

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

FOAM SOLUTIONS, LLC,)	
)	
Plaintiff,)	Civil Action No.: 2:23-10538
)	
vs.)	
)	
VANGUARD FIRE AND SUPPLY CO.))	JURY TRIAL DEMANDED
d/b/a Vanguard Fire and Security Systems))	
)	
Defendant.)	
)	
)	
)	

COMPLAINT

Plaintiff, Foam Solutions, LLC (“Foam Solutions”), by its undersigned attorneys, alleges the following for its Complaint against Defendant Vanguard Fire and Supply Co. d/b/a Vanguard Fire and Security Systems (“Vanguard” or “Defendant”):

Parties

1. Foam Solution is a limited liability company organized and existing under the laws of Ohio and having a place of business located at 2251 Performance Parkway, Columbus, OH 43207.

2. Defendant is a Michigan corporation and has places of business at 2101 Martindale Ave. SW, Grand Rapids, MI 49509 and 28287 Beck Road, Suite D-16, Wixom, MI 48493.

Jurisdiction and Venue

3. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338 because this action arises under the patent laws of the United States (Title 35 of the United States Code).

4. This Court has personal jurisdiction over Defendant because Defendant resides in Michigan and has conducted and continues to conduct business in this judicial district. In addition, Defendant has engaged in activities related to Foam Solution's claims of patent infringement.

5. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1400(b) because Defendant resides in Michigan. Venue is also proper in this district because Defendant has a regular and established place of business and has committed acts of patent infringement in this district.

Technological Background

6. The use of foam for firefighting and fire suppression is believed to have first occurred in the 1930s. Since that time, the use of foam for firefighting and fire suppression has been improved upon and used in various applications. In

the 1950s, the application of foam to fires occurred via overhead sprinkler-type systems using specially designed foam-making nozzles.

7. Foam sprinkler systems are typically connected by pipes to a source of foam concentrate and source of water. These systems are also equipped with appropriate devices for discharging and distributing a foam/water solution over a particular area.

8. The connection to the water supply is via a control valve, known as a "proportioning valve" because it controls the proportions of water and foam at a predetermined ratio to maintain the correct ratio of water to foam. When the proportioning valve opens, water flows through the valve, mixes with the foam concentrate, and is discharged from the sprinkler system.

9. Such systems require regular testing to ensure appropriate operability and performance. The international standards organization, National Fire Protection Association ("NFPA") has developed various standards for the testing of such systems. For example, Standard 25 ("NFPA 25") is the "Standard for Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems" and requires inspection, testing, and maintenance of water-based fire protection systems. NFPA 25 provides guidelines for inspection, testing, and maintenance on a daily, weekly, monthly, quarterly, annually, or multi-year intervals.

10. Compliance with NFPA 25 is important for reasons of owner liability and cost; however, due to the expense and other difficulties associated with testing, many foam-water sprinkler systems are seldom, if ever, tested.

11. Expense and problems associated with earlier testing methods include the cost of the foam and the cost of disposing of the foam used during testing in an environmentally suitable manner.

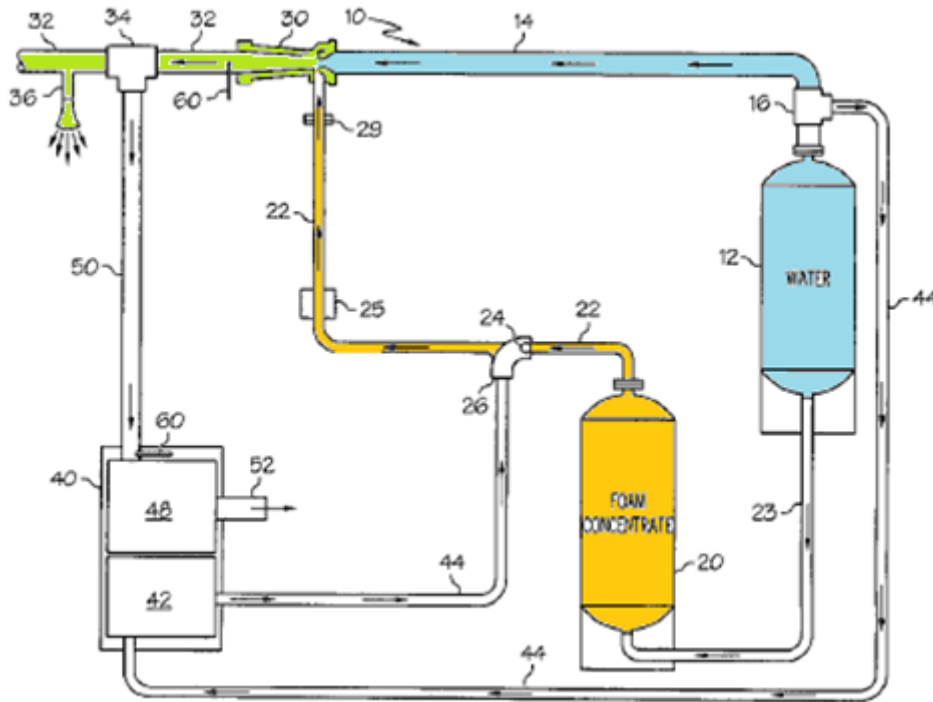
Foam Solutions' U.S. Patent No. 7,513,315

