



OEM NFPA 1901 Foam Multi-Point Injection Proportioner Test Procedure

AccuMax Series Foam Systems

- 1) Foam pump, Line Controllers, and water flowmeters must be calibrated per Installation and Operation Manual before testing (Concentrate viscosity must be within the foam proportioner manufacturers limits).
- 2) Tools needed for the test are a pitot tube or other calibrated flowmeter to test the system water flow rates. Flowmeter or other method to measure concentrate flow, a load valve to control system back pressure capable of maximum flow of the foam system pump and a 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 can be tested separately on FoamPro AccuMax series systems as follows:
 - A) Test waterway flowmeter at the three (3) test points shown on applicable OEM Certification test chart (If the water pump cannot reach the maximum flowmeter rate at 150psi use maximum flow rate of the pump). Water flow rates displayed on the control head should be within 10% of pitot tube measurements.
 - B) Test the Line Controllers at three (3) test points shown on OEM Certification test chart.
 - 1) Turn the "Cal/Inject" valve to the Calibrate position for the Line Controller being tested (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 calibrated flowmeter.
 - 3) Enter "Simulated Flow" mode and set the water flow rate to the value listed in the chart for the Line Controller size. If the foam pump minimum flow rate is greater than the Line Controller minimum flow rate, use multiple Line Controllers simultaneously to increase foam pump flow so that the Line Controller minimum flow rate can be tested.
 - 4) Set the percent (%) concentrate to the corresponding value specified in the chart.
 - 5) Press the Master and Line Controller "ON" buttons to start the proportioner.
 - 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 20 seconds) to assure prime and stabilization. Note flowmeter reading. Steps 7, 8, and 9 will need to be adjusted accordingly to suit the flow meter if used.
 - 8) Run the system for several minutes. Longer run time will increase measurement accuracy.
 - 9) 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 the remaining two (2) rows of the OEM Certification Test chart. All three scenarios must meet NFPA guidelines without re-calibrating.
- 5) Repeat Step 4 for each Line controller.
- 6) Test the foam pump capacity listed on the OEM Certification test chart through a Line Controller that is capable of the foam pump low end and a Line Controller that is capable of the foam pump high end. If one Line Controller cannot reach the capacity of the foam pump, multiple Line Controllers may be required to test the foam pump capacity. Call FoamPro for assistance if needed.





**NFPA 1901 Model AccuMax 3090
Foam System Certification**

AccuMax 3090

Manufacturer Type Test

System Capacity

	Flow Rate (gpm)		
	Range	Water PSI	Range
Min	0	Min	0
Max	250	Max	250
Min	250	Min	0
Max	0	Max	250
Mid	125	Mid	125

2-1/2" Pipe				
Range	Water PSI	Range	Waterflow (gpm)	
Min	0	Min	20	
	250	Max	750	
Min	0	Max	750	
	250	Min	250	

Individual Line Controllers				
1/2" Line Control				
Range	Water PSI	Range	Foam Cap. (gpm)	
Min	0	Min	3	

3/4" Line Control						3" Pipe					
Range	Water PSI	Range	Foam Cap. (gpm)	Range	Water PSI	Range	Range	Waterflow (gpm)			
Max	250	Min	3	Range	Water PSI	Range	Range	Waterflow (gpm)			
Min	0	Max	36	Min	0	Min	Min	30			
Mid	125	Mid	15	Max	250	Max	Max	1150			
				Min	0	Max	Max	1150			
				Max	250	Min	Min	30			
				Min	125	Mid	Mid	375			

4" Pipe					
Range	Water PSI	Range	Waterflow (gpm)		
Max	250	Min	6		
Min	0	Max	60		
Mid	125	Mid	30		

1" Line Control					
Range	Water PSI	Foam Cap. (gpm)			
Max	250	Min	6		
Min	0	Max	60		
Mid	125	Mid	30		

5" Pipe					
Range	Water PSI	Range	Waterflow (gpm)		
Max	250	Min	60		
Max	250	Min	6		
Min	0	Max	60		
Mid	125	Mid	30		

1 1/4" Line Control			
Range	Water PSI	Range	Foam Cap. (gpm)
Max	250	Min	80
Max	250	Min	3000
Min	0	Max	3000

6" Pipe			
Range	Water PSI	Range	Waterflow (gpm)
Max	250	Max	100
Max	250	Min	10
Min	0	Max	100
Mild	125	Mild	50
Min	0	Max	250
Max	250	Min	117
Min	0	Max	4500
Max	250	Min	4500
Min	0	Max	117

	Range	Water PSI	Flow Rate (gpm)
Min	0	Min	200
Max	250	Max	7800
Min	0	Max	7800
Max	250	Min	2560
Mild	125	Mild	2560

If minimum flow capacity of the Line Controller cannot be reached with the AccuMax system, then combine multiple Line Controllers to test full capacity of foam pump.

Note: Optional equipment available to achieve lower concentrate flow rates. Contact **FoamPro** for specific test points and information.

OEM Certification Test

Foam Injection Test Points

1/2" Line					
Range	Sim Flow (gpm)	Back Press. PSI	Range	Foam %	Range
Min	500	0	Min	0.6%	Min
Max	500	250	Max	5.2%	Max
Mild	500	125	Mild	3.0%	Mild

3/4" Line					
Range	Flow (gpm)	Back Press. PSI	Range	Foam %	Range
Min	1000	0	Min	0.6%	Min
Max	1000	250	Max	6.0%	Max
Mid	1000	125	Mid	3.0%	Mid

Range	Sim Flow (gpm)	Back Press. (PSI)	Range	Foam %	Range	Foam Cap. (gpm)
Min	1000	0	Min	1.0%	Min	10.0
Max	1000	250	Max	6.0%	Max	60.0
Mid	1000	125	Mid	3.0%	Mid	30.0

Min	1000	0	Min	1.0%	Min	100
Max	1000	250	Max	5.0%	Max	500
Mid	1000	125	Mid	9.0%	Mid	900

System Capacity			
Range	Back Press. PSI	Range	Foam Cap. (gpm)
Min	0	Min	6
Max	250	Max	90
Mid	125	Mid	50

System Capacity

Range	Back Press. (PSI)	Range	Foam Cap. (gpm)
Min	0	Min	6
Max	250	Max	90
Mid	125	Mid	50

Type tested to all known foam concentrate viscosities

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

Tester _____ Date _____