FOAMPRO
A Safe Fleet Brand

OEM NFPA 1901/1906 Foam Single-Point Injection Proportioner Test Procedure

1600 Series Foam Systems

1) Foam pump and water flowmeters must be calibrated per Installation and Operation Manual before testing (Concentrate viscosity must be within the foam proportioner manufactures limits)

2) Tools needed for the test are a pitot tube or other calibrated flowmeter to set the system water flow rates. A graduated bucket to collect and calibrate foam concentrate. A stop watch to measure volume unit/time of foam concentrate flow. A load valve to control system back pressure capable of maximum flow of the foam system pump. Appropriate pressure gauge to measure back pressure.

3) System performance is dependent on flowmeter/pipe size. Identify applicable OEM test points based on size of flowmeter installed. Maximum water flow is determined by the flowmeter range or the maximum water pump output, whichever is less.

4) Water and foam concentrate are tested together on FoamPro 1600 series systems as follows:

A) Test the foam pump at three (3) test points shown on OEM Certification test chart.

1) Turn the “Cal/Inject” valve to the Calibrate position (Foam system should be primed with no air in the lines).
2) Attach pressure gauge and load valve to the “cal/inject” valve with a hose running to graduated bucket.
3) Establish water flow rate to the value listed in the chart for the flowmeter size.
4) Set the percent (%) concentrate to the corresponding value specified in the chart.
5) Turn on the proportioner system.
6) Set the load valve back pressure to the corresponding value specified in the chart.
7) Run the system for short period (not less than 5 seconds) to assure prime and stabilization.
   Note the volume of concentrate in the bucket and start the stop watch.
8) Run the system for several minutes. Note the volume in the bucket and time on the stop watch. (Note: Longer run time will increase measurement accuracy)
9) Divide the volume change in the bucket (total concentrate pumped during the timed period) by the number of minutes on the stop watch. The result must match the corresponding Foam (GPM) listed in the chart within NFPA accuracy requirements. (Note: NFPA allows -0% to +40% for solutions of less than 1% and -0% to +30% for solutions greater than 1%; or 1 percentage point whichever is less)
10) Repeat this process for remaining two (2) rows of the OEM Certification Test chart. All three scenarios must meet NFPA guidelines without re-calibrating.

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FOAMPRO
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NFPA 1901 / 1906
Model 1600 / 1601 Foam System Certification

Certified Manufacturer Type Test | **OEM Certification Test** | **System Certified**

1 1/2" Thread or 2" Victaulic W/1" Bore

Range	Waterflow	Range	Back Press. PSI	Foam %	Range	Foam Cap. (gpm)
Min	10	Min	0	1.00%	Min	0.1
Max	110	Max	200	1.00%	Max	1.1
Min	10	Max	350	1.00%	Min	0.1
Max	110	Min	0	1.00%	Max	1.1
Mid	40	Mid	200	1.00%	Mid	0.4

Foam Pump Test Points

Range	Waterflow	Back Press. PSI	Range	Foam %	Range	Foam Cap. (gpm)
Min	10	0	Min	1.0%	Min	0.1
Max	110	200	Max	1.0%	Max	1.1
Mid	40	350	Mid	1.0%	Mid	0.4

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1 1/2" Thread or 2" Victaulic

Range	Waterflow	Range	Back Press. PSI	Foam %	Range	Foam Cap. (gpm)
Min	10	Min	0	1.00%	Min	0.1
Max	320	Max	200	0.53%	Max	1.7
Min	10	Max	350	1.00%	Min	0.1
Max	320	Min	0	0.53%	Max	1.7
Mid	90	Mid	200	1.00%	Mid	0.9

Foam Pump Test Points

Range	Waterflow	Back Press. PSI	Range	Foam %	Range	Foam Cap. (gpm)
Min	10	0	Min	1.0%	Min	0.1
Max	281	200	Max	0.6%	Max	1.7
Mid	80	350	Mid	0.5%	Mid	0.4

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2" Thread or 2 1/2" Victaulic

Range	Waterflow	Range	Back Press. PSI	Foam %	Range	Foam Cap. (gpm)
Min	15	Min	0	0.67%	Min	0.1
Max	520	Max	200	0.33%	Max	1.7
Min	15	Max	350	0.67%	Min	0.1
Max	520	Min	0	0.33%	Max	1.7
Mid	160	Mid	200	1.00%	Mid	1.6

Foam Pump Test Points

Range	Waterflow	Back Press. PSI	Range	Foam %	Range	Foam Cap. (gpm)
Min	17	0	Min	0.6%	Min	0.1
Max	520	200	Max	0.3%	Max	1.7
Mid	200	350	Mid	0.2%	Mid	0.4

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1 1/2" Thread or 2" Victaulic W/1" Bore

Range	Waterflow	Range	Back Press. PSI	Foam %	Range	Foam Cap. (gpm)
Min	10	Min	0	1.00%	Min	0.1
Max	110	Max	200	0.91%	Max	1.0
Min	10	Max	350	1.00%	Min	0.1
Max	110	Min	0	0.91%	Max	1.0
Mid	40	Mid	200	1.00%	Mid	0.4

Foam Pump Test Points

Range	Waterflow	Back Press. PSI	Range	Foam %	Range	Foam Cap. (gpm)
Min	10	0	Min	1.0%	Min	0.1
Max	100	200	Max	1.0%	Max	1.0
Mid	60	350	Mid	1.0%	Mid	0.6

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1 1/2" Thread or 2" Victaulic

Range	Waterflow	Range	Back Press. PSI	Foam %	Range	Foam Cap. (gpm)
Min	10	Min	0	1.00%	Min	0.1
Max	320	Max	200	0.31%	Max	1.0
Min	10	Max	350	1.00%	Min	0.1
Max	320	Min	0	0.31%	Max	1.0
Mid	90	Mid	200	1.00%	Mid	0.9

Foam Pump Test Points

Range	Waterflow	Back Press. PSI	Range	Foam %	Range	Foam Cap. (gpm)
Min	10	0	Min	1.0%	Min	0.1
Max	320	200	Max	0.3%	Max	1.0
Mid	90	350	Mid	1.0%	Mid	0.9

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2" Thread or 2 1/2" Victaulic

Range	Waterflow	Range	Back Press. PSI	Foam %	Range	Foam Cap. (gpm)
Min	15	Min	0	0.67%	Min	0.1
Max	520	Max	200	0.19%	Max	1.0
Min	15	Max	350	0.67%	Min	0.1
Max	520	Min	0	0.19%	Max	1.0
Mid	160	Mid	200	0.50%	Mid	0.8

Foam Pump Test Points

Range	Waterflow	Back Press. PSI	Range	Foam %	Range	Foam Cap. (gpm)
Min	15	0	Min	0.8%	Min	0.1
Max	510	200	Max	0.2%	Max	1.0
Mid	150	350	Mid	0.6%	Mid	0.9

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Type tested with all known Class A foam concentrates up to 100 cps

Installer Certification
Installed, Calibrated and Tested to FoamPro's Installation Recommendations and Purchaser's Performance Specifications

Tester _____

Date _____