



## **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 manufactures 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 depend^nt 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.



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# AccuMax 3150

Manufacturer Type Test

OEM Certification Test

**System Capacity**

Range	Water PSI	Range	Foam Cap. (gpm)
Min	0	Min	10
Max	250	Max	150
Min	250	Min	10
Max	0	Max	150
Mid	125	Mid	75

**Flowmeter**

2" Pipe		Range		Waterflow (gpm)	
Min	0	Min	15	Max	520
Max	250	Max	520	Min	520
Min	0	Min	15	Max	15
Max	250	Max	60	Mid	60

**Discharge Waterway**

2" Pipe		Range		Waterflow (gpm)	
Min	0	Min	15	Max	520
Max	250	Max	520	Min	520
Min	0	Min	15	Max	160
Max	250	Max	160	Mid	160

**Foam Injection Test Points**

1/2" Line		Back Press. PSI		Foam %		Foam Cap. (gpm)	
Min	500	0	0.5%	Min	3.0	Max	26.0
Max	500	250	5.2%	Max	15.0	Min	26.0
Min	500	125	3.0%	Mid	15.0	Max	15.0
Max	500	125	3.0%	Mid	15.0	Mid	15.0

**Individual Line Controllers**

1/2" Line Control		Foam Cap. (gpm)	
Min	0	Min	3
Max	250	Max	26
Min	250	Min	3
Max	0	Max	36
Mid	125	Mid	15

2-1/2" Pipe		Range		Waterflow (gpm)	
Min	0	Min	20	Max	750
Max	250	Max	750	Min	750
Min	0	Min	15	Max	15
Max	250	Max	250	Mid	250

2-1/2" Pipe		Range		Waterflow (gpm)	
Min	0	Min	20	Max	750
Max	250	Max	750	Min	750
Min	0	Min	15	Max	160
Max	250	Max	160	Mid	160

1" Line		Back Press. PSI		Foam %		Foam Cap. (gpm)	
Min	1000	0	0.6%	Min	6.0	Max	60.0
Max	1000	250	6.0%	Max	30.0	Min	60.0
Min	1000	125	3.0%	Mid	30.0	Max	30.0
Max	1000	125	3.0%	Mid	30.0	Mid	30.0

3/4" Line Control		Foam Cap. (gpm)	
Min	0	Min	6
Max	250	Max	60
Min	250	Min	6
Max	0	Max	60
Mid	125	Mid	30

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

4" Pipe		Range		Waterflow (gpm)	
Min	0	Min	55	Max	1980
Max	250	Max	1980	Min	1980
Min	0	Min	55	Max	55
Max	250	Max	625	Mid	625

4" Pipe		Range		Waterflow (gpm)	
Min	0	Min	80	Max	3000
Max	250	Max	3000	Min	3000
Min	0	Min	55	Max	1000
Max	250	Max	1000	Mid	1000

1 1/4" Line		Back Press. PSI		Foam %		Foam Cap. (gpm)	
Min	1000	0	1.0%	Min	10.0	Max	100.0
Max	1000	250	10.0%	Max	50.0	Min	100.0
Min	1000	125	5.0%	Mid	50.0	Max	50.0
Max	1000	125	5.0%	Mid	50.0	Mid	50.0

1 1/4" Line Control		Foam Cap. (gpm)	
Min	0	Min	6
Max	250	Max	60
Min	250	Min	6
Max	0	Max	60
Mid	125	Mid	30

1 1/2" Line Control		Foam Cap. (gpm)	
Min	0	Min	6
Max	250	Max	60
Min	250	Min	6
Max	0	Max	60
Mid	125	Mid	30

5" Pipe		Range		Waterflow (gpm)	
Min	0	Min	117	Max	4500
Max	250	Max	4500	Min	4500
Min	0	Min	80	Max	1440
Max	250	Max	1440	Mid	1440

5" Pipe		Range		Waterflow (gpm)	
Min	0	Min	117	Max	4500
Max	250	Max	4500	Min	4500
Min	0	Min	80	Max	1000
Max	250	Max	1000	Mid	1000

1 1/2" Line		Back Press. PSI		Foam %		Foam Cap. (gpm)	
Min	2000	0	0.8%	Min	16.0	Max	150.0
Max	2000	250	7.5%	Max	80.0	Min	150.0
Min	2000	125	4.0%	Mid	80.0	Max	80.0
Max	2000	125	4.0%	Mid	80.0	Mid	80.0

1 1/2" Line Control		Foam Cap. (gpm)	
Min	0	Min	16
Max	250	Max	150
Min	250	Min	16
Max	0	Max	150
Mid	125	Mid	80

**System Capacity**

Range	Water PSI	Range	Foam Cap. (gpm)
Min	0	Min	10
Max	250	Max	100
Min	250	Min	10
Max	0	Max	100
Mid	125	Mid	50

6" Pipe		Range		Waterflow (gpm)	
Min	0	Min	117	Max	4500
Max	250	Max	4500	Min	4500
Min	0	Min	80	Max	1440
Max	250	Max	1440	Mid	1440

6" Pipe		Range		Waterflow (gpm)	
Min	0	Min	117	Max	4500
Max	250	Max	4500	Min	4500
Min	0	Min	80	Max	1000
Max	250	Max	1000	Mid	1000

6" Pipe		Range		Waterflow (gpm)	
Min	0	Min	117	Max	4500
Max	250	Max	4500	Min	4500
Min	0	Min	80	Max	1000
Max	250	Max	1000	Mid	1000

8" Pipe		Range		Waterflow (gpm)	
Min	0	Min	200	Max	7800
Max	250	Max	7800	Min	7800
Min	0	Min	200	Max	200
Max	250	Max	200	Mid	200

Type tested to all known foam concentrate viscosities

**System Capacity**

Range	Back Press. PSI	Range	Foam Cap. (gpm)
Min	0	Min	10
Max	250	Max	150
Min	250	Min	10
Max	0	Max	150
Mid	125	Mid	75

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

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

Quantity Certified

Quantity Certified

Quantity Certified

Quantity Certified

Quantity Certified

System Certified