to oil heat exchanger mounted to pump and plumbed
- Programmable delay start air compressor clutch

- Stainless steel manifold assembly mounted on pump and tested
 - 2 stainless steel water/foam solution check valves
 - Up to 5 CAFS discharge choices
 - Up to 2 foam solution discharge choices
 - Water flow sensors and pressure transducers
 - Foam and air injection check valves installed
 - 4 Hale X mixer flanges installed
 - ARC valve and operating cylinder
 - Complete CAFSPro wiring harness (mounted, plumbed and tested)
 - FoamLogix flowsensor cable

- (2) Air operated 6-port drain valves
 - (1) Automatically drains CAFSPro manifold
 - (1) Pump drain

- Operating cylinder for tank to pump valve (Mounted, adjusted and tested)

The following components are shipped loose with the Hale CAFSPro system:

- CAFSPro digital display
- FoamLogix digital display
- 4-1/2 inch duplex master pressure gauge sub-assembly
- 2 Operation manuals
- 2 Installation manuals
- 4 Hale X mixers with seals for deck gun piping. (Installed in manifold when deck gun bypass is ordered)
- Hale CAFSPro delivery and operation program at end user facility (One day (6 hours) training within continental US)
- FoamLogix 5.0 single tank foam proportioning system standard configuration and pricing as shown.

Opak CAFSPro MIDSHP 2009

ALL CAFSPRO AND FOAMLOGIX OPTIONS ARE SUBJECT TO SCHEDULE "E" DISCOUNTS.

FOAMLOGIX MINIMUM REQUIRED STANDARD CONFIGURATION

The FoamLogix foam system required with the CAFSPro system is configured for a single foam tank system with the NO FLUSH option.

Required with the standard CAFSPro system are:

FoamLogix Model 5.0 (12 VDC)	\$7,214
No Flush/Single Tank System	\$ 157
Power filter kit	\$ 198
In-line strainer/valve assembly	\$ 213
Side mount low tank sensor	\$ 89

OPTIONAL FOAMLOGIX CONFIGURATION

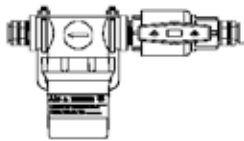
If a dual foam tank system is specified or other type of strainer or low tank sensor are desired circle price of selection(s) below.

NOTE: A strainer and low tank level sensor are required.

NOTE: The CAFSPro system is a 12 VDC system. If a 24 VDC system is required, consult factory for pricing and availability

CONTROL CABLE		
6 PIN EXTENSION	QTY	PRICE EACH
6.6 FEET		85
16.4 FEET		117

STRAINERS	
FOAM CONCENTRATE STRAINER	
	TANK A (CLASS A)
FS15 STRAINER	573
FS25 STRAINER	783
FOAM CONCENTRATE STRAINER	
	TANK B (CLASS B)
IN-LINE STRAINER/ VALVE ASSEMBLY	213
FS25 STRAINER	783



In-Line Strainer/Valve Assembly


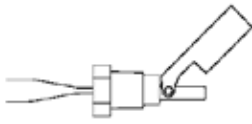



Panel Mount FS15 Strainer



Panel Mount FS25 Strainer

TANK SYSTEMS					
SINGLE TANK SYSTEM			HARNESS EXTENSION		
SELECTOR	INSTRUCTION PLACARD	QTY	PRICE EACH	QTY	PRICE EACH
MST	876	159			31
DUAL TANK SYSTEM			COLOR CODED AIR HARNESS		WIRING HARNESS EXTENSION
SELECTOR	INSTRUCTION PLACARD	QTY	PRICE EACH	QTY	PRICE EACH
ADT (12 VDC)	2237	INCLUDED	78		42
MDT II	1373	159			42

TANK SENSORS		
TANK SENSOR		
	TANK B	
TOP MOUNT SENSOR	358	
SIDE MOUNT SENSOR	89	
BOTTOM MOUNT SENSOR	126	
TANK SENSOR		
	TANK A (CLASS A)	
TOP MOUNT SENSOR	358	
BOTTOM MOUNT SENSOR	126	
		