12. Foam Solutions is the owner of U.S. Patent No. 7,513,315 entitled "System and Method for Testing Foam-Water Fire Fighting And Fire Suppression Systems," hereafter "the '315 Patent." A true and accurate copy of the '315 Patent is attached as Exhibit A.

13. In general, the '315 Patent is directed to a system and method for testing firefighting or fire suppression system that use a combination of foam and water.

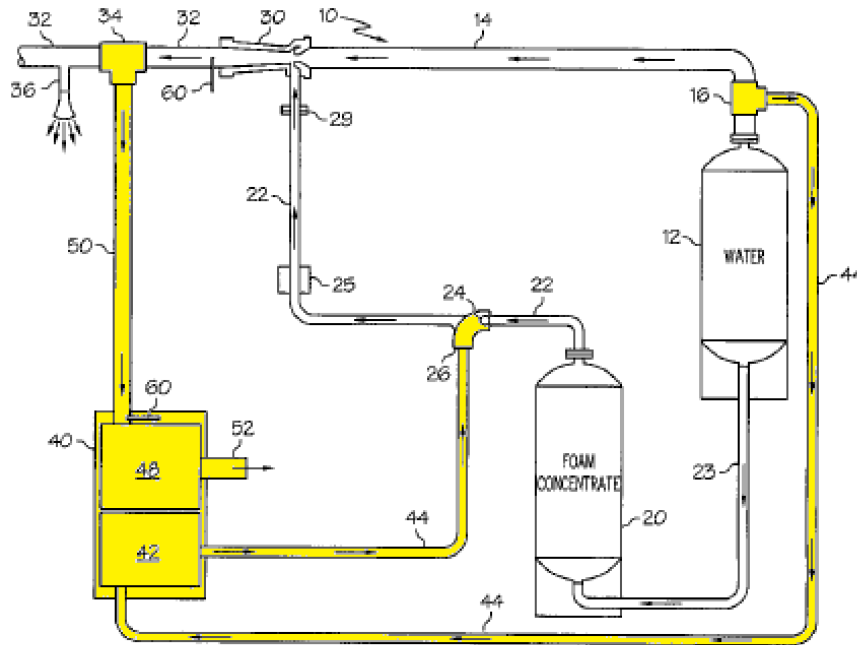
14. The '315 Patent addresses the need for effective and inexpensive testing of foam-water sprinkler systems by, generally, using a foam-water proportioning system and test apparatus to connect to the foam-water sprinkler system. The system and method claimed in the '315 Patent allows the testing of foam-water sprinkler systems without discharging foam, allowing for more cost-effective and environmentally conscious testing.

15. For example, Figure 1 from the '315 Patent below shows one potential embodiment of the patented invention, in which the source of water 12 and water supply line 14 are colored in blue, the proportioning valve 30 and solution supply line 32 delivering solution to the sprinkler are colored in green, and the source of foam concentrate 20 and foam supply line 22 are colored in orange:



16. The same figure shows the patented test system (all in yellow, below), which in this particular embodiment includes: a test stand 40; and a first flow meter 42 connected to the water supply line 14 by a first test line 44 at first connector 16 and connected to the foam supply line 22 at second connector 26, which may also include a means for bypassing the source of foam concentrate 20 during testing; and an optional second flow meter 48 connected to the solution

supply line 32 by a second test line 50, which accesses the solution supply line 32 at third connector 34; and a discharge line 52 through which test water from the solution supply line 32 is expelled from the second flow meter 48:



Count I - Infringement of the '315 Patent

17. Foam Solutions repeats and realleges the allegations contained in paragraphs 1 through 16 as if fully set forth herein.

18. Defendant advertises that it performs testing on every type of fire detections and of fire suppression system on its website at <https://vanguard-fire.com/inspection-testing-maintenance/>:



Testing

Regular testing of fire detection and suppression systems ensures they're ready to respond in the event of a crisis. The Vanguard team inspects and tests every type of fire detection and suppression system to make sure your facility is protected. From auxiliary functions and smoke management testing to sound, visual, and battery & power supply testing, we run a whole host of performance tests on a schedule that best suits you.

19. Defendant further discusses “Water Equivalency Testing on Foam Proportioning Equipment” on its website at <https://vanguard-fire.com/how-to-store-firefighting-foam-manufactured-with-pfas/>:

Meet NFPA 25 Requirements With Regular Testing

To meet **NFPA 25 standards for the inspection, testing, and maintenance** of your fluorinated foam fire protection system, regular testing should be completed. This testing will ensure your foam is properly proportioned, stored, and ready to use in the event of a fire hazard. A few of the tests the Vanguard Industrial Fire Protection team provides to help oil and gas facilities maintain NFPA 25 compliance include:

Water Equivalency Testing on Foam Proportioning Equipment

This test functions to ensure you have the right proportions of foam concentrate and water. The initial test will establish a benchmark flow rate. After the initial test, testing will be performed with water only. This testing is important because in the event of a fire hazard, these proportions ensure that you have enough firefighting foam and that the distributed foam is of the right mixture to effectively suppress the fire.

20. In performing its testing on foam proportioning systems using water equivalency method, Defendant utilizes the system of at least Claim 1 of the '315 patent as set forth in the exemplary claim chart attached as Exhibit B.

21. In performing its testing on foam proportioning systems using water equivalency method, Defendant also practices the method of at least Claim 10 of the '315 patent as set forth in the exemplary claim chart attached as Exhibit C.

22. Defendant has directly infringed, and continues to directly infringe, at least claims 1 and 10 of the '315 in violation of 35 U.S.C. § 271(a), either literally or under the doctrine of equivalents, by making, using, importing, offering to sell, and/or selling its accused testing system and performing its testing method, and will continue to infringe unless enjoined by this Court.

23. Defendant has also induced infringement of at least Claims 1 and 10 of the '315 patent in violation of 35 U.S.C. § 271(b) and contributorily infringed at least claims 1 and 10 of the '315 patent in violation of 35 U.S.C. § 271(c).

24. Defendant has indirectly infringed, and continues to indirectly infringe, at least claims 1 and 10 of the '315 patent under 35 U.S.C. § 271(b) and (c), by making, using, importing, offering to sell, and/or selling its accused testing system and performing its testing method, and will continue to infringe unless enjoined by this Court.

25. Defendant's infringing conduct has caused, is causing, and will continue to cause irreparable injury to Foam Solutions unless such infringing conduct is enjoined by this Court.

26. On information and belief, Defendant knowingly and intentionally infringed and continues to infringe at least claims 1 and 10 of the '315 Patent, by virtue of its prior knowledge of the '315 Patent.

27. Foam Solutions has complied with the marking provision of 35 U.S.C. §287.

RELIEF REQUESTED

WHEREFORE, Foam Solutions respectfully requests that this Court enter a judgment that:

A. Finds Defendant has directly infringed, and is directly infringing, one or more claims of the '315 patent;

B. Finds Defendant has indirectly infringed, and is indirectly infringing, one or more claims of the '315 patent;

C. Awards Foam Solutions damages adequate to compensate for Defendant's infringement of the '315 patent under 35 U.S.C. § 284 of not less than a reasonable royalty and increases those damages up to three times;

D. Finds this case exceptional as set forth in 35 U.S.C. § 285;

E. Awards Foam Solutions its attorneys' fees;

F. Orders Defendant and its officers, directors, agents, servants, employees, successors, assigns, and all persons in active concert or participation

with Defendant, be preliminarily and permanently enjoined from infringing the '315 patent pursuant 35 U.S.C. § 283;

G. Awards Foam Solutions costs, pre-judgment and post-judgment interest at the maximum allowable rate; and

H. Awards Foam Solutions such further relief as the Court deems just and proper.

Respectfully submitted,

Dated: March 7, 2023

By: /s/ Richard W. Hoffmann
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JURY TRIAL DEMANDED

Foam Solutions demands a jury trial on all issues so triable.

Respectfully submitted,

Dated: March 7, 2023

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