Top Mount Sensor	Side Mount Sensor	Bottom Mount Sensor

ADDITIONAL CAFSPro ACCESSORIES SHIPPED LOOSE

PART NUMBER	ITEM DESCRIPTION	WEIGHT LBS (KG)	LIST PRICE
108-0650-00-0	Air to Oil Auxillary Cooler Standby cooler is recommended for high ambient temperature environments where water temperatures are high. Auxillary cooler prevents pump or compressor overheat during standby conditions when no water is flowing. Ships loose for OEM mounting	35(16)	2,199
115-1301-50-0	X-Mixer Kit X-Mixer kit consists of (4) patented Hale X-Mixers and seals for use on portable deluge guns and other short hose line discharges.	8 (3.6)	238
546-2730-10-0	Auto-Tank fill system 2-1/2" victaulic x victaulic (726-0808-31-0 Valve) Shipped loose (Includes panel controls, Class 1 master tank level gauge, Pressure Transducers, Installation Harnesses)		6,100
546-2730-20-0	Auto Tank fill system 2-1/2" VIC x Vicatulic (726-2810-31-3 Valve) Shipped loose (Includes panel controls, Class 1 master tank level gauge, Pressure Transducers, Installation Harnesses)		6,300
546-2770-00-0	Tank to pump air override (Installed) (Required if manual tank valve operator linkage not provided)		903
726-0808-31-0	Manual Direct Tank Fill Valve - 2.5 inch Vicatulic x Victaulic. Shipped loose. Includes electric valve operator and panel mount electric valve control		1,814
546-2730-30-0	Auto Tank Fill System for use with Fill Thief - 2.5 inch (826-1008-31-9 Valve)		6,100
	Additional consecutive days (6 hours) of Delivery & Operation training (same location)		\$1500/day
	Customized CAFSPro Training Programs (i.e. Operation, Maintenance, etc.)	Call 610-715-7903	

CAFSPro Class 1 Stainless Steel Manifold Configuration

* A *minimum* of a manual direct booster tank fill valve is required with CAFSPro. Autofill is recommended.

The Class 1 stainless steel manifold assembly includes stainless steel check valves and stainless steel motionless mixers in addition to Class 1 flow sensors and connections for air and foam injection.

Standard CAFSPro manifold outlets are identified as follows:

Up to 4 CAFS outlets: 01, 02, 03, 04

Up to 2 foam solution outlets: 11, 12

CAFSPro manifolds are supplied with Hale SVS valve connection flanges on the outlets. Using current SVS Valve price list and configuration guide select valve configurations for designated outlets. Provide configured valve part number in blank provided next to outlet. CAFSPro manifold valves will be added to sales order as separate line items subject to schedule E discount.

NOTE ABOUT HALE SVS VALVE CONFIGURATION FOR CAFSPRO MANIFOLD MOUNTING - The inlet side adapter for the valve is included as part of the manifold. To configure the valves for the manifold, the inlet section "XX" will show in the valve part number as "00", i.e. "825-0009-06-0.

The part number shown is a 2-1/2" valve mounted on CAFSPro manifold with 45° Victaulic swivel outlet and long remote control lever actuator. Actuator position is dependent on whether application is top or side operation panel.

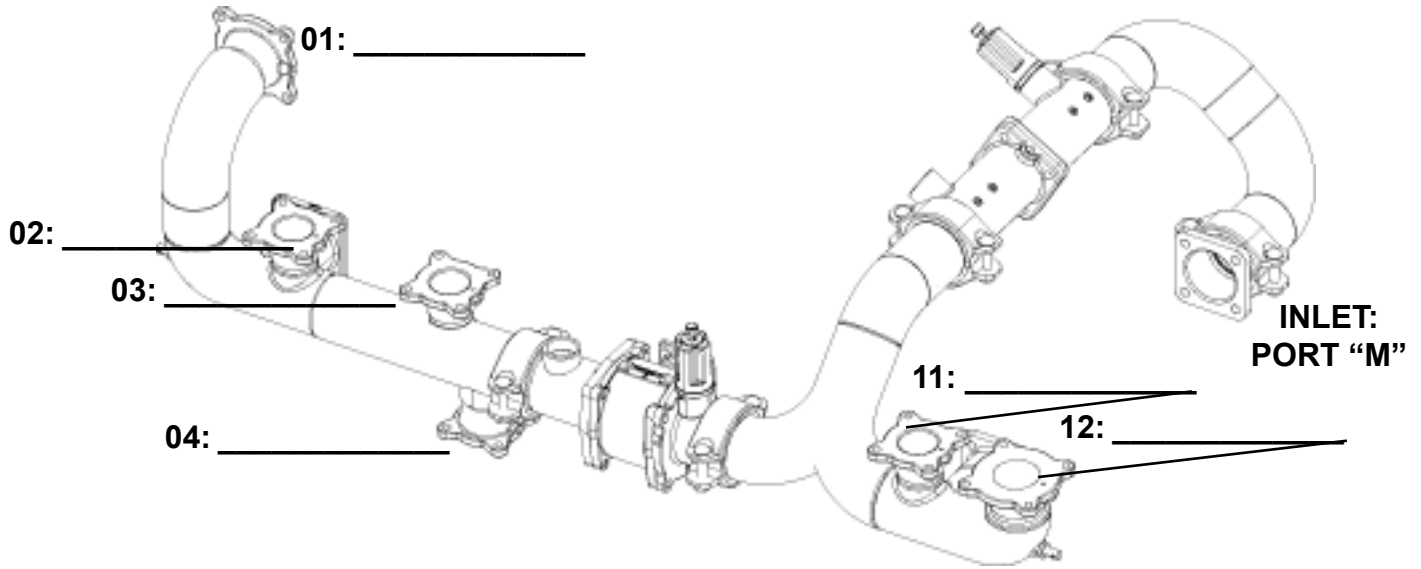
The Hale SVS valve flanges can be replaced on the manifold at designated locations according to the following schedule:

1. Replace with Hale 115 flange \$75.00 each opening
2. Replace with Victaulic grooved pipe \$50.00 each opening
3. Change Hale valve flange size \$75.00 each change
4. Change Victaulic pipe size \$125.00 each change
5. For other valve flange options consult factory

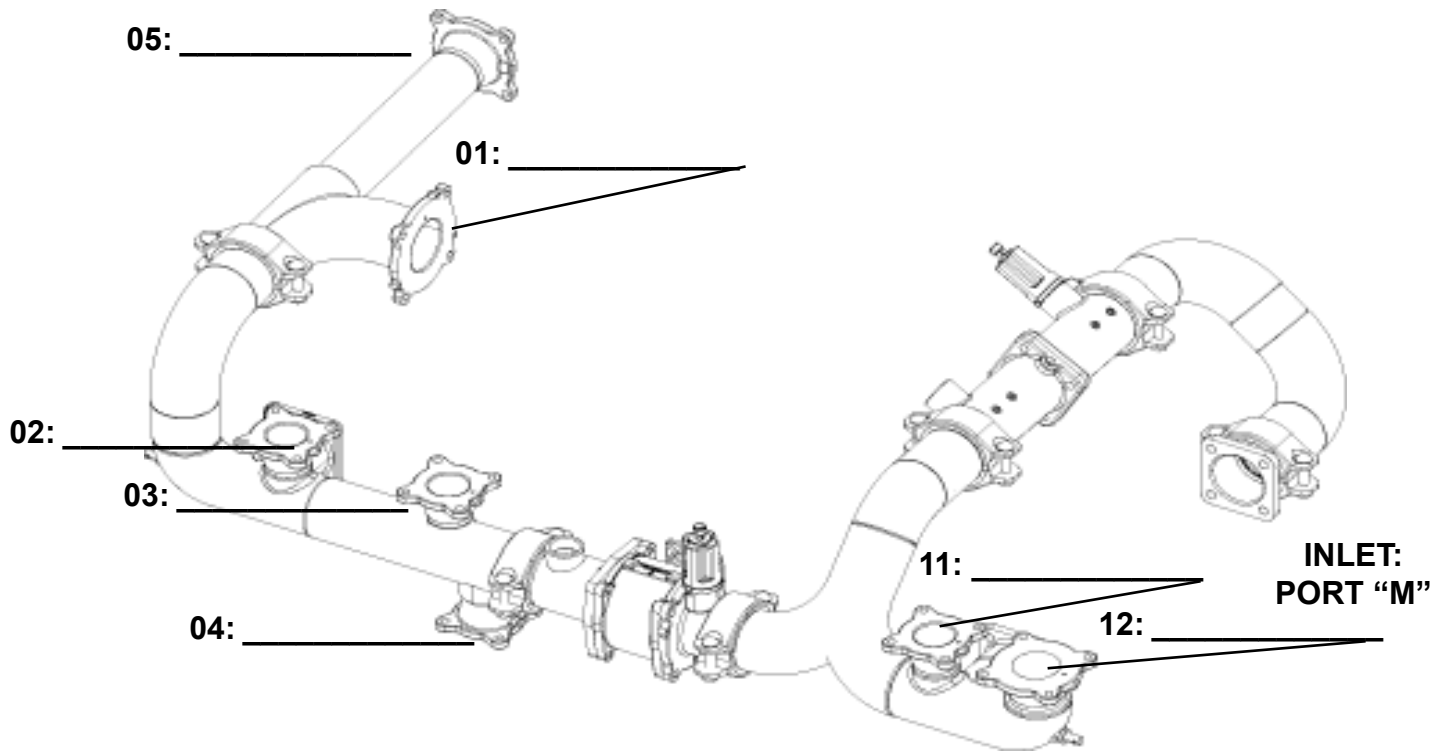
On those manifold outlets where a Hale SVS valve or alternate connection is not indicated will be left blank

CONFIGURE CAFSPRO MANIFOLD USING ILLUSTRATIONS ON FOLLOWING PAGES.

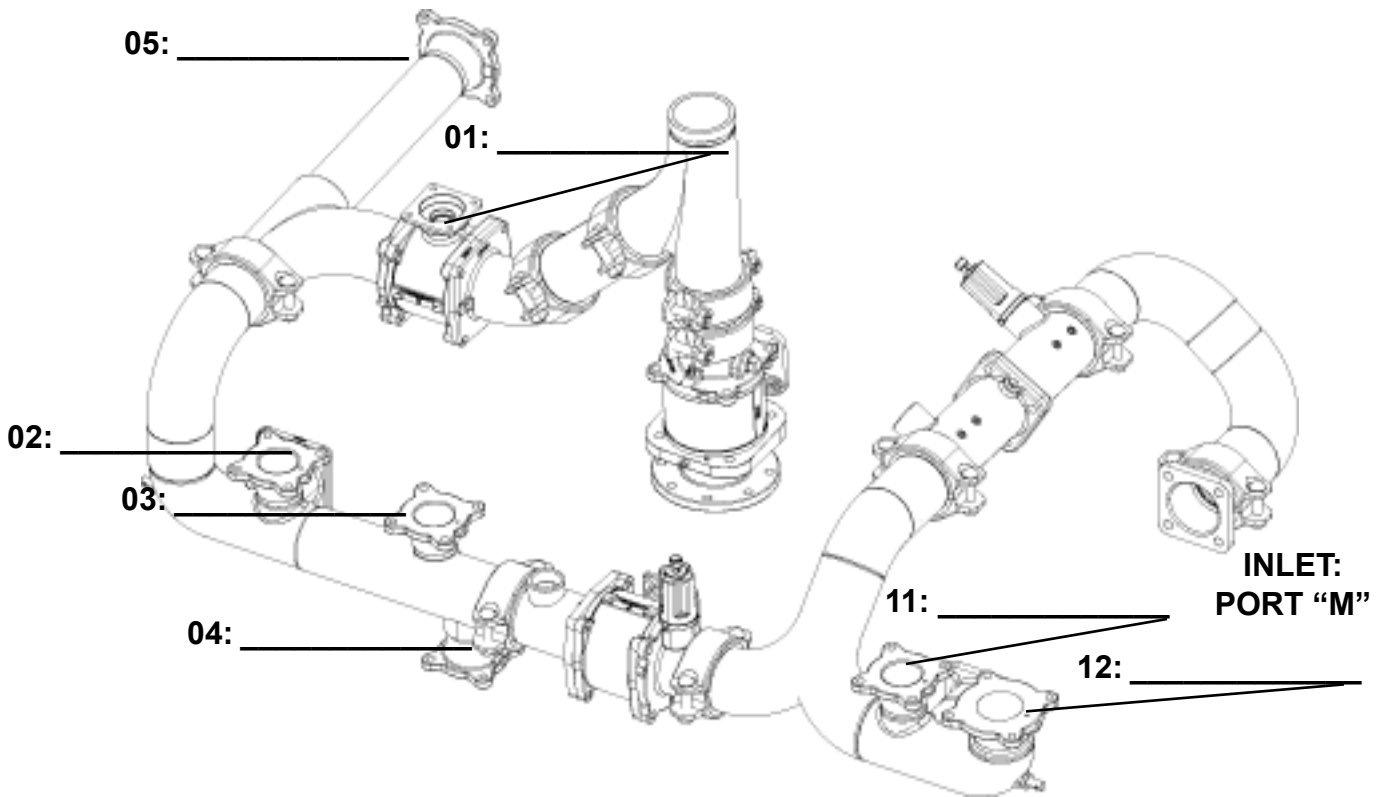
For CAFSPro System P/N 546-2550-00-0



750 GPM MANIFOLD (4 CAFS DISCHARGES)



Selection of options other than standard, raises cost of manifold by value shown.



750 GPM MANIFOLD (5 CAFS DISCHARGES)

OPT#	CONNECTION	SIZE	PORT					FOAM SOLUTION (11)	FOAM SOLUTION (12)
			CAFS 1 (01)	CAFS 2 (02)	CAFS 3 (03)	CAFS 4 (04)	CAFS 5 (05)		
01	HALE SVS	3" (30)	STD	NA	NA	NA	75	NA	75
01	HALE SVS	2-1/2" (25)	75	75	NC	STD	STD	75	STD
01	HALE SVS	2" (20)	75	STD	STD	NC	75	STD	75
02	115 FLANGE	3" (30)	75	NA	NA	NA	75	NA	150
02	115 FLANGE	2-1/2" (25)	150	150	75	75	75	150	75
02	115 FLANGE	2" (20)	150	75	75	75	75	75	150
03	VICTAULIC	3" (30)	50	NA	NA	NA	50	NA	125
03	VICTAULIC	2-1/2" (25)	125	125	50	50	50	125	50
03	VICTAULIC	2" (20)	125	50	50	50	50	50	125
00	BLANK	(00)	NC	NC	NC	NC	NC	NC	NC
04	AKRON		CONSULT FACTORY						
05	ELKHART								



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